

No. 882,314.

PATENTED MAR. 17, 1908.

W. S. & H. H. HOLDAWAY.  
BUTTON SEWING ATTACHMENT.

APPLICATION FILED AUG. 1, 1907.

Fig. 1.

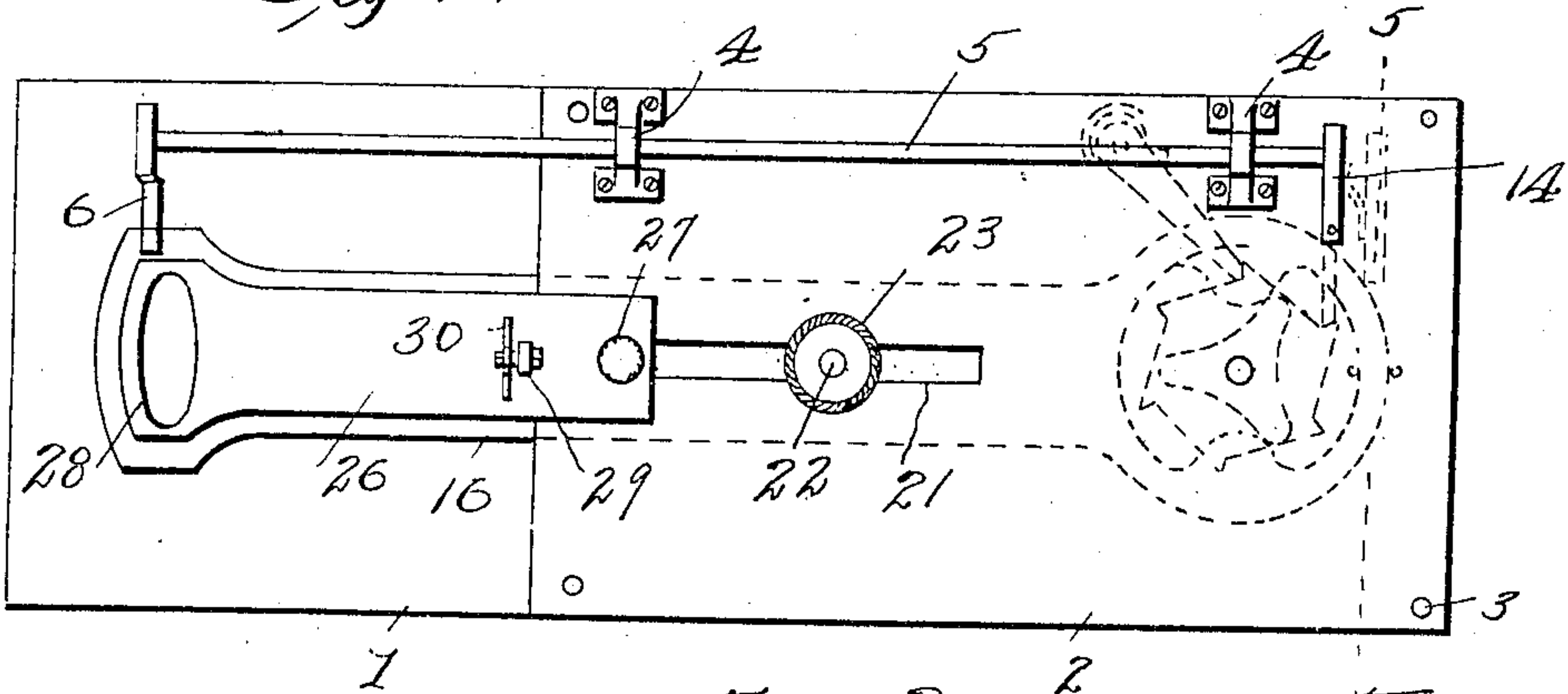


Fig. 2.

