M. LOUIS PASTEUR

Born at Dôle, Jura, France, December 27, 1822
Died near Saint-Cloud, September 28, 1895

LOUIS PASTEUR.
(1822–1895.)
(From a bronze by Theodore Riviere. Courtesy of W. B. Saunders Company, Philadelphia.)

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LOUIS PASTEUR.

The celebration of the centenary of the birth of the eminent French scientist, M. Louis Pasteur, will encourage scientific research. No name among scientists is better known to the people than his; when, in 1907, a vote was arranged for by a Paris newspaper to determine "who in the estimate of the French people was the greatest Frenchman of the 19th century," more than fifteen million votes were cast, and in the result the Scientist ranked first and Napoleon Bonaparte fourth.

The value of Pasteur's discoveries to France has been estimated in different ways, but inadequately; his benefactions to the world are beyond computation. It will be the first time in the history of nations that the picture of a scientist has adorned postage—when that of Pasteur is placed on the fifty-centime stamp. The Pasteur Exhibition at Strasbourg, which opens June 1, 1923, will be an international affair— nations will pay tribute to one who has served his country and the world, by a service which increases in value through researches of the laboratories, an estimate which the people are just beginning to apply—therefore, the statement made in the opening lines of this comment. In nearly all of the large cities and university towns of the United States celebrations, commemorating the life and work of Louis Pasteur, have been arranged for during December.

A Paris correspondent of the *Journal and Pharmacist*, September 30, 1922, in referring to the Centenary, writes:

"In this connection it is interesting to note Pasteur's close association with pharmacy at one time during his career, and the Société de Pharmacie de Paris now recalls with pride the fact that it can number the great scientist amongst its laureates. Pasteur's connection with pharmacy came about in the following manner: In 1851 the Société de Pharmacie de Paris offered a prize of 1500 francs (£60) for the best solution of the following two problems: (1) Do tartrates exist actually containing the racemic form of tartaric acid? (2) Determine the conditions under which tartaric acid might be transformed into its racemic form. Pasteur was at that time professor of chemistry in the faculty of science in the University of Strasbourg, engaged in his memorable researches on the various tartaric acids and paratartaric acid and on the correlation between optical rotation and crystallization. He sent in his papers to the Society, for which he was awarded the prize. Half of the amount of the prize he devoted towards purchasing certain necessary apparatus, which lack of funds prevented the University from acquiring for the use of his laboratory. At that time the Government allowed Pasteur the ridiculously small amount of 1200 francs (£48) per annum to cover all expenses connected with giving the lectures on

chemistry and work in the laboratory, and out of this allowance Pasteur had as well to pay the wages of the boy employed to clean up in the laboratory."

"In the field of observation," Pasteur said, "chance only favors the mind which is prepared;" his work and life indicate that this was a leading thought with him, and, because he knew, the excellence and simplicity of his experiments distinguished his work and the soundness of his deductions. A writer has said that his most remarkable characteristic was the intuition with which he saw how one discovery led on to another. Émile Duclaux, in "Pasteur—The History of a Mind"* says: "Pasteur's scientific life had an admirable unity—it was the logical and harmonious development of one and the same thought. Of course he did not know when he made his first studies in crystallography that he would end by discovering a means of preventing rabies. But neither did Christopher Columbus know when he set forth that he would discover America. He only divined that by going always in the same direction he would find something new. So with Pasteur."

It was as a young man that Pasteur discovered that crystals will deviate light to the right or left according to the arrangement of their hemihedral facets on right and left. Jean Baptiste Biot, the venerable physicist, at first skeptical, was convinced by Pasteur's demonstration, which also proved to him that the latter possessed the researcher's essential attribute of patient observation.

Every member of the A. Ph. A. has read a book on, or a biographical sketch* of, the Scientist, so only a few data for historical reference will be recorded. It is surprising that different dates for his birth have been given in biographies and other writings.

Louis Pasteur was born at Dôle, France, December 27, 1822, the son of a tanner. The boy received his first schooling at Arbois, in the college of which parish the head master was M. Romanet, who influenced Pasteur's career, imbuing him with the ambition to study chemistry in Paris. He graduated from the École Normale, Paris, in 1847. In 1848 he became professor of physics at Dijon and in the following year he accepted the position of professor at Strasbourg. He was summoned to Lille as dean and professor of chemistry in the faculty of sciences in 1854. Here he remained until 1857, when he went to Paris as scientific director of the École Normale Superieure and was elected a member of the Institute.

In 1863, he became professor of geology, physics and chemistry at the École des Beaux-Arts, and from 1867 to 1889 was professor of chemistry at the Sorbonne. Later, he founded the Pasteur Institute at Paris where he carried on his researches until his death and where he was surrounded by such men as Chamberland, Calmette, Metchnikoff, Yersin, and Roux who became his successor. He died near Saint-Cloud, September 28, 1895.

If this, the centenary year of Pasteur's birth, does not see a larger endowment of the research departments of the colleges it will not be because the money is not needed to maintain experts and encourage teachers and students in the kind of work, or related investigations, to which Pasteur devoted his life. E. G. E.

* "Pasteur—The History of a Mind," by Émile Duclaux, translated by Erwin F. Smith and Florence Hedges, W. B. Saunders Company. See review in JOURNAL A. PH. A., October 1920, p. 1032.

* A recent sketch will be found in *Una*, August 1, 1922, the journal of the Royal Victorian Trained Nurses' Association, Melbourne.