

Glass Division of the American Ceramic Society has made arrangements for providing glass of desired composition and desired form for investigators in this field. The material will be supplied free of charge and no limitations as to the nature of the research will be imposed. The recipients of the material will be under no obligations except that of publication of the results of their investigations. The committee, however, requests that wherever possible the *Journal* of the American Ceramic Society be given preference in reporting the results. Persons who are interested are requested to address their inquiries to one of the following members of the committee on research: E. C. Sullivan, Corning Glass Works, Corning, New York; E. W. Washburn, University of Illinois, Urbana, Illinois; R. B. Sosman, Geophysical Laboratory, Washington, D. C.

UNIVERSITY AND EDUCATIONAL NOTES

WILLIAMS COLLEGE alumni are planning to raise \$1,500,000 during the coming spring. One million of this sum, of which \$200,000 has been pledged as a contingent gift by the General Education Board, is to provide adequate endowment for professors' salaries. The remaining \$500,000 is to be used towards more complete facilities for physical education.

NORTHWESTERN UNIVERSITY has been notified that the General Education Board, of New York (the Rockefeller Foundation) has appropriated \$600,000 for increase of faculty salaries, provided the university raises \$1,400,000.

At the Tulane University of Louisiana School of Medicine, New Orleans, it is planned to erect a new modern hospital on the university campus at a cost of between \$1,000,000 and \$2,000,000. The hospital will be in connection with the medical school of the university.

STATE appropriations of the New York legislature for the College of Agriculture at Ithaca include \$83,000 for the construction of a new wing on the main building of the Veterinary Building, and \$183,000 for equipment for the

new Dairy Building. This budget is somewhat larger than usual and will permit more extension work by the college.

DR. MARION EDWARDS PARK, dean of Radcliffe College, has been elected president of Bryn Mawr College, to succeed M. Carey Thomas, who retires at the end of the present academic year.

PROFESSOR WILLIAM F. OSGOOD, of the mathematics department, has been appointed acting dean of the Graduate School of Arts and Science of Harvard University for the second half year. Dean Haskins is on leave of absence for that period so that he may recuperate after an attack of influenza.

PROFESSOR J. W. BARTON, associate professor of psychology in the School of Education of the University of Idaho, has been promoted to a full professorship of psychology. Mr. C. W. Chenoweth (M.A., Harvard) has been elected associate professor of philosophy.

DR. HENRI CLAUDE, associate professor and physician to the Saint-Antoine Hospital, has been appointed to the chair of clinical mental diseases and diseases of the brain in the Paris School of Medicine, to succeed the late Professor Dupré.

DR. GEORGE J. HEUER, associate professor of surgery at the Johns Hopkins Medical School, has accepted the professorship of surgery in the Medical College of the University of Cincinnati.

DISCUSSION AND CORRESPONDENCE

PRACTICABLE SUBSTITUTES FOR GRAIN ALCOHOL

USE of ethyl or grain alcohol for laboratory purposes has long involved certain difficulties connected with securing it tax-free and preserving it for its intended uses only. Since the passage of the various prohibition statutes the observance of the necessary regulations governing its use occasions far more trouble, while those who are interested in putting it to unscientific uses make the guardianship of the precious fluid a serious responsibility. Sub-

stitutes for grain alcohol, which would be unpotable and free from internal revenue taxation and prohibition regulations, are greatly desirable. Ordinary denatured alcohol, while useful for some laboratory purposes, is not satisfactory for most uses because of the character of the denaturants; and the use of a special denaturing formula is so involved in regulations as to be almost impossible.

A considerable series of experiments has shown that *isopropyl* and chemically pure *methyl* alcohols will fulfill practically any use for which alcohol is needed in biological work. It is indicated that inhalation of fumes of *isopropyl* alcohol does not have dangerous consequences; certainly, in any properly ventilated place the fumes would not be a danger. The experience of those who work in factories where methyl alcohol is produced, and who at times inhale the fumes in large quantity, shows that there is also little to be feared from its use in the laboratory. Experiments along this line are in progress. Probably most persons would prefer to use *isopropyl* alcohol for those purposes which might cause considerable quantities of the fumes to be inhaled. But both alcohols can be used with perfect safety for histological or other ordinary purposes. Out of consideration for those who consider alcohol a beverage all containers of both these alcohols should display warning labels.

The commercial grade of *isopropyl* alcohol contains 91 to 92 per cent. of the alcohol, while the similar grade of *ethyl* alcohol is 95 to 96 per cent. A purer grade of *isopropyl* alcohol, 98 to 99 per cent., can be supplied by the manufacturers, which can be made anhydrous by ordinary procedures.

"Chemically pure" methyl alcohol is practically anhydrous, and being less hygroscopic than *ethyl* alcohol is more useful and reliable for such purposes as dehydrating tissues than the anhydrous ("absolute") *ethyl* alcohol. As it contains only a trace of acetone it is entirely without the disagreeable odor of ordinary wood alcohol.

Both *isopropyl* and methyl alcohols have been tested against *ethyl* alcohol in the preparation of reagents, and in histological work

done with such reagents and stains, as well as in the preservation of museum specimens. No differences could be detected in favor of either of them, except that the methyl alcohol proved much more satisfactory as a dehydrating agent.

In addition to the advantage that methyl and *isopropyl* alcohols have of being free from vexatious regulations and the danger of irregular use, they possess the additional merit of competing in price with the tax-free commercial *ethyl* alcohol.

LAWRENCE E. GRIFFIN

REED COLLEGE

IRIDESCENT CLOUDS

ON the afternoon of January 21, beginning before four and lasting perhaps an hour, an unusual set of iridescent cloud phenomena was seen in the southwest. Low in the sky, partly hiding the sun, were thick clouds edged with brilliant gold, which remained practically stationary. Higher up the sky was for the most part clear, with occasional cirro-cumulus clouds, many finger-shaped and pointing downward to a point north of the sun. The edges of these clouds were quite definite, and surrounding the tips and sides were two or three alternate narrow parallel bands of bright pink and green, the outer band in most cases being pink and the color extending at times 45° from the sun. Some of the clouds showed flocculent edges, giving an appearance of a colored fringe and one cloud broke up entirely into horizontal flecks and disappeared as it passed the zenith. Besides these were detached clouds which showed brilliant iridescent colors throughout the whole. One thin flocculent cloud showed small uniformly distributed flecks of pink and green, a larger one showed four irregular vertical bands of pink and green which covered the whole cloud, several glowed with lurid irregular patches of colors such as are seen in a thin film of oil on water. In one case a small spot of dark rose appeared against a misty blue background, rapidly grew into a pillar of vivid mottled colors, and then stretched out toward the northeast to form a white streamer all the way across the sky, its western portion being bordered with the characteristic pink and green bands.