Jan. 10, 1933. E. L. HARRINGTON 1,893,799

LABORATORY SUPPORT

Filed Nov. 21, 1930

Fig. 1

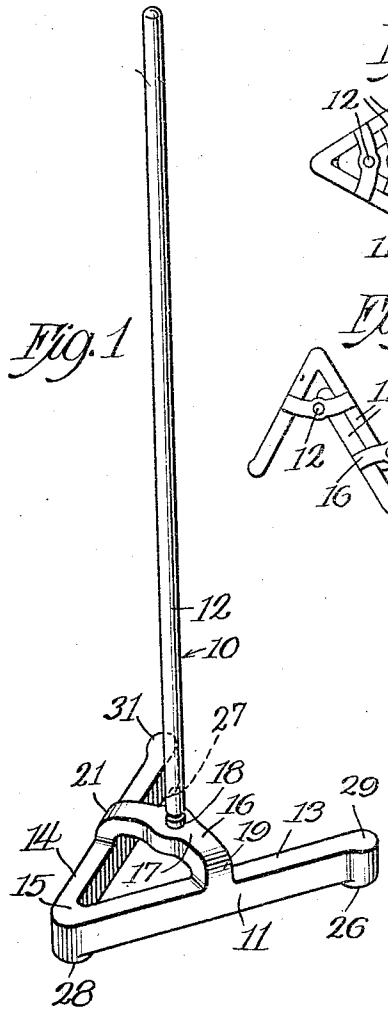


Fig. 2

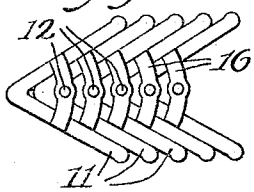


Fig. 3

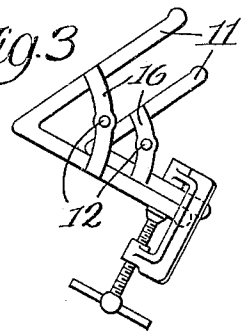


Fig. 4

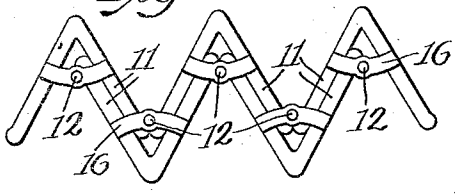


Fig. 5

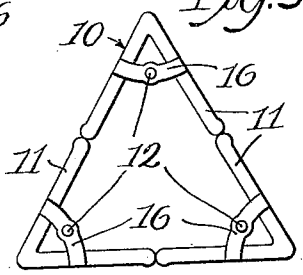


Fig. 6

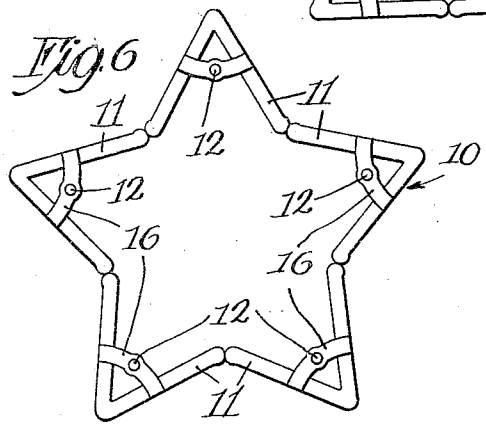
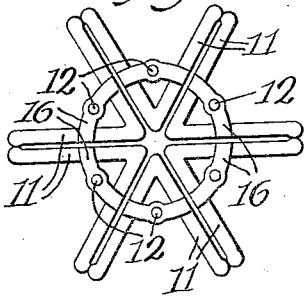


Fig. 7



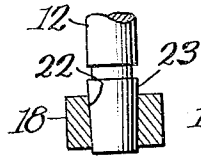


Fig. 8

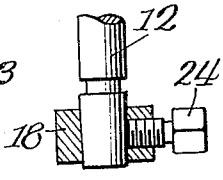


Fig. 9

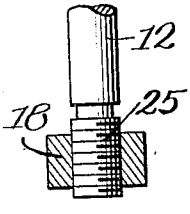


Fig. 10

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1,893,799

UNITED STATES PATENT OFFICE

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LABORATORY SUPPORT

Application filed November 21, 1930. Serial No. 497,257.

This invention relates to laboratory supports and has for its objects to produce a laboratory standard which may be stored in groups and occupy much less space than heretofore, and to produce a standard having bases adapted to interengage one with the other, and hence be far more useful and adaptable in the bench setups in laboratory use, and to produce a standard capable of nesting to allow a large number to be stored in a minimum of shelf space.

