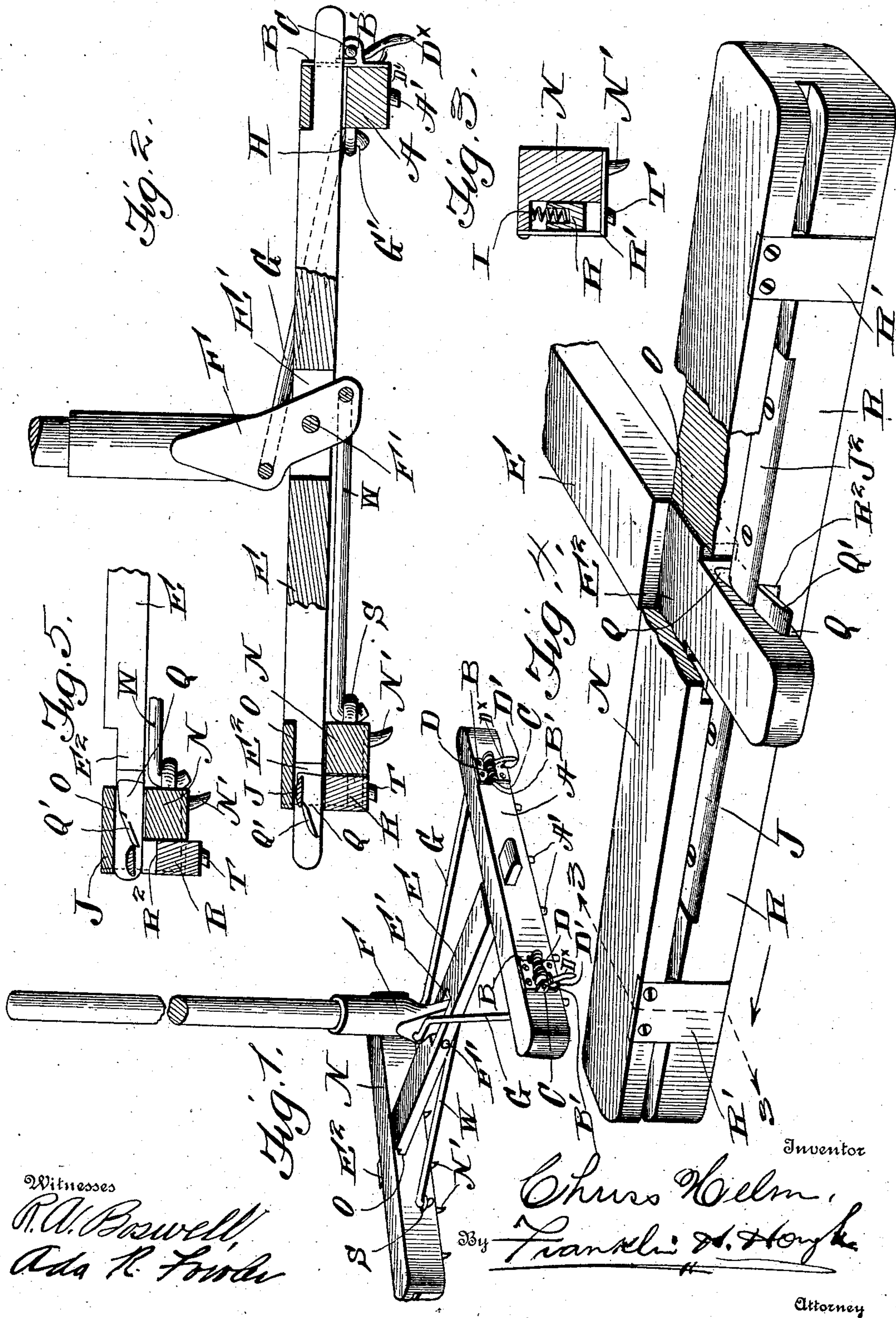


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PATENTED APR. 9, 1907.

C. HELM.
CARPET STRETCHER.
APPLICATION FILED APR. 11, 1906.



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UNITED STATES PATENT OFFICE.

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CARPET-STRETCHER.

No. 849,997.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHRISS HELM, a citizen of the United States, residing at Belpre, in the county of Washington and State of Ohio, have invented certain new and useful Improvements in Carpet-Stretchers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in carpet-stretchers; and the object of the invention is to produce a simple and efficient apparatus of this nature by which a carpet may be easily and quickly stretched by the swinging movement of a lever which has connection with heads having teeth made to engage the carpet, means being provided to hold the purchase upon the carpet while the latter is being tacked.

