

THE National Museum of Wales at Cardiff has received from Sir William Reardon and Lady Smith a further sum of £5,000, bringing their total contribution to £15,000.

THE American Society for Clinical Investigation has founded a journal to be called the *Journal of Clinical Investigation*, and Dr. G. Canby Robinson, dean-elect and professor of medicine at Vanderbilt University, will be editor-in-chief. The new journal has been made possible by a grant to the society by the Rockefeller Institute for Medical Research. The first issue appeared in October.

UNIVERSITY AND EDUCATIONAL NOTES

HARVARD COLLEGE is the beneficiary of one half the estate of George True Nealley, of New York, and the National Academy of Sciences and the National Geographic Society divide the other half equally. The value of his estate was not made known.

It is announced that the University of Pittsburgh has completed plans for the erection of a fifty-two story building, 680 feet high, to be the center of the university activities.

A NEW group of four buildings at Western University, London, Ontario, which has cost £300,000, were formally opened on October 23.

A CELEBRATION commemorative of the centennial of the foundation of the Medical College of the State of South Carolina took place at Charleston on November 12 and 13.

THE statutes of the University of London have been amended to allow the university to confer the degree of bachelor of pharmacy.

DR. L. W. TAYLOR, of the University of Chicago, has been appointed head of the department of physics at Oberlin College, to take the place of Professor S. R. Williams, who has resigned.

WILFRED ELDRÉD, associate in the food research institute of Stanford University, has been appointed to a research professorship in the University of Washington.

DR. HAROLD ST. JOHN, of the department of botany at the State College of Washington, has been promoted to be associate professor of botany and curator of the herbarium.

DR. GLENN E. CULLEN, associate professor of research medicine at the University of Pennsylvania, has been appointed professor of biochemistry in the

medical school of Vanderbilt University. Dr. Cullen will be in Europe for a year at Rigs Hospital, Copenhagen.

DR. THOMAS GROVER ORR, a physician of Kansas City, has been appointed head of the surgical department of the school of medicine at the University of Kansas.

DR. BASIL GRAVES, curator of the Royal Westminster Ophthalmic Hospital, has been appointed clinical lecturer and special instructor in charge of the department for microscopy of the living eye in the department of ophthalmology of the graduate school of medicine at the University of Pennsylvania, for a period of three months from January 1, 1925.

DR. A. T. DE MOULPIED, of the British Dyestuffs Corporation, has been appointed professor of science at the Royal Military Academy, Woolwich, in succession to Professor J. Young.

DR. ALFRED KUHN, professor of zoology at the University of Göttingen, has declined the offer of the professorship of zoology and comparative anatomy at Munich.

DISCUSSION AND CORRESPONDENCE

THERMOMETER SCALES

APROPOS of the discussion on thermometer scales it may be worth while to consider some points generally ignored. As far as the people at large are concerned practically everybody is familiar with the relations between the Fahrenheit scale and the temperatures, and it would be most difficult and confusing to them to make a change.

But apart from that, the ideal thermometric scale is far from the centigrade type, at least for those having to do with meteorological statistics. The centigrade is extremely defective in that its degrees are so large that exact work requires decimal fractions to be tabulated, and it has an arbitrary zero requiring plus and minus signs to indicate degrees of temperature. One reason why the Fahrenheit scale is better is that its degrees are so much smaller.

The ideal thermometer will have its scale running all one way, eliminating plus and minus signs, and its degree divisions small enough to require at most only one decimal point in tabulating fractions. The only instance I have come across in which these points are recognized is the scale invented by Louis De Lisle de la Croyère about the end of the 18th century, probably described in the *Journal of the Hydrographic Department of the Russian navy*, vol. VII, pp. 537-542, 1849 (which I have not seen), and used in the appendix to Krashenninikoff's "History of

Kamchatka" in 1768, or earlier, since this issue is not the first of that work. If we are to have a change of scale let it be to something less objectionable than the centigrade form.

