

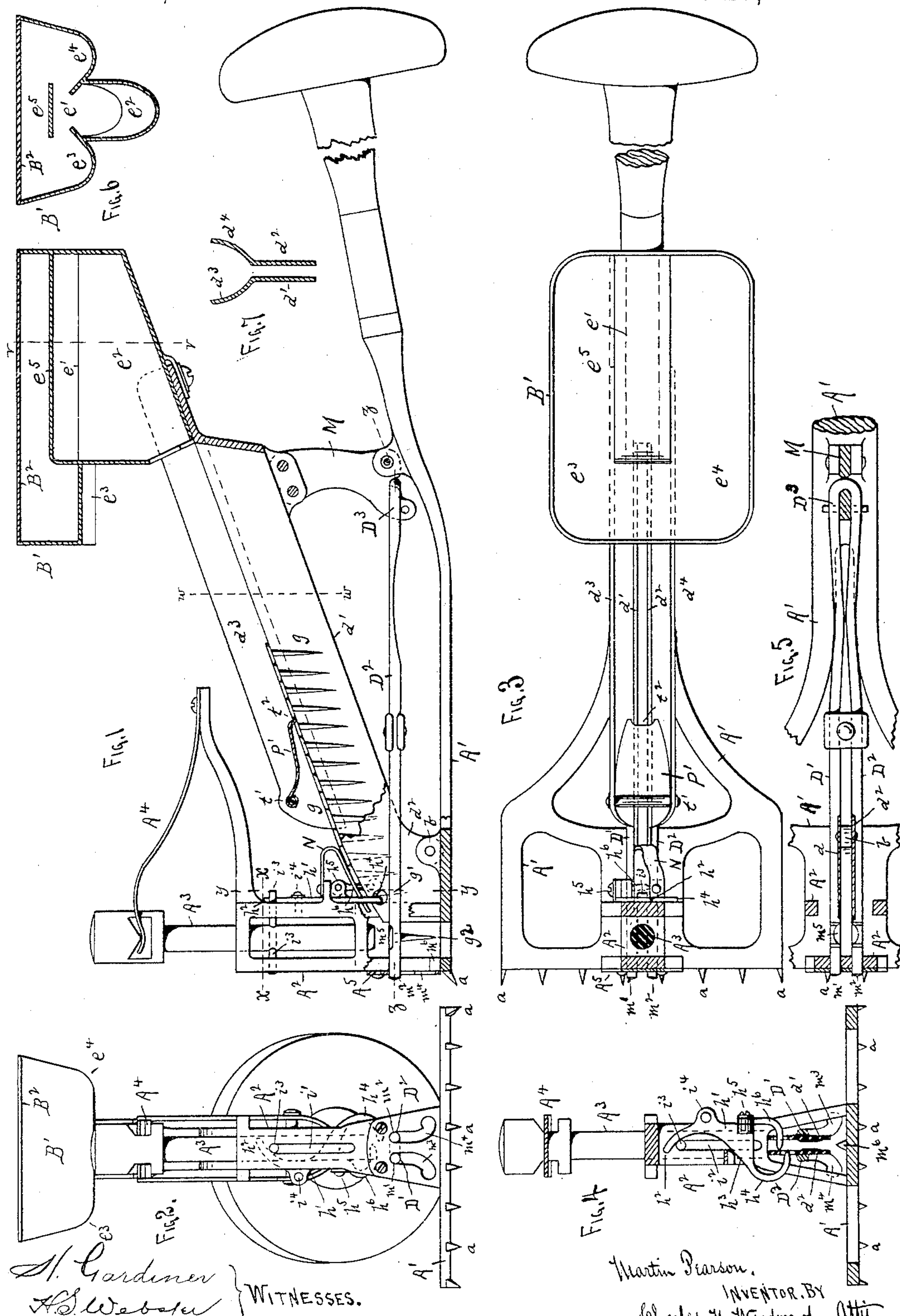
(No Model.)

