DARWIN.

The whole of nature may be supposed to consist of two essences; one which may be termed spirit, and the other matter: the former of these possesses the power to commence or produce motion; the latter to receive it.—Zoonomia, vol. I. § 1.—1 am ready to allow, * * * that the ultimate cause of all motion is immaterial, that is, God.—Ib., vol. I. § 14.

Erasmus Darwin, 1794.

BY ROBERT McK. ORMSBY.

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By THOMAS MURPHY,
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PREFACE.

Mr. Huxley recently gave three lectures in New York City, on the horse, showing that at a prior geologic period, he had four toes, and arguing that he was developed from a five toed, or clawed, mammal. In his lectures he assumed that the world had a beginning. In speaking of "the hypothesis of the eternity of this state of things in which we now are," he remarked that, "whether true or false, it is not capable of verification by evidences;" and there dropped it. This was a masterly coup de logique! The permanence of the laws and order of nature is a settled presumption, and it is for him who assumes the contrary to produce his proof. The burden of evidence being on the learned professor, he will do well to advance his facts; and assumed facts will not answer. He has only one authority; that is the Bible. Was it on this account that he so tenderly spared Moses, in his lectures, at the expense of the poet Milton! I hope not, for in questions of science we must not believe Moses nor the prophets. Our distinguished friend seemed to feel quiet satisfied that he had argued the horse off of his hoofs; but he was a little shy about attacking the eternity of the solar system.

The learned professor's New York lectures have provoked the evolution of this poem, and I have only to be seech him not to treat it as he did the horse, by too closely scanning its feet; because, if he does, I feel certain he will make the feathers fly, and claim they indicate a fowl origin.

Chester Hill, Mt. Vernon, New York.



DARWIN.

CHRISTIAN.

Life! it is the gift of God, Creator Of the world; the great architect who planned And made the universe. Design is seen In every form of life, that plainly shows The workman. There was, of organic forms The first, which, without creative power Could not have sprung from inorganic dust. Evolution! 'tis this that Huxley gives In place of a creator, with ages As innumerable as sea-shore sands. Original germs there were, some two or three, From which the varied forms of living things Have developed out, in progressive steps, By natural laws. Thus are we made to see That matter, in its corpuscules, contains Almost creative powers. But still, these germs Of the lowest forms of organic life, With marvellous tendency to produce Superior species, and endowed with power Of propagation, infinite,—whence came they? Philosopher! can you tell?

PHILOSOPHER.

Life and God, in existence coeval Are, and both eternal.

CHRISTIAN.

Did life here exist When the earth was but a fiery vapor? Or an incandescent mass of matter?

PHILOSOPHER.

That earth was ever in a gaseous state,
Is mere conjecture; and philosophy
With conjectures deals not. We think we know
That matter is eternal. This premised,
We see not why the universe of worlds,
As they now in systems revolve in space,
Should not be eternal, too. And if so,
Why if the solar system make exception?
That these spheres from old to new bodies change
We have no knowledge; nor have we knowledge
Of any law for such a transformation.

CHRISTIAN.

Surely this earth was incandescent once, And destitute of life; or the science Of geology falsely teaches.

PHILOSOPHER.

The science of geology is young;
The earth is old. And those azoic rocks
Which have been thought merely foundation stones
Of life's temple here on earth, were, no doubt,
Themselves the abodes of life, when in their prime.
And the direful reign of carbon, also,
Is as imperial now, as in the days
Of those old hard-shells, orthocerascalled.

CHRISTIAN.

Why are tilted the strata of the earth, If there's been no contraction of its size? And how contracted, unless its temperature Has been reduced?

PHILOSOPHER.

The present must explain the mystic past.
Strata now, in every sea and ocean,
Are being formed; and there's but little doubt
But time will see them into mountains,
Hills and valleys, by some convulsion, thrown.

CHRISTIAN.

I doubt not, causes for such upheavals
May have existence. But when we behold
The earth's tilted strata, from east to west.
And from north to south, with a general strike,
We must seek, for results so uniform,
Some single cause. The future, it is true,
May upheavals bring; but will the strata,
Forced up by local causes, in their trend
Be as uniform as those that now are here?

PHILOSOPHER.

Contraction and expansion, are causes
For upheavals: but 'tis the solar heat,
With gaseous forces in the rocky depths,
And not abatement of internal fires,
That cracks up earth's stony vest, or shell,
Causing fractures, at right angles running
With the equator. I know, it is claimed
That earth was once a fiery gas, or mist,
Changed to its present state by loss of heat.
This was an old school suggestion, and made
Before the chemist came. The modern sees
That the solar system, if all in gas,
Spread out in space, would not, in temperature,

Range very high. No law is known to man By which this earth could in space exist In gaseous state, though great astronomers And geologists of note, have thought so.

