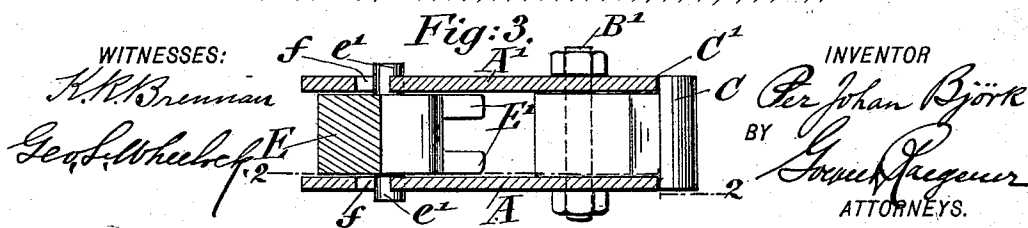
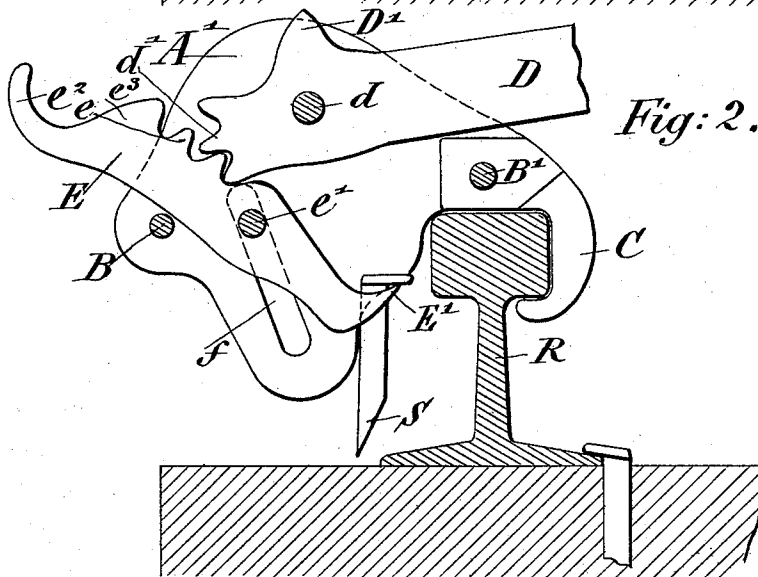
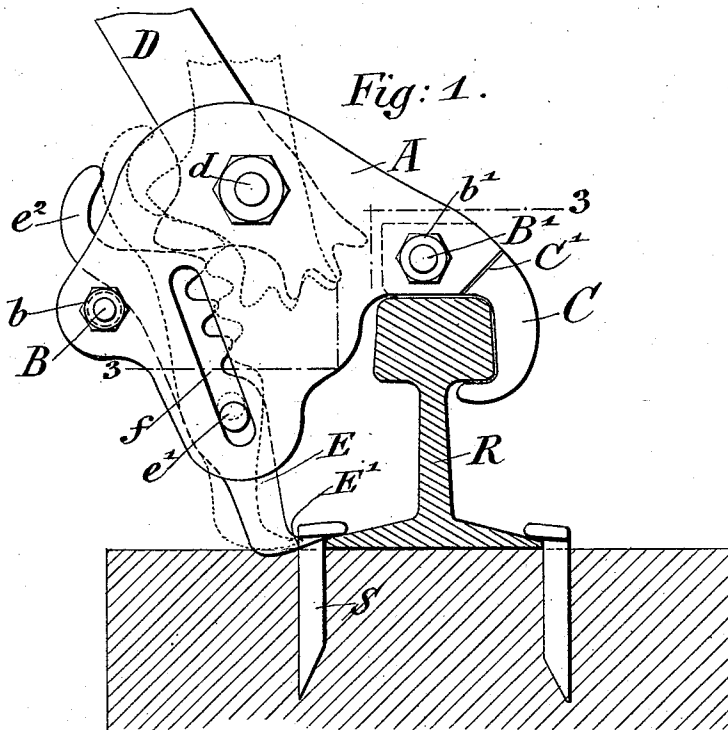


(No Model.)

P. J. BJÖRK.
SPIKE PULLER.

No. 524,082.

Patented Aug. 7, 1894.



UNITED STATES PATENT OFFICE.

PER JOHAN BJÖRK, OF BROOKLYN, NEW YORK.

