

June 19, 1923.

E. S. FRENCH

1,459,093

CLAMP

Filed Aug. 23, 1921

2 Sheets-Sheet 1

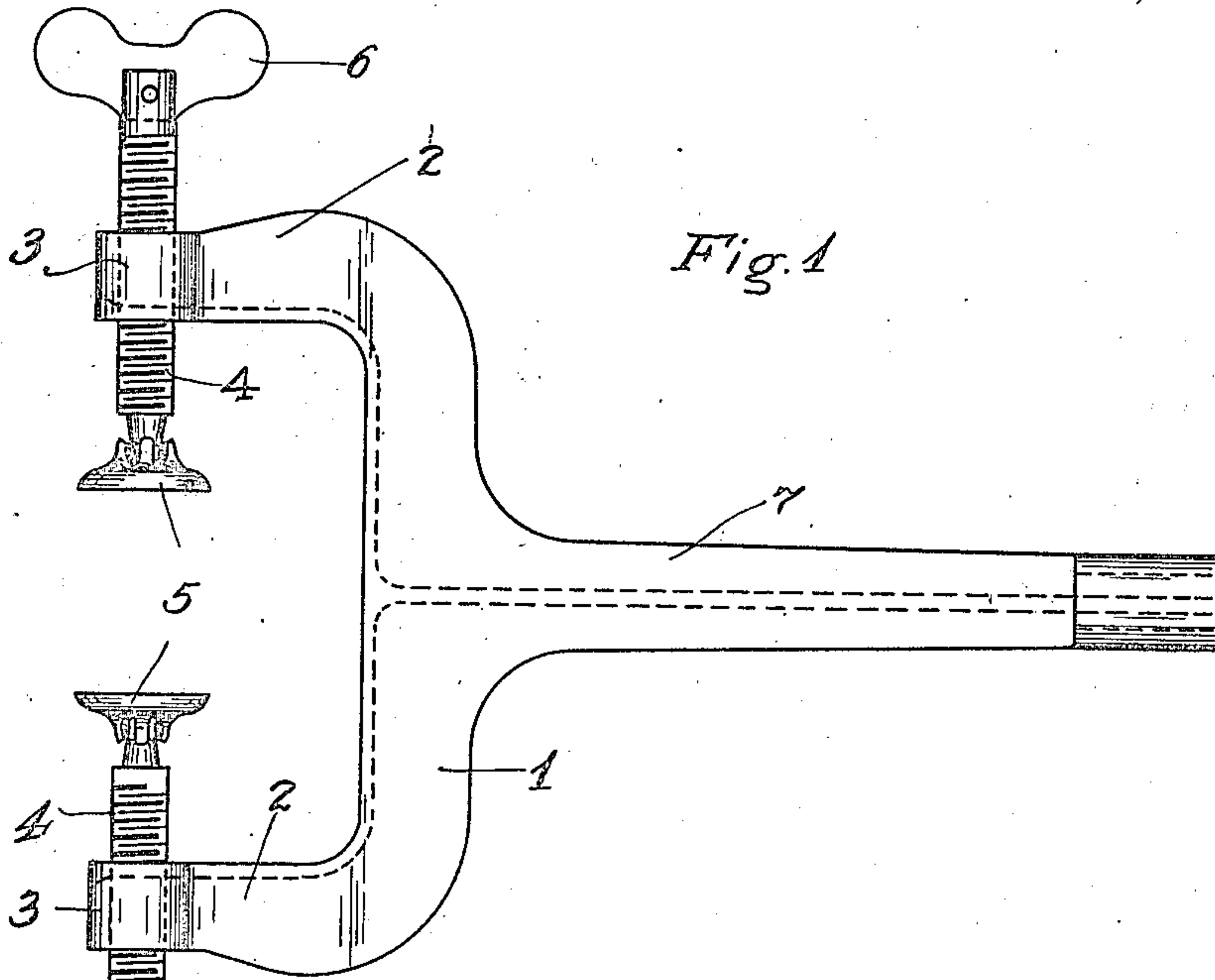


Fig. 1

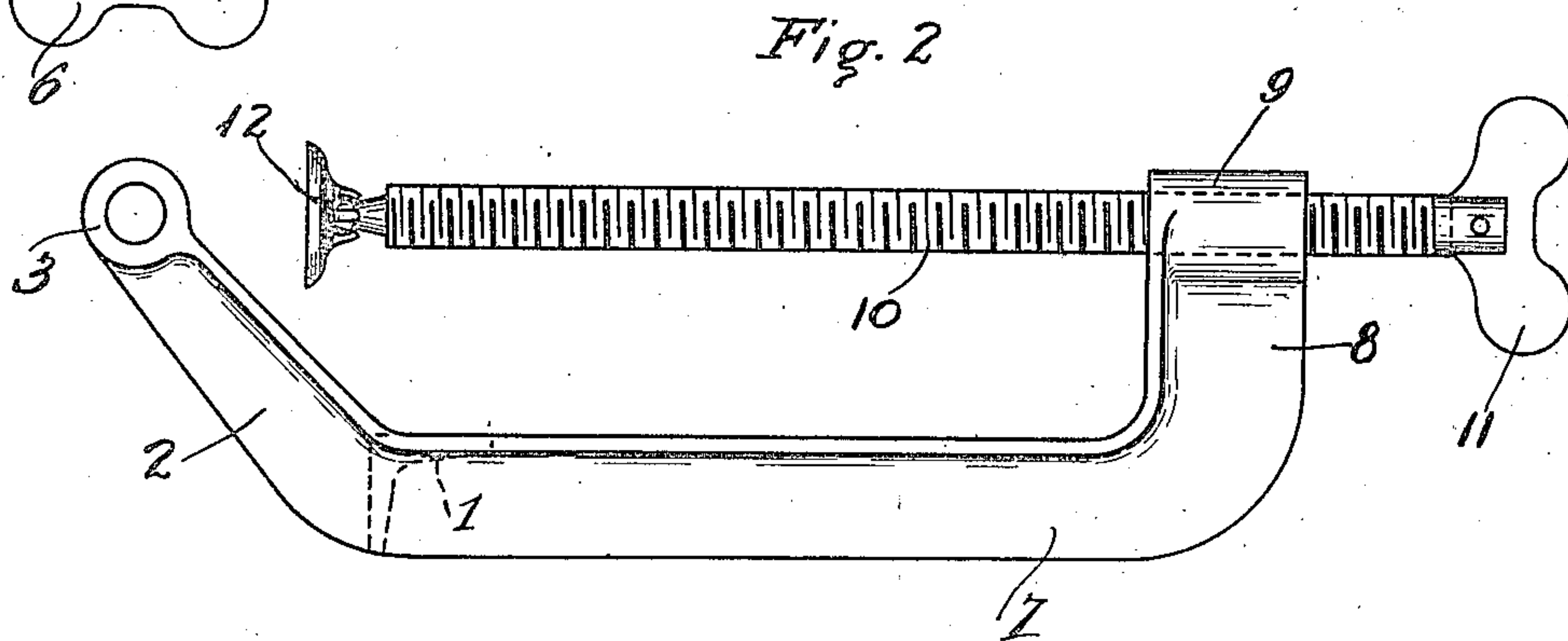


Fig. 2

