

(Written for the Canadian Illustrated News.)

"THE ORDER OF RELEASE."

(Painted by JOHN EVERETT MILLAIS, R. A.)

Thanks for thy picture, Millais, thanks!
It stirs each feeling heart,
And with earth's sweetest idylls ranks,
A master-piece of art.

A youthful Highlander, who fought
On red Culloden's field,
And deeds of noble daring wrought,
Was forced at length to yield:

And now, within a lonesome cell
The wounded captive lies,
Doomed, he forebodes, for long to dwell
Afar from dearest ties.

Hark! 'tis the Warder's measured stride:
He halts—and turns a key—
The ponderous oak door backward glides—
What shall the captive see?

He lifts his head—prepared for death,
Half weary of his life—
The sight that greets him chokes his breath,
It is—his brave young wife!

One moment—and two hearts have met
That scarce had hoped to meet:
The clansman's eyes with tears are wet,
Unutterably sweet.

Barefooted, with an infant child
New slumbering on her breast,
O'er hill and dale, through wood and wild,
That wife hath onward pressed.

Bright blossoms, gathered by the way
To charm her bairn's eye,
Down from his slackened fingers stray,
And on the pavement lie.

Their dog has travelled by her side,
With grave, unwounded pace,
And oft inquisitively eyed
The woman's earnest face.

But now her tollsome tramp is o'er—
Her sorrows all are past—
She clasps her Allan safe once more,
And triumph comes at last:

For, the same arm that closely folds
The wounded form in peace,
Forth to the soldier-tailor holds
The "Order of Release."

Poor Allan on her bosom weeps,
Weil nigh too weak to stand:
The faithful colley upward leaps,
And licks his master's hand.

And soon those Four shall quit the cell,
Together, free to roam
O'er field and fell, again to dwell
Within their Highland home.

Thanks for thy picture, Millais, thanks!
It stirs each feeling heart,
And with earth's sweetest idylls ranks,
A miracle of art!

GEO. MURRAY.

Montreal, 1873.

(Written for the Canadian Illustrated News.)

GOSSIPS ON POPULAR SCIENTIFIC SUBJECTS.

No. III.—METEORS AND AEROLITES.

I have seen the vaulty top of Heaven
Figured quite o'er with burning meteors.

KING JOHN, Act 5, Sc. 2.

The front of Heaven was full of fiery shapes.

HENRY IV., Act 3, Sc. 3.

Are there no stones in Heaven but what serve for the thunder?

OTHELLO, Act 5, Sc. 2.

The precise cause of igneous meteors is not resolved. M. DeLuc ascribes them to certain phosphoric exhalations, which ascend from the earth, and take fire or become phosphorescent in the air. The opinion of Aristotle about the cause of meteors seems to agree in some measure with that of M. DeLuc. Kepler believed them to be engendered by "terrestrial exhalations."

Plutarch in his life of Lysander says:—"Some philosophers think that shooting stars do not arise from detached parts of ether coming to extinguish themselves in the air, immediately after taking fire; nor do they spring from the atmosphere in a state of dissolution, in great quantity, in the upper regions; they are rather heavenly bodies that fall to the earth, or, in other words, bodies withdrawn in some manner from the force of rotation, and precipitated, not only upon the inhabited regions, but upon the great seas, whence it comes that they are not afterwards found."

These igneous or "burning meteors"—fiery shapes—have been noticed by most of the ancient writers on natural philosophy with which we are acquainted, as may be found by the works of Aristotle, Pliny, Virgil, Lucretius, Seneca and others. But the peculiarities in the different kinds of them do not appear to have been noticed.

Diogenes of Apollonius mentions a star of stone that fell "all on fire near Ægos Potamos." In Galatia, Cybele was worshipped in the form of a stone that had fallen from the sky. At Emesis, in Syria, a similar stone was set apart for the worship of the sun.

These meteoric stones or aerolites of which accurate analyses have been made and published seem to be made up of ingredients composed in proportions different from those of any known terrestrial compound, their composition as found by chemical analysis has confirmed the opinion that they have all one common origin. They are probably formed in our atmosphere; at least that is the opinion of some meteorologists after the result of an examination of all the evidence.

The history of meteorolites has been revived and minutely treated by Chladni. From this history we gather some notes of those that fell before the Christian Era. There can be no doubt, despite all modern scepticism, that the ancients were

well acquainted with the fall of such bodies, as historical facts: and Anaxagoras is said to have predicted it, in one instance. The masses so seen to fall from Heaven were held sacred, and received Divine honours, as in the case of the Ephesian Diana which has been supposed by some to have been merely a conical or pyramidal stone which fell from the clouds—a meteorolite—see Barnes's Notes to the Acts of the Apostles, Chap. xix.

A thunder stone fell in Crete and was held in veneration as the symbol of Cybele. The sacred shield that fell in the reign of Numa. The black stone kept in the Kaaba at Mecca. The thunder-bolt hard and glittering, from which the sword of Antur was fashioned.

These terrific thunder-bolts of Jupiter seem in general to have come down to the earth accompanied by such loud explosions, blazes, and other circumstances as in a less degree attend the larger sort of fiery meteors.

