

C. F. GRAY.
 BINDING ATTACHMENT FOR SEWING MACHINES.
 APPLICATION FILED JUNE 24, 1910.

985,257.

Patented Feb. 28, 1911.

Fig. 1.

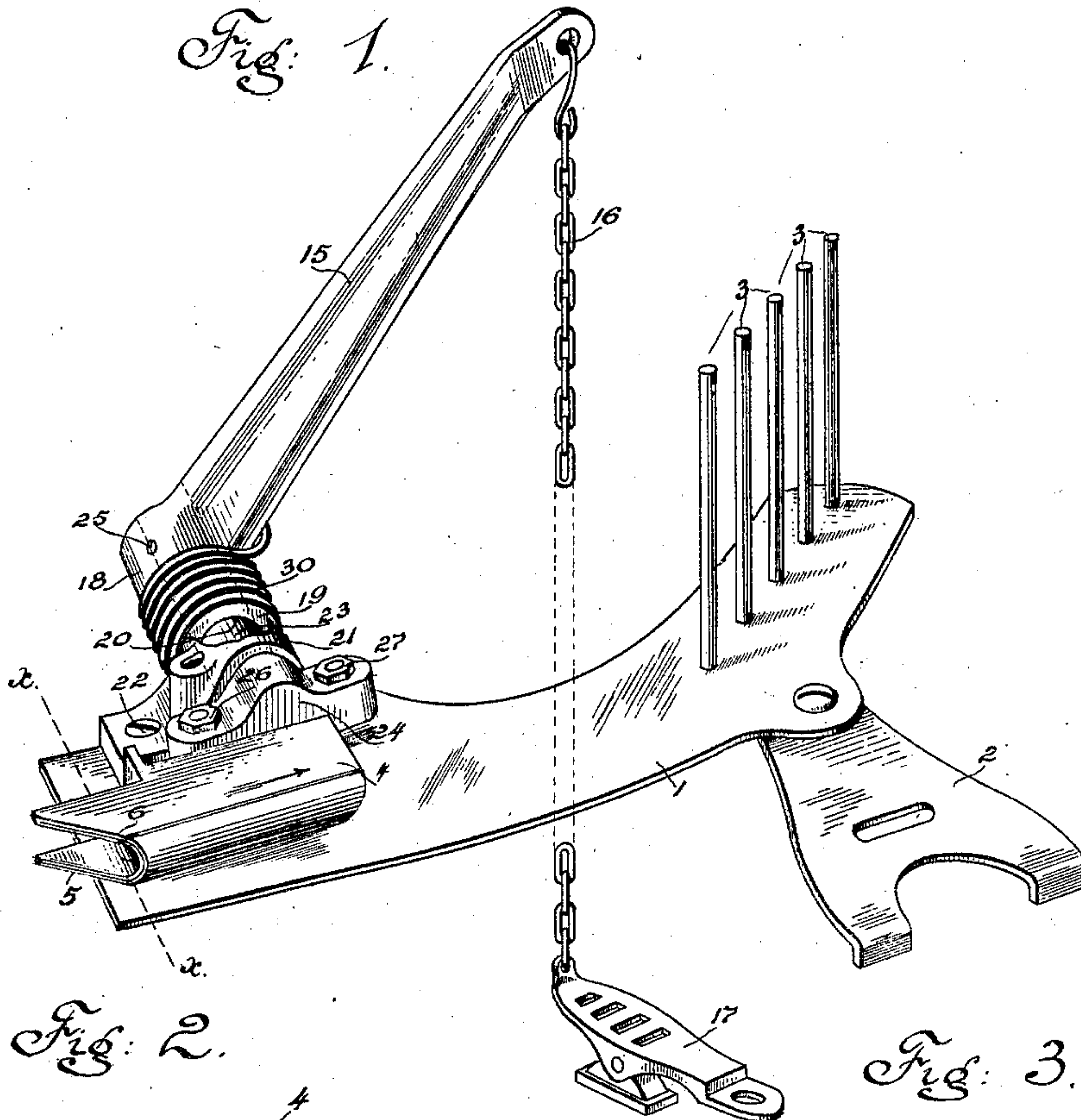


Fig. 2.

