





LOTHOUSE HOUSE.

TOPOGRAPHY AND NATURAL HISTORY

OF

# LOFTHOUSE

AND ITS NEIGHBOURHOOD ;

WITH THE

DIARY OF A NATURALIST AND RURAL NOTES.

BY

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## P R E F A C E .

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It is generally expected in a preface that the author should give some reason for publishing his book. I can only say that mine has been published simply with the hope that it may be useful. The work has been one, not of gain, but of love.

It was originally designed that the topographical part should not exceed a chapter of about forty pages, but matter which was considered worthy of being preserved, so accumulated, that, after running to one hundred pages, it was found that a considerable portion would have to be withdrawn. The collecting and arranging of this extra matter occupied much more time than was anticipated, and this must be the principal apology and explanation to subscribers why such a long time has elapsed since the first issue of the prospectus. The difficulties of gathering together local information from various disconnected or unpublished sources, and the time occupied in examining and sifting documents or statistics, and in ascertaining and verifying names and dates, can only be known and fully understood by those who have attempted similar work.

The fragmentary materials of topography that may be collected within the bounds of an obscure village or country parish, can hardly be expected

to possess more than local value ; still it is hoped that to the general or distant reader the waifs and strays brought together in the following pages may not be found entirely destitute of interest. I like to catch up the inscription from the mouldering stone, the careless memorandum from the tattered book, or the story of village customs from the tongue of the aged, whether they be valuable or not, *before it is too late.*

Amongst those who have rendered assistance during the compilation of the first part of this work, by the loan of books or papers, by supplying manuscript information, or giving advice, I have to mention Joseph Charlesworth, Esq., of Loft-house House ; J. D. Hemsworth, Esq., of Monk Fryston Hall ; the Rev. Richard Burrell, of Stanley Vicarage ; Mr. Grainge, of Harrogate ; Mr. Forrest, of Manchester, late of Lofthouse ; Mr. Armitage, of Robin Hood ; Mr. Batty, F.R.Hist.S., of East Ardsley ; Mr. Price, of Rothwell ; Mr. Gilderdale, of Ardsley ; and Mr. Marshall, of Lofthouse Schools, to all of whom I have now to tender respectful acknowledgment.

The matter that remains on hand, which includes an account of past and present customs, a brief notice of places of worship, a chapter on the natural and artificial products of the soil, and a glance at the present condition of the fauna, together with five or six years of "Rural Notes,"



one or two separate papers on Natural History, and a list of sun-dials of Yorkshire Churches, will form a supplementary volume.

Should any errors be discovered by critical readers I should be obliged by having a notification of them, so that they could be attended to and rectified in the supplement. I should also be glad to receive any additional information on either topographical or natural history subjects.

One of the main objects of the Natural History portion is to make the reader acquainted with the common things, as well as a few of the rarer ones, that occur at present within a limited area. Changes, hastened on both by artificial and natural agencies, take place much more rapidly now than formerly; and it is extremely probable that, at the end of another century, many animals and plants that are frequent now will be rare, and many of those that are rare will be extinct.

The Diary-notes and Summary form a sort of historical chronicle of natural history and rural matters for the fourteen years over which they extend—a chronicle which possibly may be useful to future, if not to present inquirers. Some little prominence has been given to notes on the depredations of insects and other animals on artificial crops, and to the utilization of home-products, believing that these are two of the most important and interesting subjects to which the attention of any observer can be devoted.

It may occur to the well-read naturalist that very many facts here recorded have been observed and recorded perhaps more than once before, and hence mine may be considered useless and threadbare repetitions; but it should ever be kept in mind that two occurrences can hardly ever happen under exactly similar circumstances. If, for instance, we wish to know everything in the history of a bird, every habit, both normal and abnormal, should be noted, and every variation of habit or structure, together with all the varying circumstances of time and place, and meteorological, geographical, and all other influences, agencies, and connections, should be carefully observed in different parts of every country in which the bird exists. We can scarcely believe that the ordinary habits of our own permanent birds, though limited to a circumscribed area, should be exactly the same in the north, where the climate is forbidding and food comparatively scarce, as they are in the south, where flowers bloom all the year round, and where some of the delicate birds linger all the winter through. It is easy to see how difficult the investigation of the life-history of any one single species may be, when all the varying complex circumstances of its existence are considered, even in an island of very limited area; but, to widen the circle, it is necessary to look into all the relations that subsist between a species and other allied species in all countries, to take notice of all

climatological and other influences, detrimental or favouring, by which its instincts, habits, or structure may be modified. Its relations with man, numbers of friends or enemies, abundance, scarcity, or variability of food, facilities or impediments to breeding, origin or changes of migration, and numberless other points, should all be thoroughly sifted, studied, and summed together before a complete biography of any one single species can be written. Hence it follows that records, if reliable, can scarcely ever be too numerous.

After a very considerable elimination of notes on the weather, on the flowering of plants, and on the appearance of common insects, many which have been retained may be deemed trivial by the experienced naturalist, but it has been considered better to err on the side of having too many than too few. It is easy to strike out, or leave unread, a few notes in a diary, but, when time has passed, none can with precision be inserted. Moreover, it is hoped that this book may fall into the hands of amateurs or beginners, to assist them and suggest to them what may be observed, rather than into the hands of experienced naturalists. In regard to commonplace notes the following remarks by the late Rev. Leonard Jenyns may be pertinently adduced as giving a clearer notion of their utility than anything that I could otherwise advance. In his "Essay on Habits of Observing," he writes :—"A man may never aim at being any-

thing more than a mere observer, and yet employ his time usefully to others as well as agreeably to himself. He may restrict himself to simply noting and recording what falls under his own eyes, and unconsciously be laying the foundation of the most important generalizations. For observation, though not in itself the true end of the science of Natural History, is nevertheless a means to that end ; and, whatever principles we ultimately arrive at, it is only observation that can have insured their correctness or permanence. Hence the facts and observed phenomena collected by such persons may be of much value to others, though the observers themselves make no immediate use of them. And it has not unfrequently happened that the profoundest naturalists, whilst engaged in the higher departments of the science, have expressed themselves indebted to some retired observer for the knowledge of a fact which has proved of the greatest importance to their views, and been one of the main supports of the theory they were seeking to establish. \* \* \*

Let us not disdain to notice the most trivial facts that may be brought under our eye from a feeling that they can be of no use. It is impossible to say at the moment of what use the most trifling fact may be. It is impossible to determine the exact importance of any circumstance in the history of an animal until we know its whole history. Many facts which seem in themselves trifling may be found hereafter of the greatest importance to

science. They may lead to the unravelling of some knot, or the solving of some difficulty that would long have remained a mystery without them." To these forcible remarks little can be added further than to point out that in the following "Diary" many of the weather-notes and others of apparently minor interest should not be looked upon separately, but should be taken in connection with other preceding or succeeding observations; in other words, the causes of effects may in many cases be found if looked for.

During past years I have been favoured by numerous correspondents with information on various subjects in Natural History. It is gratifying to state that on every occasion on which information has been asked for it has been willingly and kindly given. I have specially to acknowledge my obligations to Peter Inchbald, Esq., F.L.S., of Harrogate, late of Hovingham, with whom I have had for many years a friendly, and, to me, a most advantageous correspondence, and to John Hopkinson, Esq., F.L.S., of Watford (a descendant of the Hopkinson family, of Lofthouse), to whom I am greatly indebted for assistance and advice kindly rendered during the passage of this volume through the press. With not less regard I have also to enumerate by name Thomas Lister, Esq., Barnsley; John Cordeaux, Esq., Great Cotes, Lincolnshire; George Edson, Esq., Malton; F. G. S. Rawson, Esq., Thorpe, Halifax; James Carter, Esq., Burton

House, Masham; James Fox, Esq., F.M.S., Cragland, Horsforth; J. H. Gurney, junr., Esq., F.Z.S., Northrepps, Norwich; C. P. Hobkirk, Esq., F.L.S., Huddersfield; F. A. Lees, Esq., F.L.S., Warrington; James Britten, Esq., F.L.S., London; E. C. Rye, Esq., F.Z.S., London; G. T. Porritt, Esq., F.L.S., Huddersfield; and E. A. Fitch, Esq., F.L.S., Maldon, Essex. All these gentlemen have at various times and in various branches of Natural History obliged me with interesting and valuable information, and it is with feelings of the most profound and grateful respect that their names are inscribed on this page.

Finally, if I could think that this book would have the good fortune to teach one more how to listen to the music, or gaze on the beauties of spring—to add one more to the bright roll of Nature's students—I should be satisfied that my time had not been ill-spent.

G. R.

LOFTHOUSE,

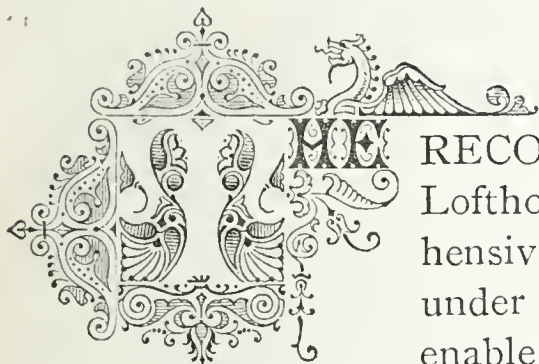
*January, 1882.*



## TOPOGRAPHICAL AND HISTORICAL.

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### ANTIQUITIES.



**M** RECORDS relating to the village of Lofthouse are so scanty that I am apprehensive that the information gleaned under the head of Antiquities will not enable any one to form a very exact notion of the former condition of the place or its inhabitants. Nevertheless, it may be well to preserve here the few disconnected facts that have been obtained from various sources.

Relics of the Ancient Britons have been found from time to time in neighbouring villages, but none, to my knowledge, have been found in this parish. In 1869 a number of worked flints were discovered by Mr. Francis Pape, at Stanley, about two miles from here. They consist of knives, spear and arrow heads, sling-stones, and scrapers. A number of flint cores have also been found, showing that weapons were made on the spot. In 1873 a small British cup of baked clay was dug up in a gravel-quarry at Oulton. This interesting relic of pre-historic times, as well as the flint weapons, are in the possession of the Rev. Richard Burrell, Vicar of Stanley. In 1835, when the Leeds and Barnsley canal was constructed, a British canoe

was unearthed at Stanley Ferry. It was taken down the river and remained some years in the Aire and Calder Company's sheds at Goole, but ultimately found its way to the York Museum, where it may now be seen. It is scooped from a single tree, and is about 19 feet in length and 4 feet in width. A little further eastward, in the township of Altofts, a British bronze dagger was dug up at a depth of 24 feet from the surface.

Relics and remains of the Romans are more numerous. The insignificant hamlet of Lingwell Gate is known to almost every student of Roman Antiquities. Coins were found there in Camden's time, 1607. A large number of coins, and coin moulds, and four crucibles, were found in 1821. Some coin moulds, about 70 in number, and a funnel from this place were presented to the Leeds Philosophical Society by J. Peel Clapham, Esq., in 1829, and may be seen in a large case on the ground floor of the museum near the entrance. A considerable number of coins and moulds were picked up in 1814 and 1815 by a girl named Sarah Waterhouse. Some years later a large number were found by a farmer named William Spurr, who picked them up whilst ploughing. Coins and moulds were also found by a gardener named Bramley in 1840, and others have been picked up at various times down to 1879. They extend from Hadrian to Alexander Severus, and have doubtless been struck near where they were found. The field in which all these coins and moulds were discovered is situate in the township of Lofthouse, though it is near Lingwell Gate. A beck runs down one side of the field. In 1815 a quantity of prostrate oaks were dug up from the soil, which is deep and very black. The wood was as black as ebony, but sound, and some of it was used by the farmers as late as 1875 for staddle wood beneath the stacks. Black oak has also been dug up in another part of the township, near a stream.

In 1812 a number of clay moulds and about 40lbs. weight of copper coins were found at a place called the Roman Station,



in the parish of Stanley (about two miles from here), by a labourer named Thomas Bulmer. Some of them are in the British Museum.

The so-called Roman Camp, which has been described by Banks and others, is in Lofthouse Hall Park, about a mile distant from the field where the coins were found. It consists of a rampart, ditch, and central quadrangle. The ditch contains water, varies from 6 to 9 feet in depth, and is deepest on the western side. The south-east angle is level, and the way in is supposed to have been there. The whole is now covered with forest trees. In the early part of the present century many trees were planted and other alterations made in the park, and the ditch might then have been partly levelled. The ditch encloses an area of about 2,000 square yards. In his investigations there the late Mr. Forrest found traces of what he considered to be an outer rampart, which would include several acres. He was of opinion that what now remains would be a sort of inner camp or citadel. Near the camp there is a level piece of ground, also an ancient pond. No Roman weapons or utensils have been found on this spot.

ANCIENT IRONWORKS.—Concerning the remains of the ancient ironworks which occur at Lingwell Gate, and a little further north at Middleton, some doubts seem to be entertained by antiquaries whether to refer them to Roman times or to a much later date. About 1840, a gardener, when trenching a piece of waste land at Lingwell Gate, came upon a quantity of half-burnt ironstone, cinders, and other refuse of ironworks. He found at the same time some coin moulds, some very thin bricks, a small rod of iron, and a brass weapon, described as a pistol, cast in one piece with the butt end tapered. Some years later about one hundred and fifty tons of ashes and dross were carted out of the Fall Wood, which is in the parish of East Ardsley, and used as road material. Tithes of *iron* and coal were paid from Wakefield

to the dean and college of St. Stephen's, Westminster, in 1349. There were three iron forges in the neighbourhood of Leeds in 1548, as mentioned by Thoresby.

In a field a little higher up the valley towards Ardsley there are the remains of a dam. The field is called Dam Whin. And, scattered up the beck side, there were, about seventy years ago, some plum and other fruit trees, the remnants of an ancient orchard. In the "shrogs," a narrow lateral valley not far distant from the dam, may be seen two circular bowl-shaped pits hollowed in the gravel. One is about thirty-five feet in width at the top and thirteen feet deep. The other is smaller. They are overgrown with trees, and there are many old stumps of felled trees. They are banked on the west side with earth and gravel; the rising ground forms the other side. There are other pits, trenches, and excavations in the township of Lofthouse, in Langley Wood, and other places near Lingwell Gate, all overgrown with timber and near the beck.

Discoveries of great interest to the antiquary will doubtless be made at some time in this neighbourhood, but care must be taken by the future investigator not to confound modern with ancient works. There were coal mines here about seventy years ago, and hills and roads would be made, land levelled, and ashes and slag, pieces of iron, and various tools and odd articles would be buried or trenched in the ground at that time.

#### DOMESDAY RECORD.

Between the withdrawal of the Romans and the Conquest, history, so far as this parish is concerned, is almost a blank, the only vestiges that remain to us of the Saxons and Danes being the names of places.

In the national survey and valuation made by order of William the Conqueror, between 1080 and 1086, Lofthouse,

and the villages which constituted the parish of Rothwell, are thus described :—

“IIII manors. In Rodewelle and Loftose, Carlentine, Torp and Middleton, there are twenty-four carucates of land and one oxgang to be taxed, and there may be twelve ploughs there. Harold (fourteen carucates); Bared (seven carucates and a half);\* Alric (ten oxgangs and a half); and Stainulf (ten oxgangs and a half) had halls there. Ilbert has now two ploughs there and sixteen vallanes, and one bordar with eight ploughs, and one mill of two shillings, and nine acres of meadow. Wood pasture two miles long and one broad. The whole manors two miles long and two broad. Value in King Edward’s time eight pounds, now sixty-five shillings.”

From this short record we may gather that, previous to the survey, Rothwell, Lofthouse, Carlton, and Thorp were held severally by four Saxon lords, who each had a hall or stone-built house, Harold at Rothwell being the largest possessor of profitable land. At the time of the survey the whole, in common with many other manors, had come into the possession of Ilbert de Laci, the founder of Pontefract Castle, who had two ploughs and sixteen villanes or slave tenants, and one bordar, or superior tenant, who had eight ploughs. The mill at Rothwell is also entered. It will be noticed that the whole district was computed at two miles long and two broad, and that the wood or forest was two miles long and one broad. The “wood-pasture” would include forest, marsh, heath, and waste land. The oxgangs, acres, and the like, would all be guessed at, not measured. Between the time of the Confessor and the survey, the northern parts of the country had been laid waste by the Normans, a fact which will account for the remarkable depreciation in the value of the profitable land.

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\* Edmund de Lacy, son of John de Lacy, held the manor here in 1251. Spelt then “Lofthous.”

There was a famine in 1087, but whether the famine was the result of the failure of certain crops of grain or mast, or was the result of the desolation wrought by the Normans, it is not easy to determine.

In an enumeration of the Knight's Fees in Yorkshire, taken preparatory to the levying of the "Aid" for marrying the King's eldest daughter, which was granted by Parliament in the 18th of Edward I., 1290, but was not collected until the 31st year, there is the following entry concerning land in this township:—"In Lofthous, in the wapentake of Morley, Thomas de Lofthous held of the abbot of Kirkstall one carucate of land, where twelve carucates make a knight's fee"; and when the day of payment came we find it mentioned thus: "Lofthous. De Thoma de Lofthous *pro uno car. terræ* in Lofthous XL<sup>d</sup>."

#### NAMES OF FIELDS.

A few names of fields, collected from Lofthouse and neighbouring townships, may not be devoid of interest. The meanings of many are obscure, but could they be properly made out they might reflect some light on past customs or on the former conditions of places. Many are old obsolete Saxon words; some are Danish; a few are Celtic.

NAMES OF FIELDS FROM HILLS.—In Lofthouse: Slack Hill; Hough Hill; Knowl.

In Ardsley: Jump Hill; Hough Land; How; Nowl; Hunger Hill.

In Oulton: Sugar Hills; Haug Close.

In Rothwell: Coney Hills; Collywell Hill; Cork Hill; Iron Hill; Mal Banks, from *Moel*, a hill, Celtic.

FROM VALLEYS, SWAMPS, OR LOW LANDS.—In Lofthouse: Ing; Denbrook, *dene*, a dell; Orgrave, from *ora græf*, the grove by the beck, Saxon.

In Carlton: Alum Carr; Carr Ing.

In Ardsley: Sour Ing; Griff Hill, from *grif*, a valley; Kettle Flatt (*kettle*, a bowl-shaped hollow.)

In Oulton: Holmsley; Die Syke (dug ditch).

In Rothwell: Holmsley Nook; Holmes; Helm Close; Tanner Carr; Orgrave; Green Syke; Great Dubs, Little Dubs, from *dub*, a small pool of water.

FROM TREES OR OTHER PLANTS.—In Lofthouse: Beets (birches), Celtic; Emp Royd; Linley; Hollings; Eyebright Close.

In Rothwell: Great Brooms; Line Close; Bracken Royd; Cleats; Heath Close; Lintel Close (the field in which tares were grown); Esp Nook, from *epse* (aspen), Anglo-Saxon.

In Ardsley: Burk Royd (birch); Owler Ing (alder); Asps (aspens); Broom Close; Hessel Ing.

In Oulton: Mean Hesp.

In Woodlesford: Ashelwell Field.

FROM DWELLINGS, HOMESTEADS, OR ENCLOSURES.—In Carlton: Midlam (middle home); Booth Garth (*garth*, an enclosed place, Norse); Markham Garth; Barham.

In Lofthouse: Bareham; Booth Lane; Gamble Garth; Intake; Middleham; Toft Ings (*toft*, an enclosure, Norse); West Croft; Plumpton Park; Little Toft; Upper Toft; Midlam Ings.

In Oulton: Cowling Garth; Fordingworth (*worth*, an enclosure, Anglo-Saxon).

In Rothwell: Midlam Jugs (*jug*, a common pasture); High Pale Close.

In Ardsley: Lank House; Holten Tofts (grass surrounded by wood).

FROM CASTLES, HALLS, OR FORTIFICATIONS.—In Lofthouse: Great Castle Heads; Castlewell Heads; Castleheads; Over Castlewell; Hall Garth; Moat Close.

In Carlton: Castlegate.

In Ardsley: Dunstead, from *dun*, a hill-fortress, Celtic; and *stede*, a place, Anglo-Saxon.

In Rothwell: White Hall Garth.

In Woodlesford: Hall Carrs.

Some of the names of fields in Lofthouse point to the former existence of a castle, or castlet; but, apart from the above names and from a vague tradition, I can find no confirmatory evidence. According to the tradition the castle was at Aaron Green, which is close to Lingwell Gate.

FROM ARCHERY BUTTS.—In Rothwell: Butts; Lee Butts.

In Ardsley: Butts.

In Woodlesford: Butts; Far Butts.

In Lofthouse: Square Butts.

In Carlton: Lime Butts.

The name "Butts" calls to mind a time when might prevailed over argument. Lawyers were little needed; the sword ruled. In 1466 "Butts" were ordered to be made "in every township, at which the inhabitants should shoot up and down every feast day, under the penalty of a halfpenny when they should omit this exercise." Henry the Eighth also compelled every one but the clergy and judges to shoot at butts.

Some of the "Butts" at Carlton are of modern origin. Long before the common, generally called the "Field," was made into fenced fields, it was divided into small allotments, and many of these allotments were irregular in shape, some nearly triangular, so that the ploughmen had long furrows and short ones, the short ones "abutting" on the headland, hence the name "Butts," which many of them bore. These small pieces were also called "balks," or "mean swaiths." The archery butts might, however, have been somewhere on the waste ground previously, as we have seen that Carlton was a manor at the time of Domesday. The Butts at Lofthouse were in the manor land.

The surnames, "Archer" (the bowman), and "Fletcher" (the arrow dresser), still continue in the parish.

FROM FOREST CLEARINGS.—In Lofthouse: Great Emp Royd.

In Carlton: Swain Royd; Charl Royd; Ridings; Ley Close; Near Royd Ing; Hanging Royd.

In Ardsley: Little Riddings; Burk Royd; Far Raisings; Palm Royd; Sill Royd; Pinching Royd; Ashley; Mosley.

In Oulton: Broad Royd; Gamble Royd; Swain Royd; Ratten Royd.

In Thorp: Little Roods.

In Rothwell: Storoyd Well Close; Royds Close; Raw Rode; Hey Rode; Bracken Royd; Leys; Far Lightnings; Gladden Close, from *gladen*, a void place (local and obsolete); Hobby Royd.

The Britons, enslaved by the Romans, were made to cut down trees and clear the land. Calgacus, the British chief, in his complaints against the Romans, alluded to this work. He said: "Our bodies are worn down amidst stripes and insults in clearing woods and draining marshes." The Romans had fifty thousand men engaged in cutting down and burning trees. The colonising Saxons continued the work of clearing and reclaiming the land, and the Saxon farmers would require names for the pieces of tilled ground exactly as farmers now do. These clearings were variously called "Rods," "Riddings," "Roods," "Royds," and "Leys." The "leys" were the sunny openings made in the forests where the cattle loved *to lie*. From the number of riddings above enumerated we may reasonably assume that the extensive district of Rothwell old parish was, in Saxon times, almost entirely covered with forest. A very large number of surnames in the parish end in "ley" or "ton." These endings are common throughout the parish registers back to 1538. The first name entered ends in "ton."

FROM THE ANCIENT CUSTOM OF FATTENING SWINE IN FORESTS. —In Lofthouse: Pighill; Swindhill; Swindells; Swinachs; Sty Steel Close.

In Carlton: Swinachs in West Field; Pighill.

In Ardsley: Pighill; Pilden, or Pigden.

In Rothwell: Pighill; Pickhill; Pig Minster; Pigallinster; Sty Bank.

The Saxons loved bacon; they preferred it to all other flesh. The swine pastures were called “dens” or “swinachs,” and the privilege of feeding the swine in the woods was called “pannage.” Liberty of pannage on the Outwood was granted by John, one of the Earls Warren, to the burgesses of Wakefield before 1304. In 1389 a swineherd’s wages in money was 6s. 8d. per annum. The following is a short description of the method which was generally adopted about 200 years ago to govern and manage the swine in autumn. “The first step the swineherd takes is to investigate some close-sheltered part of the forest where there is a conveniency of water and plenty of oak or beech-mast, the former of which he prefers when he can have it in sufficient abundance. He fixes next on some spreading tree, round the bole of which he wattles a slight circular fence of the dimensions he wants, and covering it roughly with boughs and sods, he fills it plentifully with straw or fern. Having made this preparation he collects his colony from among the farmers, and will get together perhaps a herd of five or six hundred hogs. Having driven them to their destined habitation, he gives them a plentiful supper of acorns or beech mast, which he had already provided, sounding his horn during the repast. He then turns them into the litter, where, after a long journey and a hearty meal, they sleep deliciously. The next morning he lets them look a little around them, shews them the pool or stream where they may occasionally drink, leaves them to pick up the offal of the last night’s meal, and, as evening draws on, gives them another



plentiful repast under the neighbouring trees, which rain acorns upon them for an hour together at the sound of his horn. He then sends them again to sleep. The following day he is perhaps at the pains of procuring them another meal, with music playing as usual. He then leaves them a little more to themselves, having an eye, however, on their evening hours; but as their bellies are full they seldom wander far from home, retiring commonly very orderly and early to bed. After this he throws his sty open and leaves them to cater for themselves. Now and then in calm weather, when mast falls sparingly, he calls them perhaps together by the music of his horn to a gratuitous meal; but in general they need little attention, returning home at night, though they often wander two or three miles from their sty."

Before the extended cultivation of cereals, mast was held in high repute, not only as food for pigs, but for the inhabitants of the country generally, and when the mast failed a famine was often the result. Such happened in 1116, the failure of forest fruits being specially mentioned by the Saxon chroniclers.

Many village names, as Swinden, Swine Lane, Swine-fleet, Swinow, Swinsty, Swinton, and Pigburn, all in the West Riding; and the street Swinegate, in Leeds (the gate or way along which the swine were driven to the woods), might be considered in connection with this subject. Pighills was a surname in Wakefield in 1603. The earth nut (*Bunium flexuosum*) is still significantly called "pig nut."

#### UNCLASSIFIED FIELD NAMES.

In Ardsley: village name, from *ard*, a height, Celtic, and *ley*, a clearing. Toad Hole, from *tod*, a fox. Waver Close, from *waver*, a pond. Holten Tofts, grass surrounded by wood. Westerton Hagg, from *hag*, a small wood. Ling Snipe,

a narrow strip of land amongst heather. Earnings and Harnings, land fit to be cultivated with corn. Low Fryley : Mosley Hawk ; Tom O'Lee Close ; Barefoot Close ; Courwell Close ; Satchel Close ; Crapple-land ; Lees.

In Carlton : village name, from either *coerl*, a Saxon tiller of the soil, or *car*, crooked, and *ton*, an enclosure. Shay Field, from *shaw*, a tree-encompassed close. Swain Royd, from *swaine*, a herdsman ; thus the name means the "herdsman's clearing." Charl Royd, the *coerl's* royd. Coney Warren, now spelt "conny warrant." Plague Close, said to have been so named from the fact of persons who had died of the plague in Leeds being brought there to be buried. Gain Close ; Priestleys ; Wooley Tanner Close ; Laith Close ; Gusset ; Tongue.

In Rothwell : village name, from either *rod*, a clearing, or *rood*, a cross, and "well." Madge-pits, from *madge*, an owl. Cringles, from the zig-zag hedges or the windings of a stream. Stoneder ; St. Clement's Close ; Strip-coat Hill ; Craup Close ; Saxon Close ; Windmill Hope ; Tanner Carr ; Dog Kennel ; Rushy Rules ; Far Nabs ; Switen's Close ; Upper Dogcroft ; Bent Cliffe ; Steward Jug ; Wolley Tanner Close ; Marling Close ; Sanderhouse Close ; Crokeyne.

In Oulton : village name, from *ule*, an owl, Anglo-Saxon, and *ton*, an enclosure—a name probably given when the place consisted of but one homestead and a clearing in the forest.\*

Goosey Gregg, probably from *boosey*, a cow stall. Ratten Royd (muster royd ?) There were formerly places in every

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\* The names of many villages in Yorkshire are derived from birds, as Daw Green, Ravensthorpe, Hawkscar, Arncliffe, Birdwell, Birdforth, Birdsroyd, Oulstone, Storkhill, Midgeley (the owl-field or clearing), Gledhow (the kite-haunted mount). Many of these and similar names would be conferred on *places* long before they became hamlets.

lordship in which the inhabitants annually assembled or *mustered* to exhibit their arms to the lord or his deputy. This name may be considered in connection with the "Butts." Respecting the antiquity of the word "ratten" see Scatcherd's 'History of Morley.' Maukin Pits; Oven Croft; Ellar Close; Tenter Croft; Tom Paine Ing; Moscar Close.

In Woodlesford: Mold Roe; Upper Stockings; Ormond Tops; Near Toberams; Duchy; Pickpocket; Dub Laith; Frying-pan Start.

In Lofthouse: Crimbles, from the crooked hedges, from *crymbig*, crooked, Anglo-Saxon. Tithe Style Close, from *stihe*, a path, local and now obsolete. Abraham Close. I find this name in two townships. "Abram" was a term formerly applied to a poor man. Barum Close; Robin-too many; Jumbles; Upper Borewell; Poor Close.

In Thorp: Little Loug Close; Kiddaw Spring; Shrog; Far Buttocks; Thornhill; Wood Pasture; Middle Lee; St. James Park; Dam Whin; Far Plague, situated not far from the "Plague Close" in Carlton.

A large number of these names are now useless, small fields having been thrown together and included in large ones, so that many of the old names are neither used nor even known to the present occupiers. The origin of many is somewhat obscure. Some of those above enumerated, and many which I have not transcribed from the survey books, are from the personal names of former occupiers or owners, and a few, variously modified in spelling, will preserve the names of old Saxon or Danish occupiers or owners. The antiquity of many is evident. Long before fields were fenced, each little hill, dell, thicket, swamp, heathland, or clearing would have its name.

It is needless to say that crooked hedges indicate old enclosures, and straight hedges new enclosures. When fields were originally formed the land would be partially covered with

bushes and thickets, and the spaces between the bushes would be planted, or otherwise artificially fenced; thus would arise crooked hedges. Hedges were planted by the Romans, and the practice continued by the Saxons, but they would be crooked, and would only encompass orchards or small home enclosures. Within the last fifty years a large number of crooked hedges in Lofthouse have been *riddled*, and the land formed into larger fields with straight hedges. The oldest fields are nearest the villages, and the ends of the fields abut on streams where there are streams, which is an obvious convenience, as by that arrangement a greater number of small owners or occupiers would have the benefit of the water, than if the enclosures had stretched longitudinally along the streams.

#### ROADS AND BYWAYS.

PACK-HORSE ROADS.—One of our oldest pack-horse roads leads from Morley to Thorp, Lingwell Gate, and on to the Outwood forward to Wakefield, or branching to the left at Thorp to Castleford and Pontefract. Another came from Bradford to Thorp, Lofthouse, Ouzelwell Green, Methley, and on to Pontefract. A short piece of an ancient road, called Clap Gate Lane, exists on the Haigh, near Middleton. It is narrow, deeply worn between high banks, and crooked. Along this the yeoman, with his wife on the pillioned horse, would travel on Sabbath mornings from Middleton to Rothwell Church, centuries before the smoke of collieries defaced the beauty of vegetation. And pleasant the ride would be on June mornings along the lonely lane, winding between flower-covered banks and tall hedgerows scented with the hawthorn.

At almost every junction of these old roads there is a house, founded originally, I suspect, for the convenience and entertainment of pack-horse drivers or other travellers.

Among some old private papers I found the following memoranda of a pack-horse journey through Lofthouse, dated 1749.

“ August 25, 1749.

	£	s.	d.
19 pack horses, 1 Hagney, 6 nights' hay ...	3	0	0
Beans, 3 loadst and half a peck ... ..	1	7	4
Man Dyet, and looking to y <sup>e</sup> horses and going to Wombil ... ..	0	11	0
Had at Lofthouse 4 stroaks of oats and 2 stroaks of beans... ..			
P <sub>d</sub> at London ... ..	2	0	0
Call <sup>d</sup> at Mr. Turner's, at Blackamore's head Chandler's shop, Hidpark corner, and saw an apleyard at Lord Dormer's, uper Grovner Stret. Tho <sup>s</sup> . Rycroft.”			

The pack-horse drivers were commonly entrusted with small parcels and letters.

TURNPIKES.—An Act was passed for making turnpikes in 1663, but at the time of the Scotch rebellion (1745) roads were exceedingly bad. General Wade had to send pioneers in front to level hills and fill up boggy places, and after that was sometimes two hours in travelling a mile. After the great inconvenience thus experienced by the royal troops, the advantage of having good roads began to be understood, and an impetus was given to improved road-making. Many of the roads in the neighbourhood of Leeds and Wakefield were made by Blind Jack of Knaresbro', who, though blind, had been an officer with General Wade in the North. He constructed roads in various parts of Yorkshire with extraordinary ability, frequently over bogs and other places, the difficulties of which baffled the commissioners' surveyors and engineers who could see.

Previous to the time of MacAdam, who invented the

present system of road-making with small angular stones in 1818, the road between Leeds and Wakefield was narrow, precipitous, and in some places almost impassable in winter, the carts often running up to the naves in clay and mud. It was customary for the mail coachmen to carry with them a pickaxe and shovel to mend bad places, and an axe to lop off fallen branches of trees. Often the mails were considerably delayed by the narrow roads, or rather lanes, being filled with snow; this occurred notably in 1836.

The turnpike was widened in Lofthouse in 1822, bridges were built where there had previously been fords, and other improvements were made. Before Skipton stone or furnace dross was used, the principal material for road-making was burnt sandstone and gravel from the quarries which were set apart on the road-side for highway purposes.

Cumbersome stage waggons succeeded pack-horses, and often poor persons, sometimes women and children, travelled 200 miles in the tail-end of a waggon. This kind of travelling was, however, not destined to continue long. Vehicles with lighter wheels and swifter horses soon appeared. A coach called the "Fly" commenced running between Leeds and London in 1768. The first mail coach started from Leeds to London in July, 1785, the distance being accomplished in about twenty-two hours, and the fare for each passenger inside being three guineas. The business being new and lucrative there were soon many rival coaches. When they passed through a village at full gallop they formed quite a spectacle to the wondering villagers who had been accustomed to gaze through their windows at the slow-motined waggons. Many of the drivers were daring and reckless men. On the 23rd of July, 1838, the "Courier" coach, which was racing at a fearful speed down Lofthouse Hill, against the "True Blue," was overturned at Lofthouse Gate, and one of the passengers, Mary Morellee, the wife of Mark Morellee, of Birtwith, in the

county of Durham, was killed.\* The mails ceased running in 1840, but coaches and omnibuses continued on the road till the railway from Wakefield to Leeds *via* Ardsley was opened. The old ten o'clock Leeds and Barnsley 'bus (Randall's) ceased running on week days in December, 1860. The narrow part of the road at Lofthouse Gate, where the above-mentioned accident occurred, was widened and straightened, and the bridge altered, in 1860.

The toll-gates at Thwaite Gate and Newton Bar† were taken down, and the cost of maintaining the road was imposed upon the ratepayers of each township through which the road passed, in 1872.

A short road to connect Lofthouse with the off-set hamlet of Westgate is now much needed. It could be made along the track of the disused waggon-way at little cost, and would be a great advantage to both parts of the village.

BYWAYS.—An old byway comes down from near Tingley past Thorp Wood and Ardsley Wood, through the meadows where the Roman coins were found, to Lingwell Gate. The length from Ardsley to Lingwell Gate was, and still is, a bridle road, and is commonly called the Bridle Sty.‡

Another path runs from the direction of Wakefield and Stanley, past Cockpit Houses, through Lofthouse House Park, to Ouzelwell Green, along the cartway through Carlton, and again on the fields direct to Rothwell Church.

In the year 1824 four footways in Lofthouse were stopped. One led from Lofthouse Hill to Cockpit Houses, and was called Strawberry Gutter, from the circumstance of the fruiting wild strawberry growing profusely on the banks. It was also called Booth Lane,—now usually spelt and pronounced Boar

\* Mrs. Morellee was interred at Stanley Church.

† On November 30, 1824, Morris Camfield and Michael White, two Irishmen, were hung at York for robbing Newton Toll Bar, near Wakefield, of £85 in notes and gold.

‡ Sty being a contraction of *stihe*, a local north-country word for path, both, I presume, originally from "*stig*," A.S., a path.

Lane. A similar modification appears to have taken place in Booth Lane (the lane in which the wooden ale-booths were pitched) in Leeds. Two rows of forest trees mark the track of this road. Another ran from the Kilngarth to Carlton across Pymont's Land. Another led from Lofthouse to Thorp; and another from a field called the Acres to Lofthouse Gate. The whole length of the four was 3,900 yards. The total cost of stopping them, as appears from the old books, was £93 10s. 2d. Another short footway which led over the manor land from Castlehead Lane past the "Camp" to Thorp Lane had been done away with previously by Mr. Dealtry of Lofthouse Hall.

#### GATES.

Before the reclamation of Outwood, Rothwell Haigh, Carlton Field, and Lee Moor, it was necessary to have gates at the ends of the villages, or in the entrances to the old enclosures, to prevent the cattle that were pasturing on the common-lands from coming into the villages, and also to prevent those that were folded in the homesteads from passing out and straying on the open lands; hence we find all round on the outskirts of the villages of Lofthouse and Carlton many hamlets and places whose names terminate in "gate."

LOFTHOUSE GATE would bar the Outwood cattle from coming up Lofthouse Hill among the enclosed gardens and other land. In wills and other old documents it is spelt "yate." The name of the gate is now applied to the houses which stand near where the gate stood. The highroad, it may be noticed here, would leave the south end of Lofthouse and run southward over the unenclosed Outwood to Wakefield; and northward, the road, after leaving Lofthouse, would run over the unenclosed Carlton Field and the Haigh, so that the road in Lofthouse would be the only piece enclosed between the towns of Wakefield and Leeds, and Lofthouse the only halting place.

LINGWELL GATE stood at the head of the lane which leads eastward to Lofthouse, not far distant from where the castle



is said to have stood. It would intercept the cattle or deer from wandering from the Outwood, similarly to the one above mentioned.

LEE MOOR GATE stood in a narrow lane at the north eastern extremity of Cockpit Houses, and separated the old enclosures from Lee Moor. The posts of the gate are yet standing.

CARLTON GATE stood across the lane near the Manor House and near the field called the Gulyard, and would prevent cattle, pigs, or other animals from straying into or out of the village.

There was also a gate at Robin Hood, and another on the Haigh, on the border of Carlton Field.

Many other gates might be mentioned, all formerly situated on the borders of unenclosed lands—as Kirkham Gate, Carr Gate, Black Gates, Yarwell Gate, round the Outwood; Haigh Gate, Clap Gate, and Thwaite Gate, round the Haigh; and Castle Gate in Lofthouse. Many of these have given rise to hamlets; a few have not.

I am aware that very frequently inhabited places were named after roads, and that the term "gate" anciently meant a road, as Kirkgate and Briggate in Leeds. It is not improbable that one or two of the names of the most ancient of the hamlets above enumerated might have been derived from a road. The gates or entrances to the oldest hamlets, which stood like little islands in the midst of heath or waste lands, must, however, be considered to be as ancient, and to have been as useful in those times, as the roads.

Gate is yet used vulgarly in the sense of a road. "Coming up th' gate," "Stanin 'ith gate," and "Go gatards" are common expressions.

#### OLD HOUSES.

At Launds, about a mile from Lofthouse, there was a dwelling, the walls of which were sods and the roof thatch; the only brickwork was the chimney. It was inhabited in 1870. Its appearance was something like what the Saxon dwellings would be before the Conquest.

A line of old cottages runs along the Lee Beck valley from Lingwell Gate\* to Cockpit Houses. Many are now slated and improved, but most of them were low and thatched fifty years ago. They are conveniently situated for procuring water from the beck, but not so near as to be often flooded. This line of old dwellings doubtless marks the site of some ancient, perhaps Saxon settlement. It is remarkable that they nearly all run along the Wrenthorpe side of the beck, a circumstance which indicates that little pieces of land have been enclosed from time to time, perhaps by stealth, from the extensive and uncared-for Outwood; and it also indicates that the Lofthouse side has belonged, in times past, to one or two owners who would not sell land or allow it to be built on. The old houses with their sloping gardens, containing sweet-scented flower beds, fruit trees, and bee hives, all shielded from the winds in the valley, form what is aptly called the "Nook."

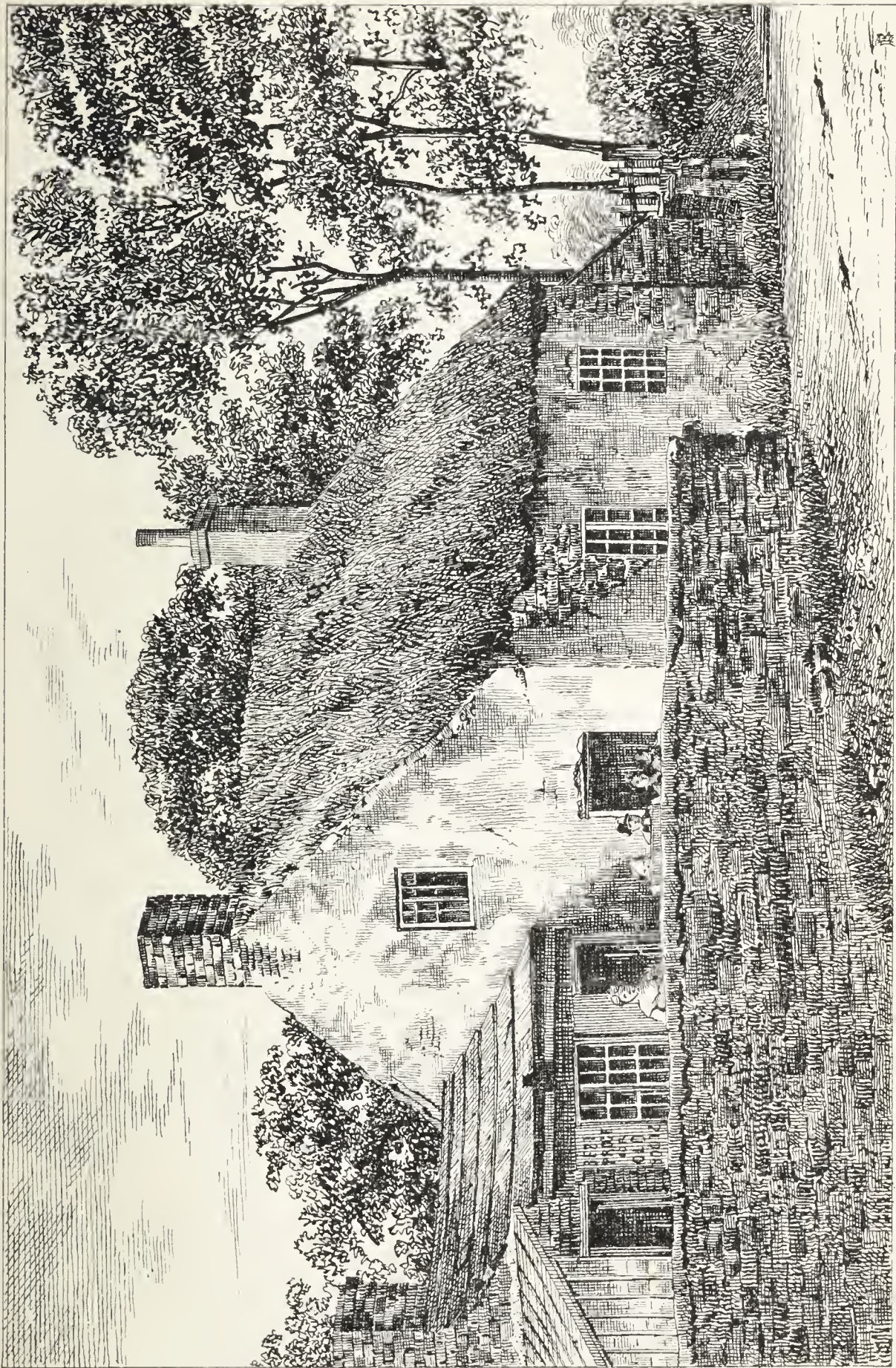
In one of the old gardens, a labourer, in 1873, turned up with his spade from a great depth a shilling of the reign of Elizabeth.

At the beginning of the present century, most of the cottages in Lofthouse were of a primitive character, being low, open to the roof, and thatched. They were comfortable, the thatch and thick walls preserving an equable temperature. But little by little they have disappeared, and the one represented in the lithograph is the only one of the kind left in the village. It stands near the Church.

The irregular brick building, opposite the Rose and Crown, is Pymont House. The rooms are large but not lofty; the

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\* "Lingwell" doubtless originated from "ling," a plant, and "well." Ling yet grows there and nowhere else in the neighbourhood. A little towards Ardsley there is a place called "Broom Well," and not very far distant there is a hollow called "Ling Syke." The public "well" was long since filled up. Thoresby, following an idea of Camden's, derived the name from "Lingoni" and "vallum," but where was the vallum? When Thoresby passed through Lingwell Gate he would not see the oldest part of the hamlet and the old wells. The place is often called Lingwell Nook, as it is situated in an out-of-the-way "nook" where three townships meet.



OLD THATCHED COTTAGE



staircase is of old black oak and very wide; the ceiling in the principal room is ornamented with bunches of grapes and fleurs-de-lis. On a beam in the staircase there is a scriptural passage cut in English characters, but it has been mutilated so that only a few words can be made out. On a stone which is now built in a wall, but which formerly was the headstone over the entrance to the front, there were the family arms—now all but obliterated—a chevron, with three bunches of grapes between three miners' picks. On one side of the shield there were the letters "J. P.," and on the other "16," doubtless meaning 1600. Pymont House is now the property of Mr. William Hartley, of Ouzelwell Green, and was made into cottages in 1869.

A few years ago a shilling of the reign of James I. was found in the garden in front of the house. A year or two previously a token, having on one side "JONAS DEANE, 1669," and the grocers' arms, and on the other side, "OF WAKEFIELD, HIS HALFPENNY," was also picked up in the garden. Down in the grass croft, where the gardens and flower beds formerly extended, the sweet-scented poets' narcissus yet grows.

The Pymonts (anciently Pymond) were an important family here from an early date. The name occurs in the earliest years of the Rothwell registers, also frequently in the parochial records. Branches of the family were settled at Kirkthorp and Normanton. One of the family had the tithes at South Kirkby, and was patron of the vicarage there after the dissolution of Nostal Priory.

A part of the troops under General Wade halted at Loft-house in 1745, and were entertained by John Pymont in the barn which then stood near the house.

During the later years of their residence at Lofthouse, they carried on the businesses of tanning and farming. Some of the family lived at Tanshelf, near Pontefract, others at Carlton. The family burial place at Rothwell was near the south chancel, and the last of the name was interred in 1839.

A little south of Pymont House there is a good stone house,

over the door of which are the initials W. W. M., neatly cut, and the date 1697.

At the junction of Westgate Lane with Castlehead is another stone house, with initials I. W. over the door, and date 1729, probably the initials of a Westerman.

A little further up Westgate Lane, on the left hand, there is a stone house, over the door of which is the name GEORGE BURNELL, and date 1721. It is now converted into cottages. On a stone, which was formerly fixed in the wall of a barn at the Townend, are the initials E. J. B., 1779, probably the initials of a Burnell.

The Burnells were a respectable family, landowners and attorneys in Lofthouse, cotemporary with the Pymonts, being settled here in 1542. The family burial place was in the middle aisle in Rothwell Church.

Near the church is an old brick house covered with ivy, formerly the property of Thomas Harrison, now the property of Lucy Hudson. This was once the residence of the Burnells, but is mentioned here chiefly on account of its connection with Mrs. (Madame) Black who lived there, and the D'Oylys. Edward D'Oyly married Anna Maria Black, daughter of Mrs. Black, whose husband was a London brewer, and had a son Edward who married Hannah Marston of Thorp, who had two sons, twins, Thomas and Edward. Thomas, a captain, his wife, and third son, with many others, were shipwrecked in Torres Straits, thrown ashore, murdered and devoured by cannibals in 1834. Edward was drowned at the age of 13, in the wreck of the *Jane*, off the Isle of France. Mrs. Black, their great grandmother, died at Lofthouse, in March, 1795, aged 86, and was buried at Rothwell. Mrs. Black and Anna Maria D'Oyly had both land awarded to them on the Haigh, at the time of the enclosure, 1785. Edward D'Oyly, father of the unfortunate twins, was owner of the house and some land in Lofthouse, in 1805. Madame Black was daughter of George Burnell, who had property in Lofthouse, Lingwell Gate, and East Ardsley, in 1703.

The irregular brick building near the pond called Charleston Dyke is dated 1710; with the date are the initials I. S. The property formerly belonged to John Swift. Over the principal door there is an antique sun-dial surmounted by a cherub. The building is now converted into cottages, and belongs to John Green.

Before the road was widened an old house stood opposite the Post Office, with its end to the road. A floriated headstone, taken from over the door, is now built into an outer wall in a stable. In the centre there is, or was, the date 1661, and name JOHN LEE, surmounted by a cross. The property now belongs to the Governors of the Wakefield Charities.

A brick house, now pulled down, which stood on the roadside near the Elephant and Castle Inn, had on a stone lintel, over the door, the initials T. D., and date 1724. It was the property of a Dobson.

A row of cottages, which were taken down about the year 1868, stood on Lofthouse hillside. Over the entrance of one was a square stone, on which were neatly cut the initials I. H. and A. H., and date 1725. Fifty years ago an old man named Jacky Taylor resided in one of these cottages. He was a bird-catcher, and could imitate, by whistling, the note or song of almost any bird. The house was afterwards occupied by the bellman. The property now belongs to Joseph Charlesworth, Esq., who acquired it by purchase from the Harrisons.

The lofty three-storied brick house at the south end of the village, part of which is now the post office, was the house of John Hopkinson, the celebrated genealogist of the seventeenth century. It seems to have originally consisted of cellars, which are very deep, three ground rooms, three middle bedchambers, and three garrets. Four rooms at the back have been later additions, making in all thirteen rooms. About 20 years since it was altered and some of the back buildings lowered. Formerly there were palisades and a porch on the front, and a walled garden stocked with fruit trees at the back. It was the residence of the Hopkinsons till about 1682. Many years after, a

Mr. Rowbottom lived there, who, whilst nailing some trees against the high wall, fell down and was killed. Mr. Dealtry lived there a short time whilst Lofthouse Hall was rebuilding. Afterwards it became the property of the township, who converted it into a workhouse. It is now the property of Messrs. Charlesworth, and is made into three dwelling-houses.

Through the kindness of my excellent friend, Charles Forrest, jun., I am enabled to insert here a brief account of Hopkinson and his work. It was written conjointly by Charles Forrest, sen., and the Rev. John Bell, but has not before been published.

JOHN HOPKINSON.

Local records can never be without their interest and their use, as they bring to light the long forgotten and unheeded things of the past.

Our older parishes exhibit not only venerable monuments of the ancient ecclesiastical architecture of our country, but within and around our Churches we have valuable materials from which we may gain an insight into the customs, usages, and habits of those who lived in bygone times. Monuments which mark the resting place of the illustrious dead direct us to other sources for the more remarkable features of their character, and it is a subject of great regret that their memorials have not been better cared for, as then we should not have to lament so many missing links in the chain of antiquity.

These remarks have been suggested by the monument which still exists in the Parish Church of Rothwell to the memory of one of the most noted heraldic scholars of his own or any other day, and as the village of Lofthouse has the honour of being the birthplace of Mr. John Hopkinson, it may not be uninteresting to its inhabitants and others interested in antiquarian pursuits to have a brief sketch of his life and character.

It is much to be regretted that when investigating the history of "men eminent in their day" we are so often



disappointed by the very meagre records of their lives, and are thrown back in our search upon their works to form an estimate of their character. This is peculiarly the case with the subject of our present inquiry; little indeed is recorded of him who did so much to preserve the memory of others. Never having married, no son survived to tell the story of a father's worth. A large proportion of the nobility and gentry of Yorkshire were swept away by the storm of the civil war, the disasters of which had so deadened the spirit of ancestral pride, that at the last visitation of Yorkshire by Dugdale in 1665, no less than 257 heads of families, nearly one third of the whole, cared not to attend the summons and record their arms and pedigrees. We need not therefore be surprised if none cared to cherish the memory of him who has transmitted them to posterity.

As Hopkinson was seventy years of age when he died in 1681-2, he must have lived in a very eventful period of the history of his country. This is confirmed by the protections which were afforded to him and his father by the rival Generals during the Civil War (of which he saw the beginning and the end). While others were plundered and otherwise ill-treated, the shields of Fairfax and Newcastle warded off the blow which fell upon those less favoured than Hopkinson, and as Whitaker justly observes, this shows how little offence the family had given to either party. It would appear, however, that they had not been wholly exempt from plunder, probably before the granting of the protections, as the title of one volume of his manuscripts informs us that it contains Transactions, &c., "collected and gathered in the year of our Lord, 1658, out of my father's old scattered papers and some of my owne, which were preserved and have comed to my hands since this warr. J.H."

Could we have an insight into the domestic habits of Hopkinson, they would doubtless commend him as much to our approbation as his public life did to Fairfax and Newcastle, but of his fireside we know nothing. He appears to have led a peaceful and unostentatious life in the quiet pursuit of those

labours which have imposed upon every succeeding historian a debt of gratitude and admiration, and “are still the great storehouse of the Yorkshire topographer.” Whitaker, the historian, adds the following testimony to the value of his manuscripts:—“His volumes, by the favour of Miss Curre, are now before me, and there is scarcely a day in which I do not feel my obligations, both to the author and to the owner, for the treasures they contain.” Thoresby, Drake, Hunter, and other local historians have left a similar record of their worth.

John was the second son of Mr. George Hopkinson, of Lofthouse, and was born August 11th, 1611. The following extract from the Rothwell registers records his baptism:—“Nov. 1611. Johannis filius Georgii Hopkinson vicesimo nono die.” Underneath there is in a different hand: “This John Hopkinson was the famous Genealogist, obit 1681.”

From this period to the year 1643, when the protections of the rival generals above alluded to were granted, we are without a single date whereby to fix the time of any event in the history of Hopkinson. He was then in the 32nd year of his age, residing with his father, and his name is added for protection in the handwriting of Fairfax, who was himself an antiquary.

#### “PROTECTION.

“Willm. Marquesse of Newcastle, governor of the towne and county of Newcastle, and general of his majesty’s forces raised in the northerne parts of this kingdome, and also in the severall counties of Nottingham, Lincolne, Rutland, Derby, Stafford, Leicester, Warwick, Northampton, Huntingdon, Cambridge, Norfolke, Suffolk, Essex, and Hartford, for the defence of England.

“Forasmuch as it is his majesties pleasure and special command that no person or persons whatsoever, their houses or goods, be plundered or spoyled, in regard there is to be an assessment rated and assessed upon the country for the maintaining of the army under my command, and forasmuch as George Hopkinson, of Lofthouse, in the county of York, Gent., is now under the protection of his majesty and the said army, therefore I hereby require, and command you, and every of you, to whom these presents are directed, that you forbear and wholly desist from molesting, plundering, and pillaging, or any way injuring the said Geo. Hopkinson, his servants, and family, in his or their houses, lands, or goods, or to demand, levy, or any sum or sums of money whatsoever upon them, or any of them, saving such assesses

or contributions, as shall be equally assessed, and rated upon them, or any of them for the maintenance of, and support to the said army, when said sum, or sums of money, are given in charge to be demanded, collected, and gathered by the present constables, and other officers, especially employed therein. And of this you are not to fail, as you tender his majesties service, and will answer the contrary at your utmost peril. Given under my hand and seal this 1st of October, 1643.

“W. NEWCASTLE.

“*To all colonels, captains, commanders, and other officers and soldiers whatsoever, now in the service of his majestie under my commande.*”

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“Ferdinando, Lord Fairfax, lord-general of the north.

“To all colonels, captains, and commanders, and other officers of horse and foot, and to all soldiers in the service of ye king and parliament.

“These are to signifie and make known to you that the parliament has given especial order that no houses be plundered or pillaged, to whomsoever they belong, and that the rather because the delinquents are to be answerable to the great damage of the commonwealth. I do therefore require you, and every one of you, to take especial care that Geo. Hopkinson of Lofthouse, Gent. and John Hopkinson, his son, be not plundered, pillaged, or any way injured, in any of their goods, by those in the service of king and parliament. provided that the parties protected shall hereafter yield obedience unto and observe all orders, ordinances and, directions sent from the high court of parliament. to be in this country by any commissioners, sequestrators, or other persons authorised in that behalf, and that this protection be no longer in use than any new shall come against the parties protected, or that I shall give further order therein. Given under my hand and seal this 20th of July, 1644.

“FER. FAIRFAX.”

Hopkinson was Deputy Clerk of the Peace for the West Riding of the County of York, and at the age of 54, viz., in 1665, we find him accompanying Sir William Dugdale, Norroy King-at-Arms, in his last visitation of Yorkshire, as his secretary and deputy, a post to which his talents doubtless well recommended him.

In this capacity, we may suppose that the principal portion, if not the whole of the original entries of the arms and pedigrees then recorded, were made by him, an employment to him equally pleasing and profitable.

When not engaged in the discharge of his official duties he

collected and transcribed all the curious papers relating to the antiquities of his native county which came into his possession, thus preserving from destruction many valuable documents, which, during the turbulent period of the civil war and the unsettled state of the kingdom which followed, must otherwise have been irrecoverably lost. He thus laid the foundation of his future fame, compiling with great care and diligence the genealogies of the nobility and gentry. These or the greater part of them are still preserved in the libraries of Eshton Hall, late the residence of Miss Curren, and of Heath Hall, the present residence of Col. Smyth, and comprise altogether about eighty volumes, exhibiting the fullest evidence of his persevering industry.\*

As about an equal number of these volumes descended to their present possessors, it would appear that a division of them must have been made, consequent on some family arrangement, probably on the demise of Dr. Richardson in 1771, who had the whole of them. Mr. Drake, the historian, of York, who extracted the law portion of his history from them, expresses his belief that many of them have been embezzled, which there is some reason to fear has been the case.

His pedigrees, voluminous as they are, have often been copied, a proof of the high estimation in which they have been held by gentlemen engaged in similar pursuits. Amongst the first thus occupied was the industrious Ralph Thoresby, the historian of Leeds, concerning whom it is somewhat singular that, although they were neighbours and friends, it does not appear that they had much intercourse.

Thoresby seems, however, to have been fully aware of the literary treasures at Lofthouse, for on the 16th of November, 1681, only a short time before Hopkinson's decease, we find the following entry in his diary. "To Loftus to have a sight of some manuscripts, of Mr. Hopkinson's, late Norry King-at-Armes." Several entries in his diary inform us that he was after-

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\* Since this was written Colonel Smyth's portion has been presented to the British Museum.

wards closely engaged in copying their contents. In a summary written in 1697, he tells us that what time he could spare was spent in their transcription. On the 10th February, 1703, he writes, "Finished the transcript of Mr. Hopkinson's MS. folio of the pedigrees of the Yorkshire nobility and gentry of the West Riding, with additions and continuation, in many places by the excellent Mr. Thornton, who favoured me with the loan of it, wherein are many things absolutely necessary to be inserted in my designed History of Leeds, which may be admitted as an apology for the expense of so much time (the original containing above eight hundred pages in folio) and my circumstances will not allow me an amanuensis."

This MS. of "about eight hundred pages" was Mr. Thornton's own copy, transcribed from Mr. Hopkinson's MS. during his lifetime, not the original volume as Hunter supposed.

The copy made by Thoresby is No. 86 of his catalogue:—

"A Collection of the Pedigrees and Descents of several of the Gentry of the West Riding of the County of Yorke, 1666, by John Hopkinson of Lofthouse near Leeds, with the Continuation of some, and Addition of others, by the learned and ingenious Richard Thornton, Esqr., and Ralph Thoresby." At the sale of Thoresby's library, this copy was purchased by Dr. Wilson.

There is a valuable copy of a portion in the handwriting of Thomas Wilson, F.S.A., with his corrections and additions, in four volumes, folio, presented to the Leeds Library by his son, Mr. Joseph Wilson.\* Two volumes, transcribed by an unknown hand about the year 1730, were in the possession of Robt. Wm. Hay, Esqr., a native of Brodsworth. An excellent copy is in the British Museum, Harleian MSS. No. 4630. In the library at Campsall, there is also a copy in four vols., folio, with additions and continuations, by the late Richard Frank, Esqr., the antiquary, 1745. Also, Miscellaneous Collections of old Evidences, Records, Decrees, and Inquisitions, with other observations, from the Hopkinson MSS., in five volumes, folio. But the best additions that have been made to Hopkin-

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\* A transcript of this was taken for the late Edward Baines, Esq., senr.

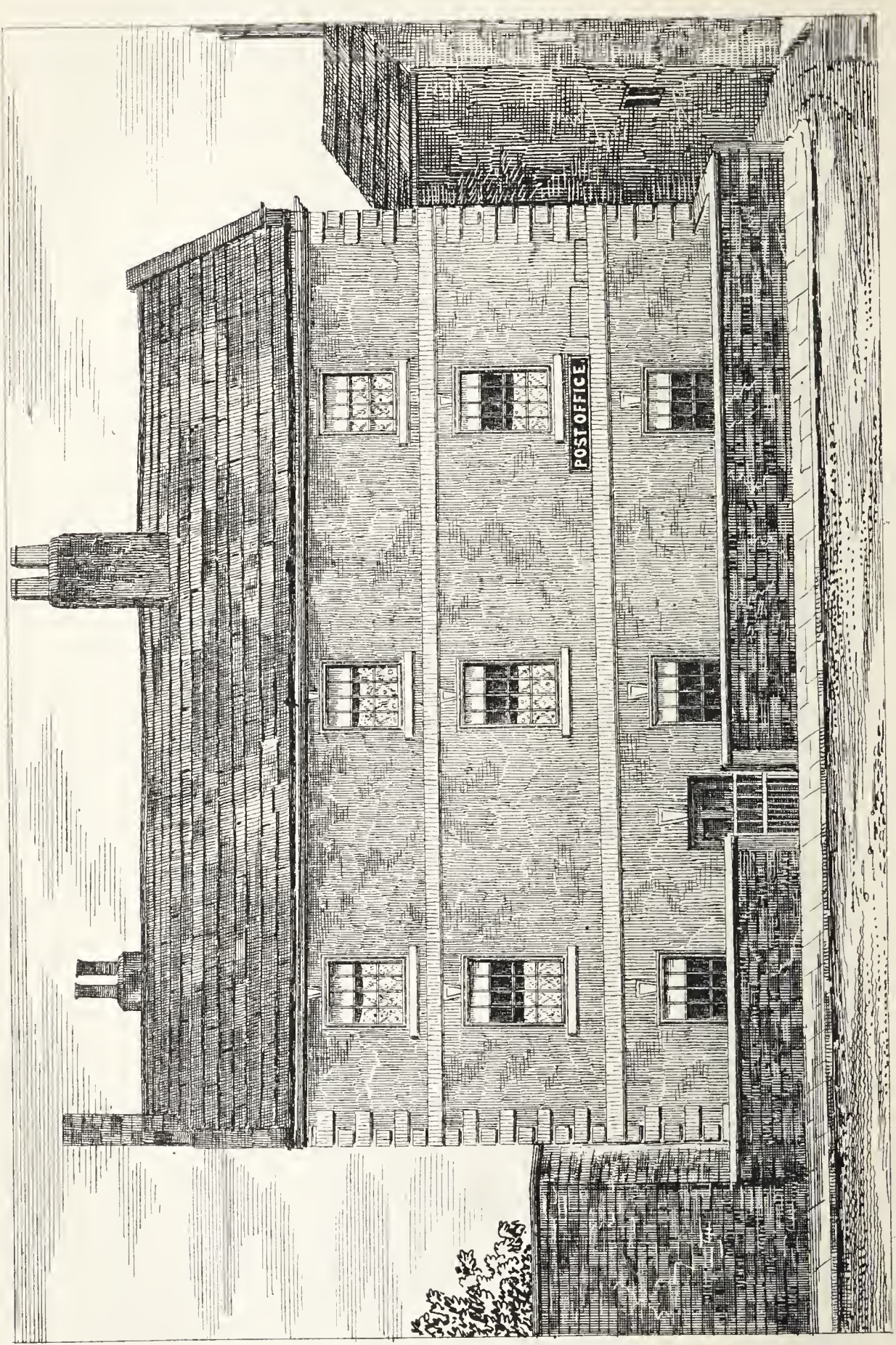
son are those by the Revd. John Brook, Rector of High Hoyland and John Charles Brook, Esq., the Somerset herald. This continuation by the two Brooks is now in the library of the Herald's college, to which the Somerset herald left his collections, where it is numbered ICB No. 1.

During some period of his life, Mr. Hopkinson was engaged in superintending and arranging a series of shields of arms of the nobility and gentry of Yorkshire for the windows of the long gallery of Methley Hall, a magnificent work, executed in exceedingly good taste. This gallery with all its heraldic glories has since been swept away to make room for modern improvements. Its date cannot be satisfactorily ascertained, but is believed to be of the reign of James the First, as one of the few specimens of glass yet remaining in the hall contains the arms of that king and his queen. If this surmise is correct, the work would be done during the life of Sir Henry Savile, Knt., when Hopkinson was a young man, but possibly not finished until the reign of Charles the First, to which period some assign it. To the antiquary it may be a satisfaction to know that the principal portion of this glass now finds a suitable repository in the windows of the museum of Mr. John Holmes, of Holmville, Methley. A small portion is in the possession of a gentleman at Beverley.

We have now stated nearly all we have been able to collect relating to this industrious scholar. Of his education we know nothing; he may possibly have received it at the Grammar School at Wakefield, from whence have proceeded so many eminent and distinguished men.

In the Wilson MSS. in the Leeds Library he is described as an attorney at law, but no light is thrown upon the source whence he gained his legal knowledge. As the personal friend of Dr. Johnson, of Pontefract, another indefatigable collector, he could scarcely avoid the acquaintance of Thoresby, who, we gather from the authority just quoted, held some of Hopkinson's papers during his life time. He is referred to by Bigland as the intimate friend of Dugdale and Dodsworth, kindred spirits, both celebrated for their antiquarian researches.





HOPKINSON'S HOUSE



Hopkinson died February 28th, 1681, and was interred the 4th of March following, in the chancel of the Parish Church of Rothwell, where a monument of white marble is erected to his memory.

M. S.

“Hic juxta situs est

“Johannes Hopkinson, de Lofthouse, generosus, &c.

TRANSLATION.

“Near this place lies the Body of John Hopkinson, of Lofthouse, Gentleman ; A person esteemed for his Learning, and especially for his excellent skill in the Laws, History, Antiquities, and Heraldry of this Nation, whose Memory is dear to posterity. Having performed all the duties incumbent upon Man, as a Christian Citizen, with the greatest sincerity, and unshaken Integrity of Life ; at last, having finished the course of seventy Years, with an unblemished Character : being the Love and Delight of all good men : having prepared himself for Heaven, willingly yielded his Body to Death, departed this life the xxviii of February in the Year of our Salvation, M,DC,LXXXI.”

His interment is thus recorded in the Rothwell Register of Deaths :—Mar. 4 1681, Mr. John Hopkinson, Gentleman, buried, Lofthouse.

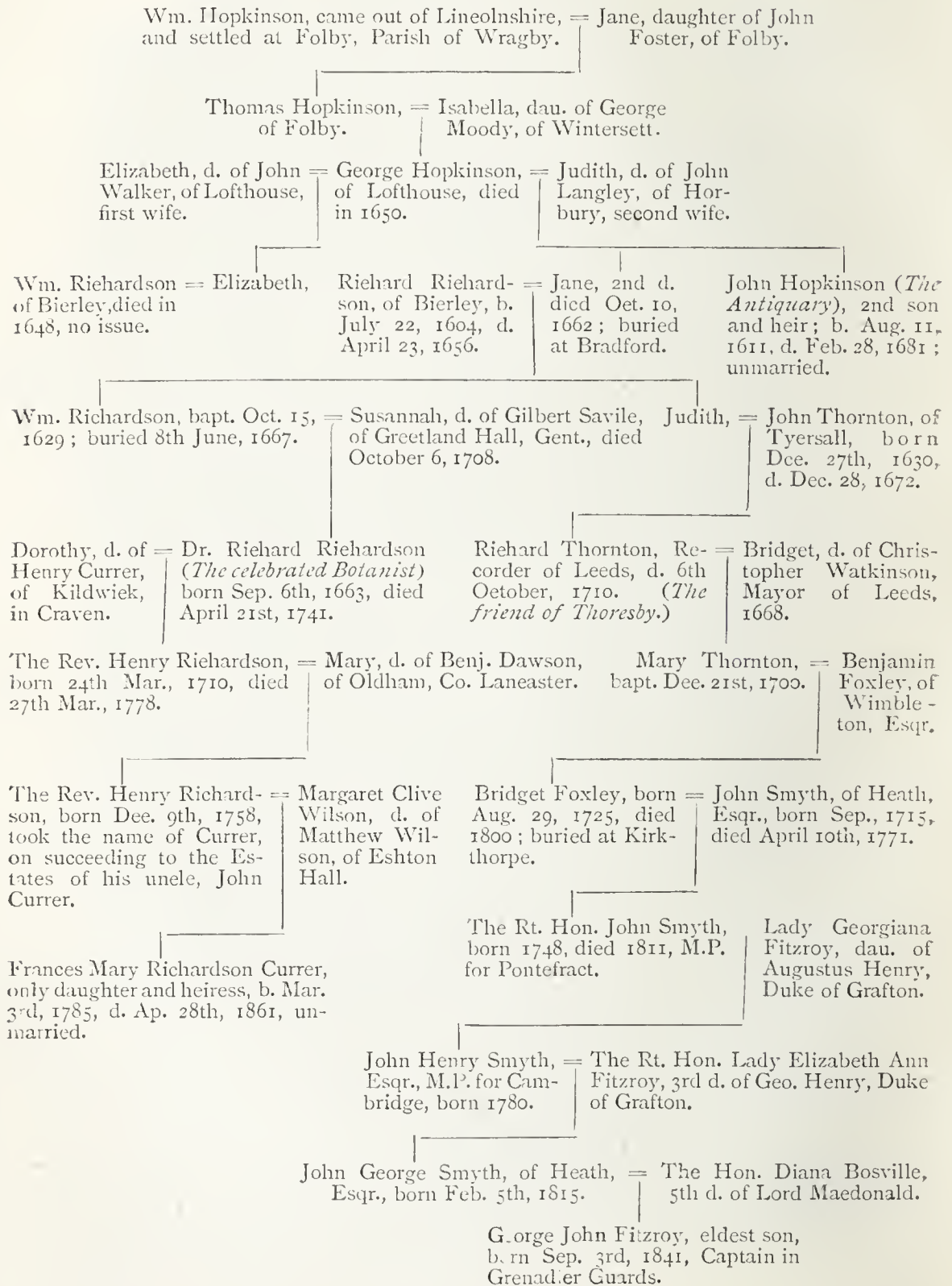
The house at Lofthouse in which Hopkinson resided, where he first drew breath, and finally closed his laborious and useful life, is situated on the east side of the road leading to Wakefield. It is still a substantial building of three stories, and in good repair, but has shared the fate of other deserted mansions, in being divided into separate tenements, and is somewhat modernized. The present front is not of great antiquity, but recent repairs disclosed ample proof of its age, in its ancient carved oak wainscot and walled-up doorways. The large winding staircase still remains and is its principal feature.

This sketch of Hopkinson is closed with “A SKELETON PEDIGREE,” to illustrate the descent of the late Miss Currer, of Eshton Hall, and of John George Smyth, of Heath, Esqr., late

possessors of the Hopkinson manuscripts, from Jane, the sister of John Hopkinson.

## ARMS OF HOPKINSON, OF LOFTHOUSE.

Vert. Three cushions Ermine, Tasselled, Or.



The following note appears in one of Mr. Forrest's draft manuscripts, but it seems to have been subsequently expunged. "Whilst Dugdale was sitting at Pontefract, on the 7th of April, 1665, Edmund Watson, of Easthage, attended to present his claim to bear certain arms, tendering 'For prooffe hereof there is an old glasse window in an house at Loftus, which was anciently belonging to this family, as Mr. John Hopkinson affirms.'" The arms of Watson of Lofthouse were: Argent, chevron engrailed azure, three crescents or, between as many martlets.

Postscript to Forrest's Memoir of Hopkinson, by W. S.  
Banks.

"Mr. Forrest, by whom the foregoing gleanings were gathered, died at the age of 66. This postscript, except as to what relates to himself, is added at his special request, made shortly before his death. It is a subject for much regret that Mr. Forrest's labours should come to an end before he had obtained the leisure he fully deserved, and would have so well employed. The Rev. John Bell, Vicar of Rothwell, died on the 14th of October, 1869, aged 65, and his parishioner followed him on the 24th of October, 1871. Mr. Forrest had lived a life of hard work and frugal habits, and it is true to say of him, as the sum of his life, that he was a laborious, trustworthy, and conscientious man, a truth-loving and unobtrusive antiquary, and a kind friend and neighbour.

"Reverting to the Hopkinsons. It appears from the Wragby parish register, that in 1538, when that register began, the family was settled in the parish, and that a little later it consisted of several branches. In April, 1538, John Hopkinsonne was baptised. On 22nd of August, 1573, was baptised George Hopkinson, son of Thomas, and doubtless John Hopkinson's father. On 23rd of August, 1573, a John Hopkinson married Agnes Swayle, and on 7th of January, 1575, a George Hopkinsonne had a son Francis baptised, shewing that there were at Wragby at this time three families: those of Thomas, John,

and George, whilst many other entries of Hopkinsons occur down to 1585.

“John Hopkinson’s father and mother were married at Horbury, on the 28th of January, 1604, the entry in the register being ‘George Hopkinsone and Judith Longleye were married.’ Horbury was the home of the Longleys, a family of good standing for several generations, owners of lands there, and of a messuage called, in late years at least, a ‘mansion house,’ and persons of sufficient importance to be buried *in* the church. One, who died in 1689, desired to be buried therein as near his ancestors as might be. The latest capital messuage belonging to the family, built about 1660 by John Longley, half cousin to John Hopkinson, still remains in Golden Square, Horbury, and is identified by having over a fire-place the arms of Longley impaling those of his wife, an Usher.

“George Hopkinson and Judith his wife had, according to the Rothwell parish register, seven children, of whom John the antiquary was third. George was the eldest child, William was the second, and George’s son William was heir both to his father and to his uncle John. William (John’s nephew) died before November, 1684, leaving his sister (who was wife to John Rookes) his heiress; and through William’s death the surname as to this branch of the Lofthouse Hopkinsons then ceased.

“On the Newland Manor Court rolls is an ‘admittance’ of the antiquary on the 7th of May, 1639, as owner of a messuage and half another messuage, and four acres of land at Lofthouse, bought by him of Nicholas Hodgson. On May 4th, 1682, it was presented that John Hopkinson was dead, and on the 9th of November following, his nephew, William, was admitted to this property, as his nephew and next heir. William was also admitted on Wakefield Manor Court rolls to land in Stanley as heir, both to his father and to his uncle John. In the will made 14th August, 1637, by Thomas Longley, of Horbury, yeoman, son to Judith Hopkinson’s brother, the testator, referring to the Antiquary, says: ‘I

give unto my cosen, John Hopkinson, twelve shillings to be bestowed upon a Ringe, which I desire him to wear in remembrance of me.' It would be interesting to discover the ring.

“Miss Jane Pinder, lately of Iveridge Hall, Oulton, who claims (through the Richardsons) descent from the Hopkinson family, has an ivory seal (long in possession of her mother's family), presumed to have been employed by Dugdale in his visitation of Yorkshire in 1666, and probably used by the hand of John Hopkinson himself in his capacity of assistant to Dugdale. It is round and measures two inches in diameter, has a turned handle twice that measure in height, bears the arms of Norrey—a cross, on a chief a lion passant guardant crowned, between a *fleur-de-lis* on the dexter, and a key on the sinister, is encircled by the words: S. OFFICII NORROY REGIS ARMO RVM BOREAL +, and has between the shield and the enclosing circle a mullet on each side.

“It is from Samuel Richardson, Rector of Burnham Sutton, in Norfolk, one of Richard's sons, that the Pinder family claims to descend.”

Numerous extracts from the Wragby and Rothwell parish registers, and other interesting information relating to the Hopkinson family, may be found in Mr. Banks' book, “Walks about Wakefield.”

The messuage and land above mentioned, which belonged to John Hopkinson, were sold by John and William Rookes, in 1713, to Francis Proctor, Esq., of Thorp Hall.

Hunter, the editor of Thoresby's Diary, refers to Hopkinson's life and work as follows:—“November 16th, 1681. To Loftus, to have a sight of some manuscripts of Mr. Hopkinson's, late Norry King at Arms.”

“NOTE.—This entry introduces us to the name of another labourer with Johnston and Thoresby in retrieving the History of the County of York. Lofthouse is a member of the parish of Rothwell, which immediately adjoins to the parish of Leeds; but though they were thus neighbours, and both

acquaintances of Johnston, it does not appear that Thoresby had any intercourse with Hopkinson, who lived till 1681.

“The MSS. which he went to examine must have been those which now form the forty-two volumes of ‘Hopkinson’s Collections’ preserved in the valuable library of Miss Currer of Craven. They consist of Surveys, Grants, Deeds, Tenures, Inquisitions, Sessions Proceedings, Letters, Pedigrees, in short the whole apparatus of Topography, but there is nothing arranged. In this he resembled Dodsworth, in whose immense collection we look in vain for anything which can shew to what extent he possessed the ability to combine what he had with so much labour collected. The volume of Hopkinson which is best known, and most highly valued, is that which contains the genealogies of West-Riding families. There is a copy in the museum (Harl. 4630); another, with many additions, in the Public Library at Leeds. In the preparation of this volume Hopkinson owed much to the labours of Flower, Glover, and St. George, the visiting heralds in 1585 and 1612, and still more to Sir William Dugdale’s visitation in 1665 and 1666. He has followed too much in the track of the heralds, and has admitted without examination whatever received their sanction. His work cannot be regarded as a critical disquisition. He has, however, some pedigrees which are illustrated by reference to charter authority; he has a few that are not in any of the visitations; and he has some valuable notices of changes in the West Riding families between 1666 and 1680. Thoresby owed much to this volume. Many of the pedigrees in the ‘Ducatus’ are nothing more than transcripts of Hopkinson.

“When Thoresby speaks of Hopkinson as being Norrey King at Arms, he means deputy to Norrey, an office which Le Neve afterwards tendered to himself.

“Hopkinson’s Abstracts of Inquisitions, Grants, &c., are invaluable. Dr. Whittaker professes that, while engaged in preparing the ‘Loidis and Elmete,’ not a day passed in which he was not indebted to some part of these extensive

collections; and other persons engaged in similar researches have owed to them and their liberal owner the like obligations."

Hunter seems to have been unaware that the MSS. had been divided into two equal portions at the decease of Dr. Richardson, as he only mentions the volumes which were in the possession of Miss Curren.

In Mr. Forrest's library there is a book that was formerly in Hopkinson's library. The following is part of the title page: "The History of the Church of Scotland, written by that grave and reverend prelate and wise counsellor John Spotswood, Lord Archbishop of St. Andrews, Privy Councillor to King Charles I., 1655."

It contains the Antiquary's autograph:

A handwritten signature in cursive script, reading "John Spotswood". The signature is written in dark ink on a light background.

#### METHODS OF PRESERVING OLD HOUSES.

Most of the old houses and some of the cottages are on the post-and-pan, or frame principle, nearly all the timber being native oak. Many of the beams in the oldest buildings show proof of having been in previous use. The bricks are very durable, being small, well made, and uniformly burnt. The mortar also is equal in quality and durability to the bricks and timber. Pymont's house and some others, after two centuries and a half, are still in excellent repair. When oak became scarce various kinds of imported light timber were substituted in buildings; and later, when the brick duty was abolished, larger, half-burnt inferior bricks came into use for the walls, and fragile blue slates came into fashion for roofing. Modern houses are, as a consequence, for the most part quite incomparable with the old ones in substance and durability, and certainly will never have the honour of being ancient.

Various methods are adopted to defend houses and other buildings from the corroding influence of our northern climate, such as planting ivy and other climbing shrubs, plastering, painting, covering with tar, whitewashing, and pointing. The first-mentioned is by far the best. Ivy is everlasting. It supports the walls like a net. It prevents houses from being damp by absorbing the water from the foundations; prevents rain and frost from injuring the walls or woodwork. It keeps the houses warm in winter by means of its thick foliage and clinging branches, and cool in summer by means of its broad pendant leaves, which act like so many rippling fans. Besides that, it supplies food to the famishing birds in winter, and imparts to the house that it surrounds, an air of liveliness and vigour when everything else is desolate. All that it requires is a little training and trimming, nature does the rest.

#### HALLS AND MANOR HOUSES.

Lofthouse Hall, built about the year 1801, stands on the west side of the village, embowered amidst tall sycamore and other trees. It is a plain but substantial stone building. It stands on the site of a farm house which was always known as the "Hall." The plantations round about were designed and planted, some common-land enclosed, the park laid out, walls built, and many other improvements and alterations made by Benjamin Dealtry, Esq., who, having married Catherine Hanson, daughter of Ralph Hanson, Esq., became possessed of the estate about the year 1800. The farm yard of the old house occupied the ground which is now made into gardens.

Mr. Dealtry was a barrister of the Inner Temple, a West Riding magistrate, chairman of Quarter Sessions, and colonel in the West York Militia.\* Being chief man in the village he exercised great influence. As Lord of the Manor and a

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\* Some of the musical instruments and accoutrements are still preserved in an upper room of the Hall.



justice he used to hold a sort of baronial court in the hall. A person named Dawson was his clerk and gardener. On Mondays he had numerous cases to decide, principally cases of drunkenness, fighting, trespassing, distrains, arrears of rates, and petty disputes, very many of which he decided satisfactorily without causing loss of time and money to indigent persons, as is now done by the present circumlocutory methods of administering justice. He was rash-tempered, and frequently had little differences with his men. Once, whilst making some alterations in the park, one of his men felled a tree that ought not to have been felled. Mr. Dealtry, on ascertaining the fact, went to him in great haste and blew him well up, ending by shouting, "Take a rope and hang thyself!" "Aye," replied the man, "but who's to find t' rope?"

Mr. Dealtry left Lofthouse about 1838, and settled on his estate at Great Gransden in Huntingdonshire, where he died Oct. 12th, 1846, aged 74. He was only brother of the Rev. G. N. Dealtry, J.P., Rector of Outwell, Norfolk. The ancient family of D'Autre was settled, it is said, in Lincolnshire, before 1316.

Mrs. Dealtry was eccentric; her great hobby was a fondness for cats. Her cat room at Lofthouse had little kennels furnished with cushions, dishes, trays, &c., all the way round. She carefully kept in memory the history and pedigree of each particular cat, and when she (Mrs. Dealtry) died, several of her favourites were left in good hands and pensioned. She was kind and considerate to the poor. She was especially fond of an old man named Cooper. He was a tailor, lived in an ivy-covered cottage near the hall, and kept bees. He had been on whaling expeditions to Greenland, and could tell wonderful tales. He assisted her amongst the flowers in the garden, and she paid his rent, and otherwise helped him. Often the good lady could be seen watering and tending the plants in summer, wearing a snow-white handkerchief on her head, old Cooper, or sometimes the village boys, fetching her water from a neighbouring well.

An oil painting of a favourite cat was executed for her by

Schwanfelder, during the short time she resided at Weetwood, near Leeds. The cat was a small slender-boned "chintz" called Patchey. This picture, along with a half-length portrait in oil of Captain Ralph Hanson, of the 66th regiment (Mrs. Dealtry's father), is now in the possession of Mrs. James Hanson, of Outwood. For several years after Mrs. Dealtry's death some of the cats were kept in a little wire-fronted shed at Lingwell Gate by an old servant named Mrs. Land. Amongst other legacies she left Mrs. Land £50 per year for seven years, for her trouble in tending the cats. To another faithful servant she bequeathed a miniature picture of her mother. To old Cooper, who was upwards of 80 years of age, she left rent for two years, and money for a suit of black. She had a way of keeping her money as received from different sources—cows, pigs, poultry, &c.—in little jars, which she called her "jam jars"; on one occasion she made a present of a "jam jar" to a near relation, who, on removing the paper covering, found it to contain forty pounds in silver. The Rev. John Bell, Vicar of Rothwell, was one of the executors of the will.

After her husband's decease she assumed her own arms—Hanson impaling Proctor—and her grandfather's name, Proctor. She died at Springfield, which is in the township of Wrenthorpe, February 15th, 1851, aged 76, and was buried inside Wakefield Parish Church. Her two daughters lived at Great Gransden, and became owners of the Hall, with much other property, on the death of their father in 1846. Catherine, the eldest, died February 6th, 1879. Dinah died May 22nd, 1879. The hall is now the property of Charles Dealtry, Esq., and Josiah Ramskill, Esq., is the tenant.

#### PEDIGREE OF DEALTRY.

ARMS.—Azure, five fusils in fesse, argent, surmounted with a bendlet, gules, quartering the ensigns of the families of Hurt, Lowe, and Fawne, and bearing upon an escutcheon of pretence those of Hanson, Proctor, Gascoigne, and Mowbray.

ROBERT DALTERVE (descended from Sir Geoffrey de Alterypa, whose name appears as a witness to several deeds in the time of Richard I.), presented to Full Sutton in 1551. He was succeeded by his son,

GEORGE DEALTRY, of Full Sutton, who married Alice, daughter of —— Kettlepenny, and by her, whose will was proved 3rd of April, 1600, had issue. His own will bears date the same year, and it was proved at York. His fourth son,

ROBERT DEALTRY, of Fangfoss, Co. York, tenant to the crown *in capite*, at his decease 17 of James I., left by his wife Marjorie, with other issue, a son—(the third)

GEORGE DEALTRY, of Bishop Wilton, who married 21st of June, 1631, Elizabeth, daughter of Leonard Sotheby, by whom (who wedded secondly Thomas Darling, of Thorne), he left at his death in 1664, *inter alias*,

WILLIAM DEALTRY, of Gainsborough, in Lincolnshire, who purchased lands at Sprotley, in Holderness. He married in 1662 Dinah Goodyer, and died in 1686. His youngest son,

BENJAMIN DEALTRY, merchant, born in 1686, married Elizabeth, widow of Daniel Boulton, of Gainsborough, and dying in 1737 left with senior issue

BENJAMIN DEALTRY, ESQ., of Gainsborough, who married Dinah, second daughter of William Dealtry, Esq., of Gainsborough, Co. Lincoln, and was succeeded in 1746 by his only son and heir,

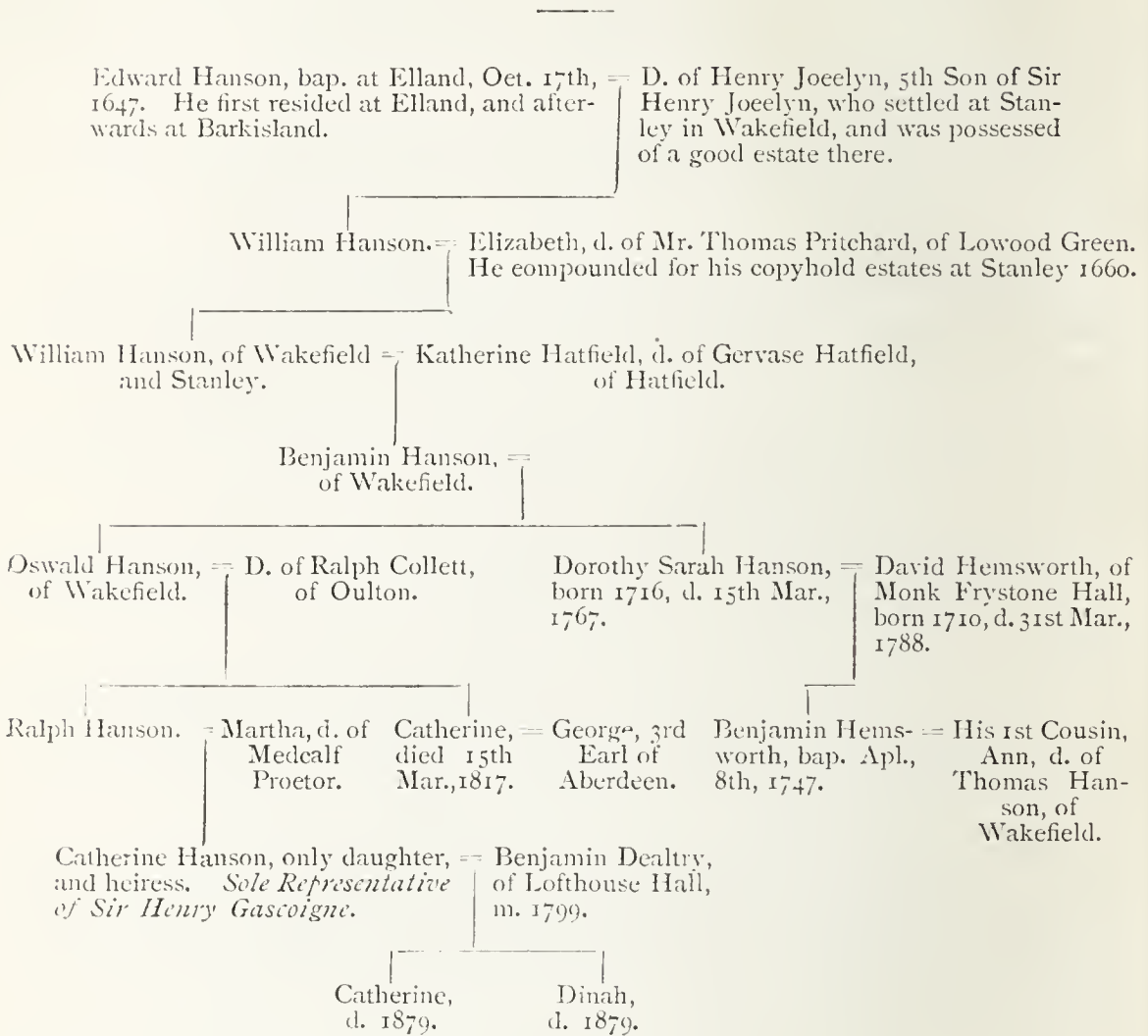
JAMES DEALTRY, ESQ., of Gainsborough, a Justice of the Peace for the county of Lincoln, who wedded in 1767, Elizabeth, elder daughter and co-heir of Charles Hurt, Esq., of Alderwastley, by whom (who was born 22nd October, 1751, and died in 1822), he left at his decease in 1817 Benjamin and George Nicholas.

