

No. 837,833.

PATENTED DEC. 4, 1906.

E. C. HENNEQUIN.
DEVICE FOR TURNING THE LEAVES OF MUSIC.

APPLICATION FILED DEC. 21, 1905.

3 SHEETS—SHEET 1.

Fig. 1.

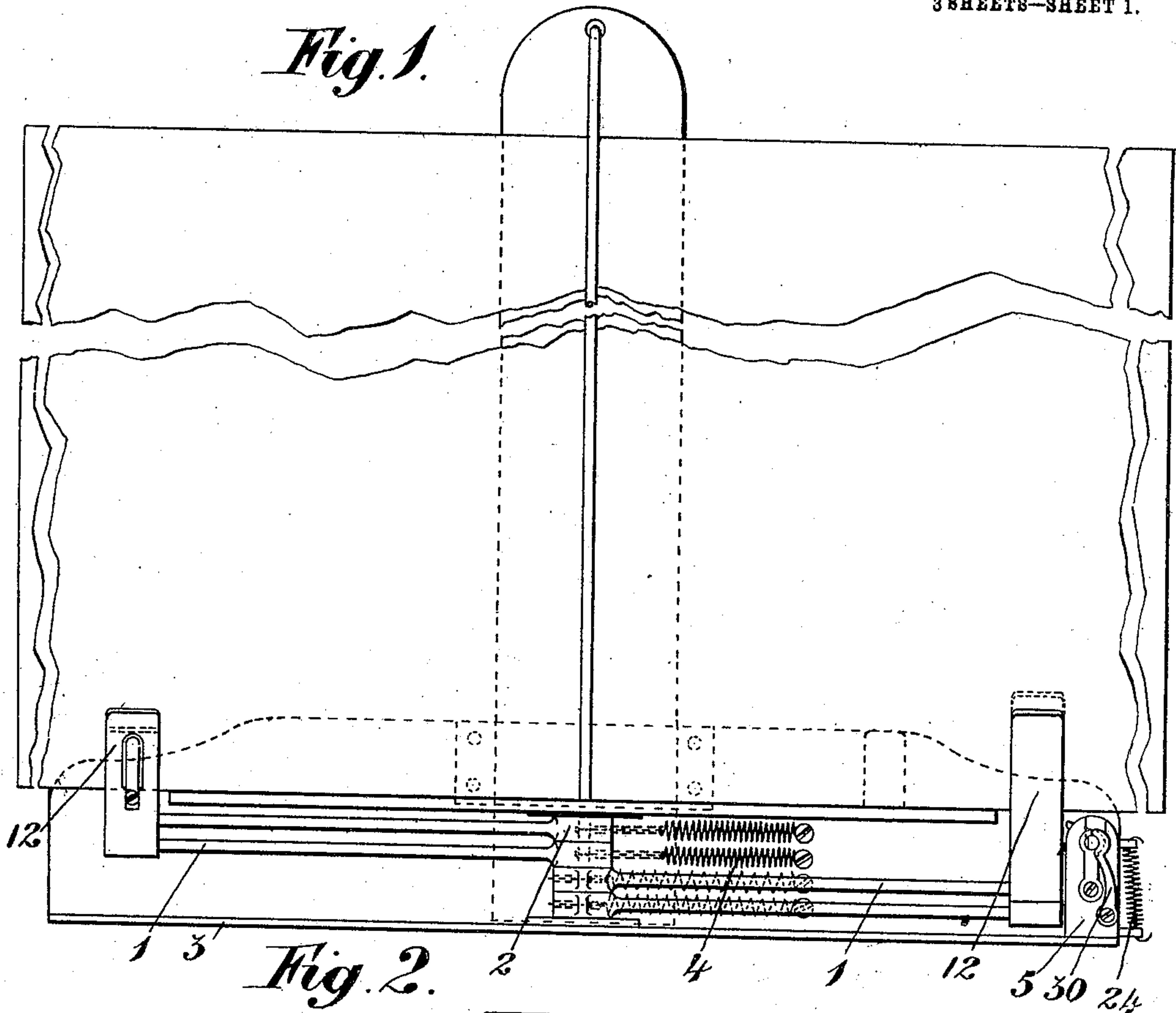
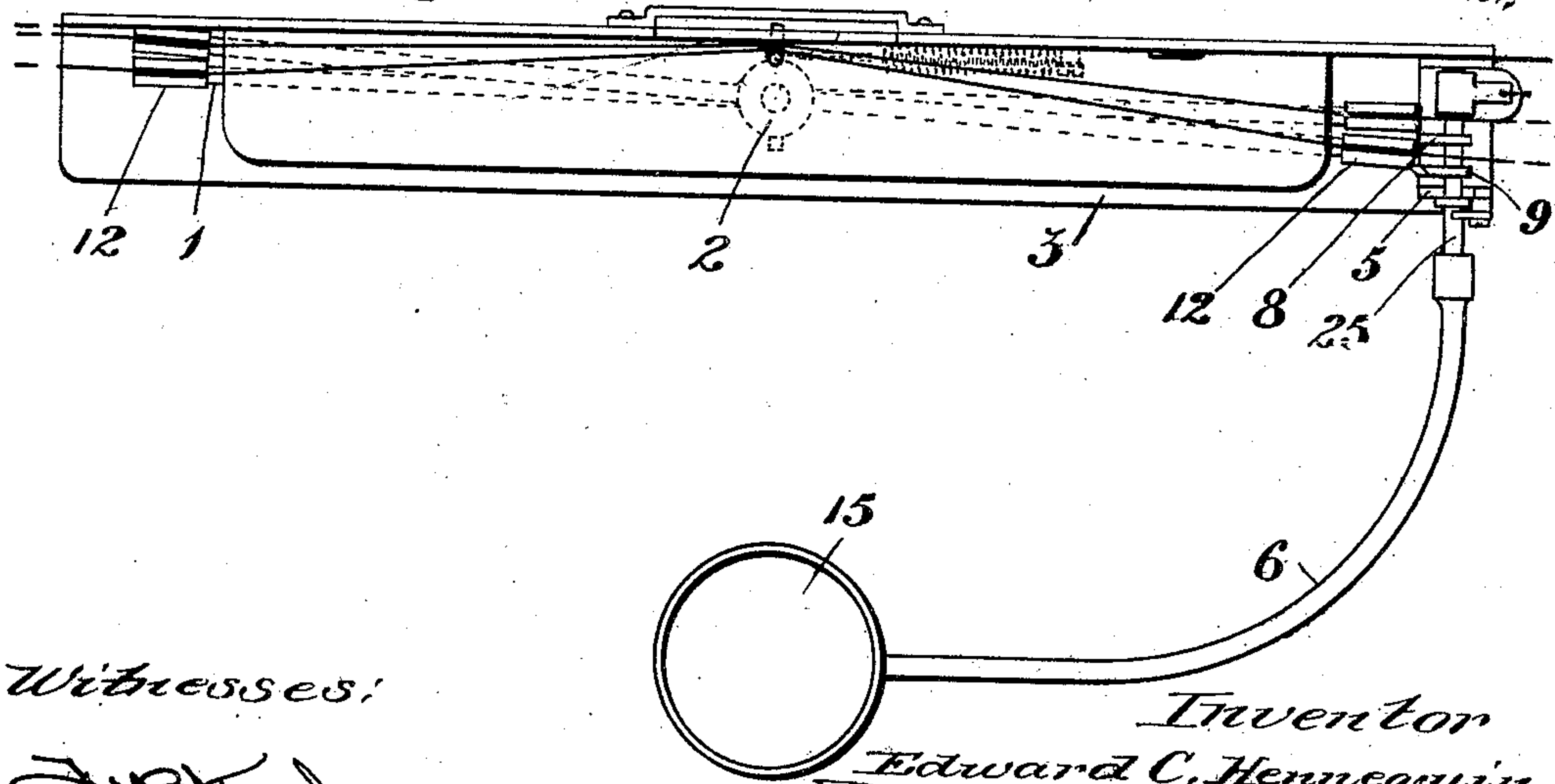


