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F. SCHWENSOW.

CARPET STRETCHER AND SIZER.

APPLICATION FILED DEC. 15, 1906.

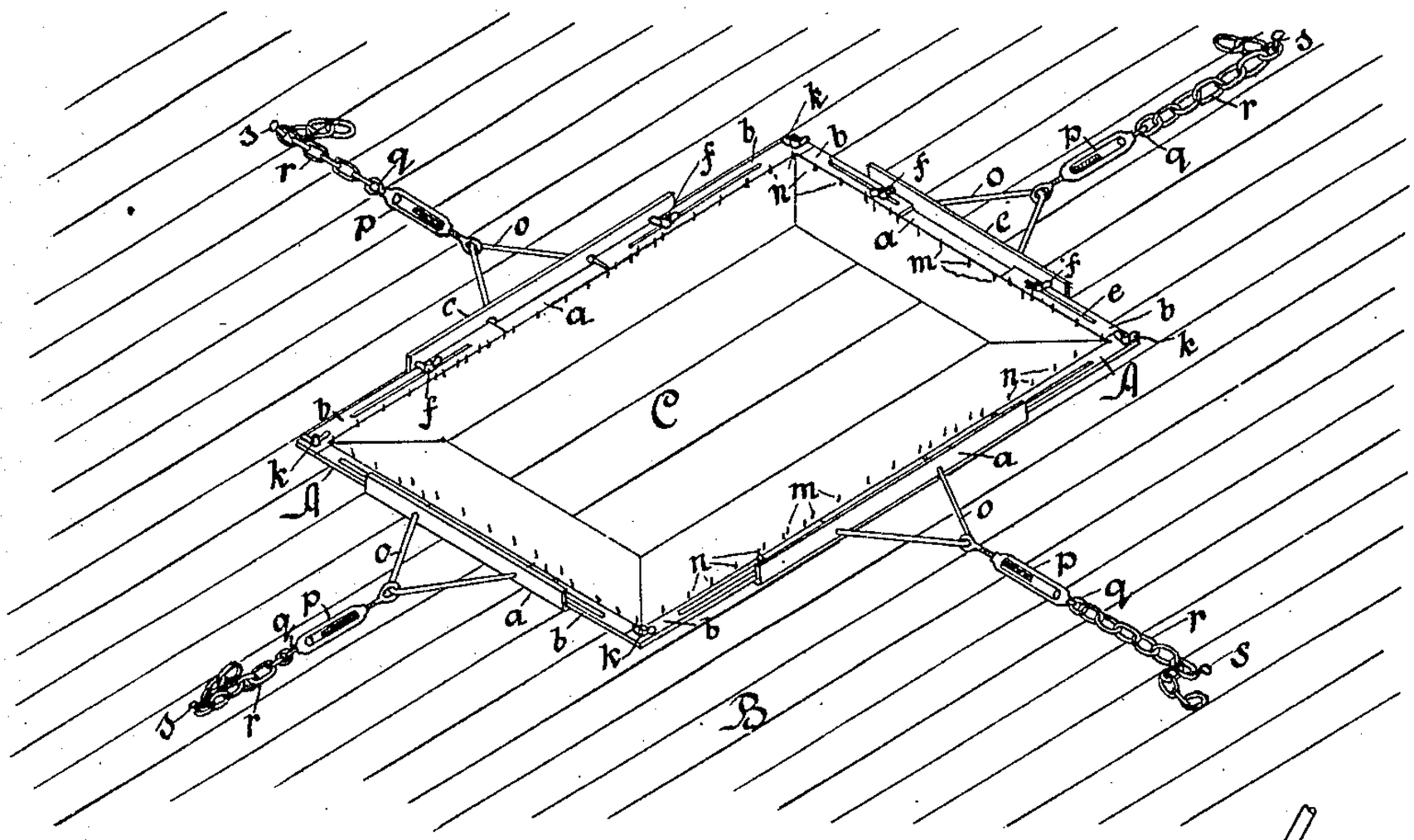

Fig. 1

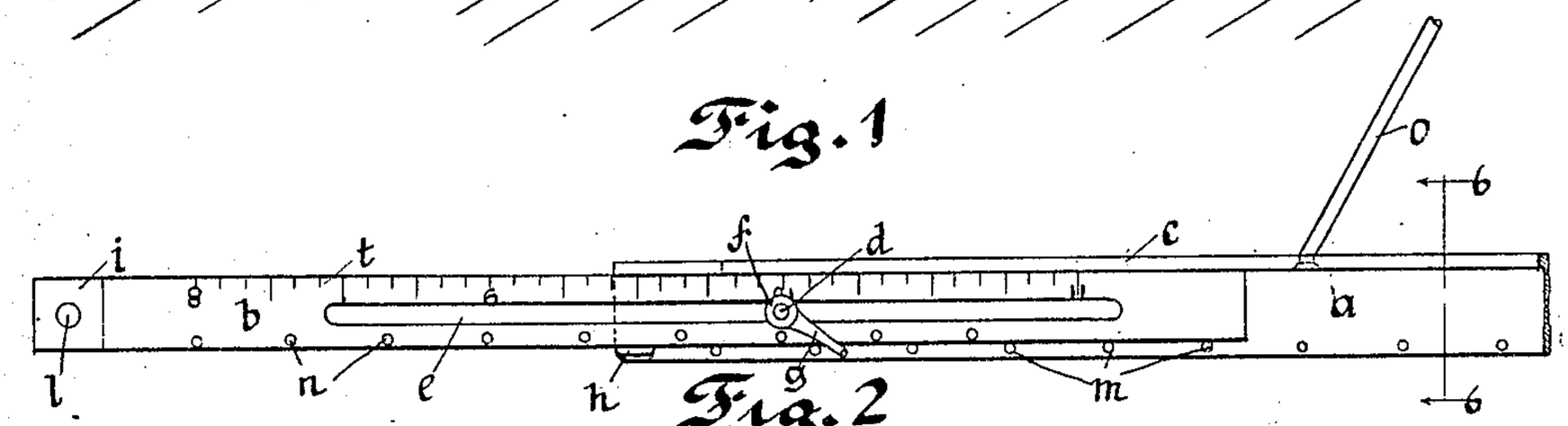

Fig. 2

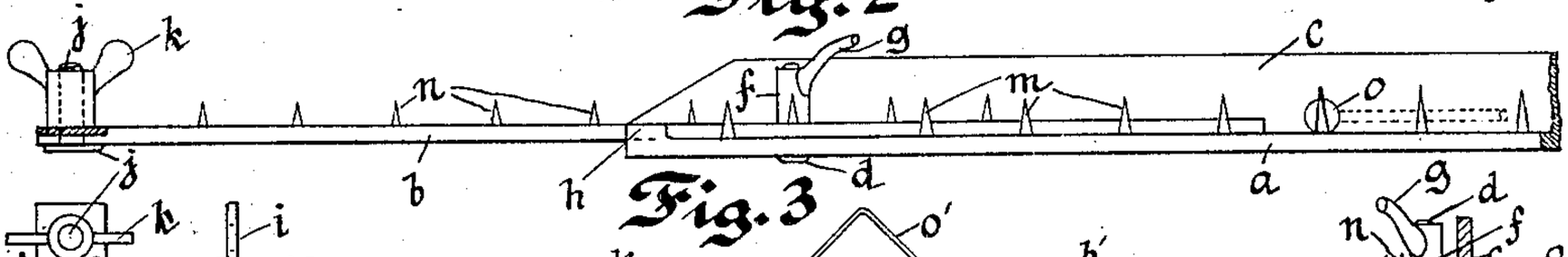

Fig. 3

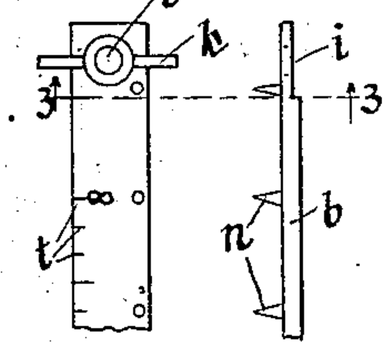

Fig. 4

Fig. 5

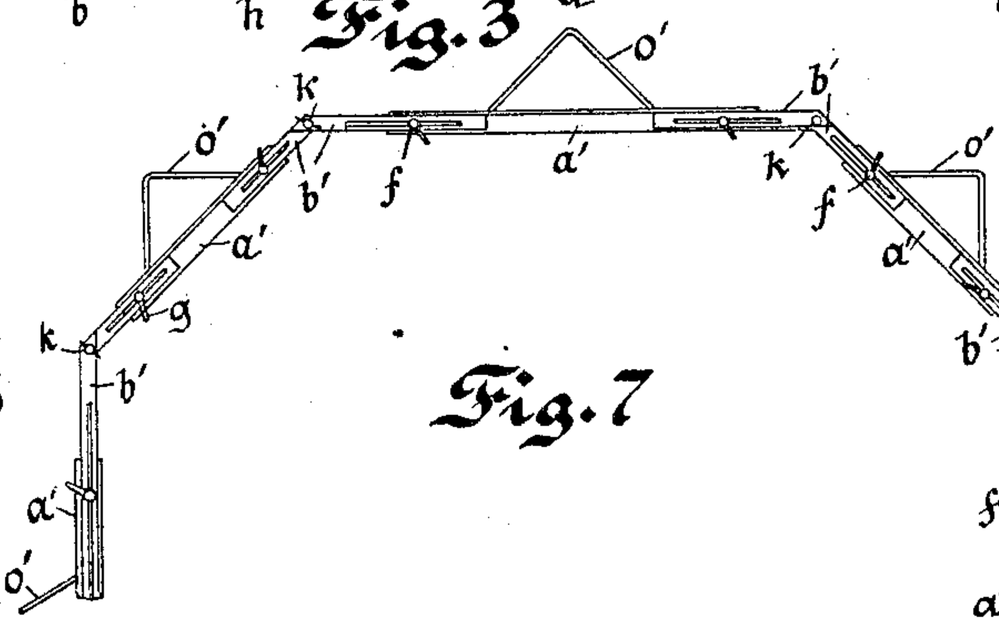

Fig. 7

Fig. 6

Witnesses

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CARPET STRETCHER AND SIZER.

No. 872,087. Specification of Letters Patent. Patented Nov. 26, 1907.

Application filed December 15, 1906. Serial No. 347,923.

To all whom it may concern:

Be it known that I, FRED SCHWENSOW, residing in Milwaukee, Wisconsin, have invented a Carpet Stretcher and Sizer, of which the following is a specification.

This invention is a device for stretching and sizing specially made carpets or rugs so that when finished they will be of the exact size desired to fit the floor for which they are made.

In finishing large floor-rugs or made-up carpets it has been customary heretofore to provide extensive floor-areas on which the carpets are stretched and sized. This is done by tacking the carpet onto the floor