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E. ROBIDOUX.  
HORSESHOER'S CLENCHING PLIERS.

APPLICATION FILED NOV. 18, 1907.

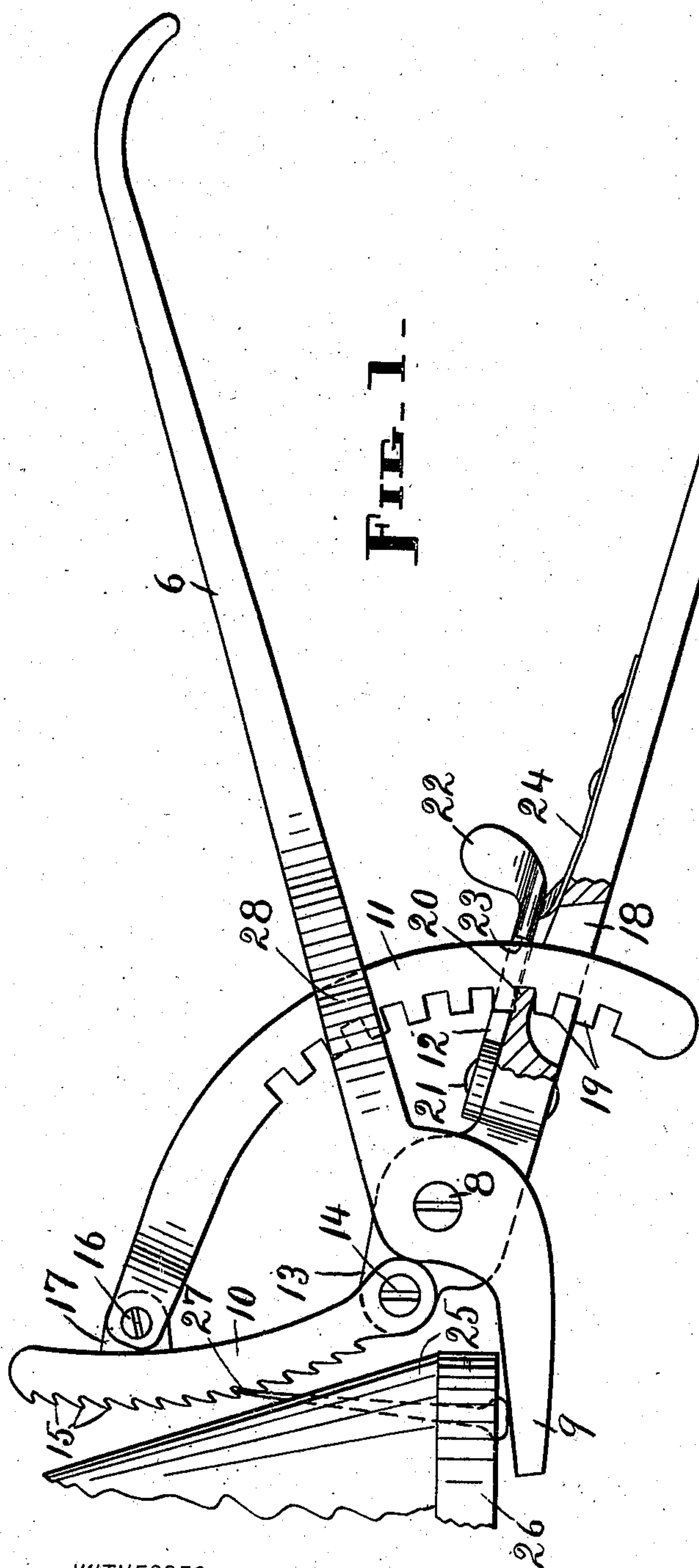


FIG-1-

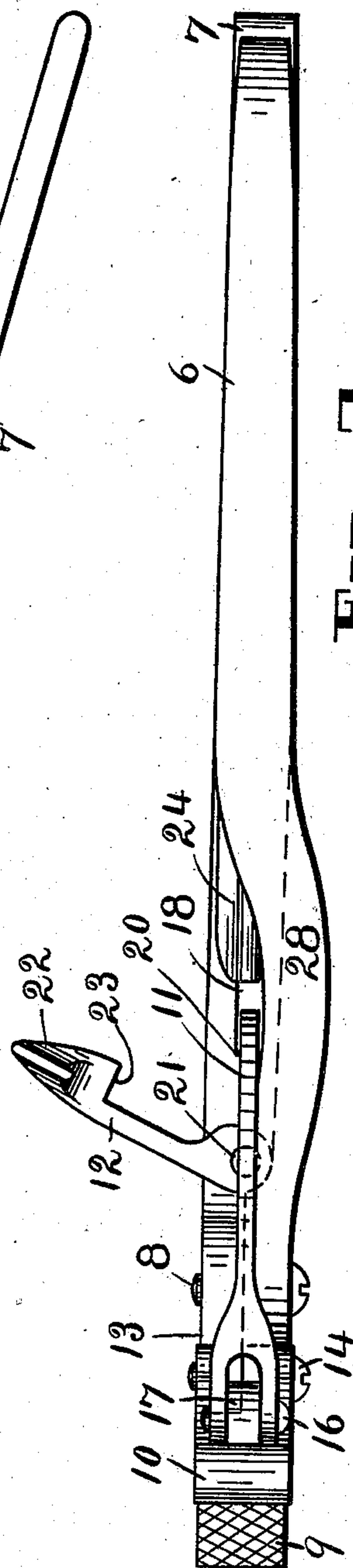


FIG-2-

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# UNITED STATES PATENT OFFICE.

ELI ROBIDOUX, OF LUDLOW, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO JOHN B. BOUCHARD, OF CHICOPEE FALLS, MASSACHUSETTS.

## HORSESHOER'S CLENCHING-PLIERS.

No. 881,619.

Specification of Letters Patent.

Patented March 10, 1908.

Application filed November 18, 1907. Serial No. 402,580.

*To all whom it may concern:*

Be it known that I, ELI ROBIDOUX, a citizen of the United States of America, residing at Ludlow, in the county of Hampden and State of Massachusetts, United States of America, have invented new and useful Improvements in Horseshoers' Clenching-Pliers, of which the following is a specification.

My invention relates to improvements in implements employed in farriery and particularly to pliers designed to turn over and clench the pointed end of a nail where it protrudes from the side of the hoof of the horse or other animal being shod after such nail has been driven through the hoof to assist in securing the shoe thereto, such pliers consisting generally of two pivotally connected handles provided with jaws one of which especially is of peculiar construction and is rendered adjustable by means which constitute part of the invention, all as hereinafter set forth.

The objects of my invention are, first, to produce pliers for conveniently, easily, and expeditiously clenching horseshoe nails on the outside of the hoof, such work having been done heretofore by means of a hammer assisted by a block held against the bottom of the shoe; second, to provide pliers of this kind which are adaptable to a hoof of any size and shape, and, third, to provide a strong, durable and comparatively inexpensive implement, for the purpose above noted, which is practicable and efficient in every particular. I attain these objects by the means illustrated in the accompanying drawings, in which—

Figure 1 is a side view of a practical form of my pliers, showing them open and in position ready to clench a nail in a hoof, a portion of which latter together with a part of a shoe thereon also appearing, and, Fig. 2, a top view of the pliers, the locking latch for the segmental arm of the adjustable jaw being thrown out or open.

