May 12, 1936. A. E. ODMARK 2,040,669

CABINET CLAMP

Filed April 8, 1935

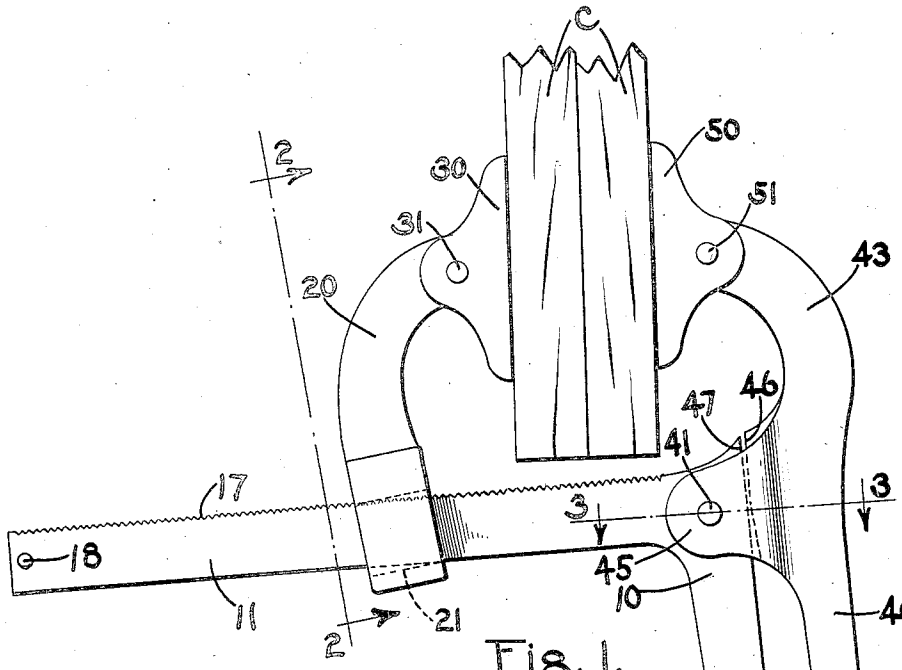


Fig. 1.

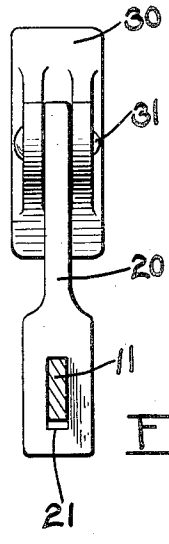


Fig. 2.

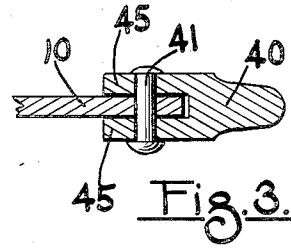
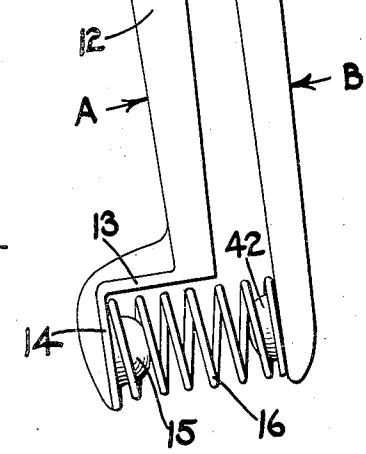


Fig. 3.



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CABINET CLAMP

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Application April 8, 1935, Serial No. 15,153

2 Claims. (Cl. 144—303)

This invention relates to a manually operable clamp.

Briefly described, it consists of an L-shaped lever having a sliding member upon one arm thereof and a compression spring located between the end of the second arm and one end of a second lever member. This second lever member is pivoted to the first lever and carries a jaw or clamping head which is opposed to a similar jaw or clamping head upon the sliding member.

My invention is easy to manufacture and assemble and is designed to be an improvement over furniture clamps as previously constructed. One of these clamps is shown in the patent to Margelis, April 17, 1923, No. 1,452,164. In this construction the clamping jaws are approximately located very easily but the vital adjustment is by means of a screw threaded connection and thus the pressure is transmitted by means of the thread. As this is the case, the dimension between the two jaws cannot be varied because if the same is varied the pressure ceases to be exerted as is obvious. Now, in applicant's construction the spring means tends to cause the pressure to be exerted at all times. Thus the objects which are being compressed may expand or contract to a considerable degree without affecting the efficiency of the clamp in the slightest.

