W. Brown,

Carpet Stretcher,

No. 61,803. Patented Feb. 5, 1867.

Fig: 1.

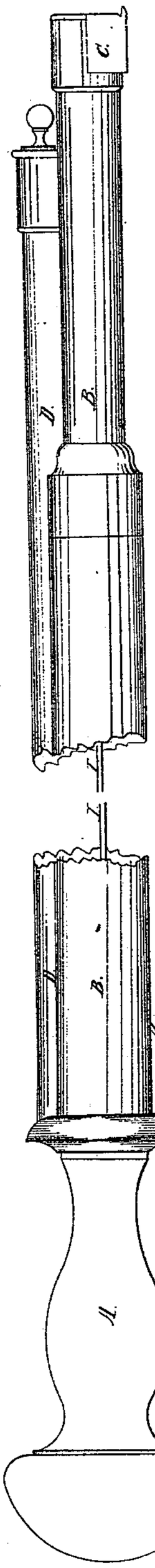

Fig: 2.

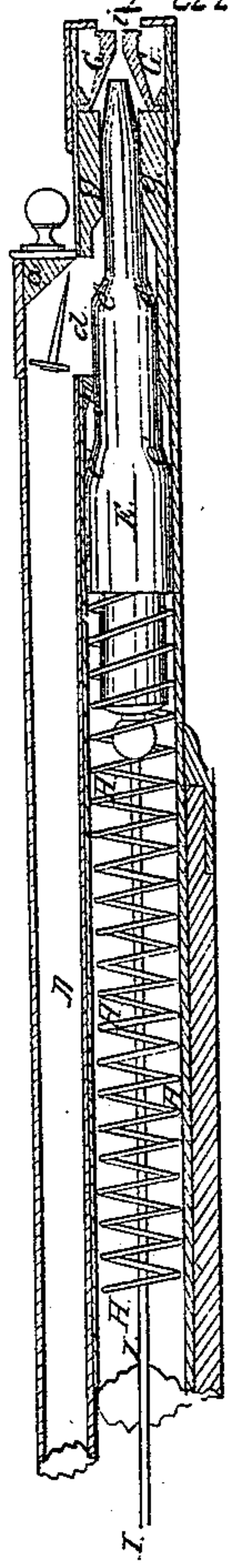

Fig: 3. Fig: 4.

Witnesses:
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WILLIAM BROWN, OF SPRINGFIELD, MASSACHUSETTS.

Letters Patent No. 61,803, *dated February* 5, 1867.

IMPROVED CARPET-STRETCHER AND TACK-DRIVER.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM BROWN, of Springfield, Massachusetts, have invented a new and useful invention for a Carpet-Stretcher and Tack-Driver or Fastener combined in one instrument; and I do hereby declare the following to be a full and exact description of my said invention, reference being had to the drawings accompanying and making part of this my specification.

Figure I of the drawings is an exterior side view or plan of my said invention.

Figure II represents a longitudinal cross-section through the same, showing the interior parts and their arrangement.

Figures III and IV are side and plan views of the jaws which hold the tack, and also allow it to pass through, as hereinafter particularly described.

In all the figures the same letters represent the same parts.

The nature of my invention consists in arranging and combining together two hollow cylindrical parts, one of which is adapted to be used as a carpet-stretcher, and also to contain within its hollow portion, firstly, a plunger or hammer; secondly, a spring by which the hammer is operated; thirdly, a peculiar shape to the lower part of the plunger by which the descent of the tack is regulated; fourthly, the jaws which hold the tack ready to be driven into the floor by the blow of the plunger, and which open at the required moment to allow the tack to pass, the other hollow cylindrical part being a tack-feeder and conductor.

