

No. 891,056.

PATENTED JUNE 16, 1908.

I. T. GERMAN.

MUSIC LEAF TURNER.

APPLICATION FILED DEC. 7, 1907.

3 SHEETS—SHEET 1.

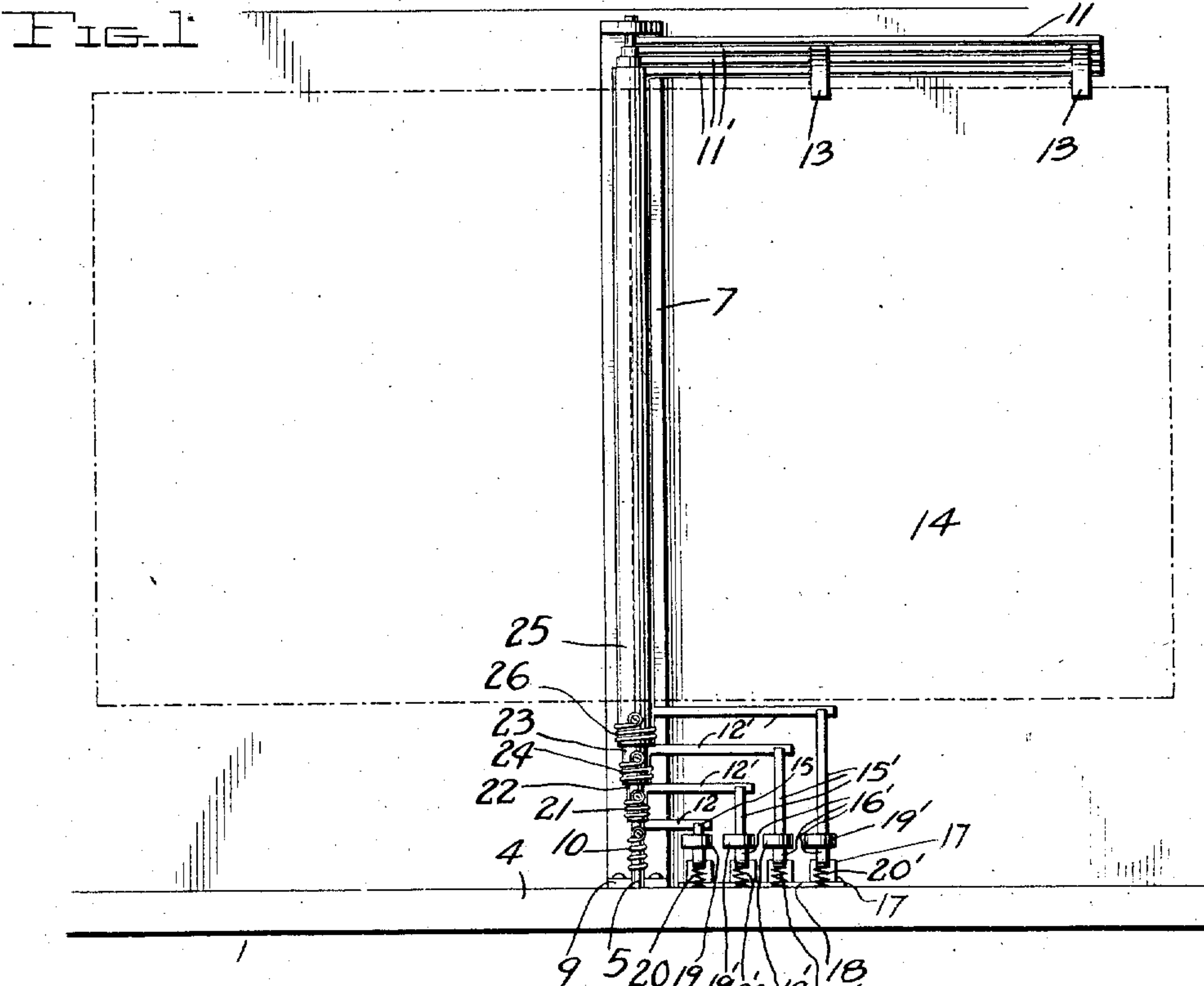


FIG. 2

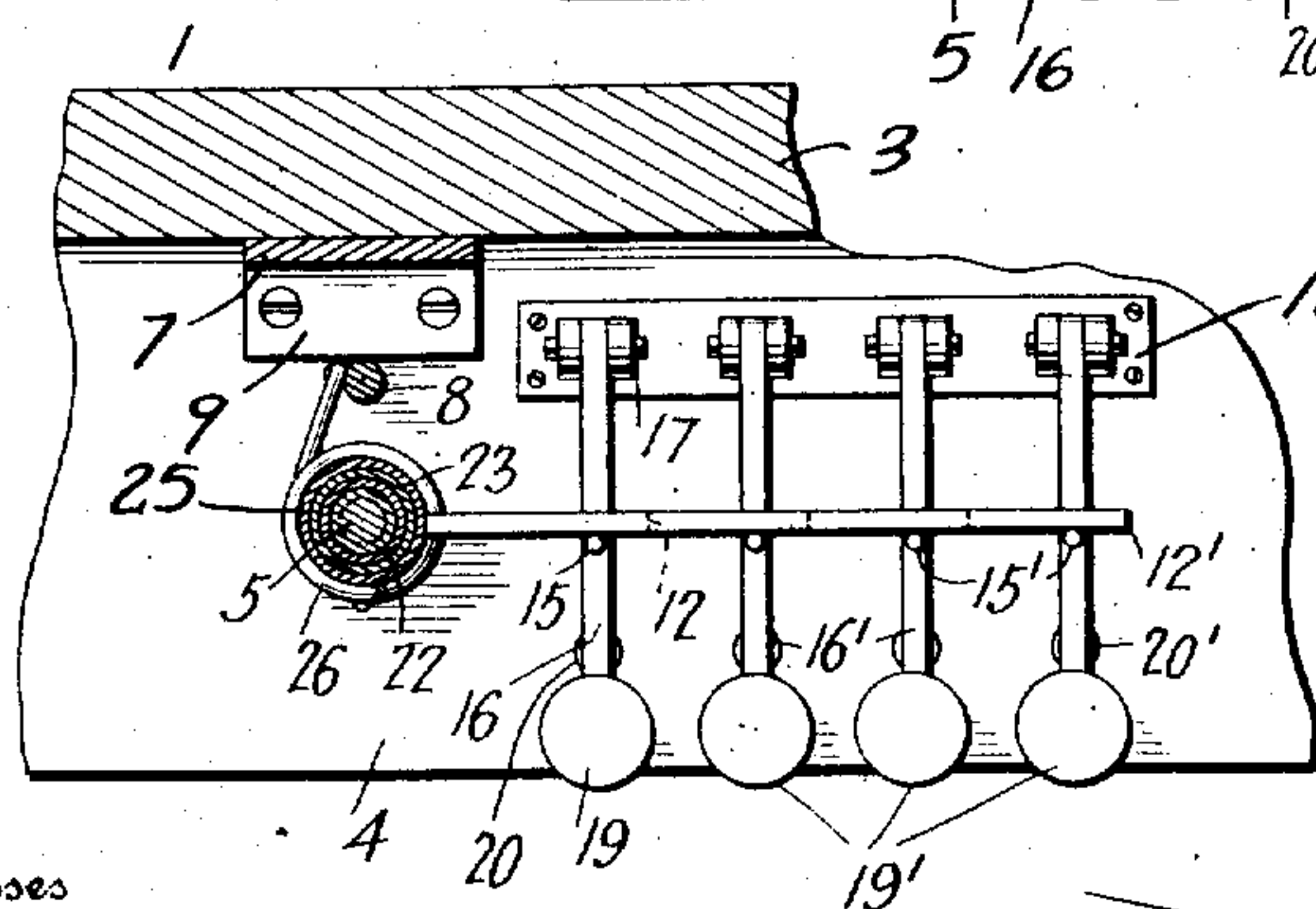
