

H. T. KOSTENBADER.
SPIKE PULLER.

APPLICATION FILED AUG. 20, 1908.

1,014,068.

Patented Jan. 9, 1912.

3 SHEETS—SHEET 1.

Fig. 1.

Fig. 4.

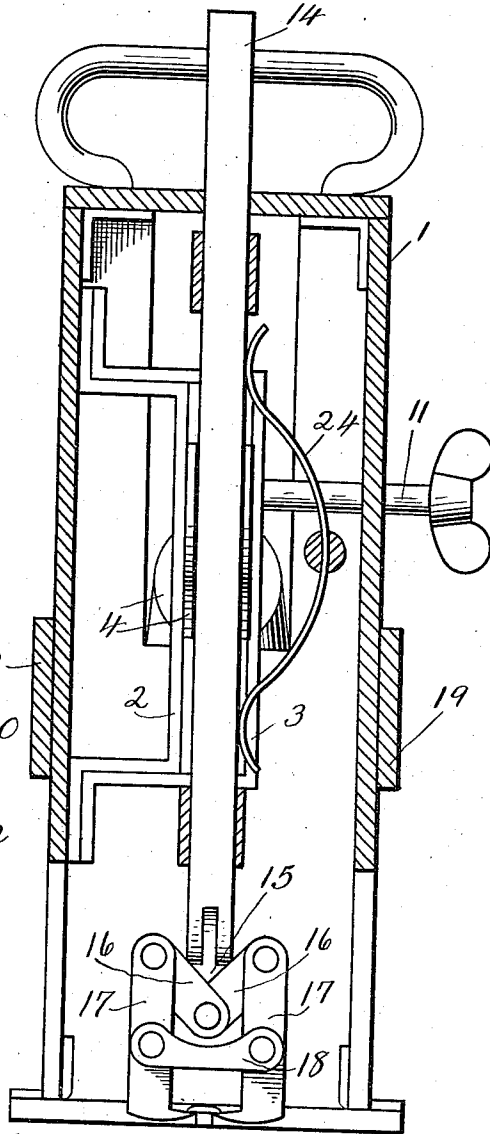
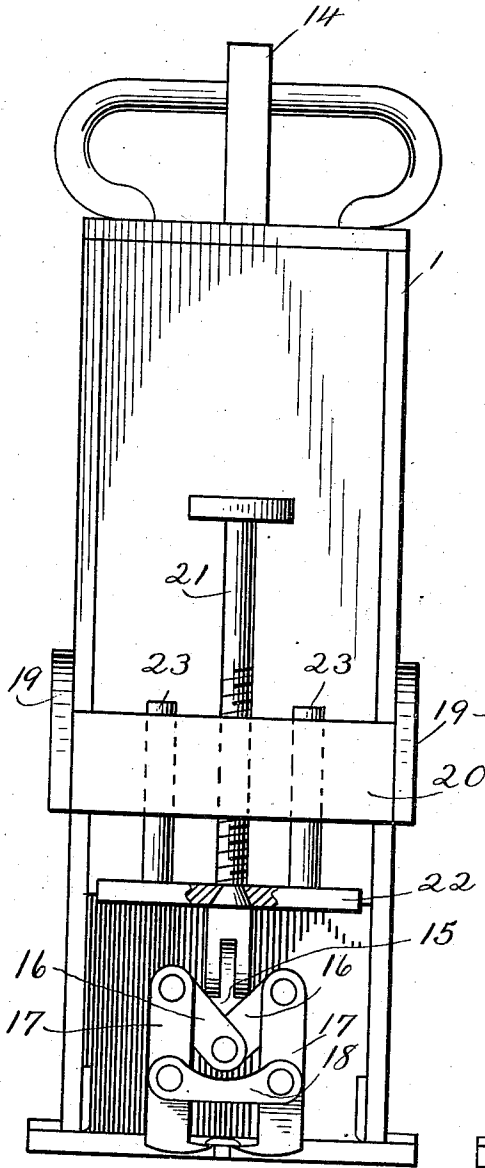
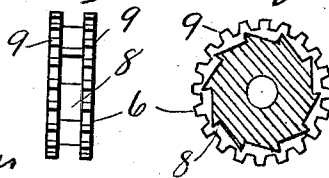


Fig. 5.

Fig. 6.

