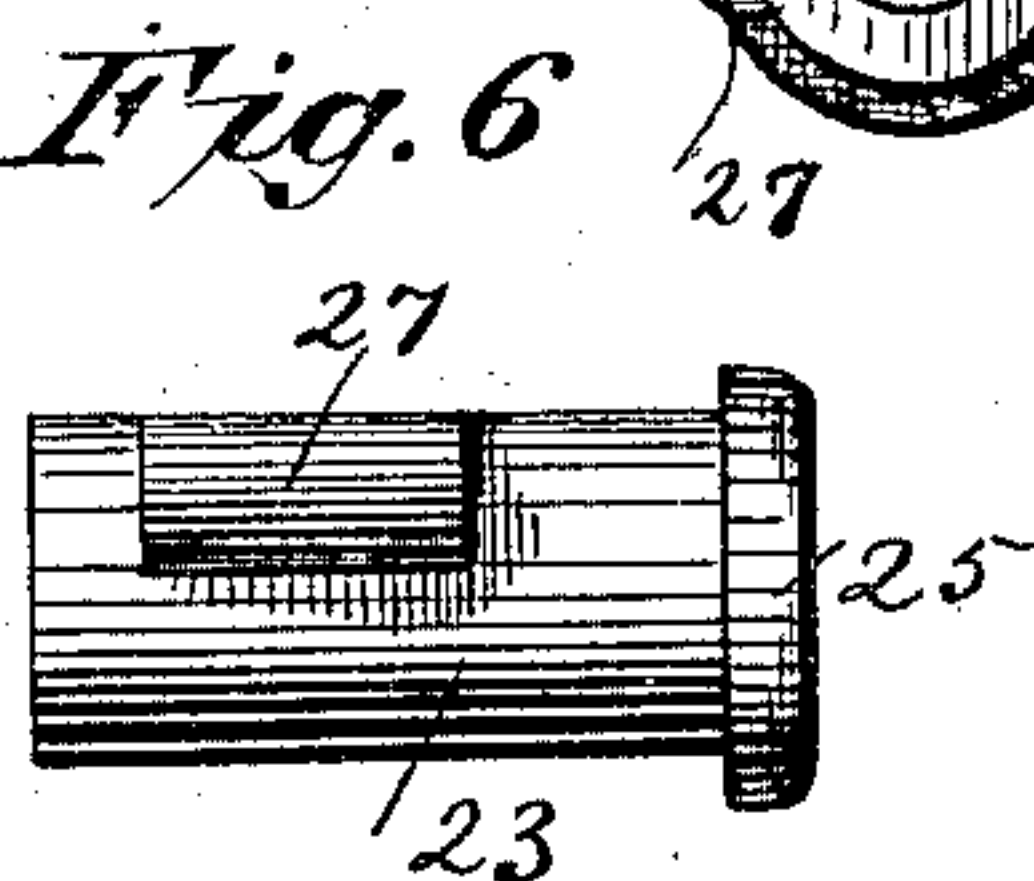
