

*A^m Brown's Improvements in
Carpet Stretchers and Sack Hammers.*

PATENTED AUG 8 1871

Fig 1.



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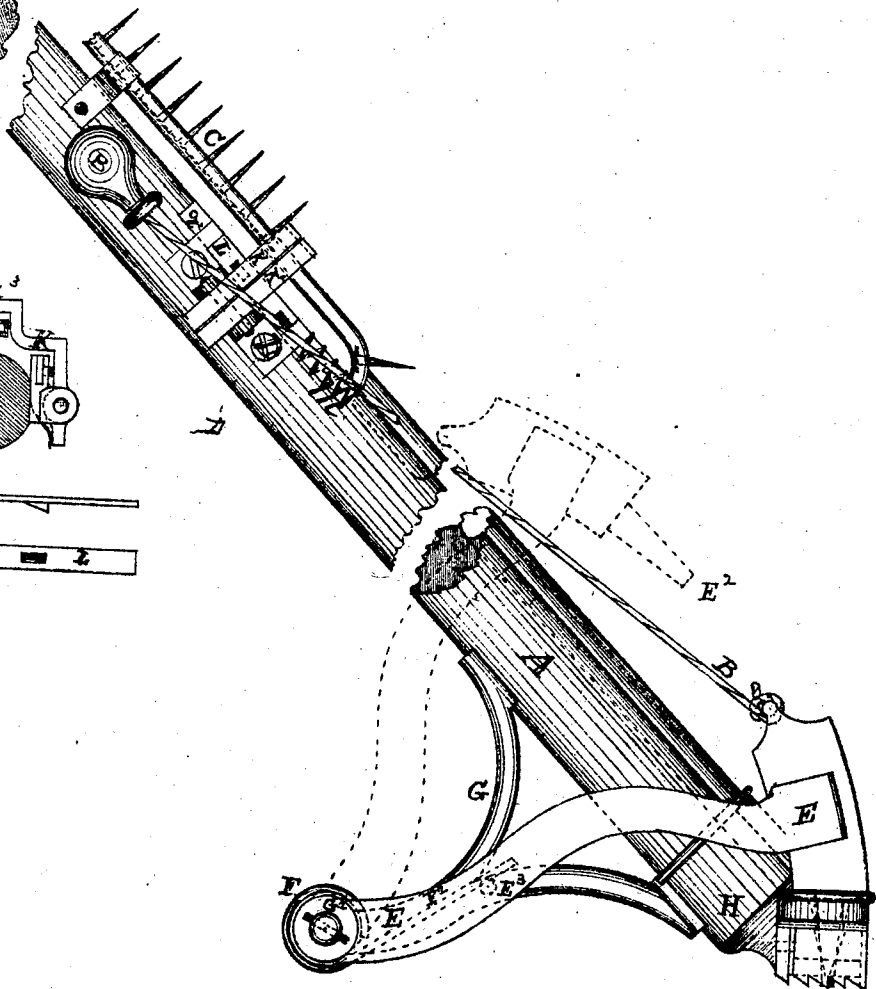
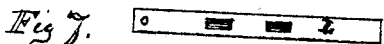
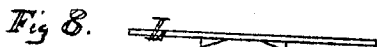


Fig 6.

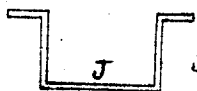


Fig 5.

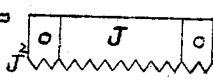


Fig 4. Fig 3.

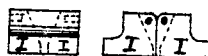
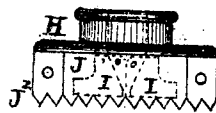


Fig 2.



Witnesses
J. L. Clark
D. H. Coleman

A. M. Brown

UNITED STATES PATENT OFFICE.

WILLIAM BROWN, OF NEW YORK, N. Y., ASSIGNOR TO WILLIAM M. EVANS, OF SAME PLACE.

IMPROVEMENT IN CARPET-STRETCHERS AND TACK-HAMMERS COMBINED.

Specification forming part of Letters Patent No. 117,735, dated August 8, 1871.

To all whom it may concern:

Be it known that I, WILLIAM BROWN, of the city, county, and State of New York, have invented certain Improvements in Combined Carpet-Stretchers and Tack-Hammers, of which the following is a specification:

A combined carpet-stretcher and tack-hammer, to have any practical value as a labor-saving machine, must be made so as to enable the operator to stretch the carpet, send the tack down and have it held in a perpendicular position, and to strike it with the hammer, driving it firmly into the floor to hold the carpet in its desired place after the machine is removed; standing nearly erect all the time, avoiding knee-service and extreme "Grecian bends." In my previous inventions, secured to me by Letters Patent issued by the United States Patent Office, February 5, and July 30, 1867, Nos. 61,803 and 67,159, I did successfully accomplish all of these results in one machine at the same time. The object of my present invention is to make a cheaper, stronger, more serviceable and effective machine, requiring less labor to use it, and with all of the advantageous points of the first fully secured, together with a new tack-conductor, tack-feeder, and cut-off, a swinging hammer with its attachments, and a new tack-holder, avoiding the use of springs, which are liable to get out of order, rendering the whole machine useless for the purpose intended.

Figure 1, side elevation of the carpet-stretcher, showing the feeder and cut-off D attached; Fig. 2, end elevation of the base, with tack-holder, guard, and teeth, complete; Figs. 3 and 4, front and side elevations of the tack-holder; Figs. 5 and 6, front and top elevations of the metal guard to the tack-holder, with the teeth; Figs. 7 and 8, front and top elevations of the sliding plate or bar, with inclined projections; Fig. 9, side elevation of separating-keys or fingers; Fig. 10, end elevation of tube tack-conductor C.

