

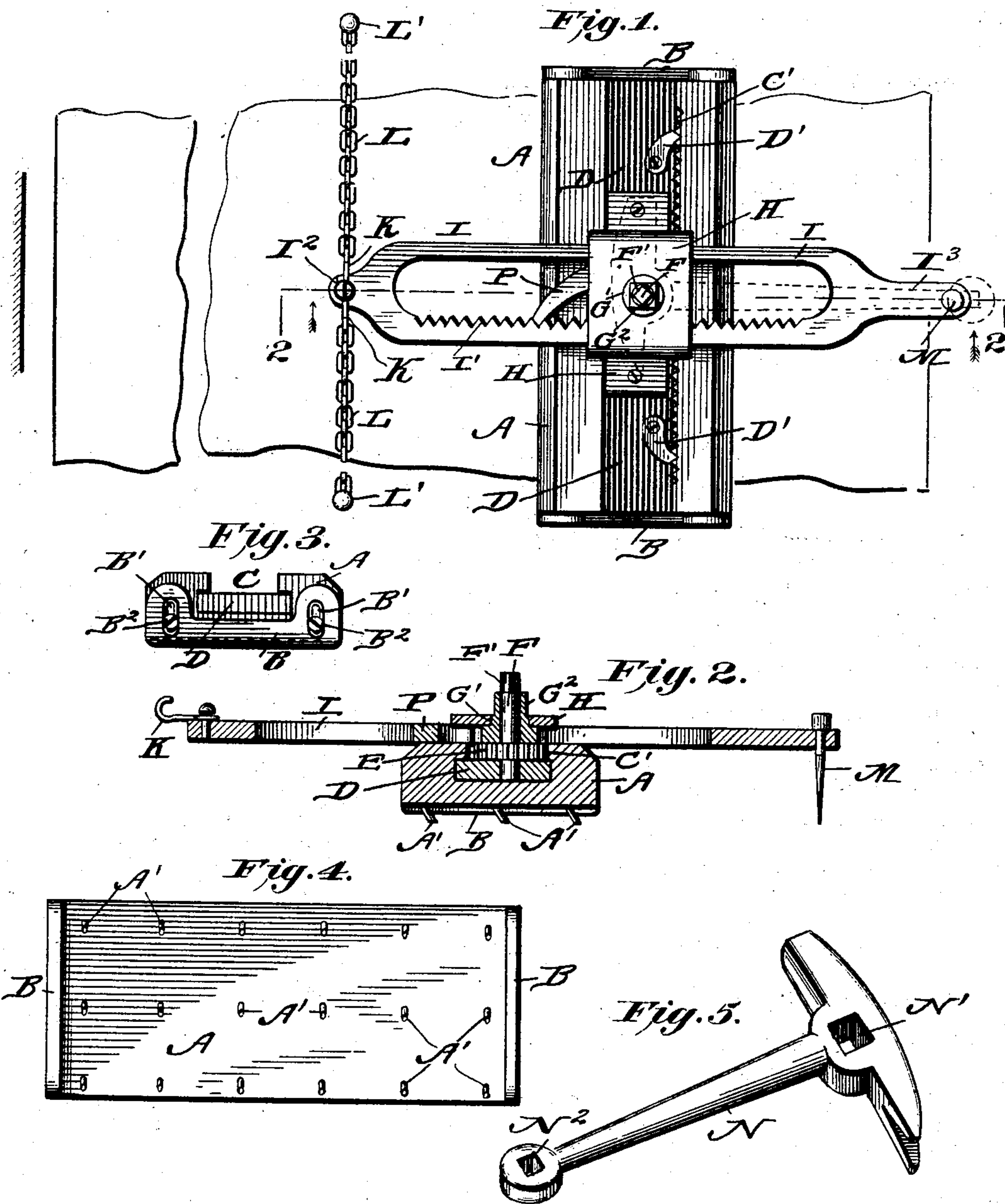
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Patented Apr. 29, 1902.

A. H. DAVIS.
CARPET STRETCHER.

(Application filed June 8, 1901.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

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CARPET-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 699,105, dated April 29, 1902.

Application filed June 8, 1901. Serial No. 63,759. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS H. DAVIS, a citizen of the United States, residing at Crawfordsville, in the county of Montgomery and State of Indiana, have invented a new and useful Carpet-Stretcher, of which the following is a specification.

This invention relates generally to carpet-stretchers, and more particularly to one intended to stretch the carpet in two directions without removing the stretcher from the carpet. The accomplishment of these two operations is highly advantageous, particularly when it is desired to stretch and force the carpet into the corner of a room; and with these objects in view the invention consists, essentially, in providing a block with barbs or prongs adapted to engage the carpet and also in providing the said block with means for moving it both transversely and longitudinally.

Another object of the invention is to provide against projecting the barbs or prongs too far through the carpet; and with this object in view the invention consists in arranging adjustable guard-plates at each end of the block.

The invention has certain other objects and advantages the accomplishment of which is obtained by means of various parts hereinafter fully described, and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a plan view illustrating the practical application of my invention. Fig. 2 is a vertical sectional view on the line 2 2 of Fig. 1. Fig. 3 is an end view of the block, showing the adjustable gages. Fig. 4 is a bottom plan view of the block, showing the adjustable gages and also the prongs for engaging the carpet; and Fig. 5 is a combined crank and hammer.