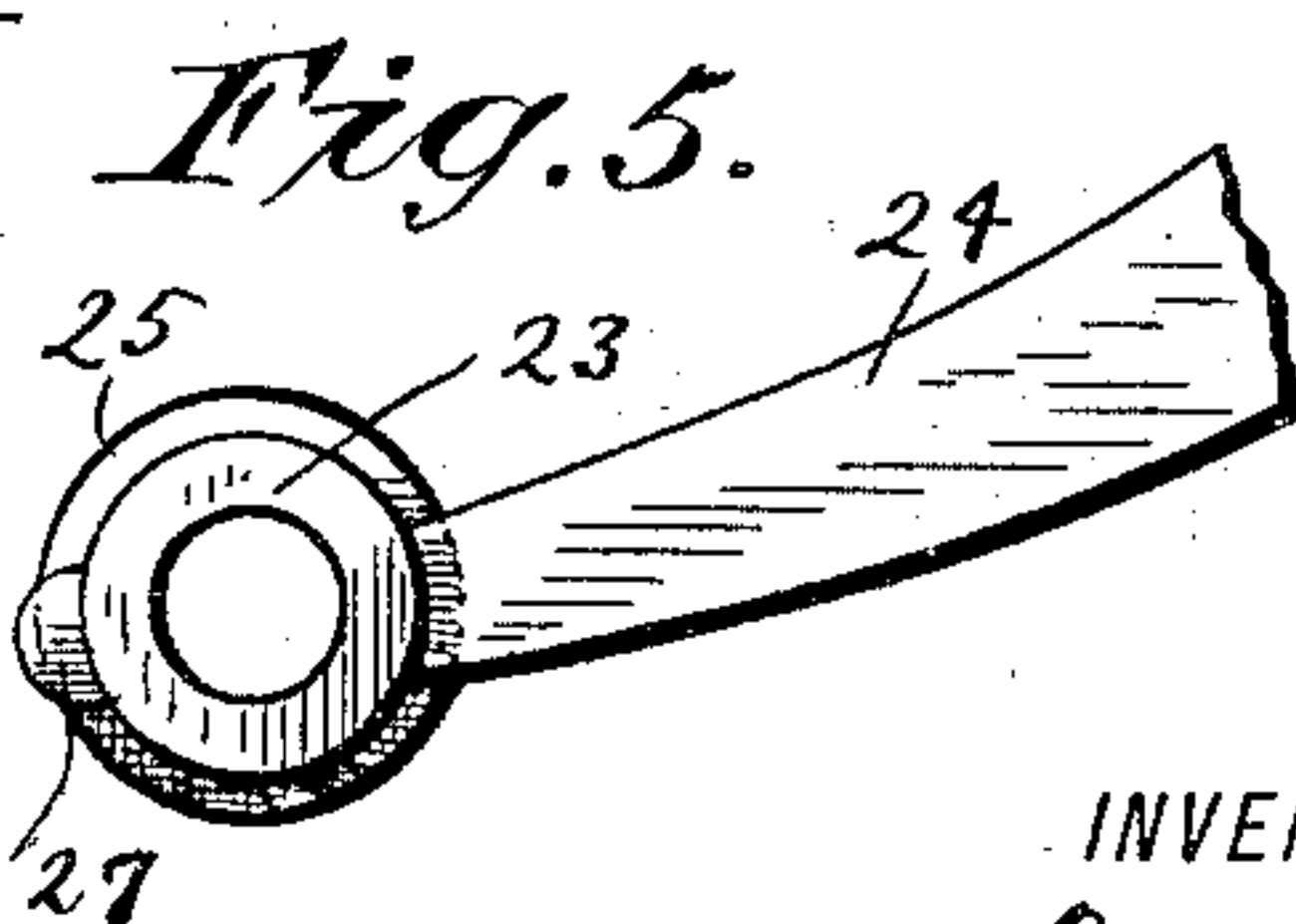
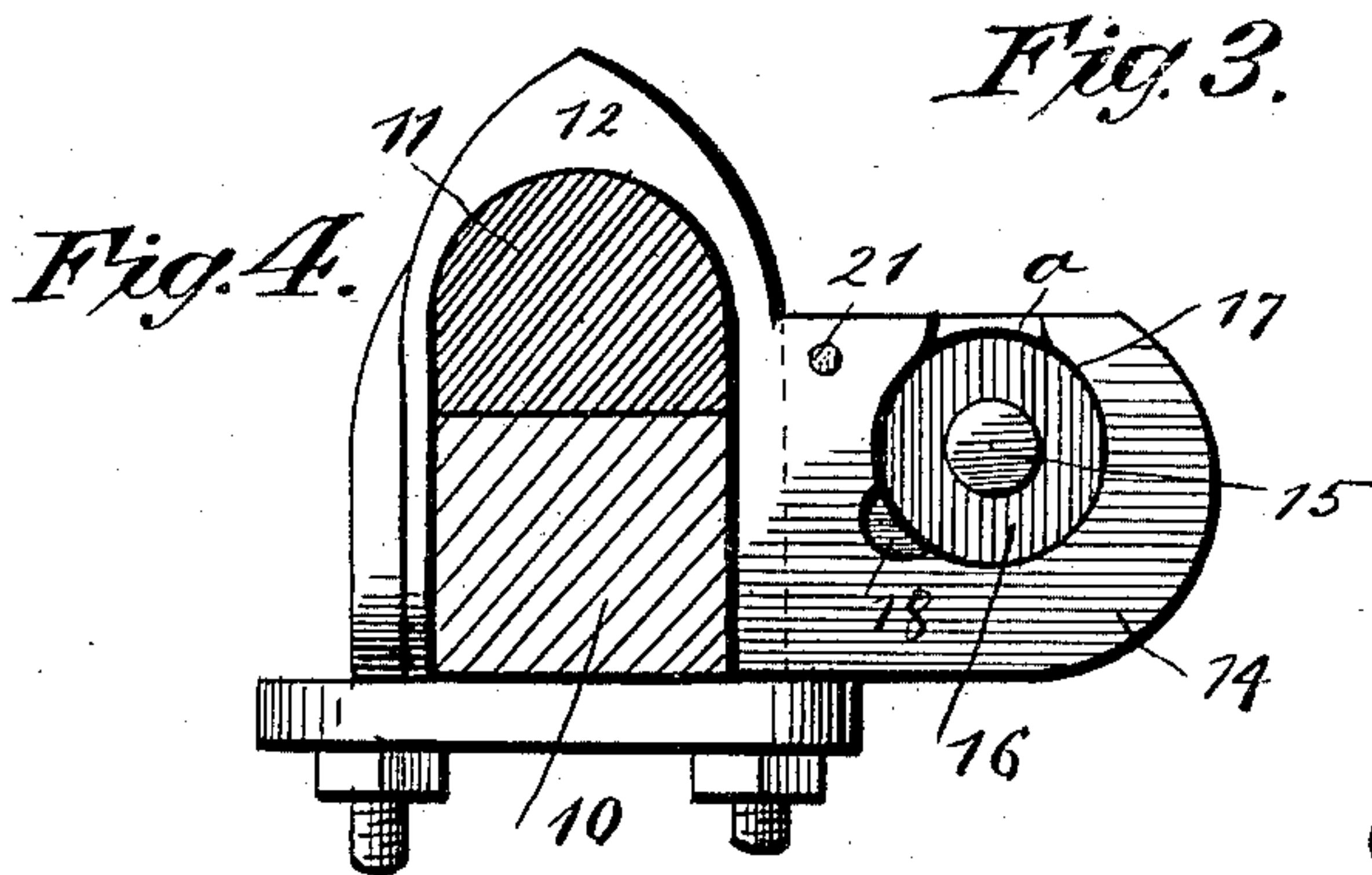