BENJAMIN DEALTRY, ESQ., of Lofthouse Hall, Co. York, born 13th of August, 1772, married 16th September, 1799, Catherine, daughter and heiress of Ralph Hanson, Esq., of Ford House, in Devonshire (by his wife Martha, daughter and co-heiress of Medcalf Proctor, Esq., of Thorp), and had issue, 1st—Catherine, 2nd—Dinah.

Mr. Dealtry, who was J.P. for the West Riding and also for the county of Lincoln, succeeded his father 4th of April, 1817.

GEORGE NICHOLAS DEALTRY, M.A., married Rosamond, daughter of T. Phillips, Esq., and had issue CHARLES, who married Frances, daughter of Thomas Whitelegge, Esq.; and GEORGIANA, married to J. Macqueen, Esq., of Lincoln's Inn, Barrister-at-Law.

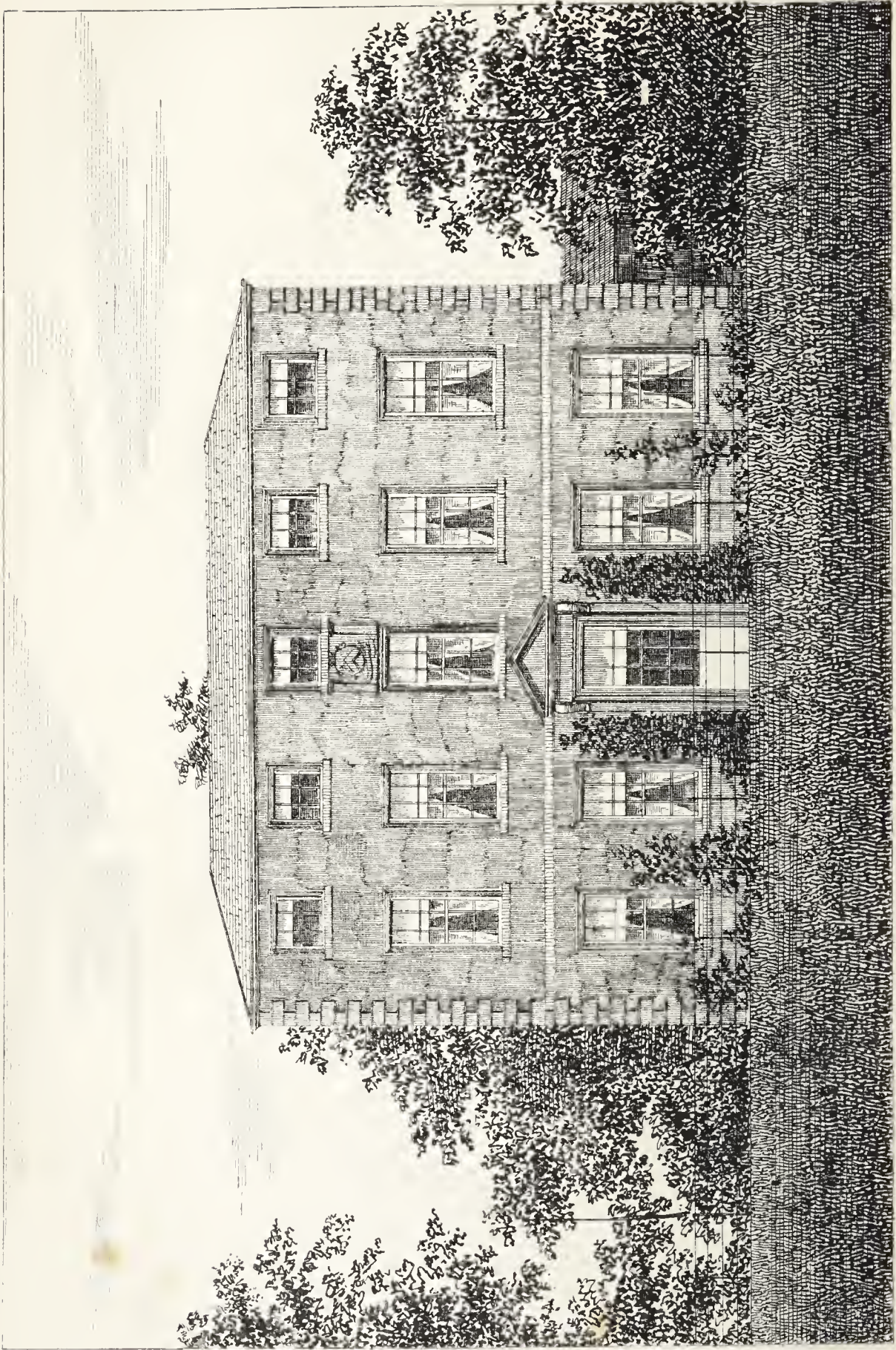
## SKETCH OF HANSONS, OF WAKEFIELD.

*(From a Paper supplied by John D. Hemsworth, Esq., of Monk Frystone Hall.*

On a marble tablet just within the west door of Wakefield Church is the following:—

“Near this lies interred Martha, the wife of Ralph Hanson, Esq., late Captain in the 19th Regiment of Foot, daughter of Medcalf Proctor, Esq., of Thorp *super montem*, and sister to Catherine, Countess of Effingham, died on the 22nd of December, 1791, aged 52. Also in memory of the above Ralph Hanson, Esq., who died at Ripley, in this county, on the 18th day of November, 1815, aged 78. Also of Katherine, only child of the said Ralph and Martha Hanson, and widow and relict of Benjamin Dealtry, Esquire, of Thorpe and Lofthouse, who, on his decease, assumed the name and arms of Proctor, died on the 15th of February, 1851, aged 76.”





THORP HALL

## THORP HALL AND NEWHALL.

Thorp is a small but ancient hamlet, mentioned as part of the parish of Rothwell, as before noticed, in Domesday Book. The hall formerly had a flat, embattled roof, covered with lead, as it is represented in the engraving in Thoresby's "Ducatus"; it is now ridged and slated. The oldest part of the present building cannot, according to Mr. Banks, be dated further back than about 1596. One of the rooms is wainscotted with carved oak from Howley Hall.

The avenue of beech trees, which enclosed the ancient carriage-road to the hall, and which was planted, it is said, under the direction of William Gascoigne, the mathematician, has been lately cut down. It was a straight avenue, with a large circle of trees at the head. Large trees formerly encircled the hall, but most of them were blown down a few years since, during a high wind.

Thorp was a seat of the Gascoignes, Leighs, Ingrams, and Proctors; chief amongst whom may be mentioned young William Gascoigne, the mathematician, son of Sir Henry Gascoigne. He took up arms against the Parliament and was killed, at the age of 23, at Marston Moor. Considering his age he must have been a person of extraordinary acquirements. The two following letters, copied from Thoresby's correspondence, furnish evidence of his character and ability, and also of the estimation in which he was held by succeeding writers:—

“TOWNLEY, December 27th, 1698.

“SIR,

“My brother Townley, who returns your kind remembrance with all the interest due to it, desires me to acquaint you, that he has several letters and papers, and some instruments that were Mr. Gascoigne's, and hopes you will print nothing of that great astronomer till he can have looked over and digested what he finds, that so deserving an ornament of your country may not want what we can contribute towards the setting of him forth in his good and due colours. Sir Edward Shireburn, once a considerable man in the Tower, in his translation of *Manilius de Sphæro*, makes an honourable mention of him amongst astronomical writers, of whom he gives a large

catalogue. By the superscription of letters to him, it appears he lived with his father at Middleton, near Leeds; he followed King Charles the First's party and was slain at the battle of Marston Moor, where my father, being in the same interest, was likewise killed. Mr. Gascoigne was the first inventor of the micrometer, which my brother Townley has since perfected. Foreigners would gladly ascribe to themselves this invention, and rob Mr. Gascoigne, and our nation, of the credit of it; but by the date of letters in my brother's custody it may be fathered on its true parent.

“Your humble Servant to command,

“CHARLES TOWNLEY.”

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“UPMINSTER, near RUMFORD, in ESSEX,

“July 14th, 1715.

“HONOURED SIR,

“Having prepared a paper for the Royal Society relating to one Mr. Gascoigne, a son of Sir Henry Gascoigne, of Middleton, near Leeds, I am minded to give some account of that family, and desire the favour of you to inform me whether any of that name remain at Middleton now, and whether that place be nearest Leeds or Wakefield. Mr. Gascoigne's letters are now in my hands, and directed, some near Leeds, and others near Wakefield. When I am so happy as to see you, which I hope to do next week, I will desire a further favour of you, which is to get you to inquire whether any more of that great young man's papers are in the Gascoigne family, and how I might procure their company with those in my hands. The author of those mathematical papers I have, was killed at Marston Moor, at 23 years of age, and was a person of a wonderfully sagacious genius. If you receive this letter timely enough, I should be glad to have your answer by Mr. Row to-morrow in the evening, which Mr. Innys will convey to him. The messenger staying I am in some haste; with great respect,

“Honoured Sir,

“Your humble and affectionate Servant,

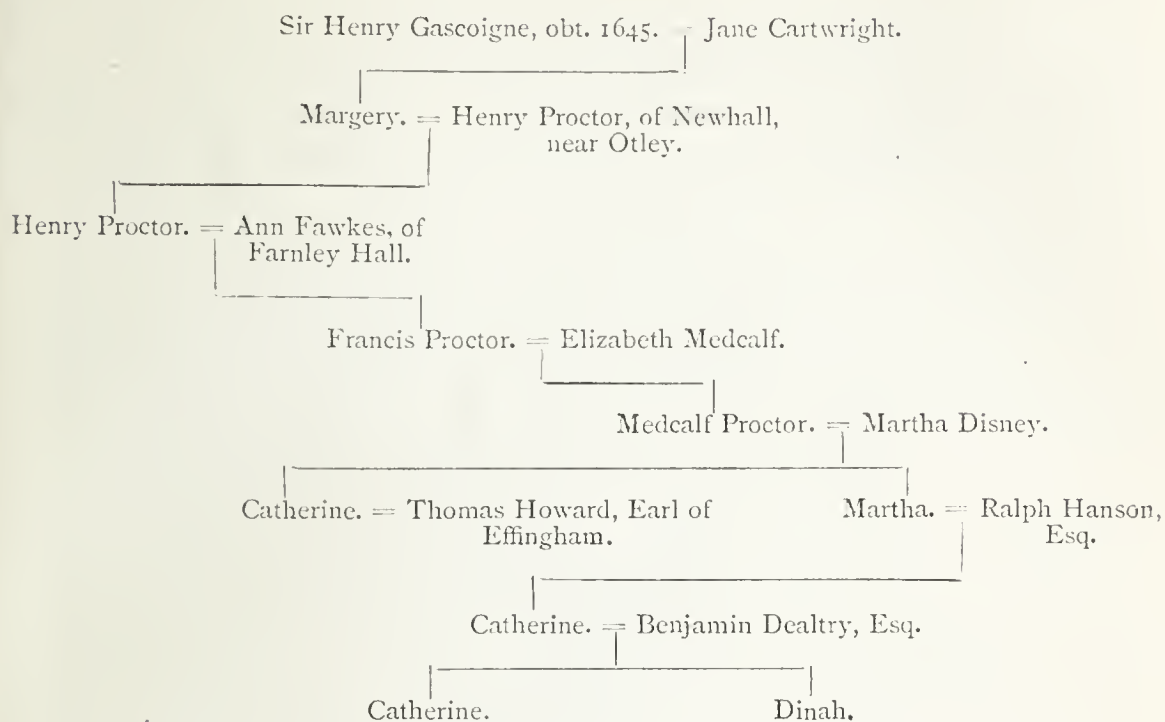
“WM. DERHAM.”

Connected with this subject I may mention that there is an octagonal building now in ruins in the Thorp estate, which some think has been an observatory. It commands a magnificent view eastward. In the time of the Proctors it was a sort of summer-house.

It would seem that William Gascoigne lived at Newhall, Middleton, but Sir Henry Gascoigne is mentioned by various writers as living at Thorp. Wm. Gascoigne was not married.



The owners of Thorp, or residents there, may be concisely introduced as follows:—



The property is part of the Dealtry estate. The Ingrams appear to have been at Thorp at the time of Dugdale's visitation, 1665, and down to about 1705.

Arms of Proctor as they appear on a stone in the upper part of the front of Thorp Hall:—A chevron between ten crosses crosslet; crest, an otter holding a fish in its mouth. Motto:—*Ulterius Deo duce.*

Latterly the Hall was let to William Fenton, Esq., of the collieries. He died at Thorp in 1837, and his funeral was the last that came down the great avenue. Occasionally Mr. Fenton, who was an old man, would come down the lane to Lofthouse to see Mr. Dealtry drawn in his carriage by two bullocks, one called Roland and the other Oliver.

The present occupier of the Hall is Benjamin Scarth, Esq.

NEWHALL, at Middleton, having fallen partly into ruin, was taken down, all but a small portion about five yards square, part of the north wing, in 1870. It consisted of a large central part with two wings facing eastward. A new brick house stands on the site, built over one of the old cellars.

Newhall was occupied by the Leighs and Gascoignes. Immediately prior to its demolition, William Wilson, Esq., afterwards of Hunslet, was tenant under Richard Lucas, Esq., then and now owner. The small part which remains has low rooms, massive oak timbers, plaster floors, square heavy mullioned windows, and projecting eaves, having formerly been a kitchen.

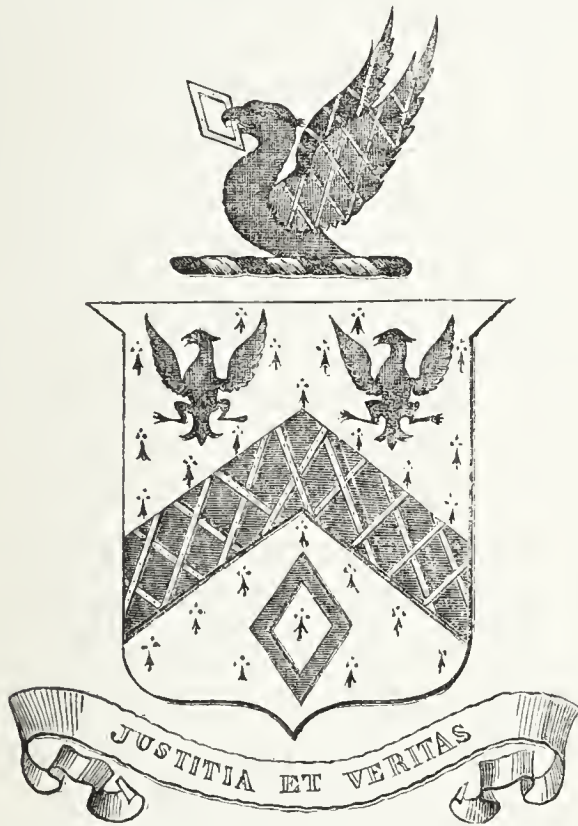
#### LOFTHOUSE HOUSE

Was built about 1810 on the site of a farm house. It stands on the brow of Lofthouse Hill, and commands an extensive prospect over the vale of the Calder. The park, which before the present century was corn fields, has been extended and improved at various times. About twenty years since it was enlarged by the enclosure of several fields. In 1878 a field abutting on the highway, called Whiteley's Field, was added, and a large part of it planted with sycamore and other trees. Many of the plantations which surround the park were made under the direction of the late Joseph Charlesworth, Esq.

The family burial place of the Charlesworths is at Sandal. The following are inscriptions from the tombs.

On a flat gravestone in front of the church: "Here lieth the Body of Joseph Charlesworth, of Hilltop, who departed this life Sepr. 25th, 1801. Aged 62." Near the above are three tombs surrounded by iron palisades. On the middle one: "Sacred to the memory of Joseph Charlesworth, Esq., Gent<sup>n</sup>, of Kettlethorp, who departed this life the 19th of February, 1822. Aged 72 years." Tomb on the left: "Sacred to the memory of Joseph Charlesworth, Esq., of Lofthouse House, who departed this life Feby. 15th, 1845. Aged 61 years." On the right: "In memory of John Dodgson Charlesworth, of Chapelthorpe, Esq., who died the 10th day of June, A.D., 1850. Aged 73 years." A marble cross surrounded by iron rails marks the resting place of John Charlesworth Dodgson Charlesworth, Esq., sometime Member of Parliament for Wakefield, who died March 21st, 1880. He was son of the above John Dodgson Charlesworth,

Esq., of Chapelthorpe, and senior partner in the firm of J. and J. Charlesworth, colliery proprietors. Inside the church, on the north wall of the chancel, is a large marble tablet, with an inscription recording the death of Joseph Charlesworth, Esq., of Lofthouse House, in the parish of Rothwell, who died in 1845; and Jane Charlesworth, his widow, who died at Llandudno, July 9th, 1864. Arms: *Ermine*, a chevron *azure*, fretty *or* in fesse; in chief two eagles displayed *sable*, in nombril a mascle *azure*. Crest: An eagle *sable*, wings displayed fretty, in the beak a mascle *or*.



Joseph Charlesworth, Esq., of Lofthouse House, fourth of the name, J.P., died March 29th, 1858, aged 41, and was interred in the churchyard at Lofthouse (his being the first funeral there), on the 3rd of April. He was of active and thorough business habits, and contributed largely by judicious advice and management to the development and success of the collieries. He also took great interest in parochial and village matters.

He was highly esteemed by all classes, and his early loss was universally deplored.

Lofthouse House is now the residence of Joseph Charlesworth, Esq., son of the above. He, following worthy example, places himself at the head of every movement that has for its object the benefit and improvement of the village. A gentleman truly esteemed, not less for his considerate attention to the welfare and safety of the working men, as for his uniform liberality and kindness to the aged and the poor.

#### CARLTON HALL.

There is little to add to the history of Carlton Hall beyond what has been collected by Dr. Whitaker, and later by W. S. Banks. The latter, quoting Whitaker, says: "The family of Hunt is described as resident here from the time of Edward II. to the reign of Henry VIII. The Hunts held, under the Earl of Lincoln as Lord of the Manor of Rothwell, a capital messuage and land and other property, and a right to hunt with hounds outside the Haigh Park, by the payment of a rose if demanded, and on condition of having hare hounds ready for the earl when requested by the forester; and they continued in possession until the reign of Henry VIII."

The Hall is now the property of Edmund Calverley, Esq., who is joint Lord of the Manor at Carlton, and is tenanted as a farm house by Thomas Oliver. One of the lower rooms has an ornamented ceiling of the time of Elizabeth.

Long ago the Lord of the Manor of Carlton was allowed to enclose a large field from the Lee Moor, now called Coney Warren, on condition that a bull be kept at the manor house for the free use of the farmers. The custom of keeping the bull has long been obsolete.

#### ROYDS HALL

Stands in a secluded spot in the thinly populated hamlet of Royds Green. It is a large, lofty, brick building, built in the style of Hopkinson's house at Lofthouse. Westward it looks upon an old lane, which formerly was a pack-horse road; east-

wards it faces the Wakefield and Aberford road, which was made through Royds Hall park about 1790. Many of the windows are blocked up.\* At the west entrance there is an iron gate with the letters T.B. wrought in the ornamental tracery, which letters are curiously made to read either from left to right or right to left. The Hall seems to have no associations of interest. It is the property of Edmund Calverley, Esq., and is tenanted by John and James Sanderson.

WEST HALL, in the parish of Methley, about half a mile distant from Royds, is now a dilapidated farm house. Some cellars of the old hall, and some herring-bone and other walls remain. It is the property of Edmund Calverley, Esq.

#### WRENTHORP MANOR HOUSE.

In Wrenthorp, not far from the Lofthouse boundary, there is a stone house, on the headstone over the entrance to which is inscribed: "Christtoer Clapham, Esq., 1658." Christopher Clapham was Lord of the Manor of Wakefield, and this house must have been built by him. It is generally called the Manor House.

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### PAROCHIAL AFFAIRS.

When parishes were thinly populated, the poor were maintained by voluntary contributions, by charities disbursed by vicars or other trustees, and by gifts of corn and other things. In the 27th of Henry VIII. (1536), it was enacted that the churchwardens, or two others of every parish, were to make collections for the poor on Sunday. In the 5th of Edward VI. (1551), it was enacted that the minister and churchwardens were annually to

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\* Pymont's House, and other large houses, are disfigured with blocked-up windows, probably so blocked in 1784, when the window tax was increased by William Pitt. These built-up windows were reproachfully called "Pitt's Pictures," and the persons who came to count the windows were called "Window Peepers."

appoint two able persons or more to be gatherers of alms for the poor. These were the first overseers, but churchwardens were and still are overseers of the poor. In the 5th of Elizabeth (1563), the parishioners were authorised to choose the gatherers for the poor. Nine years later the law was again altered, and justices were authorised to appoint collectors and governors of the poor. When the churchwardens and collectors were unable to procure sufficient voluntary contributions, it was found necessary to compel each parish or place to support its own poor; and in 1572 power was given to justices to lay a general assessment. By the 39th of Elizabeth, the churchwardens of every parish, and four substantial householders were to be nominated yearly in Easter week by two justices, and to be called *Overseers of the Poor*. In 1601, it was enacted that "the churchwardens and overseers of the poor of every parish shall raise weekly or otherwise (by taxation of every inhabitant, parson, vicar, and other, and of every occupier of lands, houses, tithes impropriate, appropriation of tithes, coal mines, or saleable underwoods in the said parish), a convenient stock of flax, hemp, wool, thread, iron, and other ware and stuff to set the poor to work; and also competent sums for the necessary relief of the lame, impotent, old, blind, and such other among them being poor as are not able to work, and also for the putting out poor children apprentices." But at the same time it was provided that parents and children were to aid each other:—"The father and grandfather, mother and grandmother, and children of every poor, old, blind, lame, or impotent person, or other poor person not able to work, being of sufficient ability, shall at their own charges relieve and maintain every such poor person as they shall be by justices assessed." In the 13th and 14th of Charles II., parishes were divided into townships in Yorkshire, and other counties in which the parishes were large, and it was enacted that two or more persons were to be chosen as overseers for each township.

By a memorandum in the town's papers, it appears that

rates were first levied in Rothwell Parish in 1602; the poor, probably few in number, having been maintained down to that time from voluntary alms, and from other sources.

Previous to 1804 the poor-law business for the whole parish was transacted at Rothwell, and the poor were paid there. In 1755 there were 34 poor persons receiving relief in Rothwell parish, and the sum distributed to them for one month was £5 10s. 6d. The total proportion of the poor rates paid from Lofthouse-cum-Carlton for the year 1754 was £46 11s. 0d.

In December, 1800, an act of parliament was passed for diminishing the consumption of wheaten flour and encouraging the use of whole meal, that is flour and bran ground together. Justices were directed to distribute bread among the poor, "being the whole produce of wheat, or in bread made of wheat flour, mixed with flour or meal of any other wholesome grain, and not in fine wheaten bread." In 1801 corn was 120s. per quarter.

At one time the law required that every pauper should wear a badge on the sleeve, or on some conspicuous part of the dress. Aged inhabitants of Lofthouse, can remember seeing apprentices and others wearing a large Roman P for Parish, and R for Rothwell on the smock or coat sleeve.

In time of war considerable extra work devolved on overseers. One part of their duty was to assist the constable in balloting for militia, providing substitutes, and paying bounty. The following is a copy of a notice or placard put up in Rothwell Parish, in the time of the Peninsular War:—

"WANTED immediately for the parish of Rothwell, six young men to serve as substitutes in the First West York Regiment of Militia, commanded by Col. Dixon, to whom a liberal bounty will be given by applying to the Overseers of the Poor of that parish."

There is no date attached to this, but a doctor's certificate found along with it, supplies an approximate date.

"Surgeon's Certificate.—Wakefield, January 2, 1811. I do hereby certify having this day examined John Spurr, and find him unfit for His Majesty's Service in the Militia. Township of Rothwell.

Saml. Thomas.

Disease : One leg shorter than the other."

The following is a summary of disbursements of Lofthouse-cum-Carlton overseers from 1817 to 1837 :—

	£	s.	d.		£	s.	d.		£	s.	d.
1817 .....	622	1	0	1824 .....	407	8	7	1831 .....	328	3	2
1818 .....	704	7	11	1825 .....	471	4	3	1832 .....	350	0	0
1819 .....	521	4	2	1826 .....	526	9	7	1833 .....	372	3	0
1820 .....	555	11	6	1827 .....	592	2	4	1834 .....	212	3	9
1821 .....	543	14	0	1828 .....	285	10	1	1835 .....	256	15	8
1822 .....	438	16	5	1829 .....	296	17	7	1836 .....	228	8	6
1823 .....	439	5	4	1830 .....	258	15	6	1837 .....	201	9	10

In 1817 much distress and disaffection prevailed in the county, and corn was 97s. per quarter. Four hundred and twenty-three pounds were paid in that year in relief; £42 9s. 9d. to the county rate, and £5 18s. 6d. for proportion of damage done by Luddite rioters. There were 74 recipients of relief, sixteen being widows. The widows had 2s. per week. The money was disbursed fortnightly and monthly by the overseers.

In 1818 £385 6s. were paid in relief. There were three levies for county rates, which together amounted to £145 3s. 3d. The receipts included 12s. 1d. for Sty Bank rent.

The poor law expenses gradually decreased, as will be perceived, to £201 9s. 10d. in 1837. The relief in that year was £110 12s. 6d., and the county levy £24 5s. 4d. Corn had declined to 50s. per quarter.

The total population of the twin-township in 1841 was 1536, and the total ratable value of the property at that time was £5,623 17s. 4d.

The whole of the township business in former years appears to have been managed at a very small expense. The very difficult and onerous duties of collecting large sums of money, partly from cottagers, relieving the poor, attending to the militia, and keeping all accounts, fell to the lot of the overseers, and they had but one assistant, at a salary of £17, and afterwards, when the work decreased, of £10 per year. No other officers were paid.\* In order to save expense and econo-

\* After some years a constable was appointed at a salary of £5 per year.



mise the rates several of the parishioners volunteered to perform parochial work almost gratis. The following is a resolution dated April 9th, 1817. "We, whose names are hereunto set, do agree that we will meet to assist the Overseers of the Poor on the first Monday in every month of the ensuing year, two at a time, in the following rotation, to meet at 5 o'clock in the afternoon in summer, and 3 o'clock in winter, to be allowed 2s. a month for attendance, and to forfeit 2s. 6d. each for non-attendance.

"Joseph Charlesworth, Esq., and Joseph Banks.  
 John Dickinson and Isaac Banks.  
 Matthew Spurr and John Oliver.  
 Thomas Clarkson and Isaac Swift.  
 Fenton Roberts and Thomas Leake.  
 John Harrison and Edmund Dawson.

"J. Walker, Assistant Overseer."

List of Overseers of the Poor for Lofthouse-cum-Carlton, from 1754 to 1860.

OVERSEERS ACTING AT ROTHWELL.

1754 Wm. Townsley.	1773 John Stocks.
1755 Edw. Tomson.	1774 Wm. Wilson.
1756 Isaac Banks.	1775 John Snowden.
1757 Isaac Banks.	1776 Robert Wilson.
1758 James Westerman.	1777 George Harrison.
1759 Richard Evers.	1778 Thos. Wrigglesworth.
1760 Robert Child.	1779 Thomas Oliver.
1761 Jonas Smith.	1780 John Fearnley.
1762 John Smirthwaite.	1781 Wm. Brown.
1763 John Holmes.	1782 John Hutchinson.
1764 Thomas Houlroyd.	1783 John Hutchinson.
1765 John Evers.	1784 John Swift.
1766 John Pymont.	1785 Thos. Fenton, Esq.
1767 Wm. Harrison.	1786 Richard Wright.
1768 John Harrison.	1787 Richard Green.
1769 John Dickinson.	1788 John Pymont.
1770 Wm. Walker.	1789 Richard Dobson.
1771 Thomas Leake.	1790 Isaac Banks.
1772 Thomas Squires.	1791 John Proud.

1792 Robt. Evers.  
 1793 John Squires.  
 1794 Thos. Swift.  
 1795 Thos. Hammond.  
 1796 Thos. Smith.  
 1797 Fenton Roberts.

1798 Charles Snowden.  
 1799 Thos. Wrigglesworth.  
 1800 Thos. Swift.  
 1801 Benj. Pulleine.  
 1802 Benj. Pulleine.  
 1803 Robert Holmes.

OVERSEERS ACTING AT LOFTHOUSE,

One for each division of the Township.

LOFTHOUSE.

1804 John Dickenson.  
 1805 John Dickenson.  
 1806 Nathan Nichols.  
 1807 Fenton Roberts.  
 1808 Benjn. Dealtry, Esq.  
 1809 Thomas Wright.  
 1810 Thomas Harrison.  
 1811 Wm. Hutchinson.  
 1812 Wm. Squire.  
 1813 Thos. Hammond.  
 1814 Joseph Charlesworth, Esq.  
 1815 Wm. Spurr.  
 1816 Wm. Walker.  
 1817 Matthew Spurr.  
 1818 Thos. Clarkson.  
 1819 George Hawksworth.  
 1820 Benjn. Wright.  
 1821 Thos. Squire.  
 1822 John Walker.  
 1823 John Dickenson.  
 1824 John Dickenson.  
 1825 David Wright.  
 1826 Wm. Squire.  
 1827 Andrew Leather.  
 1828 Joseph Charlesworth, Esq.  
 1829 Fenton Roberts.  
 1830 John Hammond.  
 1831 David Johnson.  
 1832 George Wright.  
 1833 George Outhwaite.  
 1834 Isaac Banks.  
 1835 George Roberts.  
 1836 Robert Walker.

CARLTON.

Robert Holmes.  
 Robert Holmes.  
 Joseph Hartley.  
 Samuel Child.  
 Isaac Banks.  
 John Harrison.  
 Thomas Leake.  
 John Raynor.  
 John Swift.  
 Joseph Banks.  
 John Oliver.  
 Joseph Bland.  
 Henry Shimeild.  
 Roger Swift.  
 Thos. Swift.  
 John Swift, jun.  
 Joseph Dobson.  
 Edmund Dawson.  
 Richard Wright.  
 Joseph Hartley.  
 Isaac Banks.  
 Thomas Schofield.  
 George Holmes.  
 Joseph Swift.  
 Wm. Snowden.  
 John Fisher.  
 Joseph Banks.  
 John North.  
 Squire Bland.  
 James Hinchcliffe.  
 Wm. Hartley.  
 John Dobson.  
 John Swift.

LOFTHOUSE (*continued*).

1837 Wm. Oliver.  
 1838 Thos. Swift.  
 1839 Thos. Walton.  
 1840 John Jones, Esq.  
 1841 Isaac Schofield.  
 1842 Joseph Charlesworth, Esq.  
 1843 John Squire.  
 1844 Fenton Roberts.  
 1845 Richard Fawcet.  
 1846 Wm. Worth.  
 1847 Wm. Morton.  
 1848 Joseph Charlesworth, Esq.  
 1849 Joseph Charlesworth, Esq.  
 1850 Parson Ramskill, Esq.  
 1851 Thos. Johnson.  
 1852 Thos. Johnson.  
 1853 John Hemingway.  
 1854 Jeremiah Harrison.  
 1855 George Armitage.  
 1856 Thos. Whiteley.  
 1857 James Richardson.  
 1858 James Sanderson.  
 1859 George Outhwaite.  
 1860 Thos. Walton.

CARLTON (*continued*).

Isaac Swift.  
 John Oliver.  
 Joseph Bland.  
 George Holmes.  
 Edward Wright.  
 Wm. Bland.  
 John Fozard.  
 Isaac Banks.  
 Isaac Banks.  
 Isaac Banks.  
 Isaac Banks.  
 Joseph Watkin.  
 Joseph Watkin.  
 Henry Schemeild.  
 Thos. Birkinshaw.  
 Thos. Birkinshaw.  
 Richard Dobson.

This may be taken as a list of the principal ratepayers inhabiting the township between 1754 and 1860, as well as a list of the overseers.

EXTRACTS FROM THE ROTHWELL TOWN'S BOOK.\*

“Decr. 6th, 1756. We, whose names are undersigned, do agree that 20 loads of bread corn be bought immediately for the use of the poor house-keepers within the manor, to be distributed according to the largeness of their families.

“Signed—James Burnell, Wm. Wood, Richd. Houson, Edward Walton, John Hudson, Richd. Waugh, Wm. Lister, John Waugh, Thos. Oliver his mark, James Burnill.†

“1763. Miles Lake pd. to James Grave, for Mary Wood's child, from April 4, 1763, to Decr. the 14th, 1764, when it died, 89 weeks' pay, at 8d. per week.

\* Many of the minute books at both Rothwell and Lofthouse are lost.

† A. Burnill, of Oulton.

" 1771.	76lb. beef at 2½d. per lb.						
"	A cow and a calf	...	...	...	...	£6	5 0
" 1772.	4 stroaks of potatoes, at 10d., for workhouse.						
"	Aug. 3. Pd. to Doctor Gisburn, of Morley, for curing Sam. Brooks of a broken legg	...	...	...	...	£3	3 0
" 1773.	Pd. for cow noit	...	...	...	...	£3	3 0
"	Pd. for 7lb. wool, at 7d.						
"	Pd. for 13yds. of lin. cloth	...	...	...	...	£0	13 0
"	May 1. Paid Mr. Burnell one year's rent for old workhouse	...	...	...	...	£3	3 0
" 1774.	Milk, 4 gallons per day at 4d. per gallon, for workhouse.						
" 1776.	24 dozen of thatch	...	...	...	...	£1	8 0
	Spelkes	...	...	...	...		2 6
	Thatching ye poorhouse at Carleton	...	...	...	...		8 0
"	Pd. for Grace Foster, 2 shifts, gown, and petticoat						9 5
" 1777.	Aug. 30. 2 Hatts for 2 Apprentices	..	...	...	...		2 6
" 1779.	To cash received of Mr. James Burnell, of Loft-house, being ye penalty for refusing a parish apprentice	...	...	...	...	£10	0 0
" 1795.	Mr. Joseph Dobson, Dr., To Composition for Lombard's child	...	...	...	...	£20	0 0
"	Letter from J. Procter of Bristol	..	...	...	...		0 4
"	Pd. a midwife	...	...	...	...		3 0

Men enrolled in the Army of Reserve in the parish of Rothwell:—Roger Swift, John Dickinson, Thomas Hammond, Wm. Ward, Wm. Fisher, Edward Clarebrough, Edmund Thompson. (No date).

#### EXTRACTS FROM LOFTHOUSE-CUM-CARLTON TOWN'S BOOKS.

" Dec. 19th, 1790.	Paid Schoolmaster by Thomas Wrigglesworth						
	£1 11s. 6d., 12s. for Sunday Schools, and 19s. 6d. town money; also paid Joseph Jonson for Sunday Schools 13s.						
" Jan. 14th, 1792.	Paid for moles	...	...	...	...		15 8
" 1806.	Paid George Stogdale for 102 yards of land at 6d. per yard.						
" 1819.	Paid for a loom for John Hirst	...	...	...	...		10 0
"	Paid for Wm. Tatham's breeches	...	...	...	...		3 3
" 1824.	Cries in Church	...	...	...	...		2 0
"	A letter...	...	...	...	...		0 4
" 1828.	By relief given to soldiers' wives	..	...	...	...	£6	12 6
" March, 1830.	Paid John Hardwick for half of Lingwell Gate Bridge. Mem. The other half of Lingwell Gate Bridge was paid for by the surveyors of Wrenthorpe.						

“1835.	By proportion of damage done by rioting at Halifax	£12 14 2
“1836.	By midwife, for Mary Ann Tindale ... ..	5 0
“1849, November.	Men carrying Thomas Leather* ...	15 0

SURVEYS AND VALUATIONS.—The subjoined particulars of the value of land, and names of landowners and tenants, are taken from an old survey of Lofthouse, the heading of which is as follows:—“An Estimate or Valuation of the Lordship of Lofthouse, in the parish of Rothwell, according to the Customary Computation of acres. Viewed and considered over by John Dickinson, in Pursuance of an order of Sessions for regulating the Asses<sup>ts</sup>. and Land Tax, according to the rule of Pound rate, complaint being made of some mismanagement of Town Affairs. This Estimate or Valuation of the Premises being first deliberately considered, compared with former assessments, and approved by the principal inhabitants of the said Lordship for a rule to govern their assessors by for time to come. Anno 1719.”

OWNERS.	TENANTS.	PROPERTY, †			RATABLE VALUE.		
		A.	R.	P.	£	s.	d.
Francis Proctor, Esq.	... In hand... ..	... 23	2	0 ...	12	10	0
“	... Widow Hardacar, Lofthouse Hall	... 65	0	0 †... 50	0	0	0
“	... Joseph Lockwood	... 36	2	0 ... 28	0	0	0
“	.. James Cass ...	... 26	0	0 ... 16	0	0	0
“	... Samuel Naylor	... 15	0	0 ... 12	0	0	0
“	... Hugh Yates ...	... 12	0	0 ... 9	0	0	0
“	... John Westerman	... 8	0	0 ... 6	0	0	0
“	... Mrs. Calverley...	... 3	0	0 ... 2	5	0	0
“	... Edward England	... 2	0	0 ... 1	0	0	0
James Burnell ...	... In hand... ..	... 40	0	0 ... 34	0	0	0
“	... Samuel Naylor	... 12	0	0 ... 9	10	0	0
“	... Thos. Barber ...	... 24	0	0 ... 17	0	0	0
“	... Widow Scott ...	... 12	0	0 ... 6	10	0	0
“	... Wm. Waud ...	.. 6	0	0 ... 5	10	0	0

\* A sober and industrious young man, a stranger who lodged in Hopkinson's house, died in the cholera. In the long summer evenings he used to sit on a stile or a gate in the fields and practice on the violin.

† Farm houses and cottages are included.

‡ Manor-land.

OWNERS.	TENANTS.	PROPERTY.			RATABLE VALUE.		
		A.	R.	P.	£	s.	d.
James Burnell ...	Thos. Barrowby ...	11	0	0	8	0	0
„	Anthony Hutchinson, House & Garth	3	0	0	3	0	0
„	John Wilson ...	10	2	0	9	0	0
Thos. Westerman ...	In hand... ..	16	0	0	11	0	0
„	John Taylor ...	16	0	0	16	0	0
„	Thos. Barber ...	6	0	0	5	0	0
„	Thos. Shemeild	12	2	0	8	0	0
„	Wm. Harrison	4	2	0	4	10	0
„	Thos. Barber ...	8	0	0	10	15	0
Roger Swift ...	John Simpson ...	12	2	0	11	10	0
John Pymont ...	In hand... ..	47	2	0	31	0	0
„	John Westerman	7	0	0	6	10	0
Thos. Westerman ...	John Westerman	21	0	0	18	0	0
Robert Wood ...	In hand... ..	12	2	0	13	0	0
„	In hand... ..	45	0	0	32	0	0
„	Edward Whalley	4	0	0	4	10	0
„	John Pool ...	4	0	0	4	10	0
Joseph Armitage ...	John Spink ..	5	0	0	6	0	0
„	Abraham Fenton	9	0	0	9	0	0
Abraham Fenton ...	Abraham Fenton	Tithe			32	0	0
Thos. Westerman, sen.	In hand... ..	9	3	0	9	0	0
„	Samuel Naylor	13	1	0	12	0	0
„	James Naylor ...	24	0	0	15	0	0
Mr. Clifton ...	James Shemeild	22	0	0	19	0	0
„	Ann Shemeild, Loft- house House	46	3	0	23	4	0
John Squire ...	In hand... ..	2	2	0	2	10	0
John Harrison ...	In hand... ..	2	0	0	2	10	0
Wm. Harrison ...	In hand... ..	7	0	0	5	0	0
James Burnell, senr.	In hand... ..	House			2	0	0
Joseph Armitage ...	In hand... ..	6	0	0	6	0	0
John Woodside ...	In hand... ..	2	0	0	1	0	0
Benj. Benton ...	In hand... ..	14	0	0	10	10	0
Wm. Nettleton ...	In hand... ..	7	0	0	5	0	0
Eleanor Lee ...	John Lee ...	8	0	0	5	10	0
Wm. Armitage ...	In hand... ..	7	2	0	6	0	0
Henry Armitage ...	In hand... ..	3	0	0	2	0	0
Mr. Clifton ...	Josias Ellinworth	10	0	0			
„	Frans. Dixon ...	7	2	0	7	0	0
„	Thos. Hall ...	5	0	0	4	0	0
„	James Parkinson	6	0	0	5	0	0

OWNERS.	TENANTS.	PROPERTY.			RATABLE VALUE.		
		A.	R.	P.	£	s.	d.
Mr. Clifton ...	... Roger Swift ...	5	0	0	4	0	0
Abram Barber	... Henry Higgins ...	18	0	0	12	10	0
„	... Wm. Burkinshaw ...	2	2	0	2	0	0
„	... Peter Smith ...	3	0	0	3	0	0
„	... Thos. Hepstonall ...	1	2	0	1	10	0
„	... Thos. North ...	4	0	0	3	0	0
Thos. Varley ...	... In hand... ...	8	0	0	6	10	0
„	... Saml. Raynor ...				0	10	0

The total of enclosed land was about 780 acres. In this survey no mention is made of woods, pits, or quarries; and perches and pence, it will be observed, are not taken into account. The list of tenants furnishes a complete list of the ratepayers inhabiting Lofthouse in 1719. Only 33 houses are mentioned, so that, allowing five inhabitants for each house, the approximate population would be 165.

SURVEY OF LOFTHOUSE-CUM-CARLTON IN 1805.

The principal landowners in Lofthouse in 1805 were Benjamin Dealtry, Esq., Thomas Fenton, Esq., Wm. Fenton, Esq., John Ord, Esq., Joseph Armitage, Esq., George Pymont, Edward D'Oyley, and John Fearnley; and in Carlton, the Earl of Westmoreland, Joseph Houson, James Moore, Robert Swift, John Swift, Thomas Swift, John Stocks, Charles Snowden, Miss Smithson, Wm. Wood, and Isaac Banks. Joseph Charlesworth, Esq., owned 10 acres of land in Lofthouse, and seven pits, each valued for the rates at £28 16s. 9d. Thomas Fenton, Esq., had three Low Bed pits, each valued at £193 6s. 8d., and two Top Bed pits, each valued at £35 0s. 0d. Robert Evers had a colliery valued at £16 0s. 0d. The Lofthouse Great Tithes were valued at £145 0s. 0d., and Carlton Great Tithes at £74 0s. 0d., in possession of Charles Brandling, Esq., but let to Benjamin Pulleine. The Vicarial Tithes of Lofthouse and Carlton were valued for the rates at £36 0s. 0d. A good house was valued at 20s. per annum. The ratable value of Lofthouse Hall was £6 17s. 6d. The manor-land, or rather the land which belonged to the owner of Lofthouse Hall, had increased

from 191 acres in 1719 to 273 acres. The population of Lofthouse in 1805 would be about 400.

SURVEY AND VALUATION IN 1841, BY MR. GOURTHWAITE,  
OF LUMBY.

The principal landowners in Lofthouse in 1841 were Messrs. J. & J. Charlesworth, whose property in land had increased from 10 acres in 1805 to upwards of 420 acres. Mr. Dealtry's estate remained nearly the same in extent, but like the rest had greatly increased in value. In Carlton, John Blayds, Esq., had become owner of part of the manor-land and other land, amounting altogether to about 330 acres, the land in both villages thus having fallen into the hands of a much smaller number of owners.

The annual value of Messrs. Charlesworth's collieries working under land in the township was estimated at £300 os. od.; ratable value £250 os. od.

The total annual value of Lofthouse is set down at £3728 18s. 7d.; ratable value £3271 19s. od. Carlton, annual or gross value, £2685 5s. 7d.; ratable value £2351 17s. 5d.

Area of Lofthouse, including woods and quarries but not roads, and there is no waste, 1087a. 2r. 38p.\*; Carlton 827a. 3r. 4p. Number of cottages in Lofthouse 122, in Carlton 161.

The ratable value of the township is now (1878) £12,134. The amount paid to the Wakefield Union in the shape of calls in the year ending Lady Day, 1879, was £780 17s. 5d., of

\* The area of Lofthouse from the Ordnance Survey is 1118a. 1r. 33p., and Carlton 865a. 2r. 5p. The difference arises, I suppose, from roads and watercourses being included by the Ordnance Surveyors.

	A.	R.	P.	
Area of Rothwell O. S. ...	1067	2	15	
„ Haigh „ ...	1764	1	7	So that the total area of the old Parish of Roth- well would be about 9000 acres.
„ Middleton „ ...	1815	1	2	
„ Royds „ ...	529	2	36	
„ Woodlesford, „ ...	390	0	4	
„ Oulton „ ...	964	1	35	
„ Thorp „ ...	547	3	35	



which the poor only received in out-relief £279 3s. 6d., part of which was repaid by sons or other relatives. The number of recipients of out-relief was 41, a less number than there were in 1817. Ten paupers were in the workhouse. In 1817 and succeeding years the poor received about one-half of the money raised ; now they receive less than one-third.\* A considerable proportion of the rates appears to be absorbed in salaries. On looking over the accounts we find that the salaries paid to officers and others for managing the money are large, but the allowances to poor and destitute parishioners are very small. We find a multiplicity of offices, and a strange amount of circumlocution in the present methods of doing the business. In 1817 and in subsequent years a large sum of money was raised in this township in rates. This was collected under great difficulties, distributed to the poor, the accounts kept, and a variety of other work performed, and only one officer was paid !

ENCLOSURES.—The first Act of Parliament for enclosing the Haye or Haigh, formerly the De Lacy Park, was obtained in 1785. Another act was obtained in 1793. The Haigh contained 543 acres.

The Act of Parliament for enclosing the Outwood, which stretched from Lofthouse to Wakefield, was obtained in 1793. The award was made in 1805. The area was 2500 acres.

The Act for enclosing Carlton Fields, Lee Moor, and Westgate common in Lofthouse was obtained in 1837. Carlton Fields contained 300 acres, Lee Moor 45 acres, Lofthouse Common 13 acres, and other waste 15 acres.

CHURCHWARDENS.—In former times the duties of churchwardens were very important and various. The office is of great antiquity. Part of their duties, as before observed, was to collect in the churches sufficient money to relieve the poor.

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\* Lofthouse-cum-Carlton joined the Wakefield Poor Law Union in 1861; from that date the self-control, independence, and individuality of the township may be said to have ceased.

Some of their minor duties were to see that the parishioners went to church, to prevent idle persons from loitering in the churchyard, to see that the entries were properly made by the minister in the register, to receive penalties for tipling or gaming, to provide chests for the deposit of the arms and accoutrements of the militia, to wake persons asleep and switch unruly boys in the church. Many of these customs have died out. Now their office is to look after the repairs of the church and appurtenances, collect in the church, and distribute doles.

In 1652, George Hopkinson, brother of the antiquary, was churchwarden for Lofthouse. In 1662 Nicholas Westerman was churchwarden. A Nicholas Westerman, probably father of the above, tanner and owner of lands, 80 years of age, was assessor in Lofthouse for raising money in aid of the king (Charles I.). In 1646 he was fined by the parliament £40.

In 1735 John Pymont was churchwarden.

Joseph Charlesworth, Esq., and Wm. Hartley, Esq., of Ouzelwell Green, were the last churchwardens who paraded the village on Sundays when the doors of the inns were to be closed. Newton, the village constable, accompanied them. The practice was discontinued at the time of the establishment of the rural police. Lofthouse and Carlton have two churchwardens still acting at Rothwell. The parishioners also elect one for Lofthouse church.

TITHES.—Tithes were formerly collected here, as elsewhere, in kind. The tithe barn at Rothwell stood near the church. The tithe barn at Carlton was near the manor-house; it is now made into cottages.

In 1841 Messrs. Charlesworth held part of the great tithes in Lofthouse, valued in the gross at £26 11s. 6d. The devizes of Richard Evers owned another portion of the great tithes, valued at £30. Some of this latter has lately been purchased by the owners of the land. The vicarial tithes were formerly collected at a fixed sum per acre for different crops, the sum to pay varying each year with the crops. All the tithes were commuted or converted into a rent charge in 1842, varying

with the price of corn. The commutation, or total sum to be raised and paid to the Vicar of Rothwell, from Lofthouse, was fixed at £100, and the same from Carlton £68. The Lofthouse vicarial tithe raised in 1812, by the old process of collecting on the different crops and also on wool, &c., amounted to £106 12s. 9d. In 1832 it raised £98 5s. 3d.

In past times the tithes do not seem to have been easy to collect. The following notice was issued by the Rev. James Ord:

“ Notice is hereby given to all persons in arrears unto the Rev. James Ord, late vicar of the Parish of Rothwell, for the tithes of hay, clover, and other dues (as decreed to him by the Court of Exchequer), that all those who neglect to pay into the hands of Mr. Joseph Humble, of Middleton, the several sums of money due for such arrears, on or before the 6th day of January, 1797, will be regarded by Mr. Ord as refusing to satisfy him for such arrears, and will therefore be individually proceeded against, by filing a new bill next term in the Exchequer.

Middleton, Dec. 21st, 1796.

**EASTER DUES.**—The Easter and Midsummer dues, as charged when the Rev. Charles Brandling was vicar (1803), were as follows:—milk cow 2d., calf 1d., foal 1d., garden 2d., orchard 2d., dove-cote 4d., litter of pigs 1s., communicant 2d., fleece of wool 1d., every lamb 3d. From the tithe book it appears that the Easter dues were collected along with the tithe. The collection of Easter dues was discontinued about 1870.

**ASSOCIATION FOR THE PROSECUTION OF FELONS.**—About 1820 horse stealing and other felonies were frequent in the Parish of Rothwell. A private association with the above title was formed for the protection of property and detection of horse stealers and other robbers. Mr. Dealtry and Mr. Charlesworth, of Lofthouse, and many other ratepayers and occupiers of land were subscribers. Mr. Christopher Jewison, of Rothwell, the coroner, was the treasurer.

**POPULATION OF LOFTHOUSE-CUM-CARLTON.**

In 1801	...	Males 492	Females 486	Total 978.
„ 1811	...	„ 539	„ 515	„ 1054.
„ 1821	...	„ 690	„ 706	„ 1396.

In 1831	...	Males 767	Females 696	Total 1463.
„ 1841	...	„ 789	„ 747	„ 1536.
„ 1851	...	„ 847	„ 811	„ 1658.
„ 1861	...	„ 1030	„ 998	„ 2028.
„ 1871	...	„ 1346	„ 1234	„ 2580.

It will be observed that there was a very small increase between 1831 and 1841. Between 1821 and 1831 there was a decrease of females. Between 1851 and 1871 there were considerable increases, partly from immigrations.

#### SCHOOLS AND SCHOOLMASTERS.

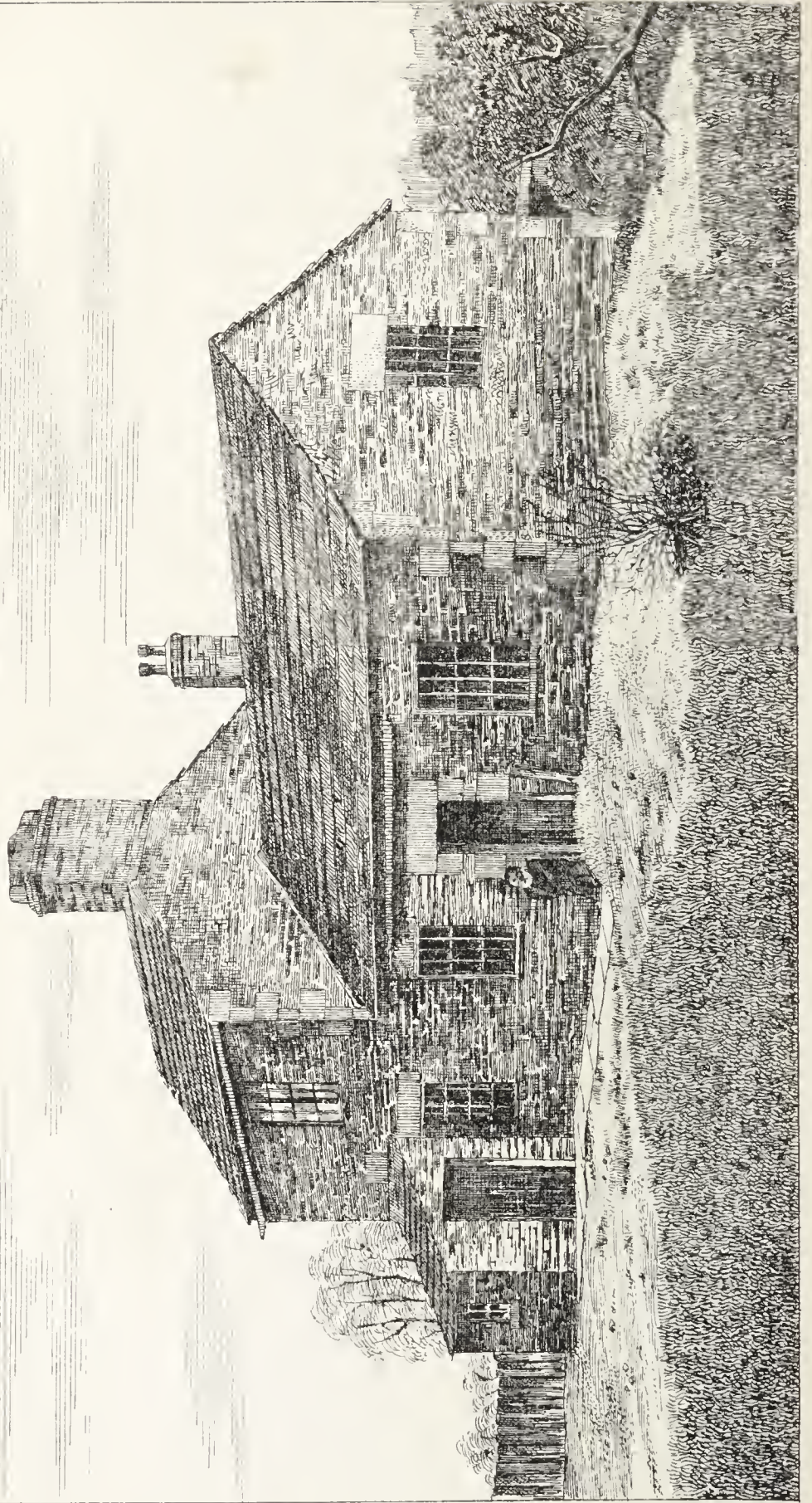
A hundred years ago few persons in Lofthouse could write. Children were sent to work at seven years old. In the dame schools the scholars were very young, and the boys were only taught reading. Farmers' sons and others who required something better had to walk to Wakefield. Many of the farmers and better-class ratepayers could scarcely sign their names; many signed with a cross. Out of 130 adult persons examined in 1811 before Mr. Dealtry touching their settlements, only 36 could write, and of these only 10 could write well. Some of them signed with a sort of monogram as for Abraham Cockshaw. In 1788 a school was erected on some waste ground in Langley by subscription, in which a certain number of poor children were to be taught at a nominal charge, but only a few attended, and progress in education was extremely slow. Orthography was badly attended to, but some of the penmanship taught by the old schoolmasters, as will be afterwards seen, was surpassingly beautiful.

Numerous examples might be adduced illustrative of the state of education in past times. Two may be sufficient, though they only take us back about fifty years. One is an overseer's notice, posted up in a conspicuous place in a village not many miles from here. It read as follows:—

“This is to giv notis that thee oversear of the power is goin to make is acounts on Thursday nignt at six o'clock thee 14 instnt 1831.”

The other is a copy of a letter, written about 1825, from





OLD SCHOOL







a farmer who lived near Potovens to his daughter, who lived at Lofthouse. It recounts domestic annoyances. The language and spelling would at that time be considered tolerably good.

“WAKEFIELD WOOD.

“Dear Sun an Dauter may theas lines Cum with Booth our loves to you all hopin thay will find you all in good health and fiend our gron-doughter mary Better. I am sumthing my self better. I gott a white plaster. I have it on. I sent our Las yesterday with a leeter to your house. Shee says she lost it. Doughter mary if you now aneything of a Las to live with us that con wash and Back our Bred and Sew a bitt for us or if you can hear of one in a few days to send us word by Enok for this las wee will not keep hir. whee cannot keep aneything from hir lockt nor un lockt. Shee opens t’house door and raks out at nights. Late lost friday nigst Enock came to our parler winder when wee was a Sleep to Lett us now that he had taken hir and a Fellow booth standing beside foud gate. She says shee lost that letter. I shall send Enok over to night. your mother does nothing but fret to think of sutch nasty tricks. Gad as shee is shee will ruin us booth if we keep hir. So no moor at present.”

It can scarcely be said that this class of letter-writers has yet become extinct. With all our advancement in teaching, there is yet ample room for the schoolmaster to display his ability in the field of orthography.

There were few inhabitants in Lofthouse when the school above-mentioned was built, and very few who were able to give. Sufficient, however, was subscribed to pay the workmen’s wages. Most of the materials were begged, and the farmers carted the stone, &c., to the place for nothing. The inscription on the stone over the porch runs thus:—“This House and School was erected by subscriptions of charitable persons. A.D. 1788.” The building consists of a moderate-sized one-storied school-room, and a cottage with porch and chamber. A few perches of land are also attached.

About 1805 John Walker, a schoolmaster, came from Batley. He was allowed to take possession of the school-premises on condition that he taught the children of the poorest parishioners free, or at a nominal charge. This

arrangement, however, did not last long. Walker was intimate with Mr. Dealtry, sometimes officiating as his clerk. He took a small farm, became collector of tithes, rates, and taxes, and engaged in various other work which interfered with his school duties. Eventually the township allowed him to give up the school entirely.

He was a shrewd, eccentric person. For a long period he was assistant-overseer and general manager of township business. He was a cripple, and could only walk a few yards at once, though in his younger days he used to go a-hunting. When he had business to transact at Wakefield, he used to pass through the village seated in a low, antique, four-wheeled carriage, drawn by two donkeys. One of the donkeys had a singular appearance; one of its ears having been cut off by some person out of malice to its owner, who, being tax-gatherer, was obnoxious to many tax and rate-payers in the village. In his later years he became very infirm. He died in 1851, aged 77, and was buried at Rothwell. His widow, Barbara Walker, died some years after, at Sandal, at the age of 94.

About 1812 Thomas Marshall, *alias* Tommy Lopy, a pensioner with a crippled hand, formed a Sunday School in his cottage, and taught reading and writing. He soon got a house full. Some of the bigger boys being unruly, he invited Nettleton, the tailor, and Chambers, the shoemaker, to assist him in teaching and keeping order. Frequently Tommy would leave the two in charge on Sunday forenoons till he went to get his glass at the public-house. The cottage having become too small, the school was removed to the town school. Mr. Dealtry and Mr. Harrison began to take an interest in the matter, and often assisted the teachers by their presence and influence. Mr. Stocks also, who had opened a school at Carlton, gave them material help, and, perhaps at his suggestion, the school, which had assumed Wesleyan tendencies, was removed to a loft in the New Fold, and finally, in 1840,

to the chapel near. Thus began Sunday school work in this village.

About the same time that Marshall began his Sunday school, Thomas Studdard established a day school. Studdard came from Woolley, near Wakefield, but was previously a schoolmaster and cloth-weaver at Oulton. He was a proud man, wore many rings and much jewellery about him, but was a good mathematician. He had several sons. One, Richard, assisted him with the school; the others were trained for the excise. On the death of old Studdard, Richard, who was a bachelor, continued the school in an old house near the Elephant and Castle. He also assisted Walker with the parish business.

Studdard taught reading, writing, arithmetic, and a little grammar. His pupils being always young, he seldom got them beyond "practice" in arithmetic. His way of teaching admitted of little variation. He insisted on long arithmetical and other rules, and long words correctly divided into syllables, being learnt by heart, and every scholar had to commit to memory the whole of the Church Catechism. He took considerable pains with orthography. He was rigid, and often freely used a long flexible piece of leather. Sometimes he enjoyed a little humour. Once he bewildered a grammar class by suddenly bawling out the question: "What is the plural of mice?" The boys hesitated; but soon one of them, a sharp youngster, the son of a miner, had it; he cried out, "rattans."

He died in the Leeds Infirmary, and was buried at Loft-house, September 11th, 1864, aged 79, having been village schoolmaster for fifty years. His death was caused by an accident, which happened to him on one of Messrs. Charlesworth's waggon-ways.

The schoolmaster, Charles Parker, represented in the lithograph, established a school here in 1829. As will be observed, he is very short in stature, and has exceedingly small feet. His father, John Parker, was a miner,

a number of miners who came here in the early part of the century from the neighbourhood of Kippax.

Parker is the last of the old type of schoolmasters. He has taught the village children for upwards of fifty years, and still keeps a school, though his scholars are young and few in number. He occupies the town's school and house as tenant under a descendant of John Walker, who now (1879) claims the property.

Several dame-schools have been kept from time to time, in which children of both sexes were taught reading. In 1808, and afterwards, a Mrs. Rayner kept a school in a low thatched cottage, now pulled down, that stood nearly opposite the Rose and Crown in the Townend Field. There were two cottages at this spot, one of which had been a bakehouse used by the Pymonts when that family was in its prosperity, and was occupied at the above date by one of the last of the race, an old man named James Pymont.

Some years later a school was kept by a Miss Johnson, who lived many years in a cottage (now taken down) situated on the side of Lofthouse hill.

The National School was built in 1845, and opened on October 6th in that year. It was enlarged in 1875, the schoolmaster's house pulled down, and an infant school built. The attendance of scholars averages about 150. Two hundred and three were on the books at the summer examination in 1879. Many come from surrounding hamlets. Mr. Benjamin Marshall is the present master.

The Lofthouse-with-Carlton Board School at Robin Hood was built in 1875-6. The first stone was laid on October 27th, 1875, by Joseph Charlesworth, Esq. The members of the first School Board were Joseph Charlesworth, Esq., chairman; Joseph Hammill, rope and twine maker, Carlton, vice-chairman; Thomas Oliver, Carlton Hall; Joseph Appleyard, farmer, Thorp; and Benjamin Keighley, Lofthouse. The number of scholars on the register in 1879 was 243; average attendance 175. Mr. Hiram Moorhouse is the present master.

*Specimens of Penmanship.*



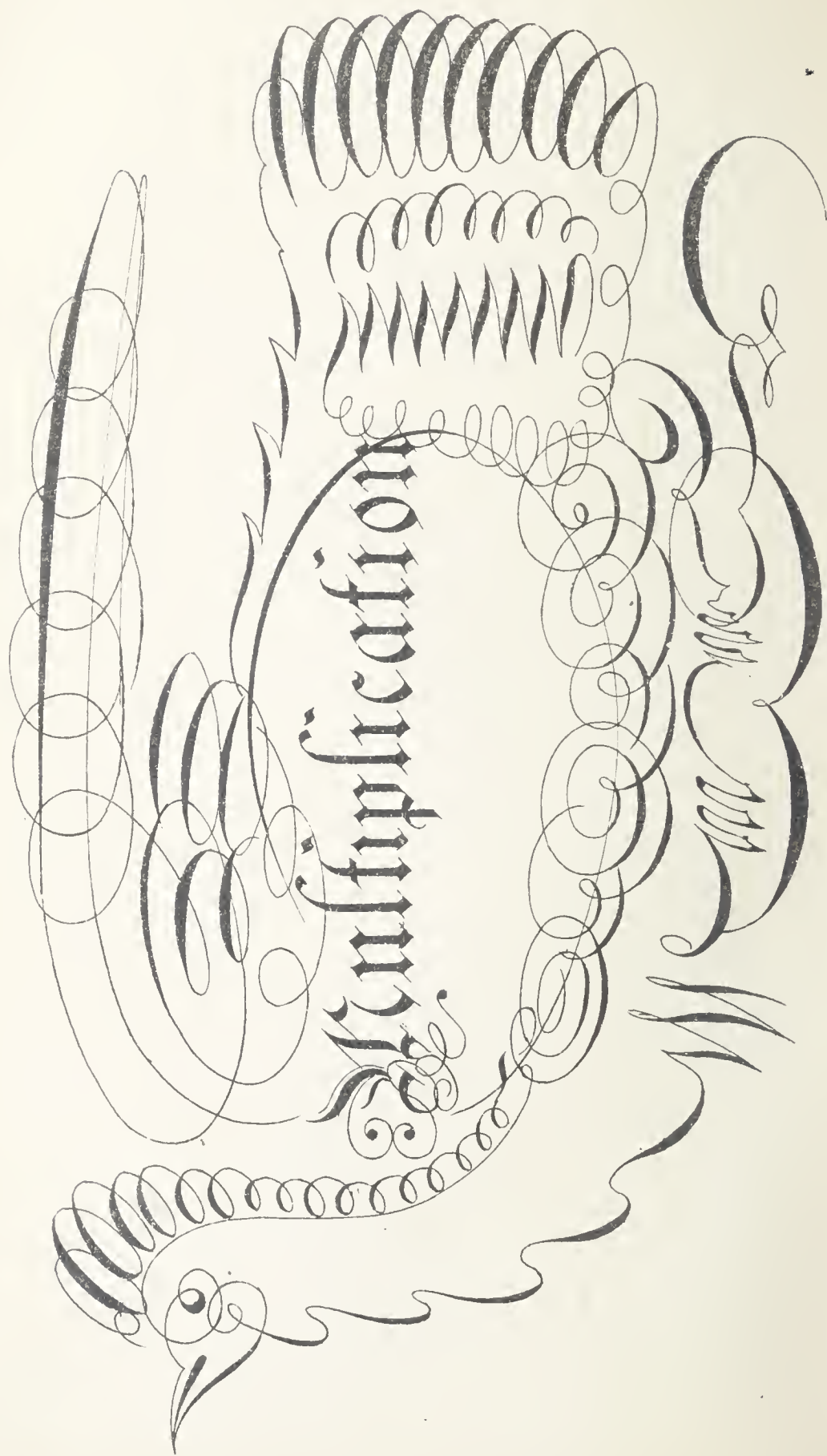
*Specimens of Penmanship.*

Signature

A highly decorative cursive signature. The word "Signature" is written in a fluid, elegant script. The letters are interconnected with elaborate flourishes, including large loops, swirls, and fine lines that extend from the main text. The overall style is characteristic of 18th or 19th-century calligraphy, emphasizing grace and complexity.

*Specimens of Penmanship.*



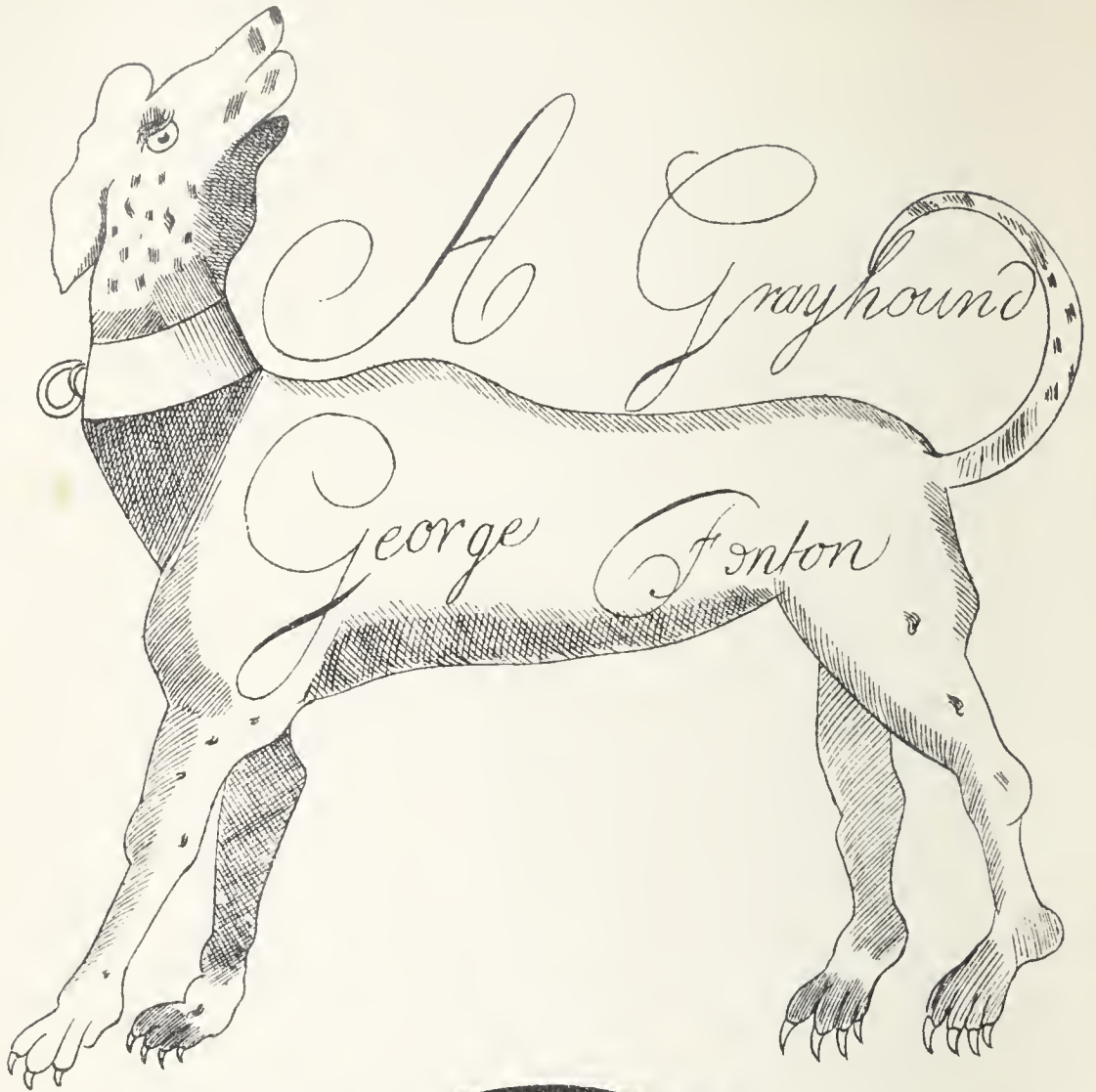




*Specimens of Penmanship.*



*Specimens of Penmanship, as taught by the old Country Schoolmasters. From a School book dated 1713.*



The law now requires that *all* should be educated up to a certain standard; the wisdom of this policy is questioned. Many predict that the effects of the compulsory education act will be that in a few years there will be a greater superabundance than ever of persons who will not be inclined to accept laborious employments, but rather seek light work, or else live as far as possible in absolute idleness. Hence it is argued that the present system will have a tendency to extinguish the sentiment of deference and submissiveness to superiors; engender discontent and self-will; promote socialism, and lead on to democracy.

#### INDUSTRIAL OCCUPATIONS.

COAL MINING.—In this township beds of workable coal run out or near to the surface, hence it is probable that coal would be discovered and utilised as fuel here a little sooner than in other districts where the beds occur at some depth in the earth. In 1349 tithes of coal were paid by the owners of pits within the Manor of Wakefield to the Dean of St. Stephen's, Westminster, as before mentioned. There were pits at Roundhay in the time of Richard II., 1377-1399. In 1390 one John Kirby rented a pit on the Outwood. Tithes of coal were paid to the vicar of Kippax in 1410. In 1637 "coliers" are registered as being buried at Rothwell. In 1669 a token was coined by Francis Conyers, of Middleton, "for the use of the Cole Pitts." These are among the early notices of pits and coal-mining that relate to this immediate neighbourhood. And confirmatory evidences of ancient mining are to be found in the numerous sinkings of the earth, and in the mounds of shale or stone (pit hills) which may be seen almost everywhere. There is scarcely a field in the township of Lofthouse that does not exhibit upon its surface some trace of mining operations. But at the early dates above adduced the quantity of coal got would be insignificant, as the district would be covered with forest, wood for firing would be plentiful, and the inhabitants would be thinly distributed. The mineral would be got firstly

by working into the outcropping edges of the beds, by throwing off the covering of soil or gravel. Shallow pits would follow, and the coal would be brought up an incline or up ladders. "Day holes," *i.e.*, passages and mines, cut more or less horizontally, from which the coal was brought to the "day," were common. By this method no perpendicular shafts were required.

When it was found necessary to sink deeper, the raising was done by means of the hand-windlass, or by weighting the descending corf with stones, and afterwards by the gin moved by a horse. Pits sunk to the upper beds were numerous, and about twelve men in a pit was considered a fair "pit-stead."

The Pymont family got coal here at an early date in their own land. Some tools of an antiquated description were found about 70 years ago in some old workings beneath the fields called "Borewells." Some ancient excavations have also been met with beneath Lofthouse House Park.

About 70 years since there was a "day-hole" near Lofthouse Station; the coal varying from ten to twenty feet in depth. A bed of coal, which lay very near the surface, was also worked at Lee Moor; pit hills were there when the moor was enclosed.

The Leigh family, at Middleton, got or let coal at an early date; after them the Brandlings. The first Act of Parliament, obtained by Charles Brandling and others, for making a waggon-way from Middleton pits to Leeds, was passed in 1758. Mr. Brandling engaged at that time to supply the inhabitants of Leeds with coals at  $4\frac{3}{4}$ d. the corf, which contained nearly two hundredweight. The Fentons had coal pits in the parish of Rothwell, according to Batty, about the year 1723. They had a colliery at East Ardsley in 1778; and a colliery consisting of five pits, as noticed in a previous page, in the township of Lofthouse-with-Carlton in 1805. In fact, the Fentons got a large proportion of the top beds over an area extending from Carr Lane, near Leeds, to the Outwood, near Wakefield.

When the Outwood was open the coals were carted from

the mines over it in any direction to the river Calder at Lake Lock, and forwarded thence to the coast. Subsequently a waggon-way was made by which coals were sent from Wrenthorp, Lofthouse, and East Ardsley. The waggon-way from above Launds down to the Lake Lock, though long since disused, is yet distinguishable, and is known, and probably will be known for centuries to come, as the "Bull Road": oxen, for which William Fenton, Esq., of Thorp Hall, had a predilection, were employed to draw the waggons. The primitive practice of working the land with oxen was also adhered to by him down to the year 1838. The Fentons seem to have ceased their connection with the parish about the year 1844.

About 1800, Joseph Charlesworth, Esq. (second of the name, who died Feb. 19th, 1822), settled here. He had a colliery and other property at Stanley. In 1805, as before mentioned, Mr. Charlesworth had several mines working the Lofthouse, or Haigh Moor seam. From that date the colliery business in this and neighbouring townships was rapidly developed. Deeper seams were sunk to, and more effective machinery brought into use for raising the coal and clearing the mines of water. The demand for coal became quicker with the increase of population and the development of various manufacturing industries. New outlets for inland produce were opened, canals were cut, roads improved, and lastly railroads made, all which gave increased encouragement to the hazardous enterprise of coal-mining.

The Messrs. Charlesworth have now collieries in Stanley, Lofthouse-with-Carlton, Rhodes Green, Rothwell, Rothwell Haigh, Methley, and Thorp. They have also other very extensive coal mines in South Yorkshire: their collieries being amongst the most extensive and best conducted in the kingdom. Under the careful and judicious management of the late Joseph Hargreaves, and latterly of William Hargreaves, of Rothwell Haigh, explosions and accidents have been rare; and, good relations having always been cultivated with the workmen, strikes and stoppages, with their consequent evils, have also been of rare occurrence.

The Haigh Moor, Silkstone, and other valuable seams of coal are worked in the parish of Stanley, about two miles from Lofthouse, by Messrs. Hudson and Co. Alum shale for the supply of alum works at Wrenthorpe is also worked there.

The Lofthouse Station colliery was commenced in 1873. The first sod of the drawing shaft was cut by J. S. Newstead, Esq., on behalf of the lessors; and the first sod of the down-cast or air shaft was cut by George Tatham, Esq., on behalf of the company, on Nov. 20th of that year. The vicar of the parish, the Rev. J. S. Gammel, was present at the ceremony and delivered a propitiatory address.

In addition to the Haigh moor or uppermost seam, which is nearly exhausted, there are beneath Lofthouse four workable beds locally known as the Doggy, Little Coal, Silkstone or Best, and Beeston. They are of various thicknesses and qualities, and occur at various depths. Tabulated they stand as follows :

At Robin Hood (Bye pit), at the north end of the village—

	Depth.	Approximate Thickness.
Doggy ... ..	80 yards	2 feet 2 inches.
Little Coal ... ..	121 ,,	2 ,, 10 ,,
Silkstone ... ..	151 ,,	4 ,, 4 ,,
Beeston ... ..	243½ ,,	...

At Lofthouse Station at the south end of the village, two miles distant—

	Depth.	Approximate Thickness.
Doggy ... ..	274 yards	2 feet 3 inches.
Little Coal ... ..	322 ,,	3 ,, 11 ,,
Silkstone ... ..	352 ,,	4 ,, 8 ,,

SECTION OF STRATA SUNK THROUGH IN THE "A" SHAFT  
AT LOFTHOUSE STATION COLLIERIES, NEAR WAKE-  
FIELD, 1877.

Strata.	Thickness.			Depth from Surface.	Strata.	Thickness.			Depth from Surface.		
	Yds.	Ft.	In.			Yds.	Ft.	In.			
Soil	...	0	0	6	...	Dark Shale	...	2	0	0	...
Clay	...	2	2	0	...	,, Coal	...	0	0	10	...
Rock Stone	...	0	1	0	...	Fire Clay	...	0	2	9	...

Strata.	Thickness.			Depth from Surface.		Strata.	Thickness.			Depth from Surface.				
	Yds.	Ft.	In.	Yds.	Ft.		In.	Yds.	Ft.	In.	Yds.	Ft.	In.	
Spavin	...	1	0	0	...	Blue Bind	...	2	0	0	...			
Grey Bind with						Drub	...	0	0	4	...			
Ironstone	...	1	1	0	...	,, Coal	...	0	0	8	...			
Rock	...	0	0	6	...	Drub	...	0	0	6	...			
Grey Bind	...	3	1	0	...	Spavin	...	0	2	0	...			
Rock	..	0	0	11	...	Spavin Stone	4	1	0	...				
Strong Bind	...	0	1	0	...	Stone Bind	...	1	0	0	...			
,, Coal	0	1	2	...		Blue Bind	...	1	2	6	...			
Dark Soft						Galliard	...	0	0	8	...			
Shale	...	1	1	0	...	Blue Bind	...	3	0	0	...			
Seat Stone	...	0	1	8	..	,, Coal	...	0	0	7	...			
Ironstone with						Spavin	...	1	1	6	...			
Galliard	...	7	1	6	...	,, Coal	...	0	0	3	...			
Spavin	...	1	1	0	...	Drub	...	0	0	6	...			
Strong Bind	...	2	0	0	...	Spavin	...	0	1	6	...			
Black Stone	...	0	1	2	...	Stone Bind	...	5	0	0	...			
Seatstone	...	0	2	0	...	Blue Bind	...	4	0	0	...			
Stone Bind	...	1	1	0	...	Drub	...	0	0	3	...			
Blue Bind	...	8	0	0	...	,, Coal	...	0	0	8	...			
Dark Earth	..	1	1	0	..	Drub	...	0	0	6	...			
Strong Black						,, Coal	...	0	0	6	...			
Bind	...	0	1	0	...	Dark Metal	...	3	2	0	...			
Spavin	...	0	1	0	...	Spavin Stone	1	0	0	...				
Galliard	...	0	2	0	...	Stone Bind	...	9	1	0	...			
Stone Bind	...	1	1	0	...	Bastard Cank	1	0	0	...				
Dark Blue Bind	3	0	0	...		Greystone Bind	3	0	0	...				
Dark Earth	...	0	1	0	...	Greystone and								
,, Coal	...	0	0	11	...	Rock	...	2	2	4	...			
Spavin	...	0	0	4	...	Haigh Moor								
,, Coal	...	0	0	3	...	Seam	...	1	0	3	...	149	2	3
Dirt	...	0	0	7	...	Spavin	...	0	2	6	...			
,, Coal	...	0	0	7	...	,, Coal	...	0	0	9	...			
Dirt	...	0	1	0	...	Spavin	...	0	1	8	...			
,, Coal	...	0	0	6	...	Blue Bind	...	6	1	2	...			
Seatstone	...	1	2	0	..	Coal and Drub	0	1	8	...				
Grey Sand-						Fireclay	...	0	0	6	...			
stone	...40	0	0	...		,, Coal	...	0	0	9	..			
Soft Blue Bind	5	0	0	...		Hard Spavin	1	1	8	...				
Dark Blue Bind	5	0	5	...		Greystone	...	0	2	0	...			
Greystone	...	0	1	2	...	Stone Bind	...	2	1	0	...			

Strata.	Thickness.			Depth from Surface.			Strata.	Thickness.			Depth from Surface.				
	Yds.	Ft.	In.	Yds.	Ft.	In.		Yds.	Ft.	In.	Yds.	Ft.	In.		
Stone Coal	...	0	0	6	...		Galliard	...	0	1	8	...			
Hard Spavin	...	3	0	0	...		Stone Bind	...	2	1	8	...			
Blue Bind	...	5	1	3	...		Blue Bind	...	1	0	6	...			
„ Coal	...	0	1	4	...		Black Bass	...	0	1	4	...			
Spavin	...	2	1	0	...		Blue Bind	...	1	0	0	...			
Strong Bind	...	6	1	6	...		Hard Rock	..	0	1	5	...			
Greystone	...	3	0	0	...		Black Shale	..	2	1	6	...			
Stone Bind	...	6	1	0	...		Soft White								
Softstone	...	1	0	0	...		Spavin	...	0	2	6	...			
Spavin	...	3	1	0	...		Hard Spavin	...	1	1	6	...			
Greystone	...	17	0	6	...		Stone Bind	...	2	0	3	...			
Soft Bind	...	0	0	9	...		Galliard	...	0	2	10	..			
Strong Grey							Strong Blue Bind	5	1	9	...				
Stone	...	3	0	1	...		Doggy Coal	...	0	2	3½	...273	2	8	
Blue Stone							White Spavin	2	0	3	...				
Bind	...	7	1	0	...		Dark Soft								
Blue Bind	...	4	0	10	...		Spavin	...	1	0	0	...			
Black Shale	...	1	0	3	...		Soft Spavin	...	1	2	0	...			
„ Coa	...	0	0	5	...		„ „ Coal	0	0	2	..				
Black Shale	...	1	1	0	...		Soft White								
„ Coal	...	0	0	6	...		Spavin	...	0	1	6	...			
Spavin	...	1	1	0	...		Black Shale	...	1	0	6	...			
Stone Bind	...	0	1	3	...		Spavin	...	2	1	0	...			
Rock	...	1	1	2	...		White Spavin	1	0	1	...				
„ Coal	...	0	0	5	...		Top Coal	0	0	11	...				
Rock	...	0	1	2	...		Brown	} F.C.	0	0	2	...			
Stone Bind	...	1	0	1	...		Metal C.		} Coal	0	0	9	..284	1	0
Hard Rock	...	0	2	0	...		Spavin	...		0	2	6	...		
Stone Bind	...	1	0	2	...		White Rock	...	3	1	7	...			
Blue Bind	...	1	2	0	...		Stone Bind	...	6	2	0	...			
Galliard	...	0	1	0	...		Strong Blue								
Blue Bind	...	2	1	3	...		Bind	...	1	0	...				
Hard Rock	...	0	2	0	...		Spavin	...	0	2	3	...			
Stone Bind	...	0	1	3	...		Low Coal	0	1	10	...				
Blue Bind	...	3	2	1	...		Brown	} F.C.	0	1	3	...			
Black Bass	...	0	2	0	...		Metal C.		} Coal	0	1	1	...298	2	6
„ „ Coal	0	1	2	...		Spavin	...	2		1	0	...			
Spavin	...	1	1	6	...		Hard White								
Stone Bind	...	4	1	3	...		Rock	...	0	1	2	...			
Rock	...	0	1	0	...		Blue Bind	...	1	2	7	...			



Strata.	Thickness.			Depth from Surface.			Strata.	Thickness.			Depth from Surface.				
	Yds.	Ft.	In.	Yds.	Ft.	In.		Yds.	Ft.	In.	Yds.	Ft.	In.		
Black Shale	...	1	0	0	...		Black Coal	...	0	0	4	...			
Spavin	...	0	0	6	...		Spavin	...	1	0	3	...			
Blue Bind with Nodules	...	2	1	0	...		Blue Bind	...	4	2	2	...			
Blue Bind	...	1	0	2	...		Spavin	...	1	0	3	...			
Black Bass	...	0	1	7	...		Blue Bind	...	1	0	0	...			
Spavin	...	1	1	0	...		Greystone	...	0	2	0	...			
Hard Rock	...	0	1	0	...		Blue Bind	...	4	1	9	...			
Galliard	...	1	0	6	...		Black Bass	...	0	0	2	...			
Rock	...	1	1	0	...		Blue Bind	...	2	1	8	...			
Stone Bind	...	1	2	0	...		Black Bass	...	0	0	1	...			
Blue Bind	...	6	1	0	...		Blue Bind	...	3	1	0	...			
Little Coal	Coal	0	2	5	...	32	1	2	1	Ironstone	...	0	0	2	...
	Spavin	0	0	9	...				Blue Bind	...	2	2	8	...	
	Coal	0	0	9	...				Black Shale	...	0	1	3	...	
Spavin	...	1	1	6	...				Tp. Cl.	0	2	5	...		
Blue Bind	...	2	0	3	...				Silkstone	Dirt	0	0	0	½	...
Galliard	...	0	0	8	...					Coal	0	0	6	...	
Blue Bind	...	2	0	0	...				Seam	Btm.C.	0	1	4	...	
Black Shale	...	0	0	7	...					Whets	0	0	4	½	...
										Seam	...	1	1	8	...

The depth of the Silkstone bed at Messrs. Hudson's, in the Calder valley at Stanley, is 475 yards.

Interspersed at various depths between the four workable beds there are eighteen thinner deposits of coal.

Although coal has been mined beneath the township of Lofthouse for two centuries, there yet remain one entire seam and large portions of three others, sufficient to yield to future enterprise fifteen million tons of fuel.

For details relating to the increase in the price of coal, wages of miners, &c., the reader is referred to Batty's "History of Rothwell." Coals advanced in Wakefield in 1853 from 6s. 8d. to 7s. 9d. per ton. In 1873 coals sold at the pit's mouth at £1 per ton, and colliers' wages reached their climax in 8s. od. per day.

