

(Written for the Canadian Illustrated News.)

THE FLOWER AND THE BUTTERFLY.

(Translated from Victor Hugo.)

Thus to a butterfly a flow'ret sighed:
 "Stay, child of light!
 "Our fates estrange us—I to earth am tied.
 "Thou takest flight;
 "But still we love—where mortals seldom stray
 "We pass the hours,
 "And we are like, for do not poets say
 "We both are flowers?
 "Chained to the earth I track thee through the calm
 "Of summer skies,
 "And my fond love thy path would fain embalm
 "With fragrant sighs.
 "But no! Thou wand'rest far 'mid flowers that burn
 "With countless hues;
 "While at my feet I watch my shadow turn,
 "And sadly muse.
 "Thy form now quivers near, now flits away.
 "And disappears—
 "But me thou findest at each dawn of day.
 "All bathed in tears.
 "If 'tis thy will our love should lasting be.
 "O! truant king,
 "Like me take root, or let me soar like thee
 "On splendid wing!

GEO. MURRAY.

(Written for the Canadian Illustrated News.)

GOSIPS ON POPULAR SCIENTIFIC SUBJECTS.

NO. V.—AURORA BOREALIS.

The exhalations whizzing in the air,
 Give so much light that I may read by them.
 JULIUS CÆSAR, ACT 2, SC. 1.

Abortives, presages, and tongues of heaven,
 Plainly denouncing vengeance.
 KING JOHN, ACT 2, SC. 2.

The grandest of all the exhibitions presented to us in the sky, when seen in all its magnificence, is the *Aurora Borealis*, or *Aurora Polaris*, as it is not confined to the Septentrional regions.

To behold the heavens in flames in their whole breadth, and up to the Zenith,—to see spires of luminous matter tinged with the colours of the rainbow, shooting from a vast arch of light, thrown over, as it were, a dark place in the north; and after reaching their greatest altitude, chasing one another with the rapidity of lightning through its whole extent, then as quickly subsiding, blending and changing in a thousand ways, and at length settling in a still, milky whiteness—this is a spectacle which must be viewed and contemplated; it can scarcely be described.

It is no wonder the ancients, and those who lived in the middle ages, should have recorded it on many occasions as "a prodigy of fear and a portent,"—the combat of celestial hosts, exhibited thus to the view of mortals, and foreboding like dreadful conflicts among the powers of earth.

We can understand such sights being a source of terror, and the imaginations of the people who lived "in gross darkness" depicting an immense conflict in which men of fire struggled for mastery; and, at another, an assemblage of hideous heads, with "wide Cerberian mouths, tossing their flaming tresses.

In a work published in 1749 there is a curious medley of chronological atmospheric phenomena;—a few specimens will suffice.

"A. D. 793. Strange fiery meteors in the air in England, followed by severe famine and a Danish invasion. Terrible prodigies in Northumberland—fiery dragons flying—great blasts, or streamers—soon after followed a severe famine."

"A. D. 867, a cloud was seen hanging over England, one half of it blood, the other like fire. Soon after the Danes arrived, burnt, plundered, and murdered without mercy, and carried multitudes into miserable captivity."

"A. D. 929, a bitterly cold winter. A. D. 930, on the 5th of the Calends of March the noise of armies and the cries of the wounded were distinctly heard in the air."

"A. D. 1117. On the 3rd of the Calends of January, and on the 3rd of the ides of December, the heavens appeared red and all in a flame of fire; scarcity of corn from the great hail and tempests, and incessant rains, which ceased little all the year."

"A. D. 1568. In clear nights were seen in several places of Germany, *two armies in battle*, brandishing their glittering pikes as if they were ready for the charge." Soon after began the religious war.

In Milton's *Paradise Lost*, Book II—539, we find—

As when to warn proud cities war appears
 Wag'd in the troubled sky, and armies rush
 To battle in the clouds, before each van
 Prick forth the airy knights, and couch their spears,
 Till thickest legions close.

So much for prodigies! Night battles fought in the air!!!
 Companies of horse, cohorts of foot!!!!

"Abortives, presages, and tongues of Heaven."
 "Disturbances that Nature works."

"Such apparent prodigies" and the "unaccustomed terror of the night" made Cæsar, at the persuasion of his augurs, withhold himself from the Capitol. From such sights, caused by the "ETERNAL MOVER OF THE HEAVENS,"—now known as meteorological phenomena—may be traced the rise of sorcerers, augurs, soothsayers, and other impostors, the interpreters of omens and portents, who, from the signs in the heavens, read the destinies of monarchs, the downfall of nations, famine and pestilence.