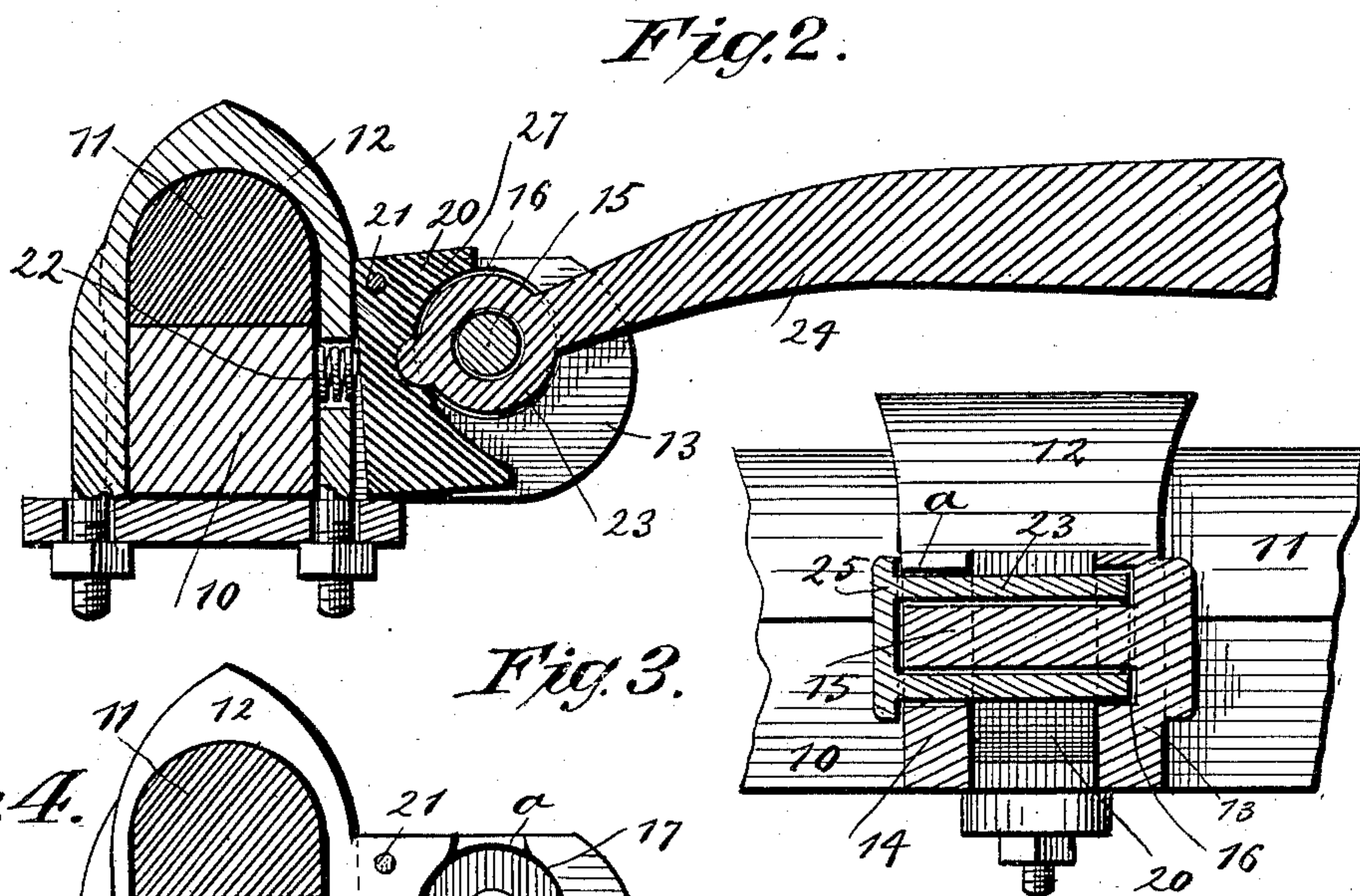
