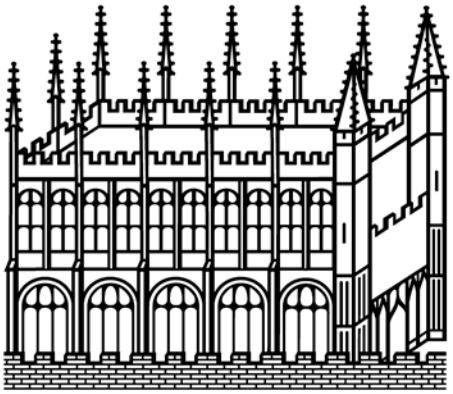

CAUSE AND EFFECT;

OR

NATURE'S PROOFS

OF A

DIVINE CREATOR:

A POEM.

Canto First.

BY THE

REV. ROBERT MOFFAT.

" Thou, even thou, art Lord alone: thou hast made the heaven, the heaven of heavens, with all their host: the earth and all that is therein, and thou preservest them all, and the host of heaven worshippeth thee."—*Nehemiah.*

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1819.

PREFACE.

It is generally understood, and it is probably true, that in the common acceptation of the term, *Atheism* is an absolute impossibility. That is to say, that whatever may have been, or may be pretended on this head, by the more or less enlightened of the human race, no man ever existed, in whose mind the non-existence of God, or of a *First Cause*, formed a firm and steady article of belief; or, in other words, who was capable of firmly believing, that the complex and beautiful machine of the Universe, either existed from eternity, without a maker, constructed itself, or was the production of mere chance. And yet, in every age, Atheists have abounded; and,

according to Dr Clarke, this singular phenomenon may be accounted for in one of three ways: *viz.* either upon the principle of extreme ignorance and stupidity; or upon the principle of extreme debauchery, wishing that to be false which they are afraid of being true; or because, with a third class, the result of investigation has been, that they consider the arguments against the existence of God, stronger than those that can be brought to establish that doctrine. Dr Brown, in his celebrated Essay on the Existence of a Supreme Creator, &c. assigns as reasons for Atheism—a foolish affectation of superior penetration and knowledge—the incomprehensibility of the Deity—the gross absurdity of certain modes of religious worship—depravity of nature, and wickedness of life. And of the same subject we have the following account from Dr Chalmers:—"He," (the Atheist,) "sees nothing in the phenomena around him, that can warrant

him to believe in the existence of a living and intelligent principle, which gave birth and movement to all things. He does not say that he would refuse credit to the existence of God upon sufficient evidence; but he says, that there are not such appearances of design in nature, as to supply him with that evidence. He does not deny the existence of God to be a possible truth; but he affirms, that while there is nothing before him but the consciousness of what passes within, and the observation of what passes without, it remains an assertion destitute of proof, and can have no more effect upon his conviction than any other nonentity of the imagination. There is a mighty difference between *not proven*, and *disproven*. We see nothing in the argument of the Atheists, which goes farther, than to establish the former sentence upon the question of God's existence. It is altogether an argument *ab ignorantia;* and the same ignorance which

restrains them from asserting in positive terms that God exists, equally restrains them from asserting in positive terms, that God does not exist." *

But whether this Atheism originate in ignorance and inattention, in a course of life that cannot bear reflection, without reducing the individual to the necessity of wishing that there were no God, or driving him to the madness of renouncing his understanding, by affirming that there is none—whether it originate in the vanity, pride, and ambition of the individual, in the sense of expecting to pass for a man of superior understanding, by having a creed constructed upon principles, different from those which are held by the bulk of mankind—whether we are to look for its foundation in a pretended belief of

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* Chalmers's Evidence and Authority of the Christ. Rev., Chap. ix., 5th Edit.

the eternity of matter,—among the *atoms* of Epicurus, or the *molecules* of Buffon—in whatever it may originate, upon whatever principles it may be maintained, or with whatever modifications it may exist, it must be admitted, that, in one form or other, Atheism abounds to an alarming extent; nor by any sensible man will it be denied, that no correct estimate of the extent to which it abounds, can be made, from the number by whom it is openly avowed. That number, from the very nature of the thing, in any enlightened, and especially in any Christian country, must always be comparatively small. Were certain restraints removed, a very different scene would be exhibited—Witness, the amazing number that burst upon the world at the French Revolution, when the strong arm of power was so suddenly paralyzed, or bound up. In attempting to arrive at a knowledge of the truth here, we must estimate not by open avowal, but by the conduct of the

life. And with tyrants, and oppressors, and persecutors; with assassins, and murderers, and thieves, would the world be infested as it is—would our prisons be crowded with malefactors as they are—would the feelings of the Public be so often shocked with the public execution of fellow-citizens; or would a country, at the distance of almost half the circumference of the globe, be so rapidly peopled with the sons and daughters of our native land—would all this be the case, were it firmly believed that there is a God who judgeth in the earth, who is about our path, and about our bed, and espies out all our ways; who will by no means clear the guilty, and who will at last give every man according to the deeds done in the body?—The fact is, we may safely affirm, that with such offenders in general, there is no fixed opinion upon the subject; or rather, that they say in their hearts, "There is no God:" for where a belief of the

existence of the Divine Being is firm and steady, it is hardly possible to conceive, that the individual could act a part, in so direct opposition to the dictates of reason, as well as of Revelation.

Under the influence of such a conviction, I have selected, as the subject of the following *Poem*, the proofs which Nature seems to supply for the existence of a Divine Creator—a subject, which, in *prose*, has been discussed with great ability by a variety of writers, both in our own and in other countries. But though this be the case, it will not follow, that the necessity either of additional treatises in *prose*, or of the present attempt in *poetry*, (an attempt, so far as I know, entirely new,) is altogether superseded—The subject is inexhaustible, and every man may be supposed to have his own way of managing it—With the *works* in reference, the great majority are unacquainted; whilst in such *works*, with a few exceptions, the argument is often conducted,

in a manner too abstract and metaphysical, for common understandings.

Poetry, though indeed not so fit for conducting an argument, combines many advantages peculiar to itself.—Whilst the Poet's numbers may involve and display the full strength of an argument, by the rigid rules of demonstration, he is not fettered.—Without incurring the charge of looseness, of declamation, or digression, he can diversify his scenes without end.—The thorny and forbidding path of argumentation, may be rendered inviting, by the flowers with which it may be strewed.—In the melody of numbers, there is a charm to many readers, whom nothing could induce to follow out disquisitions, dry and argumentative.—And in general, it may be safely affirmed, that the truths taught in *poetry*, and especially in *rhyme*, strike more forcibly, make deeper impressions, are longer, and more easily remembered.—Even children can commit them

to memory with pleasure, retain them with ease, and oppose them as a shield to every shaft. Thus, they will be early habituated to meditation upon the works of their Maker, and associate with the thought of themselves, and of every creature around them, the idea of a God of infinite power, and wisdom, and goodness; the firm belief of whose existence and unity, is absolutely essential, in order to give value or efficacy, even to the Christian Religion itself.

From the preceding remarks, my object in making such a selection the subject of a *Poem*, will be clearly perceived; and he, who, without a scrupulous regard to the popularity of his subject, studies, by combining instruction with amusement, to write only with a view to public utility, should he fail in point of execution, has perhaps the first claim upon the Public's indulgence.

ARGUMENT.

Reasoning from Effect to Cause, natural to man . . . Obtains universally . . . The human mind in this respect, powerfully excited by the aspect of the heavens by day, and especially by night . . . The inconceivable magnitude, symmetry, and grandeur of the Universe, as unfolded by the telescope . . . Comets . . . Vicissitude of the seasons, of day and night . . . The adaptation of the various creatures to their respective elements, and modes of life . . . The apt provision made for the supply of their various wants . . . The Lion . . . The Tiger . . . The Elephant . . . The Leviathan . . . Living creatures characterized by endless diversity of form . . . Amid all this diversity, not a single instance of imperfection . . . Wonderful preservation of the various species in life . . . Instinctively taught how and where to find suitable food . . . Instinctive propagation of their kind . . . Nursing care of the parents so long as needed . . . Address to the Atheist . . . Fit to be classed only with those who have lost the exercise of reason . . . Picture of insanity . . . An effect without a cause, an absolute absurdity . . . Equal to the absurdity of supposing that there could be action before existence . . . Various cases supposed . . . Every creature a machine infinitely more wonderful, and displays infinitely more intelligence, than the most complex and ingenious ever produced by human skill . . . The investigation supposed to extend from the least to the greatest, whether in the deep or on the dry land . . . From the insect to the Eagle . . . Description of the latter . . . From the reptile to the Dromedary . . . Description . . . Demonstration con-

fined to the fowls of heaven . . . Their plumage . . . How disposed . . . Bones . . . Tail . . . Wings . . . Disposition and figure . . . Mechanical structure of the feathers . . . Peculiar structure of the beard . . . Its uses . . . Oil for lubrication, how supplied . . . Humming bird . . . Form and disposition of the feathers of all birds intended to soar . . . Consequence of reversing the order . . . Peculiar advantages arising from the composition, structure, and disposition of each feather, and from the whole wing being thus mounted . . . The Swan . . . Owes its command in the water to the web-foot . . . Beautiful appearance there . . . Wing operates upon the air like such a foot in the water . . . The wing constructed upon principles, which, in performing its operation, set danger at defiance . . . Object and advantages of moulting . . . Peculiar conformation of the feet . . . Mechanism by which the toes are curved upon the perch . . . Necessity of it, especially when asleep and in storm . . . Claws . . . Legs . . . Formation of the bone . . . Not encumbered by the weight of marrow . . . This altogether peculiar to the winged creation . . . Lungs of birds . . . Air-vessels connected with them throughout the whole extent of the viscera and of the bones . . . Object of this peculiar conformation . . . Erection of the feathers according to volition . . . Purpose . . . Neck and head . . . Brain . . . Bill formed to answer all the purposes of teeth and jaws, that the bird may not be encumbered by the weight of such an apparatus . . . Description of a waste . . . Thousands of the plumy tribes supported there . . . Bill variously formed, according to the various ways in which it may be called to operate . . . Varieties specified . . . Bird taken by a falcon . . . Description . . . Contrasted with this, the Eagle or Vulture's style of taking the prey upon the wing . . . Description of the Eagle's lofty and solitary abode, in the deep and in the desert . . . The king of birds . . . His various kinds of prey . . . Force of bill and talons . . . Conformation of aquatic birds that wade, compared with that of birds that swim . . . General description of carnivorous birds . . . Eyes of birds . . . The wisdom and design displayed in their position . . . Inconveniencies

arising from any other... Perfect safety of the eye amid the greatest speed... Gizzard, &c. compensate the want of teeth and jaws ... Peculiar manner in which birds propagate their various species... Obvious design of it... The plan of the Creator continually varies, as circumstances require... Examples... Granivorous birds... Internal organization different even from that of birds of prey... The Woodpecker... Conformation of aquatic birds that swim... The Bat... The Parrot... The Swallow... The Owl... Conformation of all other birds of prey, exactly suited to their modes of life... Chace on the wing described... The little sufferer oft escapes... Has in these distressing circumstances often fled to man for protection... Humanity recommended... Description of a storm on the Atlantic or Pacific Ocean... Grandeur of the scene on the American shores... These shores the abode of the Toucan... Finds its food among the sands... Singular conformation of the bill and tongue of that species... Admirably adapted to the work they have to perform... The Ostrich a native of Arabia... The largest of the feathered race... Plumes, and purposes for which they are employed... Beauty of Britannia's Fair, renders such ornaments superfluous... Ostrich wants the faculty of soaring... This want compensated by the length of his limbs... Speed upon the ground, arising from the combined action of wings and legs, an overmatch for all his pursuers... Happiness of the winged creation in the enjoyment of liberty... Invocation to it... Marathon... Platæa, &c.... Invasion of Scotland by Edward II.... Battle of Bannockburn... King Robert Bruce... Wallace... Recommended a National Monument to each of these Heroes... Britannia's superiority over surrounding Nations... Owes every thing to liberty... Battle of Waterloo... Bonaparte... Wellington... Comparative state of the two armies in point of numbers... Defeat of the French... Flight of Napoleon... Address to Tyrants... Address to the God of Battles... Subject resumed... Conclusion.

CAUSE AND EFFECT, &c.

A POEM.

CANTO I.

WHENCE that immensity of *blue*, beheld
By every human eye? alike impell'd,
To scan its glories, sweep its wonders o'er,
'Mid blaze of noon, or at the midnight hour.
The naked savage, panting 'mid the heat,
That sicken'd nature, prostrates at his feet,
Turns to the boundless *blue* his swiming eyes,
And raptur'd, views the glories of the skies:

Asks whence that dazzling Orb that brings the day,
Illumes, and warms, and makes all nature gay;
Till, having gain'd the loftiest point of Heaven,
By his fierce heat, the solid earth is riven:
Then burning onwards to the Western Main,
Merg'd in its waters nightly, thence again,
With undiminish'd splendour o'er the east,
Spreads the fair day, nor wearied, 's ever ceas'd,
To wheel his flaming chariot through the sky,
Since men had sense to feel; to see, an eye.—
Asks how, or whence, was lighted up his fire?
Was't by himself? or is there Power still higher,
That dwells unseen, beyond remotest run,
Of stars, of comets, planets, and of Sun?
Not by himself; for how could that create,
Which wants existence, therefore love and hate,

Power, wisdom, will, whatever being has?—
By HIM that shall be; HIM that is, and was,
The Dread Unknown, Eternal, UNCAUS'D CAUSE!

But traverse earth through ev'ry zone;
'Tis not in this or that alone,
That man from other tribes is known,
By gazing at the sky;
By reas'ning from effect to cause,
By marking Nature's diff'rent laws,
Charm'd with her various dye.

'Tis o'er the broad extended earth:
'Twas thus, that Nature gave him birth,
Thus stamp'd upon him peerless worth,
And bid him fearless roam,

O'er hill and dale; tread the deep dell;
The forest scour; the ocean sail,
And read Heaven's ample dome.

But chief, when *Sol* has ta'en his way,
To gladden with returning day,
Climes that in absence of his ray,
Lay cheerless wrapt in night;
When Heav'n's innum'rous host display'd,
In milder glory fair array'd,
Beam on the raptur'd sight.

When worlds on worlds crowd o'er the boundless space,
At sumless distances beyond the line,
Track'd by that Sun—E'en telescope can trace,
But outskirts of the mighty work divine.

And swell'd the number, as increas'd the power,
When tried attentive at the midnight hour :
Still myriads swarm upon the astonish'd sight,
Created all in number, measure, weight.—
In vain imagination tries to sweep,
With her bold wing, this awful, boundless deep !

With suns unnumber'd, warming countless spheres,
The stamp divine, that ev'ry where appears ;
With all the wisdom, goodness, power impress'd,
With all the grandeur, glory, that invest ;
Whilst Comets with accelerated speed,
In curve elliptic to the Orb of day,
Their fiery masses wheel, of worlds the dread,
Lest evil hour should all in ruins lay :
Lest swift beyond all calculation's power,
Their orbits cutting, in some dreadful hour,

By fateful contact, or too near a *run*,
Should drag them in, direct upon the Sun;
Or outward flaming, 'neath his burning ray,
Should sweep them on, from out his sphere of day,
Unnumber'd miles beyond remotest round,
Of planet wheeling through the dread profound! (1)
Yet though ten thousand thousand systems wheel,
Through boundless space, none ever known to reel,
Erratic from their spheres:—each sweeps along,
In glorious order, through the mighty throng!

With all the living proof before his eyes,
Supplied by air, by earth, by seas, and skies,
By day and night, by ev'ry living thing;
By Summer, Winter, Autumn, and by Spring;
By fire and flood, by *calm* and by the *storm*;
By ev'ry awful, ev'ry pleasing form;

The adaptation that all creatures bear,
On earth, in sea, or in the ambient air,
To their appointed spheres—by the supply
Of all their wants, that swim, creep, run, or fly;
From the grim Lion, whose horrific roar,
The desert dismal fills, from shore to shore;
With all the savage monsters, whose repast
Is blood and carnage—pealing on the blast,
The affrighted trav'ler hears, and drain'd of strength,
Heart-struck he falls, at full extended length—
From the huge Elephant, that 'gainst a tree,
His bulk unwieldy leans, and scorns to flee;
To move from his firm stand, though roaring round,
The Lion's self, should shake the solid ground!
Or Tiger, yet more savage, should advance,
With eye horrific, as the lightning's glance.