Those who have studied in the book of God's works, "in Nature's infinite book of scenery," and have had a scientific training by means of classes and of lectures, and are led to believe that science rightly interpreted is a knowledge of things through their causes, will not attempt to predict from the appearance of the sky, nor from the passage of a comet, the prostration of thrones, convulsions of kingdoms, and the destinies of the human family.

Philosophers and scientists, such men as Admiral Fitzroy,

J. Glaisher, M. Marie-Davy, M. Renon, M. le Verrier, in Europe; and Prof. Maury, Henry, and Kingston, on this continent, have given the science of meteorology a productive impulse. The end they aim at is not predictions of battle, murder, and those plagues and pestilences we pray in our Litany to be delivered from, but to warn by daily bulletins and alarm-signals the approach of storms which annually cost the lives of thousands of men and the loss of millions of property.

Now, thanks be to science, meteors and auroras, solar and lunar halos, mock suns (Parhelia), mock moons (Paraselenæ), are not "prodigies of fear and portents." The *Aurora Borealis*, *Aurora Polaris*, *Aurora Australis*, Northern Lights, Zodiacal Lights, are, it is supposed, connected with the electrical state of the atmosphere; certain it is that there is an intimate connection existing between the magnetism of the earth and the *Aurora Borealis*. Whenever the aurora is present the magnets have been in a state of disturbance.

At the Magnetic Observatory, Toronto, now under the direction of Professor Kingston, meteorological registers have been kept, for a long time, which indicate the state of the atmosphere on days that precede and follow auroral displays. On nearly all those days there has been either snow or rain, a circumstance which renders it very probable that icy particles were in the atmosphere during the presence of the aurora.

When the point of observation is sufficiently near the aurora, there is heard, and we have distinctly heard it at Montreal and Quebec, a peculiar rushing sound; some say mixed with sudden crackling noises, analogous to those produced by electricity when it escapes from a body in the form of an *éclat* or a sheaf. Frequently a sulphurous smell is in the air, and this is due, no doubt, to the ozone which is produced during the electric discharges of the pole, as it is in a thunderstorm.

In all parts of the European network of telegraphs the working of the wires was disturbed by the magnificent aurora of August 28, 1859. Two days later, the luminous phenomenon was perceived over a great part of the continents of Europe, Asia, and America, and a magnetic action still more general was noticed. There were currents sufficiently intense to cause a spark to be thrown off when they were interrupted. In the United States, two telegraph operators, stationed at Boston and Portland, were able to use the terrestrial fluid, which was much more powerful than that of the battery, and kept up a conversation for some time.

As recently as September 27, 1870, a telegraphic operator found the wires very much interrupted all the evening. About 11 o'clock the light and flashes increased in brilliancy, and the whole north-western portion of the heavens was a brilliant red, the colour gradually fading to the north to a strong white light. At this time he disconnected one of the lines from the batteries and grounded the ends at Harrisburgh and Philadelphia. This arrangement gave a current a trifle stronger than the regular batteries, and in the same direction, galvanometer deflecting to the right.

Father Secchi, the director of the Observatory at Rome, has also established the fact that magnetic perturbations manifest themselves at night when light phosphorescent clouds veil the heavens. These are, in a certain degree, feeble *auroræ*.

These displays of auroral light are believed to result from the electricity excited and liberated in one region, and passing off to another—where it finds a readier descent to the earth. It appears, by the most minute and exact observations of those competent to decide the question, that the Aurora is, in effect, an electro-magnetic process of Nature.

If the knowledge of the laws of meteorology is thus instructive, we ought to strive to elevate the popular mind by the truths of natural science, *teaching them in every school*, and *recommending them*, if not illustrating them, *from every pulpit*.

One of the authors of "Guesses at Truth" beautifully asks:

"What are art and science, if not a running commentary on Nature? What are poets and philosophers, but torch-bearers leading us through the mazes and recesses of God's two majestic temples, the sensible and the spiritual world? Shakespeare and Bacon are priests who expound the mysteries of man and the universe."

We might add Wordsworth and Brewster. The poet says:

"To me, the meaneft flower that blows can give
 Thoughts that do often lie too deep for tears."