Witnesses

Y. E. Small
M. DeGranges



Inventor
H. T. Kostenbader

By D. Swift & Co.

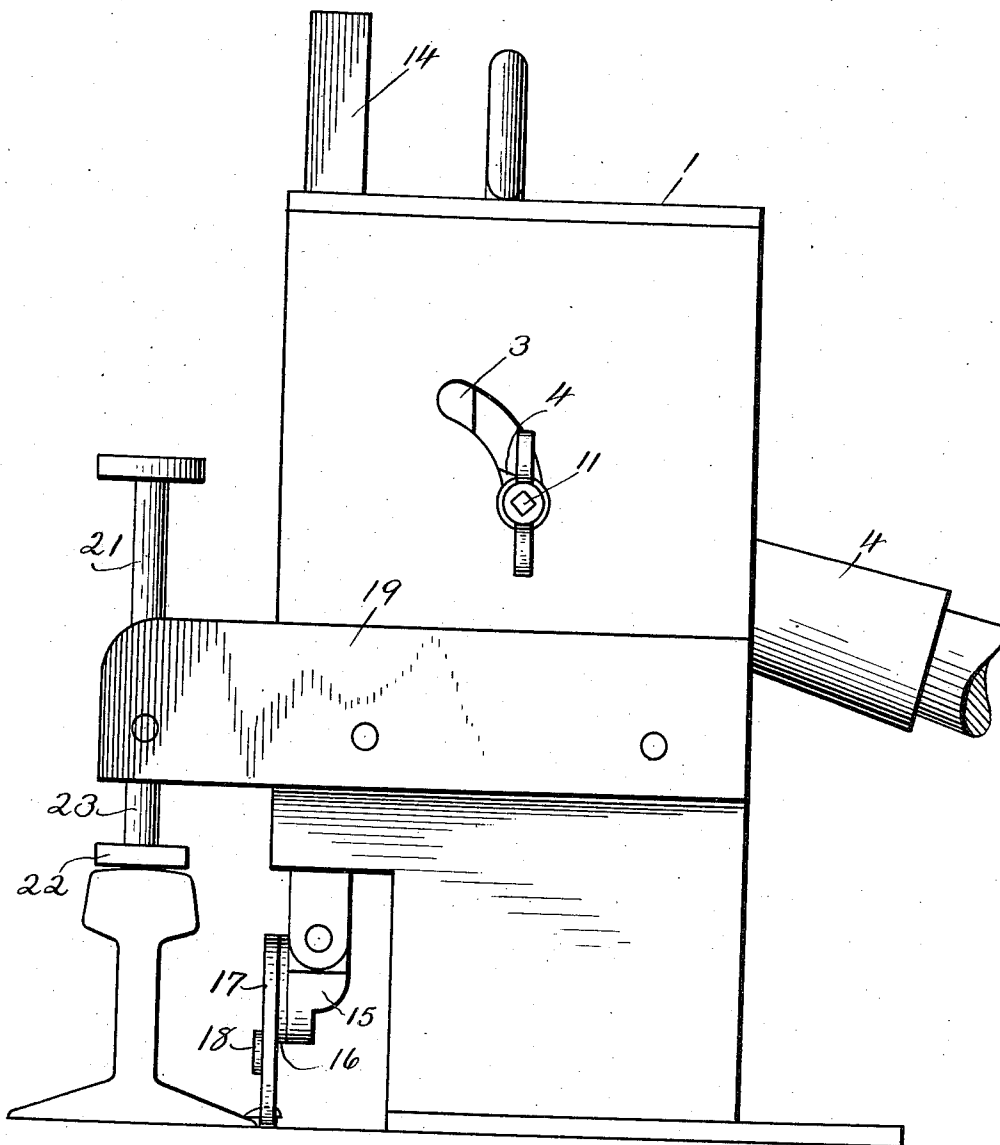
Attorneys

1,014,068.

H. T. KOSTENBADER.
SPIKE PULLER.
APPLICATION FILED AUG. 20, 1908.

Patented Jan. 9, 1912.
3 SHEETS—SHEET 2.

Fig. 2.