WM. H. DALL

NOTE ON CELLOBIOS AS A DIFFERENTIATING SUGAR FOR CERTAIN BACTERIA

THROUGH the kindness of Dr. Wise, of the New York State College of Forestry, the writer was recently enabled to test the fermentative powers of a number of strains of bacteria of the colon-aerogenes group on the rare sugar known as cellobios. This disaccharide is derived by the acetolysis of cellulose (which yields the octacetate) followed by the removal of the acetyl groups.

The studies so far made indicate that this sugar may be of definite assistance in differentiating members of the genera *Escherichia* and *Aerobacter*. Particularly interesting is the fact that certain strains of *Escherichia neapolitana* can be separated into two groups by the use of this sugar; one group fermenting it with very abundant gas production and the other failing to act on it at all.

Further studies on the use of this sugar in bacteriological work are in progress, and bacteriologists having stock cultures of the colon-aerogenes group are invited to submit them for tests with the sugar.

Although this sugar has heretofore seldom been prepared in any considerable amounts, and is not now available in the market, should the demand arise it could doubtless be supplied by certain concerns, since the raw material from which it is prepared (cotton cellulose) is cheap and abundant.

HENRY N. JONES

SYRACUSE UNIVERSITY

COLOR INDICATORS FOR BLIGHT DISINFECTANTS

ONE of the serious practical difficulties involved in control of fire blight (due to *B. amylovorus*) in the orchard lies in securing thorough prophylactic treatment of the lesions after removal or scarification of diseased tissue. This difficulty is, of course, intensified when the treatment must be in the hands of untrained fruit-growers or hired help. Even when the affected tissues are completely removed the sterilization of the remaining exposed tissues is frequently careless and defective. Consequently, any device that will aid in securing thoroughness in this step can not but help make the whole treatment more effective.

Careful check on the thoroughness of the application of the mercury solution is difficult because of its lack of color. The writer has tried several coloring

materials and at the suggestion of Professor Patton, Experiment Station chemist, fuchsin red and methylene blue were used. Fuchsin red has proved particularly satisfactory. Added to the Reimer-Day mercury and glycerine solution it has imparted a pronounced color, permitting the operator to detect any small untreated surface and to tell at a glance whether all the cut tissues in the tree have been treated. Field observation has not indicated any diminution in the effectiveness of the material, and the treatment because of the greater thoroughness becomes more effective.

In addition, because the operator is not forced to retrace his steps to make sure that a given wound has been sterilized, time and material is saved.

It should be noted that no laboratory tests of this material with the dye added are available at present, and this communication is based on field observation.

H. A. CARDINELL

MICHIGAN AGRICULTURAL COLLEGE

ARIZONA RUINS

IN the course of a recent prospecting trip in the neighborhood of Clifton, Arizona, I had the opportunity to visit some prehistoric ruins. These consisted of, apparently, dwellings and storehouses built under overhanging cliffs. The storehouses were formed of three adobe walls reinforced with wickerwork. The fourth wall at the back was the natural face of the cliff. Slight excavations disclosed the small Indian corn-cob and several types of seed-pods unknown to me. Excavations on the dwelling platform in front of the storehouses, which were some six feet square, disclosed pot shards, remains of grass sandals and some fragments of basketry. The walls of the cliffs outside of the smoked surfaces showed a number of disconnected outline paintings. These were in red or green and in some instances combinations of the two colors. I suspect that the green pigment was some copper mineral pulverized but had no facilities for analysis. Subjects were varied. They included geometrical designs, men, mountain goats, centipedes and fish. They ranged from a foot to two feet in length and the same in height. I made sketches in pencil of many of them of which I would gladly send copies to any person interested as well as any further details desired. Messrs. Thompson and Lenard, the owners of the Spur Cross ranch on which the caves are located, assure me that there are other caves in the vicinity which were not visited because of lack of time and further that no archeologist has ever visited the district. It seems to me worthy of exploration.

R. S. EVERIT

BARRE, MASS.