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A. GALLOWAY & E. B. SWEET.

FABRIC HOLDER.

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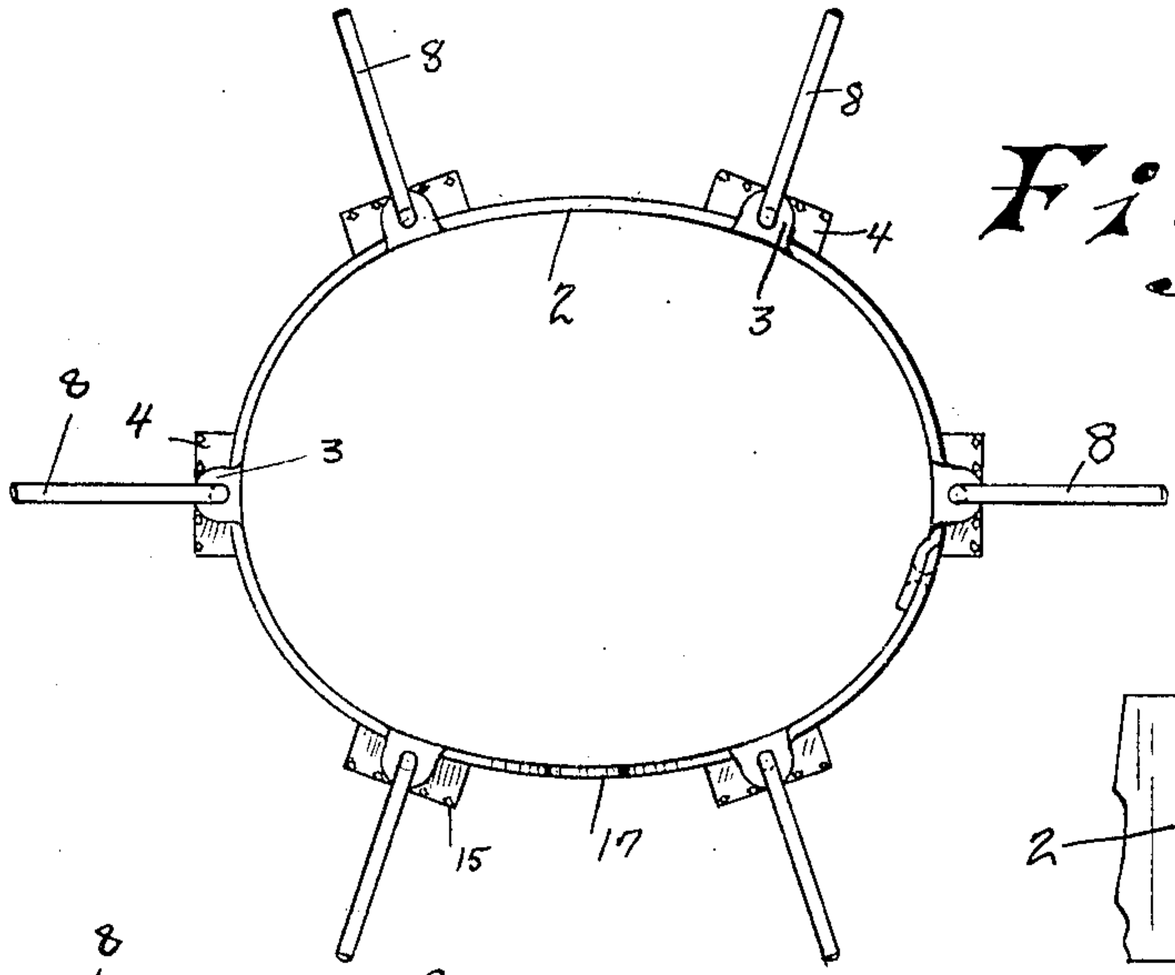

Fig. 1.

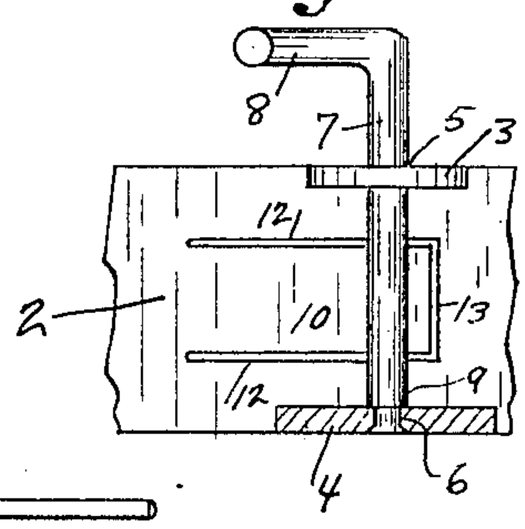

Fig. 5.