Fig. 2.



Witnesses:

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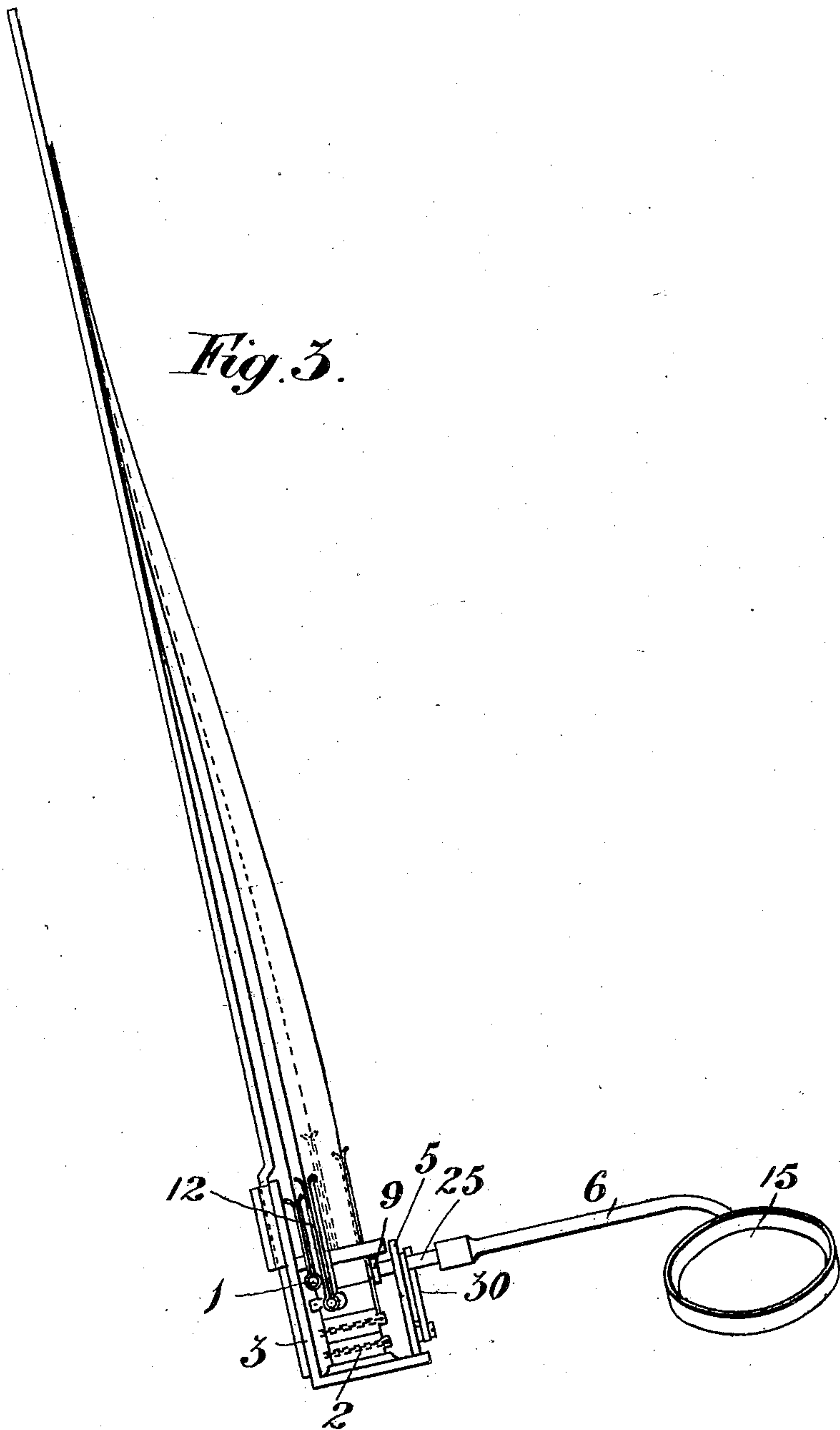
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3 SHEETS—SHEET 2.

Fig. 3.



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3 SHEETS—SHEET 3.