At four o'clock, in the afternoon of the 13th of September, 1868, there was seen at the village of Luce, two leagues from Chartres, in France, a dark cloud, from which detonations were heard, and these were followed by the whistling or hissing sound that accompanied the fall of a black stone, which nearly buried itself in the soil, weighed seven pounds and a-half, and was so burning hot that no one could touch it. The stone that fell at Angers, June 9, 1822, was attributed to a beautiful shooting-star seen at Poitiers. Humboldt relates that this meteor had the effect of a Roman candle in a display of fire-works, and left a train in a straight line of such glowing brilliancy that the light lasted for several minutes.

Thus we see that there are other "stones in Heaven but what serve for thunder."

In October, 1854, Sir J. Herschel quotes a description of an extraordinary and remarkable meteor that was seen at Hurworth in October, 1854:—"A globe of fire, at least double the size of the moon, it was as red as blood and shot out sparkling rays, which were marked out in sharp outlines, and drew after it a long trail of light of the most beautiful limpid golden colour."

M. J. Schmidt, Director of the Athens Observatory, records a shooting-star which surpassed Sirius in splendour; it shed a "light so extraordinary that all the stars were eclipsed, while the city of Athens, the country and the sea looked as though on fire. The Acropolis and the Parthenon stood out, a dead greenish-gray in hue, against a background of golden-green sky."

The most imposing display of shooting stars on record occurred on the 13th of November, 1833—see Chambers's Book of Days. It extended chiefly over the limits comprised between longitude 61° in the Atlantic, and 100° in Central Mexico, and from the latitude of the great lakes of North America to the West Indies. From the appearance presented it might be regarded as a grand and portentous display of Nature's Fire-works.

"The vaulty top of Heaven figured quite o'er with burning meteors, and the front of heaven was full of fiery shapes."

In many parts of the country the people were terror-struck, imagining the end of the world was come; whilst those whose education and vigour of mind prevented them from yielding to such fears, were, nevertheless, vividly reminded of the grand description in the Apocalypse,

"The stars of Heaven fell unto the earth, even as a fig tree casteth her untimely figs, when she is shaken of a mighty wind."

Philosophers have attempted to put these shooting-stars out of our own system into space and make of them considerable bodies: left out of the planets, it should seem, at their formation, and waiting to be picked up by our Earth in its travels: or even performing a cometary revolution about it, and crossing its path in the heavens in the month of November in greater number than at any other time of the year. We need not go so far to account for them, and even for larger meteors—these "shooting stars" are for the most part electrical scintillations, drawn forth by the differing state of different regions of the atmosphere: they may be seen to descend on a group of thunder-clouds in the horizon, while the tempest is in full activity below—and they have been found also to accompany the Aurora Borealis. Their relation to the differing states of the atmosphere above and below them is manifest: they appear before wind and proceed towards the quarter it is about to blow from. They are generally seen in the intervals of showery weather, and are most prevalent before the occurrence of high wind: of which they have been considered by Aratus, Virgil and other writers, as a certain prognostic.

"Sæpe etiam stellæ vento impendente videbis
Precipites celo labi."

GEORGIC LIB. 1—255.

Whence probably our Milton—

"Swift as a shooting-star
In autumn thwarts the night, when vapours fired
Impress the air, and show the mariner
From what point of the compass to beware
Impetuous winds."

PARADISE LOST, 4—576.

Cavallio attributed these fiery meteors to electricity; but it is not easily reconciled with the variety in the colour of the light of meteors, their scintillations, and the prismatic colours sometimes observed in the tails of the larger sort.

Some have considered shooting-stars as bodies projected from the moon, and ignited in their course. Meteorolites too have been considered as similarly projected from the moon, and have thence received the names of *Lunar Stones*. And this opinion has gained support by their analysis which does not correspond with that of any known terrestrial compound. Biot, in his *Astronomie Physique*, and La Place, in his *Système du Monde*, seem rather of this opinion.

One of the most probable theories as to the nature of shooting-stars is, that they form part of the solar system, revolving round the sun in the same manner as the planetoids, but both infinitely smaller in size, and subject to great and irregular perturbations. The latter cause brings them not unfrequently within the limits of the Earth's atmosphere, on entering which they become luminous from the great heat and violent compression their transit occasions. Having thus approached the Earth with great velocity, they are as rapidly again withdrawn into the realms of space.

The information in this gossip about meteors is so much condensed, and perhaps not very clearly arranged, nevertheless it may be of use in directing the minds of some of our readers to a philosophy of a higher order than that of Touchstone's shepherd, who knew "that the property of rain is to wet, and of fire to burn; that good pasture makes fat sheep, and that a great cause of the night is the lack of the Sun."

BOOKSHELVES.

