

(Model.)

K. J. DUGGAN.

SPIKE PULLER.

No. 285,242.

Patented Sept. 18, 1883.

Fig. 1.

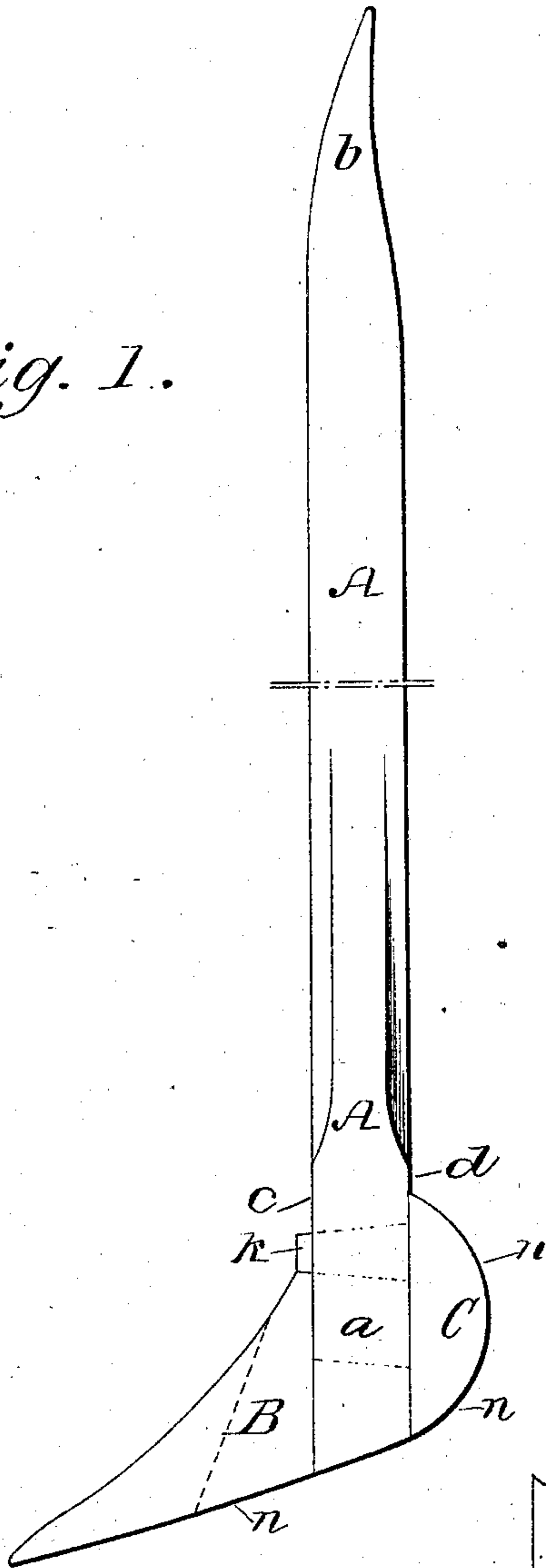


Fig. 2.