The following extracts from an old pay sheet, dated 1748, furnish an idea of what the miners of the district received in wages at that time :—

	s.	d.	£	s.	d.
Yarwood, 6 days banking ... ..	5	0	Lad	0	2 0
Wilson, ,, ,, ... ..	6	0	,,	0	2 0
Bush, 6 days at trap doors ... ..				0	2 0
Johnson, 4 days on the waggon way ... ..				0	3 4
Richard Johnson for 300 Nails ... ..				0	1 0
Watson, 3 days feyng ... ..				0	4 6
Frank Prince, ½ day carrying punchons ... ..				0	0 6
118 waggons filling ... ..				0	12 0
12 corvs slack riddling ... ..				0	1 0
Cynders burning ... ..	7	4	Letter	0	0 4
Coals getting at 3 pitts, 183 scores at 1s. 8d. per score ...				15	5 0
19 corvs to the waggon, total 192 waggons 12 corvs in one week.					
Cost of getting .. ... ..				15	0 0
Other weekly expenses ... ..				17	13 6

Formerly women and girls worked in the pits. About the year 1841 a Government Commission of Inquiry respecting the employment of females in the mines was appointed, and many of the evils of the system were brought to light. At a meeting of colliers in the Barnsley district, the following resolution condemning the practice was passed:—"That the employment of girls in pits is highly injurious to their morals, that it is not proper work for females, and that it is a scandalous practice." In this neighbourhood female labour underground has been long abolished; there are, however, a few women still living who in their early years worked in the mines. An old woman, named Matt Brook, who used to screen coals, riddle slack, and cross-cut timber, was the last who worked on the top about the collieries at Robin Hood.

QUARRIES.—There are many old, open, disused quarries in this township, and many have been filled up and levelled. The quarries now working belong to Mr. George Armitage, Messrs. Armitage Brothers, and to Messrs. Pawson (late Denham), and are situate in Lofthouse, and in the township of Thorp, near the Lofthouse boundary. The stone is a somewhat soft blue or brown sandstone easily worked under the mallet. It is in great demand for sills, door heads, steps and landings,

and all kinds of inside work. It is also commonly used as a building stone. The railway trucks can now be loaded in or near the quarries. Large quantities of sawn stone are sent annually to London and other parts of the country. The trade, even in depressed times, is generally good. Formerly the stone was lifted from the quarries by the aid of a windlass, afterwards the gin came into use, and blocks about five tons in weight were drawn up with a horse. Now the steam engine is universally employed, and blocks of ten or twelve tons are lifted from the bottom of the quarries, some of which are 100 feet in depth. The blocks after being squared (scappled) are sawn into slabs of various thicknesses by steam machinery, a method of cutting which superseded hand-sawing about 60 years ago. The quarries find work for 160 men and boys, who may be divided into five classes, *i.e.*, barers, getters, scapplers, masons, and sawyers.

In these quarries fossils are rare. Impressions of leaves have sometimes been found in the upper marl beds. About two years ago, a prostrate tree, about twenty feet long and twelve inches thick was met with; other fossil trees have also been found; they are always entirely surrounded by a coating of coal. Ironstone nodules and masses of galliard are interspersed in the rocks. The galliard makes good road material; the ironstone is not utilised.

A new quarry was opened on the Haigh, but in the township of Lofthouse, a few years since, and an old quarry on Lee Moor is now being re-opened.

MANUFACTURES.—HOLT'S MILL, at Ardsley, was built about 1855 by Messrs. Proctor, and established by Amos Holt as an alpaca and mohair cloth manufactory. It contained about 160 looms, and when in full work many hands from Lofthouse were employed there. After the death of Mr. Holt in 1877 the business stopped and the factory was closed, but it is now (1879) in operation again as a cloth extract factory.

THE ALUM WORKS, in the township of Wrenthorp, a mile

from Lofthouse, the property of Messrs. Hudson and Co., were commenced about 1860. The alum shale is procured from the pits at Stanley. The refuse shale is used as manure, and also for garden walks. It is efficacious for destroying weeds and weed seed. A good many hands are employed at the alum works, but few from Lofthouse.

FLECK'S TWINE FACTORY, the property of J. T. Fleck, Esq., employs a few hands, principally young women. It is at Cockpit Houses, a mile from here, and was commenced about 1869.

THE IRONWORKS at Ardsley Station were opened in June, 1868.

OLD MILLS.—A corn mill moved by water stood at the corner of Spring Wood, in the township of Thorp, and was long occupied by the Appleyard family of Thorp. Some process in the manufacture of cotton was also carried on there. The pond and a few old stones yet mark the spot where it stood. There are other ponds not far distant from the site of the mill, but these were fish-ponds stocked with fish in the time of the Proctors. The lane which led from Lofthouse to Thorp Mill and onwards to Middleton, originally a narrow pack-horse road, is still called Miller Lane.

Another mill, turned by the wind, stood on the edge of the common on Langley. This was dismantled and taken down about the year 1820. The millstones were recently removed.

A shelling-mill was attached to Lofthouse Hall and stood on ground in the front now occupied by a shrubbery.

There was a windmill at Carlton, in the field which is still called Windmill Field. Not many years since the foundation stones indicated the spot where it stood. This particular field is also called the Doles.

Ouzelwell Green Mill, the property of Wm. Hartley, Esq., was originally a windmill. It is now a steam mill, but disused. All these mills were in full work when the farmers were not above eating their own corn, and when the working class, following the long-continued customs of their forefathers,

purchased their corn and carried it on their heads to the mill to grind.

Rope- and twine-making was a common business here some years since, but has gradually declined, and there is not now one of the trade left in the village.

Malt-making was formerly carried on extensively. There were five or six malkilns, but when the innkeepers began to deal in brewer's ale, delivered ready for consumption, the business died out.

#### DOMESTIC INDUSTRIES.

Seventy years ago coarse wheaten bread, oatcake, and oatmeal porridge formed the principal fare of the working class. Wheat or oats were usually bought of the farmers and taken to the mill to grind. The Rothwell miller used to come round on certain days and distribute the bags of meal to the cottagers; his horse was known as the "Bell Horse," a large bell being attached to his neck. Now, about here, both coarse bread and oatcake are all but discarded, fine wheaten flour being preferred. A widow residing in Burnell's cottages named Betty Farrar, who died more than 20 years since, was the last in this village who possessed a back-stone and made oatcake; and Parker, the schoolmaster mentioned in a previous page, is the only person now living here who has adhered steadily and constantly to the wholesome diet of his grandfathers—oatmeal porridge.

When our population was scanty, when children were less impudent, and knew better than to break fences or leave gates open, and when the women depended more on their own industry and economy, gleaning was allowed. Harvest was then a harvest for all. Many families collected considerable quantities of corn, thrashed it, and, after it was returned from the mill, dressed it by hand, thus obtaining very cheaply as much meal as would serve the household for many weeks. Added to this there used to be charitable distributions of corn to the poor after harvest, called "frumentation," hence the

word "frumerty," a sweet porridge of broken (creed) wheat made usually about the feast of St. Thomas. It is creditable to have to remark here that the Olivers of Carlton, and the Appleyards of Thorp, both old families then styled yeomen, formerly distributed corn to the poor after harvest, and I believe were the last to follow the custom. At that time farmers employed nearly the whole of the population of a country village to reap the corn; thus the extra wages earned in harvest, added to perquisites, placed poor families in tolerable circumstances through most of the winter. Men, women, and children, *all* were busy from morning till night; the word INDUSTRY then had a meaning.

With intense pleasure the aged look back to their gleaning days, when with light step they went out on bright mornings to the harvest field, and brought home the heavy bundles of corn like bees bringing honey to the hive. Happy were they to partake of their meal of coarse bread beneath the reddening hawthorns and stay in the fields from morning to night. It would be pleasant to look on the fields at that time when the ripe corn rustled and cracked in the summer sun, and the woodlands echoed with the laughter of blithesome gleaners. The air was purer, the streams were clearer, and the trees greener then.

Many can remember the time when hand-spinning and weaving was a common home occupation. A family named Joy, who lived here, and many others had looms. Some worked for hire, others manufactured only for their own purposes. Lace was also woven. Fine cloth was then rare. Labourers and farmers usually wore knee-breeches and smocks. Harden (cloth of coarse flax) was much worn. Fashion did not reign so tyrannically. People were content with coarser and cheaper clothing, and changes in the style, colour, and shape were less frequent.

Many names of fields indicate that hemp and flax were cultivated in this and neighbouring parishes. Tithes of hemp were levied. Hence it would be nothing uncommon for the

farmer to put on a coat that was the produce of his own field, and the work of his own hand. But this kind of industry has vanished.

VARIOUS MINOR INDUSTRIES.—When wages were twelve shillings per week, and many necessaries of life were dear, frugality was not a matter of choice but of necessity. From the earliest times of the Saxons every housewife could brew her own beer, but since brewers' ale came into fashion this branch of domestic economy has considerably declined. The taste for ale has become universal. During the prosperous years which ended about the year 1876 the consumption of ale and liquors among the labouring classes, male and female, was enormous, and in that memorable time of plenitude many people fell into habits of negligence, intemperance, and extravagance.

In former times the qualities and virtues of various wild herbs and fruits were much better known than they are now. The ample cupboard in the farm-house was always well stocked with medicinal herbs and conserves, and condiments of wild fruits and flowers, and jars of honey, got together at small expense; now, almost everything is manufactured and delivered ready for consumption, so that personal contrivance and self-dependence are in a great measure done away with. The following quotation from a book of husbandry, written by Judge Fitzherberd in 1550, gives a fair idea of what the duties of farmers' wives in England were 330 years ago:

“In the morning dresse up thy dysshe-bord and set all thynges in good order within thy house, milk ye kinde, socle thy calves, set up thy mylke, take up thy children, and provide for thy husbände's breakfaste, dinner, souper and for thy servantes and children and take thy part with them; and so ordeyne come and malt to the myll, to bake and brew withal when need is, and mette it to the myl, and fro the myl and see that thou have thy measure agyne beside the toll, or else the myller dealeth not truly with thee, or else thy corne is not dry as it should be. In March is time to sow flaxe and hemepe, but howe it should be sown, beten, braked, tawed, hecheled, spon, wounden, wrapped, and oven it needeth not for mee to showe, for women be wise enough, and thereof make they shetes, bordcloths, towels, shertes, and such other necessaries; and therefore let thy distaffe be allwaye

redy for a pastyme that you be not idel. It is convenient for a husbnde to have helpe of his owne for many causes, and then may his wife have part of the wool to make her husbnde and herself some clothes; and at the least she may have the lockes of the sheepe therewith to make clothes or blankets and coverletes or both. It is a wise occupation to winnow all manner of cornes, to make malt, washe and wring the clothes; to cut corne, and in time of need to helpe her husbnde to fill the muck wayne, drive the plough, to lode hay, corn, and such other. Also to go to the market to sel butter, cheese, mylk, eggs, chickens, hennes, pyggs, guese, and all manner of corne, and to buy all manner of necessaries belonging to a household, and to make a true reconing accompt to her husbnde what she hath received and what she hath paide. And yf the husband go to the market to buy or sell as they oft do, he then to shewe his wyfe like manner. For if one of them should deceive the other he disceyveth himselfe and he is not likely to thrive. I could preadventure shew to the husbnde divers poyntes that the wives discieve their husbandes in but mee seemeth best to hold my peace."

There are a few thoughtful and industrious people who still gather and utilise those "simples" that were so much cared for and sought after by their fore-elders. A pleasant wine is made from the flowers of the coltsfoot, called "cleat" wine. A syrup or wine, highly commended for colds, is made from the ripe berries of the elder. A pleasant wine is made from the flowers (locally pips or peeps) of the cowslip; some also make vinegar. The roots of dandelion and the young tops of nettles are extensively used in spring in making beer. Ripe hips were formerly used as a conserve boiled with sugar. The tender tops of hops were formerly collected as a vegetable. *En passant* I may observe that the hop grows wild and produces small hops in many places in this neighbourhood, and must at some time have been cultivated, as it is not an indigenous plant.

Bee-keeping once stood prominent amongst minor industries. A few still keep bees, and it is a pleasing evidence of thrift. The bee is the personification of industry. Many an hour is pleasantly spent by the cottager watching and listening to the heavy-laden bees as they rise with murmurous hum over the garden-fence and drop down to the hive.

It is interesting to notice here that there were some miners



and others, who, taking wise advantage of the prosperous times a few years since, bought a patch of land, built a house, and became freeholders. Others managed to save money and invest it in different ways as a reserve against a possible day of want. Many others there are who, though not able to save, cannot fairly be charged with improvidence. Nearly all of our cottagers have little gardens. Since the organization of competitive flower-shows, an interest in gardening has arisen, improved vegetables have appeared, new species of useful plants, and innumerable varieties of beautiful flowers, have been introduced and nursed, so that every square foot of the little plots of land have been turned to the best account. And the windows, even those of the humblest widow, are everywhere enlivened and pleasantly scented with a few choice plants.

Many aged and indigent persons—widows of miners who have been accidentally killed, orphans left without resources, old men who have spent their whole time in the pits, and many other infirm and needy persons, are helped on and relieved in various ways through the kindness and beneficence of Joseph Charlesworth, Esq., of Lofthouse House.

#### LONGEVITY.

The following is a brief list of persons who have lived to long ages.

Mary Gouldthorpe, of Rhodes Green, buried at Rothwell, November 18th, 1776, aged 103 years.

Ann Bussy, of Lofthouse, died January 17th, 1839, aged 97. Used to walk with two sticks to Wakefield Post Office to fetch letters for Mr. Dealtry, of Lofthouse Hall.

Jonathan Hick, of Lofthouse, previously of Methley, died February 10th, 1841, aged 95. Mrs. Hick, his widow, died October, 1844, aged 87. Both had spent much of their time in out-door occupations.

Nancy Wittlestone, of Lofthouse, died September 24th, 1876, in her 91st year. A descendant of the Pymonts: born and died in the same house. She possessed a field, and spent

much of her time out of doors. She had a good memory, and loved to recount the incidents of her earlier years. Once saw Wakefield Races on the Outwood, and could well remember seeing a man named Joss Moreby in the stocks. The writer is indebted to her for some of the facts recorded in the foregoing pages.

Maria Flockton, a lace weaver, died April 5th, 1854, aged 87.

Nanny Hardwick, many years a midwife, died May 3rd, 1857, aged 82.

Francis Appleyard, retired farmer, previously of Thorp, died March 15th, 1846, aged 83.

Nanny Hawkhead, died June 22nd, 1860, aged 85. Another of the hardy race who delighted to work in the fields in the golden days of yore, when the corn was reaped with the sickle.

From tombstones at Rothwell:—Abigall, the wife of Robert Evers, of Carlton, died March 5th, 1795, aged 93. Mary Goodall, died March 14th, 1863, aged 97.

#### CARLTON.

The village of Carlton consists mainly of an irregular series of cottages built on both sides of a narrow and very crooked lane.\* Many of them are built on the post and pan principle, and still preserve their ancient roofs of thatch. Latterly a few better houses have been erected. Carlton Hall stands on the west side of the village, and is surrounded by orchards and old enclosures.

There is no church. The old Primitive Methodist Chapel was built in 1853, but not being large enough it was sold a few years since, and now belongs to the Working Men's Institute. The new Primitive Chapel was erected in 1867. The Wesleyan Chapel was built in 1850. Affixed to the walls inside are the following monuments to the Stocks family. Alabaster mural tablet near the pulpit:—"To the memory of

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\* Some might be disposed to look for the etymology of the name in the Celtic word *car*, which means crooked.

Samuel Stocks, Esquire, who was born at Lofthouse, in this parish, January 19th, 1766, and departed this life October 13th, 1850, at his residence, South Parade, Wakefield." A similar tablet on the other side of the pulpit:—"Sacred to the memory of Sarah, the wife of Joseph Stocks, Esq., of Carleton, who died February 16th, 1822, aged 51 years. Also of Joseph Stocks, Esq., who died April 30th, 1824, aged 62 years." A polished granite and alabaster tablet on the east wall:—"In memory of Thomas Farmer, born at Kennington Common, June 7th, 1790, died at Gunnersbury House, Acton, Middlesex, May 11th, 1861." Another near to this:—"In memory of Sarah, daughter of Samuel Stocks, Esq., and widow of Thomas Farmer, Esq., born November 16th, 1796, died at Gunnersbury, March 19th, 1868." It need scarcely be added that these memorials were put up to a family to whom the Wesleyans in this parish were under ever-memorable obligations, and especially were they indebted to Samuel Stocks, whose benevolence and liberality were unbounded. The chapel was erected by the above-mentioned Thomas Farmer, Esq., on the Stocks estate, and conveyed by deed to the Wesleyans by Mrs. Farmer, in September, 1865.

Carlton Board School was built in 1875-6, and contains about 200 scholars. Daniel Ledgard is the present master. The Working Men's Institute was established in 1878.

The inhabitants are chiefly miners and quarry-men. The rope and twine manufactory, the property of Mr. Hammil, employs a number of men and boys. There are several other rope and twine walks. Dyers' nets and other kinds of netting are also made by the women in the cottages.

Various old trades and industries are now extinct. Tanning was formerly carried on by the Pymonts. Hand-spinning and weaving were once common. The last person who used the spinning-wheel was a Miss Swift, afterwards Mrs. Whiteley. A little lace is yet woven by some of the oldest inhabitants. Malt-making was a common business. The Wesleyan Chapel stands on the foundations of a malkiln; another malkiln was removed to make room for the Board School.

Many surnames in Carlton remind us of various ancient or forgotten pursuits and handicrafts. We find

Bower or Bowyer	...	...	Bow-maker.
Lorimer	...	...	Bridle-bit maker.
Fletcher	...	...	Arrow-dresser.
Thackwray	...	...	Thatcher.
Milner	...	...	Miller.

Bland, I suppose, is from "blend," to mix—a process in maltmaking. Fisher, Walker, Archer, Proctor, Shearman, and Chapman are other examples.

The persistence of old families in Carlton is noticeable. The surnames Swift and Dobson are found in the earliest registers. Of the former, at least three in the family were benefactors to the parish. A Roger Swift is registered in 1541. A Roger Swift was churchwarden in 1662. The Swifts are yet numerous with Roger as the baptismal name. Dobsons occur in 1539, and run down numerous through the whole of the registers. Wolforth, which sounds very Saxon, is another old name. Carlton, being isolated and situated away from a high-road, would perhaps be less subject to social or migratory changes than Lofthouse or any other village on a highroad, as the latter would be in more frequent intercourse with the world. At any rate there are no old families at Lofthouse so anciently established, so deeply rooted in the soil as it were, as there are at Carlton. Before the enclosure of the Haigh, Carlton was surrounded by wild waste lands, and at the skirts of the village there were gates which would shut up the place like a citadel.

Shemeld is another old family. Mr. Isaac Shemeld possesses a great many old deeds and records dating far back in the seventeenth century. He also possesses a very old clock, mentioned as an heirloom in wills 230 years back. The case is of oak and very narrow; about twenty inches of the length at the bottom are rotted away by standing on damp floors. It is still in going order, and only requires cleaning once in seven years. The present family of Shemeld now living is a re-

markable example of longevity; their names and ages are as follows:

Mrs. Jane Swift, 82; John Shemeld, 80; Ann Shemeld, 77; Isaac Shemeld, 72; Henry Shemeld, 67.

The dialect at Carlton is slightly different from that at Lofthouse, though the two villages are only a mile apart. At the former place the vowel *e* is substituted for *o*, as *plew* for plow, *dew* for do, and other vowels are more commonly lengthened in pronunciation.

The population of Carlton has always preponderated over that of Lofthouse. The number of inhabitants in Carlton in 1811 was 585, the number in Lofthouse, 469. It will be noticed, by referring to the census enumeration previously given, that the increase in population in the twin-township during the ten years between 1861 and 1871 was nearly equal to the increase of the previous forty years, a fact to be accounted for by the rapid development of coal-mining at that time, and also by the establishment of other businesses.

The hamlet of Ouzelwell Green is a part of Carlton. It consists of an irregular row of brick-built cottages and two or three good houses. William Hartley, Esq., of the mill, is the chief resident. Thoresby visited this place in 1694 to examine some property, which I suspect had belonged to his father-in-law. In a note he hints that the name might have been derived from Oswald; but it is doubtless from "well," and "ouzel," a blackbird. The inhabitants are supplied with water by a series of springs which presumably mark the line of a fault or dislocation of the rocks.

Robin Hood is another part of Carlton, having sprung up concurrently with the progress of mining. The inhabitants are chiefly miners and quarrymen. The name *Robin Hood* was first applied to a spring or well situated near the quarries. Aged persons can remember the well-trough, which had an iron ladle chained to it. It is now covered up with the quarry refuse, but water-carriers yet resort to the spot to get water from a stream that runs past. The late Mr. Forrest was of

opinion that the ceremony of well-dressing, and a country dance called *Robin Hood* might have been performed there.

A little distance from Robin Hood, southward on the Lofthouse side of the beck, is another newly-built neighbourhood called *Bright Eyes*. This name was taken from the name of a field which was the property of William Lyley before 1685, and successively from his time called Low Breedy Croft, Brighty Croft, Eyebright Close, and Bright Eyes.

Edmund Calverley, Esq., and Messrs. Charlesworth are joint Lords of the Manor of Carlton. According to a note in Mr. Forrest's manuscripts, a small old house that stood near the tithe-barn was the manor-house. It was sold some years since by the Lords of the Manor and is now pulled down.

#### ROTHWELL CHURCH.

This ancient church has been so often described by local writers that it is needless here to attempt a repetition. I shall therefore only notice a few memorials that have been erected to persons who have been more or less connected with the village of Lofthouse. Chief amongst these, affixed directly over the chancel door, is the Hopkinson tablet, described in a previous page. Directly above is the Leigh tablet, commemorating the death of Francis Leigh, of Middleton, who died November 23rd, 1715.\* The Lyley gravestone, which formerly lay in the chancel, was removed in 1874, and now lies in the east end of the north aisle. It has the following inscription:—"Here lyeth the body of William Lyley, gentleman, of Lofthouse, who departed this life the 3rd day of November, 1685, aged 70." The arms of Lyley, beautifully done in stained glass, appear in the centre light of one of the north windows, with the words beneath:—"William Lyley, Nat. A.D. 1615, Ob. A.D. 1685." Near the Lyley slab is a memorial

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\* A Gilbert Leigh, who married Isabel Calverley, held lands in Lofthouse and Carlton 14th of Edward IV. For an account of a quarrel between a Gilbert Leigh and W. Watson respecting some land at Lofthouse (9th of Henry VII.), see Whitaker's "Loidis in Elmete."

of the Proctors, of Thorp, inscribed as follows:—"Sacred to the memory of Frances, the wife of Medcalf Proctor, who departed this life the 12th day of March, 1792, aged 55 years. Also the above Medcalf Proctor, Esq., who departed this life 1st day of September, 1792, aged 84 years." This formerly lay in the chancel. The Burnells, of Lofthouse, are buried in the middle aisle. An oval brass plate has the following:—"George Burnell, died 22nd of July, 1718, aged 46. James Burnell, son of the above, died April 1st, 1780, aged 86 years." For other Burnells see registers in succeeding pages. The gravestones of the Stocks family, of Carlton and Lofthouse, lie in the middle aisle. The inscriptions, copied in 1832, are as follow:—First, "Here lyeth the body of Mr. John Stocks, late of Carlton, who died November 11th, 1772, aged 63 years. Also Benjamin, his son, who died June 29th, 1774, aged 41 years. Also Sarah, wife of the above John Stocks, who died August 31st, 1789, aged 74 years. Also Mary, wife of John Stocks, Jun., who died September 2nd, 1804, aged 63. Also the above-said John Stocks, Jun., who died March 12th, 1806, aged 67 years." Second, "Here lyeth the body of Mary, the daughter of Samuel and Elizabeth Stocks, of Manchester, who died September 2nd, 1799, aged 3 years and 9 months. Also John, son of the above, who died an infant. Also the above-said Elizabeth Stocks, who died February 25th, 1821, aged 47 years." Third, "Sacred to the memory of Sarah, wife of Joseph Stocks, of Carlton, who died February 16th, 1822, aged 51 years. Also the above-said Joseph Stocks, who died April 30th, 1824, aged 62 years." A very elegant tablet of Caen stone and marble, affixed on the east wall of the north aisle, perpetuates the memory of Samuel Stocks, the benefactor, as follows:—"In the centre aisle of this church rest the remains of Samuel Stocks, Esq., of Wakefield, a deputy-lieutenant of the West Riding of this County. He was born at Lofthouse, January 19th, 1766, and departed this life October 13th, 1850."

In the south aisle, close to the organ, is a narrow slab,

whereon is quaintly cut the following :—“ Here lyeth the body of Katharen Gamble, daughter of George Gamble and Cecil Gamble, of Loftas, who died the 20th day of March, 1660.” This is the oldest in the church. Whilst reading this inscription the visitor will notice the piscina in the corner to the left.

The More gravestone, which was in the chancel within the altar rails when Whitaker visited Rothwell, now lies just within the chancel door. Banks, in error, described it as West's. The gravestone placed over Ellinor, daughter of Sir Henry Gascoigne, and wife of Arthur Ingram, who was buried here in 1663, also copied by Whitaker, now lies, I believe, beneath the chancel floor.

Rothwell Church is one of the handsomest village churches in the County of York. Everything is kept in good repair, clean, neat, and orderly. The chancel was renovated and beautified in 1874; and the floor was raised and inlaid with ornamental tiles. Light is admitted to every part of the church through exquisitely-coloured windows. The walls are studded round with costly and beautiful monuments, tablets, escutcheons, and brasses, put up in memory of authors, divines, benefactors, merchants, and gentlemen who have resided in the parish. Indifferent must he be who can gaze around the ancient edifice, or pace the silent aisles, without being impressed with feelings of the most profound reverence.

#### ROTHWELL PARISH REGISTERS.

The registers commence in 1538, and are in good preservation. The first volume is paper, and has been repaired round the margins of the leaves. The first year, from October, 1538, to October, 1539, contains 51 entries of births, marriages, and deaths intermixed. The other volumes are parchment, except that which contains the years between 1635 and 1655. They are strongly bound, and dated on the outside. In all there are nine volumes of the older registers, embracing 247 years. They are all carefully preserved in an iron chest.



## EXTRACTS.

1538. October 2nd, William Beiston, son of William Beiston, gentleman, baptised.
1590. Elizabeth, filia Thomas Leighe gener., buried Julie 8th die.
- 1590-1. February, John Gascoigne de Thorp gen., buried visesimo octavo die.
- 1590-1. Roberti Gascoigne, buried March decimo nono die.
1602. Anna, filia Gilberti Leighe de Thorp, super montem, gen., baptised June 22nd.
- 1603-4. John, filius Robert Gamble (christened), January 4th, die.
1603. Elizabeth, filia George Hopkinson (christened), December 27th.
- 1604-5. John, filius Gilberti Leighe de Thorp, January 8th (baptism).
1606. George, son of George Hopkinson, March 30th (baptism).
1606. Gilbert Leighe, buried May 9th die.
1618. Mary, filia Robert Westerman de Lofthouse, May 31st (baptism).
1618. Robert Beckett de Lofthouse, buried June 8th.
1618. Elizabetha, filia Ferdinando Leighe de Middleton, militis, June 21st (baptism).
1618. Isabella, uxor Jacobi Rimmington de Lofthouse, Junii 29th (burial).
1618. Jacobus Burnell de Lofthouse, December 13th (burial).
1619. Thomas, filius Ferdinando Leighe de Middleton, militis, christened May 30th.
1620. Richardi, filius Richardi Leighe, October 4th (baptism).
- 1620-1. Marie, filia George Hopkinson, January 4th (baptism).
1621. Isabella, filia Robert Swifte de Lofthouse, March 25th (baptism).
1624. William, son of Richard Bubwith, of Roades Hall, christened July 4th.
- 1624-5. Richard Blande gener., buried January 21st.
1657. August 9th, Robert the sonne of Mr. George Hopkinson, of Lofthouse, bapd.
- 1657-8. Rodger, son of Rodger Swift, of Carlton, February 5th, baptised.
1657. November 4th, George Gamble, son of George Gamble, of Lofthouse, baptised.
1657. April 25th, John, son of John Harrison, of Lofthouse, baptised.
1658. November 29th, Hannah, a child of George Hopkinson, buried.
1659. John, a childe of John Westerman, of Lofthouse, baptised.
1659. A childe of Nicholas Westerman, of Thorp, baptism.
1659. William, the sonn of Mr. Arthur Ingram, of Thorpe, baptised May, 3rd day.
1659. John, a child of Mr. George Gamble, of Lofthouse, July 21st (baptism).
- 1659-60. March 5th, Elizabeth, a child of John Hopkinson, of Rothwell, baptised.
1660. George, a child of Mr. George Hopkinson, of Lofthouse, buried November 11th.

- 1660-1. Hannah, a child of Mr. Jeremiah Milner, of Rothwell, minister, baptised, February 3rd.
- 1660-1. March 21st, Catherine, a child of George Gamble, of Lofthouse, buried.
1662. George, filius de Georgy Hopkinson, of Loft., May 22nd (baptism).
1674. John, son of Robert Lee, of Lofthouse, bapd.
1682. Mrs. Isabell Hopkinson buried, from Lofthouse.
1685. John Hopkinson, of Rothwell, buried June 4th.
1685. Thomas, son of Mr. William Ingram, buried October 20th.
1685. Mr. Wm. Lyley, buried November 9th.
1691. April 21st, John Lee, Senr., buried, Lofthouse.
1693. July 10th, Thomas, son of Mr. William Ingram, of Thorp, buried.
1695. George, son of George Burnell buried July 13th.
1695. November 21st, Gervas Wood buried, son of Robert Wood of Lofthouse.
1699. Sarah Fenton, daughter of Abm. Fenton, buried 6th of September.
1699. January 1st, Anne, wife of John Roberts, of Thorp, buried.
1700. December 8th, Robert Lee, buried — Lofthouse.
1708. December 29th, Gascoyne, son of Mr. Francis Proctor, of Thorp, buried.
1717. Ann, daughter of Thomas Barber, baptised September 18th, Lofthouse.
1718. July 25th, MR. George Burnell buried, from Lofthouse.
1721. May 6th, Abm. Fenton buried, from Lofthouse.
1721. August 11th, Alice Gill, Pentioner, from Lofthouse, buried.
1721. December 1st, Francis Proctor, Esq., of Thorp, buried.
- 1721-2. February 21st, James Burnell, of Lofthouse, buried.
1722. July 31st, Mr. John Pymont buried.
1722. September 16th, Samuel Calverley, yeoman, buried, from Lofthouse.
1722. November 27th, Ellen, daughter of Mr. Thomas Barber, of Lofthouse, buried.
1722. December 17th, a son of John Pymont, yeoman, of Lofthouse, buried.
1723. November 30th, Elizabeth Proctor, widow, of Thorp, buried.
1729. January, Robert Hey, entered Clark, the 11th day of this menth.
1729. Josiah Ray, Curate, married to Judith Dixon, of Lofthouse.
1734. June 16th, Mr. John Pymont buried.
- 1735-6. February 21st, John Squires, yeoman, buried, from Lofthouse.
1736. October 8th, Hannah, wife of John Cockill, schoolmaster, buried, from Lofthouse.
1738. December 19th, William, a son of Anthony Hutchinson, buried, from Lofthouse.
1738. Sarah, wife of Thomas Westerman, yeoman, buried on ye last day.
- 1738-9. Henry, son of Medcalf Proctor, Esq., buried February 26th.
- 1739 December 27th, Mary, daughter of William Hardwick, of Lofthouse, baptised.

- 1739-40. February 10th, Joseph, son of John Proud, baptised, from Lofthouse.
1740. August 14th, John Squires, yeoman, buried, from Lofthouse.
1741. June 18th, Martha, daughter of Thomas Leake, of Lofthouse Hall, baptised.
1741. June 30th, Francis Dizney, son of Medcalf Proctor, Esq., baptised, Thorp Hall.
1741. July 8th, Ann, daughter of John Pymont, yeoman, baptised, Carlton.
1741. August 9th, Joseph, son of John Westerman, smith, baptised.
1741. November 16th, John Proud, brazier, buried, from Lofthouse.
- 1741-2. January 3rd, Ann Watkin, Middif, buried.
- 1741-2. February 25th, Francis Lee, a stranger from Lofthouse, buried.
1743. September 25th, Anthony, son of Anthony Hutchinson, buried, Lofthouse.
1745. September 10th, Deborah Dowse, gentlewoman, buried.
- 1745-6. January 8th, Mrs. Elizabeth Burnell, widow, buried, Lofthouse.
1746. April 13th, Hannah, daughter of James Child, baptised, from Lofthouse.
1747. Sir Francis Burdett, Baronet, buried the 11th of September, from Middleton Hall.
1747. Joseph Young, yeoman, buried 30th of September, from Wakefield Wood Gate.
1747. September 27th, Ann Pymont, buried.
1748. John Pymont, buried July 30th, from Lofthouse.
1748. October 22nd, Thomas Westerman, yeoman, buried, from Lofthouse.
1748. October 28th, Mary, wife of Thomas Leake, buried, from Lofthouse.
- 1748-9. Martha, daughter of Samuel Fenton, buried, March 18th, from Lofthouse.
1749. April, Mary, an infant of George Brumley, buried 17th day, from behind the Hague.
1749. Joseph, son of Joshua Appleyard, buried May 19th, from Thorp Mill.
1750. June 5th, Mrs. Elizabeth Pymont, widow, buried, from Lofthouse.
1750. September 4th, Easter Hardaker buried, from Lofthouse.
1751. July 28th, James Weetman, bonesetter, buried, from Rhodes.
1752. August 17th, Samuel Fenton, Junr., buried, from Lofthouse.
1752. November 20th, Thomas Burnell buried.
- Old Stile ceased September 2nd, and next day was accounted September 14th New Stile.
1753. March 29th, Medcalf, son of Medcalf Proctor, Esq., buried, from Thorp Hall.
1753. December 9th, John Harrison, yeoman, buried, from Lofthouse.
- 1754-5. Samuel, son of Thomas Hurst, born the 18th day of February, and baptised at Methley Church, from Oulton. Mr. Eden being in the gout badly.\*

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\* Mr. Eden was Curate of Rothwell at this date.

- 1754-5. Mr. Worthington buried 26th of February, from Middleton Hall.  
Popish Priest.
- 1755-6. January 13th, Samuel Fenton buried, from Lofthouse.
1756. August 11th, Sarah, daughter of John Stocks, yeoman, buried, from Lofthouse.
1756. September 26th, George, son of Joseph Brooksbank, buried.  
September, 29th, Thomas, son of Joseph Brooksbank, both his sons of small pox.
- 1757-8. 18th of February, Ann, daughter of John Pymont, tanner, buried, from Lofthouse.
- 1757-8. March, the Rev. Samuel Harper, inducted Vicar of Rothwell the 20th of this month.
- 1758-9. January, Elizabeth Beckwith, buried from Rothwell the 21st day, daughter of the late Mr. Thomas Beckwith, Attorney-at-Law.
1758. August 6th, Mrs. Martha Fenton, of Lofthouse.
1758. November 5th, Elizabeth, wife of George Westerman, buried, Lofthouse.
1758. Thomas, son of Thomas Oliver, Jun., baptised 22nd day, from Carlton Hall.
1762. Ann, wife of John Pymont, buried 16th day of June.
- 1763-4. John Clarkson, shoemaker, buried February 10th, from Lofthouse, batchelor.
1764. Wm. Fenton, son of Mr. Thomas Fenton, born April 20th, baptised 23rd, of Rothwell Haigh Side. Private baptism.
1764. Martha, wife of Medcalf Proctor, Esq., died on the 8th, and was buried on the 14th day of June, 1764, from Thorp.
1765. John Smirthwaite, yeoman, buried the 27th of June, from Lofthouse.
1766. January 1st, Ann, daughter of James Pymont, buried, from Lofthouse.
1766. Anthony Hutchinson, blacksmith, buried June 28th.
1770. The painted window in the chancel, given by Wm. Fenton, Esq., and done by Mr. Peckett, of York, was put up the 12th day of June. Followed by a later entry in red pencil, thus:—N.B. Taken down to make way for that by pupils of Iveridge Hall in Mr. Bell's time, 1860.
- 1772-3. John Westerman, from Lofthouse, buried January 3rd.
1772. Mary, daughter of George Roberts, gardener, of Lofthouse, buried May 24th.
- This month, June, 1772, the workhouse was begun to build, and the first stone was laid upon Rothwell March for the poor people.
- Rothwell Church bridge, rebuilt August, by Joseph Owen and Thomas Hall, masons. Mr. Richard Vavasour for the highways.
- September, Benjamin Grave, riddle maker, buried the 8th day from Rothwell, first dead man brought over the new bridge.

1774. Benjamin Stocks, yeoman, of Carlton, buried June 25th.  
 1775. September 29th, Isaac Bulmer, slain at the sand pitt, Stie Bank.  
 1776. November, Mary Gouldthorp, from Rhodes Green, buried 18th day, aged 103.  
 1777-8. January 15th, William Wrigglesworth, buried, from Middleton, aged 91.  
 1777. November 7th, Joseph Butterfield, miner, buried, slain at Middleton coal pitts.  
 1778. December 15th, Martha, daughter of George Roberts, buried, from Lofthouse.  
 1780. April 23rd, Sarah, wife of Jeremiah Farrer, buried, from besides Lingwell Gate.  
 1783. June 16th, Mr. John Pymont, of Lofthouse, buried.\*

Fac-simile copies of registers, illustrative of the style of writing.

John Elth at  
 Anna Dobson  
 27 die  
 1597

Franciscus Roo of  
 Elizabeth Venison  
 nuss fess mugno  
 scordio he  
 1627

Wiffmii R. Heund  
 Donitzia Heude 2 de<sup>e</sup>

14<sup>o</sup> Johans & Jacobus Jan  
 filii Willi Westraond<sup>e</sup> 1662  
 Carlton baptizati sunt

\* I must take this opportunity to tender my thanks to the Rev. George Heberden, the Vicar, for his kindness in permitting repeated examinations of the registers and other books.

John Johsøn  
 1574 Mangus Hartblong  
 fæ ærvald dæus

Oprikt 1625  
 Richardus filius Wergij  
 Læghrisen ærvald dæus

\*

NUMBER OF ENTRIES OF BAPTISMS, MARRIAGES, AND  
 BURIALS IN VARIOUS YEARS.

(The years reckoned according to the old style. From the registers).

	Baptisms.		Marriages.		Burials.	
1570	...	...	13	...	56	
1600	...	...	13	...	41	
1650	...	...	13	...	49	
1700	...	...	17	...	69	
1740	..	71	...	14	...	46
1741	...	80	...	19	...	112
1742	...	71	...	22	...	72
1745	...	64	...	17	...	53
1746	...	92	...	21	..	71
1747	...	76	...	22	..	51
1748	...	107	...	22	...	43
1752	...	86	...	18	...	72
1753	...	78	...	20	...	75
1756	...	91	...	34	...	49
1760	...	94	...	31	...	113
1761	...	116	..	24	...	62
1762	...	97	...	23	...	73
1763	...	113	...	26	...	91
1765	...	120	...	23	...	68

\* Baptism.

		Baptisms.		Marriages.		Burials.
1766	...	97	...	27	...	127
1767	...	115	...	30	...	67
1768	...	89	...	21	...	70
1769	...	111	...	33	...	68
1772	...	100	...	36	...	81
1773	...	109	...	25	...	88
1776	...	109	...	16	...	70
1777	...	89	...	18	...	61
1778	...	107	...	42	...	70
1779	...	118	...		...	94
1781	...	124	...	21	...	

The sudden increase in the number of burials in certain years will be noted, but the general coincidence in the annual number of entries from 1700 to the end of the list (1781) indicates that there was little change or progress in the parish between these two periods.

#### CHARITIES.

A list of some of the bequests that have been made from time to time to the poor of the parish, is printed and hangs in the vestry. The following is a copy:—

A particular of several sums of money and yearly rents out of houses and lands, given by several persons to the poor of the parish of Rothwell *for ever*.

Robert Glover, late of Oulton, left to the poor of this parish three roods of land, half an acre lyeth in grass, 18s. acre. Riggs, and the other rood in Barley Banker, and is now in the tenure of John Looker, of Oulton, who pays for ye same yearly the sum of 18s., due upon St. Andrew's day, and is thus divided:—Rothwell, 4s. 5d.; Rothwell Haigh, 2s. 5d.; Oulton and Wigglesworth, 3s. 9d.; Lofthouse and Carleton, 4s. 1d.; Middleton and Thorpe, 6s. od.

Edward Scholefield, late of Oulton, left to ye poor of this parish, £1 4s. od., to be paid £1 4s. yearly out of a close called Weet Royds, lying in Oulton, Mr. William Calverley, late owner, which sum is due on Good Friday, and is thus divided:—Rothwell, 6s.; Oulton and Wigglesworth, 6s.; Lofthouse and Carleton, 6s.; Middleton and Thorpe, 6s.

William Wood, late of Oulton, to the poorest of Rothwell, Oulton, and Wigglesworth, 9s. to be paid yearly out of a dwelling-house left in Fulton, on the north side of Esh Royd (William Dobson, of Carleton, now owner)—Rothwell, 5s.; Wigglesworth and Oulton, 4s., on St. Thomas's Day.

Samuel Bubwith, late of Dort, in the province of Holland, left to the poor of the parish, £20.

Walter Calverley, late of Wrigglesworth, £6.

Roger Swift, late of Rothwell, £10.

Mrs. Ann Wetherill, late of Oulton, £10, which four last sums are in the hands of Robert Calverley, of Rothwell, who hath given security to the late vicar and churchwardens of this parish for the yearly payment of 46s. upon the 14th of March, and is thus divided:—Rothwell, Royds, and Rothwell Haigh, 16s. 8d. ; Oulton and Wrigglesworth, 10s. 6d. ; Lofthouse and Carleton, 10s. 10d. ; Middleton and Thorpe, 8s.

Elizabeth Casson, widow, left to the poor of this parish one acre of land, lying in Holmsley, occupied then by Humphrey Moore, who pays for the same yearly 13s., on St. Thomas' Day, and is thus divided:—Rothwell, 4s. ; Oulton, 2s. ; Wrigglesworth, 3s. ; Carleton, 4s.

Thomas Scholes, late of Rothwell, 7s. yearly left to the poor of Rothwell, which sune is now in ye hands of Mr. George Scholes, of Great Preston, due on St. Thomas' Day.

Roger Swift, the elder, £24. £12 in the hands of Charles Myers, of Carlton, coming from land lying in Orgrave Field, 3 roods and  $\frac{1}{2}$  acre in West Field paying 14s. yearly. Roth., Rhodes, and Haigh, 4s. 6d. ; Wrig. and Oulton, 3s. 6d. ; Lofthouse and Carlton, 4s. ; Middleton and Thorp, 2s. ; 14s. and ye other 12s. is in the hands of Roger Swift, of Carl. who pays 10s. 20th of April, and is divided—Roth., Rhodes, and Haigh, 5s. 9d. ; Wrigg. and Oulton, 3s. ; Loft. and Carl. 2s. ; Midd. and Thorp, 1s. 3d.

Roger Swift the elder, for the poor, left a close near Temple Newsam, occupied by Lord Irwyn, who pays 16s. yearly, due on Good Friday, and is divided amongst the parish Roth. and Roth. Haigh, 6s. ; Oulton and Rigg, 3s. 3d. ; Loft. and Carl. 3s. 9d. ; Midd. and Thorpe, 3s.

Thomas Townend, late of Carlton, £7 to the poor of Carlton only, in the hands of Charles Stead, who pays for ye same 18s. 2d. on Lammas Day.

William Lyley, £5, result of Brighty Croft, lying in Lofthouse, now in the occupation of John Pymont. Equal portion at Midsummer and Christmas. Rothwell, £2 ; Lofthouse, £2 ; Carlton, £1.

William Birkinshaw, late of Rothwell, 6s. 8d. a year to be paid out of a house in Rothwell, occupied by Elizabeth Jerrington, due on Candlemas Day.

Mr. Foster, £26, put into the hands of Richard Nettleton, Esq., 26s. a year for everforth, of a close called Blackburn Close, in ye Rodes. The 26s. to be distributed in bread amongst the poor at the church. Sixpence every Sunday.

Mr. Charles Robinson, 26s., to be paid out of his whole estate by his heirs, at Christmas, for ever, and is now paid by Christopher Hodgson, and is thus divided:—North Rodes, 7s. ; Oulton and Wrigglesworth, 7s. ; Lofthouse and Carlton, 6s. ; Rothwell, 6s.



William Moore, on St. Thomas's Day, for a piece of Rodes common, enclosed, 3s. ; Rothwell, 2s. ; Oulton, 1s.

Matthew Calverley, or his heirs, 4s., St. Thomas's Day, for ever, to Rothwell only.

Wm. Birkenshaw, late of Rothwell, 6s. a year for Rothwell, to be paid out of a house in Rothwell, now occupied by John Cheesborough, due on Candlemas Day.

Mr. George Scholes, for Rothwell, 10s., due on St. Thomas's Day.

In 1848, £1 1s. 10d. was distributed in doles to the poor by the Lofthouse churchwarden. In 1863 the Lofthouse proportion was 16s. 6d., distributed to the poor in sums of one shilling to one and sixpence each. In that year (1863) the following charities were paid at Easter to the Lofthouse and Carlton churchwardens :—

	£	s.	d.
Smith's Interest of £50 ... ..	0	9	3
Myers' Dole (Swift the elder) ... ..	0	4	0
Glover's Dole... ..	0	4	1
Robinson's Dole ... ..	0	6	0
Lady Irvine (Swift the elder) ... ..	0	3	9
Scholefield's ... ..	0	6	0
	<hr/>		
	£1	13	1

Divided thus :—Lofthouse, 16s. 6d. ; Carlton, 16s. 7d.

The Lyley Dole, left by William Lyley in 1684, is paid by Messrs. Charlesworth, who some years ago purchased the field called Brighty Croft, now Bright Eyes, from the Pymonts, who were inter-related with the Lyleys. It is distributed half-yearly, according to the will of the benefactor.

Foster's Charity now raises 1s. 6d. per week, which is distributed by Mr. Whitehead, Parish Clerk, every Sunday in bread.

The benefactor Robinson was son of Laurence Robinson, owner of Fleet and Rothwell corn mills in 1675. The charity was left in 1701, 20s. a year to the poor of Rothwell, West Ardsley, and Methley, that sum to each. The Christopher Hodgson was Christopher Hodgson of Heath and Stank Hall,

who married Mary Robinson, sister of Charles Robinson. Touching this bequest there is the following memorandum in the churchwardens' accounts:—

“Mem. That the Dole of one pound per year left to the poor of Rothwell parish by Mr. Charles Robinson, deceased, payable out of Fleet Mills, has been in arrear since the year 1765. This is to certify by us churchwardens, whose names are hereunder written, that we have received the sum of £24 10s. by the payment of Mr. John Waugh, which is paid up to midsummer, 1790, being twenty-four years and a half, and is thus divided:—

	£	s.	d.
Rothwell and Royds ... ..	8	11	6
Oulton and Woodlesford ... ..	8	11	6
Lofthouse and Carlton ... ..	7	7	0

James Moore, Jon. Craven, Thos. Wigglesworth, Geo. Harrison, Joseph Speight, Churchwardens, 1791.”

Some of the above-mentioned charities seem to have lapsed, which implies some dereliction on the part of Churchwardens who, as before remarked, were originally the real and only trustees and guardians of the poor.

#### CHURCHYARD.

The churchyard presents an agreeable appearance, being diversified with elm, lime, and chestnut trees.\* The trees and shrubs, walks, tombs, and graves, and flowers that cover the graves, are all carefully attended to and kept in neat order. An ancient yew stands on the south-western side of the church.

Beneath the chancel window there is the burial place of the Pymonts. On one tombstone there are the following inscriptions:—“Ann, ye wife of John Pymont, died June ye 14th, 1762, aged 43. John Pymont, died 13th of June, 1782, aged 70. George, son of the above, died October 8th, 1833, aged 77. Amelia, widow of the above George Pymont, died

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\* Many of the trees were planted under the direction of the Rev. John Bell, late vicar, who had an eye to their sanitary effects as well as to their picturesque appearance.

October 23rd, 1839, Aged 78." There are other records of the Pymonts on an adjoining tomb.

In a cold, sunless corner near the tower, on the north side, lies Blenkinsop, the ingenious Scotchman, manager of the Middleton estates and collieries, and improver of the steam engine. He died on January 22nd, 1831, aged 47.

Near the eastern gate is the burial place of the Ramskill family—a square plot palisaded. A flat slab bears the following:—"Sacred to the memory of Catherine, wife of Parsons Ramskill, Esq., of Lofthouse Hall, who died July 20th, 1860, aged 67. Also Parsons Ramskill, Esq., husband of the above, who died November 22nd, 1864, aged 66 years." On the adjoining stone:—"In memory of James Ramskill, late of Allerton Bywater, who departed this life April 21st, 1833, aged 86 years."

On the extreme northern border of the churchyard, beneath a spreading elm, a granite tomb railed round, marks the resting-place of the Rev. John Bell, who was for 40 years vicar of Rothwell. The inscription runs thus:—"In memory of the Rev. John Bell, A.M., Vicar of Rothwell and Rural Dean of Wakefield, died October 14th, 1869, aged 65 years. He being dead yet speaketh."

Near the central row of trees that divides the old ground from the new, lies Charles Forrest, of Lofthouse, the Antiquary. He died October 24th, 1871.\*

Scattered in different parts of the churchyard there are many elegant and costly memorials. Conspicuous amongst them the one recording the death of Joseph Hargreaves, of Rothwell Haigh, late colliery manager for Messrs. Charlesworth, will be noticed. It is an obelisk of polished granite surmounted by a draped urn. The cost was defrayed chiefly by the subscriptions of workmen over whom Mr. Hargreaves had acted for many years as underground steward and manager. The

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\* In the supplementary volume I hope to give a short memoir of Mr. Forrest.

monument forms a noble ornament to the churchyard, and a lasting tribute of respect from grateful workmen.

The older part of the churchyard is perhaps, to an antiquary, the most interesting. The southern side of the church was always considered the most sacred part of the burial ground—the sanctuary. Here, and immediately round the church, are crowded together the tombstones of generations of honest yeomen, thrifty artizans, and hard working tillers of the soil. One cannot wander among the crumbling tombs, or listen to the knell of some old parishioner, without reverting almost unconsciously to Gray's inimitable *Elegy* :

Now fades the glimmering landscape on the sight,  
 And all the air a solemn stillness holds ;  
 Save where the beetle wheels his drony flight,  
 And drowsy tinklings lull the distant folds.  
 Save that from yonder ivy-mantled tower,  
 The moping owl does to the moon complain  
 Of such as, wandering near her secret bower,  
 Molest her ancient solitary reign.  
 Beneath these rugged elms, that yew tree's shade,  
 Where heaves the turf in many a mouldering heap,  
 Each in his narrow cell for ever laid,  
 The rude forefathers of the hamlet sleep.  
 The breezy call of incense-breathing morn,  
 The swallow twittering from her straw-built shed,  
 The cock's shrill clarion, or the echoing horn,  
 No more shall rouse them from their lowly bed.  
 For them no more the blazing hearth shall burn,  
 Or busy housewife ply her evening care ;  
 No children run to lisp their sire's return,  
 Or climb his knees the envied kiss to share.  
 Oft did the harvest to their sickle yield,  
 Their furrow oft the stubborn glebe has broke ;  
 How jocund did they drive their team a-field !  
 How bow'd the woods beneath their sturdy stroke.  
 Let not ambition mock their useful toil,  
 Their homely joys and destiny obscure ;  
 Nor grandeur hear, with a disdainful smile,  
 The short and simple annals of the poor.

## ABSTRACTS OF ANCIENT LEASES.

The following abstracts of leases will shew the nature of the property the Priory of Nostal possessed in Rothwell, from 1370 to 1538.

Lease, dated 1370, from the Prior to Robert Swillington, of certain arable land with a meadow, called le Croke, in the parish of Rothwell, for the term of sixty-nine years, at the yearly rent of thirty shillings of silver.

Lease, dated Oct. 7th, 1st Richard III., A.D. 1483, between William, Prior of St. Oswald and the Convent of the same place, on the one part, and Sir William Hopton, Knt., on the other part, demises one close or pasture of the same Prior and Convent, in Rothwell, called Crokeyng, then in the tenure of Henry Sutehill, habendum to the said Hopton, from and after the death of the said Sotehill for forty years, at the rent of 40s.

Lease, dated 26th of April 18th of Henry VII., A.D., 1503, from the Prior of St. Oswald to William Gascoyne, Esq., of the same premises contained in No. 4. (Note: This lease seems to have been surrendered.)

Lease, dated 26th of April, 18th of Henry VII., A.D., 1503, from the Prior of St. Oswald to Richard Grave, of a cottage with a garden adjoining, in Rothwell, late in the tenure of Robert Grave, lying near the vicarage there, to have for the term of twelve years at the yearly rent of four shillings.

Lease, dated 5th of July, 21st of Henry VII., A.D. 1506, from the Prior to William Gascoigne, Esq., of a toft or croft and sixty acres of land and meadow with the appurts., in Rothwell, called le Parson land, late in the tenure of the same William, whereof 18 acres lie in Heyrode, and five acres in Rawrode, and twelve acres in the Hope in four places, and nine acres in Holmsley in two places on each side the way, and fourteen acres in the North Field, and upon Stanow Croft, to have for the term of twelve years, at the yearly rent of four marks, with divers covenants.

Lease, dated Oct. the 4th, 8th of Henry VIII., from the Prior of St. Oswald to John Birkhead, alias Harper, of one tenement in Rothwell, late in the tenure of William Hardwick, having the Tythe Lath Garth on the east and the Highway on the west, the river of Rothwell on the south and the Churchyard on the north, to have for the term of twelve years, at the yearly rent of thirteen shillings and fourpence, with divers covenants.

Lease, dated July 8th, 13th of Henry VIII., between Richard, Prior of St. Oswald of Nostal, on the one part, and Humphray Gascoigne, Vicar of the Parish Church of Rothwell on the other, demised to the said Humphray all his tithe of underwood within the parish of Rothwell for ten years, at the yearly rent of ten shillings.

Lease, dated the last day of December, in the 30th of Henry VIII., from Robert, Prior of St. Oswald, and the convent of the same place, to Gilbert Forman, of the following premises, viz., one cottage and croft and sixty acres of land and meadow, with the appurts. in Rothwell, called Parson land, late in the tenure of Richard Grave, whereof

18 acres	...	in Hayrode.
5 „	...	in Rawrode in two places.
12 „	...	in Hope in four places.
9 „	...	in Holmsley in two places.
14 „	...	in the North Field and upon Stanowcroft.

And one Manse in Rothwell, butting on Kirkbriggs, habendum, for 24 years. Rent for Parson land, &c., four marks, and for the Manse four shillings.

Lease from Robert the Prior and the Convent of St. Oswald to William Croft, Katherine, his wife, and John, their son, of one cottage and barn, with the appurts. situate and lying in Rothwell, near the churchyard of the church, there to have for the term of thirty years at the yearly rent of four shillings and four pence. This lease bears date 13th of January, in the 30th of Henry VIII.

#### EXTRACTS FROM CRYER'S JOURNALS AND MSS.

John Cryer was an antiquated bookseller and diarist at Wakefield. His shop, which was more like an hermitage than anything else, was lined all round with dusty books, and the ceiling was hung round with cobwebs. His manuscripts consist of copies of inscriptions from tombstones, monuments, and windows; extracts from old books, MSS., magazines, or letters; information collected from aged persons; obituary notices, notices of customs, diary notes, statistics, sales of property, political or parochial meetings, sermons of eminent preachers, notes on old buildings and old roads, copies of curious placards or advertisements, the whole interspersed with comments and remarks. He often walked great distances to inspect old churches or tombs. Seventeen folio volumes of his MSS. and thirty-two volumes of mounted newspaper cuttings fell into the possession of Mr. Forrest the antiquary, and are now in the hands of my esteemed friend Charles Forrest, his son. Cryer was owner of the house in which he

lived and some other property. He died May 20th, 1864, aged 83, and was interred in the West Parade Chapel burial-ground at Wakefield.

“1826, at Rothwell.—A square stone in the north wall of the Church bears this inscription. This Church was enlarged in the year One Thousand Eight Hundred and Twenty-six, by which means eight hundred and four additional sittings have been obtained, and in consequence of a Grant from the Society for Promoting the Enlargement and Building of Churches and Chapels, six hundred and forty-four of that number are hereby declared to be free and unappropriated for ever.”

“1832, Thursday, June 21st.—Was at Rothwell. Mr. Gibson, the clerk, shewed me the register books. He also shewed me an old waistcoat without sleeves made of coarse canvas, several folds with wool between, very thick and warm—originally the property of the famous John of Gaunt, Duke of Lancaster. This is kept in the vestry. Formerly, when Mr. Taylor was curate, they had some armour belonging to John of Gaunt, but which he had disposed of to some one. Taylor was a queer fellow. In the windows within the vestry are the following inscriptions in stained glass:—The enlargement of this Church on the north side together with the Chancel, and also the stained windows where finished by the Rev. Joseph Wardle, Curate, in the reign of George the Fourth, Anno Domini, 1826. Rev. R. Brandling, Vicar; John Gibson, Clerk; Thomas Flockton, Sexton; Messrs. Atkinson and Sharp, of York, Architects; James Verity, of Rothwell, Builder; John Bower, of Rothwell, Glass Stainer. At the west end of the Church near the font formerly hung two curious old paintings—Moses and Aaron.

#### TOMBSTONE AT WARMFIELD CHURCH.

Here lieth interred the body of William Lyley, Junr., of Warmfield, yeoman, who departed this life the 8th day of May, in the year of our Lord, 1753, and in the 46th year of his age. Also near this place lieth the body of Jane, ye wife of William Lyley, who died July ye 5th, 1773, aged 72 years.

#### PECKETT THE ARTIST.

Died on the 11th of August, 1795, William Peckett, of York. Mr. Peckett was the reviver of the art of glass painting—self-taught. His work may be seen in windows in the cathedrals at York, Exeter, and Lincoln, and in the windows of the universities of Oxford and Cambridge. He left a work on glass staining and painting in MS. Painter of the window in the chancel of Rothwell Church—The Lord's Supper.

#### CENTENARIAN.

Died at Halton, near Leeds, May 16th, 1831, Thomas Rollinson, gardener. He completed his hundredth year on the 27th of January last. He

had a perfect recollection of visiting the encampment on Clifford Moor in 1745, and many other events connected with that turbulent period.

#### ROTHWELL ARTIST.

Died at Rothwell, December 15th, 1832, aged 54, Mr. Jacob Wright. The large painted window at the south side of Leeds old church was the work of this artist, who had the singular misfortune to lose the sight of both his eyes by accident at distant intervals.

#### ANCIENT CUSTOM.

1832, August 22nd. Michael Proud and the Overseers of Wakefield, Alverthorpe, and Thornes, with others to about 20, perambulated the boundaries of the borough, after which they had a grand dinner at the Old Crown.

#### FISH IN THE CALDER.

1832. On Friday evening, September 21st, Mr. Lochhead, a Scotch tea hawker, was fishing in the Wakefield river and caught a salmon weighing  $5\frac{3}{4}$  pounds. A few years ago there was a salmon caught in the same river which weighed 13 pounds. Men with drag nets have been known to catch as much as 40 stone of various fish in one day.

#### JUBILATION.

1832, June 7th. The Reform Bill received the royal assent. On Friday evening the cannons at Leeds, ten miles off, were heard firing, at Hatfield Hall, by Mr. Senior, and at Primrose Hill, Wakefield, by Mr. William Dickinson's family; heard also in the closes by the girls milking the cows.

#### STOCKS THE BENEFACTOR.

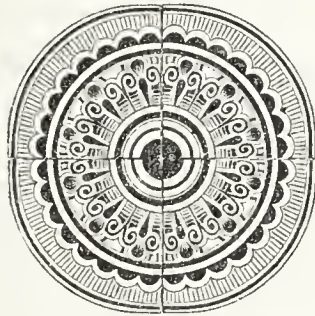
Anecdote of Samuel Stocks, related by George Oates. "When Sammy was out of his apprenticeship with old Tommy Smith, draper, in Wakefield, he had some thoughts of setting up business in Silver Street; he therefore attempted to take the shop of Timothy Heald, grocer, next the Royal Oak in that street, the fixtures to be taken at a fair valuation, and whichever ran off was to forfeit five pounds. In the interim Mr. Stocks, his uncle, who lived at the Chestnut Trees, top of Northgate, advised him not to set up in Wakefield, because what he would sell would amount to so little, but go to Manchester at once and begin as he ought to do. Sammy came to the determination that he would go there, and not begin in Wakefield, so he visited Mr. Heald intending to pay the forfeit. Found him in his shop. 'Well, Mr. Heald, have you got the fixtures valued?' 'Yes.' Mr. Heald shewed him the valuation, saying, 'But he has valued them at too little.' Sammy looked at it and said, 'I think he has valued them at sadly too much, I won't give it.' 'Well then,' said Mr. Heald, 'I'll pay you the £5 and have done



with it.' Mr. Heald then counted the £5 on the counter and 'I,' said Sammy, 'immediately sloped it up.' Sammy then went to Manchester, began business, and now, 1830, 'tis said that he is worth not less than £5000 per annum."

NOSTAL PRIORY CHURCH.

August 10th, 1828. Against one of the pillars in the middle aisle is hung a paper garland, neatly cut. Within there is a pair of long gloves, cut out on paper, on which is the following inscription, almost illegible from the fading of the ink :—" This garland put up here in memory of poor Ann Chappel. She died April 23rd, 1787, aged 18 years."





PART II.

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NATURAL HISTORY.

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“It is summer ! it is summer ! how beautiful it looks !

There is sunshine on the old gray hills, and sunshine on the brooks,  
A singing-bird on every bough, soft perfumes on the air,  
A happy smile on each young lip, and gladness everywhere.

Oh ! summer is a pleasant time, with all its sounds and sights ;  
Its dewy mornings, balmy eves, and tranquil calm delights ;  
I sigh when first I see the leaves fall yellow on the plain,  
And all the winter long I sing—Sweet summer, come again.”

MARY HOWETT.

“Nor, time regretting, will I e'er bewail

Those hours I loitering spent in woodland, mead, and dale.”

MILLHOUSE.



## NATURAL HISTORY.

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### RURAL NOTES AND DIARY OF NATURAL PHENOMENA FOR 1862.

[ORIGINAL PREFATORY NOTE.]

**SUPERFICIAL** READERS might consider some of the observations here registered exceedingly trifling and commonplace, but it should be borne in mind that there is nothing in nature too mean for notice, and that facts apparently insignificant have often served to clear up, or assist in the solution of, important questions. Naturalists know how pleasing and interesting it is to compare the observations of others with their own; apology to them is unnecessary. However, in noting the manners, migrations, &c., of animals, and also meteorological phenomena, the situation of the observer should always be explained. Areas closely contiguous having differences of soil or aspect often present great differences of phenomena. Lofthouse is situate on the exposed crown of a hill; hence it suffers in a much greater degree from winds, storms, and frosts, than the low-lying country eastwards, and at no time are the erratic or rarer birds or insects numerous,

these wanderers generally choosing to remain in more sheltered places. The spring migrants for the same reason can scarcely be expected to appear early. It is but truth, however, to remark with Gilbert White that continued research will prove any locality to be much richer in both plants and animals than it seems at first sight. The notes following are principally enlarged from entries made in a pocket diary.

#### JANUARY.

Remarkably open, and favourable for farming operations throughout.

#### FEBRUARY.

3rd.—Weather mild. Heard first thrush.

4th.—Wallflowers, in places a little sheltered, in flower.

6th.—Heard the low inward song warbled by the bullfinch in a wild state.

7th.—Noticed one branch of a pear tree of a kind which usually blooms late, in bloom. This branch was of luxuriant growth.

The month was favourable for field work. Showery and generally mild, inducing almost a too forward and succulent growth of vegetation.

#### MARCH.

2nd.—Heard first blackbird.

9th.—Hesle pear bloom bursting. Saw bloom on early pears in 1861, on the 8th.

11th.—Fine after rain. Birds singing at dusk, half-past six.

22nd.—Fine after cold wind. Birds building. Primroses in flower.

March was more than ordinarily wet. The papers, from different parts of the country, contained accounts of floods. Spring seeds were got in with difficulty. Grass seemed to thrive, but wheat and other autumn-sown crops presented a

too rank and succulent appearance. The excessively moist weather favoured the ravages of the slug and the wireworm, particularly on clover leys. The high hopes of cultivators, grounded on the previous beautiful but unseasonable appearances, were consequently not realised. An account from Italy stated that the young wheat in that country, which had grown so rank in consequence of the superabundance of moisture and genial heat, had been mown.

## APRIL.

3rd.—Dor, or dung beetle on the wing.

23rd.—Heard cuckoo and willow-wren.

24th.—Yellow wagtail and redstart arrived, also swallows.

30th.—Corn-crake arrived. How this short-winged bird, which seems, on land, as if it could not fly above a hundred yards, gets across the sea is a miracle.

The weather in April was only moderately propitious for field operations. Some wind prevailed, and rain continued to fall and flood low grounds.

## MAY.

5th.—Saw first sulphur-coloured butterfly.

7th.—Tremendous storm of hail and rain. Glass broken. The bloom of pears, gooseberries, and other fruit much bruised, and the pollen of fruits and flowers blown and washed away. Leaves and small branches cut from the trees, and the herbage of early potatoes, and other spring crops, lacerated and beaten down.

9th.—Evening fine. Birds in full song; rooks cawing and beetles droning.

17th.—Half-past eight p.m.: bats flitting about.

26th.—Redstart that appeared on April 24th, hatched.

May ushered in no particularly genial weather. Wind from the north materially tempered the sun's heat, and showers continued to fall. Turnip and other seeds were got in tolerably well in dry soil, but low ground continued to suffer from water, and presented an uninviting aspect to the farmer.

## JUNE.

12th.—A pair of swallows, which had commenced building their nest under a shed, finished their work about this date. The female appeared to be the chief worker. The male seemed to do nothing towards building the house; but when the female came with mud, straw, or feathers, he escorted her with great consequence and many encouraging twitters, and while she arranged the materials he usually alighted on the dead branch of a tree hard by and sang.

15th.—The young redstarts, hatched on the 26th ult., left the nest.

19th.—Saw first hay in cock.

26th.—The cuckoos ceased to sing about this date. If the old cuckoos leave us about now, some super-eminent faculty must guide the inexperienced young in their flight a month later to rejoin their apparently heedless seniors. The young of other birds, I presume, are generally conducted to their winter quarters by their parents. If the young cuckoos migrate in the night, as most other birds do, the difficulty of their first essay would seem to be increased. I noticed a cuckoo on the 8th of August, and a keeper told me that he once shot a young cuckoo on the last day of August. Montagu states that the males leave before the females.

29th.—A robin that I took notice of occupied twelve days in incubation.

## JULY.

1st.—Cherries ripe.

6th.—The first broods of young birds have now left their nests, and as they hop about near the ground they present dainty temptations to half-famished cats. In securing a meal the general *modus operandi* of these prowlers is to pounce on to the younglings from the branch of a tree, or the top of a wall, when they are hopping on the ground in search of food. Robins, hedge-sparrows, willow-wrens, chaffinches, and redstarts, birds which rid us of a vast number of injurious insects, constitute their principal prey.



30th.—Insects abundant. At this season of the year cooks should exercise very careful circumspection in preparing vegetables and fruits for the table. Insects insinuate themselves into all parts of vegetables. Some of them burrow, and remain in the fleshy parts, and cannot be washed out. Eggs are deposited by insects between the leaves of cabbages and savoys, in the folds of greens, under the cuticle, and in punctures of carrots and turnips; apples, plums, and other fruit, are also the receptacles of insects' eggs. In summer, eggs and insects in different states abound in myriads in our water, milk, and in liquids prepared from vegetables. In spite of all our precautions we devour numberless forms of life which would thoroughly disgust us could we perceive them.

June and July continued windy, wet, and ungenial. The farmers gathered the hay not as they wished, but as they could. Hopes of an early harvest were dissipated. Accounts of various diseases in wheat, induced by the absence of sunlight and unusual humidity, appeared in the papers. Rain deferred the dressing of land, and the sowing of certain seeds, and other seeds more suitable to the time of the year had to be sown. On low land, turnips remained unsown to the end of July.

## AUGUST.

9th.—Noticed flocks of starlings proceeding northwards.

18th.—Redstarts and fly-catchers no longer seen.

25th.—Harvest commencing.

30th.—Bean aphides abundant. These insects begin at the top of the plant, and progress downwards, sucking the juices from the parts as they go. I examined the heads of several plants in a field in June and found a few portly insects in each of them, busy among the unexpanded and succulent leaves. A little later when I was noting the progress of the aphides amongst the beans, I observed the bees perforating the bases of the corollas to get at the honey. The number of bees in

the field, which comprised 14 acres, must have been great, as I found them in all parts where I traversed.

31st.—Found a sparrow's nest at the top of a tree, lined like that of the thrush, with cow's dung. The bed for the eggs was composed of feathers.

August, which should have been the hottest and finest month of the year, was showery and unsettled. Fine weather was still the exception. General harvest operations commenced a fortnight later than last year, and what little corn was housed this month was in bad condition.

#### SEPTEMBER.

2nd.—Partridges not plentiful; but this circumstance is not to be attributed entirely to the wetness of the season, and consequent poor broods, but in some measure to the ascendancy of a "brother animal"—by name, the poacher.

8th.—Harvest general.

12th.—Great quantities of haws. As it is about the middle of May when thorns bloom, the storm of the 7th of May would not interfere with the setting of the fruit, as in the case of earlier-blooming trees.

27th.—Missed the song of the willow-wren.

30th.—Larks singing.

A few intervals of fine weather allowed farmers to gather some of the earliest grain in tolerable condition; much, however, was housed in an unsatisfactory state. As a compensation, potatoes and turnips were an excellent crop. Fruit was inferior in quality and quantity, a failure to be attributed partly to the crashing storm of the 7th of May.

#### OCTOBER.

2nd.—Hen chaffinches congregating.

5th.—Noticed a pair of wrens in the garden. These birds retire to the woods or valleys in summer. I had seen none all the summer, but about this time they appeared in moderate numbers, and were almost obstreperously noisy.

9th.—No swallows. Saw a flock of about 100 missel thrushes. They seemed to be in search of food, some alighting on the ground, some perching in trees.

24th.—This evening, about nine o'clock, a phenomenon, which seemed to me unusual, presented itself in the heavens. About thirty degrees west of north I observed two narrow, parallel spires of hazy light, arising from the horizon to a considerable height, and standing out very distinctly against the dark sky. At first I took them to be merely illuminations shooting up from chimneys of some furnace, but looking steadily over a stationary object I observed that they moved westwards. At the end of about five minutes, having progressed a few degrees in that direction, they both disappeared, melting rapidly downwards. It was a moonless night, but not very dark. A light wind and some clouds came from the west.

The fields, swept of their fruits, are assuming their russet hue; the wind is beginning to whistle round the angles of the buildings, and to whirl the loosened leaves into corners; the tender birds have all winged their way to the south, their songs are no longer heard; the robins and wrens are haunting the sheds; the cattle are sending forth doleful supplications from the pastures; evidences all these of the end of summer.

28th.—Fieldfares arrived.

29th.—Frost, first of the season.

30th.—Keener frost. Red hips, haws, and white rime on the hedges. Till now the dahlias and hollyhocks held up their heads to the sun, and looked proud and defiant as if no disaster would ever overtake them; but this morning a keen, hoar frost, one of King Winter's out-runners, has come, and left them in irreparable ruins.

31st.—Larks flocking.

Wind and rain characterised October. What late fruit remained on the trees was blown off and greatly injured. Owing to the absence of the sun, beans and some other crops remained long in the fields.

## NOVEMBER.

1st.—Bullfinches appeared in the orchard. These birds accompany each other in winter, in pairs or in families of four or five.

6th.—Saw a flock of fieldfares proceeding southwards. Weather more winterly.

10th.—Snow; first of the season.

13th.—Ash, oak, and elm, leafless. Noticed another flock of fieldfares, about 200, passing southward.

18th.—Beans in stook still out in the fields.

26th.—Noticed great numbers of dipterous flies, beetles, spiders, and centipedes in a lively state in a heap of warm fold manure.

27th.—Snow. Laburnum in seed. This seed is said to be bitter, but some which I tasted from a young tree was not bitter, but mild, like the seed of vetchlings. Birds do not eat it, and I suppose it would be said they do not because it is poisonous; but how do they know that it is poisonous? The tree grows wild in Switzerland, Italy, and other southern countries, and of the genus—(*Cytisus*) laburnums—there are about thirty species.

29th.—Thaw, after a fortnight of snow and frost.

The dark bean-fields, scattered over the country at intervals, presented, amid the fog and rime, rain and wind of the month, a desolate appearance. Owing to unpropitious weather, beans and other late harvest crops, potatoes, and turnips, remained long in the fields, and thatching, and other work connected with harvest, was long delayed. Grain, thrashed immediately after harvest, was soft, and consequently unsaleable.

## DECEMBER.

3rd.—Mild weather.

10th.—Fine. Gnats in the air.

13th.—Mild: blackbird in song.

19th.—High wind.

23rd.—Open weather. Grass and weeds quite green.

25th.—A colony of insects (*Cocci*) lodged in the crevices of the bark of an apple tree, seemed to be hybernating in the same state (unwinged) as that in which they had passed the warmer season. In summer, when I examined them, I always found them moving very slowly to and fro in the crevices of the bark, apparently living on the sap. They are established on the eastern side of the arms of the tree, five or six feet from the ground, out of danger of hail or driving rain from the west. The tree did not seem in summer as if injured by them, but they did not abound in great numbers.

December was notably fine and open; the middle of the month reminded us more of April than of winter. Wheat-sowing was consequently finished satisfactorily, and ploughing and other farm-work pushed forward.

A connected history of the natural phenomena of 1862 would present many peculiarities, and could not fail to be exceedingly interesting and suggestive. Little snow fell in any of the winter months. January and December were unseasonably fine. Much rainy and windy weather prevailed in summer. Insects—aphides, gall-flies, the larvæ of moths and saw-flies—abounded in vast numbers. The foliage of some fruit-trees turned brown, and fell off in August. Birds of passage departed early.

Rainfall of the year at Leeds, 100 feet above sea-level.

Registered by Mr. Fox, Civil Engineer.

	In.		In.
January ... ..	1.265	July ... ..	1.835
February ... ..	0.360	August ... ..	1.505
March ... ..	2.710	September ... ..	1.940
April ... ..	1.280	October ... ..	4.215
May ... ..	2.990	November ... ..	0.370
June ... ..	1.945	December ... ..	1.325
Total 21.740.			

RURAL NOTES AND DIARY OF NATURAL  
PHENOMENA FOR 1863.

I offered a few introductory remarks to the notes of 1862, which are, of course, as applicable to the following similar register; but I may here repeat that my observations refer only to a limited district. The nature of the soil, and the cultivated crops which it sustains; the aspect of the country; its populousness; height above the sea; presence of water or woods, influence the economy of animals to a great extent, and determine the abundance or scarcity of plants. One limited area may present very different phenomena from another not far distant. No two seasons are alike; no district remains for successive years unchanged—there are always little differences to note, and in a comparison of these differences lie the chief value and interest of the naturalist's notes.

JANUARY.

11th.—Open weather. Thrushes singing continuously. Wren in song.

13th.—Saw a flock of large migratory birds passing at a great height, southwards.

22nd.—Catkins abundant on birch and hazel. Catkins on willows bursting.

January, like January last year, was unusually mild. Rain, wind, and sleety blasts were the chief wintry characteristics. No hard frosts or thick snows. Vegetation appeared too forward. Very few fieldfares appeared this month, though haws and other wild fruits were plentiful.

FEBRUARY.

1st.—Coltsfoot flowers bursting.

3rd.—Very warm and springlike; evening moonlight. Boys and girls playing and shouting in the open air as though it were May.

7th.—Rose, gooseberry, raspberry, and thorn buds bursting.

11th.—Mild. Lilac buds bursting. Song-thrush and missel-thrush, blackbird and lark, in song.

17th.—Slight frost. Heard chaffinch in song. Coltsfoot in flower.

21st.—Farmers busy in the fields. Pairing notes of sparrow and blackbird heard.

24th.—Yellow-hammer in song.

A blast or two and a few slight frosts were all that occurred this month to remind us of winter. The weather was open and inoderately dry. Beans and other spring seeds and potatoes were got in early. The same mildness prevailed throughout Europe. The ice in the northern corn ports broke up early. Nests of the robin and thrush were found in the beginning of the month.

#### MARCH.

2nd.—Birds pairing generally. Daisy, dandelion, wild strawberry, and furze in flower.

4th.—Wasps and bees on the wing.

8th.—Saw first nest, a robin's. Moles numerous.

11th.—Wren in full song.

16th.—Robin laying.

18th.—Field work busily going on. Noticed starlings flying about and examining buildings for nesting sites.

22nd.—Bloom on some pears. Wood-anemone and pilewort in flower.

25th.—Thorn leaves unfolding. Young birds in the hedges.

29th.—Gooseberry leaves out. Plum in bloom.

March was fine and exceedingly favourable for spring sowing.

#### APRIL.

3rd.—Dog-violet in flower.

10th.—Bees and other insects becoming numerous.

11th.—Thorn, lime, and mountain-ash leaves unfolding. Oak, ash, beech, and maple leafless.

13th.—Willow-wren heard. Heartsease and starwort in flower.

16th.—Fine. First swallow. Marsh-marigold, garlic, and cowslip in flower.

17th.—Yellow wagtail arrived. Elm, horse-chestnut, larch, and lime in leaf.

19th.—First noticed white down, caused by *Cocci*, on young larches. (*Chermes laricis*, larch bug.)

20th.—Saw numbers of yellow-hammers, chaffinches, green linnets, sparrows, and rooks, feeding in the newly-sown barley fields. Hyacinth and cardamine in flower.

22nd.—Bloom on cherry, apple, and pear trees. Wild geranium (*G. molle*) in flower.

25th.—Much bloom out. Weather droughty; high wind. Young robins in the hedges.

26th.—Coltsfoot in seed. Elm in leaf. Tree-lark arrived. Sand-martins on the river Calder. Lousewort and forget-me-not in flower.

28th.—Heard cuckoo. Blasts of hail and rain.

30th.—Fine. Butterflies on the wing.

The month was highly propitious for agricultural operations. Slight showers fell occasionally, but scarcely sufficient to moisten the ground, or to refresh the unfolding foliage. Gleamy and fitful, April, this year, well verified the old adages that are associated with it.

#### MAY.

1st.—Saw first aphides—on sweetbriar. Heard corn-crake and several cuckoos.

2nd.—Fresh, warm, and cloudless; flowers rapidly expanding. Bees humming and birds singing everywhere.

4th.—Rooks hovering about the potato fields. The best plan to scare the rooks is to fasten a dead one on the ground with two pegs, moving it to a fresh place occasionally. Do not let it dangle, as is generally the case, from a stake, thinking that it otherwise can't be seen; rooks have good sight. I



placed a dead one in the middle of a small field that had suffered from their visits, and it had the desired effect. Its mates from a rookery came once or twice; but instead of alighting they circled agitatedly over the field and uttered loud lamenting cries, occasionally swooping down within a foot or two of their motionless companion as if trying to get it up from the ground. In a couple of days they entirely deserted the field. This method is not new. Bloomfield advises it in his "Farmer's Boy." (One of the best and simplest methods that can be adopted to frighten small birds is to place a coloured flag or streamer, fixed on a short pole, amongst the fruit bushes or seed-beds, taking care to shift it every two or three days.)

5th.—Swallows increasing. Sedge-warbler and white-throat arrived.

9th.—Dry weather. Sorrel, ling, fumitory, tormentil, and field-madder in flower.

16th.—Thunder. Saw first eggs of the greenfinch. Found nest of the lesser white-throat. Gooseberries ready for pulling.

19th.—Noticed minute flies, covered with pollen dust, creeping among the stamens of buttercups.

23rd.—Found a song-thrush's nest not lined with cow's dung or earth in the usual way, but dead grass. It contained one egg, but other eggs were subsequently deposited, and the pair reared a brood in it.

24th.—Found a song-thrush's nest on the ground among short grass, with three eggs. One of the eggs had been sucked by some animal. It had a hole in each side about the eighth of an inch in diameter. The nest was deserted.

26th.—Fine and dry, land hard, wells low. Columbine and peony in flower.

27th.—Oxeye daisy in flower. Noticed sparrows feeding on the seeds of grasses.

30th.—Not much bloom on thorns. Beans and peas in flower.

31st.—Spotted flycatcher arrived.

## JUNE.

3rd.—Poppy, foxglove, dog-rose, elder, lime tree, and wood nightshade in flower. Poplar shedding down. Meadow cranesbill in flower. I found this plant on the banks of the Aire at Oulton. It is well worthy of being cultivated in the garden. It bears a large flower of a beautiful blue colour.

16th —Eyebright, spotted orchis, yellow pimpernel, ragged robin, common pimpernel, bindweed, and honeysuckle in flower. Weather showery.

17th.—Noticed a small colony of sand-martins in a gravel-quarry at Oulton.

23rd.—Corn scabious and burdock in flower. Young larches covered with *Cocci*. Haymaking commenced. Crops of grass early and good. Corn in ear.

Some showers fell in the first half of the month which did immense benefit to the shrivelling crops. The latter half was very fine and dry, and the hay-making was commenced auspiciously.

## JULY.

1st.—Examined gizzard of a sparrow that had been caught in a trap; found corn, vegetable fibrous matter, and some seeds of weeds; no insects.

2nd.—Great numbers of aphides on nettles, willow herbs, and other weeds.

4th.—Cuckoo no longer heard. Examined stomach of a greenfinch; found turnip seed and seeds of weeds; no insects.

6th.—Noticed sparrows feeding in flocks among the new-mown grass. Found nest of lesser redpole lined entirely with seeds of groundsel.

11th.—Hot weather; thermometer standing at 93° in the sun. All the people out busy making hay.

21st.—A little rain. Corn-crake and sedge-warbler not heard much after this date.

27th.—Sparrows commenced feeding on growing corn.

31st.—The robin's song now begins to be more audible as the notes and songs of the summer warblers gradually decline.

July was fine for the ingathering of hay; sometimes hot. A few showers fell but no great quantity of rain. There was an occasional thunder shower, but not so violent as to do any material damage to the growing crops, or to fruit.

AUGUST.

3rd.—Wasps not abundant. Apples and pears ready for pulling.

6th.—Harvest commencing. Showers.

8th.—Berries red on the mountain ash.

11th.—Berries on the mazerian ripe.

12th.—Found in the gizzard of a naked sparrow—insects, some grains of new wheat, a little sand, and two small mollusks—*Helix Hispida* and *Zua lubrica*.

15th.—Found in gizzards of two young sparrows, new wheat, some halves of peas, and traces of insects.

16th.—Thrush, wren, and dunnock not in song.

18th.—Harvest general.

21st.—Blackberries ripe. Berries on wood-nightshade red.

22nd.—Cloudy and sultry. Swallows, old and young, very noisy and hawking low. Willow-wren yet in song.

25th.—Thunder and rain.

26th.—Berries on the guelder-rose red.

28th.—Showers. Weather unpropitious for harvest.

29th.—Many weeds covered with a white downy fungus. Very few ants. Found in stomachs of two young nestling greenfinches, seeds of weeds and sand; no insects.

SEPTEMBER.

2nd.—Rain. Much corn out. Wrens singing. Found earwigs in the dry urn-shaped seed-vessels of the campion. Earwigs feed on the seeds, and also find shelter in these urns.

7th.—Wind and rain. Saw a titmouse feeding on the heads of thistles. Nuts and haws scarce.

11th.—Found a greenfinch's nest with young; this was the last arboreal bird's nest that I observed.

13th.—Fine. Berries on the briony red; forget-me-not still in flower.

18.—Fine. Missel-thrush in song.

21st.—Rain. Berries of the elder ripe.

26th.—Noticed earwigs in the dry seed vessels of the fox-glove. Windy; leaves of forest trees falling.

30th.—Larks in song. Swallows yet numerous.

#### OCTOBER.

1st.—Saw a house martin's nest containing young—a late brood.

4th.—Noticed a redpole feeding on the plumed seeds of the hawkweed. Larks singing occasionally.

5th.—Saw several martins.

12th.—Bullfinches appeared in the orchard. These birds do not feed much on buds in open weather when they can obtain other food. I saw very few in November or December—two mild months. That they do attack buds in winter for the buds alone, and not for the insects they are supposed to contain, is now admitted by most naturalists; though Bewick and a few others of lesser note promulgated a contrary opinion—an opinion grounded doubtless on sympathy and theory rather than on rigid observation. A long list of illustrious authorities might be adduced in support of the view that these birds derive their nourishment from the buds alone. Other birds besides the bullfinch feed on buds.

13.—Graminivorous birds now begin to feed largely on the ripened seeds of grasses and weeds; and thrushes search after fallen fruit.

19th.—Rain. Thrushes singing on mild days.

21st.—Horse-chestnut, elm, and sycamore leafless.

22nd.—Yellow-hammers, sparrows, and other birds now begin to visit the stackyards.

23rd.—Fieldfares arrived; probably passing southwards. I saw none for several days afterwards.

25th.—Fine. A few beans still out in the fields. Blackberries, elderberries and hips moderately plentiful. The last-named hanging in the leafless hedges, in scarlet clusters, present a very beautiful appearance.

Much rain fell in September and October when the corn was being cut, and while it was out in stook, giving rise to serious apprehensions. Some was housed in bad condition. The major part, however, was got in, after much anxiety and trouble, tolerably dry. Crops were generally good. The early crops of potatoes, turnips, and other roots, were also satisfactory.

NOVEMBER.

3rd.—Saw fieldfares passing southwards. Rain.

5th.—Noticed sparrows clinging about the sides of haystacks in quest, I supposed, of the dry grass seed. I have made a great many examinations of the crops and gizzards of sparrows, young and old, this year, but failed to find evidence of that utility which many naturalists give them credit for. The writers who speak of the sparrows as consuming vast quantities of insects in summer have not attended to their habits in the fields. This year I have examined the stomachs of sparrows in all the summer months, and I almost invariably found them filled with grain and other vegetable matter, and gritty sand; and I found a far less number of insects in the crops of the young than I expected. The hard and strong bill of the sparrow unquestionably proclaims it to be a bird constituted to feed on hard food. In June a boy caught several old sparrows and some young ones in a common brick trap. If these wary birds loved insects as they are said to do, they assuredly would not be enticed into the boys' rude traps at this season of the year with a bait of a crumb of bread, or a grain or two of

wheat. Close observation enables me to contradict very positively those who assert that the adult sparrow feeds largely on insects.

There are other birds besides the sparrow whose increase the farmer and gardener would do well to watch with a jealous eye, such as the rook, the greenfinch, the chaffinch, bullfinch, and blackbird. These birds might soon become prejudicially numerous if allowed to increase without artificial check. The cultivator should be allowed a little latitude to judge for himself in matters that so much concern himself. The habits of birds vary with circumstances; one species may be hurtful in one locality, and beneficial in another. Here is a list of common Yorkshire birds which are truly useful in the field or garden, feeding almost entirely on insects: Flycatcher, hedge-sparrow, wheatear, whinchat, redstart, redbreast, sedge-warbler, whitethroat, willow-wren, pied wagtail, Ray's wagtail, tree-pipit, meadow-pipit, tree-creeper, wren, cuckoo, landrail, goldcrest, swallow, martin, sand-martin, and swift. I earnestly commend these little birds to the favour of the gardener and farmer. I hope we shall see them, at no distant time, enjoying the protection and immunity that is so universally accorded to the familiar robin. They are the true friends of the cultivator, and a knowledge of their habits and value ought to be taught at every fireside and in every school.

8th.—Noticed a goldcrest among the gooseberry bushes.

19th.—Sparrows and other birds feeding in the stubbles.

Fortunately for the occupiers of wet soils, November, especially the latter part, proved fine and very favourable for the sowing of wheat and the ingathering of root crops. The greater part of the month was mild and clear—very unlike November.

#### DECEMBER.

7th.—Mild. Buttercup, corn salad, campion, dead nettle, shepherd's purse, wallflower, cranesbill, violet, and some species of *Veronica* yet in flower.

8th.—Noticed a good many husks of common spurge seed lying at the roots of the plants. The spurges are a poisonous family, but I believe greenfinches feed on the seed, for I have seen them perched on the plants, though I have not recognised the seed in their crops.

9th.—Procured two tree-sparrows that had been shot at a neighbouring farm. This bird occurs here sparingly.

30th.—Mild weather. Many garden plants and weeds in flower.

December was mild and moderately dry throughout, permitting field and garden work to be carried on without intermission.