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2 Sheets-Sheet 2

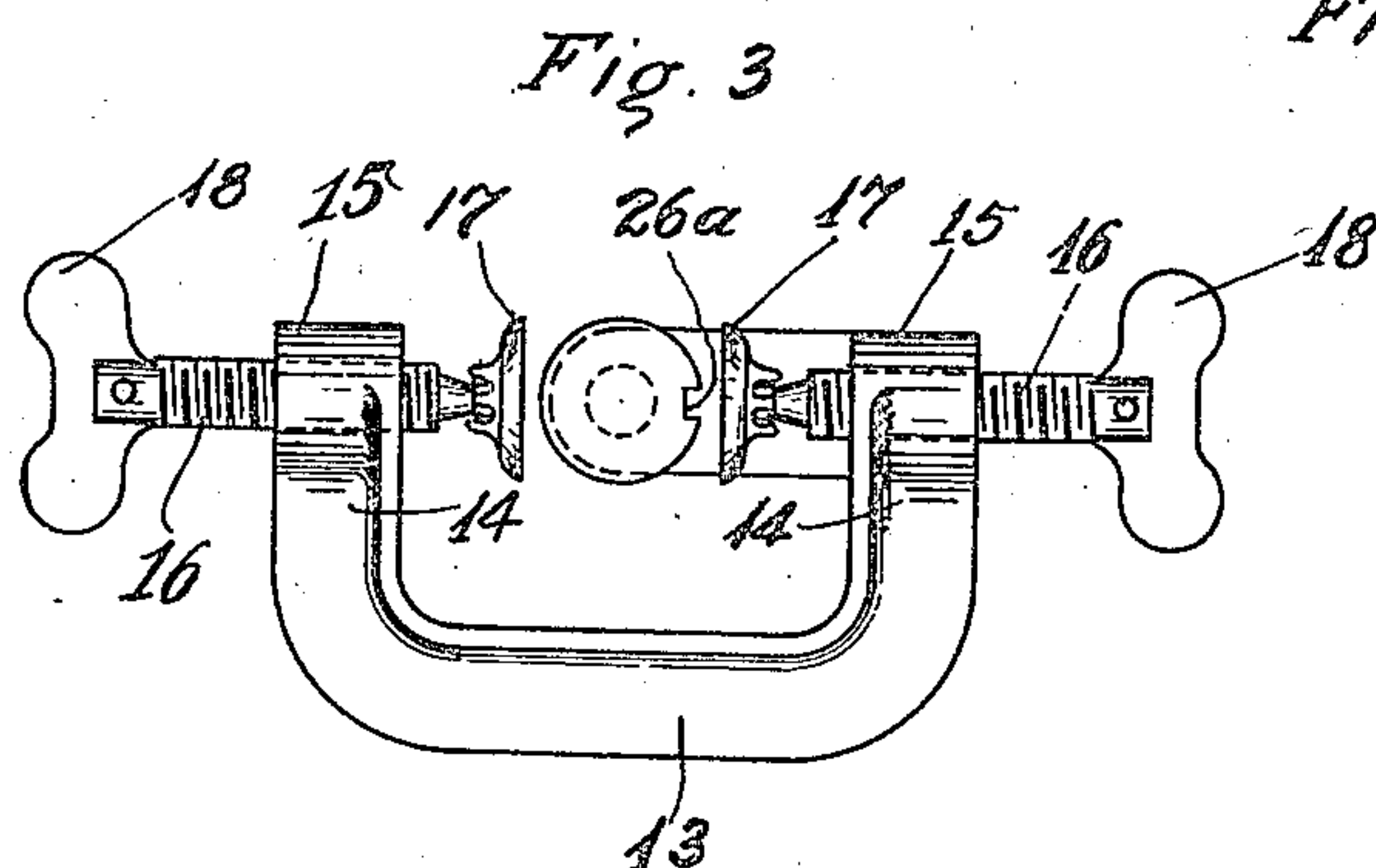


