(No Model.)

W. A. WRIGHT.

SPIKE EXTRACTOR.

No. 301,077. Patented June 24, 1884.

Fig. 1.

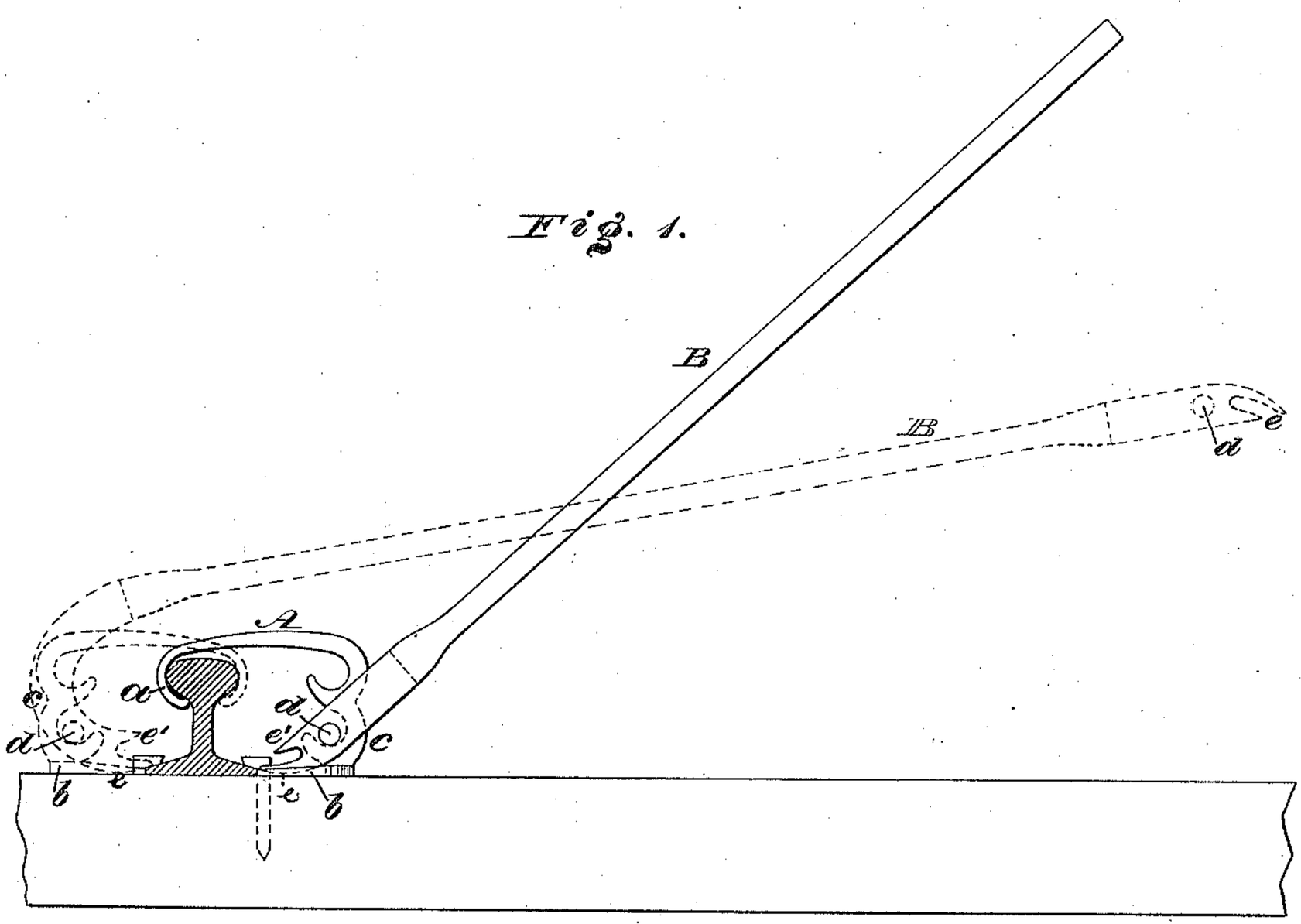
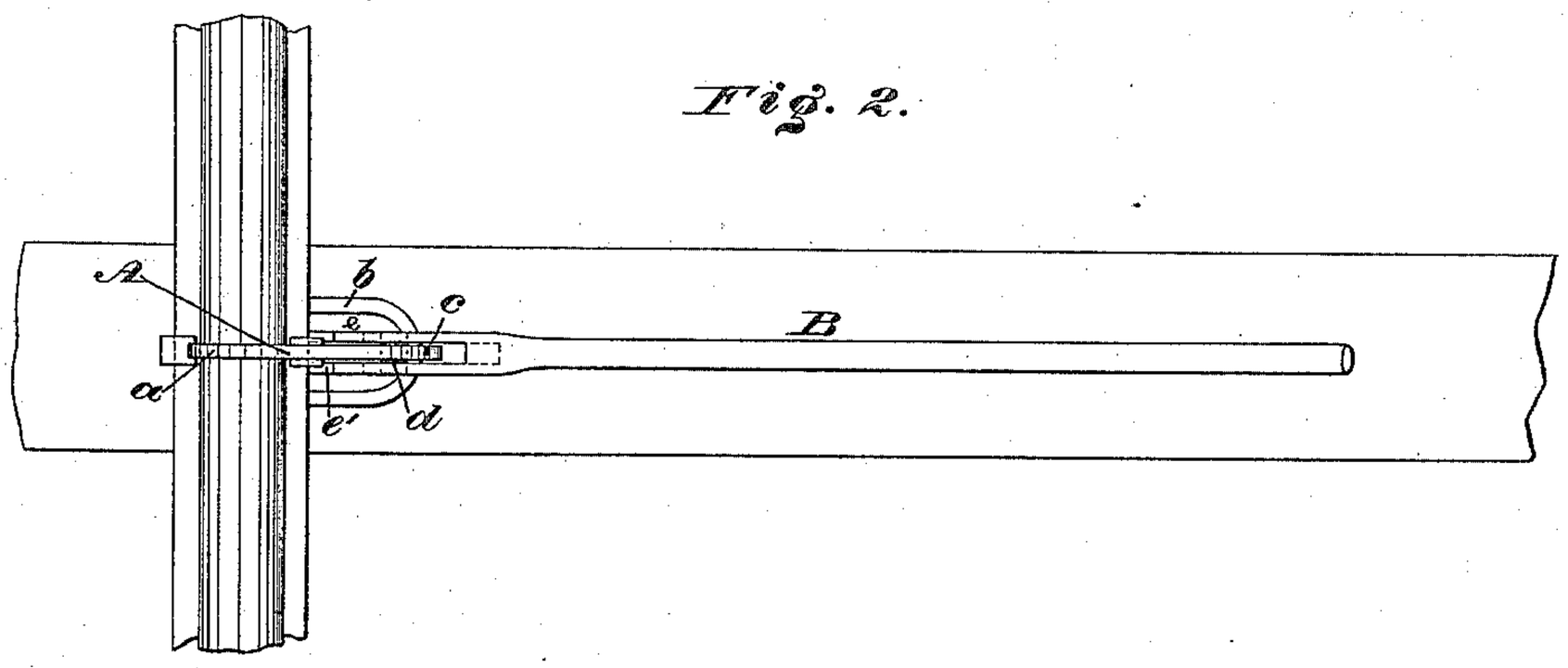