Previously the legs of laboratory standards have been set 120° apart, or a large flat plate has formed the base. Such forms cause many inconveniences, for the supports cannot be set close together or clamped or fastened into a rigid assembly without considerable difficulty.

Again, when standards must be provided for a whole class, the problem of storage is serious. The awkward shapes required a large amount of shelf space.

I have avoided these difficulties by the design of a base of radically different appearance which requires a minimum amount of space upon either bench or shelf. It has, too, the advantage that the bases may be fitted one into the other, thus allowing standards to be set close together upon the laboratory bench.

The invention will be made clearer by reference to the drawing, in which

Fig. 1 is a perspective view of the device; and

Figs. 2, 3, 4, 5, 6 and 7 illustrate methods of arranging two or more such supports either in storage on the shelves or in use upon the laboratory bench;

Fig. 8 illustrates the preferred method by which the standard is held in the base; and

Figs. 9 and 10 illustrate alternative methods of holding the standard and base in engagement.

In Fig. 1 it will be seen that the support, indicated by the reference numeral 10, comprises a base 11 and a standard 12. The base is generally A-shaped with two arms 13 and 14 converging at the apex 15, but has the bridge element 16 elevated above the greatest vertical extent of the arms 13 and 14. Preferably the bridge is composed of a horizontal section 17 having a central enlargement 18 and terminating in two downwardly turned arms 19 and 21 merging in the upper face of the arms 13 and 14.

I prefer to fit the standard 12 into the base 11 by forming a tapered bore 22 in the enlarged section 18 of the bridge 16, and tapering the end 23 of the standard 12 to fit. Alternatively, as shown in Fig. 9, the standard may be held in the base by a set screw 24 or threaded as at 25 (Fig. 10) preferably with a pipe thread.

To prevent the unevenness of the surface of the bench from causing insecure footing I prefer to form the small legs 26, 27 and 28 upon the under surface of the arms 13 and 14. The enlargements 29 and 31 at the ends of the arms 13 and 14 give a finished appearance to the base and provide stock enough to allow the insertion of levelling screws if such are desired. They are so designed that the increase in the thickness of the arm at its terminal is thrown wholly towards the outer boundary of the arm. A straight inner boundary of the arms is kept to allow the engagement and close nesting of the bases.

For the sake of pleasing appearance I much prefer to make the bridge curved horizontally as shown. When the bridge is made straight, a displeasing optical illusion, which causes the standard to appear to lean out of the vertical, may be seen at some angles of view. The curvature of the bridge prevents its occurrence.

The function of the raised bridge 16 is illustrated clearly in Fig. 2. The apex of the base may be slid under the bridge on the next base to allow nesting as shown. The function of the unobstructed inner margin is illustrated in Fig. 3 where two bases are shown engaged along the extent of the arms, and rigidly held by a clamp.

When Orsat or other gas washing apparatus is set up, it is particularly desirable to have a number of rigid supports in offset position. Fig. 4 illustrates the adaptability of the support to such a setup, and as shown in Fig. 3 it may be made absolutely rigid by clamping the adjacent legs together.

For fractionation, it is frequently desirable to have a number of flasks maintained in close proximity to each other. The various assemblies shown, (Figs. 5, 6 and 7) indicate the adaptability of the new standard to such uses. Either the open or the closed ends of a base may be pushed under the bridge of a cooperating base, which gives far greater flexibility of arrangement and requires much less space in storage.

What I claim, therefore, is:

1. A supporting base for laboratory apparatus comprising two arms meeting at an acute angle and a bridge bearing a socket for a standard joining the two arms at points intermediate their ends and positioned throughout its length above the upper boundary of the arms, whereby a plurality of said bases may be nested with the portions of the legs forming the acute angle of one base extending beneath the bridge of an adjacent base.

2. In a laboratory support, two arms meeting at an acute angle and a horizontally curved bridge connecting the arms at a point intermediate their ends and located above the plane of their vertical extent, said bridge having its convexity directed toward the open ends of the arms whereby a plurality of said supports may be nested with said bridges spaced apart and said bridge bearing a socket to receive a standard.

3. A supporting base for laboratory apparatus comprising two arms converging toward one portion of said base and a bridge bearing a socket for a supporting standard joining the two arms, a portion of said bridge between said arms being positioned above the upper boundary of said arms whereby a plurality of said bases may be nested with a portion of one supporting base extending beneath the bridge of an adjacent base for supporting the standards of said bases adjacent to each other, said socket located a material distance inwardly from the extremities of said base whereby conventional testing apparatus supported in any position on said standard will be in stable equilibrium.

In testimony whereof I affix my signature.

ERTLE L. HARRINGTON.