

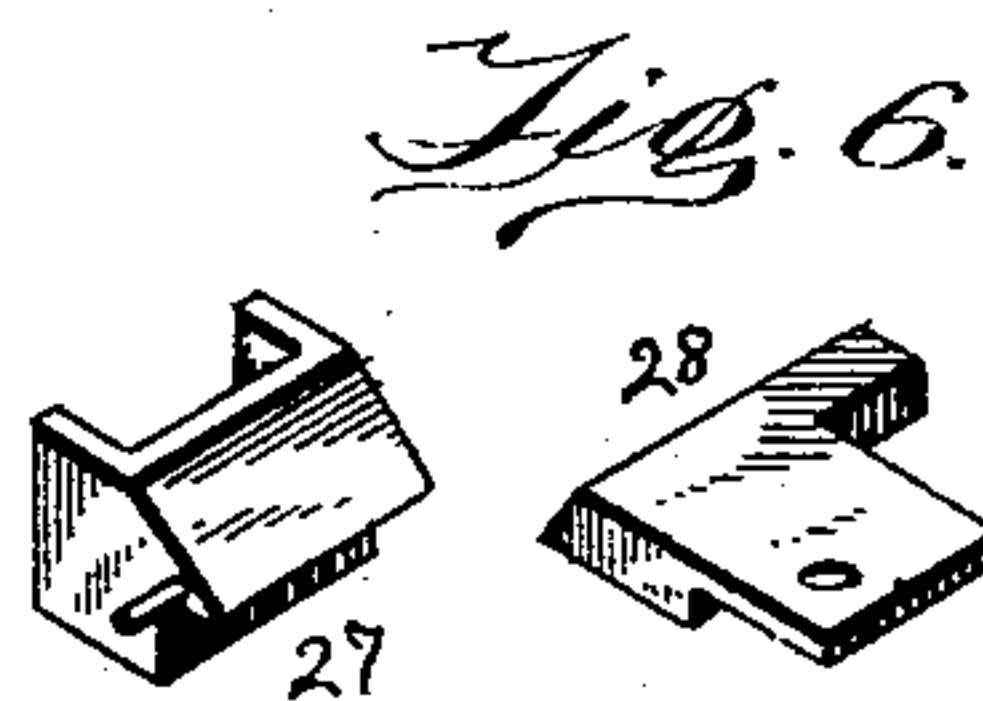
