

(No Model.)

A. E. CONVERS.
THROW-OFF FOR TACK MACHINE ROCKERS.

No. 563,018.

Patented June 30, 1896.

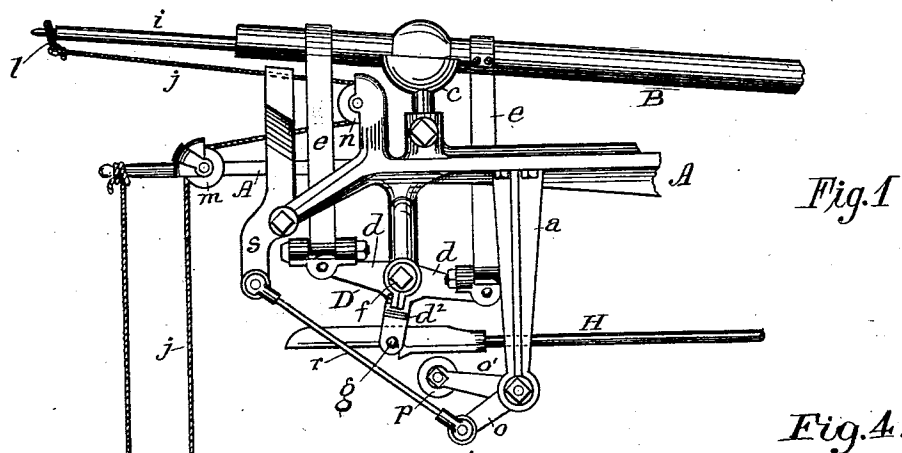


Fig. 1.

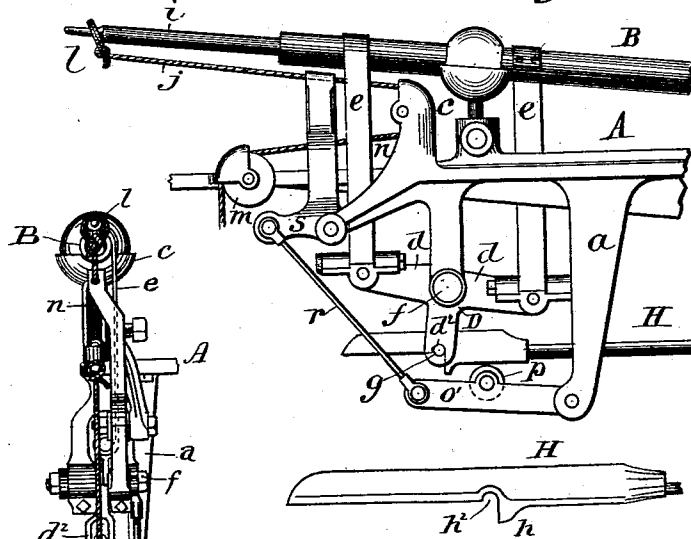


Fig. 2.

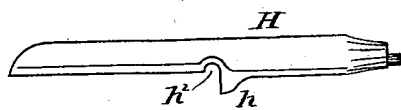


Fig. 3.

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ALBERT E. CONVERS, OF CLEVELAND, OHIO.

THROW-OFF FOR TACK-MACHINE ROCKERS.

SPECIFICATION forming part of Letters Patent No. 563,018, dated June 30, 1896.

Application filed March 15, 1893. Serial No. 466,136. (No model.)

To all whom it may concern:

Be it known that I, ALBERT E. CONVERS, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Throw-Offs for Tack-Machine Rockers; and I do hereby 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.

My invention relates to improvements in tack-machines. Its object is to facilitate the operation of supplying the fresh strips to the machine; and it consists in the construction and combination of parts hereinafter described, and specifically pointed out in the claims, to accomplish that end.

In the drawings, Figure 1 represents in side elevation that portion of an ordinary tack-machine in construction of which my invention is involved. Fig. 2 is an end elevation thereof, and Fig. 3 is a detail showing the construction of the connecting-rod by which the rocker is actuated. Fig. 4 exhibits a modified or alternative form of construction.

A represents an arm or extension attached to or forming part of the bed or frame of an ordinary tack-machine.

B represents the usual working barrel, through which the strips are fed to the dies and which is rotated back and forth in the bearing *c* by means of the rocker D, connected to the barrel B by the straps *e e* in the usual manner. A guide-hook (not shown) located near the dies serves to control the other end of the barrel.

The rocker D has three arms, two of which *d d* are connected by the straps *e e* to the working barrel, while the third arm *d*² extends downward below the pivot *f* of the rocker and carries a pin *g* with which the connecting-rod H, which receives a reciprocating motion from the machine, engages and imparts the rocking motion to the rocker D.

The parts so far described are all of the usual construction except the rod H.

To feed the strip to the dies, it is attached to a clamp *i*, which, with the strip to be cut, is passed into the working barrel and through the jaws thereof, as usual, and a cord *j*, carrying a weight *k*, is attached, usually by a ring

l, to the clamp *i*, and being led over a pulley *m* draws upon the clamp and feeds the strip carried thereby to the dies.

