(No Model.)

O. RICKOLSON.

STAPLE OR NAIL EXTRACTOR.

No. 406,538. Patented July 9, 1889.

Fig. 1.

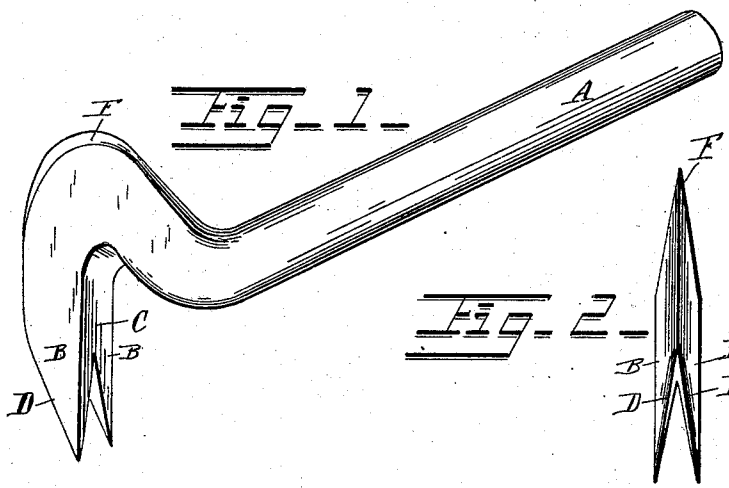
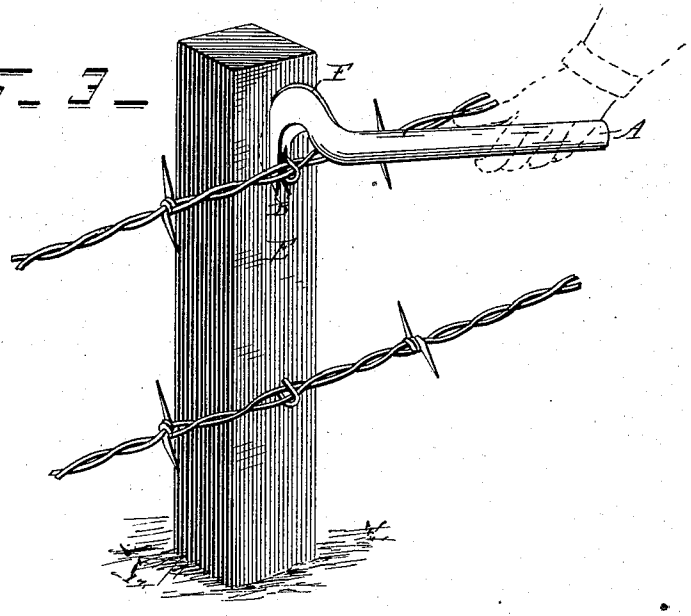


Fig. 2.

Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

OMMUND RICKOLSON, OF LEE, ILLINOIS.

STAPLE OR NAIL EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 406,538, dated July 9, 1889.

Application filed March 5, 1889. Serial No. 301,868. (No model.)

To all whom it may concern:

Be it known that I, OMMUND RICKOLSON, a citizen of the United States, residing at Lee, in the county of Lee and State of Illinois, have invented certain new and useful Improvements in Staple or Nail Extracting Levers; and I do hereby 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention has reference to improvements in staple or nail extracting levers; and it consists more especially in a peculiar conformation of the outer and engaging faces of said lever, by which it is adapted to enter the wood and pass down behind the staple or nail-head, as the case may be, without bending the latter.

In the staple-drawers heretofore in use the jaws or claws thereof are put in position by being forced between the nail-head or staple and the wood within which such staple or nail may be embedded, and as such tool is required to make space for its own entrance between the staple or nail and the contiguous wood the force involved in driving it into position results in bending the staple or nail toward the side opposite to that in which the force is applied, and thereby substantially destroys such staple or nail and renders it too imperfect for subsequent use.

In order to relieve the unsupported head of the nail or outer end of the staple from the usual lateral pressure thereon, resulting from the process of forcing the tool behind said end or head, I form the outer sides of the claws into a cutting-edge, which, when the tool is driven behind the staple or nail-head, permits said tool to embed itself in the wood of the post and thus cut its way in behind the staple or nail-head in position for operation without undue lateral pressure upon such staple or nail-head. The operation just described is facilitated by forming the inner face of such engaging ends as nearly straight as practicable, so as to further avoid the aforesaid downward pressure on the outer end of the staple or nail-head. Another objection to most of the tools in use for this purpose is that the arc of movement of the parts which engage the staple or nail-head has such short radius that the nail or staple is bent toward the center of motion in their withdrawal. To avoid this, I provide in my invention a projection above the upper end of the claws to serve as a fulcrum, which, in the operation of the tool, causes the outward movement of the engaging-jaws to proceed in nearly a direct line.

In the drawings, Figure 1 is a perspective of the tool, embodying my invention. Fig. 2 is an end view thereof. Fig. 3 represents the same in position for drawing the staples of a wire fence.

A is the handle or lever end of the tool.

B B are the engaging-jaws thereof. The jaws B are formed with tapering sharp points designed to readily enter the wood under the staple or nail-head. The inner sides C of the jaws B B are formed into nearly straight lines, and are flat, so that in the process of drawing the staples of a wire fence no kink will be formed in said wires. The outer sides of the jaws B B are formed into cutting-edges D.

E is an ordinary fence-post, and in the construction of wire fences the staple is driven into said post so as to bring the wires solidly against the latter and prevent vibration. The same conditions obtain in the nail driven home. The jaws B B are inserted behind the staple or nail-head, as the case may be, in the line of the grain of the wood, and in the case of drawing fence-staples, as illustrated, the jaws B B are respectively passed down behind each side of the staple. In this situation the cutting-edges D permit the jaws B to sink into the wood without any unusual strain upon the outer ends of the staple or nail. The tool is driven into position by blows from a suitable hammer upon the fulcrum end F, and when thus inserted a sufficient distance to be completely bestride the staple or nail aforesaid the tool is in position for power to be exerted at and through the lever end A.

I am aware that divers forms of staple and nail pullers, including the well-known jaws of ordinary hammers, have been heretofore in use; but the advantage which I claim for my invention is that by means of the sharp

character of the engaging-jaws D the tool can be inserted behind the staple or nail to be drawn without bending the latter at their free or protruding ends.

It is obvious that the center of movement of jaws B is at the fulcrum F, and the lifting power of the jaws B is therefore exerted in an arc having comparatively little curvature, and the withdrawn staple or nail is in condition for subsequent use.

My invention is simple in construction, can be very cheaply furnished, its use can be easily learned, and its operation is very satisfactory.

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

1. In a staple or nail extractor, the combination of the lever A and jaws B B, the latter provided with substantially straight sides C and outer cutting-edges D, substantially as shown, and for the purpose described.

2. In a staple or nail extracting lever, the combination of the lever A, fulcrum F, and jaws B B, the latter provided with external cutting-edges D, substantially as shown, and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

OMMUND RICKOLSON.

Witnesses:
JNO. G. MANAHAN,
JAMES F. CRISWELL.