

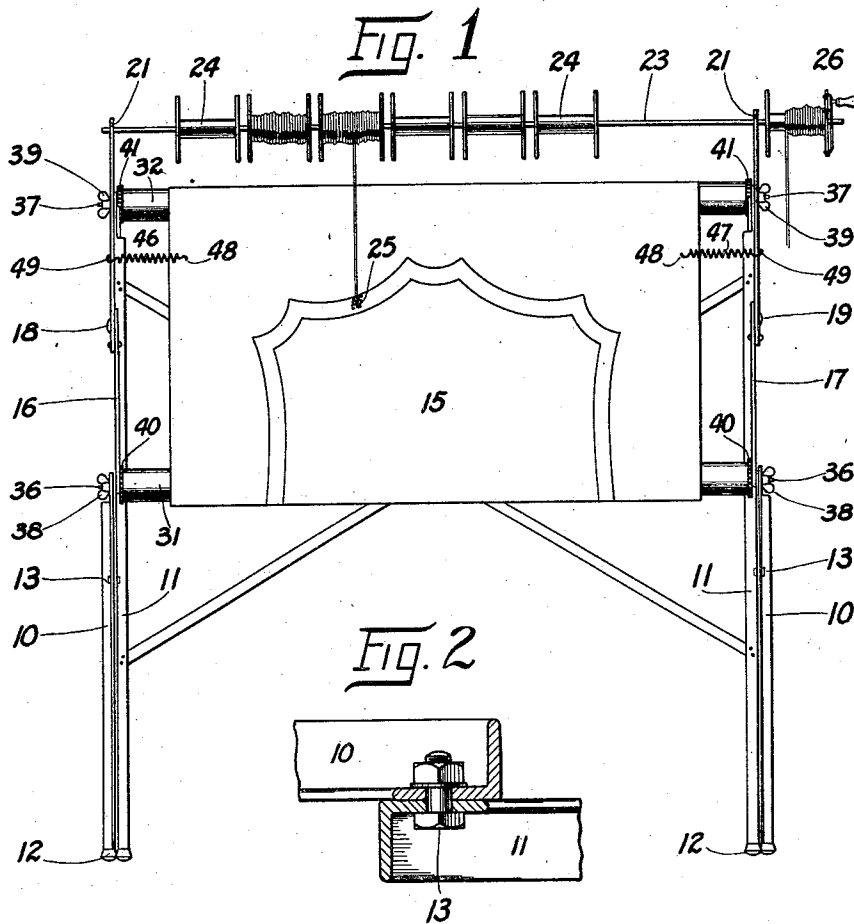
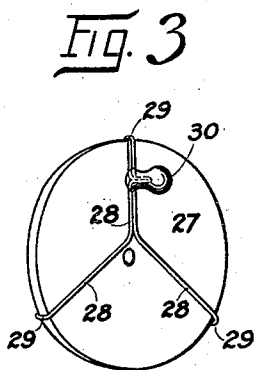
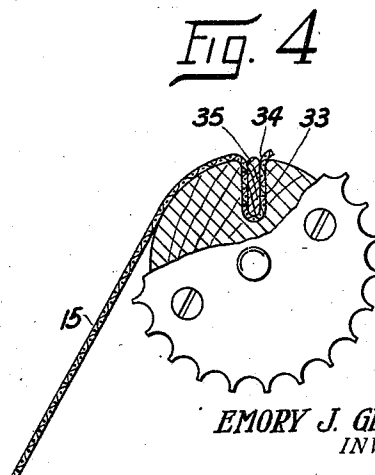
Aug. 19, 1930.

