

No. 753,386.

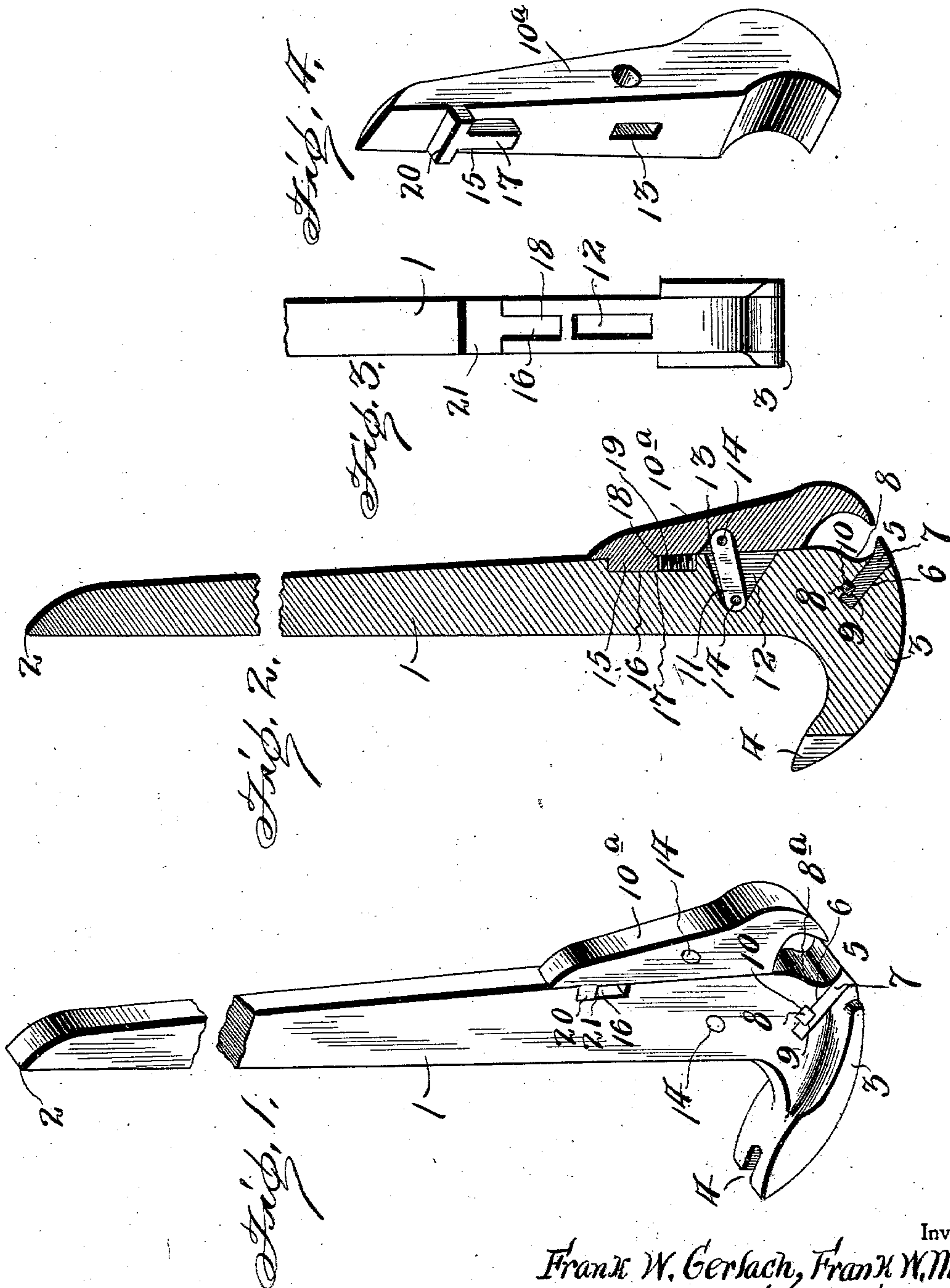
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F. W. & F. A. GERLACH & F. W. MOORE.

SPIKE PULLER.

APPLICATION FILED OCT. 26, 1903.

NO MODEL.



Witnesses

for A. Koehl.

[Signature]

Inventors
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Attorney

UNITED STATES PATENT OFFICE.

FRANK W. GERLACH, FRED A. GERLACH, AND FRANK W. MOORE, OF
KENTON, OHIO.

SPIKE-PULLER.