Lo! without paw to hold, or teeth to tear,
This giant of the desert, void of fear,
Receives the dread attack—One single round,
And his grim foe, lies sprawling on the ground!
His huge proboscis rais'd, a single stroke,
Sheer throughout all his strength of brass has broke!
From the Leviathan, that takes his play,
Amid unfathom'd waters—now his way,
He downward turns, now upwards to the day,
His bulk enormous heaves—the deep around,
Boils like a pot!—the tempest's mingling sound,
Is heard afar—dread o'er his billowy path,
Broad lightnings gleam—his path's the path of death.
And when he roars, 'tis thunder from on high!
And when he spouts, a river's in the sky!

From these, and from innum'rous more that swarm,
Through Ocean's vast extent, or spread alarm,
Through boundless tracts, with fiercer suns to warm,
Down to the cow'ring trembler, that the tread
Of heedless, or of cruel man, lays dead.—
With all the proof by magnitude supplied;
By forms of living creatures multiplied,
Without an end—by this amazing thought,
That not a single instance can be brought,
'Mid all this strange diversity of form,
Tried downwards, from the mightiest to the worm,
Of imperfection—Each is in its kind,
Complete as all before, as all behind!—
By preservation of the mighty whole in life,
'Mid all the war, the devastation, strife,
That rage around—no single species lost,
In all the storms with which they have been tost—

By the instinctive power, by which they find,
The food that suits the taste of ev'ry kind,
Most apt for nourishment, 'mid endless choice;
And, lo! left to themselves, they all rejoice,
In life and liberty; in having found,
In air, on earth, in sea, or under ground,
What suits their constitution, form, and health—
Supplied their ev'ry want—Behold the wealth,
Of countless millions, that nor sow, nor reap,
Well cloth'd and fed, on land, or in the deep!
To all this add, the strong, and fierce desire,
That operates within, like latent fire;
Impels the whole to propagate their kind,
As by one spirit mov'd, one common mind—
The apt provision made for this event,
By ev'ry tribe, when on this object bent,

Instinctive, and include the tender care,
Which of the parents, all their offspring share,
Till for themselves, (that care not needed more,)
Their young can shift, as they had done before.

With all the mass of proofs that thus arise,
Forc'd on his mind, and plac'd before his eyes,
Lives there a *fool*, who serious thinks or cries,
"There is no God?"—Hence, bold blasphemer, hence:
Thy tongue betrays thee void of common sense!
Hence to the place, where fools alone reside,
Where reason's lost her wonted power to guide;
Where fancy holds dominion all alone,
And now they're slaves, or mounted on a throne!

Now wail the loss of all, stretch'd on the ground;
Now see the vessel o'er the billows bound!
Now see their all go down, to rise no more;
Now haul the golden treasure to the shore!
Now lead the embattled legions to the field;
Now 'fore superior prowess, see them yield!
Now through unnumber'd squadrons, cut their way;
Now backward speed, with horror and dismay!
Now fix'd to earth, with iron bolts and bars;
Now on a *Moon-beam*, ride up to the stars!
The Sun that streams with gold the spacious East,
Relumes the world, but that they may be blest!
With dazzling glory, spreads all nature o'er,
But that their *Love* may reach the happy shore;
Their friend, their *Love*, or kingdom to restore!
Whilst ev'ry feather'd warbler pours his song,

From ev'ry spray, the verd'rous grove along,
And raptur'd all, the entrancing notes prolong,
To hail the auspicious day !—All nature round,
To highest pitch of ecstacy is wound,
For this alone ! for reason's lost control—
Confounded all, the body and the soul ;
Cause and effect, things also great and small,
The spider's cobweb with a city-wall !

Hence to them, for with them alone you'll find,
Creed, reas'ning, laws, congenial to your mind. (2)
If from them diff'rent, then your creed abjure,
And yield to reason's dictates, just and pure.

Can there be found effect without a cause ?
Within the compass vast of Nature's laws,

Such case was never known, was never heard,
Was ne'er suppos'd by savage, sage, or bard.*
Not even within the compass lies the thing,
Of possibility's wide range—to bring
In point a single case, all power defies,
Of men below, or angels in the skies.
For nothing sure can act, can will, or plan,
Before itself exists—Behold, vain man,
The dread dilemma! whence canst thou escape?
An angel could not, practis'd long to sweep,
With awful wing o'er many a boundless deep,
By thee untried, unheard—'Tis quite the same;
Select from sea or land, from wild or tame,
An animal, then say, Whence is it there?
By procreation of a certain pair.

* *Viz.* In any system of calculation, natural or common to man, in the ordinary business of life.

But whence that pair themselves?—The process as
before:
Thus backward to the point, where process is no more.
For whilst along the line you thus ascend,
'Tis obvious, you at last must reach an end—
A pair in full perfection *unbegot*—
Were these made by themselves, or were they not?
The question is the same, as we should say,
Before himself was born, a man could lay,
The plan of Structure, vast, and beauteous, grand,
The wonder, pride, and glory of the land!
The mighty superstructure, gradual raise;
All Græcia's *Orders*, striking with amaze,
And each beholder fix'd in speechless gaze:
The grand sublime of genius, work, and thought,
Through the stupendous whole, so wondrous wrought,

As to surpass all other works of man,
As far as Heaven's expanse, exceeds a span !

Or, which is more in point, you can suppose,
Amid the force of mind your *nonent* shews,
That ere a man existence had receiv'd,
Or of existence, he had been bereav'd,
He could machine invent, or great or small,
More wondrous far, more complex far than all,
That ever came from human hand or head ;
Were e'er produced, by living or the dead !

For such is ev'ry creature earth contains—
Search sea and land, the mountains and the plains:
From the poor crawler, nestling in the sand,
Up to the monsters, that maintain command,

O'er all the wat'ry world—as from the string,
The arrow bounding with its bearded wing,
As stone of polish, whizzing from the sling,
They with destruction arm'd, tremendous sweep,
O'er all the empire of the mighty deep.—

From insect sporting, in light's feeblest gleam,
To Eagle soaring on the solar beam—
Lo! now, he upward shoots through floods of light,
Till far behind, he leaves the very sight,
Of all that soar!—undazzled takes his play,
'Mid all the effulgence of the fiercest day;
With eye of fire, keen as the lightning's glance,
Surveys the glowing, glorious expanse:
Anon! with speed again beyond compare,
In downward flight, he cleaves the sounding air:

To 's far-seen prey, in vain to run, to fly;
'Tis certain death, if mark'd out by his eye!
Clear'd his dread path, by ev'ry wing below,
Whilst op'ning clouds, his martial figure shew:
Dash'd in the thicket instant, great and small,
At sight and sound, that ev'ry heart appal;
Or 'neath the billow hid, as whoop on high,
His path of blood, is through the sounding sky!

From reptile crawling in the dust you tread,
To Dromedary, tossing high his head—
On mountain's top, he snuffs the fresh'ning breeze,
And looks defiance on each foe he sees:
With speed unmatch'd, the desert clears amain:
The swiftest try to follow him in vain:
A few short hours, behind him countries lie:
He takes his stand beneath another sky! (3)

From the minutest, that the human eye,
With microscope is able to descry,
Up to the mightiest of the land or sea;
In teaching this grand truth, they all agree,
That theirs the Maker is, that is divine,
The uncaus'd Cause, that stretch'd the mighty line,
Creation round—that glorious hung on high,
These countless orbs, that blaze along the sky. (4)

Each creature's a machine more curious wrought,
Than all that ever sprung from human thought;
Ten thousand times more complex, wondrous, grand,
Than ever rose beneath the human hand.—
Whence is it, that whene'er machine, the least,
The greatest, noblest, most complex, the best
Of human skill, is placed before your sight,
Then straight you reason, and you reason right,

From work to worker, from effect to cause,
For this is one of Nature's changeless laws—
The principle desert in this strong case,
Say why? in which you can so strongly trace
Design, that works of men appear no more,
Than pool left by the tide upon the shore,
Compar'd with that unbounded flow,
Of waters heaving to and fro,
In the immense Abyss—Your search extend,
From sea to sea, even to earth's utmost end—
To all that wing the globe around,
That live above, or under ground,
That people yon immense profound,
Of waters ever tumbling round,
This wheeling, flying ball—You'll see design,
Pow'r, wisdom, goodness, depth of plan that shine,

'Mid all the works that man could e'er display,
Like that effulgent, glorious Orb of day,
Whilst o'er heaven's loftiest height he takes his way,
And pours o'er all the sky, a flood of light,
That hides the stars from ev'ry human sight. (5)

If through the air, the creature's call'd to pass,
'Tis mounted with a plumage smooth as glass:
Its various parts in beauteous order trac'd,
With all the glories of the rainbow grac'd;
Dispos'd in backward slope, that it may lie,
In closest fold, when mounting up on high,
The bird inclines to play along the sky;
The greatest warmth secure, and least oppose,
Resistance to the air through which it goes.
No marrow in its bones, to keep it light;
Shap'd like a fawn its tail, to steer it right,

Its buoyancy increase—to turn at will,
Or right, or left, in circling mazes wheel:
Now on the ground, in graceful curve to light,
Now upwards shoot, beyond the bounds of sight! (6)

Of wings a pair, to nicest balance wrought,
For if your mind be capable of thought,
To this conclusion you must straight be brought,
That *one* or *three*, or any number more,
Must render fruitless all attempts to soar.
Though only *two*, if not the balance fair,
The consequence the same as not a pair—
On each side *one*, and these in line direct
This too essential to efficient act—
So placed that when aloft in air,
The body 'twixt this equal pair,
Is balanc'd to a single hair!

And mark the structure, the mechanic art,
The skill divine, display'd in ev'ry part—
A convex surface, lest th' incumbent air,
In upward flight, too forcefully should bear
Upon the lab'ring wing; and this applies,
To ev'ry movement through surrounding skies.
Below concave, that ev'ry stroke may tell,
With more effect: and farther, mark it well—
With feathers mounted too of greatest length,
And here, as needed most, of greatest strength.

The vane of ev'ry feather's cast,
On principles from first to last,
Such, that no unexpected blast
Can burst the beauteous wing;
Or should the accident occur,
The bird the loss straight to repair,
Has but a curve to bring.

'Tis form'd of fibres so compos'd,
As burst asunder, straight 'tis clos'd,
For reasons which a searching eye,
With admiration will descry.—
Not at right angles do they rise,
But slop'd through all their length,
And though the scale's of little size,
They are of wondrous strength.
A certain strong elastic spring,
Pervades them ev'ry where,
So that press'd upwards 'long the wing,
The loss they quick repair,
By backward start—and here arise
New wonders to th' exploring eyes.—
Of ev'ry fibre, mounted is one side,
With hooks unnumber'd, which spontaneous glide,
Into their catches, on the fibre next,
So that when parted, they again are fix'd,

And fit for action, as they were before,
Thus in their feebleness, consists their pow'r:
For had they been so strong, as not to part,
Without a fracture, not by any art,
Within the compass of the wearer's pow'r,
The order lost, could it again restore.

Besides, his plumes, the bird could ne'er have
dress'd
With that fine oil, of which they're all possess'd,
Which rises in a fount, above the tail,
In an abundance, that can never fail;
Which throws such lustre o'er its feath'ry vest,
Or on the wing, or on the ground at rest;
Which finds its way into the springs below,
Whilst o'er the plumage, it is made to flow. (7)

These feathers shap'd upon the gen'ral plan,
The scale no matter what, or inch or span—
From that small bird, that o'er Brasilian plains,
Its myriads pours, and of their nectar drains
Its fav'rite flow'rs—whilst flutt'ring in the sun,
Unnumber'd glories o'er the country run:
The eye half dazzled, views the boundless blaze;
The ear delighted, hears the hum of praise—
From this minutest of the feather'd race,
Up to the largest, we distinctly trace,
The same unerring skill, the same great plan,
The Pow'r that works, beyond all pow'r of man—

The one side rais'd, these feathers all display;
The other scoop'd; all plac'd in such array,
As that the shortest, in the van appear;
The longest rang'd, along the angled rear:

Out laid the convex side, through all its length;
The very thing that gives the wing its strength.
Reverse the order, and the wing that heaves,
To sightless height, the mighty bird that cleaves
The loftiest cloud, and takes his play beyond,
Would leave him struggling on the naked ground,
Would let him tumble from his native rock,
As from its hold, the loosen'd fragment broke!
All overlapp'd, so that the utmost spread,
May not the pow'r reduce, affect the speed,
By op'nings 'tween, but that continuous wing,
At ev'ry stroke, the greatest pow'r may bring.

But take a single plume, that wondrous sight,
Will o'er the subject, shed a strength of light,
A Deity's wisdom, goodness, matchless might,

That in the blaze of noon will full display,
And in the dust, the Atheist's triumphs lay.
'Tis neither flesh nor bone, nought else that man,
Has like it seen, can see, or form, or plan—
This *nondescript* presents a bloodless stem,
The beardless root, clear as a crystal gem:
The composition, structure, clear combine,
Most lightness, strength, along the bending line.

If flesh or bone, or both of these,
If muscle, horn, or what you please,
If any thing but what it is,
Within the ken of man;
Too great the weight, or small the power,
Or great, or small, the bird to tower,
Or sweep it o'er the lawn.

Why does it taper to the end?
Why has it too, that inward bend?
The reason clear—more strength to lend,
When lab'ring on the wing.
Along its sides extends a vane,
And mark, 'tis not a perfect plane,
But curv'd with greatest care.

It is not a continuous web,
Lest accident should tear,
From winds, from prickles, or from rub,
The bird has nought to fear.
Had web continuous been the wing,
When spread out to the gale,
The gust might burst, destruction bring,
When tried on such a scale.

But more, on greater strength, hangs greater
weight,
As deeper sinks the vessel with her freight;
So in proportion as you bring,
More weight upon the towerer's wing,
You must reduce his powers of flight,
Whilst the grand point's to keep him light.
With fewer hooks, say one for ten,
The weight the same, you ask what then?—
No more the bird as it might please,
Its plumes could dress with so much ease,
With touch of bill: but if at length,
It should o'ercome the increas'd strength,
The hook might snap, or catch be torn,
And leave the helpless wight to mourn,
His pinions oped to close no more,
With dangers press'd, behind, before!

Nor is it true in point of fact,
That thus the thing suppos'd would act;
For though the weight were still the same,
That hangs o'er all this fibrous frame,
The power will vary o'er the wing,
Just as you shift upon the string,
The various beads which o'er it stray—
A diff'rent figure still display,
The self-same string, now straight, now bent,
Now sudden snapt, now into angles sent.

Besides, whilst lab'ring in the air,
The pow'r you constantly impair,
According to the extent of space,
Which open o'er the wing you trace.—

See yonder bird of *snow*, that sails,
Along yon beauteous lake:
Its swiming pow'r, immediate fails,
If through the web you break,

Spread o'er the foot, from side to side,
Enabling it to steer;
Or o'er the surface, light to glide,
Or dive, devoid of fear.

See, how it arches its fine neck,
Proud swelling on the day!
Now onward steers, in line direct;
Now curves in mazy play!
The principle the same you'll find,
As with the wing upon the wind.

That wondrous wing is form'd upon a plan,
That meets each case of danger, known by man,
With depth of thought, beyond his pow'r to scan.
What means conspire to work a certain end!
What strength, what beauty, and what lightness blend
Their virtues here! (7)—the grand effect is gain'd,
And ever after, carefully maintain'd.
For that 'mid vi'lent action, it may last,
'Mid *wet* and *dry*, 'mid friction, tearing blast,
These wondrous feathers, ev'ry year are cast:
By means which human mind will never trace,
They are supplanted by another race,
That shoot in new-born freshness from below,
And o'er the bird, in richest colours flow.
With age renew'd, the *towerer* takes his flight,
And raptur'd, sweeps again yon fields of light.

More vig'rous pinions, mark his daring way;
At loftier heights, he shews sublimer play!

