

No. 706,268.

Patented Aug. 5, 1902.

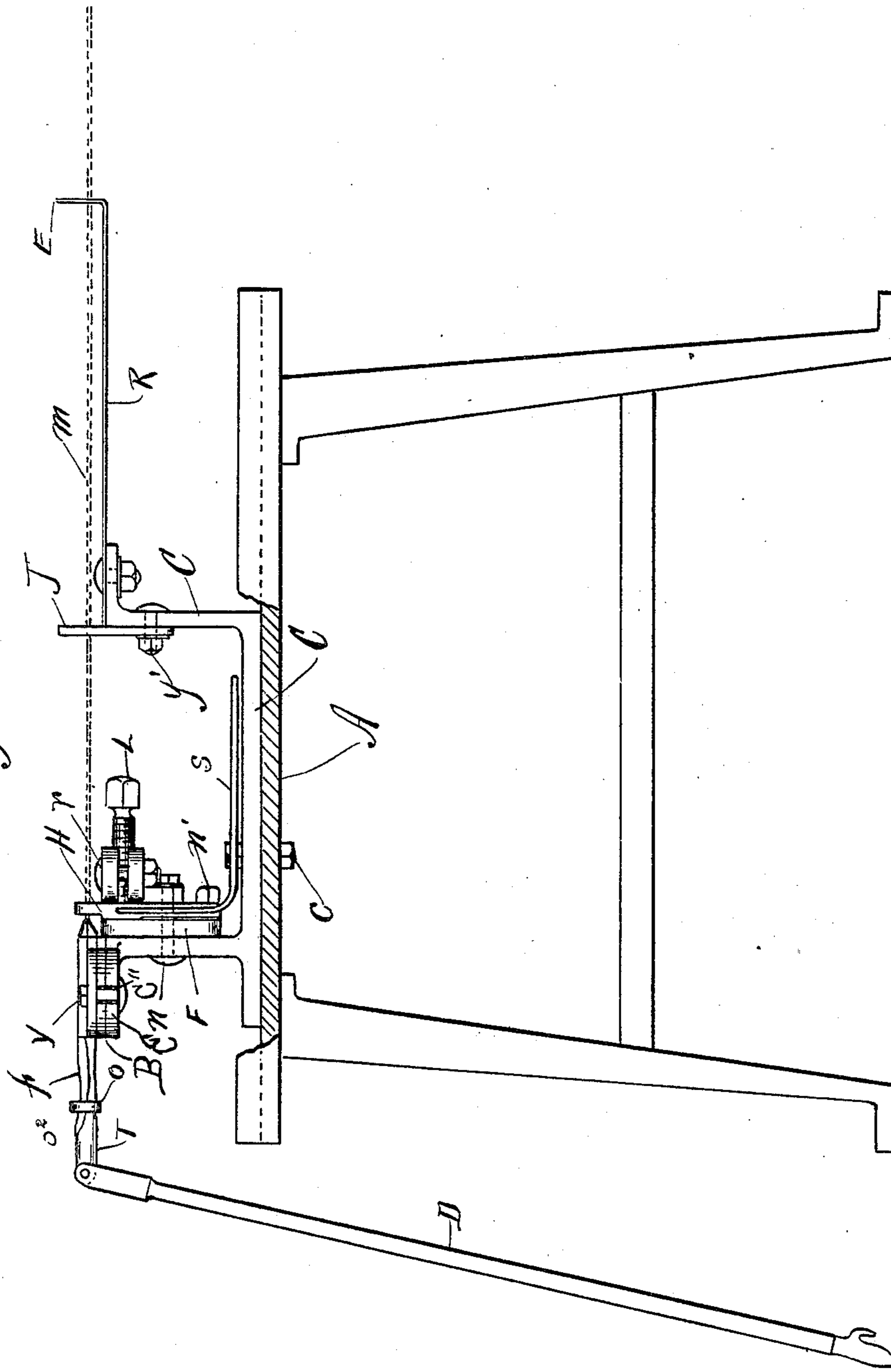
F. A. SNELL.
FORM FOR TACK MACHINES.

(Application filed Nov. 6, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



Witnesses.