E. J. GEARHART  
FABRIC AND THREAD HOLDER

1,773,618

Filed June 16, 1927

2 Sheets-Sheet 1



EMORY J. GEARHART  
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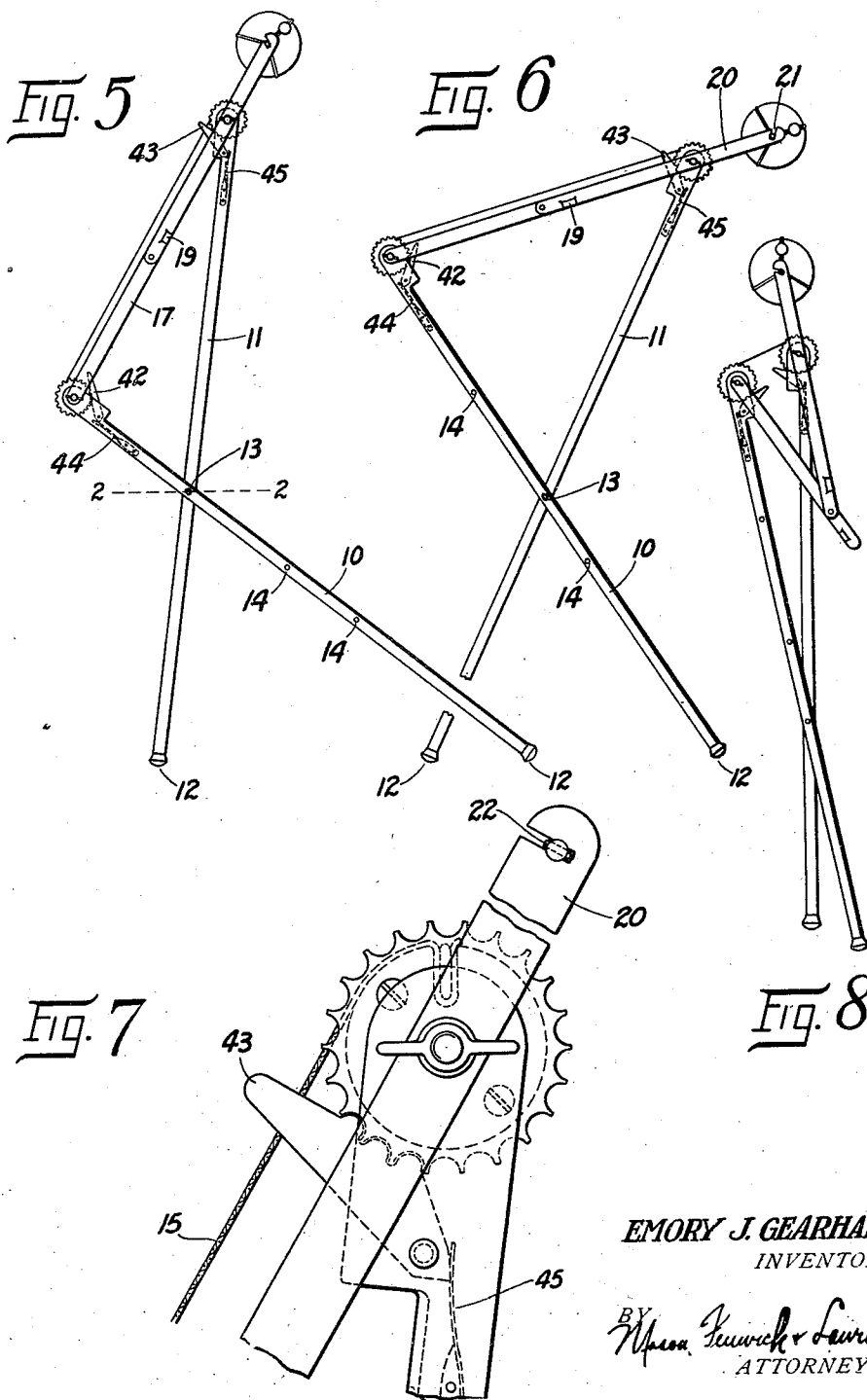
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## UNITED STATES PATENT OFFICE

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## FABRIC AND THREAD HOLDER

Application filed June 16, 1927. Serial No. 199,393.

This invention relates to means for holding, stretching and shifting a piece of fabric, for example, burlap, in such a manner that it can be effectively and conveniently treated or worked, as for instance, by sewing therein with a needle loops of colored yarn to make an imitation of a hooked rug.

This use is the particular object of my invention, but my invention is likewise useful for holding, stretching and shifting fabric for working or treatment of any other kind.

My invention consists, in its present preferred embodiment, mainly of an adjustable frame on which are mounted transverse rolls and appliances for holding, stretching and shifting the fabric to be worked, and a shaft or rod for holding loosely, for winding and unwinding, bobbins of the yarn to be sewed in the fabric, the frame being so constructed and arranged that the fabric can be held at any desired angle to the horizontal plane, and that the frame can be conveniently and compactly folded for storage or transportation, as hereinafter described and claimed.

In order that my invention may be fully understood, I shall first describe in detail the mode in which I at present prefer to carry the invention into practice and then point out its various features in the claim.

Reference is to be had to the accompanying drawings forming part of this application in which corresponding parts are designated by the same numbers in all the figures.

Figure 1 is a front elevation of a fabric holder of the specific character mentioned, adjusted to hold the fabric not far from the vertical plane.

Figure 2 is a detail cross-sectional view of the same on the line 2—2, Figure 5.

Figure 3 is an enlarged perspective view of the bobbin winder.

Figure 4 is an enlarged broken end view, showing the fabric stretching roll.

Figure 5 is a side elevation of the fabric holder adjusted as illustrated in Figure 1.

Figure 6 is a side elevation of the fabric holder adjusted to hold the fabric nearly horizontal.

Figure 7 is an enlarged end view showing the fabric roll tightening means.

Figure 8 shows the fabric holder folded for storage or transportation.

In the drawings, 10 designates one pair of the legs of the frame and 11, the other pair of frame legs, both pair of legs being, in this example, made by preference of light angle iron for stiffness and tipped with rubber shoes 12, to prevent slipping.

The legs 10 and 11 on each side are crossed and preferably connected by bolts or equivalent connections 13, which are passed through any one of a series of holes 14 in the leg so that the legs can be adjusted as indicated, to bring their upper roll supporting ends, and thus the rolls and fabric 15, into any desired or convenient angle or position with respect to the vertical or horizontal plane for working thereon.

