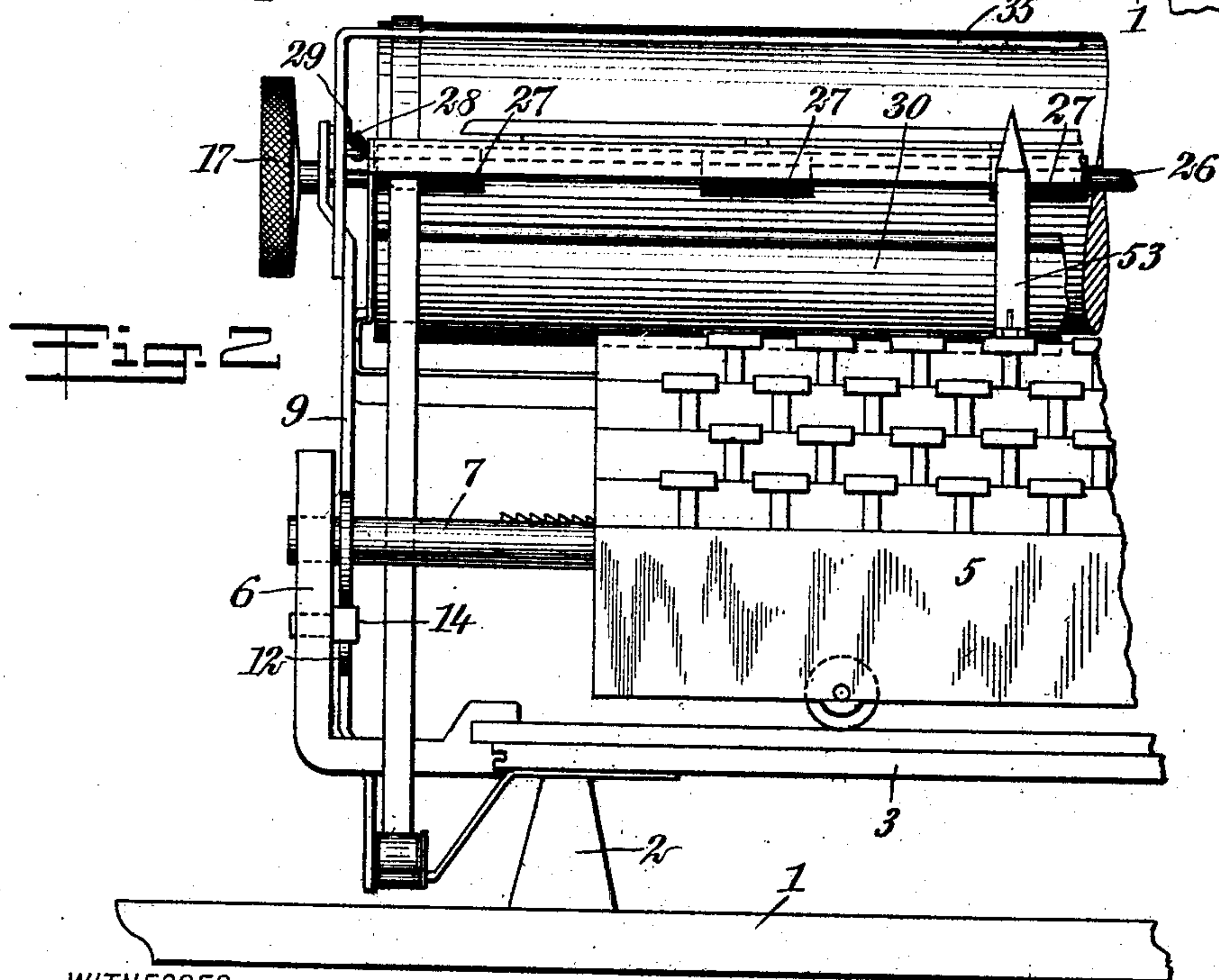