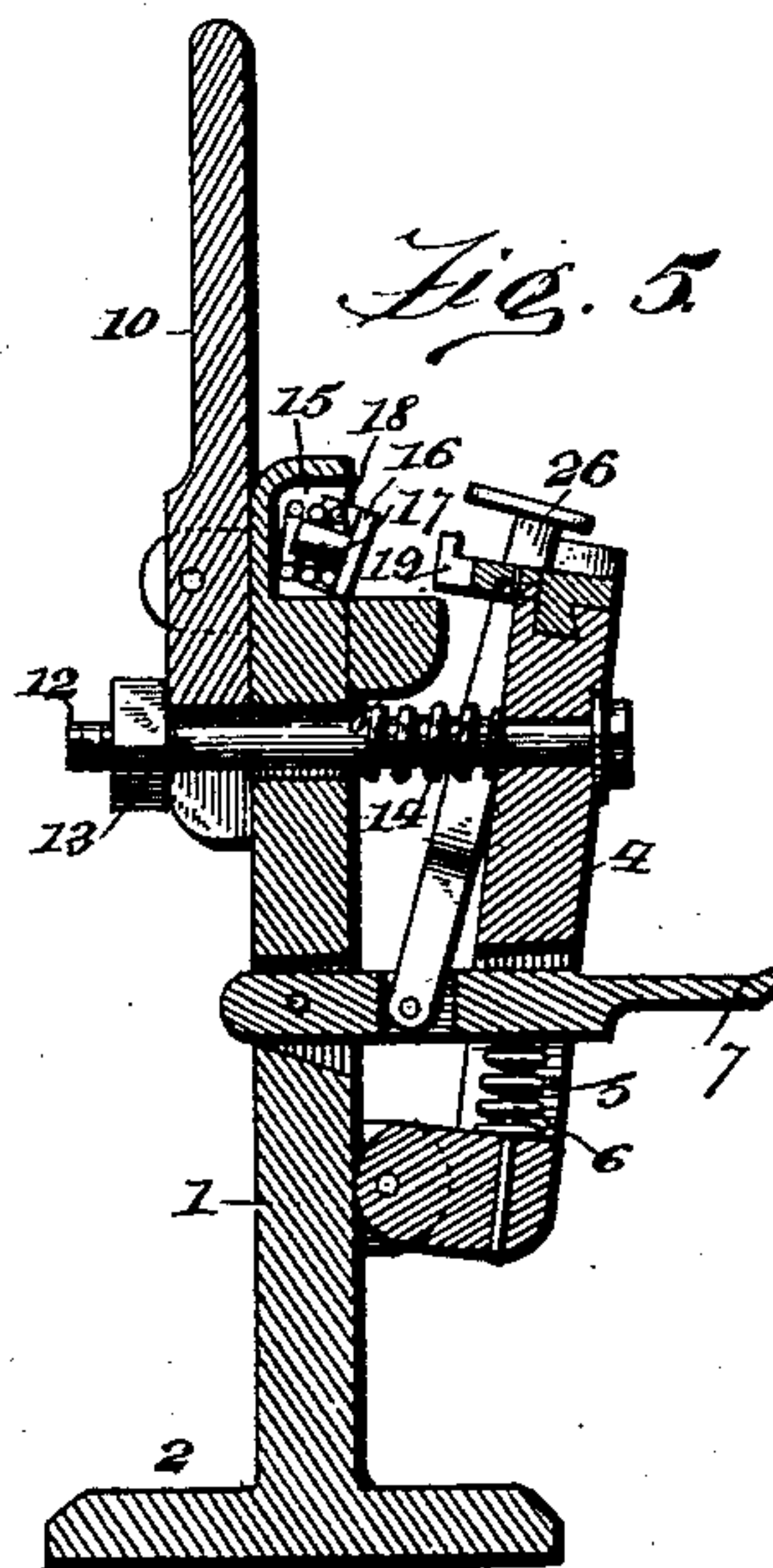
