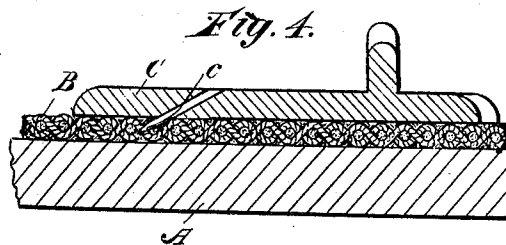
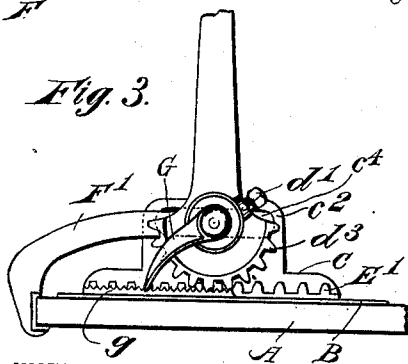
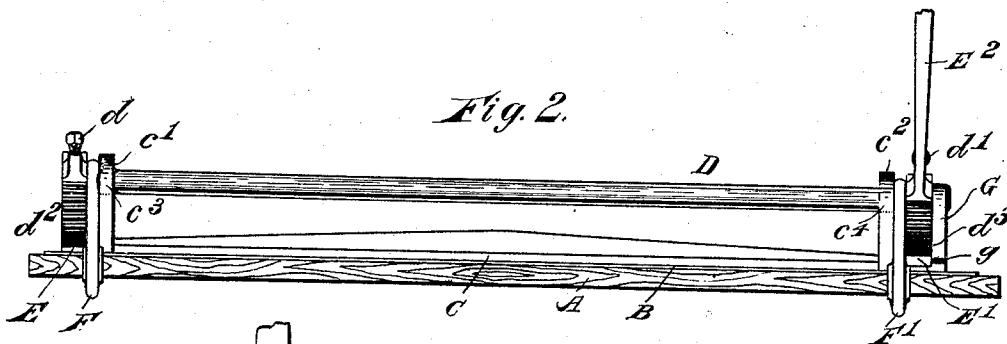
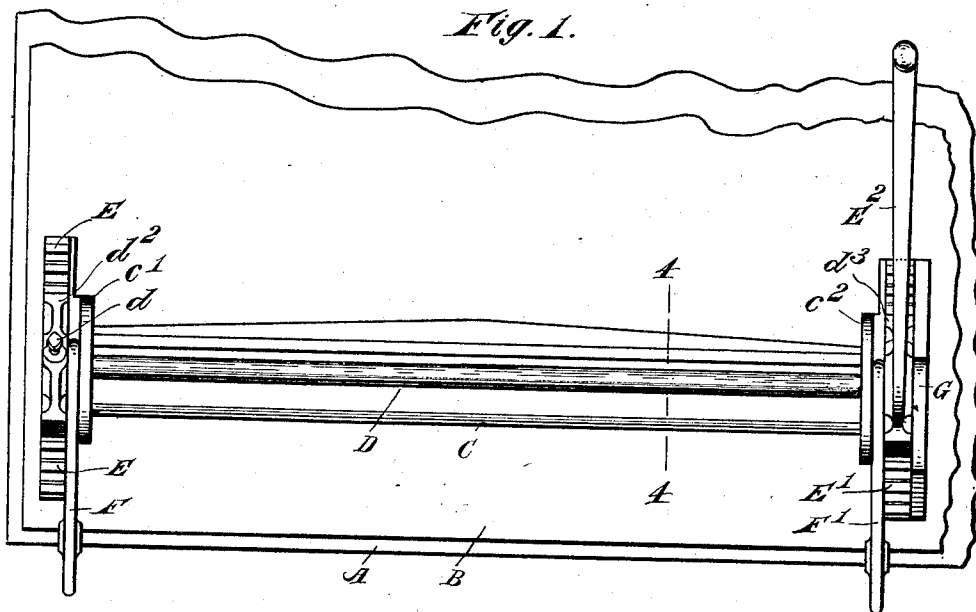


A. E. JOHNSTON.
RUG AND CARPET STRETCHER.
APPLICATION FILED DEC. 12, 1908.

967,929.

Patented Aug. 23, 1910.

2 SHEETS—SHEET 1.



WITNESSES:

Sudger A. Nicol.
Grace Browley

INVENTOR.

Albert E. Johnston,
BY *Albert M. Moore,*
His ATTORNEY.

