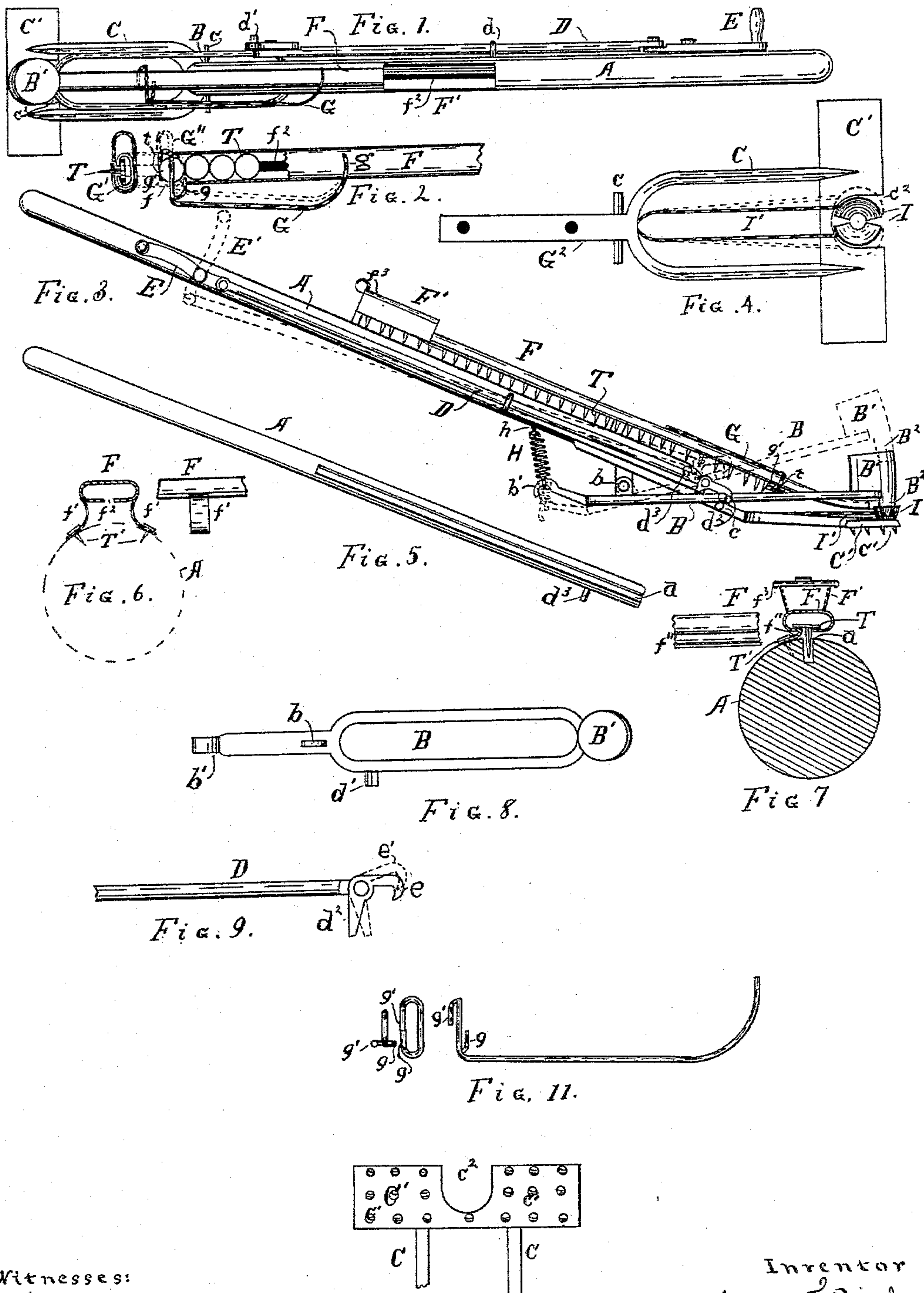


(No Model.)

M. T. BIGELOW.
CARPET STRETCHER.

No. 494,773.

Patented Apr. 4, 1893.



Witnesses:

John L. Buchanan
George H. White.

Fig. 10.

Inventor

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MYRON T. BIGELOW, OF GRAND RAPIDS, MICHIGAN.

CARPET-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 494,773, dated April 4, 1893.

Application filed June 23, 1892. Serial No. 437,790. (No model.)

To all whom it may concern:

Be it known that I, MYRON T. BIGELOW, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Carpet-Stretchers, of which the following is a specification.