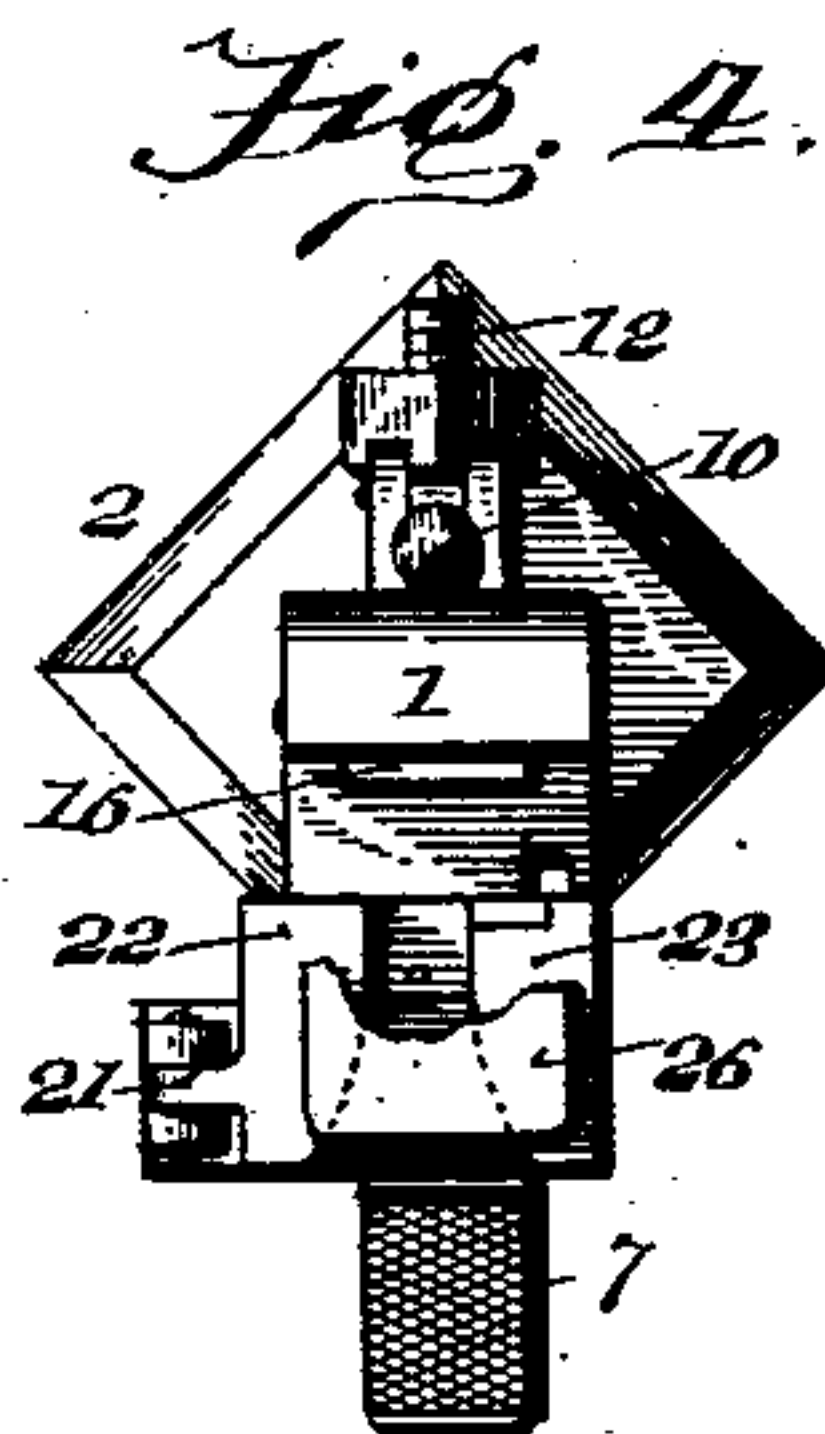
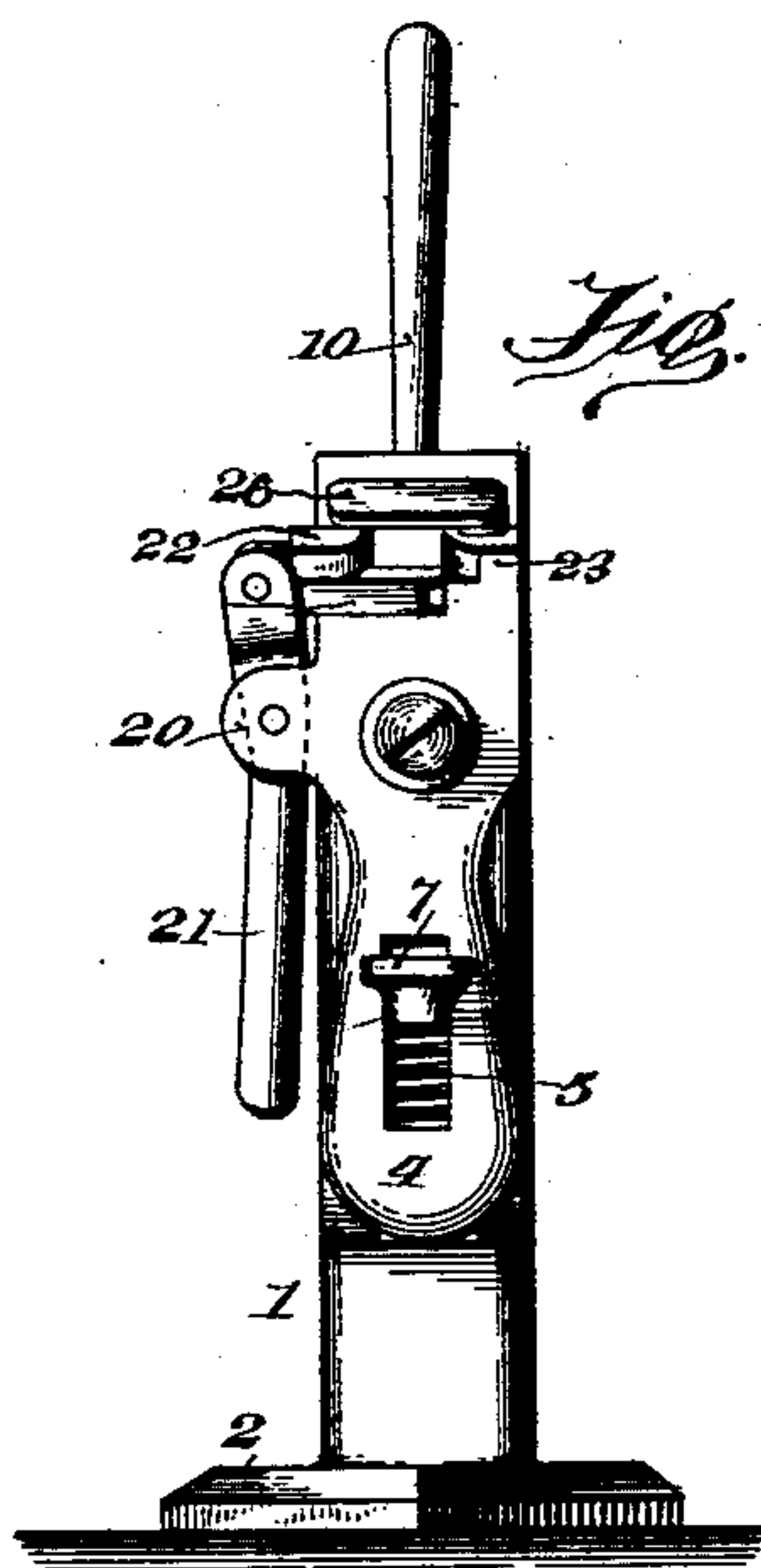