A A, handle; must be about four feet long, that the operator may stand erect, with the lower or stretcher end thrown forward at an angle of about forty-five degrees, with the teeth set into the carpet ready for use. B B, connecting-line, attached to the hammer E E, held to the handle A A at the top by passing through a screw-eye or other device, and having a knob, loop, ring, or knot at the end, convenient for the hand to

pull up the hammer E E when ready to drive the tack. C, tack-conductor, fastened to the handle A A, running from near the top to the tack-holder I I, so the operator can send the tack down ready for driving and not bend the back. When this conductor is used with the tack-feeder and cut-off D it may run only part way up the handle A A, arranging the feeder and cut-off so as to place one tack at a time in the tack-holder I I. Conductor C is made from a strip of sheet metal, with the two edges turned over toward each other like a hem or seam, with an opening between them sufficient to allow the stem of the tack to run down with the point upward; and there must also be room under both of the turned edges to permit the tack, standing on its head, to move down freely, and at the same time holding it from spilling out, even if the machine should upset or fall to the floor. D, tack-feeder and cut-off; may be attached to the handle at any suitable place; generally will be placed at the bottom of handle A A and feed directly into the tack-holder I I, and be worked by a line attached to the sliding bar L, at L², running up the handle A A to be convenient to the operator. This bar or plate L has two inclined projections, as shown in Figs. 7 and 8, and when the bar is pulled up the upper finger or key drops between these two projections, and its point at K³ acts as a cut-off, holding back all but the one tack standing between the two keys; at the same time the lower projection acts upon the lower key K², pushing its point from in front of the tack, allowing it to pass on down to the tack-holder, and the spiral spring M pulls the sliding-bar back to place. By the use of conductor C and feeder and cut-off D the operator can fill the conductor with tacks before commencing to stretch and tack the carpet, avoiding the annoyance of spilling the tacks and pricking the fingers, as heretofore, by the use of a box of loose tacks attached to the handle A A. E E, swinging hammers; should be about six inches long to make the curve of the circle described by it, as it swings around the fulcrum-axle G², so slight at the point E² when it strikes the tack in the tack-holder I I as not to bend or break it. F, metal spring with one or more coils; is attached to the fulcrum-axle G², and as the hammer E E is pulled up the straight part of the spring F² presses against a pin or knob, E³, on the inside of the hammer E E, tightens the coils and bends

the straight part F^2 , giving increased forcing power as the hammer $E E$ is let fly to drive the tack. This spring might be made straight and attached inside or outside the hammer-arm. G , fulcrum-arm or projection from the lower end of the handle $A A$, or from the base-casting H , running to a point to the center of a circle described by the hammer $E E$ as it swings around the fulcrum-axle G^2 , so, when the point E^2 strikes the tack in the tack-holder $I I$, that a straight line drawn from it to the fulcrum-axle G^2 will be quite or nearly parallel with the floor, and form the diameter-line of the circle, or so near it as not to make any material difference in driving the tack. But a swinging hammer to be attached to a handle or machine to be used at an angle of about forty-five degrees must have this fulcrum-arm or its equivalent; for, if the hammer is attached directly to the handle $A A$, the curve will be so sharp when the point E^2 strikes the tack as to only partly drive it or to bend it over and stop in the tack-holder. A sliding joint or cam might overcome this in part, but would be uncertain, more expensive, and liable to get out of order. G^2 is the fulcrum-axle for the hammer $E E$ to swing around; may be attached firmly to the fulcrum-arm G , or to the hammer-arm, working in a socket or hole made in the fulcrum-arm G . I consider the former plan the better. This fulcrum-axle must be set back according to the length of the hammer-arm used, so that the point E^2 will strike into the tack-holder and hit the tack-head in the center. H , base-casting with socket or shank to attach the handle $A A$ to. J , guard for the tack-holder; may be cast, or struck from sheet metal; is fastened firmly to base H with rivets, screws, or bolts. J^2 , saw-teeth on the lower edge of guard J , for grasping, stretching, and holding the carpet. $I I$, tack-holder; may be cast or wrought; is made in two equal

sections, hung at the top on pivots, forming, when together, a proper receptacle to receive and hold the tack in a vertical position for the hammer to strike, and as the tack is forced between the sections swing back each way, and when the hammer is withdrawn, the bottom parts of the sections being wider and heavier than the top, they swing back together again by their own gravitation, ready to receive the next tack.

I claim as my invention—

1. Combination of the swinging hammer $E E$, fulcrum-arm or projection G , handle $A A$, with a carpet-stretcher, substantially as and for the purpose hereinbefore set forth.

2. A compound pivoted, lever-expansive, and gravitation-closing tack-holder, substantially as and for the purpose hereinbefore set forth.

3. Combination of tack-conductor C with the tack-feeder and cut-off D , substantially as and for the purpose hereinbefore set forth.

4. Combination of the fulcrum-arm G , the fulcrum-axle G^2 , the hammer $E E$, the tack-conductor C , tack-holder $I I$, connecting-line $B B$, handle $A A$, base H , guard J , teeth J^2 , to form a compound carpet-stretcher, tack-conductor, tack-holder, and tack-driver, substantially as and for the purpose hereinbefore set forth.

5. Combination of handle $A A$, conductor C , feeder and cut-off D , base H , teeth J^2 , guard J , tack-holder $I I$, hammer $E E$, fulcrum-arm G , fulcrum-axle G^2 , and connecting-line $B B$, to form a compound carpet-stretcher, tack-conductor, tack-feeder, tack-holder, and tack-driver, substantially as and for the purpose hereinbefore set forth.

WM. BROWN.

Witnesses:

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JNO. H. COLEMAN.