

sons of small attendance. The Endowment Fund now amounts to over \$3,500 and has been carefully husbanded, but it should be increased to at least \$50,000. And the special funds, the Lucretia Crocker Fund for Scholarships and the Library Fund, may profitably be added to.

One effect of the recent changes in the By-laws will be, or may be, to diminish the special interest in and sense of responsibility for the Laboratory heretofore shown in the city of Boston and its immediate vicinity, to which, as is well known, the institution owes its initial impulse and much continuous and generous support. In appealing, as they do now, to a wider constituency, the Trustees are in no wise unmindful of the debt which the cause of science and of sound learning owes to this intelligent and kindly support in the past, some of which support, as they are assured, will hereafter be extended, with unwearied generosity, from the same locality. The Laboratory now looks to the country at large for its main sources of income and upon all the corporate members, in whose hands the recent changes have placed the entire control, rests the correlative duty of supporting the work. With power comes responsibility.

The Trustees, therefore, have decided to raise the annual dues of members of the Corporation to two dollars (\$2.00). The fiscal year now begins on the second Tuesday in August, and this sum is due for the year ending August 9, 1898. Members of the Corporation will kindly forward it, together with all back dues, to the Treasurer, D. Blakeley Hoar, 220 Devonshire St., Boston, Mass.

For the reasons given above, the Trustees also appeal to the members of the Corporation to send with their annual dues such further sums, however small, as the means and interest of each in the work may inspire. All contributions will be duly noted

in the annual report which is in course of preparation and will be issued early in the coming year. A contribution of not less than \$100 entitles the donor to a life membership, exempt from annual dues, or, at his option, to nominate a person to occupy a private room in the Laboratory, free of charge, during one season. A contribution of \$50 entitles the donor to a free scholarship, exempt from tuition fees, during one season. Contributions of smaller amounts will be gratefully received and duly acknowledged.

The forthcoming report will show fully all the recent changes in the organic law of the Association, and will be sent to all members in good standing.

By order of the Trustees,

HENRY F. OSBORN, *President*,

H. C. BUMPUS, *Secretary*,

D. BLAKELEY HOAR, *Treasurer*,

C. O. WHITMAN, *Director*.

EDWARD G. GARDINER, *Chairman*  
of *Executive Committee*,

JAMES I. PECK, *Assistant Director*,  
*Executive Committee*,

CAMILLUS G. KIDDER, *Executive*  
*Committee*.

All matters relating to scientific administration should be addressed to Professor C. O. Whitman, University of Chicago, Chicago, Ill. All applications for membership, to the Secretary, Professor H. C. Bumpus, Brown University, Providence, R. I. All dues and subscriptions, to the Treasurer, D. Blakeley Hoar, 220 Devonshire St., Boston, Mass.

#### A NEW LABORATORY DISH.

In the laboratory of the college we use for routine work the paraffin method almost exclusively. The blocks of tissue are infiltrated in the usual manner, and the sections cut with the Ryder or Minot microtome. The student cuts his sections and fastens them on to the slide by means of Ole-

macher's combined water albumen method, a combination, with certain improvements, of the methods of Gaule and Mayer. These are then placed in the drying oven at a temperature of  $37^{\circ}$  C. for from 12 to 24 hours, until all the water is evaporated, the paraffin and section having, during the evaporation of the water, straightened out perfectly. The slide is now gently warmed until the paraffin, which has a melting point of  $45^{\circ}$  C., begins to melt, when it is thrust into kerosene, which in ten minutes completes the removal of the paraffin. The excess of kerosene is wiped off, the slide washed with a few drops of alcohol and then placed in a dish of alcohol; from this dish of alcohol the stain is proceeded with as usual. If the tissue has been hardened in corrosive sublimate it is necessary to carry the cemented section through diluted tincture of iodine to remove the mercurial salt; this is followed by washing in alcohol when the section is ready for staining. The stains are conveniently kept in large salt-mouthed bottles into which the slides are placed for staining, mordanting, dehydrating and clearing. It is usual for the student to take from 5 to 10 slides through the various solutions, at one time, and, in so doing, he not uncommonly scratches the section off of one slide by rubbing it against another. This difficulty arises, no matter whether the method of Gaule, Suchannek's modification of Gaule's method, Gulland's modification of Gaule's method, or, what is better, Heidenhain's water method, be used. Even using any of the collodion methods does not permit us to escape this danger. In order to overcome this, the writer sought very carefully through the dishes which have been designed by various workers, but failed to find anything which was ideally available. True, Ranvier has designed a rack upon which a number of slides may be supported, but this is entirely too cumbersome for general laboratory use, and

besides involves a large amount of fluid, which makes it an expensive luxury. With these points in view, I have devised a dish which is expected to overcome some of the above difficulties.