CHRISTIAN.

At the equator, where the solar heat

Descends in force, the sun's power might be great;
But upheavals, in every latitude,
From pole to pole, are seen.

PHILOSOPHER.

Very true: but the equatorial line
Is forever changing; and that, by steps
So slow, as to escape the observation
Of the astronomer. The polar ice
Alone is stationary; under it
The earth is moving with regular pace,
In perhaps a spiral course, which, in time,
All its parts must bring to the icy zone.
There, at the poles, are the mills of the gods
Which grind so slow and fine. Our continents
In those mills are made, together with our soil.
Broken rock, dirt, dust, and rounded pebbles
Are brought forth, with the emerging continent,
And lugged away by ice-bergs, to be strewn

Where ocean currents spread them o'er the earth. On our hills, in our vales, we see the marks Of polar ice; the ledges rounded, smoothed And polished by the comminuting mass. The striæ left upon these rocky points, Point to the polar realms.

CHRISTIAN.

The polar zone
Is then receding from the western world?
But if the Atlantic basin has moved
From beneath the frigid zone, why are found
Those fields of coal in the far distant north?
Those carboniferous beds, as we are told,
Numerous plants contain of tropic growth.
Then why towards the equator should they move?
And why those fossil forests in the north,
In the realms of perpetual frost and ice,
Unless the earth, if it does move at all,
Is creeping the other way?

PHILOSOPHER.

First tell me
How came those tropic plants, thus fossilized,
In the frigid north? Around Baffin's Bay
The gigantic fern, of an age remote,

Carbonized in its native soil, is seen, And speaks like history of a former age. Tropic plants must within the tropics grow. Some have said that, warmed by internal fires, The earth was once a sort of hot-house globe, At whose poles no chill atmospheric cold Could check the growth of vegetation. Then was the air warm, indeed, for, aloft, In polar regions, did aspiring plants Spread to the breeze their leafy branches. A summer sky was there, to furnish clouds For genial showers. To impart a warmth, To such extent, to the polar breezes, How hot should be the earth beneath? Not less, At least, than broiling point for fish or steaks. Evaporation must ensue, and drouth. As at the equator, roots could not dive For moisture, for they would encounter steam.

Fossils of tropic plants and animals
In many latitudes are found, which shows
That terrestrial changes have oft occurred

CHRISTIAN.

We have never heard that the latitude Of any place on the earth, has been changed From the earliest ages.

PHILOSOPHER.

Earliest ages!

How long is that? History backward reaches Three thousand years, almost; whereas, a tree, I have heard it said, may four thousand live. Such terrestrial changes should be looked for In the record of cycles, only; not In human history, which is limited To events of years. When the artic land Was within the tropics, as once it was, Its departure was very slow, of course, As on its bosom the accumulations Of a vast geologic age, it bore. Which way does the terrestrial movement tend? The question may well be asked; for no change Since the dawn of modern science, will point Its direction. On the Atlantic's shores, Both east and west; in Eastern America And Western Europe, the earth's rocky ribs Show the grinding power of icy mountains. And then, upon the globe's other side, Throughout Siberia's artic realms, 'tis said The frozen elephants with force proclaim A warmer climate at some prior age. Such facts may show that our Atlantic land

From Asia came. The Atlantic basin
Was a central point of the polar land
That passed beneath the artic snow and ice,
With water level changing all the time.
The carboniferous treasures which are found
In the northern world, must Asiatic be,
As also the fossil trees. But the trees,
Upright, as now they stand, to have passed
Beneath the polar ice, in the ocean
Must have been submerged; or they may have grown
When the gulf stream bore further west: but plants
Of tropic growth, must from the tropics come.

CHRISTIAN.

If this be so, there is no primitive Formation!

PHILOSOPHER.

They view not the rocks aright
Who to the old Silurian system point
As holding the fossilized first parents
Of earth's countless species; for that system
Was in the deep bosom of the ocean
Formed, and was not a fauna rich in life.
But, while that formation was in progress,
A tertiary, and alluvium, also,

Must have been extant, freighted with the life Of the present day, which are now, no doubt, In the ocean's deep bosom buried.

No formation o'er all the earth extends; And as each grows up in the ocean's depth, Another must disappear. The faunas Of all formations must depend, of course, On their position in their watery bed. And the Cambrian, 'neath fifty thousand feet Of brooding ocean, would not be the home Of the prolific broods of shallow seas.

CHRISTIAN.

I must beg To call you back to your definition Of philosopy; to what it deals in.