Fig. 6

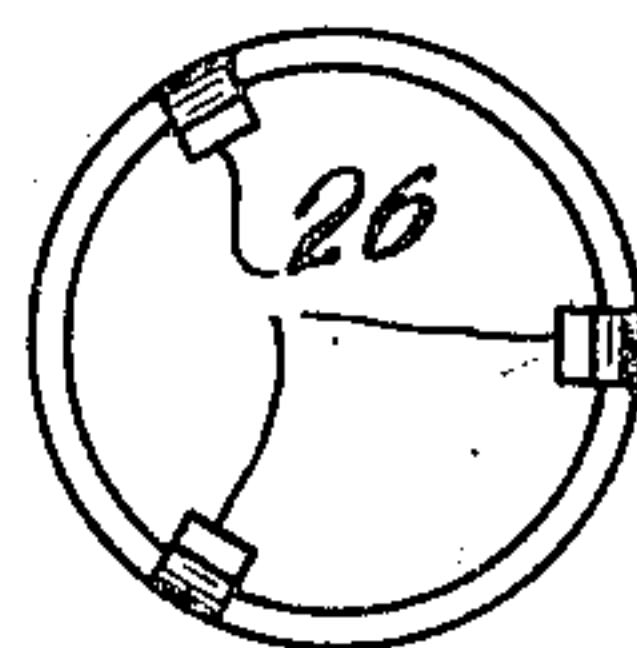


Fig. 7

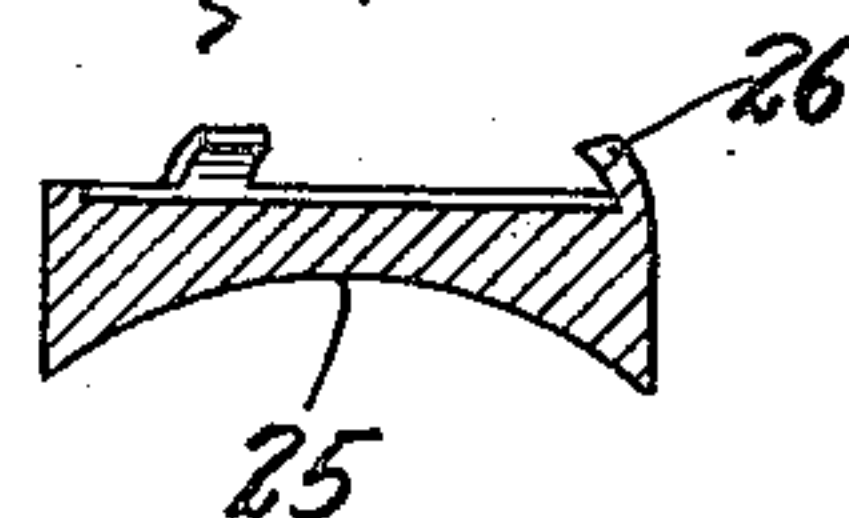


