

ANNIVERSARIES OF SCIENCE

October 28, 1909.—John D. Rockefeller gave \$1,000,000 to fight hookworm.

One of the most bizarre things in medicine is the way hookworm gets into the body. It is an intestinal parasite, yet it gets in *through the skin*. In Southern States a considerable part of the population walk around barefooted, and get what they call "ground itch," a local irritation especially between the toes, due to the local action of the hookworm embryo on his way in. He gets in through the skin to the blood, and travels all the way across country to the intestine—a most improbable story, but well proved. When he reaches the intestine he stays there, and gradually poisons the body. A good many people get so used to it that they do not have any symptoms and do not become anemic. They develop protective substances—anti-toxins—within their own system. But not everybody is so fortunate.

—Cabot: *Layman's Handbook of Medicine*.

October 28, 1899.—Death of Merghenthaler, inventor of the linotype.

The linotype operator writes on a keyboard similar to a typewriter. At each stroke a brass matrix of a letter, figure or punctuation mark drops into a groove. When there are enough in place to fill a line, molten metal is pumped against the matrices and the line-o-type results. As the operator is writing the next line the matrices of the line before are being automatically redistributed.

—Chicago Tribune: *The W. G. N.*

But words are things, and a small drop of ink,

Falling, like dew, upon a thought, produces That which makes thousands, perhaps millions, think.

—Byron: *Don Juan*.

October 29, 1669.—Isaac Newton was elected Lucasian Professor of mathematics at Cambridge. He had to give lectures upon some branch of mathematics, and chose optics.

I saw that the perfection of telescopes was hitherto limited, not so much for want of glasses truly figured according to the prescriptions of Optick Authors (which all men have hitherto imagined), as because that light itself is a *Heterogeneous mixture of differently refrangible rays*. . . . This made me take reflections into consideration, and finding them regular, so that the Angle of Reflection of all sorts of rays was equal to their Angle of Incidence; I understood, that by their mediation Optick instruments might be brought to any degree of perfection imaginable, provided a reflecting substance could be found, which would polish as finely as glass, and *reflect* as much light as glass

transmits, and the art of communicating to it a *Parabolick* figure be also attained. But these seemed very great difficulties.

—Newton: Communication to the Royal Society printed in *Philosophical Transactions* No. 80.

November 2, 1920.—First broadcasting by radio. Election returns were sent out by KDKA.

In a sense, broadcasting has always been with us. Every radio station radiates its messages, whether they be telegraph signals or spoken words, into space. Any one who has the proper electromagnetic ear can hear them. But not until 1920 was broadcasting placed upon a permanent commercial basis. It occurred to a few imaginative engineers of the Westinghouse Electric and Manufacturing Co., that interest in radio communication might become even greater than it was if songs and band music were broadcast. The experiment was timidly made. "Did you hear us?" the announcer at the station asked. "Did you like it? Do you want more of it?" The response was overwhelming.

—Waldemar Kæmpffert in *A Popular History of American Invention*.

Science News-Letter, October 23, 1926

AGRICULTURE—CHEMISTRY

Need More Rubber Yield

Raising rubber trees so that they will give more of the milk that becomes the auto tire of commerce is more important than synthesizing man-made rubber in the laboratory, says Dr. L. E. Weber, rubber technologist of Boston.

"Under present practice the rubber tree yields about four pounds of rubber a year," Dr. Weber explained. "In the early days of the beet sugar industry the beet could only be made to yield two per cent of sugar. But the plant biologist got busy and cultivated it until he got a type that yielded just nine times as much. It may be fantastic to imagine that rubber trees could be bred to yield 36 pounds of rubber a year, but even if the present amount were merely doubled it would be an accomplishment unparalleled in its effect on the rubber industry of the world."

While the making of synthetic rubber may be one of the most fascinating problems of the chemist today, it is overshadowed in technical importance by the possibility of breeding better rubber trees, Dr. Weber believes.

Science News-Letter, October 23, 1926

Goat Serum for Measles

An immunizing serum made from goat's blood that medical authorities believe will be of great use in checking measles epidemics, has been developed at the John McCormick Institute for Infectious Diseases.

Thirty-four out of thirty-nine exposed cases treated at the Cook County Hospital failed to contract the disease, Drs. Archibald L. Hoyne and Benjamin M. Gasul have reported to the American Medical Association.

Working in collaboration with Dr. Ruth Tunnicliff, who originated the serum, Drs. Hoyne and Gasul have established that if the serum is administered not later than five days after a child is exposed, 90 per cent protection is assured. The immunity is not permanent but lasts from two to four weeks and occasionally longer. Since measles is one of the most contagious of known diseases an immunity that can be procured of even this duration is of great importance in schools and institutions where children live in groups.

The goat serum presents the great advantage of being comparatively easy to obtain. Serum of the blood of adult patients recovering from measles has been heretofore used successfully to check such outbreaks but doctors have found it difficult to get in the quantities demanded.

Science News-Letter, October 23, 1926

CHEMISTRY

Sun Injures Silk

The silk dress milady has just bought this fall will probably last longer than the one she wore during the sunny afternoons this summer.

The wearing qualities of silk are greatly lessened by exposure to sunlight, it has been learned from tests recently completed at the U. S. Bureau of Standards. The strength of unweighted dyed silk decreased 25 per cent., it was found, when exposed to sunlight for 100 hours. Silk of cheaper grade that had been weighted with metal to give it a rich shimmering appearance lost as much as from 50 to 75 per cent in general tensile strength.

The silk garment that hangs in the closet or reclines in a bureau drawer is safe, apparently, for the tests showed that silk kept in storage for two and a half months gave no signs of deterioration.

Science News-Letter, October 23, 1926