But now your search extend to ev'ry part,
The feet, the legs, the lungs, the head, the heart—
Throughout th' amazing whole, you'll find display'd,
The same great pow'r—at ev'ry turn pourtray'd,
Th' unerring wisdom, that attains its end,
Whate'er the difficulties that attend
The wondrous plan—perfection the event:
Infinite mind, pervades its whole extent!—
The foot not solid, else too great the weight:
Not curve unyielding, nor unyielding straight,
Like foot of cattle grazing on the plain,
Or unenslav'd, or slaving for the swain—
Like foot of any beast, that's doom'd to tread,
This earth below, nor higher lift his head.—

'Tis form'd of toes, that branching spread around,
Whene'er the bird may need to tread the ground;—
To clasp the twig, on which it means to light,
And rest its wings, when weary with their flight—
The effect of joints, and tendons which extend,
Behind the limb, direct unto the end
Of each particular toe—behold th' event!
Whene'er the bird alights, the foot is bent,
And bent the toes, because th' incumbent weight,
Must curve the tendon that before was straight,
And clasp the toes, the quiv'ring branch around, (8)
Else dozing, it might tumble to the ground.
Nor could the bird aloft, keep on the watch,
When foes rapacious, lie in wait to catch.
Nor could it to the tendril cling,
Amid the forest's mighty swing,
When on the tempest's awful wing,

Destruction rides—behind, before,

Is heard the dread, horrific roar—

Whilst through the air, the wrecks are borne,

The forest to its centre 's torn!

This little foot, its hold can keep,

When from the bottom 's heav'd the deep;

When in the dust, the giant's spread,

That ages tower'd his lofty head,

Above the forest circling round—

'Mid all the might of his rebound,

Though boasting all the strength of oak,

Amid the long repeated shock,

Is tumbled from his native rock,

Or crashing, into fragments broke!

This wondrous foot, its hold can keep,
Or when awake, or when asleep;
For mounted thus with *three* before,
Behind, one toe is added more,
Which turning on the other side,
By the same process is defied
All danger—Yet another cause;
The whole are finish'd with hook'd claws,
Which lengthen and confirm the grasp,
Upon the perch, round which they clasp.

Now mark the legs, their strength, their lightness, place:
A single pair—the same design you'll trace—
Not more than *two,* lest weight too great should press,
When on the wing—and say, could there be less?

Wide in the *bore*, the bone, nor marrow there,
Is ever found—these curious facts compare,
With structure of the bones that appertain,
To quadrupeds that pasture on the plain—
Or on the hills, with swell sublime that rise,
In tow'ring grandeur to the distant skies—
To any creature man can name,
No matter whether wild or tame,
That treads on *four*, the spacious earth,
Whate'er the spot that gave him birth—
Or where her boundless wastes of snow,
Siberia spreads—the river's flow
Is solid rock—all nature round,
Is fast in icy fetters bound!—
Or where a vertic sun the day,
So fiercely sheds, that 'neath his ray,

All nature like a furnace glows,

And smoking hot, the river flows !

And fainting onward to the cool,

Of caverns deep, or to the pool,

Which forests shade, are seen to lounge,

The Lion, Tiger, or to plunge,

Amid th' intolerable heat,

Into the forest's dark retreat !

Search round the globe, no instance can you bring,

The counterpart of this peculiar thing,

That marks the creature, form'd to mount on high,

And make its journey through the pathless sky. (9)

The lungs are form'd with such consummate skill,

As that the bird can rise or fall at will—

In close connexion with them all along,

Above, beyond the vis'ra's cluster'd throng,

Air-vessels lie—for what appears, extend,
The process onward to remotest end,
Of these anom'lous bones—instinctive taught,
The bird with such amazing pow'r is fraught,
That by respiring, it can change at ease,
Its weight specific, just as it may please,
And with enlarg'd dimensions straight command,
A buoyancy increas'd o'er sea or land:
Now upward shoots, now sails in curve around,
Now sweeps with level wing, the dread profound.

But other means conspire, the bird to tower
Sustain, compose, and give the wondrous power
To rise and fall, for with each bird is found,
The pow'r unknown, of raising all around
His plumage—thus spontaneous swell'd his size
Increas'd his pow'r to float, to rest, or rise.

But now survey the neck, the head, how light,
How shap'd, how beauteous, fitted how for flight!
The same great plan's pursu'd; for all around,
The little brain, the lightest skull is found,
Though strong enough, its safety to secure,
'Mid all the trials, it can e'er endure.
'Tis shap'd with most consummate skill,
Its ev'ry purpose to fulfil;
For teeth and jaws, you have a bill,
Of such a texture, that like horn,
'Tis light, compact, and never worn
By friction; or if worn repair'd
By growth, so that is ne'er impair'd
Its pow'r of action; or to shell
From husk the grain, or pierce the cell,
Where lies the various food conceal'd
From other eye, or if reveal'd,

Ungrateful to the varying taste,
Or found at home, or in the waste—

Where swells the mountain 'bove the storm's career,
And from afar is heard the thund'ring sound,
Of torrent tumbling through its caverns drear,
Or foaming o'er the rock in mad rebound!

Where boundless waves the heath before the breeze,
Successive streak'd with rock, with swamp, and sand;
Where the blue lake, heaves constant on the trees,
That leafless bound its flow upon the land.

Lo! from yon cliff, that swells from out the vale,
Whose breast is brush'd by yon slow-rolling cloud,
In dreadful shade, the Eagle's seen to sail,
Whose unexplor'd retreat's deep dy'd with blood!

Ev'n here, are thousands hatch'd and fed,
To proper food, instinctive led,
Or lodg'd within its mossy bed,
Or deep within the cavern'd rock,
O'er which the storm's for ages broke,
By ceaseless flow of waters worn,
Or by the shock of earthquake torn—
Or on innum'rous plants that grow,
Above, or 'neath the mantling snow;
Nor instrument to search, to blow,
But this strange *bill*—Its wondrous frame survey:
It varies constant, as the varying way,
In which it has to work; now to explore,
The marsh's watry womb, behind, before,
That threat'ning swells, dread heaving round—
In such untrodden, faithless ground,
The wilder'd trav'ler's oft been found,

Far 'neath ingulph'd—when pass'd away,
Whole ages, o'er them breaks the day,
The rider and his horse, whilst through that fateful
place,
The long canal 's been led its winding way to trace.

Perhaps in moonless night, or in some clear,
Yon distant hill had climb'd, devoid of fear,
Whose top display'd the beauteous plain below,
Stretch'd out immense, and mantled o'er with snow,
Joyous his path had winded to the vale,
As refuge from each storm that might assail?
Then onward trac'd his level, trackless way,
Without'n fear that any danger lay,
Where danger none appear'd—when all at once,
As in the *still* of midnight, comes the glance,

Of Heaven's fire, the treach'rous ground
Down sinks !—Is heard the killing sound,
Of waters pent, far boiling round !
Which all the force of frost defy,
That Boreas musters in the sky—
Is heard the scream of death !—no more—
Once, twice a plunge—the struggle's o'er !—
The day returns, but what had been,
By mortal eye, was never seen—
Clos'd as before the gulph, or white or green !

Thus, of illicit pleasure, spreads the vale,
'Neath eye of him that toils up virtue's steep ;
So arduous deem'd ; but ne'er her rock can fail :
Yon seeming *Tempe*, leads but to the deep !

Whate'er the plumy tribes may need,
On earth, in air, or sea to feed,
Or day, or night, the quagmire's bounds to search,
Or fearful of the flood, upon the perch,
To shell the grain, or 'long the cultur'd field,
Sagacious cull, whatever plant may yield
Appropriate food, root, insect, flower,
By light of day, or at the midnight hour;
Or gather berries on the mountain's brow,
Or taste the various fruits, that clust'ring grow,
Throughout the forest's whole extent, or catch
The luckless prey,—for constant on the watch,
Are some rapacious found—Is made,
With speed of lightning o'er the glade,
The dread attack—adown the sky,
The blood-stain'd feathers, circling fly!—

A single scream—pierc'd to the heart—
The grasp of death in ev'ry part!—
Wheels straight the ruffian to devour,
The captive thus within his power:
Fast, fast, the plumes are strew'd around,
The blood still flowing o'er the ground—
Torn from the trunk, the gasping head—
The last remains of life scarce fled,
Torn from within the quiv'ring heart—
Straight bar'd the bones in ev'ry part:
But naked skeleton remains,
Of *warbler* bleaching on the plains!

But when the Eagle, Vulture, from on high,
Pounce on the prey, then to the swimming eye,
Is shewn sublimer play—bursts on the view
Of plumes a cloud, far up the dazzling blue!

Once miss'd, anon, the dread attack's renew'd,
With mightier wing, the trembling bird's pursu'd,
And fierier eye—or clench'd, or from on high,
The screaming prey's knock'd headlong down the sky!

Borne to yon rock sublime, that 'bove the clouds,
Tremendous lifts from out the foamy floods,
His load of cliffs, in frightful order pil'd,
Of Nature's hand, the great, the grand, the wild!
Far down its breast, which clouds are seen to sweep,
At dazzling height, above the circling deep,
There cliff-inclos'd, the brood deep dy'd with blood,
Are lullabied by the circumfluous flood—
Now o'er the base, old Ocean gently flows,
Now at each heave, whole mountains upward throws!
Dread boiling round, scarce ev'n the solid rock,
Withstands the mighty, long-repeated shock!—

Amid this roar of waters, tumbling round,
Where day and night, is heard the mingled sound,
Of winds and waves, these unfledg'd eaglets bred,
From first to last, on blood and carnage fed!—
Or deep into the wilderness' recess,
Where spreads the desert round, or more or less,
A thousand miles—hills pil'd on hills arise,
Twice thousand ten feet, upwards to the skies!—
The noise of winds, that howl among the clefts,
The mad tornado, that resistless lifts
Whole hamlets, tow'ring 'bove the mountain's height—
Gone is the wreck, beyond the bounds of sight!
The roar of thunders, rolling far below,
The lightning's flash, broad o'er th' incumbent snow!
The mountain-torrent's hoarse resounding roar,
Red tumbling from the rocks, behind, before—

With sights and sounds like these, is rear'd,
This king of birds, (10) made to be fear'd,
By ev'ry other—'neath heaven's expanse,
None can endure the fiery glance,
Of his dread eye, his force of bill,
His talons' grasp, control his will !—
Dark from his cliff, he upward takes his flight,
And ev'n the vulture's self shrinks from the sight !
Thus, growling from the field, the Tiger slinks away,
When onward comes the Lion, roaring on the prey !

These solitudes, and sights, and sounds inspire,
This bird of *Jove* with a celestial fire—
In grandeur's bosom nurs'd, in wildest form,
Whilst yet unfledg'd, he pants to cleave the storm !

To dip his bosom in yon cloud of gold;
High in the western sky, whose drap'ry's roll'd
In fleecy glory! on his journey hold,
In line direct, up to the Orb of day,
And 'mid his dazzling splendors, take his play!

Whate'er the prey, or duck, or goose, or swan,
Or burrowing coney, timid hare, or fawn,
Or turkey proudly strutting o'er the lawn,
Or lamb wild frisking on the mountain's side,
Or fish that like an arrow cleaves the tide,
Or tiger-cats that in the forest hide,
By day, by night, in constant act to spring
Upon the prey, or flitting on the wing,
Or on the ground—on all this various game,
This daring eagle darts, with eyes of flame!
His pounce destruction, whether wild or tame!

His mighty talons stretch'd, if once but grasp'd,
Within the gripe of death, they're straight enclasp'd!
And when his bill, dread hook'd, he comes to try,
Straight sinews burst, and bones in pieces fly!

See yonder bird, lone wading in the stream,
That preys on fish, without the power to swim,
Compare its feet, its bill, with such as ride,
In conscious safety on the swelling tide,
And find their sweetest play, when heav'd on high,
The billows mingle with the distant sky—
When clouds of foam, around them bursting sweep,
O'er all the surface of the boiling deep!
And dive for food into the depths below,
Whilst winds conflicting, o'er them mountains throw!
Yon bird that wades, but cannot swim,
O'er which just flash'd the lightning's gleam,

Must live by water 's well as they,

That sportive on the billows play ;

And therefore, length of limb's supplied,

Which to the former is denied,

Enabling it, its way to wind,

To depth of water where to find,

The little fish on which it preys—

Caught, straight it to the shore conveys—

A neck and bill that correspond,

For to possess the power to sound,

To any depth where prey is found,

Of no avail the prey to reach,

Whilst stands the bird upon the watch,

Devoid of pow'r that prey to catch—

Hence neck and bill, a length present,

Which not to diving birds is lent. (11)

Next place in line yon birds of prey,
Carniv'rous—close their beaks survey:
Short, hook'd, and strong, they all appear;
All obvious form'd to kill and tear!
Survey their feet, their neck, their head,
The strength of wing that clothes their side,
Their martial mien, their flaming eye,
Their pleasure's carnage in the sky! (12)

Though here, our bus'ness simply is to trace,
The things peculiar to the feather'd race;
Must not be pass'd their organs fair of sight,
Devoid of which, were useless powers of flight—
Their food could neither find, nor rise, nor light.
Each just a pair, not mounted on the top,
For then in constant danger from the drop;

Whilst from the cloud, the hailstone's firmer stroke,
Must often through the fenceless eye have broke.
If placed *above*, then upwards only sight;
If placed *below*, then downward only light.
If placed *behind*, then darkness all before;
If placed in *front*, sight backwards then no more.
Placed where they are, each point at once is gain'd—
By swiftest motion, hurt is none sustain'd:
For whilst with meteor-speed they cleave the air, (13)
Retir'd from danger quite, the shining pair:
Their place and level, friction can defy,
Or downward flight, or mounting up on high,
Or onward speed, whatever wing should ply.
Sight all around, by gentlest movement made,
Whilst turns the neck, obedient to the head.
How graceful ev'ry part! with what command,
They sweep the heights of air, the sea, the land!

How wild their play, with *liberty* elate!
Bereft of which, how would they mourn their fate,
Though barr'd with gold, within a room of state!

Of teeth and jaws devoid, say what can grind,
The various grain?—Look inward, you will find
An instrument possess'd by birds alone;
For with no plumeless species ever known—
Strong, sinewy, rough, with acrid humor fill'd,
From tubes contiguous, constantly distill'd—
By musc'lar action, friction is produced:
Corrosive aiding, to a pulp 's reduced
The hardest grain(14)—The foresight, deep design,
Behold, and say, 's the MAKER not divine?

But farther still, the way compare,
In which each bird that wings the air,

Brings forth its young, with theirs that walk,
On *four* the earth, and dreadful stalk,
The desert o'er, or harmless graze,
'Neath polar sky, or 'mid the blaze
Of vertic sun, or great or small,
E'er found upon this flying ball.—
Whence is it that the fowls of Heaven,
With arrow-speed on pinions driven,
All propagate their various kind,
In that strange way, we never find,
'Mongst animals that tread on *four*,
And which were never meant to soar?
With gravid womb, had birds been charg'd
Dimensions constantly enlarg'd,
And weight increas'd, the wing the same,
Gone the proportions of the frame.

The balance fair, of weight and air,
Continually would shift:
The wing on high, that sweeps the sky,
The bird could scarcely lift! (15)

Thus varies constantly the plan,
As circumstances need—
A hand *divine*, how void of man,
The fool who cannot read!

If meant the bird to feed on grain,
And ne'er its plumage fair to stain,
With blood of weak, or mighty slain;
Internal apparatus tells,
'Tis work of HIM who never fails.
Here organs furnish'd, grain to grind,
With birds of prey, we never find!

If little life, the food supply,
Close bark-invested as they lie;
To clear the way, with *piercer* keen,
The *genus* arm'd, are constant seen.
A tongue that corresponds in length;
And mark its barb, its sharpness, strength—
A length to reach the lurking prize;
Sharp point to pierce it, where it lies;
A *barb*, to hold it fast, till brought,
Within the mouth!—What wonders wrought,
For this small bird!—This single case,
Deep stamps the *Sceptic* with disgrace. (16)

If in the stream, the pond, the lake,
The puddle mantled by the brake;
All form'd exact, within, without,
To feel, to taste, explore throughout.

Now, foot unvaried webb'd,* to steer
Them through the flood, devoid of fear;
Whilst with that web, is plumage given,
Defies all water under Heaven!—
Provision 's made for each event,
Tried Nature through her whole extent.

If from a *plane*, no *Bat* can fly,
No level, it is doom'd to try.
Equipt with *hook*, its leathern wing,
By which, when weary, it can cling,
To roughen'd object, great or small;
The clay-built hut, or castle-wall! (17)

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* The reference here is to the duck-kind, as contradistinguished from that other class of aquatic birds formerly noticed, and which may properly be called *waders*.