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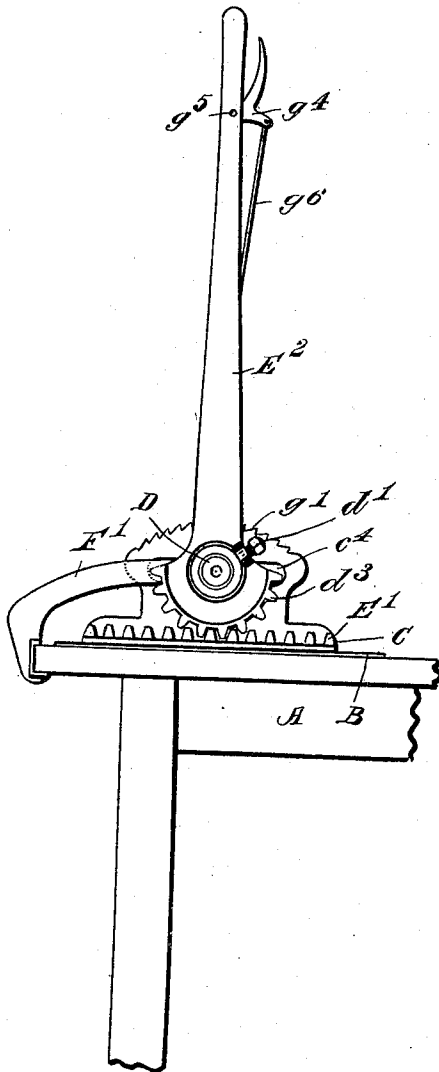


Fig. 5.

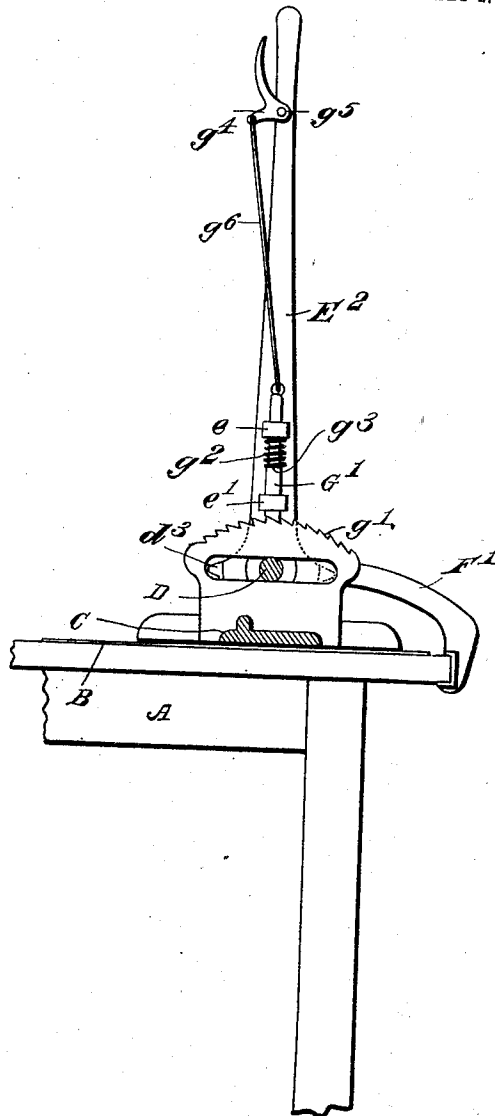


Fig. 6.

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UNITED STATES PATENT OFFICE.

ALBERT E. JOHNSTON, OF LOWELL, MASSACHUSETTS.

RUG AND CARPET STRETCHER.

967,929.

Specification of Letters Patent. Patented Aug. 23, 1910.

Application filed December 12, 1908. Serial No. 467,148.

To all whom it may concern:

Be it known that I, ALBERT E. JOHNSTON, a citizen of the United States, residing at Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented a certain new and useful Improvement in Rug and Carpet Stretchers, of which the following is a specification.

My invention relates to rug and carpet stretchers.

In making rugs of breadths of Wilton or similar carpeting, it is necessary after the sewing of the breadths to each other is completed, to flatten the rug which has been puckered in the matching of the figures. The backs of such breadths are woven of hemp or linen warp-threads previously glued or sized and dried and filling threads introduced while still wet with size or glue, so that when dried the rug is very stiff and difficult to stretch. The rug when so stretched and tacked all around is moistened to soften the glue and the wrinkles are pounded out and the seams are flattened by a hot iron after which the rug is allowed to dry on the table or frame.

With such stretching devices as have heretofore been used, it has required one or two men to stretch the rug after which it is usual for one of the men to keep the rug stretched while the other man tacks the edge of the carpet for a short distance to a table or to a frame which surrounds the table, the rug being placed face down upon the table or frame.

By the use of my invention, the services of one man may be dispensed with, because the stretcher hereinafter described will not yield but will retain its stretching position until released therefrom, thus allowing the same man who uses the stretcher to tack the stretched edge.

