

T. E. STURTEVANT.
SPIKE HOLDER FOR HAMMER DRILLS.
APPLICATION FILED SEPT. 1, 1915.

Patented Jan. 30, 1917.

1,213,970.

Fig. 1.

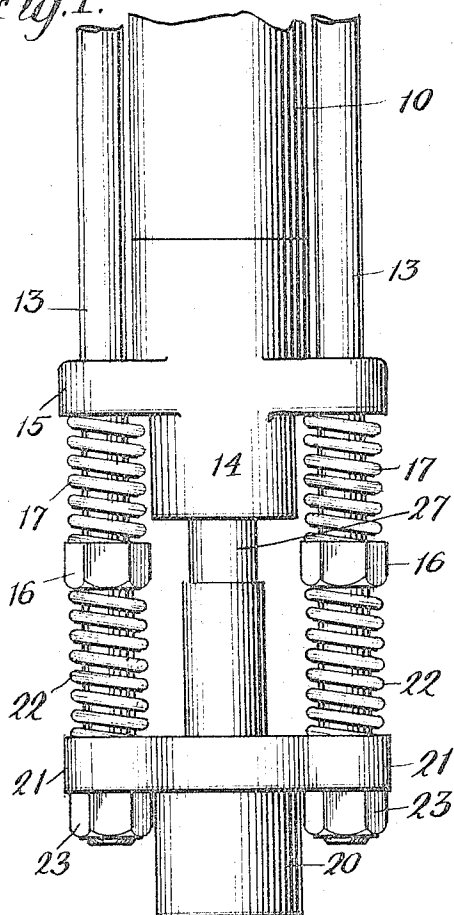


Fig. 2.

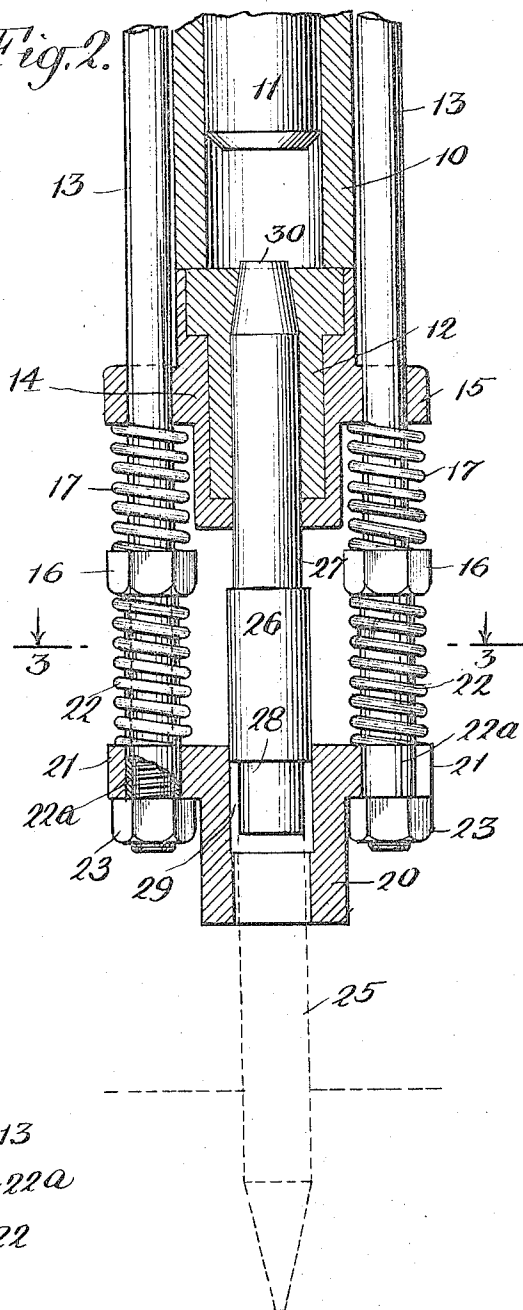
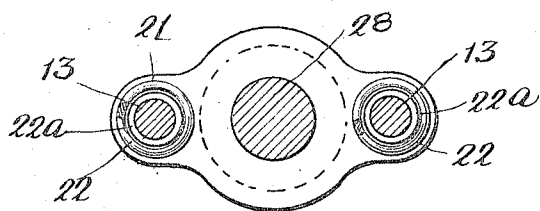


Fig. 3.