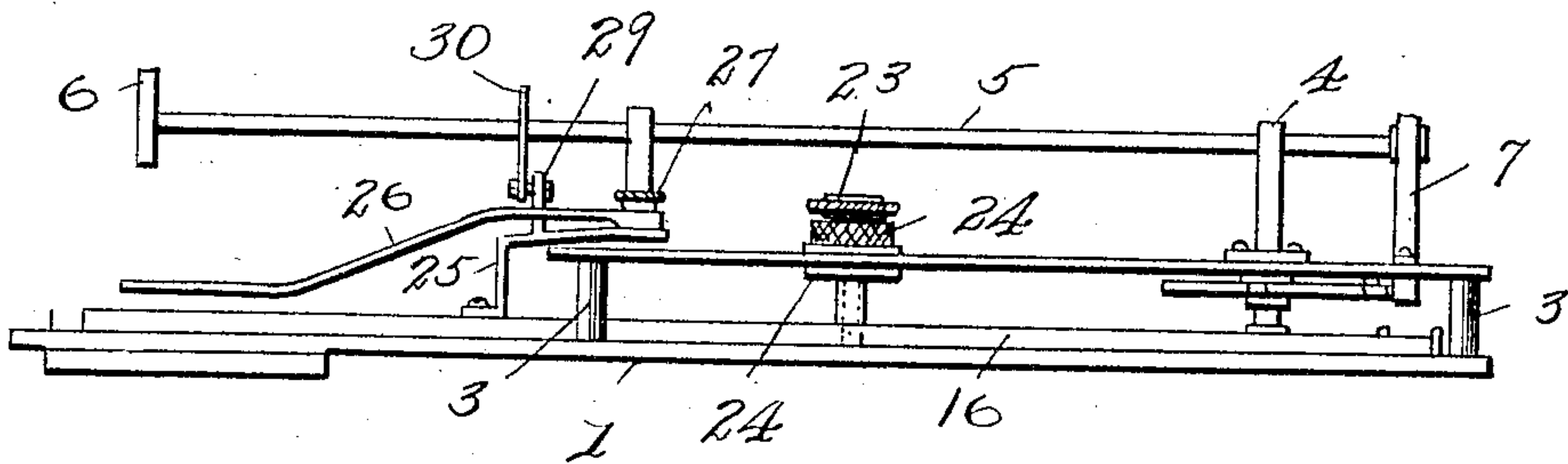
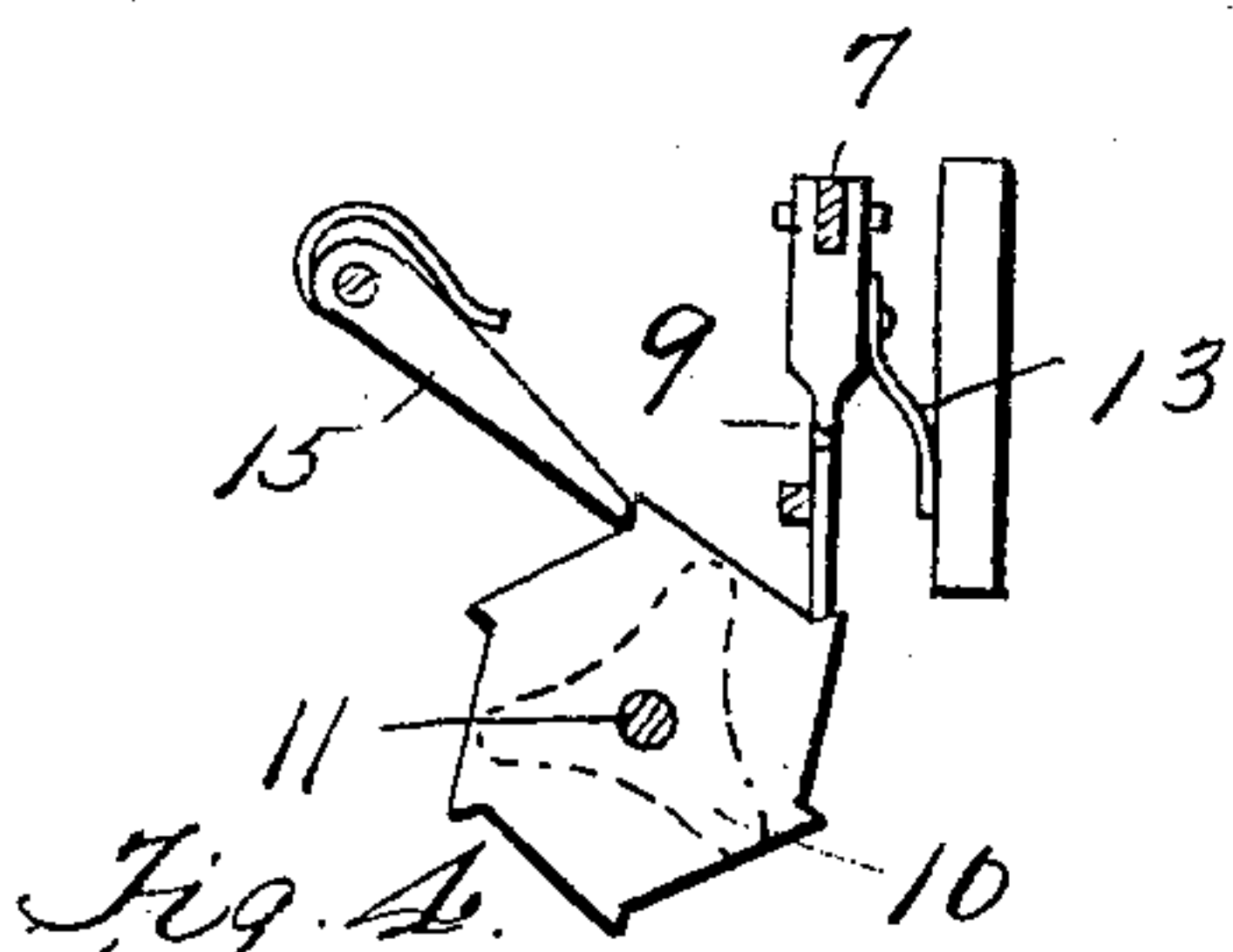
