

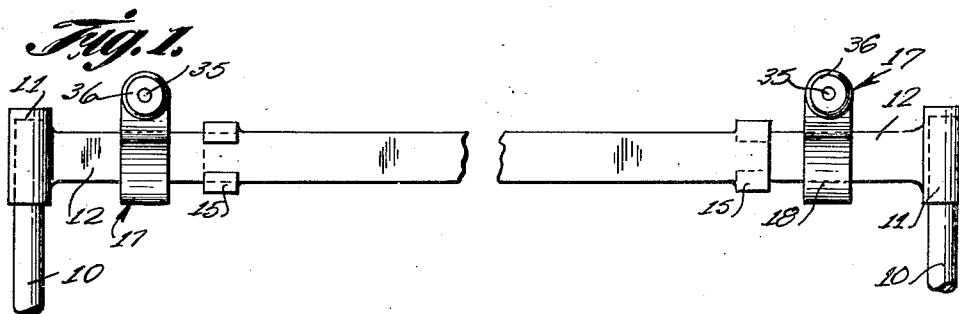
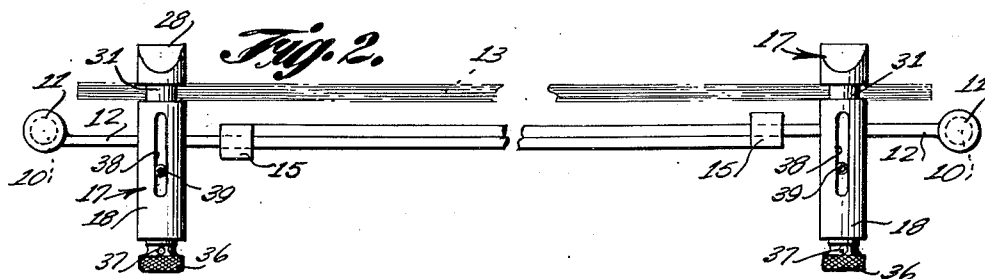
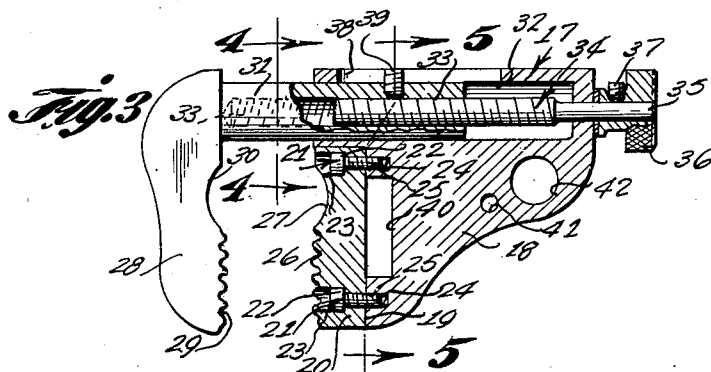
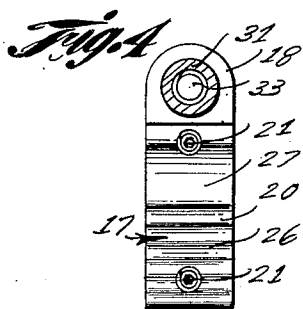
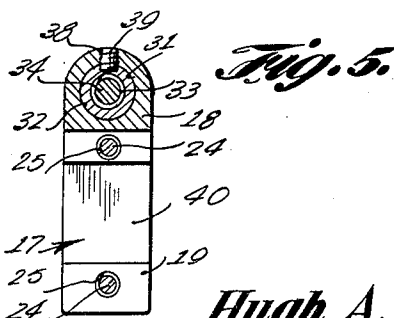
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2,812,918

VERSATILE CLIP

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2,812,918

VERSATILE CLIP

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1 Claim. (Cl. 248—316)

This invention relates to a clamp, and more particularly to a clamp for securing display material such as maps, charts and similar articles on a suitable stand.

The object of the invention is to provide a clamp which can be adjusted to securely hold charts and the like of various sizes on a stand.

Another object of the invention is to provide a clamping assembly which will accommodate numerous display devices having various transverse widths and vertical lengths, and wherein maps, charts and other similar display devices can be conveniently supported.

A further object of the invention is to provide a clamp which is extremely simple and inexpensive to manufacture.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings, forming a part of this application, and in which like numerals are used to designate like parts throughout the same:

Figure 1 is a fragmentary front elevational view of a display support showing the clamps thereon.

Figure 2 is a top plan view of the assembly of the present invention, and with parts broken away and in section.

Figure 3 is a side elevational view of one of the clamps, with parts broken away and in section.

Figure 4 is a sectional view taken on the line 4—4 of Figure 3.

Figure 5 is a sectional view taken on the line 5—5 of Figure 3.

Referring in detail to the drawings, the numeral 10 designates each of a pair of vertically disposed posts or rods, Figure 1, and mounted on the upper end of each of the posts 10 is a bushing 11. A horizontally disposed bar 12 is secured to each of the bushings 11 in any suitable manner, as for example by welding. Mounted on each end of each of the arms 12 is a bracket 15 which slidably engages the other arm or bar 12. Thus, the bracket 15 may be made by bending over pieces of metal so that they slidably engage the bars passing therethrough. This construction provides a strong connection and friction will maintain the bars 12 in their adjusted positions so that accidental movement thereof will be prevented. Thus, this arrangement permits the posts 10 to be moved towards and away from each other in order to accommodate charts or maps or other similar articles of varying sizes.

