

Dr. Fellers was formerly associated with the U. S. Bureau of Chemistry and with the National Cannery Association.

NORMAN W. KRASE has resigned from the Fixed Nitrogen Research Laboratory to accept an instructorship at Yale University in the department of chemical engineering.

THREE new instructors have been appointed in the geology department of the University of Michigan—Dr. Walter A. Ver Wiebe, Mr. R. L. Belknap and Miss Ellen Stevenson.

MR. M. DIXON, of Emmanuel College, Cambridge, has been appointed senior demonstrator in biochemistry for five years.

DR. WILLIAM F. SHANKS, who graduated with special distinction in physiology in the University of Glasgow, has been appointed professor of physiology at the University of Leeds.

## DISCUSSION AND CORRESPONDENCE

### WATER GLASS AS A MOUNTING MEDIUM

In your issue of July 6, page 13, "water glass" is recommended as a substitute for Canada balsam as a medium for mounting objects for microscopic study. In 1870 I experimented with this substance, which at first appeared satisfactory, but after some months a host of fine acicular crystals developed in it, finally obscuring and completely ruining the slides.

WM. H. DALL

U. S. NATIONAL MUSEUM

I HAVE not used water glass in the way described by Mr. Dean T. Burk, but have been using it for years as a cement for fossils, pure or mixed with chalk or plaster of Paris. At first I found it satisfactory, being clean, drying quickly and fixing well. But after two or three years the glass changed its constitution, becoming crystalline, and the pasted objects became loose, so that I ejected it at once from my laboratory at Petrograd and never used it again.

I suggest that the same crystallization, and surely with the same sad effect, must take place in the water glass when used as a mounting medium for microscopic objects. In any case, the experience of some years is necessary to approve this method.

The use of water glass as a substitute for shellac in mounting insects on points, is, in my opinion, for the reason given above, absolutely unacceptable. If such a substitute is looked for by entomologists, I would recommend them to try the solution of some celluloid in acetone, a composition that I have used for years very successfully as a cement for fossils. This solution is just as handy as water glass, but it has not the inconvenience of the latter and can be prepared of

different consistencies, an important item in many cases.

The celluloid, remaining after the evaporation of acetone, pastes together very strongly, keeps its property practically forever and in comparison with shellac is nearly colorless, unaffected by heat and does not snap off.

T. TOLMACHOFF

CARNEGIE MUSEUM

IN connection with the article by Dean T. Burk, of the University of California, in *SCIENCE* for July 6, I wish to call attention to an article which I published in the *Journal of Applied Microscopy and Laboratory Methods*, just twenty years ago, the exact date being July, 1903. The method is given in detail, together with its advantages and disadvantages, and at that time had been in use by myself and associates for about two years.

There are several objections to the use of water glass for mounting histological and pathological sections, the main ones being its poor clearing power and its alkaline reaction, which would have a detrimental effect on many stains. The method is of value for certain unstained preparations, notably vegetable fibers, if only moderate durability is desired.

CHARLES E. M. FISCHER

THE FISCHER LABORATORIES, INC.

### FILING REPRINTS

DR. W. G. FARLOW filed his reprints in very shallow, flat drawers, laying them face up, one in a place. I began by binding mine into fairly good sized volumes with an index. Afterwards, having to consult one number in a volume repeatedly, I became weary of handling the heavy book for the sake of a tiny separate and abandoned this method. Ten or fifteen years ago I adopted one similar to that described by Edwin G. Boring in *SCIENCE*, October 26, 1923, and have found it very convenient and satisfactory.

Apparently the only difference is that I buy my boxes by the 5-hundred from a box maker and have the sides cut beveling at the top so that the top width of the side is 2 inches and the bottom width is  $7\frac{1}{2}$  inches, the lower end of the bevel running out at a height of 4 inches from the bottom of the box. The height of the box is 11 inches, the width of it, outside measurement,  $3\frac{3}{16}$  inches, giving an inside measurement of 3 inches. On the back of each one I paste a typewritten list of the authors inside, arranged alphabetically. I write at the top of each separate, on both the front and back, the name of the author, and the object of the bevel is now apparent because when the box is pulled out the upper back corner of the separate projects out of the box. By running them over with my fingers I can see in a moment, without looking at the titles, all I have by a given