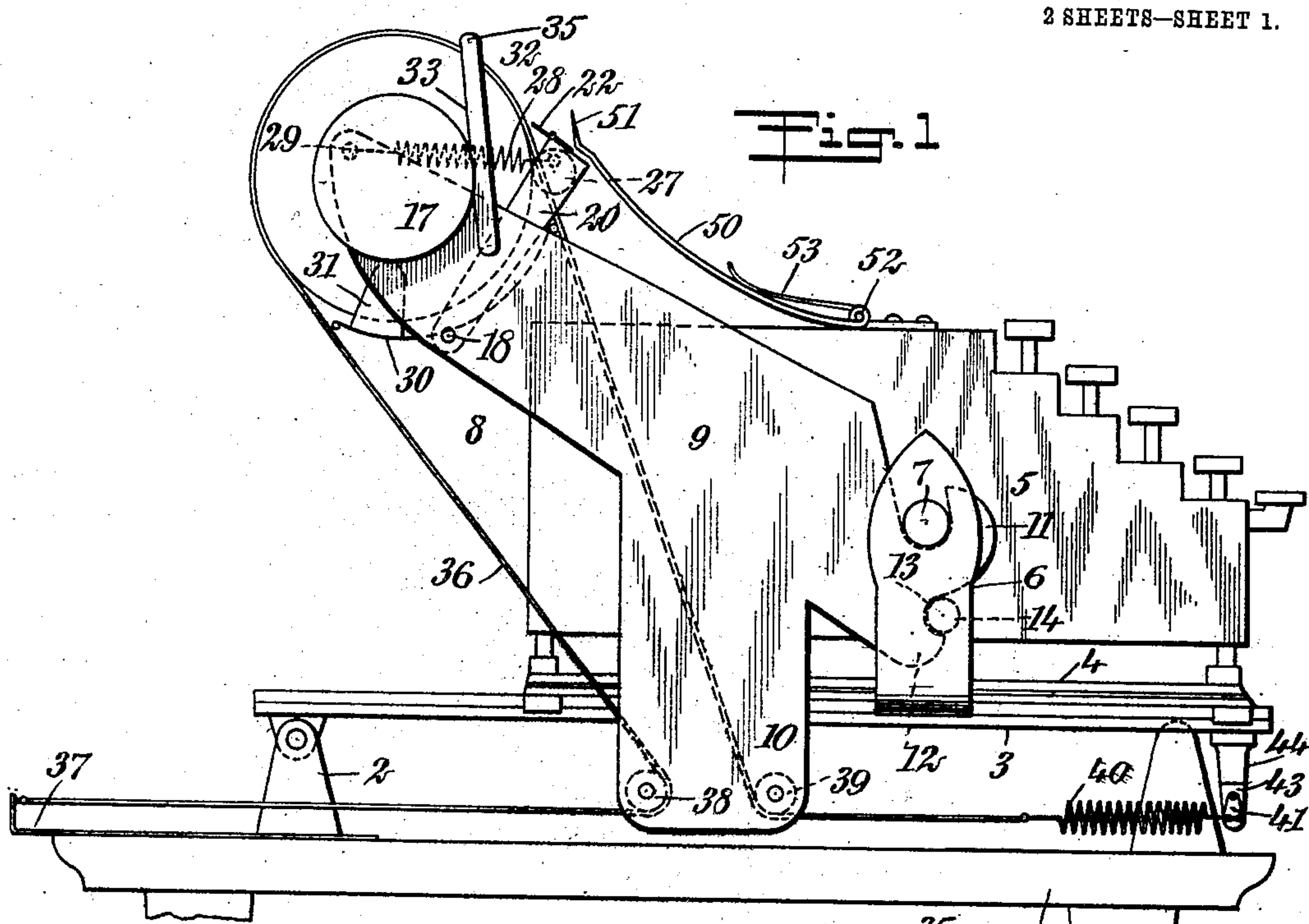