Adjustably mounted on each of the bars 12 is a clamp which is indicated generally by the numeral 17, Figure 2. A pair of clamps 17 are adapted to be used for securing display objects 13 which may be maps, charts or other similar articles. Each of the clamps 17 has the same construction and each includes a body member 18 that can be made of any suitable material such as metal or plastic. Each of the body members 18 is provided with a cutout 19, and seated in the cutout 19 is a jaw 20. For securing the jaw 20 to the body member 18, the jaw is provided with a pair of countersunk holes 23. A pair of pins or screws 21 each have a head 22 seated in the countersunk holes 23, and each of the pins or screws

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21 further includes a threaded shank 24 that is arranged in threaded engagement with a threaded socket 25 in the body member 18.

The outer surface of the jaw 20 is provided with a plurality of serrations or teeth 26 and there is also provided a curved recess 27 in the jaw 20 for a purpose to be later described.

Mounted for movement towards and away from the jaw 20 is a second jaw 28. The jaw 28 has its inner surface provided with a plurality of teeth 29 for coaction with the teeth 26 in order to securely clamp the display article 13 therebetween. There is also provided an arcuate recess 30 in the jaw 28, and the recess 30 is arranged opposite the recess 27 in the jaw 20.

A manually operable means is provided for moving the jaw 28 towards and away from the jaw 20, and this means comprises a sleeve 31 which is secured to the jaw 28. The sleeve 31 is slidably mounted in a bore 32 which is formed in the body member 18, and the sleeve 31 is threaded interiorly as at 33. A shaft 34 has a threaded portion arranged in threaded engagement with the threaded interior 33 of the sleeve 31, and the shaft 34 further includes a reduced diameter portion 35. A knurled knob 36 is mounted on the reduced diameter portion 35 by means of a pin 37. Thus, by manually rotating the knurled knob 36, the shaft 34 will be rotated to thereby cause the sleeve 31 to move back and forth in the bore 32 so that the jaw 28 can be moved towards and away from the jaw 20. For preventing rotation of the sleeve 31, there is provided a slot 38 in the upper end of the body member 18, and a pin 39 projects into the slot 38 and is secured to the sleeve 31. Thus, the pin 39 permits the sleeve 31 to move back and forth longitudinally in the bore 32 but prevents rotation of the sleeve.

The body member 18 is further provided with a recess 40 which slidably receives a complementary bar 12. Thus, the bar 12 projects through the recess 40 and the clamp 17 can be slid or moved along the bar 12 so that the article 13 can be supported regardless of its width. Openings 41 and 42 are provided in the body member 18 so that the ends of curtain type roller maps, charts and other objects may be received in these openings and supported when desired.

From the foregoing it is apparent that there has been provided a clamping assembly which will securely hold in place articles 13 which may be maps, charts or the like. In use, the distance between the posts 10 can be adjusted as desired by moving the posts 10 to the desired position. Next, the clamps 17 can be mounted on the bars 12 by removing the pins or screws 21 and then positioning the clips so that the recess 40 receives the bars 12 after which the jaw 20 can be secured in place by means of the pins or screws 21 whereby the clips will be maintained on the bars. The clamps 17 can be adjusted on the bars 12 to the desired position. To clamp the article 13 in the clamps, it is only necessary to manually rotate the knobs 36 whereby the shaft 34 will be rotated to thereby cause longitudinal displacement of the sleeve 31 in the bore 32. As the sleeve 31 moves the jaw 28 will move therewith since these two parts are secured together or are of integral construction. After the jaw 28 has been moved away from the jaw 20 a sufficient distance to receive the article 13 being supported, the knob 36 can be rotated in the opposite direction to thereby move the jaw 28 towards the jaw 20 so that the teeth 29 and 26 will securely clamp the article 13 therebetween. The coacting or opposed recesses 30 and 27 can be used for accommodating support rods of cylindrical construction and such support rods may have connected thereto maps, charts or other display material.

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The assembly of the present invention can be used for supporting teaching aids, exhibits, black boards, game boards and advertising material. Also, bulletin boards can be supported thereon as well as screens or various articles around a home. The articles being supported are suspended and supported by the pair of clips.

It will be understood that modifications may be made in the design and arrangement of the parts without departing from the spirit of the invention.

I claim:

In a clamp, a body member provided with a cutout, a first jaw seated in said cutout and provided with a plurality of countersunk holes, screws each having a head seated in said holes and said screws having threaded shanks arranged in threaded engagement with sockets in said body member, said first jaw having a face being provided with a plurality of teeth and an arcuate recess, there being a bore in said body member perpendicular to said face, a sleeve slidably mounted in said bore and provided with a threaded interior portion, a shaft projecting into said bore and having a portion threadedly engaging the threaded interior of said sleeve, said shaft including a reduced diameter end portion, a knurled knob mounted on said reduced diameter end portion for retaining the shaft against longitudinal movement, rotating

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said shaft and thereby causing longitudinal displacement of said sleeve in said bore, a second jaw carried by said sleeve and provided with teeth thereon, there being an arcuate recess in said second jaw arranged in opposed relation with respect to the recess in said first jaw, said body member being provided with a recess for slidably receiving a bar, the upper surface of said body member being provided with a slot through the wall of said bore, and a pin arranged in engagement with said sleeve and projecting into said slot.

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