Similar figures refer to similar parts throughout the several views.

The drawings disclose two handles 6 and 7 having their front terminals pivoted together at 8, two jaws 9 and 10, a segmental arm 11, and a keeper or latch 12. The handle 6 drops downward from the pivotal point and then extends forward to form the jaw 9, and

the handle 7 has a forward extension 13 beyond the pivotal point to which the base of the jaw 10 is pivoted at 14. The front side or face of the jaw 10, which is slightly convex lengthwise, is serrated the points of the serrations or teeth 15 being down. The front end of the arm 11 is pivoted at 16 to a lug 17 on the back of the jaw 10 a little distance below the top, while the opposite end or free terminal of said arm is received into a slot 18 in the arm 7 and extends through the same. Teeth 19 are formed on the inside edge of the rear portion of the arm 11 to engage a lug or tooth 20 in the slot 18 in the arm 7 and integral with the latter. The latch 12 has one end pivoted at 21 to the top of the arm 7, is provided at the opposite end with an upright thumb-piece 22, and is cut away intermediate of its ends to form a shoulder 23. This latch is so constructed and mounted on the arm 7 that the shoulder 23 can be positioned behind the arm 11, when the teeth on the latter are in engagement with the tooth 20, for the purpose of locking said arm so as to prevent the engaging teeth from becoming disengaged, as will appear more clearly hereinafter.

The latch is pivoted to the arm 7 in advance of the slot 18, and a spring 24 is fastened to said arm behind said slot with its head projecting upward into the path of the rear terminal of said latch to frictionally engage the same and hold the latch against accidental displacement when closed.

A portion of the arm 7 is broken out in the first view to plainly show the slot 18 and the engaging teeth 19 and 20; and there are represented in this view, in addition to the parts hereinbefore described, a portion of a hoof 25, a portion of a shoe 26, and a nail 27 passing through such shoe and hoof and protruding from one side of the latter. The handle 7 is offset at 28 to enable it to clear the arm 11.