The winter months of 1863, like the corresponding months of the previous year, were extraordinarily mild. In January birds were carolling in the trees, and lambs, even in the north of Yorkshire, might have been seen sporting on the hillsides. Accounts of the finding of birds' nests in January and February appeared in the natural history magazines, from all parts of the country. Numerous wild and garden plants bloomed in January, and wild flowers bloomed generally throughout the spring and summer at least a fortnight earlier than usual. The spring birds of passage arrived about the usual time; but some of the hirundines stayed here very late. The most notable ornithological event of the year was the appearance, in considerable numbers, of Pallas's sand-grouse—a very rare and beautiful bird. This species was not known as a wild bird in England, nor even in Europe, before 1859. I believe some had been kept in confinement at the Zoological Gardens, London, and some by the late Prince Consort at Windsor previously. In 1859 two specimens were captured in England. It inhabits the steppes of Tartary, and breeds in the sand. Its distinctive name is after Pallas, a German traveller, who first made it known to naturalists. It is now, of course, added to the British list. Summer was fine and rather dry, to about the end of August. Crops of cereals and roots, which were

gathered early, were satisfactory. I heard very few complaints of the ravages of insects. Many plants, as will be seen from entries made under the dates of December 7th and 30th, continued in bloom till a late period.

Total rainfall as registered by Mr. Fox, at Leeds, 31.91.

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## RURAL NOTES AND DIARY OF NATURAL PHENOMENA FOR 1864.

### JANUARY.

7th.—Keen rimy frost. Birds frozen out. All the plants that had kept in bloom were deflowered.

15th.—Hedge-sparrow in song. Found in gizzard of sparrow, grains of wheat and much sand. I generally find the contents of sparrows' gizzards to consist of nearly half sand.

22nd.—Found barley and sand in gizzard of yellow-hammer; no insects. Mild. Thrushes singing. Snowdrop in flower.

28th.—Found barley and sand in gizzard of chaffinch.

29th.—Noticed a pair of marsh tits clinging about the boles of apple trees. They go in pairs.

30th.—Open weather. No snow up to this date.

31st.—Leaves of woodbine expanding. Saw very few bullfinches or fieldfares this month.

### FEBRUARY.

6th.—Frost; thin covering of snow; field-work stopped.

9th.—Snow. Male and female flowers of hazel out. Wild strawberry (*Fragaria sterilis*) in flower.

12th.—Noticed a large jargonelle pear tree, which had early buds, disbudded by the sparrows; also noticed quantities of scales of buds lying under red current bushes.

14th.—Thrush, lark, and robin in song.

15th.—Moles busily throwing up hills.



16th.—Coltsfoot, dandelion, furze, and daisy in flower.

17th.—Chaffinch and hedge-sparrow in song. Dog-mercury in flower.

24th.—Corn-bunting, yellow-hammer, and blackbird in song.

MARCH.

6th.—Crocus in flower. Rooks building.

17th.—Pilewort in flower.

18th.—Wheatear arrived.

19th.—First humble-bee on the wing.

20th.—Thrushes building. Mazereon in flower.

24th.—Fine. Many titlarks and wagtails feeding after the plough.

APRIL.

2nd—Periwinkle, meadow rush, and anemone in flower. Found first nest with eggs.

6th.—Found nests of the hedge-sparrow, blackbird, thrush, and robin with eggs.

8th.—Dor-beetle on the wing.

13th.—Willow-wren and swallow arrived.

14th.—Yellow wagtail arrived.

15th.—Heard and saw tree-larks.

17th.—Saw bees on willow and furze blossoms. Whinchat arrived. Green spines on larch.

18th.—Ground-ivy, great butterbur, shepherd's purse, and stitchwort in flower.

20th.—Thorn and horse-chestnut in leaf.

22nd.—Heard cuckoo. Pear, apple, elm, and sycamore in leaf.

24th.—Heard and saw whitethroat and sedge-warbler. Dog-violet in flower.

30th.—Heard corn-crake. Cardamine and blue-bell in flower. Walked down the Calder side to Castleford. About one mile east of Castleford there is a natural mount known

as the "White House." The view from this mount looking north-west, west, and south-west is very extensive. On the right is Ledstone Hall, and beyond are long reaches of beautiful country both green and wooded. In the west the view opens up to the moorland—a vast amphitheatre studded with villages, and hamlets, and fruitful fields. Just at the foot of the mount is the large brick-built village of Castleford, and a little to the right there is the confluence of the rivers Calder and Aire. Both rivers can be traced running down to one point. It must be admitted, however, that the smoke from the potteries, which the beholder has to look through, greatly impairs this otherwise fair prospect. Not the least interesting objects about Castleford are the sand-mines, situate about a mile eastwards. These mines strike underground about 10 or 12 feet from the surface, from a hillside facing the west. From three or four main passages, lateral galleries ramify in many directions, it is said, for a distance of two miles. The sand is brought out in square corves drawn by horses. It is then carted to the boats or to the railway and sent to different parts of the country for moulding purposes. The trade and population of the village are rapidly increasing: there are now several potteries, glass-houses, and some ironworks. The population of the township at the time of the last census amounted to 4504. Castleford is situate on the western edge of the magnesian limestone, which runs across Yorkshire from north to south. The sand-mines are now (1880) worked out at Castleford, but others are in operation a little eastward, at Weldon and Glass Houghton. The bed of sand varies from three to twelve feet in thickness.

## MAY.

2nd.—Oak in leaf. I notice a great difference in the time of the leafing of oaks, one tree compared with another. Saw a small flock of fieldfares.

5th.—Young thrushes, hatched on the 22nd April, fledged.

9th.—Celandine, dove's foot cranesbill, germander speedwell, cow-parsnip, and holly tree in flower.

10th.—Barberry in flower. The young leaves of the barberry are acid and refreshing. They are excellent for quenching thirst on a hot day, a fact which all naturalists and lovers of the country ought to remember.

14th.—Mountain-ash, sycamore, broom, blue bugle, ladies' bedstraw, field lettuce, mouse-ear chickweed, ladies' mantle, and sorrel in flower.

18th.—Thorn and laburnum in flower. Saw a fieldfare passing northward.

23rd.—Earth-nut and yellow pimpernel in flower.

31st.—Dry weather. Found nest of whinchat with seven eggs. Found nest of wagtail occupied by a bee. The bee had raised the lining above the rim of the nest, and the eggs, three in number, had rolled out.

#### JUNE.

1st.—Keen frost. Tender herbage cut off, and ferns and hardy shrubs blackened and curled at the ends of the fronds and branches. The thermometer sank several degrees below freezing point in the night.

5th.—Twayblade, wood nightshade, stonecrop, and eye-bright in flower. The whinchat does not make its common note, "utick," on its first arrival; it is a breeding note.

12th.—Young larches covered with eggs and larvæ of *Cocci*. Foxglove and wood sanicle in flower.

16th.—Elder tree, poppy, black bryony, woodbine, dog-rose, archangel, and cornel in flower. Saw the green linnet feeding on the seeds of the mezereon. The thrush feeds on the seeds of the pyracanthus.

18th.—Noticed the yellow-hammer singing on the ground. Few cuckoos in song. The cuckoo sings very indifferently after about the middle of June. Found a nest of the robin containing two eggs snow white, and two slightly spotted. The female incubated these eggs about fourteen days, but no young were produced.

23rd.—Rain. Ragwort, and greater scullcap in flower.

25th.—Haymaking commencing.

26th.—Cherries and raspberries ripe.

28th.—Rain. Toadflax, woodsage, and meadow-sweet in flower. Examined gizzard of rook, found entire cherries, elytra of beetles, a seed or two and a quantity of sand.

#### JULY.

6th.—Took a nest of the tree-wasp (*Vespa Britannica*) from a gooseberry bush. A fragment of the nest having fallen down among some weeds, a few wasps that had escaped immediately commenced working around it and soon had another ball formed about three inches in diameter. In a day or two, however, when I was passing, I noticed that a blackbird had picked this second nest to pieces, to get to the few larvæ that it contained.

7th.—Privet in flower. Aphides very abundant on young oaks, beeches, limes, and sycamores. Something must destroy the insect enemies of the aphides, or they would not be so exceedingly numerous. Warm, dry weather seems to favour them.

10th.—Corn-cockle and restharrow in flower.

15th.—Betony, St. John's wort, black knapweed, and hairbell in flower.

18th.—The cry of the corn-crake ceased about this date. Found in crop and gizzard of greenfinch, two or three sorts of weed seed, a grain or two of wheat, and sand.

20th.—Hempnettle and centaury in flower.

22nd.—Larger willow-herb, broad-leaved helleborine, and hawkweed in flower.

26th.—Larvæ of the sawflies not very numerous on gooseberry bushes. Ears of wheat full of aphides. White melilot in flower.

30th.—Young robins hatched in April, sing in July. The song—a sort of sweet inward warble—is, however, so low that it is necessary to be within a few feet of the performer to hear it.

31st.—Burnet saxifrage in flower.

AUGUST.

- 8th.—Harvest commencing.
- 10th.—Berries on mountain-ash red. Angelica in flower.
- 12th.—Found in gizzard of young sparrows, elytra of beetles, and husks of grain.
- 20th.—Ash seeds, beechmast, and hazel nuts, abundant.
- 22nd.—Haws red, plentiful. Found in crop and gizzard of nestling greenfinches, seeds of weeds and sand. The greenfinch feeds its young almost entirely on the seeds of weeds. The stomach of the nestling greenfinch is not so soon empty as that of the nestling sparrow, digestion in the former bird being slower.
- 23rd.—Wasps abundant.
- 27th.—Blackberries, and berries on the wood nightshade, ripe.

SEPTEMBER.

- 1st.—Young elm leaves falling.
- 5th.—Boisterous weather; fruit much damaged.
- 13th.—Corn housed dry.
- 19th.—Missed the song of the willow-wren about this date.
- 23rd.—Ivy in flower. Many starlings and rooks feeding in the fields among the withering turnips.
- 27th.—Elderberries ripe. Grub at the roots of turnips.
- 28th.—Droughty. The effects of a long continuation of hot and rainless weather cannot but be almost painfully evident to even the most unobservant in the country. The meadows and fields lose their green and smiling hues, and present a uniform and arid aspect. Day after day the anxious farmer consults his glass; still the heavens are cloudless, still the sun continues to parch his already shrivelling crops. The meagre fruit hangs on the trees unfed, and the leaves, withered and yellow, tremble on the branches. The corn is ripened prematurely, and the wild plants of the field drop their petals and cast their seed before their time. In the scorched pastures the famishing sheep collect in the shade of a tree, where there is a

patch of green, or nibble a scanty mouthful in the hedges; and the lea resounds with their melancholy bleat. The ponds that supply the cattle are waterless; the kine wade up to their knees in the cool muddy dykes, and as they munch the fleshy tops of the flags, gaze with a humid eye at the passer-by. The groves are silent; the robin and the wren sit in the shade preening their feathers, mute as though their throats were parched. The lover of the country can no longer enjoy his rambles; not one fresh flower, nor scarcely a green blade there is to claim the eye; the weeds and the grass on the wayside, and the thorn branches that overhang the path are loaded with dust. Everywhere nature droops. The river, once a full and rolling current, now serpentine along with lazy motion, black with impurities. The village fount has ceased to gush, its familiar music is no longer heard; the water-carrier now returns from it unladen. And the little brook is gone that rippled so merrily in early spring. The alisma can no longer lave its smooth leaves, nor the blue forget-me-not mirror itself on its surface; the heat of summer has drained the naiads' urns.

## OCTOBER.

1st.—Leaves falling generally. They wither and fall a little sooner, after a drouthy or windy summer.

3rd.—Found in crop of greenfinch, seeds of the sun-spurge; in gizzard of chaffinch, seeds of the garden goosefoot, and seeds of other weeds.

7th.—Swallows and martins gone.

15th.—Hedge-sparrows begin to utter their winter notes; yellow-hammers draw towards the stacks.

16th.—Redwings arrived. Corn-bunting singing.

## NOVEMBER.

4th.—Berries on holly plentiful. Much bloom on ivy.

14th.—Mild. Dor-beetle on the wing.

26th.—Many sparrows and yellow-hammers on the newly-sown wheat fields.

DECEMBER.

9th.—Wren in song.

10th.—Glutinous matter spreading over the buds of the horse-chestnut.

11th.—Mild. Thrushes singing.

17th.—Snow; first of the winter.

18th.—More snow. The robin sings its sweetest little songs on the ground. These songs are low, but finely modulated, as any observer may judge, who will dig his own garden in winter, and be quiet and attentive.

SUMMARY.

Plants bloomed in spring, and the spring migratory birds appeared, about the usual time. The summer was remarkably dry and long—beginning with April, and lasting till the middle of October, consequently many cereal crops were only partially fed at the time of ripening, and yielded perhaps less than an average quantity; the hay crops were also light. But if these crops were scanty in quantity, they were garnered very dry, and excellent in quality. So with turnips, if they were attacked in an unusual manner by the ravenous larvæ of a moth, there were fewer snails about the roots than are commonly seen, and the wet and genial weather at the end of autumn made up in some measure for the injurious effects of a rainless summer. The crop of potatoes was not heavy, but they were almost free from disease. So nature goes on compensating for defects. In November and December an unusual quantity of rain fell.

Perhaps one of the most noticeable zoological features of the year was the development, in the early part of summer, of incredible numbers of the larvæ above alluded to, which committed great ravages among turnips and potatoes. This grub retires below the surface of the earth in October, and is in an

inactive state till June, when it reappears in the shape of a moth. The farmer need not fear any injury from it after it has left its food-plant and descended into the earth. Its scientific name is *Agrotis segetum*. One other fact in zoology is worth mentioning, that is the appearance during last winter in various parts of England of the Bohemian waxwings, birds which visit this country at very irregular times, often after very long intervals. Great numbers are recorded to have been seen in 1685. They appeared in 1810, 1822, 1823, 1827, and 1849-50. At the last-mentioned time a large number were captured. The waxwing is a winter visitant from the far north. It is said to feed mainly on haws, and the berries of the mountain ash.

Thus the varying year brings about events and changes, great and small, eminently worthy of the pen or pencil of the naturalist. The zoologist will never lack either sedate or recreative employment. New species of insects are being discovered every year; birds new to us are appearing almost every year; others are becoming extinct. The causes of the periodical appearance of many species of birds are unknown; the purposes in the economy of nature of many kinds of insects have yet to be ascertained; efficacious methods of lessening the numbers of various tribes of insects which are noxious to us have yet to be discovered; and the relations and dependencies between birds and insects are by no means satisfactorily defined. With regard to the latter question it may be remarked that the proportion of insects in any country does not depend so much as is generally supposed on the number of birds. Birds are only secondary agents. Herbivorous insects are kept in check, or should be, by carnivorous ones.

As with the zoologist, so with the botanist, his labours will never end. New species or varieties of plants are discovered every season and old ones are appearing in new localities. Few of the virtues and uses of known wild plants have yet been ascertained. He is far more worthy of praise who proclaims the uses of a plant, than he who simply classes and



labels it. On this head the Rev. Gilbert White remarks: "Instead of examining the minute distinctions of every species of each obscure genus, the botanist should endeavour to make himself acquainted with those that are useful. You shall see a man readily ascertain every herb of the field, yet hardly know wheat from barley." The services of the classifier will however be always essential; for nature will never cease to vary the forms and hues of her productions.

Other changes of a more primal character—changes which the geologist has to watch, are slowly but perpetually progressing on the face of the earth. The river will not always steal over one bed, nor will the sea always be bounded by one shore; the darkness of the ocean-caves is not eternal, neither will the mountain-tops always enjoy the sunlight. The rocks testify to us, with the consecutiveness of a written book, of never-ceasing mutation. The earth is its own biographer; at every revolution round the sun it chronicles a chapter of its history—a strange history of vicissitude.

"With what a glory comes and goes the year;  
The buds of spring, those beautiful harbingers  
Of sunny skies and cloudless times, enjoy  
Life's newness and earth's garniture spread out;  
And when the silver habit of the clouds  
Comes down upon the autumn sun, and with  
A sober gladness the old year takes up  
This bright inheritance of golden fruits,  
A pomp and pageant fill the splendid scene."

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## RURAL NOTES AND DIARY OF NATURAL PHENOMENA FOR 1865.

### JANUARY.

2nd.—Very stormy. Common snipes and Jack-snipes feeding at the springs.

23rd.—Keen dry frosts. No flowers in bloom, or weeds green.

28th.—Rooks examining their old nests.

30th.—Snow. Examined gizzard of blackbird, and found entire haws. This specimen was exceedingly fat. I found masses of fat overlying the intestines, gizzard, and sternum.

The last ten days in January were very harsh and winterly.

#### FEBRUARY.

2nd.—Rooks resort to the turnips in frosty weather.

12th.—Intense dry frosts. Saw the larger spotted woodpecker near Thorp.

24th.—Yellow-hammer and chaffinch in song. Bean sowing commencing.

25th.—Thrush singing. Sallow catkins bursting.

28th.—Milder weather. Blackbirds singing in the evenings. Rooks building and laying; other birds pairing. Corn bunting in song.

#### MARCH.

2nd.—Snowdrop in flower. The snowdrop grows wild near Thorp. Chaffinch begins to utter its note—"weet, weet." It is a pairing note. One of its local names is derived from it.

6th.—Pairing notes of the sparrow heard. Coltsfoot in flower.

9th.—Fine. Jargonelle pear and sycamore leaves bursting.

11th.—Starlings distributing themselves over the country for the purpose of breeding. Missel-thrush in full song.

23rd.—Harsh weather; no flowers. Found nest of robin, first of the spring.

24th.—Pairing note of the greenfinch heard. Titlark in song. This bird will sing a whole day in one spot, rising from and descending to the ground.

30th.—Farmers sowing barley. The common fowl will eat the bitter roots of the dandelion.

March was dry, cold east winds with frosty nights prevailing nearly the whole of the month.

APRIL.

3rd.—Humble-bees emerge from their hybernating retreats. I have often found bees in winter at the roots of gooseberry bushes. Elm tree in flower.

6th.—Found first bird's eggs—a robin's. Gooseberry in leaf.

9th.—Heard chiff-chaff warbler. Birds building generally.

10th.—Heard willow-wren. Wood anemone and pilewort in flower.

12th.—Much thunder and heavy rain. Queen wasps abroad.

13th.—Saw tree-pipit and yellow wagtail. Dog-violet and marsh marigold in flower.

14th.—Rain. After the heavy showers of the 12th and 14th, vegetation developed in a remarkable manner.

16th.—Saw redstart. Sweet violet in flower.

17th.—Many snails abroad. Moles make long runs now near the surface.

18th.—Heard garden-warbler. Horse-chestnut flowers unfolding. At noon the thermometer suddenly sank from 80° to 45° in the sun. The wind turned to north.

19th.—Thorn in leaf; foliage on larch. Shrill squeak of the shrew mouse heard.

21st.—Periwinkle in flower. Vegetation progressing rapidly.

22nd.—Sycamore, horse-chestnut, and elm in leaf. Gooseberry in flower.

23rd.—Heard white-throat. Forget-me-not and ground-ivy in flower in warm situations.

25th.—Heard cuckoo; saw first bat. Plum and cherry in bloom.

29th.—Saw whinchat. Cardamine, sloe, and goldilocks in flower.

MAY.

1st.—Golden saxifrage, marsh violet, and wild apple in flower.

2nd.—Heard sedge-warbler and corn-crake. Saw gray wagtail.

8th.—Oak in leaf. Oaks and ashes are the latest forest trees to leaf.

13th.—Saw either redwings or fieldfares. This is a late date for the stay of these birds; most of them leave this country at the end of April.

15th.—Heard wood-warbler. Corn gromwell and red rattle in flower.

19th.—Saw spotted fly-catcher. Purple orchis and barberry in flower.

29th.—Yellow pimpernel and guelder-rose in flower.

30th.—High wind; much damage done to fruit trees.

#### JUNE.

1st.—Yellow rattle and procumbent pearlwort in flower.

3rd.—Lesser spearwort, Venus's comb, spindle tree, green habenaria, cornel, rock-rose, common gromwell, common veronica, and great stitchwort in flower.

12th.—Hearing that a nightingale was in song at Stanley Hall, I walked there late this evening. The night was dry, mild, and moonlight. To my surprise I found great numbers of people, of both sexes, bent on the same errand as myself. Some were standing in groups, some were sitting under the trees, and some strolling about in the park. The scene was by no means dull or unpleasant. No bird, however, broke the stillness of the night; but occasionally a verse of song, or a clear echoing laugh, would burst from some fair and light-hearted listener, and reverberate along the valley with a cadence not less musical than that of Philomela herself. From the lateness of the season I had scarcely expected hearing anything but the reed or sedge-warbler. The latter is a common nocturnal songster; I heard it as I was returning. Notwithstanding the general disappointment, I think very few would regret or forget their night visit to "hear the nightingale." Many that were there stayed enjoying the novelty of the scene long beyond the "witching hour."

16th.—Cuckoo ceased its song about now. Hay-making commencing.

19th.—Holly, woodbine, and poppy in flower. Weather very dry.

20th.—The gizzard of a young greenfinch, apparently only a few hours old, contained nothing but seeds of weeds.

22nd.—Small bindweed, large bindweed, and wild camomile in flower. Large quantities of the last-mentioned plant grew this year among clover.

23rd.—Cherries and raspberries ripe.

29th.—Viper's bugloss, and yellow melilot in flower. Cultivated plants, and many wild plants dying for want of rain.

JULY.

1st.—Larvæ of gooseberry-sawfly not abundant. Lesser toadflax and corn marigold in flower. Very few aphides on beans.

7th.—Hay housed well. Thunder. For the last two or three years we have had no very heavy thunder-storms here. Thunder storms very frequently divide some nine or ten miles west of us, and direct their course along the valleys of the Aire and the Calder—rivers which flow eastward. Corn-crake not heard.

9th.—Clematis, giant bell-flower, and slender St. John's wort in flower.

18th.—Oats cut. Hay-making finished. Angelica in flower. This is a curious plant: the stem is covered with a mealy dust, which will rub off with the finger. From the top of the sheath, which envelopes the umbel of flowers, a singular leafy branch issues.

24th.—Hot summer weather; thermometer at 95° in the sun. Harvest commencing. Berries on the mountain-ash turning red.

27th.—I seldom hear the "weet-weet" of the chaffinch after July. It is a spring call-note.

## AUGUST.

7th.—Wasps not numerous. Thunder showers. Weather unpropitious for harvest. Crops of plums abundant.

20th.—Whilst walking, in company with Mr. Talbot, a naturalist friend, near Woolley Edge, on the afternoon of this day, we noticed great numbers of the small ant running about on the causeway. They appeared in great haste and confusion. Some were carrying larvæ, and some were carrying perfect ants along with them. They covered the path for a quarter of a mile. We presumed that there was either a swarm migrating, or there had been a battle, and those that were being carried were either prisoners or disabled warriors. They were running about in *various directions*; a fact which inclined us to the latter supposition.

22nd.—Haws red, blackberries ripe.

25th.—Mushrooms and other fungi very abundant.

29th.—Aphides appearing on turnips and other cruciferous plants in vast numbers.

31st.—Turnip leaves turning yellow in consequence of the attacks of the larval aphides. Ivy in flower.

## SEPTEMBER.

6th.—Found two nests of the long-tailed field-mouse, each containing six young.

9th.—Weather very fine. Observed spiders' nets on the top of a high pear tree. The nets had been spun there.

11th.—Winged aphides very numerous. People driving on the roads found it necessary to have veils to keep them from their eyes. Great numbers of these aphides get entangled in spiders' nets.

14th.—Wren, thrush, blue tit, robin, and chiff-chaff singing. Rooks noisy about their nesting sites.

15th.—Very fine. Immense quantities of flies. Favoured by the weather, which was unusually warm, the aphides rapidly acquired wings, and rose from the turnips and other plants, on which they had fed in the larva state, in prodigious

numbers, prevailing in towns as well as over the country. They ascended sometimes to great heights. In some places, especially in narrow lanes, they formed dense bars, and people in passing had to close their eyes, and charge through them with their handkerchiefs. Other aerial insects were also numerous.

18th.—Sultry. Fruit ripened suddenly and early, and soon spoiled. Both wild and cultivated fruit was very fine and large. Haws ripe.

28th.—Bees retiring into the earth. House-cricket begins chirping.

30th.—Many of the warblers and other summer visitors gone. Larks in song.

OCTOBER.

2nd.—Insects very numerous yet. Earwigs very often get entangled in spiders' webs and perish. Larvæ of *Agrotis segetum* among potatoes.

4th.—Fine; but fewer insects in the air. Turnips pushing up new shoots.

5th.—Swallows gone.

6th.—Thermometer at 85° in the sun. Fewer insects.

9th.—Rain. Poplar and elm leaves falling.

14th.—Bullfinches appeared in the orchard.

17th.—Beech and other leaves falling. Ash, oak, beech, and birch leaves are the latest to fall. Fieldfares arrived. Young corn-buntings singing.

23rd.—Slight frost. Buds of the horse-chestnut becoming viscid.

31st.—Noticed sparrows carrying straw and feathers to their roosting and breeding places in houses. Rooks carry sticks about, and repair their nests in autumn.

The weather in September and part of October was very fine; sometimes sultry. A light wind from the east or south-east generally prevailed. Mornings were usually somewhat

foggy, and often very dewy. At mid-day the air was oppressive. Evenings were clear, the stars twinkling in an unclouded sky, reminding us of June.

## NOVEMBER.

7th.—This evening a lunar bow was observed here about a quarter-past ten.

23rd.—Mild weather. Many garden and wild plants yet in bloom, no keen frosts having occurred hitherto. Found green aphides in the folds of plants and in other places apparently torpid.

Much rain fell this month.

## DECEMBER.

8th.—Very mild. Thrushes singing.

11th.—Woodcocks about. The missel-thrush sings occasionally in December.

22nd.—Very mild weather. Many hardy plants yet in bloom.

## SUMMARY.

The spring of the year was propitious for the sowing of seed. Plants bloomed, and the spring migrants arrived about the usual time. Beautiful, but somewhat droughty weather prevailed in summer, that season being prolonged to an unusual length. Fruit trees and field crops appeared to be remarkably exempt from the attacks of herbivorous insects in the early part of the year. I noticed very few larvæ of moths, or sawflies on gooseberry bushes, or aphides on beans. However, about the 25th of August aphides in incredible numbers began to appear on cruciferous plants; the herbage of beans being at that time, I suspect, too old and sapless for them. Turnips were especially infested. So astonishingly numerous were the devourers that the herbage of large fields was completely blighted in a few days. The young leaves of turnips were covered with them *three or four in thickness*. About the 10th of September the weather continuing warm, the aphides, having acquired wings, began to rise from their



food-plants, and sport in the air. These perfect winged insects live only a short time, and probably without food. Swarms of flies filled the air from the 10th of September to about the 5th of October. When the swallows began to turn towards the south the insects began to decrease. The plague of flies is thought by some to have been the cause of the disease which has raged so fearfully among horned cattle; but it is more likely that the two effects have had independent causes. The unusual development of aphides is doubtless referable to unusual meteorological influence; during their prevalence the atmosphere was sultry and calm. Turnips, as might be expected, were almost a total failure. In addition to the aphides which were consuming the sap of the green tops, a few larvæ of the moth *Agrotis segetum*, which were so common in 1864, were eating at the roots. Later in autumn, the turnips which remained sound sent forth new shoots and improved a little. Potatoes were not diseased. The weather in November and December was mild.

Some of the birds of passage stayed here late; the martins and swallows in some parts of England prolonged their sojourn almost unprecedentedly. Two or three species of rare moths, including the death's-head hawk-moth and the humming-bird hawk-moth, were frequently observed.

During the year several hoopoes and other rare birds have been captured in various parts of England. The hoopoe was a rare bird in the Rev. Gilbert White's time. In one of his letters to Pennant, he says:—"The most unusual birds I ever observed in these parts were a pair of hoopoes, which came several years ago in the summer, and frequented an ornamental piece of ground which joins to my garden for some weeks. They used to march about in a stately manner, feeding in the walks many times in the day, and seemed disposed to breed in my outlet; but were frightened and persecuted by idle boys, who never let them be at rest." Since White wrote this, odd ones have been seen or captured almost every year, and a few instances of their having bred are on record.

RURAL NOTES AND DIARY OF NATURAL  
PHENOMENA FOR 1866.

JANUARY.

8th.—Wind and rain.

12th.—Snow, first of the winter.

13th.—Snow and rain.

22nd.—Song-thrush and missel-thrush in song. I often see the missel-thrushes in pairs in winter. The different species of *Parus*—the tits, go<sup>n</sup> in families or pairs. Robins do not associate together. The robin may be found constantly about the sheltered bottoms of valleys in winter, as well as near cottages.

23rd.—Honeysuckle in leaf. Berries on ivy.

28th.—Very mild. Thermometer at 49° in the open air.

30th.—Mezereon and furze in flower. Thrushes singing more continuously. Chickweed green, and in flower.

FEBRUARY.

4th.—A remarkable thunder-storm occurred this evening about thirty minutes past five. The flashes of lightning succeeded each other rapidly, and were of a peculiar purple colour. The storm passed over from east to west, and was attended by a high wind and heavy rain. Such occurrences in winter are seldom witnessed.

5th.—Open weather; various kinds of buds swelling rapidly. Buds of the garden rose bursting.

8th.—Wind, rain, and hail. Berries on ivy abundant.

9th.—Rain; rivers flooded.

18th.—Walked to Cold Hiendley, Winterset, and other places. Jays and magpies about Walton Park. Great flocks of ring-doves.

19th.—Dry frost. Chaffinch in song.

25th.—Wild snowdrop in flower. Blackbird in song. Voles abroad.

MARCH.

1st.—Keen frost. Yellow-hammer in song.

5th.—Frost. Coltsfoot in flower. Wren and lark in song.

13th.—Saw sparrows carrying straws.

14th.—Rather severe frost. Redwings numerous.

19th.—Yew in flower. At the village of Altofts there is a plantation of old yews. Pairing notes of chaffinch heard. Missel-thrush building. Tit-lark in song. Starlings pairing. Sparrows building in walls; they build in walls before they build in trees. Frogs croaking and disporting in the ponds. Rooks restless and noisy.

25th.—Found nest of song-thrush with eggs—first of the season. Gnats in the air.

27th.—Robin building. Elder in leaf. Young slugs abroad. Elm and pilewort in flower. Farmers sowing beans and peas.

APRIL.

2nd.—Found first blackbird's nest with eggs. Corn-bunting in song.

3rd.—On this date I had the fortune to fall in with a specimen of that little known animal the bank-vole (*Arvicola riparia*). Few people know that there is such an animal, and fewer still have had an opportunity of observing it. This vole was first discovered in Britain by Mr. Yarrell. He got specimens from several southern counties. His first specimens were taken in Essex. Since then it has been captured in various parts of England and Scotland. It affects gardens, and lives on roots, such as potatoes and mangold wurzel, and probably on grain. Mine had apparently lived in winter on potatoes; I found it in a potato pit. The bank-vole is very liable to be confounded with the field-mouse and field-vole; hence it may have been often seen, and not distinguished as a different species. It may be readily known, however, by its chestnut-coloured back, and the shape of its head. Its nose is chubby, not pointed like that of the mouse, and its neck is

short, like that of the water-vole. It may be recognised as it is running by the deep chestnut fur of the back. In order to enable anyone to distinguish this animal from the field-mouse, and the field-vole, I have extracted the specific characters of the three from Jardine's "Naturalist's Library":—"Wood or Field Mouse—Ears scarcely half the length of the head; tail nearly as long as the head and body; upper parts reddish-brown, lower greyish-white, with a light yellowish-red spot on the breast. Field Vole—Tail one-third of the length of the head and body; upper parts reddish-brown, the sides lighter; lower parts yellowish-grey. Red or Bank Vole—Tail half as long as the head and body; upper parts bright chestnut-red, the sides reddish-grey; lower parts yellowish-white." It will be seen from these descriptions that the difference in the length of the tail alone is sufficient to separate them. Mr. E. A. Alston, of Lesmahagow, Lanarkshire, a gentleman who has paid much attention lately to the economy and distribution of our native quadrupeds, thinks that the bank-vole is more common than it is supposed to be. In a very kind and prompt letter which I received from him, dated May 17th, 1866, he writes:—"I have little doubt but that the species will be found to be much more generally distributed than is usually supposed and also that it will be found to be more plentiful in the north than in the south." It has been captured recently in Derbyshire. Mr. Alston and other naturalists have found it in Scotland, and Mr. Ranson, of Linton-on-Ouse, informs me that it is somewhat common in the valley of the Ouse, near York.

5th.—Gooseberry in leaf; leaves of the horse-chestnut unfolding.

8th.—Shrews abroad. Anemone or wind-flower, primrose, lesser stitchwort, and lesser periwinkle in flower.

14th.—Tree-pipit, willow-wren, chiff-chaff, and swallow arrived. Noticed two or three kinds of bees at the furze and sallow blossom. Willow-wren and chiff-chaff in song. Marsh-marigold, red currant, cowslip, and dog-violet in flower.

17th.—Cuckoo heard. The cuckoo was heard at High

Wycombe, in Bucks, on the 7th of April; at Lavington, near Devizes, on the 8th; in Sussex, on the 9th; in Norfolk, on the 11th; at Itchin Abbas, Hants, on the 12th; at Enfield Chase, on the 13th; at Hampstead Heath, and in Suffolk, on the 14th; at Penzance, Cornwall, and Great Cotes, Lincolnshire, on the 16th; at Lofthouse, on the 17th; near Aberford, on the 21st; and near Otley, on the 25th. This record of the appearance of cuckoos in various parts of England is very limited, but it indicates that the stay of these birds in the south of England after their arrival is not prolonged. The cuckoo was said to have been heard at Taunton on the 2nd of April, but the writer of the notice did not hear it. The earliest date of its appearance that I can find is given by Mr. Jesse, in his "Gleanings"; he heard it on the 31st of March, 1822. An aged and trustworthy inhabitant of this village informs me that it was once heard here on the 2nd of April. The Rev. Gilbert White's earliest date is April 7th. The earliest date given by William Markwick, Esq., an observant naturalist, who lived at Battle, in Sussex, is April 15th. It is surprising that Mr. White, who lived in the south of England, and whose observations were carried on more than a quarter of a century, should not have heard the cuckoo before April 7th, and it is still more surprising that Mr. Markwick should never once have heard it before April 15th. This comparison of notes would almost lead one to suppose that the cuckoo comes now a little sooner than it came in former years. Other birds, I am inclined to believe, also come sooner. April 11th, which is Mr. White's earliest date of appearance of the willow-wren in Hampshire, is not now considered an early date. The Rev. Gilbert White died June 26th, 1793; Mr. Markwick died in 1813.

18th.—Sand-martins on the Calder.

22nd.—Heard whinchat. Swallows not numerous.

26th.—Saw whitethroat. White dead-nettle in flower.

Thorn in leaf.

28th.—Rain, after dry weather. Blue-bell and *Viola tricolor* in flower.

30th.—Broom and ground-ivy in flower. Whinchats numerous.

## MAY.

5th.—Lime, beech, and sycamore in leaf.

8th.—Dovesfoot-cranesbill and buttercup (*Ranunculus acris*) in flower.

10th.—Heard lesser whitethroat.

11th.—Rain. Ladies' bedstraw (*Galium cruciata*) and yellow archangel in flower.

13th.—Heard corn-crake, and saw wheat-ear. Wood-sorrel in flower.

16th.—Heard sedge-warbler. Buttercup (*Ranunculus bulbosus*) in flower.

17th.—Dragon-flies on the wing, and various kinds of bees.

20th.—Heard wood-warbler, and saw a few chimney-martins. Corn-gromwell, holly, ribwort, and common sorrel (*Rumex acetosa*) in flower.

21st.—Larks singing at two a.m., other birds singing at three a.m.

27th.—Thorn, sycamore, sauce-alone, forget-me-not (*Myosotis arvensis*), maple, celery-leaved crowfoot, and field-cerast in flower.

## JUNE.

1st.—Cold rain. Thermometer at 47°. Pea in flower. Larvæ of tiger-moth abundant. Sedge-warblers numerous. Saw redstart and lesser redpoles.

3rd.—Rain. Bean in flower.

5th.—Rain. Fumitory in flower. Turnip-fly (*Haltica nemorum*) abundant.

12th.—Heavy rain. Guelder-rose and larger nettle in flower.

14th.—Examined the unexpanded leaves and flowers of several plants of the field bean. Found one or two nimble, obese, unwinged, shining-green aphides concealed in each. These are the parents, I suppose, of the myriads of aphides or

plant-lice which infest beans in summer. In addition to the aphides I found a beetle about three lines in length, with striated wing-cases, and clubbed antennæ; colour—dark bronze, glaucous, especially beneath. Another beetle, about a line in length, and another, a very minute one, belonging, I think, to the genus *Haltica*, of a yellow colour were creeping amongst the leaves. I also found a small, round-bodied, dark-coloured spider, and a larva of some lepidopterous insect. The spider and beetles may have been in search of insect food, and thus ridding the beans of some of their enemies. About June 23rd I found fewer aphides on the beans, but a good many beetles and other insects; there was rain between the first examination and the second. A new theory has been lately propounded relative to the generation of aphides by M. Balbiani, a foreign naturalist. This theory supposes each aphis to be bisexual.

17th.—Elder, honeysuckle, marsh-veronica, water forget-me-not, white galium, and yellow rattle in flower. Rain after west wind.

21st.—Received from my friend Mr. Hepworth, Secretary of the Wakefield Naturalists' Society, several specimens of that notorious insect *Scolytus destructor*, a beetle. This beetle, which burrows and feeds in the bark of elm trees in both larval and imago states, has ravaged the fine trees which ornamented the boulevards in Paris; it is also well known in the Parks about London. Fortunately it is not abundant in the north of England. My correspondent found it in all its stages in June at Heath, in timber belonging to Colonel Smyth. The length of the perfect insect is about three lines, breadth one and a half. Head shining black, wing-cases paleish snuff-coloured. The "larvæ are white, fleshy, thick, curved, and footless; with wrinkled backs, hard heads, and powerful mandibles; they feed in gangs." They must be looked for in June, on sickly elm trees, between the bark and the wood.

22nd.—Foxglove, common figwort, and dog-violet in flower.

23rd.—Young thrushes in song; wheat shooting. Thorn in fruit. Berries on barberry abundant. Hot weather;

thermometer ranging between  $88^{\circ}$  and  $98^{\circ}$ . Caterpillars on gooseberry bushes not numerous.

JULY.

2nd.—Heard cuckoo. This is a remarkably late date for this bird to be heard in song. I never heard it before later than about the 23rd of June. Mr. Markwick, as appears from his calendar, never heard it after June 28th. I was rambling with some friends at an early hour, along the banks of the river Cock, in a quiet neighbourhood near Tadcaster, when its song was heard. Much might be written about the eccentric cuckoo. When it comes to us in April it attaches itself to no place—it is a “wanderer”; it entrusts its young to the care of foster-parents; it ceases its song early in summer; and when it departs for the south it leaves its young behind it.

3rd.—Young white-throats numerous. The old white-throats begin to utter a peculiar note about now, which, I think, is a note of warning to the young. This note is short, and oft repeated, uttered in a chiding tone.

5th.—Showery weather. Some grass cut.

6th.—A singular and magnificent rainbow was observed here in the evening, about thirty minutes past six.

7th.—Cherries and raspberries ripe. Privet in flower.

8th.—Yellow-melilot and nipplewort in flower.

12th.—Hot; thermometer  $101^{\circ}$  in the sun; at 9 p.m.  $74^{\circ}$ . Small bindweed, restharrow, and cultivated flax in flower.

15th.—Greater bindweed, common and lesser toadflax, and wood-nightshade in flower. Gooseberries ripe. Found nest of reed-bunting in a bank near the Calder, with three eggs. Noticed many insects lying dead on the water-weed in the canal.

23rd.—Mezereon berries ripe.

30th.—Dodder (*Cuscuta trifolii*) in flower. This singular parasite attaches itself to red clover. The slender, red, thread-like, leafless stems twist firmly round, and root on the clover stems, and cannot be untwisted without breaking. They have



no root in the ground. When growing in large masses the dodder smothers all small plants. The lobes of the corolla are reflexed when fully blown, and the inner surfaces have a curious, shining, icy appearance. The corollas or flowers are sessile, and clustered together, twenty or more in one cluster; whitish before flowering, afterwards reddish. At night they are spread wide open. I may remark that the bindweed, a plant included in the same order with the dodder, rolls its flowers close up like a cigar at night. The inside of the dodder flowers is thus bathed in moisture at evening, whilst the inside of the trumpet-shaped bindweed flowers is closed, and moisture excluded. The specimens I gathered had three styles, the usual number is two. The dodder grows at first on one, or on a small number of clover plants, but soon radiates, killing all it adheres to, and leaving a circle bare. It continues attaching itself to fresh plants, and enlarging the circle, exactly as the fungus does which produces fairy-rings. Mr. Berkeley, a member of the London Farmers' Club, thus describes it:—"Dodder, in general, is propagated by seed, like other flowering plants, but it has a peculiar appearance from its pinkish or yellowish fleshy stems, resembling wet catgut, which rub over and twine round everything in their neighbourhood; from the total absence of leaves, or decidedly green organs in every stage of growth; and from the little globular heads of wax-like flowers. The seed may easily be collected in autumn, and the intelligent farmer will find it an interesting matter to watch their growth, if sowed in a common flower-pot in spring. The seeds soon germinate, sending up a long, straight thread, without a trace of leaves. This gradually elongates, and, if there is nothing present to which it can become attached, it soon perishes. If, however, some kind of vetch, which for the purpose should be of tolerably quick growth, be sown with the dodder seed, or if the seed be sown in a pot already containing a well-grown plant of clover, a curious change takes place. The young threads, unable to support themselves fall, and come in contact with the vetch or clover; a little wart is formed on them at the point of contact,

which is gradually firmly attached, and then becomes incorporated with the under-lying tissues to such an extent that it is able to imbibe their juices; and as soon as this connection is established the threads die off below, all communication between them and the soil is cut off, and the dodder, which twines from left to right about the clover, lives like a true parasite at the expense of the plant to which it has become attached. The growth is then extremely rapid, and the plant has such powers of life that the smallest bit which is broken off, should it fall on a plant capable of giving it nourishment, flourishes and forms a new patch. When it is once established in the field, the best way is to dig a trench round the patch, throwing the earth over the infected spot, so as to completely prevent its growth. If, however, the dodder is far advanced, and has formed seed, the whole patch should be carefully grubbed up and burned, precaution being taken that fragments are not thrown on the surrounding clover which is yet clear, or it will be sure to re-establish itself. When the farmer is once acquainted with the plant, a little care, except in very aggravated instances, will enable him to save the greater part of his crop." The clover dodder appears to be at present rare in Yorkshire. In Gissing's "*Flora of Wakefield and Neighbourhood*" it is not mentioned, and in Miall and Carrington's "*Flora of the West Riding*" it is given as "rare." It is somewhat common in the south of England, and may be stretching northwards. I found it here last year; it was also found last year in Scotland. It is frequently, if not always, sown with clover seed.

## AUGUST.

3rd.—Singing birds silent. Rain and wind.

10th.—Boisterous weather. Hay out; harvest commencing.

12th.—Rain. Bees and wasps not numerous.

16th.—Second broods of swallows leaving their nests.

20th.—Rain. Leaves of fruit trees turning brown. Wheat and oats ripe.

23rd.—Elm leaves falling. Oats cut.

26th.—Noticed black aphides on *Chenopodium*, and other weeds.

27th.—Earwigs are frequently found at the tops of apple trees, among the clusters of apples. In summer they live partially on fruit.

#### SEPTEMBER.

1st.—Rain and thunder. Blackberries ripe.

3rd.—Found a nest of the lesser redpole, composed almost entirely of the seeds of the dandelion.

6th.—Heavy rain, with thunder; wind south-east. Corn sprouting. I noticed that the direction of the wind about now was frequently opposite to that of the rain-clouds.

11th.—Heavy rain, with wind. Harvest operations completely stopped.

15th.—Windy and showery weather. Missed the song of the willow-wren.

17th.—Wild fruits late in ripening.

24th.—Heavy rain; much corn out. Rats, mice, voles, and sparrows abundant in the fields and orchards. Farming operations suspended.

27th.—Willow-wrens and all the summer warblers silent or gone.

28th.—Steady rain. Minute fungi very abundant on bean stalks and wet vegetables.

30th.—Swallows not numerous. Saw a large number on the 29th congregated on the telegraph wires, preparatory to their departure. No summer birds now heard in song. Moist weather; no evaporation. Much barley and other grain out. Tops of potatoes withering.

#### OCTOBER.

2nd.—Heavy, sunless weather. Moisture dripping from the leaves all day long; soil and vegetation completely saturated with water.

5th.—Haws, berries of the elder, and berries of the guelder-rose ripe. Birds do not feed extensively on the berries of the elder, nor on the fruit of the guelder-rose.

6th.—Received from Mr. Talbot, of Wakefield, information of the capture of a red-backed shrike, about the end of September, near Wakefield. The red-backed shrike is frequent in the south of England, but rare in Yorkshire.

7th.—In the course of a short walk through Ardsley Wood noticed immense numbers of spiders' lines hanging in all directions from the trees and hedges. They are visible only in certain lights. The rambler who walks out in September and October cannot but have observed these lines; they are often caught on the clothes, and fall frequently on the face, causing a tickling sensation. Saw no swallows nor other summer migrants.

8th.—Heard redwings. The redwings came from Norway exactly at the time the swallows took their departure for Algeria and other parts of Africa.

15th.—Hedge-sparrow begins to utter its winter note.

18th.—Rain, after a few days of fine weather.

20th.—Sycamore and horse-chestnut leafless.

25th.—Heavy rain; becks, ponds, and wells overflowing.

31st.—Beans and some barley out yet. Berries on privet black.

#### NOVEMBER.

7th.—Weather mild. Maple leafless.

8th.—Wind. Farmers sowing wheat. Turnips green; crop good.

12th.—Mild. Ash leafless.

16th.—Very heavy rain.

17th.—Immense floods.

23rd.—Buds of horse-chestnut viscid. Oak leafless. More rain.

29th.—Found dor-beetles in the earth, also heard them in the air at dusk.

DECEMBER.

6th.—Mild weather. Missel-thrush in song.

15th.—Much rain.

18th.—Noticed centipedes in the earth, with broods of young about them.

23rd.—Mild, moist weather; no snow nor fogs here up to this date.

25th.—Christmas Day. Plants in bloom—daisy, red dead-nettle, creeping buttercup, creeping veronica, furze, and primrose. Birds in song—missel-thrush, song-thrush, hedge-sparrow, skylark, robin, and wren. Observed the common hedge-snail (*Helix nemoralis*) in an active state, creeping on the causeway—a remarkable indication of the mildness of the season. At the commencement of the winter season land snails usually retire into hedge bottoms, or old wall bottoms, or under moss or dead grass, and then into their houses, and there sleep till April.

31st.—Snow.

SUMMARY.

January and February were open months; some rain fell, but there was little frost or snow. Dry frost and heavy snow-blasts occurred in the early part of March, but the end was milder, and springlike. All the summer birds arrived about the usual time, except martins, which were somewhat late, and not numerous. Corn-crakes were not numerous. Several Bohemian waxwings were captured in different parts of the country in November and December. Plants bloomed a little later than usual in this district. Fine weather prevailed in spring, and seeds and roots were got into the ground in good order. About the 20th of July rain began to fall, and continued with short intermissions throughout the autumn, and to the end of the year. A small quantity of hay was housed good, but late mown was much injured by the rain. Nearly all the wheat, barley, oats, beans, and peas remained long in the fields. Some of these crops were tolerably heavy, but the rain per-

mitted but very small portions to be gathered satisfactorily. Nearly the whole of the harvest was cut under unfavourable circumstances, and remained, blackening and sprouting, a tedious time in the fields. At last it was conveyed to the stackyards, by snatches between the showers, in a thoroughly wretched condition. Beans were not injured by insects, and were generally satisfactory in quantity, but as they are a late crop the quality was greatly impaired by the weather. In harvest, rats, mice, and other vermin swarmed in the fields. I found several colonies of the domestic mouse. Sparrows were also exceedingly numerous, feeding among the stooks. Weeds, favoured by the wet, were very rank in the ground, and robbed cultivated crops of their nourishment. Some sorts of fruit were plentiful, but much was damaged by the rain and wind. Bees, wasps, moths, aphides, and other insects, were not abundant. The yield of swede, and other turnips was highly satisfactory, though the fly was troublesome in spring. Potatoes suffered greatly from disease. It is said that the common fern (bracken) will preserve potatoes from rotting. It is used to pack fish and game.

To the farmer the past year has been one of incessant anxiety and disaster. Scarcely had a frightful malady passed away from among his herds, when the rain began to pour continuously on the ripening harvest; root crops began to decay under the touch of a subtle blight; the floods descended from the hills, and farmsteads were deluged, the flocks hurried from their pastures and drowned, stacks lifted from their foundations, and borne on the water; fields, with their crops, were converted into impassable swamps, and meadows into wide lakes. What an adverse year! What a gloomy retrospect it affords—a retrospect of sickening herds, and ruined harvests. Surely the mischief-loving Oberon, and proud Titania must not yet have ended their unhappy differences.

*Titania (Queen of the Fairies.)*

“ And never, since the middle summer’s spring,  
Met we on hill, in dale, forest, or mead,

By paved fountain, or by rushy brook,  
Or in the beached margin of the sea,  
To dance our ringlets to the whistling wind,  
But with thy brawls thou hast disturbed our sport.  
Therefore, the winds, piping to us in vain,  
As in revenge, have suck'd up from the sea,  
Contagious fogs ; which falling on the land,  
Have every pelting river made so proud,  
That they have overborne their continents :  
The ox hath therefore stretch'd his yoke in vain,  
The ploughman lost his sweat ; and the green corn  
Hath rotted, ere his youth attain'd a beard ;  
The folds stand empty in the drowned field,  
The crows are fatted with the murrain flock ;  
The nine men's morris is fill'd up with mud ;  
And the quaint mazes in the wanton green  
For lack of tread are undistinguishable ;  
The human mortals want their winter here ;  
No night is now with hymn or carol blest ;  
Therefore the moon, the governess of floods,  
Pale in her anger, washes all the air,  
That rheumatic diseases do abound.  
And through this distemperature, we see  
The seasons alter ; hoary-headed frosts  
Fall in the fresh lap of the crimson rose ;  
And on old Hyem's chin and icy crown,  
An odorous chaplet of sweet summer buds  
Is, as in mockery, set ; the spring, the summer,  
The chilling autumn, angry winter, change  
Their wonted liveries ; and the mazed world,  
By their increase, now knows not which is which.  
And this same progeny of evils comes  
From our debate, from our dissension ;  
We are their parents and original.

*Oberon (King of the Fairies.)*

Do you amend it then ; it lies in you :  
Why should Titania cross her Oberon ?”

*“Midsummer Night's Dream,” Act ii., Scene iii.*

Owing to the wetness of the season insects of all sorts were scarce, consequently the injury done to cultivated crops was not serious ; other countries, however, have not been so

favoured. In Algeria the destruction by locusts has been immense. "The creatures first appeared during the month of April; coming from the gorges of the mountains, and the fertile valleys of the littoral, they descended first on the plain of the Mitidja and the Sahel of Algiers. Their mass, at certain points, intercepted the light of the sun, and produced an effect similar to that of the snow-storms which in the winter season fall in Europe and blot out the nearest objects from the sight. The vegetation of the country offered an attractive bait to the destructive insects. A large portion of the colza, oat, late barley, and vegetable crops was immediately destroyed, and in some parts even the interiors of houses were invaded. The Marshal (Canrobert) used all his endeavours in encouraging the population in their efforts against the invaders; by his orders the troops were called out to help the colonists to combat the plague, and the Arabs, whose interests were also at stake, joined their efforts against the common enemy. In a few days enormous quantities of the insects were destroyed; but human efforts had little effect against those winged multitudes which fled over the country, and only abandoned one field to fall upon another. It was impossible to prevent fecundation and the deposit of eggs, which quickly gave life to larvæ innumerable, so that the first swarms were soon replaced, centupled by new generations. The appearance of these young locusts is especially to be dreaded, on account of their voracity; the hungry myriads fell upon everything which had escaped the depredations of their predecessors. They filled up the watercourses, the canals, and the rivulets, and the troops had the greatest difficulty in preserving the water from infection. At Tlemcen, where no locust had appeared within the memory of the oldest inhabitant, the soil was covered with them. The road between Mostaganem and Mascara was literally covered with them along its entire course of fifty miles." This note was read before the members of the London Entomological Society, August 6th.

In the island of St. Helena a species of white ant has been



almost as injurious to the property of the inhabitants as the locusts in Algeria. This ant feeds mainly on wood. At James Town the Cathedral and Library were completely destroyed, and the Government buildings greatly injured. The ravager was introduced about twenty years ago from the West Coast of Africa.

Looking across the Atlantic we find that the ravages of insects have been hardly less extensive. The growing cotton in Louisiana, one of the Southern States of America, has been almost eaten up by what is there called the "army worm." "Two years ago, the planters of Louisiana, tempted by the high price of cotton, which was selling at fifteen-pence a pound, began to cultivate cotton, which had been almost abandoned. The sugar-cane became of secondary importance. But this season the caterpillar" (the larva of a moth the scientific name of which is *Heliothis armigera*) "arrived, and swept away the hopes of the planters in a few days. The noise made by the multitudes of voracious insects was described as audible at the distance of a mile, and to resemble the crackling of a house on fire. It was thought for a long time that the 'army worm' only visited Lower Louisiana, but this was an error; in 1788 these insects destroyed 280 tons of cotton in the Bahamas; they caused the cultivation of cotton to be given up in many of the West Indian Islands, and the case was almost the same in Egypt; in 1793 they visited Georgia, and in 1800 they ravaged South Carolina; four years later they descended on the whole of Louisiana; and in 1825 they ravaged the whole of the Southern States, and it was very difficult even to get seed for the following year. The last general visitation was in 1845. The army worm often appears in Guiana, and other parts of South America. The mischief done by these creatures is fortunately not always of the same serious extent; sometimes even the insects, when they come late, as they did last year, thin the seed-pods and produce a positive benefit. If it were not so, considering they have been twenty-three times in the United States since 1793, the growing of cotton would be hazardous

to be continued. The most favourable circumstances for the production of the 'army worm' are heat, moisture, and clouded skies up to the end of the month of June; when such is the case, the visitation is looked upon as certain; it was so this year. The caterpillars cannot support great heat, and continued drought; in Louisiana and the other states of the South, as well as in the Bahamas, a torrid summer kills them, especially where the soil is sandy. In 1826 the creatures appeared on the 1st of August, in Louisiana and North Carolina, but hot weather set in, and by the 23rd of the same month they had all disappeared." This account was communicated to the London Entomological Society in autumn.

Among the discoveries in natural history made abroad, that of a stingless honey-bee may be noted as important. This insect is a native of America, and, should it become manageable and profitable, may bring about a revolution in bee-keeping.

Before concluding, I must invite those who spend much time out of doors to give more attention to natural phenomena. Much pleasure and instruction may be derived from merely observing and recording occurrences; but it is not difficult to do more than this, that is, to *apply* the knowledge gained by observation to some beneficial purpose. There is a great variety of subjects, interesting alike to the naturalist and the agriculturist. The introduction of insects known to be injurious in other countries; the increase or decrease, migration or change of habits, of native insects; the appearance of new forms of disease in animals or plants; the increase or decrease of birds or quadrupeds; the introduction and extension of injurious plants; the utilization of wild plants; the influence of aspect or season on animal life, or on plants; the local distribution of plants or animals, or their affection for certain soils;—all these matters are of vast importance, and some of them urgently require, at the present time, the *combined* attention of the naturalist and the agriculturist, in order to prevent or to modify disastrous consequences.

“That which may profit and amuse is gathered from the volume of creation.  
For every chapter therein teemeth with the playfulness of wisdom.  
The elements of all things are the same, though nature hath mixed them with  
a difference,  
And learning delighteth to discover the affinity of seeming opposites ;  
So out of great things and small draweth he the secrets of the universe,  
And argueth the cycles of the stars from a pebble flung by a child.  
It is pleasant to note all plants, from the rush to the spreading cedar,  
From the giant king of palms, to the lichen that staineth its stem ;  
To watch the workings of instinct, that grosser reason of brutes,—  
The river-horse browsing in the jungle, the plover screaming on the moor,  
The cayman basking on the mud-bank, and the walrus anchored to an ice-  
berg,  
The dog at his master’s feet, and the milch-kine lowing in the meadow ;  
To trace the consummate skill that hath modelled the anatomy of insects,  
Small fowls that sun their wings on the petals of wild flowers ;  
To learn a use in the beetle, and more than a beauty in the butterfly ;  
To recognize affections in a moth, and look with admiration on a spider.  
It is glorious to gaze upon the firmament, and see from afar the mansions of  
the blest,  
Each distant shining world a kingdom for one of the redcemed ;  
To read the antique history of earth, stamped upon those medals in the  
rocks  
Which design hath rescued from decay, to tell of the green infancy of time ;  
To gather from the unconsidered shingle the mottled star-like agates,  
Full of unstoried flowers in the bubbling bloom—chalcedony ;  
Or gay and curious shells, fretted with microscopic carving,  
Corallines, and fresh sea-weeds, spreading forth their delicate branches.  
It is an admirable lore to learn the cause in the change,  
To study the chemistry of nature, her grand but simple secrets.”

*Proverbial Philosophy.*

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RURAL NOTES AND DIARY OF NATURAL  
PHENOMENA FOR 1867.

JANUARY.

2nd.—Severe weather. Thermometer standing at 20°.

7th.—Rain. Thermometer at 34°.

13th.—Bitter, wintery weather. Snow on the ground. No birds to be seen except a robin or two, and a few hard-up redwings.

16th.—More snow. The robin and wren often sing in the hardest weather.

17th.—Continuance of the storm. Wind north-west. Thermometer at 24°.

24th.—End of the storm, which began December 31st, 1866.

#### FEBRUARY.

4th.—Showery. Land saturated with water.

7th.—Missel-thrush singing. Rain.

9th.—Robin, wren, hedge-sparrow, corn-bunting, skylark, missel-thrush, and chaffinch in song. Rooks clamorous.

13th.—Song-thrush in song. Saw sparrows collecting building materials.

15th.—Female hazel flowers out. Birds noisy; some apparently pairing.

17th.—Blackbird singing. Coltsfoot in flower. Rooks building.

18th.—Currant and gooseberry leaves unfolding. Yellow-hammer in song.

28th.—Bloom of jargonelle pear bursting. Leaves of the gooseberry unfolding.

#### MARCH.

1st.—Spring note of chaffinch heard. Hoar frost.

2nd.—Found a robin's nest in course of building. Very keen hoar frost.

5th.—Soil becoming drier. Spring notes of blackbird heard.

7th.—Snow and wind; thunder. Found another robin's nest nearly built.

8th.—Purple dead-nettle, barren strawberry, and pilewort in flower, in warm situations. Snow on the ground.

10th.—Nettle and arum in leaf.

11th.—Snow and rain; stormy. Thrushes singing in the snow-storms.

13th.—Frost; very winterly. Frozen-out lapwings hovering about, and feeding in unusual places.

18th.—Cold, bitter weather. Young leaves embrowned by the frost.

20th.—Soil frostbound. Leaves of the lilac unfolding.

22nd.—Heavy fall of snow after bitter east winds.

24th.—Storm broken. Bees on the wing. Titlarks singing. Redwings chattering. Sparrows building. Shrews abroad. Birds bustling and noisy. Doves cooing. Frogs spawning and croaking loudly. When any one approaches a pond in which frogs are located, they cease croaking and descend to the bottom, making a great turbulence in the water as they retreat. Their spawn floats on the surface, and is black-spotted. In colour it resembles a mass of sponge. There are generally newts where there are frogs. Newts may be seen about now pursuing each other on the mud or through the water. In some of the ponds about here the mud at the bottom is covered with the horn-coloured univalve mollusk, *Lymnea peregra*. They may be observed feeding on the stalks of the flag in winter. This shell is very common. I have seen it in engine cisterns. It occurs in rivers, becks, and ditches, and, I believe, is the first shell to inhabit newly-made brick-ponds. The animal (*Lymnea peregra*) is eaten by caddis worms, and probably attacked by them when alive. I have observed large numbers of empty shells lying at the bottom of ponds. I once saw three or four caddis worms busily feeding with their heads in the mouth of a shell. I reached the shell up from the bottom, and one of the caddis worms came along with it. Since then I have noticed these insects attack snails in the aquarium. One that I had, killed a *Physa fontanalis*, and repeatedly attacked the hard shell of a limpet. This caddis worm was not of the same sort which I noticed in the pond. Those in the pond always moved about within their tubes; this one constructed for itself a tenement, which formed

a longitudinal half of a tube, and attached it to the glass. In this den it lived, but was always on the watch at one end for prey. It never left its house above an inch or two, but watched till something crept near it.

## APRIL.

1st.—Gooseberry and currant in leaf.

4th.—Found one egg in robin's nest, which was in course of building on the 6th of last month. Ivy-leaved veronica in flower.

5th.—Found nest of missel-thrush (storm cock) with eggs.

9th.—Heard tree-pipit. Found nest of song-thrush with eggs. Thorn in leaf.

10th.—Wood-anemone, primrose, marsh-marigold, and dog-violet in flower.

14th.—Observed *Helix Cantiana* feeding on grass. This snail seems to leave its winter retreat a little sooner than *Helix nemoralis*; I saw very few of the latter.

18th.—Heard willow-wren. Saw swallows. The swallows appeared in the county Wicklow, Ireland, March 25th; at Eton on the 1st of April; at Chichester on the 7th; at Aldeburgh in Suffolk, and Islip in Oxfordshire, on the 8th; at Winchester in Hampshire, and Dorking in Surrey, on the 9th; at Petworth in Sussex, Looe in Cornwall, and in the Isle of Wight on the 10th; at North Stoneham Park, and at Wakefield, on the 12th; at Great Cotes in Lincolnshire, Linton-on-Ouse North Yorkshire, and in Berwickshire on the 14th; at Scarborough on the 25th.

19th.—Heard chiff-chaff. Gooseberry and currant, and several sorts of pears in flower. Greenfinch in song.

24th.—Heard white-throat. White dead-nettle in flower. Showery weather. Some fields yet covered with water which fell in the winter months.

27th.—Heavy rain. Elm, lime, horse-chestnut, and mezereon in leaf.

28th.—Heard whinchat, sedge-warbler, and wood-warbler, and saw sand-martins.

30th.—Much rain. Farm-work interrupted.

MAY.

1st.—The undersong which the hedge-sparrow or dunnock warbles in spring is very soft and sweet. The listener must be within a few feet of the performer to hear this song advantageously.

3rd.—Sultry weather. Bluebell in flower.

4th.—Sultry. Dragon-flies on the wing. Heard cuckoo. I noticed a cuckoo in flight on April 23rd. The cuckoo was heard at Norwich on the 6th of April; in the Isle of Wight on the 7th; at Looe in Cornwall, on the 12th; at Basset, Southampton, and North Stoneham, on the 15th; at Linton-on-Ouse on the 17th; at Chichester on the 23rd; at Scarborough on the 28th; at Great Cotes on the 29th.

6th.—Violent storm of hail. Heard lesser white-throat.

10th.—Heavy rain. Agricultural work on clay land entirely suspended.

12th.—Sycamore tree, broom, and goldilocks in flower.

13th.—Heavy rain. Hawthorn and young oaks in leaf.

14th.—Cold, unseasonable weather; farm work—turnip sowing, &c.—progressing slowly. Found first greenfinch's nest.

16th.—Heard corn-crake. Cuckoos not numerous.

18th.—Young dunnocks, thrushes, robins, and sparrows fledged.

19th.—Found a small colony of the minute coil-shell, *Planorbis nautilus*, in a pond near Stanley. Found a nest of the yellow-hammer containing four eggs, two of which were perfectly white. Saw male fly-catcher.

22nd.—Violent showers of hail. Weather very ungenial.

24th.—Noticed the sedge-warbler singing while flying. I have also seen the willow-wren sing when flying. The sedge-bird flew up almost in the manner of the tree-pipit, and kept

warbling. White, of Selborne, does not mention the sedge-bird as a bird which sings during flight; it is therefore an addition to his list. I have heard the willow-wren sing on the ground.

29th.—Young oak leaves blackened and curled by frost.

30th.—Corn-gromwell and fumitory in flower. Found a nest of the white-throat, the rim of which was studded with spiders' cocoons; some of the cocoons contained eggs.

#### JUNE.

3rd.—Ash in leaf. Turnip sowing and other work interrupted by rain.

6th.—Young sparrows numerous in the corn-fields.

16th.—Dog-rose, corn-spurry, earth-nut, woody nightshade, and bean in flower.

24th.—Weather drier. Aphides numerous on gooseberries. I noticed the enemies of the aphides busy amongst them—that is to say, the ladybirds (*10-punctata*) and spiders, as well as willow-wrens.

25th.—Warm weather. Haymaking commencing.

27th.—Thermometer at  $95^{\circ}$  in the sun. Missed the note of the cuckoo. Warblers mute. Skullcap, Canadian weed, and procumbent helosciadium in flower.

29th.—Observed many aphides on young limes, sycamores, and other trees.

#### JULY.

2nd.—Corn shot. Rain after three weeks of dry weather.

3rd.—Rain. Hemlock (*Conium maculatum*) in flower. Very few caterpillars on gooseberries.

7th.—Cherries and some other fruit ripe. Found a few obese aphides in the unfolding leaves on the tops of the bean plants, also a small weevil. As usual, nearly all the flowers were perforated by the bees. The bees cannot get down the flowers, so they pierce the calyx and floral tube, and draw the nectar out at the bottom. The hole, which is about a line in



diameter, is made exactly at the proper place. When a bee alights on a flower which is already drilled it probes the opening; but if the flower is entire it immediately makes a hole; and very expert it is at this work. A great many other tubular flowers, besides beans, are tapped at the bottom by bees.

8th.—Smaller bindweed and arrow-head in flower.

12th.—Privet in flower. Noticed large numbers of winged aphides on young lime trees.

13th.—Rain. The midsummer storms commenced about now. The weather broke only a few days later in 1866. The rain, which began to fall about this date, together with the concurrent wind and cold, stopped the increase of aphides. I found very few aphides on beans, and no caterpillars on gooseberry bushes after the rain and wind.

16th.—Again noticed the ladybirds among the aphides on gooseberries and raspberries.

23rd.—Heard corn-crake. Showery; hay damaged. Grass for hay should be cut in June, or else after July 20th.

26th.—Finer weather. End of summer storms.

28th.—Now is the crack of the bird-boy's gun, or the sound of his rattle heard in the fields all day long, for the sparrows, with their hungry broods, come swooping upon the corn. Tedious are the days of the bird-boy, who probably has been called away from the pranks and merriment of the village school. He has no clock but the sun, and often he has no company but the chirping sparrows. Many a weary hour does he while away in cutting sticks with his knife, or in swinging on a gate. He knows where all the blackberry and hazel bushes are, often has he stopped at them, and gazed at the yet unripe fruit. He knows of all the greenfinches' nests, and of all the little holes and nooks where the coneys play. Often on idle, sultry days he will sink among the corn, with his brow on his rattle, and fall asleep, to be awaked perhaps by the spiders creeping behind his ears, or the ants up his trousers. Long before noon he devours his dinner, and long before night does he turn his eye to the lowering west. But

weeks wear on; the sun has ripened the blackberries on the hedges, and the wind has shaken some of the nuts from the branches. With grateful ear he listens to the mower whetting his scythe, and to the shouts of the reapers, for these are tokens that harvest has begun. Thomas Miller, the woodland poet, has given us a graphic and very faithful image of the bird-boy; the portrait forms a beautiful and genuine "rural note." He writes:—"In my 'Book of Summer' I have sketched a true corn-field character, the bird-boy, or corn-tenter, his business being to scare the birds from the corn either with his wooden clapper, or by his voice, the latter of which he uses until he is quite hoarse at times, through hallooing and screaming at the birds. You almost wonder how the little fellow managed to pass the day by himself in those solitary fields before harvest-time, far removed from either village or homestead. Above his head he sees the broad grey clouds floating silently across the wild wilderness of the sky, silent, saving the hoarse 'caw' of the dusky rook, that flaps its black wings while it floats like some subtle spirit between earth and heaven, on its way homeward to the woods. Around him rise tall trees, and while he looks up at them he wonders how many years they have stood rooted in silence on that self-same spot, where they reach to such a cloud-like height. Sometimes he is far away from any road, and in the heart of old extensive fields, which are shut up all the year except at harvest-time. He sees the grey rabbits emerge from their burrows in the bank, and watches the young ones as they run in and out amongst the standing corn; and he makes all kinds of curious snares, and is sadly puzzled to know why he can never catch them. He peeps through the hedge, and is delighted to see the hares play together in the long grass; and sometimes he finds a nest of young hedgehogs, which he passes half the day in feeding, giving them everything that comes to hand, and which, if they will not take willingly, he forces gently down their little throats, which he fancies are full of prickles, like their backs, because they swallow what he gives them with

such reluctance. While the cuckoo remains with him he mocks her, and often imitates her cry after she is gone, for it is a treat to him to hear his own voice in those silent and solitary fields. He rattles his wooden clapper until his arm aches, and sings the very song which his forefathers sang two or three hundred years ago, when they tented the corn like him, and thus called to the birds:—

‘ Away, birds, away ! and come no more to-day.  
Away, birds, away !  
Take an ear and leave an ear,  
And come no more again this year.  
Away, birds, away ! ’ ”

29th.—Blackberries ripe on the magnesian limestone. Observed *Helix Cantiana* (the Kentish snail) abundant near Castleford.

#### AUGUST.

3rd.—Hay all gathered ; crops abundant.

6th.—Corncrake last heard. Weather showery.

15th.—Rain, after several days of hot, ripening, weather.

20th.—Heavy rain. Oats ripe. Found in gizzards of two half-fledged sparrows, broken green peas and skins of peas, some portions of beetle wing-cases, rough sand, and a small mollusk of the genus *Helicella*.

25th.—Second brood of swallows hatched. Harvest general. Weather finer.

28th.—Heard chiff-chaff. Wasps not abundant.

30th.—Insects generally not abundant. Blackberries ripe.

#### SEPTEMBER.

3rd.—Heavy rain, with thunder and lightning.

6th.—Heard chiff-chaff in garden. Rain ; harvest-work stopped. Leaves of the elm, lime, horse-chestnut, and other forest trees turning brown.

9th.—Young larks singing. Grey wagtails about. Rain.

11th.—Young swallows, hatched August 25th, left the nest.

12th.—Heavy rain; harvest interrupted. Berries of the woody nightshade ripe.

13th.—Slight frost; tender herbage blackened.

14th.—Heavy rain. Corn all cut. Berries of the mountain-ash ripe.

19th.—Missed the song of the willow-wren. Birds mute.

27th.—Harvest gathered. Pears, especially those sorts that bloom late, plentiful.

28th.—About now the birds appear very unsettled and excited. Rooks visit their nesting places, and, in company with jackdaws, wheel and sport about in a restless way. Sparrows chirp in concert when assembled in the bushes. Titlarks move about, uttering their sharp note, in an eccentric and excited manner. The hedge-sparrow begins to utter a plaintive note. Blackbirds and thrushes are restless and fearful, and larks flock together. Starlings haunt the meadows in great flocks, moving about often in search of new feeding grounds. Swallows dart hither and thither with irregular motion, frequently in odd ones. Bramblings and redwings arrive to swell the general throng, and geese pass over, cackling as they go, generally at night.

#### OCTOBER.

5th.—Flocks of starlings about. Ivy in flower. Young thrushes in song.

6th.—Fine dry weather. Swallows yet numerous.

8th.—Saw swallows and redwings.

14th.—Rain. Bramblings arrived. Swallows gone.

15th.—Noticed numbers of bluebottle flies (meat flies) about the pear trees; they feed partially on fruit. Gnats and other small flies numerous in the air. About now a clear and very distinct "cheep" may be heard at night, near hedges and bushes. I heard it often before I made it out. It proceeds from the robin, and is a note of fear or alarm, uttered generally when intruded upon. The sound is sometimes like the syllable "sweet," beginning with a hiss, and lengthened out.

24th.—Bees retire into the earth, wasps into rotten wood and thatch. Newts, frogs, and toads bury themselves in mud or (the latter) under moss.

28th.—Redwings arrived in numbers. Young corn-buntings in song. Weather warm.

NOVEMBER.

7th.—Fair weather ; atmosphere clear ; slight frosts. Heard bramblings.

10th.—Observed many small fishes lying dead at the bottom of a pond. Sticklebacks become sluggish as winter approaches ; and worms descend deep into the earth.

28th.—Dry weather ; slight frost.

DECEMBER.

2nd.—Intense dry frost ; wind, north-west.

6th.—Snow and rain.

7th.—Heavy fall of snow ; first of the winter.

8th.—Thaw.

20th.—Dry frost. Saw traces of a woodpecker.

21st.—Heavy rain.

22nd.—Rooks clamorous about their nesting sites.

23rd.—Heard bramblings. Rain.

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LIST OF POISONOUS OR NOXIOUS PLANTS FOUND IN THIS NEIGHBOURHOOD, WITH LOCALITIES AND REMARKS.

*Ranunculus acris* (meadow crowfoot), *Ranunculus bulbosus* (bulbous crowfoot).—These plants, known as buttercups, generally grow together in pastures. The juices of both leaves and roots are very pungent ; and the acrid juice will raise blisters. Both species are avoided by grazing cattle. The poisonous principle, however, seems to be much modified by drying, for the plants in great abundance are mown with grass, and made into hay, which is eaten by cattle without apparent ill effect.

*Ranunculus Flammula* (lesser spearwort).—Grows in moist situations. I have found it at Ardsley and other places. “This plant is extremely acrid, and is used in the Hebrides for raising blisters. Dr. Withering recommends the distilled water as an instantaneous emetic in cases of poisoning.”

*Ranunculus sceleratus* (celery-leaved crowfoot).—Grows by ditches and rivers. The stem is hollow, smooth, and round, sometimes two feet high. Flowers small, but numerous, appearing about the end of May. “This species is extremely acrid, and blisters the skin. It is said to be used by strolling beggars to produce artificial sores.”

*Ranunculus arvensis* (corn crowfoot).—Acrid, and said to be dangerous to cattle. Stem erect; seed-vessels flattened, prickly. Grows commonly in cornfields.

*Aconitum Napellus* (monkshood, or grandmother’s night-cap).—A well-known garden plant. Roots and leaves highly poisonous.

*Papaver somniferum* (opium poppy, garden poppy).—From this plant opium is extracted. I have found it as a straggler from gardens, but never wild.

*Rhamnus catharticus* (buckthorn).—Ripe berries “violently purgative.” A shrub. Grows at Lofthouse, Castleford, and other places; generally in hedges.

*Bryonia dioica* (white bryony).—Root acrid. Berries not said to be poisonous. A trailing, vine-like plant, with pretty spiral tendrils. Grows in hedges. I have seen it at Bottom Boat, Rhodes Green, and other places. The berries of this plant are round; those of the black bryony are oval.

*Sedum acre* (biting stonecrop).—Extremely acrid. A low spreading plant, with yellow flowers. Leaves small and fleshy. Grows often on walls near gardens, and hence sometimes called wallwort.

*Æthusa Cynapium* (fool’s parsley).—A very common and dangerous plant. Stem a foot or more high, erect, branched; leaves much divided, but not curled like those of common parsley; flowers white. Under each small or partial umbel of

flowers there hang three or four long, narrow leaf-like appendages (bracts), turned outwards. This is a peculiarity which no other British plant exhibits. Fool's parsley grows abundantly in gardens, and frequently among garden parsley, for which it has often been mistaken.

*Ceanothe crocata* (hemlock dropwort).—One of the most poisonous of British plants. Stem erect, hollow, sometimes four feet high. Emits a yellowish juice. Roots tuberous, like those of the dahlia. Flowers white, in umbels or heads. Grows by the side of a stagnant piece of water near Woodlesford, near the canal at Methley, at Bottom Boat, and other places. In December, 1863, a farmer at Godrig, near Cocker-mouth, lost six out of fourteen cows which had eaten the roots of this plant. A labourer had thrown the fleshy roots on to the grass when cleaning out a ditch.

*Conium maculatum* (common hemlock).—A large erect plant. Stem smooth, spotted or blotched with purple; leaves compound, elegant in appearance; flowers in umbels, white. It may generally be distinguished by its much-divided and elegant foliage, and by the blotchings on the stem. Similar blotchings are, however, frequently found on other umbelliferous plants. This is one of our most poisonous plants, and ought to be better known. Grows abundantly by the side of the Calder, near Bottom Boat. I have also found it near Fairburn, and it was formerly frequent near Lofthouse.

*Solanum Dulcamara* (woody nightshade or bitter-sweet).—Frequent in hedges. The berries, in common with the berries of black bryony and white bryony, are generally known to children as "poisoning berries." They are noxious, but, perhaps, not fatally poisonous.

*Atropa Belladonna* (deadly nightshade).—Grows near Roundhay. I have not found it in my immediate neighbourhood. It occurs at Thorp Arch and in Sherburn churchyard. As it is the most poisonous British plant, I have transcribed Withering's description of it, which may enable some to identify it. "Stem herbaceous; leaves ovate, undi-

vided. Stem three feet high, round, branched, slightly downy; flowers solitary, stalked, dull purple. The whole plant is fetid and poisonous. Children are apt to eat the shining black berries, which have a sweetish taste, but in small quantity produce fatal effects. Perennial; flowers in June. Grows on waste ground."

*Digitalis purpurea* (foxglove).—A well-known plant, grows in hedges, and the white variety often in gardens. The leaves are a fatal poison.

*Polygonum Hydropiper* (biting persicaria).—Supposed to be injurious, but no animal will eat it, the juices are so nauseous and burning in the mouth. Linnæus says the dried leaves and flowers will preserve clothes from the attacks of insects. Grows on the magnesian limestone. The other persicarias are more frequent, and have nearly the same properties.

*Euphorbia Helioscopia* (sun spurge).—A common weed in gardens. The stem is full of white milky juice, which is pungent and poisonous. It is said to cure warts. "The juice of the African Euphorbia tree, when mixed with water, will kill zebras."—*Livingstone*.

*Mercurialis perennis* (dog's mercury).—A common early flowering plant. Grows in shady hedge bottoms. An herb; leaves crowded near the top of the stem. Flowers greenish. Belongs to the spurge family. Accounted poisonous.

*Daphne Mezereum* (garden mezereum or spurge olive).—The berries are stated to be fatal to man. Birds feed on them with apparent relish, as I have myself observed.

*Daphne Laureola* (spurge laurel).—An acrimonious poison, like the above. Blisters can be raised on the skin by a tight application of the moistened bark. Grows at Kippax and other places, on the limestone. The bruised leaves of the evergreen laurel are used by entomologists to kill insects. In America, grouse often feed during storms on the buds of a species of laurel, which are said to render the flesh unwholesome, if not poisonous.



*Taxus baccata* (yew).—Horses, cows, and deer have been poisoned with the leaves of the yew. In 1865 the Duke of Beaufort lost thirty deer, which had fed on the green branches of this tree. The berries are ripe in September, and, according to Withering, are perfectly harmless.

*Tamus communis* (black bryony).—A common plant in hedges. The long stems may be seen twining one on the other on the top of a laid hedge, like a rope. The scarlet clusters of berries are very conspicuous in September. In taste the berries are unpleasant, a circumstance which will generally obviate serious consequences from eating them. Accounted poisonous.

*Colchicum autumnale* (meadow saffron).—This pretty and somewhat singular plant puts forth its leaves in spring, its flowers in autumn, and raises its seed above ground and ripens it the succeeding summer. A narcotic acrid poison. Formerly grew near the Calder at Stanley. Common near Garforth, near Collingwood, and near Saxton.

*Narcissus Pseudo-narcissus* (daffodil).—Suspected of poisonous properties.

Mistletoe berries are said to be poisonous. Few would imagine that danger lurks in the Christmas wreath.

Many plants are poisonous to some animals and innocuous to others. The goat will feed on water-hemlock. Pigs will feed on the henbane.

Various kinds of mushrooms and other fungi are highly poisonous, and great caution should be exercised in the selection of species for the table. I regret my inability to enumerate the poisonous species. The edible species should be cooked as soon as possible after being gathered. Serious consequences have resulted from eating vegetables or fruits covered with moulds, or in a state of putrefaction. The produce or flesh of animals which have fed on certain plants is deleterious or poisonous. In Malta, the milk from goats which have fed on a plant of the spurge tribe (called by the natives *tenhuta*) is poisonous to human beings. The goats, it appears, are not injuriously affected. Cows, in some parts of America, give

poisonous milk. The following interesting remarks respecting poisonous milk and cheese are from a back number of the *Lancet*:—"The milk of cows fed in certain districts of America is poisonous, and gives rise to serious symptoms, whether taken as milk or made into cheese. The flesh of the cows possess also poisonous properties; while the animals themselves do not suffer in health from feeding on the plants. These cows enjoy an immunity from the action of this particular poison, which we do not; and until the chemists favour us with some definite information on the subject we should advise an abstinence from decayed cheese in general, and from American cheese, in whatever condition, in particular. Meantime we direct the attention of medical officers of health to the quantities of highly decayed cheese exposed for ordinary sale; and it would be interesting to have this subject thoroughly investigated."

In 1869 a girl died at Leeds from eating laburnum seeds. I never see birds feed on laburnum seeds in the hardest winters, though they are of a convenient size, and the tree is common and a prolific seed-bearer.

Chrysanthemum blooms are poisonous. A child died from the effects of eating these flowers at Westbourne in 1870.

In 1876, eight children were poisoned at Stockton-on-Tees, by eating the roots of the water-hemlock, which they mistook for parsnips; two died.

Six cows were poisoned at Limber, in Lincolnshire, in February, 1879, by eating branches of yew from a yew hedge in a nursery.

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A LIST OF RARE BIRDS SEEN OR CAPTURED IN  
YORKSHIRE DURING THE YEAR.

Egyptian goose.—One picked up near Beverley, January 14th.

Bittern.—One shot near Ripon, January 24th.

Bohemian waxwing.—Several shot near Whitby in January.

Masked gull.—One obtained near Scarborough in January.

Glaucous gull.—One obtained near Scarborough in January.

Iceland gull.—One shot near Scarborough in January.

Bittern.—One caught alive near Wakefield, end of January.

Canary.—One shot near Wakefield during a storm in January. It was feeding near a farm-house in company with chaffinches and other birds. It is now in the possession of G. Parkin, birdstuffer, of Wakefield.\*

Peregrine falcon, or hunting hawk.—Nested near Speeton, end of May.

Osprey.—One captured near Harewood Bridge in June.

Pied fly-catcher.—Observed at Castle Howard, June 14th.

Honey buzzard.—One shot at Brough, in the East Riding, in July. (John Ranson.)

Sandwich tern.—One shot near Whitby, in August.—See *Zoologist* for December.

Bittern.—One shot near Scarborough about the end of September. (A. F. Wordsworth.)

Spotted redshank.—One obtained at Scarborough, October 3rd. (Id.)

Stormy petrel.—Several shot near Scarborough, October 4th. (Id.)

Spotted sandpiper.—One obtained at Scarborough, October 5th. (Id.)

Iceland gull.—One shot at Flamborough, October 12th.—See *Zoologist* for December.

Pomerine skua.—One shot at Flamborough, October 12th. (Id.)

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#### GENERAL OBSERVATIONS.

The weather in the early part of the year was very harsh, and the soil was soddened with water; but in April much wind prevailed, which dried the earth, and in dry soils an

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\* Attempts have been made to naturalise the canary in the South of England and in the Isle of Wight. In several instances they have lived through winter, and bred in spring in the open air in gardens.

unusual breadth of spring corn was got in, in a satisfactory condition. Clay soils continued wet into June, and were consequently cropped very late. In summer the weather was extremely favourable for the growing crops; indeed, the cereals seemed to grow too fast. The result was an extraordinary quantity of foliage, and only a moderate quantity of grain. In July and August the crops looked remarkably full and healthy, and every one expected an overflowing harvest; but a week or two of steam thrashing at the end of September dispelled all these fine anticipations; the straw had lived at the expense of the corn. The crops of turnips, which were sown early, were very satisfactory; but the potatoes, the other principal root-crop, were never worse for disease. The disease manifested itself in this neighbourhood about the 20th of August. All our old stock of this valuable root seems to be thoroughly degenerated and worn out. A year or two since a French farmer, like a philosopher, imported some potatoes from Peru, where they are found wild, and now he has crops almost exempt from disease. The crops of apples, plums, gooseberries, some kinds of pears, and other fruit, were below the average. In autumn there was not much wind, and garden fruit and blackberries remained long on the trees and bushes. I saw blackberries, some green and some ripe, on the hedges in November. The leaves in the woods and plantations also hung long on the trees, and assumed gay colours. Winter set in early. On the 2nd of December there was a keen dry frost; on the 6th snow and rain; and on the 7th a heavy fall of snow. This winterly weather embrowned vegetation, and deflowered all plants still in bloom. I received a letter from my obliging correspondent, Mr. A. F. Wordsworth, dated Scarborough, October 8th, in which severe weather was foretold. It contains the following paragraph:—"On the 4th stormy petrels were being shot at all day; they appeared in large flocks off the pier head. The sailor-men and others say they have not seen such numbers here for twenty-two years. From their appearance they prognosticate a long and severe winter."

The depredations of insects have not been serious. Caterpillars were not abundant, and beans escaped their enemies, the aphides. The aphides, or plant-lice, were most common on gooseberry and currant bushes. Moths and butterflies were not numerous.\* The swallows and other birds of passage arrived about their usual time, but stayed a week or more beyond their mean time of departure. I saw swallows in considerable numbers on the 6th of October, but they were wheeling about within the influence of the hot fires of a forge. They were also close to a river where insects would doubtless be plentiful. Trees and bushes retained their foliage rather longer than usual. This kept insects a little longer on the wing, or otherwise in an active state, and the presence of insects induced the swallows and other birds to prolong their stay. The following notes, on the occurrence of insects and quadrupeds this year in North Yorkshire, are extracted from a letter, dated October 18th, from my corresponding friend, Mr. John Ranson, who resides at Linton-on-Ouse, near Easingwold:—

“1867 will long be remembered for the large quantity of galls upon almost every kind of tree and plant, but more especially on the oak, whose leaves and stems have been literally hung with them. In this neighbourhood the beautiful oak-spangles on the under-side of the leaves were never so numerous. The leaves of the wild rose have also been studded with round galls. The leaves of the willow have contributed their share to the general stock; even the despised nettle has been studded with them. The students of British galls have had a glorious treat. Willow-roses are now plentiful. Wasps have been abundant, and very troublesome,† and so have earwigs. Common brown rats leave stackyards, &c., in spring, and take to the fields. This year they have done great damage in the cotters’ pieces, making complete burrows up the potato rows from end to end, taking every good potato. In a bean-field, close to a stream

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\* Insects are expected to be plentiful in the ensuing summer. The pupæ in the earth are numerous.

† Wasps seem to have been locally, not generally, abundant.

which they frequent, they have eaten the beans off the stalks for yards."

The zoological literature of the year contains but few records of particular importance. In June a singular parasite, called the hair-worm, appeared in vast numbers in some parts of the South of England. This creature is hair-like in form, and is developed and lives part of its time in the intestines of insects. They were observed in great numbers hanging from the branches of trees and bushes, waving in the air. They have been observed in similar numbers in other years; have always appeared in June, and always after thunder-storms. It does not appear that they are in any way injurious to vegetation.

The ornithologist has not had any peculiar subject presented to him for investigation during the year, that I am aware of, save the disease in grouse. Of the cause of this malady I have hitherto seen no satisfactory explanation. Theorists and practical physiological investigators seem to be equally at sea. The subject is quite open and unsettled.

I should be much gratified if I could draw the attention of agriculturists and others concerned in the cultivation of the soil more closely to a subject which was incidentally mentioned last year, and which is touched on by Mr. Ranson in the extract of a letter above given—I allude to the increase of grain-devouring vermin. Last year rats, mice, voles, and sparrows swarmed in the fields in this neighbourhood. This year they have been very numerous, and they have been noticed in great abundance in other districts. Their multiplication is almost entirely unchecked by natural enemies. As hawks, owls, weasels, and stoats are thinned, those animals which feed on grain and on other cultivated crops, will certainly increase. Farmers would do well to take artificial measures in time to make up for natural deficiencies. The labour of catching moles and sparrows is paid for by associations of farmers. Why should rats be favoured? The rat is not less voracious than the sparrow, and a great deal more destructive than the

mole. Rats can live in all kinds of situations—barns, stacks, fields, granaries, stables, mills, warehouses, cellars, sewers, ships, are alike their haunts and hiding-places. They occur on the islets near Scotland which are inaccessible to man, living on seaweed, eggs, fish, and the scanty produce of the soil; they are also found in the sandbanks and caves on the sea-coast. In January, 1866, the district of Braemar, in Scotland, was almost desolated. Rats swarmed in prodigious numbers in the fields, stacks, and houses. Grain, fruits, and stores of various kinds were eaten up, and blankets and sheets on beds were eaten and chopped into shreds. In one instance they showed fight, and a farm manager was obliged to retreat before them.