Nor up could go the *Parrot*-race,
Nor downwards, they their way could trace,
Without ne'er failing aid of *bill*,
By which they rise, and fall at will.
The point is gain'd, but hook'd beyond,
All feeding-power, the bill is found.
To meet the difficulty now,
A new contrivance bursts on view:
Into the upper *chap* is thrown,
A joint possess'd by these alone,
Which tendon-mov'd, at will is rais'd,
The hook that in the way was placed!
By plan thus new, to action brought,
Straight gain'd, the double purpose sought. (18)

If on the wing, to feed on flies,
To dart, to wheel, to fall, to rise;

Make shortest *turn*, 'mid greatest speed;
The *Swallow* see, wing, body, head:
Of all combin'd, this picture true,
Like lightning, wheels upon the view!

If meant the prey to catch by night,
Not needed speed, but such a sight,
As can explore the gloom around,
When dozing, other birds are found.
That sight is given to the *Owl*,
Which through the night, sends his long howl,
From some lone tower, whose riven mass,
Allows this bird of night to pass,
Into his blood-stain'd, dark retreat,
Where screen'd alike, from light and heat,
He moping waits the setting sun,
To get his work of darkness done.

Or from the dreary, cavern'd rock,
Deep gulph'd by earthquake's awful shock,
Or pil'd by Nature's hand:
Or swells sublime from out the deep,
Or bounds the desert's mighty sweep,
The giant of the land!

If meant to live on feather'd prey,
By speed of wing, in open day;
Into that wing, is vigour thrown,
Possess'd by birds of prey alone.
Here foot to grasp, to hold, to kill;
To tear, devour, a force of bill,
That suit exact, this work of blood,
Or on the land, or in the flood:
With strength of vision, that from height,
Beyond remotest bounds of sight,

The destin'd prey can clear descry,
Or great, or small, of all that fly.
Should hunger pain, stoop from on high,
With speed of lightning down the sky;
And now, alas! in vain to try,
The swiftest wing, the prey can ply.

Though *turn*, repeated quick and oft,
Or near the ground, or yet aloft,
The ruffian out may throw;
'Gain up he comes, with mightier wing:
Outdone the arrow from the string—
Around the feathers flow!

Whilst all at once, like lightning's glance,
Descends the fatal stroke;
Or talons' grasp, with deadly clasp,
Has through the vitals broke!

Yet oft the trembling, screaming prey,
So rapid wheels upon the day,
As to protract the chace,
Till it some friendly covert gains;
Then paid the murderer for his pains,
With shame, and with disgrace.

Oft too, in this distressing hour,
No other means to 'scape the power,
Of ruffian close behind,
To *man*, the little sufferer 's fled,
And in his bosom, made its bed!
Can there protection find?

O yes, this eloquent appeal,
Enough to melt an heart of steel,
What monster can withstand?

Secure the little pris'ner keep,
Till out he may with safety creep,
Soft flying from the hand.

And from his native groves, you'll hear,
Soon as recover'd from his fear,
His gratitude express'd,
In wildest notes, that he can pour,
Continued to the latest hour:
The last, still meant the best!

And O, let no rude clown stretch forth his hand,
These artless, sweet musicians to destroy;
Nor ruthless *poacher*, barb'rous thin the *band*,
Whilst thus intent upon their lov'd employ.

See o'er Columbia's far-extended shores,
Where on the east, the vast Atlantic roars:

Pacific vaster, tumbles o'er the west :—
What scenes of grandeur here, when comes the blast !—
The tempest's far-stretch'd wing—when o'er the deep,
Tremendous tearing, comes its awful sweep,
And heaves unfathom'd waters to the skies !—
Fled from the scene, the mightiest wing that plies—
Sought shelter in the forest, or the rock—
Trembles itself, before the mighty shock !
Whilst 'long the beach, in more than mountain-swell,
With thunders' burst, each *heave* is made to tell !
See wand'ring here, the *Toucan*-race,
Instinctive known, the destin'd place ;
Instinctive taught to find their food,
By digging 'neath the sand, the flood
Has boundless smooth'd—and here a bill,
Strong, sharp, and long : and farther still,

When to the sanded, insect-prey,
This pick-axe bill has made its way;
Strong nerv'd, and feather-shap'd, a tongue,
To feel the sands saline among:
To all this added, *spoon* to gather,
The prey found by this wondrous feather! (18)

Lo! where Arabia's burning wastes of sand,
Stretch boundless spread, an ocean without land!
The *Ostrich* dwells—of all the feather'd kind
The giant he.—Far streaming on the wind,
His beauteous plumes, Britannia's matchless Fair,
That *needless* deck, for Beauty's self is there!
With cheek of rose, the rest the driven snow!
What need of feathers, o'er such face to flow?

If 's webless wing, can't lift him from the ground,
When heard behind the foe in thund'ring sound;
Is furnish'd length of limb, that gives a speed,
Beyond the *rate* of all he has to dread.
To distance straight, the swiftest *courser* thrown,
Arabia boasts, whilst like an arrow gone,
His bulk enormous, through the furnac'd air!
Whilst, if his wing unequal is to bear,
His bulk aloft, yet still combines its strength,
With bounding speed of limb's unequall'd length,
Or o'er the plain, or up the mountain-steep,
This bird to wheel, like meteor o'er the deep! (19)

The wondrous whole, in fine, survey, attend,
To size, shape, figure, varied without end—
List to their music, pealing through the grove,
The mingling, melting, raptur'd notes of love!—

In water, air, above, below, around,
Tried, onward tried, to earth's remotest bound.
How wild their play, with liberty elate!
Bereft of which, how would they mourn their fate,
Though barr'd with gold, within a room of state!

O Liberty! the magic of thy name,
Can ev'ry narrow, selfish passion tame,
And instant, ev'ry British soul inflame.
They know thy value—streaming o'er the field
Of battle, thy dear sons untaught to yield,
Have borne thy *colours*, when the adverse host,
Like Ocean's billows, swell'd in distance lost!
Thy deathless Marathon, Platæa's blood-drench'd plain,
Ramilia, Blenheim, with their myriads slain—

With hundreds more, that on the rolls of fame,
In dazzling splendor, point thy potent name!

But O, my Muse, thus rapid, downwards borne,
Revert thy flight, and now a moment turn,
To view the *mighty dead* of BANNOCKBURN!
Where rose the sun, on Anglia's mightiest host;
Where that same Sun, beheld her glory lost;
Her marshall'd myriads, strew the loaded plain,
And heaps on heaps, her *fifty thousand* slain!
Led by her ill-starr'd Prince, come to subdue,
The hardy Scots, that slav'ry never knew.—
Fierce, independent, eager for the fight;
T' avenge their country's wrongs, maintain her right,
Stood Scotia's sons, firm as the desert-rock,
To die or conquer, in the mighty shock.—

Was heard the horrid crash !—Along the field,
Were roll'd no clouds of smoke ; no thunders peal'd ;

But from their *stand,* burst sword in hand,
Like lions on the prey ;
Where'er they came, devouring flame,
The Scots on that dread day !

And Anglia's host, like Ocean tost,
When hurricanes descend :—
The battle spread, heap'd with the dead,
The field from end to end !

And man and horse, beneath the force,
Of battle-axe were roll'd,
Till rout complete, and foul retreat,
With coward, brave, and bold !

The hills around, return the sound,
Of Scotia's shouting host;
Though *three* to *ten*, at break of dawn,
Were all that BRUCE could boast!

Let none suppose, that Scotia's foes,
Were cowards on that day;
For Valour's self, on many a Chief,
Sat plumed in bright array:

And mad for fight, from left to right,
Burst awful through the field:
The battle sought, where hottest fought—
Would rather die than yield!

But all in vain; for o'er the plain,
Whilst thousands found their grave,

The infuriate Scots, o'er ramparts, moats,
Drove like the tempest-wave!

To BRUCE's name, O Scotia, shame,
No *monument* to raise;
The tale to tell, the notes to swell,
Of Bard that would him praise!

Peace to thy shade, Illustrious Dead!
To all that with thee bled:
The work's begun, nor 'neath the Sun,
Shall fairer lift its head. (20)

Himself an host, his country's boast,
Shall WALLACE be forgot?
Enough his name, to turn to flame,
The soul of ev'ry Scot!—

That stood so long, thy bulwark strong;
The terror of thy foes;
As heap'd around, they bit the ground,
'Neath his resistless blows.

Achilles true, that never drew,
On Gods for his descent;
Nor peevish sought, whilst others fought,
To *loll* on in his *Tent*.

Yes, Scotia, say, down to this day,
If greater 'mongst thy race:
Let nations round, to utmost bound,
A greater try to trace;

For courage firm, for strength of arm,
For quenchless patriot flame,

For motive pure—to his last hour,
No blot on his fair fame!

O worthless *hand*, that led the *band*,
To where the Champion lay:
That for the *gold*, the Hero *sold*,
On Scotia's fatal day!

Dear bought the prize! with streaming eyes,
Through Anglia's whole extent,
The trump of fame, shall loud proclaim,
How 'veng'd the dire event.

On Bannock's plain, whole myriads slain,
Shall pay the int'rest high;
Where *heroes* wait, led by the *Great*,
To conquer, or to die! (21)

Hail Freedom! hail! they never fail,
That breathe thy genial air:—
Giv'st moral health; giv'st courage, wealth,
Strength, hope, without despair!

Her glitt'ring streets, her num'rous fleets,
With fearless flag unfurl'd;
Her Navy brave, that rides the wave—
Gives laws unto the world!

Her gallant *host*, that tempest-tost,
To foreign climes are borne,
Undaunted, brave, like rushing wave,
Advance, but never turn.

Her learning, laws, *Religion's* cause,
Free as the light of Heaven,

Her *Press* as free, command of sea,
Oppression from her driven:

And all of grand, by sea and land,
BRITANNIA since can boast;
Down to the hour, despotic power,
At WATERLOO was lost!

Where Empires met in all their martial might,
And Cannon hundreds, tore from morn to night:
Where highest pitch of tactic science wrought—
For universal empire, *Gallia* fought—
By all the force of mightiest motive fir'd,
Wealth, honour, fame, and all by men desir'd,
Fought either host, involv'd in fire and smoke,
The British squares immoveable as rock!

Whilst round them dash'd the foe, 'mid cannon's roar,
As break the waves, upon their native shore.

The armies led by Chiefs, the first in fame—
Imperial glory, blazon did the name,
Of *Gallia's* Leader, tried in many a field,
And erst capricious Fortune's darling child:
Decisive, prompt, and awful in the fight,
His movements view'd whole nations with affright!
Experienc'd, brave, deep skill'd in tactic art,
Ambition boundless—fill'd with pride his heart,
And when his flag of war, he dread unfurl'd,
The pride of *France,* and terror of the world!

All but BRITANNIA—safe upon her rock,
She fearless view'd the world's moral shock—

How nerv'd the arm, how firm the heart,
How well secur'd in ev'ry part.

At last was heard the sound,—" Advance"—
'Twas music to the ear:
Return'd with shouting—" On to *France*"—
Along the host a *cheer!*

Again, again! and like the Main,
Batavia's ramparts burst,
Headlong they dash'd, and through they crash'd,
The contest to be first!

Thrice minutes *ten*, and then, and then,
A rout complete ensued:—
The *Lion's* paw, *Napoleon* saw,
The sight with horror view'd:

Then fled amain, the heaps of slain,
And left him still to tear:
O'er hill and dale, with terror pale,
The sound still in his ear;

For as he went, around him sent,
The circlings of his roar,
From forests deep, hills' bending sweep,
Beside, behind, before!

But who can tell, the horrid yell,
The carnage of that night,
The screams that rose, amid the blows,
That fell till morning light?—

Thus, Tyrants know, amid the woe,
Spread by you o'er the world,

That from your place, with foul disgrace,
You shall at last be hurl'd.

Can you the march of genius stop?—
The mind's eternal spring?—
Go, and the falling mountain prop,
With feather from the wing!

Go, and arrest the Star of day,
And teach the winds to blow:
Go, and your proud embargo lay,
On Ocean's boundless flow!

Thanks to the *Patriots*, living, dead,
In *Freedom's* cause that fought;
That fawn'd the flame, the fire that fed,
Still on materials brought.—

At home, abroad, in ages all,
That fought, that wrote, that bled;
Though no proud monument may tell,
Where sleep the mighty dead.

But KING OF KINGS, with cov'ring wings,
Whilst Seraphs sing thy praise;
Let *Britons* all, before thee fall;
One gen'ral anthem raise;

For blessings best, be it confess'd,
On Britain thou hast shower'd;
Made her a name, the first in fame—
To thee, her songs be pour'd;

For over all, that crowd this ball,
Thy sceptre holds its sway;

And up or down, 's thy smile or frown,
May lower, or on them play!

Thy purpose still, must all fulfil:
Man's wrath, ambition, pride,
Made to combine, by power divine,
With all on virtue's side!

Innum'rous Spirits, arm'd with matchless might,
Wing flight tremendous, at thy dread command,
'Mid worlds on high, beyond the speed of light,
Or here below, o'er ocean, or the land;

To kill or save—The lightning's fiery wing,
Whilst awful seen, to sweep the earth and sky,
Direct, control—thy praises raptur'd sing,
At Earth's lone pole, as round thy throne on high!

Mysterious grandeur, marks thy peerless way,
As seen in Nature's picture, boundless spread!
Or in the moral world's more dim display,
Where oft in thickest darkness thou art hid.

Again, thy glory bursts the investing clouds,
And streams o'er all the region of the storm!
Again, thy footsteps turn from out the floods—
Must perish all, or to thy laws conform.

But ardent onward, still the search extend;
Will multiply the *proofs*, without an end,
Of goodness, wisdom, power, foresight, design;
Of matchless skill; of all that is divine.
Thus, when by naked eye, 's survey'd Heaven's starry Host,
Innum'rous suns and systems, lie in distance lost;

But when the power of Telescope's applied,
Straight blazing myriads, millions are descried ;
So many suns, that pour their floods of light,
O'er circling worlds, far 'yond the bounds of sight !
And these, perchance, before the amazing whole,
That in immensity's vast circle roll,
Like lightest feather, on the tempest whirl'd,
Or viewless atom, pois'd against the world ! (23)

INFINITE SPIRIT ! at whose dread command,
From nothing sprung these heavens, sea and land ;
This mighty whole of worlds !—whose eye surveys,
Their boundless sweep—whose light 's their quench-
less blaze !
Whose arm sustains ; whose finger points their path ;
Whose smile 's their beauty, life ; whose frown 's
their death !

Thy presence, I invoke, ETERNAL KING,
Whilst farther of thy works, I'd try to sing,
And Providence—'Side thy dread, awful name,
Thou First and Last, eternally the same,
No fabled God, or Goddess, here shall stand;
Erst rulers deem'd, of air, of sea and land,
To whom thy glory, has so long been given,
Thou LORD alone Supreme, of earth and heaven.
OMNIFIC POWER, my weakness turn to strength,
Throughout the subject's whole amazing length.
Lead through the mazes, as they endless run,
'Bove, 'neath, around, that ever circling sun.
Thou SOURCE of light, shed o'er my darken'd mind,
Thy light divine, that seeking I may find,
And know, and feel the truth, and it display,
In all the splendor of the perfect day.

NOTES.

NOTES.

NOTE I.—P. 6.

Unnumbered miles beyond, &c.

"The fire," says Dr Chalmers, with his characteristic, powerful eloquence, "which rages within, may lift its devouring energy to the surface of our planet, and transform it into one wide and wasting volcano. The sudden formation of elastic matter in the bowels of the earth—and it lies within the agency of known causes to accomplish this—may explode it into fragments. The exhalation of noxious air from below may impart a virulence to the air that is around us; it may affect the delicate proportion of its ingredients; and the whole of animated nature may wither and die under the malignity of a tainted atmosphere. A blazing *comet* may

cross this fated planet in its orbit, and realise all the terrors which superstition has conceived of it. We cannot anticipate with precision the consequences of an event which every astronomer must know to lie within the limits of chance and probability. It may hurry our globe towards the sun—or drag it to the outer regions of the planetary system—or give it a new axis of revolution—and the effect, which I shall simply announce, without explaining it, would be to change the place of the ocean, and bring another mighty flood upon our islands and continents. These are changes which may happen in a single instant of time, and against which nothing known in the present system of things provides us with any security. They might not annihilate the earth, but they would unpeople it; and we who tread its surface with such firm and assured footsteps, are at the mercy of devouring elements, which, if let loose upon us by the hand of the Almighty, would spread solitude, and silence, and death, over the dominions of the world."—CHALMERS' *Discourses*, p. 51, 52.