Fig. 4

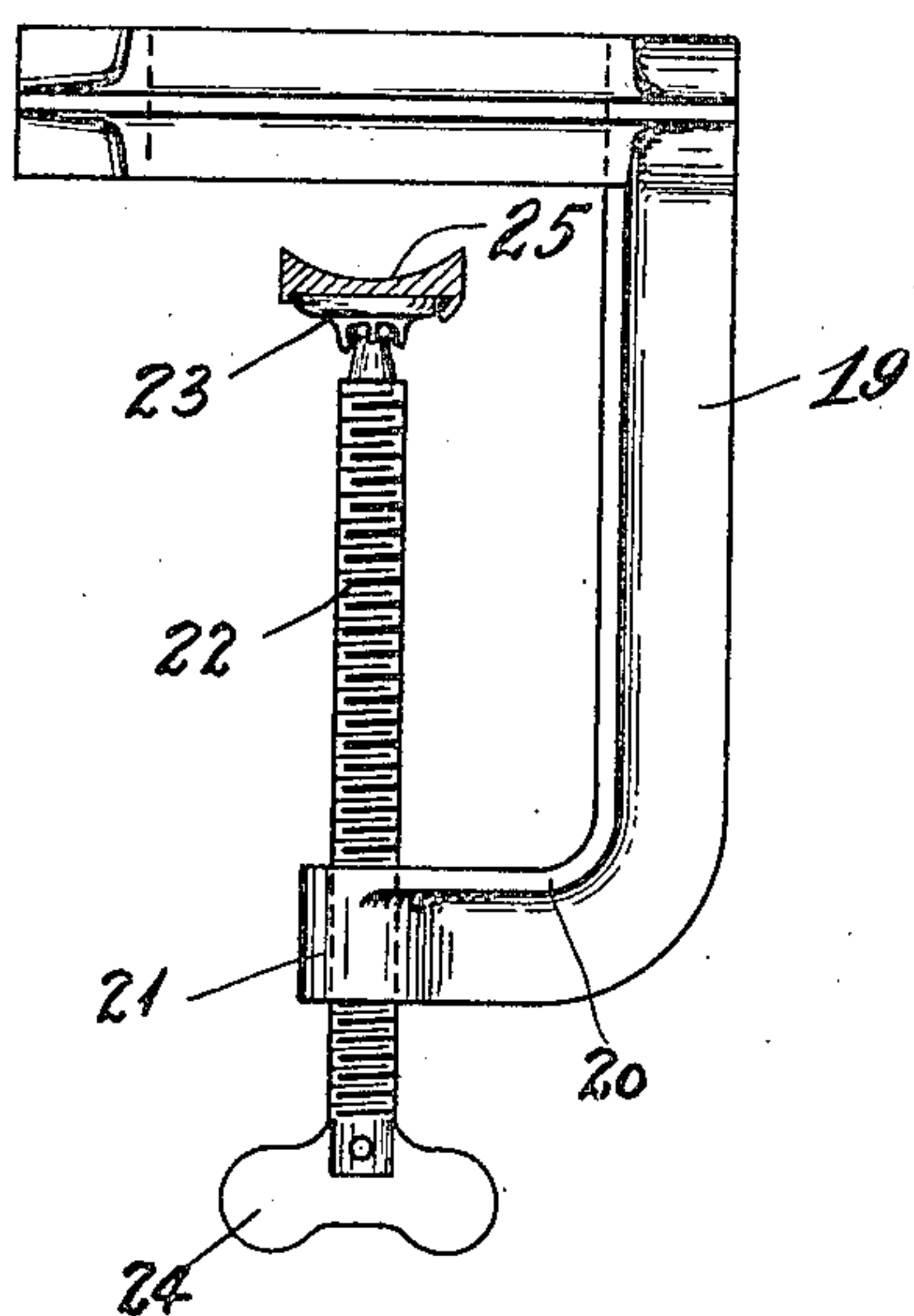
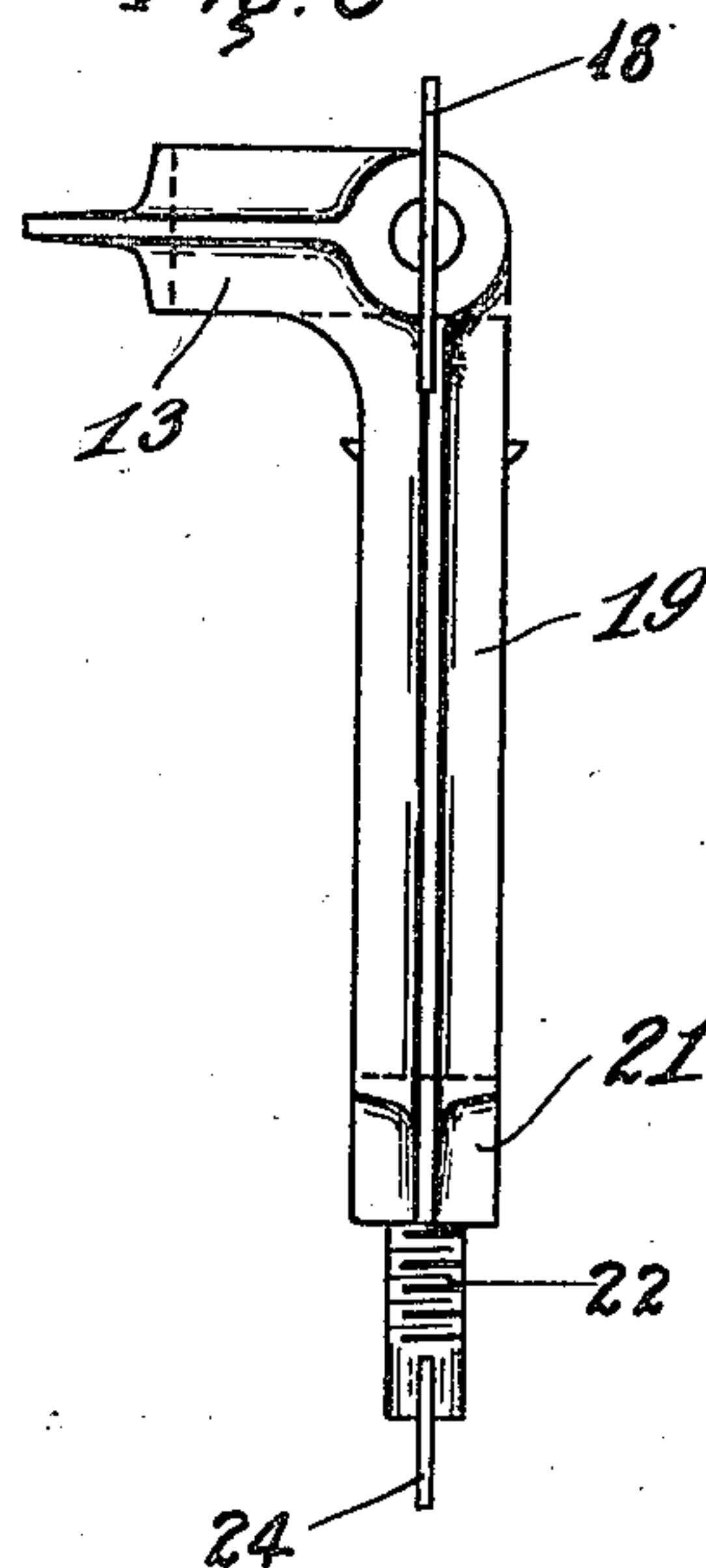


