

Bibliographical Notices.

On the Origin of Species, by means of Natural Selection; or the Preservation of Favored Races in the Struggle for Life. By CHARLES DARWIN, M.A., F.R.S., &c.

De la Pluralité des Races Humaines. M. GEORGES POUCHET.

Memoire sur l'Hybridité en général, sur la Distinction des Espèces Animales et sur les métisses obtenus par le croisement du lièvre et du lapin. M. P. BROCA.

France, England, and America are at this moment engaged in the earnest discussion, at once political, scientific, and religious, under its different aspects, theoretical and practical, of this fundamental problem—the unity and varieties of Man—to which all observations and arguments about pigeons, rabbits and hares, &c., are merely subsidiary and collateral. We propose to take up this question seriously, and to treat its different problems in orderly succession. We have no partisan views to sustain, therefore it will be perfectly indifferent to us if we appear to be sometimes on the one side, and sometimes on the other, of the theological fence of controversy. We do not pretend, like Mr. G. Pouchet, “*écarter la religion*,” but on the other hand, we hold our reason accountable to no *littera scripta*, and shall ignore in this discussion all consecrated authorities, as such.

The authors before us are naturally grouped, by their common intent to remove the barriers and abolish the essential distinctions hitherto recognized equally by science and the common sense of mankind, as defining the species of the animal kingdom.

In their treatment of the common theme, let us remark, 1st, a general coincidence of view between Mr. Broca, who is experimenting with a view to establish the permanence of hybrids, of a cross between the hare and the rabbit, independently of returns to either parental stock, and Mr. Darwin, who has chosen the pigeon coop as his sphere of observation. Both assume that domestication can give the clue to natural variation, and to the transformations which species or organic types may have undergone since their original creation.

They may be regarded as scientific champions of the “modern development theory.” Mr. Pouchet is more passionate and biassed by certain prejudices. He dilates, with the same complacency as Mr. Darwin, upon the theory of *shades* (nuances) overlaid by the geological strata, but of which the discovery is one day to show how each species has passed into others; but when he comes to Man, he bolts. He insists on the distinction of mankind, not only into races, but into species fundamentally different, and unsusceptible of fusion. He tries, with all his might, on the one hand, to ally the negro with

the monkey, in his theory of transitional shades ; on the other hand, he denies the educability of the negro, or the possibility of elevating him to the proper level of manhood.

"America," says he, "where, especially in the Portuguese States, the experiment has been made on a large scale, cannot belie these words of an American, 'Cite me a single line, written by a negro, and worthy of being remembered.' They are no more advanced than in the times when Mahomet refused them the gift of prophecy."

We hardly expected to have met Mahomet in this affair.

Mr. Flourens has said, in his eulogium of Blumenbach, "that, with some exception as to the form, the cranium of the negro is that of the European, the capacity of the two being equal. What is still more essential is the identical character of their brain. The human mind, like its instrument the brain, is one. The soul is one. Notwithstanding its misfortunes, the African race has had heroes of every kind. *Blumenbach, who collected all that honors it, counts in its ranks men the most humane, the bravest ; writers, learned men, and poets. He had a library, composed entirely of books of negro authorship.*"

Before engaging in the scientifics of the problem, it is proper that we should advert to what may appear a spontaneous homage of ideality and the religious sentiment to the views we oppose—namely, the doctrine of the METEMPSYCHOSIS, under the different aspects in which it is presented by the Brahminic theology, by the metamorphoses of the classic mythology, and, finally, by R. W. Emerson and L. Maria Child.*

It will suffice to remark that the Brahmins confined their doctrines to the ethics and æsthetics of incarnation, or, in other words, to the influence of personal character, will, virtue, and sympathy, in determining the organic type of animality which the soul should assume in each of its successive terrestrial incarnations. Now, whether such problems be regarded as within or beyond human competence, their solution in no wise affects the fusion or confusion of organic types or animal species by interbreeding, &c. It is a problem essentially ultramundane, resting on the axiom of the soul's pre-existence, and whose affirmative decision, while cementing the ties of sympathy among created beings, would remove none of their actual distinctions as Species.

The classic mythology of Greece and Rome was, in part, a variant, poetic, and theurgic, on the oriental doctrines of metempsychosis ; in part, natural science veiled in allegory, as Bacon has shown in his "Wisdom of the Ancients." It does not, by the logic of sentiment, any more than wild alchemy by the logic of facts, whose true interpretation modern chemistry is teaching us, substantiate the metamorphosis or confusion of *species*.