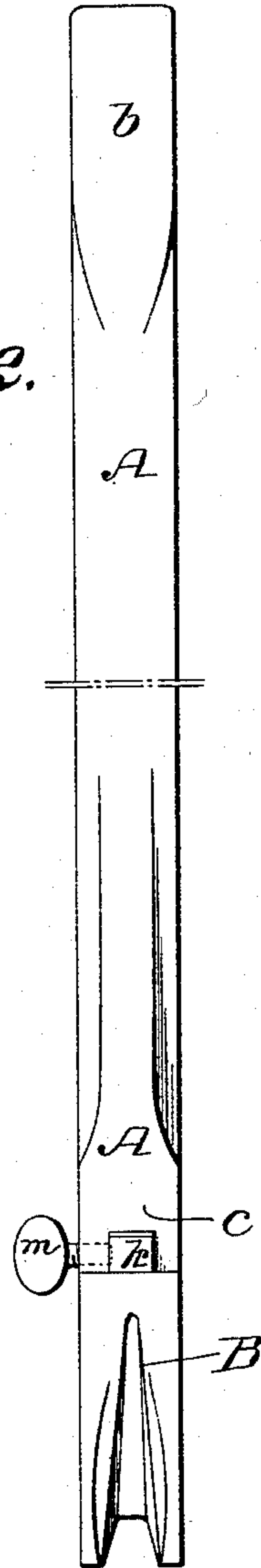
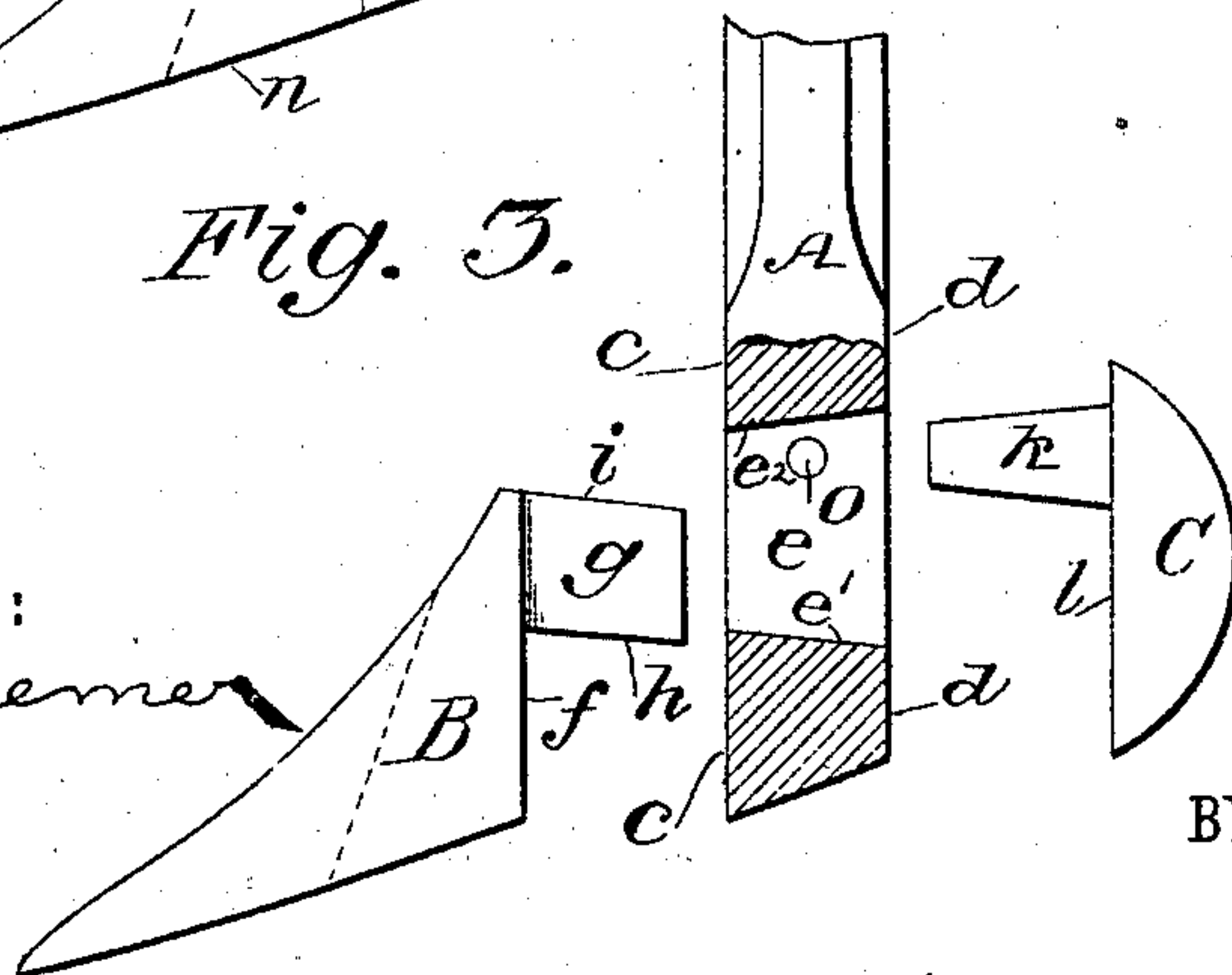


Fig. 3.



WITNESSES:

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SPIKE-PULLER.

SPECIFICATION forming part of Letters Patent No. 285,242, dated September 18, 1883.

Application filed June 21, 1883. (Model.)

To all whom it may concern:

Be it known that I, KEYRAN J. DUGGAN, of Montgomery, in the county of Montgomery and State of Alabama, have invented a new and Improved Spike-Puller, of which the following is a full, clear, and exact description. The object of my invention is to provide a simple, practical, strong, and durable spike-pulling bar for use by railway track-men, lumbermen, and others requiring a tool of this class which shall not need frequent and expensive repairs.

The invention consists in a bar or lever fitted with a removable claw-head having an inclined tenon fitting in a flaring mortise of the bar, and locked in place by a tapering stud or key formed on the removable heel piece or block of the tool, whereby different claw-heads may be interchangeably and quickly fitted to the main bar should the claw-head in use be accidentally broken, the construction thus also permitting the use with the one main lever or bar of claw-heads of varying size, shape, and strength, as may be needed.