No. 854,478.

PATENTED MAY 21, 1907.

T. E. FORD.
COPY HOLDER ATTACHMENT.
APPLICATION FILED JAN. 5, 1907.

2 SHEETS—SHEET 1.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 3

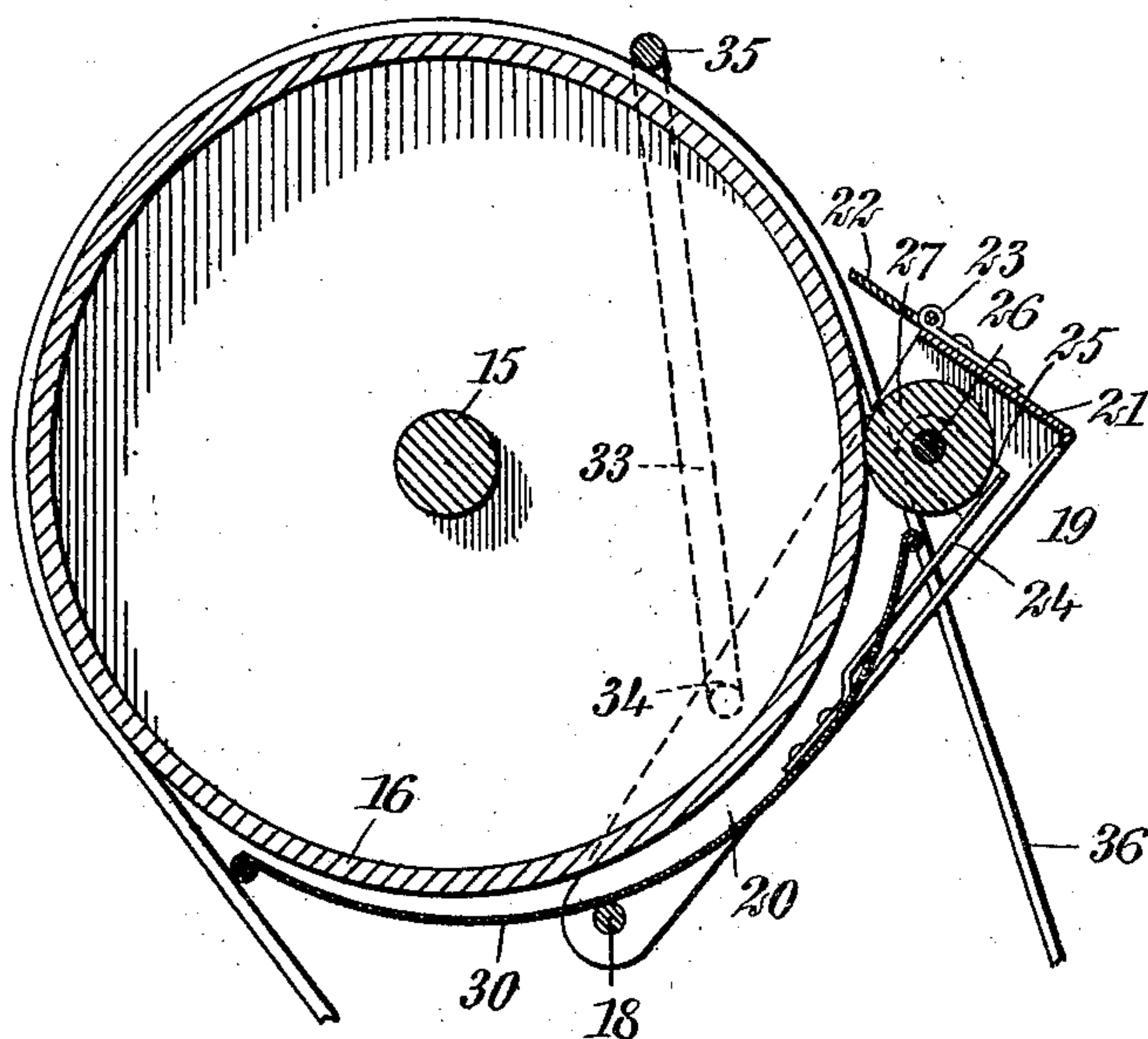


Fig. 4

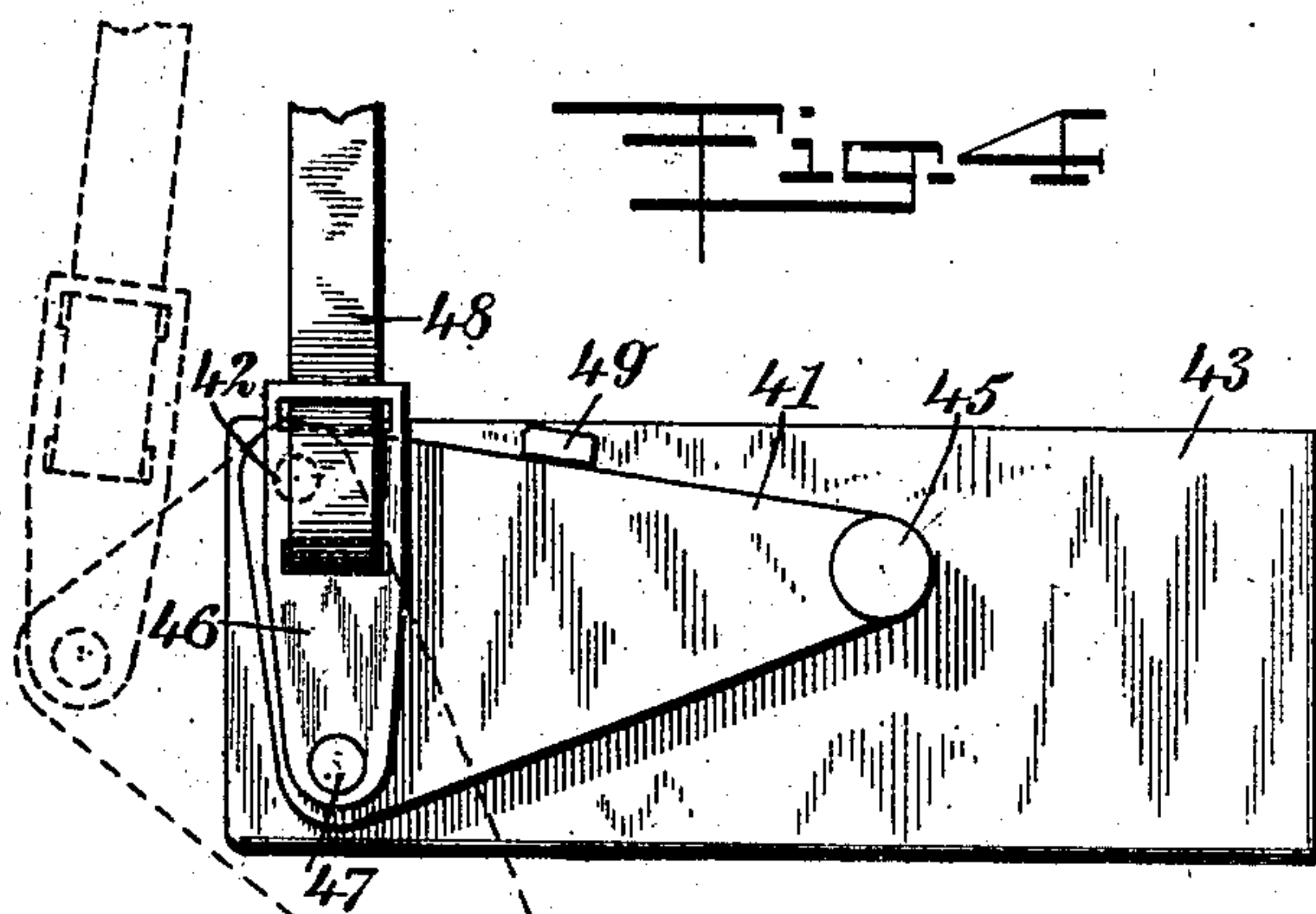
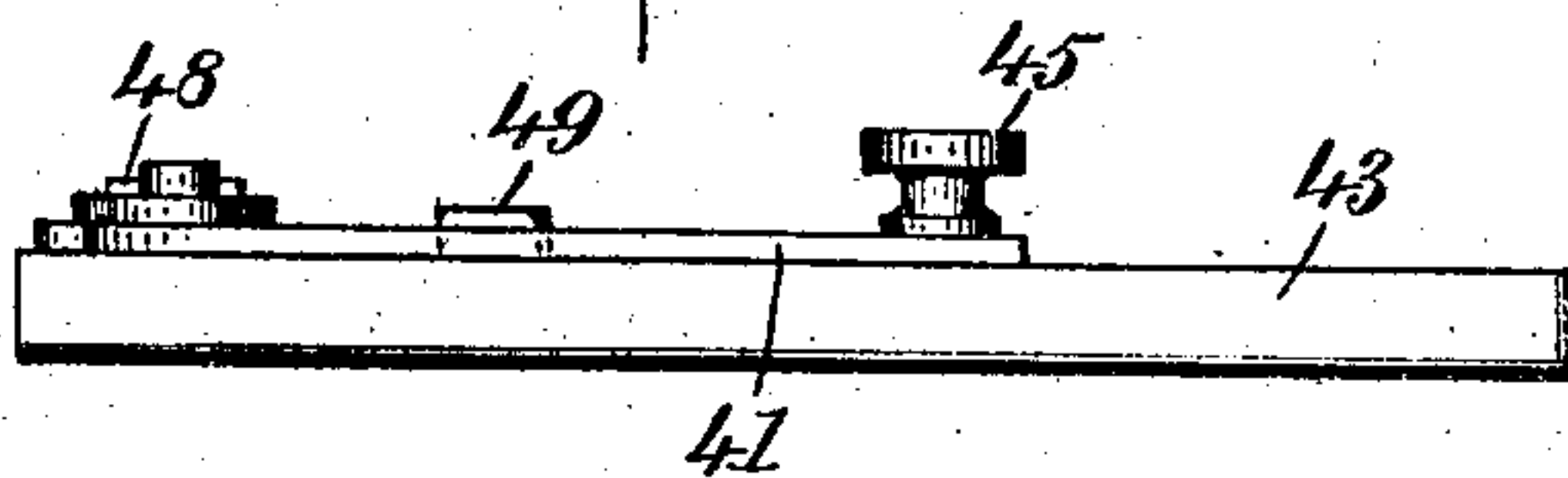