The angel of elective affinity guards the boundaries of Species. To the mineral, to the plant, to the animal, in their respective kinds,

* See "Woodnotes" and "Letters from New-York."

the limits of variation, within the circumscription of their species, exist in a spontaneous order, wherein the choice of the creature is made one with the design of the Creator; and it is only where Man contravenes this choice that he disturbs and transiently changes, in some particulars, the order preëstablished in Nature, and to which organic types return, when his modifying hand is withdrawn.

Mr. Charles Darwin's book is very far from having the charm and grace which characterized either the "*Zoönomia*" of his illustrious namesake, or the "*Vestiges of Creation*," with which it is allied by its tendencies. Apparently the result of long and earnest studies, and abounding in special observations and reasonings, which, like those of the works cited, have a value distinct from the proving of his point—"the mutability of species;" yet Mr. Darwin's book is remarkably ill written—so much so, indeed, that the sort of popularity it possesses affords a curious evidence of the deplorable prostration to which the disruption of social ties in revolutionary Europe and America have reduced the noble sentiment of ancestry.

Antiquity had sought the origin of human races on the summits of Olympus; its heraldry traced back to gods; the hero and the demigod were almost synonyms. Modern democracy has corrected all that, and having laid aside romantic illusions with the sentiment of honor, and others unbecoming a commercial age, it insists upon having a monkey for its grandfather, and explores the vestiges of creation with a zeal commensurate with this ideal.

The low consideration in which Cuffy stands, about this time, is not without its influence on the popularity of those confusionist speculations, which seek to invalidate the distinctions of species, and to remove organic barriers; for while A. J. Davis & Co. combat the consecrated authorities by the "Modern Development" theory, and win the suffrages of spiritualistic radicalism at the north, it happens that our southern States, prepared by Nott and Gliddon to believe the fundamental distinction and plurality of human races, are led by the logic of their actual policy to hand over Cuffy most willingly, to be dealt with according to monkey traditions,—reserving *humanity* proper as the attribute of the whites.

Unfortunately, however, for the distinctions based on *color*, it happens that Pritchard, Bishop Heber, and other classic authorities, who wrote unbiassed by the present agitations, have placed on record facts which establish the mutability of color in men, as in the lower animals. There are individuals, and tribes of Hebrews, of Arabs, and of Portuguese, in different regions of Hindostan and of Africa, who have become perfectly black, without any other change worthy of notice.

How little variations of external appearance have to do with the essentials of species, has been forcibly impressed upon our mind when in a museum we have seen ranged before us the numerous series of doves, of hawks, and of aquatic birds. Highly divergent in their typical varieties, it is, nevertheless, easy to find one of each, which, in form, size, and general aspect, might almost be mistaken for the

other; yet in life and character, manners and actions, they are as different as possible. It is, besides, a trick of the confusionists, to blend generic with specific definitions, as afterwards they confound varieties with species.

Mr. Darwin pretends that *variation*, under *domestication*, affords the best and safest clue to the part which it has played in Nature. This theme is being practically developed by Mr. Broca, who records, in Dr. Brown-Sequard's *Journal de la Physiologie*, his observations on the mixed race bred between the hare and the rabbit.

Admitting as established, the facts adduced by these gentlemen, it seems to have escaped them, that between Man's work and Nature's work, there exist as many contrasts and antagonisms, as points of identity and co-operation. With the mission to command and to utilize the three lower kingdoms of creation, Man has been endowed with the power to subjugate and modify not only the characters and behavior of individual animals, but also those of *species*. He remodels the germ and educates the breed. Such power could not be conferred without some cost to the created order; but the moment it is withdrawn, Nature resumes her own. We leave this subject to the eloquent pen of our confrère, F. Frédault, in a future article. In the same pages will be answered many other views advanced by Mr. Darwin, whom it is unnecessary to cite at each point, since all who have read his book intelligently will make the applications for themselves.

When I say that Mr. Darwin's book is ill written, I do not mean to impugn thereby the scientific value of its elements. Mr. Darwin appears to be a candid and serious student of nature. His task presented formidable difficulties. Leaving for reviews devoted to natural history the detailed analysis of this work, let us here observe, that Mr. Darwin's fine-sounding phrase of "the preservation of favored races in the struggle for life," is the repetition in substance of Malthus's draconian code of political economy, and the systematic contradiction of the spirit and teachings of Jesus Christ, which entrust to the stronger the protection of the weaker, and exalt the power to bless above the power to destroy. Mr. Darwin would consecrate, by a philosophical theory, that iniquitous policy of enslavement or extermination which has ever marked the conquests of the intolerant Anglo-Normans, and which would banish sentiment from the earth, to enthrone there simple material interests and money which represents them.