I have in previous years referred to the depredations of sparrows, and to the loss occasioned thereby to farmers. These depredations are not now less considerable, but if anything, more so, as some farmers have recently been persuaded that *all* birds are useful. I know that much has been said on behalf of the sparrows; still my own observations compel me to adhere to my former opinion, that they are detrimental to the farmer and gardener, and in a secondary sense to all classes. In the course of my reading during the year, I have been pleased to find an able supporter. Mr. John Cordeaux thus writes in the *Zoologist*:—“Many birds, as rooks, starlings, wood-pigeons, and, above all others, sparrows, have of late years largely increased in numbers. I wish I could give the sparrow as good a character as the starling. Independent, however, of all we read about him, and the service he renders the farmer in destroying grubs and insects, and the solicitude expressed by the acclimatisation societies for his introduction into the colonies, and the high price they are willing to pay for his importation, I still think that here at home, in England, he is not quite so honest as his admirers fancy; that in fact he may not unjustly be designated the enemy of mankind. My opinion of him is that he will never touch any other food when he can procure grain. The annual damage done by sparrows to ripening corn crops throughout England must be enormous.

A learned Frenchman, Rougier de la Bergerie, estimates that the sparrows of France consume every year ten million bushels of wheat. It is not alone what they eat, but the quantity knocked out from the ripening heads, till for acres together the crop has the appearance of having been thrashed with a flail. No amount of shooting, shouting, or rattling is of the slightest avail to ward off the pertinacious attacks of the enemy. If driven from one spot they go to some other part of the field, and at last scarcely notice any attempt to drive them away. It has often been urged in defence of the sparrows that, although to a certain extent they commit depredations on our corn crops, they make ample compensation by destroying those insects and their larvæ which otherwise would overrun our fields. In this district, however (North Lincolnshire), where the farms and fields are extensive, and the homesteads isolated, we never see sparrows in the fields, excepting at that season when the grain is there. When the corn is carried into the yards the sparrows follow, and hang about the premises till the succeeding crop calls them abroad again. During the dry season of 1864 my garden was infested with caterpillars, and everything was more or less destroyed; the gooseberry and currant bushes stripped of their leaves. The plantations and shrubberies round this garden are the chosen haunts of hundreds of sparrows; and here, as they are never disturbed, they pass an idle, happy life. In return for this forbearance on my part, I fondly trusted they would speedily rid me of my enemies, the caterpillars; but no—

O wretched set of sparrows, one and all,

although they perched and chattered by hundreds in the trees almost overhanging my currant bushes, they never to my knowledge, and I was constantly on the look out, attempted either to clear fruit trees or garden from the destroyers. Much has of late years been both written and spoken in praise of the useful and honest sparrow. Like many another popular cry it may be overdone."



I cordially agree with all that this gentleman has written. Farmers have been ridiculed and caricatured in all sorts of offensive ways, and taxed with extreme ignorance, by newspaper and magazine correspondents and editors, those who consider themselves clear-sighted, for endeavouring to rid themselves of what are called their "friends." I have read many of these articles and paragraphs with more than ordinary interest, and the more I read the more I am convinced that they have emanated from persons who have either a very limited or a very prejudiced knowledge of natural history. I always read those articles with great suspicion which are written by people who can write learnedly and lengthily on *any* subject. There are a few exceptions, who, after patient observation and study of the habits of birds, have tried to sort and to rescue the grain from the chaff. Much stress is laid on what is called the "balance of nature"; sparrows, buntings, blackbirds, rooks, are considered necessary, nay indispensable links in the great binding Chain. But was not this balance long since interfered with, and destroyed by the operations of art? We should examine how the economy of nature is affected by cultivating the soil, by draining and disafforesting. The food of many animals has been swept away with the forests and the gorse. An artificial flora has been introduced; many animals are extinct, some more plentiful, and many have lost their co-relations (some hostile, some friendly), or have been isolated from them. Art has transformed the face of the country, and annulled to a great extent the dependencies of plants and animals; there is no such thing as a natural balance. Sparrows, so far from being indispensable, are, doubtless, superfluous and detrimental.\* If ever they had a mission of good, that mission is, or rather was, long since accomplished, and as a species they are no longer wanted. How inconsistent it is to watch the persecution and decline of useful or harmless

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\* M. Geoffroy Saint Hilaire, taking a mild view of things, contends that the good sparrows do just balances the evil. If *his* theory be true no harm could result from their extinction.

species without sympathy, and protect or even spare those which are injurious.

In some parishes in East Yorkshire a penny is paid for every sparrow killed, and in many other places the trouble of destroying them is paid for by associations of farmers; and this money is wisely spent. I have regretted to hear of farmers being induced to relax their efforts to rid themselves of the plunderers of their crops. Sparrows are exceedingly voracious, they are always feeding. In spring the growing wheat and barley is pulled up, and every grain thus destroyed reduces the crop forty-fold. When they have young they certainly take them a few insects, but they also collect for them a considerable quantity of green peas, and other succulent vegetable matter, and grain. I have found the crops of young sparrows, naked from the nest, distended with grain. As summer advances, they fall on the green peas and fruit, and lastly on the shooting ears of barley and wheat. When the wheat gets ripe, the old ones bring their hungry families and settle in vast flocks in the fields, there to gorge themselves, and to shell and waste the valuable grain. Often whole lands of corn, contiguous to hedges, are entirely despoiled, nothing whatever being left but the straw and the white skeleton ears. Indeed so great is the destruction of wheat in some places, that the profitable cultivation of it in small patches is impossible. When it is cut and in the stooks the marauders continue their attacks, and the utmost shouting or rattling serves only to drive them on to another part of the farm, or on to a neighbour's field. When the stooks are cleared away, they alight in the stubbles, and rob the feeding geese, game, or the gleaner. In October, November, and through winter, they may be seen clinging to the stacks, and emptying all the accessible ears of their contents, or alighting in the yards and making short work of the corn which has been strewed for the poultry. Thus their life is one continued round of plunder. I fully endorse Mr. Cordeaux's opinion, that they will never touch any other food when they can procure grain. A knowledge of the fact that some finches,

when in confinement, will not touch insects when they are provided with proper seed, is confirmatory of this belief.

The sparrow has also some other habits which call for particular notice. It often chases and harasses other birds which are weaker, but infinitely more useful than itself. It mobs the sand-martin, it harasses and assaults the house-martin, and prevents it from breeding. This bird, the martin, was held sacred, and scrupulously protected by the ancients; and from its habit of attaching itself to sacred buildings, together with its beauty and vivacity, has been raised to a classic position by the poets. It is peculiarly inoffensive, being as remarkable as the dove for meekness of disposition. It builds under the eaves of the barn or the cottage, in confidence of security, and its nest is a marvel of skill. Every year it comes from afar, and seeks, with unerring constancy, its former home. Then it sits on the roof or the dead branch, and seems to twitter a song of pleasure and gratulation because spring has opened her gates. No one can watch the graceful bird, as it glides like an arrow over the woods, or turns on rapid pinion amid the hosts of aerial insects, without admiring it. But how is it welcomed? No sooner has it got its house built, than the usurping and barbarous sparrow comes and beats it away, throws out the eggs, and appropriates the snug little dwelling to itself, never relenting in its persecution for one day. If its victim begins a new nest, the sparrow follows it and continues its assaults. Entire nests, which have been completed after astonishing labour and perseverance, and, I may add, judgment, are frequently demolished in a very short time out of sheer mischief.† Thus the beautiful and really useful martin has to suffer from the attacks of a malicious wretch that feeds the year round on the best products of labour.

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† I attribute the gradual diminution of martins, which has been noticed in several parts of England, to the savage maltreatment they universally receive from the house-sparrow. The martin cannot hold its ground against an enemy so strong, hardy, and malignant.

'Tis hard to bear, and yet it must be borne,  
 Although we walk about in wrath and scorn,  
 To see the hectoring, lording, and commotion  
 For ever going on in earth or ocean !

\* \* \* \* \*

Upon your roof the lazy scamp is basking,  
 Chirping, seuffling, screaming, fighting,  
 Flying and fluttering up and down  
 From peep of day to evening brown.

You may be sleeping, sick, or writing,  
 And needing silence—there's the sparrow  
 Just at your window—and enough to harrow  
 The soul of Job.

\* \* \* \* \*

At home he plagues the martins with his noise—  
 They build, he takes possession, and enjoys ;  
 Or if he want it not, he takes it still,  
 Just because teasing others is his will.  
 From hour to hour, from tedious day to day,  
 He sits to drive the rightful one away.  
 At home, abroad, wherever seen or heard,  
 Still is the sparrow just the self-same bird ;  
 Thievish and clamorous, hardy, bold, and base,  
 Unlike all others of the feathered race,  
 The bully of his tribe—to all beyond,  
 The gipsy, beggar, knave, and vagabond.—*Mary Howitt.*

Many will remember reading a few years ago, about a petition that was presented to the French Senate against the destruction of birds. This petition was translated and appeared in the *Times* in 1861, and formed the groundwork of the multitude of articles and letters respecting birds which subsequently appeared in the newspapers and other journals in this country. I have read the *Times'* translation of this French document over carefully, and found that it contains many very gross errors—errors which would be unpardonable in an English schoolboy's composition task. I have extracted the sentences which contain these errors and misstatements, and I wish to draw particular attention to them. To prevent confusion the extracts are given in italics.

“Does what the insects have spared remain to the agriculturist? No; a multitude of moles, field-mice, and rats, after having lived in the fields to the detriment of the harvest, enter the granary and levy a new tax upon it.”

Here we are given to understand that moles live on grain, and that after harvest they repair to the granaries, and that field-mice also enter granaries. In the first place moles do not live on grain, the habit is contrary to their nature; secondly, I can take upon myself to say positively that moles never under any circumstances enter granaries or other buildings. Instead of approaching man in winter they burrow deeply into the earth after the descending worms, and thus get further out of his way.

“The food of the mole consists especially of earth-worms, but it also feed on larvæ, and is said occasionally to devour frogs, lizards, and even birds.”—*Macgillavray*.

“The food of the mole consists chiefly of earth-worms.”—*Rev. J. G. Wood*.

“The food of the mole consists of grubs of all kinds, worms, and insects, and frequently of slugs.”—*Dr. B. R. Morris*.

As to field-mice, if the long-tailed field-mouse (*Mus sylvatica*) and the field-vole (*Arvicola agrestis*) are meant, the allegation that they enter granaries is as libellous as those which relate to the mole, for they remain in winter in the fields, woods, and orchards, in a partially dormant state.

“*Frederick the Great declared war against the sparrows, which did not respect his favourite fruit, the cherry. Naturally, the sparrows could not pretend to resist the Conqueror of Austria, and they emigrated; but, after two years, not only were there no more cherries, but scarcely any other sort of fruit—the caterpillars ate them all up.*”

The petitioners gained nothing by going back to the time of Frederick for facts. European sparrows never emigrate. But we are bound to infer from the wording of the quotation that the sparrows emigrated, after deliberate consultation, I

suppose, *because* Frederick had declared war against them. After the sparrows had emigrated, the caterpillars *ate up* all the Conqueror's cherries. Now, the fact is, there is not one single sort of caterpillar known that feeds on ripe cherries. The Emperor was unfortunate. Were there no willow-wrens, no redstarts, no cuckoos, no robins, to rid his garden of insects? Could nothing but the sparrow, the type of the grain-feeders, save his fruit?

*"It is exclusively with insects that this bird (the sparrow) feeds its young."*

I have examined a great number of the crops and gizzards of young sparrows, and I have found grain and vegetable matters in nine cases out of every ten. See my "Notes" of 1863. If the sparrows in France feed their young *exclusively* with insects, their habits are very different from the habits of English sparrows. I take the statement to be a guess.

*"If the sparrows and the rooks make us pay for their services, there are other birds—and they are far more numerous—which render us gratuitous service. They are, first of all, the nocturnal birds of prey, as bats, barn-owls, and others, which ignorance foolishly persecutes as birds of ill omen."*

Bats! I should think some of the members of the Senate would be staggered to hear that bats are "birds of prey." I was disposed at first to place this "little mistake" on the shoulders of the compositor; but, considering that bats can fly like birds, and marking how consonant the absurdity is with others noticed above, I was forced to view it as original. (The next sentence follows immediately the one last cited.)

*"Agriculturists ought to bless them, for, ten times better than the best cats, and without threatening the larder like them, the birds of this order wage a determined war against rats and mice, so detrimental to stacked corn, or grain in barns, and destroy in the fields hosts of field-mice, moles, and dormice, which, without these night-hunters, would become an intolerable scourge."*

Here bats are placed *first* on the list of destroyers of rats and mice, moles, and dormice. See the sentence above. Who- ever heard of bats killing rats or moles ?

“*Parents and children are probably ignorant of that noble passage of Scripture—‘If a bird’s nest chance to be before thee in the way in any tree, or on the ground, whether they be young ones or eggs, and the dam sitting upon the young, or upon the eggs, thou shalt not take either the dam or the young ones : but thou shalt in anywise let the dam go and take the young to thee; that it may be well with thee, and that thou mayest prolong thy days.’*”

The mistake in this quotation was detected by the *Times*’ translator.—See Deuteronomy, chap. xxii., verses 6 and 7. “Deuteronomy,” adds the translator, “*justifies taking the young ones.*”

This petition, which is literally crowded with errors, inconsistencies, and doubtful statements, was paraded by the *Times* as a model lesson for farmers! At the outset of it there is the following surprising intimation:—“These petitions\* give rise to many questions of fact and right, which we will rapidly examine. As regards the first, in default of all personal competency, we have consulted, in so far as it was in our power, and the time we could devote to it, the highest authorities in natural history and agriculture. It is therefore in their name, so to say, that we submit certain facts for affirming which we had not the requisite qualifications.” Here, firstly, there is a confession that the compilers were quite unable and unfit to deal with the subject; and, secondly, a story that the “facts” have been collected from the very highest authorities. No one can disapprove of the ultimate object of the petitioners, that is the preservation of growing crops from insects; the object is admirable, but the means are miserable. Many of the English scribblers who constitute themselves farmers’

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\* There were four petitions presented, but one only, it seems, was printed by the *Times*, the best, we may presume.

teachers evince no sounder knowledge of the subject than the compilers of this French document.

Useful birds have been destroyed systematically in France for many years, but not by farmers. Wheatears and robins, larks and nightingales, have been destroyed to gratify the insatiable stomachs of French gourmands.

As a concluding word, I must again urge upon all who have an interest in the cultivation of the soil, the necessity of taking immediate steps to thin the numbers of rats and sparrows. These animals are now gradually on the increase in Yorkshire, and probably throughout the country. The birds which are intermediate in their feeding habits between the sparrows (both species) and the soft-billed birds require watchfulness and an occasional shot, when by flocking together they become too numerous, and hence too mischievous in one locality. It is needless to set forth the importance of encouraging and protecting in every possible way the truly insectivorous birds, those which feed almost entirely on insects, and which by their incessant warblings, contribute so much to the delights of summer.

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## RURAL NOTES AND DIARY OF NATURAL PHENOMENA FOR 1868.

### JANUARY.

1st.—Redwings and fieldfares appear to be most numerous in this neighbourhood during storms. In mild weather there are few to be seen. Haws and other winter food for birds not abundant.

14th.—Sparrows feeding in the sown wheat fields. The operation of pulling up the sprouting grain is much facilitated by frost, which lightens the earth.

16th.—Mild weather. Missel-thrush in song.

19th.—The stems of raspberries, which are cut out in January and February, being dry and porous, are excellent for kindling fires and lighting candles.



23rd.—Found in gizzards of three sparrows, fine sand, a few grains of barley, and a few seeds of common goose-foot. The gizzards contained about three parts sand.

27th.—Long-tailed field-mice and rats are often caught in the figure-of-four traps, which are set in field corners and about stone heaps and walls, by the gamekeepers, for weasels and stoats. These traps are generally baited with small birds. The common vole (*Arvicola agrestis*) is also occasionally trapped. Sometimes weasels and rats are caught in mole-traps.

FEBRUARY.

1st.—Heavy rain ; high wind.

11th.—Mild weather. Chaffinch in song.

12th.—Lark, blackbird, and hedge-sparrow in song.

17th.—Thrush, robin, and stormcock in song. Rook, starling, and sparrow pairing.

22nd.—Buds of thorn, pear, sycamore, and lilac bursting.

27th.—Stormcock pairing. Blackbird in full song. On mild February evenings the blackbird sings till after six ; the thrush commences its song in the morning before six ; the lark and song-thrush open, and the blackbird closes, the woodland choir.

28th.—Bloom of jargonelle pear bursting. Titlark in song.

29th.—Found a sleeping nest of the long-tailed field-mouse, built in a dead thorn hedge. It was ball-shaped, had two entrances, and was composed externally of dry poplar leaves, and lined with moss and a few feathers. I have on other occasions seen these mice inhabiting old birds' nests, but this nest had been made by the mouse, as the moss was green and the feathers fresh. It was near a beck which had been flooded, and the mouse had probably been flooded out of some harbour in or near the ground. I was attracted to it by its roundness, though it appeared very like a lump of wreck left by the water.

February was windy and dry, reversing the adage, "February fill dike."

## MARCH.

1st.—Leaves of gooseberry and currant unfolding. Yellow-hammer in song.

2nd.—Hazel in flower. Nettle in leaf.

5th.—Spring-note of chaffinch heard. Noticed sparrows building.

7th.—Mild weather. Yew and red dead-nettle in flower. A few tortoise-shell butterflies hovering about. One or two seen on the 1st.

8th.—The snail (*Helix hortensis*) abroad. Blue titmouse pairing. Elder in leaf.

14th.—Fine weather. Leaves of various trees unfolding.

15th.—Stormcock building. Pairing note of greenfinch heard.

16th.—First noticed spawn of frogs. Newts moving about in the ponds, but not numerous. Whirligig beetles and some other insects sporting on the surface. Sticklebacks building. Noticed troops of very small sticklebacks swimming about with old ones. Lark in full song.

18th.—About now, hibernating mice and voles become very hungry. They often leave their retreats and come to the surface to feed on the hearts of clover, or sometimes on the stalks of weeds. They also make runs along newly-sown pea rows, and do much damage.

20th.—Gooseberry in leaf. Dog-violet and pilewort in flower. Bees first seen.

22nd.—Corn-bunting and wagtail in song. Plum and meadow-rush in flower.

25th.—Larch and raspberry in leaf. Found a nest of the missel-thrush with two eggs, which were afterwards carried away by a rook.

28th.—Thorn in leaf. Ash in flower.

29th.—Gooseberry, anemone, and sloe in flower. Lapwings pairing. Saw first eggs of robin. Fine weather; soil dry and workable.

APRIL.

1st.—Red bug appears. Pea in leaf. Greenfinch in song.

2nd.—Blackbird laying. Butterbur in flower. Pear in leaf.

3rd.—Wild cherry in leaf. Rooks hatched.

4th.—White butterfly on wing. Marsh-marigold in flower.

5th.—Hérons at Walton Hall had young. Sparrows building in trees. Sweet woodruff, trailing rose, and garlic in leaf. Primrose in flower. Some holly trees yet covered with berries. I have noticed that birds do not feed on holly berries unless compelled by great scarcity of food.

7th.—Thrush and sparrow laying.

9th.—Wheatear arrived.

10th.—First noticed caddis-worms. Ground-ivy and wild cherry in flower. Ivy berries abundant. Saw swallows. The swallow was seen at Linton-on-Ouse on the 1st of April; at Holyhead and Kirtlington on the 2nd; at Ringwood on the 3rd; at Romsey and Stafford on the 5th; at Monmouth on the 6th; at Brislington Hall, Devon on the 8th; in Middlesex on the 9th; in Worcestershire on the 10th; at North Stoneham and Petersfield on the 11th; near Leicester on the 13th; at Llanforda near Oswestry, on the 15th; at Minehead in Somerset, on the 17th; at Great Cotes in Lincolnshire, on the 20th; at Hexham on the 22nd; at Wrexham on the 24th; at Scarborough on the 25th; at West Cramlington on the 26th. The two or three swallows that I observed on the 10th were flying about in the warm valley of the Aire, near Swillington. Several weeks elapsed before they became numerous. On their arrival they always resort to warm valleys in quest of food. Linton, the village at which they were seen on the 1st of the month, is situated in the pleasant valley of the Ouse, about ten miles from Easingwold.

12th.—Buds of horse-chestnut bursting. Yellow-hammer building. Found a great many growing peas and other vegetables eaten by the slug, *Limax agrestis*. Found a dormitory

of the long-tailed field-mouse composed of fine grass, feathers, and horse hair, in a bed of dry holly leaves. Observed some lesser redpoles, apparently feeding on the buds of the oak. Found a thrush's nest containing eggs, at the top of a high pear tree, with a sparrow's nest built upon it. The thrush's nest had been appropriated as a foundation for that of the sparrow.

13th.—Birch in leaf. Goldilocks (*Ranunculus auricomus*) in flower. (Heard cuckoo and saw bats.—A. F. W.\*)

16th.—Blue-bell in flower. Sycamore in leaf.

18th.—Chaffinch laying. Cowslip in flower. Few insects yet on wing.

19th.—Rain, after several weeks of fine weather.

20th.—Rain. Saw yellow wagtail and a small flock of fieldfares.

21st.—Heard willow-wren. Turnip in flower. Sallow in leaf.

22nd.—Pea puts forth tendrils. Apple in flower. Colts-foot in seed.

23rd.—Cuckoo heard. The cuckoo was heard at Holyhead on the 5th; at Llanforda near Oswestry, on the 7th; at Scarborough on the 13th; at Southampton, and Ringwood, Hants, on the 15th; at Farnborough in Kent, on the 16th; near Leeds on the 21st; at Bittern, Hants, and in Middlesex, on the 22nd; at Minehead in Somerset, on the 25th; at Meifod in North Wales, on the 27th; at Brighton on the 29th; at Great Cotes, Lincolnshire, on the 30th; at West Cramlington, Northumberland, May 3rd.

24th.—Horse-chestnut in leaf. Fieldfares last observed.

25th.—Showery weather. Tree-pipit arrived.

26th.—Heard chiff-chaff, whinchat, and whitethroat. Germander speedwell, crosswort, and Jack-by-the-hedge in flower. First noticed bullheads and ants.

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\* The notes followed by initials were made at Scarborough, by A. F. Wordsworth, Esq.

27th.—Young rooks left nests. Sycamore in flower. Beech in leaf.

28th.—Insects becoming more numerous. Swallows building and laying.

29th.—Sand-martins seen.

33th.—Greenfinch laying. Broom in flower.

MAY.

2nd.—Bulbous buttercup and white milkwort in flower.

3rd.—Heard sedge-warbler and saw house-martin. Elm in leaf. Red campion in flower. Observed a few flowers on hawthorn. This is an early date for the flowering of the common thorn in Yorkshire.

4th.—Dandelion in seed. Holly in flower.

6th.—Heard lesser whitethroat. Larks hatched. First noticed aphides on gooseberry bushes. Thyme-leaved veronica in flower.

8th.—Heard corncrake. Thorn, red clover, and creeping crowfoot in flower.

9th.—Showers; fine growing weather. Partridge laying. Robins fledged.

10th.—Heard wood-warbler and garden-warbler. Swallows not yet numerous. Martin laying. Self-heal and mountain ash in flower. Oak and white poplar in leaf.

11th.—Shell-snails not yet numerous. Horse-chestnut in flower.

14th.—Cuckoos and corncrakes distributed. (Hawthorn in flower.—A. F. W.)

15th.—Corn-gromwell in flower. (Swifts appeared.—A. F. W.)

16th.—Heard crickets in the fields. First noticed caterpillars on gooseberry bushes.

17th.—Whitethroat and greenfinch sitting. Chickwood and dog's mercury in seed.

18th.—(House-martins appeared.—A. F. W.)

19th.—Weather droughty. Larks fledged. Ash in leaf.

20th.—Bean and pea in flower.

24th.—Showers. Old rooks ceased flying over with food for the young.

25th.—Twayblade and larger sorrel in flower. Ash in full leaf.

29th.—Thunder showers. Call-note of lesser whitethroat discontinued.

#### JUNE.

4th.—Droughty. Elder tree and potato in flower. Turnip in seed. Robins (second brood) hatched.

7th.—Hawthorn in fruit. Wild dog-rose in flower. I noticed the dog-rose in flower near Fleetwood, in Lancashire, on the 2nd. It was in flower at Scarborough, as will be seen below, on the 12th. Last year I first observed the flowers of the dog-rose on the 12th of this month, near Malton. On the 2nd of June, this year, I met with an exceedingly dwarfed variety of the Scotch rose in flower, on the sandy seashore at Fleetwood. Some of the stems only projected above the surface about an inch. The large, handsome, cream-coloured flowers completely hid the small foliage, and seemed to rest on the sand. Here and there among these curious roses I noticed another very pretty plant, the blood geranium (*Geranium sanguineum*).

8th.—Great willow-herb, ragged robin, poppy, and foxglove in flower.

9th.—Cuckoo ceased singing about this date.

12th.—Weather droughty. Bean in pod. Smaller bindweed in flower. Singing birds becoming silent. Cuckoo last heard. (Dog-rose in flower.—A. F. W.)

14th.—Corn in ear. Haymaking commencing. Laburnum and broom in seed.

16th.—Greenfinches commenced feeding on the seed of the turnip, and on the seeds of other cruciferous plants. All the first broods of sylvan birds fledged.

18th.—Cabbage-butterflies and larvæ numerous.

20th.—Adders-tongue in fruit. Barley in ear. Currant clearwings out. Cherries ripe. Weather droughty. Insects becoming abundant.

22nd.—Privet in flower. Oats in ear. Poppy in seed. Raspberries ripe.

24th.—Wild hop, lesser water-plantain, St. John's wort (*Hypericum perforatum*), and cleavers in flower.

27th.—The swallow begins to utter a peculiar note as soon as the young are hatched. This note is not unlike the breeding note of the swift.

30th.—Very droughty. The songs of all the summer warblers ceased in June. Canadian weed (*Anacharis*), great water-plantain, and jasmine in flower. Gooseberries ripe.

JULY.

5th.—Slight showers. Turnips failing. Oak spangles appearing.

12th.—A few aphides on corn and other plants, but not generally abundant.

13th.—First brood of swallows fledged. Birds mute, and not numerous.

14th.—Hairbell in flower. Weather excessively dry. Foliage of trees quite brown and shrivelled. Plants in dry situations drooping for want of rain.

20th.—Oats ripe. Harvest commencing. In 1867 harvest began about August 20th.

21st.—Nests of wasps and bees numerous. Pears ripe. Greater willow-herb and enchanter's nightshade in flower.

27th.—Swallows building second nest. In July swallows are on wing about three in the morning; the young ones often rest on trees, and while so resting the old ones collect insects, and feed them. They also feed them when on wing. The old and young keep in company several weeks after the young are fledged.

30th.—Excessively droughty. During this drought the common house-cricket was heard in unusual places. I heard it in fields, old walls, and about dung heaps.

## AUGUST.

1st.—Forest leaves falling!

4th.—Beans ready to cut. Much harvest work done. Saw first flocks of starlings. Noticed great numbers of seven-spot ladybirds among cut barley; also a few reddish aphides.

5th.—Mountain-ash berries red. Beech leaves falling. Field slugs scarce.

6th.—Forest trees shedding their leaves. Springs failing. Birds distressed by the drought, and cattle wasting for want of water and succulent food. Harvest remarkably short; all garnered without rain. Ground exceedingly dry and hard.

9th.—Aphides swarming on turnips. White cabbage-butterflies becoming abundant.

11th.—Turnips rotting. Fruit ripening prematurely. Several large flocks of starlings about. Corn-crake not heard. Refreshing showers.

12th.—Immense numbers of aphides on the under-side of the leaves of Swedish turnips, and the under-side of the leaves of the oak much infested by minute insects, probably aphides, the upper side of the leaves so attacked being covered with yellowish blotches. Tops of white turnips much perforated by leaf-cutting bees or other insects. First observed the turnip-grub. Observed the small lemon-striped turnip-hopper, various small ground-spiders, and several carnivorous beetles about the roots of turnips. Heard sedge-warbler and yellow wagtail.

13th.—Refreshing showers. Found, on the under-side of oak leaves, aphides, several sorts of mining larvæ, and larvæ of ladybirds; some of the aphides were winged. Also noticed some of the black four-spot ladybirds. Catkins of hazel forming. Many plants in seed.

14th.—Swallows, building on the 27th of last month, hatched second brood.

16th.—Redpoles feeding on the seeds of lettuce.

17th.—Blackbirds, sparrows, and other birds becoming more lively and numerous after the rain. Robin singing more frequently.



18th.—Rain. Fields and hedges becoming green.

19th.—Slight showers. Yellow wagtails about. Blackberries ripe.

22nd.—Heavy rain. Weeds not abundant.

23rd.—Wagtails and meadow-pipits becoming more numerous.

26th.—Showers. Cabbage-butterflies decreasing.

27th.—Wind. Fruit blown. Chicory in flower.

28th.—Noticed great numbers of seven-spot ladybirds among the aphides on turnips. Wild flowers blooming a second time. The silky catkin of the common sallow is now formed within the bud envelope.

30th.—Found in gizzards of two young fledged sparrows, wing-cases, thighs, and eyes of beetles, wings of other insects, legs of tipulæ—all remains of perfect insects—and some small oval bodies, either minute pupæ, or eggs of insects; no sand. The inner coat of the gizzard was dyed very yellow, possibly by the fluids contained in the insects. This membrane differed from almost all that I have examined in being smooth not ridged; the absence of sand, or small pebbles, was also an exceptional circumstance. I have scarcely ever examined the stomachs of even very young sparrows without finding sand or angular stones, and vegetable matter.

SEPTEMBER.

2d.—Wheatears returning southward.

3d.—Damsons ripe. Wagtails and meadow-pipits returning southward.

5th.—Second brood of swallows fledged. Rooks return to the rookeries.

6th.—Haws ripe; plentiful and very large. Sand-martins congregating.

7th.—Great numbers of aphides on wing. Second brood of swallows left nest. Tortoise-shell butterfly frequent.

8th.—Young chaffinches begin to sing. The following may be added to the Rev. Gilbert White's list of "birds that sing

as they fly":—Cuckoo, tree-pipit, rock-pipit, common wagtail, missel-thrush, common linnet, and sedge-warbler. I have heard all these birds sing when flying, except the common linnet and rock-pipit; these have been noticed by other observers. It is surprising that White should have omitted the cuckoo. His list only contains the skylark, titlark, woodlark, blackbird, whitethroat, swallow, and wren.

10th.—Swallows congregating. Larch putting forth new leaves.

11th.—White butterflies still decreasing. Berries of the elder ripe.

12th.—Chiffchaffs passing southward. Leaves of the lime, horse-chestnut, elm, beech, birch, and thorn falling.

14th.—Droughty. Saw lesser redpoles. Berries of buckthorn ripe.

15th.—A goatsucker shot near Lofthouse.

18th.—Showers and cold winds. Young thrushes in song.

19th.—Heavy rain; end of drought.

23rd.—Large flocks of starlings about. Slugs and snails not numerous.

24th.—Ivy in flower. Aphides decreasing. Swallows moving southward.

25th.—Rain. Admiral butterfly common.

26th.—Rain. Beech putting out new leaves. Bees disappearing.

27th.—Showers. Immense flocks of sparrows in the stubble fields. Young larks in song. Berries of black bryony ripe.

28th.—Many wild plants in bloom.

29th.—Heard wren. This little bird returns at about this time from the woods to fields, orchards, and outhouses. I did not hear its note in this immediate neighbourhood during the warm summer months.

30th.—Sparrows examining their nesting sites. Winged aphides gone. Admiral butterflies frequent. Noticed a few straggling swallows.

OCTOBER.

1st.—Hedge-sparrow begins to utter its winter note.

2nd.—Rooks clamorous. Mushrooms and other fungi abundant after the rain. Yellow pimpernel in flower, second bloom.

3d.—Thrushes, wasps, bees, and various flies feed much on fallen fruit in autumn. Birds and wasps prefer pears.

4th.—Weather spring-like. Thrushes singing continuously.

5th.—Oak leaves fading; acorns falling.

6th.—Rain. Summer warblers gone.

8th.—Finches flocking. Immense flocks of starlings about.

9th.—Swallows last seen. Flocks of wildfowl passing southward.

10th.—Brambling arrived. This bird, I find, arrives here regularly about this date, with the redwings. Heard redwings, one or two. Yellow-hammer and old thrushes in song.

11th.—Tortoise-shell butterfly and a few bees and wasps yet on wing. Berries of yew and privet ripe.

15th.—Starlings, rooks, and lapwings about the turnip fields, probably feeding on the turnip-grub.

17th.—Slight frost. Rooks noisy and clamorous.

19th.—Frost. Lapwings increasing about the turnip fields. More redwings and bramblings arrived. The harsh note of the brambling seems to frighten other small birds.

25th.—Heard golden plover. Great flocks of lapwings about.

27th.—Showers. Some elms and sycamores leafless after wind.

28th.—Heard fieldfares. Perfect ladybirds numerous in turnip fields and in gardens.

30th.—Showers. Heard bullfinches.

NOVEMBER.

1st.—Observed in the gooseberry bushes a pair of very small birds, which I took to be a species of kinglet. I could

perceive a patch of lemon-colour on each wing, and a stripe of the same colour about the head. They kept together by means of a shrill note like the squeak of a mouse.

2nd.—Elm, lime, chestnut, and poplar leafless.

6th.—Dry frost. Noticed sparrows collecting building-materials.

7th.—Snow ; first of the winter.

8th.—Gooseberry, pear, apple, and laburnum leafless.

12th.—Rooks and lapwings about the turnip fields. There are generally a great number of the eggs of the common white field-slug (*Limax agrestis*) to be found in October and November about the turnip roots, but this season I observed very few. The slugs were killed by the drought. The slug, which is not protected by a shell, is not so susceptible to cold as the snail. The former may be found feeding very frequently in winter.

17th.—Oak, ash, and all deciduous forest trees leafless.

18th.—Mild weather. Catkins of willow bursting.

28th.—Haws and keys of sycamore falling.

#### DECEMBER.

6th.—Heavy rain. Springs and wells which had been low were now replenished.

11th.—Rain. Observed great numbers of ladybirds on dead plants and gooseberry bushes, on walls, and in the earth. In winter they become redder in colour.

21st.—Heavy rain. Flocks of lapwings about.

22nd.—Mild, soft weather. Fields of wheat and pastures fresh. Groundsel, dandelion, some species of *Veronica*, and a few garden plants still in bloom.

23rd.—Saw goldcrest.

27th.—Rain and wind.

28th.—Rain, wind, thunder, and lightning.

29th.—Sleet and snow.

30th.—Thick snow on the ground.

## GENERAL OBSERVATIONS.

Spring, after a mild, rainy winter, was favourable for agricultural operations. The soil became dry in March, and spring corn and various other seeds were got in in good condition. Wild plants put forth leaves and flowers rather earlier than usual. Showers alternating with fine genial days prevailed till towards the end of May. About then, field-crops and plants generally, which had grown rapidly and promised abundance, began to droop for want of rain. During the dry weather in June, cereal crops were ripened prematurely, and the grass was dried almost to hay before it was mown. Straw, especially oat straw, was exceedingly short, and the crop of hay was very scanty. Haymaking commenced fourteen days sooner than usual, and harvest began at least a month sooner. Fruits were pushed forward and ripened very early. As a compensation, most crops were gathered in a satisfactory state, fit either to use or to store. In July the fields, woods, and meadows presented a most melancholy aspect. Pastures were so browned and improverished by the drought that cattle were almost famished, and in many districts farmers were compelled to feed them in the folds on winter food. In the lanes, the hedges and wild plants were whitened with dust, and the leaves of forest trees, brown and withered, appeared as though they had hung on the branches for years, being covered with dust, skins of aphides, and old spiders' webs. An immense number of plants died as it were of thirst, and all ceased to grow. Many ferns which grew on walls and dry banks, were curled and apparently dead in June. Some plants, such as the chervil and others with hollow stems, were completely dried up, and really dead. Many surface streams and springs failed in July, but under-springs held out till a late period, as the earth was charged with water, which fell in extraordinary quantities in 1866 and 1867. The yield of all sorts of spring-corn was below the average, but the crop of wheat, although infested a little in spring by aphides, was more satisfactory, being on some soils greatly above the average, and of excellent quality.

Turnips were in most places a complete failure. Late-sown turnip seed did not germinate, and those fields which were got in early and promised well, were droughted, and bared almost to a plant by the end of July. Potatoes were not diseased, but a curious form of growth, technically called "supertuberation," took place in July and August. From the potatoes planted in April two crops were produced—a summer crop and an autumn crop. In some cases the first growth of tubers was connected to the later, forced crop, by strings two or three inches in length; in others, the old and young were clustered closely together. This abnormal development is well known where potatoes are extensively cultivated. In Cheshire it is called "Ackersprit." For interesting information on this subject see an article, with illustrations, in "Hardwicke's Science Gossip" for November. During the hot weather in July alarming spontaneous fires in woods, and on moors occurred, such as were never before known in this country. On the 7th of August, about 11 a.m., the atmosphere in this neighbourhood was filled with dull scentless smoke, which came from the east, but from what particular spot no one seemed to know. There were no fires raging within at least 20 miles. The Rev. Gilbert White mentions that a "smoky fog prevailed for many weeks in this island, and in every part of Europe in the hot year 1783." In July and August fields were often filled with dust, though situate at a great distance from roads. Thunder and lightning often prevailed. The air was frequently sultry and stifling; the clouds much rent and disturbed; luminous circles, and circular areas of a light glaring colour were often observed round the moon. Local thunder showers accompanied these phenomena. In this immediate neighbourhood there was generally a slight breeze which tempered the heat; the thermometer seldom rose above 90° in the sun. After this extraordinary weather the showers which fell on and after the 11th of August had a singular effect on vegetation. Beeches, larches, and other forest trees put forth green leaves. Beds of fresh violets appeared on the hedge-banks, calling to mind the genial days of Spring. Pas-

tures, which had been so long bare and brown, rapidly assumed a covering of emerald green, and were decked with golden-headed hawk-weeds. The foxglove, the wood-pimpernel, the wild thyme, and many other plants unfolded a new array of flowers. Ferns which had withered, revived and put forth tender fronds, and green mosses crept along the walls. In short, September had all the appearances and accompaniments of spring. The greenness and the bloom of the fields were, however, shortlived. Winds and frosts came in October; the growth of the lesser plants was checked, and the tender foliage of forest trees was curled and blackened. On the 18th of October a nipping frost came, which deflowered all delicate plants, and sent the wandering bees to their cells. Although many refreshing showers fell in August the drought may be said to have lasted till about the 19th of September; on that date rain began to fall in sufficient quantities to soften the soil and affect the springs. Late in autumn many unusual circumstances were noted in different parts of the country. The thorn and lilac flowered, and fruit was observed on strawberries in October. Raspberries were gathered in a garden near Wakefield in December. Nests of birds were found, and swallows were seen in December. Many weeds shed their seed early. This seed germinated, and seedling plants appeared in autumn to be killed by winter frosts. October and November were favourable for wheat sowing and other agricultural operations. After sowing, wheat grew luxuriantly. December was excessively wet; the rainfall in that month being greatly above the average. Although the summer was a season of almost unparalleled drought the amount of rain which fell during the whole year was much beyond the average.

RAINFALL OF THE YEAR,

As registered in Sussex, from the *Times* of January 2nd.

In.		In.		In.	
January .....	4.01	May .....	1.09	September .....	3.50
February .....	0.91	June .....	0.64	October.....	2.89
March .....	2.55	July ..	2.68	November.....	1.89
April.....	2.69	August .....	3.93	December.....	7.90

Total of the year, 34.68ins. Excess of the average, 6½ins.

## RAINFALL OF THE YEAR,

As registered at Cookridge, near Leeds, from *The Yorkshire Post* of January 9th.

	In.		In.		In.
January.....	2·38	May .....	1·51	September .....	4·08
February .....	3·05	June .....	0·36	October.....	3·08
March .....	2·83	July .....	0·69	November.....	2·29
April .....	1·57	August .....	2·53	December.....	7·69
Total, 32·06ins.					

No new species of flowering plants have been added to the British Flora during the year. In October I found a plant here which is not mentioned in any local or general Flora that I have access to. Its scientific name is *Amaranthus retroflexus*. Mr. Hopkinson, of Watford, informs me that this plant was observed in Hertfordshire previous to 1846.

The summer birds of passage arrived about their usual time. I did not observe the redstart in its spring migration, nor the flycatcher—birds which generally appear, but in scanty numbers. Swallows, martins, and swifts have been scarce this year throughout the whole of the British Isles. When the swallows and other spring migrants arrive on the south or east coast, they do not distribute themselves evenly over the country, but search out, and wander up the warm valleys, where insect food is procurable. Their progress northward seems to correspond more to isothermal lines than to parallels. From the collection of dates of observation of arrival of swallows, given this year under April 10th, it may be seen that they were noticed in the midland counties, and in the valley of the Ouse, in Yorkshire, as soon as at some places in the southern counties. The Ouse valley is as warm in spring as any place on the east coast north of London. The swallows appear in Italy about the 1st of March; the average date of their appearance in the south of England may be about the 11th of April, and the average date of arrival in Scotland is about the 20th of April. Cuckoos were scarce, and ceased singing remarkably early; landrails were not plentiful. Nearly all the singing



birds, residents as well as migrants, ceased their songs at the end of June, and early in July there was a general exodus from this neighbourhood. The weather was excessively dry, and all kinds of birds became much distressed on account of the scarcity of water. As I was sitting with a friend by a muddy and half-dried-up pond in July, I noticed yellow-hammers and blackbirds drinking muddy water, and many other birds were lingering about; there were also a great many bees and wasps hovering over, and alighting on the water-plants. Few birds, about here had second broods; the major part of the old birds retired to the becks and rivers in search of water. In July the commonest birds were very scarce and very mute. The thrush was the one I heard most frequently; the willow-wren and familiar robin were silent. Rats were also famished, and I fancy they migrated eastward during the drought. Less damage was done to the corn in the fields than usual. Slugs and snails were remarkably scarce, being killed by the drought. In the course of the summer the plumage of almost all birds became lighter-coloured, and numbers of albinos and other varieties were observed and caught. About the end of August, after the rain, when the hedges became green, and water more plentiful, birds returned to their old quarters, and resumed their songs; large flocks of starlings appeared, and wagtails and meadow-pipits received accessions to their numbers from the north. A little later the summer migrants began to move southward. I heard the chiff-chaff, a bird which is seldom heard or seen here in summer, except, perhaps, a single pair in a wood, on the 10th of September. Wheatears and redstarts also appeared. I observed a single redstart on the 30th of August. For a week or two the fields and hedges were quite alive with summer warblers *en route* southward. The robin, the hedge-sparrow, young thrushes, and young larks, animated by the spring-like weather, were in full song. Rooks were uncommonly hilarious, and vast flocks of starlings were seen hovering about, and heard chattering in concert in the trees. The rooks and starlings frequented the swede turnip fields.

Great flocks of lapwings appeared early in October, and remained in the turnip fields till the end of the year, probably feeding on the turnip grub. Their piercing cries, much like the cries of an infant, were often heard in the air at night.

I first noticed aphides (plant-lice) on the 9th of July on ears of corn. Shortly after, I found them scattered over rose trees, and various plants. Early in August they were developed in extraordinary numbers on cruciferous plants. Turnips were densely covered and began to flag rapidly, having suffered previously from drought. Insects generally began to increase about the middle of June. White butterflies were exceedingly abundant here, as elsewhere, and the pretty admiral butterfly and the tortoise-shell were more common than usual. Early in August the larvæ of 7-spot, and 22-spot ladybirds (aphis-devouring beetles) became numerous among the aphides on turnips, but the latter swarmed in such prodigious numbers that the ladybirds were quite inadequate to make any discernible impression on them. Birds do not feed much on aphides. After the 28th of August the white butterflies diminished, but the tortoise-shell and admiral kept on wing, rather frequent, till the middle of October. Wasps were not abundant. The aphides remained long on cruciferous plants, destroying in some places every green leaf, and turnips, after their attacks, were a complete failure.

The turnip crop was particularly unfortunate, having no less than four insect-enemies numerously developed. In spring the turnip-hopper gnawed off the tender cotyledons; in summer the plant-lice fell in countless swarms on the green leaves; a little later the voracious grub, distinguished as the "turnip grub," commenced its excavations on the outside of the bulb; and in autumn and winter the larvæ of *Anthomyia radicum* (a two-winged fly) were found feeding in considerable numbers in the interior of the root. I first noticed the grub of *Anthomyia radicum* at work in the interior of the turnip about the middle of October. It is about four lines in length and one-and-a-half in breadth; narrowed at the head; white and footless. It

moves by elongating and contracting the segments, or rings of the body, after the manner of the worm. The chrysalis is about a quarter of an inch in length and one-eighth of an inch in breadth; reddish or yellowish in colour, and narrowed at both ends. The little white grub commences feeding in the root, gradually working its way upwards. When full-fed it descends from the heart of the turnip and assumes the chrysalis state in the earth close to the bulb. While examining some roots of turnips I found the larvæ of two carnivorous beetles, preying apparently on the vegetable feeders. The length of the commonest of these larvæ was three lines, and the breadth one line. This slender fellow was present in almost every turnip I examined, the form of his body permitting him to follow the miners anywhere along their dark winding galleries. When daylight was let into the turnip he retreated very nimbly (being furnished with legs) to the extremity of the mine. When running on the ground he had a habit, which is common to this kind of beetle, of throwing up the hind end when touched. Subsequently I found the perfect beetles in the ground. They are long and narrow, blackish, with very short wing-cases. One of them I found within an empty *Anthomyia* pupa-case. Their scientific names are respectively *Xantholinus ochraceus*, and *Aleochara nitida*.\* In addition to these I found about the entrances to, and in the widest part of the mines made by the turnip-eating grub, a small black spider, and a mite. In October and November, when the turnips were suffering so much from insects, there were constantly flocks of lapwings and rooks about, but they were in search, I imagine, of the large grub *Agrotis segetum*, the pupæ of the fly being hidden too deeply in the earth, and otherwise in the turnip roots, for them to reach. It is needless to say the turnip crop, both whites and swedes, was a failure. Those which survived the drought were greatly injured by insects, and began to rot rapidly both in the field and when stored.

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\* Identified by Mr. E. C. Rye, of London, author of "British Beetles," to whom I sent them.

In the course of the summer a number of rare moths and butterflies were captured, principally in the south of England, and a great many curious and very unusual metamorphoses observed. Double broods of insects were very frequent. Amongst the rare moths may be mentioned the striped hawk-moth, the convolvulus hawk-moth, the unicorn hawk-moth, the small elephant hawk-moth, the elephant hawk-moth, and the humming-bird hawk-moth. The narrow-bordered bee hawk-moth, and the humming-bird hawk-moth were observed near Wakefield. A specimen of the sharp-winged hawk-moth was taken at Huddersfield and another near York. The lists of butterflies contain the Queen of Spain fritillary, the Camberwell beauty, the clouded yellow, the Bath white, and many others. The painted lady butterfly, as I learnt from a correspondent, was nearly as common in the Isle of Man as the whites were here. The "mosquitos," which were reported in the newspapers from Woolwich and other places, were all indigenous, not foreign insects.

During the unusually great heat and sultriness of summer, people were suddenly infested with body lice and harvest mites; the skin of the hand became dry, with loss of sense; dwelling-houses in some parts of the country were invaded by vast swarms of ants; and the common hearth-cricket was seen running about and heard chirping in the streets of towns, and about old ruins. The rambler enjoyed little pleasure in his walks, and the labourer had no will for hard work. Many deaths resulted from sunstroke.

This year a knotty point respecting the fish known as whitebait has been settled. The whitebait has been a standing puzzle to zoologists; some have considered it the young of one fish and some of another, and some have classed it as a distinct species. It seems now, however, settled that the whitebait is the young of the herring, and that it may be found not only in the river Thames, to which it was supposed to be confined, but in most of the large rivers of Britain. It thus happens that

the grand Ministerial dinner, which comes off annually at Blackwall, is neither more nor less than a dinner of herrings.

Naturalists, and all lovers of rural sights and sounds, will learn with satisfaction that earnest measures, originating, I believe, in Yorkshire, have been taken for the preservation of sea-fowl. The ornithologist has long marked the decrease of sea-birds with regret. Whilst at Flamborough, in 1866, I learnt that one gunner had obtained eighty birds in the middle of the breeding season in one day. In the summer season wounded birds, birds with broken legs or wings, may be observed almost every day, floating about on the water, and others, which are not valuable for plumes, lying dead on the sand. These sights repel rather than attract the admirer of animated nature. But let the murderous work of "vagabond gunners" be stopped, and Flamborough, with its romantic cove, its caverns, its lofty cliffs, its trains of old-fashioned panniered donkeys labouring to the village, and its thousands of screaming birds, will become one of the pleasantest, one of the most interesting spots in Yorkshire.

A LIST OF RARE BIRDS CAPTURED OR SEEN IN YORKSHIRE  
DURING THE YEAR.

Black tern.—One shot at Flamborough Head, May 7th.

Nightingale.—Reported from Scalby, near Scarborough, in the *Times* of May 28th. This record of the occurrence of the nightingale at Scalby is doubtful, although authenticated by the Rev. F. O. Morris, author of "British Birds." Mr. Wordsworth, who resided at that time at Scarborough, informed me in a letter that the Scalby nightingales were nothing but sedge-warblers. The reed-warbler, the sedge-warbler, and the blackcap, or Scotch nightingale, sing through the night; and people mistake these birds for the veritable Philomela. Those

who may be tempted next spring to "go hear the nightingale," should remember that her song *is rarely heard after May*.\*

Honey-buzzard.—One captured near Yarm, in May.

Little gull.—One shot at Flamborough, July 13th.

Cirl-bunting.—Under date September 9th, Mr. Ranson, of Linton-on-Ouse, writes to me thus: "I have occasion to believe that I found a nest of the cirl-bunting in a field of oats. It was a flattish nest, built of coarse grass and lined with finer. It contained one egg addled."

Cormorant.—One shot at Wiganthorpe, near Malton, August.

Black tern.—One captured on Knavesmire, York, September 4th.

Spotted crake.—One captured near Huddersfield, about September 26th.

\* In speaking of the nightingale the feminine gender is commonly employed. The custom is very ancient, dating doubtless from the time when, as we learn from Greek mythology, Philomela, the violated daughter of the King of Athens, was changed into a nightingale.

—————"Now I steal along a woody lane,  
To hear thy song so various, gentle bird,  
Sweet *queen of night*, transporting Philomel."

HURDIS.

"All abandon'd to despair, *she* sings  
*Her* sorrows through the night."

THOMSON.

Coleridge is more literal.

—————" 'Tis the merry nightingale  
That crowds, and hurries, and precipitates,  
With fast thick warble, *his* delicious notes,  
As *he* were fearful that an April night  
Would be too short for *him* to utter forth  
*His* love chaunt and disburthen *his* full soul  
Of all its music!"

Many naturalists affirm that the female of this remarkable species is gifted with song, but that it is not nearly so fine, nor so loud as that of the male. The mean date for the cessation of the song of the nightingale in Cambridge-shire, as given by Jenyns, is June 7th.

Sandwich tern.—One captured in an exhausted state at Foulby, near Wakefield, about the end of September.

Solitary snipe.—One shot near Wakefield. End of September.

Water-rail.—One shot at Lofthouse, about November 14th. Rare in this neighbourhood.

Fulmar petrel.—Two shot near Flamborough, about November 11th. Recorded in the *Zoologist* for December, by Mr. Gurney. One caught at Whitby, November 21st, and recorded in the *Zoologist* for January, 1869. Four caught alive at sea, near Scarborough, about November 24th. One caught alive off Flamborough Head, October 14th. Recorded by Mr. J. H. Gurney, jun., in the *Zoologist* for November.

Pomarine skua.—One shot at Bridlington, October 14th.

Little gull.—Four shot off Flamborough Head, about October 15th. One shot at Bridlington, about October 16th. Two shot near Filey, about October 17th. Mr. Gurney.

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## RURAL NOTES AND DIARY OF NATURAL PHENOMENA FOR 1869.

### JANUARY.

4th.—Sparrows disbudding the gooseberries.

6th.—Saw goldcrest. This bird catches gnats on wing.

9th.—Mild spring-like weather. Heard bullfinches.

Robin in song.

14th.—Saw tree-creeper.

16th.—Mild rain. Long-tailed fieldmice abroad.

17th.—Thermometer standing at 62°; in the evening at 37°.

Hive-bees abroad.

18th.—Mild. Missel-thrush in song.

23rd.—Slight fall of snow. Snowdrop in flower.

24th.—Sweet violet in flower near Wakefield.

25th.—Slight frost. Rabbits feed much on bark of trees in winter. They seem to prefer the thorn, larch, and willow.

29th.—Heavy claps of thunder. Rain. Grass and weeds green.

30th.—Chickweed and hazel (male) in flower. Buds swelling.

FEBRUARY.

1st.—Leaf-buds of white cultivated rose, and thorn, and fruit-buds of jargonelle pear unfolding.

3rd.—An otter shot on the Calder, at Stanley, near Wakefield.

4th.—Song-thrush, chaffinch, and lark in song. Buds of currant and gooseberry bursting. Bees at the laurustinus.

6th.—Rook and starling pairing. Laurustinus, colts-foot, and poplar in flower. Lesser celandine and honey-suckle in leaf.

7th.—Daisy and dandelion in flower. Catkins of willow out.

12th.—Missel-thrush pairing. Hazel (female) in flower. Rooks building.

18th.—Alder, elm, and yew in flower. First observed newts. Observed many adult ladybirds on trees and on the ground. Gooseberry in leaf. Hive-bees abroad. Blackbird pairing, and in song. Heard brambling.

20th.—White slugs feeding. Breeding note of marsh-titmouse heard. Nettle in leaf.

22nd.—Blackbird, thrush, robin, and hedge-sparrow in full song.

28th.—Rain and snow, after high wind and thunder. Daffodil in flower.

MARCH.

1st.—Buds of thorn bursting. Rain and snow.

3rd.—Keen dry frost. Breeding notes of sparrow heard.

5th.—Yellow-hammer in song. Breeding note of chaffinch heard.

6th.—Red dead-nettle in flower. Currant in leaf. Skylark pairing.

8th.—Vegetation checked by severe frosts. Yellow-hammer pairing.



9th.—Numbers of adult ladybirds (locally cow-ladies) astir in the hedges and bushes. Meadow-rush in flower. Pied wagtail pairing.

15th.—Wagtail in song. On moonlight evenings the black-bird, and occasionally the thrush, sing till after seven. Rooks clamorous.

17th.—Cold winterly weather; vegetation checked; young leaves blackened by frost.

22nd.—Wild strawberry, pilewort, and several species of veronica in flower.

25th.—Corn-bunting in song.

27th.—Found nest of missel-thrush.

31st.—Missel-thrush laying. Unfolding leaves of elder, rose, pear, and other trees, and fronds of ferns blackened and curled by frost.

#### APRIL.

1st.—Leaves of sycamore, elm, horse-chestnut, and lime bursting. Buds of various forest trees forming, to expand next year. Odd forest trees often put forth leaves before the rest of the same species. This may result from a difference of condition of health and vigour. The general circumstances of soil and aspect are frequently the same.

3rd.—Plum in flower. Titlark in song. Hive-bees (Ligurian) at willows.

4th.—The yellow-hammer sometimes sings on the ground.

5th.—Pairing cry of lapwing heard. Various bees at the willow-bloom. Frog tadpoles hatched. Noticed numbers of seven-spot and eleven-spot ladybirds basking in the sun on herbage and on stones.

10th.—Swallow arrived. The swallow arrived at Shipston-on-Stour, at Torquay, and Great Cotes, Lincolnshire, on the 10th; at Linton-on-Ouse on the 11th; at Tadcaster, Biddenden, and Leicester on the 12th; in Merionethshire on the 14th; at Meifod on the 19th; and at Long Benton on the 24th. To-day being warm after rain, numbers of bees and other

insects were on wing, and birds were more hilarious. Groups of ladybirds were basking in the sunshine on walls, trees, and rubbish heaps, and some were on wing.

11th.—Heard willow-wren and chiff-chaff. Wheatears seen.

12th.—Hedge-sparrow building. Yellow-wagtail arrived.

13th.—Thorn and wild rose in leaf. Great butterbur and pea in flower. Tortoise-shell butterfly on wing.

14th.—Cuckoo heard. The cuckoo was heard at Tadcaster on the 9th; at Biddenden in Kent on the 10th; near Chichester, at Pontefract, and near Torquay on the 11th; at Shipston-on-Stour on the 12th; at Great Cotes on the 14th; near Stockton-on-Tees on the 16th; at Linton-on-Ouse and near Halifax on the 18th; near Wakefield and near Newcastle on the 24th.

15th.—Saw bank-vole. In the "Notes" of 1866 there is a notice of this animal under date April 3rd. Since then it has been observed twice, to my knowledge, in this neighbourhood.

16th.—Currant in flower. Aphides on currant and other bushes.

18th.—Heard sedge-warbler and tree-pipit. Saw sand-martins.

19th.—Heard fieldfares. Cuckoos distributed.

21st.—Larch and odd sycamores in leaf. Robins hatched.

22nd.—Fieldfares last seen. *Viola tricolor* in flower.

23rd.—Poplar, horse-chestnut, and elm in leaf. *Anthomyia radicum*, the grub of which mines turnips and other roots in autumn, on wing.

24th.—Common stitchwort and broom in flower.

25th.—Corn-crake heard. White butterfly first seen.

27th.—Chaffinch laying. Heard whitethroat.

29th.—Heard lesser whitethroat. Bird's-eye and bush vetch in flower (Doncaster).

30th.—Bulbous ranunculus and water ranunculus in flower.

#### MAY.

2nd.—Heard grasshopper-warbler (Barnsley). Heard garden-warbler, wood-warbler, whinchat, and redstart. Hawthorn in flower (Doncaster).

3rd.—Beech in leaf. Winter-cress, meadow-foxtail, and vernal grass in flower.

6th.—Heard lesser redpoles. Buckthorn in leaf. Common spurge in flower.

9th.—Saw fly-catcher. Thorn, laburnum, and sycamore in flower.

10th.—Forget-me-not and apple in flower.

11th.—Fine after heavy rain. Ash in leaf.

13th.—Nightingale heard near this village. Since writing the remarks concerning this bird, which appeared in last year's "Notes," I have had reason to think that it occurs somewhat more frequently in this county than I had been led to believe; it is nevertheless very uncommon in Central and North Yorkshire; some good writers suppose that it has never yet wandered so far north. In the neighbouring county of Lincoln it was formerly considered rare, but seems to be now more frequent. Those who are well acquainted with the songs and habits of birds have little faith in the reports which appear every year in Yorkshire newspapers respecting the appearance of the nightingale. In many instances the reporter sets out with a wish to hear a fine song, and returns thinking he has heard the song he wished to hear, the wish "being father to the thought." In the stillness of the night the song of any bird sounds louder and sweeter than it does amid the numerous jarring commotions of day. The voices of birds, even of the same species, are so various, and the expectations and impressions of each listener, derived from reading or hearsay, are also so dissimilar, that it is a very easy matter indeed to fall into a mistake. The most experienced ornithologists frequently mistake the note or song of one bird for that of another. There are several nocturnal warblers; the thrush has sometimes been heard singing in the middle of the night. The nightingale, which visited this neighbourhood on the 12th of May, posted itself in a low thorn bush in the border of a small wood, commenced its song each evening about half-past ten, and sang through the night. While listening to it I

thought I could detect the notes of the thrush, the sedge-warbler, the wood-warbler, and the chaffinch, but its song is not a mocking song. The best bits of all other birds' songs seem to be seized and blended, with a thousand varying touches of tune and time of its own, into one original, matchless piece. Sometimes it would linger on some clear strains very similar to those of the thrush, but gradually ascending, it seemed to reach all the loudness and wildness of the February song of the storm-cock, then falling through a mellifluous variety of notes, seemed to expire in a succession of sighs scarcely audible to the nearest listener, but again its voice would rise, and with new charms, resound along the woods. But who can describe a song that has ever baffled the poets? So rich, so varied, so plaintive it is, that the bards have failed, even with the aid of all their ingenious figures of speech, to make language do justice to it. It has been likened to the exquisite intonations of the human voice, to the inward complainings of the turtle dove, to the sweetness of the flute, to the Eolian south wind, to the bubbling of water. The poet Clare thus alludes, in homely but effective words, to this wonderful song:—

I've often tried, when tending sheep or cow,  
 With bits of grass and peels of oaten straw  
 To whistle like the birds. The thrush would start  
 To hear her song of praise, and fly away ;  
 The blackbird never cared, but sang again ;  
 The nightingale's pure song I could not try,  
 And when the thrush would mock her song, she paused,  
*And sang another song no bird could do ;*  
 She sang when all were done, and beat them all.

Whilst passing, on the evening of the 14th of May, through the wood in which the nightingale had located itself, I observed with interest how the common birds ceased singing, one after another, and dropped to roost. The commoner kinds of songsters were at that particular time notably abundant; almost every tree and bush was tenanted. When the shades of night began to gather in the valley, the willow and wood-wrens

gradually ceased and dropped to their roosting places. As the gloom deepened, the thrushes stole away, followed by the robin, a late and solitary chorister; and, latest of all, the blackbird retired, leaving the Queen of Night in sole possession of the scene. But the pleasure of listening to the wondrous song, a song so rare in this part of Yorkshire, was soon ended. A few days after its arrival it was caught and confined in a cage, but like a noble prisoner it refused food and died. The bird that had roamed amid the delicacies of the tropical forest, that had crossed the ocean, leaving the seagulls behind, loved liberty too well to sing through the bars of a cage for a gaoler. The nightingale is too proud for a cage; it would rather not live than live a prisoner.

17th.—Oak in leaf. Martin building. The individuality of many of our birds is very striking. The habits of the cuckoo, the nightingale, the skylark, the nightjar, the landrail, the burrowing martin, differ remarkably from the habits of all other birds which reside with, or visit us. The common martin is a peculiar bird; its nest is unique. The nests of all other British birds have some foundation or object to rest on, but that of the martin is without horizontal foundation, being fixed invariably, so far as my experience goes, against a vertical wall or rock. It is composed of wrought mud or earth, with interwoven straws, and adheres of its own tenacity by its edges, *under* the eaves of buildings or ledges of rock. The most artful bricklayer or plasterer could not form a structure like it with the same materials, even allowing him the implements which ages of inventive art have placed in his hands. No nest that I am acquainted with is so much out of the way of cats, rats, weasels, and other nest-robbers. The entrance is very small, being only large enough to admit the owner. There is, however, one enemy which is very annoying, the sparrow, which frequently drives away the martins and takes possession of, or demolishes the nest. I believe this is the only natural enemy that the martin has to encounter so far as nidification is concerned; no quadruped or bird of prey ever molests the eggs or

young. In times when there were no brick or stone buildings the martins would probably be confined during the nesting time to rocky districts. But as buildings offering suitable nesting accommodation multiplied, they, as well as the swallows and swifts, would be attracted to level, and to wooded districts; all three have now forsaken, to a great extent, their natural nesting-sites, and accompanied the builder. During this process of change some modification of their habits may have taken place. New conditions would doubtless require and induce new plans. Buildings, especially those situate in valleys, would offer them much warmer sites for rearing their young than maritime rocks or mountain scars. Both martins and swallows often build within the influence of warm chimneys. It is said that the martin very seldom selects the cold north side of a building for its nest. Possibly this bird may formerly have nested about the low rude huts of the Ancient Britons; American martins make their nests on or near the huts of the Indians. The British martin, however, seems to prefer high situations. Wilson, the American naturalist, says that in the far west the martins build in hollow trees; but, where white men have settled, they build about the houses. Both natives and Europeans encourage them by erecting boxes and other contrivances for them to nestle in. It is remarkable that the British house-martins, swallows, and swifts have little direct connection with the vegetable kingdom: they do not build in trees, their nests are made of mud and feathers, with a few straws, and their food consists of insects, a great portion of which are bred in water. The distribution of martins in England is local; in some odd spots they are abundant, but in many places they appear to be on the decrease. The largest colony of martins that I ever saw was at Marton station, on the Scarborough and Hull railway; the projecting eaves were lined all round with nests, and many were fixed in the angles of the windows.

24th.—Red rattle, marsh-chickweed, bog-valerian, yellow pimpernel, corn-gromwell, and fumitory in flower. Found in

gizzard of young missel-thrush:—a young *Helix rufescens*, remains of dor-beetles, a beetle larva, a worm, vegetable matter, and sand.

31st.—Large bittercress and bilberry in flower. Fine. Insects becoming numerous.

JUNE.

2nd.—Corn-crowfoot, lucid geranium, chervil, hairy bittercress, darnel, Venus' comb, poppy, and bush-vetch in flower.

6th.—Gold-of-Pleasure and bean in flower. First saw red admiral butterfly. Thermometer standing at 106°.

13th.—Long-headed poppy and wild rose (*Rosa canina*) in flower.

21st.—Greater skullcap, trailing rose, and black bryony in flower.

23rd.—Cuckoo last heard. Thorn in fruit.

24th.—Cock's-foot, rough meadow-grass, dog's-tail grass, and sheep's fescue in flower.

25th.—Elder in flower. Charlock and sweet cicely in fruit.

30th.—Wheat in ear. Noticed eggs of ladybirds on gooseberry bushes. Hemlock in flower. Warblers mute. All the first broods of birds fledged.

JULY.

7th.—Agrimony, clustered bell-flower, centaury, enchanter's nightshade, meadow-cranesbill, and yellowwort in flower. Barley and oats in ear.

12th.—Privet, water-veronica, brooklime, white bryony, mountain St. John's wort, pyramidal orchis, water forget-me-not, and corn-scabious in flower.

17th.—Swallows and martins not numerous. First observed aphides on beans.

18th.—Aphides on turnips. Plume moths on wing. Meadow-sweet, pimpernel, and small purple toadflax in flower.

21st.—Cross-leaved heath, and common heath in flower. Bog-asphodel, bog-pimpernel, red rattle, and marsh red rattle in flower and in seed.

22nd.—Immense quantities of poppies in the corn-fields. The poppy is a very prolific weed. We never find any seedless plants. The stigmas are disposed in rays over the flat or slightly raised capsule, and, being rough and viscid, are admirably adapted to receive the fructifying pollen from the impending anthers. Each plant is computed to produce about 50,000 seeds. The other poppies, which have smaller stigmatic cushions, are not so common. On the 28th of this month I found a double poppy, and several varieties, among the common ones. An observant botanist informs me that other double wild flowers have been frequently observed during the present summer.

28th.—Aphides on wheat. Round-leaved sundew, and houseleek in flower.

#### AUGUST.

1st.—Imagos of seven-spot ladybirds appearing.

6th.—Immense numbers of aphides on peas. Wasps not numerous.

13th.—Hazel catkins forming. Harvest commencing.

21st.—Observed a large assembly of swallows, house-martins, and sand-martins sporting about over the wheat fields. In company with them were a pair of swifts, and one or two yellow wagtails. I suppose it would be a congregation of young birds; young of the swallow tribe associate together when they get strong on the wing.

26th.—Harvest general. Now is the busiest and most anxious time of all for the farmer. Our climate is so variable that the weather is a continual source of anxiety. A single shower will often stop all operations for a day, and defeat a multitude of matured plans. When the dust is seen bowling in a peculiar way down the road, or the ominous rumbling of thunder is heard in the west, the mind of the cultivator is filled with perplexity and painful expectations. It may be that the perfected fruits of a year's labour are hanging in the balance. Sometimes the great mountain cloud breaks, and the welcome blue shows through the rents; but often it comes



rolling on with dismal blackness, bringing delay and spoliation along with it. At these times the farmer has to change his tactics almost at a moment's notice. On one day rain comes, and his urgent work stands still; on the next the sun shines, and work overwhelms him on every side. But it is not the vicissitudes of weather alone that he has to fear. Numberless enemies lurk in the field. As soon as the seed is scattered it is attacked by birds and ground insects. When the tender leaf emerges from the ground it is gnawed off by rabbits, slugs, and various insects. When half-ripe the sparrows come swooping down in blackening squadrons and bill out the grain from the best ears. Then swarming in the field, the barn, and the stack-yard there are hungry rats and mice waiting for their turn. All these depredations and drawbacks are to add to losses caused by adverse weather—by frosts, by heavy rains and floods, by winds that batter the blooming ears and shake out the ripened grain, by withering droughts, by rust, and smut, and mildew. A grain of wheat produces nearly sixty-fold, but the husbandman only reaps about twelve-fold.

Grudge not, ye rich (since Luxury must have  
His dainties, and the world's more numerous half  
Lives by contriving delicates for you),  
Grudge not the cost, ye little know the cares,  
The vigilance, the labour, and the skill,  
That day and night are exercised, and hang  
Upon the ticklish balance of suspense,  
That ye may garnish your profuse regales  
With summer fruits brought forth by wintry suns.  
Ten thousand dangers lie in wait to thwart  
The process. Heat, and cold, and wind, and steam,  
Moisture and drought, mice, worms, and swarming flies,  
Minute as dust, and numberless, oft work  
Dire disappointment, that admits no cure,  
And which no care can obviate. It were long,  
Too long, to tell the expedients and the shifts  
Which he that fights a season so severe  
Devises, while he guards his tender trust :  
*And oft at last in vain.*—COWPER.

But like all things else, the anxieties of harvest have an end. Days shorten, winter comes on, and a period of repose succeeds the busy time. Chilly mornings and long evenings draw on apace. The robin, who has seen the sheaves gathered together, begins to pipe his winter song; the bee wanders about with feeble hum, regretting that she will soon have done with honey and sunshine; the cattle come straggling up from the pastures, and in deep-drawn lowings ask admittance at the fold-gate. Having seen the last stack of beans thatched and secured from coming storms, the farmer, released from a burden of care, can now sit by the ingle, and, with his cheerful family of helpers around him, enjoy comparative rest till the long bright days of summer come round again.\*

27th.—Aphides increasing on turnips and other cruciferous plants.

28th.—Sultry; thermometer standing at  $129^{\circ}$  in the sun; at 4 p.m.  $109^{\circ}$ . Heard chiff-chaff.

29th.—Rain and wind; thermometer at  $56^{\circ}$ .

#### SEPTEMBER.

5th.—Rain. Harvest not yet finished. Leaves of various forest trees falling: Blackberries ripe.

10th.—Young thrushes in song. Starlings observed in flocks.

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\* The fields do not now present such cheerful scenes as were formerly characteristic of harvest-time. The crops are cut and gathered with extraordinary rapidity, and the work is done in a more strict and formal manner. Horse-labour has in a great measure superseded hand-labour, and many of the hand-workers, especially the female part, are either banished or wanted but for a short time—those who, by their various costumes, and by their mirth and liveliness, gave to the harvest-fields such a pleasing and picturesque appearance. Rarely now can we

\* \* \* \* \* look abroad,  
 And from the window see the reaper strip,  
 Look round and put his sickle to the wheat,  
 Or hear the early mower whet his scythe.

18th.—Leaves of sycamore, lime, and horse-chestnut falling. Wasps yet on wing. Berries of woody nightshade ripe. Aphides decreasing on turnips—a consequence of rain and cooler weather. Observed no flights of winged aphides. Rooks clamorous. Rooks fly about wildly and perform various evolutions high in the air in unsettled weather. Snails not abundant. Harvest finished, except beans and small pieces of late barley. Weather boisterous.

23rd.—Sylvan migratory birds mute. Rain and wind.

24th.—Observed small companies of missel-thrushes in the fields.

25th.—Rain and wind. Ladybirds abundant.

27th.—Pimpernel, honeysuckle, and various weeds yet in flower.

29th.—Berries of the elder ripe. Saw swallows.

OCTOBER.

3rd.—In autumn haws form part of the food of the water rat. On this date I observed a water rat in a thorn bush eating haws.

4th.—Ivy in flower. Gossamer appears.

8th.—Swallows last observed.

11th.—Turnips putting forth a second growth of foliage. The spring leaves were destroyed by aphides. Various herbs and shrubs putting forth new leaves.

12th.—Saw redwings. Greenfinches more numerous.

15th.—Wild-fowl arriving. The larvæ of *Agrotis segetum* abundant in some places among the roots of cabbages, and common among potatoes. Shell-snails apparently not numerous.

17th.—Slight frost. Haws plentiful.

20th.—Fieldfares arrived.

23rd.—Flocks of fieldfares and wild-fowl passing southward.

25th.—Various kinds of nuts falling. Some species of *Veronica* still in flower.

27th.—Severe dry frost. Dahlias and other garden plants deflowered; foliage of trees and fronds of ferns curled and blackened.

28th.—Bitter frost; wind north-west.

29th.—Milder; wind as before. Barometer *rising*; at night rain.

#### NOVEMBER.

2nd.—Horse-chestnut and some ashes leafless. Hairbell in flower.

3rd.—Sparrows gathering building materials.

10th.—Keen frost. Slight fall of snow—first of the season.

26th.—Wells and springs failing. Mild showers.

30th.—Snow, frost at night.

#### DECEMBER.

2nd.—Snow on the ground. Several tree-sparrows shot.

19th.—Wren, robin, and missel-thrush in song.

24th.—Fall of snow, which remained on the ground till the 29th.

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#### GENERAL OBSERVATIONS.

The winter of 1868-9 was mild. Lightning, with rolling thunder, was common in the depth of winter. Thunder was heard on December 28th and 29th, and again on January 3rd; it was accompanied by mild passing showers. An English proverb says—"Winter's thunder, a summer's wonder," but no extraordinary summer phenomena that I am aware of followed the winter's thunder. A large number of proverbs are merely suppositions, and some of them are contradictions. The Spaniards have one proverb which says—"The circle of the moon never filled a pond," and another which says—"The moon with a circle brings water in her beak." January was remarkably soft and clement—mild days alternating with spring-like thunder rain; a gentle wind mostly from the S.E.

prevailing, with the thermometer standing sometimes above 60°. Fine mushrooms were gathered in the open air on the 3rd of the month. Various birds commenced their songs, hive bees were abroad, and violets, with many other flowers, were in bloom before the end of the month. The weather in March was very harsh, and unfavourable for agricultural operations; but April was remarkably fine, and potatoes and various spring seeds were got in in good condition. May, deviating from its usual cheerful characteristics, was cold and wet. Tender crops were checked, leaves of trees were blackened by frost and mildewed by excessive moisture. In some parts of Yorkshire there was snow on the 28th, and sheep were starved to death. The rainfall was greater than that of the wet May of the wet year 1860. During this month the hawthorns in the hedges presented a curious sight. The haws of the previous year remained long on the branches; thus the coral fruit of one year, and the tender green foliage and opening blossoms of another, were intermingled in a very singular manner. In mild winters haws and other wild berries are not resorted to so much by birds.

Wild plants bloomed a little later than usual. My date for the flowering of the hedge-rose (*Rosa canina*)—a plant which may be taken as an index of the influence of spring weather—for 1867 was June 16th, for 1868 June 7th, whilst for the present year it is June 20th. One wild plant appeared in extraordinary quantities, the red poppy. In July some fields were scarlet over with them; their appearance in extra numbers was general throughout Yorkshire. At the end of June and in July field, and garden crops seemed to have recovered from the effects of the inclement spring; the weather was brilliant, and vegetation on all sides looked prosperous and beautiful; the crops, however, with odd exceptions, did not prove satisfactory. Grass was plentiful, and the hay was secured in excellent condition; but all the cereals were deficient in grain. This deficiency may perhaps be attributed to over-luxuriance rather than to ungenial spring weather. The season promoted the

growth of foliage to the detriment of the seed. Many ears that I examined had only the central grains fully matured, those at each end being very small. Wheat that was sown early grew luxuriantly during the mild winter. Dr. Livingstone, I may remark in passing, found that many European seeds would produce nothing but foliage for one or two seasons in the rich soil of Africa. A dry season is the best in our climate for the production of seeds, as was illustrated in 1868. Hence it is that a luxuriant aspect of the fields in May and June is not a safe token that the yield will be abundant. I observed aphides among the green glumes of wheat in July, but the injury occasioned by them might not have been serious. Harvest commenced here about August 13th, being 24 days later than the harvest of 1868, and five days earlier than that of 1867. The bulk of the crops was secured in an exceedingly short space of time; nearly all the fields were cut and cleared between August 16th and September 9th. About the 20th of July the plant-lice became very numerous on peas and turnips. Peas in some places were completely smothered. The foliage of turnips was much reduced; but in the middle of September rain came, the aphides were checked, a second growth of leaves appeared, and the bulbs swelled a little, but in winter they did not keep sound. Beans were not much injured by insects, and potatoes were not diseased. Most fruits suffered when in bloom from frost, rain, and wind. Apples were exceedingly scarce, and other fruits were barely an average crop. In September pears and plums were battered from the trees by strong winds before they were fully ripe. In October and November the weather was moderately fine, and ample time was allowed for the sowing of wheat on clay soils. November is generally accounted the dullest month of the year, but in the November of this year I remarked that the atmosphere was singularly clear. The clouds were also at times strikingly beautiful, moving lightly over like fleeces of gossamer, and reflecting all the hues of the rainbow.

Winter set in rather early; snow fell on November 10th,

and on December 24th and 30th; but there were long intervals of mild weather, the severest storm lasting only about five days; the winter certainly did not bear out the predictions of the weather prophets.

The harsh weather in May retarded the development of insects, which were much more numerous and active in April than in May. I saw the first white butterfly on the 25th of April. In July aphides suddenly increased on turnips and other cruciferous plants, and on peas. Among them were a large number of ladybirds, both in the larval and perfect states. These insects had been common all the previous winter and spring. I noticed them frequently in hedge-bottoms on grass, and on bushes resting on the underside of the branches. They were also common on gooseberry bushes. Many began to fly about early in April. They deposited eggs on the leaves of the gooseberry bushes about the 25th of June. When the aphides increased in July, the ladybirds spread amongst them, and continued breeding on the turnips and other infested plants. I observed five species of the beetles, the common seven-spot, the two-spot, eleven-spot, twenty two-spot, and a shining black one with four spots. Vast swarms of ladybirds were observed on wing in some parts of the country, and were supposed to have come across the sea. I observed no swarms about here, neither did I notice any swarms of winged aphides. The aphides were common on various weeds, and on garden roses. It is notable that they do not congregate in numbers on wild roses; I never saw any wild hedge roses injured by them. In the turnip fields they were most abundant in the hot sunshine. In spots shaded by hedges or trees the turnips were almost free from them. The larvæ of *Agrotis segetum* and *Anthomyia radicum* were not very numerous. Gooseberry caterpillars and wasps were scarce throughout the country, and insects do not seem to have been abundant, except plant-lice and the ladybirds which feed on them. The following moths were taken in the Wakefield district:—*Acherontia atropos* (death's head), *Cirrædia xerampelina*

(centre-bar), and *Larentia multistrigaria* (mottled gray) new to the district. *Sesia tipuliformis* (currant-clearwing), and *Dicranura vinula* (puss-moth), were common. The rare larvæ of the moths *Cidaria miata*, *Eunomos tiliaria*, and *Polia flavocincta* were taken in Yorkshire.

Some of the birds of passage arrived rather sooner than usual. The sedge-warbler made its appearance on the 17th of April, about a fortnight earlier than its mean time of arrival. In May and June the sylvan birds appeared to be very numerous, especially the whitethroats, but most kinds were delayed in building by harsh spring weather. After June the warblers ceased their songs. Cuckoos, swallows, and martins were not numerous. The swallow tribe departed, and the winter migrants arrived at the usual time.

So ends a year that can scarcely be remembered with pleasure by either the farmer or the naturalist. A very short summer followed an ungenial spring. To the farmer it has been unprofitable and discouraging; he looks back to disease among his cattle and to deficient harvests. To the naturalist it has presented few interesting events, and supplied few rarities to enrich his cabinet.

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A LIST OF RARE BIRDS OBSERVED OR CAPTURED IN  
YORKSHIRE DURING THE YEAR.

Bewick's Swan.—Shot near Flamborough, February 20th.  
Mr. J. H. Gurney, jun.

French partridge.—Picked up at Wakefield alive, March.

Kentish plover.—One shot at Lowthorpe, near Hull, May 25th. Thomas Boynton, in *Zoologist* for September.

Fulmar petrel.—One picked up on the beach at Saltburn, June 19th. Mr. Gurney.

Snow-bunting.—On August 15th I observed either a snow-bunting or a white variety of the common bunting. It was feeding on growing oats in a field near the river Calder, at



Stanley. The snow-bunting is a winter visitor, but is said to have been seen occasionally on the high hills in Scotland in summer. One of its English names is oatfowl. Snow-buntings were observed at Spurn, on the east coast, on October 11th.

Ruff.—One obtained at Kilnsey, in the East Riding, August 19th.

Spotted redshank.—One obtained at Kilnsey, August 23rd.

White stork.—One shot near Withernsea, in the East Riding, first week in September. (Mr. Cordeaux.)

Reeve.—One shot at Driffield, September 6th.

Common buzzard.—One shot at Market Weighton, September 18th.

Curlew-sandpiper.—One obtained at Spurn, October 9th.

Merlin.—One shot near Beverley, October 12th.

Great Shearwater.—One obtained near Flamborough, October 15th.

Pennsylvanian pipit?—A bird shot near Bridlington, November 20th, and recorded in *Zoologist* for February, 1870, as such. (Afterwards made out to be the Rufous pipit, *Anthus rufescens*).

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## RURAL NOTES AND DIARY OF NATURAL PHENOMENA FOR 1870.

### JANUARY.

9th.—Missel-thrush in song.

23rd.—Lark, missel-thrush, wren, and hedge-sparrow in song.

### FEBRUARY.

10th.—Severe frost.

11th.—Snow.

17th.—One of the titmice, I think the small black-headed one, *Parus palustris*, now begins to utter its spring-note in the fruit trees. This note, which I suppose is the call-note to the

female, is very like the spring-note of the migratory tree-pipit. It may almost be considered identical in sound. One season I mistook the note of the titmouse for that of the pipit, and without further observation made an entry to the effect that the pipit had arrived unprecedentedly early.

24th.—Various birds in song.

27th.—Chaffinch in song. Hazel in flower.

28th.—Titmice moving about in pairs. I have frequently seen the titmice foraging in orchards and woods in pairs in winter. It is probable that they pair, not only for a season, but for life. The titmice wander about in pairs or families, but seldom singly, and never in flocks. When searching for food in dense woods or gardens, they constantly utter a call-note, which keeps them together.

#### MARCH.

1st.—Robin and lark in song at 6 a.m.

3rd.—Thrush and lark in full song. Rooks feeding on winter beans.

5th.—Ladybirds basking in the sun on dead wood and herbage in hedges.

6th.—Buds of gooseberry bursting. Ivy in fruit.

7th.—Yellow-hammer and corn-bunting in song.

11th.—Wagtail in song. Coltsfoot in flower.

14th.—Severe dry frost. Sparrow building.

19th.—Robin and thrush building. Wake-robin and wood-bine in leaf. Wren in full song.

20th.—Missel-thrush and blackbird building.

21st.—Song-thrush and starling building. Frogs spawning.

23rd.—Severe dry frost. Elm, pilewort, and chickweed in flower.

30th.—Thrush laying.

#### APRIL.

1st.—Robin laying. Bees and other insects abroad.

2nd.—Marsh-titmouse in song. Black-headed bunting pairing.

3rd.—White poplar in flower. Wild mignonette in leaf. Wren, lark, titlark, thrush, corn-bunting and chaffinch in full song.

4th.—Black currant and gooseberry in leaf.

5th.—Leaves of horse-chestnut unfolding. Heard fieldfares.

7th.—Saw first tortoise-shell butterfly. Droughty.

9th.—Sparrows commence building in trees. Thrush sitting. Anemone and violet in flower. Willow-bloom, which had been retarded by harsh weather, suddenly and rapidly unfolding. Showers after drought.

10th.—Chaffinch building.

11th.—Found several dead humble-bees after the showers and cold of the two previous days.

13th.—Elder and some thorns in leaf.

14th.—Sand-martins passing northward. Saw yellow wag-tail. Crab in leaf.

15th.—Rooks have young. Heard chiff-chaff and willow-wren. Caddis-flies out.

16th.—Fine. Thermometer at 93° in the sun. First queen wasp. Numbers of bees, ladybirds, and various other insects on wing. Heard tree-pipit. White poplar and rose in leaf.

17th.—Tortoise-shell and white butterflies abroad.

18th.—Wild cherry and primrose in flower.

20th.—Robin hatched.

21st.—Larch and horse-chestnut in leaf. Heard white-throat.

22nd.—Flocks of sand-martins about. Cuckoo heard. The cuckoo was heard at Taunton on the 9th, in the Isle of Wight on the 17th, at Ulceby, Lincolnshire, on the 29th.

23rd.—Green linnet laying. Chaffinch sitting. Ground-ivy in flower.

24th.—Whinchat in song. Saw lamperns which a friend had caught in the beck that runs round this village.

26th.—Saw swallows. The swallow was seen in the Isle of Wight on the 6th, at Taunton on the 9th, at Ulceby on the 10th, at Hovingham and Plymouth on the 11th.

27th.—Caddis-worms frequently work the seeds of wild plants, with shells, bits of wood, and straw into their cases. I have found budding seeds, and sometimes living shells, on them. Seeds may thus be carried away on the empty cases by flowing water, and distributed.

29th.—Lesser whitethroat and common whitethroat arrived. Elm and thorn in leaf. Meadow-rush in flower. Showers.

30th.—Refreshing rain. How sweet and pleasant are April days when gentle showers have watered the fields and orchards. With welcome the sun is hailed by bird and beast and man. Winter seems to have been long, and none regrets that spring has come again. Countless forms of life suddenly arise from the water and the earth. Bees and beetles sweep across the plains. Butterflies of all colours, yellow, blue, and vermilion, emerge from their dusky tombs and flutter in every garden. Birds from African shores, with many notes and many songs, enliven the trees which a few weeks before were "bare as lances." Creatures which have been long concealed beneath ice, or in the frost-bound earth, appear with gauzy wings that reflect the splendour of the rainbow, and dance and whirl over the water, or buzz from morning till night in the scented air. Orange-bellied newts and small fishes appear in the lake, and along its muddy bottom forms of life without number glide and creep. On the barest rock and the coldest moorland peak beings are called into life and activity. Under the charm of returning warmth, the flowers start from the earth and open their delicate eyes to the light, and the trees unfold their leaves apace. The young violet smiles on the sheltered bank, and the early wind-flower shakes its tender, pinky bells in every shaded nook. Gay colours everywhere meet the eye, and pleasant odours are borne on the pulsing air. The sweet violet, the primrose, and the willow liberate sweet scents from their freshly-opening bloom. The grass of the meadows, the herbs, and the buds of the forest trees are scented.

## MAY.

1st.—Sloe, ground-ivy, and crack-willow in flower. Various bees at the gooseberry flowers.

2nd.—Heard fieldfares.

3rd.—Alder in leaf.

7th.—Redstart not yet seen; no martins. Sedge-warbler arrived. Beech in leaf.

8th.—Lime tree in leaf. Blue-bell and germander speedwell in flower.

10th.—Red rattle and vernal grass in flower. Heard corn-crake.

12th.—Yellow-hammer and skylark sitting. Broom and red campion in flower.

15th.—Crosswort and chervil in flower.

16th.—Oak in leaf. Garden-warbler heard.

17th.—Laburnum tree and forget-me-not in flower.

20th.—Wood-warbler heard. Thorn in flower.

21st.—While passing a wood this evening about ten, I heard the throstle and other birds in song.

