

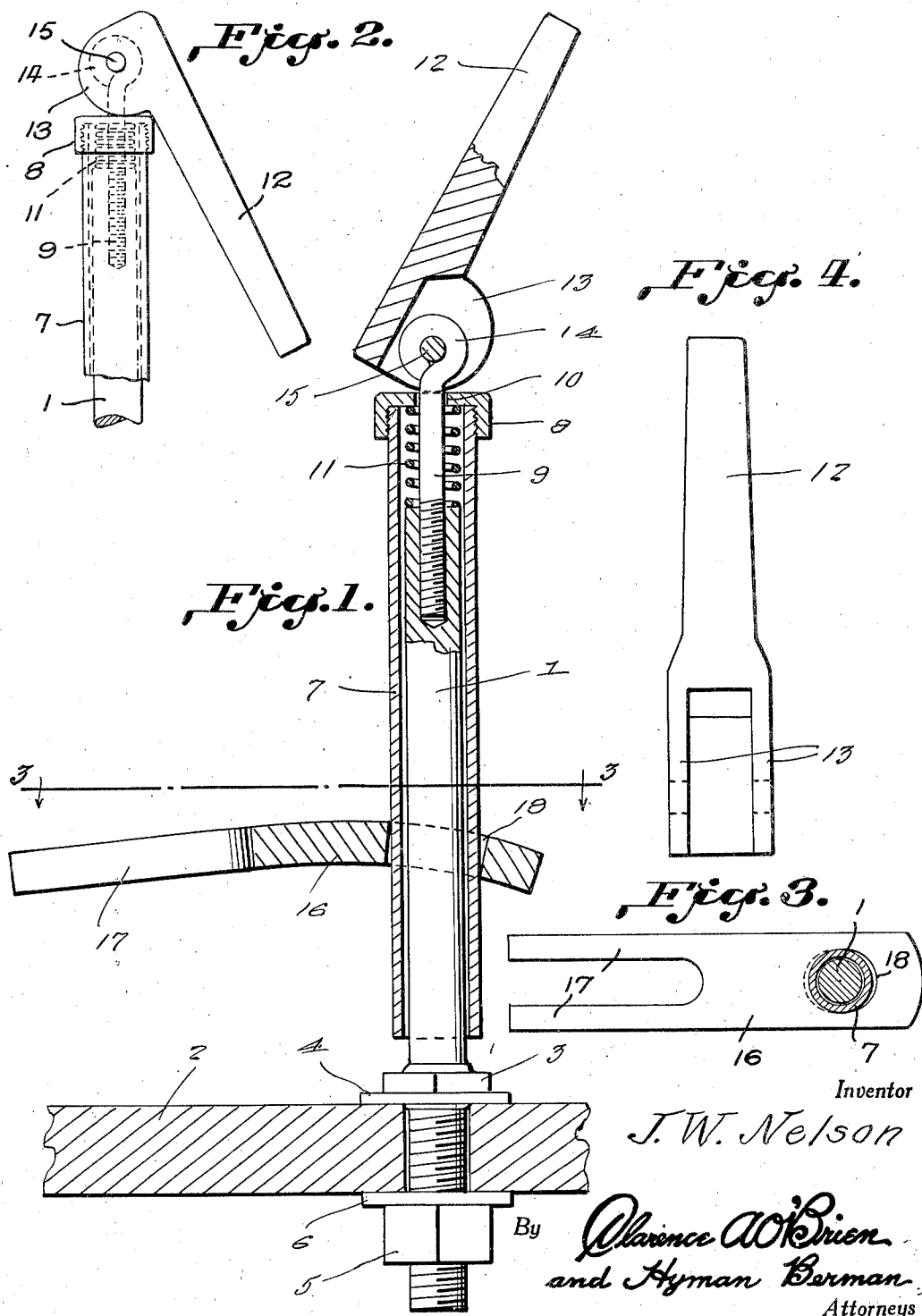
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CLAMP

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CLAMP

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4 Claims. (Cl. 144-290)

The present invention relates to new and useful improvements in clamps and has for one of its important objects to provide, in a manner as hereinafter set forth, a device of this character embodying a jaw of a novel construction and arrangement whereby said jaw may be expeditiously adjusted as desired to meet various conditions.

Another very important object of the invention is to provide a clamp of the aforementioned character embodying novel means for clamping the jaw on the work.

Other objects of the invention are to provide a clamp of the character described which will be comparatively simple in construction, strong, durable, highly efficient and reliable in use, compact and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawing wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is a view in vertical section through an embodiment of the invention.