The jaw 10 is adjusted to accommodate the pliers to any particular shape of hoof while the latch 12 is open and the arm 11 is swung back in the slot 18 out of engagement with the tooth 20, such adjustment being effected by rocking said jaw on its pivot 14, either forward or backward, accordingly as the implement is to be adapted to a "flat-foot" or to the hoof the sides of which are less oblique, as far as may be necessary, and



then refastening the parts. The jaw 10 can be rocked or swung forward or backward for adjustment either by grasping it directly or by actuating it through the medium of the arm 11. The locking of the adjustable jaw is brought about by swinging the arm 11 forward in the slot 18 and causing two of the teeth 19 to engage the tooth 20 from above and below, respectively, whereby said arm is prevented from moving up and down in or through said slot and said jaw in turn is prevented from oscillating on its pivot, and this locking engagement of the teeth is maintained by the latch 12 which is swung into place over the slot with its shoulder 23 behind the arm, thus preventing the latter from moving rearward in the slot, while the spring 24 with which said latch is now in contact holds the same in position until it is forcibly actuated outward again. The range and gradation of adjustment of the jaw 10 are subject only to the number, size and frequency of the teeth 19, the tooth 20 being made to correspond in all cases with said teeth 19 or with the spaces between.

After properly adjusting the pliers they are employed in the following manner: The handles 6 and 7 are first separated to open the jaws 9 and 10, then the jaw 9 is placed against the head of the nail 27 or against the bottom of the shoe 26 and the particular tooth 15 which is adjacent to the point of said nail is brought into engagement therewith, and finally the pliers are borne downward, the head of the nail or the shoe serving as a fulcrum, and at the same time said handles are pressed toward each other to close said jaws, the result being that the part of the nail which is outside of the hoof 25 is turned down against the side of said hoof and clenched by the engaging tooth 15. The teeth 15 are numerous enough to insure engagement with the point of the nail regardless of the length of the latter and of the location of the point.

In practice the position of the hoof and consequently that of the pliers when applied thereto will no doubt be different from that which is shown, but the illustration taken in connection with the foregoing description clearly discloses the application of the implement or the method of using the same.

It is obvious that various changes in the construction of some or all of the parts of which my device consists may be made without departing from the nature of my invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in horseshoers' clenching pliers, with a handle having a fixed jaw, of a second handle pivoted to the first and provided with a pivotally connected jaw adapted to engage the point of a nail, an arm

attached to said point-engaging jaw, and means to lock said arm to the same handle to which the point-engaging jaw is pivoted and to release it therefrom.

2. The combination, in horseshoers' clenching pliers, with a handle having a fixed jaw, of a second handle provided with a pivotally connected jaw adapted to engage the point of a nail, said handles being pivoted together, an arm having one end pivotally connected with said point-engaging jaw, engaging means between said second handle and the terminal of said arm which is opposite the pivoted end of the same, and means to lock and release such engaging means.

3. The combination, in horseshoers' clenching pliers, with a handle having a fixed jaw, of a second handle slotted and provided with a pivotally connected jaw adapted to engage the point of a nail, said handles being pivoted together, a segmental arm having one end pivotally connected with said point-engaging jaw and the other terminal inserted in the slot in said second handle, and means to lock and release that part of said arm which is in said slot.

4. The combination, in horseshoers' clenching pliers, of two pivotally connected handles one of which is provided with a fixed jaw and the other with a locking lug or tooth and has a slot therethrough, a serrated jaw pivoted to the tooth-provided and slotted handle, a segmental serrated arm pivoted at one end to the movable jaw and having its free terminal extended through said slot, the arm serrations being adapted to engage said locking lug or tooth to hold said movable jaw in position, and means to retain the interlocking toothed parts in engagement and to permit them to be released.

5. The combination, in horseshoers' clenching pliers, of two pivotally connected handles one of which is provided with a fixed jaw and the other with a locking lug or tooth and has a slot therethrough, a serrated jaw pivoted to the tooth-provided and slotted handle, a segmental serrated arm pivoted at one end to the movable jaw and having its free terminal extended through said slot, the arm serrations being adapted to engage said locking lug or tooth to hold said movable jaw in position, and a latch pivoted to the slotted handle and arranged to retain said arm in locking engagement with the aforesaid lug or tooth and to permit the same to be released from such engagement.

6. The combination, in horseshoers' clenching pliers, of two pivotally connected handles one of which is provided with a fixed jaw and the other with a locking lug or tooth and has a slot therethrough, a serrated jaw pivoted to the tooth-provided and slotted handle, a segmental serrated arm pivoted at one end to the movable jaw and having its free terminal

nal extended through said slot, the arm serrations being adapted to engage said locking lug or tooth to hold said movable jaw in position, a latch pivoted to the slotted handle  
5 and arranged to retain said arm in locking engagement with the aforesaid lug or tooth and to permit the same to be released from

such engagement, and a spring mounted on said slotted handle in the path of said latch to fasten the latter when closed.

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