2 Sheets—Sheet 1.

M. PEARSON.
CARPET STRETCHER AND TACKER.

No. 467,864.

Patented Jan. 26, 1892.



S. Gardiner
H. Webster } WITNESSES.

Martin Pearson,
INVENTOR, BY
Charles H. Woodward, Att'y.

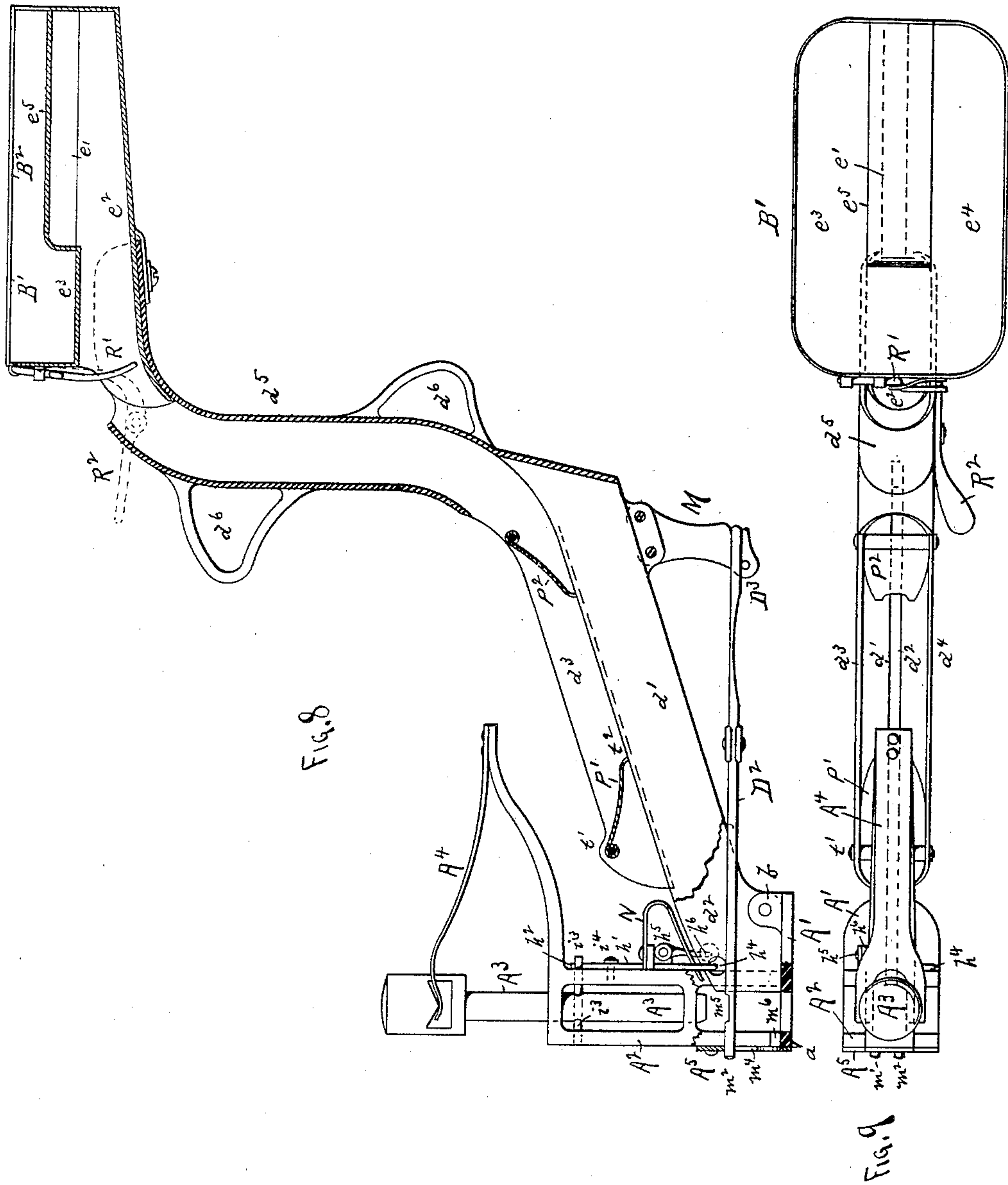
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UNITED STATES PATENT OFFICE.