In the practical embodiment of my invention I employ a block A of any suitable material and of any desired dimensions, the under face of said block being provided with a series of barbs or prongs A', adapted to engage the carpet, so that when the block is moved the carpet will be stretched. These barbs or prongs A' are inclined and are intended to pass through the body or fabric of the carpet; but it is not intended that they

should come in contact with the floor or carpet-lining, and in order to prevent this I employ adjustable guard-plates B at each end of the block, said guard-plates being vertically adjustable by means of the vertical slots B' and screws B². By adjusting these guard-plates up or down the projecting portion of the barb or prong is regulated so as to expose a greater or lesser portion thereof for engagement with the carpet.

The upper face of the block A is formed with a central longitudinal guideway C, in which slides a bar D. One side of the guideway C is straight, while the opposite side is formed with a series of rack-teeth C', adapted for engagement with one of the pawls D', carried by the sliding bar D, and also for engagement with a pinion E, mounted upon a shaft F, journaled at its lower end in the sliding bar, the upper end being made square in cross-section for the engagement of the operating crank or wrench, hereinafter described. The pawls D' hold the bar D locked in any desired adjustment. A second pinion G is mounted loosely upon the shaft F, the hub of said pinion being circular in cross-section for a portion of its length, as shown at G', and square in cross-section, as shown at G², said hub stopping short of the squared portion of the shaft F, as most clearly shown in Fig. 2. The circular or cylindrical portion of the pinion-hub turns freely in a housing H, securely fastened to the sliding block D within the guideway, said housing serving as a guide for the rack-frame I, which works therein in a direction at right angles to the longitudinal line of the block A, said frame being essentially rectangular in shape and comprising the rack-bar I' and the extensions I² and I³, the extension I² having a hook K attached thereto to receive a chain L, carrying pins L', which are driven into the floor at either side of the room. The extension I³ carries a pin M, which is also driven into the floor upon the opposite side of the room.

N indicates the combination hammer and operating crank or wrench, having an opening N' in the head, which is adapted to fit upon the squared portion G² of the pinion G, and also a square opening N², formed at the end of the handle and adapted to engage the square end F' of the shaft F.

P indicates a pawl pivoted to the housing H and adapted to engage the rack-bar I' for the purpose of locking the same.

When it is desired to stretch a carpet by means of my improved carpet-stretcher, the pin L' is driven into the floor at one side of the room and the pin M is also driven into the floor at the opposite side of the room. The block A is then placed upon the carpet and the barbs or prongs forced into the fabric thereof, and the chain L is connected to the hook K, any link of the said chain being readily attachable to the said hook. The operating crank or wrench is then fitted upon the squared portion of the pinion G and turned in the proper direction to move the block toward the pin M, and inasmuch as the rack-frame is stationary it will be readily understood that by turning the pinion the block A will be easily moved toward the pin M, thereby stretching the carpet in one direction. The pawl P is then thrown into engagement with the rack-bar, locking the block at that point, and the operating handle or wrench is then applied to the shaft F, and the block is moved longitudinally in either direction desired for the purpose of stretching the carpet at a right angle to the direction in which it has already been stretched. These two operations become necessary whenever it is desired to stretch and force the carpet up into the corner of a room.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A carpet-stretcher comprising a block having barbs or prongs for engaging the carpet, a rack-frame arranged upon the said block and adapted to be fixed between two points, and means arranged upon the block for moving it both in a transverse and longitudinal direction, substantially as shown and described.

2. In a carpet-stretcher, the combination with a block having prongs or barbs upon its lower face, the upper face of said block having a guideway produced therein, said guideway having a rack-bar at one side, a bar sliding in the guideway, pinions carried by the said bar, said pinions being arranged one

above the other and independent of each other, a rack-frame arranged upon the block and adapted to move in a direction transverse to the length of the block, and means for operating the said pinions whereby the block can be moved transversely and longitudinally, substantially as described.

3. In a carpet-stretcher, a block having barbs or prongs upon its lower face and the adjustable end guards secured to the ends of the block, substantially as and for the purpose described.

4. In a carpet-stretcher, the combination with a block having barbs or prongs upon its under side and a guideway upon its upper side, said guideway having a rack-bar at one side, a bar sliding in the guideway and provided with pawls, pinions carried by the sliding bar, one above the other, said pinions being independent of each other, a rack-frame sliding across the face of the block, the uppermost of the pinions being adapted to engage the said rack-frame, said rack-frame being provided with means for securing the same in a fixed position, and a pawl carried by the sliding bar for the purpose of locking the rack-frame, substantially as described.

5. In a carpet-stretcher, the combination with a block having barbs or prongs upon its under face and a longitudinal guideway having a rack-bar at one side, a sliding bar working in the guideway, a pinion journaled on the sliding bar and adapted to engage the rack-bar of the block, pawls carried by the sliding bar for engagement with the said rack-bar, a rack-frame extending across the face of the block and having a chain attached to one end and a pin at the opposite end, a housing attached to the sliding bar and straddling the rack-frame, a pinion arranged within the housing and rack-frame and adapted for engagement with the said rack-frame, a pawl pivoted to the housing and adapted to engage the rack-frame, and means for rotating the pinions whereby the block is moved transversely and longitudinally as set forth.

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