The philosopher says:

"Those familiar with the more magnificent works of creation,—seeing them through the heart, as well as the eye, the young will look to the future with a keener glance, and with brighter hopes;—the weary and the heavy laden,

"Lifting their tearful eyes unto the stars."

will rejoice in the vision of their place of rest; the philosopher will scan with a new sense the lofty spheres in which he is to study;—and the Christian will recognize, in the worlds of stars, the Gorgeous Temples in which he is to offer his sacrifice of praise."

NAPOLEONIC AND OTHER OMENS.

Ever and anon attention is called to real and alleged omens or predictions connected especially with the government of France. That some of the statements published can be verified is beyond all question, although their solution is as obscure as the phenomena of spiritualism. In *The Queen* for Sept. 24, 1870, just after the fall of the Napoleonic empire, there was an article headed "Napoleonic Predictions," the principal facts in which may be reproduced as of unusual interest at the present juncture; and none the less interesting because the decease of the head of the house of Bonaparte enables us to add another to the extraordinary list of ominous dates.

Shortly after the catastrophe of Sedan public attention was invited to certain French verses which limited the reign of Napoleon III. to seventeen years and three-quarters. They were announced as a prophecy of Nostradamus, but their authorship was claimed by the Chevalier de Châtelain; and there is no doubt they were printed prior to the event.

Still more curious is the fact that in 1866 a writer in *Notes and Queries*, by referring to a similar class of oracles as current in France, brought a communication from one "Zadkiel, jun.," containing a list of ominous dates of the most extraordinary character. It appears that by combining certain dates in the forms represented below, every pair produces a third of critical import. The process is so simple that the examples will require no explanation. We shall first give those which are supplied by "Zadkiel, jun.," and then add such as have

arisen out of events subsequent to his article. He commences his series with 1774, the date of the accession of Louis XVI., as the first which he can fix upon, and his examples are as follows:

1774 Accession of Louis XVI.

1
7
7
4

1793 Louis XVI. beheaded.

In 1794 occurred the fall of Robespierre. Now, taking this in the same way, we get:

1794
1
7
9
4

1815 Abdication of Napoleon.

Similarly we have:

1815 Abdication of Napoleon.

1
8
1
5

1830 Fall of Charles X., revolution, and accession of Louis Philippe.

Louis Philippe was born in 1773, and we may add this to 1830, the date of his accession. Thus:

1830 Accession of Louis Philippe.

1
7
7
3

1848 Abdication of Louis Philippe.

In like manner, taking 1782 as the date of the birth of Louis Philippe's queen, Amélie, and adding the sum of its units to 1830, as before, we have:

1830 Accession to the throne.

1
7
8
2

1848 Abdication again.

But Louis Philippe and Amélie were married in 1809, and this date may be also treated in the same way.

1830 Accession, as before.

1
8
0
9

1848 Abdication once more.

To the above calculations "Zadkiel, jun.," adds three, which events have since proved equally significant. In 1848 by universal suffrage Louis Napoleon was appointed President, and this gives the following result:

1848 Louis Napoleon elected President.

1
8
4
81869 Louis Napoleon confirmed in the empire by the last *plébiscite*.

He was born in 1808, and married in 1853, to which year his real possession of the imperial power is referred; he was proclaimed Emperor Jan. 30, 1853.

Now these dates gives us:

1853 Marriage and Empire.

1
8
0
8

1870 Fall of the Empire.

The Empress Eugénie was born in 1826, married and Empress in 1853. We therefore take these dates:

1853 Marriage and Empress.

1
8
2
6

1870 Fall of Empire

Marvellous as it may seem, the recent melancholy event at Chislehurst may be added to the list, by taking the date 1853 again, and the date of the birth of the Prince Imperial, 1856.

1853 The Empire.

1
8
5
6

1873 Death of the Emperor.

We refrain from expressing any opinion or attempting any explanation of the singular coincidences; but if they are to be continued it will be easy to forecast the years in which other critical events are to happen. They are too curious not to be interesting, and we have therefore repeated those we formerly published, with the latest addition.—*Queen*.

Meissonier has painted three hundred and nineteen pictures from 1840 to 1872. Rosa Bonheur has finished, from 1848 to 1872, seventy-one paintings.

The King of Bavaria has given a commission to the celebrated sculptor Halbig, for a colossal group representing the Crucifixion, to be erected on a mountain commanding the Valley of the Amnès, in the Bavarian Highlands, the scene of the decennial Passion Play. The figure of the Saviour is to be carved out of an immense block of marble, weighing upwards of fourteen hundredweight.