Witnesses

J. P. Brett
Y. C. Small

Inventor

H. T. Kostenbader

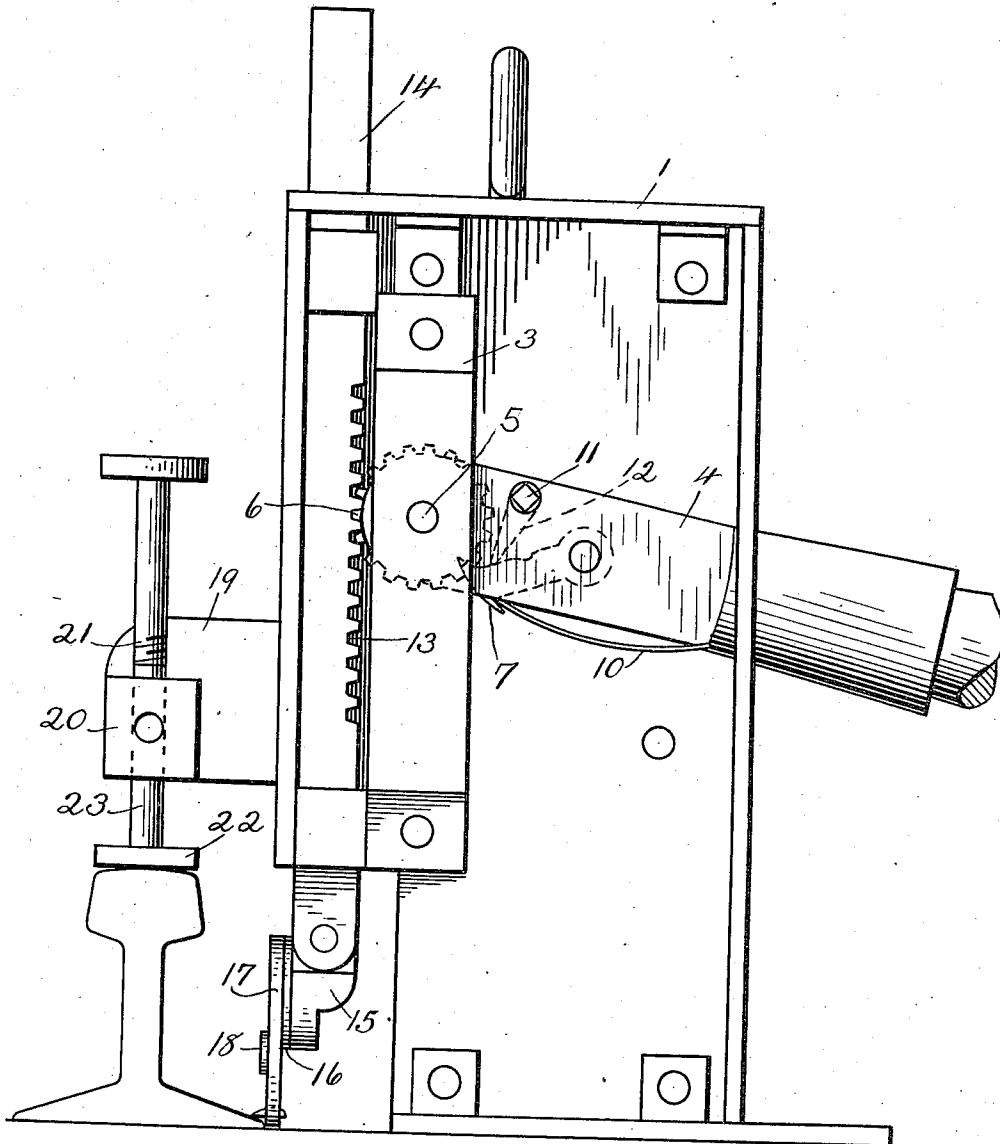
By

D. Swift & Co.

Attorneys

1,014,068.

Fig. 3.



Y. C. Small
M. De Grange

By *D. Swift & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

HOWARD T. KOSTENBADER, OF CHAPMAN QUARRIES, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO WILLIAM M. SMITH, OF CHAPMAN QUARRIES, PENNSYLVANIA.

SPIKE-PULLER.

1,014,068.

Specification of Letters Patent.

Patented Jan. 9, 1912.

Application filed August 20, 1908. Serial No. 449,427.

To all whom it may concern:

Be it known that I, HOWARD T. KOSTENBADER, a citizen of the United States, residing at Chapman Quarries, in the county of Northampton and State of Pennsylvania, have invented a new and useful Spike-Puller; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to spike pullers and has for its object to provide a simple, efficient, and durable device of this character adapted to pull spikes and heavy nails as well in a very simple manner.

