

Anniversaries of Science

July 14, 1907—Sir William Henry Perkin died. He discovered the first of the aniline dyes in 1856, and became the founder of the coal-tar dye industry.

Some have described Perkin's discovery as accidental. Perhaps it was. But consider the way it was perfected and made available; consider with what extraordinary ability every related topic was handled; consider how every move was a new move, with no previous experience to guide him, and who but one endowed with the quality of genius could have overcome all this? Hertz discovered the key to wireless telegraphy, but Marconi brought it within reach of all of us; Baeyer first synthesized indigo, but the combined labors of chemists in the largest chemical factory in the world were necessary before artificial indigo began to compete with the natural product; Perkin both isolated the first artificial dyestuffs and made it useful to man.

—Harrow: *Eminent Chemists of Our Time*.

Science News-Letter, July 9, 1927

July 15, 1662—The Royal Society of England was granted a charter.

Some twenty years before the outbreak of the plague (1665), says Huxley, a few calm and thoughtful students banded themselves together for the purpose, as they phrased it, of "improving natural knowledge." The ends they proposed to attain cannot be stated more clearly than in the words of one of the founders of the organization:

"Our busines was (precluding matters of theology and state affairs) to discourse and consider of philosophical enquiries and such as related thereunto, as Physick, Anatomy, Geometry, Astronomy, Navigation, Staticks, Magneticks, Chymicks, Mechanicks, and Natural Experiments; with the state of these studies and their cultivation at home and abroad. We then discoursed on the circulation of the blood, the valves in the veins, the *venae lacteae*, the lymphatic vessels, the Copernican hypothesis, the nature of comets and new stars, the satellites of Jupiter, the oval shape (as it then appeared) of Saturn, the spots on the sun and its turning on its own axis, the inequalities and selenography of the moon, the several phases of Venus and Mercury, the improvement of telescopes and grinding of glasses for that purpose, the weight of air, the possibility or impossibility of vacuities and nature's abhorrence thereof, the Torricellian experiment in quicksilver, the descent of heavy bodies and the degree of acceleration therein, with diverse other things of like nature. some of which were then but new discoveries, and others not so generally known and embraced as now they are, with other things appertaining to what hath been called the New Philosophy, which from the times of Galileo at Florence and Sir Francis Bacon (Lord Verulam) in England, hath been much cultivated in Italy, France, Germany and other parts abroad, as well as with us in England."

The learned Dr. Wallis, writing in 1696 narrates in these words what happened half a century before, or about 1645.

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July 16, 1798—The Marine Hospital Service for seamen of the American Merchant Marine was authorized by Congress. From this has grown the U. S. Public Health Service.

Up until the early eighties of the last century quarantine measures were entirely administered by state and local authorities. The *Annual Report* of the Surgeon General of the Marine Hospital Service for the year 1872, however, refers to an order of the Secretary of the Treasury in which the attention of Marine Hospital Service officers, customs officials and revenue officers was directed to the provisions of the Act of February 25, 1799, which enjoined Federal officers to cooperate in the enforcement of quarantine laws and regulations.

On account of their duties in caring for sick seamen, officers of the Marine Hospital Service began to evince more and more interest in epidemics introduced through vessels from infected ports, and this was especially so with respect to yellow fever. . . . In 1882 an epidemic fund was created by Congress to aid local authorities in suppressing epidemics, and from that time on a similar appropriation became an established custom.

—Hugh S. Cumming, in *A Half Century of Public Health*.

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GENERAL SCIENCE

Altruism

The God of things that are
Is the God of the highest heaven;
The God of the morning star,
Of the thrush that sings at even;
The God of the storm and sunshine,
Of the wolf, the snail, and the bee,
Of the Alps' majestic silence,
Of the soundless depths of the sea;

The God of the times and the nations,
Of the planets as they roll,
Of the numberless constellations,
Of the limitless human soul.
For there is nothing small,
And naught can mighty be;
Archangels and atoms all—
Embodiments of Thee!

A single thought divine
Holds stars and suns in space;
A dream of man is Thine,
And history finds its place,
When the universe was young,
Thine was the Perfect Thought
That life should be bound in one
By the strand of Love enwrought.

In the life of the fern and the lily,
Of the dragon and the dove,
Still through the stress and struggle
Waxes the bond of love.
Out from the ruthless ages
Rises, like incense mild,
The love of the man and the woman,
The love of the mother and child.

—David Starr Jordan:
Days of a Man.

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Cellulose Photo Films

Cellulose, the principal constituent of wood fiber, may revolutionize photographic methods by its use in photographic films. A new process has just been developed by Philippe David, collaborator of A. Bertillon, famous criminologist, by means of which it takes the place of gelatin as a support for the sensitive silver salts.

In the ordinary photographic plate of film the base of glass or celluloid is coated with a layer of gelatin, in which are suspended the silver bromide particles. The gelatin layer is rather delicate, and great care must be taken with the films or plates before they are dry. Too much heat will melt the coating and spoil the picture.

With the new films gelatin and its disadvantages are eliminated. As the cellulose does not dissolve, even in boiling water, the developing chemicals may be used hot to speed up the process. They may be developed in 3 to 4 minutes, fixed in 2 minutes and washed in 30 seconds, instead of the 15 to 30 minutes that the latter process now takes. Then they can be dried over a flame or in a hot oven in 2 or 3 minutes. The entire process, from the start of development to the dry negative ready for printing, is over in 10 minutes at the most. This is a far shorter period than can be obtained at present, and it is anticipated that the new films and plates will prove especially valuable, both for still and motion pictures, in portraying news events.

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RELIGION

Scientific Religion

Seven of the fifty important religious books of 1926-7, selected by widely representative librarians and the American Library Association, are related in some way to science:

Brown, W. A. *Life of prayer in a world of science*. Scribner. \$2.25.

Browne, Lewis. *This believing world*. Macmillan. \$3.50.

Hickman, E. S. *Students' introduction to the psychology of religion*. Abingdon. \$3.50.

Newman, H. H. *Nature of the world and of man*. University of Chicago Press, \$4.00.

Streeter, B. H. *Reality; a new correlation of science and religion*. Macmillan. \$2.50.

Watson, G. B. and G. H. *Case studies for teachers of religion*. Association Press. \$3.00.

Whitehead, A. N. *Religion in the making*. Macmillan. \$1.50.

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