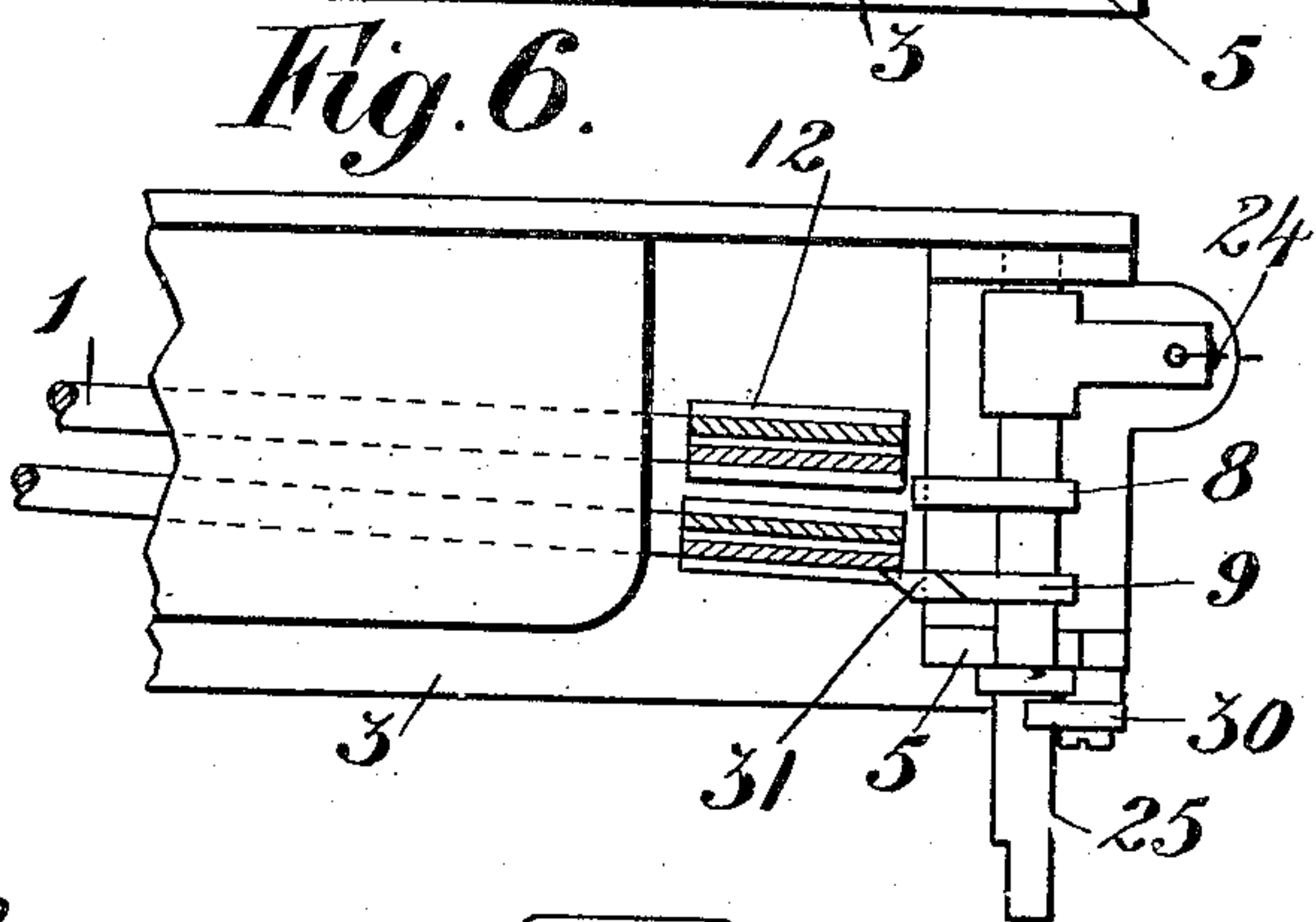
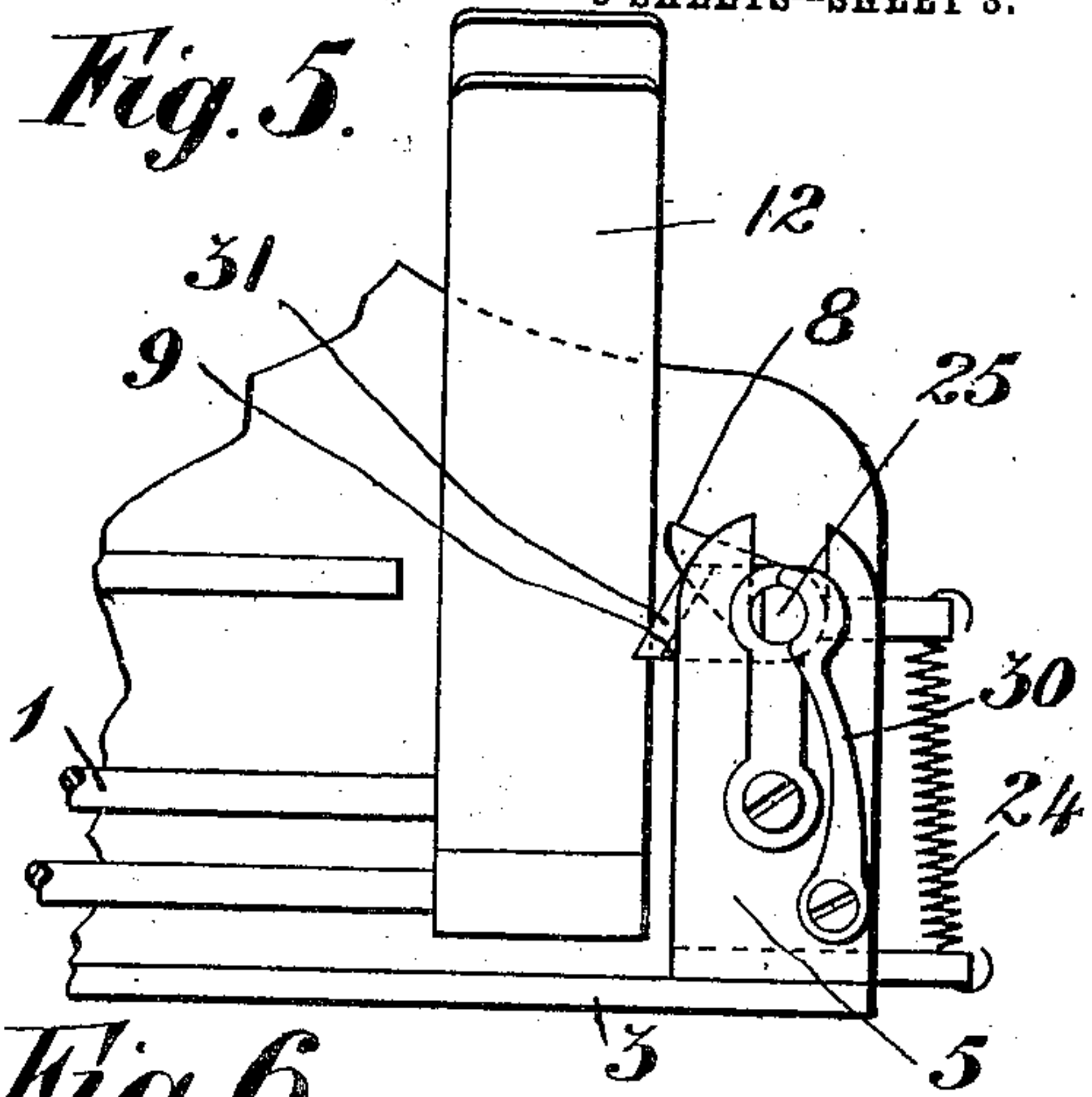