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SPIKE-HOLDER FOR HAMMER-DRILLS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS E. STURTEVANT, a citizen of the United States of America, and a resident of Dover, Morris county, and State of New Jersey, have invented certain new and useful Improvements in Spike-Holders for Hammer-Drills, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to spike holders for power hammers and has for one of its objects to provide a simple and durable attachment for hammer drills or similar machines of well known types, that shall effectively support a spike while it is being driven and permit the head of the spike to be driven flush with the surface of the plank or wall into which it is driven.

Other objects and advantages of my invention will be set forth hereinafter, and in order that my invention may be thoroughly understood, I will now proceed to describe the same in the following specification and then point out the novel features thereof in appended claims.

Referring to the drawings: Figure 1 is a front elevation, and Fig. 2 is a sectional elevation of a spike holder arranged and constructed in accordance with my invention, together with a portion of a hammer drill or power hammer, with which it is associated. Fig. 3 is a sectional plan view taken on the line 3-3 of Fig. 2.

Corresponding parts are designated by the same reference characters in all the figures.

Having special reference to the drawing,—10 represents the cylinder and 11 the plunger or hammer, of a hammer drill or other power hammer which has a tool holder 12 and side rods 13. The tool holder is mounted in a cylinder extension 14 having perforated lugs 15 through which the side rods extend. The rods are screw-threaded and are provided with nuts 16 which hold the cylinder extension 14 firmly in position, relatively stiff springs 17 being interposed between the lugs 15 and the nuts 16, and surrounding the rods.

The rods instead of terminating at the nuts 16 in the usual manner, extend beyond the nuts and constitute a means of attachment for the spike holder of my invention.

This device comprises a socket 20 having 55 perforated lugs 21 through which the rods 13 extend, and relatively light or soft springs 22 which surround the rods and are interposed between the nuts 16 and the perforated lugs 21, the socket 20 being held 60 in position on the rod by means of nuts 23. The springs tend to hold the lugs 21 against the nuts 23 so that the socket 20 has a fixed position relative to the cylinder of the hammer drill except when the spike which is 65 indicated at 25 has been driven almost entirely into a plank or wall. Under these conditions the springs 22 yield, permitting the socket 20 to be pushed upwardly as the spike advances. The spike can therefore be 70 driven down flush with the surface of the body into which it is driven. The threaded portions of the rods 13, which are surrounded by the springs 22, are preferably protected by sleeves or bushings 22^a. The holes 75 in the perforated lugs 21 are large enough to receive the sleeves and consequently the socket 20 is free to slide thereon.

A driving spud 26 has a shank 27 which fits into the tool holder 12 of the hammer 80 drill and a head 28 which engages the head of the spike. The body of the spud fits into a hole 29 in the socket 20 and slides therein as the spike is driven home. The shank 27 has a taper extension 30 which is adapted 85 to be struck by the hammer or plunger 11 of the drill.

The plunger or hammer 11 is arranged to be reciprocated rapidly within the cylinder 10 by compressed air or other fluid pressure. 90 Its forward stroke terminates just before its forward end reaches the rear end of the tool holder 12, but travels far enough to deliver blows to the end 30 of the driving spud 26 and these blows are transmitted through 95 the spud to the spike 25. The weight of the machine or the operator's pressure keep the head 28 of the driving spud in contact with the spike. As the spike is driven in the socket 20 slides up on the rods 13 against 100 the compression of the springs 22, and in doing so the point of contact between the head 28 of the driving spud and the end of the spike, gradually approaches the forward end of the socket 20.

The spike-driving attachment of my invention is obviously not limited for use with any particular kind of power hammer and

I intend that only such limitations be imposed as are indicated in the appended claims.

What I claim is:

- 5 1. A spike driver attachment for a hammer drill having side rods and a socket comprising a driving spud having a shank adapted to enter the socket of the hammer drill, a spike-holding socket mounted to
10 slide on the driving spud and on the side rods of the hammer drill, and springs on the side rods for pressing the socket outwardly.
- 15 2. The combination with a hammer drill having a socket and side rods with out-

wardly projecting extensions, of a spike driver attachment comprising a driving spud having a shank adapted to extend into the socket of the hammer drill, a spike holding socket associated with the driving spud 20 and mounted to slide on the spud and on the side rod extensions, enlargements on the extensions for holding the spike holding socket in place, and springs surrounding the side rod extensions and pressing the spike 25 socket against said enlargements.

In witness whereof, I have hereunto set my hand this 27 day of August, 1915.

THOMAS E. STURTEVANT.