Along this same line, it is desired to point out that my clamp may be adjusted during its application so as to cause a predetermined pressure upon the work. This is a marked advantage because my clamp is thereby applicable for gluing objects of little strength, as, for instance, two corks or, on the other hand, it may be utilized in gluing objects which need be pressed firmly and tightly together during the drying of the glue.

Another advantage is that the spring means utilized in my clamp is housed and shielded so that it cannot be injured by excessive compression thereof. The spring is also so mounted as to be removable and replaced whenever desired. For instance, under certain conditions a stronger or weaker spring might be desirable and this replacement is easily accomplished.

My clamp is particularly easy to apply and this application may be accomplished very quickly.

Other objects will become apparent as the description proceeds.

In the drawing:—

Fig. 1 is a side view of my improved clamp.

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

Fig. 3 is a sectional view taken along the line 3—3 of Fig. 1.

Like numerals refer to like parts throughout the several views.

Numeral 10 indicates a base element or lever member having arms 11 and 12 extending at right angles to one another. The arm 12 has a laterally extending portion 13 and an end 14 with an integral knob 15 formed thereon as clearly shown in Fig. 1. The knob 13 receives one end of the spring means 16.

The arm 11 has a roughened edge 17 and a pin 18 extends through its end. A sliding member 20 having an opening 21 therein, see Fig. 2, is slidably mounted upon the arm 11. A clamping head or jaw 30 is pivoted at 31 onto the sliding member 20.

A second lever 40 is pivoted at 41 onto the first lever 10. One end of the lever 40 has a knob 42 thereon, this knob 42 engaging the other end of the spring means 16. The second lever 40 extends upwardly as shown at 43 and has a jaw or head 50 pivoted thereon as indicated at 51.

The lever 40, see Fig. 3, has ears 45 extending on each side of the lever 10 and receiving the aforesaid pivot 41. The lever 40 is formed with a surface 46 and a lever 10 is formed with an exposed surface 47. These two surfaces form stop means whereby excessive expansion of the spring means 16 is prevented.

The operation

The lever arms 12 and the opposite portion of the lever 40 are adapted to be encircled by the hand of the user of the clamp and drawn toward each other as indicated by the arrows A and B. The operator or user of the clamp exerts the desired amount of pressure as indicated by arrows A and B, see Fig. 1, and compresses the spring means accordingly. If it is desired to exert a relatively great amount of pressure upon the articles C, these being the members to be glued, the arm 40 is drawn completely against the arm 12 and the spring means 16 compressed to its fullest extent in the construction shown. The clamping jaw 50 is placed against the work while the parts are held in the position first explained and the sliding member 20 is slid toward the work to cause the jaw 30 to engage thereagainst. The lever arms 12 and 40 are now released and the work is consequently held in a tightly clamped condition.

If it is desired to clamp the work with a lighter pressure the arm 40 and the arm 12 are drawn

together a limited degree, as, for instance, shown in Fig. 1, and then the clamp is positioned relative to the work. Thus, it will be apparent, either a heavy compressive force or a light compressive force may be obtained with respect to the work.

The invention is defined in the appended claims and is to be considered comprehensive of all forms of structure coming within their scope.

I claim:

1. A cabinet clamp of the kind described, comprising, an L-shaped two armed lever having one of its arms laterally offset at its end to form a spring receiving recess, a sliding member adjustably located on the other arm, a jaw attached to the end of the sliding member, a lever pivoted to the first lever at the juncture between the two arms thereof, said lever extending substantially in parallelism to the first mentioned arm of the L-shaped member, said parallel members being of sufficient length to form a handle portion thereon, spring means located in the said spring receiving recess between the first mentioned arm of the L-shaped first lever and the second lever, the other end of the second lever being opposed to the jaw on the sliding member, and a second jaw pivoted onto the end of the second lever in facing relationship to the first jaw.

2. A clamp of the class described comprising, a substantially L-shaped lever, a member slidably and loosely mounted upon one arm of the L-shaped lever extending in substantially the opposite direction to the other arm of the L-shaped lever, said first arm having a roughened surface, a jaw pivoted upon the end of the said sliding member, a second lever pivoted onto the first lever at its intermediate portion, spring means between the other arm of the L-shaped lever and the second lever whereby the other end of the second lever is urged toward the said jaw and a second jaw pivoted onto the second lever, said second lever and the adjacent arm of the L-shaped lever being so formed and of sufficient length to form a relatively long handle between the pivot and the spring means for the purpose described.

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