My invention comprises various details of construction and combinations and arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which—

Figure 1 is a perspective view of my invention. Fig. 2 is a longitudinal sectional view through the device. Fig. 3 is a sectional view through one of the heads. Fig. 4 is an enlarged detail perspective view, and Fig. 5 is a detail cross-sectional view showing parts in elevation.

Reference now being had to the details of the drawings by letter, A designates a head, preferably of wood, having teeth A', positioned at intervals therein and projecting from the under face thereof and adapted to engage a carpet. Upon one face of said head A are plates B, having ears B', which support the pintles C, upon which are mounted spurs D^x, and D is a spring mounted upon each pintle and adapted to normally hold said spurs D^x at their farthest forward and downward throw. A stop D' is formed upon each of said plates, said stops being adapted to limit the inner throw of the spurs. E designates a cross-piece having a central opening E' for the reception of the lever F, which is pivotally mounted upon a pin F', passing through the walls of said opening.

A brace-rod G is pivotally connected to said lever, and the arms of said brace-rod are bent to form hooks G', which engage the eyes or staples H, which are fastened to said head A. One end of the cross-piece E, which is contracted, is adapted to engage an elongated slot formed in the head A, the movement of said piece E being limited in one direction by a shoulder formed therein, which is adapted to contact with the side of the head A. A second head N, which is the front head, has spurs N' projecting from the bottom thereof, which are adapted to engage a floor, and is provided with a central slot O for the reception of the contracted end E² of said cross-piece E, and a plate or casting Q is seated in a recess in the contracted end E² and is provided with inclined lugs Q', projecting from the opposite edges thereof. One face of said head N is recessed away and is adapted to receive a spring-pressed bar R, Figs. 3, 4, and 5, which is held to the head N by means of the metallic straps R', said bar R having a slight vertical play between the lower angled ends of said straps and the top of the recess in the head N. The central portion of the bar R has a recess R², adapted to receive the contracted end E² of the piece E, and also the inclined lugs Q', projecting from the opposite edges of the contracted portion E². Metallic plates J J, the upper faces of which are convexed and the lower faces substantially flat, are fastened to the upper edge of the bar R, and the inner ends of said plates J overhang the ends of the recess R², as shown clearly in Fig. 4 of the drawings, and are adapted to be alternately engaged by the opposite inclined faces of the lugs Q' as the handle or lever of the stretcher is worked backward or forward.

As the operating-lever is swung toward the head A the bar R will be thrown downward by the upper edges of the plates J coming in contact with the lower faces of the inclined lugs Q', thereby causing the teeth T, carried by said bar, to engage the carpet and stretch the carpet forward. After the plates have passed by the outer edges of the lugs the pressure upon the head N will cause the bar to rise up in the recess in which it is positioned, and upon the swinging movement of the lever in the opposite direction the under surfaces of the plates coming in contact with the upper surfaces of the lugs Q' will cause the bar R to be raised still higher and the teeth T withdrawn a slight distance from

the carpet. After the handle is swung to its farthest position toward the head N and the inner ends of the plates J pass over the inner ends of said lugs the springs I will serve to
 5 throw the bar slightly downward, so that on the forward movement of the head N the plates J will be in position to engage the under inclined faces of said lugs. A brace-rod W has pivotal connection at its longitudinal
 10 center with said lever, which is pivotally mounted upon the piece E, and the ends of said brace-rod W are bent to form hooks engaging staples or eyes S, projecting from the inner face of the head N.

