

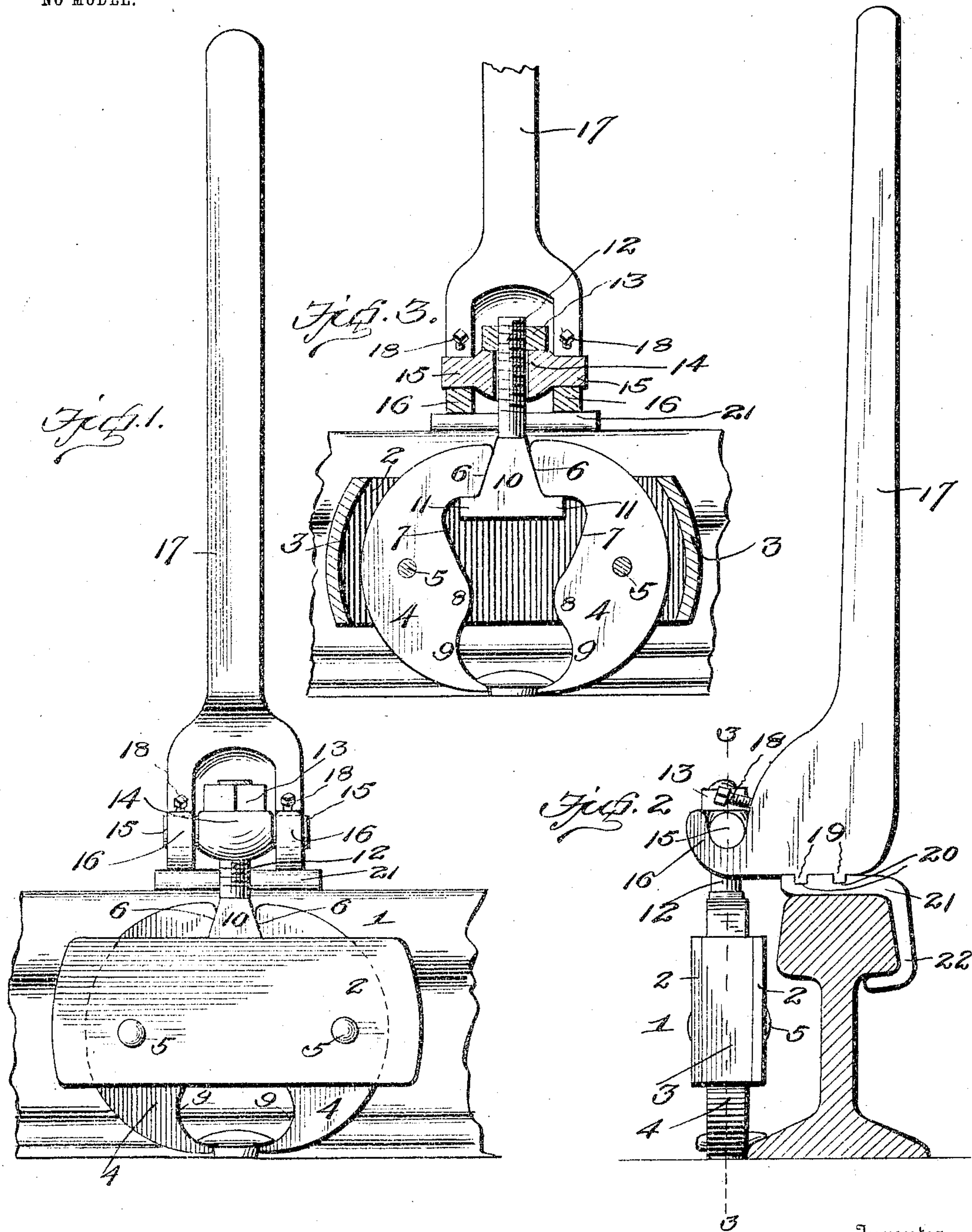
No. 775,534.

PATENTED NOV. 22, 1904.

H. Q. HOOD.  
SPIKE PULLER.

APPLICATION FILED APR. 7, 1904.

NO MODEL.



Inventor

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Witnesses

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Signed

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# UNITED STATES PATENT OFFICE.

HIRAM Q. HOOD, OF WEBB CITY, MISSOURI.

## SPIKE-PULLER.

SPECIFICATION forming part of Letters Patent No. 775,534, dated November 22, 1904.

Application filed April 7, 1904. Serial No. 202,075. (No model.)

*To all whom it may concern:*

Be it known that I, HIRAM Q. HOOD, a citizen of the United States, residing at Webb City, in the county of Jasper and State of Missouri, have invented certain new and useful Improvements in Spike-Pullers; and I do 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 improvements in spike-pullers, and is more particularly adapted for pulling spikes from railway-ties.

The object of the invention is to provide a device of this character which may be quickly applied to the head of a spike and by which said spike may be readily drawn, means being provided for firmly gripping the spike while the same is being drawn.

A further object is to provide a spike-puller which will strong, durable, and efficient and which will be inexpensive and well adapted for the purpose for which it is designed.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a front elevation of the device, showing the same applied to a spike. Fig. 2 is a side elevation of the same, and Fig. 3 is a vertical section on line 3 3 of Fig. 2.

Referring more particularly to the drawings, 1 denotes a casing which is formed by two plates 2, which are spaced apart and secured together at their ends by blocks 3.