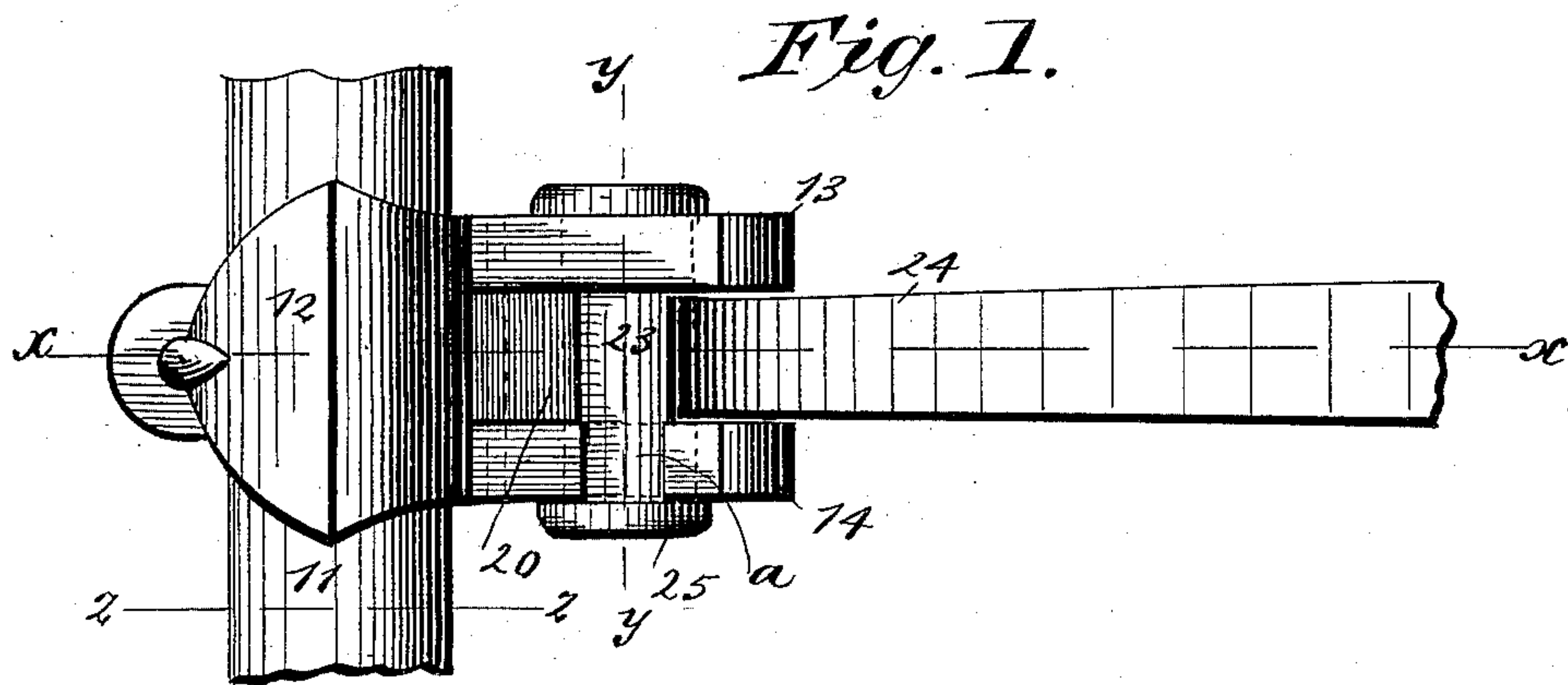


