

M. WATERS.
CLAW BAR.

APPLICATION FILED JUNE 2, 1908.

935,714.

Patented Oct. 5, 1909.

Fig. 1.

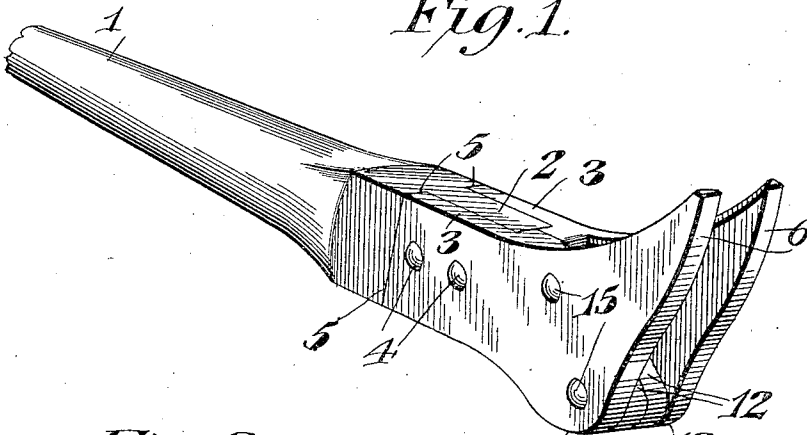


Fig. 2.

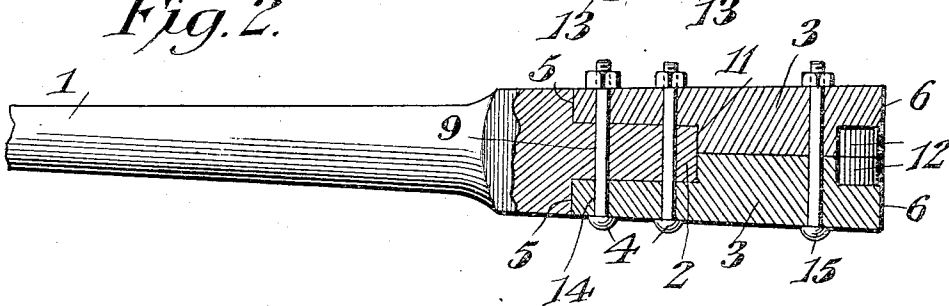


Fig. 3.

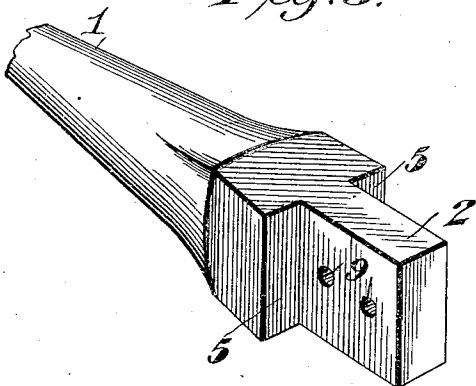
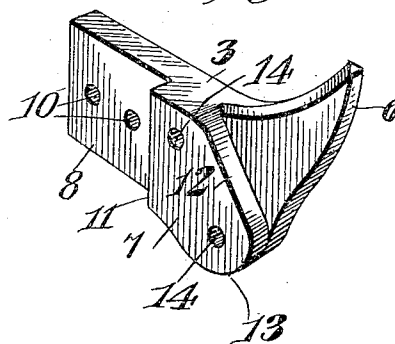


Fig. 4.



Witnesses

Jas. E. McLaughlin
H. J. Riley

Minor Waters, Inventor

By

E. G. Siggers

Attorney

UNITED STATES PATENT OFFICE.

MINOR WATERS, OF NEW ALBANY, INDIANA.

CLAW-BAR.

935,714.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MINOR WATERS, a citizen of the United States, residing at New Albany, in the county of Floyd and State of Indiana, have invented a new and useful Claw-Bar, of which the following is a specification.

The invention relates to improvements in claw bars.

The object of the present invention is to improve the construction of claw bars for extracting railroad spikes, etc., and to provide a simple and comparatively inexpensive one, equipped with detachable claws adapted when broken or worn out to be readily replaced at slight expense.