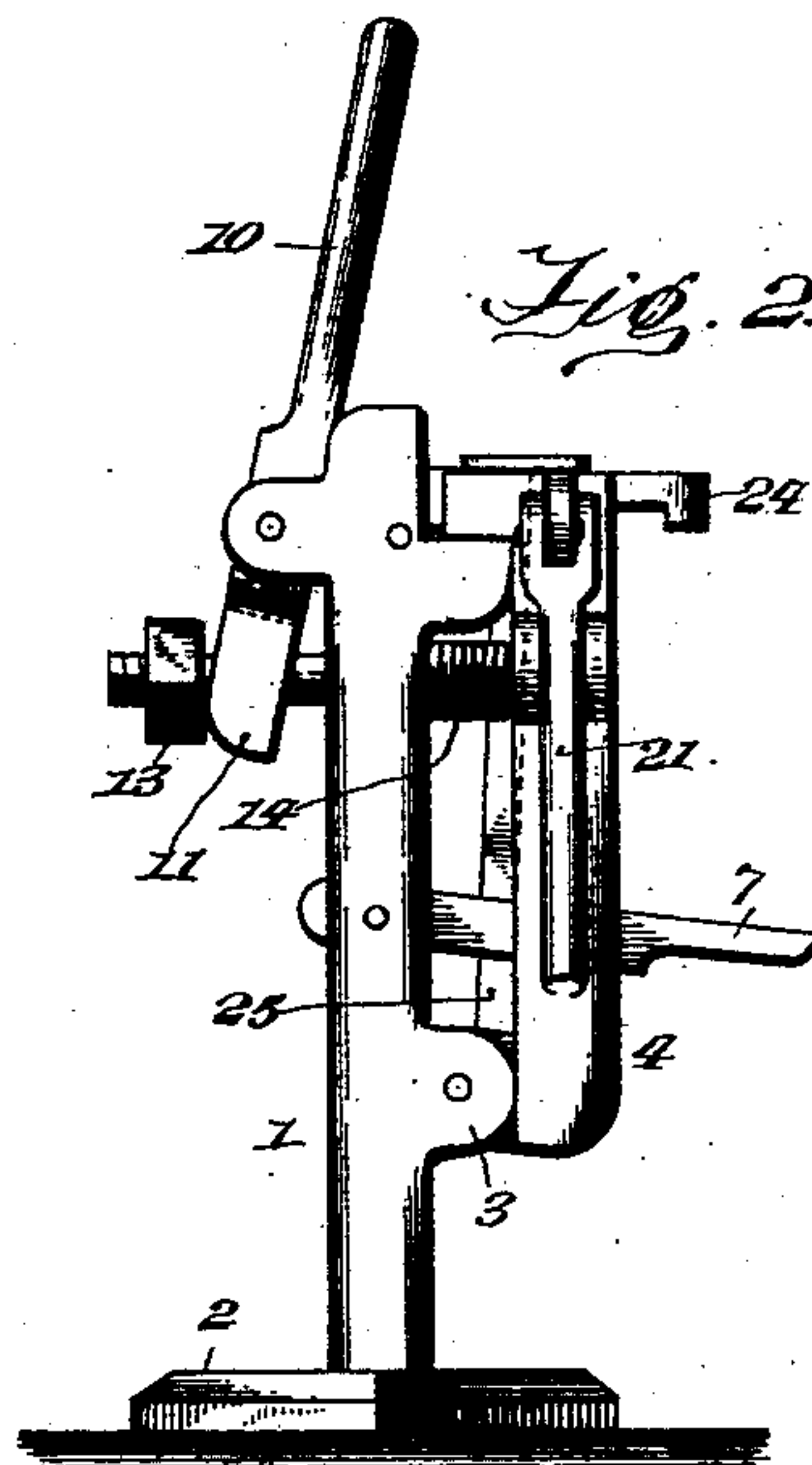