The invention includes also special constructions of the parts in detail and as combined with each other, all as hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side view of my improved spike-puller; Fig. 2, an edge view at right angles to Fig. 1; and Fig. 3 represents the lower end of the main bar, partly in section, and with the claw-head and heel or fulcrum block as removed to either side from the main bar.

My improved tool consists of three principal parts, viz: a main lever-bar, A, a removable claw-head, B, and a removable heel or fulcrum block, C. The bar A may be of any desired length, and be made of iron or steel sufficiently heavy to bear the strain of use. I prefer to shape the bar A square at the lower end, *a*, or at least with two opposite flat faces or sides at that point to form joint-faces with the claw B and fulcrum C, as hereinafter described; and I propose to flatten and bend the opposite sides or faces of the top of the bar A to form a strong pick-point or pry, *b*, which may con-

veniently be used in many ways in track-laying or repairing, or about lumber rafts or mills, and elsewhere. Near the foot of the bar A, which is about two inches square, and through it from its opposite joint-faces, *c d*, I form the slot *e*—say about three-quarters of an inch in width and two inches long—and flare or incline the opposite ends *e' e''* of the slot outward from the joint-face *c*, against which the back end or shoulder, *f*, of the claw B rests, as will be understood from Figs. 1 and 3. The claw B is formed in the usual manner with a central slot for engaging the spike at and below its head, and has also fixed to or formed on it the tongue or tenon *g*, which is of a thickness to snugly fit the slot *e*, and is shaped at its lower edge, *h*, to lie fairly on the end *e'* of slot *e*, when the joint-faces *c f* are in contact, and the upper edge, *i*, of the tenon lies parallel or thereabout with its lower edge, *h*, so that when the claw is fitted by its tenon *g* in the slot *e* of the bar A, a tapering aperture will be formed at or between the faces *i e''*, in which and between the side faces of the slot *e* the taper plug or key *k*, fixed to or formed on the fulcrum-block C, snugly fits when the joint-face *l* of said block C is in contact with the joint-face *d* of bar A, as will be understood from Fig. 1, so that the tapering key *k*, acting with the inclined or hooking angular edge *h* of the tenon, serves to firmly lock the claw-head B to the bar A, and insures a close joint at *c f*, which will prevent all chattering of the head B when the tool is in use, and holding the head B and bar A together as one piece, while at the same time allowing the head to be removed quickly for substitution of another one, or for packing the tool away in smaller space for transportation or when out of use. Ordinarily the fit of the parts A B C will insure their firm lock to each other; but at times it may be desirable to use the screw-bolt or thumb-screw *m*, which is threaded into the aperture *o* of the bar A, and takes against the side of the key *k* to lock the fulcrum-block C firmly to place, as in Fig. 2. The parts B A C may be shaped so that when assembled as in Fig. 1 their lower acting fulcrum-face, *n*, may have any continuous contour best suited to the style and size of the spike to be drawn, and so as to have the best effect in easily starting the spike

and withdrawing it quickly when started, which operation is performed by seizing the spike by the claw and rocking the tool backward on face *n* toward the heel-block C, as
5 will readily be understood.

The advantages secured by the tool above described and having removable and interchangeable claw-heads B over the common solid construction of the claw with the bar
10 are obvious, as broken claws may be replaced on the spot without loss of time, which is considerable when the bar is reheated and forged again to shape. The claw, and in my tool the main bar A and heel or fulcrum block C, and
15 key *k* are well calculated for durability in use, making the tool effective, and practical for its purposes.

I do not abandon or dedicate to the public any patentable feature set forth herein and
20 not hereinafter claimed, but reserve the right to claim the same either in a reissue of any patent that may be granted upon this application or in other applications for Letters Patent that I may make.

25 Having thus described my invention, what

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

1. A spike-puller constructed with a main lever-bar, A, having a slot, *e*, with tapering ends *e'* *e''*, a claw, B, fitted with the inclined
30 tenon *g*, and a heel-block, C, having a tapering locking plug or key, *k*, substantially as shown and described.

2. The claw B, having a contact-face, *f*, and a tenon, *g*, formed with edges *h i* at an acute
35 angle with the joint-face *j*, substantially as shown and described.

3. The heel-block C, having a rounded outer edge, a joint-face, *l*, and a plug or key, *k*, tapering outward from face *l* at the top and bottom
40 edges, substantially as shown and described.

4. The combination, with the bar A, claw B, and heel-block C, interlocking as specified, of the screw *m*, substantially as shown and described.

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Witnesses:

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E. SEIBELS.