also at one time Vice President of the United States: Thomas Jefferson.

The 32 new members include 27 American and five foreign scientists. Elections to the Philosophical Society are made according to four classes, as follows:

Class 1, Mathematical and Physical Sciences: Prof. Raymond T. Birge, University of California; Dean Samuel C. Lind, Institute of Technology, University of Minnesota; Prof. Donald H. Menzel, Harvard University; Prof. Marshall H. Stone, Harvard University; Dr. M. A. Tuve, Department of Terrestrial Magnetism, Carnegie Institution of Washington; Dean Frank C. Whitmore, Pennsylvania State College; Sir William Laurence Bragg, Cambridge University, England; Prof. L. E. J. Brouwn, University of Amsterdam, The Netherlands; Prof. Godofredo Garcia Diaz, University of San Marcos, Peru.

Class 2, Geological and Biological Sciences: Prof. R. T. Chamberlin, University of Chicago; Prof. Ralph W. Chaney, University of California; Prof. H. T. Clarke, Columbia University; Prof. L. C. Dunn, Columbia University; Prof. E. W. Goodpasture, Vanderbilt University; Dr. Warren H. Lewis, Wistar Instiute of Anatomy and Biology; Dr. George L. Streeter, Carnegie Institution of Washington.

Social Sciences and Humanities

Class 3, Social Sciences: Prof. J. P. Boyd, Princeton University; Douglas S. Freeman, editor, Richmond, Va., News Leader; Dr. Owen Lattimore, Johns Hopkins University; Henry Allen Moe, secretary general of the Guggenheim Memorial Fund; Dr. Walter W. Stewart, Institute for Advanced Study, Princeton, N. J.; Prof. Quincy Wright, University of Chicago.

Class 4, The Humanities; Prof. W. E. Hocking, Harvard University; Fiske Kimball, director, Philadelphia Museum of Art; Prof. Charles G. Osgood, Princeton University; Prof. Erwin Panofsky, Institute for Advanced Study, Princeton, N. J.; Prof. Mary H. Swindler, Bryn Mawr College; Dr. George C. Vaillant, director, University Museum, University of Pennsylvania; Prof. John D. Beasley, Oxford University; Dr. Allan H. Gardiner, editor, Journal of Egyptian Archaeology; C. E. Barnard, president, New Jersey Bell Telephone Company; Henry A. Wallace, Vice President of the United States of America.

Science News Letter, May 8, 1943

MEDICINE

Chemical Tests Gangrene

Simple, quick test aids difficult diagnosis of gangrene by detecting germ enzymes. Promises to save many war wounded. Practical field trials planned.

➤ LIVES threatened by gas gangrene infection in war wounds may be saved if a new chemical test proves as successful in the hands of military surgeons as it has in laboratory experiments.

The test depends on detecting in fluid exuded from the wound the presence of enzymes or ferments produced by the germs that cause gas gangrene.

The test was developed by Dr. D. McLean and Dr. H. J. Rogers, of England's Lister Institute of Preventive Medicine, and Dr. B. W. Williams, of St. Thomas's Hospital, London (*Lancet*, March 20).

Gas gangrene develops so quickly that death may follow within a few hours and even experienced surgeons, the editor of the medical journal points out, may have difficulty in making the diagnosis in time for effective treatment. Nor is the bacteriologist able to give him much help.

The new chemical test gives results within an hour and is simple to perform. By using an ordinary white blood cell-counting pipette with a few simple precautions it can, the scientists state, be carried out under field conditions.

So far it has only been used in laboratory experiments so that its real practical value is not yet known. The scientists who developed it have published their results quickly so that it can be given an early trial in actual practice.

Of the enzymes produced by the gas gangrene germs, one, called hyaluronidase, is also produced by certain other germs. The scientists apparently believe, however, that it would be more practical to test for this enzyme as a diagnostic measure than for lecithinase, presence of which would give a more specific diagnosis but which is likely to be present in only very small amounts at a time when detection of it would help the diagnosis.

Science News Letter, May 8, 1943

RESOURCES

New Tannin Source Found

➤ THE semi-tropical buttonwood tree found in southern Florida, and more plentifully in Middle America, promises an abundant source of tannin for heavy leather tanning to replace the vanishing supply of chestnut tree tannin.

Both the bark and the wood of this buttonwood tree, which grows to a diameter of 12 inches, are rich in tannin. In the bark the content is 20 per cent, in the wood 8 per cent. Both leach easily. Both give firm, tough, strong, well-filled leather.

The bark leather is slightly darker than the wood leather. Except for this the results with the two extracts are identical.

A nation-wide search has been under way for new sources of tannin since a few years ago, when hope was lost for a further supply of chestnut tannin. Chestnut trees died from a disastrous blight two decades ago, and new plantings are quickly killed by the same blight. The dead wood was used for tannin as long as the supply lasted. Other plants have been found that yield tannin but none of them give the promise now given by the buttonwood.

Dr. Alfred Russell, professor of chemistry at North Carolina State University, has done much work on tannin extraction and in the search for tannin. He reports the results of tests in his laboratory with tannin extracted from the buttonwood.

Split calfskins were tanned with buttonwood tannin, chestnut tannin, and quebracho.

He states, "The buttonwood leather is heavier, better filled, mellower and lighter in color than the chestnut leather; it is heavier, tougher, stronger, equally well filled, but not so soft as the quebracho leather."

The buttonwood which Dr. Russell states yields tannin is called Conocarpus erecta by botanists.

Science News Letter, May 8, 1943