NOTE II.—P. 13.

Hence to them, &c.

As peculiarly appropriate, I shall here take the liberty of presenting the reader with the following elegant extract from the pen of Addison, which for its accuracy and beauty, truth and propriety, can never be too extensively known, or too much admired.

" But," says that acute and eloquent philosopher, " to return to our speculations on anatomy, I shall here consider the texture of the bodies of animals in one particular view, which, in my opinion, shews the hand of an all-wise Being in their formation, with the evidence of a thousand demonstrations. I think we may lay this down as an uncontested principle, that chance never acts in a perpetual uniformity and consistence with itself. If one should always fling the same number with *ten thousand dice,* or see every throw just *five* times less, or *five* times more in number than the throw which immediately preceded it, who would not imagine there were some invisible power which directed the cast? This is the proceeding which we find

in the operations of Nature. Every kind of animal is diversified by different magnitudes, each of which gives rise to a different species. Let a man trace the dog or leopard kind, and he will observe how many of the works of Nature are published, if I may use the expression, in a variety of editions. If we look to the reptile world, or to those different kind of animals that fill the element of water, we meet with the same repetitions among several species that differ very little from one another but in size and bulk. We find the same creature that is drawn at large, copied out in several proportions, and ending in miniature.—The magnificent harmony of the universe is such, that we may observe innumerable divisions running upon the same ground.

" But to pursue this thought still farther, every living creature, considered in itself, has many very complicated parts, that are exact copies of some other parts which it possesses, which are complicated in the same manner. One eye would have been sufficient for the subsistence and preservation of the animal; but in order to better his condition, we see another placed with

mathematical exactness in the same most advantageous situation, and in every particular of the same size and texture. Is it possible for chance to be thus delicate and uniform in her operations? Should a million of dice turn up twice together the same number, the wonder would be nothing in comparison with this. But when we see this similitude and resemblance in the arm, the hand, the fingers; when we see one half of the body entirely correspond with the other in all those minute circumstances, without which a man might have very well subsisted; nay, when we often see a single part repeated a hundred times in the same body, notwithstanding it consists of the most intricate weaving of numberless fibres, and these parts differing still in magnitude, as the convenience of their particular situation requires, sure the man must have a strange cast of understanding who does not discover the finger of God in so wonderful a work. Those duplicates and those parts of the body, without which a man might have very well subsisted, though not so well as with them, are a plain demonstration of an all-wise Contriver; as those more numerous copyings, which are found among the vessels

of the same body, are evident demonstrations that they could not be the work of chance. This argument receives additional strength, if we apply it to *every animal and insect* within our knowledge, as well as to those *numberless living creatures* that are objects too minute for the human eye. And if we consider how the several species in this whole world of life resemble one another, in very many particulars, so far as is convenient for their respective states of existence, it is much more probable, that *a hundred million* of dice should be casually thrown *a hundred million of times in the same number*, than that the body of any single animal should be produced by a fortuitous concourse of matter: and that the like chance should arise in innumerable instances, requires a degree of credulity that is not under the direction of *common sense.*"—*Spectator.*

To the same purpose, Dr Brown presents us with the following remarks: and it is, perhaps, impossible to conceive any thing more effectually calculated to expose the absurdity of Atheism, and sanctioned by whatever names, to render it an object of ridicule and contempt:—

" What must be thought of a person, who professed to believe that a large city, such as London, or Paris, with all its admirable, elegant, and curious structures, with their appendages of furniture, and exquisite decorations, was only a casual assemblage of stones, bricks, mortar, timber, metals, and colours? It is unnecessary to put, as has often been done, the same question, in regard to a picture, a poem, a book, or machine of any kind; as referring the first to a fortuitous concurrence of canvas and colours; the two following to an accidental jumble of the letters of the alphabet, and the last to an *accidental* meeting of the materials of which it is composed. Would not a person who expressed such an opinion, in relation to these different cases, be considered either as in jest, or as deprived of his judgment? But, why should he be thus considered? Plainly, because he holds that to be *certain*, which has not the probability of one to a *million*, and, I might perhaps add, of as many millions more, of being *true*. Must not he then be viewed, as a decided madman, who believes, that all that regularity and harmony, those astonishing operations, that nice adaptation of

means to ends, and those inimitable and captivating beauties which appear in every department, on every aspect of nature, imply no design, no contrivance, and are produced by mere *chance?* Who can believe that the sun was not formed, and placed in the centre of our system, to enlighten, warm, and fertilize the revolving orbs; and that these retain their courses by blind and precipitate accident—that the seasons change undirected, with that uniform regularity which they observe—that the *eye* was not made for *seeing*, nor the *ear* for *hearing*, nor the *hands* for *executing mental volitions;* but, that all the members, and parts of the human body, the most curious and admirable structure of which we possess any knowledge, are composed and thrown together at random?"—BROWN'S *Essay on the Existence of a Supreme Creator, &c. vol. I. p. 75, 76, 77.*

NOTE III.—P. 18.

A few short hours, &c.

The following extract from the *Sacred Theology* of the Rev. Dr Peddie, Edinburgh, who for some time past, has been favouring the public with some excellent

papers on that subject, through the medium of the *Christian Repository*, may be considered as involving the best, and most material information, relative to the speed of this wonderful animal:

"There is one species, or rather variety of the camel, of a smaller size, and more slender form than the ordinary breed, distinguished for its swiftness of foot, and chiefly used in riding. These bear the same relation to the other camels, whether with one or two bunches, that the riding-horse does to the draught-horse, and received from the Greeks, to express their fleetness, the name of *dromedaries*, or running camels, a name which they still retain.——

"It is by means of this kind of camel, that the Arabians have made those predatory incursions into the neighbouring countries, for which they have been in every age so celebrated, and suddenly disappeared, eluding the pursuit of those whom they have plundered, by retiring into the bosom of the deserts inaccessible to others. Mounted on their dromedaries, on the first alarm, they 'flee, get them far off, and dwell deep,' plunging rapidly into the midst of extensive wastes,

where they are as safe as if they were hid in deep caverns of the earth.*——

" That the dromedary is emine- tly fitted by his swiftness, for every purpose that requires haste, is evident from what Dr Shaw says of the Shekh who conducted him and his companions to Mount Sinai. To display the abilities of his dromedary, he says, that he would depart from their caravan, reconnoitre another just in view, and return to them again in less than a quarter of an hour.† These animals have, therefore, from the earliest ages, been employed in the countries of which they are natives, for conveying posts or couriers with dispatches. They are thus employed at this day, according to Shaw, in Gætulia and the southern parts of Barbary; and according to Russel, in running between Aleppo and Bassora. Lady Mary W. Montague says, that they far out-run the swiftest horses; and that, after the defeat of the Turks by Prince Eu-

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* " Such," says the Doctor, " I conceive to be the meaning of the Prophet's expression."—*Jer.* xlix. 8, 30.

† Shaw's Travels, vol. I. p. 306.

gene at Peterwaraden, they brought the first news of the battle to Belgrade; and Strabo informs us, that they whom Alexander sent to Ecbatana, to put Parmenio to death, performed in *eleven* days, a journey that usually requires *thirty* or *forty*."—*Christian Repository, No.* 33.

NOTE IV.—P. 19.

——————————— *To bring*
In point a single case, all power defies,
Of men below, &c.

"All those who either are, or pretend to be *atheists;* who either disbelieve the Being of God, or would be thought to do so; or, which is all one, who deny the principal attributes of the divine Nature, and suppose God to be an unintelligent Being, which acts merely by necessity; that is, which in any tolerable propriety of speech, acts not at all, but is only acted upon: All men that are *atheists,* I say, in this sense, must be so upon one or other of these three accounts:

"Either, *first,* because being extremely ignorant and stupid, they have never duly *considered* any thing at

all, nor made any just use of their natural reason, to discover the plainest and most obvious truths; but have spent their time in a manner of life very little superior to that of beasts.

" Or, *secondly*, because being totally debauched and corrupted in their *practice*, they, by a vicious and degenerate life, corrupted the principles of their nature, and defaced the reason of their own minds; and, instead of fairly and impartially enquiring into the rules and obligations of nature, and the reason and fitness of things, have accustomed themselves only to mock and scoff at religion; and being under the power of evil habits, and the slavery of unreasonable and indulged lusts, are resolved not to hearken to any reasoning which would oblige them to forsake their beloved vices.

" Or, *thirdly*, because in the way of *speculative reasoning*, and upon the principles of philosophy, they pretend that the arguments used against the being or attributes of God, seem to them, after the strictest and fullest enquiry, to be more strong and conclusive, than those by which we endeavour to prove these great truths.

"These seem the only causes that can be imagined, of any man's disbelieving the being or attributes of God; and no man can be supposed to be an *atheist*, but upon one or other of these three accounts. Now to the two former of these three sorts of men, namely, to such as are wholly ignorant or stupid, or to such as through habitual debauchery have brought themselves to a custom of mocking and scoffing at all religion, and will not hearken to any fair reasoning, it is not my present business to apply myself. The one of these wants to be instructed in the first principles of *reason*, as well as of *religion*; the other disbelieves only for a present false *interest*, and because he is desirous that the thing should not be true. The one has *not yet arrived* to the use of his natural faculties: the other has *renounced* them, and declares he will not be argued with, as a rational creature. 'Tis therefore the third sort of atheists only,—to whom my present discourse is supposed to be directed, or indeed who are capable of being reasoned with at all."—*Introduction to Dr* CLARKE'S *Demonstration of the Being and Attributes of God, 4th edition.*

Dr Clarke's *Second Prop.* in conducting the argument, for the Being and Attributes of God, against Hobbs, Spinoza, and their followers, is,—"*There has Existed from Eternity some One Unchangeable and Independent Being.*"—And of this, we have the following powerful demonstration:—"For since something must needs have been from eternity; as hath been already proved, and is granted on all hands; either there has always existed some one unchangeable and *independent* Being, from which all other beings that are or ever were in the universe, have received their original; or else there has been an infinite succession of changeable and *dependent* beings, produced one from another in an endless progression, without any original cause at all. Now this latter supposition is so very absurd, that though all atheism must in its account of most things (as shall be shown hereafter) terminate in it, yet I think very few atheists ever were so weak, as openly and directly to defend it. For it is plainly impossible and contradictory to itself. I shall not argue against it from the *supposed* impossibility of infinite succession, *barely and absolutely considered in itself*; for a reason

which shall be mentioned hereafter. But, if we consider such an infinite progression, as *one* entire endless *series* of dependent beings; 'tis plain this *whole series* of beings can have no cause *from without*, of its existence; because in it are supposed to be included *all things* that are or ever were in the universe. And 'tis plain it can have no reason *within itself*, of its existence; because no one being in this infinite succession, is supposed to be self-existent or *necessary*, (which is the only ground or reason of existence of any thing that can be imagined *within the thing itself*, as will presently more fully appear,) but every one *dependent* on the foregoing: and when *no part* is necessary, 'tis manifest *the whole* cannot be necessary; absolute necessity of existence, not being an outward, *relative*, and accidental determination; but an inward and essential property of the nature of the thing which so exists. An infinite succession therefore of merely *dependent* beings, without any original independent cause, is a *series* of Beings, that has neither necessity nor cause, nor any reason at all of its existence, neither *within itself*, nor *from without*: that is, 'tis an express contradiction and

impossibility; 'tis a supposing *something* to be *caused*, (because it is granted in every one of its stages of succession, not to be necessarily, and from itself;) and yet that in the whole, it is caused *absolutely by nothing*: which every man knows is a contradiction to imagine done *in time*; and because duration in this case makes no difference, 'tis equally a contradiction to suppose it done from eternity: and consequently, there must, *on the contrary*, of necessity have existed from eternity, some One Immutable and Independent Being."—— CLARKE'S *Dem. &c.* p. 12, 13, 14, *4th Edit.*

" Where there is a subordination of Causes and Effects, there must necessarily be a Cause in Nature prior to the rest, uncaused. Or thus, where there is a series in which the existence of one thing depends upon another, the existence of this again upon some other, and so upwards, as the case shall be, there must be some independent Being upon whom the rest do originally depend.

" Suppose a chain hung down out of the Heavens, from an unknown height, and though every link of it

gravitated towards the Earth, and what it hung upon was not visible, yet it did not descend, but kept its situation; and upon this a question should arise, What supported or kept up this chain? Would it be a sufficient answer to say, that the first (or lowest) link hung upon the second, (or that next above it,) the second, or rather the first and second together, upon the third, and so on *ad infinitum*? For, what holds up the whole? A chain of ten links would fall down, unless something, able to bear it, hindered: One of twenty, if not staid by something of a yet greater strength, in proportion to the increase of weight, and therefore one of infinite links certainly, if not sustained by something infinitely strong, and capable to bear up an infinite weight. And thus it is in a chain of Causes and Effects, tending, or as it were gravitating, towards some end. The last (or lowest) depends, or (as one may say) is suspended upon the cause above it: This again, if it be not the first cause, is suspended upon the cause above it: This again, if it be not the first cause, is suspended as an effect upon something above it, &c. And if they should be infinite, unless (agreeably to what has been said) there is some cause upon which all hang and depend,

they would be but an infinite effect without an efficient; and to assert there is any such thing, would be as great an absurdity as to say, that a finite, or little weight, wants something to sustain it; but an infinite one, or the greatest, does not."—WOLLASTON's *Religion of Nature Delineated*, p. 65, 66, 67.

Agreeably to the above clear and irrefragable reasoning, another profound philosopher goes on thus:—"In the entrance of philosophy, when the second causes most obvious to the senses, offer themselves to the mind, we are apt to cleave to them, and dwell too much upon them so as to forget what is superior in nature. But when we pass farther, and behold the dependency, continuation, and confederacy of causes, and the works of Providence, then, according to the allegory of the poets, we easily believe that the highest *link* of Nature's *chain*, must needs be tied to the foot of Jupiter's chair: or perceive that philosophy, like Jacob's vision, discovers to us a ladder, which reaches up to the footstool of the throne of God."—M'LAURIN's *Account of Sir* ISAAC NEWTON's *Discoveries, Book I. Chap. III.*

NOTE V.—Page 21.

And pours o'er all the sky, &c.

"The objects presented to us in the commerce of the world, have a relative greatness; but those with which we converse in solitude and retirement, possess a real grandeur and magnificence. A vast city, a numerous and well-disciplined army, a proud navy, a splendid court, and the like, dazzle the eyes of a stranger, and produce a transient wonder and delight. But a little acquaintance dissolves the charm, the dimensions of created greatness speedily contract themselves, the glory departs, and what once filled us with astonishment, is regarded with calm indifference, perhaps with disgust. The eye, almost with a single glance, reaches the end of human perfection, and instantly turns from what it has seen, in search of something yet undiscovered, striving to find, in novelty and variety, a compensation for the poverty, the littleness, nothingness of the creature. But when we withdraw from the haunts of men, and either retire within ourselves, or send our thoughts abroad to contemplate God and his works, we meet

a height and a depth, which the line of finite understanding cannot fathom; we expatiate in a region which still discloses new scenes of wonder; we feel ourselves at once invited and checked, attracted and repelled: we behold much that we can comprehend and explain, but much more that passeth knowledge; we find ousselves, like Moses at the bush, 'upon holy ground,' and the same wonderful sight is exhibited to our view—JEHOVAH! in a flame of fire! whose light irradiates and encourages our approach; but whose fervent heat arrests our speed, and remands us to our proper distance."—HUNTER'S *Sacred Biography, vol.* 3. *History of Moses, Lect.* 3.

NOTE VI.—Page 22.

Now on the ground, &c.