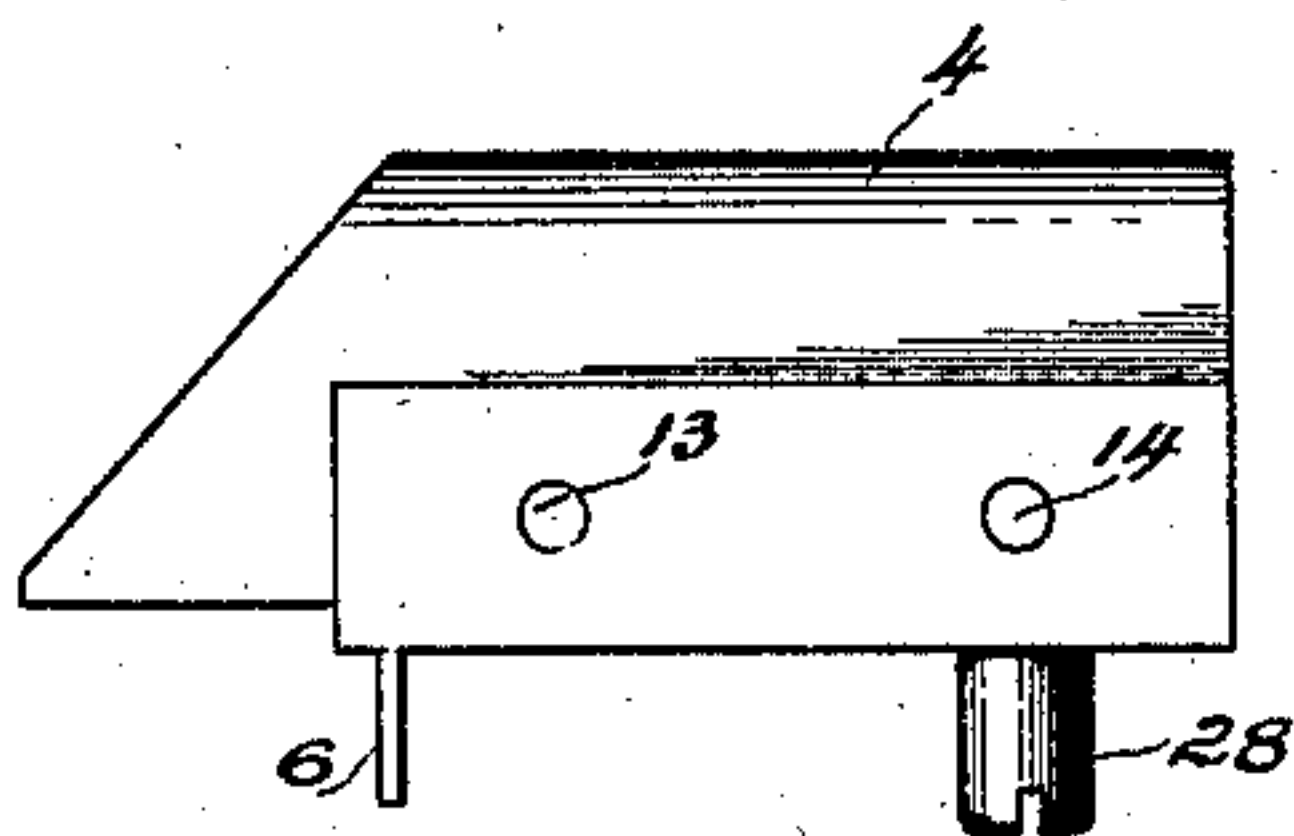


Fig. 3.

