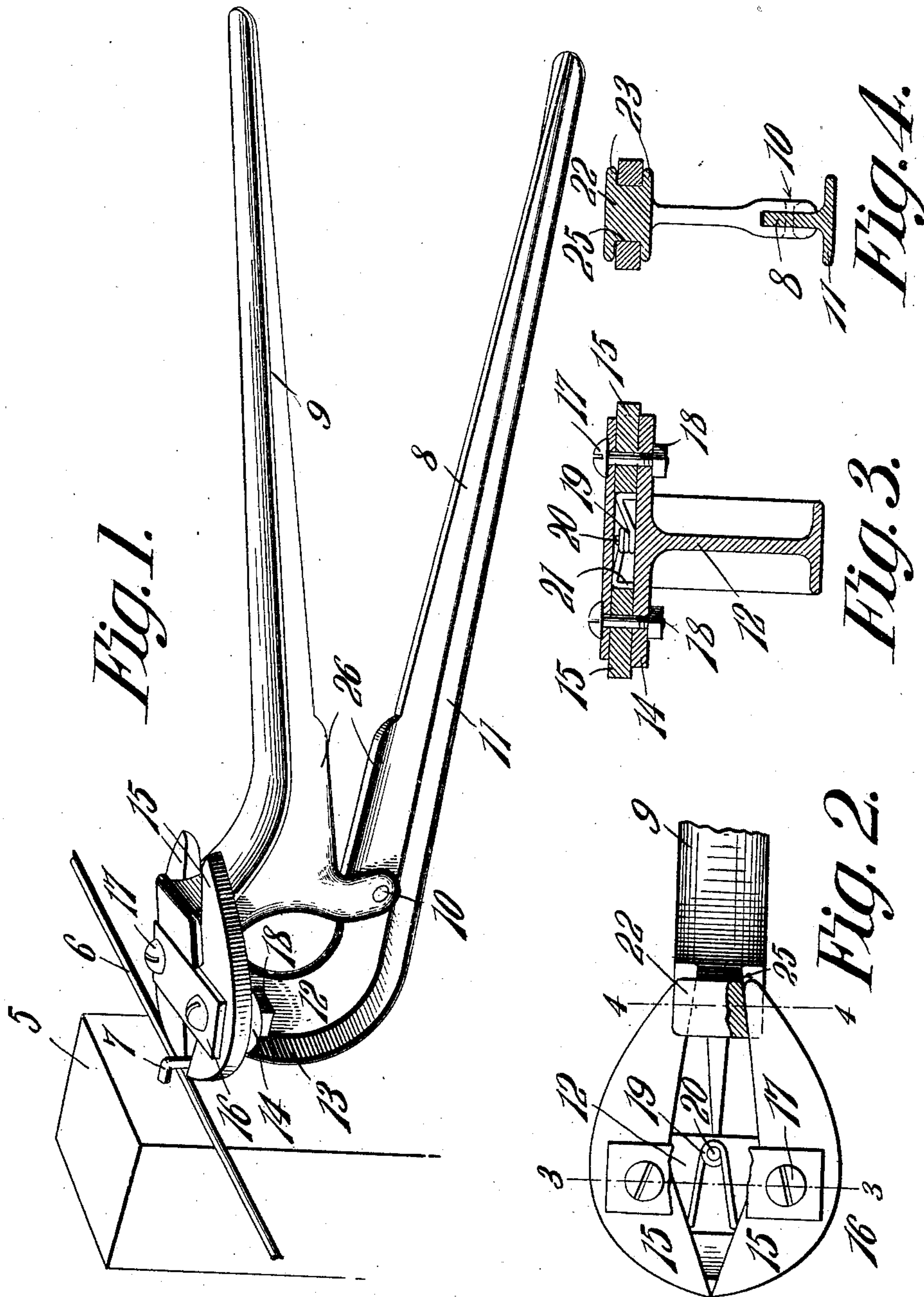


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PATENTED JAN. 1, 1907.

T. J. ALSOP.
STAPLE PULLER.
APPLICATION FILED AUG. 20, 1906.



WITNESSES:

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STAPLE-PULLER.

No. 839,802.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS J. ALSOP, a citizen of the United States, residing at Brooklyn, in the county of Green and State of Wisconsin, have invented a new and useful Staple-Puller, of which the following is a specification.

This invention relates to staple-pullers, and has for its object to provide a comparatively simple and inexpensive tool of this character for removing staples, nails, and similar fastening devices from fence-posts and the like.

A further object of the invention is to provide a pair of operating-handles, one of which is provided with cooperating gripping-jaws movable to operative position by the movement of the adjacent handle.

A further object is to form one of the handles with a curved bearing-surface which engages the fence-post or other support and serves as a fulcrum for the tool while pulling or extracting the staples.

A still further object of the invention is to generally improve this class of devices so as to increase their utility, durability, and efficiency.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, and illustrated in the accompanying drawings, it being understood that various changes in form, proportions, and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of a staple-puller constructed in accordance with my invention, showing the same in position on a fence-post. Fig. 2 is a top plan view of the head of the tool, showing the jaws in closed or operative position. Fig. 3 is a transverse sectional view taken on the line 3 3 of Fig. 2. Fig. 4 is a similar view taken on the line 4 4 of Fig. 2.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved tool is principally designed for pulling or removing staples and similar fastening devices from fence-posts and the like and by way of illustration is shown in position on a fence-post of the ordinary construction, in which 5 designates the post, 6 the line-

wire, and 7 the staples engaging the line-wire, as shown.