PHILOSOPHER.

It deals in facts, and facts alone.

CHRISTIAN.

Then hold!
Should we not stick to facts—to what we know?

PHILOSOPHER.

There are certain known invariable laws
Of matter, a knowledge of which makes up

The sum of our philosopy. How moves The earth to warm with sunshine all her sides, Or how, by wasting fires beneath—by rains Or corroding frosts above, the strata, By disintegration are worn away, Is speculation foreign to our theme. The tracks of time may not be rightly nosed By the keenest scenting philosopher That ever embarked in chase of nature. But this we know, by fair deduction From well known laws, that, as time began not, And as the world is as old as time, All things brought forth by time's effluxion, That in the future we see must occur. Must be recurrences of like events Repeated ad infinitum in the past. That every strata now upon the earth Must some day be into new strata formed, Suggests the changes of the past. But then, We must bear in mind the controlling fact That organic structures are coeval With the universe, and God himself.

CHRISTIAN.

Organic structures embrace all species Of plants and animals. If eternal, Why are some extinct?

PHILOSOPHER.

Forms alone may change. What ends, began. If from primordial forms Species have come by evolution, then Primordials only must eternal be. We trust there's none extinct. Every species, In its structure, and faunal adaptation, Discloses perfect wisdom; a wisdom Not evolved from, but coeternal with, The organic being. Species do not die out. But change, if into other faunas forced: So that the links of life new forms may take, But the chain itself is never broken. If a creator, and he e'er began, Then to God himself, an eternity Was lost. He began not. Organic forms, With power of sense and thought, were either made Or are eternal. But suppose we say That Darwin's branchifers the power of thought And sense embrace. By this we little gain. Whence those branchifers? If self propagating, Organic, with sense and thought indued, The embryo of superor races: Although of form most simple in the scale Of animated being, their origin

Is a mystery still. Whence came their germ?

Could it ever have had a starting point?

Was it, by natural selection, teased

From Huxley's mud or jelly? Or, in short,

Did it come from a creative hand?

'Tis vain to dwarf its origin, and say

'Twas developed out from some still lower germ;

For faculties of thought were never formed,

Nor were ever organic forms brought forth,

From sensless elements, lest this flora

Or that fauna, should be a barren waste

Without appropriate occupants.

CHRISTIAN

And still,
It is thought that life is but in its dawn
Upon the earth.

PHILOSOPHER.

Yes: and 'tis because there is and can be
No record of the past. Those rocky leaves
Of earth's history, which make some note of time,
Are scanned with wonder by one whom the thought
Of eternity confounds. Life, we see,
Is combustion, an all-destroying flame,
That leaps from form to form, and leaves behind
But an ashy mound. Eternal ages

Have seen this earth replete with teeming life, And still the flush of youth is on her brow. He who was, and is, and ever shall be, Is ever young, and in the present lives. Youth is nature's aspect—eternal youth. There's nothing old; for with careful fingers Death, creeping on life's footsteps, erases Every trace of past existence. 'Tis true A few fossils, hid away in ocean caves, Are by some chance convulsion thrown to sight, To keep a trace of life in mortal view For a few odd millions of years, to shock The spectator, and fill his soul with awe. But in her living walks, by a system That never changes, nature permits no show Of decrepitude or age to mark her reign. Every mortal being has a time for life, And each nation, tengue and people, a day And generation. Three score years and ten Are counted the span of a human's life; Two thousand years a people's age. No tongue Now numbered among the dead, ever served For life's sweet uses for a longer term; Nor will one ever for a longer serve. Had some wild poet, when Antoninus

Reigned o'er Rome's imperial realms;—when, indeed, The whole civilized world itself was Rome, Her laws, letters and language extending From Asia's borders to the British Isles:— To that imperial lord have said, "My Lord, In five hundred years the Latin will cease To be a spoken language;" his lordship Would have shown incredulity, no doubt. No doubt but peoples spring, as by a sort Of evolution, from human masses Derived from disintegrated nations: But human history goes not back so far. In ten thousand years from now, no knowledge Of any art, tongue, people or nation, At present existing upon this earth, Will survive. Aye: let us look to the time When from the Atlantic a continent Shall appear. History will repeat itself. Prophetic races first come forth, of course; Then, by slow degrees, midst bloody conflicts, Civilization wins her transient reign. The number of dead and forgotten tongues In the dark past buried, is infinite.

CHRISTIAN.

Granted then, by the power of evolution,

For various species from the lower forms
To spring, the eternity of organic life
Has a fairer look. The earth yet may meet,
What in the distant past it must have seen,
Great climatic changes, hostile to life;
Still, it would be rash to say that all life,
By such changes, could ever be, on land,
Or in the deep, destroyed. If eternal
We find the earth, then dates life upon it,
With God's existence.