In the casing 1 are mounted two gripping-jaws 4, said jaws being pivotally mounted between said plates 2 upon pivot-bolts 5, which pass through said plates. The jaws 4 are preferably semicircular in shape and are formed on their adjacent edges and near the upper ends of the same with beveled faces 6. Below said beveled faces the edges of said jaws are cut away or recessed, as at 7. Below said recessed portions are formed inwardly-projecting lugs 8. Below said lugs the edges

are cut away to form recesses 9 to accommodate the head of a spike.

Between the gripping-jaws 4 and between the plates 2 is arranged an expanding head or wedge 10. On the lower end of said expanding-head are formed laterally-projecting lugs 11, and on the upper end of the head is formed an upwardly-projecting threaded stem 12, on the upper end of which is adapted to be secured a nut 13. On the stem 12 below said nut is disposed a swivel ring or collar 14, and on said ring or collar are formed laterally-projecting trunnions 15.

The trunnions 15 of the swivel-ring 14 are adapted to be engaged by the bifurcated or forked lower ends 16 of an operating-lever 17. The forked ends 16 of the lever 17 are curved upwardly to form bearings in which said trunnions are adapted to turn. In order to hold said trunnions in said bearings, set-screws 18 are provided, said set-screws being screwed into said bifurcated ends of the lever immediately above said trunnions, thereby preventing casual withdrawal of the same.

On the lower end or head of the lever 17 are formed transversely-disposed ribs 19, said ribs being adapted to engage transversely-disposed recesses or grooves 20, formed in the upper side of a fulcrum-plate 21, which is adapted to rest upon the tread of a track-rail. On the outer edge of said fulcrum-plate is formed a downwardly and inwardly curved flange 22, which is adapted to engage the inner side of the rail-head, and thereby hold said fulcrum-plate in place on said rail.

In operating the device the gripping-jaws are placed over the head of the spike. The expanding head or wedge is then drawn upwardly by means of the lever 17, thereby spreading the upper ends of said jaws apart and causing the lower ends of the same to firmly grip the spike below the head of the same. The lever 17 is now pressed laterally and by said movement raises the gripping-jaws, thereby extracting the spike from the tie. It will be noted that by reason of the swivel connection between the stem 12 of the expanding head or wedge with the swivel ring or collar said gripping-jaws may be engaged with the head of the



spike when said spike is driven into the tie at an angle. It will be further observed that by reason of the threads formed on the end of said stem 12 and the adjusting-nut 13 said swivel ring or collar may be adjusted on said stem, thereby lengthening or shortening the extracting device to accommodate the same to rails of different heights. After said spikes have been extracted and the pressure removed from said operating-lever the expanding-head will drop down between said jaws, thereby engaging the inwardly-projecting lugs 8 and spreading the lower ends of said jaws, causing them to release said spikes.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. A spike-puller comprising curved pivotally-mounted gripping-jaws provided at one end with claws and at the opposite end with projecting portions, an expanding-head adapted to engage said projecting portions to move the jaws toward each other, said head being provided with a stem, a swivel-ring on the stem, provided with trunnions, a lever pivotally connected with said trunnions, and means for adjusting said swivel-ring on said stem, substantially as described.

2. In a spike-puller, and in combination with gripping-jaws, an operating device for said jaws provided with a stem, a swivel-ring having trunnions and adjustably connected to said stem, and an operating-lever pivotally connected with said trunnions, substantially as described.

3. A spike-puller consisting of a casing, gripping-jaws pivotally mounted in said casing, a wedge-shaped expanding-head arranged between said jaws to spread the upper ends of the same thereby causing the lower ends thereof to grip a spike, laterally-projecting lugs formed on the lower end of said expanding-head, a stem arranged on the upper end of said head, a swivel ring or collar adjustably mounted on said stem, trunnions formed on said ring or collar, an operating-lever having a bifurcated lower end, curved lugs arranged on the bifurcated ends of said lever

to form bearings to receive said trunnions, and means whereby said trunnions are removably held in place in said bearings, substantially as described.

4. A spike-puller consisting of a casing, gripping-jaws pivotally mounted in said casing, a wedge-shaped expanding-head arranged between said jaws to spread the upper ends of the same, thereby causing the lower ends thereof to grip a spike, a threaded stem formed on said expanding-head, a swivel ring or collar arranged on said stem, an adjusting-nut adapted to be screwed on said stem to regulate the height of said swivel-ring, an operating-lever having a bifurcated lower end, bearings formed in the bifurcated end of said lever, trunnions formed on said swivel-ring to engage and turn in said bearings, set-screws adapted to hold said trunnions in place, and means whereby said operating-lever may be fulcrumed on a railway-rail, substantially as described.

5. A spike-puller consisting of a casing, gripping-jaws pivotally mounted in said casing, a wedge-shaped expanding-head arranged between said jaws to spread the upper ends of the same, thereby causing the lower ends thereof to grip a spike, an operating-lever having a swiveled connection with the upper end of said expanding-head, a fulcrum-plate adapted to be arranged on the tread of the rail, means whereby said lever is fulcrumed on said plate, and means for retaining said plate on said rail, substantially as described.

6. A spike-puller consisting of a casing, gripping-jaws pivotally mounted in said casing, a wedge-shaped expanding-head arranged between said jaws to spread the upper ends of the same, thereby causing the lower ends thereof to grip a spike, an operating-lever having a swiveled connection with the upper end of said expanding-head, a fulcrum-plate adapted to be arranged on the tread of the rail, grooves formed in the upper side of said plate, ribs formed on the lower end of said lever to engage said grooves, whereby said lever is fulcrumed on said plate, and a curved flange formed on said fulcrum-plate to engage the head of said rail and thereby hold said plate in place, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HIRAM Q. HOOD.

Witnesses:

H. B. HULETT,  
C. M. MANKER.