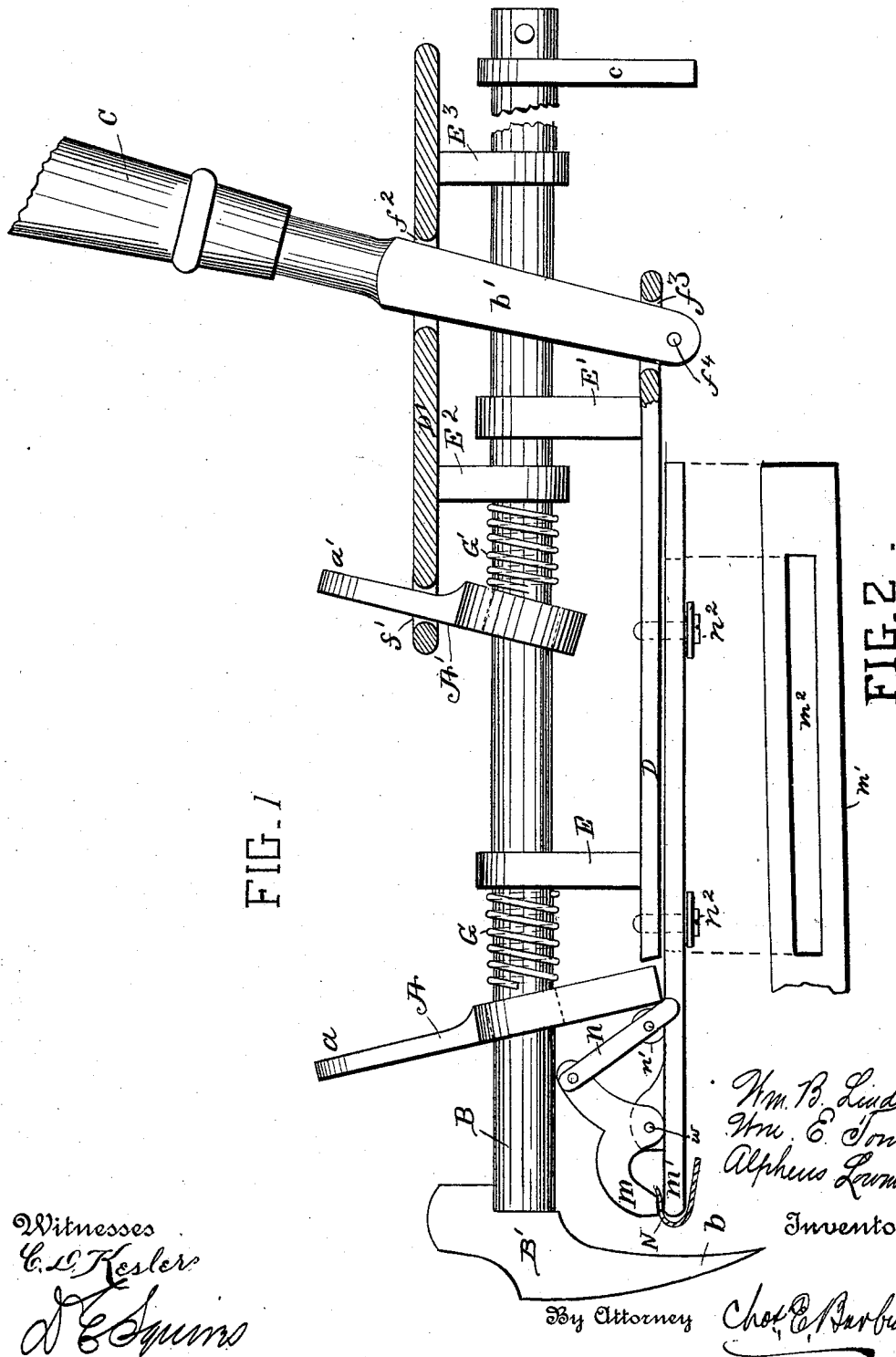


(No Model.)

W. B. LINDSAY, W. E. TONNER & A. LOWMILLER.
CARPET STRETCHER.

No. 537,164.

Patented Apr. 9, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

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CARPET-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 537,164, dated April 9, 1895.

Application filed January 18, 1893. Serial No. 458,884. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM B. LINDSAY, WILLIAM E. TONNER, and ALPHEUS LOWMILLER, citizens of the United States, residing at Steubenville, in the county of Jefferson and State of Ohio, have invented certain new and useful Improvements in Carpet-Stretchers, of which the following is so full, clear, and exact a description as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to carpet stretchers, and the objects are to provide a cheap, simple, durable, and efficient apparatus and to dispense, as far as practicable, with the usual pivotal joints between the operative parts.

In the accompanying drawings which illustrate our invention and form a part of this specification, Figure 1 is a side view of the apparatus showing a modified form of carpet gripping head. Fig. 2 is a broken detail view.

Referring to the drawings, B designates a metal bar or rod (preferably round) of suitable size to give the required strength and rigidity and of a length to receive and accommodate the movable parts of the apparatus. At its front end the bar B is provided with a head B' rigidly fixed thereon, which head has one or more sharp depending teeth b, adapted to be driven into the floor to hold the stretcher in place, and at its rear end it has a depending leg or standard to rest on the floor or carpet and sustain the bar in horizontal position the said leg being of substantially the same length as the teeth b at the opposite end.

