

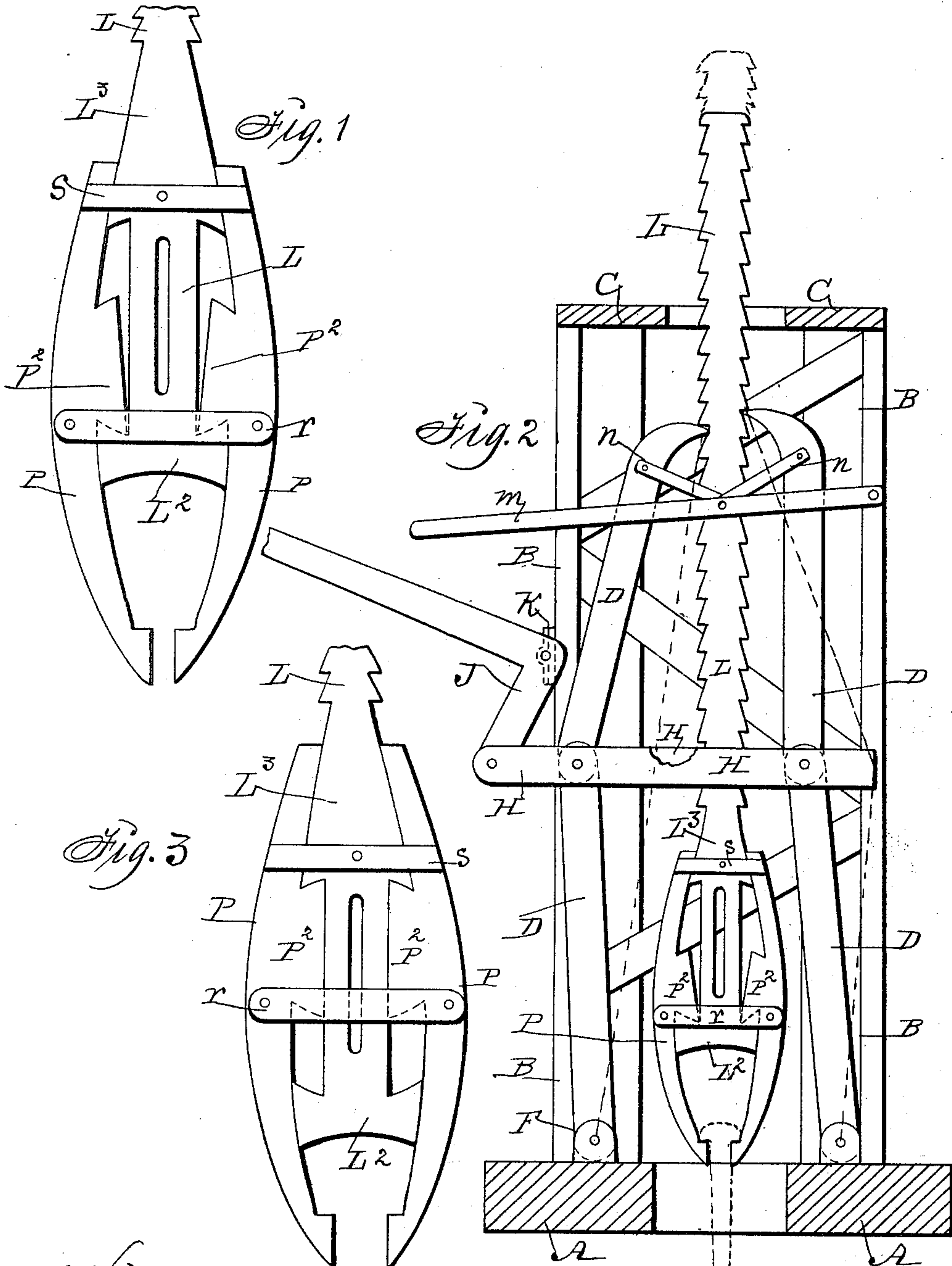
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Patented Feb. 4, 1902.

W. E. SEWELL.
SPIKE HOLDER AND PULLER.

(Application filed Apr. 29, 1901.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

WARD E. SEWELL, OF BAXTER, IOWA.

SPIKE HOLDER AND PULLER.

SPECIFICATION forming part of Letters Patent No. 692,369, dated February 4, 1902.

Application filed April 29, 1901. Serial No. 57,861. (No model.)