In the accompanying drawing, on two sheets, Figure 1 is a plan of my invention and of a part of a table and a part of a rug thereon; Fig. 2, a front or outer side elevation of the same; Fig. 3, a right end elevation of the same; Fig. 4, an enlarged vertical cross-section on the line 4 4 in Fig. 1 of the base, with points, table and rug; Fig. 5, a right end elevation of a modified form of my invention with part of the rug; Fig. 6, a vertical section on the line 4 4 in Fig. 1, of the base and shaft and an inside elevation of one of the stands.

A indicates a suitable table on which the

rug B is spread back upward and to which it is tacked. A convenient height for the top of such a table is about three feet from the floor. A table such as is shown in the patent to Lyon, No. 681,922, dated September 3, 1901, may be used, which table has a flat surface to support the central portion of the rug while the marginal parts of the rug rest upon and are tacked to a frame which surrounds the table proper.

The plate or horizontal base C (Figs. 1-4) rests upon the rug B and is provided with sharp points *c*, which project forward and downward from the bottom of said base and engage the back of said rug. Near the ends of the base C, are rigidly secured thereto vertical stands *c*¹ *c*² which are each provided with a straight horizontal slot *c*³ *c*⁴ and through these slots extends a rod or shaft D parallel with the bottom of the base C. On each end of the shaft D outside of the corresponding stand *c*¹ or *c*², is secured (as by a set-screw *d* *d*¹) a segmental pinion *d*² *d*³ which engages a horizontal rack E E¹ cast or otherwise secured on the base C immediately below said pinion. A radial arm or handle E² is secured to the shaft D and is conveniently integral with one of the pinions, preferably the one at the right of the operator as he faces the stretcher. The racks E E¹ are alike and the pinions *d*² *d*³ are alike and these racks and pinions are so engaged that the straight front edge of the plate is always parallel with the shaft D whatever the position of the handle E². Hooks F F¹ engage the edge of the table and are loose on the shaft D, so that when said shaft is turned by the arm or handle E² in the proper direction, the pinions *d*² *d*³ acting on the racks E E¹ will crowd the base forward toward the edge of the table carrying the edge of the rug with said base, the shaft being prevented by the hooks from moving away from said edge. A pawl G, preferably fulcrumed on the shaft D, engages another horizontal rack *g* also cast or otherwise secured on one end of the base C (Fig. 3), for convenience, at the same end with the arm or handle E². The pawl G directly prevents the backward movement of the corresponding end of the base and thereby prevents the reverse movement of the shaft D and pinions *d*² *d*³.

In practice, the rug is first tacked at the corners which are drawn to marks on the table which indicate their proper positions

and the sides and ends of the rug are then stretched, one at a time, to straight lines connecting the corner marks.

The stretcher is hooked over the edge of the table, the base C resting on the back of the rug near its edge and the points *c* engaging said back, the arm E^2 being inclined forward, said arm E^2 is then pushed backward until the part of the adjacent edge of the rug along the front of the base C is at the indicating line and the tacks are driven in the stretched edge. The stretcher shown in Figs. 5 and 6 differs from what is shown in the other Figs. 1-4 and above described only in having the pinions d^2 d^3 and racks E E^1 arranged at the inner sides of the stands c^1 c^2 and in the means for preventing the return movement of the shaft D and for releasing said means. In Figs. 5 and 6, the retaining pawl G^1 is supported on the arm E^2 parallel therewith and slides in bearing loops *e* e^1 , being forced downward by a spring g^2 (compressed between the upper loop *e* and a shoulder g^3 on said pawl) into engagement with a rack g^1 formed on the top of the stand c^2 , said rack g^1 and pawl G^1 serving the same purpose as the pawl G and rack g^1 above described.

A small releasing lever g^4 , represented as shaped like a bell-crank, is pivoted at g^5 on the arm E^2 near the top or free end of said arm in a position to be grasped by the same hand which operates said lever and the lower free end of said lever g^4 is connected by a rod, chain or any suitable inelastic link g^6 to the top of the pawl G^1 , so that pressing

the upper member of said lever toward said arm draws said pawl out of the rack g^1 . The other parts are the same as above described and indicated by like letters of reference.

I claim as my invention:—

1. The combination of a base adapted to engage a rug, stands secured to said base and having slots parallel with said base, a shaft arranged in said slots, pinions fast on said shaft, racks on said base engaged by said pinions, and means for turning said shaft.

2. The combination of a base adapted to engage a rug, stands secured to said base and having slots parallel with said base, a shaft arranged in said slots, pinions fast on said shaft, racks on said base engaged by said pinions, means for turning said shaft and means for preventing said base from a return movement.

3. The combination of a base adapted to engage a rug, stands secured to said base and having slots parallel with said base, a shaft arranged in said slots, pinions fast on said shaft, racks on said base engaged by said pinions, another rack carried by said base, and a pawl loosely connected to said shaft and engaging said rack.

In witness whereof, I have affixed my signature in presence of two witnesses.

ALBERT E. JOHNSTON.

Witnesses:

ALBERT M. MOORE,
LUDGER A. NICOL.