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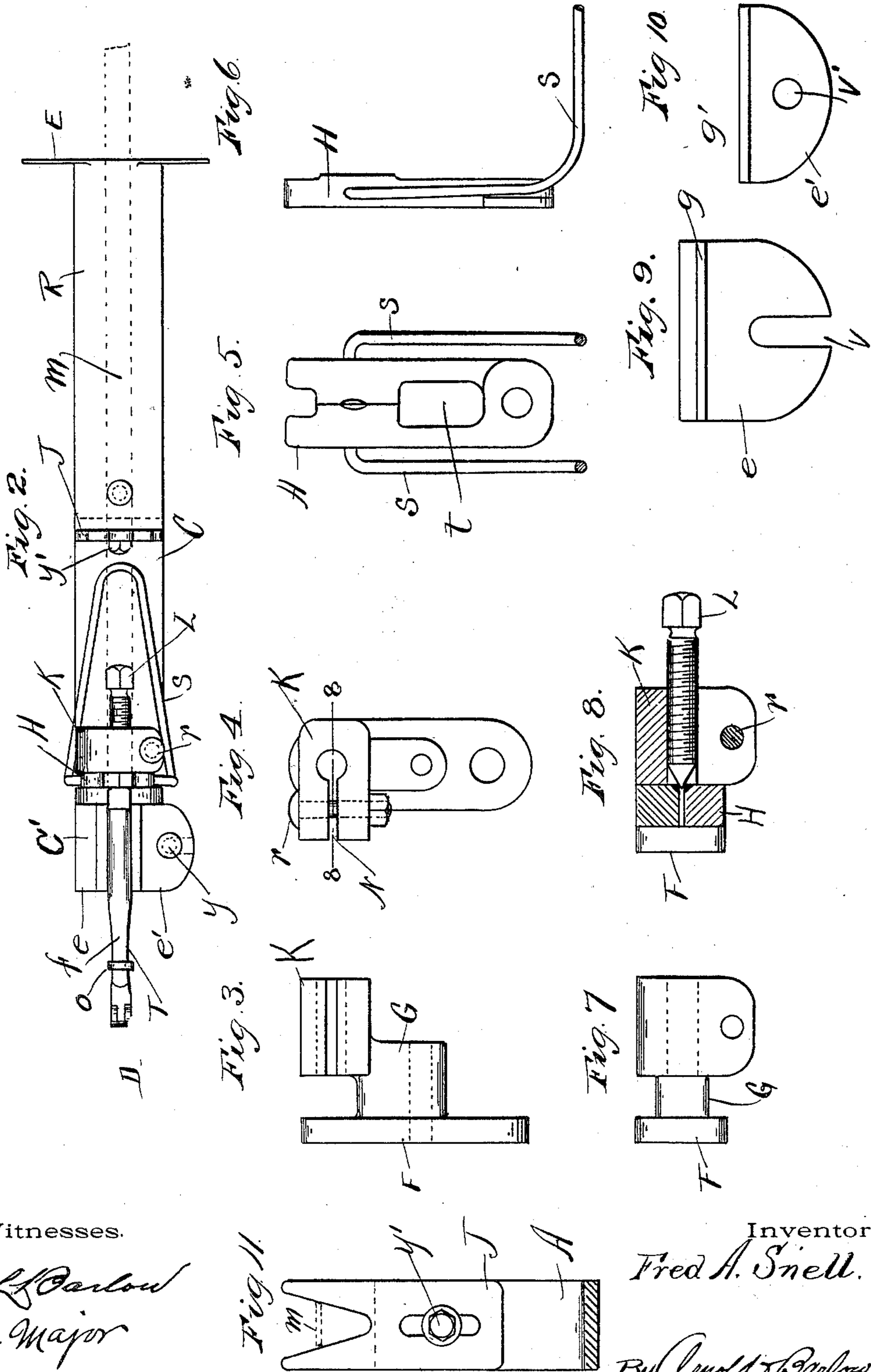
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

FRED A. SNELL, OF PROVIDENCE, RHODE ISLAND.

FORM FOR TACK-MACHINES.

SPECIFICATION forming part of Letters Patent No. 706,268, dated August 5, 1902.