The inside measurements of the dish are  $3\frac{1}{2}$  inches in height, 1 inch square at the bottom,  $1\frac{3}{8}$  inches square—three inches from the bottom, and  $1\frac{1}{4}$  inches in diameter at the top, which is round and closed by means of a ground, grooved, Stender cover, which, of course, fits air-tight. In order to render the dish stable, the base is the broadest and heaviest part, measuring nearly  $2\frac{1}{2}$  inches in diameter. Extending upward from the bottom of the inside of the dish, on two opposite sides, are eight ribs, four on each side, forming between them three grooves sufficiently wide to admit, in each groove, two slides of ordinary thickness. There can, also, be placed in the outside groove, between the outside ribs on each side and the inside of the dish two slides. This gives the dish, for ordinary purposes, convenient and not crowded, accommodation for eight slides standing on end; or, if the sections be not large and the slides not thick, four slides may be placed outside of the ribs, two on each side back to back.

An ordinary Stender dish requires about 120 cc. of fluid to immerse a slide sufficiently to cover a section cemented to its center. The above dish requires less than  $\frac{1}{3}$  of that amount to secure an equivalent degree of immersion. Of course, these dishes vary slightly in their capacity, as all pressed glassware does; such a variation, however, does not amount to more than from 10 to 15 cc.

Where, for reasons of economy, or otherwise, it may be desirable to close the top of the dish by means of a cork or rubber stopper, the expense may be materially reduced. When closed by means of a glass cover, as described above, and shown in the

illustration, the cover and the dish will each bear the same number cut in glass, so that the student, working at his desk, may easily avoid mixing the covers which would not only be detrimental by mixing incompatible fluids; but, as each lid can be ground only to fit the dish which accompanies it, exchanged lids will not fit tightly.

In order to facilitate cleaning and to avoid inaccessible corners, all the corners are rounded.

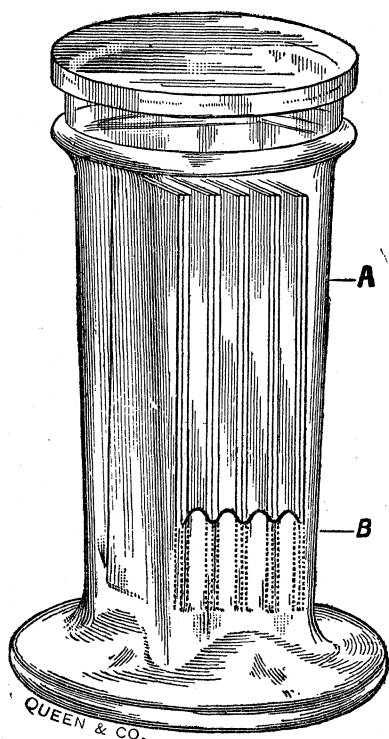


FIG. 1.—This cut is about  $\frac{2}{3}$  of the exact size of the dish. At A can be seen ten (10) slides, placed back to back and passing down between the ribs at B. Since this figure was drawn the width of the base has been increased, so that the base is now the width as shown in Fig. 2.

The advantages claimed for the dish are: (1) Convenience, in that a number of slides can be safely handled at one time. (2) Great economy in the reagents; not only is the amount used less than is required by the use of Stender dishes, but in

case, as will not uncommonly happen with students, anything occurs which ruins the contained fluid the loss may be materially less. (3) Solidity: no other dish of the same height and the same capacity possess the same solidity. (4) Contained fluids are prevented from evaporating by the tight-fitting top. This is not secured in the Naples dish.

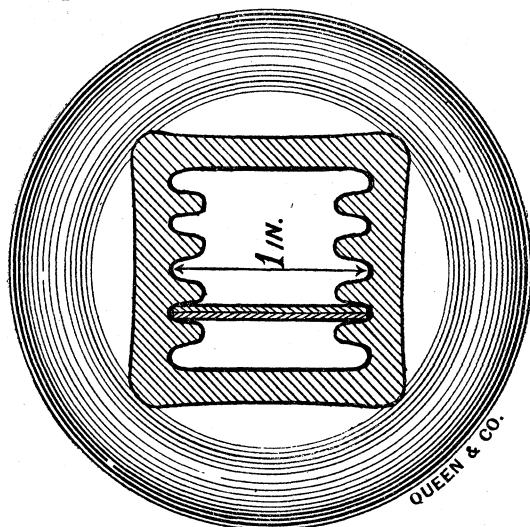


FIG. 2.—This represents a transverse section of the dish at the point marked B in Fig. 1. In this view we are looking down into the dish from above; the ribs and the intervening grooves are shown. The two arrows mark the position in which the ribs are lying and the two points, between which it is exactly 1 inch. Just to the left of the arrow is shown a transverse section of two slides placed back to back, as is usually done for staining.

I desire to express my appreciation of the help given me by Messrs. Queen & Co. in securing working drawings from which the above cuts have been made.

W. M. L. COPLIN.

JEFFERSON MEDICAL COLLEGE.

#### NOTES ON INORGANIC CHEMISTRY.

THE address of Professor William Ramsay, President of the Chemical Section of the British Association at Toronto, was out of the usual order. It was entitled 'An