SPIKE-PULLER.

SPECIFICATION forming part of Letters Patent No. 524,082, dated August 7, 1894.

Application filed April 14, 1894. Serial No. 507,517. (No model.)

To all whom it may concern:

Be it known that I, PER JOHAN BJÖRK, a subject of the King of Sweden and Norway, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Spike-Pullers, of which the following is a specification.

My invention relates to a tool for pulling railroad spikes, and its objects are to furnish a tool by which a firm hold is secured on both the rail and spike, and also one by which a spike may be pulled with ease, in an uninjured condition so that it can be used again when required.

My invention consists of a head of suitable construction to which is fulcrumed a lever having at its inner end several cog-teeth adapted to engage a series of cog-teeth projecting from a movable claw-member, said head being provided with a hook for engaging the head of the rail and supporting the tool, so that when the lever is properly worked the claw may be caused to engage under the head of a spike and the same drawn.

Certain other details of construction and combination of parts form features of my invention, and the same will be hereinafter fully described and then specifically claimed.

In the accompanying drawings, Figure 1 is a side-elevation of my spike puller, showing in full lines the hook engaged with a rail and the claw-member in engagement with a spike, just before it is drawn, and the dotted lines showing the position of the parts previous to the engagement of the claw-member with the spike. Fig. 2 is a section on line 2, 2, Fig. 3, showing the lever depressed and the spike drawn out, and Fig. 3 is a transverse section on line 3, 3, Fig. 1.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, the head or frame of my improved tool is shown to consist of two cheek-plates A, A', of irregular shape, which are rigidly connected by means of bolts B, B', and nuts b, b', screwed onto the bolts. Rigidly secured between the rear-portions of the cheek-plates of the head by means of bolt B' is an inwardly curved hook C, the same being provided with shoulders C' which abut against the edges of the plates and steady the hook. Fulcrumed on a bolt d connecting the

upper portions of the cheek-plates, is a hand-lever D of suitable length, a portion of which only is shown in the drawings. At the inner end of the lever D are located several cog-teeth d' which are adapted to engage with a series of cog-teeth e on the rear edge of a claw-member E of hardened and highly tempered steel movably mounted between the cheek-plates and provided with a suitable claw E'. In the forward portions of the cheek-plates of the head are formed a pair of opposite parallel guide-slots f, f, which extend in downward direction and receive the guide-pins e' located at opposite sides of the claw-member E.

In using the tool the hook C is engaged over the head of the rail R to afford a firm support for the same and enable the proper purchase of the lever D, the latter and the claw-member E being then in the position indicated in dotted lines in Fig. 1, with the inwardly curved finger e² at one side of the upper end of the claw-member resting against the cam-projection D' located on the forward lower side of the lever. A forward movement of the lever, causes the cam-projection D' to move along the inclined heel e³ of the claw-member and forces the claw E' under the head of the spike S as shown in full lines. Now by imparting to the lever a number of quick but forcible movements, the cam-projection D' successively strikes the heel e³ of the claw-member and effects the loosening and starting of the spike from the tie in which it is embedded. Having thus started the spike, its ready withdrawal in vertical position is accomplished by depressing the lever, the teeth d' thereof to that end taking into the teeth e of the claw-member, so that the latter is raised with its forward edge sliding upon the bolt B.

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

1. In a spike puller, the combination with a head provided with means for engaging a rail, and a lever fulcrumed to the head and provided with a cam-projection, of a claw-member guided in the head and provided with a claw, said cam-projection being adapted to bear on the upper end of the claw-member, and said lever and claw-member being provided with means for effecting their engage-

ment for raising the claw-member, substantially as set forth.

2. In a spike-puller, the combination with a head provided with means for engaging a rail, and a lever fulcrumed to the head and provided with a cam-projection, of a claw-member guided in the head and having an inclined heel-portion, said cam-projection being adapted to engage said heel-portion, and said lever and claw-member being provided with means for effecting their engagement for raising the claw-member, substantially as set forth.

3. In a spike-puller, the combination with a

slotted head provided with means for engaging a rail, and a lever fulcrumed to the head and provided with cog-teeth, of a toothed claw-member provided with guide-pins entering the slots of the head, the teeth of the lever and claw-member respectively being adapted to engage, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

PER JOHAN BJÖRK.

Witnesses:

PAUL GOEPEL

K. R. BRENNAN.