Mr. Darwin pretends that "the most vigorous individuals, or those who have most successfully struggled with their conditions of life, will generally leave most progeny."

He ignores the fact long established as an axiom in natural science, and which we have cited in our *Passional Hygiene*.*

"The reproduction of the species maintains an inverse ratio to the perfection of the individual, a law equally ascertained and recognized in vegetable and in animal life—in its application to the rose-bush, the horse, or to man.

* *Passional Hygiene and Natural Medicine, embracing the Harmonies of Man with his Planet: Dr. M. E. Lazarus, 1852.*

The wild flowers grow abundantly from the seed, but the gardener often fails to procure seed from his highly developed and composite flowers. The horse-breeder sometimes gets his mares into such high condition that he must stint their food, work them down, and positively ill-use them, before they will conceive. Salacity and the dominance of the generative functions are always found in connection with either a low grade of life, or a comparatively lower state of the muscular force or the spiritual life in the female. The lion, the horse, the elephant, and other noble creatures, breed slowly, and bring forth, at most, twins; but the hog, the rabbit, and all those which are low and rudimental in the scale of development, are proportionately prolific.

Individual development being stunted and fragmentary during the periods of incoherence, there results a constant tendency to excessive pullulation: among the human race, this is greatest precisely among the classes to whom it is most pernicious, the laboring poor, whose hard fate precludes the varied resources of passionless life open to the rich, and prevents an equally integral development. Malthus, seeing no issue from civilization, was, from this point of view, perfectly right in chanting the praises of war, famine and pestilence, as the agents for preserving equilibrium between population and subsistence during this subversive epoch. The devouring of animals by each other, which answers the same purpose in another sphere, is then equally legitimate.

In the harmonic epochs, on the contrary, which we can immediately enter by organizing industrial partnerships, embracing all classes, and retributing by divide the three faculties of capital, labor, and skill; distributing functions in minute subdivisions, according to capacity and attractions; operating in groups of spontaneous formation, and interlocking those groups by short sessions, which shall alternate the occupations and social combinations of the individual, and connect his interest with many others, whilst attaining for him the most integral development: — in the harmonic epochs, this development, extended to all classes of the animal kingdom through their connection with Man, constantly tends to bring the number of births into equilibrium with the number of deaths, and it is hardly asking an undue confidence in the Divine mathematics, to presuppose, that at the highest point of development, this equilibrium will be attained.

The second objection, in reference to the superior quality of the life limited to the youth and vigor of the creature, is not sound, since the majority both of men and animals are now cut off, not at the point between maturity and decrepitude, but in the very bud of youth. Besides, in a true social order, integrally adapted to the nature of Man, the decline of years will be free from pain and decrepitude; will be so clasped with love and veneration in the long-established and strong-rooted ties of social solidarity to the heart of its large home, that its green old age will be not the least pleasant period of life to the individual; nor, like the richly-laden fruit tree of Autumn, bending under the weight of ripe and golden experience, the least useful to society. We shall not then hasten to bury our fathers, *nor will the faithful creatures with whom we have lived in the interchange of friendly offices, be less welcome to their life and its enjoyments.*

We have observed as an absolute principle of Nature, through all the degrees of her life in different animal and vegetable races, as well as among individuals, that the reproduction of the species holds a constantly inverse ratio to the development of the individual.

Applying this law to the low and fragmentary development of Man and other creatures, during the state of incoherence, we perceive that excessive pullulation is its characteristic, and the increase must be most rapid precisely among those classes which, from the evil conditions which repress their own life, are least capable of providing for their offspring.

The inverse providence of this subversive epoch employs as its agents for effecting an equilibrium between population and production — war, famine, pestilence and cannibalism; the results of man's incoherence with his fellow man by false societies, with the elements of Nature by false or insufficient methods of culture, &c., and with the animal creatures, of whom he constitutes himself the tyrant and the foe. The equilibrium thus attained is far from implying an amount of life equal to the possible production of the Planet — far even from the actual produc-

tion; it refers to the present wasteful modes of Distribution. *The absolute principle of equilibrium between births and deaths coincident with integral development*, calculated for the harmonic epochs or normal conditions of the Planet—as the subversive equilibrium, for the exceptional periods of incoherence—presupposes, together with refinement in the *quality* of life, its increase in *quantity*, in constant ratio to the increased productiveness of the Earth. Integral culture and refinement of the soil and elements, will give the conditions for integral development and refinement of its human and other animal species.

