No. 776,393. PATENTED NOV. 29, 1904.

A. H. HARRIMAN & J. M. FELKER.

M. J. HARRIMAN, ADMINISTRATRIX OF A. H. HARRIMAN, DEC'D.

NAIL OR SPIKE DRIVER.

APPLICATION FILED FEB. 29, 1904.

NO MODEL.

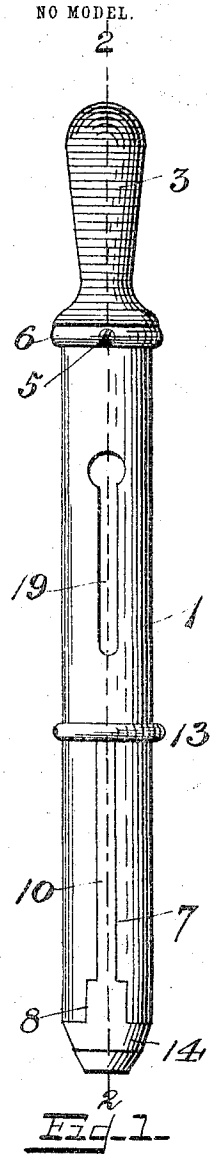

Fig. 1.

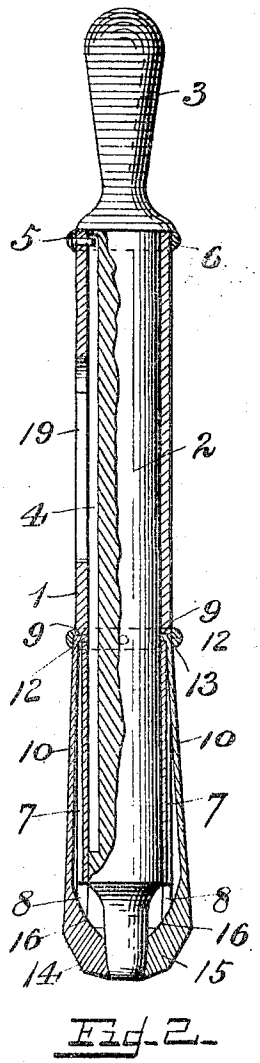

Fig. 2.

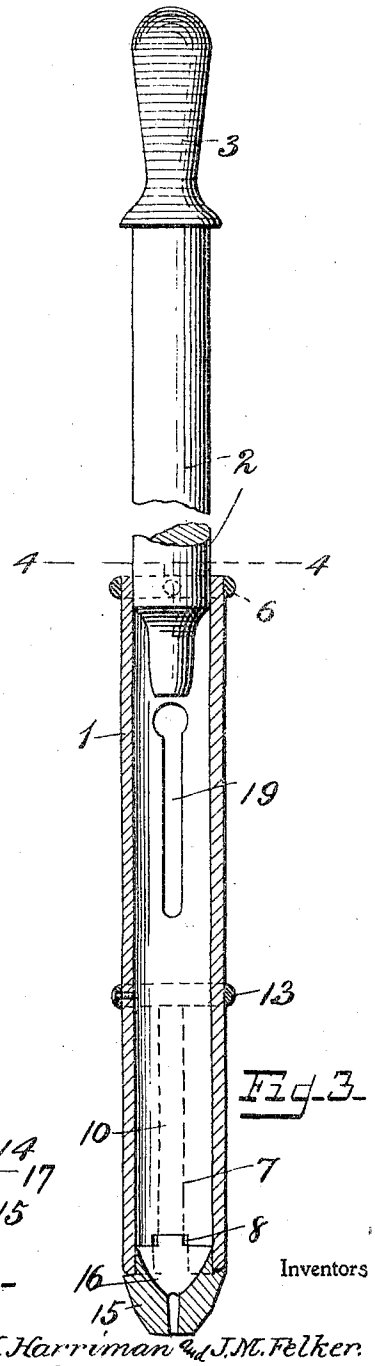

Fig. 3.

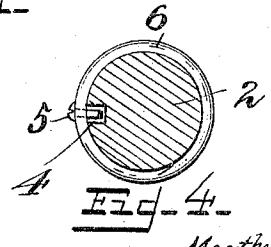

Fig. 4.

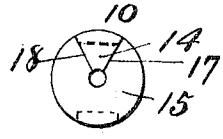

Fig. 5.

Witnesses
F. L. Ourand.
[illegible]

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No. 776,393. Patented November 29, 1904.

UNITED STATES PATENT OFFICE.

MARTHA J. HARRIMAN, ADMINISTRATRIX OF ALONZO H. HARRIMAN, DECEASED, AND JAMES M. FELKER, OF MADISON, MAINE; SAID ADMINISTRATRIX ASSIGNOR TO O. T. BRIGGS.

NAIL OR SPIKE DRIVER.

SPECIFICATION forming part of Letters Patent No. 776,393, dated November 29, 1904.

Application filed February 29, 1904. Serial No. 195,957. (No model.)