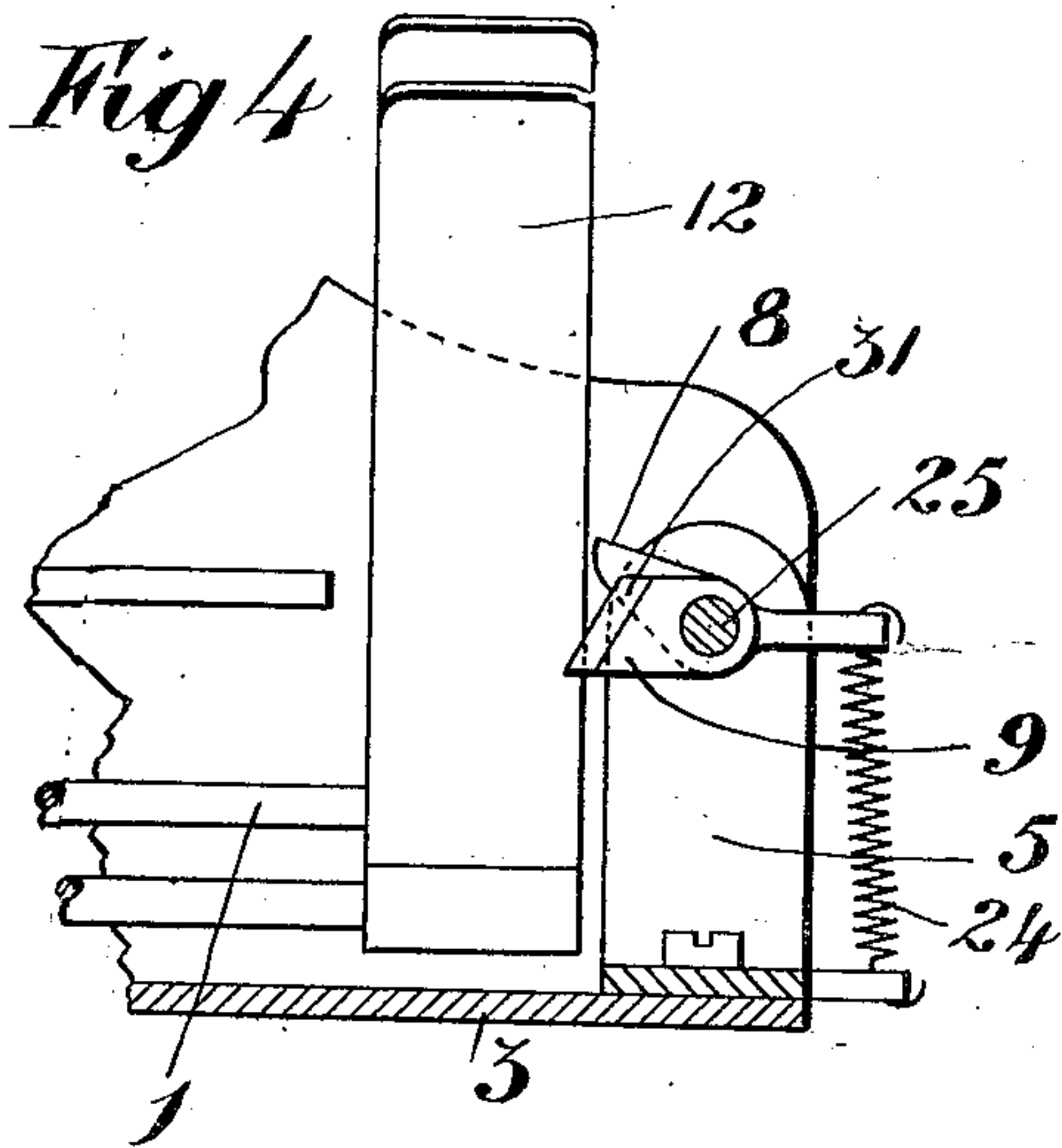