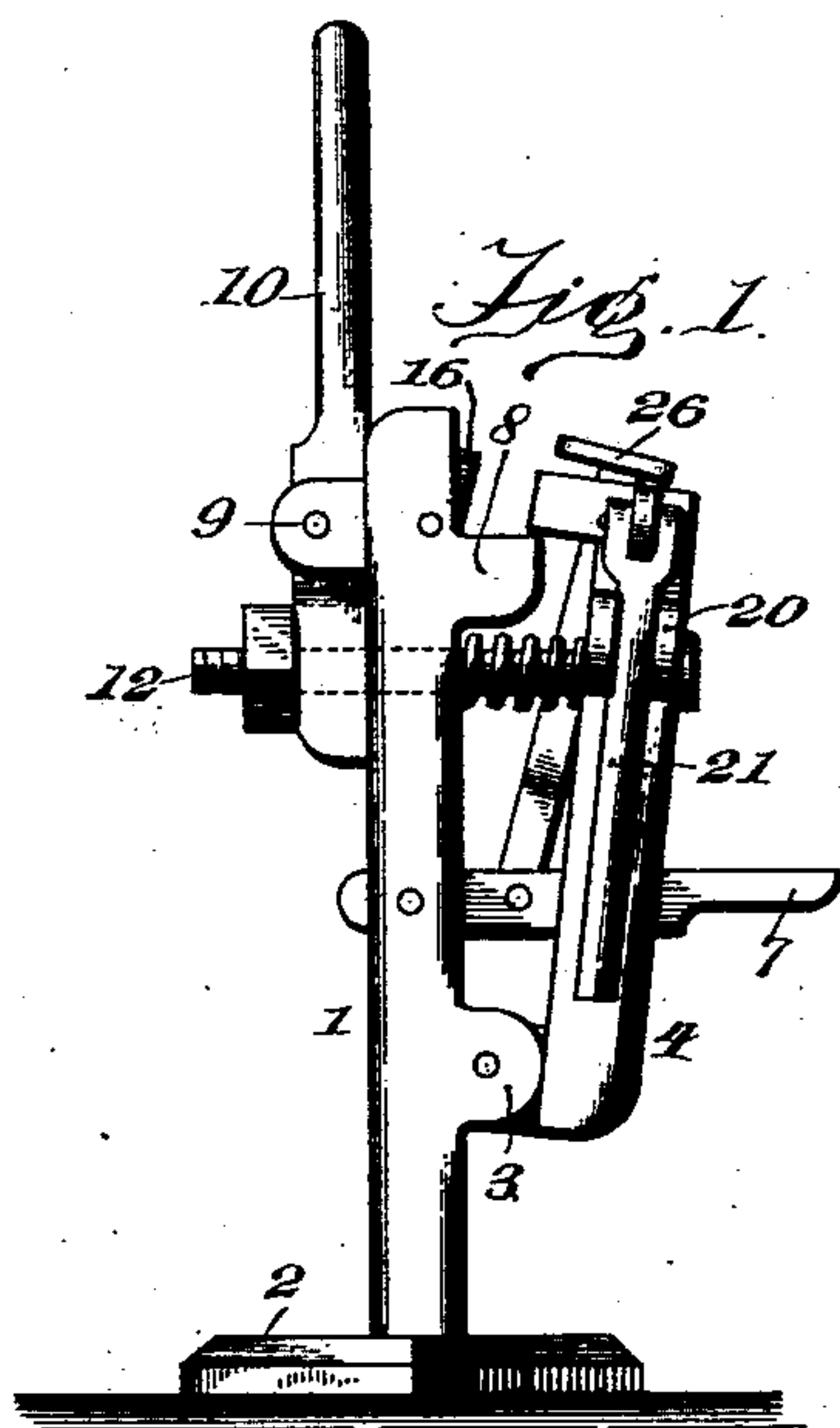
(No Model.)