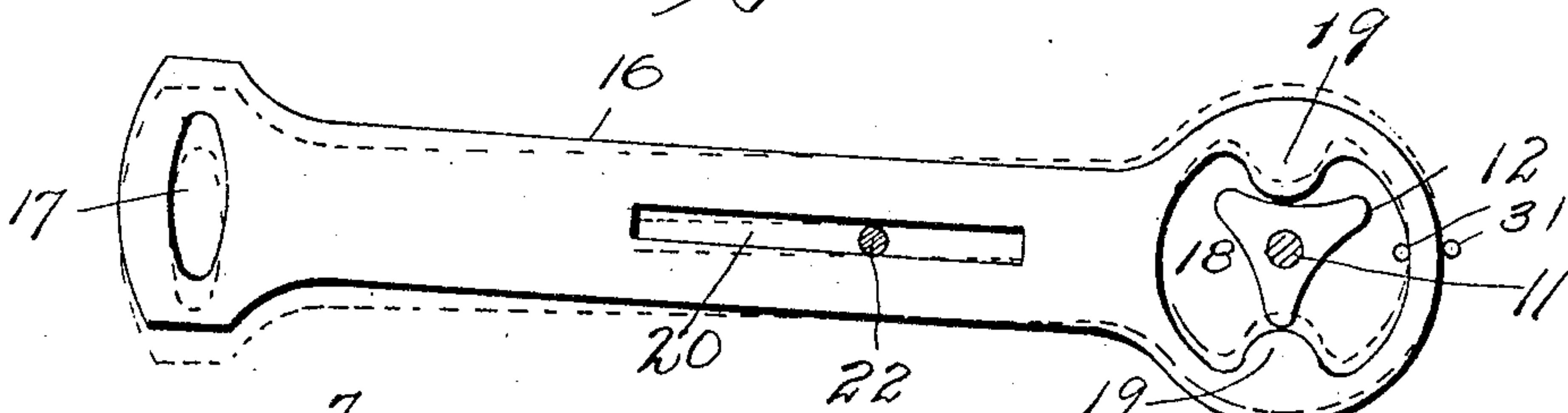