Fig. 8.

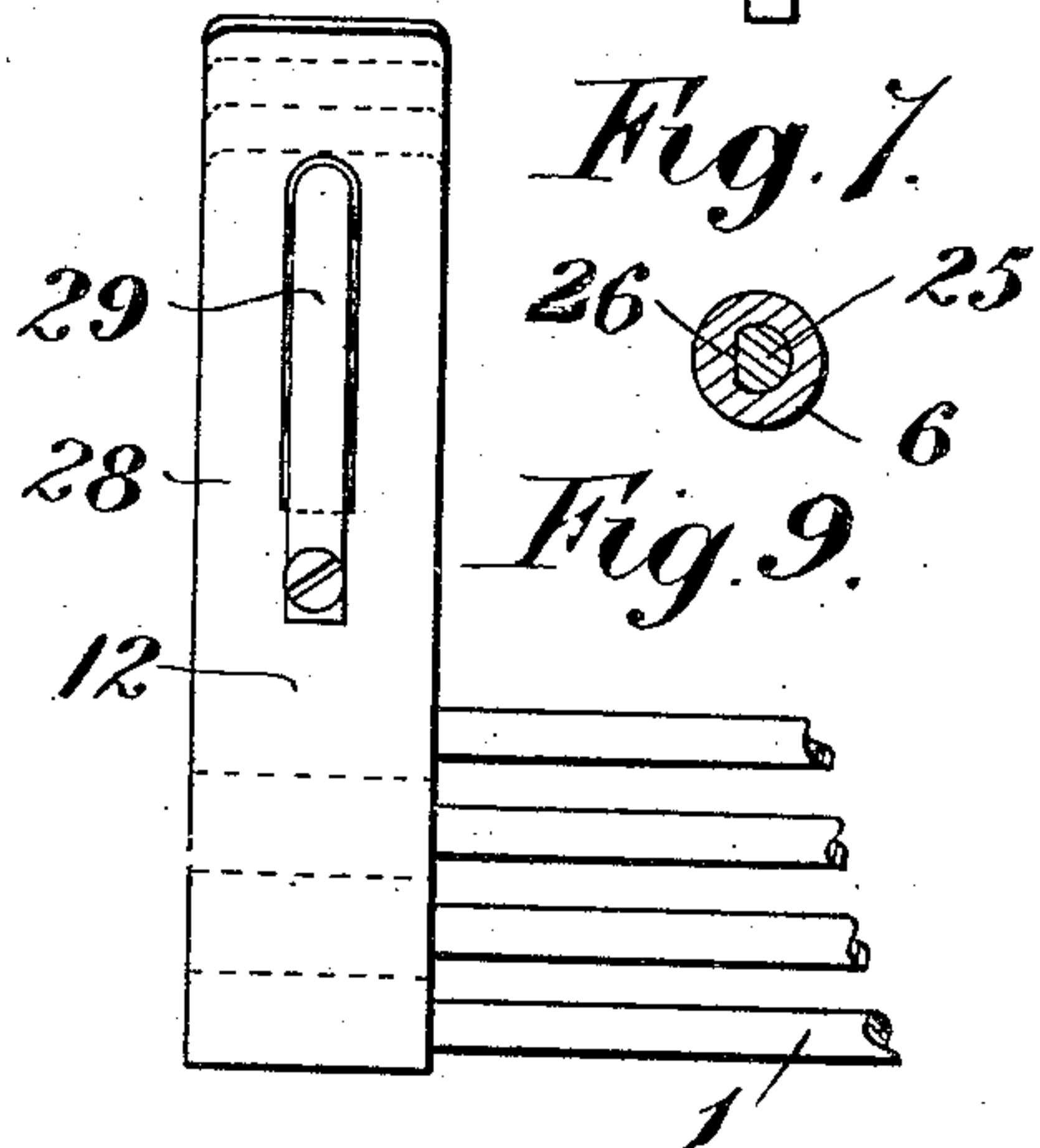
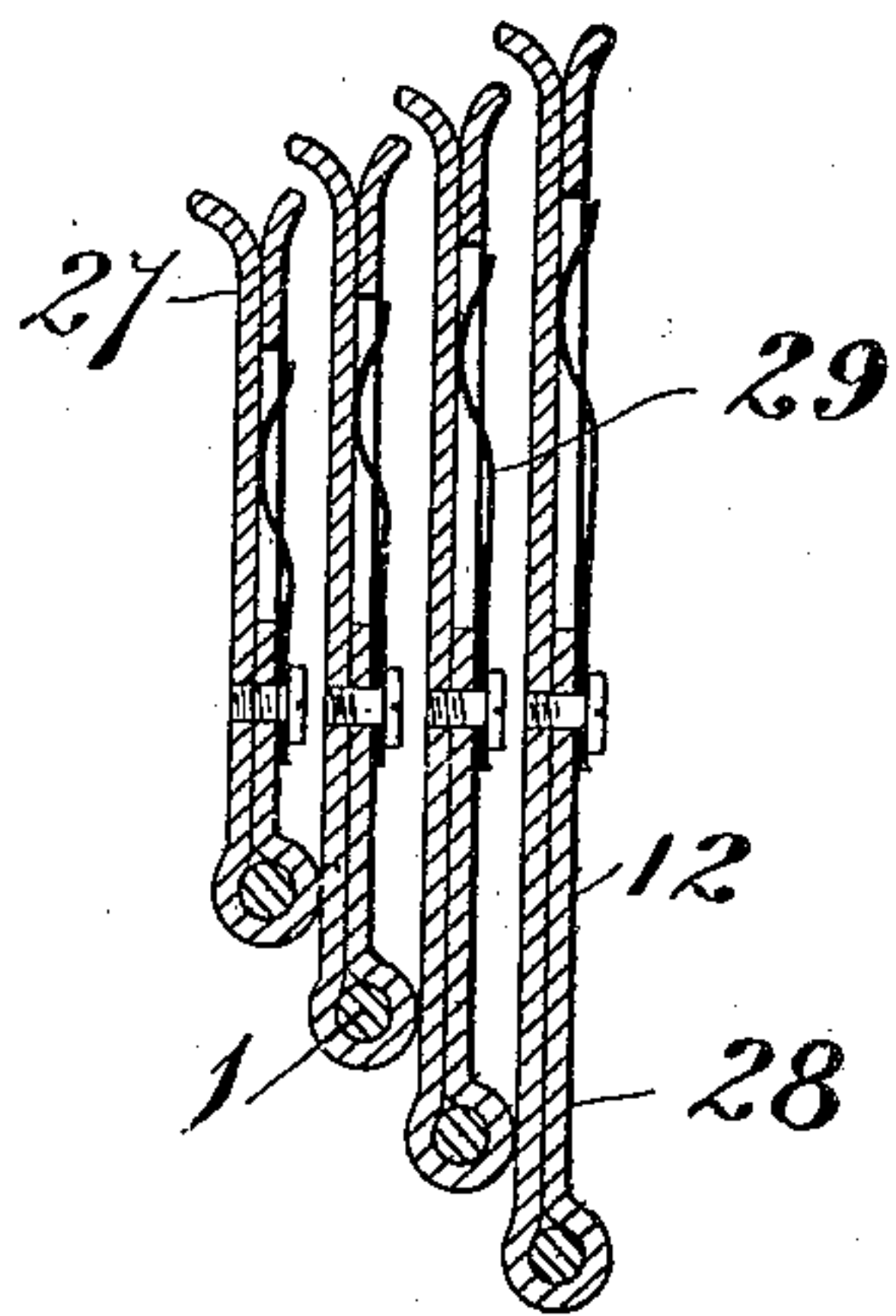