The invention also has for its object to enable the claws to be more perfectly constructed of a higher grade of material than heretofore without rendering the claw bar more expensive than those now in use.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claim hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claim, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a perspective view of a claw bar, constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a detail perspective view of the lower or front end of the bar or lever, illustrating the construction of the shank. Fig. 4 is a detail perspective view of one of the claws.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

1 designates a bar or lever provided at its lower end with a flat rectangular block or shank 2, oblong in cross section and adapted to receive a pair of detachable claws 3, secured to the shank by transverse bolts 4, or other suitable fastening devices. The bar or lever 1 is enlarged at the inner end of the shank to form opposite transverse shoulders 5, presenting flat faces to the end edges of the inner portions of the claws 3.

The claws 3, which have tapered outer projections or engaging portions 6, are pro-

vided at an intermediate point with inner lugs or enlargements 7, fitted together and spacing the inner attaching portions 8 from each other to provide an intervening opening or space for the reception of the shank 2 of the bar or lever 1. The shank 2 and the attaching portions 8 are provided with registering perforations 9 and 10 for the reception of bolts 4, which may be of any desired number to secure the requisite strength. The inner lugs or enlargements, which also space the tapered engaging portion 6 of the claws from each other, have flat inner faces and are provided with straight inner edges 11, which abut against the outer end of the shank 2, as clearly illustrated in Fig. 2 of the drawing. The front edges 12 of the lugs or enlargements are inclined or diagonally arranged to form an inclined spike receiving face at the inner end of the space or opening between the claws. The lugs or enlargements also reinforce the claws at the central portions thereof and at the heel 13, which forms a fulcrum when the claw is used for extracting a railroad or other spike. The tapered spike-engaging portions 6 are arranged at an angle to the inner or upper attaching portions of the claw members, and the latter are rounded at the heel or juncture between the spike-engaging portions and the attaching portions. The lower edges of the spike-engaging portions are also rounded, as clearly illustrated in Fig. 1 of the drawing, to form a fulcrum in introducing the device under the head of a spike. The general outline of each claw is in the shape of a foot, the lower side of the spike-engaging portions being substantially in a horizontal plane when in its initial position for engaging a spike, the upper side being inclined and meeting the lower side in a blunt toe. The lugs or enlargements are provided with registering perforations 14 for the reception of transverse bolts 15, or other suitable fastening devices for securing the claws together. These fastening devices may be varied in number, and they are adapted to be readily removed to permit the claws to be separated from each other.

As the claws are constructed separate from each other and also from the bar, they are adapted to be manufactured of manganese steel castings, malleable castings, or other suitable material, or they may be made by forging, pressing, or any other well known

means, without rendering the claw bar more expensive than those now in use. Also by manufacturing the claws in this manner, they may be more perfectly constructed than
5 when they are made either integral with each other or integral with the bar or lever 1. They are also adapted to be applied to an ordinary claw bar when the claws thereof have become worn or broken. Such worn or
10 broken claws are then cut off and the new claws are bolted to the bar or lever. Also the claws are adapted to be carried by a trackman either in his pocket, or on a hand-car, and they will enable a broken claw to be
15 quickly renewed without the use of tools, other than those necessary for removing the transverse fastening devices.

The claw bar is used in the ordinary manner for extracting railroad spikes. The tapered front portions 6, which forms the claws
20 proper, are engaged with the spike to be extracted, and the rounded portions or heels 13, which form a fulcrum for the claw bar, enable the spike to be lifted and extracted
25 by a substantially straight vertical pull, thereby avoiding bending or otherwise injuring the spike.

Having thus fully described my invention,

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

A claw bar comprising a bar, and a pair of claw members applied to opposite sides of one end thereof and including inner attaching portions, tapered outer spike-engaging portions set at an angle to the inner attaching portions and having rounded bottom edges; and abutting lugs arranged on the inner faces of the claw members and fitting against and extending entirely across the contiguous end of the bar and having their outer ends inclined and presenting an inclined front face to the spike, said claw members having their edges also rounded at the juncture of the tapered outer portions and the inner attaching portions to form a fulcruming heel, the lugs being extended to and constituting portions of the rounded edges at the said heel, and means for securing the claw members and the bar together.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

MINOR WATERS.

Witnesses:

JOHN F. NEWHOUSE,
HARRY V. DEMPSTER.