MARTIN PEARSON, OF ROBBINSDALE, MINNESOTA.

CARPET STRETCHER AND TACKER.

SPECIFICATION forming part of Letters Patent No. 467,864, dated January 26, 1892.

Application filed May 11, 1891. Serial No. 392,280. (No model.)

To all whom it may concern:

Be it known that I, MARTIN PEARSON, a citizen of the United States, residing at Robbinsdale, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in a Combined Carpet, Wire-Cloth, and Canvas Stretcher and Tacker, of which the following is a specification.

This invention relates to implements employed in stretching and tacking carpet, wire-cloth, canvas, &c.; and it consists in the construction, combination, and arrangement of parts, as hereinafter shown and described, and specifically pointed out in the claims.

In the drawings, Figure 1 is a sectional side elevation. Fig. 2 is a front elevation. Fig. 3 is a plan view in section on the line X X of Fig. 1. Fig. 4 is a rear elevation on the line Y Y of Fig. 1. Fig. 5 is a plan view in section on the line Z Z of Fig. 1. Fig. 6 is a cross-section of the tack-feeding hopper on the line V V of Fig. 1, all the above views showing the construction of the implement when employed as a combined carpet-stretcher and tack-driver. Fig. 7 is a cross-sectional view on the line W W of Fig. 1, illustrating the construction of the nail-feeding trough or chute. Figs. 8 and 9 are views similar to Figs. 1, 2, and 3, illustrating the slight modification in the construction of the implement necessary to adapt it for use in attaching wire-cloth, canvas, or other material to screens, frames, and in similar locations.

A' is the base-frame of the implement, to which the stock A², supporting the tack-driving plunger A³, is attached, as shown.

When employed as a combined carpet-stretcher and tack-driving implement, the base A' will be made somewhat broader, as shown in Figs. 2, 3 and 4, than it will be when employed as a combined wire-cloth or canvas stretcher and tacker, as shown in Figs. 8 and 9; but in both forms the front edge of the base-frame will be armed with small teeth *a*, to engage the fabric in the ordinary manner of carpet-stretchers and similar implements.

When used as a carpet-stretcher the teeth *a* will generally be set pointing forward and slightly downward, while in the other form they will generally be formed pointing downward, as shown, respectively, in Figs. 1, 2, 3, and 4 and in Figs. 8 and 9.

The plunger A³ is adapted to be held normally in its upward position by a spring A⁴. Attached to one side of the stock A² is a nail-feeding chute consisting of two parallel metal strips *d'* *d*², secured to a rib *b*, projecting from the base A' and extending outward and upward at an angle from the stock and with outwardly-flaring side wings *d*³ *d*⁴ along their sides, as shown. The feed-hopper B' is connected to the upper end of the feed-chute, which is formed with a somewhat contracted outlet *e'* leading downward into an inclined receiver *e*², which is formed to lead the tacks into the feed-chute. The bottom of the feed-hopper is formed into two compartments *e*³ *e*⁴, rising toward the exit-slot *e'* and provided with a guard-strip *e*⁵, the construction being more clearly shown in Fig. 6, which represents a cross-section of the feed-hopper. By this arrangement when the tacks are placed in the hopper they are retarded somewhat and fall into the receiver *e*² below the outlet *e'* a few at a time and only when the implement is shaken slightly, thereby insuring the tacks automatically arranging themselves in regular order in the feed-chute, as shown at *g* in Fig. 1, the lowermost tack *g'* in the chute resting against a pivoted stop-lever, as shown.