Fig. 9.

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UNITED STATES PATENT OFFICE.

EDWARD CHATTERTON HENNEQUIN, OF LONDON, ENGLAND.

DEVICE FOR TURNING THE LEAVES OF MUSIC.

No. 837,833.

Specification of Letters Patent.

Patented Dec. 4, 1906.

Application filed December 21, 1905. Serial No. 292,790.

To all whom it may concern:

Be it known that I, EDWARD CHATTERTON HENNEQUIN, a subject of the King of Great Britain, residing at 72 Finsbury Pavement, London, England, have invented certain new and useful Improvements in Devices for Turning the Leaves of Music or other Publications, of which the following is a specification.

10 This invention relates to certain improvements in music or leaf turning devices in which a number of spring-actuated pivoted arms each receive one of the sheets and are retained and released in succession by a mechanism which is designed specially with the object of being capable of being actuated by a puff of the breath of the person employing the instrument, but which also may be actuated by a tap or pressure.

20 The object of the present improvements is to overcome certain difficulties which tend to militate against the perfect efficiency of action and reliability of such instrument.

25 The method in which I carry these improvements into effect is illustrated in the accompanying drawings, in which—

30 Figure 1 is a front elevation of the complete apparatus; Fig. 2, a plan view thereof; Fig. 3, a side elevation; Fig. 4, a vertical section through Fig. 5, and Fig. 5 is a front elevation of the releasing mechanism; Fig. 6, a plan view of Fig. 5. Fig. 7 is a vertical section through the extension of the actuating-lever when same is made detachable. Figs. 35 8 and 9 are respectively a transverse section and front elevation of the clips carried by the spring-actuated arms and which serve to grip and retain the sheets or leaves to be turned.

40 It will be seen in the drawings that a separate arm 1 is provided for each of the leaves of music to be turned, same being all pivoted at 2 to the center of the music-stand 3, so as to be capable of being turned over to the right or left of the pivot and each separately acted upon by a spring 4, so as to tend to turn same to the left hand of the pivot, (that is to say, the direction in which the sheet will lie when turned over.) At the extreme right 50 hand of the music-stand a bracket 5 is fixed and provided with bearings to receive a pivoted lever 6.