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM A. WRIGHT, OF CENTRETON, NEW JERSEY, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO A. J. LAMBORN, OF PHILADELPHIA, PA.

SPIKE-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 301,077, dated June 24, 1884.

Application filed August 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. WRIGHT, a citizen of the United States, residing at Centreton, in the county of Burlington, State of New Jersey, have invented a new and useful Improvement in Spike-Extractors, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of a spike-extractor embodying my invention. Fig. 2 is a top or plan view thereof.

Similar letters of reference indicate corresponding parts in the two figures.

My invention consists of a spike-extractor of novel construction, easily operated, and possessing strength and durability, as will be hereinafter fully set forth.

Referring to the drawings, A represents a yoke, which is formed with a hook, *a*, a base or foot, *b*, and a rack portion, *c*.

B represents a lever or bar, which is bifurcated near its lower end to fit over or straddle the yoke A, has a cross-rod, bar, or bearing, *d*, to rest on either tooth of the rack portion *c*, as the fulcrum of the lever, and a claw, *e*, at bottom, to grasp the head of the spike on the under side thereof. Above the claw *e* is a finger, *e'*, which projects forward in the same direction as the claw *e*, a space existing between the claw and finger to receive the head of the spike when the latter is elevated. When the lever is fitted to the yoke, the latter is connected by means of the hook *a* with the under side of the head of a railroad-rail opposite to the lever, and the base *b* rested on the cross-tie. The lever is then supported on the lowest tooth of the rack portion *c*, so that the claw *e* may be inserted under the head of the spike, and the handle end of the lever is lowered, thus starting and partially withdrawing the spike. The lever is then raised, so that the bearing *d* may be placed on the upper tooth of the rack, in which motion the finger *e'* moves over and rests on top of the head of the spike, forming a fulcrum for the lever, and preventing the lever from dropping. The bearing is now in such position that it may be located on the upper tooth of the rack, and the claw may take fresh hold of the spike, which being accomplished, the handle end of the lever is again lowered, whereby the spike is raised to full extent and entirely withdrawn. When the lever is shifted from the lower to the upper tooth of the rack, the finger *e'* rests on the head of the spike, as has been stated, and when the bearing *d* is dropped on said upper tooth the claw *e* is the same distance, or approximately so, from the under side of the head as it was when the bearing occupied the lower tooth of the rack, whereby, when the lever is lowered, the claw immediately engages with the spike and completes the withdrawal thereof. This action is occasioned by placing the upper tooth perpendicularly over the lower tooth, and thus the claw does not change its distance from the head of the spike. Furthermore, the claw, being below, is longer than the finger, which is above, and thus when the claw engages with the under side of the head of the spike the finger is clear of the top of said head, and when the finger rests on the top of the head the claw leaves the under side of the spike-head, and thus the two parts—viz., the claw and finger—do not interfere with each other. By properly turning the yoke toward the head of the rail, the hook *a* is disengaged therefrom, and the yoke may be removed to another spot and secured in position, and the lever manipulated so as to act on another spike, the operation and result being similar to that hereinbefore stated. When the spike is difficult of access, the lever may be curved, as shown by the dotted lines, Fig. 1, so as to reach the spike and be conveniently operated. The rack portion may be formed of notches placed one above the other, or well-defined teeth, the latter being preferred.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a spike-extractor, a yoke provided with teeth, in combination with a lever formed with a claw, *e*, a finger, *e'*, and a fulcrum-bar, *d*, said claw and finger having between them a space to receive the head of the spike, the claw being longer than the finger and located below the same, substantially as and for the purpose set forth.

2. A spike-extractor consisting of a yoke having a rack the teeth of which are located perpendicularly one above the other, and a

lever formed with a fulcrum-bar, a claw, and a finger, a space existing between the claw and finger, the finger being above, whereby when the lever is shifted to the higher tooth of the rack its finger forms a bearing on the head of the spike, and when the fulcrum-bar of the lever rests in said tooth the claw is approximately the same distance from the under side of the head of the spike as when said bar rested in the lower tooth, substantially as stated.

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