My invention relates to improvements in combined carpet stretchers and tack drivers, and its objects are: first, to provide a combined carpet stretcher and tack driver that will drive a tack close to the edge of a carpet next to the base board of a room; second, to avert the necessity of boring a hole through the length of the handle to provide a means of manipulating the hammer; third, to provide a device that will stretch a carpet without danger of forcing the points into the floor, thus averting the necessity and inconvenience of raising the end of the stretcher from the floor when stretching a carpet, and at the same time averting all danger of tearing the carpet; and, fourth, to drive the tack squarely into the floor. I attain these results by the mechanism illustrated in the accompanying drawings in which

Figure 1. is a plan of my device. Fig. 2. is a plan, and a cross section of the tack feeding tube, with the cut-off wire in position. Fig. 3. is an elevation of my device. Fig. 4. is a plan of the stretcher head, and the tack receiver. Fig. 5. is a plan of the handle. Figs. 6 and 7 show two of the different ways of attaching the tack feeding tube. Fig. 8 is a plan of the hammer frame. Fig. 9. shows a means for connecting the draw rod with the hammer frame. Fig. 10. is a bottom plan of the stretcher head; and, Fig. 11. is a plan, an end, and an edge view of the cut-off.

Similar letters refer to similar parts throughout the several views.

In the construction of my device I make a head C' which I support upon a frame C which is secured to the back side of the lower end of the handle A. This head is constructed with a view to driving the tacks as close to the edge of the carpet as possible, having an opening c² for the passage of tacks, at the outer edge, as shown in Figs. 4. and 10, which enables me to place the tack receiver I at

the extreme outer edge of the head and hold the tack in position to be driven through the extreme edge of the carpet, close to the mop board.

The tack receiver I is made in two separate, 55
semicircular truncated cones forming, when closed together, a funnel or cone shaped receiver for the tacks, the halves being supported, and the two held nominally in contact by springs I', the opposite ends of which are 60
securely attached to the frame C, as shown in Fig. 4, so that a tack sliding out of the tube F, will drop into the receiver and be held in a vertical position, with the points down ready to receive the stroke of the hammer. The 65
hammer B' is supported upon a frame, or handle B, and is provided with a downwardly projecting bill B² of a proper size to just cover the head of the tack, and in a proper position to strike it squarely when the tack is in 70
the receiver I, as indicated in Fig. 3. The hammer handle or frame B is pivoted to the frame C, as at b—Figs. 2 and 8—and the back end is provided with a hook b', or other suitable device for connecting it with a spring, 75
as H. The spring H is secured at one end to the end b' of the hammer handle, and at the other end to the stretcher handle A, as at h, and is of sufficient tensile strength to throw the hammer down with a force that will drive 80
a tack to the desired depth with a single stroke. I do not, however, restrict myself to the use of spiral springs, as a flat spring, or any other available form may be used. The hammer is drawn up to the position indicated 85
by the dotted lines B B' by means of a lever E, pivoted, near its longitudinal center, to the stretcher handle and connected, from the shorter end to the hammer handle, through the medium of the connecting rod D, in such a 90
manner that if the lever be thrown from its normal position, to the position indicated by the dotted lines E'—see Fig. 3.—the connecting rod will be drawn endwise and the hammer raised by reason of the catch d² e,—of 95
any suitable form—pivoted to the end of the connecting rod and engaging with the pin d' on the hammer frame. This catch may be disengaged from the pin d', by means of the lever d² coming in contact with the pin d³, on 100

the side of the stretcher handle, and throwing the latch *e* up to the position indicated by the dotted lines *e'* in Fig. 9, or by any other available means, when the hammer has

5 been raised to the desired height, as hereinbefore described. To prevent the hammer frame from being drawn down too far I place a pin *c* on, or through, the stretcher frame C, in position to stop the hammer handle.

10 My appliance for storing and feeding the tacks to the tack receiver, consists of a hopper F', the side walls of which converge toward the bottom, where I form a long narrow slot, *f*², through which the points of the tacks may drop, and the tacks be held suspended by the heads. From the lower end of the hopper I continue a long, flat tube or conveyer F, provided its entire length with a slot,—see *f*² in Fig. 2—corresponding with its slot

20 through the bottom of the hopper, and continuous therefrom. The lower end of this tube terminates directly over the inner edge of the tack receiver I, so that when a tack drops from it, it will drop into the receiver

25 point down and in position to receive the stroke of the hammer squarely upon the head.

