

specimen in water. Since the weight of the water displaced by the solid particle is the equivalent of the buoyant force on the solid body, and the known capacity of the specimen chamber is five grams of distilled water, the amount of water displaced, or the loss of weight of the specimen weighed in water, is readily determined and the specific gravity of the particle calculated. An example of the calculations is given below:

Weight of dry specimen in chamber.....	14.3 gm
Weight of full chamber of water.....	5.0
Total, specimen alone, and water alone.....	19.3 gm
Weight of specimen in water to the 5 gm marks on bulb	15.6 gm
Amount of water displaced	3.7 gm
Specific gravity = $\frac{14.3}{3.7}$ = 3.86	

The size of the hydrometer may be a hindrance to some workers. If such is the case, a model one half the length and volume may be used, but for the same range of specific gravity the results will be less accurate.

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REPAIR OF NON-CONDUCTIVE GALVANOMETER STRINGS¹

THE gilded quartz fibers used in the string galvanometer sometimes lose conductivity without actually breaking. Such fibers may generally be repaired without removing them from the galvanometer. The break in the metallic coating may be located by the use of a single dry cell and a pair of high-resistance head phones. The negative pole of the battery is connected to a string terminal, and under a bright light the string is gently touched at increasing distances from this terminal with a light copper wire connected to the other pole of the battery through the head phones. When the point is reached where a click is no longer heard in the phones, the battery is connected to the opposite string terminal and the process is repeated from the other end to ascertain if the break is confined to one point.

The break in the metallic coating having been located, both string terminals are connected. The repair is then easily made by wetting the positive copper wire with copper sulphate solution and touching the string at the break. Electrolytic deposition of copper will usually restore the conductivity of the string.

Should the break occur exactly under the lenses of the galvanometer microscopes, the slightly roughened string surface where the repair was made may be

¹ Report from the Behavior Research Fund, Chicago: Series B, No. 170.

displaced upward or downward by shifting the entire string by means of a string holder. Ordinarily the repaired strings are not appreciably changed from their original resistance.

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A SIPHON MOIST CHAMBER FOR MICROSCOPIC MOUNTS

FOR several years the writer has used a method for keeping a water mount continuously supplied with water. The arrangement is so simple that it seems probable that it has been previously used and described and, although the method is original with the writer, no claim of priority is made since it has not seemed worth while to make a canvass of literature. The present note is given to recommend its more general use.

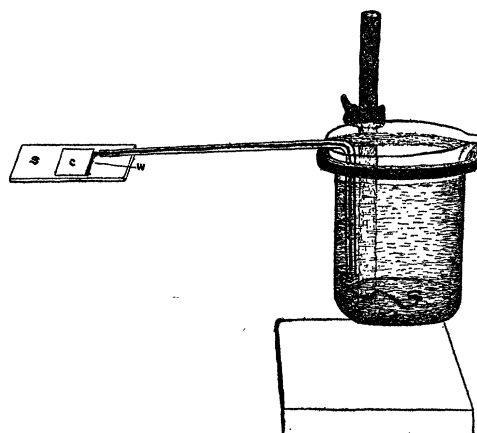


FIG. 1

A glass tube about 25 mm, or less, with a bore of about 4 mm, is bent at right angles about 8 mm from one end. With the aid of a wire, a cord having the texture of candle wick is pulled through the tube leaving about 1½ mm of the cord extending beyond the long arm and several millimeters beyond the short arm of the tube. The cord is thoroughly wet and the end of the short arm with projecting wick is immersed in a beaker of water. The beaker is suspended in a metal ring which is attached to a ring stand so that the beaker may be raised or lowered. The long arm of the tube is supported by the rim of the beaker and its end rests on the slide (s), close to the edge of the cover-glass (c), which is preferably square. The short end of the wick (w) is pressed against one side of the cover-glass. The beaker can be so adjusted that a perfect balance of the flow of water through the wick and evaporation of water from the mount can be maintained so that water is under the entire cover-glass and none extends beyond its edge. If the beaker is elevated too high the slide will become flooded, and if too low the mount will become