22nd.—The limestone country, east of Pontefract, is rich in natural productions. Plants, birds, shells, and insects are abundant. The Went, a small river, winds eastward among fertile pastures and Magnesian Limestone crags. Stapleton Park and the woods bordering the river are accessible to visitors by procuring a permit from the steward. Pleasure parties occasionally avail themselves of this privilege; but the quiet, rural beauties of Went Vale deserve to be much better known. *Helix lapicida*, the lapidary snail, is found on the rocks and walls. A white variety of *Ancylus oblongus*, the oblong limpet, occurs on the underside of the leaves of the yellow water-lily, which grows in the river. On the grassy slopes, near Smeaton, grows the beautiful purple milkvetch (*Astragalus hypoglottis*). The fissures in the cliffs are lined with the rue-fern, pellitory, and in some places the rock-rose; the two latter were in flower (May 22). The barberry, thorn, spindle, horse-chestnut, white bryony and hoary plantain were

also in flower. At the foot of one of the crags facing the south, I noticed one or two white hedge-roses, fully expanded—an early date for the flowering of this shrub. On the above date the small heath, the orange-tip, the wood-argus, and other butterflies were on wing, and afforded the writer and a friend a little amusement in capturing, with hat in hand, one or two of each sort. The long-tailed titmouse, the tree-creeper, the garden and black-cap warblers inhabit the woods, and in the holes and cracks in the rocks starlings and jackdaws have nested for ages. A half-sober lime-burner told us that Smeaton jackdaws were known all over the world, but he was unable to tell us how they acquired this “world-wide reputation.” In the drains at Askern *Limnæa stagnalis* (the lake mud-shell), which is commonly kept in the aquarium, and *Valvata piscinalis* (the stream valve-shell), are found—the latter abundant. Among the beetles observed or captured were *Chrysomela staphylæa*, and the small, but very handsome, lemon-coloured ladybird, *22 punctata*.

29th.—Observed ten-spot ladybirds on the gooseberry bushes. A pair of swallows that nest annually in a shed here, appeared. Droughty.

30th.—Found in gizzard, of young missel-thrushes, caterpillars, flies, elytra of beetles, and numbers of minute, round, white bodies resembling eggs of insects.

#### JUNE.

1st.—That curious creature the water-scorpion inhabits the canal near Fleet Mills.

3rd.—Droughty. Plants flowering rapidly. Spindle tree, guelder-rose, wild hop, foxglove, eyebright, clustered bell-flower, great burnet, earth-nut, sainfoin, milkwort, field-madder, red clover, and cock's-foot grass in flower. Starlings flocking.

6th.—During a walk with J. W. on the limestone district, north of Pontefract, found the shell *Planorbis contortus*, in one or two ponds near Castleford; and in a

shallow cattle pond near Sherburn discovered the rare bivalve shell *Cyclas caliculata*, the capped cyclas. In this pond were also *Planorbis nautilus* and *Planorbis albus*. Near Sherburn churchyard we extracted from a crevice in the bark of a rotten beech tree a singular-looking black beetle, which I afterwards made out to be *Sinodendron cylindricus*. It is about half an inch in length, and a quarter in breadth. The front part of the thorax is abruptly cut off, and forms a crescent. From the head projects a strong, conspicuous horn, curved upwards and backwards. The outer margin of each leg is toothed like a saw, for the purpose, I imagine, of cutting, and burrowing into rotten wood. This chafer must not be common; I have not seen it before. Whilst walking round a large pond we observed several dark-coloured moths alighting on, and ascending from, the surface of the water. I was not aware that moths could alight and rest on water without injury. On one occasion a stickleback pursued one of the moths as it swam, or rather drifted on the rippling surface, but the insect escaped by rising. The fact that insects migrate across the Channel from the continent to this country is well known to entomologists.

11th.—Common mallow, small bind-weed, and hedge-mustard in flower.

12th.—Some plants, such as cow-parsnip, chervil, buttercups, oxeye-daisy, burnet, and autumn saffron are very injurious in meadows and pastures. The buttercups, *Ranunculus acris* especially, are acrid, and cattle generally leave the stalks with grass around them. Grass fields in which any of these plants have spread should be ploughed up, and others sown down with carefully-selected seeds. This plan would rest the land all round, and secure courses of—say, 10 or 12 years of grass free from the noxious weeds that rob the crop of its nourishment and spoil the hay.

14th.—Observed grubs of *Agrotis segetum* at the roots of turnips.

15th.—Found nest of whitethroat, studded round the rim with spiders' nests, which contained eggs.

17th.—Thorn in fruit. Soft-grass and elder in flower. Heavy thunder, rain after drought. Barley shooting.

20th.—Poppy and pimpernel in flower. Wheat shooting.

21st.—Ragged robin, meadow-sweet, and trembling grass in flower.

22nd.—*Limnæa peregra*, the wandering snail, frequently allows itself to drift on the surface of running water, with shell inverted. Wheat and cornel in flower. Red admiral on wing.

25th.—Observed *Helix lapicida* on the ruined walls of Fountains Abbey. *Bulimus obscurus* occurs on the walls near Ripon. *Mimulus luteus*, and the white water-lily grow in the river near the Abbey. Hairy St. John's wort and restharrow in flower. Golden carpet-moth on wing.

28th.—Some fields of grass cut. Song of cuckoo ceased.

30th.—Showers. Bluebottle and common toadflax in flower.

#### JULY.

4th.—Yellow melilot, houseleek, and barley in flower. Heard corn-crake. Haymaking commencing. Catkins of alder forming.

5th.—Showers. Butterflies and wasps not numerous.

15th.—Haymaking general. Aphides appearing on turnips and other cruciferous plants. Swifts, swallows, martins, and cuckoos apparently scarce.

17th.—Droughty. Weather very fine. Corn and fruit ripening.

26th.—Droughty. Harvest commencing.

#### AUGUST.

2nd.—Aphides increasing on turnips.

4th.—Oats cut. Noticed larvæ of ladybirds on ears of wheat infested with aphides. Weather droughty.

17th.—Observed adult ladybirds creeping up the stems of wheat, and some perched on the tops of the ears. One beetle I particularly noticed had an aphis in its jaws. Some of the ears were covered with reddish-brown aphides.



18th.—Heavy showers after drought. Admiral butterflies on wing.

21st.—Large numbers of sand-martins about. Blackberries ripe.

22nd.—Rain. Birds resuming their songs. Titlarks migrating.

27th.—Rain.

28th.—Starlings passing over in flocks.

29th.—A few warblers in song. Harvest finished.

SEPTEMBER.

2nd.—Flocks of sand-martins.

3rd.—Noticed small beds of dodder (*Cuscuta trifolii*) among the red clover.

4th.—Turnips smothered with aphides. Slugs and snails inactive.

6th.—Rain.

9th.—Rain. Grass and various plants growing.

11th.—Numbers of aphides on wing. Observed great numbers of aphides in spiders' webs. Haws, and guelder-rose berries plentiful.

12th.—Large flocks of greenfinches. Heard lesser red-poles. Honeysuckle, ragwort, St. John's wort, hawkweed, and a few other plants still in bloom. Many bees and wasps yet on wing.

13th.—Berries of the elder ripe; plentiful. Noticed spiders' nets fixed on the topmost branches of high trees, with aphides entangled. Spiders do not seem to feed much on them; those nets which were filled with aphides being apparently deserted. Swallows decreasing. No warblers heard. Large flocks of starlings and greenfinches appearing in the stubbles.

14th.—The wren has now a low undersong, very different from that which is generally heard. It is not unlike the undersong of the hedge-sparrow. It is sung on the ground when moving in search of food.

17th.—Ivy in flower. Leaves of forest trees falling.

18th.—Immense swarms of aphides on turnips and other cruciferous plants.

## OCTOBER.

1st.—Bats hawking in the twilight.

3rd.—Dry weather. Brooks and wells low. Butterflies still abroad.

5th.—Swallows last seen. Mildew on various cultivated plants, and on weeds.

7th.—Rain; end of long dry summer. An immense flock of greenfinches feeding among late peas and knotgrass (*Polygonum aviculare*).

9th.—Redwings arrived.

10th.—Bats abroad at night.

17th.—Observed grubs of *Agrotis segetum* feeding on the outside of turnips. The turnips were also bored internally by the small white grubs of *Anthomyia radicum*—the root-eating two-winged fly.

19th.—Much rain; harsh weather.

21st.—Heard fieldfares.

24th.—Aphides yet numerous on curled greens, cabbages, and other plants.

25th.—Splendid aurora borealis observed here in the zenith, extending from south-west to north-east. Observed also at Hovingham.

## NOVEMBER.

1st.—Heard bramblings.

4th.—Saw small flocks of redwings and fieldfares.

9th.—Severe hoar frost.

10th.—Severe dry frost. Saw tree-creeper.

11th.—Snow, first of the winter.

12th.—Frost.

15th.—Snow. Heard bullfinches and bramblings.

18th.—Frost. Many turnips and potatoes yet out.

21st.—Heavy rain. Heard bullfinch and lesser redpole.

24th.—When sparrows assemble in the bushes and trees to roost, there is generally a great deal of chirping and quarrelling. Those that come early get into the snugger quarters. When the belated stragglers arrive they find all the horizontal branches and warm shielded corners tenanted. They then begin to abuse and disturb the settlement, and, amid much loud chirping and commotion, endeavour to eject the peaceable and orderly citizens from their comfortable places. Some of the cocks commence a regular fight, and the hens flusk about agitatedly, calling each other vulgar names; others try to wedge themselves into places where they are not wanted, whilst many who have been aroused, hop and hover about in evident disgust at such unmannerly proceedings. At length, after a world of quarrelling and buffeting, darkness draws on, the noise subsides, and only an occasional peevish chirp is heard from those on the coldest perches. The few who have been turned out by the bum-bailiff interlopers fly away to other bushes to seek more respectable lodgings.

## DECEMBER.

7th.—Frost. Heard bramblings.

9th.—Snow and rain.

12th.—Heavy fall of snow.

13th.—Thaw.

17th.—Severe dry frost. Several tree-sparrows shot here. This evening there was an auroral light in the north. Streamers occasionally shot upwards, and the fields were illuminated as if by moonlight. The sky in the south was very dark, a circumstance which exhibited the aurora to greater advantage.

22nd.—Frost and snow.

24th.—Intense frost. Thermometer standing at 17°.

25th.—Frost and snow.

26th.—Frost and snow.

30th.—More snow. Saw a small flock of bramblings.

31st.—Intense frost.

## CORRESPONDENT'S OBSERVATIONS.

## MARCH.

21st.—Squirrel's nest sent with three young ones in it.

31st.—Redbreast's nest with four eggs.

## APRIL.

4th.—First "weeking" of young rooks. Thrush's nest with four eggs.

15th.—Observed raven and ring-ousels about the Orme's Head, Llandudno. Stonechat on ledges of rock.

17th.—Argiolus blue butterfly flitting over laurel cherry in North Wales.

21st.—Grasshopper-warbler in song near York.

26th.—Wood-wren returned. Sand-martins on the lake. *Paris quadrifolia* in flower.

29th.—Garden-warbler in the wood near the Lodge. First blue-bells.

## MAY.

1st.—Nest of stockdove (*Columba ænas*) containing two young ones, built in a hollow tree.

3rd.—Nest of oxeye-titmouse, built entirely of rabbits' down.

4th.—Lily of the valley flowering in our woods.

7th.—Young rooks leaving their nests.

17th.—*Trientalis Europæa* in flower abundantly in High Wood.

18th.—Goldcrest's nest suspended from Norway spruce containing eight eggs.

23rd.—Heard song of the pied fly-catcher; it slightly resembles the notes of the redstart. Noticed three or four of these birds at Hovingham during May and June.

31st.—*Cecidomyia taxi*, the yew gall-gnat, hatching abundantly from the leafy tufts of the yew tree.

JUNE.

28th.—*Parnassia palustris* in full flower in the valley above the Lodge.

AUGUST.

20th.—Destructive power of the wheat-fly (*Cecidomyia tritici*) evident in the corn fields between Hovingham and Malton. The grub feeds on the anthers of the flowers.

SEPTEMBER.

21st.—Chiff-chaff still uttering its bitone in our ash trees.

24th.—Brambling heard.

OCTOBER.

5th.—Redwings near Hovingham.

26th.—Humble-bees last seen on yellow jessamine.

NOVEMBER.

5th.—Noticed large flocks of fieldfares coming from the north.

Mr. Inchbald,

The Lodge, Hovingham.

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A LIST OF RARE BIRDS CAPTURED OR SEEN IN YORKSHIRE  
DURING THE YEAR.

Waxwing.—Several observed at Farnham, near Knaresborough, January 5th.

Bittern.—One shot at Newmillerdam, near Wakefield, early in January.

Peregrine.—One shot at Flamborough, January 15th.

Smew.—One seen near Beverley, February 1st.

Black-throated diver.—One shot on the river Ouse, February 10th.

Red-necked grebe.—One shot near Beverley, February 16th.

Common buzzard.—One shot at Cocklingham, near Beverley, February 21st.

Slavonian grebe.—One shot on the river Ure, February.

Shoveller.—Two (male and female) shot near Beverley, March 15th. (Mr. Boynton, in *Zoologist* for April.)

Red-necked grebe.—One caught on the river Esk, March.

Green sandpiper.—One obtained at Newland Hall, near Wakefield, March 26th.

White's thrush.—One seen at Danby-in-Cleveland in April. (See *Zoologist* for May.)

Nightingale.—One heard near Horbury in May.

Quail.—Nested near Burley, July. Nested on the Haigh, near Leeds. Nested in East Yorkshire. Several shot about Lofthouse. A great number of quails were shot this year in different parts of the county.

Pomerine skua.—One shot at Carlton, near Leeds, October 7th.

Great grey shrike.—Three obtained near Easington, a village in the East Riding, about October 17th. (Mr. Boyes in *Zoologist* for February, 1871.)

Merlin.—One caught here in an exhausted state, October 25th.

Heron.—One shot on the Haigh, near Leeds, November 5th.

Great grey shrike.—One shot at Brands Burton, near Beverley, about November 15th. (Mr. Boyes in *Zoologist* for February, 1871.)

Bittern.—One shot near Wakefield, November 25th.

Iceland gull.—One shot at Bridlington about December 15th.—(Mr. Boynton in *Zoologist* for February, 1871.)

Solitary snipe.—One shot at Shafton, near Barnsley, December 31st.

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#### GENERAL OBSERVATIONS.

The months of January, February, and March were not very severe; but short periods of frost, thaw, and rain alternating made the soil inconvenient to work, kept the roads and paths in an unpleasant condition, and prolonged the winter.

On March 23rd there was a severe dry frost, and slighter frosts, with a little snow, occurred to the end of the month. Spring opened very late. My date for the leafing of the honeysuckle in 1869 was February 6th; this year it is March 19th. For the leafing of the gooseberry it was March 18th last year; whilst this year it is April 4th. The sallow and all the other early flowering plants were kept in check by ungenial weather. The newts and other animals in the ponds were also very late in appearing. About April 10th the weather became finer, leaves and flowers burst out suddenly, various insects appeared, the birds began to sing and build their nests, and the earth began to present a more spring-like aspect. After a term of dry weather, the few showers which fell towards the end of April and in the beginning of May assisted vegetation. On the 4th of May I have this note:—"Beautiful growing weather after the showers. Bees and insects more abundant." In May flowers came out very rapidly. The difference in the time of flowering of June plants was not so great as that of the flowering of early plants. In fact, the difference was scarcely perceptible. My dates for the blooming of the wild rose (*Rosa canina*) are June 16th, 7th, 21st, and 11th for 1867, 1868, 1869, and 1870 respectively. Wheat, barley, and oats came into ear about the same time as last year. As summer advanced the effects of the drought became visible. The hay crop, the mowing of which commenced about July 4th, the same day as in 1869, was very deficient in quantity; peas and beans suffered for want of rain, and turnips made little progress. Although spring was late, vegetation redeemed itself by rapidity of growth. Harvest commenced eighteen days earlier than last year, and was finished nine days earlier. Harvest work began in this neighbourhood on July 26th, and ended August 30th. As the weather was generally fair, all the crops were housed in good condition. Wheat yielded a full average quantity; barley and oats were moderate, the grain being unusually heavy. Potatoes were not diseased, and, considering the dryness of the season, produced a good

crop. The crop of mangold-wurtzel was also satisfactory. The hay crop and the turnip crop were failures, the latter especially so. All kinds of cultivated fruit were abundant throughout the country. The drought continued to the end of August, when a few timely showers fell which revived drooping plants. After September 16th the weather was again dry till October 12th. On November 9th there was a severe hoar frost, and on the 11th snow—the first of the winter. From that time the weather was winterly; rain, frost, and snow alternating till December 21st, when a severe storm set in which lasted till January 5th.

#### RAINFALL OF THE YEAR,

As registered by Mr. T. Walker, at Woodland, near Doncaster.

	In.		In.		In.
January .....	1·12	May .....	0·65	September .. ...	1·03
February .....	1·32	June .....	1·72	October .....	5·03
March .....	1·99	July .....	0·47	November .....	1·57
April .....	0·26	August .. .....	1·17	December (snow)	2·18

Total, 18·51.

Total rainfall of 1869, 22·51.

#### INSECTS.

In April considerable areas of growing peas were attacked by some insect; the young succulent leaves were eaten off as soon as they appeared above ground. I communicated the fact to Mr. Rye, of London, and in reply he said the depredator would probably be *Sitones lineata*, one of our commonest beetles. I never saw the insect; it must have fed in the night and retired into the earth in the daytime. Aphides (plant-lice) began to appear on turnips and other cruciferous plants about the 15th of July. From that date they gradually increased, and overspread all cruciferous plants. both in gardens and fields. Turnips were completely smothered, and the foliage began to wither early in summer. A very disagreeable stench arose from the fields of rotting leaves. Cabbages, greens, and other plants of the same tribe



were thickly covered and lined with lice. The rain and cooler weather of the latter part of the year did not seem to greatly diminish their numbers, for they remained on the plants on which they were fixed till the end of October. About the 1st of August I noticed numbers of a different kind of aphid lodged in the wheat ears; there were also ladybirds among them. The ladybirds, as usual, were very numerous among the aphides on turnips. I strongly suspect that some farmers consider the larvæ of the ladybirds hurtful to the turnips, seeing that they find them in company with the destructive aphides; but the beetles in both larval and adult state destroy the aphides. Birds also feed to some extent on them, and large numbers are caught in spiders' webs towards the end of summer. Insects of the bee tribe (*Hymenoptera*) also help to lessen their numbers. At the end of July I found quantities of aphides collected in hollow sticks, mostly dead brambles. These hollow pipes are made by hymenopterous insects. They cut a hole in the side, and then excavate the pith downwards for several inches. The pith dust is carried up all the length of the stick, and thrown out of the little orifice which forms the entrance. The white dust lay on the herbage all along the hedge-bottom from which I gathered the bored sticks. In one, which I slit open, I found above a hundred aphides in a mass at the furthest end of the excavation. With them I found several four-winged insects, which I took, and forwarded, with a few particulars, to Mr. Frederick Smith, of the British Museum. From that gentleman I received the following note:—"This is a most abundant insect, and found in all parts of the country; it commonly burrows in dead sticks, particularly those of the bramble or rose; its larva is orange-red, and feeds upon different species of aphid, stored up by the parent insects. Its scientific name is *Cemonus unicolor*." It thus appears that the enemies of the aphides are various and numerous; still they seem to be totally inadequate to make any noticeable impression on their enormous numbers. At the roots of turnips I observed grubs of *Agrotis segetum* and *Anthomyia radicum*.

The former was common amongst potatoes. The caterpillars of white butterflies and the caterpillars which infest gooseberry bushes were not abundant. Crops did not suffer materially from any insect pest except the aphides. It will be remembered that the turnip crop in 1869 and in 1868 was destroyed by aphides, the abnormal development of which, I suppose, is a consequence of drought. Beans and some other plants that are commonly attacked escaped them. I noticed the first tortoise-shell butterfly on the 7th of April, and the last admiral butterfly about the 5th of October.

## BIRDS.

The spring birds of passage arrived somewhat irregularly, a little later than usual. Swallows and martins appeared very late, in scanty numbers. The summer was favourable for breeding; there were no heavy thunderstorms, high winds, or unseasonable periods of cold rain; hence many species would rear two broods. Our resident land-birds have more time allotted to them for breeding than the migrants. Many of them commence about the end of March; but they probably do not rear a greater number of young in each year, as their early nests and young are much exposed to the rigours of the weather, and to the attacks of predaceous animals. The rooks about here do not breed twice in a season. About the middle of August large flocks of bank-martins appeared, and were seen hawking in the air, and occasionally alighting on the tops of buildings, till the 4th of September. In October a flock of greenfinches—a thousand or more in number—collected in this neighbourhood, and fed several weeks in a field of late peas, which was covered with knotgrass and other weeds. Amongst them I heard lesser redpoles, sparrows, and other finches. In spring the winter birds prolonged their stay; fieldfares were seen and heard here till the 2nd or 3rd of May. I notice that the redwings and fieldfares arrive very regularly.

Redwings arrived in 1868..	...	.....	October 10th.
Fieldfares	,,	,,	..... ,,
			28th.

Redwings arrived in 1869..... ..	October 12th.
Fieldfares ,, ,, .....	,, 20th.
Redwings arrived in 1870..... ..	,, 9th.
Fieldfares ,, ,, .....	,, 21st.

Bramblings, bullfinches, tree-sparrows, and snipes appeared in more than ordinary numbers, but I observed no gold-crests, and the tree-creeper only once. The following note, dated January 4th, 1871, was communicated to me by Mr. C. Forrest, sen., who had received it from a friend at Doncaster:—"The severe weather has brought us many uncommon visitors. Sixteen specimens of the waxwing, or Bohemian chatterer, have been shot. A swan flew against the telegraph wires, and was captured by a railway porter. Hooded crows have appeared on the high road."

## MOLLUSCS.

During the year two new shells have been added to the British list. One was discovered in the Bolton Canal by Mr. Thomas Rogers, of Manchester. Its scientific name is *Planorbis dilatatus*. The other, a land shell, named *Zonites glaber*, was also brought into notice by Mr. Rogers, though it appears to have been discovered in this country by Dr. Gwyn Jeffreys many years since, and neglected. *Zonites glaber* has been found in Cheshire, Westmoreland, and Yorkshire.

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RURAL NOTES AND DIARY OF NATURAL  
PHENOMENA FOR 1871.

## JANUARY.

- 1st.—Intense frost. Thermometer standing at 15° at 8 a.m.  
 2nd.—Intense frost. Thermometer standing at 19°. Every tree and shrub completely mantled in snow-crystals.  
 5th.—Several bramblings shot. Rabbits barking the thorns.  
 7th.—I observe that sparrows occasionally roost in old birds' nests in winter. Weather milder.

9th.—Catkins of willow appearing. Bullfinches feeding on buds in the orchards.

18th.—Rooks clamouring at the rookery. Corn-bunting in song.

## FEBRUARY.

7th.—Song-thrush and missel-thrush in song. 1.

8th.—Lark in song. Pairing note of marsh-tit heard.

13th.—Rooks building. Noticed tree-creeper examining the boles and branches of the fruit trees.

17th.—Starlings moving about in pairs.

20th.—Chaffinch in song.

23rd.—Blackbird and partridge appearing in pairs.

## MARCH.

2nd.—Bees and many other insects buzzing in the sunshine.

3rd.—Daisy and coltsfoot in flower. Spring notes of blackbird heard. Robin and thrush in full song.

6th.—Yellow-hammer in song. Honeysuckle in leaf.

8th.—Blackbird in song.

10th.—Wagtail in song. Saw wheatear. Chaffinch pairing. Elm in flower.

11th.—Lark pairing. Breeding note of sparrow heard.

12th.—(Rosy plumelets on the larch. Rooks' pellets under the nesting trees. Inchbald.) In a letter, dated February 15th, 1870, Mr. Inchbald directed my attention to the habit that rooks have of ejecting pellets from the crop in spring and autumn after the manner of owls. He subsequently sent a communication to the *Field*, which elicited other letters confirmatory of his observations. The habit seems to have escaped the notice of the older naturalists, for it is not mentioned by White, Montagu, or Waterton. A disgorged pellet which I received from Mr. Inchbald last March consisted of fragments of glumes of barley and oats, with one or two entire grains of barley. These chaffy pellets, when found in abundance, are evidence that the birds have fed largely on grain; I should

think that none are ejected when they have fed on insects or other soft digestible food. It is stated that magpies occasionally eject pellets in breeding time.

17th.—Shock of earthquake.

19th.—Lesser celandine and poplar in flower. Brown linnets bathing in the beck. First tortoise-shell butterfly. Water-boatmen and sticklebacks numerous in the ponds. Pewits on the fallows. Queen humble-bees on wing near the willow trees. To-day, about half-past ten a.m., a rumbling sound was heard here at Lofthouse, like the distant, dull sound of cannon. A shake in the earth was also felt.

20th.—Found intestinal worms in the intestines and gizzard of missel-thrush. Robin building.

22nd.—Gooseberry in leaf. Thrush building.

24th.—Buds of various trees bursting. Hedge-sparrow building.

25th.—Wheatears returned.

26th.—Tortoise-shell butterfly on wing. Thrush laying. Bees and various other insects on wing. Leaves of arum, garlic, nettle, and black currant fully expanded.

#### APRIL.

1st.—Gooseberry in flower.

2nd.—Bees busy about the gooseberry flowers.

4th.—Hedge-sparrow laying.

7th.—Anemone and butterbur in flower. Observed *Bithinia Leachii* in canal near Wakefield. Young rooks in the nests.

12th.—Elder in leaf. Large white butterfly on wing. Saw swallows. Swallows appeared at Abingdon on April 4th; at Worcester and Grantham on the 8th; at Leicester and Barnsley on the 9th; at Bury St. Edmund's on the 11th; at Snaith and Campden on the 12th.

13th.—Great numbers of starlings about. Flowers of the gooseberry scathed by the frost. Wild cherry in flower.

15th.—Heard willow-wren.

16th.—Heard tree-pipit and common white-throat. Willow-wrens numerous. Sparrows building in trees.

20th.—Mountain-ash, thorn, and sycamore in leaf. Tree-pipit and garden-warbler in song.

25th.—Yellow wagtails and sand-martins plentiful about the river Aire, near Leeds.

27th.—Heard lesser redpoles in Langley Wood. Saw whinchat.

28th.—Whinchat in song. Elm and wild rose in leaf.

29th.—Cuckoo arrived. The cuckoo was heard at Southend on the 7th; near Guildford and Tunbridge Wells on the 10th; near Barnsley on the 13th; near Salisbury on the 14th. Heard blackcap. There is a solitary bee frequent here in the grass, which throws up the earth around its hole. The casts of fine earth may easily be mistaken for worm casts. Mr. Inchbald says, "It tunnels in the ground, where it deposits its egg in a batch of pollen or bee-bread."

30th.—Walked from Snaith to Castleford. Heard cuckoo, blackcap, garden-warbler, and sedge-warbler in the woods. The shell, *Helix Cantiana*, occurs plentifully on the red sandstone. Gathered storksbill (*Erodium cicutarium*) in full flower. Botanists give from June to September as the time of flowering for this plant. The crow garlic, whitlow grass, and thalecress are frequent in this neighbourhood. A violet of a rich colour, a form of *Viola tricolor*, grows on the roadsides on the red sand. This flower looks exceedingly pretty growing in dense patches among the short grass. The two upper petals are an exquisite violet. The three lower are bluish-purple, the colour deepest on the edges, with streaks of dark purple at the base.

#### MAY.

1st.—Dove's-foot cranesbill in flower. White bryony putting forth tendrils.

4th.—Horse-chestnut, birch, and lime in leaf.

6th.—Fine, after a month of rainy and harsh weather.

Many white butterflies and ladybirds again on wing. Green linnet in song. (Landrail killed by flying against the telegraph wire. J. W.)

7th.—Heard lesser whitethroat and wood-warbler in garden. Nest of missel-thrush with two eggs. Nest of starling found in a wall close to the ground. Sedge-warblers, whinchats, and cuckoos distributed. Heard landrail.

8th.—Garlic, chervil, and blue-bell in flower.

11th.—Guelder-rose in leaf. Starlings hatched.

14th.—Mountain-ash in flower.

16th.—Rain after two weeks of fine weather; vegetation progressing rapidly.

18th.—Swallows returned to a shed in which they nest annually. Sedge-warblers, lesser whitethroats, and garden-warblers becoming numerous. The sedge-warbler frequents woods, copses, and gardens, as well as river-sides and marshes. Fly-catcher and nightjar arrived.

19th.—Examined some rooks' pellets, and found undigested grains of barley, chaff of barley, fragments of beans and potatoes, pebbles, pieces of white carrion enclosing some elongate insects' eggs, chaff of oats, down of a mouse, a curved tooth of some small rodent, remains of a worm, elytra of two beetles, and portions of shells of blackbirds' eggs. The undigested grains of barley, swallowed and then disgorged, testify to the greedy and wasteful feeding habits of the rook.

20th.—Celandine and thorn in flower.

24th.—Cuckoos more numerous. Robin and many other birds in song at 2 a.m. (Hooded crows on the Humber. J.C.)

26th.—Oak in leaf.

27th.—Accompanied the members of the Wakefield Naturalists' Society on their excursion to Wentbridge and Brockerdale. Whilst searching among mossy stones at the root of a fir tree for *Bulimus obscurus*, I discovered a bird's nest, containing four white eggs. The nest, composed of moss and wool, was inserted among the stones about a foot below the surface, close to the bole of the tree. None of the party

could say positively what bird had chosen such an unusual spot to deposit its eggs; the tree-creeper, the blue titmouse, the marsh-titmouse, the wren, and the wryneck were variously suggested. *Bulimus obscurus* and other shells were creeping on the stones which surrounded the nest. The eggs were pure white, five-eighths of an inch in length, and half an inch in breadth. On the top of the cliffs we noticed *Cynoglossum officinale* (hound's tongue) in full flower, a plant which, as Withering says, smells strongly of mice. Below, adhering to the rough limestone, *Helix lapicida* was not unfrequent. The following mollusks were collected:—*Helix pygmæa*, *Helix pulchella*, *Pupa marginata*, *Vertigo pygmæa*, and *Vertigo minutissima*.

28th.—Found in gizzard of young chaffinch, seeds of weeds, a few wing-cases of beetles, and much sand.

#### JUNE.

1st.—Fledged starlings leaving their nests.

10th.—Lesser redpole's nest, with four eggs.

11th.—Observed recently-laid eggs of the seven-spot ladybird on boles of trees, and on stakes near gooseberry bushes.

12th.—Rooks ceased flying over with food for young.

16th.—Dog-rose in flower. Greenfinches fledged. Found in gizzard of young greenfinch, three kinds of weed seed, remains of a small seed-like weevil, and sand.

18th.—Various sorts of young birds numerous in the hedges. Thrushes singing at 10 p.m.

21st.—About this date a change takes place in the notes and song of the willow-wren.

22nd.—Found in gizzard of naked lesser redpole, three or four perfect insects, one caterpillar, and many spindle-shaped weed seeds; no sand. Lesser toadflax in flower. This plant is frequent in cultivated fields about Lofthouse.

26th.—Viper's bugloss in flower. This is one of the most beautiful of wild flowers. It grows two feet in height, tapering like a young larch tree. The flowers, when issuing from



the calyx, are reddish, when half-blown they change to purple, when fully expanded the plant presents to the eye a beautiful pyramid of sky blue.

29th.—Barley in ear. Haymaking commencing.

30th.—Insects not yet numerous. Heard cuckoo. Oats in ear.

#### JULY.

1st.—Excursion of the Wakefield Naturalists' Society to Frystone Park. In the lower part of the park, near the river Aire, in the marshy ground, the water violet, (*Hottonia palustris*), and the scull-cap, (*Scutellaria galericulata*) are frequent. The shells *Physa fontanalis*, *Planorbis nitidus*, and *Planorbis contortus* occur in the lake.

2nd.—Young of spider, *Epeira diadema*, in thorn hedge. It is curious that writers on rural subjects have not more frequently described the singular sight of a diadem spider's nest. The young spiders, about the size of pins' heads, of a golden colour, when newly hatched, live in a sort of web constructed in the branches and leaves of bushes. In the daytime their habit seems to be to cluster together in a ball. When disturbed they dissolve like vapour, some running in various directions, others suspending themselves on invisible lines. Having lived in company a short time, they separate, and become solitary. I do not know what they feed on during the few days they dwell socially. I never saw any insects entangled in their tent.

3rd.—Lesser whitethroat ceased its notes. Wheat in ear.

4th.—About 5 p.m. a whirlwind passed over a portion of this village, scattering in its course branches of trees, and dashing down railings. The tops of poplar trees were bent almost to the earth. Cuckoo last heard. Aphides appearing on beans.

8th.—Thrushes and sedge-warblers in song at 3 a.m.

10th.—Garden-warbler singing occasionally. Currant-clearwing on wing. Wheat in flower. Much rain.

12th.—Bees humming continually about the lime trees. Larvæ of ladybirds creeping on herbage.

15th.—Thrushes, sedge-warblers, and corn-crake in song in the night. Birds mute in the daytime. Saw young redstarts in garden.

20th.—Whitethroats among aphides on beans. Forest trees putting forth long shoots. Showery weather; vegetation luxurious. Potato disease appearing in Yorkshire.

21st.—Eggs of ladybirds on the bean leaves. Hay-making interrupted.

24th.—Found a small nest of the tree-wasp deserted. Sedge-bird yet in song.

25th.—(Call-note of the chaffinch in the Swiss mountains materially altered by locality—so much so as to deceive ears well accustomed to it in England. P. I.) In his "Gleanings in Natural History," Mr. Jesse has some remarks on what he terms the "dialects of birds." I have noticed that birds have different tones in different districts. Sterne says that Welsh dogs "bark with a brogue." Dogs in a wild state howl and whine, but do not bark. Barking, with all its expressive modifications, is a result of domestication.

28th.—Haymaking not yet finished. Thrushes in song, but no larks. A thrush, which sang for several weeks in a plantation near this village, had a voice and a manner of singing quite different from the voice and manner of ordinary thrushes. Besides the difference in voice and tune, it would often interrupt itself, and give a peculiar bubble or roll in its song. At first I mistook this bubbling note, being so strong and mellow, for the note of a much larger bird. I find that some thrushes' songs, like the cuckoo's described by Wordsworth, sound "as loud far off as near."

#### AUGUST.

1st.—Rooks returning to the rookery.

3rd.—The sparrow's nest is sometimes made with a solid felted bottom of earth, chaff, and horse-dung, something after

the manner of the thrush's. When constructed in trees the nest is always domed, but some are round, and some bottle-shaped. The old birds carry the voidings of the young away, like the starling.

6th.—First observed swallows congregated on telegraph wires.

8th.—Flocks of sand-martins.

13th.—Chiffchaffs returning southward. In summer the common cricket is pretty frequent in fields and hedges. On this date I heard several chirping loudly in the crevices of a wall, when returning from a walk late in the evening. The cockroach, called here "black-clock," also occasionally wanders away from the firesides in hot weather.

15th.—Examined gizzards of two young sparrows, found insects (beetles, caterpillars, aphides, and pupæ of ladybirds), several small round seeds, and some large angular grains of sand. Haymaking finished. Willow-wren still in song.

16th.—Flocks of sand-martins. These birds frequented the northern end of the village, sporting and feeding over the harvest fields and about the plantations, for two or three weeks previous to this date. I had not many opportunities of observing them, but J. W. gave me the following verbal account of them:—The sand-martins breed in the banks of the River Aire, near Leventhorpe Hall, and also between Methley and Castleford. About the end of July, when all the young are strong on the wing, they come here in a large flock, old and young. In the forenoon they skim over the corn and turnip fields catching insects, their evolutions being exceedingly rapid and graceful. After noon they play and wheel about higher in the air, occasionally alighting on the telegraph wires to preen their feathers. Towards evening they assemble and fly back to their breeding places, at a great height in the heavens. These movements are executed regularly every fine day till the end of August, when they entirely disappear.

17th.—Grubs of *Grapholitha Pisana* common in the pods of peas.

18th.—Aphides abundant on beans. Harvest commencing.

19th.—Observed tortoise-beetle (*Cassida*). J. W.

20th.—Summer migrants moving southward.

24th.—Young yellow wagtails feeding in the bean fields.

26th.—High wind. Ripe barley and wheat battered from the ears. Large white butterflies appearing.

28th.—A few admiral butterflies appearing. Wasps more frequent.

29th.—Wheat ripe. Harvest general.

30th.—Blackberries ripe. Leaves of sycamore falling.

#### SEPTEMBER.

3rd.—Yellow-hammer's nest with naked young. Found a young bank-vole, dead.

6th.—Heard bullfinches, lesser redpoles, yellow wagtails, and tree-pipits. Saw redstart and flycatcher.

9th.—Many yellow wagtails flying backwards and forwards. Young yellow wagtails feeding after cattle.

11th.—Starlings whistling about their nesting places.

19th.—Walked over the Standedge moors from Saddleshworth to Holmfirth. Saw no lapwings or curlews. The only birds I noticed were grouse, a small flock of missel-thrushes, a pair of ring-ouzels, a stonechat, a windhover hawk, and some meadow-pipits. The little parachute masses of white down from the cotton-sedge floating over the moors in the sunlight, are not unlike white butterflies.

20th.—Dove's-foot cranesbill, yellow melilot, dwarf furze, and common hairbell yet in flower. Gray wagtails near Wakefield.

22nd.—Young larks and chaffinches in song. The common house-mouse now lives much in the fields on scattered grain. It makes burrows and nests in the earth like the field-mouse.

23rd.—Starlings ogling and whistling on the gable of Hopkinson's house—their nesting site. Redstarts last seen.

25th.—Observed a small party of redwings feeding in a bean field—an early date for the arrival of these birds.

26th.—Shot a newly-arrived brambling.

30th.—Corn-crake last seen.

OCTOBER.

1st.—Young yellow wagtails last seen. A young cuckoo shot near Lofthouse.

2nd.—Lark, robin, and young thrushes and young chaffinches in song.

3rd.—Pipits flying over. Oxeye-titmice moving about in pairs.

5th.—Hedge-sparrow's winter note first heard.

6th.—Dragon-flies and white butterflies on wing. Saw swallows. (Brood of swallows yet in nest. J. W.)

7th.—Leaves of beech and lime falling.

8th.—Raspberries bearing second crop. Notes of linnets and tree-sparrows heard overhead.

10th.—Slight frost. More bramblings. Admiral butterfly on wing.

11th.—Swallows last seen. Ivy in flower.

12th.—Saw more redwings. Field stachys, or corn woundwort, and red goosefoot (*Chenopodium rubrum*) in flower.

13th.—How silent now are the woods and groves! The soft notes and songs of the summer birds are no longer heard. The harsher cries of the wren, the missel-thrush, and the brambling now fall on the naturalist's ear; and in place of variegated flowers and fresh green foliage, bare branches and fading leaves meet his wandering eye. Acorns and beech mast, the nuts from the chestnut tree and keys from the ash and sycamore, fall with every gust of wind, and rattle among the dry leaves on the ground. The hedges are hung with elderberries and the clustering fruit of the bramble, with nightshade berries, and coloured vines of bryony, with nuts and haws, and polished hips. The gatherers of wild fruits may now often be met with, stealing along the lanes and under the hedges getting blackberries and hips, reaching down the full ripe berries of the elder, or shaking down the loose nuts from their cups.

In the fields, now shorn and cleared of their crops, we see flocks of sparrows, rooks, wood-pigeons, and tame geese picking up the scattered grain. Boys with strong voices and wooden clappers may be heard scaring away the birds from the sown corn, their shouts echoing through the woods. A girl, often the farmer's daughter, is deputed to tend the geese, and a tedious task it is from morning till evening in the lonely fields. She sits in the lane, or wanders by the hedge picking a handful of wild fruit, many a time wishing for night. The dusk of the October evening does, however, at length come on; the sparrows then repair to the bushes and stacks, the rooks take their drowsy flight to their far-off roosting trees, and the goose girl, the shouting boy, and the ploughman with his team, turn with ready steps to their various homes, leaving the lonesome fields shrouded in autumn mist.

16th.—Redwings abundant, feeding in the hawthorn bushes. A great many song-thrushes appeared about this date, probably having come over from the north with the redwings.

19th.—(*Agrotis saucia*, an uncommon *Noctua*, came to sugar with many of the October moths. Inchbald.) It may be information to some who are not acquainted with "moth-catching," to explain that "sugar" is a composition of brown sugar, boiled in beer. When this mixture is applied with a brush to the trunks of trees, or to posts near the borders of woods after sundown, the night-flying moths are attracted by it, and partake of it so freely as to become intoxicated.

" As to the flame the heedless fly,  
 Ever attracted, draweth nigh;  
 As to the sugared bait the moth  
 Goes eagerly to taste, and both  
 Meet death concealed in smiling guise  
 And learn, too late, it had been wise  
 To shun the pleasures that allure;  
 So human flies and moths are sure  
 To follow glittering things and sweet,  
 Oft the like punishment to meet."

22nd.—A moth, probably the Silver Y, seen flying high in the sunshine. A kingfisher on the beck. Noticed pieces of bark and scraps of rotten wood lying beneath an old oak tree—the work of a woodpecker. Spanish chestnut, horse-chestnut, and sycamore leafless.

30th.—Song-thrushes numerous with the redwings and bramblings.

31st.—Fieldfares first heard.

#### NOVEMBER.

1st.—Small flock of fieldfares.

4th.—Noticed a small brood of larvæ of large white butterfly (*Pieris Brassicæ*) feeding on turnip leaves. Oak and ash leafless. Field-violet (*Viola tricolor*) yet in flower. More flocks of fieldfares.

9th.—Severe frost. Windhover hawks frequent.

10th.—Aurora borealis. To-night the sky was luminous. Blue streamers rose in the north, and a reddish light from the west illuminated buildings and other objects.

16th.—Found common house-mouse inhabiting a nest of leaves in the ground.

19th.—Very severe frost.

22nd.—Starlings whistling in the high trees and on the chimneys. Slight covering of snow, first of the season.

#### DECEMBER.

1st.—Bullfinches appearing in orchards.

10th.—Observed a robin catching insects on wing, flying from the top of a wall in the manner of the redstart.

22nd.—Missel-thrushes singing occasionally on fine days.

23rd.—Redwings, fieldfares, thrushes, and bramblings less numerous, having passed southward.

28th.—Mild weather. Heard stormcock again in song.

31st.—Mild open weather. Furze in flower. Heard meadow-pipits flying over at night. Windhover hawks more numerous. The meadow-pipits and the hawks may have come from the north with the regular winter migrants.

## CORRESPONDENTS' OBSERVATIONS.

## JANUARY.

21st.—Gathered sprays of butcher's broom (*Ruscus*) near Hastings, covered with their pretty coral berries. Plants diœcious, which may account for the failure of berries on the plant in our gardens. Found the flowers of both male and female on plants in January on the Sussex coast.

## FEBRUARY.

26th.—Rooks breaking off twigs from our acacia trees for their nests. Blackbird in song.

## MARCH.

2nd.—*Draba verna* in flower. Male blossoms of yew shedding their pollen.

4th.—Wagtail returned to us from the coast.

7th.—Green hellebore in full flower at Rievaulx Abbey.

20th.—*Gagea lutea* in flower near Doncaster.

23rd.—Hybernated specimens of silver-washed fritillary flying in the warm sun. Chiff-chaffs in the valley at Hovingham.

24th.—*Orthosia leucographa* on the palm blossoms at night; and *Brephos Parthenias* in the daytime.

## APRIL.

1st.—*Orthosia populeti* on the palms at night. Stock-dove's nest (*Columba œnas*) with two eggs. Early grey moth abundant.

5th.—Nuthatch (*Sitta Europœa*) in Hovingham Woods.

9th.—*Veronica triphyllos* in flower at Acomb, near York.

21st.—Dormouse found asleep in its drey. Drey formed of dried grasses, chiefly *Holcus lanatus*, and a little wool.

26th.—Ring-ousel seen near the Lodge.

27th.—Whinchats (male and female), garden-warblers, wood-wrens, and whitethroats near the Lodge.



MAY.

11th.—Pied fly-catcher near Hovingham—several pairs. Song reminds one of the redstart's song. Grasshopper-warbler in Wath Valley. *Euclidea glyphica*, a day-flying moth, caught, tolerably abundant.

13th.—Swifts at Hovingham.

19th.—*Trientalis Europæa* flowering in High Wood near Hovingham. A singularly beautiful flower, and well worthy of a place in our flower gardens.

22nd.—First egg laid in the nest of the pied fly-catcher. *Salix pentandra*, a beautiful and local willow in fine flower, near Hovingham. *Anguis fragilis* pairing.

27th.—Pied fly-catcher's nest found in the bole of a beech, constructed of moss, strips of honeysuckle bark, and dead leaves.

29th.—Chiff-chaff's nest containing six eggs; spots of a dark claret colour. *Geranium Pyrenaicum* growing wild near Hovingham, far away from cultivation. *Euclidia Mi* flying in the hot sunshine.

31st.—*Cimbex sylvarum*, a fine saw-fly, taken near the Lodge.

JUNE.

8th.—*Pyrola minor* in High Wood, near Hovingham.

30th.—*Thlaspi virens* grows on rubbish thrown out of old mines in Derbyshire. *Dipsacus pilosus* in the Via Gellia.

AUGUST.

19th.—*Dianthus deltoides* (maiden pink) flowering near Hovingham. *Actæa spicata* is not unfrequent in our valley.

SEPTEMBER.

14th.—Fine flowering plants of *Gentiana campestris*. This species and *Gentiana Amarella* grow side by side near Hovingham.

29th.—Slow-worm not yet retired to its winter quarters.

## OCTOBER.

5th.—Bramblings first noticed near Hovingham.

## NOVEMBER.

6th.—*Helvella crispa*, one of the eatable morels, appearing under birch trees.

Peter Inchbald,  
The Lodge, Hovingham.

## JANUARY.

8th.—Small cabbage butterfly on wing near Barnsley.

## APRIL.

15th.—Nightingale heard near Barnsley.

## SEPTEMBER.

10th.—Swift last seen.

## OCTOBER.

2nd.—First redwings.

5th.—House-martins last seen at Barnsley.

7th.—House-martins and swallows hovering about Adel church.

8th.—Corn-crake shot.

31st.—Swallow last seen.

Thomas Lister,  
Barnsley.

A LIST OF RARE BIRDS OBSERVED OR CAPTURED IN  
YORKSHIRE DURING THE YEAR.

Bittern.—One seen near Beverley, January 6th.

Merlin.—A female shot near Lofthouse, January 14th.

Slavonian grebe.—One observed near Elland, January 29th.

Gadwall duck.—One shot at Skerne, a village in the East Riding, January 31st.—Mr. Boyes in *Zoologist* for March.

Glaucous gull.—One shot near Beverley, February 1st.—Mr. T. Boynton in *Zoologist* for March.

Iceland gull.—One shot near Bridlington, about February 18th.

Sclavonian grebe.—One shot near Wakefield, February 27th.

Lesser spotted woodpecker.—One shot at New Miller Dam, near Wakefield, April 3rd.

Nightingale.—Nested near Barnsley, April.—Mr. Lister.

Garganey.—One shot near Beverley, April 20th.

Nightjar.—Nested near Barnsley, May.—Mr. Lister.

Great spotted woodpecker.—One shot at Notton, near Barnsley, June 2nd.

Hawfinch.—Nested near Huddersfield, July. A young fledged one captured.

Kittiwake.—One shot while flying over near Lofthouse, August 2nd.

Osprey.—One caught in a trap near Pocklington, September 5th.—Mr. Boyes in *Zoologist* for November.

Merlin.—One shot near Reeth, September 14th.

Osprey.—One shot at Hotham, a village in the East Riding, September 15.

Great spotted woodpecker.—Heard near Barnsley, October 3rd.—Mr. Lister.

Spotted crane.—One killed against the telegraph wires near Lofthouse early in October.

Marsh harrier.—One shot near Beverley, October.

Collared pratincole.—One shot near Whitby, October 19th.—Mr. M. Simpson in *Zoologist* for December.

Merlin.—One shot on Moscar Moor, south-west of Barnsley, November 6th.

Sparrow.—A beautiful variety, with white shoulders, shot at Wakefield, November 29th.

Canada goose.—Two shot at Lofthouse, December 8th.

Hooper swan.—A small flock seen at Ingbirchworth Reservoir, near Barnsley, December 10th and 11th.—Mr. Lister.

## GENERAL OBSERVATIONS.

## CULTIVATED CROPS, WILD PLANTS, AND THE WEATHER.

In January many shrubs, such as the jasmine and laurustine, which usually withstand ordinary winter weather, were destroyed, or cut down to the ground, by the intense frost. Some birds were frozen and famished. Hooded crows appeared inland, and birds of prey were driven from the north southward. In many places the telegraph wires were so contracted as to snap and recoil with great force. The storm commenced on December 21st, and continued with varying severity till the end of January. Ungenial weather prevailed in spring; the blossom of gooseberries was blasted by frost in April, and the leafing of trees and flowering of plants, retarded. Much rain fell in all the spring months. Night frosts occurred in May and into June till about the 11th, when the weather became warmer, with rain, which gave a sudden impetus to vegetation, and induced rapid and succulent growth. My date for the blooming of the wild rose (*Rosa canina*) this spring is June 16th; last spring, which was also late, it was June 11th. Hay-making commenced about the 30th of June, and was not finished, owing to the extremely unfavourable weather, till about the 15th of August. There was an abundance of after-grass, and I noticed "fog hay" in the fields till the 18th of September. Harvest work commenced on the 17th of August, and continued, with numerous interruptions, till the 25th of September. A great quantity of corn was harvested in a damp condition. The yield of cereals would, in most cases, have been satisfactory, had it not been for the high wind which came on the 24th and 26th of August, which dashed the ripened ears against each other, and scattered the grain on the ground. Aphides appeared on beans about the 4th of July, and in some places did considerable injury; the crop, however, was not a failure. Turnips were not seriously injured by insects. The crops of all roots and bulbs, including kohl rabbi, which is now cultivated in this neighbourhood, were satisfactory. All kinds of cultivated fruits were exceedingly

scarce, but trees of every kind made long shoots, and there was an abundance of foliage. Weeds of various sorts covered the ground; the charlocks and poppies were especially plentiful; the season being what farmers call a "ketlock season." Much rain fell in September. Many weeds and garden flowers continued late in bloom, ash trees retained their foliage, and the pastures and meadows presented a green appearance till a late period. A very severe frost set in on the 9th of November, and continued till about the 24th, after which date the weather was unusually mild till the end of the year.

RAINFALL OF THE YEAR,

As registered by Mr. Wm. Dixon, at Tickhill, near Doncaster.

Communicated by Mr. T. Walker.

	In.		In.		In.
January.....	0·96	May .....	1·85	September .....	5·23
February .....	1·44	June.....	4·23	October.....	1·51
March .. .....	0·83	July .....	3·63	November.....	0·89
April.....	2·77	August .....	1·59	December .....	1·31

Total, 26·24 inches, being 2·35 inches above the average of twelve years.

Total rainfall as observed at Woodlands, near Doncaster, by Mr. Walker, 25·92 inches, being 2·80 inches above the average of seven years.

Total rainfall observed at Barnsley, 25·87 inches.

The year was remarkable for the frequency of the disease called hydrophobia in dogs and other domestic animals. Several cases occurred in this immediate neighbourhood.

BIRDS.

In early spring, starlings appeared in extraordinary numbers, and commenced their work of nidification in every suitable spot. The performances of the male bird, perched on the top of a tree, are very amusing. He can imitate the notes of the tame duck, the lapwing, the jackdaw, the magpie, the chaffinch, the sparrow, the blackbird, and the missel-thrush. It is quite impossible to say what the starling cannot do in the way of imitation.\* His magpie and missel-thrush notes are truly

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\* The birds imitated are resident birds, like the starling itself, not migrants.

ventriloquistic; they sound as if uttered by a bird above a quarter of a mile distant, and an inexperienced observer might be easily led to believe that he was listening to some other bird. In the midst of his jargon song he frequently gives a loud parrot whistle, and he also often varies his amusement by making a quick rattling of his wings and bill, like the rattling of bone castanets. His song is not confined to the breeding season, but is uttered from the top of a tree or high building through summer and autumn and into winter. In April there was a nest here in this village, in Hopkinson's house, which was formerly a workhouse, and is rather high, and I frequently noticed the male bird, all the year from March to December, indulging in his wild whistling song, and strutting on the top of the chimney, a place whence he could view the country for miles round.

The lesser redpoles were more than usually numerous. I saw several pairs, and one or two nests. Bramblings disappeared from this district about the end of March. The summer migrants arrived at their usual time, all, except perhaps the house-martin, appearing in more than ordinary numbers. Sedge-warblers, lesser whitethroats, and garden-warblers were numerous distributed over the woods and orchards by the middle of May. The dates given by myself, Mr. Inchbald, and Mr. Lister for the arrival of the summer birds correspond most remarkably, some of them being, in fact, identical, as will be seen by referring to April 12th and 16th.\* This concurrence of dates is direct evidence of the simultaneous arrival and distribution of the different birds in the different localities, and also good proof that they have been observed on their arrival with care and exactitude. I have pleasure in stating the interesting fact that all the summer land-birds, which could be expected, have been noticed this year in Yorkshire, either by myself or by the two above-mentioned alert and careful observers. The nightingale, the nightjar, and

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\* See table of migrants on a succeeding page.

the pied fly-catcher have put in their welcome appearance, and, it is further gratifying to say, have been allowed to breed and bring up their young in safety. The weather in May and June was so ungenial that the delicate insect-eating birds had some difficulty in finding sufficient food. Many were driven for weeks together from their upland quarters to the sheltered valleys by the inclement north-east winds, and many were hindered in their work of nidification, and would only succeed in rearing one brood. A large number would probably never breed at all, having quite enough to do to pick up a scanty meal for themselves, without the additional labour of providing for a brood of clamorous young. The swallows that nest here in a shed annually, came in May, and twittered and sang, as they perched on the spouts, for a few days, and then disappeared. In June, July, and August they came again at intervals, and hovered and twittered about as before, but never attempted to construct a nest. From the eaves of the buildings, or from the spouts on which they sat shivering, they looked down wistfully on the passers by, as though they would say, "We are here, but we are cold and hungry." After the 20th of August I saw them no more.

During this season I have been induced to think that our common birds are constantly acquiring new notes. In spring and summer my ear very often caught notes which seemed quite strange, but by observation I ascertained that they proceeded from our commonest birds. I suspect that the language of our singing birds is gradually varying, and receiving, as it were, new words. New tones and new combinations of expression are also doubtless constantly arising. The vocabulary of the titmice, though they are not singing birds, is variable and copious.

Nearly all the birds ceased their notes and songs about the end of the first week in July. The cuckoo was last heard here on the 4th, and the corn-crake on the 15th of July; after the latter date the woods and groves were remarkably silent. A general movement among the migratory birds was observable

about the end of August. Pipits and wagtails were continually flying over, and the wood-note of the chiff-chaff, missed since spring, was again heard. Redstarts and fly-catchers appeared, and lesser redpoles were constantly heard. Many of the summer migrants prolonged their stay, as will be seen by reference to the diary in October. Redwings and bramblings, influenced, I suppose, by severe weather setting in in Scandinavia, arrived here before the summer birds left. Fieldfares, however, it is curious to note, arrived somewhat later than usual. Tree-sparrows, bullfinches, and windhovers were frequent. The goldfinch was seen and heard in two or three different localities near Barnsley.

It is gratifying to learn that the sea birds on our east coast, favoured by the Sea Birds Preservation Act, are increasing in numbers, and that legislative protection is to be further extended to land birds. A judicious measure passed for the security of rare birds, or birds which are truly insectivorous, would have the cordial approbation of most people, but a sweeping arbitrary law, that would preserve *all birds alike*, would be impolitic and mischievous. I am afraid that some over-zealous lovers of birds are disposed to carry the law too far. What they call justice to the birds would be great injustice to those on whose crops some of the birds prey, and to those poor inhabitants of many districts who have to be content with a pair of fat starlings or fieldfares for their dinner, instead of a pair of partridges. It is a question of great interest to agriculturists, gardeners, sportsmen, and naturalists, being, in short, a national question. Perhaps if we could check the practices of trespassing boys and wholesale bird-catchers, and give the gun tax a little more time to show its effects, we should find that sufficient had been done to promote the increase of birds without the intervention of a special law. An excess of benevolence is not an unknown thing. I believe there are influential individuals who are more than half inclined to counsel the preservation of all birds, and perhaps after that all quadrupeds, on the ground that the good these



creatures do, overbalances the evil, and therefore they have a full claim to exist. Those who suffer practically from the assaults of certain birds or quadrupeds on their crops, ought to be wakeful and ready, when the time comes, to oppose such arguments with statistics and other good evidence, or maybe they will find themselves compelled, by successive Acts of Parliament, to facilitate the increase of enemies which are already too numerous, and which daily besiege the carefully-tended fruits of their labour.

## INSECTS.

Owing to the coldness and wetness of the season, insects were not abundant. A few appeared on occasional fine days in March, but were soon driven to the earth again by the inclement north-east winds. I saw the first tortoise-shell butterfly on the 26th of March, and the first white butterfly on the 12th of April; both of these dates are earlier than those I have down for the same occurrences last year. In June insects of all sorts were exceedingly scarce. Aphides appeared on beans and other plants in July, but the bean leaves being too far advanced, their ravages were not serious. The caterpillars that injure gooseberry bushes were not abundant. The aphides which feed on the foliage of turnips were kept in check by the harsh weather, and the various larvæ of insects which feed on the bulbs, were not numerous. During August, which was the only real summer month of the year, wasps became suddenly plentiful; admiral butterflies and large whites were also more commonly seen, the latter being more common than the smaller white. The admirals and large whites were last seen about the 9th of October, but I noticed a number of caterpillars of the latter, feeding on turnip leaves on November 1st. Late in autumn one or two species of large dragon-flies were more frequent than I ever remember to have seen them. These splendid insects were on the wing in October. I am not aware that farmers or gardeners have, at any time of the year, complained of the depredations of insects, but a very large number

of complaints have been made respecting the depredations of birds, especially rooks, sparrows, and wood-pigeons—a most significant fact for the consideration of sentimental bird-lovers. The following moths have been captured during the year in the neighbourhood of Wakefield:—Wood leopard (*Zeuzera Æsculi*), satin carpet (*Cymatophora fluctuosa*), canary-shouldered thorn (*Ennomos tiliaria*), the miller (*Acronycta leporina*), and lesser-spotted pinion (*Cosmia affinis*). The wood leopard, which is new to the district, was taken whilst flying towards a lighted window in one of the streets in Wakefield.

The chief characteristics of the year may be briefly summarised thus:—

- Intense frost in the winter of 1870-1.
- A late spring.
- A scarcity of insects.
- An abundance of migratory birds.
- A cold and ungenial summer.
- An extraordinary scarcity of fruit.
- Good crops of clover, hay, cereals, and roots.
- An excess of rain.
- Absence of thunder-storms.
- Frequency of hydrophobia.
- Severe winter weather in November.

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## RURAL NOTES AND DIARY OF NATURAL PHENOMENA FOR 1872.

### JANUARY.

3rd.—Mild open weather. Heard a few song-notes of the blackbird.

4th.—Violent storm of hail and rain with lightning and thunder.

16th.—Stormcock in full song. I suspect that stormcocks keep together through winter in pairs. It would be interesting to know if others of the thrush family do the same. I notice that young blackbirds keep together after leaving the nest.

18th.—Very fine mild weather; birds apparently pairing.

25th.—Lark and blackbird in song.

27th.—Thrushes in full song at daybreak. Robin in full song.

28th.—Very mild. Birds singing everywhere. Hedge-sparrow and wren in song. Rooks building.

FEBRUARY.

2nd.—Fine sunny weather. Thrushes and larks singing continuously.

4th.—Chaffinch in song. Observed a small flock of either siskins or lesser redpoles feeding in the top of an alder tree, and several bullfinches feeding on raspberry buds. Catkins of hazel opening.

5th.—Corn-bunting in song

9th.—Spring notes of blackbird and blue-cap heard.

10th.—Moles throwing up hills. Small black-headed tit (*Parus palustris*) now begins to utter its pipit note. (See Mr. Lister's note for coincidence of date.)

12th.—Robin building! Spring note of greenfinch heard.

15th.—Breeding note of stormcock heard.

18th.—Coltsfoot in flower. Arum and honeysuckle in leaf.

24th.—Heavy rain. Farm-work interrupted. Much wheat unsown.

25th.—Fine after rain. Grass and weeds growing rapidly. Nest of blackbird nearly built. The winter undersong of the thrush, now frequently heard, is a very low, rich, finely-modulated warble, delivered mostly from some secluded hedge-bank.

27th.—Thrush laying. Woods and plantations resounding with the songs of thrushes and other birds in the early morning.

## MARCH.

1st.—Song-thrush sitting. Heard spring note of great titmouse.

3rd.—*Helix nemoralis* and *Helix caperata* abroad. Chaffinch pairing. Observed numbers of small black spiders clinging to the blades of wheat. Pilewort in flower. Frogs spawning. Ladybirds on wing. First bee.

5th.—Yellow-hammer and pied wagtail in song.

6th.—Meadow-pipit following the plough; in song. Spring note of chaffinch. Blackbird laying. Humble-bees on wing.

7th.—Sparrow and starling building. Lapwings passing over. Lines and webs of aerial spiders floating in the air.

8th.—Spring note of greenfinch heard. Sallow in flower.

9th.—Meadow-pipit pairing. Butterbur (*Petasites vulgaris*) in flower.

10th.—(Humble-bees on wing. Tortoise-shell butterfly seen. J. W.)

13th.—Robin laying in the nest which was in course of building on February 12th. Peewits passing over. (Thrush laying. J. W.)

14th.—Crab and black currant in leaf.

16th.—Four eggs in above-mentioned robin's nest.

17th.—Caddis-worms and sticklebacks numerous in the ponds. Larch putting forth green spines.

21st.—Winterly weather. Frosts and blasts of snow. Birds sitting!

23rd.—Gooseberry and thorn in leaf. Young leaves and herbage blackened by frost.

26th.—Keen frost. Leaves of various plants unfolding.

27th.—Found a few rooks' pellets under the nests.

30th.—Elder in leaf.

31st.—Gooseberry in flower. Second robin's nest with young.

## APRIL.

2nd.—Continuous rains; floods.

3rd.—Hedge-sparrow laying. Lapwings' eggs in Leeds game shops.

5th.—Found nest of thrush with five nearly globular eggs.

6th.—Mountain-ash in leaf. Missel-thrush laying.

7th.—Observed a pair of lapwings in the fallow fields. Rooks flying over with food for young. Greater stitchwort in flower. A flock of redpoles passing southward. Bramblings last seen. Squirrels in the trees near Kippax. Starlings everywhere.

8th.—Clematis in leaf. Chaffinch building. (Found nest of blackbird with blue unspotted eggs. J. W.)

10th.—Fine. Tortoise-shell butterflies on wing. Bees numerous.

13th.—Willow-wren arrived. Jay building at Walton Hall.

14th.—Heard tree-pipit, chiffchaff, and grasshopper-warbler, and saw yellow wagtail. Forget-me-not in flower. (Swallows at Newmarket House. S. E.)

17th.—Small white cabbage-butterflies on wing. First swallow at Lofthouse.

20th.—The bee, *Andræna fulva*, throwing up casts of earth in the grass. Fieldfares and redwings last seen.

21st.—Cold harsh weather. Snow, rain, and wind. Blossom and young fruit beaten from the trees. Farm-work interrupted. Birds driven back into the sheltered valleys.

24th.—Heard lesser whitethroat and cuckoo.

26th.—Willow-wrens distributed. No other summer birds yet plentiful.

27th.—Whitethroat, whinchat, and grasshopper-warbler in song. Germander speedwell, bluebell, and wood-sorrel in flower, near Hemsworth. Garden-warbler and blackcap heard. Green-veined white butterfly and a few tortoise-shells on wing. *Planorbis nautilus*, *Zonites purus*, and *Limnæa truncatula*, near Hemsworth. Observed a pair of bullfinches apparently feeding on the buds of the oak. Fledgling rooks in the fields. Elm, birch, and horse-chestnut in leaf. Leaves of oak unfolding.

28th.—Heavy rain. Brooks flooded. Farm-work suspended. Heard landrail.

## MAY.

4th.—May-flies out. Horse-chestnut in flower. Sedge-warbler heard.

5th.—Starlings in small flocks. *Cardamine amara* in flower, near Ackworth.

6th.—House-martins repairing their nests.

9th.—Oak in leaf. Thorn in flower.

11th.—Saw common fly-catcher.

12th.—Wood-wren first heard. Swallows not yet numerous.

13th.—Meadow-voles making their nests in the grass at Oulton Park.

15th.—(Second blackbird's nest with blue unspotted eggs. Took a nest with similar eggs from the same hedge in 1871. J. W.)

19th.—Young leaves of the ash, and various tender herbage blackened by night frost. (Larvæ of *Xanthia citrigo* feeding on the leaves of the lime tree in Bretton Park. G. T. P.)

20th.—*Geum rivale* (water avens) in flower in the valley between Wentbridge and Smeaton. Nest of gold-crest in Campsall Park.

21st.—Swallows returned to shed in which they breed annually. *Habenaria viridis* and *Cardamine amara* in flower near Roundhay Park.

22nd.—(Found a nest of a tree-wasp suspended from a beam in an engine shed. Captured the queen, *Vespa sylvestris*. Nest contained five cells with larvæ. Observed ten-spined stickleback in ditches near Castleford. J. W.)

26th.—Ladybirds of different species depositing their eggs on the leaves of the gooseberry bushes. Rooks ceased flying over with food for young. *Geum rivale* and *Habenaria viridis* near Adel. Stonechats, whinchats, and cuckoos on Adel Moor. The grassy places of this moor are reddened over with *Pedicularis sylvatica*.

31st.—*Coccinella bi-punctata* depositing its eggs. Second nest of song-thrush robbed by rooks.

JUNE.

1st.—(Dog-rose and Scotch rose in flower, near Ledsham, on the limestone. J. W.)

2nd.—Common garden carpet-moth, and brimstone-moth on wing.

3rd.—Aphides first observed on gooseberries. Foxglove in flower. Noticed a cat climbing a dead cherry tree, and on examining the tree I found a nest of young blue tits in a hollow branch. The old ones made loud cries of distress, which brought several other birds—a willow-wren, some sparrows, and chaffinches—to the scene. Is the cat led to discover nests by scent, or by hearing the cries of the young?

5th.—Whilst returning from a walk I heard the landrail, the sedge-warbler, and cuckoo singing, about 11 p.m. The cuckoo has been frequently heard at night; but I imagine that it only sings a few notes when it is disturbed. The robin and other birds utter an alarm note at night when they are disturbed.

6th.—Summer rain. Insects not yet numerous. Moths not numerous at night.

9th.—Cold showers. Caterpillars and other injurious insects not yet abundant. Summer birds mute; few swallows. Weeds growing apace. Slugs and snails abounding among the succulent herbage.

13th.—Weather finer. Birds more lively. Observed a red-backed vole. Attracted by the vociferous alarm cries of robins and thrushes my attention was directed to another cat climbing towards a nest in a tree. Elder in flower. Blue butterflies out on the limestone.

16th.—Dog-rose in flower. Heard cuckoo, lesser redpole, grasshopper-warbler, and tree-sparrows.

18th.—Thunder and rain. Vegetation progressing rapidly. Fly-catcher building in a tree which has been occupied by fly-catchers for several years. Spindle tree and rock-rose in flower, near Castleford.

19th.—Nest of fly-catcher with young in a small recess in a wall at Fountains Abbey.

21st.—Dyer's mignonette (*Reseda luteola*), common rock-rose, blood geranium, herb Paris, pyramidal orchis, wild thyme, gromwell (*Lithospermum officinale*), and viper's bugloss in flower along the Nidd side, near Knaresborough. *Helix lapicida* and *Helix pulchella* occur on rocks in Abbey grounds, near Grimbalds Crag.\*

24th.—Thunder and much rain. Aphides and other insects checked by rain. Hay-making commencing.

25th.—Heavy thunder rain. Swifts flying over. Wheat shooting.

26th.—Cuckoo last heard.

27th.—(Cuckoo last heard. J. W.)

30th.—Common blue and small copper butterflies on wing, near Charlston. Villous rose, tway-blade, and meadow-geranium in flower.

#### JULY.

3rd.—Grasshopper-warbler singing in the night.

8th.—Summer warblers rarely heard. Barley and oats in ear. Wheat in flower.

11th.—Great floods.

12th.—Floods. Fields and roads under water.

14th.—Rain continuing. Insects exceedingly scarce. Birds depressed and mute. Trees making much foliage. Young swallows twittering in the air. Pupæ of seven-spot ladybird on leaves of gooseberry. (Captured *Smerinthus ocellatus*, the eyed hawk-moth. J. W.)

21st.—Corn-crake last heard. Took from gizzard of young sparrows several halves of green peas and much sand, no insects.

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\* *Helix lapicida* has recently been found near Hawick, but it may have been an introduction. Previously it was not known further north in Britain than the vicinity of Hackfall.



22nd.—An extraordinary shower of hail after extreme sultry heat. Hailstones large as walnuts. Fruit bruised and tender leaves and flowers lacerated.

27th.—(Corn-crake last heard. J. W.)

AUGUST.

1st.—Sparrows numerous among the ripening wheat. *Brassica alba* (white mustard) in flower.

4th.—Large numbers of sand-martins congregating on the telegraph wires.

10th.—Harvest commencing.

11th.—Rain. Hay lying about in all conditions. Some grass not yet cut. Weeds very abundant. Trees putting forth fresh leaves. Second growth of clover and grass covering the spread hay. All sorts of insects destroyed or benumbed by the cold weather. Slugs abundant. Birds starved and mute.

13th.—Observed a common shrew in one of the streets in Leeds.

18th.—Observed nets of diadem spider fixed on the top of high trees, with insects entangled.

20th.—Weather finer. Harvest becoming general. Some insects in the air. Willow-wren, but no other warbler, in song.

23rd.—Flocks of redpoles. Finer weather; harvest progressing.

26th.—Meadow-voles very numerous, their nests being so thickly spread over the fields in some places as to impede the mowing-machine. Nests of the meadow-vole are most numerous in wet seasons, being made probably for shelter, not for breeding.

27th.—(A specimen of *Vanessa antiopa* taken at Spa Mill, near Huddersfield. G. T. P.)

31st.—Larvæ of *Grapholitha pisana* common in green peas. When necessary this grub can suspend itself by a thread. The head is brown and shining, and there are eight brown spots on each abdominal segment, each of which throws out a fine hair.

Pipits reappearing. Wagtails heard in numbers. Aphides not numerous. Small flocks of swallows passing eastward. *Chrysanthemum segetum* (corn marigold), an exceedingly handsome orange-coloured wilding, unfrequent here, in flower.

## SEPTEMBER.

5th.—Observed the great white butterfly (*Pieris Brassicæ*) probing the flowers of the jasmine.

8th.—Admiral butterflies appearing. Fly-catchers returning southward.

12th.—Sand-martins last seen.

15th.—(Sand-martins last seen. J. W.)

24th.—Chiffchaffs seen, en route southward.

28th.—The Y (*Plusia Gamma*) on wing; numerous.

29th.—Observed an immense flock of green linnets, grey linnets, yellow-hammers, and sparrows in the stubble fields. Harvest closing. Larks and robins singing occasionally. The low song of the robin sounds like a requiem over a dull and cloudy summer—a summer only in name.

## OCTOBER.

6th.—Keen frost. Young thrushes in song. (Swallows last seen. J. W.)

11th.—Noticed a few swallows flying about the river Aire, at Hunslet, near Leeds. None seen after this date.

12th.—Fieldfares first seen.

13th.—Immense flocks of greenfinches, sparrows, and yellow-hammers in the wheat fields. Lapwings passing over. Observed a large number of the common grey slug lying at the bottom of a ditch, drowned. Apropos of this, I noticed numbers of this slug creeping towards the top of a high wall during the floods which occurred on the 11th and 12th of July—an act, I infer, of self-preservation. Redwings first seen. Harvest finished.

18th.—Bramblings arrived. Bullfinches appearing.

19th.—Lime and elm leafless. Flocks of lesser redpoles. (Fieldfares arrived. J. W.)

21st.—Sycamore leafless. Ivy in flower.

27th.—No bees, moths, butterflies, or other insects on wing.

31st.—Large numbers of slugs of various sizes, and eggs of slugs among the Swede turnip roots.

NOVEMBER.

8th.—Saw about a pint of the large garden Windsor beans turned up by the plough—a winter hoard of the field-mouse.

26th.—Observed a small flock of bullfinches. The crop and gizzard of one which was shot contained various seeds and rough sand.

27th.—Discordant cry of the brambling constantly heard. Shooting meteors exceedingly numerous in various parts of the heavens at night.

DECEMBER.

7th.—Keen frost.

12th.—Keen frost.

13th.—Slight fall of snow, first of the winter.

14th.—Frost.

15th.—Haze and rain.

16th.—Snow.

22nd.—Much rain.

24th.—Fine. Bats seen.

25th.—Heard song of corn-bunting.

29th.—Rain. Missel-thrush in song.

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CORRESPONDENTS' OBSERVATIONS.

FEBRUARY.

2nd.—Chaffinch's first notes.

17th.—Blackbird in song.

29th.—Wagtail (*Motacilla Yarellii*) returned to Hovingham from the sheltered coast-line where it winters. Seen abundantly in Devon and Cornwall during January.

## MARCH.

29th.—Ring-ouzel made his appearance on the Orme's Head, Llandudno. Wheatear first seen in North Wales.

## APRIL.

5th.—Young rooks at Hovingham.

16th.—Sawflies (*Selandria Æthiops*) emerged from the pupæ. These had fed in the larval state on young espalier pear trees, in some cases stripping the trees. The larva is umber-coloured, leech-like, and glutinous, like the larva of *Cionus scrophulariæ*. It is a pest where it establishes itself.

30th.—Sanderling on the River Rye.

## MAY.

24th.—A peculiar *Draba* growing on wall tops at Hovingham with the ordinary one, having inflated capsules and wiry growth; possibly the *Draba præcox* of Reichenbach.

## JUNE.

10th.—*Thlaspi arvense*, with its large circular pouches flowering and seeding in cultivated fields at Hovingham.

23rd.—*Cardamine impatiens* is very abundant at Matlock. In Yorkshire it chiefly occurs in the neighbourhood of Settle on the banks of the Ribble. Another of the rarer plants of Matlock is the *Draba muralis*. This again is found in the Settle district and on the limestone rocks round Malham.

## AUGUST.

4th.—*Epipactis palustris* (marsh helleborine) growing in swampy ground near the Lodge, at Hovingham. *Campanula rapunculoides* also growing with us on the Oolite. Usually considered an alien in this country.

14th.—Squirrels feeding on the young green cone-nuts of the yew.

17th.—*Mentha piperita*, the true peppermint, growing in sandy refuse thrown up in deepening a large pond at Hovingham. Not noticed elsewhere in the neighbourhood.

SEPTEMBER.

15th.—Three examples of the Camberwell beauty butterfly, noticed at Hovingham.

21st.—Blackcap last heard. Chiff-chaff still here.

OCTOBER.

12th.—Redwings first heard.

19th.—Fieldfares arrived.

NOVEMBER.

3rd.—Common snake, *Coluber natrix*, yet abroad.

Peter Inchbald,  
The Lodge, Hovingham.

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JANUARY.

30th.—Small garden white butterfly on the wing.

FEBRUARY.

10th.—Marsh-tit utters its spring call-note.

MAY.

5th.—Nightingale near Barnsley.

11th.—Second nightingale heard.

21st.—Golden plovers near Wortley. Two goatsuckers shot.

JUNE.

12th.—Three otters on the River Dove, near Barnsley.

AUGUST.

23rd.—Camberwell beauty butterfly seen.

## SEPTEMBER.

22nd.—Blackcap last seen.

## OCTOBER.

23rd.—Redwings arrived.

27th.—Fieldfares passing over.

## NOVEMBER.

2nd.—Last notice of the swallows.

22nd.—Two young ring-doves seen in a nest near Barnsley.

Thomas Lister,

Barnsley.

## GENERAL OBSERVATIONS.

## CULTIVATED CROPS, WILD PLANTS, AND THE WEATHER.

Mild weather with rain prevailed through January and February. In the latter month early spring flowers, weeds, and grass made much progress; the hazel, coltsfoot, and other plants put forth their bloom earlier than usual. In March the open weather continued till about the 21st, when frost set in, accompanied with blasts of snow and wind, which greatly injured the unfolding bloom of the fruit trees, and battered and withered all sorts of shrubs and tender herbage. Early in April much rain fell; the land was inundated, and farm-work almost entirely suspended. On the 21st of the month there was sleet, with wind, which again damaged the advanced blossoms and tender crops. Cold north winds, with rain, frost, and snow blighted the crops, and kept the land unworkable till the middle of May. Much wheat and barley were sown very late in spring. In June the rain continued, occasionally with heavy thunder showers and intervening warm days, which produced succulent vegetable growth. Trees made much foliage and put forth long shoots, as in 1871. The land was saturated, farm-work much in arrear, and weeds grew and spread everywhere. My date for the flowering of the dog-

rose is exactly the same as last year—June 16th. Plants bloomed generally a little later than usual. Some kinds of fruit were gnarled and imperfectly developed. Haymaking commenced on the 24th of June, in rainy, gloomy weather. In July the rain continued, pouring down in sheets. Low-lying fields were converted into swamps; crops, soil, and all were carried away by the floods, roads and fences dislocated, and ordinary farm and garden work entirely suspended. On the 22nd an extraordinary local hailstorm occurred here (at Loft-house). Glass was broken, and fruit and leaves cut and bruised in a remarkable manner. Rain succeeded the hail. Harvest commenced on the 10th of August—seven days earlier than last year. I need not recount the troubles and difficulties of harvest, nor further allude to the gloomy aspect of the fields and meadows with their dripping crops and shivering cattle. Suffice it to say that the weather in the harvest months was truly execrable, and the consequent interruptions, vexations, and losses were enough to try the temper of the very meekest farmer. The hay-gathering was finished about the 19th of September, and the cornfields were cleared, with the exception of a few very late pieces, by the 19th of October. More work was done on Sundays than in previous years, these days being frequently fine. All the cereals and peas, as is usual in wet seasons, yielded deficiently. Potatoes, in wet land, were completely destroyed by disease; in other land they were much deteriorated and small. The crops of fruit were variable, but on the whole not an average. Turnips, mangolds, and other roots in this district made a tolerable crop.

Through October and November the rain continued, and the fields set apart for wheat were overflowed, as were the potato and turnip fields, with their produce. Slugs appeared in immense numbers among the turnips and other vegetables, and weeds of every kind multiplied and spread over the land. On the 11th and 12th of December there was frost, and on the 13th a slight fall of snow—the first of the winter. To the end of the year the weather was mild, with rain. The follow-

ing account of the rainfall at Barnsley was communicated by Mr. Lister:—

	In.		In.		In
January .....	2·81	May .....	1·39	September .....	4·03
February .....	2·26	June .....	6·17	October .....	4·62
March .....	2·10	July .....	7·55	November .....	3·69
April .....	3·80	August ..	3·40	December.....	3·66

Total, 45·48—Twelve inches above the average.

Number of rainy days, 228.

Wild plants, having made much fibre and leaf, seemed to produce fewer flowers than usual, but the lower tribes of plants—mosses, lichens, and fungi (moulds in particular)—flourished luxuriously. The cold weather and almost daily rain prevented observation and greatly marred the pleasures of the field-botanist. Before setting out on an excursion it was always necessary to “observe the clouds.” Frequently the clouds would gather ominously together, the rain would come stealthily on, and eventually compel the wanderer to turn his steps homewards forlorn and dispirited.

The rarest wild plants that I observed during the summer were the broad-leaved helleborine (*Epipactis latifolia*), at Hackfall; green hellebore (*Helleborus viridis*), in a field-hedge near Campsall; and the bee-ophrys (*Ophrys apifera*), a showy and peculiar plant sparingly scattered in a disused lime-quarry near Ferrybridge.

As everything seems to be acquiring greater value, I should like to direct the attention of the economic botanist to the possibility of drawing a greater number of our wild vegetable productions into common use. The students who take up structural or geographical botany are more numerous than those who investigate the properties of plants with a view to direct utilisation. Further, in the midst of our prosperity, it is to be feared that we shall neglect or lose the art of cooking or preserving our wild fruits and vegetables. The uses of the blackberry, bilberry, hip, sloe, elder, and other fruits might with attention be multiplied and extended. Beech nuts, chestnuts, the nuts of the oak, and other products of our



forest trees, which in some seasons are abundant, might doubtless be better utilised in some way as food for domestic animals. The produce of our moors and commons, the heather, furze, turf, mosses, reeds, and brackens might, with a little care and experiment, be made to take the place of other articles in common use, which are becoming scarcer and more costly. Various species of fungi (mushrooms) might be made more available than they are at present. Mr. Inchbald has introduced this latter subject to our notice, as will be seen in the diary. If botanists would set to work collectively, there is no doubt but that a very large number of our vegetable products which are now passed over as worthless might, in different ways, be drawn in to assist in supplying our various and ever-increasing wants.

Anciently the fruit of the oak formed an important part of the food of the lower classes of people. In Saxon times oaks were particularly preserved; any man convicted of felling an oak tree without permission was heavily fined. Acorns from the south of Europe are stated to be much larger, sweeter, and more nutritious than those grown in the north; and probably the acorns produced in the south of England would be found, if compared, more valuable than those grown in the northern parts of the kingdom. As the cultivation of wheat and other grain became general, acorn-meal as human food was gradually discarded; yet in modern times, in cases of pressure, when famine was imminent, as for instance in Spain and Portugal during the Peninsular war, the produce of the forest has of necessity been gladly resorted to; and there is no doubt but that the fruit of the oak and the beech, and other forest trees, which is now carelessly wasted, could, if judiciously dried and ground, and mixed with the meal of gramineous plants, be much better utilized, at least as food for pigs and other cattle, and thus be made to add considerably to the stock of independent home produce.

#### BIRDS.

Induced by the extraordinary mildness of the weather in January and February, birds commenced their songs and began

to build their nests before their usual time. Rooks were building in January; I found a robin's nest in course of construction so early as the 12th of February; a song-thrush's nest was found with eggs on the 26th of February; the woods resounded with the songs of our resident birds early in March; and various hybernating animals were prematurely called forth from their winter retreats. By reference to the diary it will be observed that the robin, which commenced building on the 12th of February, did not lay any eggs till the 13th of March. About the 21st of March very harsh weather set in, and birds sat on their eggs with the snow driving in their eyes. The eggs of the robin just mentioned, after sixteen days' incubation, did not produce young, being affected doubtless by the frost. Wheat-eats and chiff-chaffs appeared early; but the dates given for the other migrants nearly coincide with the dates for last year. The ungenial weather developed few insects, and the soft-billed migrants were driven to seek a scanty subsistence in the sheltered valleys; a great many would only rear one brood; many eggs would be destroyed by the excessive rains, especially those which are deposited on the ground, and nestlings would be drowned. Most birds discontinued their songs early, and appeared to be greatly depressed by the cold, windy, rainy weather which prevailed throughout the summer. Nightingales were reported from different parts of Yorkshire, and grasshopper-warblers were more than usually frequent. The swallow tribe were not numerously represented in this district in summer, but flocks from elsewhere appeared in autumn. Lesser redpoles, bullfinches, and tree-sparrows were frequent; the common seed-eating and omnivorous birds were abundant. Between November, in 1871, and February, 1872, above a thousand sparrows were shot by one gunner near this place; the flocks, however, seemed to be no less. A rather large flock of lesser redpoles, old and young, appeared in this neighbourhood about the 23rd of August, and fed among the weeds for several weeks. Both the greater and the lesser woodpeckers were reported by Mr. Lister and other observers from different

parts of the county. In the first week in October swallows and house-martins began to assemble in considerable numbers on the telegraph wires, occasionally sweeping in bodies over the fields. On the 8th and 9th they suddenly disappeared, scarcely leaving a straggler behind. Fieldfares made their appearance on the 13th of October, a little sooner than usual. Haws and other wild fruit, on which the winter migrants partially subsist, were not plentiful, but the weather being open till the middle of January, these birds would have opportunity to procure other food. A flock of hawfinches appeared in the East Riding about the end of December. Mr. Edson, of Malton, informed me that three were shot at Rillington on the 2nd of January, 1873, two more about the 6th near Bishopthorpe Palace, and three again at Rillington on the 13th.

DATES OF ARRIVAL OF SPRING MIGRANTS

AT LOFTHOUSE, HOVINGHAM, AND BARNSLEY.

	Lofthouse.	Hovingham	Barnsley.
Wheatear .....	...	...	April 1
Chiffchaff .....	April 14	March 14	March 30
Willow-wren .....	„ 13	April 6	April 7
Swallow .....	„ 16	„ 11	„ 12
Yellow wagtail .....	„ 14	...	...
Tree-pipit .....	„ 14	„ 12	„ 9
Sand-martin .....	...	...	„ 7
Whitethroat .....	„ 27	„ 23	„ 25
Cuckoo .....	„ 24	„ 24	„ 14
Redstart .....	...	„ 11	...
Blackcap .....	„ 27	„ 12	„ 16
Nightingale .....	...	...	May 5
Pied fly-catcher .....	...	„ 27	...
Garden-warbler .....	„ 27	„ 27	April 30
Whinchat .....	„ 27	...	„ 16
Sedge-warbler .....	May 4	...	„ 23
Landrail .....	April 28	...	„ 23
Lesser whitethroat .....	„ 24	„ 30	May 2
House-martin .....	May 6	„ 24	April 11
Wood-wren .....	„ 12	„ 23	May 2
Spotted fly-catcher .....	„ 11	May 19	April 27
Nightjar .....	...	...	May 21
Grasshopper-warbler .....	...	...	April 23
Swift .....	...	„ 16	May 13

A LIST OF RARE BIRDS OBSERVED OR CAPTURED IN  
YORKSHIRE DURING THE YEAR.

Bohemian waxwing.—Two shot at Burton Agnes, near Bridlington, January 25th. (Mr. Boyes, in *Zoologist* for March.)

Green sandpiper.—One shot near Broomhill, Barnsley, February 16th. (T. L.)

Great grey shrike.—One shot near Beverley, February 26th. (Mr. Boyes, in *Zoologist* for May.)

Shore-lark.—One shot on the beach near Whitby, early in March. (Communicated by Mr. Martin Simpson.)

Crested tit.—One shot near Whitby, in March. (Communicated by Mr. Simpson.)

Nightingale.—One heard at Nor Royds, near Barnsley, May 5th. (T. L.)

Lesser spotted woodpecker.—Nest found with eggs near Leeds, May. (Mr. Grassham, in the *Yorkshire Naturalists' Recorder* for July.) One seen near Barnsley July 18th, and another December 26th. (T. L.)

Red-backed shrike.—One shot at Clayton West, May 18th.

Hawfinch.—One captured alive at Ardsley, near Barnsley, July 11th. (T. L.)

Sabine's gull.—One shot at Bridlington, August 10th. (Mr. J. H. Gurney, Jun., in *Zoologist* for November.)

Little bittern.—One shot near Wakefield, August 25th. (Mr. W. Talbot.)

Spotted crane.—One killed near Wakefield by flying against a wire fence, September.

Black scoter.—One obtained at Dunford Reservoir, near Barnsley, about November 18th. (T. L.)

Great crested grebe.—One shot at Bolton-upon-Deerne, November 30th. (T. L.)

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An Act for the protection of certain wild birds received the royal assent on the 10th of August. Admirers of birds will

be delighted to learn that the wholesale bird-catchers are at last checked in their practices; that many rare and peculiar birds will now be likely to increase and enrich our Fauna and give naturalists better opportunities for observation, and that many birds that are prized for the table will be better preserved and utilised; still the new law is considered by ornithologists to be defective. The protected birds not being distinctly enumerated, difficulties and perplexities will arise when cases come to be tried in court. Many birds are omitted which are as useful and as handsome as those that have received favour. In the selection of subjects for immunity, the lawmakers have not apparently been guided by any standard of merit; some of the birds are common, and not particularly useful, others are very rare. It is consolatory, however, to the farmer to find that no common bird that is injurious in the field or garden is protected. The eggs of birds are not protected. For the benefit mainly of those who use a gun, and who may not have seen the Act of Parliament, I have transcribed the schedule of birds with the sections that relate to penalties. Casting out synonyms there are seventy names in the schedule, but as some of them are generic there will be about 130 birds protected. The generic names are marked with an asterisk.

## SCHEDULE.

Avoset, \*bittern, blackcap, chiff-chaff, coot, creeper, \*cross-bill, \*cuckoo, \*curlew, dotterel, dunbird, dunlin, \*fly-catcher, \*godwit, golden-crested wren, goldfinch, greenshank, hawfinch or grosbeak, hedge-sparrow, \*kingfisher, landrail, lapwing, mallard, martin, moor or water hen, nightingale, nightjar, nut-hatch, \*owl, oxbird, peewit, \*phalarope, \*pipit, \*plover, plover's page, pochard, purre, quail, \*redpoll, redshank, \*redstart, robin redbreast, ruff and reeve, sanderling, sand-grouse, \*sandpiper, sealark, shoveller, siskin, \*snipe, spoonbill, stint, stone-curlew, stonechat, stonehatch, summer-snipe, swallow, \*swan, \*swift, teal, thicknee, titmouse (long-tailed), titmouse (bearded), \*wag-

tail, warbler (Dartford), warbler (reed), warbler (sedge), whaup, wheatear, whinchat, whimbrel, widgeon, woodcock, \*wild duck, wood-lark, \*woodpecker, wood-wren, wren, wryneck.