55 The lever 6 at its outer free end is provided with a cup or disk 15, which terminates in such a position in relation to the user of the instrument that he may by blowing therein

or delivering a tap or exerting pressure thereon cause same to turn in its bearings. The whole of the lever may be in one piece, or the part beyond the bearings in which it can 60 pivot may be detachable for the purpose of packing the instrument in a small compass for transport. That portion of the lever which remains mounted in the bearings of bracket 5 carries two fingers or arms 8 and 9, 65 which by the turning movement of lever 6 are alternately brought into the path of travel of the arms 1 as such lever is depressed by a puff of breath or a tap or pressure and then resumes its position. 70

In leaf-turning devices of the kind first described and as before constructed the return movement of the lever to its normal position was effected by means of a counterweight; but it has been found in practice that the use 75 thereof is open to the objection that if a violent tap is exerted on the cup 15 the counterweight is apt to rebound and impart two or more oscillations to the pivoted lever, and thus permit two or more leaves to pass over 80 from one side of the pivot to the other by the one action. The first feature of my invention is for the purpose of obviating this defect and to prevent more than one sheet being released by a single impulse or actuation 85 of lever 6, and for this purpose for the counterweight previously employed I now substitute a spring 24, the tension of which exerts a constant pull on lever 6 and only permits of one single positive movement of such lever 90 for each impulse or depression thereof.

When the lever 6 is in the form of a detachable extension, its connection with the stationary pivoted part 25 is by means of a joint of irregular form, so that such extension can 95 only be applied in the correct position for use. This may be effected, as shown at 26 in Fig. 7, by making the end of the shaft 25 which receives the extension oval or of irregular section at a given point and forming the end of 100 the extension with a socket of corresponding form to fit same.

A second improvement consists in the construction of the clips 12, with which the outer extremity of each of the arms 1 is provided 105 and which serve to each receive one of the leaves or sheets to be turned in such a way as to facilitate the introduction and retention of the sheets therein. This improvement is shown in Figs. 8 and 9, in which it will be seen 110 that each clip is composed of two flexible or spring plates or blades 27 28, connected to-

gether at one end and lightly bearing against each other. The upper ends of these blades I flare or bend outward, as shown, the top or outer plate 27 preferably to a greater extent than the other one. By thus flaring out the two ends an enlarged space or mouth is produced for the insertion of the leaf, which then with a slight pull is drawn down between the plates, and so clipped therein. A further improvement in the clip consists in means whereby the leaves are retained therein with greater certainty, so that they are not subject to jump out of the clip by the rapid action of the turning of the arms when same is released. For this purpose I attach a spring 29 to one of the plates and shape its free end so that it can project through an opening in such plate and bear upon the inner surface of the opposite plate, whereby a spring action will be exerted on the sheet or leaf introduced into the clip.

In the hitherto-known construction above referred to the front finger or arm 9, carried by the lever 6, is made with a pivoted part, so as to permit of the arms 1 being returned back again to their operative position after release when it is desired to repeat or reread any given passage. In place of forming this finger with a pivoted part I now propose to mount the part 25 of lever 6 in bracket 5, so that it is capable of a slight horizontal or transverse movement in its bearing therein, as shown in Fig. 5, and I arrange a spring 30 so that it always tends to keep such part 25 in the position to obstruct the turning of the arms 1, carrying the sheets or leaves. The front surface of the finger 9 I bevel off, as shown at 31, from the front backward, so that when an arm is turned back to its original position its clip coming in contact with the beveled surface 31 will force the part 25

of lever 6 back in its bearing against the action of spring 30 and permit of the clip passing beyond same, when the spring 30 will return the lever 6 to its normal obstructing position.

What I claim is—

In a device of the class described, a stand for receiving sheets of music, an axis supported centrally on said stand, a plurality of arms fixed to said axis, tension devices connected to said stand and each of said arms for controlling the movement of the latter, spring-clips mounted at the terminal of each of said arms for engagement with each leaf of the music supported by said stand, a bracket fixed to said stand and arranged beyond the terminals of the arms, a rocking shaft mounted in said bracket, a spring having contact with said shaft, the latter being capable of a transverse movement against the action of said spring, an extension-arm forming a handle for operating the shaft, locking-fingers arranged out of alignment with each other on said shaft, one of said fingers adapted to lie in the path of the clips for engagement therewith, and the other of said fingers normally out of engagement with the clips, a lug on said shaft, and a spring connected to the lug and to the stand for exerting a constant pull on the shaft for holding the locking-fingers into engagement with the clips, said handle for operating the shaft extending outwardly and laterally to the front of the music-stand.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

EDWARD CHATTERTON HENNEQUIN.

Witnesses:

BEATRICE CHALLEN,
RICHARD CORE GARDNER.