Heretofore it has been necessary in replacing the cut stub with a fresh strip to first stop the working of the barrel, either by throwing a lever or by lifting the rod H by hand until it disengages from the pin *g*, so as to stop the motion of the rocker, then to disengage the cord *j*, withdraw the clamp *i*, remove the stub, insert a fresh strip, replace the clamp in the barrel, and engage the strip with the jaws thereof, then to reengage the connecting-rod with pin *g*, so as to start the rocker, and finally to attach the cord *j* to clamp *i*, so as to start the feed. This series of operations consumed much time, the most of which it is the object of my invention to save by making the stopping and starting automatic, which I accomplish by the following means.

To the arm A, I attach a bracket *a*, carrying at its end the pivot of a rock-shaft, the arms *o o'* of which diverge at a small angle, one of them carrying a roller *p* immediately beneath the connecting-rod H, and the other having pivoted to it one end of a connecting-rod *r*, the other end of which is pivoted to the lower end of an upright lever *s*, pivoted on the arm A underneath the end of the working barrel. The cord *j* is passed from the pulley *m* over another pulley *n*, located between the lever *s* and the main body of the machine, and thence through a hole in the upper part of lever *s* to the ring by which it is attached to the clamp *i*. The weight of the roller *p*, arms *o o'*, and the rod *r* keep the roller out of contact with the rod H so long as the weight *k* remains supported by clamp *i* or is not allowed to bear upon the lever *s*.

When it is necessary to change the strip, the ring *l* is slipped off the clamp *i*, when the weight *k* causes the cord *j* to render instantly through the lever *s*, until the ring *l* strikes against it and, being too large to pass through the same, carries back the upper end of lever *s*, thereby drawing on rod *r* and lifting the roller *p*, which raises the rod H out of engagement with pin *g* and instantly stops the rocker. When the clamp with fresh strip is replaced in the barrel, the ring *l* is drawn back and hooked on, thus relieving the weight from lever *s*, when the roller *p* drops of its own

weight, allowing rod H to instantly reengage pin *g* and start the rocker.

No attention whatever is required from the attendant in regard to the stopping or starting of the rocker, which is perfectly automatic, as the result of which one operative is enabled to attend a larger number of machines than has heretofore been possible, materially decreasing the cost of the product.

10 As an improvement in the construction of the connecting-rod H, I form a lip *h* in line with one side of the recess *h*² by which the rod engages the pin *g*, the lip extending well below the opposite side of the recess, the result of which is that as the rod continues to reciprocate after the roller *p* has lifted it from the pin *g*, the lip *h* pushes against pin *g* while the recess *h*² cannot draw it back, so that the rocker-arm *d*² is always left thrust forward, in the position shown in Fig. 1, thus insuring that the working barrel will always be stopped with its jaws in the same position, which facilitates the entering of the fresh strip without any difficulty or delay.

25 It is obvious that considerable modification of the structure and arrangement of parts may be employed without departing from the essential spirit of my invention. For instance, the lever *s* might be connected directly to the arm *o'* which carries the roller, and the arm *o* dispensed with, as shown in Fig. 4. Again, the connecting-rod H might be made to engage pin *g* from beneath and be normally supported by the roller *p*, the arms *o* *o'* being extended on opposite sides of their pivot in bracket *a*, in which case the action of the weight on lever *s* would lower instead of raise the roller, and would disengage the connecting-rod from the rocker by dropping instead of lifting it. All such modifications are within the scope of my invention, which consists in causing the release of the feeding-weight from the clamp to automatically throw off the connecting-rod from the rocker and stop the same.

45 What I claim as my invention, and desire to secure by Letters Patent, is—

1. A throw-off for the rocker of a tack-machine, comprising in combination a lever 50 having engagement with the weighted feed-

ing-cord, a pivoted arm adapted by the motion of said arm on its pivot to disengage the connecting-rod from the rocker, and a connection between the lever and the roller-bearing arm whereby the latter will be shifted to cause the roller to disengage the connecting-rod from the rocker whenever the weight comes on the lever, substantially as described. 55

2. In a throw-off for the rocker of a tack-machine, the combination of a lever having engagement with the weighted feeding-cord, a pivoted arm carrying a roller below the connecting-rod of the rocker, and a connection between said arm and the lever, whereby the arm will be lifted whenever the weight comes on the lever, substantially as described. 60 65

3. The combination with the rocker of a tack-machine of the throw-off mechanism, consisting of a lever through which the weighted feeding-cord passes, a rock-shaft supported below the connecting-rod and having one arm extending beneath the same, and a connection from the other arm of the rock-shaft to said lever, whereby the action of the weight on said lever will rock the shaft and disengage the connecting-rod from the rocker, substantially as described. 70 75

4. In a tack-machine throw-off the combination with the rocker-shaft, the rocking mechanism, and a lever having the weighted feeding-cord passing through the same and connecting with a rock-shaft having an arm extending beneath the connecting-rod, of the connecting-rod H, having on one side only of the notch by which the rod engages the pin of the rocker a transverse lip *h* which is continuous with the notch and extends laterally beyond the other side of the notch so that the pin can only be freed from the notch when the rod moves in one direction, and the rocker must always be left in the same position, substantially as described. 80 85 90

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

ALBERT E. CONVERS.

Witnesses:

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WM. J. TAYLOR.