Application filed November 6, 1901. Serial No. 81,309. (No model.)

To all whom it may concern:

Be it known that I, FRED A. SNELL, a resident of the city of Providence, in the county of Providence and State of Rhode Island, have
5 invented certain new and useful Improvements in Forms for Tack-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings,
10 and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in "forms," so-called, an attachment used with
15 machines for making tacks to assist the attendant in preparing the strips of metal of which the tacks are made to be fed into the machine.

The object of the invention is to provide a
20 way to enable the operator to nip the tack-strips so that they will be held straight or in line with the nipper. When the strip and nipper are not in line with each other, it causes the machine to make a good many
25 slivers and imperfect tacks, because the crooked strips bind in the nose-piece and will not feed freely. It also provides means for retaining the ring on the nipper that will prevent it from working off and letting the tack-
30 strip loose, and the parts of the form are made as far as possible with a view to accommodating the different widths of the strips from which different sizes of tacks are made by making them capable of being adjusted. It
35 is fully described and illustrated in this specification and the accompanying drawings.

Figure 1 shows a side elevation of the form and the nipper for holding the strips from which the tacks are made. Fig. 2 is a top
40 view of the form and its parts shown in Fig. 1. Figs. 3 to 11, inclusive, represent some of the parts in detail and in different positions, as will be hereinafter explained.

The construction and operation or use of
45 the apparatus are as follows:

A represents the stock-stand, that is placed on one side of the tack-machine to hold the strips of which the tacks are made, and upon
50 this stand the form-frame is held in a convenient position for the person tending the machine.

The form consists of a main frame C, which I make of cast-iron and which is secured on

the top of the stand by a bolt *c*, and to this frame C all the parts or devices of the form
55 are made fast by means of bolts. The left end of the frame C has a slotted horizontal plate C' extending out from it, on which the box B is adjustably secured by a bolt *y* to hold the nipper when the tack-strip is being
60 put into it. The box B consists of a lower and an upper plate *e e'*. (Seen separate in Figs. 9 and 10, respectively.) The lower plate *e* has a vertical flange *g* on it that forms one side of the trough or box to hold the nippers,
65 and the bolt *y*, that holds them down on the horizontal plate C', passes through a slot C'' in the latter, a slot *v* in plate *e*, and a hole *v'* in the plate *e'*, so that they can be set wider apart, if needed, and can also be set on the
70 top of the horizontal plate to bring the box in line with the rests H and J. The guide H, which is held on the inner face of the left end of the frame C by the bolts *n* and *n'*, is composed of two vertical jaws (see Figs. 5 and 6)
75 held to swing on the bolt *n'*, and they are held closed by a spring S, which consists of a loop, being flat on the bottom of the plate C (see Fig. 2) and having its ends carried up vertically one on each side of the jaws and their
80 extreme ends turned into holes in the sides of the jaws to hold the spring in place. Between the guides H and the end plate of the frame C, that holds it, there is placed a plate F, having a projection G on its face. (See Fig. 3,
85 which is a front view, Fig. 4, which is a face view, and Fig. 7, which is a top view.) There is an opening *t*, (see Fig. 5,) that allows the neck of the projection G to pass through, so as to bring the head K on the front of the
90 guide-jaw H, (see Fig. 8, which is a horizontal section on line 8 8 in Fig. 4,) and a pointed set-screw L is fitted to screw through the head K, so as to bring its point between the two jaws of the guide H, that when the set-screw
95 L is screwed in the point will separate the jaws, so as to accommodate wider strips *m*, of metal, in the gap between the jaws, (see Fig. 2,) and when the screw L is turned out the spring S will press the jaws together to
100 fit narrower strips of metal. There is a slot N cut through one side of the head K into the screw-hole, (see Fig. 4,) and a bolt *r* is put through the two parts, so that they can be compressed to close on the screw L and hold
105 it from working loose.