2.—Any person who shall knowingly or with intent kill, wound, or take any wild bird, or shall expose, or offer for sale any wild bird recently killed, wounded, or taken, between the fifteenth day of March and the first day of August in any year shall, on conviction of any such offence before any justice or justices of the peace in England or Ireland, or before the sheriff or any justice or justices of the peace in Scotland, for a first offence be reprimanded and discharged on payment of costs and summons, and for every subsequent offence forfeit and pay for every such wild bird so killed, wounded, or taken, or so exposed or offered for sale, such sum of money as including costs of conviction shall not exceed five shillings as to the said justice, justices, or sheriff shall seem meet, unless he shall prove to the satisfaction of the said justice, justices, or sheriff that the said wild bird was or were bought, or received on or before the fifteenth day of March, or of or from some person or persons residing out of the United Kingdom; Provided, nevertheless, that every summons issued under this Act shall specify the kind of wild bird in respect of which an offence has been committed, and that not more than one summons shall be issued for the same offence.\*

#### INSECTS.

The cold weather and incessant rains which prevailed throughout the year prevented the development of insects. Many were destroyed in their different stages by the harsh weather and floods, and numbers were retarded in their metamorphoses over-year. The commonest insects were extremely scarce. One might walk along the lanes for miles in July without meeting with even a white butterfly. In April and May

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\* This Act is now repealed, but as it forms an important link in the history of bird-legislation, the schedule of birds and the principal section are retained in this place for reference. "Wild bird" means any bird in the schedule.

the insectivorous birds made their appearance as usual, but in upland districts they were quite unable to procure sufficient food. The few aphides that appeared on various plants in June were effectually checked by the rain and cold. The caterpillars that feed on potatoes and turnips, and the various caterpillars that feed on the foliage of garden plants or fruit trees, were scantily distributed. The dearth of insects during the whole of the year is said by entomologists to be unprecedented. In a communication dated September 20th, Mr. Porritt, of Huddersfield, thus adverted to the entomology of the season:—

“The first three months of the year opened out very well, and lepidopterists were in high spirits at the prospect of a good season, but early in April the weather broke; since then, for the most part, collecting has been only so much waste time. The great feature of the season has been the abundance of *Vanessa Antiopa*, the Camberwell beauty butterfly. There is no previous record of its occurring in anything like the abundance of this year. In former years only three or four specimens, often not so many, have been recorded all over Britain, but this year it has turned up everywhere. In Yorkshire, two have occurred at Huddersfield, three at Barnsley, one at Bretton West, one at Cleckheaton, one at Scarborough, and doubtless many others not yet reported.” In addition to the Camberwell beauty, a few other uncommon Lepidoptera were observed or captured. The greater tortoise-shell (*Vanessa polychloros*), the painted lady (*Vanessa Cardui*), the brown-tail (*Liparis chrysorrhæa*), the pale tussock (*Orgyia pudibunda*), the copper underwing (*Amphipyra pyramidea*), and the brindled ochre (*Dasytopia Templi*), were reported from Yorkshire localities. The pupæ of common insects which are generally found at the roots of trees, among rubbish, or the roots of weeds in the earth, are now (February, 1873) as scarce as imago insects were in summer. The destruction of various kinds of insects in the course of two cold and excessively wet seasons has been enormous; it will be interesting to observe how they recover their numbers.

RURAL NOTES AND DIARY OF NATURAL  
PHENOMENA FOR 1873.

JANUARY.

13th.—Song-thrush in full song. Dug four adult wood-mice from their sleeping-nest at the bottom of a rotting pear tree. Nest composed of dry leaves and fine dry weeds.

20th.—Snow and frost.

21st.—Snow.

22nd.—Heavy fall of snow.

24th.—Several tree-sparrows shot.

28th.—Frost and snow.

FEBRUARY.

1st.—Flocks of lapwings hovering about in search of food.

2nd.—Very keen dry frost. Cold east wind. Vegetation checked.

3rd.—Snow and frost; storm continuing. Lapwings in flocks.

10th.—End of storm, which commenced about January 19th.

12th.—Dug out another nest of the long-tailed or wood-mouse. Nest composed of dry leaves and grass. This nest contained about twenty hollow damson stones, the kernels having been extracted by the mice through a circular hole gnawed in the side. Mr. Inchbald in a letter remarks on the wonderful strength of the incisors of these animals. The stone of the damson when old is very hard. The Rev. Gilbert White noticed, a hundred years ago, how the field-mouse gets at the kernel of a hazel nut. He observes:—"There are three creatures, the squirrel, the field-mouse, and the bird called the nut-hatch, which live much on hazel nuts, and yet they open them each in a different way. The first, after rasping off the small end, splits the shell into two with his long fore teeth, as a man does with his knife; the second nibbles a hole with his



teeth, as regular as if drilled with a wimble, and yet so small that one would wonder how the kernel can be extracted through it; while the last picks an irregular hole with his bill, but as this artist has no paws to hold the nut firm while he pierces it, like an adroit workman, he fixes it as it were in a vice in some cleft of a tree, or in some crevice, when, standing over it, he perforates the stubborn shell." Some of the holes in the damson stones above mentioned are very small, being scarcely one-eighth of an inch in diameter.

15th.—Chaffinch, wren, missel-thrush, sky-lark, and robin in song.

16th.—Starlings examining their nesting-sites.

19th.—Yellow-hammer and blackbird in song.

20th.—Spring note of marsh-tit heard. Robin collecting leaves. Missel-thrush singing; female examining the trees for nesting-site.

23rd.—Heavy fall of snow.

26th.—Sparrows disbudding the young gooseberry bushes. Noticed many buds under the bushes on the snow. Shot some of the sparrows and took entire buds from the crop and gizzard.

#### MARCH.

5th.—Fine. Hive-bees on wing.

13th.—Frost, snow, and rain. Farm-work interrupted. Robin building.

15th.—Spring note of chaffinch first heard.

19th.—Hedge-sparrow building. Pewits returning to nesting-grounds. Pairing notes of greenfinch heard.

26th.—Bramblings heard. Fine, birds building generally; bees and other insects flying in the sunshine. (Meadow-pipit in song.—J.W.)

29th.—(Thrush sitting.—J.W.)

30th.—Meadow-pipit and greenfinch in song.

#### APRIL.

18th.—Weather fine. White butterflies appearing.

## MAY.

4th.—Fieldfares last seen.

11th.—Common whitethroats became suddenly numerous about this date. These birds must have come over the sea in a large body about the 8th or 9th.

14th.—Found a blackbird's nest on the ground, containing two eggs.

15th.—When disturbed from its nest in the ground the long-tailed or wood-mouse removes its young in its mouth to a place of safety, stealing away, and exhibiting great caution by looking round for enemies during the process.

16th.—Rooks ceased flying over with food for young.

17.—The ways of some of our common birds when disturbed during nidification are curious to note. When the common whitethroat is frightened from its nest it hops away, and instantly winds among the green branches and herbage, and is lost to sight; the lesser whitethroat and the sedge-bird leave their eggs in the same manner, uttering no note. When the meadow-pipit leaves its nest it flies a dozen yards, then drops to the ground and runs, tumbling along, trailing its wings in the manner of the partridge, uttering no note. The tree-pipit has the same habit. The pied wagtail runs along the ground, approaching the pipits in its habits. The yellow-hammer darts away from its eggs, and alights on a branch, making a whirr by its heavy flying; it gives no note. The house-sparrow makes a loud whirring with its wings. Most of our permanent residents have a heavier flight than the summer warblers. The various thrushes utter loud cries of alarm and distress on being disturbed. The chaffinch leaves its nest but a short distance, making its well-known "chink, chink," and flying about agitatedly. The robin utters a peculiar soft note, and keeps near its nest. The hedge-sparrow and flycatcher linger about their nests in silence, the former often on the ground. The brown linnet perches on the top of a spray uttering its characteristic note. The yellow wagtail and blackheaded bunting deceive the nest-hunter by flying in advance of him,

and thus decoying him away from the object of search, each uttering a peculiar note. The blue titmouse sits pertinaciously on its eggs, and hisses and pecks at an intruder. Rooks make a tremendous uproar when their colony is invaded. The lapwing screams as it circles and undulates round the egg-seeker, tumbling in its flight, and occasionally sweeping the grass with its ample wings.

22nd.—Received specimens of the fairy-ring agaric, *Agaricus gambosus*, gathered at Hovingham, from Mr. Inchbald. I had them cooked, and found them excellent, being more agreeable than the common mushroom. In a letter sent with specimens Mr. Inchbald says:—"They are easily recognised by the smell and aspect. Gather a dish; fry in butter with addition of pepper and salt, and tell me what you think of them. The incurved border of the pileus, and the contorted and often cracked appearance of the caps sufficiently characterise this species. The smell is strong and meal-like, or rather it smells of a corn-mill when grinding is going on." I afterwards found quantities of this mushroom growing in fairy-rings in pastures near Ouzelwell Green. The cap is cracked and contorted by forcing itself through the grass. It must be looked for in May.

23rd.—Oak in leaf. Barberry in flower.

26th.—In consequence of the extreme scarcity of insects about this date, the soft-billed birds were quite unable to find subsistence. I had a martin brought me which had fallen down from weakness, and Mr. Inchbald informed me that several swifts had been picked up at Hovingham, having died from hunger.

28th.—Many aphides and ten-spot ladybirds on red currant bushes.

29th.—Ash in leaf.

30th.—To Ledsham. In our rural walks it is pleasing to observe that the very ancient custom of decorating tombs in spring-time with fresh flowers is still carried on. In the quiet wood-embowered little village of Ledsham I noticed two or

three graves on which the snow-white lily-of-the-valley and other sweet-scented garden and wild flowers had been very lately scattered. One particularly was admirable. On a beautiful granite cross was placed an everlasting wreath, and on the palisaded ground lay bunches of the white lily-of-the-valley and other flowers, casting perfume all around. On the base of the cross were inscribed the words:—"Flora Hastings Wheeler, died June 14th, 1863, aged 18 years."

## JUNE.

1st.—Hawthorn in flower. Many shagreened caterpillars on gooseberry bushes.

19th.—Immense numbers of aphides appearing on nettles and other wild plants.

21st.—Droughty hot weather. Aphides increasing on various trees. Corn shooting.

25th.—Haymaking commencing. Dog-rose in flower.

29th.—Cuckoo ceased its song.

## JULY.

4th.—Heavy summer rain.

6th.—Observed the great bat (*Vespertilio altivolans*) hawking in the air, near Bushy Cliff, Carlton.

10th.—Hemlock water-dropwort (*Ænanthe crocata*) in flower. Several instances of fatal poisoning by this plant have been announced in the magazines and papers during the last two or three years; that of the two workhouse children at Chester poisoned by eating the roots will be remembered. Many instances of the poisoning of cattle are on record. A serious occurrence of this kind was alluded to recently in the *Lancet*. The note, as quoted by a contributor to "Science Gossip," runs thus:—"Professor Cameron, of Dublin, reports that 74 head of oxen were turned into a demesne of Lord Dunraven at Adare, County Limerick, in April last. In a few days the animals began to sicken; in a week 43 died. On investigation it was discovered that they were poisoned by

eating water-dropwort.” It would be well for all to possess a knowledge of the nature and appearance of this dangerous plant. It should be eradicated wherever it occurs in pastures, lane sides, or other places frequented by cattle. It is a very large, coarse, and conspicuous plant, but has no name denoting its deleterious properties, as is applied to some of our other poisonous products—deadly nightshade, for instance. In Yorkshire most of our great hollow-stemmed umbelliferous plants are known indiscriminately as “kexes” and “humlocks.” The roots of the hemlock-dropwort are very thick and fleshy, and serve well to distinguish it from the other hemlocks and kexes. In this county it is frequent on the carboniferous sandstone, and on the magnesian limestone; but on the gritstone and on the hills further west, and in the valley of the Ribble in the grazing districts, fortunately it is less commonly met with. I have noticed it at Woodlesford, Castleford, and Methley. Near Woodlesford it grows plentifully along the canal side, and by the side of a wide drain which runs parallel to the canal. I have sometimes found unusual numbers of mollusks congregated around the roots and creeping on the stems and leaves. On and around the Woodlesford plants near the drain I observed in June the following species:—*Helix nemoralis*, *Helix Cantiana*, *Helix arbustorum*, *Helix rotundata*, *Helix aspersa*, *Zonites nitidus*, *Zonites cellarius*, a variety of *Limnæa palustris*, a variety of *Succinea putris*, and several slugs. Feeding on the elongated tubers I also found a yellowish-white grub, the larva of a beetle.—See *ante*, p. 177.

12th.—Observed a pair of great bats hawking over the fields at dusk.

21st.—Hot and sultry. Thermometer at 103° in the sun.

#### AUGUST.

2nd.—Haymaking finished.

5th.—Harvest commencing.

24th.—Young swallows congregating on the telegraph wires. In the evening, many young and old swallows flying about in a disorderly manner.

25th.—Willow-wren resuming its song.

28th.—Flycatcher last seen.

SEPTEMBER.

2nd.—Showery. Swallows in greater numbers assembling on the telegraph wires.

6th.—Little stint shot at Wintersett, near Wakefield.

8th.—Yellow wagtails and chiff-chaffs passing southward.

25th.—Observed young house-martins still in the nest near Lofthouse.

26th.—Harvest finished.

OCTOBER.

7th.—Swallows last seen.

9th.—Observed a single house-martin passing over—the last straggler.

11th.—Redwings arrived.

16th.—Observed bramblings.

17th.—Bullfinches appearing.

22nd.—Fieldfares at Lofthouse—first appearance.

23rd.—Sycamore leafless.

24th.—Frost.

NOVEMBER.

14th.—Bullfinches and lesser redpoles occasionally heard.

24th.—On foot with a friend from Wetherby to the village of Cowthorpe. The famous oak, which has been known for centuries as the Cowthorpe oak, stands in a grass field near the church. The age of this ancient tree is calculated by eminent botanists to be not less than 1600 years. It is hollow from the ground through the top. The outer shell, which may be from six inches to a foot in thickness, seems to be yet quite healthy. There are five large horizontal living branches, now well supported on eight props. Most of the branches are lateral and not high, and the trunk is short, so that it is not likely to be much injured by high winds. The interior is rugged and uneven, and bored all over by the larvæ of beetles. The outer

circumference close to the ground, as measured by Dr. Jessop in 1829, was 60 feet, which, taking one-third, gives nearly seven yards as the diameter. The height then measured was 45 feet, and the length of the longest limb 50 feet. The quantity of timber, supposing the tree to be sound, was estimated at 73 tons, or 2800 cubic feet. An enormous branch was blown off in a storm in November, 1703, and another in November, 1718. The outer circumference, about a yard from the ground, as measured on the date heading this note, is 42ft. 1in., and the diameter of the interior 13ft. 5in. The landlord of the Oak Inn, John Goodall, one of the oldest inhabitants of the village, has seen 64 persons, men, women, and children, packed inside the trunk. A Scotchman, who was a gamekeeper in the neighbourhood, once got eight young men and women to join hands and dance within the great hollow, to the music of his bagpipes. Old Goodall has a large engraving of the tree, framed from a part of one of its branches, hung in his parlour. The oak is represented as it was about 1841, and Goodall himself is standing beneath, with a pair of hedging mitts in his hand. This engraving formed the frontispiece to a work entitled, "The Cowthorpe Oak," written by Charles Empson, and published in 1842. The work contains measurements, traditions, and other particulars that could be gleaned at that time, but there seems to be no written history dating far back—what is known has been handed down from one generation to another orally. Those who cannot procure Mr. Empson's work and may wish for further information will find accounts and notices in Loudon's "Encyclopædia of Trees and Shrubs," Evelyn's "Sylva," Shaw's "Nature Displayed," and Maude's "Wharfedale," a poem published in 1774. The acorns from this famous tree have always been eagerly sought for by visitors, hundreds of whom come every year from different parts of the country. Acorns struck in flower-pots have been sold at a guinea each. Another remarkable oak, the "Tockwith Oak," growing near Marston Moor, not far distant, is said to be a

descendant of the Cowthorpe tree. The girth of the Tockwith oak close to the ground, was about 28 feet, and the height 60 feet, in 1842. It is estimated that upwards of 3300 men could be ranged within its shade. There is a tradition that after the battle of Marston Moor, July 3, 1644, a great number of wounded soldiers were placed beneath the spreading Tockwith oak till they could be removed to York. The village of Cowthorpe lies a little to the right of the Wetherby, Boroughbridge, and Aldborough Road, in the valley of the Nidd. It is a sequestered little place, consisting of a few odd-looking thatched and tiled cottages, built partly of boulders, a few farmhouses, the parish church, and one inn. The manners and ways of the villagers seem to be somewhat primitive. As we passed through there was a man thrashing by hand in a rickety old thatched barn. The costume of some of the younger women reminded us strongly of pictures of Norman peasantry. Old Goodall, the innkeeper, can give much information concerning the oak, and can accommodate a visitor for a night, if required. Near Cowthorpe we noticed numbers of hollies scarlet over with berries, calling to mind the customs and festivities of Christmas drawing near. Mosses of a beautiful green, lined the moist hedge-banks, and the conspicuous amber-lichen adorned the old-fashioned cottages and the roof of the church porch.

DECEMBER.

12th.—Keen frost. First winter day.

16th.—High wind.

19th.—Dry mild weather. Wells and springs failing. Saw goldcrest.

27th.—Frost.

28th.—Frost.

29th.—Keener frost.

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CORRESPONDENTS' OBSERVATIONS.

FEBRUARY.

10th.—Flock of hawfinches in the Park at Hovingham.



APRIL.

6th.—Young rooks first heard.

JUNE.

20th.—Small elephant hawk-moth hovering over flowers of the *Aubrietia*.

OCTOBER.

18th.—Bramblings and redwings at Scarborough.

30th.—Fieldfares at Hovingham.

NOVEMBER.

22nd.—Ringdoves packing in dense flocks.

DECEMBER.

16th.—Large bat (*Vespertilio*) flying about in the dark afternoon at Hovingham.

Peter Inchbald,

The Lodge, Hovingham.

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JULY.

17th.—Swift last seen.

AUGUST.

30th.—Nightjar last seen.

31st.—Sedge-warbler and blackcap last seen.

SEPTEMBER.

2nd.—Spotted fly-catcher last seen.

14th.—Yellow wagtail last seen.

28th.—Chiff-chaff last seen.

OCTOBER.

5th.—Landrail last seen.

12th.—Redwings arrived.

18th.—House-martin last seen.

20th.—Fieldfares observed near Barnsley.

Thomas Lister,  
Barnsley.

## GENERAL OBSERVATIONS.

## CULTIVATED CROPS, WILD PLANTS, AND THE WEATHER.

January was mild and fine till the 19th, when a storm set in which continued till the 10th of February. On the 1st and 2nd of February severe dry frosts occurred, attended by cold east winds. Snow fell on the 23rd, and on the 24th the thermometer stood in some parts of Yorkshire at 24°. Harsh winterly weather prevailed through March—frost, snow, wind, and rain alternating; farming and gardening operations were often interrupted. In April, farm-work was in arrear; much barley was unsown at the end of the month, and vegetation, having been checked by cold winds and frost, was backward. The leafing and flowering of plants were unusually late. My date for the leafing of the oak this year is May 23rd, and of the ash May 29th; the same occurrences last year are dated respectively May 9th and 19th. Last year the hedge-rose (*Rosa canina*) was in flower on the 16th of June; my date this year is the 25th. The thorn was about a fortnight later in flowering than last year. In April and May the soil was very hard and tough, and difficult to work; the sowing of spring corn was consequently much delayed. Haymaking commenced about the same time as last year, June 24th. Harvest began on the 7th of August, a little earlier than last year. Much of the hay and corn was housed in good condition, but the weather was fickle; the frequent and heavy showers interrupting and prolonging the harvest-work. On July 21st there was great heat; the thermometer standing at 103° in the sun. The succeeding day was extremely hot and sultry, and on the morning of the 23rd there was a crashing storm of rain, accompanied with heavy thunder and blazing flashes of lightning. A dismal pall of cloud rested on the earth, and the lightning, quivering and flashing in the darkness, presented an awful spectacle. The corn was broken down, and much other damage done to various crops, and also to buildings and forest and fruit trees. Finer weather prevailed towards the end of harvest and throughout autumn. The crops of fruit were

about an average; potatoes, turnips, and mangold-wurzels yielded abundantly, and forest trees were luxuriant in foliage. Fine dry weather ruled in November and December; the grass fields preserved their green appearance; the potato and turnip crops were carried away with expedition, uninjured by frost; and weeds and rubbish were cleared out of the land, the quick-root fires scenting the air, even to the end of the year. Primroses were in bloom at the end of November, and I saw flowers on strawberries in December. On the 15th of December there was wind which culminated the following day in a dreadful hurricane. In this neighbourhood many stacks, walls, and chimneys were blown down, and buildings unroofed. Slates, bricks, and chimney-pots, branches of trees, spouts, and broken glass were tossed and hurled about in all directions. The Lofthouse cricketers' tent, a substantial wooden structure, was lifted bodily up with its contents, and *bowled* over a hedge. Such was the fury of the wind, that most people thought it wisdom to remain within doors, and content themselves by gazing out of the windows at the miscellaneous articles flying wildly in the air, and at the few who ventured to contend with the storm. After this raging tempest the weather became temperate and mild again. There was a little frost on the 27th, 28th, and 29th of the month, but on the 30th a soft air thawed the ground, and with a day mild and spring-like, and an evening brightly moonlight, the year closed.

RAINFALL OF THE YEAR AT BARNESLEY.

Communicated by Thomas Lister.

	In.		In.		In.
January... ..	1·70	May .....	1·70	September .....	2·16
February .....	0·88	June..... ..	1·01	October..... ..	1·34
March .. .....	2·56	July .....	1·99	November..... ..	2·51
April .....	0·62	August .....	1·77	December..... ..	0·21
		Total..... ..	18·45.		
		Year's rainfall at Malton..... ..	20·71		
		Year's rainfall at Aldborough..... ..	19·53		

## INSECTS.

In the early months of the year insects were exceedingly scarce. About the 1st of June caterpillars appeared on gooseberry bushes, and about the 8th aphides in great numbers suddenly appeared on currant and gooseberry bushes, thorns, nettles, and other plants, but towards the end of the month the midsummer storms of wind and rain set in, and both aphides and caterpillars began to decline, and gradually decreased without having committed serious mischief. The caterpillars that infest green peas were numerous among the wrinkled garden varieties. During the whole of the year insects were extremely scarce; such a scarcity of imagos cannot be remembered by the oldest entomologists. The common white, the tortoise-shell, and admiral butterflies never appeared in less numbers. Bees and wasps were also few in number, even the house-fly, the common and familiar occupant of the window and the sugar basin, was "conspicuous by its absence." This extraordinary paucity of insects is directly attributable to the floods, frosts, winds, and general harsh weather of 1872; the incessant rains and inundations of that year destroyed them in all their stages by tens of thousands. Insects, as I have elsewhere remarked, are not mainly determined in their numbers by the abundance or scarcity of birds, but by meteorological influences, and by the presence or absence of insect-enemies. Larvæ and pupæ now in the earth are not more numerous than they were in the winter of 1872-3; hence we may reasonably warn entomologists not to expect great things from the season which is approaching. During the year one or two rarities were reported from different Yorkshire localities. In June the Camberwell beauty butterfly was captured near Whitby. In March a hybernated specimen of the large tortoise-shell (*Vanessa polychloros*) was caught near Doncaster. The convolvulus hawk-moth (*Sphinx Convolvuli*) was taken near Huddersfield on August 30th, by Mr. Varley of that town. *Vanessa Io*, the beautiful peacock butterfly, seems to have been frequent in some places; I saw a fine specimen here in August, resting on clematis flowers.

Alarming accounts of the destruction of the potato crop by insects in America appeared at various times during the year in the American newspapers. The new pest is a beetle called the Colorado potato-beetle; having first commenced its ravages on the cultivated potato, at the foot of the Rocky Mountains. From the January number of "Science Gossip," I have transcribed the following historical and descriptive remarks on this important subject, written by an American contributor:—"For a long time North America has had to contend against two foes, which devoured the early shoots and leaves of the potato, and thus destroyed the hopes of the farmer and gardener. These were beetles belonging to the same family as the blister-fly, and named *Lytta atrata* (or *vittata*), and *Cantharis viniaria*. They can be kept within bounds; but of late a third beetle has appeared among us, which really threatens to drive the potato out of cultivation altogether. It bears the name of the Colorado potato-beetle (*Doryphora decem-lineata*); and should it once reach the Atlantic coast, and be carried unobserved across the ocean, then woe to the potato-grower of the old country.

"Its true domicile is in the Rocky Mountains, where it feeds on a species of wild potato. No sooner, however, had the edible potato been planted by settlers at the foot of these mountains than *Doryphora* attacked it greedily; the more largely its cultivation extended westward, the faster did its insect foe travel in an easterly direction, and scatter itself over the land. In the year 1859 it was located 100 miles west of Omaha city, in Nebraska; in 1861 it showed itself in Iowa; in 1865, not only had it begun to devastate Missouri, but it had crossed the Mississippi in Illinois, everywhere leaving behind it flourishing colonies. In 1868 Indiana was visited; in 1870 Ohio and the confines of Canada were reached, also portions of Pennsylvania and New York, and its entrance into Massachusetts was notified. During the year 1871, a great army of these beetles covered the River Detroit in Michigan, crossed Lake Erie on floating leaves and similar convenient rafts, and

in a very short time took possession of the country between St. Clair and Niagara Rivers. Having got thus far in spite of all efforts to stay their progress there is every reason to believe that before long we shall hear of them as swarming in the streets of New York and Boston, as they already swarm in the city of St. Louis; and then their passage across the Atlantic is a mere matter of time. Moreover, the beetle in its different stages is so entirely unaffected by the extremes of heat and cold, of wet and dry, which it has met with here, that I have no doubt it will care as little for the changes of climate which occur in the temperate zone of Europe; and, once settled, will quickly become naturalised.

“The devastation by the Colorado beetle is all the greater from the fact of its propagating itself with extraordinary rapidity; several broods following each other in the course of the year. The first batch of infant larvæ appears towards the end of May; or, if the weather be mild, of April. In fact scarcely has the potato plant shown itself above the ground before the insect, which has been hybernating during the winter, also wakes to life. The female loses no time in depositing from 700 to 1200 eggs in clusters of 12 or 13 on the underside of a leaf. Within five or six days, according to the state of the weather, the larvæ escape from the egg, and begin their work of devastation, which goes on for some 17 days, when the little creatures retire below the soil, in order to undergo the pupal condition. After a delay of 10 or 14 days the perfect insect comes into being, and the business of egg-laying commences anew. In this way, according to recent observations, three broods follow each other; the last, as just stated, wintering below the surface of the ground. No description can do justice to the marvellous voracity of this insect, especially in its larval state. When once a field of potatoes has been attacked, all hope of a harvest must be given up; in a very few days it is changed into an arid waste, a mere mass of dried-up stalks! *Doryphora* does not by any means confine itself to the potato. In places where that

esculent is wanting it will support itself on any other member of the Solanaceous order.”

We must hope that this account of the spread of the Colorado beetle is exaggerated, and that the apprehensions of the writer respecting its passage across the Atlantic will never be realised. It seems that the smallest circumstance might give rise to the most serious mischief. A few larvæ, pupæ, or perfect insects might be landed on our shores, and immediately commence the work of depredation. Our valuable potato is the tenderest plant on the farm, and by no means in present good health. Directed by the above warning it would scarcely seem to be a visionary speculation to look forward to a sudden diminution of our potato crop, to a possible famine in Ireland, or even to the final extinction of the plant, and all this the work of the little Colorado beetle, starting on its journey from the foot of the Rocky Mountains in the far west of America.

#### MOLLUSCS.

During the year the new shell *Zonites glaber* has been discovered in two or three places in different parts of Yorkshire. Mr. Nelson, of Leeds, found a few specimens near Collingham, and I, with my friend, Mr. Wilcock, of Wakefield, collected several specimens near that village, and on the Wetherby and Boston road, in November. We also found in the same locality *Zonites purus*, *Zonites fulva*, *Helix concinna*, *Clausilia laminata*, and *Cyclostoma elegans*, all shells of unfrequent occurrence. *Zonites glaber* has also been discovered near Halifax, and near Doncaster.—See *ante*, p. 253.

#### BIRDS.

In early spring the weather was extremely unfavourable for the delicate birds migrating from the south, consequently most of them appeared later than usual. The weather also delayed our resident birds in the work of nidification. The first robin's

nest I observed here was about a month later than the first robin's nest of last year. The winter birds prolonged their stay. I observed large flocks of fieldfares a few miles south of Wakefield on the 27th of April; there were also flocks of the finch tribe in the fields, these birds not having yet commenced building their nests. The cold retarded the development of insects, and the insectivorous summer birds, on their arrival from the south, were quite unable to find sufficient food. About the 22nd of May two house-martins were picked up dead near Lofthouse, and on the 25th Mr. Inchbald informed me that three swifts had been picked up at Hovingham, having died from want. The cuckoo and other birds ceased their songs early. By inspecting the subjoined list, it will be found that all the spring passage birds that usually come into Yorkshire were observed. I noted swifts more commonly than in previous years, and nightjars were not unfrequent. The nightingale was heard near Barnsley by Mr. Lister, and one was heard a few nights at Haw Park, near Walton Hall, in May. Swallows and martins in considerable numbers remained in this country till a late date; some were seen in different parts of the south of England up to the 24th of December. The tax on guns, and the Small Birds Protection Act of last year, notwithstanding its many defects, will have prevented the destruction of many birds. Although there have been few convictions under the new law, the knowledge that there is such a law will have had much deterrent effect. That beautiful bird the kingfisher may still be found in its favourite haunts. I saw one on the beck here on March 2nd, and one or two others during the summer. The stonechat, noted under March 9th, is a migrant previously unobserved by me in this locality. It may come regularly, but be so scantily distributed as to be seldom noticed. On the 23rd of April I saw the goldfinch for the first time in this neighbourhood. A flock of hawfinches appeared in the East Riding in December, 1872, and were constantly seen till the end of March, 1873. A young male hawfinch was captured at Castle Howard on November 25th.



Lesser redpoles have been frequent, but bullfinches and mountain finches have been scarce during the winter. These birds and the redwings and fieldfares are always less frequently seen here in mild winters. Hawks and other birds of prey have not been numerous.

DATES OF ARRIVAL OF SPRING MIGRANTS  
AT LOFTHOUSE, HOVINGHAM, AND BARNSLEY.

	Lofthouse.	Hovingham.	Barnsley.
Stonechat.....	March 9	...	...
Wheatear.....	April 16	...	March 20
Chiff-chaff.....	...	March 28	„ 29
Willow-wren.....	„ 19	April 2	April 11
Swallow.....	„ 20	„ 15	„ 10
Sand-martin.....	„ 20	...	„ 5
Yellow wagtail.....	„ 17	...	„ 11
Tree-pipit.....	„ 20	„ 15	„ 15
Redstart.....	„ 17	„ 4	„ 11
Whitethroat.....	„ 29	„ 20	May 4
Cuckoo.....	May 2	May 2	April 15
Blackcap.....	...	April 15	May 3
Nightingale.....	...	...	„ 19
Pied fly-catcher.....	...	May 10	...
Garden-warbler.....	„ 18	„ 3	...
Whinchat... ..	„ 9	...	April 26
Sedge-warbler.....	„ 9	...	May 4
Landrail.....	„ 4	„ 12	April 26
Lesser whitethroat.....	April 28	April 30	...
House-martin.....	May 8	May 10	„ 15
Wood-wren.....	„ 22	April 29	...
Spotted fly-catcher.....	„ 19	May 14	May 15
Nightjar.....	„ 23	...	„ 30
Grasshopper-warbler.....	...	„ 10	„ 4
Swift.....	„ 24	„ 12	„ 9

QUADRUPEDS.

In the early spring months moles were exceedingly numerous, doing much damage in the grass and wheat fields, and in gardens. The floods of the previous year would probably drive them from low, swampy places to drier upland districts, and thus occasion an uneven distribution. They are now very numerous, and likely to become more so, as their destruction by artificial means seems to be more and more

neglected. That pernicious and disgusting animal, the brown rat, is also on the increase. A quarter of a million of money set apart by the State, to be offered in rewards for the destruction of rats and moles in the United Kingdom, would not be injudiciously appropriated. It is as necessary that the law should assist in extirpating predaceous or hurtful animals as in protecting those which are useful; such is the course wisely pursued in many countries. I perceive from one of the reports of the Leeds Naturalists' Society, that that interesting little quadruped, the dormouse, has been observed in Meanwood valley, near Leeds. It is the first time I have heard of its occurrence in the Leeds district. In the summer I captured two shrews, both of which are probably of rare occurrence in this neighbourhood. One is the oared shrew (*Sorex remifer*), and the other is a species or variety which was first described by Dr. Fleming, from a specimen caught in Scotland, and appears to be yet unnamed. It differs materially from the common water-shrew; one peculiarity being a conspicuous, square black patch on the throat. Neither of these shrews has, to my knowledge, been observed before in this part of Yorkshire. That little-known animal, the red-backed vole (*Arvicola riparia*), has also been repeatedly observed.

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## RURAL NOTES AND DIARY OF NATURAL PHENOMENA FOR 1874.

### JANUARY.

- 5th.—(Sparrow's nest, with four eggs, at Follifoot, near Harrogate. Rev. R. B.)  
 15th.—Song-thrush in song.  
 22nd.—Leaves of gooseberry unfolding.  
 23rd.—Missel-thrush and corn-bunting in song.  
 26th.—Lark in song. (Observed female goldcrest.—J. W.)  
 29th.—Missel-thrushes appearing in pairs. Spring notes of other birds heard.  
 30th.—Rooks building.

FEBRUARY.

4th.—Honeysuckle in leaf.

5th.—Heard bramblings.

8th.—Hazel in flower.

15th.—Observed a pair of kestrels and several magpies, near Thorp Wood. Do kestrels usually keep together in pairs through the winter?

MARCH.

1st.—Blackbird in song. Starlings pairing. The starling can imitate both the notes and the song of the blackbird. The imitation is ventriloquistic; the sound seems to come first from one place and then another, sometimes near and sometimes distant.

13th.—Starlings building.

14th.—Chaffinch in song. Thrush building.

16th.—(Found nest of song-thrush, with eggs. J. W.)

21st.—House-sparrow building. Spring notes of marsh-titmouse heard.

23rd.—First bees. (Meadow-pipit in song, and small tortoise-shell butterfly out. J. W.)

24th.—(Swallows at Stanley Waterworks, and again on the 30th.—Rev. R. B.) This is an exceptionally early date, but there is no reason to doubt the record. Swallows have often been seen in England, and occasionally in Scotland, in March.

29th.—Rain and wind, after some weeks of fine weather. Thrush laying. Various other birds pairing and building their nests. Lapwings dispersed over the fallow fields. Vegetation prematurely forward.

31st.—(Saw chiff-chaff. J.W.)

APRIL.

1st.—Blackbird and hedge-sparrow building.

2nd.—Nest of missel-thrush, with eggs.

8th.—Gooseberry in leaf and in flower.

10th.—(Snow-bunting last seen in the Humber district. J.C., Great Cotes, Lincolnshire.)

14th.—(Willow-wren arrived. J.W.) (Hooded crows left. J.C., Great Cotes.)

17th.—Thorn and horse-chestnut in leaf.

28th.—Fieldfares last heard.

30th.—(Heard corn-crake. J.W.)

#### MAY.

9th.—Aphides appearing on leaves of apple tree.

10th.—Thorn in flower.

17th.—Oak in leaf.

20th.—Aphides and caterpillars appearing on gooseberry bushes.

24th.—Ash in leaf.

30th.—(Captured water-shrew. J.W.)

31st.—All the young rooks on wing.

#### JUNE.

6th.—Water-dropwort in flower.

18th.—Haymaking commencing.

19th.—Wild rose in flower.

26th.—Timely refreshing summer showers. The cuckoo and some of the warblers more frequently heard. *Epipactis latifolia* appearing in Bushy Cliff Wood. This plant, like some other of the orchids, is irregular in its appearance. In some seasons there are none to be found.

30th.—Cuckoo last heard. Caterpillars numerous on gooseberry bushes.

#### JULY.

8th.—Weather droughty. Leaves of elm, horse-chestnut, and other trees withering.

19th.—Great heat; thermometer standing at 117° in the sun at 3 p.m.

20th.—(Observed burying beetle, male and female, in deserted nest of partridge, mining beneath the rotten eggs. J.W.)

23rd.—Captured leopard-moth at Moorhouse, near Wakefield. J.W.)

29th.—Harvest commencing.

#### AUGUST.

21st.—Harvest general. Insects apparently scarce. Crops of fruit deficient.

26th.—Chiff-chaffs returning southwards.

31st.—Sand-martins appearing in numbers.

#### SEPTEMBER.

4th.—(Chiff-chaffs reappearing. J.W.)

11th.—Admiral butterflies out.

15th.—Harvest finished. Song of willow-wren ceased.

17th.—Few insects on wing. (Bullfinches appearing. J.W.)

20th.—Chiff-chaffs frequently heard. Lesser redpoles appearing in numbers.

23rd.—Various trees, stimulated by refreshing showers, putting forth a second growth of shoots and leaves.

27th.—Numbers of young swallows and martins sitting on the telegraph wires, and hovering over the stubble fields. Mushrooms and various other fungi abundant.

#### OCTOBER.

2nd.—Redwings first heard.

13th.—(Thrush in song. J. C., Lofthouse.)

16th.—Peacock butterfly, admiral butterfly, and various moths on wing. Redwings appearing in flocks.

20th.—Heard bramblings.

23rd.—Fieldfares arrived. Swallows last seen in the valley of the Calder.

26th.—Elm and various forest trees leafless. Larvæ of white butterflies yet feeding on cruciferous plants. Fieldfares and bramblings distributed.

30th.—Sparrows carrying straws to their roosting places—a common habit in October and November.

## NOVEMBER.

1st.—Oak leafless. Strawberries, raspberries, pear, and other fruits and flowers in bloom.

19th.—(Brood of swallows at Castle Howard. G. E.) This is a very late date, but, singular to say, Mr. Lister subsequently reported the nests and eggs of sparrows and hedge-sparrows in this month. I have seen house-martins in the nest about the middle of October.

22nd.—Rimy frost.

23rd.—Keen rimy frost.

25th.—Rain and snow.

26th.—Heavy fall of snow. Winterly weather. Farm-work interrupted.

29th.—Thaw and much rain. Floods in various parts.

## DECEMBER.

2nd.—Found a robin dead. Various birds distressed by the sudden and early severe weather.

3rd.—Hard frost. A cole-titmouse came in at the window, hunting for food. The white patch on the nape of the neck is a good distinguishing mark between this species and the allied marsh-titmouse.

11th.—Another heavy fall of snow. Out-door work suspended.

13th.—Saw an albino sparrow, shot here on the previous day.

17th.—More snow; frost continuing. Numbers of tree-sparrows appearing.

24th.—Heavy snow. Storm continuing.

30th.—Thermometer at 16° on the snow. Telegraph wires snapped by the frost. Severe winterly weather.

## CORRESPONDENTS' OBSERVATIONS.

## APRIL.

24th.—Humble-bees extracting honey from the clusters of pupæ of *Aphis lanata* on the bosses of our larch branches.

MAY.

18th.—Found pied fly-catcher's nest with seven eggs.

JULY.

2nd.—*Cuscuta epithymum* parasitic on the wild thyme at Rievaulx Abbey. Its long threads produce tufts of pink flowers in the early autumn.

AUGUST.

17th.—*Campanula rapunculoides* growing in a quarry on the Oolite at Hovingham, and flowering sparingly. Calyx *reflexed* in fruit.

22nd.—*Agaricus procerus*, a beautiful and conspicuous toadstool, showing the various stages of growth.

SEPTEMBER.

12th.—The true Peppermint (*Mentha piperita*) growing wild with us at Hovingham, in soil thrown up from an old pond.

NOVEMBER.

21st.—Seeding catkins of the bay-willow (*Salix pentandra*) hanging in cottony masses on the trees. This willow flowers late in May and June, and is both rare and local. It is found with us near our moorlands, and is a beautiful object either in flower or fruit.

Peter Inchbald,

The Lodge, Hovingham.

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JULY.

3rd.—Goldcrest breeding near Barnsley.

16th.—Small flock of hawfinches observed near Rotherham.

OCTOBER.

17th.—Fieldfares seen near Barnsley.

19th.—House-martins last seen.

Thomas Lister,

Barnsley.

## JUNE.

13th.—Spotted woodpecker in Hovingham Woods.

23rd.—Roller shot at Grosmont, near Whitby.

## SEPTEMBER.

10th.—A pair of stone-curlews (*Ædicnemus crepitans*) shot in the East Riding, near Malton.

23rd.—Honey-buzzard shot at Sledmere.

## OCTOBER.

4th.—Redwings heard.

## NOVEMBER.

13th.—Crossbill shot at Rillington. A flock seen same time.

## DECEMBER.

13th.—Crested wren at Welburne, Castle Howard.

G. E., Malton.

## GENERAL OBSERVATIONS.

## CULTIVATED CROPS, WILD PLANTS, AND THE WEATHER.

January was exceedingly fine and mild, and out-door operations were carried on throughout the month uninterruptedly. Vegetation was brought prematurely forward. In February occasional frosts occurred, and on the 10th and 11th of March there was keen frost with two or three inches of snow, which checked the tender plants and buds. After this touch of late winter the weather became mild again, and the unfolding vegetation continued its early growth. Little snow fell during the whole of the winter. Plants put forth leaves and bloomed early. I noticed the thorn in flower on the 10th of May; last year the date for that occurrence was June 1st. The oak was in leaf on May 17th, and the ash on May 25th; last year the dates were respectively May 23rd and 29th. Beautiful weather prevailed in April and May; all sorts of farm and garden work was pushed on without hindrance, and plants made rapid



progress. In June dry winds prevailed; there was little rain; and dust accumulated and whirled in immense clouds along the lanes and roads, falling on the green leaves and defacing the beauty of spring flowers. Refreshing showers fell at intervals, but no rain came to saturate the earth. My date for the flowering of the wild rose at Lofthouse this year is June 18th; in 1873 it was June 25th. Hay-making commenced on June 18th, a week earlier than the previous year. The crop was exceedingly light, and the midsummer gales and showers coming on about the 26th, all of it was not got into stack in good condition. After these showers the rainfall was slight, the soil became hard, and springs and wells began to fail. July was droughty and hot, and field crops and fruit ripened rapidly. On the 19th there was great heat, the thermometer standing at  $117^{\circ}$  in the sun at 3 p.m. Towards the end of the month some showers fell, just sufficient to supply the wants of vegetation on the surface, but not to reach the failing springs. Harvest commenced on July 30th, and was finished on the 15th of September. Fruit ripened a week earlier than the medium time. Crops of pears and plums were moderate, but others, especially strawberries and gooseberries, were deficient. The season was notable for extraordinary quantities of mushrooms, the hot weather, with showers, having apparently a very favourable influence on their growth. Crop succeeded crop, and they continued plentiful to the middle of October. September was very fine for completing harvest work, and for clearing the land of weeds and rubbish. Turnips and other root-crops, stimulated by timely showers, grew late in the autumn. Potatoes were an abundant crop, and not much diseased or injured by the grub of *Agrotis segetum*, which feeds on them, and which is usually plentiful in droughty years. Various trees and shrubs put forth a fresh growth of leaves and shoots in autumn, having rested in a half-dormant state in summer for want of rain. Haws and some other wild fruits were plentiful. In October the scarcity of water was seriously felt, nearly all the springs and wells being dry, or supplying but a small quantity. The copious showers that came during the month were imbibed by

the roots of trees or other plants, or passed off by evaporation. Weeds continued to grow, and some fruit trees made an abnormal display of blossoms in November. On the 11th and 12th of that month, however, there was keen frost, which cut down blossoms and tender herbage. On the 20th and succeeding days severe frosts set in, and on the 25th and 26th snow fell heavily and lay on the earth till the 29th, when there was a thaw, and springs became suddenly replenished. Winterly weather continued; thick snow fell on the 11th of December, and out-door work was suspended. On the 14th, 17th, 24th, and 26th there was more snow, attended by severe frost. The roads and paths were frozen over in a continuous sheet, and were extremely slippery. The thermometer stood at 15° on the snow, the telegraph wires snapped by contraction, numerous accidents occurred, and many people were benumbed and almost frozen to death. Pedestrians on the road were whitened over with rime, and icicles three or four inches in length depended from the nostrils of horses. The storm held out till the 3rd of January, when there was a general thaw with rain, and snow and frost happily gave way to milder weather.

RAINFALL OF THE YEAR,

As Registered at Horsforth, near Leeds, 350 feet above sea-level. Communicated by Mr. James Fox, Civil Engineer.

	In.		In.		In.
January .....	2·09	May .....	1·19	September .. ...	2·39
February .....	1·28	June .....	0·80	October .....	2·65
March .....	2·05	July .....	1·81	November .....	2·89
April .....	1·51	August .. .....	2·49	December.....	3·25
Total.....24·40.					

Number of rainy days, 210.

RAINFALL OF THE YEAR AT BARNSELY.

Communicated by Thomas Lister.

	In.		In.		In.
January .....	·85	May .....	·65	September .....	2·53
February .....	1·04	June .....	·30	October .....	2·54
March .....	1·49	July .....	1·34	November .....	2·72
April .....	1·49	August .....	1·91	December .....	1·61
Total .....					

Number of rainy days, 184.

RAINFALL OF THE YEAR AT MALTON.

Registered by Stephen Hurtle, and communicated by Mr. Edson.

	In.		In.		In.
January .....	1·60	May .....	2·06	September .....	2·40
February .....	1·36	June .....	·93	October .....	2·00
March .....	1·50	July .....	1·29	November .....	3·27
April .....	1·26	August .....	2·34	December .....	3·18
		Total.....	23·19.		

Rainfall at Malton in 1872.....41·79 inches.

Do. in 1873.....20·71 ,,

Average for 16 years.....27·40 ,,

Total Rainfall at Arncliffe-in-Craven, 750 feet above sea-level .....59·23

Total Rainfall at Scarborough .....25·48

BIRDS.

Our resident birds, animated by genial weather, assumed their songs and commenced building their nests very early in the season. The song-thrushes were in song in all the winter months except November, and began laying generally about the middle of March. Some of the spring migrants appeared early, as will be seen by the subjoined table; the swallow, yellow wagtail, and tree-pipit will be specially noticed. The yellow wagtail was here on the 6th of April, and at Barnsley and in the East Riding on the 8th. These dates, singularly corroborative, would indicate that the yellow wagtails were penetrating northward and inland in a wave at that early time. Many of Mr. Lister's dates for the arrival of the other birds are remarkably early. Worms, slugs, and larvæ were very scarce in the earth in summer during the dry weather, and ground-feeding birds had some trouble to find sufficient food. After May song-birds were very mute; scarcely a note was to be heard except during or after showers. Nearly all birds had done breeding, and the young were on the wing by the end of August. The sand-martins appeared in considerable numbers as usual in September, and chiff-chaffs (returning southward) were more frequently heard. Lesser redpoles and tree-sparrows appeared in numbers about the time that the redwings arrived.

The bramblings appeared at the usual time, but soon dispersed and passed to other districts; in winter they were seldom heard. The wryneck was heard in April in North Yorkshire, and the goldcrest bred in Yorkshire in two localities—Barnsley and in the East Riding. The hawfinch also bred in two localities not far distant from Barnsley, as reported by Mr. Lister. Cross-bills and waxwings were observed, the former in November in the East Riding, and the latter in December near Whitby. The green woodpecker has been repeatedly noticed. A fork-tailed petrel was shot near Halifax in November, and a glaucous gull was shot at Filey on December 29th. A bittern was shot at Londesbrough, near Market Weighton, on January 12th, and a great crested grebe was shot near Whitby on January 15th, 1875.

During the storm in November and December birds were greatly distressed by the intense cold, and by want of food. Rooks resorted to the turnip fields and to newly-carted manure heaps. Sparrows and robins were glad to pick a bare living in the farm-folds, near the back doors of houses, in the ashpits, and about the pig-styes. Other birds suffered much from want of food; some perished. I noticed three house-sparrows, a hedge-sparrow, a robin, and a bluecap together perched on a large bone in a garden. The bluecap was by far the cleverest in finding the marrow and picking off the small shreds of meat. The thrush tribe lived much on haws and other wild berries, betaking themselves occasionally to holly-berries, a fruit which they despise at other times. Birds, however, were not numerous here in the stormy weather, having probably retired to sheltered valleys, or migrated southward. It appears there was no frost in some parts of England, when in other parts the thermometer stood below zero; it is not therefore improbable that birds, lacking food and warmth, would flee in numbers to the warmest places. The fieldfares and redwings, which hovered about here in flocks, might have come from more northern districts.

## DATES OF ARRIVAL OF SPRING MIGRANTS

AT LOFTHOUSE, HOVINGHAM, BARNSLEY, AND GREAT-COTES-ON-  
THE-HUMBER.

	Lofthouse.	Hovingham.	Barnsley.	Great Cotes.
Stonechat.....	...	...	April 14	...
Wheatear ..	April 15	...	„ 6	March 28
Chiffchaff .....	„ 16	April 9	March 29	April 16
Willow-wren .....	„ 17	„ 9	April 8	„ 10
Swallow .....	„ 21	„ 11	„ 3	„ 20
Sand-martin.....	„ 16	...	„ 6	„ 10
Yellow wagtail.....	„ 6	...	„ 8	„ 24
Tree-pipit .....	„ 19	„ 13	„ 11	„ 6
Redstart .....	„ 22	„ 10	„ 21	...
Whitethroat.....	„ 26	„ 22	„ 22	„ 28
Cuckoo .....	„ 28	„ 24	„ 14	„ 25
Blackcap .....	...	„ 11	„ 26	...
Nightingale .....	...	...	„ 20†	...
Pied fly-catcher .....	...	May 3	...	...
Garden-warbler .....	May 10	April 30	May 6	..
Whinchat .....	April 25	...	April 19	May 5
Sedge-warbler .....	„ 25	...	„ 17	„ 9
Landrail .....	„ 30	„ 24*	„ 17	...
Lesser whitethroat ...	„ 28	May 2	„ 27	...
House-martin .....	May 20	...	...	„ 3
Wood-wren .....	April 26	April 24	„ 20	...
Spotted fly-catcher ...	...	May 18	„ 27	...
Nightjar .....	May 30	...	„ 21	...
Grasshopper-warbler	April 22	...	„ 21	...
Swift .....	...	„ 16	„ 23	...

\* York.

† Byram Hall.

## INSECTS.

Some of the hibernating insects were drawn from their winter retreats by genial weather very early in the year. A wasp was caught in one of the windows at Lofthouse House in January. The various insects which ordinarily appear later in spring were developed in scanty numbers, and the insectivorous birds on their arrival found little or no food in upland districts. A few plant-lice (*aphides*) appeared in May, but did not multiply rapidly, and beans and other crops, which are sometimes almost totally destroyed by plant-lice in droughty seasons, escaped with slight injury. The larvæ which feed on the

leaves of the gooseberry were mischievous only in isolated places. The common white butterflies were not numerous here at any time, but in other districts they seem to have been plentiful. Mr. Cordeaux, of Great Cotes, saw large flights of the whites, two species, crossing over the Humber from the Yorkshire to the Lincolnshire side on the 4th of June. Bees and wasps were not numerous. The larvæ, which feed on turnips and potatoes, were thinly distributed, and these crops sustained very trifling injury. During the year I did not see any accounts of serious ravages committed by insects on artificial crops, the various tribes probably not having recovered from the effects of the wet and destructive seasons of 1871 and 1872.

Amongst the less common insects taken during the year in Yorkshire the following may be enumerated:—

The leopard (*Zeuzera Æsculi*), captured at Moorhouse, Stanley, near Wakefield.

The streamer (*Anticlea derivata*), taken at Walton, near Wakefield.

The butterburr (*Hydræcia Petasitis*), taken commonly in the Wakefield district, after some years of scarcity.

The alder (*Acronycta Alni*), taken near Barnsley, May 31st; near Doncaster, June 4th; near Sheffield, June 14th; and near Doncaster, June 30th.

The large wainscot (*Calamia lutosa*), Lofthouse.

The feather gothic (*Heliophobus popularis*), Lofthouse.

A specimen of the large tortoise-shell butterfly (*Vanessa polychloros*), was captured in Northumberland, March 20th, said to be the first ever seen in that county.

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## RURAL NOTES AND DIARY OF NATURAL PHENOMENA FOR 1875.

### JANUARY.

1st.—Severe weather. Birds scarce, having deserted the high lands. Some birds frozen to death. Thermometer standing at 15° on the snow.

5th.—Milder weather. End of the storm, which commenced in November.

6th.—Wren in song. Birds returning to their accustomed haunts.

28th.—Mild weather. Pied wagtails following the plough.

29th.—Starlings visiting their nesting-sites.

#### FEBRUARY.

17th.—Song of chaffinch heard. Heard song of redwing. I have observed this bird in song on several occasions. Its voice is weaker than that of the thrush. The bird I heard singing was perched in an apple tree. I alarmed it, and it flew away uttering its usual unmistakable note. Redwings and fieldfares generally appear here in numbers a day or two before stormy weather.

20th.—(Total cessation of the spring songs of birds owing to severe winterly weather. Rawson.)

22nd.—Starlings moving about in pairs and triplets. (Blackbird in song. J. W.)

23rd.—Heard again the warbling song of the redwing.

#### MARCH.

5th.—(Flock of goldfinches; one shot near Carlton. J. W.)

7th.—Milder weather. Blackbirds singing continuously. Chaffinch in full song.

17th.—Sparrows building in walls.

18th.—Yellow-hammer and corn-bunting in song.

22nd.—Song-thrush and missel-thrush building in sheltered places at Methley Park.

25th.—Meadow-pipit in song. This bird generally sings on the wing, but it occasionally sings when perched on trees or on rails.

30th.—Leaves rapidly unfolding. Bees at the coltsfoot flowers. Queen wasps on wing. Sparrows building in trees.

## APRIL.

7th.—Gooseberry in flower and in leaf.

10th.—(Heard chiff-chaff. J. W.)

11th.—Noticed bark of elder eaten away by field-mice.  
Sweet violet in flower.

16th.—About this date a change of weather suddenly occurred. Warm, almost sultry weather set in, which rapidly developed vegetation, awakened dormant insects to activity, and brought the migratory birds from the south. Thrushes and larks repeatedly heard singing in the night.

18th.—Fine weather. All the migratory birds increasing in numbers. Ivy and holly berries abundant on the bushes; this fact, considering that there was a hard winter, implies that birds do not feed much in winter on these kinds of wild fruit.

21st.—Thorn in leaf. Wild cherry in flower.

25th.—Redstarts near Ledstone Hall. The neighbourhood of Ledstone and Ledsham seems to have peculiar attractions for migratory birds. On this date I saw several redstarts near these villages, but none elsewhere during a walk of twelve miles. Tree-pipits, willow-wrens, and other spring birds were also abundant, singing everywhere. Here I also heard the first cuckoo. There are plenty of shielding woods and plantations and warm little orchards, and the water is pure. The limestone soil is favourable to insects. The peacock butterfly and other insects were on wing, but not seen elsewhere. Amongst mossy stones I noticed a small colony of the spire-shell *Clausilia laminata*, along with *Clausilia rugosa* and *Vittrina pellucida*. And under almost every stone there were thousands of ants of two species, with beetles, pill millipedes, and spiders. The glow-worm also occurs here. Amongst the abundance of wild plants I noticed the spurge-laurel, the spindle, barberry, common gromwell (*Lithospermum officinale*), sweet violet, and meadow-saffron. In Ledstone Park I observed tree-sparrows, apparently nesting in old oak trees. Between the 18th and the above date, the temperature ranging up to 78°, large numbers of spring migrants poured in from the south, and



spread over the country, their songs and warblings being heard in every hedge and grove, where not a chirp was heard a few days before.

30th.—Young thrushes on wing.

MAY.

6th.—Observed a small flock of fieldfares flying towards the north-east. Staying here so late, it is wonderful that these birds do not pair and breed with us. Our isles, for aught we know, offer all the variety of food and conveniences for nesting which they find further north.

7th.—Beech and elm in leaf. (Heard nightjar. J. W.)

13th.—Thorn in flower. Oak in leaf.

16.—Caught marsh-titmouse nesting in the same rotten tree as in former years. End of tail much worn by clutching and supporting itself on rough bark.

17th.—Excursion of the West Riding Naturalists' Society to South Elmsall. The Wilford Oak, Old Adam, or Nevison's Oak, situate on Ringston Hill (a common about two miles from Hemsworth), is a curious and ancient tree well worth the notice of the antiquary. It has a venerable and aged appearance. The north side of the trunk is entirely decayed away; the other side consists of a strong shell of bark and wood which supports several vigorous limbs. It is much worm-eaten, and cut round with the initials of visitors. It is said that this was a hollow tree in Nevison's time, 1676, and that the highwayman used to secrete his treasures in its capacious interior. Its girth is about thirty feet. It is surrounded by a railed fence. Some of the large upper branches were broken down during a storm in 1828. It stands apart from other trees in a very bleak situation—a shattered but living wreck.

19th.—Examined a quantity of rooks' pellets collected from Mr. Ramskill's rookery; found undigested grains of barley and oats, and wing-cases of beetles. Nearly all the young rooks fledged.

20th.—Found a sparrow's nest in a tree, small and open at the top, not domed as usual.

21st.—(Spotted fly-catcher seen. Found nest of lesser whitethroat with eggs. J. W.)

23rd.—First broods of young birds on wing.

24th.—First observed larvæ of sawflies on gooseberry leaves.

25th.—About this date I noticed a blackbird frequenting an ivy bush on a wall, and feeding on the ripe berries. Looking on the top of the wall I perceived several seeds which had passed through the intestines of the bird, and which appeared unbroken. As an experiment I picked out seven, sowed them in a flower-pot, and three of them germinated and made fine plants, thus proving that the seeds of this plant may be disseminated in this way by birds.

#### JUNE.

1st.—(Ash in leaf. Rawson.)

9th.—Heavy rain.

13th.—Wild rose in flower.

22nd.—Haymaking commencing.

30th.—(Song of cuckoo last heard. Rev. R. B.)

#### JULY.

2nd.—Cuckoo last heard. The song of the cuckoo ceases within a day or two of this date with remarkable regularity. Its song is rarely, if ever, heard in this neighbourhood after the first week in July.

29th.—Corncrake yet heard.

#### AUGUST.

3rd.—Harvest commencing.

#### SEPTEMBER.

5th.—(On this date, whilst putting up part of a vinery, I had occasion to lift a plank which had lain some time among grass and on the under-side I noticed a small slug, *Limax*

*agrestis*. On being turned to the light the animal crept a few inches to the edge of the plank, and then, to my surprise, began to form a slimy thread, by the aid of which it let itself slowly and safely down to the ground, a distance of three feet. Not having observed this habit before, I thought the circumstance worthy of note. J.W.) The habit of thread-spinning pertains to various species of slugs and has been repeatedly noticed. Mudie and other older English naturalists allude to it.

6th.—Cuckoo last seen. Flocks of lesser redpoles arriving.

12th.—Chiff-chaffs passing southward.

18th.—(Took from the stomach of a wood-pigeon a large quantity of the seeds of the tare, and thirteen land shells of the species *Helix caperata*. Most of the shells were alive, and began creeping about on being placed in a dish containing a little water. The bird had been shot three days. J.W.) From this observation we may infer that molluscs may possibly be carried in the crops of birds considerable distances, and thus be distributed and established on new districts, or on islands, as the living shells might be ejected from the crop, or the birds might be killed by birds of prey and the contents of the stomach dislodged and scattered. The gastric fluid is ineffective, or acts very slowly on living creatures, so that the time for their transportation by this means would be prolonged.

#### OCTOBER.

8th.—Redwings arrived.

9th.—Swallows last seen. Heard bramblings.

10th.—Redstart seen near Wakefield. Tree-sparrows and lesser redpoles increasing.

15th.—Fieldfares arrived. (Saw sand-martins and fieldfares. J.W.) (Martins last seen at Halifax. Rawson.)

17th.—Observed sparrows carrying straws into holes in walls.

21st.—(Storm-petrel captured alive in Halifax. Rawson.)

## NOVEMBER.

9th.—Snow, first of the winter. Tree-sparrows constantly heard.

## DECEMBER.

6th.—Great northern and red-throated divers near Wakefield.

10th.—(Siskins numerous near Halifax. Rawson.)

26th.—Mild weather. Larks and missel-thrushes in song.

27th.—(A bat on wing near Halifax. Rawson.)

## CORRESPONDENTS' OBSERVATIONS.

## JANUARY.

17th.—Thrush in song.

24th.—Missel-thrush in song.

## FEBRUARY.

15th.—Blackbird in song.

## MARCH.

17th.—Crossbills heard among the larches.

## MAY.

3rd.—Pied fly-catcher in song.

8th.—*Agaricus gambosus*, St. George's mushroom, appearing in fairy-rings near Hovingham—an esculent species.

## JUNE.

5th.—*Ornithogalum umbellatum* growing abundantly in a pasture near Thirsk; also *Allium scorodoprasum* in same field.

## AUGUST.

11th.—*Campanula rapunculoides* noticed in a limestone quarry at Hovingham. Petals bearded when expanded.

23rd.—*Cuscuta epithymum* parasitic on the creeping wild thyme on the terrace at Rievaulx Abbey.

30th.—Larvæ of *Acronycta Alni* on birch at Hovingham, though on alder at Scarborough.

SEPTEMBER.

20th.—*Agaricus prunulus* noticed in pastures near the Lodge at Hovingham—an edible species.

Peter Inchbald,  
The Lodge, Hovingham.

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OCTOBER.

9th.—Redwings at Barnsley. Nightjar shot.

17th.—House-martin last seen.

23rd.—Swallows last seen.

Thomas Lister,  
Barnsley.

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MARCH.

9th.—Great grey shrike shot at Castleford.

11th.—Hawfinch seen at Rillington.

MAY.

11th.—Swifts at Malton.

13th.—Nightingale heard at Stillingfleet, also at Castle Howard same week.

JULY.

24th.—Merlin caught alive near York.

AUGUST.

16th.—Ivory gull shot at Filey.

29th.—Goshawk shot at Ewecote, near Whitby.

## SEPTEMBER.

23rd.—Nightjar shot at Welham.

## OCTOBER.

19th.—Storm-petrel caught alive near Rillington.

27th.—Common buzzard shot at Thorpe Basset.

29th.—Red-breasted diver shot on the Derwent.

## NOVEMBER.

3rd.—Little stint shot near Northallerton. Spotted rail shot at Fylingdales.

5th.—Rough-legged buzzard—a pair near Thirsk.

10th.—Great grey shrike shot at Hawsker, near Whitby.

13th.—Glaucous gull shot at Filey.

16th.—Ring-tailed eagle shot at Grosmont, near Whitby.  
Length 22 inches, width 52 inches.

## DECEMBER.

4th.—Great northern diver shot at Cottingworth.

G. E.,

Malton.

## GENERAL OBSERVATIONS.

## CULTIVATED CROPS, WILD PLANTS, AND THE WEATHER.

The severe winterly weather which commenced in November, 1874, continued till January 3rd, when there was a general thaw, and milder weather set in which continued throughout the month. Much rain fell. On January 20th the thermometer stood at 50°, and rolling thunder was heard westward. Buds of various trees pushed forward prematurely. Fine dry weather prevailed in March, and spring-sowing and other farm-work progressed satisfactorily. At the end of the month leaves began to unfold rapidly, and spring flowers were brought forward. Bees were humming about the coltsfoot flowers, and wasps and many other insects were roused by the

increasing warmth from their winter dormitories. Weather alternately genial and boisterous, cold and warm, characterised the early part of April, and the bees and gnats were called forth and driven back again by constant changes, the temperature after sunrise ranging between 36° and 76°. Spring was considered late, but the dates for the leafing and flowering of some early plants were not later than those of the preceding year. The oak was in leaf on May 13th, and the wild rose in flower on June 13th, dates not differing greatly from the dates of the preceding year. The cold weather had more effect on insects than on buds and leaves. A violent storm of hail and rain, accompanied by high wind, occurred on the 23rd of May, which greatly injured tender herbage, and destroyed much fruit blossom. Hay-making commenced on June 22nd. Much rain fell in June and July, during the hay season. Disease appeared in potatoes early in July, and various farm crops, particularly the finer sorts of peas, were spoiled by excessive wet, and mildew. Strawberries and some early fruits were deficient, but later fruits were an average crop, and plums and pears abundant. Apples and other fruits were less coloured than usual. Harvest commenced on July 2nd. Much corn was laid by rain and wind, so much so that the sickle had to be used in many places, the long, heavy, flattened crop defying both scythe and reaper. Cereals, as is usual in wet summers, produced much foliage but little grain. Wet dreary weather prevailed in August, and harvest was prolonged till the end of September. Most crops were free from the attacks of insects. Snow fell on November 9th, and again on December 2nd, but the weather generally was mild and open; birds being in song, and flowers in bloom on the last day in December.

RAINFALL AT INGBIRCHWORTH, NEAR PENISTONE.

	In.		In.		In.
January... ..	4·30	May .....	2·08	September .....	3·86
February .....	1·54	June..... ..	5·09	October..... ..	6·39
March .. .....	0·74	July .....	5·95	November..... ..	5·28
April .....	1·32	August .....	3·90	December .....	1·90

## AT DALTON, NEAR HUDDERSFIELD.

	In.		In.		In.
January .....	4·32	May.....	1·57	September .....	3·65
February .....	1·47	June.....	2·98	October.....	4·80
March .....	0·67	July.....	6·67	November.....	4·26
April.....	0·94	August .....	3·58	December....	1·31

## AT RYBURN VALLEY, NEAR HALIFAX.

Communicated by Mr. Rawson.

	In.		In.		In.
January .. .....	6·87	May.....	2·14	September .....	5·63
February .....	1·56	June .....	3·70	October .....	6·00
March .....	1·06	July.....	6·35	November.....	5·98
April .....	1·45	August .....	2·79	December.....	2·20

## AT HORSFORTH, NEAR LEEDS.

Communicated by Mr. Fox.

	In.		In.		In.
January .....	3·90	May.....	1·72	September .....	3·38
February .....	2·05	June.....	2·53	October.....	4·55
March .....	0·61	July.....	3·52	November.....	3·81
April.....	0·78	August .....	3·25	December.....	1·45

## AT WAKEFIELD.

	In.		In.		In.
January.....	2·91	May .....	1·34	September .....	2·36
February .....	1·37	June.....	4·50	October .....	4·37
March .....	0·55	July .....	4·96	November.....	3·74
April .....	0·56	August .....	2·75	December .....	0·84

## AT BARNSELY.

Communicated by Mr. Lister. Registered by Mr. Greenwood.

	In.		In.		In.
January .....	2·05	May.....	1·04	September .....	2·26
February .....	1·23	June .....	3·31	October.....	5·10
March .....	0·56	July .....	5·35	November.....	3·41
April.....	0·47	August .....	3·84	December .....	0·84



All the registers agree in making March the driest month of the year. The totals exhibit the difference of rainfall between three places situate at the foot of the Pennine hills, and three places on less elevated ground ten or twelve miles eastward.

WEST.	In.	EAST.	In.
Halifax .....	45·73	Horsforth.....	31·75
Huddersfield .....	36·22	Wakefield .....	32·25
Ingbirchworth .....	42·55	Barnsley .....	29·46

BIRDS.

The spring migrants arrived later than usual. Martins, swifts, and whinchats appeared in small numbers, but redstarts, whitethroats, and cuckoos were more than ordinarily frequent. Interrupted by dull, rainy, and cold weather most birds would raise but one brood. The same unfavourable weather also prevented or retarded the development of insects, and as a consequence many insectivorous birds would retire from upland districts to the valleys, or return southward. A large number of our birds, both migratory and resident, do not pair and breed, but wander about to places where food is most plentiful. The number of nests observed in any particular place, a large orchard for example, is not proportionate to the number of birds tenanted such place. Some of the summer birds induced by genial weather prolonged their stay. The swallow and house-martin were seen late in October in Yorkshire; and in the South of England till the end of November; so potent is the influence of weather in causing migrants either to come to us, or leave us, at unseasonable times; instinct being counteracted by external influences. During the past winter I noticed many lesser redpoles and tree-sparrows, but few bullfinches, bramblings, magpies, or hawks, and no creepers nor goldcrests.

DATES OF ARRIVAL OF SPRING MIGRANTS  
AT LOFTHOUSE, HOVINGHAM, BARNSLEY, AND HALIFAX.

	Lofthouse.	Hovingham.	Barnsley.	Halifax.
Wheatear .....	April 7	...	March 31	March 24
Chiff-chaff .....	„ 15	April 1	April 15	April 11
Willow-wren .....	„ 16	„ 14	„ 15	„ 18
Swallow .....	„ 18	„ 18	„ 16	„ 7
Sand-martin.....	„ 18	...	„ 17	„ 14
Yellow wagtail .....	„ 18	...	„ 16	„ 14
Tree-pipit.....	„ 19	„ 17	„ 20	„ 24
Redstart .....	„ 25	„ 18	„ 21	„ 18
Whitethroat.....	„ 25	„ 21	„ 25	...
Whinchat... ..	„ 26	„ 24	„ 23	„ 24
Cuckoo .....	„ 23	„ 19	„ 19	„ 20
Blackcap .....	...	„ 17	„ 22	...
Nightingale .....	May 11	...	May 9	...
Pied fly-catcher .....	...	May 3	...	...
Garden-warbler .....	„ 13	„ 3	...	...
Sedge-warbler .....	„ 5	...	April 21	...
Landrail .....	„ 9	„ 3	May 2	...
Lesser whitethroat ...	„ 9	April 19	„ 3	„ 21
House-martin .....	„ 13	...	April 25	„ 21
Wood-wren .....	„ 16	„ 22	May 8	...
Grasshopper-warbler .....	...	...	April 23	...
Spotted fly-catcher ...	„ 17	May 6	May 8	...
Nightjar .....	„ 7	...	April 17	...
Swift.....	„ 17	„ 7	May 17	...

The above may be considered a complete list of the terrestrial spring migrants that come regularly into the cultivated districts of Yorkshire. The stonechat is the only bird noted in previous years and not noted this year. The nightingale was heard in May in seven or eight different places in West and East Yorkshire.

SPRING MIGRANTS LAST SEEN.

Cuckoo last heard July 2nd; last seen September 6th.

Landrail last heard August 3rd.

Chiff-chaff last seen September 19th.

Redstart last seen October 10th.

House-martin last seen October 17th.

Sand-martin last seen October 15th.

Swallow last seen October 23rd.

Nightjar last seen October 9th.

DATES OF APPEARANCE OF SPRING MIGRANTS AT LOFTHOUSE FOR TEN YEARS, 1862-1871.

	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	Mean.
Wheatear .....	...	...	Mar. 18	...	...	Apr. 9	Apr. 9	Apr. 11	Mar. 27	Mar. 10	Mar. 29
Willow-wren ....	Apr. 22	Apr. 13	Apr. 13	Apr. 10	Apr. 14	" 18	" 21	" 11	Apr. 15	Apr. 15	Apr. 15
Chiff-chaff .....	...	...	...	" 9	" 14	" 19	" 26	" 11	" 15	" 12	" 16
Swallow ... ..	" 24	" 17	" 13	...	" 14	" 18	" 10	" 10	" 26	" 25	" 17
Yellow wagtail ...	" 24	" 16	" 14	" 13	...	" 16	" 20	" 12	" 14	" 25	" 17
Tree-pipit .....	...	" 25	" 15	" 13	" 14	" 9	" 25	" 18	" 16	" 16	" 17
Sand-martin .....	...	" 26	...	...	" 18	" 28	" 29	" 18	" 14	" 29	" 24
Cuckoo .....	" 23	" 28	" 22	" 25	" 17	May 4	" 23	" 14	" 22	" 29	" 24
Whinchat .....	...	...	" 17	" 29	" 22	Apr. 28	" 26	May 2	" 14	" 27	" 24
Whitethroat .....	...	May 5	" 24	" 23	" 26	" 24	" 26	Apr. 27	" 21	" 16	" 25
Redstart .....	" 24	...	...	" 16	...	...	...	May 2	...	...	" 25
Blackcap.....	...	...	...	...	May 26	...	...	...	...	" 29	" 25
Nightingale .....	...	...	...	...	...	...	May 13	...	...	" 29	" 25
Garden-warbler ...	...	...	...	" 18	...	...	" 10	" 2	May 16	" 20	" 25
Sedge-warbler ...	...	5	" 24	May 2	" 16	" 28	" 3	Apr. 18	" 7	" 30	" 30
Lesserwhitethroat	...	" 8	...	...	" 10	May 6	" 6	" 29	Apr. 29	May 7	May 5
Landrail .....	" 30	" 1	" 30	" 2	" 13	" 16	" 8	" 25	May 10	" 6	May 6
House-martin.....	...	...	...	...	" 20	...	" 3	May 15	...	" 12	" 12
Wood-wren .....	...	...	...	" 15	" 20	Apr. 28	" 10	" 2	" 20	" 7	" 15
Spotted-flycatcher	May 18	" 31	...	" 19	" 20	May 19	" 9	" 9	" 15	" 18	" 18
Nightjar .....	...	...	...	...	...	...	...	...	...	" 18	" 18

Lofthouse is situated five miles S.E. of Leeds, on the Carboniferous Sandstone; not wooded. This and the following tables show not only the dates on which the birds appeared in the periods specified, but they exhibit also the number, species, successional order, and mean and comparative dates of appearance for each district. They also form a general index to the earliness or lateness of season.

## DATES OF APPEARANCE OF SPRING MIGRANTS AT LOFTHOUSE FOR TEN YEARS, 1872-1881.

	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	Mean.
Stonechat .....	...	Mar. 9	...	...	...	...	...	...	...	...	...
Wheatear .....	...	Apl. 16	...	...	...	...	...	...	...	...	...
Willow-wren .....	Apl. 13	" 19	Apl. 15	Apl. 7	Apl. 14	Apl. 13	Apl. 13	Apl. 17	Apl. 16	Mar. 27	Apl. 15
Yellow wagtail .....	" 14	" 17	" 6	" 18	" 16	" 20	" 19	" 29	" 4	" 15	" 16
Chiff-chaff .....	" 14	...	" 16	" 15	" 16	" 19	" 19	" 23	...	...	...
Swallow .....	" 16	" 20	" 21	" 18	" 23	" 15	" 15	" 18	" 17	" 13	" 19
Tree-pipit .....	" 14	" 20	" 19	" 19	" 23	" 20	" 20	" 23	" 23	" 26	" 20
Sand-martin .....	...	" 20	" 16	" 18	" 8	" 20	" 20	" 23	Mar. 28	" 16	...
Redstart .....	...	" 17	" 22	" 25	" 23	May 5	" 27	May 2	Apl. 23	" 16	" 24
Cuckoo .....	" 24	May 2	" 28	" 23	" 21	" 4	" 27	" 3	" 29	" 17	" 28
Whitethroat .....	" 27	Apl. 29	" 26	" 25	" 27	" 1	" 20	" 15	" 29	May 4	" 29
Blackcap .....	" 27	...	...	...	May 8	Apl. 23	" 23	" 3	...	" 5	...
Nightingale .....	...	...	...	May 11	...	...	...	...	...	...	...
Lesser whitethroat ..	" 24	" 28	" 28	" 9	Apl. 19	May 7	" 28	" 3	May 1	" 7	" 30
Whinchat .....	" 27	May 9	" 25	Apl. 26	" 29	Apl. 28	" 30	" 14	Apl. 30	" 4	May 1
Sedge-warbler .....	May 4	" 9	" 25	May 5	May 6	May 4	May 6	" 3	" 30	" 6	" 4
Landrail .....	Apl. 28	" 4	" 30	" 9	" 11	" 6	Apl. 27	" 9	" 30	" 6	" 5
House-martin .....	May 6	" 8	May 20	" 13	" 17	" 6	May 6	" 3	May 1	" 3	" 7
Garden-warbler .....	Apl. 27	" 18	" 10	" 13	" 17	...	...	...	...	...	...
Grasshopper-warbler ..	...	...	Apl. 22	...	...	" 13	...	...	" 1	" 23	...
Wood-wren .....	May 12	" 22	" 26	" 16	" 6	" 6	" 6	" 31	" 1	" 7	" 11
Swift .....	...	" 24	...	" 17	...	" 13	" 5	" 15	" 29	" 19	" 17
Spotted fly-catcher..	" 11	" 19	...	" 17	...	" 28	...	" 20	...	...	" 19
Nightjar .....	...	" 23	May 30	" 7	...	...	...	...	" 25	...	...

It will be observed that the mean date for many of the birds for Lofthouse is later in the second decade than in the first, which is simply accounted for by the fact that the second decade contains a greater number of severe and long winters, and cold springs than the first. The mean dates of appearance of birds which have been observed irregularly, rarely, or very late are not given.

DATES OF APPEARANCE OF SPRING MIGRANTS AT STORTHES HALL, NEAR HUDDERSFIELD, FOR TEN YEARS, 1849-1858.

	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	1858.	Mean.
Chiff-chaff .....	Apl. 4	Apl. 6	Apl. 6	Apl. 7	Apl. 12	Apl. 6	Apl. 17	Apl. 2	Apl. 14	Mar. 30	Apl. 7
Willow-wren .....	" 21	" 8	" 11	" 11	" 18	" 12	" 18	" 13	" 9	Apl. 15	" 13
Redstart .....	" 23	" 8	" 16	" 12	" 19	" 14	" 18	" 10	" 14	" 16	" 15
Tree-pipit .....	" 20	" 11	" 16	" 13	" 18	" 17	" 13	" 13	" 19	" 16	" 15
Blackcap .....	" 24	" 20	" 18	" 15	" 19	" 13	" 28	" 22	May 2	" 18	" 21
Swallow .....	" 26	" 18	" 18	" 14	" 20	" 17	May 1	" 25	Apl. 26	" 20	" 21
Martin .....	...	...	...	...	...	" 17	...	...	...	...	...
Yellow wagtail .....	...	" 18	" 18	" 25	May 1	" 23	" 6	...	...	" 18	" 24
Wood-wren .....	" 30	" 20	" 20	" 26	Apl. 28	" 23	" 3	" 28	" 26	" 20	" 25
Cuckoo .....	May 3	" 29	" 24	" 22	" 30	May 2	" 4	May 3	May 5	" 21	" 29
Whitethroat .....	" 8	" 28	" 20	" 28	May 2	Apl. 19	" 9	" 4	" 10	" 21	" 29
Garden-warbler .....	" 7	May 11	May 8	May 9	" 17	May 7	" 20	" 14	" 15	May 6	May 10
Flycatcher .....	" 14	" 19	" 17	" 23	" 19	" 9	" 26	" 18	" 15	" 19	" 18
Nightjar .....	...	" 29	...	...	...	...	...	...	...	...	...

Communicated by Peter Inchbald, Esq. Storthes Hall is in the parish of Kirkburton, five miles S.E. of Huddersfield, on the Carboniferous Sandstone; wooded. As Mr. Inchbald's area of observation was limited to the grounds and woods around Storthes Hall, the list is not so full as the others.

DATES OF APPEARANCE OF SPRING MIGRANTS AT HOVINGHAM FOR TEN YEARS,

1872—1881.

	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	Mean.
Chiff-chaff .....	Mar. 14	Mar. 28	Apl. 9	Apl. 1	Mar. 31	Mar. 30	Apl. 6	Apl. 1	Mar. 24	Mar. 30	Mar. 30
Willow-wren .....	Apl. 6	Apl. 2	" 9	" 14	Apl. 5	Apl. 3	" 13	" 14	" 29	Apl. 12	Apl. 8
Tree-pitpit .....	" 12	" 15	" 13	" 17	" 13	" 5	" 15	" 25	Apl. 13	" 12	" 14
Redstart .....	" 11	" 4	" 10	" 18	" 21	" 6	" 13	May 1	" 13	" 12	" 14
Blackcap .....	" 12	" 15	" 11	" 17	...	" 11	" 13	Apl. 14	" 20	" 27	" 15
Swallow .....	" 11	" 15	" 11	" 18	" 24	...	" 15	" 24	" 20	" 14	" 17
Cuckoo .....	" 24	May 2	" 24	" 19	" 24	...	" 20	" 30	...	" 27	" 25
Whitethroat .....	" 23	Apl. 20	" 22	" 21	" 27	...	" 29	May 4	...	" 27	" 25
Whinchat .....	...	...	...	" 24	" 21	May 3	...	Apl. 30	...	" 29	" 28
Wood-wren .....	" 23	" 29	" 24	" 22	May 1	" 4	" 29	May 5	...	" 8	" 28
Lesser whitethroat ..	" 30	" 30	May 2	" 19	" 4	" 3	" 25	" 11	May 3	May 8	May 2
Pied fly-catcher .....	" 27	May 10	" 3	May 3	" 3	" 6	May 4	" 13	" 13	" 8	" 4
Garden-warbler .....	" 27	" 3	Apl. 30	" 3	" 4	...	" 10	" 17	" 12	" 7	" 6
House-martin .....	" 24	" 10	...	...	" 23	" 9	...	...	Apl. 18	...	" 8
Landrail .....	...	" 12	" 24	" 3	" 14	" 17	Apl. 26	" 13	...	...	" 9
Grasshopper-warbler ..	...	" 10	...	...	...	...	...	...	May 9	...	" 10
Swift .....	May 16	" 12	May 16	" 7	" 11	" 16	May 3	" 20	" 14	" 7	" 12
Spotted fly-catcher...	" 19	" 14	" 18	" 6	" 16	" 18	" 11	" 22	" 16	" 11	" 15

Communicated by Mr. Inchbald, late of Hovingham. Hovingham is situated eight miles N.W. of Malton, on the Oolite, in the valley of the Rye; wooded.

DATES OF APPEARANCE OF SPRING MIGRANTS AT MASHAM FOR SEVEN YEARS, 1875-1881.

	1875.	1876.	1877.	1878.	1879.	1880.	1881.	Mean.	Jenyns.
Chiff-chaff .....	Apr. 16	Apr. 6	Mar. 30	Apr. 11	Mar. 21	Mar. 20	Mar. 15	Mar. 30	Apr. 3
Wheatear .....	" 27	" ..	Apr. 17	" 8	Apr. 6	Apr. 4	Apr. 8	Apr. 12	" ..
Sand-martin .....	" 16	" ..	" 8	" 16	" 11	" 14	" 11	" 12	May 7
Willow-wren .....	" 18	" 7	" 5	" 13	" 20	" 14	" 12	" 13	Apr. 15
Swallow .....	" 18	" 1	" 25	" 21	" 21	" 16	" 13	" 16	" 19
Tree-pipit .....	" 18	" 15	" 14	" 16	" 21	" 17	" 12	" 16	" 20
Sandpiper .....	" ..	" ..	" 22	" 21	" 16	" 18	" 13	" 17	" ..
Grasshopper-warbler .....	" ..	" ..	" ..	" 23	" ..	" 17	" 16	" 19	" ..
Dunlin .....	" ..	" ..	" ..	" ..	" 30	" ..	" 23	" ..	" ..
Ring-ouzel.....	" ..	" ..	" ..	" ..	" ..	" 3	" 25	" ..	" ..
Redstart.....	" 23	" ..	" 22	" 17	" 21	" 27	" 17	" 21	" 15
Cuckoo .....	May 2	" 28	May 4	" 17	" 21	" 25	" 18	" 25	" 27
Whitethroat .....	" 2	" ..	" 9	" 23	" 26	May 2	" 30	" 30	" 25
Blackcap.....	" ..	May 9	" ..	" 27	" ..	" 14	" 14	May 1	" 16
Pied fly-catcher.....	" ..	" ..	" ..	" ..	" ..	Apr. 27	" 27	" ..	" ..
Whinchat .....	Apr. 26	" ..	" 3	" ..	" 28	Apr. 27	" 1	" 2	" 24
Lesser whitethroat .....	" ..	" ..	" ..	" 27	May 5	May 6	May 1	" 3	" 26
Sedge-warbler .....	May 2	" 5	" 3	" 30	" 6	" 1	Apr. 30	" 3	" 25
Garden-warbler .....	" 2	" ..	" 3	" 29	" ..	" 4	May 7	" 3	May 4
House-martin .....	" ..	" 2	" 9	May 5	Apr. 27	" 7	" 1	" 4	Apr. 30
Landrail .....	" 1	" 3	" 11	" 8	May 11	Apr. 22	" 3	" 5	" ..
Wood-wren .....	" 9	Apr. 30	" 9	" 2	May 5	" 27	" 6	" 4	May 4
Swift .....	" ..	" 29	" 4	" 4	" 13	May 12	" 4	" 6	" 13
Spotted fly-catcher .....	" ..	" ..	" ..	" 8	" ..	" ..	" 9	" ..	" 16

Communicated by James Carter, Esq., of Burton House, Masham. Masham is situated nine miles N.W. of Ripon, on the Magnesian Limestone in the valley of the Ure; wooded. For the purpose of comparison, the mean dates of arrival of spring migrants at Swaffham, in Cambridgeshire, as given by the Rev. Leonard Jenyns, is added to Mr. Carter's list.

## DATES ON WHICH THE SONGS OF RESIDENT SPRING SONGSTERS OF THE LOFTHOUSE

DISTRICT WERE FIRST HEARD, 1862—1871.

	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.
Missel-thrush.....	...	Feb. 11	...	Mar. 15	Jan. 22	Feb. 7	Jan. 16	Jan. 18	Jan. 9	Feb. 7
Song-thrush .....	Feb. 3	Jan. 11	Jan. 22	Feb. 25	" 22	" 13	Feb. 17	Feb. 4	Mar. 3	" 7
Robin .....	" 1	...	Feb. 14	...	" ..	...	...	...	...	...
Skylark .....	...	Feb. 11	" 11	...	...	...	...	...	...	" 8
Hedge-sparrow .....	Mar. 11	...	Jan. 15	...	...	...	...	...	...	...
Corn-bunting.....	...	...	Feb. 24	" 28	Apl. 2	" 9	Mar. 22	Mar. 25	" 7	Jan. 18
Chaffinch.....	...	" 17	" 17	" 24	Feb. 18	" 9	Feb. 11	Feb. 4	Feb. 27	Feb. 20
Blackbird .....	" 2	" 11	" 24	" 25	" 25	" 17	" 12	" 18	...	Mar. 8
Yellow-hammer.....	...	" 24	" 24	" 24	Mar. 1	" 18	Mar. 1	Mar. 5	Mar. 7	" 6
Wren .....	...	Mar. 11	...	...	...	...	...	...	...	...
Pied wagtail .....	...	...	Mar. 24	...	...	...	" 22	" 14	" 11	" 10
Titlark.....	...	...	...	Mar. 24	" 19	Mar. 24	Feb. 28	Apl. 3	Apl. 3	...
Greenfinch .....	...	...	...	...	...	Apl. 19	Apl. 1	...	...	...



DATES ON WHICH THE SONGS OF RESIDENT SPRING SONGSTERS OF THE LOFTHOUSE

DISTRICT WERE FIRST HEARD, 1872—1881.