Lord Bacon speaks of a man who marries and has children as one who has given hostages to fortune. The image is much more applicable to the man who frequents bookshops and collects in time a large and costly library. The largest family and the most incompetent wife are manageable, portable, and quite inconsiderable matters compared to a large and precious collection of books. Children and wives can mostly walk about more or less, in and out of a house, and into a carriage or train. And if they get wet and damp they can dry themselves, and they will not let the most jolting conveyance damage their backs—in all which particulars they differ from books. It is strange that Lord Bacon should not have given weight to these considerations. Perhaps the fact that his books were a comfort to him and his wife was very much the reverse accounts for his overlooking them. And men were more stationary in those days, and did not so often have to contemplate the removal of a houseful of books. In these locomotive times the feat has to be accomplished not unfrequently; and a trial it is to a man's nerve, endurance, and stock of resignation.

It is, on these occasions of removal, bad enough under any circumstances that the whole value of bookshelves is revealed to us. Their silent, unobtrusive service, which we take for the most part without thought, is apt to make us ungratefully forget that without them we might have books but we could not have a library. The breaking up of a library is the taking to pieces of an organised thing. It is dissection, almost vivisection. The library as library for the time being ceases to exist, and in place of it we have nothing but heaps, bundles, or boxes full of books. The ordered and disciplined array of a well-bound literary army has been exchanged for confusion, disorder, and almost mutiny. The picked corps in Russia and Morocco, the inferior forces in calf, have all been broken up; their compact and serried ranks, regular and imposing as the spears of a Macedonian phalanx, are dissolved into a demoralised and crestfallen mob of scattered volumes, a rout, a *sauve qui peut*, of the biblical host. The owner of the host sits amid ruins, more pensive than Marius amid the ruins of Carthage, for he has two reflections which the great consul had not: he is most likely the cause of the ruin himself, having brought it about by change of residence; secondly, he knows that he will have to re-edify the building which has been destroyed, to evolve a new cosmos out of the chaos before him, and he must be very buoyant or very inexperienced if he is not depressed. But before we come to the reconstruction of a library, its packing and transport deserves a few words. We never get a fair idea of the physical bulk of books till we take them from their shelves and begin to pack them up: we then also realise their enormous weight. How are they to be transferred when their number and the distance they have to go are both considerable? Carpenters can no doubt make packing-cases; but this is not only somewhat costly, but the article supplied is generally needlessly bulky and heavy, and the cases after the removal are at once useless and an intolerable lumber. The trade, which very likely knows the best thing to be done, uses discharged tea-chests, and perhaps there is nothing better attainable. The tea-chest has much to recommend it as a means for carrying books. It is made of very thin but very tough wood, such as no native carpenter could turn out. On the other hand, it is apt to present vicious nails which lacerate backs and bindings, and inflict ghastly wounds on margins and leaves, and it generally lacks a cover, which has to be supplied of brittle and flimsy deal. Still the demand for old tea-chests proves that up to the present time they have no rival in the transport of books, and sometimes it is difficult to procure them. Generally they can be had for a shilling each.

But painful as may be the dismantling of a library it is nothing to its reconstruction. When books in large numbers have arrived at their new home, we realise the task before us of putting them up. We may have brought book-cases from the old house, but ten to one they will not fit the new rooms. And if by a miracle they do, in what "admirable disorder" are our treasures presented to us! Folios and pocket editions side by side, quartos and octavos in adulterous and forbidden conjunction. However, they must be got out and up somehow, or the house is not habitable, and then you are made aware of the tyranny of possession which books can display. That Plautus, which you put on shelf B merely because he was an octavo, and you happened to have come upon a run of octavos, and you must find a lodging for him somewhere, has no right to be there where he is. He is cheek by jowl with Kant and Hegel, and you vow he must find another place among the Latin classics of the dramatists, if you classify by subjects. Yet unless you are one of those overpoweringly energetic people who never put off anything, the chances are he will maintain his position against you for a long while. You can easily pull him out, doubtless, but where is he to go? Your classical shelf is chokeful; and as for the dramatic shelf, Dyce's Shakespeare and recent curiosity about the Spanish drama have made it hopeless to seek a refuge there. Another trial awaits the bibliophile who has yielded to the too tempting attractions of small Pickering's, Didots, or even of the Bibliothèque Elzevirienne. These gems of typography are the vermin of libraries. The tiny, imponderable tomes easily escape the discipline which their heavier colleagues submit to. On any ordinary shelf they are lost. And then where is one to put them? The natural impulse is to send them up to the upper shelves—to the attics of the book mansion. We cannot have them on the convenient level where books in daily use are lodged. And yet, up aloft there, they are out of sight, and their minute beauties are wasted and disfigured by dust and cobwebs. Perhaps the best plan is to have them, like any other curiosities, in a cabinet or on the table, if the latter can be kept free from new publications.—*Pall Mall Gazette*.

The King of Saxony is said to be engaged on a polyglot collection of poetry from the masterpieces of all nations, to be issued in the most sumptuous style. It will not be sold by the trade, but given as a present to the royal relatives and friends of the king on his impending abdication.

Mr. Holman Hunt's new picture, which has occupied him three years, is now finished. It comprises life-size figures of Christ and the Virgin in the workshop of Joseph at Bethlehem, the time being that of the cessation of labour just before the setting of the sun. It is styled "The Shadow of Death," and represents a provision of the Crucifixion.