"The *covering of birds* cannot escape the most vulgar observation. Its lightness, its smoothness, its warmth;—the disposition of the feathers all inclined backward, the down about their stem, the overlapping of their tips, their different configuration in different parts, not to mention the variety of their colours, con-

stitute a vestment for the body so beautiful, and so appropriate to the life which the animal is to lead, as that, I think, we should have had no conception of any thing equally perfect, if we had never seen it, or can now imagine any thing more so."—PALEY's *Nat. Theol.* p. 181, 182, 18*th Edit.*

" The structure of the feathered tribes, and their habits of life, are wonderfully adapted to the various functions which they are destined to perform. The pointed beak, the long and pliant neck, the gentle swelling shoulder, the expansive wings, the tapering tail, the light and bony feet, are all wisely calculated to assist, and accelerate their motion through the yielding air. Every part of their frame is formed for lightness and buoyancy. Their bodies are covered with soft and delicate plumage, so disposed as to protect them from the intense cold of the atmosphere through which they pass: their wings are made of the lightest materials, and yet the force with which they strike the air is so great, as to impel their bodies forward with astonishing rapidity, whilst the tail serves the purpose of a rudder,

to direct them to the different objects of their pursuit."
—*Encyclop. Brit. Art. Ornithology.*

Having inadvertently omitted putting down the figure, it is proper to state, that the part of the Poem to which the following *Note* more particularly refers, is to be considered as extending from *Note* 6th to the middle of page 25th.

" Every *feather* is a mechanical wonder. If we look at the quill, we find properties not easily brought together,—strength and lightness. I know few things more remarkable than the strength and lightness of the very pen with which I am writing. If we cast our eye to the upper part of the stem, we see a material, made for the purpose, used in no other class of animals, and in no other part of birds; tough, light, pliant, elastic. The pith also, which feeds the feathers, is, amongst animal substances, *sui generis;* neither bone, flesh, membrane, nor tendon.

" But the artificial part of a feather is the *beard,* or as it is sometimes, I believe, called, the *vane.*—Now, the first thing which an attentive observer will remark,

is, how much stronger the beard of the feather shows itself to be, when pressed in a direction perpendicular to its plane, than when rubbed either up or down, in the line of the stem; and he will soon discover the structure which occasions this difference, viz. that the laminæ whereof these beards are composed, are flat; and placed with their flat sides towards each other; by which means, whilst they *easily* bend for the approaching of each other, as any one may perceive by drawing his finger ever so lightly upwards, they are much harder to bend out of their plane, which is the direction in which they have to encounter the impulse and pressure of the air, and in which their strength is wanted, and put to the trial.

" This is one peculiarity in the structure of a feather; a second is still more extraordinary. Whoever examines a feather, cannot help taking notice, that the threads or laminæ of which we have been speaking, in their natural state *unite;* that their union is more than the mere apposition of loose surfaces; that they are not parted asunder without some degree of force; that nevertheless there is no glutinous cohesion between

them; that, therefore, by some mechanical means or other, they catch or clasp among themselves, thereby giving to the beard or vane its closeness and compactness of texture. Nor is this all: when two laminæ, which have been separated by accident or force, are brought together again, they immediately *reclasp*.—This is no common contrivance: and now for the mechanism by which it is effected. The threads or laminæ above-mentioned are *interlaced* with one another; and the interlacing is performed by means of a vast number of fibres, or teeth, which the laminæ shoot forth *on each side*, and which hook and grapple together. A friend of mine counted *fifty* of these fibres in *one twentieth* of an inch. These fibres are crooked, but curved after a different manner: for those, which proceed from the thread on the side towards the extremity of the feather, are longer, more flexible, and bent downward; whereas those which proceed from the side towards the beginning, or quill-end of the feather, are shorter, firmer, and turn upwards. The process then which takes place, is as follows:—When two laminæ are pressed together, so that these long fibres are forced

far enough over the short ones, *their* crooked parts fall into the cavity made by the crooked parts of the others; just as the latch which is fastened to a door, enters into the cavity of the catch fixed to the door-post, and there hooking itself, *fastens* the door; for it is properly in this manner, that one thread of a feather is fastened to the other."—PALEY'S *Nat. Theol.* p. 182, 183, 184, 185.

NOTE VII.—P. 25.

Which finds its way, &c.

"The *oil* with which birds prune their feathers, and the organ which supplies it, is a specific provision for the winged creation. On each side of the rump of birds is observed a small nipple, yielding upon pressure a butter-like substance, which the bird extracts by pincing the pap with its bill. With this oil, or ointment thus procured, the bird dresses its coat; and repeats the action as often as its own sensations teach it that it is wanted, or as the excretion may be sufficient for the expense. The gland, the pap, the nature and quality of the excreted substance, the manner of ob-

taining it from its lodgement in the body, the application of it when obtained, form, collectively, an evidence of intention which it is not easy to withstand. Nothing similar to it is found in unfeathered animals. What blind *conatus* of nature should produce it in birds?—should not produce it in beasts?"—*Ibid*, p. 204, 205.

NOTE VII.—P. 33.

What strength, what beauty, &c.

"The principal topic of comparison between animals, is their *instruments of motion.* These come before us under three divisions; feet, wings, and fins. I desire any man to say, which of the three is best fitted for its use; or whether the same consummate art be not conspicuous in them all. The constitution of the elements in which the motion is to be performed, is very different. The animal action must necessarily follow that constitution. The Creator therefore, if we might so speak, had to prepare for different situations, for different difficulties; yet the purpose is accomplished not less successfully in one case than in the other.

And, as between *wings* and the correspondent limbs of quadrupeds, it is accomplished without deserting the general idea. The idea is modified, not deserted. Strip a *wing* of its feathers, and it bears no obscure resemblance to the fore-leg of a quadruped. The articulations at the shoulder, and the *cubitus* are much alike; and what is a closer circumstance, in both cases, the upper part of the limb consists of a single bone, the lower part of two.

"But fitted up with its furniture of feathers and quills, it becomes a wonderful instrument, more artificial than its first appearance indicates, though that be very striking: at least, the use which the bird makes of its wings in flying, is more complicated, and more curious, than is generally known. One thing is certain, that if the flapping of the wings in flight, were no more than a reciprocal motion of the same surface in opposite directions, either upwards and downwards, or estimated in any oblique line, the bird would lose as much by one motion, as she gained by another. The *sky-lark* could never ascend by such an action as this; for though the stroke upon the air by the under side of her wing

would carry her up, the stroke from the upper side, when she raised her wing again, would bring her down. In order, therefore, to account for the advantage which the bird derives from her wing, it is necessary to suppose, that the surface of the wing, measured upon the same plane, is contracted, while the wing is drawn up, and let out to its full expansion when it descends upon the air, for the purpose of moving the body by the reaction of that element. Now, the form and structure of the wing, its external *convexity*, the disposition, and particularly the *overlapping* of its larger feathers, the action of the muscles, and joints of the pinions, are all adapted to this alternate adjustment of its shape and dimensions. Such a twist, for instance, or semi-rotatory motion, is given to the great feathers of the wing, that they strike the air with their *flat* side, but rise from the stroke *slantwise*. The turning of the oar in rowing, whilst the rower advances his hand for a new stroke, is a similar operation to that of the feather, and takes its name from the resemblance. I believe that this faculty is not found in the great feathers of the tail. This is the place also for observing, that the pinions are so set

upon the body, as to bring down the wings, not vertically, but in a direction obliquely tending towards the tail; which motion, by virtue of the common resolution of forces, does two things at the same time; supports the body in the air, and carries it forward."—*Ibid*, p. 195, 196, 197.

NOTE VIII.—P. 35.

And clasp the toes, &c.

It is more particularly when the bird is in the attitude of sitting, that the effect supposed is operated; whilst at other times, we are to conceive of it when upon the perch, as instinctively raising or letting down its body, with a view to looser or firmer grasp, as circumstances may require, for its safety or its comfort.

"I observe also," says Dr Paley, with his characteristic closeness and accuracy of observation, "in the same bird, a piece of useful mechanism of this kind." (He had been speaking of the "faculty of standing," or the mysterious capacity of men, birds, and beasts, keeping themselves *in equilibrio*, without an effort, and without a thought.) "In the trussing of a fowl, upon

bending the legs and thighs up towards the body, the cook finds that the claws close of their own accord. Now let it be remembered that this is the position of the limbs, in which the bird rests upon its perch. And in this position it sleeps in safety; for the claws do their office in keeping hold of the support, not by any exertion of voluntary power, which sleep might suspend, but by the traction of the tendons, in consequence of the attitude which the legs and thighs take, by the bird sitting down, and to which the mere weight of the body gives the force that is necessary."—*Ibid*, p. 176.

NOTE IX.—P. 39.

Search round the globe, &c.

"In comparing the *bones* of different animals, we are struck, in the bones of birds, with a *propriety*, which could only proceed from the wisdom of an intelligent and designing Creator. In the bones of an animal which is to fly, the two qualities required, are strength and lightness. Wherein, therefore, do the bones of birds (I speak of the cylindrical bones) differ in these

respects, from the bones of quadrupeds? First, their cavities are much larger in proportion to the weight of the bone, than in those of quadrupeds; secondly, these cavities are empty; thirdly, the shell is of a firmer texture than is the substance of other bones. It is easy to observe these particulars, even in picking the wing or leg of a chicken. Now, the weight being the same, the diameter, it is evident, will be greater in a hollow bone, than in a solid one; and with the diameter, as every mathematician can prove, is increased, *cæt. par.* the strength of the cylinder, or its resistance to breaking. In a word, a bone of the *same weight,* would not have been so strong in any other form; and to have made it heavier, would have incommoded the animal's flight. Yet this form could not be acquired by use, or the bone become hollow and tubular by exercise. What appetency could excavate a bone?"—PALEY's *Nat. Theol.* p. 230, 231.

The following *Note* more particularly respects that part of the Poem which extends from the bottom of page 39th, to line 6th from the bottom of page 40th:

" The internal structure of birds is no less wisely adapted to the same purposes; all the bones are light and thin, and all the muscles, except those which are appropriated to the movements of the wings, are extremely light and delicate. The *lungs* are placed close to the back-bone and ribs. The air entering into them by a communication from the windpipe, passes through, and is conveyed to a number of membranous *cells*, which lie on the sides of the *peritoneum*, and communicate with those of the *sternum*. In some birds, these cells are continued down the wings, and extended even to the pinions, thigh-bones, and other parts of the body, which can be filled and distended with air at the pleasure of the animal. The feathers too, and particularly those of the wings, contain a great quantity of air. The almost universal diffusion of this fluid in the bodies of birds, is of infinite use to them, not only in their long and laborious flights, but likewise in preventing their respiration from being stopped, or interrupted, by the rapidity of their motion through a resisting medium. Were it possible for man to move with the swiftness of a swallow, the actual resistance of

the air, as he is not provided with internal resources, similar to those of birds, would soon suffocate him."—*Encyclop. Brit. Art. Ornithology.*

"The *lungs* also of birds, as compared with the lungs of quadrupeds, contain in them a provision, distinguishingly calculated for this same purpose of *levitation*, namely, a communication (not found in other kinds of animals) between the air vessels of the lungs, and the other parts of the body: so that from the intromission of air from one to the other, (at the will, as it should seem, of the animal,) its body can be occasionally pushed out, and its tendency to descend in the air, or its specific gravity, made less. The bodies of birds are blown up from their lungs, (which no other animal bodies are,) and thus rendered buoyant."—PALEY'S *Nat. Theol.* p. 231.

To these great authorities, may be added that of the celebrated Dr Hunter, who, as the result of the most patient, and accurate anatomical investigation, supported by experiment, states, that the "*Cells* of the *abdo-*

men, those surrounding the *pericardium*, those situated at the lower and fore part of the *neck*, and in the *axilla*; those in the cellular membrane, under the *pectoral* muscles, as well as in that which unites the skin to the body, *all* communicate with the lungs, and are capable of being filled with air; and again, from these the cells of the *sternum*, *ribs*, *vertebræ* of the back and loins; bones of the *pelvis*, the *humeri*, the *ulna* and *radius*, with the pinions and thigh-bones, can in many birds be furnished with air."—"I believe," says he farther, "we may set it down as a general rule, that in the birds of the longest and highest flight, as eagles, this extension or diffusion of air, is carried farther than in others; and this opinion is strengthened, by comparing this structure with the respiratory organs in the flying insects, which are composed of cells, diffused through the whole body; and these are extended even to the head, and down the extremities, whilst there is no such structure in those that do not fly, as the spider," &c.—HUNTER'S *Observ. on the Animal Œconomy.*

It is but justice here to remark, that Dr Hunter far-

ther conjectures, that this cellular apparatus, connected with the lungs of birds, may at the same time be intended to secure another advantage, namely, that which is secured to amphibious animals by a similar sort of conformation.—" There is in fact," says he, " a great similarity between birds and that class of animals called *amphibious;* and although a bird and snake are not the same in the construction of the respiratory organs, yet the circumstance of the air passing in both beyond the lungs, into the cavity of the abdomen, naturally leads us to suppose, that a structure so similar, is designed in each to answer a similar purpose. This analogy is still farther supported, by the lungs in both consisting of large cells. Now, in amphibious animals, the use of such conformation of lungs is evident; for it is in consequence of this structure, that they require to breathe less frequently than others. Even considering the matter in this light, it may still in birds have some connection with flying, as that motion may easily be imagined, to render frequency of respiration inconvenient, and a reservoir of air may therefore become singularly useful. Although we are not to consider this structure in birds,

to be an extension of lungs, yet I can easily conceive this accumulation of air, to be of great use in respiration."—*Ibid.*

The following experiments, made by the same intelligent and indefatigable anatomist, may be considered as amounting to demonstration, that betwixt the lungs of birds and every other part of the body, the communication supposed really exists; and this being proved, I should suppose, we may safely consider the proof of the other point as complete, namely, that this peculiar conformation is intended to facilitate *flight*, on the principle of *buoyancy* being increased or diminished at pleasure; as well as to enable them to surmount the difficulty, connected with performing the act of respiration, whilst passing with such velocity, through a strongly elastic and resisting element.

"First," says the Doctor, "I made an opening into the belly of a cock, and having introduced a silver *canula*, tied up the *trachea*. I found that the animal breathed by this opening, and might have lived; but by an inflammation in the bowels coming on, adhesions were produced, and the communication cut off.

"I next cut the *wing* through the *os humeri* in another fowl, and tying up the *trachea*, as in the cock, found that the air passed to and from the lungs by the canal in this bone. The same experiment was made with the *os femoris* of a young *hawk*, and was attended with nearly the like success."—*Ibid.*

For the sake of certain readers, it may be proper to remark, that this power possessed by birds, of filling with air at pleasure, the infinite number of *cells* which are dispersed over their bodies, may be considered as contributing to increase their buoyancy, or tendency to float or rise in the atmosphere, in two different ways: 1. By the swell *within*, must be produced an enlargement of their volume, or dimensions *without*; and by consequence, a reduction of their tendency downwards, because the absolute weight continues the same. 2. In consequence of the air inhaled, becoming rarified, or sustaining a diminution of weight, by the action of animal heat.

" The *lungs* hang not loose in the cavity of the *thorax*, but are fixed to the back-bone: neither are they divided into *lobes*, as in man and other animals, whose *spines* admit a considerable motion. They are red spongy bodies, covered with a membrane that is pervious, and communicates with the large *vesicles*, or *air-bags*, which are spread over the whole abdomen. These vesicles, when distended with air, render the bodies of birds specifically light. They likewise supply the place of a *diaphragm*, and strong abdominal muscles. They produce the same effects on the viscera, as these muscles would have done, without the inconveniency of giving an additional weight to the body.

" Birds have no bladder of urine: but a bluish coloured canal, or *ureter*, is sent off from each kidney, and terminates in the rectum. Their urine is discharged along with the fœces," &c.—SMELLIE's *Phil. of Nat. Hist., Vol. I. p.* 115.

NOTE X.—Page 50.

With sights and sounds like these, is rear'd,
This king of birds, &c.——

It will probably be objected, that the Condor ought to be considered as an exception, and there will not be wanting some who will be disposed to maintain, that in consideration of its superior magnitude, this latter ought certainly to be considered as the *king* of birds. The following are some of the remarkable facts recorded of this species of vulture.

" In this part of the country," (the region eastward of the Roggeveld, district of Hantom, in South Africa,) " there is little to attract the attention of the naturalist. Barrow saw few fowls, except crows, kites, and vultures. He broke the wing of one of that species, which has been distinguished by the name of the *Condor*. Three dogs for some time attacked it in vain. At last, it seized one of them by the thigh, and tearing away the portion of the flesh, they all thought proper to retreat. The measure of this fowl, when its wings were spread, was *ten* feet, and one inch."—*General Hist. of Voyages and Tra-*

vels, vol. 3. *p.* 471.—*Extracted from* BARROW'S *Travels through Southern Africa—Secretary to the Earl of Macartney, by whom that intelligent Traveller was sent out to explore the interior in* 1797.

