

S. R. PARADISE.

CLAMP.

APPLICATION FILED FEB. 24, 1910.

976,829.

Patented Nov. 22, 1910.

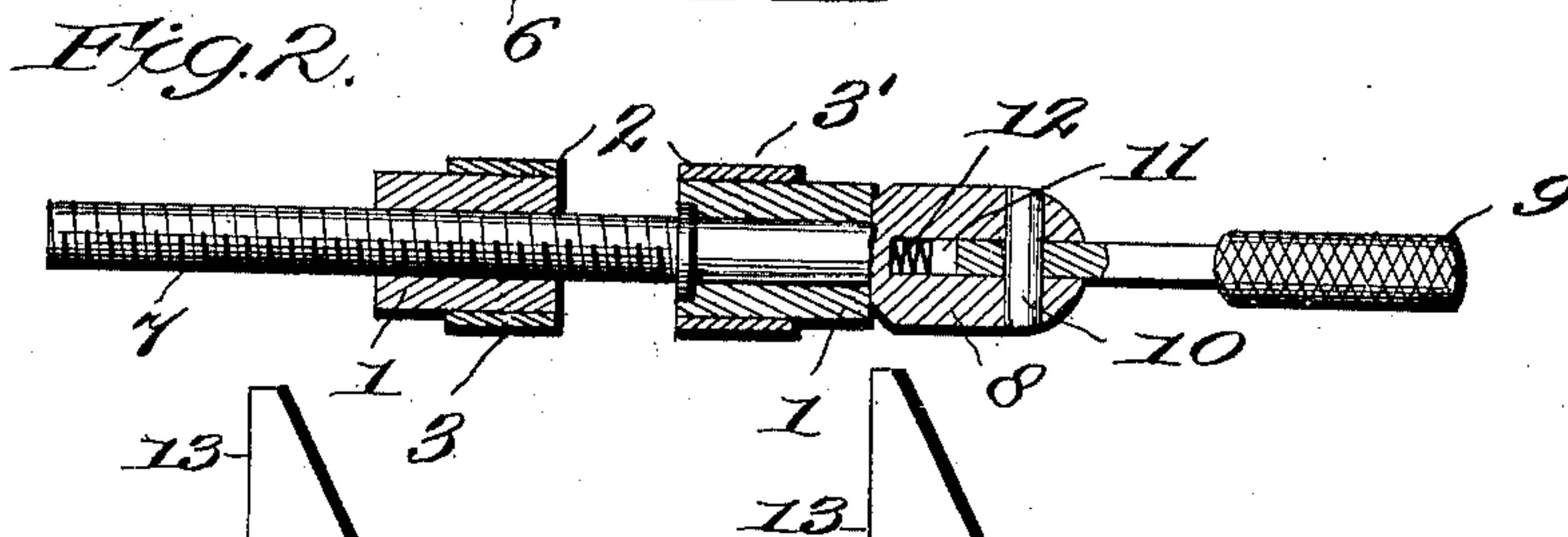
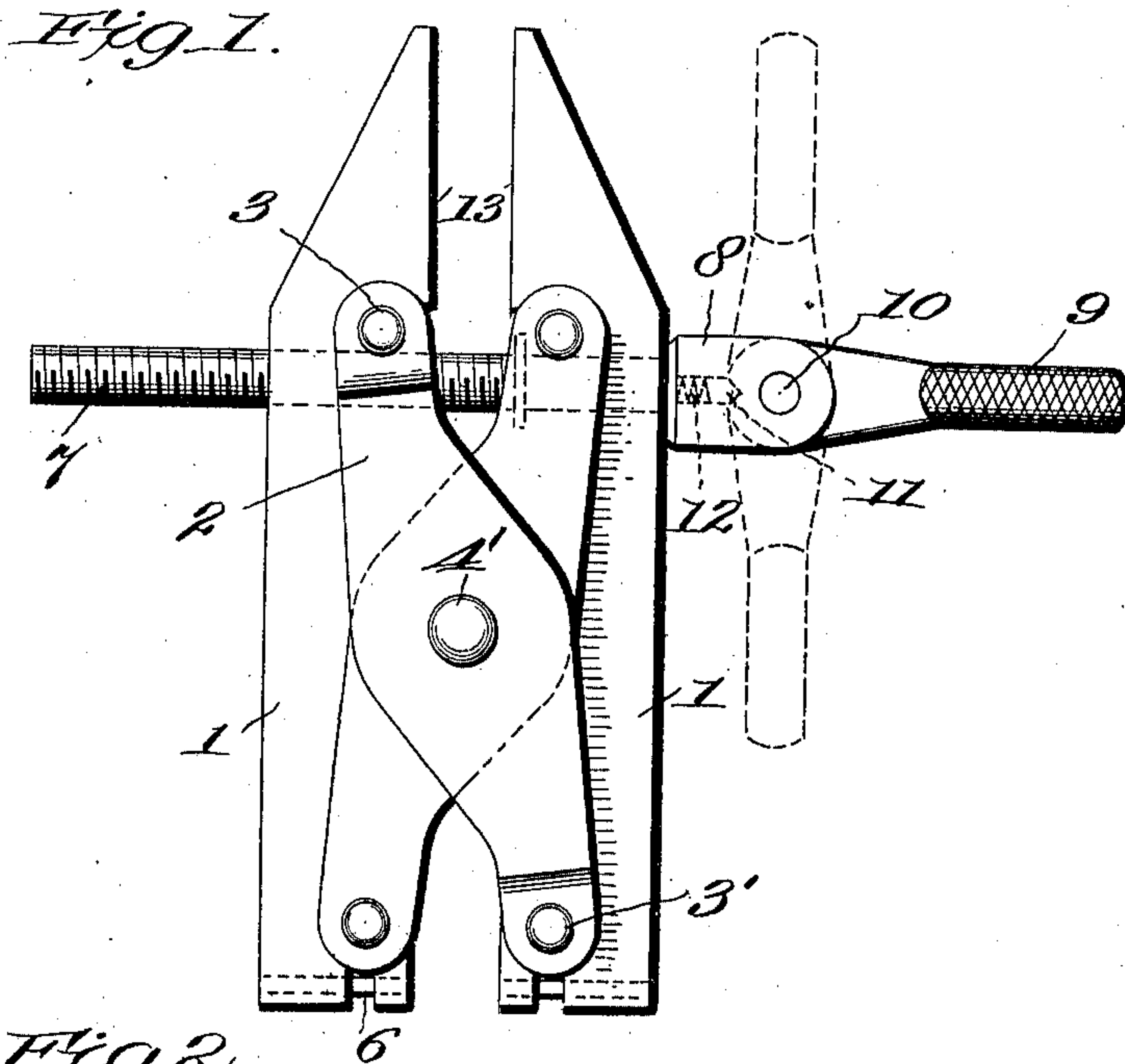