The exterior form of my combined carpet-stretcher and tack-fastener is shown in Fig. I, A being the handle, B the shaft, and C the teeth of the carpet-stretcher, resembling in size and appearance somewhat the carpet-stretcher in common use. On the outside, and firmly fastened to B, I place the tube D, which is the tack-feeder or conductor. The parts A B I usually construct of strong wood, the part D of metal, and I prefer brass or composition metal, but I do not confine myself in either part to any particular kind of wood or metal. Within the hollow part of B, toward the lower end, I place the cylindrical plunger E, which is to play up and down as required. This plunger has a taper or bevel at e^1, and from that taper extends downward at a reduced size or diameter to the part e^2, where there is another taper or bevel from which it extends downward at a reduced size or diameter to a third taper or bevel, e^3, having at the end a flat surface about the size of an ordinary tack head. The object of these several tapers and diminutions of the size of the plunger at the different parts is to regulate the motion and play of the plunger in connection with the descent and the driving of the tack. The tack-conductor D is a straight, hollow tube extending along the upper side of the shaft of the carpet fastener, and placed in a groove from the handle to nearly the foot of the carpet-stretcher. It has an opening in the upper end to admit the tack always with its point downward. The lower part at the bottom is open on one side, as seen at *d*, Fig. II, by which it communicates through a similar opening into the interior of the tube B. The bottom of the tube D is bevelled, as shown at d^1, so as to turn the tack toward the required direction in its descent. When the plunger is at rest, as shown in the drawing, Fig. II, the tack is held by the plunger at the bottom of the tack-feeder D, but when the plunger is raised so that its lowest point is above the opening *d*, then the tack descends by its gravity (the stretcher being held when in use in an upright position, or nearly so,) down into the jaws, where it is held until the blow is given by the plunger to drive the tack into the floor. The play and stopping point of the plunger in its descent are fixed by the shoulder of taper e^1 coming in contact with the bearing *f* inside the tube B. The interior diameter of the tube B is reduced at *g g*, so as to fit the reduced size of the plunger at that part, and the diameter should be about that of the tack head so as to allow the tack to pass through loosely, but always in a position of the point downward. The jaws G are constructed as follows: They are constructed in four equal sections, resembling the quarter sections of a funnel, and when closed resemble the Figs. III and IV of the drawing; Fig. III showing a side elevation, and Fig. IV a cross-section or plan of the bottom of the jaws. The upper parts of the jaws have a lip or flange by which they are hinged to a bearing within the bottom part of tube B, so that the lower parts of the jaws can open outward apart from each other as required. The parts or sections are held together by an India-rubber band, which permits the parts to open when the plunger drives the tack through, and closes them when the plunger is withdrawn. When the sections constituting the jaws are closed, a small opening is left in the centre to receive the point of the tack when it falls within the jaws, as shown in Fig. II at *i*. The interior of the jaws is bevelled to a funnel shape so as to be

asily parted by the descent of the plunger. H is a spiral spring upon the head of the plunger, and secured at ts upper end within the tube B. This spring is made to a diameter of coil about equal to that of the interior of he tube in which it works, and is made to have sufficient action and reaction to operate the plunger; it should e so arranged in reference to the plunger, that when at rest the lower end of the plunger will be just within he funnel or hollow of the jaws. I is a cord attached to the head of the plunger, and extending up through he spring to near the top of the tube B, where it passes out through an opening and is fastened to the knob or andle K. When the instrument is to be used, the carpet-stretcher is pushed into the carpet to bring it to its lace, the instrument being held somewhat toward a vertical position, the tack is then dropped in, which descends y its gravity to the opening *d*, and the plunger being raised by the operator drawing on the cord I, the passage *d* s opened and the tack continues its descent to the jaws, where it is held until the operator lets the cord free, when he plunger descends and the tack is driven home by the blow, the jaws parting to allow the passage of the tack nd plunger, and closing on the springing back of the plunger to its place, when the instrument is ready for the ext tack to be driven. The lower parts of tubes B and D are closed with movable covers or ends, which shut pon and over the open ends of the tubes so as to be sufficiently fastened in place; these are for convenience of ıspection and repairing the parts of the tubes near the ends.

Having thus described my invention, and the manner of operating the same, what I claim therein as new, nd for which I desire Letters Patent, is—

1. The combining and arranging together the tubes B and D, to form a compound carpet-stretcher and ıck-conductor, as described.

2. I claim the combination of the tube B, formed as a carpet-stretcher, with the tube D as a tack-conductor, ıd the plunger E, and the jaws G, constructed and operating in the manner and for the purposes described.

3. I claim the construction of the plunger with different dimensions in its different parts, in combination ith the corresponding parts of the interior of tube B, as described, by which the action of the plunger is con-olled, and the tack held back in the tack-conductor, and then conducted point downward into the jaws when quired.

4. I claim the manner of constructing and operating the jaws G in sections for receiving the tack, in com-nation with a plunger for driving the tack, operating together in the manner and for the purposes described.

5. I claim the combination of the plunger, the spring, and the cord, with the tubes B and D, and the jaws, ranged and operating as described.

6. I claim the forming of a bevel bottom to the tack-conductor D, by which the tack is by its gravity turned th its point toward the opening from the tube D to that in tube B, for the purpose and in the manner scribed.

7. I claim making the ends of the tubes D and B removable and adjustable by box or sliding covers, for e purpose and in the manner described.

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Witnesses:

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