Fig. 3.

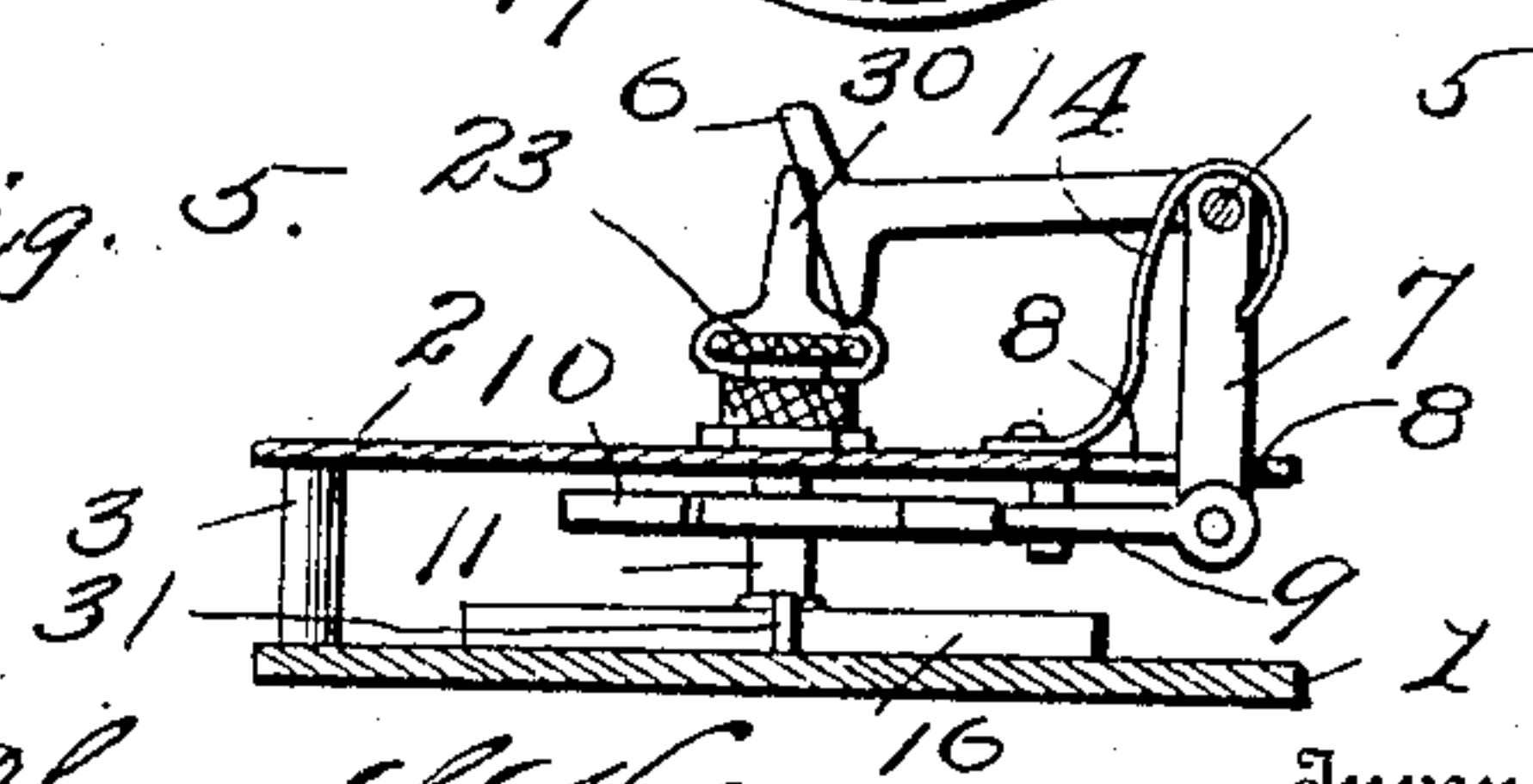


Witnesses

Chas. K. Davis,

Mo. E. Moore

Fig. 5.



