

V.F.
PASTEUR, LOUIS

Conley
Fisher Inc.

PASTEUR MEMORIAL U.S.A.

It is for his service to Humanity that Fisher Scientific Company honors Pasteur in this Memorial thousands of miles from his resting-place in Paris. Thanks to him, at least 20 years were added to the life expectancy of the succeeding generations...childbirth is no longer a perilous event...new achievements are made yearly in vaccines...and whole industries, from food processing to antibiotics, are in his debt.



1. PASTEUR AND HIS GRANDDAUGHTER—a Johnson engraving of a Bonnat painting, evidence of Pasteur's unusual devotion to his family.

2. PASTEUR—photograph from the Edgar Fahs Smith Collection. Pasteur had little time to spare for sculptors and artists, and consented only to reflect glory on his beloved France.

3. TIME OF TENSION—the burden that often accompanies genius is evident in this etching in the period following Pasteur's attack of paralysis. Once again he faced his detractors with proof against "spontaneous generation" and in favor of his theory of "all life from life."

4. ANOTHER PERIOD—a photograph of Pasteur in his later years.

5. & 6. TWO MEZZOTINT ENGRAVINGS—by T. Hamilton Crawford, with the plate for each copy colored by hand. The first is based on the Edelfelt portrait of Pasteur (see No. 7); second is based on the Oulless painting of Lord Lister. In 1874, Lister wrote to Pasteur: "By your brilliant researches you demonstrated to me the truth of the germ theory of putrefaction and thus furnished me with the principle upon which alone the antiseptic system can be carried out. It would give you sincere gratification to see at our hospital how largely mankind is being benefited by your labours..."

7. THE EDELFELT VERSION—this handsome print portrays Pasteur in his laboratory holding a bottle containing medulla specimen as a medium for hydrophobia vaccine. It is made from the handsome Pasteur portrait by Edelfelt hanging in the Pasteur Institute in Paris.

8. A PERSONAL INVITATION—to the opening of the Pasteur Institute, sent on his personal calling card, to a friend, and signed. The Institute was built by popular subscription.

9. MEMORIAL PLATE—celebrating various important events in Pasteur's life, including his vaccination of sheep against "charbon" (anthrax).

10. A PRICELESS LETTER—written and signed by Pasteur, and establishing the date of pasteurization (May 1, 1865).

11. A CHARACTERIZATION—this lithograph by Rosenthal is considered one of the finest characterizations of Pasteur in existence and was made from one of the few actual photographs.

12. THE LONG-LOST PORTRAIT—this exquisite etching by Fernand Desmoulin (1853-1914) was found in an out-of-the-way print shop in Paris under piles of assorted prints by Chester G. Fisher; its identity was unknown to the dealer! Brought to America, the etching was published for the first time in *The Laboratory* in 1935.

13. FAMOUS "DOUBLE FLASK"—with which Pasteur demonstrated anaerobic fermentation. Contributed by the Upjohn Company, Kalamazoo.

14. HIS STUDY AT THE PASTEUR INSTITUTE—contributed by the Upjohn Company, Kalamazoo.

15. POLARIMETER—used by Pasteur in his experiments with paratartrate and tartrate crystals. He first discovered asymmetric crystal faces in the tartrates, which caused a beam of polarized light to rotate. When paratartrate crystals (which also had asymmetric faces) did not affect polarized light, he looked further and discovered "stereoisomerism." The paratartrate crystals were of two types—one with asymmetric faces to the left and the other to the right—each neutralizing the other's effect on the polarized beam. This laid the basis for applying physical methods to the study of molecular structure.

16. COPENHAGEN VISIT—this Jasinski engraving of a Kroyer painting depicts the distinguished French delegation to the International Medical Congress in Copenhagen. In the course of one of the excursions arranged for members of the Congress, Pasteur had the pleasure of seeing his methods applied on a large scale, not as in Italy to the progress of sericulture (the silk worm industry) but to the progress of the manufacture of beer.