P. M. PRAMER.

DEVICE FOR FORMING HEEL CALKS ON HORSESHOES.

No. 572,125.

Patented Dec. 1, 1896.



Witnesses
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UNITED STATES PATENT OFFICE.

PHILIP M. PRAMER, OF CLEAR LAKE, IOWA.

DEVICE FOR FORMING HEEL-CALKS ON HORSESHOES.

SPECIFICATION forming part of Letters Patent No. 572,125, dated December 1, 1896.

Application filed June 15, 1896. Serial No. 595,552. (No model.)

To all whom it may concern:

Be it known that I, PHILIP M. PRAMER, a citizen of the United States, residing at Clear Lake, in the county of Cerro Gordo and State of Iowa, have invented certain new and useful Improvements in a Device for Forming Heel-Calks on Horseshoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same.

My invention relates to improvements in devices for forming heel-calks on horseshoes, the object of the same being to provide such a device by which heel-calks may be made without the use of a hammer or the striking of a blow.

My improved device is made up of an upright, a supporting-bar pivotally connected thereto, means for clamping the horseshoe in the upper end of said supporting-bar upon the top and side thereof, a tool adapted to turn over or upset the end of the horseshoe-blank, and means for drawing said supporting-bar toward said upright and bringing the end of the horseshoe into engagement with the tool attached thereto.

The invention also consists of other details of construction and combinations of parts, which will be hereinafter more fully described and claimed.

In the drawings forming a part of this specification, Figure 1 represents a side elevation of my device. Fig. 2 is a similar view showing the parts in operative position. Fig. 3 is an end elevation. Fig. 4 is a top plan view. Fig. 5 is a vertical longitudinal section, and Fig. 6 represents details of the upsetting-tools.

Like reference-numerals indicate like parts in the different views.

My improved device is made up of an upright or standard 1, rising from a base-plate 2, which is adapted to be secured to the floor or any stationary part of a building by lag-screws passing therethrough. The standard 1 is provided with ears 3 3, in which is pivoted a supporting-bar 4, having a slot 5 therein in which is located a spring 6, upon which rests a foot-lever 7, fulcrumed in the standard 1, as clearly shown.

Near the upper end of the standard 1 the

same is provided with an inwardly-projecting ledge or shoulder 8, and upon the outside of said standard, near its upper end, are ears 9 9, in which is fulcrumed a lever 10, having bifurcated lower ends 11, which surround a bolt 12, having a nut 13 upon its outer end and passing through a slot in said standard and attached to the upper end of the supporting-bar 4. Surrounding the bolt 12 and bearing against the inner faces of the standard and the supporting-bar 4 is a spiral spring 14, which tends to hold said supporting-bar normally in its outer position. Pivoted in a recess 15, near the upper end of said upright 1, is an upsetting-tool 16, having a projection 17 upon its inner surface, around which passes a spiral spring 18, which tends to urge the upper end of said tool normally outward. The projection 17 on said tool is adapted to bear against the inner face of the standard 1 when the outer face of said tool is forced to a position in which it lies flush with the inner surface of said upright. The tool 16 acts in engagement with a corresponding tool or plate 19, secured to the inner surface of the upper end of the supporting-bar 4.

Fulcrumed in the ears or projections 20 20, upon the side of the supporting-bar 4, is a lever 21, which is pivoted to a sliding clamping-plate 22, moving in guides in the upper end of the supporting-bar 4. Between the clamping-plate 22 and the upper projecting end 23 of said supporting-bar 4 a recess is formed, within which the horseshoe-blank 24 is adapted to fit. Pivoted to the foot-lever 7 is a curved rod or bar 25, which extends upwardly through a slot in the upper projecting end of the supporting-bar 4, and has a head 26 thereon which projects over the recess between the projecting end 23 and the sliding clamping-plate 22.