(No Model.)

F. GANDY.
THILL COUPLING.

No. 401,826.

Patented Apr. 23, 1889.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANK GANDY, OF FREEPORT, OHIO.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 401,826, dated April 23, 1889.

Application filed December 26, 1888. Serial No. 294,659. (No model.)

To all whom it may concern:

Be it known that I, FRANK GANDY, of Freeport, in the county of Harrison and State of Ohio, have invented a new and Improved Thill-Coupling, of which the following is a full, clear, and exact description.

This invention relates to thill-couplings, the object of the invention being to provide for the ready adjustment of the thill eye or head to the socket of the axle-clip and to provide for the holding of such thill-head in yielding contact with its supporting attachment.

To the end named the invention consists of certain novel constructions and combinations of elements, to be hereinafter described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of a thill-coupling embodying my invention. Fig. 2 is a sectional view thereof, taken on line *x x* of Fig. 1. Fig. 3 is a sectional view taken on line *y y* of Fig. 1. Fig. 4 is a cross-sectional view on line *z z* of Fig. 1, the thill-iron being removed. Fig. 5 is a side view of the thill-iron, such iron being shown in an inverted position; and Fig. 6 is a view of the rear of the thill head or eye.

In the drawings, 10 represents the axle, and 11 the bolster, to which there is connected a clip, 12, formed with two forwardly-extending arms, 13 and 14, the arm 13 being provided with a laterally-extending stud, 15, and with an annular recess, 16, while the arm 14 is formed with an aperture, 17, which opens out through the upper edge of the arm, as shown at *a*, and is provided with a side recess, 18. Between the arms 13 and 14, I mount a block, 20, of yielding material—such as rubber—said block being preferably supported by a pin, 21.

The body of the clip 12 is recessed just to the rear of the block 20, and in the recess so formed I arrange a spiral or other spring, 22, which bears against the axle and normally acts to force the block 20 forward.

The thill head or eye 23 is made integral with the thill-iron 24, and is of proper form to receive the stud 15, the head projecting a sufficient distance at one side of the iron 24 to

enter the recess 16 and a sufficient distance from the opposite side of the iron to extend beyond the arm 14, this extending end of the head 23 being provided with a cap, 25, which, when the thill-head is in position, will bear closely against the outer face of the arm 14.

A boss or projection, 27, extends to the rear from the peripheral face of the thill head or eye 23, this boss being so located that when the thill-iron is adjusted to a position such that it will register with the opening *a*, made through the top of the arm 14, the boss 27 will register with the recess 18, and consequently the thill-iron and the head carried thereby may be moved inward until the inner end of the thill-head enters the recess 16, after which the iron may be turned down to the position in which it is shown in Fig. 2, the arms 13 and 14 at this time preventing any accidental displacement of the thill-iron, which can only be removed from the clip by elevating the thills and bringing the irons into register with the opening *a*. After the parts have been adjusted to place, the spring 22 will hold the block 20 closely against the thill-head and tend to bind said head against its supporting parts, thus preventing all rattling.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with an axle-clip provided with forwardly-extending arms, of a block mounted between said arms, a spring arranged in connection with the block, a stud carried by one of the arms, the opposite arm being apertured, and a thill head or eye arranged to engage the stud, substantially as described.

2. The combination, with an axle-clip provided with forwardly-extending arms, of a block mounted between said arms, a spring arranged in connection with the block, a stud carried by one of the arms, a recessed aperture formed in the opposite arm, and a thill head or eye provided with a lug or projection which may be brought into register with the recess of the apertured arm, substantially as described.

3. In a thill-coupling, the combination, with a clip formed with forwardly-extending arms, one of which is provided with a stud, 15, and

formed with a recess, 16, while the other is
formed with an aperture, 17, and a recess, 18,
of a block mounted between the arms and
supported by a pin, 21, a spring, 22, mounted
5 in a recess formed in the clip behind the block,
and a thill-head formed with a projection, 27,
said head being adapted to engage the stud

and enter the recess 16, substantially as de-
scribed.

FRANK GANDY.

Witnesses:

ISAAC N. REED,
J. T. BARRETT.