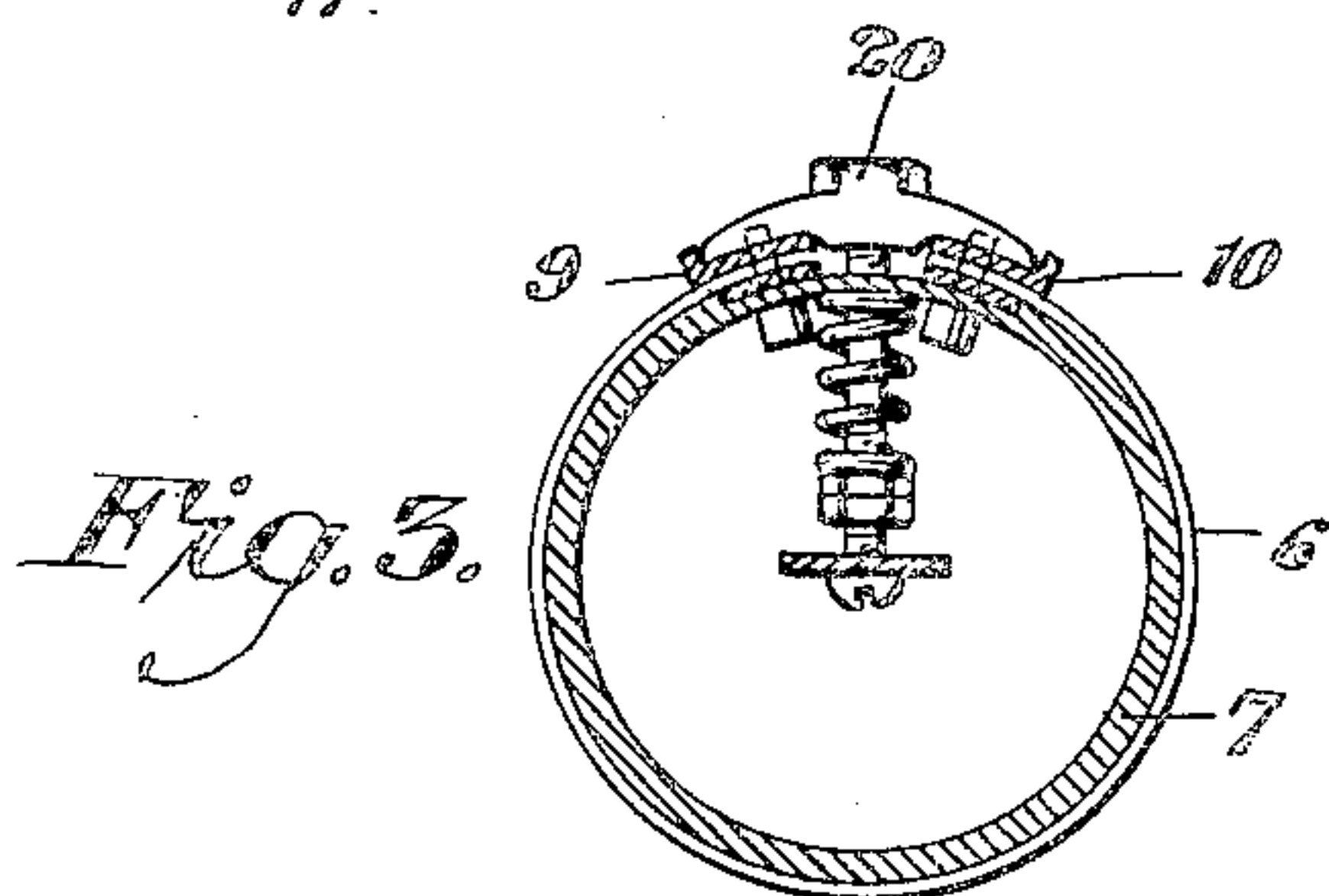
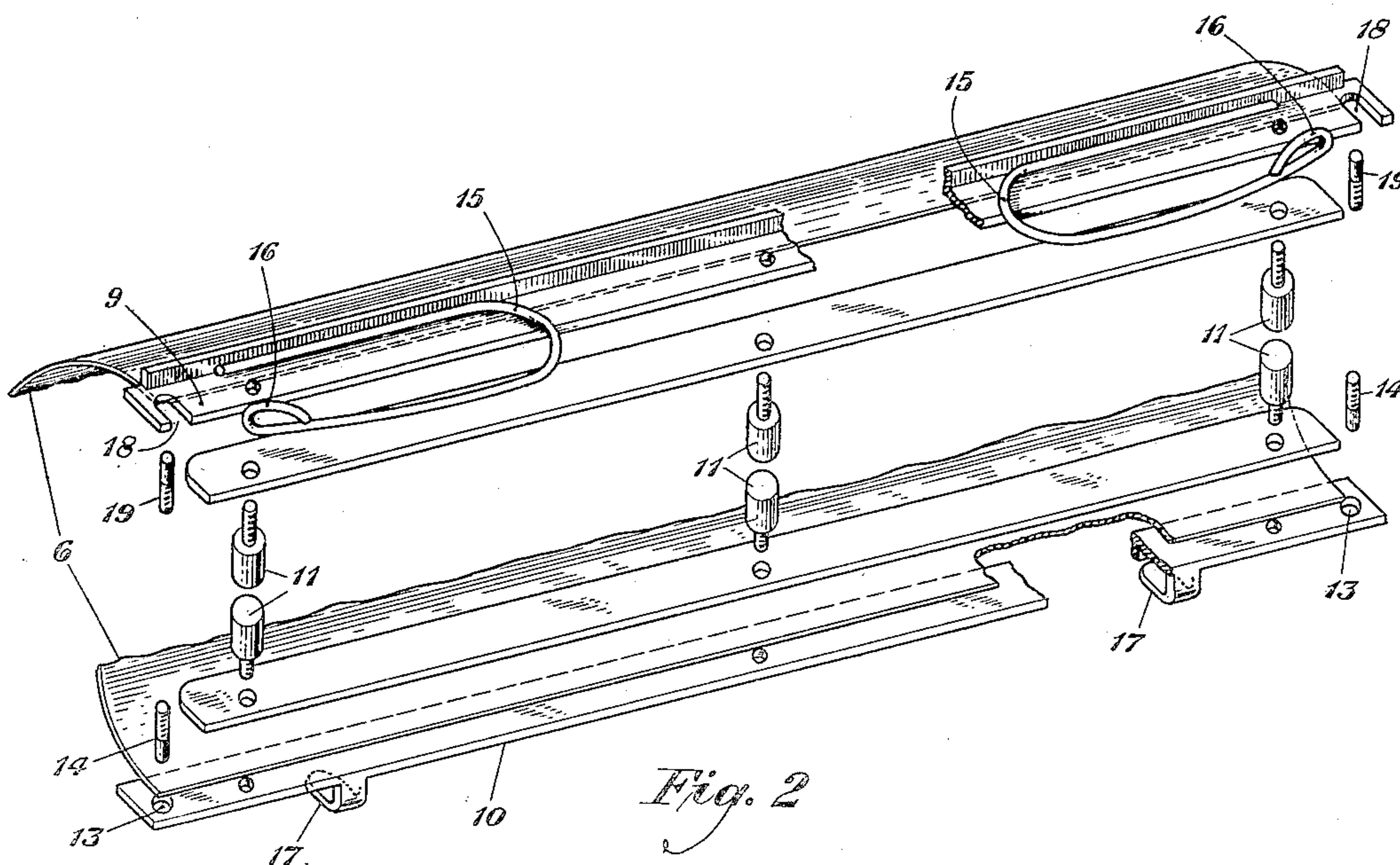
