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MERCURY LEVELING CLAMP

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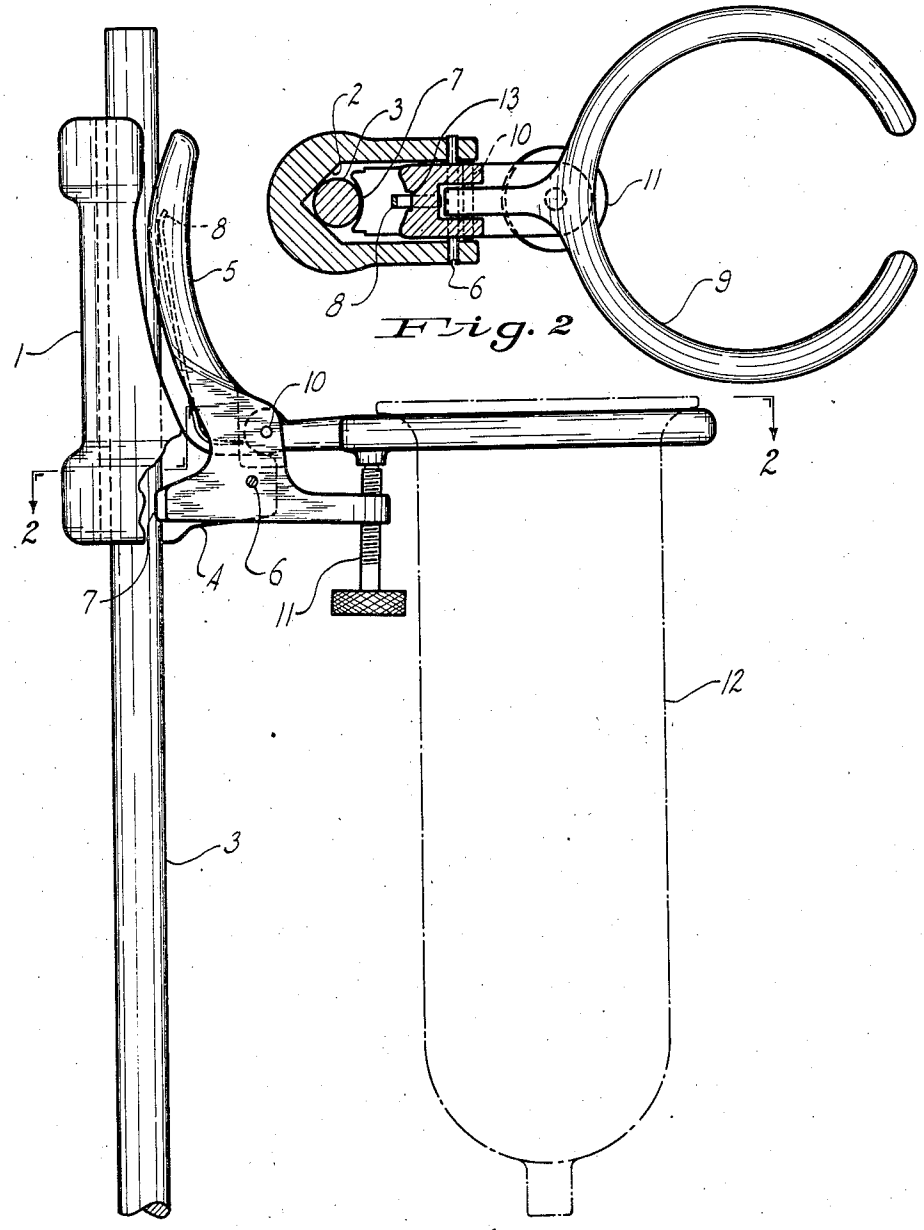


Fig. 2

Fig. 1

WITNESSES:

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MERCURY LEVELING CLAMP

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1 Claim. (Cl. 248—125)

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This invention relates to new and useful improvements in mercury container leveling clamps for laboratory use, and it is among the objects thereof to provide a clamp of simple mechanical construction which is adjustable on a vertical rod or standard by gripping the same.

It is a further object of the invention to provide a clamp of the above-designated character in which the mounting bracket is provided with a hinged grip which carries the mercury container support by an adjustable hinged mounting whereby the weight of the container acts to maintain the gripping element in intimate contact with the slide rod.

These and other objects of the invention will become more apparent from the accompanying drawing in which,

Fig. 1 is a side elevational view of a slidable clamp embodying the principles of this invention, and

Fig. 2 a cross-sectional view taken along the line 2—2 of Fig. 1.

In the drawing the numeral 1 designates a clamping bracket having a V-shaped groove 2 for engaging a vertical rod 3 which is a fixed member, the bracket 1 being slidable on said rod. The lower end of the bracket is provided with a bifurcated lug 4 in which is pivotally mounted a grip or handle 5 by a body milled screw 6 to facilitate the removal of the grip or handle and the bracket portion when both ends of the slide rod 3 are blocked off. Grip 5 is provided with a gripping surface 7 for engaging the slide rod 3 and is biased by a leaf spring 8, shown in dotted lines, to maintain the face of the gripping surface 7 in surface contact with the rod 3. Mounted on the grip 5 is an arcuate support 9 which is pivoted at 10 and adjustable by a set screw 11 to level the mercury container which is shown by dotted lines 12.

In Fig. 1 the mercury leveling clamp is shown in its normal gripping position with the leaf spring 8 biasing the upper part of the grip 5 away from the slide rod 3 so that the bottom portion 7 of the grip lever intimately contacts the slide rod. The weight of the clamp itself is sufficient to hold the leveling clamp to its adjusted position, and with the mercury container 12 mounted on the arcuate support 9 the gripping force of the clamp is increased. To adjust the clamp to a desired height it is only necessary to grip the bracket 1 and handle 5 and move it to any desired position on the slide rod. By depressing the grip 5 the engaging surface 7 is displaced out of contact with the slide rod 3, thus permitting free movement of the clamp on the rod in an axial direction.

By means of the pivot screw 6 the clamp can be

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readily assembled to apparatus such as gas analyses apparatus in which the slide rod 3 is a permanent fixture with both ends blocked off. This is accomplished by placing the bracket 1 against the rod, inserting the grip lever 5 and placing the screw 6 through the lever and turning it to effect threaded engagement with the end of the bifurcated lug on the handle 1. The leaf spring 8 is attached to the bottom portion of the grip lever 5 and the inner face of the grip 5 is provided with a groove 13 which constitutes a recess for the spring when it is displaced in the movement of the clamp on the slide rod 3 to prevent binding of the clamp on the rod.

It is evident from the above description of the invention that a mercury leveling clamp of the above designated character grippingly engages its vertical support by its own weight and by the weight of the mercury supported thereon, while permitting instant adjustment without the need of tools by simply depressing the handle member.

Although one embodiment of the invention has been herein illustrated and described, it will be evident to those skilled in the art that various modifications may be made in the details of construction without departing from the principles herein set forth.

I claim:

A mercury leveling clamp comprising a bifurcated bracket having a V-shaped groove for engaging a vertical slide rod, a lever pivotally mounted on the bifurcated end of said bracket, one arm of which constitutes a handle portion and the other arm a gripping portion, the handle portion being provided with a groove, a spring having one end secured to said lever and extending along the handle portion for engaging the slide rod, said spring being displaceable in the groove of said handle portion and functioning to normally bias the lever into contact with said slide rod at the gripping portion thereof, and a container support pivotally mounted on and extending horizontally away from the gripping portion of said lever whereby the weight on said support is fulcrumed on the gripping end of said lever.

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The following references are of record in the file of this patent:

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