bottom-side up, around the edges, the carpet being, while it is being tacked down, stretched by hand to as nearly as possible the correct size, after which the under side of the carpet is coated with a sizing composition which holds it stiff and flat and prevents the carpet from shrinking again after such composition has become dry and the carpet has been left long enough tacked to the floor to retain its shape. To accomplish this a great deal of manual labor is involved and it is difficult by this process to stretch out the carpet to exactly the right size, because necessarily one part of it is tacked down before the rest is stretched. Before the carpet is laid upon the floor the correct size to which it is to be stretched is first marked out thereon by a chalk line; and this, too, involves much manual labor. But perhaps the principal disadvantage of this system of sizing carpets is the fact that extensive floor-areas are necessary, because it is necessary in large establishments to provide for the sizing of a number of such rugs at one time, and it is necessary to leave each carpet or rug upon the floor for a period of some twenty-four hours.

The object of this invention is to provide a device or apparatus on which carpets or rugs can be stretched to their exact size in a minimum of time, and which is substantially independent of the floor, so that while the carpet is drying after applying the sizing composition, it can be stood up on one end and put away in some convenient place where it will not occupy valuable floor-space. I accomplish these ends by means of a special frame with sides of adjustable length and having means for attaching the edges of the carpet or rug thereto, in combination with means for drawing apart the several sides of the frame to the requisite distance, in such manner that the entire side, or if desirable all the sides at once, can be drawn apart at one time, thus causing a uniform strain upon all parts of the carpet. The frame is moreover provided with means for clamping or securing the sides, or their several parts, in their adjusted position, so that after stretching and clamping the sides the frame can be released and disposed of as desired until the carpet is dry and ready to be removed therefrom.

Further, my invention comprises such combinations and constructions as will be hereinafter described and are more specifically set forth in the claims.