17. HEAD OF PASTEUR—designed by the American sculptor Irwin Kalla.

18. SCHOOLMATES—left, Pasteur as a student at the Ecole Normale, drawn by Labayle from a daguerreotype. Right: Charles Chappuis, a schoolmate and life-long confidant of Pasteur, as drawn by Pasteur. Reproductions.



19. PASTEUR'S ASSOCIATES—six men who were closely associated with Louis Pasteur and his work.

20. HUSBAND AND WIFE—Pasteur at the age of 30, as a professor at the University of Strasbourg, and Marie Laurent, a few years before her marriage to Pasteur.

21. MEDALLION—designed by Prudhomme in 1922 for the centennial celebration of the birth of Pasteur.

22. FACADE OF THE PASTEUR INSTITUTE.

23. PASTEUR HOSPITAL IN PARIS.

24. VACCINATION ROOM AT THE PASTEUR INSTITUTE.

25. LABORATORY AT THE PASTEUR INSTITUTE.

26. RELIEF SKETCH of Pasteur, 1884, by Ringel.

27. & 28. MEDALLIONS commemorating Pasteur.

29. THE TEAM—Pasteur, at 45, dictates a scientific paper to his wife at Point Gisquet.

30. PASTEUR IN HIS LABORATORY.

31. PASTEUR AND PIERRE BERTIN-MOUROT—like Chappuis, Bertin-Mouroto was a comrade of Pasteur's youth who remained his confidant to the very end.

32. HIS touching last will and testament (facsimile).

33. & 34. PARENTS—photographs of the original pastel drawings of his mother and father, done by Pasteur at the age of 15.

35. PASTEUR AS LETTER WRITER—these two manuscript letters, written and signed by Pasteur, show him, first, graciously turning down a Dr. Becar's unusual offer of being a *human* guinea pig, and, second, solicitously looking after the welfare of a young assistant.

36. HYDROPHOBIA—famous "Vanity Fair" cartoon.

37. PASTEUR AND HOLLYWOOD—when the celebrated actor Paul Muni played the role of Pasteur in the Hollywood film, this print of Pasteur in his early teaching days at Lille was used by the make-up artists.

38. A GALLIC JEST—this sketch appeared in Alfred le Petit's *Journal* at the time of Pasteur's election to the French Academy ("the Forty") with the accompanying verse:

"It is he who discovered vaccine for sheep.
It is for that reason that they have
bestowed upon him great festivities
in the Land of the Forty.
Should one treat with circumspection a
man who has done so much for the
health of animals?"

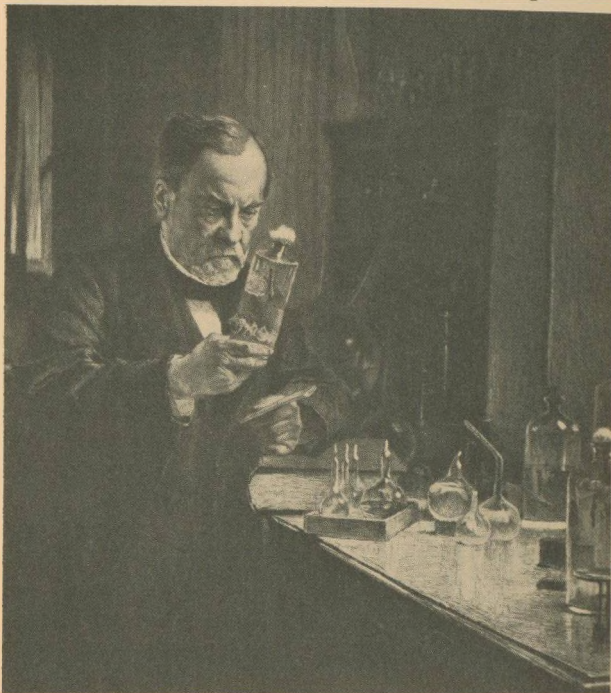
39. FRENCH POSTAGE STAMPS honoring Pasteur.

