battery were placed on the under side of the table, and the clock with its flexible leads at any convenient point. This leaves the calorimeter table clear.

The single signal for both "warning" and "reading" has been found perfectly satisfactory.

Attention is called to these modifications to enable small laboratories to receive the benefits of Mr. Myers' equipment with somewhat less labor in the construction of the device.

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A DEVICE FOR REMOVING PLUGS FROM STOPCOCKS¹

By VERNON C. ALLISON

Received February 17, 1919

It is very annoying to have a stopcock stuck on a piece of calibrated apparatus, or, in these days of high prices, on any piece of apparatus. This frequently happens in burettes, separatory funnels, glass set-up systems, and apparatus used in gas analysis work, due to the use of caustic, bichromate, and many other solutions.

The common method of removing the stuck plug is to place a small piece of wood on the plug and to more or less gently hammer the wood, resulting in a great many cases in the barrel being cracked, the plug chipped, and, in complex apparatus, breakage of important parts. If, however, a steady pressure is exerted on the plug with the glass in contact with nothing but wood, the plug can easily be removed without damaging either barrel or plug.

FIG. 1—STOPCOCK STEM REMOVER

The two accompanying figures show a device which has been used very successfully at the Pittsburgh station of the Bureau of Mines. Fig. 1 shows the device designed to operate over almost any size stopcock in common use and is constructed of hard maple or lignum vitae, making it very strong and durable. Fig. 2 illustrates the method of applying the steady pressure with a vise in case of loose apparatus. If the stuck stopcock is located on a set-up piece of apparatus, a U-clamp can be substituted for the vise.

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FIG. 2—METHOD OF OPERATING STOPCOCK STEM REMOVER

About 20 stopcocks have been removed with this device with no casualties, and in one instance, 7 stuck stopcocks on burettes were successfully removed in 4 min.

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DATA ON PLATINUM GAUZE USED AS A CATALYZER FOR THE OXIDATION OF AMMONIA. TABLE OF WEIGHTS AND ACTIVE SURFACE OF PLATINUM, AIR SPACE, ETC., SHOWN FOR A UNIT OF ONE SQUARE INCH OF GAUZE OF A GIVEN MESH AND DIAMETER OF WIRE

By ALVIN ALLEN CAMPBELL

Received December 14, 1918

The tables listed below are figured on the basis of one square inch of gauze as a unit.

TABLE I—ACTIVE SURFACE OF PLATINUM IN ONE SQUARE INCH OF GAUZE

Mesh	Diam. Wire Inch	Pt Surface Sq. In.
80	0.0026	1.3873
80	0.0030	1.5841
100	0.0026	1.6951
120	0.0020	1.4748
150	0.0015	1.4821
150	0.0020	1.9573

The first section shows the mesh or number of wires from center to center each way per linear inch. The mesh should be accurate and can only be made so when woven on an automatic loom.

TABLE II—WEIGHT PER SQUARE INCH OF GAUZE IN GRAMS

Mesh	Diam. Wire Inch	Wt. per Sq. In. Gram
80	0.0026	0.33815
80	0.0030	0.46592
100	0.0026	0.42268
120	0.0020	0.29863
150	0.0015	0.21009
150	0.0020	0.37329

Under the heading "Diameter of Wire" a factor of error, either plus or minus, must be taken into consideration for the reason that it would be practically impossible to draw any considerable amount of extra fine wire to a given size with a working tolerance of