Figure 2 is a view in side elevation of the upper portion of the device.

Figure 3 is a view in horizontal section, taken substantially on the line 3-3 of Fig. 1.

Figure 4 is a detail view in bottom plan of the cam lever.

Referring now to the drawing in detail, it will be seen that the embodiment of the invention which has been illustrated comprises a post 1 of suitable metal which is rigidly secured in position on a suitable support 2, such as a bench. Fixed as by welding on the lower portion of the post 1 is a nut 3 and a washer 4, the latter resting on the support 2. The lower end portion of the post 1 is threaded and extends through the support 2, as shown to advantage in Fig. 1 of the drawing. Threaded on the lower portion of the post 1, beneath the support 2, is a securing nut 5. A washer 6 is interposed between the nut 5 and the support 2 on the post 1.

Mounted for vertical sliding movement on the post 1 and extending thereabove is a sleeve 7 which may be of any suitable shape. The reference numeral 8 designates a cap which is mounted on the upper end of the sleeve 7. An eye screw 9 is threadedly mounted in the upper end portion of the post 1 and extends slidably through an opening 10 which is provided therefor in the cap

8. A coil spring 11 is provided between the upper end of the post 1 and the cap 10 for yieldingly urging the sleeve 7 upwardly. The coil spring 11 encircles the eye screw 9.

The reference numeral 12 designates a hand lever having formed integrally with one end portion thereof a pair of spaced cams 13. The eye 14 of the screw 9 is pivotally secured between the cams 13 by a pin 15. It will be observed that the cams 13 are operatively engaged with the cap 8 on the sleeve 7.

Mounted for vertical adjustment on the sleeve 7 is a work engaging jaw 16. The outer portion of the jaw 16 is bifurcated, as at 17. An opening 18 in the jaw 16 accommodates the sleeve 7.

It is thought that the operation of the device will be readily apparent from a consideration of the foregoing. The jaw 16 is adjusted to the desired position on the sleeve 7 with the work positioned therebeneath on the support 2. Then, when the lever 12 is swung downwardly the cams 13 force the sleeve 7 with the jaw 16 thereon downwardly against the tension of the coil spring 11, thus engaging said jaw with the work. The construction and arrangement is such that the jaw 16 is frictionally secured in adjusted position on the sleeve 7 when said jaw is canted or cocked. When the lever 12 is again swung upwardly the coil spring 11 elevates the sleeve 7 in a manner to release the work.

It is believed that the many advantages of a clamp constructed in accordance with the present invention will be readily understood and although a preferred embodiment of the device is as illustrated and described, it is to be understood that changes in the details of construction and in the combination and arrangement of parts may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:

1. A clamp comprising a post, means for securing said post to a support, a sleeve slidably mounted on said post, a jaw mounted on said sleeve, a lever mounted for swinging movement on the post, and cams on the pivoted end portion of said lever operatively engaged with the sleeve for actuating said sleeve for engaging the jaw with the work.

2. A clamp comprising a post, means for securing said post to a support, a sleeve slidably mounted on said post, a jaw mounted on said sleeve, a lever pivotally mounted on the upper end of the post in spaced relation thereto, cams on the pivoted end portion of said lever engaged with the sleeve for actuating said sleeve in one direction

for engaging the jaw with the work, and a coil spring mounted on the upper end of the post and engaged with the sleeve for actuating said sleeve in the opposite direction.

- 5 3. A clamp comprising a post, means for securing said post to a support, a sleeve slidably mounted on said post, a jaw mounted on said sleeve, an eye screw mounted on the upper end of the post, a lever, spaced cams on one end portion of said lever journalled on the eye screw and
10 engaged with the upper end of the sleeve for actuating said sleeve in one direction for engaging the jaw with the work, and a coil spring on the upper end of the post connected with the
15 sleeve for actuating said sleeve in the opposite direction for disengaging the jaw from the work.

4. A clamp of the class described comprising a stationary post, means for securing said post on a support, an upstanding eye screw mounted on the upper end of the post, a sleeve slidably mounted on the post, a vertically adjustable jaw mounted on said sleeve, a cap on the upper end of the sleeve slidably encircling the eye screw, a lever, a pair of spaced cams on one end portion of said lever journalled on the eye screw and operatively engaged with the cap for actuating the sleeve in
10 one direction for engaging the jaw with the work, and a coil spring mounted on the upper end of the post and engaged with the cap for actuating the sleeve in the opposite direction, said coil spring encircling the eye screw.

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