To all whom it may concern:

Be it known that ALONZO H. HARRIMAN, deceased, late a citizen of the United States, and a resident of Madison, in the county of Somerset, in the State of Maine, and JAMES M. FELKER, a citizen of the United States, residing at Madison, in the county of Somerset and State of Maine, invented new and useful Improvements in Nail or Spike Drivers; and we, MARTHA J. HARRIMAN, a citizen of the United States, residing at Madison, in the county of Somerset and State of Maine, administratrix of the estate of ALONZO H. HARRIMAN, deceased, and JAMES M. FELKER, 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 nail and spike driving devices.

The object of the invention is to provide an implement whereby a nail or spike may be held, guided, and readily driven into places where it would be inconvenient to use a hammer directly on the nail-head, such as in close corners or under water in dam and flume work, &c.

A further object is to provide an implement of this character which will be simple in construction, strong, durable, inexpensive, and well adapted to 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 more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a side elevation of the implement. Fig. 2 is a vertical sectional view on the line 2 2 of Fig. 1. Fig. 3 is a similar view taken at right angles to Fig. 2. Fig. 4 is a horizontal sectional view on the line 4 4 of Fig. 3. Fig. 5 is a bottom plan view of the closed jaws.

Referring more particularly to the drawings, 1 denotes a tubular casing or holder open at each end, as shown. In the upper end is inserted a sliding plunger or driving-rod 2, which is provided on its upper end with an enlarged head or anvil 3, by which said plunger-rod is driven and which also limits the inward movement of said rod into the casing or holder. In one side of the driving-rod or plunger is formed a vertically-disposed groove 4, which is adapted to receive the inner end of a screw 5, which is screwed through the side of the casing and through a strengthening ring or band 6 on the upper end of the same. By means of the engagement of the end of the screw 5 with the groove 4 the outward movement of the driving-rod or plunger 2 is limited. The inner end of said rod is reduced in diameter, as shown.

At diametrically opposite points in the outside wall of the tubular holder 1 and in the lower portion of the same are formed vertically-disposed grooves or channels 7, and in the lower end of the holder is formed a transverse slot 8, with which the lower ends of the grooves 7 communicate. At the upper ends of said grooves are formed inwardly-projecting recesses or sockets 9. In the grooves 7 and slot 8 are arranged spring-arms 10, on the upper ends of which are formed inwardly-projecting lugs 12, which are adapted to engage the recesses 9, formed at the upper ends of the grooves 7. A ring or band 13 is slipped on the tube and over the upper ends of the arms 10, thereby holding the same and the lugs 12 in place in the grooves 7 and recesses 9. The ring or band 13 may be secured to the tube 1 by a set-screw or other suitable means.

On the lower ends of the spring-arms 10 are formed inwardly-projecting nail-holding jaws 14 and 15, which are normally held by the spring-arms 10 in closed position below the lower end of the tubular holder 1. The jaws 14 and 15 have inclined or beveled upper faces 16, by means of which said jaws are forced apart by the lower end of a nail to permit said nail to enter and be held between the same while being driven. The combined exterior shape of that portion of the jaws below the end of the tubular holder when the same are in closed position is frustro-conical, as shown. The inner side 17 of the jaw 14 is V-shaped in

horizontal section and is adapted to fit into and engage a V-shape notch or recess 18, formed in the inner side of the jaw 15.

19 denotes a vertically-disposed feed-slot formed in the tubular casing 1 above the ring or band 13, and at its upper end said slot is enlarged, as shown, this slot being for the purpose of admitting nails to the interior of the tubular holder 1.

To use the implement, the plunger or driving-rod is raised and a nail is placed into the holder or casing 1 through the feed-opening 19 and drops head upwardly through the holder and onto the inclined upper sides of the jaws 14 and 15. The lower end of the plunger is now engaged with the head of the nail and the upper end or head of the plunger is struck with a hammer or the like in the usual manner of driving a nail, the force of the blows being imparted to the nail through the medium of the driving-rod or plunger 2, thereby driving said nail between the jaws 14 and 15 and into the object to be nailed. The length of the driving-rod is such that when driven entirely in or until the inner end of the head engages the upper end of the tubular holder, the lower end of said driving-rod or plunger will be flush with the lower ends of the jaws and the nail will have been entirely driven in.

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 the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

A nail and spike driver comprising a tubular holder having longitudinal grooves in its outer side at one end and radial recesses at the inner ends of said grooves, springs in said grooves, having lugs at their inner ends engaging said recesses and having their outer ends extending beyond the outer end of the tubular holder and formed with jaws opposite and normally closing said end of the holder, a ring secured on the latter and bearing on the inner ends of the springs, and a driving-rod to operate in the holder, substantially as described.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

MARTHA J. HARRIMAN,
Administratrix of the estate of Alonzo H. Harriman, deceased.
JAMES M. FELKER.

Witnesses:
S. E. REMICK,
ADELINE HANNAGAN.