Fig. 5



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UNITED STATES PATENT OFFICE.

TULLIUS EVERETT FORD, OF PHILADELPHIA, PENNSYLVANIA.

COPY-HOLDER ATTACHMENT.

No. 854,478.

Specification of Letters Patent.

Patented May 21, 1907.

Application filed January 6, 1907. Serial No. 350,878.

To all whom it may concern:

Be it known that I, TULLIUS EVERETT FORD, a citizen of the United States, and a resident of Frankford, Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Copy-Holder Attachment for Type-Writers, of which the following is a full, clear, and exact description.

This invention relates to typewriters, and concerns itself especially with a device adapted to hold copy and which is intended to be attached to the frame of typewriters of the form used especially for writing upon open books, or tabulating sheets. These typewriters are known commercially as book typewriters.

The object of the invention is to produce a device of this class which is simple in construction, which can readily be attached in position, and which will operate to hold the copy plainly in view and mark the point at which the copying has progressed.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a typewriter of the class described, provided with my device; this view also shows a portion of the table upon which the typewriter is supported; Fig. 2 is a front elevation showing a portion of one end of the typewriter together with my attachment, a portion of the table being also represented; Fig. 3 is a vertical cross section taken through the copy roller and its contiguous parts; this view is upon an enlarged scale; Fig. 4 is a detail showing the construction of a tension-adjusting device by means of which the tension upon the copy roller may be applied or removed; and Fig. 5 is an edge view of the parts shown in Fig. 4.

