dean and vice-president of Jenner Medical College, died on December 3.

THE Biological Club of the University of Minnesota held its two hundredth meeting on October 20. Dr. B. H. Blackman, of the Imperial College of Technology, London, was a special guest of honor. Other special guests included President L. D. Coffman, Dean Guy Stanton Ford, of the graduate school; Dean E. P. Lyon, of the medical school; Dean J. B. Johnston, of the college of science, literature and arts, and Dean W. C. Coffey, of the department of agriculture, all of the University of Minnesota.

THE Washington Section of the American Chemical Society held its annual election on November 13, selecting L. H. Adams as president, R. Gilchrist as secretary and H. W. Houghton as treasurer. Newly elected members of the executive committee are: Wm. Blum, V. K. Chesnut, R. B. Sosmann, M. X. Sullivan, E. W. Washburn and E. T. Wherry; Councillors: F. G. Cottrell, W. M. Clark, S. C. Lind and R. S. McBride. Preceding the meeting a dinner was given in honor of Dr. E. F. Armstrong, a prominent British industrial chemist and formerly president of the Society of Chemical Industry. At the opening of the meeting Dr. Armstrong spoke for a few minutes on the present trend in chemistry, stressing particularly the work now in progress in catalysis and surface phenomena and predicting great advances in the near future.

UNIVERSITY AND EDUCATIONAL NOTES

PORTER L. NEWTON, of Waltham, has given the residue of his estate to the Massachusetts Agricultural College to be used through the awarding of scholarships designed to promote and improve the agricultural situation in the state. The gift will probably amount to about $25,000.

THE Carnegie Corporation has given to Dalhousie University the sum of $190,000. Of this amount $90,000 will go toward payment of accumulated deficits, while the remainder will be divided into five annual payments of $20,000 each as a fund to forestall future deficits.

WE learn from the *Journal* of The American Medical Association that many prominent Japanese and Chinese officials attended the recent opening of the medical school of the Chingtao Hospital, which has been erected by the Japanese government, says the *Japan Medical World,* as one of Japan's enterprises for the education of Chinese students. The school will be maintained by the hospital and by a subsidy of 140,000 yen per annum from the Japanese government.

THE cornerstone of the new buildings of the University of Brussels was laid on November 20. The new building has been made possible by financial assistance, amounting to nearly 20,000,000 francs, given by the Commission for Relief in Belgium and the Educational Foundation. The American Relief Commission provided food for the Belgian population during the German occupation, and the 20,000,000 francs have been paid out of the balance remaining over from the fund.

DR. A. H. RYAN, formerly professor of physiology at Tufts College Medical School, Boston, has been appointed professor of physiology at the University of Maryland School of Medicine and the College of Physicians and Surgeons, Baltimore.

DR. W. L. HOLMAN, associate professor of bacteriology at the Johns Hopkins University, has been appointed associate professor at the University of Toronto Medical School.

L. J. PESSIN, PH.D. (Johns Hopkins, 1923), has accepted a position as assistant professor of plant physiology at the North Carolina State Agricultural and Mechanical College.

A. W. BELLAMY recently resigned his position as assistant professor of zoology at the University of Chicago and went to the University of California, southern branch.

AT Tufts Medical College, Dr. Frank Howard Lahey, professor of surgery, and Dr. Charles Davison Knowlton, assistant professor of theory and practice of medicine, have resigned.

ABRAHAM PRESS, at one time demonstrator in physics and mathematics at the Southwestern Polytechnic Institute, London, and recently technical science expert, Interdepartmental Radio Board, Washington, D. C., sailed for Siam on December 3 *via* Europe to accept the post of professor of physics in the premedical school of Chulalongkorn University, Bangkok.

DR. BETHE, professor of physiology at the University of Frankfurt, has been called to take the place of Dr. Rudolph Metzners, retiring professor at the University of Basel.