i' *i*² are slots formed through the sides of the stock A², and through which the ends of a pin *i*³ (passing through the plunger A³) project, as shown. Pivoted at *i*⁴ to the side of the stock A² alongside the slot *i*² is a lever-arm *h'*, whose upper end *h*² lies alongside the projecting pin *i*³, while its central part *h*³ is curved inward and overlapping the slot, so that when the plunger *a*³ is forced downward the pin *i*³ will force the lower end of the lever *h'* to one side. The lower end *h*⁴ of the stop-lever *h'* is curved around and ends opposite a cavity in the chute *d'* *d*², as shown in Fig. 1, where it is held normally by the pin *i*³ in its upward position, as shown in Fig. 4. Attached by a screw *h*⁵ to the lever *h'* is a small curved finger *h*⁶, adapted to enter a cavity in the chute from the opposite side to the point *h*⁴, but farther from the stock A², so that a space a little more than the thickness of a tack occurs between the adjacent ends of the fingers. When the lever *h'* is in its normal position, as shown in Figs. 1 and 4, the end of the finger *h*⁴ will end at the outside edge

of the cavity in the feed-chute, but the end of the finger h^6 reaches across the cavity and forms a stop to the further progress of the tacks. When the plunger A^3 descends, the pin i^3 forces the lower ends of the lever h' to one side and reverses the position of the fingers $h^4 h^6$, causing the finger h^6 to withdraw from the chute, and causing the finger h^4 to be forced into and across the chute. Then when the plunger rises again the pin i^3 will act upon the upper end h^2 of the lever h' (which has been thrown across the upper part of the slot by the movement of the lower end of the lever) and return the lever to its normal position, this action automatically feeding the tacks out of the chute one at a time, as hereinafter described.

By securing the finger h^6 to the stop-lever h' by the screw h^5 it may be adjusted to adapt the implement to different sizes of tacks.

$D' D^2$ are two parts of a spring-jaw running parallel to each other and embracing the lower end of the chute $d' d^2$, and held by the rear end at D^3 in the standard M on the rear of the chute and projecting through the front of the stock A^2 , as shown at $m' m^2$. Attached to or formed in one piece with the stock A^2 is a plate A^5 , having two outwardly and downwardly curved slots $m^3 m^4$, in which the free ends $m' m^2$ of the spring-jaw $D' D^2$ move up and down. The jaw $D' D^2$ rests normally in its upward position beneath the lower end of the plunger A^3 , and is provided at this point with small cavities m^5 , adapted to receive and support the heads of the tacks as they fall into place between the parts of the spring-jaw when released by the action of the lever h' , one of the tacks being shown in position in Fig. 1. The slots $m^3 m^4$ run downward in parallel perpendicular lines for a short distance and then turn suddenly outward in opposite directions, the function of the slots being to separate the parts $D' D^2$ to permit the plunger A^3 to pass down between them and drive the tack home. The spring-jaw thus serves to hold the tack until the plunger in its downward movement sets it partially into the floor or other part adapted to receive it, and then moves out of the way to release the head of the tack and permit the lower end of the plunger to pass through and drive the tack home. A small wedge-shaped chock m^6 is attached to the base A' between the slots $m^3 m^4$ to assist in forcing the parts $D' D^2$ apart and render their action more certain. As soon as the plunger is thrown upward again by the spring A^4 the spring-jaw returns, also, to its normal position ready to receive the next tack, which is fed to it automatically by the action of the lever h' and its fingers $h^4 h^6$.

A spring-guard N is attached to the stock A^2 or other fixed part of the implement and projects over the top of the chute $d' d^2$ to rest above the heads of the tacks as they pass down the chute and prevent them from jump-

ing out of the chute by any jarring motion of the implement.

A guard P' is shown hinged by one end t' in the chute $d' d^2$ and lying loosely therein with its free end above the slot in the bottom of the chute, and with a notch t^2 just large enough to permit the passage of the heads of the tacks, the function of this guard being to stop any tacks which do not arrange themselves in regular order and prevent them from running down into the feed mechanism and clogging it. In Figs. 8 and 9 a second one of these hinged guards P^2 is shown in a reversed position, the outlet end of the chute to assist in properly guiding the tacks into the chute, and one of these secondary guards may be placed in the form of implement shown in Fig. 1, if desired.