The tool consists of a pair of operating-handles 8 and 9, pivotally united, as indicated at 10, and each formed with a laterally-extending flange 11 to assist in reinforcing and strengthening the tool. The handle 8 is provided with a head 12, having a curved bearing-surface 13 for engagement with the fence-post or other support, said head being provided with laterally-extending lugs 14, on which are pivotally mounted a pair of gripping-jaws 15. The gripping-jaws 15 are connected by a metal strap 16 and are pivotally mounted for lateral movement on screws or similar fastening devices 17, which extend through the strap 16 and perforations in the lugs 14 for engagement with suitable clamping-nuts 18.

Interposed between the plate 16 and the head 12 is a spring having its intermediate portion bent to form a coil 19, which engages a pin or stud 20, extending vertically from the head 12, the opposite ends of the spring being bent laterally and thence downwardly to form depending arms 21, which bear against the adjacent faces of the gripping-jaws and assist in holding the same in open or inoperative position.

The handle 9 is provided with a boss or projection 22, the side walls of which are inclined toward the free end of the handle to form guiding-flanges 23, adapted to receive the reduced ends of the gripping-jaws 15, so that when the handle 9 is depressed or moved in the direction of the handle 8 the inclined faces 25 will expand the shanks of the jaws 15, and thus cause the active ends of the latter to grip the staple or other fastening device to be removed. The handle 8 and 9 at the pivot-point 10 are formed with thickened portions or enlargements 26, which interengage and serve to limit the closing movement of the handle 9.

In operation the tool is positioned on the fence-post with the bearing-surface 13 engaging the post and with the active ends of the gripping-jaws positioned on the opposite sides of the staple or fastening device to be removed, as best shown in Fig. 1 of the drawings. The handle 9 is then moved in the direction of the handle 8, which causes the gripping-jaws to engage the staple when a downward movement exerted on the tool will cause the gripping-jaws to pull or ex-

tract the staple from the fence-post, the bearing-surface 13 serving as a fulcrum during the pulling operation.

Attention is called to the fact that the jaws 5 15 are disposed at a slight angle or inclination to the longitudinal plane of the stationary handle 8, so that the tool may be used for extracting staples driven in the post close to the ground. When the implement is used 10 for this purpose, the latter is reversed and placed in position against the post with the jaws disposed parallel with the ground and with the free ends of the handles deflected upwardly, after which an upward pull is ex- 15 erted on the handles which causes the curved surface 13 to bear against the post and act as a fulcrum during the extracting operation in the manner before described. It will also be 20 observed that the enlargements 26 serve as gripping-jaws to hold the adjacent ends of the stringer-wires while splicing, twisting, or otherwise joining the same.

From the foregoing description it will be seen that there is provided an extremely sim- 25 ple, inexpensive, and efficient device admirably adapted for the attainment of the ends in view.

Having thus described the invention, what is claimed is—

30 1. In a staple-puller, a pair of pivotally-united operating-handles one of which is provided with laterally-extending lugs, gripping-jaws pivotally mounted on the lugs, a projection carried by the adjacent handle 35 and movable between the gripping-jaws for moving the jaws to operative position, means for limiting the closing movement of the handle, and a spring interposed between the jaws for moving the latter to inoperative 40 position.

2. In a staple-puller, a pair of pivotally-united operating-handles provided with longitudinally-disposed strengthening-flanges,

one of said handles being provided with a curved bearing-surface and having later- 45 ally-extending lugs, gripping-jaws pivotally mounted on the lugs, and a projection formed on the adjacent handle and provided with inclined side walls and guide-flanges for the reception of the gripping-jaws, said projec- 50 tion being movable between the jaws for actuating the latter.

3. In a staple-puller, relatively stationary and movable operating-handles one of which is provided with a curved bearing-surface 55 and formed with laterally-extending lugs, gripping-jaws pivotally mounted on the lugs, a spring interposed between the jaws, and a projection carried by the movable handle for moving the jaws to operative position. 60

4. In a staple-puller, relatively stationary and movable handles one of which is provided with a curved bearing-surface formed with laterally-extending lugs, gripping-jaws pivotally mounted on the lugs, a plate con- 65 necting the gripping-jaws, fastening devices carried by the plate and piercing the jaws and lugs, respectively, and forming the pivotal axis of the jaws, a lug extending from the stationary handle, a spring provided with 70 an intermediate coil encircling the lug and having its opposite ends bent to form angular arms adapted to bear against the gripping-jaws, and a projection carried by the movable handle and provided with inclined 75 side walls and laterally-extending flanges adapted to engage the gripping-jaws, said jaws being movable to operative position when the movable handle is depressed.

In testimony that I claim the foregoing as 80 my own I have hereto affixed my signature in the presence of two witnesses.

THOS. J. ALSOP.

Witnesses:

F. R. MELVIN,
E. M. WILDER.