Fig. 3.

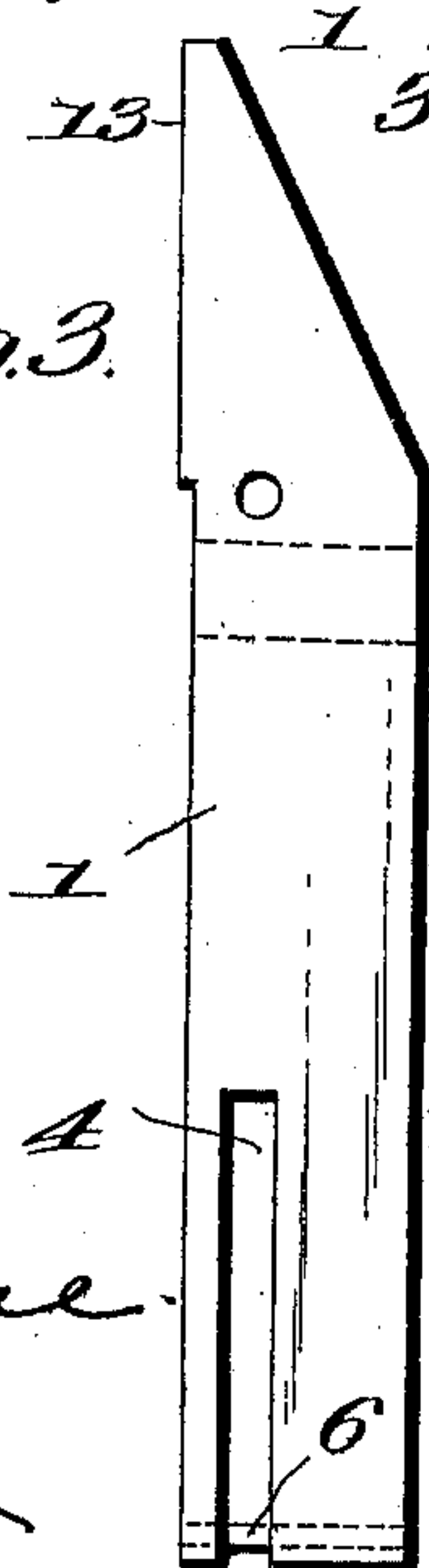
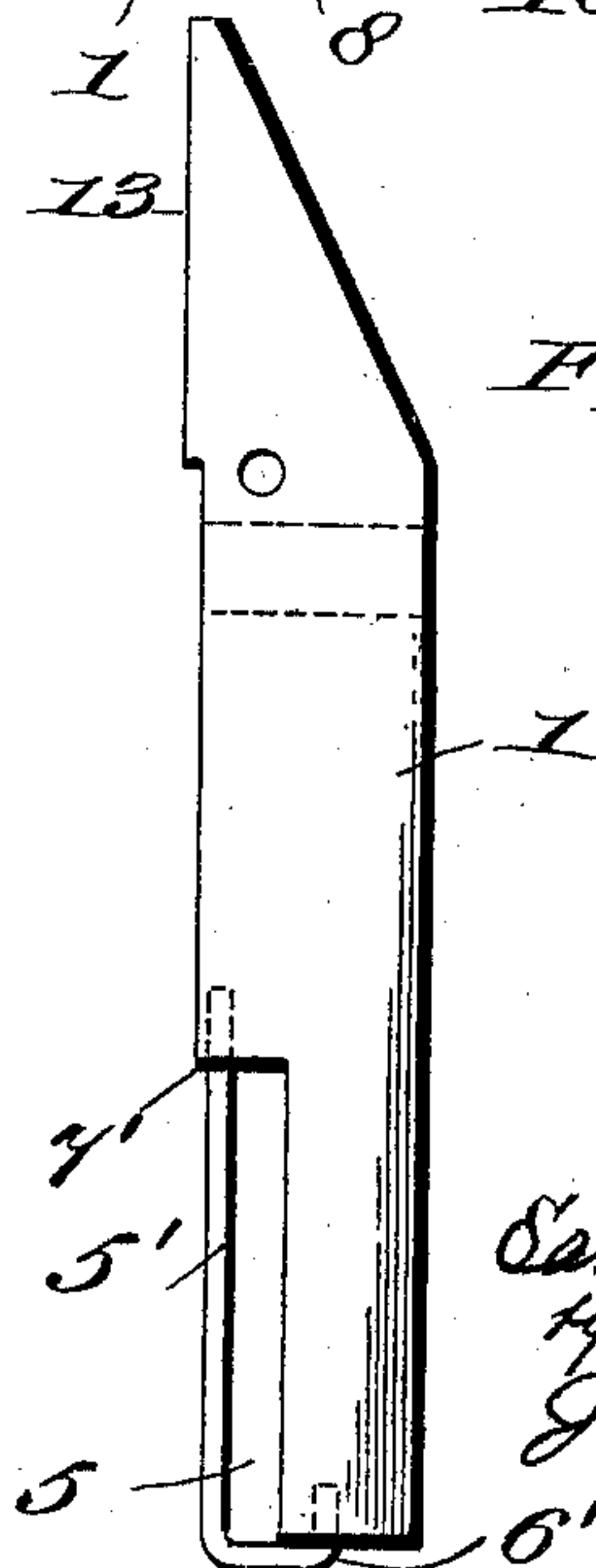


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

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CLAMP.

976,829.

Specification of Letters Patent.

Patented Nov. 22, 1910.

Application filed February 24, 1910. Serial No. 545,785.