DISCUSSION AND CORRESPONDENCE

GENERAL PLAN FOR MAGNETIC AND ALLIED OBSERVATIONS DURING THE TOTAL SOLAR ECLIPSE OF JANUARY 24, 1925[1]

SPECIAL magnetic and allied observations will be made at stations in or near the path of totality of the solar eclipse of January 24, 1925, by the Depart-

[1] Communicated at the request of the director of the Department of Terrestrial Magnetism.

ment of Terrestrial Magnetism of the Carnegie Institution of Washington, and by various cooperating magnetic observatories, institutions and individuals. One magnetic observatory, that at Agincourt, near Toronto, Canada, lies within the shadow belt. The Coast and Geodetic Survey magnetic observatory at Cheltenham, Maryland, is also very favorably situated, being within 200 miles of the southern edge of the path. The observatories of Great Britain lie near the path, although the sun will set while still eclipsed at those stations.

The general scheme of work is as follows:

1. *Simultaneous magnetic observations* of any or all the elements, according to the instruments at the observer's disposal, every minute from January 24, 1925, $11^h\ 58^m$ to $18^h\ 02^m$ Greenwich civil mean time.

(To insure the highest degree of accuracy, the observer should begin work early enough to have everything in complete readiness in proper time. *Past experience has shown it to be essential that the same observer make the readings throughout the entire interval.* If possible, similar observations for the same interval of time as on January 24 should be made on January 23 and 25.)

2. At *magnetic observatories* all necessary precautions should be taken to insure that the self-recording instruments will be in good operation not only during the proposed interval, but also for some time before and after, and eye-readings should be taken in addition wherever it is possible and convenient. (*It is recommended that, in general, the magnetograph be run on the usual speed throughout the interval, and that, if a change in recording speed be made, every precaution possible be taken to guard against instrumental changes likely to affect the continuity of the base-line.*)

3. *Atmospheric-electric observations* are desirable to the fullest extent possible with the available equipment and personnel. Observations of potential gradient are most easily provided for and most conveniently taken; in addition to these, observations (preferably for both signs) of either conductivity or ionic content are also very desirable. Full notes regarding cloud and wind conditions and, if possible, observations for both temperature and relative humidity should accompany the atmospheric-electric observations. These observations should cover the same interval as the magnetic observations. The value of the observations on the day of the eclipse will be greatly increased if similar observations can be made during the same time of day on two or three days before and after the eclipse.

4. *Meteorological observations* in accordance with the observer's equipment should be made at convenient periods (as short as possible) through the interval. It is suggested that, at least, temperature be read every fifth minute (directly after the magnetic reading for that minute).

5. *Observers in the belt of totality* are requested to take the magnetic reading every 30 seconds during the interval, 10 minutes before to 10 minutes after the time of totality, and to read temperature also every 30 seconds, between the magnetic readings.

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A METHOD OF MAKING PERMANENT SMEARS OF POLLEN MOTHER CELLS

IN some recent work on *Ginkgo biloba* excellently fixed preparations of pollen mother cells in mitosis were obtained by the rapid and simple method outlined below. The desired stage of the anthers was determined by Belling's aceto-carmine method (Belling, J. (1921) *American Naturalist* 55: 573–4). A very thin film of albumin fixative was spread on a slide; then the anther was crushed and its contents distributed upon the slide with a scalpel as evenly as possible. When this was done, the slide was placed in a Coplin jar containing Flemming's medium fixative for 24 hours, washed 5 hours in running water, bleached in hydrogen peroxide and dehydrated and stained with safranin and light green. This method seems worth testing on other plants, since with it permanent records can be kept of material which has been studied by Belling's method. Such records are exceedingly useful for demonstration purposes, since even if the desired plants are in good condition, which can not always be the case, considerable time is consumed in making new preparations for each visiting scientist who wishes to see the actual material described in some published work.

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OSMOSIS DEMONSTRATION FOR CLASSES IN BIOLOGY

IN the article, "Osmosis demonstration for biology classes," by Mr. Benjamin C. Gruenberg (SCIENCE, LX, 1555, October 17, 1924), there is described a very excellent method for preparing celloidin bags for this demonstration. There is just one addition to this method, which our technician has found a big assistance.

This is in the preparation of the bottles before