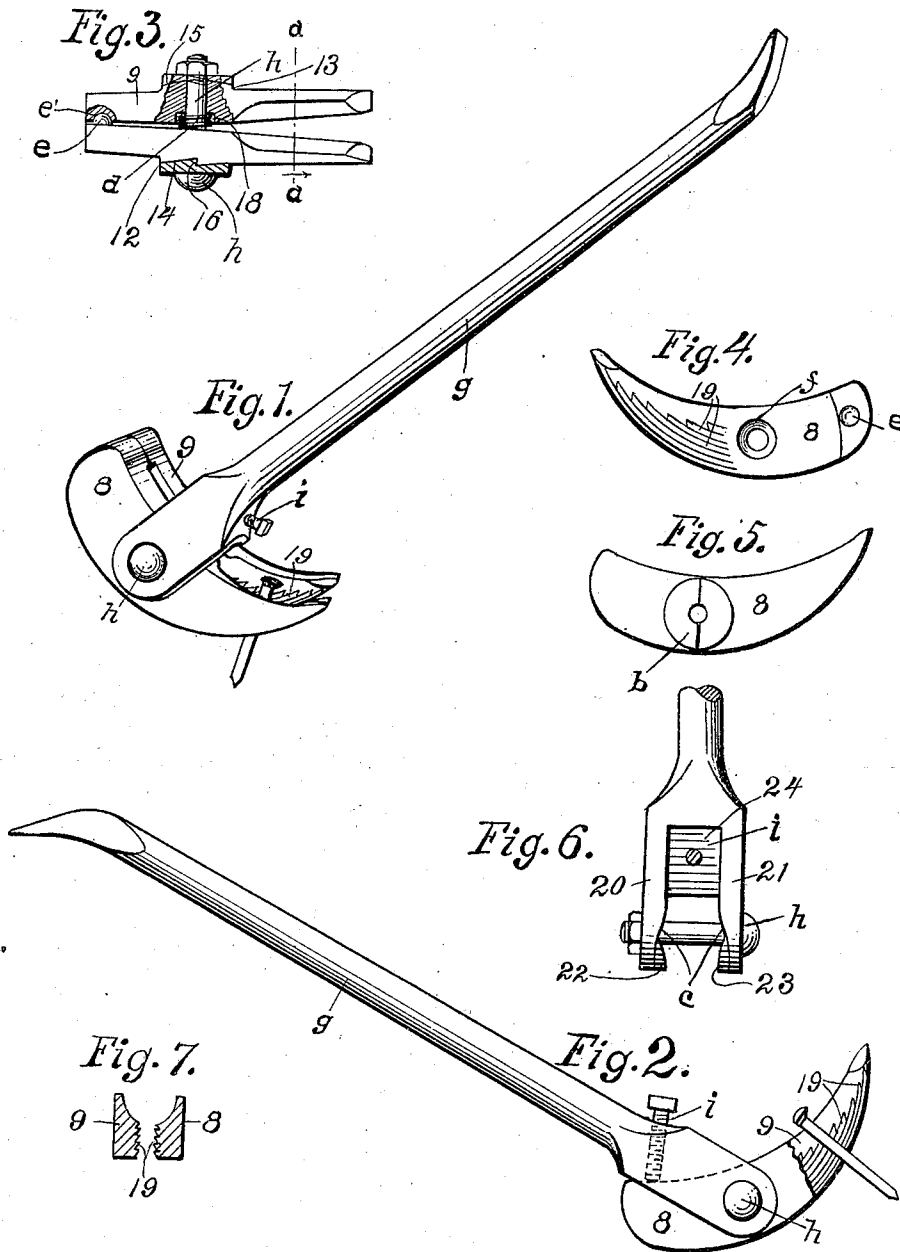


J. ADAMS.
SPIKE PULLER.
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Patented June 20, 1911.



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UNITED STATES PATENT OFFICE.

JOHN ADAMS, OF STROUDSBURG, PENNSYLVANIA.

SPIKE-PULLER.

995,757.

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To all whom it may concern:

Be it known that I, JOHN ADAMS, a citizen of the United States of America, and resident of Stroudsburg, in the county of Monroe and State of Pennsylvania, have invented certain new and useful Improvements in Spike-Pullers, of which the following is a specification.