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J. M. Moore, Attorney



# UNITED STATES PATENT OFFICE.

WILLIAM S. HOLDAWAY AND HALL H. HOLDAWAY, OF UNION, OREGON.

## BUTTON-SEWING ATTACHMENT.

No. 882,314.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed August 1, 1907. Serial No. 386,544.

*To all whom it may concern:*

Be it known that we, WILLIAM S. HOLDAWAY and HALL H. HOLDAWAY, citizens of the United States, residing at Union, in the county of Union and State of Oregon, have invented certain new and useful Improvements in Button-Sewing Attachments, of which the following is a specification.

Our invention relates to improvements in button sewing attachments, and refers particularly to such a device which is intended for attachment to an ordinary sewing machine, the object of our invention being to provide an attachment whereby an ordinary sewing machine may be used for the purpose of sewing buttons upon garments or other articles at a great saving in time and labor.

Another object of our invention is to provide a device of the character set forth, which is capable of adjustment to receive buttons of various sizes and shapes, which is strong and simple in construction, and which will prove generally useful and desirable.

To attain the desired objects, our invention consists of a bar which through suitable connections from the machine is given a reciprocating motion, and in providing the bar with a suitable clamp to receive and hold a button, so that by these means the button is reciprocated and the sewing machine needle is caused to alternately pass through the different openings in the button, thereby fastening the button to the fabric.

Our invention further comprises certain other novel features of construction, combination and arrangement of parts substantially as herein disclosed.

Figure 1, is a top plan view of the attachment. Fig. 2, is a side elevation thereof. Fig. 3, is a plan view of the reciprocating bar to one end of which is adapted to be clamped the button and the portion of the material to which the same is being sewed, the clamping means being omitted in this view. Fig. 4, is a detail view of the mechanism for causing movement of the reciprocating bar, and Fig. 5, is a detail sectional view of the attachment on line 5—5 of Fig. 1.

In the drawings: The numeral 1, designates the base plate of our attachment which is adapted to be clamped upon the sewing machine adjacent the needle bar thereof. A top plate 2, is mounted upon the base plate by means of the posts 3, the two plates forming a pair of movement plates between which most of the mechanism is mounted, and jour-

nal brackets 4, are carried by the top plate in which is journaled a rock shaft 5. This rock shaft carries at one end the lever 6, which is adapted to be contacted by the needle bar of the machine, and at the opposite end, a downwardly extending lever 7, which passes through a slot 8, in the top plate and has pivoted to its lower end, the pawl 9. This pawl 9, engages the ratchet wheel 10, fixedly mounted upon the spindle 11, the spindle being journaled between the top and base plates and having secured upon its lower portion, the triangular shaped cam 12. The spring 13, holds the pawl in proper engagement with the ratchet, and the spring 14, acting on the lever arm 7 causes the pawl to be withdrawn after the rock shaft has been operated by the needle bar. A spring pressed dog 15, prevents backward rotation of the ratchet wheel.

A bar or plate 16, is located between the top and base plates, and at the forward end, this bar is provided with a transverse elliptical slot 17, therein. At its opposite end, the bar is provided with an enlarged portion or head having a partially circular opening 18, therein, the contour of the circle being broken by the pair of oppositely-disposed lips 19, which project inward from opposite sides of the opening. This irregular opening in the bar is adapted to receive the triangular cam heretofore described. The bar is further provided with a longitudinal slot or opening 20, about midlength, and the top plate is likewise provided with a similar slot 21. A stud or pin 22, provided with a knurled head 23, passes through the slots in the top plate and the bar and forms a center upon which the bar is adapted to oscillate. This pin is threaded near its head portion and is adjustably secured at any position in the slot of the top plate by means of the lock nuts 24, one on either side of the top plate.