I have illustrated an approved form or embodiment of my invention in the accompanying drawings, wherein

Figure 1 is a perspective view of the entire apparatus as laid upon a floor, and having a carpet or rug stretched thereon. Fig. 2 is a plan view on a larger scale of one end of an adjustable side of the frame. Fig. 3 is a side elevation of the same. Fig. 4 is a plan view of one end of the side adjacent to that shown in Fig. 2. Fig. 5 is a side elevation of the same. Fig. 6 is a transverse section through the central member of the side shown in Fig. 2, on the plane indicated by the line 6 thereof. Fig. 7 is a plan of a form of frame adapted to polygonal or irregular-shaped carpets.

In these drawings and specifications every reference letter refers always to the same part.

The principal part of the apparatus consists of a frame designated A in Fig. 1 and this is shown as laid upon a floor B and as having stretched thereon a carpet or rug C. The frame A has the same number of sides as the carpet or rug to be stretched thereon, ordinarily four, and each side is composed of three parts, to-wit: a central member *a* and two end members *b*. The central member *a* is preferably made in the form of an angle-bar having an upstanding flange *c* to give it the necessary rigidity to resist buckling. It is also provided with a peg or post *d* which runs in a slot *e* formed lengthwise in the member *b*, and the upper end of the post *b* is threaded to receive a hand-nut *f*. The member *f* may be of any desirable form, and for simplicity is shown as a common wing-nut in Fig. 1, but I prefer to give it the form shown in Fig. 2, making it long enough so that the handle *g* projects above the carpet-

holding points and the flange *c* and does not interfere therewith. I also may provide at the outer ends of the member *a* a lug *h* which engages the inner edge of the member *b* and takes the strain thereof so as to prevent it from falling upon the post *b:* but this is not necessary and may be omitted. The outer end of each member *b* is mortised on its upper or under side as shown at *i*, Figs. 2 and 5, so that the two ends fit closely together with even surfaces and they are held thereby at right angles to one another and prevent the frame from becoming skewed. The adjacent and overlapping ends of the members *b* are clamped together by means of bolts *j* having wing-nuts *k* and passing through holes *l* in the end of each member *b*.

Along the inner edges of the members *a* and *b* are set a series of pointed pegs or pins *m*, *n*, the pins *m* on the member *a* being preferably somewhat longer than the pins *n* on the member *b* so that the points of all are even, and the pins *m* overlap the pins *n* as shown, the horizontal face of the member *a* being made somewhat wider than the member *b* for this purpose.

At the center of each member *a* is secured a V-shaped loop *o*, at the apex of which engages the eye or hook of a common turnbuckle *p*, the opposite or swiveled end of which has an eye *q* engaging one end of a chain *r* composed of any number of links, any one of which may be engaged with a supporting point, such for example as a nail or peg *s* driven into the floor on which the carpet is laid for sizing. I wish it understood that my invention is not limited to any particular means for engaging or holding the links of the chain *r*, as means may be provided which are not secured to the floor and do not in any way interfere therewith. This will be readily understood by those skilled in the art, and I have merely shown the pegs or nails as being the simplest means of engaging or holding the chains *r*.

To enable the frame to be brought readily to any desired size, each member *b* is graduated along one edge, as for instance the outer edge as shown at *t* in Fig. 2, the graduations being read on any convenient point of the member *a*, for example the outer end thereof.

The mode of using the apparatus is as follows: The hand-nut *f* being first loosened, the frame is brought to a size somewhat less than that to which the carpet is to be stretched, and being laid upon the floor the carpet is laid thereon bottom-side up, and the edges pressed down upon the points *m*, *n*, so as to be engaged and held thereby. The turnbuckles *p* being now screwed out a sufficient length to enable them to be screwed in to the necessary extent, each chain *r* is pulled out and one link thereof, the nearest possible to the turnbuckle, is engaged with its appropriate fastening or peg *s*. The hand-nut *f* being still loose, the turnbuckles *p* are now screwed up, whereby the opposite sides of the frame are drawn apart, and this is continued until the carpet is stretched to exactly the desired size, as readily seen by the graduations *t*. Then the hand-nuts *f* are screwed up tight to clamp the members *b* firmly to the members *a* of the sides, and thereafter the turnbuckles *p* may be unscrewed and the chains are released so that the carpets, still stretched on the frame, may be removed to any convenient place while the sizing composition is applied; or if desired, the sizing composition may be applied while the carpet is still lying upon the floor, and thereafter the carpet is removed in the manner described while still stretched upon the frame and set upon one edge to dry, while another frame and another carpet take its place upon the floor.