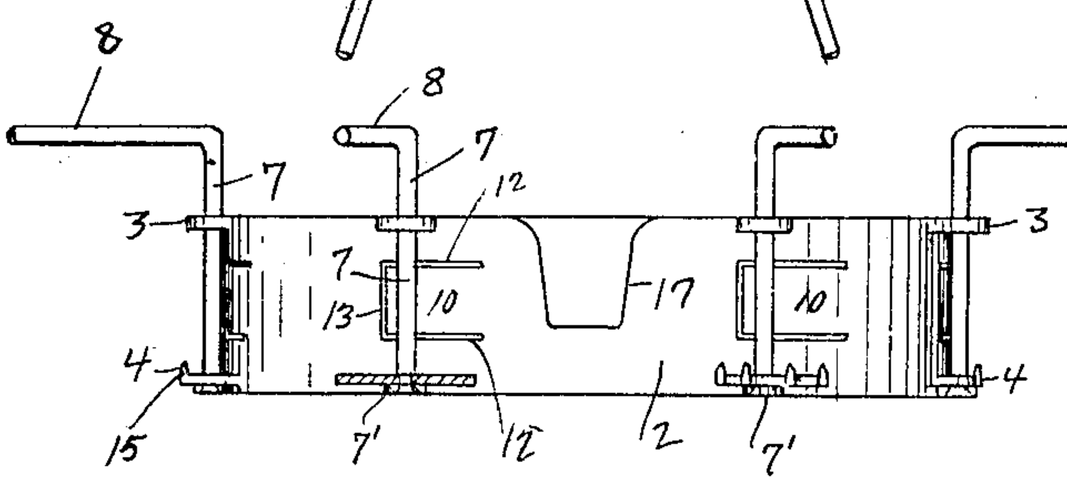

Fig. 2.

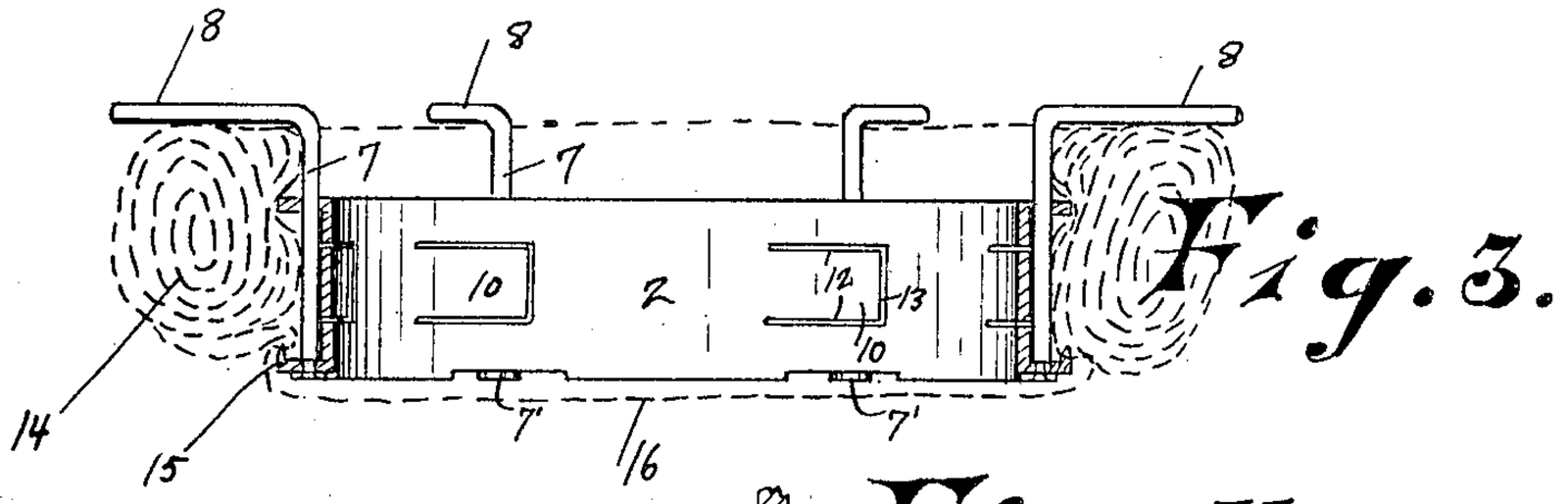

Fig. 3.