This invention relates to spike pullers and has for its object to provide novel means for adjusting the jaws laterally and simultaneously therewith rocking the said jaws for the purpose of pulling the spike, novel means being also provided for limiting the movement of a handle designed to act in conjunction with the jaws and with relation thereto.

A further object of this invention is to provide laterally movable jaws and means for moving the same, and novel means for returning the jaws to their normal or distended positions so spaced apart as to readily admit the spike therebetween.

It is furthermore, an object of this invention to provide novel means at the heels of said jaws for retaining the heel ends thereof in proper position with relation to each other while the same are moved transversely under the manipulation of the lever heretofore mentioned.

It is furthermore, an object of this invention to provide a spike puller having its jaws adapted to oscillate with respect to the surface of the member from which the spike is to be pulled, the said jaws having opposed faces provided with serrations in stepped relation and of different lengths in order that the jaws may fit spikes and heads of nails of different sizes.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a view in perspective of a spike puller embodying the invention; Fig. 2 illustrates a side elevation thereof, one of the jaws of which is broken away; Fig. 3 illustrates a top plan view of the jaws, partly in section with the ears of the handle also in section; Fig. 4 illustrates a detail

view of the inner surface of one of the jaws; Fig. 5 illustrates a detail view of the outer surface of one of the jaws; Fig. 6 illustrates an enlarged detail view of the lower end of the handle and the pivotal bolt applied thereto; and Fig. 7 illustrates a sectional view on the line *a—a* of Fig. 3.

In these drawings 8 and 9 denote the jaws each of which has apertures *f* therein for the reception of the pivotal bolt *h*. The outer surfaces of the jaws have bosses 12 and 13 respectively provided with cam surfaces 14 and 15 respectively and with shoulders 16 and 17 respectively for purposes to be presently explained. The lower edges of the jaws are convexed as shown in the drawings so that they will rock or oscillate on the surface of the member from which the spike is to be drawn or a surface convenient there- to capable of supporting said jaws. The jaw 9 has a recess 18 in its inner face designed to act as a seat for the spring *d* which encircles the pivotal bolt *h*.

The inner surfaces of the jaws 8 and 9 at the heel end thereof are provided with a ball *e* and socket *e'* respectively, the said balls fitting in the socket and forming a fulcrum for the lateral movement of the jaws under the control of the operating mechanism for compressing the said jaws (to be presently explained) and the spring *d* for repelling the said jaws.

The inner surfaces of the jaws near the front ends thereof are provided with serrations 19 which are stepped in length and also in width, that is to say the inner surfaces of the jaws taper toward the upper edges, thereby providing for the accommodation of spikes or nails with heads of different sizes.

The means for oscillating the jaws and for moving the said jaws laterally consists of a handle *g* having a bifurcated lower end which forms the branches 20 and 21 having cams 22 and 23 respectively on their inner surfaces, designed to coact with the cam surfaces 14 and 15 on the bosses of the jaws in order that as the handle *g* is oscillated, said jaws are pressed together in order to clamp the spike to be pulled and to confine the head thereof against movement with relation to the jaws.

The bifurcated portion of the handle *g* has a web 24 in which the set screw *i* is threaded, the said set screw engaging the heel ends of the jaw and limiting the motion

of the handle with respect thereto and serving to communicate the motion of the handle to the said jaws to effect the oscillatory motion thereof to pull the spike. By reason of the set screw, the movement of the handle with relation to the jaws may be limited and therefore the degree of movement of the said jaws laterally under the influence of the cam can be controlled.

10 I claim—

15 In a spike puller comprising a lever having one of its extremities bifurcated, cams provided on the inner surfaces of the furcations, a web portion provided between the furcations of the bifurcated portion, said web portion being provided with a screw-threaded aperture, a plurality of jaws pivoted between the furcations of the bifurcated portion, said jaws having bosses on their

outer surfaces adapted to engage the cams 20 provided on said furcations, a ball made integral with the inner surface of one of the jaws at its heel end, an opposite jaw provided with a socket at its heel end, said ball adapted to be received by the socket pro- 25 vided in said opposite jaw, and an adjusting means adapted to extend through the aperture provided in the web portion and engage the heel portion of the jaws directly over the said ball and socket joint, for limiting the downward movement of the lever. 30

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

JOHN ADAMS.

Witnesses:

J. B. WILLIAMS,
WILLIAM A. SHAFER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
