(No Model.)

A. S. LIBBY.

MACHINE FOR PICKING UP AND ARRANGING TACKS, &c.

No. 316,467. Patented Apr. 28, 1885.

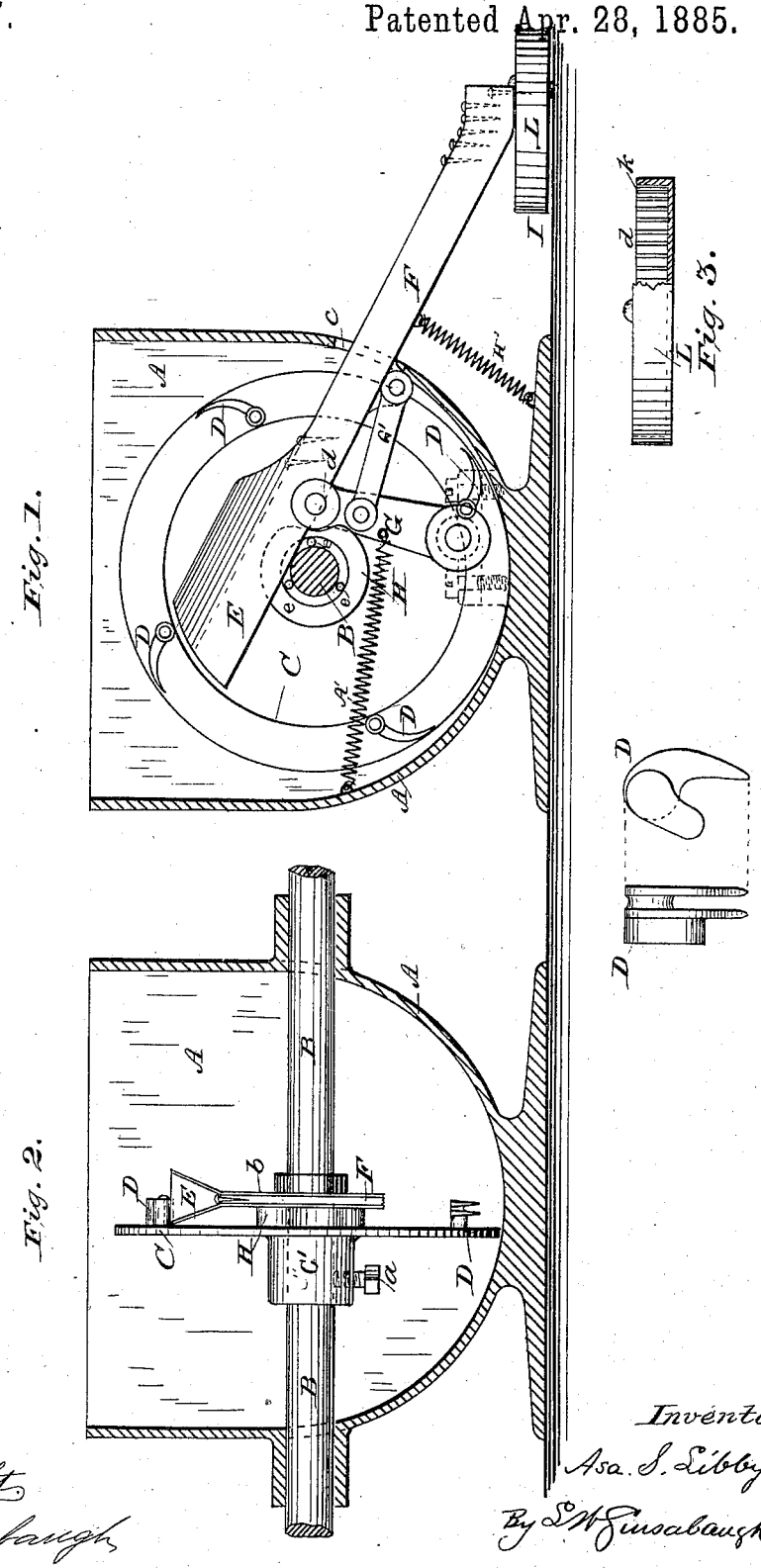


Fig. 1.

Fig. 2.

Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

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MACHINE FOR PICKING UP AND ARRANGING TACKS, &c.

SPECIFICATION forming part of Letters Patent No. 316,467, dated April 28, 1885.