D is a metal bar disposed below the bar B parallel therewith and having on its upper side near the respective ends, two vertical arms or standards E, E', with openings in a longitudinal direction for the reception of the bar B, which extends loosely therethrough so that the part D may move freely back and forth relatively to the bar B.

D' designates a metal bar disposed above the bar B, parallel therewith and having on its under side near the respective ends thereof, two depending arms E², E³, through which the bar B extends loosely so as to permit free longitudinal movement of the part D' relatively to the bar B. The front end of the

bar D' and the rear end of the bar D overlap each other the front arm E² of the bar D' being disposed between the arms E, E', of the bar B, as shown.

A, A' are two gripping levers mounted on the bar B and connected respectively with the two bars D, D' in a manner described hereinafter. These gripping levers are constructed with openings therethrough for the reception of the bar B, said openings being somewhat larger than the bar (as indicated in broken lines in Fig. 1) to permit angular or rocking movements of the levers, and having sharp edges adapted to bite or grip the bar and prevent movement of the connected parts thereon. The bar D abuts against the lower end of the gripping lever A so that when moved longitudinally forward it will carry said lever forward with it. A spring G interposed between the standard E and gripping lever A, throws the upper end of the latter forward and holds it normally in an inclined position. The bar D' is formed with an opening at its front end, as indicated at f', and it is coupled with the gripping lever A' by projecting the upper end of the latter through said opening. A spring G' interposed between the arm E² and the grip lever A' throws the lower end of the latter forward as shown in full lines in Fig. 1. Toward its rear end (preferably at a point between the arms E², E³) the bar D' is formed with another opening, as indicated at f², for the reception of the arms or prongs b' of a split lever C. The arms or prongs b' extend down past the bar B at either side thereof into an opening f³ formed at the rear end of the bar D. The lever is held in place and prevented from being lifted off by a cross pin f⁴, which passes through the two arms b' below the bar D.

The operation of the apparatus thus far described is as follows: The devices mounted on the bar B are first moved back thereon a sufficient distance toward the rear end, according to the extent to which the carpet is to be stretched. This adjustment is effected by pressing the upwardly projecting arms a, a' of the gripping levers A, A', toward each other, to bring the latter into vertical positions, when the said gripping levers and the parts connected therewith may be moved freely

backward. As soon as the gripping levers are released they again assume, through the action of the springs $G G'$, their former angular positions. The apparatus having been adjusted, the edge of the carpet is engaged with the gripping or holding devices hereinafter described, and the holding teeth b driven into the floor to give the apparatus a hold. The lever C is now grasped and worked back and forth whereby the movable devices on the bar B are gradually moved forward and the carpet stretched. The gripping levers A, A' , standing normally in inclined positions as shown in Fig. 1, a backward pull upon either of the bars D, D' , will cause the gripping lever connected therewith to bite and grip the bar B and to resist such pull. When therefore, the lever C is worked back and forth it fulcrums alternately on the two bars D, D' , operating in the backward movement as a lever of the first order to advance the bar D and in the forward movement as a lever of the second order to advance the bar D' , the said bars being moved alternately, step by step and serving alternately as fulcrums for the lever. When either bar D or D' is advanced the spring in front of the same acts against its gripping lever and moves the same forward in the inclined position so that it is always ready to bite and grip the bar as soon as the opposite movement of the operating lever begins. When the bar D has been moved far enough to stretch the carpet to the requisite degree the latter is tacked and the stretcher removed.

Referring now to the carpet gripping and holding devices above alluded to, m' designates a bar clamped to the bar D by clamping bolts n^2, n^2 which extend through a longitudinal slot m^2 which permits longitudinal adjustment of bar m' relatively to bar D . The bar D terminates back of the gripping lever A and has no positive connection therewith. m designates an angular clamping lever

pivoted on the bar m' near the front end thereof in such position that its front end is substantially even with the front end of the bar, as shown, and so that it may bear thereon when thrown forward to clamp and hold the edge of the carpet N between the two. Pivoted to the rear end of the clamping lever is a push bar n which extends backwardly and downwardly, its rear end resting and sliding on the bar m' , in front of the gripping lever A . To avoid friction the bar n may be provided with an anti-friction roller n' .

In operation when the bar D is moved forward it engages and moves forward the gripping lever A which in turn acts against the push bar n , pushing it forward and turning the clamping lever m on its pivot or fulcrum w , causing the front end of the lever to press down and hold the edge of the carpet N , previously placed thereunder. The carpet having been stretched and tacked, the gripping levers are thrown out of action and the bars D, D' moved back on the bar B as above explained, whereby the clamping lever is released and adapted to be turned backward to release the carpet.

Having thus described our invention, we claim—

The combination with the main bar, its pronged head, the upper and lower sliding bars and their operating mechanism, of the adjustable extension secured to the lower bar, and the carpet gripping lever fulcrumed thereto, and mechanism for operating the same to clamp the carpet, substantially as specified.

In testimony whereof we affix our signatures in the presence of two witnesses.

WILLIAM B. LINDSAY.
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ALPHEUS LOWMILLER.

Witnesses:

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