To all whom it may concern:

Be it known that I, WARD E. SEWELL, a citizen of the United States, residing at Baxter, in the county of Jasper and State of Iowa, have invented a new and useful Spike Holder and Puller, of which the following is a specification.

My object is to provide a machine specially adapted for clamping fast spikes and other objects by means of a compound leverage, lift spikes from railroad-ties in which they are fastened, or elevate other objects by means of the machine as required to supplement hand-power, and to facilitate such labor and avoid the straining and weariness incident thereto.

My invention consists in the construction, arrangement, and combination of parts, as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my adjustable clamping device, showing the jaws in a closed position. Fig. 2 is a side elevation of the machine, showing the relative positions of all the operative parts as required for clamping and lifting a spike or other object. One side of the frame is removed and only sections of the base and top are shown. Fig. 3 is a side view of the clamping device, showing the jaws in open position.

The letter A designates the base of the machine, in the form of a four-sided frame to which four corner-uprights B are fixed and connected at their tops by cross-pieces C. Mating toggle-jointed levers D are pivotally connected to bearers F, fixed to the tops and centers of the parallel cross-pieces of the base, as shown in Fig. 2, and connected at their centers with mating cross-pieces H, that extend at one end.

J is a bell-crank lever fulcrumed to bearers K, fixed to two parallel uprights B, and its short arm is pivotally connected with the projecting ends of the cross-pieces H in such a manner that hand-pressure downward upon the long arm of the lever J actuates the lever D.

L is an angular straight bar that has ratchet-teeth on parallel edges adapted to be engaged by the inwardly-curved top end of the toggle-jointed levers D. A hand-lever *m* is pivoted to one of the uprights B and connected at its

central portion to the top end portions of the levers D by means of links *n*, pivoted thereto in such a manner that lifting the long arm of the lever *m* will disengage the curved ends of the levers D from the ratchet-teeth of the bar L, as required for lowering that bar relative to an object that is to be lifted thereby. The lower end of the bar L has a cross-head L^2 , formed on or fixed thereto, and an enlargement L^3 at some space above the cross-head, and the parallel edges of said enlargement are inclined planes adapted to engage and operate mating curved jaws P, adjustably connected therewith. The jaws have flat-faced projections P^2 at their central portions and insides, adapted to engage the cross-head L^2 , as shown in Fig. 1, when in a closed position and to engage the parallel straight faces of the bar L when in an open position, as shown in Fig. 3. Cross-bars *r*, pivoted to the jaws P, connect them, and cross-bars *s*, fixed across the enlargement L^3 of the bar L, serve as bearings for the upper end portions of the jaws P as they move up and down on the inclined planes on the edges of the enlargement L^3 and as required for opening and closing the jaws upon spikes or other objects to be clamped fast thereto. By pressing the jaws downward their lower ends will be drawn inward to engage the head of a spike, as indicated by dotted lines in Fig. 2, and by operating the hand-lever *m* the spike will be clamped fast and the bar L elevated as required to lift the spike.

Having described the construction, function, arrangement, and combination of all the elements, the practical operation and utility of my invention will be readily understood by persons familiar with the art to which it pertains.

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

1. In a machine for clamping and lifting spikes and other objects, a clamp consisting of a bar having a cross-head at its lower end, an enlargement and inclined planes at some space above the cross-head, mating curved jaws having enlargements on their inner edges and central portions to engage said bar and cross-head, and cross-bars pivoted at their ends and central portions to retain the

jaws connected, arranged and combined to operate in the manner set forth for the purposes stated.

2. A machine for clamping and lifting spikes
5 and other objects, comprising a frame composed of a four-sided frame as a base and an upright fixed to each of the four corners of the base and connected by fixed cross-pieces
10 at their tops, toggle-jointed levers pivoted to the base and connected at their joints by cross-pieces, a bell-crank lever fulcrumed to parallel uprights and pivotally connected with the cross-bars at the joints of the toggle-jointed
15 levers, a hand-lever pivoted to one of the uprights and connected with the upper end por-

tions of the toggle-jointed levers, a straight bar having ratchet-teeth on two parallel edges adapted to be engaged by the upper ends of the toggle-jointed levers, a cross-head at its lower end, inclined planes at some space 20 above the cross-head and mating jaws fitted thereto and adjustably connected with said cross-head and inclined planes, all arranged and combined to operate in the manner set forth.

WARD E. SEWELL.

Witnesses:

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