Referring more particularly to the parts, 1 represents the top of the table upon which are provided a plurality of posts 2 which support a horizontal frame 3. Above this frame a carriage 4 is movably mounted, and this carriage supports a typewriter case or carriage 5, of a construction usually found in machines of this general type. The horizontal frame 3 is provided at its ends with

upwardly extending arms 6, between which there is mounted a main guide bar 7, and this guide bar passes continuously through the case 5 and operates as an additional guide for the case in its longitudinal feed movements.

In applying my invention to a typewriter of the general construction shown, I provide a holder frame 8 which is formed of side plates 9, the form of which is very clearly shown in Fig. 1. The bodies of these side plates are elongated and extend rearwardly in an inclined position as shown; on their lower sides, downwardly projecting ears 10 are provided, which are oppositely disposed, and the purpose of these ears will be described more fully hereinafter. The forward portions of the side plates 9 are formed into hooks 11 respectively, which are adapted to engage with the guide bars 7 by an upward movement, and the lower portion of the plates below these hooks are formed into heels 12 respectively. These heels 12 project forwardly so as to form notches or recesses 13 respectively, and these notches are adapted to engage with lugs or bolts 14 attached on the inner faces respectively of the upwardly projecting arms 6 aforesaid. By reason of this construction, it should be understood that the holder frame 8 may be readily attached in position, as indicated in Fig. 1.

Between the upper ends of the side plates 9, a shaft 15 extends, and this shaft carries rigidly a copy roller 16. The shaft 15 is extended at one end as indicated in Fig. 2, and carries a thumb-head 17 which facilitates the rotation of the roller by hand, when desired.

Near the periphery of the roller 16 the arms 20 of a presser-frame 19 are attached to the side-plates 9 by pivots 18. These arms are formed integral with a longitudinally disposed body or bar 21, which lies near the upper and forward face of the roller, as indicated most clearly in Fig. 3. To the upper edge of this transverse bar 21 a longitudinally disposed straight edge 22 is connected by hinge joints 23.

To the arms 20 are attached leaf springs 24 which project upwardly, as shown, and these springs are formed at their upper extremities with ears 25, which project toward the roller 16. Between these ears there is supported a longitudinally extending shaft 26, and on this shaft, disposed slightly apart,

I provide a plurality of presser rollers 27 which are preferably formed of rubber or similar material. The presser frame is pressed toward the face of the roller 16 by means of helical springs 28, which are attached to the arms 20, and also to the side plates 9 at the points 29. In this way the presser rollers 27 are held normally against the face of the copy roller. Beneath the copy roller and extending continuously from end to end thereof, I provide a curved shield or guard 30, the said guard being held in position by means of ears 31 which extend upwardly, as indicated in Fig. 1, and are attached to the inner faces of the side plates 9. The longitudinal edges of this shield are reinforced by being crimped around wires, as indicated, and the forward edge of the shield lies near the lower faces of the presser roller 27 in the manner indicated in Fig. 3. I provide also a copy frame or yoke 32, which presents downwardly projecting arms 33 which are pivoted at 34 to the side plates 9, and these arms 33 are connected by a longitudinally disposed bar 35 which normally lies adjacent to the face of the roller 16, as indicated in Fig. 3.

I provide a tension device by means of which the roller 16 may be held in any position in which it is placed. This device comprises a band or ribbon 36 which may be in duplicate, there being one provided at each end of the roller. At its rear end, the band 36 is attached to an anchor plate 37 which is attached to the upper face of the table 1, as indicated. From this point the band extends horizontally in a forward direction, and passes around a guide roller 38 attached to the lower portion of the ear 10. From this point the band extends upwardly so as to form a loop passing around the upper face of the roller near one end thereof. Beyond this point the band passes downwardly and around a similar guide roller 39, attached in the ear 10 opposite to the roller 38 as shown; passing from the roller 39 the band extends forwardly and is attached at its forward extremity to a spring 40. Beyond this spring the band is attached to an anchor plate 41, the construction of which is very clearly shown in Fig. 4. This anchor plate is pivoted at 42 upon a base plate 43, which is attached to the side of a post 44 which projects downwardly from the under side of the frame 3. The plate 41 is of substantially rectangular form, as shown, and is provided with a knob 45 at one corner by means of which it may be operated. The pivot point 42 is disposed at the corner of the triangle which lies adjacent to the spring 40, and at the opposite corner the swivel plate 46 is pivotally attached on the pin 47. In this swivel plate 46 the end 48 of the band is attached in any suitable manner, as shown.