Buffon presents us with much larger dimensions.

"The *Condor,*" says that celebrated naturalist, "possesses in an higher degree than the Eagle, all the qualities that render it formidable, not only to the feathered kind, but to beasts, and even to man himself. It is *eighteen* feet across, when its wings are extended: the beak is so strong as to pierce the body of a cow, and two of them are able to devour it. They do not even abstain from man himself; but fortunately there are but few of the species. The Indians assert, that they will carry off a *deer,* or a *young calf,* in their talons, as eagles would an hare or a rabbit. They seldom frequent the forests, as they require a large space for the display of their wings; but they are found on the sea-shore, and the banks of rivers, whither they descend at certain seasons, from their heights of the mountains. Condamine has frequently seen them in several parts of the moun-

tains of Quito, and observed them hovering over a flock of sheep; and he thinks they would once have attempted to carry one off, had they not been scared away by the shepherds. The Condor is of a brown colour."

This writer farther tells us, that "it is doubted whether this animal (bird) be peculiar to America,"—that "the great bird called the *Roc*, described by Arabian writers," is supposed to be "but a species of the Condor,"—that "the great bird of Tarnassur, in the East Indies, which is larger than the eagle, as well as the vulture of Senegal, which carries off children, are nothing else but the Condor."—BUFFON'S *Nat. Hist.*

But though the article of mere *bulk* should even be ceded, we must still contend, that the eagle holds the same rank among birds, that the lion does among beasts. There is betwixt him and the Condor, or any other species of vulture that can be named, no comparison in point of symmetry, of spirit, of fire, of activity, of vigour of pinions, of altitude and rapidity of flight.—All the varieties of the species of vulture that can be named, feed principally upon carrion, which the eagle

properly so called, disdains to taste. So strongly marked is the difference in this respect, that a flock of vultures have oft been seen watching at a respectful distance, whilst the eagle was engaged in devouring the prey, in order that they might secure what of it that noble bird might happen to leave—the prey, which, disdaining to be indebted to the activity or industry of another for his repast, with his characteristic pride and independence, he had taken for himself.

The following passage from Barrow's Travels in the south of Africa, presents us with a striking specimen of the rapacity of the vulture, and of the eagerness with which he preys upon carrion, as well as the rapidity and dexterity with which he performs his operation:—

"In the same place, (south of the Orange River,) they killed a Zebra, an animal which from its great speed, cannot always be approached. They left the zebra at the foot of the mountain, intending to take off the skin at their return. Though they were not more than an hour from the spot, they found upon their return, that the bowels of the animal were entirely removed by the vultures, which hovered round in great

numbers. The whole skin was nevertheless unbroken, except at the small hole at which the ball had entered, and even that was not much enlarged."—*Hist. of Voyages and Travels, vol. III. p. 423.*

If we take into account the shortness of the time, the smallness of the hole by which the entrails were hooked out, and by which, not more than a single bird could be supposed to operate at once, together with the bulk of the animal, this was surely very surprising, and may be considered as in place of a thousand evidences, at once for vulturine rapacity, and for the rapidity with which that voracious bird is capable of devouring any animal, that may have the misfortune to become its prey.—The Zebra is a species of wild horse, in the opinion of Goldsmith, Barrow, and others, capable of being domesticated, and remarkable at once for its wildness, its beauty, and its speed.

In conclusion of this *Note*, I may add, that when the Sacred Writers, of whose country the eagle and the vulture were natives, would express the idea of the greatest speed, of the greatest height, of the greatest

power, and of the greatest vigour of pinions, and when, as in this last instance, the reference is to the winged creation, the eagle is invariably selected—" The Lord shall bring a nation against thee from far, from the end of the earth, *as swift as the eagle flieth*, a nation whose tongue thou shalt not understand."—*Deut.* xxviii. 49. ——" Now," says Job, " my days are swifter than a post: they flee away, they see no good. They are passed away as the swift ships; as the *eagle* that hasteth to the prey."—*Job*, ix. 25, 26.——" Labour not to be rich: cease from thine own wisdom. Wilt thou set thine eyes upon that which is not? for riches certainly make themselves wings, they fly away as an *eagle* towards Heaven."—*Prov.* xxiii. 4, 5.——" Saul and Jonathan were lovely and pleasant in their lives, and in their death they were not divided: they were swifter than *eagles*, they were stronger than lions."—2 *Sam.* i. 23. ——" Though thou exalt thyself as the *eagle*, and though thou set thy nest among the stars, thence will I bring thee down, saith the Lord."—*Obad.* v. 4.—— " And the word of the Lord came unto me, saying, Son of man, put forth a riddle, and speak a parable

unto the house of Israel; and say, Thus saith the Lord God, a great *eagle* with great wings, long-winged, full of feathers, which had divers colours, came unto Lebanon, and took the highest branch of the cedar," &c.—*Ezek.* xvii. 1, 2, 3.——" Even the youths shall faint and be weary, and the young men shall utterly fall: but they that wait upon the Lord shall renew their strength: they shall mount up with wings as *eagles*," &c.—*Isa.* xl. 30, 31.——" And to the woman were given two wings of a great *eagle*, that she might fly into the wilderness, into her place, where she is nourished for a time, and times, and half a time, from the face of the serpent."—*Rev.* xii. 14.

I may just add, that in his *History of American Birds*, Wilson informs us, that from the top of the loftiest mountains in that country, (some miles high,) he has seen eagles soaring to such height even above that level, as to shew on the face of the sky, like small dark spots, only about the size of a swallow!—Quoting from memory, I merely state the fact without his language, for the book itself, which is very scarce in this

country, and which I have not seen for some time, I cannot immediately command.

And says the Bard, who has been justly styled the Poet of Nature,

> " Invited from the cliff, to whose dark brow
> He clings, the steep-ascending eagle soars,
> With upward pinions through the flood of day,
> And giving full his bosom to the blaze,
> Gains on the sun, while all the tuneful race,
> Smit by afflictive noon, disorder'd droop,
> Deep in the thicket."
>
> THOMSON'S *Summer*.

NOTE XI.—P. 53.

Hence neck and bill, &c.

" There is another tribe of aquatic birds, some of which feed upon fishes and insects, and others live principally by sucking certain juices from mud. Both these kinds frequent marshy places, or the margins of lakes and rivers. They do not swim, but wade in quest of their food. This singularity in their means, required a correspondent variation in their form and structure. To enable them to wade in waters and in moss, nature has

provided them with long legs, naked of feathers for a considerable space above the knees. Their toes are not like those of the species, connected by continuous membranous webs. Most of them have likewise very long necks and bills, to enable them to search for, and apprehend their food. To this tribe belong the crane, the heron, the bittern, or miredrum, the stork, the spoonbill, the woodcock, the snipe, and many other species." —SMELLIE'S *Philosophy of Nat. Hist. vol. I. p.* 120, 121.

Notwithstanding the apparently slow and uncertain manner of the *heron*, its depredations in the water are peculiarly serious and extensive, and the quantity of fish which it is capable of devouring, were the fact not supported by undoubted evidence, incredibly great.

"I have seen," says Willoughby, "a carp taken out of a heron's belly nine inches and a half long. Some gentlemen, who kept tame herons, in order to try what quantity one of them would eat in a day, have put several *roach* and *dace* in a tub, and they have found him consume *fifty*, one day with another. In this man-

ner, a single heron will destroy 3000 store carps in a year."—The same writer tells us, " that he has found not less than seventeen carps in his belly at once, all of which he had the capacity of digesting, in six or seven hours !"—WILLOUGHBY's *Ornithology*.

NOTE XII.—P. 54.

Their martial mien, &c.

" Carnivorous birds are provided with wings of great length, the muscles which move them being proportionally large and strong, so that they are enabled to keep long on the wing in search of their prey. They are, besides, armed with strong hooked bills, and sharp and formidable claws. They have large heads, short necks, strong and bony thighs, and a sight so acute and piercing, as to enable them to view their prey from the greatest heights in the air, and to dart down upon it with incredible swiftness and undeviating aim."—*Encyclop. Brit. Art. Ornithology.*

NOTE XIII.—P. 55.

For whilst with meteor speed, &c.

" It is well known, that the stag or rein-deer, can run from seventy to eighty leagues in a day, and the latter from fifty to sixty, dragging its sledge. But this falls prodigiously short of the distance through which the *swallow* can fly in the same space of time. The swallow can fly at the rate of *thirty leagues* an hour," &c.—*Prof.* RAFF's *Syst. of Nat. Hist.*

" Adanson saw swallows arrive on the coast of Senegal, in the month of October, that were known to have left Europe on the first or second of the same month, (*Voyage au Senegal.*) Henry IX. King of France, when hunting near Fontainbleau, lost a tame *falcon,* which was taken next day in the island of Malta, and recognised by the ring which it wore. Now, the distance may be 400 leagues. Another *falcon* came in *sixteen* hours from Andalusia, to the island of Teneriffe, a distance of about 400 leagues. This was twenty-five leagues an hour, and probably more, if the exact mo-

ment of its arrival had been known."—*Note by the Editor.*

NOTE XIV.—P. 56.

The hardest grain, &c.

"Birds, like quadrupeds, may be divided into *granivorous* and *carnivorous*. The former are furnished with larger intestines than those of the latter. Their food, which consists of grain of various sorts, is conveyed entire into the first stomach or *craw*, where it undergoes a partial dilution, by a liquor secreted from the glands, and spread over its surface. It is then received into another species of stomach, where it is farther diluted; after which, it is transmitted into the *gizzard*, or third stomach, consisting of two very strong muscles, externally covered with a tendinous substance, and lined with a thick membrane of prodigious power and strength, in which organ, the food is completely triturated, and prepared for the operation of the gastric juices. In order to ascertain the strength of these stomachs, Spallanzani had recourse to a great variety of ingenious experiments. *Tin tubes*, full of grain, were

forced into the stomach of a *turkey*, and after remaining twenty hours, were found to be broken, compressed, and distorted in the most irregular manner. In the space of twenty-four hours, the stomach of a *cock* broke off the angles of a piece of rough jagged glass, though on examining the gizzard, no wound or laceration appeared. In a ball of lead, were fixed *twelve strong needles*, with the points projecting about a quarter of an inch from the susface. Thus armed, the ball was covered with a case of paper, and forced down the throat of a *turkey*. The bird retained it a day and a half, without manifesting any symptoms of uneasiness, and the points of all the needles were broken off, close to the surface of the ball, except two or three, of which the stumps projected a little. The same interesting observer relates, that he fixed twelve small and very sharp *lancets*, in a similar ball of lead, which was given in the same manner to a *turkey-cock*, and left eight hours in the stomach; at the expiration of which, the organ was opened; but nothing appeared, except the naked ball, the lancets having been broken to pieces, and the stomach remaining sound and entire. Hence we may in-

fer, that the stones so often found in the stomachs of many of the feathered tribes, may powerfully contribute to the comminution of grain, and other hard substances which constitute their food."—*Encyclop. Brit. Art. Ornithology.*

"In birds, the compensation is still more striking. They have no teeth at all. What have they then to make up for this severe want? I speak of granivorous and herbivorous birds, such as common fowls, turkeys, ducks, geese, pigeons, &c. for it is concerning these alone that the question needs to be asked. All these are furnished with a peculiar and most powerful muscle, called the *gizzard;* the inner coat of which is fitted up with rough plaits, which, by a strong friction against one another, break and grind the hard aliment as effectually, and by the same mechanical action as a coffee-mill would do. It has been proved by the most correct experiments, that the gastric juice of these birds will not operate upon the entire grain, not even when softened by water, or macerated in the crop. Therefore, without a grinding machine within its body, without the tritu-

ration of the gizzard, a chicken would have starved upon a heap of corn. Yet why should a bill and a gizzard go together? Why should a gizzard never be found where there are teeth?

"Nor does the *gizzard* belong to birds as such. A gizzard is not found in birds of *prey*. Their food requires not to be ground down in a mill. The compensatory contrivance goes no farther than the necessity. In both classes of birds, however, the digestive organ within the body bears a strict and mechanical relation to the external instruments for procuring food. The soft membranous stomach accompanies a hooked, notched beak, short, muscular legs, strong, sharp, crooked talons: the cartilaginous stomach attends that conformation of bill and toes, which restrains the bird to the picking of seeds, or the cropping of plants."—PALEY'S *Nat. Theol.*

NOTE XV.—Page 58.

The wing on high, &c.

"All birds are *oviparous*. This likewise carries on the work of gestation, with as little increase as possible

of the weight of the body. A gravid uterus would have been a troublesome burthen to a bird in its flight. The advantage, in this respect, of an oviparous procreation is, that, whilst the brood are hatched together, the eggs are excluded singly, and at considerable intervals. Ten, fifteen, or twenty young birds may be produced in one cletch or covey, yet the parent-bird have never been encumbered by the load of more than one full-grown egg at one time."—*Ibid. p.* 231, 232.

NOTE XVI.—Page 59.

——————— *What wonders wrought,*

For this small bird, &c.

" The tongue of the *woodpecker,* is one of those singularities, which Nature presents us with, when a singular purpose needs to be answered. It is a particular instrument for a particular use; and what, except design, ever produces such? The woodpecker lives chiefly upon insects, lodged in the bodies of decayed or decaying trees. For the purpose of boring into the wood, it is furnished with a bill, straight, hard, angular, and sharp. When, by means of the *piercer,* it has reached

the cells of the insects, then comes the office of its tongue: which tongue is, first, of such a length, that the bird can dart it out three or four inches from the bill,—in this respect differing greatly from every other species of bird. In the second place, it is tipped with a stiff, sharp, bony thorn; and in the third place, (which appears to me the most remarkable property of all,) its tip is dentated on both sides, like the beard of an arrow, or the barb of a hook. The description of the part declares its uses. The bird having explored the retreats of the insects, by the assistance of its bill, with a motion inconceivably quick, launches out at them its long tongue, transfixes them upon the barb-needle at the end of it, and thus draws its prey within its mouth. If this be not mechanism, what is? Should it be said, that by continual endeavours to shoot out the tongue to the stretch, the woodpecker's species may by degrees have lengthened the organ itself beyond that of other birds, what account can be given of its *form*, of its *tip*? How, in particular, did it get its *barb*, its *dentation*? These barbs, in my opinion, wherever they occur, are decisive proofs of mechanical contrivance."—*Ibid. p* 250, 251.

NOTE XVII.—Page 60.

Equipt with hook, its leathern wing,
By which, when weary, &c.

"The hook in the wing of a *bat*, is strictly a mechanical, and also a *compensating* contrivance. At the angle of its wing, there is a bent claw, exactly in the form of a hook, by which the *bat* attaches itself to the sides of rocks, caves, and buildings, laying hold of crevices, joinings, chinks, and roughnesses. It hooks itself by this claw; remains suspended by this hold; takes its flight from this position: which operations compensate for the decrepitude of its legs and feet. Without her hook, the bat would be the most helpless of all animals. She can neither run upon her feet, nor raise herself from the ground. These inabilities are made up to her by the contrivance in her wing: and in placing a claw on that part, the Creator has deviated from the analogy observed in winged animals. A singular defect, required a singular substitute."—*Ibid. p.* 277, 278.

NOTE XVIII.—Page 61.

By plan thus new, &c.

"The common *parrot* has, in the structure of its beak, both an inconveniency, and a *compensation* for it. The upper bill of the parrot is so much hooked, and so much overlaps the lower, that if, as in other birds, the lower chap alone had motion, the bird could scarcely gape wide enough to receive its food: yet this hook and overlapping of the bill could not be spared, for it forms the very instrument by which the bird climbs; to say nothing of the use which it makes of it in breaking nuts and the hard substances upon which it feeds. How, therefore, has nature provided for the opening of this occluded mouth? By making the upper chap moveable as well as the lower. In most birds, the upper chap is connected, and makes but one piece with the skull; but in the parrot, the upper chap is joined to the upper bone of the head by a strong membrane, placed on each side of it, which lifts and depresses it at pleasure."—*Ibid.* p. 234.

NOTE XVIII. (reprinted.)—Page 68.

To all this added, &c.