From the same mathematical providence which thus determines the ratio of life to production, we should expect a distribution of the different species of that life, in those relative proportions most conducive to mutual well-being and harmonic communion. This statement appears to us to present a comprehensive and integral solution of the difficulties suggested, and to leave no pretext for the resort to violent or fraudulent taking of life by one creature from another. But however sufficient to one who understands the property of the Serial law to harmonize the life of the Earth, and who has consequently integral faith in God, there may be some who sympathize in our aims and tendencies, and who understand how complete an expression of the grossest incoherence and most brutal selfishness is presented by the devouring of animals, who may fear that during the ages and generations preceding the universal establishment of Harmony on the Earth, and necessary to the progressive refinement and full development of its races, their numbers would increase too fast, that it would not be safe *yet to stay the hand of blood*. This is the same class of objectors who, in the face of most conclusive statistics, proving the increase of murders after capital punishments, and their brutalizing effect on the public mind, tell you they hold the gallows in abhorrence, but fear its suppression as removing a check to crime. We ask the objectors, in either case, to look at the results of force and bloodshed as they are now actually carried out, whether in the destruction of men or animals.

How does the former succeed in preventing crime, or the latter in preventing starvation? Let Ireland answer.

Let us show the fallacy of those political economists who mistake the results of a false and absurd distribution for those of deficient production, and who confound the actual production even of our best cultivated countries with their possible. Hear Malthus: "*A man born in an already occupied world, if his family have not the means to support him, or if society has no need of his labor, HAS NO RIGHT TO CLAIM FOOD; HE IS, IN FACT, SUPERFLUOUS ON THE EARTH; AND AT THE GRAND BANQUET OF NATURE, THERE IS NO ROOM FOR HIM. Nature commands this man to be gone, and she will not be slow to put this order into execution herself. Let every one in this world be answerable to himself and for himself. So much the worse for those who are superfluous on this EARTH. We should have too much to do were we to give bread to those who are dying of hunger; who know even that there would remain enough for the rich, population always having a tendency to exceed the means of subsistence.*"

Ricardo:—"*By the force of privation, the number of laborers diminish, and the equilibrium is established.*"

These words, it may be urged, are those of fiends, not of men; but we may remember the old man's saying, "Do not be frightened, my dear child, you will never see anything worse than yourself." The fiends who have written those words are considered to be sound, practical men, and probably quite as humane as their neighbors. Living in a sphere of utter subversion of all true relations between man and man, through the grasping selfishness to which incoherence compels, they have simply looked at things as they really are, and reduced to formulas the principles expressed in them. For this we should thank them. It is not those who tell the world harsh and wholesome truths of itself, in whatever style, who are its enemies, but those Christian teachers who, wallowing in the fat of the land themselves, deny the Master in whose name they speak, and betray both the present and future interest of their race, by diverting human energy from the aim which Christ had pointed to it—the embodiment of the law of Love in co-operative relations of industry and social life, and attainment to universal

wealth and to happiness, as a consequence of thus founding the kingdom of Heaven and Harmony upon the Earth.

By statistics of one of the wealthiest, healthiest, and most humane of old settled countries, Great Britain, we shall see that Malthus and Ricardo are perfectly just in their conclusions, if the present state of things be as they suppose, normal and permanent, instead of being exceptional and transitory. Reports from eight hundred and fifty-six parishes gave as yearly earnings of average laborers employed in day, job, and harvest work, £27 17s. 10d., and including earnings of wife and four children, aged 14, 11, 8, and 5, £41 17s. 8d. Seventy-one parishes reported this inadequate for subsistence. Colquhoun computes the number of persons who were able to live without daily labor, at only 47,000, or with all the members of their families, 235,000, out of 18,000,000; while the number of paupers, vagrants and criminals was 1,800,000, and in London and other cities, one-third of the whole population.

In Ireland, for months, while ship-loads of provisions were daily leaving her ports, the newspapers contained regular bulletins of the deaths by starvation, and the pestilence incident upon it, as destructive as the Plague or the Cholera. These things are noticed in Great Britain, simply because they have not yet been long enough organized there as normal facts. In India, for centuries, it has occurred that a district might be depopulated by famine, and the dead be strewn around the walls of the neighboring cities, without occasioning mere commotion than the destruction of the last swarm of ants.

