

A. S. LIBBY.

Nail-Carriers for Sole Nailing-Machines.

No. 135,824.

Patented Feb. 11, 1873.

Fig. 2

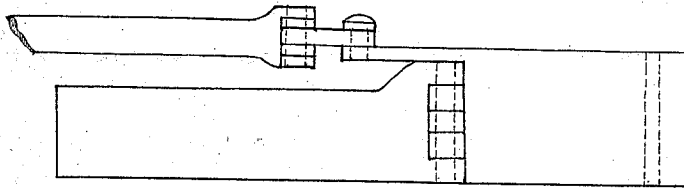


Fig. 1

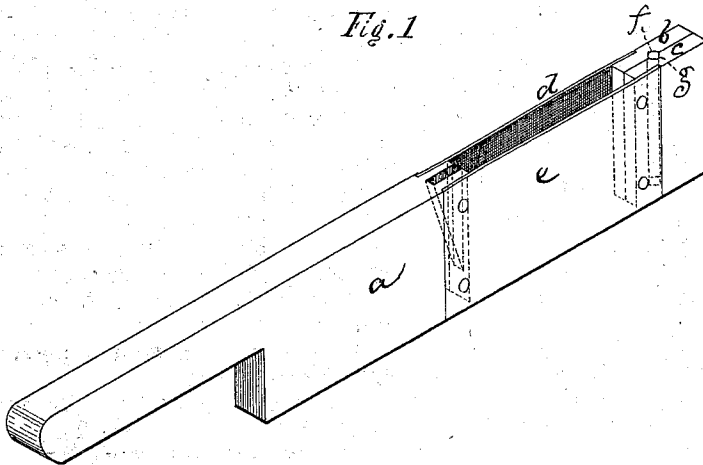
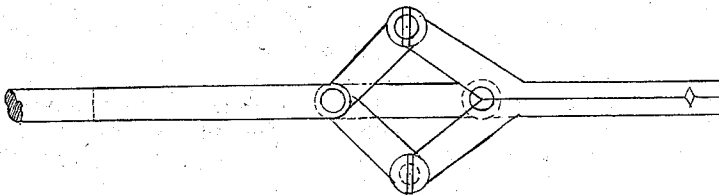


Fig. 3



Witnesses,  
M. W. Frothingham.  
L. H. Lortimer.

Inventor  
Asa S. Libby.  
By his Atty.  
Crosby & Gould.

# UNITED STATES PATENT OFFICE.

ASA S. LIBBY, OF LAWRENCE, MASSACHUSETTS.

## IMPROVEMENT IN NAIL-CARRIERS FOR SOLE-NAILING MACHINES.

Specification forming part of Letters Patent No. **135,824**, dated February 11, 1873.

*To all whom it may concern:*

Be it known that I, ASA S. LIBBY, of Lawrence, in the county of Essex and State of Massachusetts, have invented an Improved Nail-Carrier for Sole-Nailing Machines; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

In sole-nailing machines using a wire or wire-like material, the wire is generally fed down into a tube in a vertical nail-carrier, the nail-forming length in such tube being severed, and the nail-carrier being then moved to bring the wire over the nail-tube, or to a point where the nail can descend through a nail-tube and down to the surface of the sole. Then the driver descends through the nail-carrier tube and into the nail-tube, entering which it meets the nail and drives it into the sole. The nail-driver being in the nail-carrier tube, it has to be drawn up, after driving, before the carrier can move back to again receive the nail length to be next severed, moved forward, and driven. This involves loss of time, and my invention is designed to obviate this by so making the carrier that it can be withdrawn while the driver is in it or while the nail is driving.

For this purpose I make the carrier with two jaws having flush faces, which meet, each face having a half groove, and the two grooves meeting and forming the nail-carrier tube. These jaws are formed as springs, or are pressed together by springs and held normally together, and when the driver has descended they draw back and spread open, against the

driver, until they pass by the driver, when they spring together again and form the tube. As the carrier is a mere carrier for holding the nail and transferring it from the place where cut to a position under the driver and where it can descend into the nail-tube, no strain comes upon it, and the jaws only need to be held together with stress enough to keep them together when not pressed apart by moving against the driver.

It is in this provision that my invention consists, or in a nail-carrier tube so made that it may be drawn back to receive the nail wire when the driver is down.

The drawing represents a perspective view of the carrier-plate.

*a* denotes the plate; *b c*, the two jaws; *d e*, the two springs that hold the jaws together; *f g*, the two grooves which form the nail-carrier tube.

Instead of making the jaws of the carrier to spring together they may be hinged, as shown in Figs. 2 and 3, with arms projecting from them at the hinge, said arms being worked by toggle-arms hinged to them and to a rod, the movement of the rod in one direction holding the jaws closed, but its movement in the opposite direction opening them to permit them to slip by the driver when it is in the tube.

I claim—

The nail-carrier tube formed with movable jaws, substantially as described.

ASA S. LIBBY.

Witnesses:

FRANCIS GOULD,  
M. W. FROTHINGHAM.