To avert the danger of more than one tack dropping into the tack receiver, under the hammer, at a time, I make a cut-off G of spring wire, or other suitable material, one end of which I attach to the tube, or other suitable support, as at *g*, I form a loop G' considerably longer than the width of the tube, and wide enough to encircle the tube and work

35 freely over it laterally. The lower or back end of this tube is disjointed a little at one side of the center and the shorter end *g*, curved back, while the longer end *g'* is thrown ahead far enough so that when in its normal position

40 the lower tack—*t*, Fig. 2, will pass the end *g* and rest against the end *g'*, with the end *g*, in position to pass between this tack and the next succeeding one. The end *g'* is of a proper length so that when the cut-off is thrown

45 over to the position indicated by the dotted lines G'' the tack *t* will pass on to the receiver the column of tacks meanwhile being supported by the end *g*, and when the cut-off springs back to its normal position, the column will drop upon the end *g'*, and so on until the entire supply of tacks is exhausted. The body G of the cut-off, as it approaches the loop G' is inclined toward the conductor tube so that the end stands just inside of the bifurcated hammer handle, while the body at

55 the bow—at G in Fig. 2—lies directly over, or a little outside of the hammer handle, so that when the hammer is raised to the position indicated by the dotted lines, B', in Fig. 3, the inner surface of one side of the handle will come in contact with the body of the cut-off, and throw it over to the position indicated by the dotted lines G'' in Fig. 2, and the natural elasticity of the body will carry it back to its

normal position as soon as the hammer is 65 thrown down and liberates it, with the results hereinbefore described.

The conductor tube and hopper may be attached to the stretcher handle by means of narrow supports *f'*, as in Fig. 6, by turning 70 a support the entire length of one side as in Fig. 7, or in any other available manner; and it may be placed some distance above the handle so that the points of the tacks will clear the same, or it may be set close down 75 and a groove made in the handle for the passage of the tacks—see *d*, in Fig. 5, as desired.

To avert the danger of the head of the stretcher slipping upon the carpet I form short teeth *c'* upon its lower surface, and incline the points forward as shown in Fig. 3, 80 so that they will naturally draw into the carpet when pressed ahead, as in the act of stretching the same. I make these teeth short enough so that they will not reach entirely 85 through the carpet, but long enough to insure a perfect action.

I usually place a sliding cover *f*³ on the hopper to avert the danger of spilling the tacks out; but it is not absolutely necessary. 90

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

1. The combination in a carpet stretcher and tack driver, of a handle having a foot 95 attached thereto said foot provided with downwardly projecting points, a hammer frame pivoted to body of said foot a spring, a lever, a connecting rod and a catch for manipulating the hammer a hopper and a tube 100 slotted their full length a cut-off and a tack receiver, substantially as and for the purpose set forth.

2. The combination in a carpet stretcher of a handle, a foot secured to the handle- 105 points upon the lower surface of the foot a tack receiver in two parts operated by springs a hammer pivoted to the handle, a spring attached to the handle and to the stretcher handle, a catch, a connecting rod and a lever 110 for manipulating the hammer, a hopper and tube for holding and conveying the tacks, and a cut-off, substantially as, and for the purpose set forth.

3. The combination in a carpet stretcher 115 of a handle, a foot secured to the handle, points upon the lower surface of the foot, said points slightly inclined forward, a tack receiver, a hammer and frame pivoted to said handle, a spring, a lever, a connecting 120 rod, a catch, and a pin upon the hammer, a hopper and tube grooved for the passage of tacks and a cut-off secured to said tube the free end encompassing the tube and forming a loop, the extreme ends overlapping beneath 125 the tube and standing a short distance apart, laterally, substantially as, and for the purpose set forth.

4. The combination in a carpet stretcher of a handle, a foot secured to and projecting beyond said handle, an opening in the foot for the passage of tacks, forwardly inclined 5 points on the lower surface of the foot, a spring tack receiver, a stop to hold the hammer frame to position, a hammer pivoted to the handle, a spring, a lever, a rod and a catch for manipulating the hammer, a hop-

per, a conducting tube, a cut off, and a groove in the handle, substantially as specified.

Signed at Grand Rapids, Michigan, this 15th day of June, 1892.

MYRON T. BIGELOW.

In presence of—

ALFRED M. PERRY,
ITHIEL J. CILLEY.