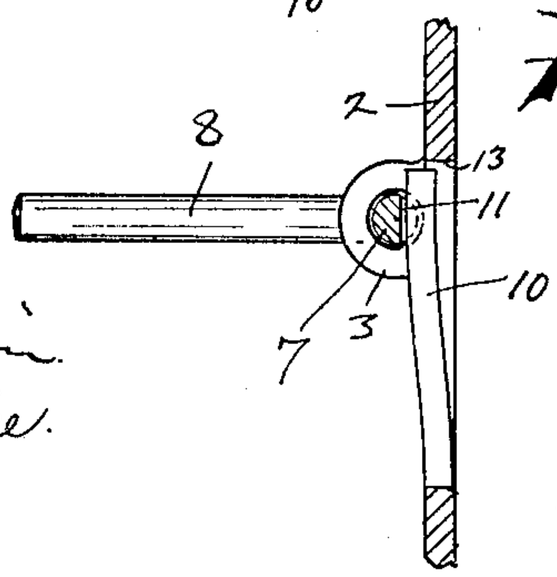

Fig. 4.

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FABRIC-HOLDER.

No. 887,386. Specification of Letters Patent. Patented May 12, 1908.

Application filed September 5, 1907. Serial No. 391,410.

To all whom it may concern:

Be it known that we, ALONSON GALLOWAY and EMMA B. SWEET, citizens of the United States, residing at the city of Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Fabric-Holders, of which the following is a specification.

Our invention relates to improvements in devices for holding flexible fabrics while being darned or embroidered, and the same is explained by reference to the accompanying drawings in which

Figure 1 is a plan view. Fig. 2 is a side view. Fig. 3 is a vertical section. Fig. 4 is a detail showing the locking device for the fabric retaining arms. Fig. 5 is a detail of a modified form of device for vertically supporting and retaining its fabric supporting arms in place.

Like parts are identified by the same reference characters throughout the several views.

Our invention pertains more specially among other things to the fabric supporting frame 2, provided with two series of radial lugs 3 and 4 located one above the other, such lugs being formed integrally with the upper and lower edges of the frame 2, when they are bent outwardly past the periphery of the frame. The series of lugs 3 are provided with apertures 5, and the series of lugs 4 are provided with apertures 6, for the reception of the vertical members 7 of the fabric retaining arms 8. The lower end of the vertical members 7 are turned down so as to form the annular shoulders 9, which rest upon the upper surface of the lugs 4. In the modified form shown in Fig. 5 the lower sides of the lugs 4 are counter-sunk, and the lower end of the vertical members 7 are upset so as to retain such members in place in the apertures of said lugs. In the other form the vertical members are upset against washers 7′. By thus counter-sinking the lower surface of the lugs 4, the lower end of the vertical members when upset will be flush with the lower surface of the lugs and by thus forming such lugs in the manner described integrally with the lower edge of the frame 2, the lower edge of the frame, the lower surface of the lugs and upset end of the vertical members are when made as shown in Fig. 5 all brought on the same horizontal plane, whereby such parts taken together form an even surface in the edge of the frame over which the fabric is drawn, preparatory to being darned or embroidered.

It will be understood that our device is more especially adapted to be used for darning hose and other similar fabrics, which darning is done with an ordinary sewing machine and to properly do such work the fabric to be darned must be stretched rigidly and uniformly across the lower edge of the frame when the lower side of the frame and fabric are placed upon the upper surface of the needle plate of a sewing machine beneath the needle in such a position that the feed mechanism of the machine will engage the fabric as it is stitched or darned, and when the frame is thus used, it is of vital importance to its successful operation that the lower edge of the frame and the lower surface of the lugs 4 be formed upon the same horizontal plane so that the fabric which is stretched over them will bear uniformly upon the needle plate of the machine, which end is accomplished by the construction shown and described.

Our invention pertains further to the mechanism for locking and yieldingly retaining the fabric retaining arms when extended outwardly as more clearly shown in Figs. 1 and 4. The arms 7 are thus locked in their extended position by contact of the resilient tongue 10 with the flat surface 11 of the vertical members 7. The tongue 10 is formed integrally with the frame 2 by the two horizontal slits 12, 12 and the vertical slit 13. When such slits are formed the tongue is bent outwardly so that it will bear yieldingly against the flat surface 11 of the vertical members 7. Whereby when the arm 8 is turned outwardly as shown, the tongue 10 will bear against such flat surface and yieldingly hold the arms as stated in their radial positions, said tongue 10 being sufficiently resilient to permit the arms 8 to be turned inwardly preparatory to securing the fabric in place around the periphery of the frame.