If the divine mathematics determine for the ages of selfish incoherence, in which creatures prey upon each other, a condition of general poverty, even to the point of starvation for the masses, amid immense capacities for production, of which their internal conflict prevents them from availing themselves; and if it is equally evident that the combinations of Serial Industry will secure, to a much greater amount of life, general wealth and abundance; it follows that, in the middle terms between the two extremes, the proportion of supply to the demand, of destiny to attraction—the cessation of the curse and beginning of the blessing—will be effected in the precise ratio that men act out Christ-unity in all their relations among themselves and towards the animal creation, and substitute for the law of force and fraud, founded in selfishness, the law of love and justice, founded in unity.

The Species and races of the Earth are the particular expressions of her collective life, refining itself through the various modes of sensation, affection, and intelligence, in the animal kingdom; and, through the attraction to unity or sentiment of God, in the human race, connecting itself consciously with the central life of creation. The noxious and subversive life with which our Planet now abounds, is at once proof of her strength and her disease; it is like the copious eruption of pustules which cover the paucic body of a stout child: the cure of the disease is not by picking off the pustules, or by setting the noxious creatures to eat each other, but by determining a healthy state of the child's blood and nervous system, or of the Earth's circulation of running streams and magnetic currents, through an integral system of culture, regenerating the expressions of life by transforming their sphere.

Having taken a bird's eye view of the actual, let us proceed to calculate the possible.

What number of men can be supplied with the necessaries and comforts of life, either by direct produce or through exchange, from the area of one square mile?

A square mile contains 640 acres.

A moderate average production in wheat, whose yield is less than that of most other grains, roots and fruits, is twenty bushels to the acre.

For his subsistence a man requires an average of two pounds of grain a day, which when prepared and cooked will be very much increased. This is equal to thirteen bushels per year.

This, we presume, will be allowed to be a fair middle term. The Arab gum gatherer bears the heats of the desert on five ounces of gum; the Canadian boatman will consume fifteen pounds of flesh.

At a yield of twenty bushels of wheat, thirteen-twentieths of an acre will suffice for a man's food ; he will want an equal area for forest, another for buildings and courts, and another for meadow. Thirteen-twentieths multiplied by four, equal two and three-fifths acres, which, as the divisor of 640, gives 246 inhabitants to the square mile.

Deducting one-fourth for unproductive sites, there remains 185½.

At this rate, Europe will support 185½ multiplied by 3,256,659 square miles, area of Europe, giving 604,100,244 inhabitants, allowing to each individual two and three-fifths acres of productive soil, or to a family of five persons, a lot of thirteen acres.

The improvement of the sphere and the observance of the laws of hereditary transmission, are the only legitimate process of "weeding" capable of being applied by man to the animal kingdom, including human races.

This, we trust, is something better than the diabolic sophism with which Mr. Darwin concludes, that "from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, the production of the higher animals, directly proceeds," man being, of course, the highest of these. Now, when we read the phrase above, in connexion with his doctrine that no such thing as Species, essentially discrete, exists in Nature, but that all apparent differences have been developed by continuous progression, and when we reflect what creature stands next below Man in this "uninterrupted chain of beings," the tenor of Mr. Darwin's aspirations, hitherto modestly concealed, becomes apparent—his intimate wishes are revealed ; the universal war which he invokes is justified by the grandeur of the object. Yet we cannot but admire this euphonious, nay, magniloquent style of saying, with Mr. Georges Pouchet, "O, give me a monkey for my grandfather !"

A Monograph on Aconite: Its Therapeutic and Physiological Effects, together with its Uses, and accurate statements derived from various sources of medical literature. Translated from the German of DR. REIL, Teacher of Medicine at Halle, by HENRY B. MILLARD, A.M., M.D. Prize Essay. *New York*: Wm. Rædde, No. 300 Broadway. 1860. pp. 168.

This Monograph of Dr. Reil was called forth by the offer by Dr. Roth of Paris, in 1854, of a prize of five hundred francs for the best essay on the effects of aconite. Dr. Reil, to whom the prize was awarded, has since improved his work by the addition of the more recent observations of numerous authors ; and as it is now presented in a faithful translation, and in American dress, it forms the most complete treatise on the physiological, therapeutic, and toxicological properties of aconite that has yet appeared. We have here a historical review of all the authors who have recorded the results of ancient observation and modern experiment, from the time that the plant