On the face of the plate 43 an outwardly

projecting lug 49 is provided, and this is engaged by the rear edge of the anchor plate when the tension band is in operative position, it being understood that this lug operates as a stop to limit the rearward movement of the anchor plate in rotating about the pivot 42. When it is desired to throw the tension band out of tension, the anchor plate is rotated toward the right, as viewed in Fig. 1, so that it will be made to assume substantially the relative position in which it is shown in dotted lines in Fig. 4. In this way the pivot pin 47 is moved inwardly so that the length of the band is shortened. The slack of the band is, of course, always taken up by the spring, but the tension is relieved sufficiently to relieve its pressure on the copy roller. It should be understood that by reason of the construction and manner of mounting the tension band, the typewriter case may be moved in a forward or rearward direction upon the horizontal frame 3, and whatever be the position of the typewriter case, the roller will be constantly under the influence of the band.

On the upper side of the case I provide a pointer 50 which is formed with a point 51 lying before the face of the copy roller. This pointer is attached to the case by a hinge connection 52, and is pressed downwardly toward the presser plate 19 by a small leaf spring 53. It should be understood that this marker is in alinement with the point at which the type will strike, so that as the machine is fed across the page, the pointer advances with it and constantly indicates on the copy the point to which the reading has progressed. It should be understood that the straight edge 22 marks the line which is being copied, while the pointer indicates a point on the line. By folding the straight edge 22 forwardly, the interior of the presser frame is exposed so as to facilitate the insertion of a sheet of copy. It should be understood that this sheet will pass down around the lower face of the roller between it and the shield, and the upper portion of the sheet will lie upon the upper face of the roller under the copy frame 35.

An opening for the insertion of the paper may be produced either by forcing the shaft 26 of the presser roller backwardly after the same has been exposed by folding the straight edge 22 as described, or the copy may be applied to the face of the roller after moving the entire presser frame forwardly in such a way as to extend the helical springs 28.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A typewriter having a transversely disposed bar, arms supporting said bar, a copy frame having hooks engaging said bar adjacent to said arms, and adapted to swing on said bar, projections on said arms engag-

ing said frame and co-operating with said hooks to support said copy frame, and means for supporting copy on said copy frame.

2. A typewriter having a transversely disposed bar projecting beyond the case thereof, a frame below said case and having upwardly extending arms supporting said bar, a copy frame having side plates with hooks engaging said bar, said arms having projections engaging said side plates to support said copy frame, said copy frame having a swinging movement on said bar limited by said projections and means for holding copy on said copy frame.

3. In combination, a frame, a typewriter carriage movably supported thereupon, a copy holder having a roller for holding the copy, and tension bands passing around said roller and having the ends thereof normally fixed with respect to said frame.

4. In combination, a frame, a typewriter carriage movably supported on said frame, a

copy holder having a roller for holding the copy, tension bands having ends normally fixed with respect to said frame and passing around said roller, and anchor plates to which one end of said bands are attached and affording means for relieving the tension of said bands.

5. In combination, a frame, a typewriter carriage movably supported thereupon, a copy holder having a roller for holding the copy, tension bands passing around said roller and having the ends thereof normally fixed with respect to said frame, and means for releasing said tension bands when said typewriter is shifted upon said frame.

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

TULLIUS EVERETT FORD.

Witnesses:

WM. E. DUDLEY,
ALEX. CHRISTIAN.