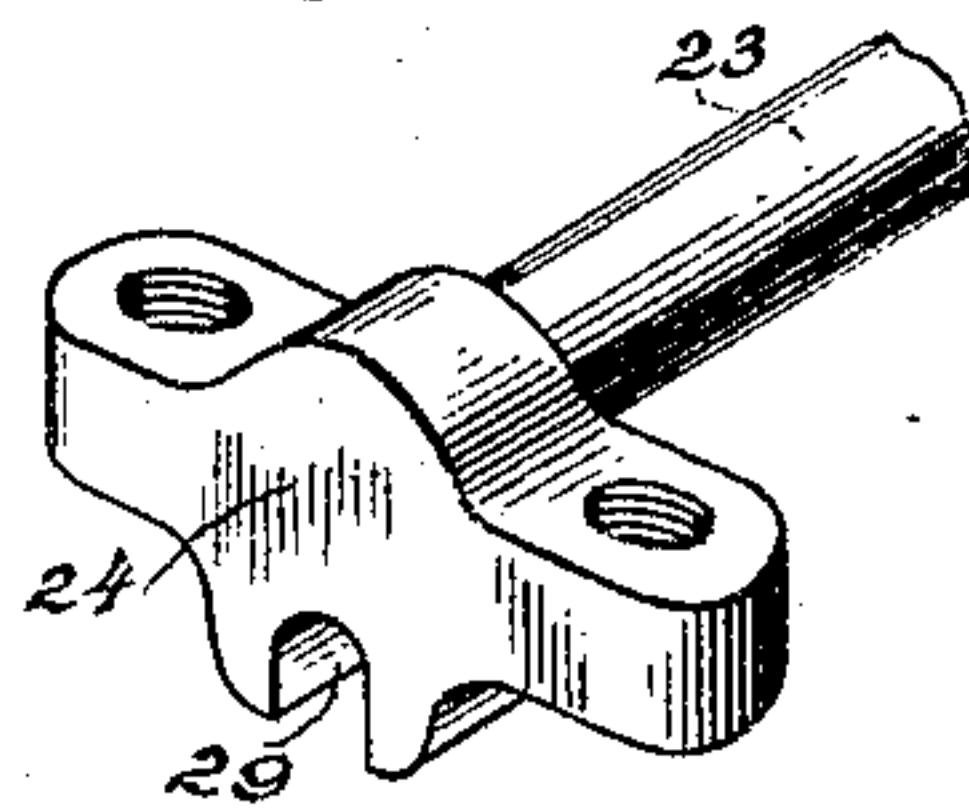


Fig. 4.

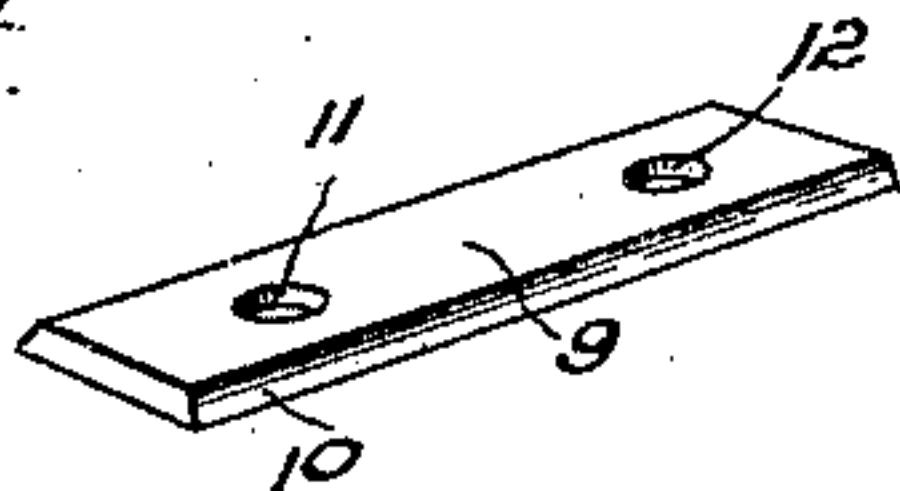


Fig. 5.