	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.
Missel-thrush.....	Jan. 15	Feb. 15	Jan. 23	...	Jan. 6	Feb. 11	Jan. 23	Feb. 12	Feb. 9	Feb. 27
Song-thrush .....	„ 26	Jan. 11	„ 15	Jan. 17	„ 4	Jan. 9	„ 28	Mar. 1	„ 17	„ 18
Robin .....	„ 26	Feb. 15	...	„ 20	...	„ 23	„ 28	Feb. 12	„ 4	Jan. 30
Skylark .....	„ 24	„ 15	„ 26	...	„ 28	...	Feb 5	Mar. 3	„ 4	Mar. 10
Hedge-sparrow .....	„ 28	Jan. 11	...	...	Mar. 18	„ 23	Jan. 23	Feb. 12	„ 17	Feb. 13
Corn-bunting.....	Feb. 4	...	„ 23	Mar. 18	„ 31	...	...	...	Mar. 28	„ 18
Chaffinch .....	„ 4	Feb. 15	Mar. 14	Feb. 17	„ 21	Mar. 13	Mar. 15	Mar. 1	Feb. 13	„ 27
Blackbird .....	Jan. 24	„ 19	„ 1	„ 22	Feb. 26	Feb. 14	Feb. 24	Feb. 28	„ 18	„ 16
Yellow-hammer.....	Mar. 5	„ 19	...	Mar. 18	Mar. 18	...	Mar. 20	„ 12	„ 18	„ 26
Wren .....	Jan. 28	„ 15	...	Jan. 6	...	..	...	...	Mar. 12	...
Pied wagtail .....	Mar. 5	...	...	...	...	...	„ 15	...	...	Mar. 27
Titlark.....	...	Mar. 26	„ 23	Mar. 25	„ 31	...	...	...	„ 28	„ 27
Greenfinch.....	...	„ 30	...	...	...	...	..	...	Apr. 3	„ 14

## A RAMBLE IN CLEVELAND.—I.

The little town of Stokesley is built on the banks of the narrow River Leven, surrounded on all sides by rugged hills. It consists mainly of two streets, the largest of which, a quaint-looking thoroughfare, with the market-place in the middle, is very wide and airy. Roseberry Topping overlooks the town, and is within an easy walk. The market, which is on Saturday, and the town altogether, appear to have fallen into a very dull and lifeless condition. The linen manufacture, which was formerly in a prosperous state, has dwindled down to a single loom, the weaver being over eighty years of age, and working for some one at a distance. According to the last census there were but 430 inhabited houses, containing a population of 1,877. The population in 1821 was 1,897. From Stokesley to the old rustic village of Kirkby the distance is about two miles across the railway, the station being situate midway between the two. The view from the tower of Kirkby church is very extensive and interesting. Cook's Monument, on the summit of Easby Moor, is a conspicuous object. To the left, near to the spectator, is Roseberry; down in the dale quiet Stokesley, and far to the north and west, desolate-looking hills, with here and there, just visible, the top of a spire or tower of a village church. There are two bells in the tower; one of which has the words "Vocavi Precari" (I call, Come to pray) cast upon it, with the initials of the maker, and date, 1717. The other bell seems to be much older. The date on the sun-dial on the tower is 1815, which is the date of the erection of the present church. On a stone built in the wall near the ground, on the south side, there is the figure of a female about eighteen inches in height, much weather-worn, bearing in her left hand a globe, and at a little distance another figure; both are much obliterated. Below, close to the ground, is another stone built in the wall, on which is carved a cross. On the north side of the church, among the tombstones, are the effigies, male and

female, very rudely sculptured on a single slab, called "Locky and Wife." The clumsy and disproportionately-hewn figures seem to have been exposed to the slow-wearing action of rain and frost for many centuries. The head of the woman, and the legs of the man, from the knees down, are broken off. One corner of the slab has also been broken, but is restored and fastened with iron clasps. The slab is about six feet in length and three feet in breadth, and rests on stones about a foot high, in the manner of a tombstone. It was damaged and defaced in 1815 by the workmen while rebuilding the church. The old church stood on the ground where the reclining Locky and his wife are now placed; the sexton informed me that the pickaxes often strike on the foundations when graves are being dug on the north side of the church. Locky, as the current legend goes, was a great worker. One day he said to his wife that he could mow a certain four-acre field if she could follow him with the rake. His partner, vain as he of her strength and ability, replied that she would do her best. Both then set to, but the field was too much for them; both killed themselves by overwork. So the toiling Locky and wife died; but they still live side by side on the timeworn stone. The traditionary field, which is in the adjoining township of Broughton, is yet pointed out and known as "Locky's Day's Work." At Kirkby there is not much accommodation for visitors. It possesses but one small, primitive public-house; the principal room serving both as bar, taproom, and family kitchen. Alum-shale occurs in the neighbourhood, and formerly there were alum-works here. A short run on the railway, with Roseberry Topping, Cook's Column, and Kildale on the left, brings us to Castleton, a good-sized village, situate on a hill-side. At this point the streams begin to flow eastward, and the Esk assumes a more pretentious character, three or four considerable streams joining near Castleton, in the parish of Danby. The small River Leven, rising among the moors about Roseberry Topping, runs in a contrary direction, and enters the Tees near Yarm. Between

Castleton and Rosedale there is an excellent petrifying well. Mr. Redmond, the landlord of the principal inn at Castleton, has a fine specimen of petrified moss. This district is famous for cattle and sheep. The instinctive love of home possessed by the moorland sheep, as described by the shepherds, is wonderful. The various flocks all stick to their own feeding-grounds, and seldom mix, though there are no fences. Sheep sold and removed from one moor to another will return considerable distances to their own moor if not closely watched. The walk along the moor-side from Castleton to Danby church, about a mile, is interesting to one not used to hill country. The way is up a lateral dale, shut in and shielded by rising moorlands. When I was there it was nearly sunset, the ordinary sounds of day had ceased, and the fields and byeroads were deserted. A white homestead appeared here and there through the gloom, surrounded by a little orchard and cultivated fields with green hedges: but there was no human sound or business, as the dalesmen with their families had shut themselves in for the night; the voice of the cuckoo was the only sound that fell on the ear. Danby old church is situate in a sequestered spot; it is built on the side of a moor, on the verge of a deep gorge densely filled with trees. In the green recesses here I first heard the garden-warbler and other wood-birds, and in the meadows the corncrake. Wild flowers do not seem to be abundant in this district, but a few ferns may be found. The lady-fern, the common polypody, and the northern fern (*Blechnum boreale*) occur amongst the rocks in shady places; and in the walls of the church the rue-fern, along with ivy and the wild wallflower. The wild raspberry and other shrubs line the stream at the bottom of the hollow. In front of the church there is a rudely-formed sun-dial pillar, surmounted, not by a dial, but by a circular worked stone, let into the top edgewise. An antique stone with a pair of wool-shears carved upon it, leans against the foot of the pillar. Dotted along the edge of the moors there are many bits of cultivated land about half an acre in area, enclosed within walls, called garths. These

are let to cottagers at nominal rents, about 2s. per year. When one of these is to let the circumstances of the applicants are considered, the one with the largest family, and the most likely to cultivate the ground well being generally preferred, and an assessment or valuation of the crops or manure is then made by a jury. The moors and lands extending far in all directions with the underlying minerals, are the property of Lord Downe, but stones for walling and peat are allowed to be dug. Peat is commonly used as fuel, but a thin coal about eighteen inches in thickness has been worked above 100 years, the price of it being formerly 2d. per bushel of seven stones. In the dales there is much good corn and grass land; and sheep and cattle are numerous. At Castleton late at night there were swifts wheeling overhead; I also heard the nightjar, locally called the night-hawk. The sign of one of the inns here is Robin Hood. The following lines are painted on the signboard in conspicuous letters:—

Kind gentleman and yeoman good,  
Call in and drink with Robin Hood;  
If Robin Hood be not at home,  
Step in and drink with Little Joan.

Above the verse there is a picture of an archer clad in green. I have seen a similar sign with the green portrait of the outlaw, and read the same invitation elsewhere.

The road from Castleton to Danby Castle is by way of Ainthorp. Near this hamlet is the residence of the Rev. J. C. Atkinson, author of the "History of Cleveland," and of several works on natural history. It is situated in a quiet spot among cultivated fields and meadows, surrounded by small enclosures and little clumps of fir trees, not far from the Esk. All along the road one comes upon flocks of small speckled-faced sheep and curly lambs, playing and leaping among the rocks. The ruins of Danby Castle stand on an elevation overlooking the Esk; a portion are converted into a farmhouse, stables, and sheds. The high, broad walls, which yet remain as a ruin, are overgrown with grass and stunted

trees. The most interesting part is the cellar, which is now used as a storehouse for fuel—coal, wood, and peat. The arch is in a most perfect condition, the hard sandstones retaining the fine marks of the chisels and tools of the workmen; the stones, also, of the outer walls retain their edges and chisel-marks very plainly. The tenant is very obliging in allowing an inspection of the premises, and he can also give useful information concerning the topography of the neighbourhood. The spot, though a ruin, and somewhat secluded, is by no means dull. The old walls, partly covered with tangled grass and briars and stunted shrubs, are alive with hosts of starlings, sparrows, and pigeons. When I was there the crowing of cocks and the lowing of cattle resounded from the farmyard, bees were humming about the hives in the garden, and all around the curly black-faced sheep and lambs were bleating and sporting on the hill-sides. The watch-dog barking, a tame owl in a cage, and a beautiful peacock strutting at the heels of its master, completed a very lively rural picture. From the castle a lane leads down to the river, and up the opposite slope to a little place in view called Howlsyke. The narrow bridge is built of the same kind of imperishable stone as the castle, and from its appearance may have been built at the same time. Under the bridge there are good fixed stepping-stones, and a paved ford. The river here is about twelve feet wide. When I sat on the low parapet, the water, gurgling through the triangular stepping-stones, made a pleasant sound; patches of *Ranunculus aquaticus* overspread the stream, the white flowers showing like flakes of snow among the green leaves; and broom of a brilliant yellow, blue forget-me-nots, and the purple flowers of the vetch enlivened the banks.

Howlsyke is a little hamlet consisting of an inn, a chapel, and a few cottages thatched and tiled, built in the hill-side. Fields and meadows stretch down the slope to the river. Like most of the other villages and hamlets Howlsyke has a roadside spring and moss-covered trough. All these old troughs are green with lichens and mosses, and often festooned with

wild flowers and ferns. The pure water bursting from its rocky fountain, and falling with a rippling sound, is alike grateful on a sultry day to the loaded horse and to the passing wayfarer. Leaving Howlsyke, the road continues on the north side of the Esk to Lealholm. On the way I noticed the glassy shell, *Vitrina pellucida*, at the foot of a wall, together with *Zonites alliarius* and *Helix rotundata*. Shells are not abundant in this dale, and the conchologist wandering solely in search of shells would be ill-repaid for his time and trouble. Lealholm is a pleasant village, situate on the north side of the river, in the midst of meadows and cultivated fields, which stretch up the hillsides and meet the heather. There is a considerable flow of water here, and the different views up the river are very fine, but somewhat limited. A woodland path leads from the village some distance along the side of a narrow canal, the water of which is diverted for the use of a mill. This canal is overshadowed with alder, oak, and other trees, and with luxuriant honeysuckle and ivy drooping and twining in nature's own way over the water from the projecting gnarled oak roots, and from jutting rocks. The bed of the river is studded with detached rocks of all shapes, and one may easily cross by stepping from one to another. The paths leading up the river-side among the rocks are very uneven and awkward, being obstructed at every step by fallen trees, trailing briers and wild rose, and the long twisting honeysuckle. Some of the oak trees are curiously wedged in among the rocks—one in particular, of considerable size, close to the dam, appears to rest in a dangerous manner on an overhanging rock. The banks and cliffs are everywhere thickly embellished with shrubs, ferns, and wild flowers, conspicuous among which are the broom, the honeysuckle, and the mountain-ash. The broom is a prevailing shrub, and in many places beautifies the slopes with its lustrous flowers. Amongst the variety of plants of lesser growth I noticed the cow-wheat, the wood-pimpernel, sweet cicely, sweet woodruff, the wild rasp, the oak polypody, and the beech polypody; all these contribute, some

by sweet scents, others by delicately-tinted flowers, or fresh and elegant foliage, to make the whole a pleasing and interesting scene. From Lealholm there is a highway and a footway; the latter is on the river-side, and is a pleasant walk. Alder, thorn, hazel, ash, and broom flourish on the low banks. Receiving accessions from the hills, the Esk gains in volume every mile. Below Lealholm the water must have a moderate descent; it runs merrily away among the unshapely stones that lie in its course. In passing along the bye-roads few people are to be met with. Sometimes one may fall in with intelligent boys who can give clear directions and point out short cuts, though I spoke to several who were at least fourteen years old, who did not know the name of the river. The foot-path continues some distance, then turns across the stream over a wooden foot-bridge and also a ford to the south side, and leads on to the highway past a deep ravine called Ghill Slack to Glaisdale End.

My way thence to Egton was over Beggars' Bridge, once a picturesque and romantic spot, but now spoiled by the iron-works and the noise and business of the railway; nine miles from Whitby. From the bridge a pathway leads up through a dark wood, very steep to climb, to the highway. Egton church stands in a commanding position between Glaisdale and Egton, about three-quarters of a mile from the latter place, having probably been designed originally for the convenience of two or three villages. There is a church at Glaisdale; the sun-dial is dated 1793, the date of the erection of the building. It is plain outside, with round-headed windows, and a very squat tower. The present structure stands on the foundation of an ancient one, which was built about 1388. Egton church, consisting of tower, nave, and chancel, is covered with lead, and so low outside that a man might reach the eaves. It is apparently very old. A church was consecrated here by the Bishop of Damascus in 1349. There is a legend that the people of Egton once wished to remove the church nearer to the town, but what was pulled down one day was always found



mysteriously built up again next morning. Egton, a curious little town with four or five inns, is situate on a hill, a little away from the river. The houses are tiled and thatched, and are built on each side of a very wide road. A sort of market-cross—a hollow building, with a rude cross inside—stands in the middle of the street. Several cattle fairs are held here in May and June, on Tuesdays. The dalesmen bring their cattle from the various outlying places, and much business is said to be done, insignificant though the town may seem in appearance. From here the road falls sharply down to Egton Bridge, a mile distant. This village is much frequented by visitors from Whitby. There are delightful walks among the woods and along the banks of the Esk, and pleasing prospects up and down the valley from the top of Arncliffe Woods and other elevations. This place, so busy and gay in summer, was very quiet, the time being too soon for visitors; but a squad of villagers were amusing themselves with quoit-playing on the lawn at Underwood's, the principal inn. The river winds about among the overhanging trees; the bottom is thickly beset here, as it is in many places higher up, with shapeless moss-covered fragments of rock.

On the way to Grosmont I noticed among other plants the broad-leaved helleborine (*Epipactis latifolia*) and the water-avens (*Geum rivale*). At Grosmont, distant about a mile and a half from Egton Bridge, there are the smelting furnaces of Messrs. Bagnall, commenced in 1862. Near here I first observed the wild rose in flower. It was not in flower higher up nor lower down the valley, and the particular plant here noticed was a strong, high-growing, and large-flowered variety. That noble wilding, the great bell-flower, also occurs frequently in this neighbourhood. A little lower down, at Eston Side, the river is a great depth below the road, and dangerous precipices come, in some places, close up to the railed footpath. The road is carried over several lateral ghills which open into the Esk. Many of these ghills are wooded, and the steep sides mantled over with honeysuckles, briars, broom, and ferns. Little becks

and runnels of pellucid water tumble among the rough rocks, and green ferns and mosses, grasses, sorrels, garlicks, and forget-me-nots spread their handsome foliage or delicate flowers in many a shaded nook where the sunlight never falls. The road continues to Sleights, where there is a railway station and two or three inns. The chapel here is a plain structure, but contains some elaborate wood carving. It was erected, as appears from a mural tablet, "at the expense of Mrs. Gertrude Burdett, Robert Bower, Esq., and Tabitha, his wife, A.D. 1762."

From Sleights a walk of four miles by way of Ruswarp leads to the embouchure of the river at Whitby. During the walk from Stokesley to Whitby I observed very few birds. A few may be heard in the wooded dales, but elsewhere they appear to be unfrequent. The common sparrow is not seen only about homesteads or cultivated lands. I saw no rooks. I expected meeting with the grey wagtail and the water-ouzel on the becks and on the river side, but I saw none. Mollusks were exceedingly scarce. The only species I noticed were *Helix nemoralis*, *Helix rotundata*, *Zonites alliarius*, and *Vitrina pellucida* in the valley, and *Planorbis nautilus* and *Planorbis complanatus* on the coast near Whitby. Neither does the botany seem to be varied or interesting. I gathered no plants that are accounted rare. Many of the flowers of common plants are deeply coloured; the calyces and pods also display various colours. The scenery of the Esk valley is, at some points, as at Lealholm Bridge and Egton Bridge, very fine, but it cannot be compared with the magnificence of the Wharfe.

Having spent a few hours in Whitby, in visiting the church on the top of the cliff, the abbey ruins close by, the pier promenade with the lighthouse, and the museum, I turned for a walk along the coast northward. The railway, which was commenced some time since, and intended to be carried on to Staiths, is made in the side of the cliff close to the sands to Sandsend. After expending a considerable amount of money the company abandoned the project, and the heaps of

new sleepers and other timber and metals are now lying about in a ruinous condition, as though there were no owner. In proceeding northwards Lythe church is a conspicuous object standing on the top of elevated ground. Passing Sandsend, a little village situate in an opening in the cliff, the way leads up a steep hill to Lythe, with Mulgrave Woods and Castle, the domain of the Marquess of Normanby, on the left, four miles from Whitby. Much jet is found about Lythe, but the jet-mining is a very uncertain business. Sometimes the excavators strike on a good seam, and make very satisfactory wages; at other times the reverse is the case. I was informed that the men pay about 6s. per week for the privilege of excavating. In Lythe churchyard there are some handsomely-wrought obelisks and tomb-stones. There is a magnificent view from here over the German Ocean, and southward to Whitby Abbey. A little beyond this village the causeway for a distance of a quarter of a mile was strewn with fragments of shells of *Helix nemoralis*. A song-thrush flew before me along the lane with a large *Helix* in its bill; the bill being stuck firmly into the mouth of the shell. One of the broken shells on the causeway was that of *Helix aspersa*. The thrushes have a well-known habit of breaking the shells of mollusks on stones to get at the animal that has withdrawn itself out of sight for safety.

The lanes and paths in this district leading from place to place are frequently not easy to find, and as the people are only scantily sprinkled in hamlets and single houses there is often no one to ask; a few more guide-boards at the junctions of the roads would not be misplaced. I missed the direct road to Runswick and got down to Kettle Ness, a wild spot close to the sea, where the men get jet and alum-shale. I was then obliged to walk or rather toil up and down amongst the fallen clay and slippery rocks and bladder-wrack, and along a bed of soft sand, which gave way under the foot like snow. This is a miners' road, and one of the awkwardest bits of walking that anyone could encounter; it leads round

the bay from Kettle Ness to Runswick. Late at night there were fisher boys playing at quoits on the sands, and in the inlet in front of the village, the grasshopper-warbler was uttering its peculiar monotonous song.

The fishing village of Runswick is a singular rookery of cottages, built with only walking space between them, one above another, in the cliff side. The windows of each house look over the roof and chimneys of the next below it. The high cliff, covered with wild rose and thorn bushes, slopes upward and shields the cottages from the north and west winds. About two hundred years ago the old village of Runswick, which stood a little to the south, was totally destroyed by a landslip. Household articles have at various times been washed up and exposed by the tide. I believe there is no circumstantial written account of this disaster. It is said that no lives were lost, so it is probable that the inhabitants had sufficient warning of the impending event. The fishermen rebuilt their houses themselves, the women carrying all the materials up the cliff side on their heads. The present village is pitched in a very insecure position, and sooner or later will come to the same end as the former one, as the houses are constantly cracking, and sinking down. The fishermen pay about five shillings per year ground-rent. Till lately there was no inn here for the adequate accommodation of visitors; but now there is the Sheffield Hotel, a roomy house, built a short distance back from the sea-side. A very steep road runs up from the sands through the village to the coast-road. This is an out-of-the-way place; there is no conveyance by either land or water towards Whitby quicker than a covered carrier's waggon. My stay here was short, but my impression is that a naturalist might spend a week in this neighbourhood, exploring the rocks and creeks and waste ground, very profitably. I returned to Whitby by the stage-waggon, in the old-fashioned, slow style, among a miscellaneous company of passengers—men, women, and children, bags of rags, old ropes, hampers of fruit and potatoes, and other lumbering goods—thus ending a

pleasant ramble of forty miles from Stokesley to the Bay of Runswick.—June, 1874.

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## A RAMBLE IN CLEVELAND.—II.

Being desirous of continuing the journey in North Yorkshire, shortly described in the preceding pages, I took train, June 14th, 1875, from Castleford, and reached Whitby about noon. My route northward from Whitby was the same as in the former walk, namely, by way of Sandsend, Lythe, and Goldsborough. The alum-works at Sandsend are now in disuse; no alum-shale being at present worked in the neighbourhood. The magnificent prospect of sea and land, previously alluded to, which opens up from the elevated churchyard of Lythe, will amply repay any visitor the trouble of ascending the steep hills by which this village is reached. I was informed that any passing visitor may enter and inspect the church, as the vicar and churchwardens, following a curious custom, never lock the doors. The little erratic fern *Asplenium ruta-muraria* grows in the joints of the walls of the church. On the roadside near to the entrance to the graveyard there is an ancient moss-covered stepping-stone or mount—a vestige of the times of the bridle-roads, when the yeoman and his wife jogged to church along the narrow and rutted tracts, close-seated on horseback. In last year's notes I mentioned the great danger to which the curious little hanging village of Runswick is exposed from the constant sliding and yielding of the cliff. There are now two or three houses uninhabitable. Last winter, 1874-5, two houses were destroyed by a sudden fall of the cliff, one being literally turned inside out and the furniture thrown out of the windows. It is singular that amid these constant disasters no lives are lost. The fishermen have no fear: they look on their misfortunes as matters of course, and cling to the face of the treacherous cliff like a colony of martins. Runswick, however, like many

other Cleveland villages, is rapidly losing its former peculiarities, the fishery has greatly declined, and the people have been obliged to turn to other avocations. There are now but seven or eight fishermen possessing cobbles. Many of the Runswick men have thrown on one side the characteristic sailor-blue, and in other colours have turned to jet-getting or ironstone mining. Jet is excavated for in various places, but the trade is very precarious. The price of rough jet is said to range between 5s. 6d. to 18s. per lb., varying, as an old jet getter remarked, very much with the ladies' fashions. Ironstone abounds, and, in course of years, Runswick may become an important place. The ironstone mining will afford employment to numerous hands; and the bay, which is one of the largest on the north-east coast, has been spoken of as the best adapted for the formation of a harbour of refuge.

Hinderwell, a mile inland from Runswick, is a clean, pleasant village; many of the houses are large and handsome. There is here a Wesleyan chapel, built in 1873, and a Primitive Methodist chapel. The church is exceedingly plain. Many of the tombstones and headstones are elaborately carved and ornamented with anchors, chains, and other articles indicative of the pursuits of the persons whom they commemorate. Much of the ornamental handiwork and the lettering is, however, decayed and partially obliterated, though the stone seems hard; the salt air is doubtless the cause of the mischief. Many of the people buried here have lived to long ages; there are numerous gravestones recording ages varying between 90 and 100. One old villager, a Nanny Baines, was lately interred in the cemetery, aged 103. At Lythe also there are several persons buried who lived to extraordinary ages. The traditional well of St. Hilda—a surface spring which supplies Hinderwell with water—is situated in a hollow in the churchyard. It is a square, low, plain receptacle, with nothing ancient-looking about it. The water is remarkably clear, and the spring is said to be unfailing. The village people are mainly employed in agricultural labour and in ironstone

mining, Mr. Palmer, the owner of much property hereabout, having many hands engaged mining at the new village of Port Mulgrave (Rossdale Wyke), close to the sea.

The coast between Runswick and Staiths is very desolate and barren; the Lias cliffs, undermined by the waves, are constantly giving way and falling over into the sea. Some of the pastures are beset with chasms and cracks five or six feet deep, amongst which the pedestrian has to pick his way. Pieces of ground, varying from a few square yards to a rood in extent, seem ready at any moment to topple over into the sea. There are few sea-birds, and the botany is scanty. The ubiquitous jackdaws are almost the only birds that enliven the dismal and barren rocks. Jet is got not far from Rossdale Wyke; I passed a small party of excavators working in the bottom of the cliff. The old fishing village of Staiths is not less curious than Runswick. It stands in a gap in the cliffs, at the mouth of a creek, hidden between gigantic walls of rock. The visitor looks down upon the smoking chimneys from a great height. Along the slopes of the little valley, plots of land are hedged in and cultivated, but on the interspersed waste ground there are boats and various kinds of fishing tackle, and nets spread out to dry; fishermen are busy repairing the boats and nets, and women and girls, in short gowns of somewhat ancient pattern, hoods and heavy boots, are hanging out clothes to dry, or fetching water. A zigzag road leads down among old black tumble-down cottages to the beach. Many of the houses and other buildings appear to be almost on a level with the sea, and are consequently much subject to inundation. Many buildings have been washed away within the last fifty years. Movable articles are frequently washed out, and during high tides pigs have been lifted out of the styes and carried out to sea. The shop where Captain Cook was apprenticed was, with others, long since invaded by the sea, and had to be taken down. The place lives by fishing, and there is a fishy and unpleasant smell wherever the visitor walks. The population is upwards of 1,400. The new life-

boat, carriage, and life-saving appliances recently placed here, are accessible to strangers free of charge. There are two or three good inns. The postal telegraph is established, and before long the Staiths people will be brought more into communication with the outer world by the extension of the railway from Whitby northwards.

The way from Staiths to Easington and Lofthouse leads over one side of the hill called Boulby—the highest part of the coast in this part of Yorkshire. A fine view of sea and land southward is obtained from the highest part of the road. All the roads and byeways about here are paved with fossils; every stone-heap is a museum. No geologist could possibly find a richer field for study. The facilities for collecting specimens are numerous, the falling of the cliff, and the continual opening of new mines and quarries afford excellent opportunities for both collecting disinterred specimens, and studying the disposition of the strata. Some of the stonebreakers have collections of fossils, and most of them would doubtless be ready and able to assist the collecting geologist, by selecting specimens as they proceed with their work, if rewarded, even in a trifling way, for their pains.

Easington is a picturesque village, situate a little inland. The church is low and plain, but it is mantled over with luxuriant ivy and other climbing plants; nature thus compensating in some degree for the failings of art. The ancient devotional custom of placing flowers, or everlasting memorial-wreaths on the graves is followed here; the graves of the Morehead family were those I particularly noticed. Near the National Schools there is a large and handsome crescent-shaped drinking fountain, erected in 1873. The stranger is informed by an inscription cut in the stone, that this fountain was put up at the expense of "five sisters, grand-daughters of the late Rev. Robert Morehead, D.D., and Margaret his wife." It consists of a double trough, dish receptacle, tap, and drinking cups. with lion's head spout, the whole elaborately and beautifully wrought. It stands on the site of an old drinking trough.



The schools near by were erected by Mr. C. M. Palmer, in 1868. Near the church gate there is an old pillar standing under a tree, marking, I presume, the site of the village stocks. Lofthouse, the next village northward, contrasts with Easington, in being a noisy, busy, increasing place. It is unattractive in appearance; the buildings, many of them new brick miners' cottages, being jumbled together without regard to regularity or neatness. Pieces of waste ground covered with old bricks, heaps of clay, earth, and rubbish, aggravate the general incongruity. The bustling, independent, and indifferent manners of some of the people still further contribute to make a bad impression worse. The development of the mineral wealth of this district is being effected at the sacrifice alike of beauties of scenery, and of that which was prepossessing in the speech and manners of the native inhabitants. Instead of viewing from the heights, hamlets and villages sleeping in retirement, we look upon roaring furnaces, black pit-gear, smoking chimneys, and engines puffing on the railways. Rows of unsightly cottages are springing up on every side, and the roads and byeways are alive with strings of miners, black from work, trudging home with lanterns. Dingy clouds of smoke roll over the landscape, and the commotion of labour and business continually falls on the ear. The vulgar language of the village street or inns, uttered in various and debased dialects, is painful to listen to. Dissolute and bad habits of various kinds, which take root and diversify themselves wherever mixed and uneducated communities are hived together, are rapidly supplanting the long-established, sober, quiet manners, and the traditional dialect of the true Cleveland people.

Lofthouse has the advantage of railway accommodation, the North Eastern line being open thus far. The only stretch of country along the Yorkshire coast at present lacking railway communication lies between Lofthouse and Whitby, and Whitby and Scarborough. These links will shortly be supplied, and then the coast line will be continuous from the

Humber to the Tees. I rode from Lofthouse to Brotton. Brotton is another large village, inhabited now chiefly by miners. There is nothing here particularly worthy of note. I should therefore recommend others not to follow this route, but take the way nearer the sea to Skinningrove, a hamlet with one inn, situate in a wooded defile. From Brotton the distance is an easy walk of two miles to Saltburn, the youngest of the numerous watering places that stud our eastern coast. To one approaching Saltburn from this direction, the Zetland and Alexandra Hotels, standing high on the cliff, are conspicuous objects; the former, which is the largest, was opened in 1863, and contains about 120 rooms. All the buildings are strikingly modern in appearance. Roads and streets are being laid out, and houses are rising everywhere, the founding of the town dating back only to 1860. The new promenade pier, stretching about 1500 feet into the sea, forms a pleasant and breezy lounge for visitors, and is a great convenience for getting on and off the steamboats. The hydraulic hoist, erected near the entrance to the pier, is also another convenience, as well as a novelty. It is designed with the laudable purpose of hoisting infirm, weary, or idle people from the sands to the top of the cliff, about 120 feet. This machine and the promenade pier are the property of a company, and were constructed about 1871. The Skelton beck runs down to the sea close under the windows of the Zetland Hotel. One side of the ravine, through which the beck falls, is laid out as a pleasure garden, and is one of the principal attractions of Saltburn. There are walks, rockeries, bowers, rustic huts, green lawns, and cascades stretching a long distance up the side of the stream; the natural features of the spot, the slopes, and rocks, and knolls, and little clumps of trees, all being utilised and improved to the best advantage. A new picture opens to the view at every turn. The visitor can ramble in the shade of the thick-leaved trees, or in the open lawn amongst many-coloured flowers, or recline at ease on the rustic seat, and read or smoke. The native flowers of the vale, the woodruff, the trailing honey-

suckle, the sweet myrrh, and a score of others mingle their scents and colours amongst the more brilliant exotics of the south; and the shrubs and trees shelter the blackcap, the wood-warbler, the garden-warbler, the thrush, and a host of other birds of song. Beyond the garden there are walks continuing up the woods to Marske Mill, and onwards to Skelton. Those who like gloomy and retired retreats may wander up the glen and be gratified. Various ferns and other wild plants will attract the botanist in this gloomy walk; none, however, are allowed to be taken away. Some uncommon plants grow here; I observed the great bellflower, herb Paris, wood-gromwell, broad-leaved helleborine, wild teasel, and ladies' fingers, amongst others. The deadly nightshade also occurs. In many places the rocks project as precipices, and display features which may be observed and studied with interest by the geologist, as well as the botanist, who will take note of the various ferns and mosses and rock-flowers which have foothold on the ledges or in the fissures. All the four species of swallows occur at, or in the vicinity of Saltburn. There are breeding places of the sand-martins in the cliffs, and the house-martins have their nests under the balcony and about the windows of the Alexandra Hotel. Swifts are also frequent.

Leaving Saltburn, I set out on a fine, sunny morning northward to Redcar, walking sometimes on the broad sands, and sometimes on the margin of the land, picking up sea-shells and land-shells and wild flowers on the way. The purple milkvetch and the curious storksbill are abundant near Saltburn. The cliffs decline considerably northward. In many places drifts of fine sand are accumulating on older deposits, the vegetation, including some rare plants, being partially obliterated. In odd places, where there are springs oozing through the sand or clay, patches of vegetation flourish of a peculiar delicate green colour, very different in appearance from neighbouring plants. There are also in these oozy places little colonies of land or fresh-water shells. Song-thrushes are numerous. These birds appear to feed more on mollusks

than inland thrushes. The coast thrushes live in saline air, and are restricted in their diet to slugs, snails, worms, and pickings on the sea-shore, there being no large orchards, as there are in many places inland, to supply them with a diversity of food. It is not, therefore, unlikely that naturalists may sooner or later detect differences of structure (as there certainly are now differences of habit) between coast and inland thrushes, sufficient to constitute a marked and recognisable variety, and eventually a species. There is at present a well-known difference between upland and lowland thrushes. Coast thrushes may retire from their bleak haunts in winter to inland valleys, but they will return, as our resident birds return, with almost as much regularity to their breeding places as the summer migrants.

The old village of Marske is situate about half way between Saltburn and Redcar. The spire of the church attracts the eye of the approaching visitor. It is said to have been built more as a landmark than as an ornament to the church. The father of Cook, the navigator, is buried here, but there is no memorial stone. The large graveyard is used as a cemetery, the church, built in 1821, now a forlorn place, being abandoned, a new and finer church having been erected by the late Earl of Zetland. An elegant circular drinking-fountain stands in the centre of the village, which consists mainly of one long straight street. There are here many ironstone getters, rude and uncouth fellows, who apparently spend their time in drinking when not working. From Marske onwards to Redcar the coast is formed of sand-hills, covered now in many places with storksbill in flower. At Redcar, as at Saltburn, much building is going on, and various improvements are being made. A sea-wall well furnished with seats has lately been built, 800 yards in length and twenty yards in width, which forms a convenient and pleasant promenade. Many of the new erections, built of coloured bricks, have a very striking and handsome appearance. The town is rapidly increasing and gaining favour as a summer resort. On the day of my visit the broad sands and smooth

waters presented a gay and animated picture, the boating parties on the sea and other pleasure parties, on wheels and on foot, being very numerous. The long scarrs which stretch into the sea, and which may be explored at low water, are fertile places for the collectors of marine algæ. A little work published at Redcar, but, I believe, now out of print, enumerates the species of sea-weeds, sea-anemones, zoophytes, crustacea, and fishes which have been found at Redcar, and also contains lists of marine and land shells, birds, and flowering plants that have been observed in the neighbourhood. The fishery at Redcar is said to have declined since the town began to attain rank as a watering-place; the fishermen probably finding that the entertainment of holiday people is less hazardous and laborious than fishing.

Turning from the coast homewards, I followed the road which leads to Kirkleatham and Guisborough. It may be useful to mention here that there is no inn between Redcar and Guisborough, a distance of about eight miles, so that the pedestrian, following this route, and intending to loiter, may be warned not to start with an empty stomach, expecting to halt and get refreshments on the way. Kirkleatham is a very quiet place, embosomed in trees; the church and hospital are generally visited by people staying at Redcar. Whilst sauntering in the churchyard waiting to be admitted to the hospital museum, I copied the following inscription from an obelisk:—  
“Sacred to the memory of John Gaunt, merchant and cloth manufacturer, late of Armley, near Leeds. Twenty-one years trustee of Leeds Coloured Cloth Hall, and the first founder of the salmon fishery at Coatham. Died September 30th, 1841. Aged 74 years.” The hospital museum contains old armour, preserved animals, curious skulls, skeletons, minerals, fossils, pictures, prints, Indian and Chinese articles of dress and war, and other rare and curious objects. A curious machine representing a hail-storm; and an elaborate boxwood carving representing St. George and the Dragon, with animals, plants, and other accompaniments, all finely cut out of one piece of box-

wood, are articles that may be specially noted. The wood carving is valued at 2000 guineas, and is said to be one of the most wonderful works of art of the kind in the world. The artist is unknown. There is also in this museum a valuable library of historical and ecclesiastical works. The hospital was founded in 1676, and a chapel added in 1742. The various guide-books give particulars respecting the founding and subsequent management of this charity. It is sufficient to state that forty poor people are maintained—"ten poor men, ten poor women, ten poor boys, and ten poor girls"—and that the hospital was built and endowed by Sir William Turner, a merchant of London, and owner of the Kirkleatham estates. The men and women are required to be single, and sixty-three years of age, and the boys and girls must be eight years of age; the latter stay till they are fifteen. One of the customs is to meet every funeral that comes to the parish church; another is to walk in procession on a certain day in June every year round the hall-court, the people singing, after which the rules are read over in the chapel.

The road from Kirkleatham to Guisborough (locally spelt and pronounced Gisboro) is lonely, but little hamlets of plain brick houses, which may increase to populous villages, are springing up in various places round the iron-mines. The mouldering ruin of the Priory is the first object to attract the eye of the visitor approaching from the east. The high eastern gable is all that is left. The grounds are cleared of stones and rubbish, levelled, and made into a shrubbery and lawn. The church is newly restored and decorated. It contains some monuments of the Bruce family. The sculptured tomb of Robert Bruce, formerly in the Priory Church, is preserved in the tower entrance. The town consists principally of one long and very wide street. Some of the houses and shops have new and elegant fronts, others have an older appearance, and a few are very small and antiquated, being thatched or tiled huts of one storey—remnants of old Guisborough. The market is now held on Saturday, and is

supplied with vegetables, fruit, meat, etc., from Stockton. Guisborough is situate in a warm vale, remarkable for the purity and healthiness of its air, and its freedom from thunderstorms. When I was leaving the town I fell in with an old man who was walking about in the streets with the aid of sticks. He told me he was 94 years of age and that there was another man living in Guisborough aged 103. The former was a mail coach driver before the time of railways, and afterwards long in the service of the Chaloner family.

There are two roads leading from this town to Roseberry Topping. I preferred the high road which leads to Newton, a small village with a church and school, and one inn. Within living memory this village consisted of thatched or tiled hovels of one storey; some of these have disappeared and given place to more decent and substantial cottages. I ascended the mountain, taking with me a guide named Ingle-dew to point out the various objects of interest. The traditional Osmund Well, generally mentioned in guide-books, is now dry and nearly obliterated. Mr. Ord, the historian of Cleveland, gives two legends in connection with this well. Ironstone is now being worked from the north side of the mountain. Donkeys are employed to draw the stone out of the level in corves which are run a short distance on a tramway, and then "tipped" down the mountain-side, the rough stones rolling and flying with terrific force to the bottom. The workmen said that large fossils are often brought out. Ingle-dew, who lives near, would undertake to collect fossils for anyone desirous of obtaining them. Jet is also found not far from here, and in Bilsdale. From what I had heard and read, I expected having a grand prospect over sea and land from the summit of Roseberry, but of this I was disappointed. Although it was a fine June day a haze hung on the horizon which enveloped every object beyond a distance of three or four miles.

The time allotted for this walk being now expired, I struck over the moors, under the direction of the guide, for Kildale, at which place there is a station on the Cleveland Railway.

In crossing over or descending the sides of the broad and lonely moors in hot summer weather, the rambler may sometimes alight on little green spots that mark the outlet, or the course of a mountain-spring. In many a place the crystal runnel gushes out from beneath the heather, flows a moment on the surface and is lost again, its stifled music being heard under the feet. These little founts are overhung by drooping ferns and grasses, and studded round with the greenest of mosses and lichens. It is delightful to halt and rest by the side of one of these green spots after a long day's walk and listen to the murmuring of unseen streams, to watch the sporting of the dragon-flies and the careering of swifts and swallows high overhead.

During this walk I collected or observed a few unfrequent plants; the following is a list of the most notable, with localities:—

Lesser thalictrum (*Thalictrum minus*)—Sandbanks, near Saltburn.

Butterwort (*Pinguicula vulgaris*)—In the oozy places on the sea-shore near Marske, very dwarf.

Storksbill (*Erodium cicutarium*)—Sandbanks, abundant; white and other varieties.

Fumitory (*Fumaria capreolata*)—Lythe.

Pepperwort (*Lepidium campestre*)—Near Redcar.

Purple milkvetch (*Astragalus hypoglottis*)—Abundant near Saltburn.

Sea-plantain (*Plantago maritima*)—Common.

Hemlock-dropwort (*Ænanthe crocata*)—Runswick.

Round-leaved mallow (*Malva rotundifolia*)—Common.

Great bellflower (*Campanula latifolia*)—Saltburn beck.

Enchanter's nightshade (*Circœa lutetiana*)—Saltburn beck.

Myrrh (*Myrrhis odorata*)—Saltburn beck.

Gromwell (*Lithospermum officinale*)—Saltburn beck.

Herb Paris (*Paris quadrifolia*)—Saltburn beck.

Teasel (*Dipsacus sylvestris*)—Saltburn beck.

Water-avens (*Geum rivale*)—Saltburn beck.



- Wood-vetch (*Vicia sylvatica*)—Port Mulgrave.  
Kidney-vetch (*Anthyllis vulneraria*)—Saltburn.  
Scotch rose (*Rosa spinosissima*)—Near Runswick, Staithes,  
and other places.  
Bugloss (*Lycopsis arvensis*)—Redcar.  
Spurge-laurel (*Daphne Laureola*)—Kirkleatham.  
Marsh-lousewort (*Pedicularis palustris*)—Kildale.  
Helleborine (*Epipactis latifolia*)—Near Saltburn.  
Black maidenhair (*Asplenium Adiantum-nigrum*)—Runswick.  
Wall-spleenwort (*Asplenium ruta-muraria*)—Lythe church.  
Hart's-tongue (*Scolopendrium vulgare*)—Saltburn.
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#### AN AFTERNOON AT HACKFALL.

The walk from Ripon to Hackfall is seven miles. In this distance there is no village between the town and the village of Grewelthorpe, which stands at the entrance to the vale, and only one very small public-house. As it was market day at Ripon when I visited Hackfall, I met numerous carts—farmers and their wives with butter and eggs, pigs, fowls, and ducks—jogging at various paces to market. Except on market days the winding, narrow roads are frequented only by the field-labourer and an occasional tramp. Dark fir woods here and there diversify the landscape. On either side of the way there are fields of luxuriant clover, wheat, beans, and peas, with meadows abundantly covered with grass and flowering herbs. The hedges are thick and fragrant with the flowers of the wild rose, the woodbine, the red avens, the sweet woodruff, and the wild strawberry, the latter spreading its swelling fruit on the grassy banks. Lichens of the colour of amber, and also those of a slaty-blue colour, cover the trunks of the trees, and creep in patches on the walls. In a wood about half-way between Ripon and Hackfall I noticed the shells *Clausilia laminata* and *Bulimus obscurus* on the trees. In the shady parts of the wood I saw several individuals of the clouded magpie-moth

(*Abraxus ulmata*) resting on the leaves of the dog-mercury. The caterpillar feeds on the elm. A little further on the bordered white (*Fidonia piniaria*) was flitting among the under-wood. The curious mollusk, *Bulimus obscurus*, covers itself in some situations with particles of lime or sand. An experienced eye is required to detect it, as it adheres motionless to the lichen-covered trees. Some which I collected appeared very much like angular bits of rugged limestone. I have, however, more frequently found this mollusk without the artificial covering. In my own immediate neighbourhood I find it without its deceptive coat, and seldom on trees. It would be important to know if it is fed on by thrushes and other birds when adhering to the bark of trees. *Clausilia laminata* is local, and said not to occur further north than Northumberland. At Hackfall I again fell in with this shell in company with *Cyclostoma elegans*, the elegant circle-mouthed shell, creeping on the moist decayed beech leaves. This beautiful shell (*Cyclostoma elegans*) was almost the sole object of my journey; I had long wished to observe it in its natural home. It is rare in Yorkshire, and has not hitherto been found further north in Britain than Hackfall. The only other place in Yorkshire that I know for it is Boston Spa, on the River Wharf, near Tadcaster.\* Hackfall, as many will know, is a romantic wooded valley through which falls the Ure, the river that divides the West from the North Riding. A description of the extensive prospects and of the varied natural beauties of Hackfall will not be here attempted; the poet and the painter are alone capable of doing faithful justice to such an enchanting vale. I can only remark that he who can appreciate the charms of wood and water should go and gaze on the reality, and be not satisfied with reading even the best descriptions. In the sheltered depths of the valley the abundance of life must be

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\* Some specimens which I brought home in a tin canister lived under a bell-glass till November, and then retired into the earth. Since the above was written *Cyclostoma elegans* has been found on the coast of Northumberland.

apparent, even to the most incurious. Flowers grow upon flowers, and struggle for the sunlight. Ivy, green ferns, shaggy moss, and blue lichens climb the trees, and luxuriate upon each other. The face of the rock, and the tile-covered roofs of the little grottoes, are alive with flowers, ferns, and mosses. On the beds of decayed leaves and herbage coloured shells are twisting with noiseless motion, and far up the trees and along their horizontal branches their tracks are visible. Spiders and small flies, and beetles, whose green wings are shot with fire, have their homes, their webs and snares, and cells and nests and eggs, in the clasping ivy, and in the winding crevices of the moss- and lichen-covered trees. Butterflies flutter in the sunlit places, bees hum as they flit past, and innumerable winged atoms sport over the water. There in the bird-cherry bushes are conspicuous white tents inhabited by caterpillars,\* some of which are creeping on the leaves, others slumbering in silken hammocks. Numberless birds inhabit the trees. Suddenly the long-drawn and repeated "coo" of the wood-dove comes from the leafy gloom like a wail of distress; anon the cuckoo, with a few loud mellow notes, makes the valley ring. The pleasant songs of the garden-warbler, the blackcap, the willow-wren, the wood-wren, and the loud thrush delight the ear. The robin, the whitethroat, the chiff-chaff, the redpole, and the winter-wren, the smallest of the wood-poets, all are here, and from bush and tree their notes and cries resound. From the leaning willow the fly-catcher darts, and returns on graceful wing to its perch; and the wagtail trips among the wet rocks, and bathes its feet in the circling eddies of the river. A crow, with the sunbeams gleaming on his back, flies lazily down the vale; a swift whistles above, and yonder, on the top of a fir tree, sits a small bird trilling an unknown song. To these sights and sounds add the accompanying music of numerous rills and cascades, the tumbling splash of the river, and

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\* Caterpillars of *Hyponomeuta padi*, an elegant little moth with dotted wings.

the rustling and sighing of forest leaves, and you will have a faint notion of the valley-life of Hackfall. The path down the river side towards Ripon leads through a wilderness of wild flowers, and thickets of whitethorn and rose, bird-cherry and woodbine; through gloomy little fir woods and clumps of nature-planted rowan tree and ash, their elegant pendant foliage chequering the ground with shadows. Half-an-hour's walk brings the rambler to an eminence and a rustic seat, from which there is a splendid view of wood and river; thence the way continues along the side of a beech grove to Mickley, a small tile-covered village, with two or three inns and a small factory, nestling on the edge of the Ure. Amongst the less common plants growing in the valley I observed the pyramidal orchis, the great bellflower, the broad-leaved helleborine, herb Paris, hemp-agrimony, and a fern (*Aspidium aculeatum*). In a grass field not far distant from Hackfall I came upon the dwarf orchis (*Orchis ustulata*) and the great white odorous butterfly orchis (*Habenaria chlorantha*), both in flower.

Mickley is a picturesque, whitewashed hamlet, embosomed in the valley of the Ure. The white roads are kept in excellent order, and are bordered by strips of green lawn. The clean, well-painted houses are set back from the road, and have little gardens in front, with sweet shrubs climbing round the doors. The windows are neatly curtained, and lined with flowering plants. The villagers, young and old, be it said to their credit, are well dressed, clean in appearance, civil, and respectful. When the sun is setting behind the woods, the men, after their daily labour, lean over their garden gates, and talk and smoke, whilst their wives sit at their doors and sew. These pleasing evidences of comfort, industry, and taste accord well with the varied beauties and the teeming life of the surrounding fields and vales.

“Behold the village rise,  
In rural pride, ’mong intermingled trees ;  
Above whose aged tops the joyful swains,  
At eventide, descending from the hill,

With eye enamour'd, mark the many wreaths  
Of pillar'd smoke, high curling to the clouds.  
The street resounds with labour's various voice,  
Who whistles at his work. Gay on the green,  
Young blooming boys, and girls with golden hair,  
Trip nimble-footed, wanton in their play,  
The village hope. All in rev'rend row,  
Their grey-hair'd grandsires, sitting in the sun  
Before the gate, and leaning on the staff,  
The well-remember'd stories of their youth  
Recount, and shake their aged locks with joy."

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### ARTHINGTON TO SPOFFORTH AND PANNAL.

There is an agreeable woodland walk from Arthington by way of Low Weardley and Lady Bridge to Harewood Park. The valley of the Wharfe here produces excellent farm crops and fine timber. Harewood church stands in the park, completely hidden amongst the trees. The rue-fern, *Asplenium ruta-muraria*, grows in the church walls, in the courses close to the eaves. This fern also occurs in walls near Arthington church. Some of the old tombstones and headstones have a curious appearance, being overgrown with ivy. At the time of my visit, October 5th, squirrels were hopping nimbly about in the yew trees bordering the churchyard, and feeding on the ripening berries, their bright hazel coat contrasting strongly with the deep green of the yew foliage. In the middle of the park, amidst hosts of noisy rooks, daws, and starlings, two swallows were skimming near the ground. This pair and a single one seen near Headingley, were the last I observed this year—1874.

The village of Kirby Overblow, standing on a ridge about a mile east of the Leeds and Harrogate road, has a fine view up Wharfedale. From the top of the tower of the church the eye commands very extensive prospects in various directions. Looking eastward over a level expanse of wooded

country, the great towers of York Minster, twenty miles distant, are distinctly seen, with the white wold hills rising beyond. Nearer there are the tall spires of Kirk Deighton and Hunsingore churches, and the massive tower of Spofforth church. Southward, over Harewood, the smoke of Leeds ascends, forming a dingy perpetual cloud. Westward there is the broad, fertile valley of the Wharfe, with high, desolate moors extending on each side. On the left there is the smoke of Otley, and closer under the eye Weeton church and the Great Almes Cliff—a conspicuous high crag on the north side of the river. Towards the north the view over woods and plantations is more limited. Kirby Overblow is well worthy of a visit; few places in Yorkshire can boast of more extensive prospects than there are from the elevated church. The ascent to the roof, however, is by a series of ladders, and is rather awkward, and the top of the tower is slated and ridged, not covered with lead as many are. The belfry contains three bells, the oldest and largest is dated 1598, and the others respectively 1634 and 1798. On St. Thomas's Day every year three loads of wheat are distributed by the rector to the poor of the parish. The church, after internal restoration, was reopened in 1872. From here to Spofforth there is a highway and a foot-path, the latter being much the shortest. Along the hedges, blackberries, red hips and haws, nightshade berries, and other wild fruits, the winter food of the birds, were abundant. Spofforth is a large farming village situate about three miles from Wetherby. The ancient lead-covered church was pulled down some years since; some stone coffins are still preserved in the churchyard. The ruins of Spofforth Castle are seen in a grass field near a farm-fold on the west side of the village. This castle belonged to the Percy family, and was reduced to ruins by the Yorkists after the battle of Towton.

It is a good walk from this village to Pannal. At this time of year the fields and lanes are not so cheerful and attractive as they are in spring. Leaves of various hues appear on the trees, and autumn-berries colour the hedge-row shrubs, but there are no

summer birds enlivening the woods; their songs have ceased one after another, and others, less lively, as the bullfinch and the brambling, are now occupying their haunts among the fading and falling leaves. The old village of Pannal lies in a valley on Crimple Beck, a considerable stream, which is one of the affluents of the Nidd. The little church is built in a hollow, an exceptional situation for a church, as most of our old village churches are built on rising ground. The chancel contains some handsome mural tablets, memorials of the Bentley family. From a large marble tablet which is fixed into the south wall of the nave, I copied the following interesting inscription:—"Sacred to the Memory of Thomas Symeson, of Beckwith, in this parish, gentleman, who died in the year 1553, and was here interred. Thomas Symeson was the second son of Thomas Symeson, of Wipeley, gentleman, and of Agnes his wife, daughter of John Atkinson, of Clynte, gentleman, and the 18th in lineal descent from Archil, a Saxon Thane, residing at Wipeley, in the township of Clynte, in the reign of Edward the Confessor, King of England. Also to Rosamond, the widow of the above, who died about the year 1559."

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#### ORCHARD HABITS OF FRUGIVOROUS BIRDS.

The ways and habits of our common frugivorous birds, as exhibited in orchards, are exceedingly various. The blackbird flies into a cherry tree, pulls off the cherries, and alights among gooseberry bushes to eat them; it then silently reascends and dresses its beak on a branch. The shooter must fire as soon as the bird ascends the tree, or his prey will be down and out of sight. This bird is bad to shoot on the wing, for on alarm it either plunges down among bushes, or into the nearest trees that have dense foliage. It is excessively fond of gooseberries and ripe pears, feeding on the latter on the trees, and also when fallen. When flushed from the ground it rises to a tree, reconnoitres with an eye marvellously quick, gives a short "chuck," a shorter curtsey, and is off. When blackbirds have young they attend them and feed them some time after they

are fledged. The common song-thrush or throistle is very silent when feeding; when frightened it utters a soft note and takes wing. It is much tamer than the blackbird, and is not so destructive among the gooseberries. Like the blackbird it feeds on fallen apples, pears, and plums, in winter. In hard frosty weather both the blackbird and the thrush become very tame, and with drooping wings approach outhouses and dwellings in search of food and shelter. The bird-tenter in the orchard is generally unwilling to shoot the throistle, its loud, sweet, vernal song being deservedly remembered. The missel-thrush, or stormcock is fond of fruit, especially cherries. When alarmed it utters a loud screech and takes wing. It does not dive into underwood or among thick foliage in order to escape by hiding, but flies straight away to some distance. It never descends to low bush-fruit. It is very wary, and seldom approaches dwelling-houses to crave food or lodging. Its wild independent song, sent forth from the rocking poplar in February, may be called the first song of spring. Rooks are often troublesome when cherries are ripe. I have not seen them attack other sorts of fruit, but they are excellent hands at shelling young, green, field-peas in June, and they frequently steal eggs out of other birds' nests. I have seen them fly over with hens' eggs, and potatoes. The rook can make a dinner of anything; he is a born plunderer. Starlings have a strong predilection for cherries. Some years since large flocks were common here in summer. I once shot about twenty out of a flying flock. They are not now so common as there are fewer cherry trees. They are gregarious all the year round; as soon as the young are fully fledged they form into flocks, and seek their food in moist meadows. When old ones are building they do their work in the morning very early, and flock together to feed. Their singular ventriloquistic whistle is uttered all the year round. They have a habit of visiting and examining their nesting places in autumn. I have repeatedly seen three old birds to a nest. They seldom feed on any kind of fruit but cherries. They do not feed on the ground on fallen



fruit like the thrushes. The whitethroat, the blackcap, the willow-wren, and one or two other small summer migrants, are fond of a little bush-fruit, such as raspberries, gooseberries, and currants. These birds do not flock together during summer like many of our native birds, but distribute themselves over the fields and woods, as well as gardens. The whitethroats are the most injurious. The robin is accused of pilfering bush-fruit, but what it consumes is not begrudged. I cannot say that I have seen it feeding on fruit. The robin is a great favourite. The author of that universal nursery ballad, "The Children in the Wood," whoever he was, has rendered it inviolable. A happy prejudice saves it from persecution. The rudest schoolboy withdraws his mischievous hand from its nest, remembering the touching part it played in the tragedy of "The Children in the Wood," or bearing in mind the injunction of his elders that it is not "lucky" to rob a robin. So, finding itself a favoured one, the robin becomes more and more trusting and familiar. This familiarity and boldness, acquired through ages of favour and veneration, have at length become an instinct. Young robins from the nest have the same ways as their parents. Man is friendly, and this friendliness is reciprocated; were he hostile, the robin would be as shy as other birds. It sings "all the year round," but its song is loudest in April. In orchards it feeds much on the ground on worms, centipedes, and ground larvæ. When the gardener is digging in winter, it keeps close to the spade, and picks up the worms and grubs as soon as they are uncovered. The cock robin has a great affection for his mate. In spring he has a habit of providing food for her before she begins to sit on her eggs, and also while she is sitting. When he finds a nice portly grub or caterpillar, he repairs to his expectant and industrious partner, and carefully drops it into her bill. This act is acknowledged by complacent gestures, a soft note, and other significant signs of gratefulness. It cannot be too often recorded that farmers and gardeners never shoot this familiar and much-admired songster.

## THE PLOUGHMAN'S BIRDS.

Pied Wagtail.—Of all the feathered friends of the farmer, perhaps the pied wagtail is the most useful; every day in summer, and in winter when the ground is not frozen, is this little bird performing eminent service for him, and this service is entirely unmixed with evil. It is the ploughman's constant companion; no other bird is so regular in its attendance on the plough, being ready to search for and pick up the lurking enemies of vegetation the moment the first furrow is upturned in the early morning. The smallest fields and those that are situated among dwelling-houses are frequented, as well as those which are large and remote from villages. Leaving its usefulness out of consideration, its pretty plumage and lively manners render it a general favourite. When in the arable field it often perches on a clod and sings: its song is rapid, clear, and sweet, not unlike that of the swallow. It will sing on a stone, a post, or a rail, but not often in hedges. Its almost general exemption from persecution renders it remarkably tame and confiding; it will continue its search for insects in the fresh earth till the horses get within a few feet of it; it will then fly round the ploughman and drop into the furrow again close behind him. As it approaches the field it is self-heralding, its loud clear note being seldom mistaken; it is also well known by its peculiar flight. From its undulating or "ducking" flight, it is named in some districts the "Bessie ducker," a name by no means inappropriate.

Yellow Wagtail.—This species comes about the 22nd of April, but it is not very common. It likes to hunt among the fresh soil, and will perch on a clod and sing as the others do. It is a very clean and handsome bird; the eye of the most indifferent rustic will often linger with rapture on its brilliant livery. I have observed two kinds of yellow wagtail here, one of a clear bright lemon yellow, and another of a dull greenish yellow; but I never could see myself justified in shooting any

of these very beautiful and valuable birds so as to make a close examination.

Meadow-pipit or Titlark.—The titlark is almost as regular in its attendance on the plough as the pied wagtail, being present both in winter and summer. It will stand on a clod like the wagtails, uttering its short “pit pit,” but is less industrious and flies away oftener. When motionless it is difficult to perceive, as it is nearly the colour of the soil. One of its notes is not unlike the squeak of a mouse. In April it is an untiring songster, raising itself every few minutes with a sort of fluttering, laboured motion, and then descending with outspread wings, very frequently alighting on a rail or a stone. Gilbert White says the titlark begins its song in the middle of April, but I have heard it several seasons together in March.

Sky-lark.—This bird is a ground-feeder, and often picks up a morsel among the freshly turned-up soil, but it seems to prefer stubbles, young wheat, or clover. It is a discursive bird, often shifting its position or flying away; it is common, and an unwearied singer. In April, when the buds are bursting, and the air is filled with the scent of spring, it will carol all day long above the ploughman's head.

These birds—the wagtails and larks—associate together amicably, and never quarrel or fight like the sparrows and some other combative species.

Rook.—The four birds above-named come and feed in the arable field in spring in odd ones or pairs; the rooks come in companies or flocks. The rook is not surpassed by any other bird I know for sagacity. Flocks will allow the ploughman to pass within a few yards of them, but a gunner is seldom permitted to get within gunshot. There are always sentinels who, on the approach of an enemy, give a “caw,” when they all rise and make off, almost always keeping clear of the lurking alarmist. In spring the rook picks up a great many grubs and worms, which the plough uncovers, but these are not exclusively the objects of its search. Potatoes newly-planted, and newly-sown barley and peas, form a large portion of its fare.

In summer and autumn it attacks the growing peas and beans, and bills up the newly-sown wheat. These and other depredations which might be mentioned are often very serious. Consequently it is looked on by the farmers more in the light of an enemy than a friend. In districts where cockchafers abound the rook may be very beneficial, and in pasturing districts it will certainly be less injurious than where the soil is well cultivated. In this neighbourhood cockchafers are happily unfrequent. The rook has some credit for destroying wireworms, but I may just remark that wireworms are by no means easy to capture, for they are generally either below the surface, or quickly out of sight when uncovered by the plough. When on the ground the rook both walks and hops.

Starling.—Starlings approach the field in companies, or flocks, and very frequently accompany the rooks. When feeding they keep up a sort of half whistling, half chattering concert, which is not disagreeable to listen to. They feed largely on ground larvæ, worms, and centipedes, but they are very annoying to the gardener in summer; their fondness for cherries is excessive. They keep together in numerous companies at all times of the year.

Sparrow.—The sparrows accompany the ploughman in spring, but they are much more constant and numerous in autumn, when grain and the seeds of weeds are mixed with the soil. They approach the fields with great noise and ceremony, and are very erratic and hurried in their manners, constantly changing their position, and flying up, generally alighting on the topmost branches of the nearest hedge. Their flight is short, and somewhat laboured. The depredations they commit in the newly-sown barley fields in spring, and in the harvest fields in autumn are very extensive. They enter the wheat fields in immense flocks, and only move from one part of the field to another when the bird-boy scares them with his rattle. Sparrows can cling to, and balance themselves on the slender upright ears of corn, and bill the contents out; this is a performance which I have never seen

any other bird attempt. When so engaged much corn is knocked on to the ground and wasted. All kinds of grain are attacked by the marauders, both at the time of sowing and when it is ripe. These destructive habits render the sparrow one of the greatest annoyances the cultivator of the soil has to contend with.

Chaffinch.—The chaffinch is often an associate of the ploughman. It does not pursue the newly-made furrow, searching methodically as it goes along like the wagtail, but hops *across* the furrows, and seeks among the ground that is ploughed; it prefers feeding on the level ground after harrows; it does much damage in spring by picking up the newly-sown barley; it has a strong propensity for the seeds of cruciferous plants, and it is almost impossible to preserve the seed of cabbage, turnip, or rape, when it is ripening, from its attacks. It generally wastes a great deal by shaking the dry and partly opened pods. Its habit of pulling up young growing plants to get at and devour the seed is well known. I have seen it collect insects after the plough in spring, but its principal food seems to be grain and the seeds of weeds.

Greenfinch.—This finch frequently feeds in spring in the newly-sown fields. It only alights occasionally in the ploughman's furrow. Like the chaffinch, it has a strong propensity for the seeds of cultivated cruciferous plants. It feeds largely on the seeds of weeds. I have found the triangular seeds of plants belonging to the *Polygonum* family, and seeds of the sparges in their stomachs.

Yellow-hammer.—Sometimes may be seen in the wake of the ploughman, but it is a very inconstant attendant. It prefers feeding on the level ground or in the stubbles.

Robin.—The robin is essentially a ground feeder. It is very unsocial, and in winter is remarkably mute, so far as disconnected notes go. When in quest of food in the arable field it generally stays about the ends of the furrows, flying into the middle of the hedge when disturbed by the horses,

and dropping down again when they go away. It searches over a limited area, attaching itself to one spot and remaining there. Long habit enables it to detect invisible insects by the motion they produce on the surface of the soil. The robin consumes vast quantities of worms, small ground larvæ, wire-worms, and centipedes, and well earns the immunity that it enjoys.

Wood-pigeon.—This bird does much injury by feeding among newly-sown barley, wheat, oats, peas, or beans, but it is not very common in this immediate neighbourhood, I cannot therefore say much respecting its habits. MacGillivray says it feeds occasionally on the seeds of field-mustard and charlock. A few miles further east, where there are large woods, it occurs in considerable numbers, and makes serious ravages among the farmer's produce.

These are the principal birds I have seen feeding in the fields after the plough or harrows. They are all permanent residents but the yellow wagtail. The two wagtails and the robin are almost exclusively insectivorous, and are worthy of strict and careful protection.

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### SHAKESPEARE AND THE TOAD.

Some time since, a fast writer who contributed his lucubrations to a London journal remarked as follows:—"There are some beliefs yet lingering amongst us which one is quite sorry to have to give up. We cannot but be glad, for instance, that there used to be that notion about the toad which made Shakespeare write those well-known lines—

‘ Sweet are the uses of adversity ;  
Which, like the toad, ugly and venomous,  
Wears yet a precious jewel in his head.’ ”

In these reforming and innovating days we are called upon to "give up" much, but in this particular instance I conceive that the conservative will have the best of it; for, instead of

giving up the old "notions" about the toad, it happens that there is abundant reason to cling to the so-called notions that are honoured with a place in the verse of the great poet. The writer seems to class Shakespeare's ideas respecting the toad amongst "vulgar errors." In the quotation above it is affirmed that the toad is ugly, that it is venomous, and that it wears a precious jewel in its head; and these affirmations, all of them, are unquestionably correct. Philosophers hold that there is nothing ugly in nature. It may be so. I shall not argue on that further than to say that there are some forms which we common people consider ugly, and some which we consider beautiful. I quite agree with the poet in the applicability of the term "ugly" in relation to the toad; for if beauty consists in harmony of colour, symmetry of form, and grace of motion, the reptile is certainly not beautiful. It is but justice, however, to mention one little exception: there is one feature which *is* beautiful, and will be presently noticed, but it is one which is comparatively small and seldom observed.

Passing to the dangerous properties of the toad, there is abundant evidence that Shakespeare was right. In the twenty-seventh volume of the "Zoologist," the editor, Mr. Newman, adduces a number of cases and experiments which clearly demonstrate that the toad is highly venomous. Dogs, birds, and other animals inoculated with toad-poison have soon died. A boy in Paris accidentally seized a toad, received the poison through a wound in his hand, and, in spite of the best medical assistance, shortly after died. The poison exudes through the skin of the back when the animal is violently molested, and, as Mr. Newman remarks, is the only defence it has against its numerous foes, for it cannot bound out of danger like the frog, nor bite like the snake. The toad might be handled a thousand times without any ill result, since it is a necessary condition that the skin of the hand should be broken to afford the poison ingress to the veins; yet, considering what has been proved, I consider it not unimportant to warn all, but particularly boys, who are so often inclined to emulate

each other in clever feats, not to make a familiar plaything of it, nor, on the other hand, to ill-treat it, but simply to pass it by.\* I have often seen dogs froth at the mouth when encouraged to worry a toad, and cats, it is said, can never be got to touch them.† A writer in the "Dublin Medical Press," as quoted by Mr. Newman, states that "the most deadly poison known to be used by the slaves in Brazil is that of the toad. The skin of the reptile contains glands which secrete in abundance a milky glutinous fluid when the toad is put to pain or irritation; this is scraped off and dried. Some beat the toad with rods to make it secrete the venom." The poison of the British toad has been proved to be exceedingly active; no one can be too careful in avoiding contact with it; still, at the same time, the creature is perfectly harmless when unmolested, and useful as a destroyer of insects. In disposition it is timid and humble; whenever it is overtaken in the lane or on the footpath it will always hobble away out of sight as fast as it can, and give you all the road to pass.

Following the quoted passage we come to the assertion respecting the "jewel in his head." It has been well said that many of Shakespeare's own sayings are jewels which sparkle whichever way you turn them. The assertion embraced in the third line of the quotation may prove to be one of those jewels; instead of being a false notion it may be a double truth. It seems rather uncertain whether the poet meant literally a stone, or figuratively the brilliant eye of the animal, for the eye is the only part of the toad which can be called beautiful, and it is that feature above alluded to as being seldom observed. Both may have been intended, but one at

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\* Many years since, an old man who lived here, named Slater, was poisoned in the hand by a toad, and was incapacitated from following his ordinary avocations for several weeks.

† Buckland states that a dog refuses to take a toad in his mouth because of the glandular secretion which burns his tongue and lips, and further testifies that it is "venomous to the human subject."—*Curiosities of Natural History, First Series, p. 43.*



least can be taken to bear the poet out—the lustrous eye. The ring of orange which surrounds the pupil may well be compared to a jewel. Commentators are inclined to think that Shakespeare meant a real stone and not the eye, and, perhaps, there would be no cause for wonder should a stony concretion be occasionally found in the head, or some part of the body of the toad. There are some precious stones which are very singular and scarce, and come from curious places. There is the bezoar-stone, the swallow-stone, the eagle-stone, the snail-stone. The stone called bezoar, or bezar, is found in the stomach of the wild goat of Persia, and was once considered extremely valuable. Stones of this kind are found in the stomachs of some other animals as well as the goat. This scarce stone was invested by the ancients with supernatural power as a curative agent. The swallow-stone is one found in the nest of the swallow and supposed to be a pebble brought by the bird to restore the defective sight of its fledglings. By some this particular pebble or shell was thought to have a magical curative effect on the human eye. One of these so-called swallow-stones, found in the possession of a peasant of Brittany, was examined by a naturalist and found to be the operculum of a mollusk. It has never been satisfactorily explained how the swallow-stone is conveyed to the nest, nor for what purpose. In his delightful poem “*Evangeline*,” Longfellow, describing how the son of the blacksmith and *Evangeline* sought each other’s company, thus alludes to this stone:—

“Oft in the barns they climbed to the populous nests on the rafters,  
Seeking with eager eyes that wondrous stone which the swallow  
Brings from the shore of the sea to restore the sight of its fledglings;  
Lucky was he who found that stone in the nest of the swallow.”

The eagle-stone is a stone found in the nest of the eagle, and was formerly believed to have a favouring influence over the hatching of the eggs.

The snail-stone is a pearly concretion found in the thorax of the slug. Many a one will learn with wonder that the

naturalist can take the repulsive creature that drags its slimy length along the cellar wall and find in its head a pearl; but so it is. Some which I possess, taken from one of the field-slugs, are exceedingly white and hard, and would puzzle a non-naturalist as to their origin.

The toad-stone (borax), mentioned by naturalists as early as 1275, was believed to form nowhere but in the heads of "great and old toads," and was looked upon as possessing extraordinary medical influence. Little can be said in support of the medical virtues, but it may be remarked that a calcareous body may possibly accumulate in "great and old toads," and may be allied, as a naturalist has observed, to the bezoar found in goats. Whether a stone is found or not, I for one shall still believe with the great poet that the toad is ugly, that it is venomous, and that it wears a jewel in its head.



A LIST OF THE RARER PLANTS FOUND GROWING ON THE CARBONIFEROUS SANDSTONE IN THE IMMEDIATE NEIGHBOURHOOD OF LOFTHOUSE.

NATIVE PERMANENT PLANTS.

- Celery-leaved Ranunculus (*Ranunculus sceleratus*)—Methley.
- Barberry (*Berberis vulgaris*)—Oulton, Rhodes Green.
- Corydalis (*Corydalis claviculata*)—Thorp wood.
- Mignonette (*Reseda Luteola*)—Stanley.
- Sweet Violet (*Viola odorata*)—Lingwell Gate, Newmarket.
- Marsh Violet (*V. palustris*)—Lofthouse, in a low-lying meadow called the Bottoms, in 1864.
- Musk Mallow (*Malva moschata*)—Lofthouse, Oulton.
- Dwarf Mallow (*M. rotundifolia*)—Rhodes Green.
- Trailing St. John's Wort (*Hypericum humifusum*)—Lingwell Gate
- Small St. John's Wort (*H. pulchrum*)—Rhodes Green.
- Spindle-tree (*Euonymus Europæus*)—Robin Hood.
- Buckthorn (*Rhamnus catharticus*)—Lofthouse.
- Alder Buckthorn (*R. Frangula*)—Thorp wood.
- Agrimony (*Agrimonia Eupatoria*)—Oulton, Lofthouse in 1864; now extinct.
- Downy Rose (*Rosavillosa*)—Rhodes Green.
- Enchanter's Nightshade (*Circæa lutetiana*)—Langley wood and Ardsley wood.
- Briony (*Bryonia dioica*)—Rhodes Green, Bottom Boat.
- Golden Saxifrage (*Chrysosplenium oppositifolium*)—Ardsley.
- Hemlock Dropwort (*Ænanthe crocata*)—Woodlesford, Stanley.
- Fleabane (*Pulicaria dysenterica*)—Oulton.
- Sweet Woodruff (*Asperula odorata*)—Middleton wood, Kirkham Gate.
- Bur-marigold (*Bidens cernua*)—Stanley Canal.
- Giant Bellflower (*Campanula latifolia*)—In a ditch in a field called the "Sheep-pens," and by a stream near the "Borewells," a field in Pymont's land, now Cooper's farm.
- Centuary (*Erythræa Centaurium*)—Of uncertain occurrence. One or two specimens in a plantation at Lofthouse in 1864. Appeared in a disused brick-pond at Thorp in 1880.

- Lousewort (*Pedicularis sylvatica*)—  
Near Ardsley wood.
- Skullcap (*Scutellaria galericulata*)  
—Lofthouse, Stanley, and  
Ardsley.
- Water Violet (*Hottonia palustris*)  
—In a swamp near Methley,  
near Fleet Mills, and near  
Stanley.
- Moneywort (*Lysimachia nummu-  
laria*)—Batley.
- Mountain Speedwell (*Veronica  
montana*)—Ardsley wood.
- Water Dock (*Rumex Hydrola-  
pathum*)—Woodlesford.
- Bistort (*Polygonum Bistorta*)—  
Lofthouse, Newton.
- Ivy-leaved Toadflax (*Linaria Cym-  
balaria*)—In the walls of the  
Canal at Woodlesford.
- Red Goosefoot (*Chenopodium  
rubrum*)—Methley, Oulton,  
Alverthorpe.
- Perennial Goosefoot (*C. Bonus-  
Henricus*)—Ouzlewell Green,  
Lee Moor, Stanley.
- Wild Hop (*Humulus Lupulus*)—  
Lofthouse Gate, Rothwell  
Haigh, Outwood, and Methley.
- Broad-leaved Helleborine (*Epipactis  
latifolia*)—Bush Cliffe near  
Ouzlewell Green.
- Frog Orchis (*Habenaria viridis*)—  
Lofthouse, Stanley.
- Snowdrop (*Galanthus nivalis*)—  
Formerly in a small wood near  
Thorp; now extinct.
- Meadow Saffron (*Colchicum  
autumnalis*)—Lake Lock (Mr.  
Gissing).
- Adder's Tongue (*Ophioglossum  
vulgatum*)—Abundant at  
Ouzlewell Green, also at  
Rhodes Green and Ardsley.
- Moonwort (*Botrychium Lunaria*)—  
Stanley (Mr. Gissing).
- Common Polypody (*Polypodium  
vulgare*)—Canal side near  
Methley in 1866.
- Oak Polypody (*P. Dryopteris*)—  
Appeared in a small bed on a  
new railway embankment at  
Lofthouse about 1862; des-  
troyed in 1870 by cattle walk-  
ing over it.
- Common Spleenwort (*Asplenium  
Trichomanes*)—Walls of Swil-  
lington church.
- Wall-rue Spleenwort (*A. Ruta-  
muraria*)—Formerly on a wall  
at Newmarket; now extinct.
- Hart's-tongue (*Scolopendrium vul-  
gare*)—Formerly at Lofthouse  
on a wall, and at Ouzlewell  
Green in a well; now extinct.
- Hard Fern (*Blechnum Spicant*)—  
Ardsley wood.

## CORN-FIELD PLANTS OF UNCERTAIN OCCURRENCE.

- Opium Poppy (*Papaver somniferum*)  
—One or two plants on the  
edge of a railway cutting at  
Lofthouse in 1864.
- Long-headed Poppy (*P. dubium*)—  
Stanley in 1869.
- Pale Poppy (*P. Argemone*)—Loft-  
house and near Rothwell in  
1869.
- Gold-of-Pleasure (*Camelina sativa*)  
—On the edge of the canal at  
Stanley.

- Candytuft (*Iberis amara*)—A single plant on a railway embankment at Bottom Boat.
- Common Melilot (*Melilotus officinalis*)—Frequent among clover.
- White Melilot (*M. alba*)—Frequently appears in clover fields.
- Corn-marigold (*Chrysanthemum segetum*)—Rarely observed amongst corn.
- French Willow (*Epilobium angustifolium*)—In Ardsley wood in 1870; appeared on a railway rampart at Lofthouse in two places in 1880.
- Evening - primrose (*Oenothera biennis*)—One or two plants by the Calder at Stanley in 1867.
- Cornflower (*Centaurea Cyanus*)—Amongst the corn.
- Chicory (*Cichorium Intybus*)—Has occurred once or twice.
- Greater Dodder (*Cuscuta Europæa*)—On tares at Outwood in 1878.
- Lesser Dodder (*C. Trifolii*)—Occurs occasionally on clover.
- Viper's Bugloss (*Echium vulgare*)—Introduced with farm seeds; has repeatedly occurred.
- Lesser Toadflax (*Linaria minor*)—Frequently observed amongst corn.
- Field Woundwort (*Stachys arvensis*).
- Buxbaum's Veronica (*Veronica Buxbaumii*)—Newton (Mr. Gissing).
- Blue Pimpernel (*Anagallis cerulæa*)—Has occurred in cornfields at Lofthouse on several occasions between 1870 and 1880.

## ALIENS.

- Potentilla Norvegica*.—Permanently established in the joints of the walls of the canal at Stanley. Was observed there prior to 1858.
- Xanthium spinosum*.—I collected a few plants of this species from a manure heap near Morley in 1866; not seen since.
- Amaranthus retroflexus*.—A single plant appeared in a cultivated field at Lofthouse in 1868; not observed since.
- Elodea Canadensis*.—Occurs in ditches and ponds all round, but I have not yet seen it within the township of Lofthouse.

# MOLLUSCAN FAUNA OF LOFTHOUSE AND DISTRICT.

[Compiled from an exhaustive list contributed by Joseph Hebden, of Wakefield, and from my own notes, and other reliable sources. The additions to Mr. Hebden's list are enclosed within brackets. The term "district" signifies a circle of twelve miles radius extending round the township of Lofthouse, on the carboniferous formation, including a small portion of magnesian limestone on the eastern side.]

## AQUATIC.

- |   |   |
|---|---|
| <i>Sphærium corneum</i> . — Stanley, Barnsley canal. Common.                | <i>Anodonta cygnea</i> , var. <i>radiata</i> . — Newton, and near Barnsley.       |
| „ var. <i>flavescens</i> . — Barnsley canal.                                | „ <i>cygnea</i> , var. <i>incrassata</i> . — Nostal.                              |
| „ <i>vivicola</i> . — Stanley canal. Common.                                | „ <i>cygnea</i> , var. <i>rostrata</i> . — Templenewsam.                          |
| „ <i>ovale</i> . — Stanley canal.   | „ <i>anatina</i> . — Canal near Barnsley.   |
| „ <i>lacustre</i> . — Barnsley canal. (Near Ackworth and near Sherburn).    | <i>Driessena polymorpha</i> . — Common.   |
| <i>Pisidium amnicum</i> . — Barnsley canal, and "Pugneys" near Wakefield.   | <i>Neritina fluviatilis</i> . — Barnsley canal.                                   |
| „ <i>fontinale</i> . — Sandal.  | <i>Paludina vivipara</i> . — Barnsley canal.                                      |
| „ „ var. <i>pulchella</i> . — Barnsley canal.                               | <i>Bythinia tentaculata</i> . — Common.   |
| „ <i>fontinale</i> , var. <i>Henslowana</i> . — Barnsley canal. (Ackworth). | „ <i>Leachii</i> . — Barnsley canal. (Near Pontefract, attached to caddis cases). |
| „ <i>nitidum</i> . — Stanley. (Lofthouse, Rhodes Green).                    | <i>Valvata piscinalis</i> . — Barnsley canal. (Ackworth, Askern).                 |
| <i>Unio tumidus</i> . — River Went. Barnsley canal.                         | „ <i>piscinalis</i> , var. <i>acuminata</i> . — River Went.                       |
| „ <i>tumidus</i> var. <i>radiatus</i> . — Barnsley canal.                   | <i>Planorbis nitidus</i> . — Kirkthorpe, Wakefield. (Frystone).                   |
| „ <i>pictorum</i> . — Stanley.  | „ <i>nautilus</i> . — Wakefield, Ossett. (Stanley, Outwood, and Castleford).      |
| <i>Anodonta cygnea</i> . — Common.  |   |

*Planorbis nautilus*, var. *cristatus*.—  
Ossett and other places.  
,, *albus*.—Wakefield and  
other places. (Woodkirk).  
,, *spirorbis*.—Common.  
,, ,, var. *ecarinata*.  
—Dirtcar.  
,, *vortex*.—Common.  
,, ,, var. *compressus*.—  
Dirtcar.  
,, (*glaber*.—Ackworth Park,  
Mr. Ashford).  
,, *carinatus*.—Barnsley canal  
and other places. (Ack-  
worth, Mr. Ashford).  
,, *carinatus*, var. *disci-  
formis*.—Barnsley canal.  
,, *complanatus*.—Common.  
At Waterloo much dis-  
torted.  
,, *cornea*.—Castleford, and  
near Leeds.  
,, *contortus*.—Castleford.  
(Methley).  
*Physa hypnorum*.—Wakefield,  
Cold Hiendley. (Stanley).  
,, *fontinalis*.—Common.  
,, ,, var. *inflata*.—  
River Went.

*Physa fontinalis*, var. *oblonga*.—  
River Went.  
*Limnæa peregra*.—Occurs all over  
the district in a variety of  
forms.  
,, *stagnalis*.—Kirkthorpe,  
Barnsley canal. (Frystone).  
,, *stagnalis*, var. *fragilis*.—  
(Castleford).  
,, *auricularia*.—Horbury,  
Walton, Winterset. (Cold  
Hiendley, Hillam).  
,, *palustris*.—Common.  
,, ,, var. *tinctoria*.—  
(Woodlesford).  
,, *palustris*, var. *elongata*.—  
Heath Bridge.  
,, *truncatula*.—Common.  
,, *glabra*.—Ossett, Castleford.  
,, ,, var. *elongata*.—  
Ossett.  
,, *glabra*, var. *decollata*.—  
Ossett.  
*Ancylus fluviatilis*.—Kirkthorpe.  
(Lofthouse).  
,, *oblonga*.—Cold Hiendley.  
(Castleford).  
,, (*oblonga*, var. *albida*.—  
Smeaton).

## TERRESTRIAL.

*Succinea putris*.—Common.  
,, (*elegans*.—Hemsworth,  
Mr. Ashford).  
,, *oblonga*.—River Went.  
*Vitrina pellucida*.—Common.  
*Zonites cellarius*.—Common.  
,, ,, var. *albida*.—  
Common.  
,, *alliaris*.—Frequent.  
,, *nitidulus*.—Abundant.  
,, *purus*.—Frequent.

*Zonites purus*, var. *margaritaceus*.  
—Haw Park.  
,, *radiatulus*.—Sandal Castle  
Hill.  
,, *nitidus*.—Common.  
,, *excavatus*.—Haw Park, Bull-  
cliffe wood. (Near Winter-  
set, Mr. Ashford).  
,, *crystallinus*.—Common.  
,, *fulvus*.—Haw Park and  
other places.

- Helix aculeata*.—Sandal, Haw Park, Went Vale.  
 „ *aspersa*.—Common.  
 „ *nemoralis*.—Common.  
 „ „ *var. hybrida*.—Frequent.  
 „ *nemoralis, var. major*.—Chevet Lane.  
 „ *nemoralis, var. minor*.—Newmarket.  
 „ *hortensis*.—More frequent than *nemoralis*.  
 „ *arbustorum*.—Frequent.  
 „ „ *var. flavescens*.—Pontefract and neighbourhood.  
 „ *arbustorum, var. major*.—Pontefract and neighbourhood.  
 „ *arbustorum, var. alpestris*.—Pontefract and neighbourhood.  
 „ *Cantiana*.—Pontefract, Walton, Chevet Lane. (Common on the eastern side of the district; rare on the western side where the vegetation is less diversified).  
 „ *rufescens*.—Common.  
 „ „ *var. albida*.—Halton and Garforth near Leeds. (Pontefract).  
 „ *rufescens, var. minor*.—Chevet Lane. (Milford).  
 „ *hispidia*.—Common.  
 „ „ *var. subrufa*.—Common.  
 „ *hispidia, var. albida*.—Sandal Castle Hill.  
 „ *hispidia, var. conica*.—Halton. (Milford).  
 „ *fusca*.—Bullcliffe wood.

- Helix virgata*.—Pontefract, Oakenshaw.  
 „ *virgata, var. albida*.—Pontefract.  
 „ *caperata*.—Lofthouse, near John O' Gaunt's Inn at Rothwell Haigh, and other places on the sandstone, but more frequent on the limestone.  
 „ *caperata, var. major*.—Common in hedge-banks at Carlton near Pontefract.  
 „ *caperata, var. ornata*.—Sandal Castle Hill.  
 „ *caperata, var. Gigaxii*.—Chevet Lane.  
 „ *caperata, var. subscalaris*.—Chevet Lane and other places.  
 „ *ericetorum*.—Sandal Castle Hill. (Near Ledstone).  
 „ *rotundata*.—Common.  
 „ „ *var. minor*.—Ossett.  
 „ *rotundata, var. pyramidalis*.—Ossett.  
 „ *rotundata, var. Turtoni*.—Ossett.  
 „ *rotundata, var. alba*.—Ossett. (Wakefield, Lofthouse).  
 „ *pygmea*.—Dirtcar. (Went Valley, Roundhay).  
 „ (*aculeata*.—Haw Park near Walton Hall, Milford).  
 „ *pulchella*.—Oakenshaw, Pontefract. (Wentbridge).  
 „ *pulchella, var. costata*.—Oakenshaw.  
 „ *lapicida*.—Wentbridge.  
*Bulimus obscurus*.—Frequent on the sandstone; common on the limestone.



*Pupa umbilicata*.—Frequent.  
 „ „ *var. alba*.—(Near Pontefract).  
 „ *marginata*.—Darrington near Pontefract.  
*Vertigo antivertigo*.—Wentbridge.  
 „ *pygmæa*.—Wentbridge and Dircar.  
 „ *edentula*.—Wentbridge.  
 „ „ *var. columella*.—Bullcliffe wood.  
 „ *minutissima*.—Wentbridge.  
*Clausilia rugosa*.—Common.  
 „ „ *var. gracilior*.—Wentbridge.

*Clausilia rugosa, var. tumidula*.—Near Pontefract and Wentbridge.  
 „ (*laminata*).—Near Ledstone.  
*Cochlicopa tridens*.—Bank wood.  
 „ „ *var. crystallina*.—Bank wood.  
 „ *lubrica, var. lubricoides*. Common.  
 „ *lubrica, var. ovata*.—Haw Park.  
*Achatina acicula*.—Pontefract and neighbourhood.  
*Carychium minimum*.—Frequent.  
*Acme lineata*.—Haw Park.

## NAKED MOLLUSKS OR SLUGS.

*Arion ater*.—Common, in various colours.  
 „ *flavus*.—Wakefield and other places.  
 „ *hortensis*.—Frequent.  
*Limax flavus*.—Common.

*Limax marginatus*.—(Ackworth, Mr. Ashford).  
 „ *agrestis*.—Abundant.  
 „ *arborum*.—Haw Park.  
 „ *lævis*.—Stanley.  
 „ *maximus*.—Common.

# ADDENDA.

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PAGE

- 24.—In 1671 John Hopkinson paid the Hearth Tax on eight “fire hearths,” two shillings each.
- 42.—Ralph Hanson, Esq., married for second wife, Susannah Hatfield, sister of John Hatfield (Kaye), Esq., F.S.A., of Hatfield Hall, Stanley. She died April 4th, 1812, aged 69.
- 45.—Henry Gascoigne, of Thorp-on-the-Hill, married first, Jane, daughter of William Cartwright, Esq., Clerk of the Peace for the West Riding, and afterwards Clerk of Assize for the Northern Circuit, and by her had Marjerie, married to Mr. Henry Proctor; William, slain at Melton Mowbray, buried at Newark; Henry, died in London; John, died a student at University College, Oxford; married secondly (in 1629), Grace, daughter of Mr. Richard Thomas, and had, with others who died without issue, Ellenor, married to Arthur Ingram, Esq.—Hopkinson’s MSS.
- 63.—Census of Lofthouse-cum-Carlton in 1881: Males 1858, Females 1670, Total 3528. Inhabited Houses 738, Empty 37.
- 90.—George Gamble, of Lofthouse, paid Hearth Tax on seven “fire hearths.”

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- 91.—Additional Extracts.
1576. Thomas, son of Thomas Gamble, buried August 13th.
1586. Henricus Gascoigne, filius John Gascoigne, gener. baptised 7th day of November.
1655. May 5th, James, sonne of James Dickinson de Loft. (christened).
1655. May 9th, Edmund, sonne of Anthony Hutchinson (christened).
1659. Nov. 24th, Anthony, a childe of Mr. Robert Labourne, of Oulton (christened).
1659. December 11th, Abraham, a childe of Abraham Wainwright de Lofthouse (christened).
1662. February 7th, Elsie, filia Arthur Ingram, gen. de Thorp (christened).
1663. May 2nd, Elena, uxor Arthuri Ingram, gen. de Thorp, sepult.
1669. September, Geo. Hopkinson de Loft., gen. sepult, octavo.
1669. February 14th, William, fil. Geo. Burnell de Lofthouse (christened).
1670. May 12th, John, fil. Geo. Hopkinson de Lofthouse, gener. (buried).
- From 1655 to 1662 the marriages are not entered. From 1635 to 1643 there are duplicate registers.

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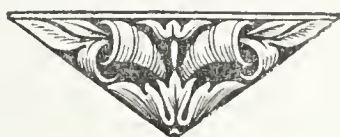
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„ <i>alliaris</i> ... ..	353, 356



## ERRATA.

Pp. 26 and 32. The date of John Hopkinson's baptism is November 29th, 1612, in the registers.

P.S.—The John Hopkinson who was buried May 12th, 1670, was nephew to the Antiquary. See p. 396. Another John Hopkinson was buried at Rothwell in 1685. See p. 92.

P. 110, for *Howett* read *Howitt*.

Pp. 125 and 131, for *mazerian* and *mazereon* read *mezereon*.

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