In the form shown in Figs. 8 and 9 the chute is shown continued upward in the form of a tube d^5 before it unites with the feed-hopper B' , which tube will be utilized as a handle to hold the implement by and will be provided with grip-pieces d^6 . This form of handle will be most convenient when the implement is employed as a wire-cloth or canvas stretcher and tacker, while the form shown in Figs. 1 and 2 will be most convenient when employed as a carpet stretcher and tacker.

A small agitator R' is shown attached to the hopper B' in Figs. 8 and 9, and adapted to be actuated by a spring finger-lever R^2 to agitate the tacks as they run from the receptacle e^2 and assist in feeding them into the tube and chute. One of these agitators may also be attached to the outlet of the hopper when the implement shown in Figs. 1, 2, and 3 is employed, if desired.

Having thus described my invention, what I claim as new is—

1. In a combined fabric-stretching and tack-driving implement, a stock A^2 , supported upon a base-frame A' , having teeth a , a plunger A^3 , supported in said stock and adapted to be moved upward and downward therein, and with a pin i^3 projecting through slots $i' i^2$ in said stock, a tack-feeding chute $d' d^2$, connected to said stock and leading into the space below said plunger, a pivoted lever h' , adapted to be actuated by said pin i^3 and having fingers $h^4 h^6$, adapted to be moved alternately back and forth through said chute when said plunger is actuated, tack-holding spring-jaws $D' D^2$ beneath said plunger and adapted to be depressed thereby, and means whereby said spring-jaws may be distended when the plunger descends, substantially as and for the purpose set forth.

2. In a combined fabric-stretcher and tack-driving implement, a stock A^2 , supported upon a base-frame A' , having teeth a , a plunger A^3 , supported in said stock and adapted to be moved upward and downward therein, and with a pin i^3 projecting through slots $i' i^2$ in said stock, a tack-feeding chute $d' d^2$, con-

nected to said stock and leading into the
 space below said plunger, a pivoted lever h' ,
 adapted to be actuated by said pin i^3 and
 having fingers $h^4 h^6$, adapted to be moved al-
 5 ternately back and forth through said chute
 when said plunger is actuated, tack-holding
 spring-jaws $D' D^2$ beneath said plunger and
 adapted to be depressed thereby, means where-
 by said spring-jaws may be distended when
 10 the plunger descends, and a tack-receptacle B' ,
 having exit e' and guard e^5 and connected to
 said feed-chute, substantially as and for the
 purpose set forth.

3. In a combined fabric-stretching and tack-
 15 driving implement, the combination of the
 base-frame A' , having the teeth a , stock A^2 ,
 mounted upon said base and carrying plun-
 ger A^3 , provided with a stop-pin i^3 , and pro-
 jecting through slots $i' i^2$ in said stock and
 20 adapted to be moved up and down therein,
 tack-feeding chute attached to said base and

leading into the space beneath said plunger,
 flexible guard-wing P' within said chute, tack-
 supporting spring-jaws $D' D^2$ beneath said
 plunger and with the free ends thereof pro- 25
 jecting through outwardly-curving slots m^3
 m^4 in said stock, a pivoted lever h' , adapted
 to be actuated by said pin i^3 and having fin-
 gers $h^4 h^6$, adapted to be moved alternately
 back and forth through said chute when said 30
 plunger is actuated, and a trigger R' , adapted
 to be vibrated within said tack-receptacle or
 feed-chute, substantially as and for the pur-
 pose set forth.

In testimony whereof I have hereunto set 35
 my hand in the presence of two subscribing
 witnesses.

MARTIN PEARSON.

Witnesses:

C. N. WOODWARD,
 H. S. WEBSTER.