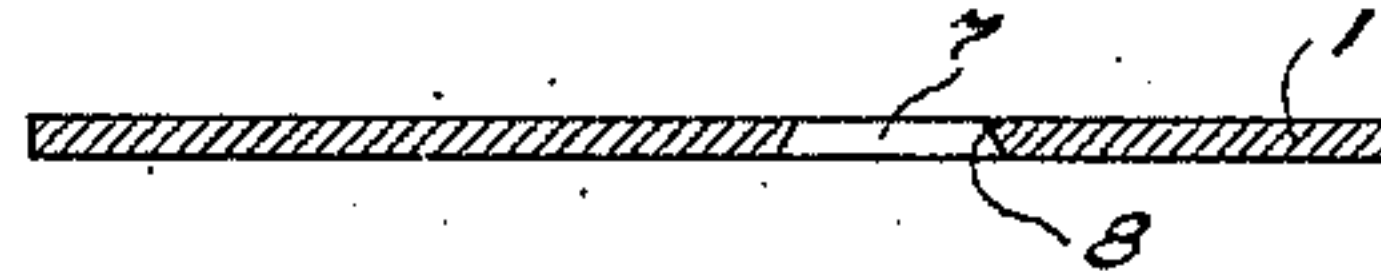
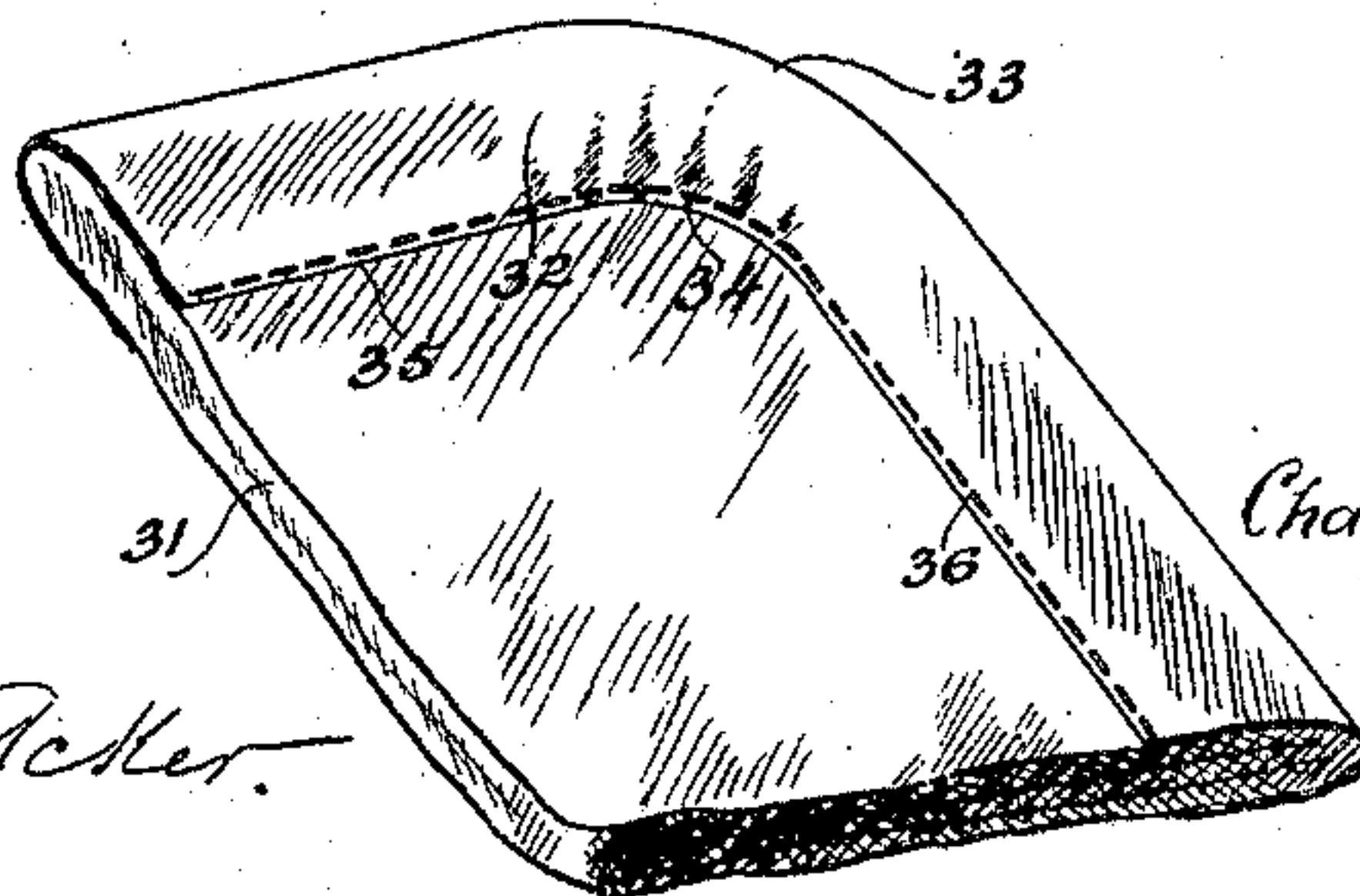


Fig. 6.



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BINDING ATTACHMENT FOR SEWING-MACHINES.

985,257.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES F. GRAY, a citizen of the United States, residing at Sierra Madre, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Binding Attachments for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in binding attachments for sewing machines and is designed more particularly for binding the rounded corners of materials of heavy texture, such as rugs, carpets, horse blankets, carriage robes, etc.

It is well understood that when applying binding to a rounded corner, the tendency of the binding is to lead out from the line of seam formation, and unless extreme care is exercised the stitches will be placed slightly off from the inner or free edge of the binding, especially when operating upon comparatively heavy materials.

The object of the present invention is to remedy the difficulty above referred to by providing means for adjusting the binder head, with respect to the line of seam formation, at the will of the operator during the stitching operation, and at any speed required of mechanically driven sewing machines.

While it is common to provide a binder head capable of adjustment with respect to the line of seam formation, it is believed that the present construction is the first wherein a binder head has been provided with adjusting means capable of being actuated instantly, or without any perceptible loss of time.

It has not been deemed necessary to illustrate any of the elements of the sewing machine, as the application of a binding attachment comprising the improved mechanism herein pointed out to a sewing machine will be evident to those versed in the art.