The upper ends of the leg members 10 and 11 on each side are pivotally connected by jointed sectional side bars 16 and 17, forming the respective side members of the frame, one section of each side member having a stop 18, 19, respectively to limit the opening of the sections in one direction to a line position, while permitting the side members to be closely folded in the opposite direction with the legs, for storage or transportation as indicated in Figure 8.

The upper or rear ends of the side members 16 and 17 are prolonged beyond the upper ends of the legs 11 to form extensions 20 in upwardly opening slots 21 of which are fitted and received removably the short flattened parts 22 of a transverse bobbin shaft 23. On the shaft 23 the bobbins 24 of yarn are received loosely, so that they can rotate for unwinding the yarn therefrom or winding it thereon, and can also move axially so as to bring them in line with the loops 25 being made thereof and sewed in the fabric 15, as indicated in Figure 1.

The normal enlargements of the shaft 23, inside and outside the slots 21, and the flattened parts 22, hold the bobbin shaft against axial displacement in the frame, but permit the shaft to be removed from the frame for placing the bobbins thereon.

One end of the shaft 23 is prolonged beyond the corresponding side member 17 to form an extension which is adapted to receive loosely a bobbin 26 for winding yarn thereon. To this end I provide a detachable clamp 27, shown in Figure 3, consisting of a plurality, in this case, three radial arms 28, having spring hooks 29 on their ends to engage detachably the periphery of the bobbin, and an eccentric handle 30 on one arm 28 to rotate the bobbin and wind the yarn thereon.

I prefer to make the bobbin clamp 27 of resilient wire doubled upon itself to form one arm 28 and its hook 29, and then bent oppositely outward to form the other diverging arms 28 and their respective hooks 29.

In the upper ends of the respective pairs of legs 10 and 11, and in the side members 16 and 17 are mounted to turn, transverse fabric holding, stretching and shifting rolls 31 and 32, in longitudinal slots 33 in the side of which are arranged to be fastened temporarily the respective ends of the fabric 15, in this instance as shown in Figure 4, by inserting a transverse fold 34 of the fabric in the slot 33, and then pressing a removable transverse strip 35 in said fold in the slot 33, so as to bind the fold tightly therein.

In this example of my invention, I mount the rolls 31 and 32 in the frame by passing their end gudgeons 36 and 37 through coincident apertures acting as bearings, in the legs 10 and 11 respectively and side members 16 and 17, and screw wing nuts 38, 39, on the threaded ends of said gudgeons, so that the gudgeons serve not only as journals for the rolls, but as connecting rods and connecting pivots for the legs and side members.

For turning and holding the rolls 31 and 32 and stretching and shifting the fabric 15 between the same, I, in this example of my invention, use the wing nuts 38, 39, secured thereto as described, as turning handles, and secure to the ends of the rolls toothed ratchet-like wheels 40, 41, which are engaged by multiple toothed pawls, 42, 43, whose teeth are rounded and engage similar depressions in the wheels 40, 41, as best shown in Figure 7. The pawls 42, 43, are pivoted to the respective legs 10, 11, are pressed against the ratchet wheels 40, 41, by springs 44, 45, so that the rolls 31, 32, can be turned by hand to shift and stretch the fabric thereon, but can be disengaged to loosen or free the fabric by pulling the pawls 42, 43, by their free ends away from the wheels 40, 41.

In Figure 1 I have illustrated tension springs 46 and 47 to stretch the fabric 15 laterally, the tension springs having hooks 48 on one end to catch in the fabric and loops 49 on the other ends to encircle the side members 16, 17.

This construction and arrangement makes a very simple and convenient frame and manipulating device for the rolls, fabric and

yarn bobbins, and the whole can be easily and compactly folded for storage by simply breaking the joints of the side members and folding them and the legs together as illustrated in Figure 8.

It is evident that the side members 16, 17, with the rolls 31, 32 could be fastened releasably in open slots, instead of apertures in the legs, 10, 11, so that the side member and rolls could be easily separated from the legs, before folding the legs for storage or transportation.

It is also evident that many other variations may be made in the specific details of my invention without departing from the boundaries thereof as defined by the following claim.

I claim as my invention:

A knock down and portable device for holding fabric and thread consisting of a pair of crossed, pivotally connected legs on each side, side members each including a rule joint connected to the upper ends of each pair of legs and extending at one end beyond said legs, the extension of each side member having in its upper edge a notch, front and rear fabric rolls having threaded end gudgeons adapted to pass loosely through and form pivotal connections between the tops of the legs and the adjacent side members, ratchet wheels secured one to an end of each fabric roll, a pawl for each ratchet wheel pivoted to an adjacent leg, nuts screwing on the threaded gudgeons outside the respective leg and side members, and a bobbin rod longer by the length of a bobbin, than the fabric rolls having restricted parts spaced apart the distance between the side members adapted to seat in the notches in the upper edges thereof, bobbins and means for engaging a bobbin for rotating same when positioned on the extension of the bobbin rod as specified.

In testimony whereof I affix my signature.

EMORY J. GEARHART.