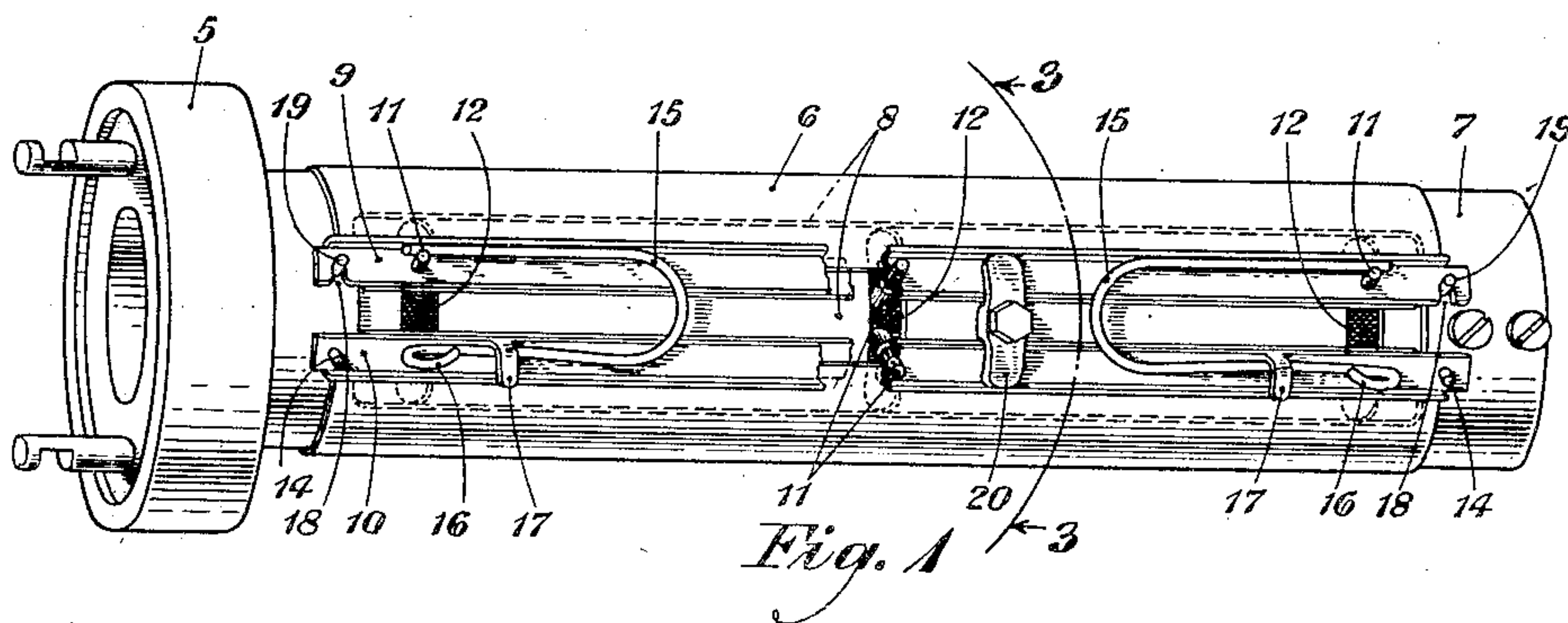