PHILOSOPHER.

Climatic and other changes on earth
Must oft occur, which would the forms of life
Destroy or change. These changes simply mark
The limits of variation of plants,
And animals. Therefore, if by such change,
Some species disappear, and other forms
Are introduced, through the conservative,
And wondrously preserving force of life,
Struggling for existance, in a new state
Of being, we witness an act creative,
In effect, but reparative in fact.

CHRISTIAN.

Why not the earth its life? Each element, (And there are not more than four score in all,)

Has a vital principle of its own:
And each, in its normal state, is a gas.
If earth be resolved to gas, the gases,
What e'er their relative gravities, must,
In space, by well known laws, in social group
Become diffused. A reign of death, indeed!
Life, conveyed by electric spark, or ray
Of light, may produce the material forms
In which we find them. If we say this earth,
Touched by the vital spark, from gaseous state
Came forth, with discharge of imprisoned heat,
We must expect, with all organic forms,
That it has a day of dissolution,

PHILOSOPHER.

Earth die like man! The vital spark to leave, And all resolved to gas! Is life distinct From earth, with molding power; or did the earth Develope life?

The embryo, or the germ,
A mere cell, seen by microscopic eye,
By laws of the mysterous force of life,
Assimilates the organic elements
Supplied from Nature's exhaustless stores.
The vital spark! 'tis not galvanic,

Generated in the organic cells; But a force that, in those cells, forever Has held its reign; reigning through organs Cerebral, indued with the power of thought Which conscious is, through the voluntary, But not, when through the involuntary, System, acting. It never sleeps, and is A controlling power, and the providence Of living things. This providence is shown At every stage of being. The wondrous force Called vis medicatrix; the instincts That never err: the natural passions Which, at every point of the being's life, Promotes the success of a destined end: And then the plan or scheme, as if designed By wisdom divine, by which the species Are from extinction saved; this perfect round Of well planned means to ends, invests this life, This ruling force of the organic being, With something more than mere material powers. But not alone within the tissue cell Works this magic force; but, likewise, without, Its powers are sometimes felt, and are the cause Of what have been thought interpositions From the unseen world. Its sphere is not known. We simply understand, it is the force That controls existence from end to end, Seeing all its objects attained in full. Man is thought the wisest of breathing things: But without control of this higher power, His existence would find an end at once. When the individual's career is o'er And every object of his life obtained, What then remains, and what its destined end? Many look with dread on dissolution, As though life could ever become extinct; But such forebodings are but borrowed fears. Death is a phantom; not a real foe. All creeping, breathing things, are here fixed fast. And must here remain. Eternal wisdom With which we find this endless life imbued, Has lodged the highest joy in youthful veins, And hence permits, not death, but renewals To everything that lives. Each germ thrown off By the parent plant, animal, or man, Is that parent's self—is his very being— With all his habitudes, moral, mental And physical, indued. Throughout his life Such germs must be, in numbers vast, evolved, And in them, as they grow up around him,

Does the parent, with life renewed, exist. These emanations from the parent stock Draws each a part of the parental life, And are, as is seen, but transition steps Of the paternal being, who thus goes forth, In youth and beauty, in life's new career. Thus renewed, the new form survives the old. Which yields to dissolution: but this fate— All dreaded death—when Nature's path is trod. No terror has—has no pang. One by one, As age advances, the ruling passions And strong desires of early days, depart, Till the mind itself is almost a blank. Soon memory ceases to recall ideas Of events or forms; and the aged one, Fed like a babe, step by step, weaker grows, Untill naught but the withered form of man Remains. By slow degrees, the senses all Are seen to fail; the eyes no longer see, Nor longer hear the ears; nor any taste In the palate left. Before the lingering, Vital spark shall go out, all sense and thought Will long have ceased. The change is then complete; And the monumental stone simply marks One stage of man's existence.

CHRISTIAN.

With your philosophy, I find no fault. You grant me God; and, in organic life, You find a providence; and races new, Evolved from antecedant races, which, In one sense, you say, is called creation. That God is eternal, I will concede. If earth began, 'twas not the beginning Of God, nor of his world; but must have been One stage, only, in an infinite round Of transformations, which never began, And, hence, will never end. God's magnitude Will not be compressed to the dimensions Of man's philosophy. We must enlarge To take him in, or our structures fall At his approach. Man is a finite being, And must build his philosophic systems With movable timbers, because often He will have to alter and enlarge them. I think well of your speculations, for, It is the true sphere of philosophy To find out God, and not ignore him.