Fig. 5



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Patented June 19, 1923.

1,459,093

UNITED STATES PATENT OFFICE.

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CLAMP.

Application filed August 23, 1921. Serial No. 494,659.

To all whom it may concern:

Be it known that I, ELSAMUR S. FRENCH, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Clamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in clamps and more particularly to what will be known as a combination clamp, the main object of the present invention being the provision of a clamp used for clamping and retaining articles into close contact which are disposed at different angles and wherein an object disposed in a horizontal plane, can be clamped upon opposite sides of the same and one edge. In other words, should it be desired to glue or secure a strip to the longitudinal edge of a horizontal member, opposed clamping members can be engaged with opposite sides of the member and a third clamping member forced against the strip or object to fasten the same in position with respect to the main object.

With the above and other objects in view the invention consists in the novel features of construction, combination and arrangement of parts hereinafter more fully set forth, pointed out in the claims and shown in the accompanying drawings in which:

Figure 1 is a plan view of a clamp constructed in accordance with my invention;

Fig. 2 is a side elevation;

Fig. 3 is an end elevation illustrating a slightly modified form of the invention;

Fig. 4 is a side elevation;

Fig. 5 is an elevation taken at right angles to Fig. 4;

Fig. 6 is a bottom plan view of a detachable clamping face, and

Fig. 7 is a transverse sectional view of the same.

In the construction of my improved clamp, I provide a body member generally indicated by the numeral 1 having at each end thereof an arm 2 which extends at an oblique angle with respect to the body as clearly shown in Fig. 2, said arms being disposed in parallel relation as shown in Fig. 1. The arms 2 are provided at their outer

ends with interiorly threaded collars or sleeves 3 in which the screw members 4 are mounted for longitudinal movement. Upon the inner ends of each of the screw members 4 are the clamping plates 5, said clamping plates being loosely connected to the inner ends of the screw members 4 so that they may assume various positions when being clamped to an object. The outer ends of the screw members 4 are provided with winged finger pieces 6 whereby the screws 4 may be manually operated to adjust them toward and away from each other.