As thus constructed the operation of my device is as follows: With the parts in the position in which they are shown in Fig. 1 the end of the horseshoe-blank 24, after being heated, is inserted within the recess between the extension 23 and the clamping-plate 22 and the lever 21 drawn outwardly, thereby forcing said clamping-plate 22 inwardly and holding said horseshoe-blank firmly upon the two sides thereof. At the same time the foot-lever 7 is depressed, which throws

down the rod 25 and forces the head 26 thereof into engagement with the surface of said horseshoe-blank, thereby clamping said blank upon its sides and top. The lever 10 is then
 5 drawn to the right, and by reason of the engagement of the bifurcated ends 11 thereof with the nut 13 on the outer end of the bolt 12 the said bar is thrown outwardly, drawing the
 10 supporting-bar 4 toward the upright 1 and bringing the projecting end of the horseshoe-blank 24 into contact with the angularly-disposed upsetting-tool 16. When this is done, the end of the blank 24 is turned down by the
 15 tool 16, and a further pressure on the lever 10 will compress the spring 18, engaging the inner face of the tool 16 and turn the calk formed on the blank 24 down at right angles thereto. The parts may then be released and will fall
 20 back to normal position by reason of the action of the springs 6, 14, and 18.

In Fig. 6 of the drawings I illustrate coacting upsetting-tools 27 28, which are adapted to be substituted for the form of tool shown in the other views of the drawings when it is
 25 desired to produce a pointed calk, the angular faces of said tools 27 28 serving to upset the pointed end of a horseshoe-blank, so that a diametric line running through the point thereof will lie at right angles to the main
 30 part of the shoe.

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

1. In a device of the character set forth, 35 the combination with a standard or upright, having an upsetting-tool thereon, of a horseshoe-supporting bar pivoted thereto, a clamp on the upper end of said supporting-bar and means for drawing said bar toward said up-
 40 right and bringing the projecting end of said horseshoe into engagement with said tool, substantially as and for the purpose described.

2. In a device of the character set forth, 45 the combination with an upright or standard, having an upsetting-tool in the upper end thereof, of a horseshoe-supporting bar pivoted to said upright, a clamp adapted to engage the sides of the horseshoe-blank, a clamp for engaging the top surface of said horseshoe-
 50 blank, both located at the upper end of said supporting-bar and means for drawing said supporting-bar toward said upright and bringing the projecting end of said horseshoe into engagement with the upsetting-tool, sub-
 55 stantially as, and for the purpose described.

3. In a device of the character set forth, the combination with an upright or standard,

having an upsetting-tool at the upper end thereof, of a horseshoe-supporting bar pivoted to said upright, a lever fulcrumed to said up- 60 right, engaging one end of a bolt attached to said supporting-bar, a foot-lever fulcrumed to said upright and projecting through a slot in said supporting-bar, a spring for normally holding said foot-lever in its raised position, 65 a rod pivoted to said foot-lever projecting upwardly therefrom and formed with a head overlapping the upper end of said supporting-bar and constituting a clamp for the top surface of the horseshoe-blank, a sliding clamp- 70 ing-plate movable in guides in the upper end of said supporting-bar, and a lever fulcrumed to the side of said supporting-bar for operating the same, all arranged substantially as and for the purpose described. 75

4. In a device of the character set forth, the combination with an upright or standard, having an inwardly-projecting ledge or shoulder near its upper end, a recess in the side of said standard, just above said ledge or shoulder, an upsetting-tool fitting within said recess 80 made up of a plate having a projection on its rear surface and a spring for normally urging the upper end of said plate outwardly, of a horseshoe-supporting bar pivoted to said up- 85 right or standard and having a slot therein, a foot-lever fulcrumed to said upright and projecting through said slot, a spring for normally holding said foot-lever in its raised position, a bolt passing through said upright and said 90 supporting-bar having a head thereon which engages said bar and a nut upon its opposite end, a spring surrounding said bolt and engaging the inner surfaces of said upright and said bar, a lever fulcrumed on the outside of 95 said upright having bifurcated lower ends which surround said bolt and engage the nut thereon, a rod pivoted to said foot-lever extending upwardly therefrom and formed with a head which overlaps the upper end of said 100 supporting-bar and constituting a clamp for the top surface of the horseshoe, a clamping-plate slidably mounted in the upper end of said supporting-bar, and a lever for operating said sliding plate fulcrumed upon the 105 side of said supporting-bar, substantially as and for the purpose described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

PHILIP M. PRAMER.

Witnesses:

C. H. LAW,

R. A. WULFING.