To all whom it may concern:

Be it known that I, SAMUEL R. PARADISE, a citizen of the United States, residing at Valparaiso, in the county of Porter and State of Indiana, have invented new and useful Improvements in Clamps, of which the following is a specification.

The present invention relates to clamps, and has for its purpose to provide a device of that character which may be readily manipulated by one hand while the other hand is left free to hold the piece being worked, and which embodies further improvements over the clamp disclosed in my co-pending application for U. S. Patent Serial No. 535,921, and dated January 3, 1910.

The structure of clamp shown herein has, as distinct from the above, such an arrangement and disposal of the toggles connecting the jaws that the greatest possible strength is afforded thereto, and the working faces proper of the jaws are adapted to be dressed or trued whereby to prolong the life of the tool.

In the accompanying drawing which shows the invention in its preferred embodiment: Figure 1 is a side elevation thereof. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a side elevation, in detail, of one of the jaws; and, Fig. 4 is a similar view of a modification thereof.

Referring to the several figures in further detail and with like characters of reference indicating corresponding parts, in the different views shown 1 designates the jaws of the tool, which are connected in opposed relation by two pairs of toggles or levers 2. Said levers are pivotally secured at 3 to their respective jaws and at their opposite ends 3' the levers have a sliding connection with the jaws within the channels 4. Each pair of toggles is pivotally connected through the medium of a rivet or stud 4' and at said pivotal portions each of the members 1 is of relatively greater width than at their end portions whereby the greatest possible strength and consequent durability is afforded to the tool with the minimum amount of metal in its construction.

The lower or open ends of the slots 4 are provided with pins 6 which act to prevent possible expansion of the metal at those parts, and which also serve as a means for retaining the pivots 3' of the toggles within

the slots or channels 4 when the jaws of the tool are in contact.

As an alternative arrangement to that shown in Fig. 3 the type of jaw shown in Fig. 4 may be used, and in this instance the slideway 5 for the toggles is formed by having the lower corner portion of the jaw cut away and inclosing the same by a suitable rod or bar 5', the upper ends 6' and 7' of which are secured within said jaws in the manner shown.

The adjusting means for the tool comprises a bar 7 having a screw threaded portion and a smooth portion engaging respectively with a screw threaded and smooth bore formed in the upper portions of the jaws. Said bar is secured to one of the jaws by the collar 7' formed thereon. On one end the bar 7 is formed with a bifurcated head 8 and upon said head a lever 9 is pivotally mounted by a pin 10. The lever 9 is provided on its inner end with a V-shaped depression adapted to be engaged by a correspondingly formed catch 11 mounted within said head 8. The latch 11 is projected into engagement with the lever through the medium of a spiral spring 12 which is seated within a suitably provided recess back of the member 11. In its engaged position the lever 9 is held in the horizontal position shown in Fig. 1, and through the resiliency of the engaging device said lever may be thrown into either of the positions shown in dash lines in said figure.

The adjacent faces of the jaws 1 are cut away for their length beneath the pivotal points 3, thus leaving the active or working faces 13 of the jaws of such thickness as will give the greatest strength and rigidity to the tool along those lines of greatest strain, and which furthermore permits of these engaging parts of the jaws being dressed or cut away for the purpose of truing as will be readily understood.

What I claim as new and desire to protect by Letters Patent is:—

A clamp comprising a pair of parallel jaws, pivotally connected toggle levers disposed to either side of the jaws and having pivotal connection therewith at one end of each toggle member, longitudinally disposed slots formed in the jaws adjacent to the lower side edges thereof, the opposite ends of said toggle levers having connecting

pins engaging within and movable in said slots, cross pins secured within the lower ends of the jaws and closing the ends of said slots, a bolt having a fixed collar and a fixed
5 head securing said bolt to one of the jaws, and the outer end of said bolt having screw threaded connection with the other jaw, said bolt head having a slot and a recess formed therein, a lever pivotally mounted
10 within said slot and adapted to be set in various positions, and a spring pressed latch

seated within said recess and adapted to engage with said lever and to hold the same in position.

In testimony whereof I have hereunto set 15 my hand in presence of two subscribing witnesses.

SAMUEL R. PARADISE.

Witnesses:

OWEN L. CRUMPACKER,
WILLIAM L. PICARD.