Formed integral with the body 1 is a shank 7 which extends outwardly at right angles with respect to the body and preferably from the center thereof as shown in Fig. 1 so as to be disposed midway between the arms 2. Formed at the outer end of the shank 7 is an angular projecting arm 8 having an interiorly threaded sleeve 9 formed at the outer end thereof through which a screw member 10 is threaded, said screw member having a winged finger piece 11 at one end and a clamping face 12 loosely connected to the other end.

It will be noted in Fig. 2 that the arms 2 are disposed in an oblique angle with respect to the body 1 and by having the arms arranged in this manner, a horizontal member may be readily grasped by the clamping members 5, said clamping members being disposed upon opposite faces of the horizontal member while the clamping member 12 can be readily engaged with the edge of the horizontal member should the occasion require. It will also be apparent that this form of clamp can be readily applied to various objects other than those which are disposed in a horizontal plane.

In Figs. 3 to 5 inclusive, I have illustrated a modified form of the invention which comprises in its construction, a body member 13 having spaced arms 14 disposed at right angles to the body and provided with interiorly threaded sleeves 15 at the outer ends of said arms to receive the screw members 16, said screw members having clamping faces loosely mounted upon the inner ends thereof and winged finger pieces 18 attached to the outer ends thereof. From this it will be apparent that by grasping the wing members 18 the screws 16 may be readily moved toward and away from each other. Formed integral with one of the

sleeves 15 is an arm 19 which extends upwardly at right angles to the arm as shown in Fig. 4 and provided at its outer end with an extension 20 extending at right angles to the arms 14 on the body 13. This extension 20 is provided with a threaded sleeve 21 in which a screw 22 is longitudinally movable, said screw having a clamping member 23 upon one end and a winged finger piece 24 attached to the other end whereby this screw may be quickly and readily manipulated when desired.

In Figs. 6 and 7 I have illustrated in detail, a detachable clamping face for the clamping members 17 and 23, this detachable clamping portion comprising a body having a concaved face as shown at 25 and formed upon the opposite side of the body are the tongues 26 which are adapted to engage over the edge of the clamping members 17 and 23 to retain this detachable member in position upon the clamping portions 17 and 23. This feature is particularly adapted for use when the clamp is to be used on such articles of furniture as may be provided with rounded surfaces so that the clamp can be readily attached to these particular shaped surfaces. It will be apparent that this removable clamping member can be quickly and readily attached to the clamps already on the screws and removed when so desired. Notch 26^a is provided in the clamp members 17 and 23 for accommodation of one of lugs 26 in attaching and detaching the detachable clamping face.

While I have shown and described the detachable clamping members as particularly

applied to the modified form of the invention, it will be readily apparent that these clamping members can be used equally as well on the main forms of the invention shown in Figs. 1 and 2.

From the above description taken in connection with the accompanying drawings, it will be readily apparent that I have provided a simple and durable clamping member which can be quickly and readily applied to various articles during the construction of the same so as to clamp certain parts thereof in position. It will also be apparent that the clamp can be used for clamping pieces of material together regardless of the angle of the same and shape of the material to be clamped.

I claim:

1. The combination of three screws having their axes in a common plane, a frame for supporting said screws comprising two arms of a jaw, an arm extending obliquely to said arms, and an extension at the terminal of the last-named arm disposed obliquely with respect to the arms of the jaw, said extension and the extremities of the jaw arms having screw-threaded sockets for receiving said screws.

2. The combination of a U-shaped frame having threaded sockets at the terminals of the U, an arm extending obliquely to the plane of the U, a lateral extension extending from the arm on the same side thereof as the arms of the U and having a threaded socket at its extremity, all of said sockets supporting screws.

In testimony whereof I affix my signature.
ELSAMUR S. FRENCH.