40. PASTEUR VACCINATING HIMSELF AGAINST PRUSSIAN HONORARY DEGREES—this interesting little cartoon was contributed by Dr. Selman Waksman (Rutgers University), Nobel Prize Winner and discoverer of streptomycin and neomycin. It shows Pasteur in the animal room, and had the caption: "Master, what are you doing?" Replies Pasteur: "I'm immunizing myself against Prussian honorary degrees." The cartoon appeared in *Die Flock*, Vienna, 1895, and points up the fact that Pasteur did relinquish his German degrees at the time of the bitter Franco-Prussian War. Dr. Waksman places special significance on his copy of the cartoon because it "has a definite bearing upon present-day conditions" (World War II).

41. THREE PASTEUR INSTITUTE COLLEAGUES—Emile Declaux, Emile Roux and Elie Metchnikoff.

42. CHAMPOLLION ENGRAVING—published by the Louvre in 1894.

"Pasteur" (1822-1895), one of the Memorial's noted etchings



43. NOTES on arsenites, tartaric acid and crystal structure prepared for an address to the Academy of Medicine.

44. PASTEUR NEARS 70—yet retains lively intellectual interests, as this letter reveals.

45. HELPING HAND—in this original signed letter, Pasteur writes to the Rector of an Academy in order to aid some deserving friends in getting recognition.

46. RECEIPT to the village of Epley, whose peasants raised 20 francs for the Institute.

47. PASTEUR IN WHITBREAD'S LABORATORY—this colored print shows Pasteur at work in the laboratory of the Whitbread Brewery in London in 1871.

48. A "PUCK" CARTOON—this cartoon from an early American humor magazine pokes fun at vaccination as part of French tourism.

49. CRYSTAL MODELS—hand-painted by Pasteur himself for his early work on crystal form, molecular structure, and their effect on polarized light. These experiments later led to Pasteur's discovery of "stereoisomerism."

50. BUST OF PASTEUR by Piquemal. One of Pasteur's utterances reveals his championship of Science: "Take interest, I implore you, in those sacred dwellings which one designates by the expressive term: Laboratories. Demand that they be multiplied, that they be adorned. These are the temples of the future—temples of well-being and of happiness. There it is that Humanity grows greater, stronger, better."

51. HARPER'S WEEKLY—original pages from the 19th Century American publication, including an article on antitoxins, photographs, and an engraving of the Edelfelt portrait of Pasteur (see item #7 in this collection).

52. HIS FIRST EXPERIMENTS—the "statuette" commemorates Pasteur's discovery of the optical isomers of tartaric acid, which opened the whole new field of *stereochemistry*. Scale: 100,000,000 = 1.

PASTEUR'S CONTRIBUTIONS TO HUMANITY:

1. He founded—through original individual work—an entirely new science, *bacteriology*, whose achievements have benefited all mankind.
2. He discovered the causes of childbirth fever, showed Lister how to avoid infections in childbirth and surgery. The applications of this knowledge produced aseptic surgery, and, in childbirth, reduced deaths from two hundred per thousand to only three. This work made it possible for many of us living today to be here.
3. He discovered the bacteriological action that takes place in fermentation, advancing the entire field of food chemistry. (This discovery also disproved the age-old theory of "spontaneous generation" of organisms.)
4. He created a vaccine for the treatment of hydrophobia, saving the lives of thousands of human beings.
5. He initiated the practice of pasteurization, promoting the safe production of foods and beverages.
6. He eliminated the diseases of silkworms, saving an entire industry for the world in general and France in particular; and he discovered vaccines for fowl cholera, sheep anthrax and diseases of other animals, saving them from destruction.
7. He predicted the industrial production of materials by the use of microbe action.
8. He urged that science be applied to benefit all mankind. Wrote Pasteur:

"Take interest, I implore you, in those sacred dwellings which one designates by the expressive term: Laboratories. Demand that they be multiplied, that they be adorned. These are the temples of the future—temples of well-being and of happiness. There it is that Humanity grows greater stronger, better."



FISHER SCIENTIFIC