

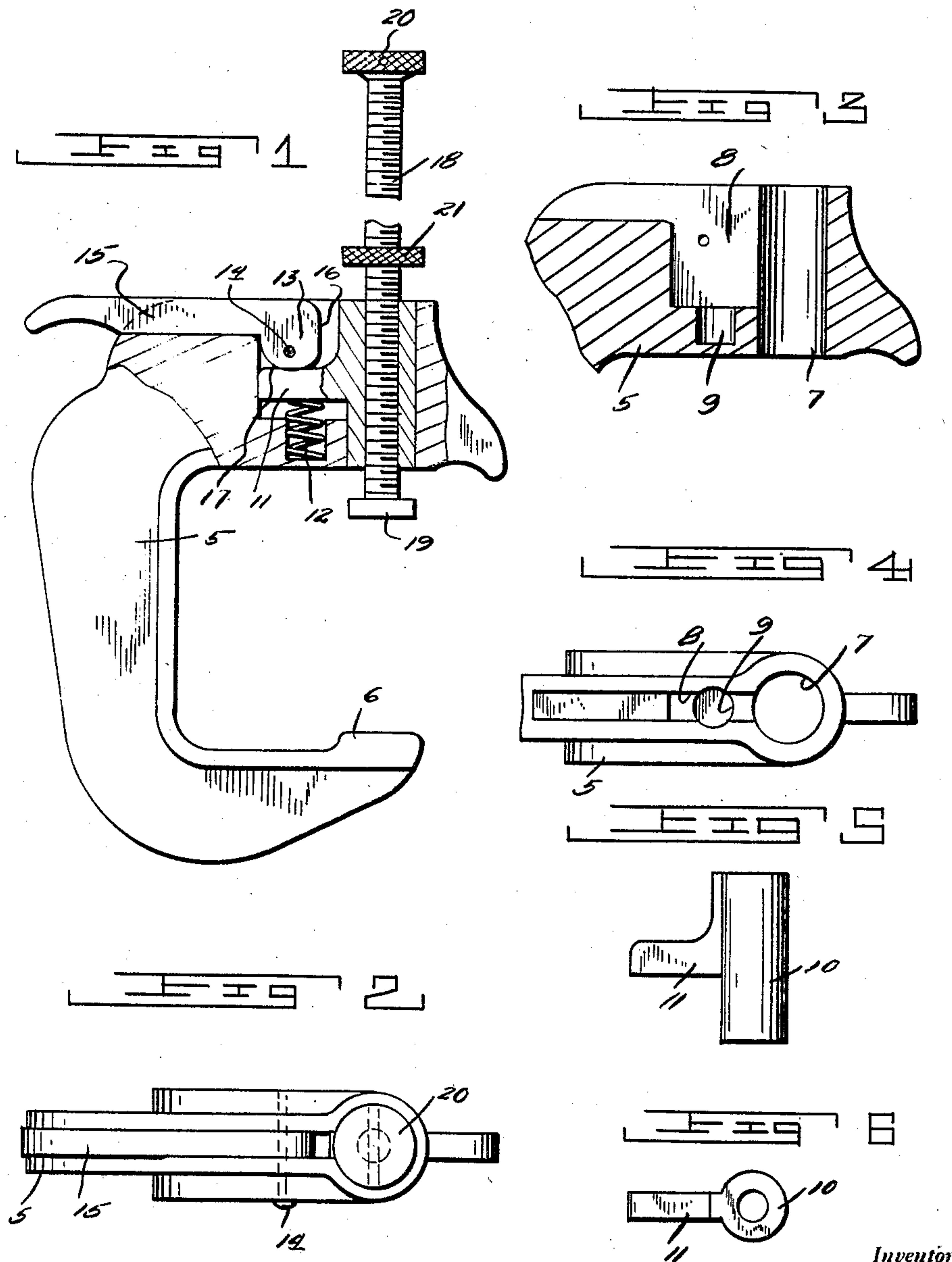
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CLAMP

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2,343,699

CLAMP

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1 Claim. (Cl. 144—305)

The present invention relates to new and useful improvements in clamps of a type commonly known as C-clamps, and the invention has for its primary object to provide an adjustable jaw embodying a cam device for tightening the jaw in position against the work.

A further object is to provide a clamp of this character of simple and practical construction, which is strong and durable, relatively inexpensive to manufacture, and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming part hereof, wherein like numerals refer to like parts throughout and in which:

Figure 1 is a side elevational view with parts broken away and shown in section.

Figure 2 is a top plan view.

Figure 3 is a fragmentary vertical sectional view through the upper end of the clamp and showing the cylinder and recess for receiving the adjustable jaw.

Figure 4 is a top plan view of the body of the clamp with the adjustable jaw removed.

Figure 5 is a side elevational view of the barrel for the adjustable jaw, and

Figure 6 is an end elevational view thereof.

Referring now to the drawing in detail, wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention, the numeral 5 designates the body of a C-type clamp having a fixed jaw 6 at one end thereof and formed with a cylindrical bore 7 at its opposite end in longitudinal alignment with the jaw 6. Also formed in the last-named end of the body and communicating with the bore 7 is a chamber 8 having a recess 9 in its bottom portion. A cylindrical barrel 10 is slidably mounted in the bore 7 and is formed with a radially extending arm 11 movably positioned in the chamber 8 and overlying the recess 9. Positioned in the recess 9 is a coil spring 12 bearing against the underside of the arm 11 to urge the barrel 10 in a direction away from the stationary jaw 6 and to urge the arm 11 against a cam member 13 pivoted on a pin 14 extending transversely of the chamber 8. The cam member 13 is formed with a lever 15 projecting rearwardly with respect to

the body 5 and the cam head 13 includes a flat inner end 16 and a rounded cam edge 17, both of which are adapted to bear against the upper surface of the arm 11.

The barrel 10 is internally threaded and adapted to threadedly receive a screw 18 having a clamping head 19 at its lower end and a manipulating head 20 at its upper end. A nut 21 is threaded on the screw for engaging the upper end of the barrel to secure the screw in adjusted position therein.

The clamp is designed particularly for use in mass production where many identical parts are made and by adjusting the screw 18 for clamping the work between the fixed jaw 6 and the head 19 and then raising the lever 15 the rounded portion 17 of the cam will force the arm 11 and clamping head 19 downwardly in tight clamping engagement with the work until the flat edge 16 of the cam engages the upper surface of the arm 11 whereby the cam and lever will then be secured against accidental displacement.

By lowering the lever 15, the spring 12 will release pressure of the clamping head 19 on the work to permit removal of the work from the clamp and to permit insertion of additional work in the clamp for action thereby.

It is believed the details of construction and manner of use of the device will be readily understood from the foregoing without further detailed explanation.

Having thus described the invention what I claim is:

A clamp comprising a C-shaped body having a stationary jaw at one end, a cylindrical bore in the opposite end of the body, said body also having a recess communicating with the bore, a barrel slidably mounted in the bore, an arm projecting laterally from the barrel and slidably positioned in the recess to prevent rotation of the barrel, a spring bearing against the underside of the arm to urge the barrel away from the stationary jaw, a movable jaw adjustably mounted in the barrel and cooperating with the stationary jaw for clamping work therebetween, and a manually operable cam carried by the body and engaging the upper side of the arm opposite the spring to force the movable jaw into work clamping position.

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