A guide-plate J is secured to the inner face of the right end of the frame A by a bolt y' , (see Fig. 11,) which passes through a slot in the guide-plate to allow it to be set up or
 5 down to accommodate different widths of strips of metal, and the guide-notch in its upper end is made in a V shape to properly center a strip according to its width. The right end of the frame A also has a horizontal
 10 plate extending out to hold a light bar or plate R, that has a vertical V-shaped guide on its outer end, the object of which being to support that end of the strip while the other end is being made fast in the nipper T, and it
 15 is made of thin material, that it may be bent up to support a heavy bar when needed. The strip m is held in the nipper T by the ring o , (see Fig. 1,) which is generally driven on to hold the short leg f of the nipper to the main
 20 leg. To avoid the necessity for this driving, I make the stand A high enough from the floor that the nipper-bar D may stand nearly vertical and have its lower end rest on the floor and support the outer end of the nipper, so
 25 that the boy may bear with his weight on the short leg f of the nipper and be able to slip the ring o onto the short leg f and be held in the hollow or recess o^2 in the upper side of the leg without driving.
 30 To use the form, the nipper T is laid in the box B, which has been adjusted, as before described, by loosening the bolt y and setting the sides of the box so as to hold the nipper straight and free to be put in and taken out.
 35 The tack-strip m is then put in the notch in the jaws H and the V-shaped notch in the plate J, with the right end resting in the end notch of the plate R, as seen in Figs. 1 and 2. The left end of the strip m is then inserted
 40 in the jaws of the nipper T and pressure applied by the hand to the short leg f of the nipper until the ring o will slip over the end into a hollow place just above the end, which will retain it until the strip is used up. The
 45 nipper and strip can remain in the form, so that it will not be liable to get out of line until the machine is ready for it, as two nippers are used to each machine, that while one is in the other can have a tack-strip inserted ready
 50 for use.

Heretofore the person tending the machine has had to depend upon his eye to put the strips in the nipper properly, which made it necessary to employ more skilful and the
 55 higher-priced operators, and it took more time to put the strips in, so that a boy was not able to tend so many machines.

From this it will readily be seen that my invention lessens the cost, attendance, increases
 60 the production of the factory, and at the same time lessens the loss of stock by waste by preventing the production of slivers and imperfect tacks.

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

1. In a device of the character described, the combination with a stand, of a support arranged to hold a nipper, means for adjusting the support transversely to the nipper, 70 and a guide arranged to support a strip carried by the nipper.

2. In a device of the character described, the combination with a stand, of a support arranged to hold a nipper, a guide arranged 75 to support a strip carried by the nipper, and means for vertically adjusting the guide.

3. In a device of the character described, the combination with a stand, of a support arranged to hold a nipper, and a guide having 80 a V-shaped slot arranged to support a strip carried by the nipper, by the walls of its V-shaped portion, and means for vertically adjusting the guide.

4. In a device of the character described, 85 the combination with a stand, of a support arranged to hold a nipper, three guides arranged to support a strip carried by the nipper, and means for vertically adjusting the intermediate guide. 90

5. In a device of the character described, the combination with a stand, of a support arranged to hold a nipper, a plurality of guides arranged to support a strip carried by the nipper, one of said guides being located in prox- 95 imity to the nipper, and having members adjustable transversely to the strip.

6. In a device of the character described, the combination with a stand, of a support arranged to hold a nipper, and a guide ar- 100 ranged to support a strip carried by the nipper, said guide comprising a pair of jaws pivotally supported from the stand, a spring arranged to move the jaws together, and a set-screw arranged to separate said jaws. 105

7. In a device of the character described, the combination of a stand, a support mounted on the stand and arranged to hold a nipper with the nipper-rod in a nearly vertical position with one end resting on the floor, means 110 for adjusting the support to hold the nipper in a higher or lower position, and a plurality of guides arranged to support a strip carried by the nipper.

8. In a device of the character described, 115 the combination of a stand, and a support mounted on the stand and arranged to hold a nipper with the nipper-rod in a nearly vertical position with one end resting on the floor, and three guides arranged to support a strip 120 carried by the nipper, one of said guides being located in proximity to the nipper and having members adjustable transversely to the strip, and means for adjusting the intermediate guide vertically. 125

In testimony whereof I have hereunto set my hand this 2d day of October, A. D. 1901.

FRED A. SNELL.

In presence of—

BENJ. ARNOLD,
H. E. BARLOW.