In the accompanying drawings illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 is a view in perspective of the improved mechanism. Fig. 2 is an underside view of the binder head. Fig. 3 is a perspective of the rock-shaft for effecting adjustment of the binder head. Fig. 4 is a perspective of the binder head slide plate.

Fig. 5 is a cross-section of the binder head base-plate on the line X, X, Fig. 1. Fig. 6 is a perspective of one form of production, showing the seam line carried toward the bound edge when turning a corner.

1 represents the binder head base-plate, 2 a bracket for securing said base-plate to the bed-plate of the sewing machine in a manner common to attachments of its class, 3 the binding tension pins and 4 the binder head provided with the usual scroll-guide 5 and transversely arranged guide-wall 6. The base-plate 1 is provided with an opening 7 having inner beveled walls, as 8, and in said opening is slidably mounted the binder head slide plate 9 provided with complementary beveled outer walls, as 10, said slide plate being secured to the underside of the binder head by suitable screws which pass through openings 11 and 12 and are threaded into the openings 13 and 14.

15 represents an adjusting lever provided at its free end with a chain 16, the opposite end of which latter is connected with a foot treadle 17, said lever having an enlarged hub 18 and an integrally-formed hub 19 of smaller diameter provided with an opening 20.

21 represents a bracket secured by screws 22 (one only of which is shown) upon the base-plate 1 and provided with a bearing (not shown) into which is fulcrumed the shaft 23 of the rocking crank 24, said shaft extending into the opening 20 and being secured, by a pin 25, to oscillate with the adjusting lever 15.

26 and 27 represent adjusting screws for limiting the rocking movements of the crank 24 in opposite directions.

28 represents a connecting stud which is suitably secured in the binder head 4 and coacts with a notch 29 in the crank 24 to cause said binder head to be moved bodily toward and away from the line of seam formation. Coiled about the hub 19 is a spring 30, one end of which is held by the bracket 21 while its opposite end is secured to move with the lever 15, said spring normally acting to hold said binder head in the direction indicated by the arrow thereon.

In the operation of the device, the fabrics 31 and 32 are fed to the action of the stitch-forming mechanism in the usual manner, and as the rounded portion 33 approaches the needle, the operator, through the connec-

tions pointed out, rocks the lever 15 downward in opposition to the resiliency of the spring 30, causing the binder head and fabrics to be moved in the direction of the line of seam formation, which causes the curvilinear seam line 34 to be placed nearer the bound edge of the fabric than the transversely arranged straight lines 35 and 36, the release of the manual control of the lever 15 permitting the spring 30 to return the binder head 4 to its normal or straight line position.

Claims:—

1. In a binding attachment for sewing machines, a base-plate, a binder head slidably mounted on said base-plate, a resiliently held adjusting lever, and connections between said binder head and said lever for giving to said binder head adjustments in transverse directions, with respect to the line of the seam, at the will of the operator during the stitching operation.

2. In a binding attachment for sewing machines, a base-plate, a binder head, a resiliently held adjusting lever carried by said base-plate, and connections between said lever and said binder head, the outer end of said lever being connected with manually controlled means located below said base-plate for giving to said binder head adjustments toward the seam.

3. In a binding attachment for sewing machines, a base-plate provided with one element of a sliding connection and a binder head provided with a coacting sliding element, and an adjusting lever resiliently held in operative relationship with said binder head and connected with a treadle located below said base plate for giving to said binder head adjustments toward the seam.

4. In a binding attachment for sewing

machines, a base-plate, a binder head slidably mounted on said base-plate and provided with a connecting stud, and a manually controlled and resiliently held adjusting lever carrying a crank member, the latter coacting with said stud to transmit from said adjusting lever to said binder head movements in transverse directions with respect to the line of seam formation.

5. In a binding attachment for sewing machines, a base-plate, a binder head slidably mounted on said base-plate and provided with a connecting stud, and a manually controlled and resiliently held adjusting lever carrying a crank member provided with oppositely arranged stop members, said crank member coacting with said stud to transmit from said adjusting lever to said binder head movements in transverse directions with respect to the line of seam formation.

6. In a binding attachment for sewing machines, a base-plate, a binder head slidably mounted on said base-plate and provided with a connecting stud, and a manually controlled and resiliently held adjusting lever carrying a crank member provided with oppositely arranged stop members, said crank member coacting with said stud to transmit from said adjusting lever to said binder head movements in transverse directions with respect to the line of seam formation, said lever being operatively connected with a conveniently located treadle.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

CHARLES FREDERICK GRAY.

Witnesses:

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