

(No Model.)

H. HAHN.

FEEDING DEVICE FOR RIVETING MACHINES.

No. 509,732.

Patented Nov. 28, 1893.

Fig. 1.

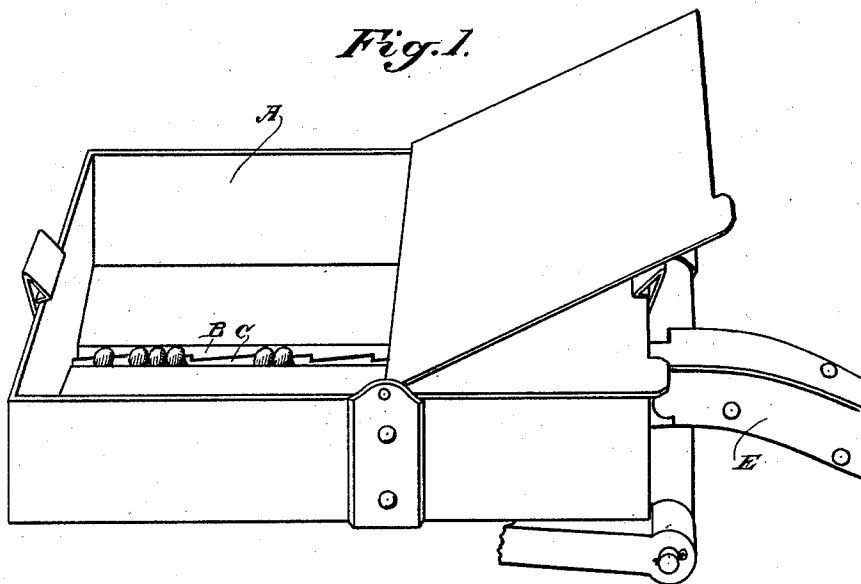


Fig. 2.

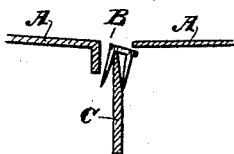
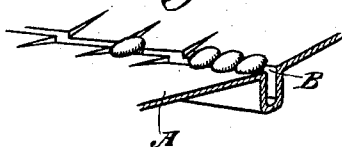


Fig. 3.



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UNITED STATES PATENT OFFICE.

HERMANN HAHN, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO LUDOLPH P. DEGEN, OF SAME PLACE.

FEEDING DEVICE FOR RIVETING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 509,732, dated November 28, 1893.

Application filed March 25, 1893. Serial No. 467,625. (No model.)

To all whom it may concern:

Be it known that I, HERMANN HAHN, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Feeding Devices for Riveting-Machines; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a feeding device for riveting machines.

It consists in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a view of my feeding device. Fig. 2 is a cross section of the same. Fig. 3 shows its application to a gutter or slot.

The object of my invention is to provide a means whereby tubular or other rivets may be fed with regularity from the containing box to the point where they are to be used.

A is a box adapted to contain rivets, and having in the bottom a slot or raceway of sufficient diameter to receive the shanks of rivets having a head of larger diameter than the shank, or to receive the whole diameter of the rivet when it is of the tubular form in which the head does not project. In the present case I have shown the device adapted to receive and feed tubular three pronged rivets, and the space or opening B is of sufficient diameter to receive the full diameter of the rivet. Within this space is fixed a plate C which extends from end to end and which is below the bottom of the inside of the box, the outer end extending outwardly and forming a continuation with the inclined chute or carrier E which delivers the rivets to the point where they are to be used. The plate C is set nearer to one side of the slot or opening than the other so that when the rivets fall upon it, one leg of the rivet will fall into the narrow space, and the two legs of the rivet will fall into the wider space. The rivet feeding box is caused to oscillate about a fulcrum at the point where it joins the carrier E, so that it is alternately tilted up and down, and the rivets being thrown from one end of the box to the other, will eventually fall into the channel and arrange themselves upon the edge of the vertical plate or rib. I have found that if this rib is made plain and straight the

rivets will slide back and forward upon it, and very often will not be advanced and fed regularly to the carrying device E. I have, therefore, constructed this plate C with a series of long notches or teeth formed upon one side so that a small shoulder is formed facing in the direction toward which the rivets are to move, and presenting an obstruction to their being returned to the rear end of the box. The result of this construction is to prevent the rivets sliding back toward the rear of the box, when any number of them are upon the rib. Consequently, the shoulders serve to hold and retain rivets which fall upon the ribs, and as the number accumulates, those in front will be forced out upon the carrier E when the rear of the box is tilted upward so as to incline it toward the carrier, and when it is tilted down in the other direction the rivets upon the rib will be prevented from sliding backward; thus all the rivets in the box tumbling backward and forward from end to end as the box oscillates, will be eventually caused to fall upon the rib in the proper position to slide out and be delivered to the proper point.

The above construction serves for tubular rivets having three legs. If a solid or tubular rivet be employed having a head of larger diameter than the shank, or if a tubular rivet having two legs at opposite sides be employed, the head projecting so as to be wider than those legs in the transverse direction, it will be manifest that an open slot in the bottom of the box may be employed of sufficient diameter to allow the legs of the rivet to fall in, but to prevent the head from passing, the sides of the slot upon the upper surface having the same toothed or shoulder construction as that shown in the case of the single carrier, the object in each case being to allow the rivets to advance freely toward the front of the box and prevent their moving backward toward the rear end.

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

1. A rivet feeding device consisting of a tilting box or receptacle for rivets having a slot or opening made longitudinally in the center in which the shanks or legs of the rivets are adapted to fall by the oscillations of

the box, and inclined surfaces along the race-
way with shoulders at intervals, presented to-
ward the front of the box whereby the rivets
are allowed to move freely toward the front
5 and prevented from returning toward the rear
as the box oscillates, substantially as herein
described.

2. A rivet feeding device consisting of a
tilting oscillating box having an opening in
10 the front in line with a carrier to which the
rivets are to be delivered, a longitudinal slot
made in the bottom of the box in line with the
carrier, and a plate, adapted to receive the riv-
ets and allow the points to project downwardly

in the slot, said plate having notches or shoul- 15
ders adapted to present an obstruction to pre-
vent the rivets from moving toward the rear
of the box while allowing them to move freely
toward the front as the box is alternately
tilted up and down, substantially as herein 20
described.

In witness whereof I have hereunto set my
hand.

HERMANN HAHN.

Witnesses:

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