" If animals be examined, not one of them will be found defective in its members, if attention be paid to its means and the places wherein it is destined to live. The long and thick beak of the *Toucan,* and its tongue made like a feather, were necessary to a bird, which seeks insects dispersed in the humid sands on the shores of America: a long pick-axe to dig them out, a large spoon to collect them, and a tongue fringed with delicate nerves to discover its food, were at once necessary to it. Long legs, and a long neck, were necessary to the heron, the stork, the zamana, and other birds which are found in marshes, and which seek their prey at the bottom of the waters there."—ST PIERRE'S *Stud. of Nature.*

Every man will be satisfied in regard to the accuracy of this account, who has had an opportunity of examining this singular bird, some fine specimens of which are at present to be seen in the Doncaster Museum,

Edinburgh. By the *spoon*, is merely meant the under chap, which, in consequence of its extreme scooping, is admirably fitted to answer the purpose supposed; whilst the *tongue*, decidedly *sui generis*, with shorter and stiffer laminæ, more nearly resembles a feather, than perhaps any other instrument that can be named.

NOTE XIX.—P. 69.

Or o'er the plain, or up the mountain-steep,
This bird to wheel, &c.

"In the *ostrich*; this apparatus of crotchets and fibres, of hooks and teeth," (in the beard of the feather, viz. and which are common to all birds of flight,) "is wanting: and we see the consequence of the want. The filaments hang loose and separate from one another, forming only a kind of down; which constitution of the feathers, however it may fit them for the flowing honours of a lady's head-dress, may be reckoned an imperfection in the bird, inasmuch as wings, composed of these feathers, although they may greatly assist it in running, do not serve for flight."—PALEY'S *Nat. Theol. p.* 219, 220.

NOTE XX.—P. 74.

Peace to thy shade, Illustrious Dead!
To all that with thee bled:
The work's begun, &c.

The learned and elegant Buchanan, writing from the testimony of others, and according to the current opinion of the day, without making pretensions to absolute certainty, actually represents the English army, as having amounted to *upwards* of a *hundred thousand,* exclusively of an immense number of followers, and by consequence, as according to him also, the Scotch army amounted only to *thirty thousand,* to have exceeded the proportion here specified. Nor will this appear quite so surprising, when the object, the final conquest of Scotland, is considered; and when for this purpose that army was swelled, not only by a number of the Scotch themselves, who were either in Edward's interest, or under his control; (— exercitum, non modo ex Anglis et *Scotis,* qui Anglorum sectam sequebantur,) not only by his continental resources, and which appear to have been peculiarly great; (è transmarina ditione, quæ tum

ei magna et opulenta erat, quantum nullus unquam rex Anglorum habuisse dicitur,) but also by reinforcements, furnished by his allies, especially the Flemish and Dutch, (corrogatis etiam à transmarinis amicis auxiliis, maxime à Flandris et Hollandis, quos pater ejus, adversus Philippum Gallorum Regem, impense adjuverat.)—He thus proceeds,—In eo exercitu *supra centum millia bellatorum* fuisse, dicuntur. Sequebatur etiam turba calonum et lixarum, eorumque, qui commeatus terra marique subvehebant, ut in regionem non admodum frugum fœcundam, et per tot annos omnibus belli cladibus afflictam: præterea eorum, qui, in colonias describendi, et agros accepturi, uxores et liberos secum trahebant, *ingens multitudo.* Totæ autem vires opulentissimi regni, et jam diu florentis, oculis animisque subjectæ, tantam omnibus fiduciam pariebant, ut, non de bello gerendo, sed de præda dividenda, omnis eorum esset sermo. Brussius, tanto apparatu hostium audito, et ipse suas copias parat, numero quidem, adversus tantam multitudinem, exiguas, erant enim *ad triginta millia* hominum, sed belli usu et malis domesticis induratorum, et qui vitæ, fortunarum, omniumque, quæ sunt

hominibus cara, spem in dextris gerebant. Cum hac manu, sinistram ripam Bannoci fluminis tenebat."—— Buch. *Hist. lib. viii.*

It must be admitted, that the narrative of this celebrated historian, as it respects his account of the number of the slain in the English army, is characterized by the same degree of modesty and caution, whilst without either vouching for its accuracy, or expressing a doubt in regard to it, he merely presents us with the statement of preceding Scotch historians, according to whom, there fell of it not less than *fifty thousand* men, an immense slaughter of the crowd having taken place in the course of the flight; (— Vulgi, in fuga, ingens edita cædes. *Quinquaginta Anglorum millia* quidam nostrorum cæsa tradunt,) and introduces an English writer, as having stated, that the number of the slain was incalculable; (Caxtonus scriptor Anglus, ut numerum certum non ponit, ita stragis ingentis suspicionem facit: ait enim, innumerabilem cæsorum fuisse multitudinem,) at the same time admitting, that it was no easy matter to ascertain the precise number, in con-

sequence of the length of the pursuit, in the course of which, he says, fell more than in the battle itself. (Nec, fortassis, injuria rem in incerto reliquit, quod, numerum inire, non erat facile, fuga tam longe lateque sparsa, in qua plures, quam in prælio perierunt.) Farther, by way of internal evidence for the fact of at least prodigious slaughter, he makes this remark,—Tanta certe clades fuit, ut, proximo ac tertio post anno, Angli, quanquam pluribus incommodis provocarentur, tamen non se commoverint. And adds, that there fell about two hundred of the English nobility, whilst nearly an equal number of illustrious individuals, or persons of distinction, were taken prisoners.—E nobilitate Anglica ceciderunt, circiter ducenti: par prope numerus fuit captivorum Illustrium. And not to mention the fact of the king himself, who escaped only in consequence of taking refuge in the castle of Dunbar, being so nearly taken prisoner by the gallant Douglas, who with four hundred horse, continued the pursuit through an extent of forty miles, and which he also particularly notices; he candidly admits, that it was far from being a bloodless victory even to the Scots them-

selves, of whom, including two knights, (besides the wounded, whose number on both sides must have been great,) he states to have fallen, *four thousand* men.—Nec incruenta Scotis fuit victoria: ceciderunt enim *ad quatuor millia:* in quibus, duo tantum Equestris ordinis fuerunt.—*Ibid.*

This great battle, the last grand national struggle for the liberty and independence of Scotland, and which may justly be considered as one of the most glorious and decisive that history has to record, was fought, July 25th, 1314.

Thus, in the preceding Poem, I have attempted to contribute my quota, towards reviving, or keeping alive, the memory of the splendid achievements of that day, in the field of Bannockburn, and towards giving a new impulse to national feeling, on the subject of a *Monument* to the memory of the Hero, who planned, and who, as an instrument in the hand of Providence, against such overwhelming numbers, conducted that

great battle to such a successful termination, and who, now that Wallace and Graham were no more, was considered as at once the greatest Hero, and the greatest General of the age. It is truly surprising, that the erection of it should have been so long delayed; but in a country and in an age, in which the value of liberty is so well ascertained, the rights of man so well understood, and under the best of governments so powerfully advocated, what may not be expected, as an expression of gratitude to those ancient patrons and defenders of the same cause, *statesmen*, and *reformers*, and *heroes*, who laid in their very blood a foundation for that liberty, civil and religious, which is now the boast and the glory of Britain, and which renders her the wonder and the envy of the world? And what may not be expected as an expression of veneration for their memory?—Accordingly, the Public were lately (March, 1818) favoured with an Advertisement from the Caledonian Hunt, announcing a resolution and a plan, in regard to the erection of a National Monument to the memory of this celebrated, but long-neglected Hero—intelligence, which could not fail to be received with unbounded ap-

plause, and which well entitles that venerable Society to the gratitude and praise of every Scotsman.—It was also gratifying to find this measure noticed with marked approbation by Lord Elgin, at the last meeting of the Highland Society, and by his Lordship, warmly recommended to the patronage of all the other members of that highly respectable body.

NOTE XXI.—P. 76.

Where Heroes wait, led by the Great,
To conquer, &c.——

The character of this Hero is thus drawn by Heron, in his History of Scotland.—" Yet these discontents and this opposition might have passed, without producing any useful or permanent effects, had not a Hero arisen, to vindicate the liberties of Scotland, whose rank was so mean, and his possessions so small, as to place him below the atmosphere of those intrigues, by which most of the Scottish nobles were seduced to betray their country, for the sake of private advantage to themselves; whose fortune, powers, and personal abilities were therefore overlooked, as too inconsiderable to deserve either

to be gained or suppressed, till he had injured the English, beyond the hopes of forgivenness; whose gigantic strength, dauntless ferocity of spirit, unmatched dexterity and skill in the exercises of war, the generosity of his nature, and the captivating, yet overawing superiority of his genius, won his countrymen to enlist themselves under his protection and command, and, at the same time, enabled him to lead them with victory through the most desperate enterprises against their enemies; whose soul, a stranger to sordid and selfish cares, burned only with inextinguishable hatred against the English, with a lofty and passionate consciousness of the powers which he bore within himself, with ardour for martial glory, with the love of his country, surviving every variety of fortune, and to expire but with his latest breath."—HERON's *Hist. of Scotland, Vol. II. Book III. Chap* 4.

By this historian, we are farther told, that "he appears to have been the son of a small landholder, who possessed the estate of Ellerslee, near Paisley, in the shire of Renfrew."—We may just notice, that the cha-

racter that he has drawn of him exactly corresponds with the account given by Buchanan, who, however, informs us, that he was descended from a *noble and ancient* family.—Repente exortus est Gulielmus Vallas, homo *nobile et antiqua* familia, sed in re tenui natus, et educatus, ac nullis prope opibus fretus——cum magna vi corporis atque animi esset.—And more particularly, when he comes to detail the circumstances of his lamented end—Hunc finem vitæ habuit vir, sui temporis *longe præstantissimus* in suscipiendis periculis, animi magnitudine, in rebus gerendis, fortitudine et consilio, clarissimis veterum ducibus facile comparandus, charitate in patriam nemini secundus, qui servientibus ceteris, solus liber, neque præmiis adduci, neque metu cogi potuit, ut causam publicam, semel susceptam, desereret: cujus mors eo miserabilior est visa, quod, ab hoste invictus, a quibus minime debuit, fuit proditus.—Buch. *Hist., lib.* 8.

As presenting the reader with any thing like a complete exhibition of the achievements of the Hero, as they respect the battles which he fought, the various

places of strength which he recovered, the rapidity with which he repeatedly cleared his native country of its invaders, the resistless impetuosity with which he burst into the Invader's kingdom, and ravaged its northern counties, the immense booty with which he returned, and in general, as they respect his wisdom as a leader, his fearless valour, and his matchless strength and havoc in the field, would produce a swell altogether inadmissible in a *Note*, it must here suffice to state, that through the intriguing and deceitful policy of the king of England, who but too successfully wrought upon the pride, the credulity, and jealousy of the Scottish nobles, by insinuating, that the brave and disinterested Wallace was fighting merely to secure the crown of Scotland to himself; through the natural jealousy of the nobles and heir-apparent on this head, the Hero deemed it proper to resign, and actually resigned the regency of the kingdom, with which dignity he had been invested by the unanimous consent of his countrymen; and in his attachment to his country, his zeal for liberty and independence, firm to the last, as the rocks of his native land, the Patriot was in the end betrayed into the hands

of Edward, by his intimate friend, Sir John Monteith, to whom he had unfortunately discovered the place of his retreat, and who, in the dead of night, conducted to it a band of armed men, whilst the Champion lay shorn of his locks, by being unapprised of the danger, or perhaps by being fast asleep.—Thus was the Hero bound, carried to London, and there barbarously executed by order of the English monarch.—Eodem modo tempore (1305.) Vallas à Joanne Mentheto familiari suo, per Anglos pecunia corrupto, in agro Glascuensi, ubi tum latebat, captus, et Londinum missus, Eduardi jussu, fœde laniatus interiit, membra, ad aliorum terrorum, in locis celebrioribus Angliæ et Scotiæ suspensa.—*Ibid.*

As might naturally be expected, and as it justly might, this act of villainy, of treachery, and cruelty, drew down upon Monteith the hatred and contempt of every Scotchman that deserved the name. But what stamps his memory with additional infamy, is, that having been amply rewarded by the English for this service, we find him afterwards attempting to dispose of

Bruce himself, now King of Scotland, in the same way, under pretence of delivering up to him a certain castle of great strength, to the government of which he had been appointed, as part of his reward for his late services in regard to Wallace. But this diabolical scheme was not like the former, destined to succeed; for the king having providentially been apprised of the danger on his way to the castle, entering with sufficient force, and as merely according to agreement, to take possession of it, took Monteith himself prisoner, together with a party of armed men, whom, for the purpose of seizing or assassinating the king, he had concealed in a wine-cellar!—(In cella vinaria depressa et oculta, Angli, satis magno numero, erant inclusi: qui, celera arce recepta, regem securum, inter prandendum aut caperent, aut obtruncarent.) And now the punishment that he deserved, would inevitably have been instantly awarded, had it not been, that the great battle of Bannockburn was on the eve of being fought, and the king deemed it advisable to postpone punishment, lest it should weaken his army, by shaking the allegiance, and depriving him of the services of the traitor's relations, and especially of his

sons-in-law, of whom, it appears, he had many, and these men of rank, of influence, and of a turbulent spirit. These having become surety for him, it was therefore resolved, to put his allegiance and his promises of future good behaviour fairly to the test, by placing him in the front of the battle, where he fought with such distinguished bravery, as to secure at once the favour and approbation of his prince, and to command the admiration and the praise of every beholder!—as according to Buchanan and other Scotch historians, not only to obtain pardon for the past, but ample rewards for the future!—Ibi homo alioqui fraudulentus regi fidem servavit, atque ita fortiter se gessit, ut ejus diei opera non modo veniam præteritorum, sed ampla etiam in posterum præmia promeruerit.—*Ibid.*

NOTE XXII.—P. 81.

Whilst fifty thousand, &c.

M'Queen's statements on this subject, seem to be well supported; and according to him, as well as others, in the field of Waterloo, the French army amounted to at least 130,000 men; whilst the British army did not

exceed 68,500.—Having by appeal to a variety of authorities, French, British, Prussian, &c. demonstrated that the one could not be much more, and that the other could not be less, he thus proceeds:

" The preceding account is believed to be nearly correct. The superiority of numbers therefore, was clearly on the side of the enemy, with this further difference, that Bonaparte could bring from 130 to 135,000 men to bear upon 68,500, or say, 78,500, under the command of the British general, for fully five hours before he could receive any assistance from Blucher. While we give Bonaparte full credit for the talents he displayed, in the masterly manner in which he placed his army, in order to accomplish the object which he had in view, we must not forget the above important particulars, as these shew him to have been not only superior in numbers, but with regard to the British general, almost *double*, and therefore, it enhances the glory of his overthrow. But General Alava goes farther, and states positively, that Bonaparte's force was nearly '*triple*' to that under the command of the Bri-

tish general."—M'QUEEN's *Nar. of the Campaigns of 1812, 1813, 1814, and 1815, vol. III. p. 285.*

But whatever be the fact, as it respects the proportion which the one army bore to the other, in point of numerical strength, it is at least beyond dispute, that by the gallant Blucher himself, the French army is rated at upwards of 130,000, and that with this statement, corresponds that of Lord Castlereagh in the House of Commons, June 23. His words are these—" The troops which fought under Bonaparte were at least 130,000, and perhaps not overrated at 140,000."

But suppose the British army before the Prussians came up, (for the calculation respects merely its numbers in the field before their arrival,) to have amounted even to 80,000 men, and the French army, as before stated, to only 130,000; still these numbers give, as specified in the Poem, a difference of not less than *fifty thousand!*

NOTE XXIII.—P. 88.

Like lightest feather, on the tempest whirl'd,

Or viewless atom, &c.

"If," says Dr Chalmers, "we ask the number of suns and of systems—the unassisted eye of man can take in a thousand, and the best telescope which the genius of man has constructed, can take in *eighty millions!* But why subject the dominions of the universe to the eye of man, or to the powers of his genius? Fancy may take its flight far beyond the ken of eye or of telescope. It may expatiate on the outer regions of all that is visible—and shall we have the boldness to say, that there is nothing there? that the wonders of the Almighty are at an end, because we can no longer follow his footsteps? that Omnipotence is exhausted, because human art can no longer follow him? that the creative energy of God has sunk into repose, because the imagination is enfeebled by the magnitude of its efforts, and can keep no longer on the wing through those mighty tracts, which shoot far beyond what eye hath seen, or the heart of man hath conceived—which sweep

endlessly along, and merge into an awful and mysterious infinity?"—CHALMERS *on the Christian Revelation, &c. p.* 42.

FINIS.

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