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W. H. THOMSON
SHEET MOUNTING DEVICE

Filed April 24, 1929

1,775,742



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SHEET-MOUNTING DEVICE

Application filed April 24, 1929. Serial No. 357,741.

This invention relates to sheet holding devices, and more particularly to means for mounting sheets of material upon a cylindrical surface in a definite manner.

In the operation of mounting sheets of flexible material upon cylindrical drums, for example, in connection with picture transmission equipment employing revolving picture drums, a recording film or blank is mounted upon a reproducing drum during the reproducing process. This operation requires changing the record film or blank for each picture. The mountings previously employed have been found difficult to manipulate, time consuming in adjustment and unreliable in maintenance.

One of the objects of the present invention is to facilitate and simplify the attachment of a sheet of flexible material or film to a cylindrical drum.

Another object is to hold such sheet of flexible material or film on the drum in a secure and reliable manner.

In one embodiment of this invention, the opposite sides of a light sensitive record blank or film are held by clamping strips which register with grooves in the reproducing drum of a picture transmission equipment when the film is wrapped around the drum. The film is then held under tension by spring elements so arranged that they tend to draw and maintain the clamping means together. The removal and replacement of recording films is thus reduced to a very simple operation.

The novel features which are considered characteristic of this invention are set forth with particularity in the appended claims. The invention, both as to its organization and method of operation, together with other objects and advantages thereof, will be further explained in the following detailed description having reference to the accompanying drawing consisting of the following figures:

Figure 1 is a side elevation of a picture reproducing drum and film mounting device according to this invention.

Fig. 2 is an exploded view in perspective of the two clamping strips and associated

elements, and the film whose edges are to be held by such strips.

Fig. 3 is a sectional view of the drum on line 3—3 of Fig. 1 adjacent to the button 20.