15 The operation of my invention is as follows: The device is placed upon the carpet and pressure is applied to the heads, preferably by the operator's feet resting one upon each head. The operating-lever being
 20 thrown to its farthest limit toward the head A, which is the rear end of the device, will prevent any backward slipping of said head, the teeth A', which are slightly forwardly inclined, gripping the carpet. The weight of
 25 the operator's foot upon the head N will cause the spurs N', which are slightly rearwardly bent, to grip the carpet and floor underneath the head N and hold said head N stationary. As the lever is swung toward
 30 the head N the head A will be drawn forward and the carpet with it. When the lever is swung to its farthest forward limit, the spurs D^x, engaging the carpet and floor, will prevent any rearward slipping of the head
 35 A. As the lever is swung toward the head N the bar R, carrying the teeth T, will be raised from the carpet by the upper surface of the inclined lugs Q' coming in contact with the under surfaces of the plates J. When the
 40 lever is thrown to the farthest forward limit toward the head N and a reverse movement given to the operating-lever toward the head A, the head A is held from backward movement by the spurs D^x, and the head N is
 45 driven forward. As the head N moves forward the upper convexed surfaces of the plates J, coming in contact with the under surfaces of the inclined lugs Q', will force the bar downward and cause the teeth carried
 50 thereby to engage the carpet, thereby causing the carpet to be stretched forward by said teeth. By having the spurs N' curved, as shown, it will be noted that they will not interfere with the carpet as the head N
 55 moves forward. This operation is repeated until the carpet is stretched in as taut relation as desired by simply the swinging movement of the lever, one head first stretching the carpet and then the other, which will be
 60 readily understood.

What I claim is—

1. A carpet-stretcher comprising two parallel heads, a cross-piece having sliding connection with said heads, a lever pivoted to
 65 the cross-piece, bail-shaped rods pivotally

connected to said lever and fastened each to one of said heads, carpet-engaging teeth and spurs carried by the rear head, said spurs adapted to prevent slipping of the rear head, a vertically-movable toothed bar carried by
 70 the front head, spurs upon the front head, and means for operating said bar as the lever is worked backward or forward, as set forth.

2. A carpet-stretcher comprising two parallel heads, a cross-piece having sliding connection with said heads, a lever pivoted to the cross-piece, bail-shaped rods pivotally connected to said lever and fastened each to one of said heads, carpet-engaging teeth and spurs carried by the rear head, said spurs
 80 adapted to prevent slipping of the rear head, a vertically-movable toothed bar carried by the front head, spurs upon the front head, inclined lugs projecting from the cross-piece, and plates carried by said bar and adapted to
 85 be engaged by said lugs as the lever is moved backward or forward, as set forth.

3. A carpet-stretcher comprising two parallel heads, a cross-piece having sliding connection with said heads, a lever pivoted to
 90 the cross-piece, bail-shaped rods pivotally connected to said lever and fastened each to one of said heads, carpet-engaging teeth and spurs carried by the rear head, said spurs adapted to prevent slipping of the rear head,
 95 a vertically-movable spring-pressed toothed bar carried by the front head, spurs upon the front head, inclined lugs projecting from said cross-piece, and plates fixed to said bar and projecting into the paths of the lugs, said
 100 lugs contacting alternately with the upper and lower faces of said plates as the lever is moved backward and forward.

4. A carpet-stretcher comprising slotted front and rear heads, carpet-engaging teeth
 105 and spurs upon said rear head, said spurs being adapted to prevent slipping of the rear head, a cross-piece having ends passing through the slots in the heads, a lever pivoted to said cross-piece, bail-shaped rods connecting
 110 said lever with said heads, the front head having a recess formed therein, a spring-pressed bar mounted in said recess, teeth projecting from the lower face of the bar, means for holding the bar within its recess,
 115 floor-engaging spurs projecting from the front head, inclined lugs projecting from the opposite edges of the cross-piece, and plates secured to said bar and adapted to be alternately engaged by the opposite faces of said
 120 lugs as the lever is moved backward and forward, as set forth.

5. A carpet-stretcher comprising slotted front and rear heads parallel to each other, a cross-piece connecting said heads and having
 125 contracted ends mounted in the slots of the heads, an operating-lever pivoted to the cross-piece, bail-shaped rods connecting the lever upon the opposite sides of its pivotal point with said heads, carpet-engaging teeth
 130

and spring-actuated spurs mounted upon the rear head, stops for limiting the forward movement of said spurs, said front head having a recess therein, a horizontally-disposed
5 and vertically-movable spring-pressed bar mounted in said recess, angled straps secured to the front head and designed to hold the bar within its recess, inclined spurs projecting from the lower face of the front head, teeth
10 projecting from said bar, the latter having a recess, plates secured to said bar and having their inner ends projecting over the ends of

said recess in the bar, and inclined lugs projecting from the opposite edge of the cross-piece and designed to alternately engage the
15 upper and lower faces of said plates as the operating-lever is swung backward and forward, as set forth.

In testimony whereof I hereunto affix my signature in the presence of two witnesses. 20

CHRISS HELM.

Witnesses:

GEO. M. DRESSEL,
T. W. JACKSON.