Application filed August 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, ASA S. LIBBY, a citizen of the United States, residing at Everett, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Machines for Picking up and Arranging Tacks in a Tacking-Machine, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to machines for sorting and picking up tacks or nails and arranging them for use in a tacking or nailing machine.

The object of my invention is to provide a machine which will sort loose tacks or nails and arrange them in a trough, and finally place them in the magazine or tack-chamber of a tacking-machine.

My invention consists of a rotating disk mounted in a suitable receptacle provided with hooks which are adapted to pick up the tacks and place them in an inclined chute or spout, where they are arranged points downward, and are finally deposited in a tack-holding chamber.

Figure 1 is a vertical sectional view of my device at right angles to the driving-shaft. Fig. 2 is also a vertical sectional view taken on a line parallel with the shaft. Fig. 3 is an edge view of the tack-holding disk and casing.

In an application for a patent for a tacking-machine filed of even date with this, Serial No. 139,899, I use a disk having tack or nail holding cavities in its periphery, said disk being pivoted in an outer shell or casing and adapted to rotate therein, and it is for the purpose of filling these disks with loose tacks or nails ready to be placed in the driving-machine that I have devised the mechanism embraced in this application, which I will now proceed to describe in detail.

A is a bowl or other suitable shaped vessel or receptacle, in which is mounted the shaft B, said shaft being provided with a crank-arm or other suitable device for imparting rotary motion thereto.

C is a thin metal disk having the hub C′ secured to the shaft B by means of a set-screw, *a*, or by any other suitable means.

D are prongs or hook-shaped forks of metal secured to the side of the disk C, which lift the tacks or nails from the bottom of the receptacle A, carry them up, and deposit them in the hopper E of the trough or inclined way F. The forks D are so arranged that they will pass through the mass of tacks placed in the bottom of the receptacle, catching or picking up only the headed tacks, and depositing them in the hopper, as above indicated. The tacks after being deposited in the hopper E arrange themselves point downward in a slot, *b*, formed in the trough or inclined way F. The trough or inclined way F passes through a slot, *c*, in the side of the vessel A, its rear or inner portion being pivoted to and supported by a rocking arm, G, which is pivoted to the bottom or side of the vessel A.

H is a cam-plate secured to the shaft B, and impinges against a friction-roller, *d*, mounted on the upper end of the arm G, the said arm G being connected to the trough F by means of the link G′, operated upon by a suitable spring, A′, to keep the roller *d* in contact with the cam-plate, so that by the continued motion of the shaft B the trough or inclined way is moved back and forth, for a purpose which will more fully appear hereinafter.

I is the tack or nail holder, which consists of a disk, K, having grooves or tack-holding cavities *d* in its periphery, the disk K being adapted to fit snugly within the cup or shell L, by which means the tacks are held in position. As before intimated, the tack-holder forms the subject-matter of another application, and is only mentioned here for the purpose of illustrating my present invention more clearly.

The shell L, with the disk therein, is secured in a proper position under the lower end of the spout or way F. The lower end of the spout or way may be provided with a pawl or other suitable device for engaging with suitable notches in the disk K, or may be so arranged that the end of the spout will come in contact with the head of one of the tacks which have been placed in the disk, and by this means, when the reciprocating motion is given to the trough by the arm G and link G′, it will turn the disk one step and present a new cavity for the reception of the tack.

A slight jogging motion is imparted to the trough by means of pins *e*, secured to the hub or collar C′, so that the tacks which rest on

heir heads in the slot in the trough will be worked from the hopper down to the disk and finally be deposited in the disk through an opening at the end of the trough.

The lower end of the trough is held down onto the tack-holding disk by means of a spring, H'.

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

1. The combination, with the cam-plate H, of the reciprocating trough E, the pivoted bar G, the link G', and spring A', whereby a reciprocating movement is given to the trough for the purpose of facilitating the delivery and distribution of the tacks, substantially as specified.

2. The combination, with the shaft B, carrying a disk, C, provided with a series of forked tack-lifting fingers, of the cam-plate, levers G and G', and reciprocating trough or carrier E, the whole arranged to operate substantially in the manner specified.

3. The cam-plate H, provided with pins *e*, in combination with the reciprocating trough or carrier E, whereby a jogging motion is imparted to said trough, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ASA S. LIBBY.

Witnesses:
W. E. ROGERS,
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