In the embodiment of the invention shown in the drawing, the reference 5 designates a reproducing drum. This drum, as well known in the art, may be mounted on a shaft suitably supported so that it may be rotated, and operated in a well understood manner. The drum has a light sensitive record blank or film 6 mounted on a cylindrical surface 7 which has a longitudinal groove 8 cut therein. The edges of the film are respectively clamped between the strip 9 and the strip 10. Each clamping strip consists of an upper and lower parallel, metallic member, and the upper member may have one of its edges upturned to increase its rigidity. The lower members of each strip register with the longitudinal groove 8. The upper and lower parallel members of the strips 9 and 10 are adapted to be clamped together by means of screws 11 which pass through holes in the lower member of each strip and screw into the threaded holes of the companion upper member of the strip. These screws may be provided with enlarged or knurled heads so that they are easily operated by hand. These enlarged heads enter slots 12 provided through the longitudinal groove 8 and extend toward the center of the drum, when the clamping strips 9 and 10 are in position.

Holes 13 are provided near the ends of the clamping strip 10 and register with pins 14 which extend from the surface 7 of the drum through said holes. The clamping strip and drum thus provide co-acting members which serve to self-center the clamp and thereby fix the position thereof as well as the position of the film 6.

The clamping strip 9 is provided with hook-shaped resilient members 15 which have one of their ends abutting the upturned portions of said strip and are suitably affixed to the surface thereof. The other ends of the hook members 15 may be intumed to form knobs which may be easily grasped. The resilient members 15 are adapted to be sprung over the lugs 17 carried by the opposite

clamping strip 10 and engage with the recessed portions of the lugs in latched connection. This latched connection serves to draw the film 6 tightly in position about the drum.

5 The ends of the clamping strip 9 may be provided with slots 18 which register with pins 19 extending from the surface 7 of the drum. This connection serves to center the strip 9 and position it in alignment with the companion strip 10.

10 An auxiliary connection may be provided to cooperate with the latched connection above mentioned. This auxiliary connection may be provided with a button 20 which is flexibly mounted in any desired manner so that the button may be lifted and rotated to turn over the adjacent edges of the clamping strips 9 and 10 to hold them firmly in position on the drum.

20 In the application of the film to the drum, one edge of the film is positioned between one clamping strip, and an opposite edge positioned between the other clamping strip. The film is then wrapped about the drum so that the clamping strips register with the longitudinal groove in the drum, with the heads of the screws extending toward the center of the drum through the slots. When the clamping strips are in this position, the resilient hook members on one strip are latched over the lugs of the opposing strip to tension the film and hold it in a desirable relationship to the drum surface.

30 By means of the present invention a simple and reliable arrangement is provided for holding the film on the drum. The clamps are quickly removable from the drum and from the film, thus effecting a large saving in time by the use of this device.

40 While there is shown and described herein one preferred form of the invention by way of illustration, it is understood that it is not limited or confined to the precise details of construction herein described and delineated, as modification and variation may be made within the scope of the appended claims without departing from the spirit of the invention.

What is claimed is:

50 1. A sheet mounting device comprising a drum, a sheet to be mounted on said drum, a removable clamp for one edge of said sheet, said clamp and said drum having co-acting members for fixing the position of the clamp and thereby fixing the edge of the sheet with respect to the drum when the clamp is applied thereto, a second clamp for the opposite edge of said sheet, hook-shaped resilient-engaging members fixed upon said latter clamp, and lugs upon said first mentioned clamp over which said resilient-engaging members may be sprung to draw the sheet tight upon the drum.

65 2. A sheet mounting device comprising a drum, a sheet to be mounted on said drum, a

removable clamp for one edge of said sheet, said clamp and said drum having co-acting members for fixing the position of the clamp and thereby fixing the edge of the sheet with respect to the drum when the clamp is applied thereto, a second clamp for the opposite edge of said sheet, hook-shaped resilient-engaging members fixed upon said latter clamp and lugs upon said first mentioned clamp having recessed portions therein in which said resilient-engaging members may be latched to draw and maintain the sheet tight upon the drum, and means for centering one edge of the sheet to position it in alignment with the opposite edge of said sheet.

3. A sheet mounting device comprising a drum, a sheet to be mounted on said drum, a removable clamp for one edge of said sheet, said clamp and said drum having co-acting members for fixing the position of the clamp and thereby fixing the edge of the sheet with respect to the drum when the clamp is applied thereto, a second clamp for the opposite edge of said sheet, hook-shaped resilient-engaging members fixed upon said latter clamp, lugs upon said first mentioned clamp over which said resilient-engaging members may be sprung to draw the sheet tight upon the drum, and a button flexibly attached to said drum, said button being adapted to lift and turn over the edges of said clamps to maintain them firmly in position on the drum.

In testimony whereof, I have signed my name to this specification this 18th day of April, 1929.

WILLIAM HAROLD THOMSON.