To the forward end of the oscillatory bar is secured a bracket 25 to the upper end of which is secured a clamping spring 26, by means of the thumb screw 27. This clamping spring extends down over the forward portion of the bar and is provided with an elliptical opening 28, therein in alinement with the complementary opening in the bar, through which openings the needle of the machine is adapted to pass. A lug 29, on the bracket 25, extends up through an opening in the clamping spring and has pivoted thereto an eccentric member 30, which is adapted



to depress the spring and clamp the button and the work upon the oscillatory bar.

The operation of the device is as follows:

The attachment is applied to the machine so  
 5 that the trip lever 6, will be struck by the  
 needle bar in its upward movement which im-  
 parts rocking motion to the rock shaft and  
 causes the operating pawl 9, to move the  
 10 ratchet forward a notch. This partial rota-  
 tion of the ratchet and likewise the cam,  
 causes the triangular points on the cam to  
 engage the lips in the irregular opening in  
 the bar and impart oscillating motion to the  
 bar upon the adjustable pin 22, as a center.  
 15 As the button and fabric are clamped to the  
 forward end of the oscillatory bar and in the  
 path of the needle, the button is thereby  
 shifted at each upward stroke of the needle,  
 so that the needle as it descends, alternately  
 20 passes through the different openings in the  
 button and firmly secures the same upon the  
 fabric. Confining or guiding pins or lugs 31,  
 at the end of the oscillatory bar prevent lon-  
 gitudinal movement of said bar.

25 Buttons of different sizes or those which  
 have openings therein which are not simi-  
 larly spaced, may be readily accommodated  
 by loosening the centering pin and changing  
 the center of the oscillatory bar so that said  
 30 bar will vibrate through a greater or lesser  
 arc according to requirements.

From the foregoing description taken in  
 connection with the drawings, it will be  
 readily apparent that we have accomplished  
 35 all the objects herein set forth, and have pro-  
 vided a simple, practical, and efficient but-  
 ton sewing device to operate in conjunction  
 with a sewing machine.

We claim:

40 1. A button sewing attachment compris-  
 ing a pair of movement plates, a rock shaft  
 journaled on the upper of said plates and  
 carrying an element to be moved by contact  
 with a moving part of the sewing machine, a  
 45 rock lever depending from the end of the

shaft and a pawl carried by said rock lever, a  
 ratchet journaled between the movement  
 plates and a triangular cam carried thereby,  
 an oscillatory bar adjustably pivoted be-  
 50 tween the movement plates, said bar having  
 an irregular partly circular opening in one  
 end to receive the triangular cam, and a  
 transversely arranged elliptical opening in  
 its opposite end, a spring clamp arranged  
 55 above said elliptical opening in the bar and  
 provided with a like opening, and a cam for  
 forcing the clamp in engagement with the  
 bar.

2. A button sewing attachment compris-  
 ing a pair of movement plates, a rock shaft 60  
 journaled on one of said plates and provided  
 with an element to be moved by contact with  
 a moving part of the machine, a rock lever  
 depending from the end of the shaft and a  
 pawl carried by said rock lever, a vertical 65  
 shaft journaled between the movement  
 plates, a ratchet on said shaft to be engaged  
 by the pawl and a three cornered cam also  
 on the shaft, an oscillatory bar mounted be-  
 70 tween the plates, means for changing the os-  
 cillatory center of such bar, said bar having  
 an opening in one end thereof in the shape of  
 a circle the contour of which is broken by a  
 pair of oppositely arranged transversely dis-  
 75 posed inwardly extending lugs, said opening  
 to receive the three cornered cam and said  
 lugs to be moved by contact with said cam,  
 the opposite end of the bar having a trans-  
 versely disposed elliptical opening therein, a  
 spring clamp carried by the bar and having 80  
 an elliptical opening in alinement with the  
 one in the bar, and cam mechanism for hold-  
 ing the clamp in engagement with the bar.

In testimony whereof we affix our signa-  
 tures in presence of two witnesses.

WILLIAM S. HOLDAWAY.  
 HALL H. HOLDAWAY.

Witnesses:

F. A. BIDWELL,  
 S. L. HUNTER.