14 represents the fabric which is adapted to be retained in place around the frame by the arms 8. When the fabric 14 is in place as indicated in Fig. 3, the arms 8 are turned outwardly above it, whereby the roll of fabric 14, will be held between the arm 8 and the teeth 15, while that part of the fabric 16 which is stretched across the lower edge of the frame is being darned or embroidered. The teeth 15 are formed integrally with the

lower lugs 4, by bending the outer end of said lugs upwardly and notching the same as indicated. Attention is called to the fact that while thus forming the lugs 3 and 4 upon the same vertical plane, the lugs 4 are adapted to serve the two-fold purpose of holding the lower end of the vertical members 7, and as a fabric retaining bracket upon which the teeth 15 are formed, when it thus becomes unnecessary to provide an additional series of lugs for such fabric retaining teeth. To facilitate inserting the frame beneath the sewing machine needle when the device is used in connection with the sewing machine, the frame 2 upon one side is provided with a vertical recess 17.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is,

1. In a device of the described class, the combination of a fabric supporting frame, two series of radial lugs respectively formed integrally with and extending outwardly from the upper and lower edges of said frame, the lugs of the respective series being formed in sets of two each, located one above the other in the same vertical plane and provided with apertures for the reception of the vertical members of the fabric retaining arms, an annular series of fabric retaining arms each comprising a horizontal and a vertical member, the vertical member of one of said arms being supported in each set of radial lugs and means for yieldingly holding said fabric retaining arms in their extended positions.

2. In a device of the described class, the combination of a fabric supporting frame, two series of radial lugs, respectively formed integrally with and extending outwardly from the upper and lower edges of said frame, the lugs of the respective series being formed in sets of two each, located one above the other in the same vertical plane and provided with apertures for the reception of the vertical members of the fabric retaining arms, an annular series of fabric retaining arms each comprising a horizontal and a vertical member, the vertical member of one of the said arms being flattened upon one side, and supported in each set of radial lugs and a resilient bearing tongue formed integrally with said frame, adapted to bear against the flattened surface of said vertical member and retain the horizontal member in its extended position.

3. In a device of the described class, the combination of a fabric supporting frame, two series of radial lugs, respectively formed integrally and flush with the upper and lower edges of said frame, the lugs of the respective series being formed in sets of two each, located in the same vertical plane and provided with apertures for the reception of the vertial member of the fabric retaining arms, the lugs of the lower series being bent upwardly at their outer ends and provided with a series of fabric retaining teeth, an annular series of fabric retaining arms supported in said lugs, each of said arms comprising a horizontal and vertical member and means for yieldingly retaining the horizontal members of said arms in their extended positions.

4. In a device of the described class, the combination of a fabric supporting frame, two series of radial lugs, respectively formed integrally and flush with the upper and lower edges of said frame, the lugs of the respective series being formed in sets of two each, located in the same vertial plane and provided with apertures for the reception of the vertical member of the fabric retaining arms, the aperture of the lower series of lugs being counter-sunk for the upset ends of the fabric retaining arms, an annular series of fabric retaining arms each comprising a horizontal and vertical member, the lower end of the vertical members being provided with annular shoulders adapted to rest upon the upper surface of the lower series of radial lugs, while the lower end of said vertical members are upset within said counter-sunk lugs so as to prevent the same from moving vertically and means for yieldingly holding said retaining arms at the desired point of adjustment.

5. In a device of the described class, the combination of a fabric supporting frame having a vertical recess upon one side thereof, a plurality of resilient tongues formed integrally with, and centrally located between the upper and lower edges of said frame, two series of radial lugs respectively formed integrally with and extending radially from the upper and lower edges of said frame, the lugs in the respective series being formed in sets of two each, located in the same vertical plane and provided with apertures for the reception of the vertical members of the fabric retaining arms, the lugs of the lower series being respectively provided with a series of fabric retaining teeth, a plurality of fabric retaining arms each comprising a vertical and horizontal member, the vertical member being flattened upon one side, said resilient tongue being adapted to bear yieldingly against the flattened surface of the vertical members of said fabric retaining arms and thereby retain the horizontal members of said arms in their extended positions all substantially as and for the purpose specified.

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

ALONSON GALLOWAY.
EMMA B. SWEET.

Witnesses:
JAS. B. ERWIN,
O. R. ERWIN.