In the case of other than rectangular carpets it will, of course, be necessary to provide a frame having the same number of sides and the same angles between the sides as the carpet. For example, in Fig. 7 is shown a frame adapted to a carpet or rug such as is used in a room having a bay-window, said rug having the corners of one end cut off obliquely. In this case the sides make angles with each other greater than 90 degrees as shown, each side however, being still composed of central members *a'* and end members *b'*, which are constructed in substantially the same form as the members *a* and *b* previously described; each central member *a'* being provided with a loop *o'*, and there being a turnbuckle *p*, chain *r*, and an attachment point *s* therefor provided for each loop *o'*.

From the foregoing description it will be seen that I have provided a cheap, simple and compact apparatus which will enable the work of sizing carpets to be accomplished in a small fraction of the time that has heretofore been necessary, and also save a large amount of valuable floor-space, since it enables any number of carpets to be sized upon a floor only large enough to stretch the largest carpet which it is desired to stretch.

I wish it understood that my invention is not necessarily limited to all the features hereinabove described and that certain modifications or equivalent constructions may be substituted for some of the parts as shown herein without departing from the spirit of my invention.

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

1. A device of the class described comprising a frame having interadjustable sides, a flexible connection, such as a chain or cord attached to each side, and a member of variable length inserted in said flexible connection.

2. A device of the class described comprising a frame having interadjustable sides, a flexible connection corresponding to each side, and means inserted in said flexible connection for shortening the same.

3. A device of the class described comprising a frame having adjustable sides, and means for separating said sides comprising connections of variable length applied thereto and adapted to be adjustably secured to fixed points.

4. A device of the class described comprising a frame having interadjustable sides, a chain connected to each side, and means for shortening the effective length of each chain.

5. A device of the class described comprising a frame having interadjustable sides, a V-shaped loop secured to the center of each side, a flexible connection such as a chain or cord secured at the apex of each loop, and means in each flexible connection for shortening the effective length thereof.

6. In a device of the class described, a stretching frame comprising a plurality of sides, each side composed of three members, the two end members being each slidably engaged with the central member, and means for clamping or securing each end member in any desired position on the central member.

7. In a device of the class described, a stretching frame composed of a plurality of adjustable sides, each side being composed of two or more members, means for securing the members of each side together in any adjusted position, and a plurality of graduations on one member of each side whereby the total length of the side is indicated.

8. In a device of the class described having an adjustable side for a stretching frame comprising three members, the central member having an upstanding flange and the end members sliding thereon, means for clamping the end members in any desired position on the central member, and a plurality of graduation marks on each end member whereby the total length of the side is indicated.

9. In a device of the class described, the combination of a frame having a plurality of sides, each side being composed of several interadjustable parts, means for securing the several members of each side to the other members of each side in any desired relative position, and a screw-threaded device connected to the center of each side whereby the sides are separated from one another.

10. In a device of the class described, the combination of a frame having a plurality of sides, each side being composed of several interadjustable parts separate and detachable from the parts of the other sides, and a pull-off device connected to the center of each side and having means for contracting its length whereby the sides are separated.

11. A device of the class described comprising a frame having a plurality of adjustable sides, each side comprising three members, the end members of each side being slidably mounted on the central member, means for clamping said end members in any desired relative position on said central member, and a flexible, adjustable connection connected to the center of each side.

12. A device of the class described comprising a frame having a plurality of adjustable sides, each side comprising three members, the end members of each side being slidably mounted on the central member, a loop secured to the center of each central member, a turnbuckle secured to said loop, and a chain secured to said turnbuckle; and means on all said members for gripping the edges of a carpet.

13. A carpet-sizer comprising a substantially rectangular frame having its sides adjustable in opposite pairs, screw-threaded means for separating the members of each pair independently of the other pair, and means for clamping or securing the members of each pair to the members of the other pair in any adjusted position.

In testimony whereof, I have hereunto set my hand this thirteenth day of December, 1906, in presence of two witnesses.

FRED SCHWENSOW.

Attest:

GEORGE W. COLLES,
ELSIE M. HOTZ.