SPECIFICATION forming part of Letters Patent No. 753,386, dated March 1, 1904.

Application filed October 26, 1903. Serial No. 178,616. (No model.)

To all whom it may concern:

Be it known that we, FRANK W. GERLACH, FRED A. GERLACH, and FRANK W. MOORE, citizens of the United States, residing at Kenton, in the county of Hardin and State of Ohio, have invented certain new and useful Improvements in Spike-Pullers; and we do 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 certain new and useful improvements in spike and nail extractors or pullers.

The object of the invention is to improve and simplify the construction and operation of devices of this character, and thereby render them more durable and effective in use and less expensive to manufacture.

With this and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view of our improved nail and spike extractor, a portion of the handle being broken away. Fig. 2 is a longitudinal sectional view through the same. Fig. 3 is a view of the inner face of the lower end of the hand-lever, the movable jaw being removed from the same. Fig. 4 is a perspective view of the movable jaw.

Referring to the drawings by numeral, 1 denotes a hand-lever, preferably in the form of a tapered metal bar, having its small or upper end beveled to provide a chisel-point 2 and its lower end formed with a curved fulcrum-toe 3, the end of which is bifurcated to form a claw 4. The inner face of the lower end of the hand-lever is provided with a stationary gripper-jaw 5, which is preferably made removable, as shown, by forming the end of the hand-lever with a diagonal slot 6, in which a removable steel plate 7 is retained by a wedge or key 8. Said key passes transversely through the hand-lever, being wedged in registering slots 9 and 10, formed, respec-

tively, in the plate 7 and hand-lever 1. The inner face of the hand-lever is cut away, as at 8^a, just above the enlarged lower end of the plate 7, which forms the stationary jaw 5.

Mounted to slide longitudinally on the inner face of the hand-lever and to coact with the jaw 5 is a movable jaw 10^a, which is pivotally connected to the hand-lever by a bar or link 11. The ends of said bar 11 project into recesses or cavities 12 and 13, formed in the inner or contiguous faces of the hand-lever and movable jaw, and said ends are pivoted in said recesses by transverse pins 14. This connection for the movable jaw permits it to have a longitudinal sliding movement, as well as a slight swinging movement toward and from the hand-lever. In order to guide the movable jaw and to hold the same elevated, as shown in the drawings, the inner face of the said jaw adjacent to its upper end is formed with a T-shaped lug or projection 15, which slides in a similar-shaped recess 16, formed in the inner face of the hand-lever. The vertical portion 17 of the T-shaped lug slides in the vertical portion 18 of the recess 16, and a coil-spring 19 is placed in said portion 18 of the recess between its bottom and the lower end of said portion 17 of the lug and exerts its energy to elevate the movable jaw, as clearly shown in Fig. 2. The horizontal or cross portion 20 of the lug 15 slides in the cross portion 21 of the recess 16 and limits the upward-and-downward movement of the movable jaw, thereby taking the strain from the bar 13 and its pivot-pins 14.

In using the device the jaws 5 and 10^a are placed over the head of a nail or spike and the hand-lever is thrown down, using the toe 3 as a fulcrum-point to withdraw the spike or nail. It will be seen that as the hand-lever is thrown back the movable jaw 10^a will slide down and engage the spike more securely to prevent it bending. It will be further noted that by constructing the parts as described they may be quickly removed and replaced when worn out or broken.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the inven-

tion will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be
5 resorted to without departing from the principle or sacrificing any of the advantages of this invention:

Having thus fully described our invention, what we claim, and desire to secure by Letters
10 Patent, is—

1. The combination with a hand-lever having a gripper-jaw and a fulcrum-toe, of a movable-jaw coacting with said gripper-jaw, a link pivotally and slidably connecting said jaw to
15 the lever, and means for guiding and retracting said movable jaw, substantially as described.

2. In combination, the hand-lever having a gripper-jaw a fulcrum-toe, and a guide-recess,
20 the sliding jaw having a guide-lug adapted to enter said guide-recess, and the link or bar pivotally connecting said sliding jaw with said hand-lever, substantially as described.

3. In combination, the hand-lever having a gripper-jaw, a fulcrum-toe, and a guide-recess, 25 the sliding jaw having a guide-lug adapted to enter said guide-recess, the spring in said recess adapted to engage said lug to elevate said sliding jaw and the link or bar loosely connecting said sliding jaw and said hand-lever, 30 substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

FRANK W. GERLACH.
FRED A. GERLACH.
FRANK W. MOORE.

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