Anniversaries of Science

June 16, 1657—The first pendulum clock was presented by its maker, Christian Huyghens, to the states-general of Holland.

Christian Huyghens was a Dutch scientist of this period. He was born at the Hague in 1629 and excelled both as a physicist and a mathematician. One of his best-known pieces of work was his continuation of Galileo's researches on the pendulum. The original form of the pendulum was such that to obtain isochronism—that is to say, continuously equally-timed beats—it was necessary to have small swings in a circular arc. But as a result of Huyghen's investigations into the mathematical properties of the curve known as the cycloid he was able in 1658 to invent the cycloidal pendulum, and this was able to keep accurate time swinging over wide distances or amplitudes.

—Hart: *Makers of Science.*

June 17, 1832—William Crookes was born in London. He was among the pioneers in the study of radio-active phenomena.

In addition to their varying power of penetrating matter, there is another test which has proved of great service in analyzing the three types of rays from radio-active bodies and in determining the real nature of each. The trajectories of some of the rays are powerfully influenced by a magnet, others are slightly, and others not at all affected. Thus the Beta-rays of all radioactive substances if caused to traverse the space between the poles of a magnet are very strongly deflected, and if the magnet is a powerful one may be completely coiled up into closed circles or spirals. . . .

The Beta-rays are very similar in nature to the "Radiant Matter" (also called "cathode-rays" or "cathodestreams") of Sir William Crookes, obtained when an electric discharge or current is passed through a vessel exhausted to a very high degree of vacuum. . . . Thus the Beta-particle ejected from the radium atom was already known. It is true it is ejected more violently by radium than in any previously known case, but in its essential characteristics, its charge, or the quantity of electricity it carries, and its mass—it is the same particle as Sir William Crookes dealt with in his vacuum tubes thirty years ago. He christened them in a prophetic moment with the name of "Radiant Matter," and was, like many another prophet, ridiculed for his pains.

—Soddy: *The Interpretation of Radium.*

June 17, 1673—Rediscovery of the Mississippi River by Pére Jacques Marquette.

"Here we are, then, on this so renowned river, all of whose peculiar features I have endeavored to note carefully. The Mississippi River takes its rise in various lakes in the country of the Northern nations. It is narrow at the place where Miskous empties; its current, which flows southward, is slow and gentle. To the right is a large chain of very high mountains, and to the left are beautiful lands; in various places, the stream is divided by islands. On sounding we found ten brasses of water. Its width is very unequal; sometimes it is three-quarters of a league, and sometimes it narrows to three arpents. We gently followed its course, which runs toward the south and southeast, as far as the 42nd degree of latitude. Here we plainly saw that its aspect was completely changed. There are hardly any woods or mountains. The islands are more beautiful, and are covered with finer trees. We saw only deer and cattle, bustards and swans without wings, because they drop their plumage in this country. From time to time, we came upon monstrous fish, one of which struck our canoe with such violence that I thought that it was a great tree, about to break the canoe to pieces."—*Jesuit Relations.*

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PSYCHOLOGY

Self-conscious Love

Quotation from SYBILLA or the Revival of Prophecy—C. A. Mace—Dutton.

We are gradually growing out of our emotions. We are acquiring self-consciousness and becoming habitually introspective, and, as the psychologists tell us, you cannot observe an emotion without decreasing its intensity.

This partly explains what is curious in what is called "modern love" as practiced and expounded by our younger novelists. It is essentially introspective. Every schoolboy knows what is going to happen when he falls in love. He knows about the illusions arising from emotion. The undergraduate cannot make love extravagantly, like the Elizabethan poets, or sentimentally, like the Victorians. When he feels the passion rising, he informs the provoking cause of it, that he knows quite well that, in spite of it, she is a perfectly ordinary little person with nothing very much to recommend her. They both agree that they are victims of an obsolescent mechanism designed for biological purposes, a mechanism primarily intended for the brutes, but annoyingly persistent in its control over civilized man. They agree, however, to act the performance through, because a rational way of making love is difficult to devise. They agree to make senseless and meaningless remarks. He is prepared to rave about her perfectly beautiful eyes, whilst rationally convinced that they show a distinct suspicion of squint. She in her turn will admire his manly form, whilst fully conscious that he is rather undersized and remembering that he signally failed to get his Blue. The kind of objective attitude that we are being taught to adopt toward criminals, which the psycho-analysts tell us to adopt towards the libertine, sooner or later we shall have to adopt towards ourselves.

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PALEONTOLOGY

The Diplo-doclodipus

A sad young Eohippus, once,
  Who pattered through the gorse,
Was sobbing as he pattered, for
His fondest hopes were shattered, for
He'd failed in all that mattered, for
  He wasn't yet a Horse.

He met a bulky friend of his,
  A looming mass of force,
A jaunty Diplodocus
With a yellow, blooming crocus
In his buttonhole, to focus
  The public gaze, of course.

"I say, what makes you snivel so,
  My little Eohip?
Why all the silly signs of woe?
There's no need to dissemble so!
What makes the tremors tremble so
  Upon your lower lip?"

"Oh," cried the wretched Eohip,
  "I'm dying from remorse!
Although I've been selected to,
And eagerly expected to,
Perversly I've neglected to
  Evolve into a Horse.

"Poor thing!" the Diplodocus laughed,
  "You're too unenergetic!
Now, *me, I'm* on the very brink
Of evolution, which, I think,
Will make these other reptiles shrink
  And feel apologetic!

"As you're my friend, and wouldn't say
  A word derogatory,
I'll tell you, little Eohip:
I'm going to be a Doclodip;
A great big, hulking Doclodip,
  A burly beast of glory!"

As he had said he'd do, he did,
  This dinosaur persistent.
But when the Doclodip arrived,
All nature, so it seemed, connived
To see no single bone survived
  To prove he'd been existent!

The Eohippus, losing toes,
  Because he couldn't add 'em,
No longer patters through the gorse,
For, by a mighty tour-de-force,
He's finally become a horse,
  And gallops on macadam!

—*Richard Ashman.*

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There are about 4,500,000 more automobiles than telephones in the United States.

Fancy safety pins made by craftsmen of the Bronze Age sometimes weighed half a pound.