With these and other objects in view, the invention consists in the novel construction and arrangement of parts hereinafter described and shown and particularly pointed out in the appended claim.

In the drawings Figure 1 is a front view in elevation showing my invention engaging the head of a spike. Fig. 2 is a side elevation of the same. Fig. 3 is a similar view to Fig. 2, one of the sides of the casing being removed. Fig. 4 is a vertical sectional view through the device. Fig. 5 is an end view of the ratchet wheel, and Fig. 6 is a side view thereof, partly in section.

Referring to the drawings, 1 designates a casing of my invention which is provided with brackets 2 and 3 mounted on the interior thereof, between which brackets is inserted a lever 4. The lever 4 is pivotally mounted on a pin 5. The lever 4 is provided with a bifurcation in one end thereof, in which is inserted a ratchet wheel 6 which is pivotally mounted on the pin 5, which is mounted in the lever. On the under side of the lever 4 is mounted a dog 7 which is adapted to engage notches 8 of the ratchet wheel formed between two rows of cogs 9 of said ratchet wheel. The dog 7 is held in engagement with the notches or ratchet teeth 8 by means of a spring 10 secured by a sleeve to the lever, as will be readily understood. Also pivotally mounted in the lever 4 is a revolving squared pin 11 on the end of which is an arm 12. The purpose of this arm is to throw the dog out of engagement with the ratchet wheel. The teeth 9 of the ratchet wheel are adapted to engage

the teeth 13 of a vertical shaft 14. It will be seen that when the lever 4 is pressed downward at its outer end the ratchet wheel will cause the shaft 14 to rise. The lower end of the shaft 14 is pivotally connected with a head 15. The head 15 is provided with a pair of links 16 which connect with the upper ends of jaws 17. The jaws 17 are also pivotally connected to a horizontal link 18, which serves as a fulcrum when the jaws 17 are engaging the head of the spike. It will be seen that when the shaft 14 is raised upward as hereinbefore explained, that the jaws 17 having engaged the head of a spike, will tighten their grip as said spike is drawn upward, as will be readily understood. On each side of the casing 1 is mounted a horizontal bar 19 which is connected with a cross bar 20. The cross bar 20 is provided with a threaded aperture, in which is inserted a screw-threaded bolt 21, the lower end of which is connected with a plate 22. The plate 22 is provided with guide bars 23 which reciprocate in the bar 20. It will be seen that the member 22 can be raised or lowered as desired by means of the bolt 21. The purpose of this member 22 is to form an adjustable fulcrum for the spike puller as will be readily understood. The ratchet bar 14 is held against accidental movement by means of a friction spring 24.

In operation, the machine is placed adjacent to the spike to be pulled and in the case of railroad spikes it is preferably placed on the rail or tie. When placed in position, the gripping jaws 17 are brought into engagement with the spike by lowering the ratchet bar 14 which action is effected by forcing the pawl 7 out of engagement with the ratchet wheel 6, and pressing on the upper end of said ratchet bar so as to overcome the resistance of a friction spring 24. After the gripping jaws have been engaged with the spike to be pulled, the pawl 7 is brought into engagement with the ratchet wheel 6 and the lever 4 is reciprocated thereby elevating the ratchet bar and removing the spike from the material from which it is embedded.

In order to facilitate the removal of the spike, the adjustable fulcrum plate 22 may be brought into engagement with the rail or a suitable block accordingly as the ma-

chine is positioned, and pressure applied against said rail or block so as to elevate the entire machine.

Having thus described the invention what
5 is claimed is:—

10 In a spike puller, a casing, a plunger having spike gripping jaws mounted vertically movable in the casing, means for raising the plunger, an off set frame projecting forwardly of the casing, a rod threaded vertically through the off-set frame and provided with a foot plate adapted to engage the tread of a railway rail, this foot plate constituting

fulcrum means for the casing whereby the spike may be extracted, the threaded rod 15 constituting means whereby the foot plate may be adjusted at various intervals as the spike is being extracted.

In testimony whereof I have signed my name to this specification in the presence of 20 two subscribing witnesses.

HOWARD T. KOSTENBADER.

Witnesses:

JOHN FLYTE,

H. P. KOCH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."