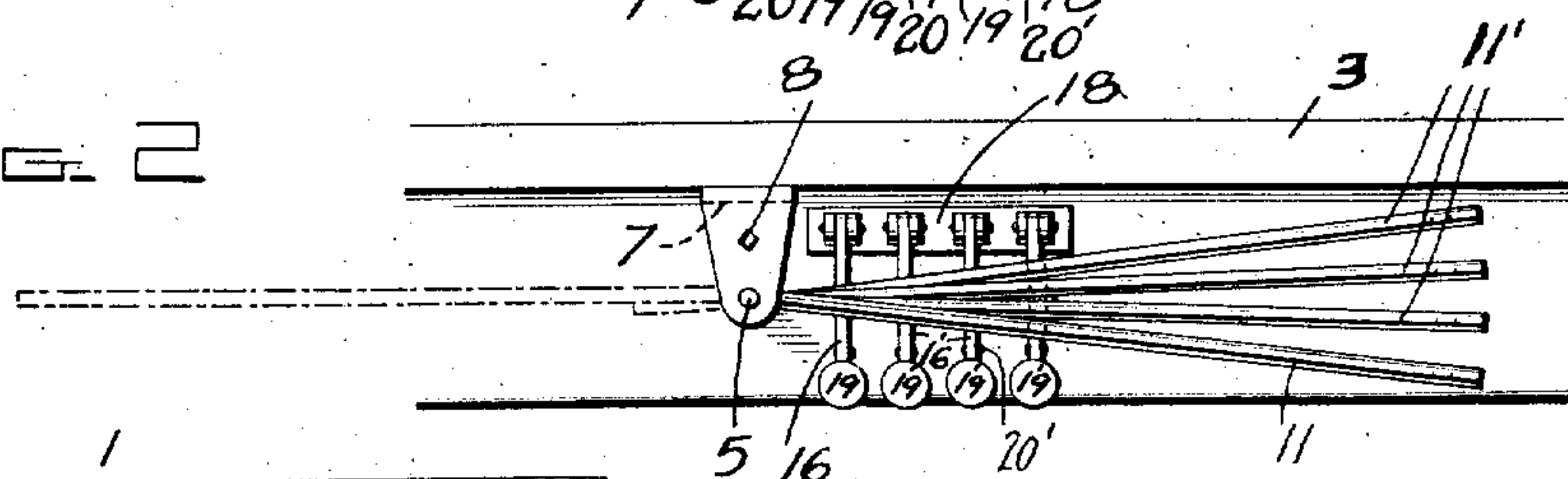


FIG. 3

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Witnesses

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3 SHEETS—SHEET 2

FIG. 4

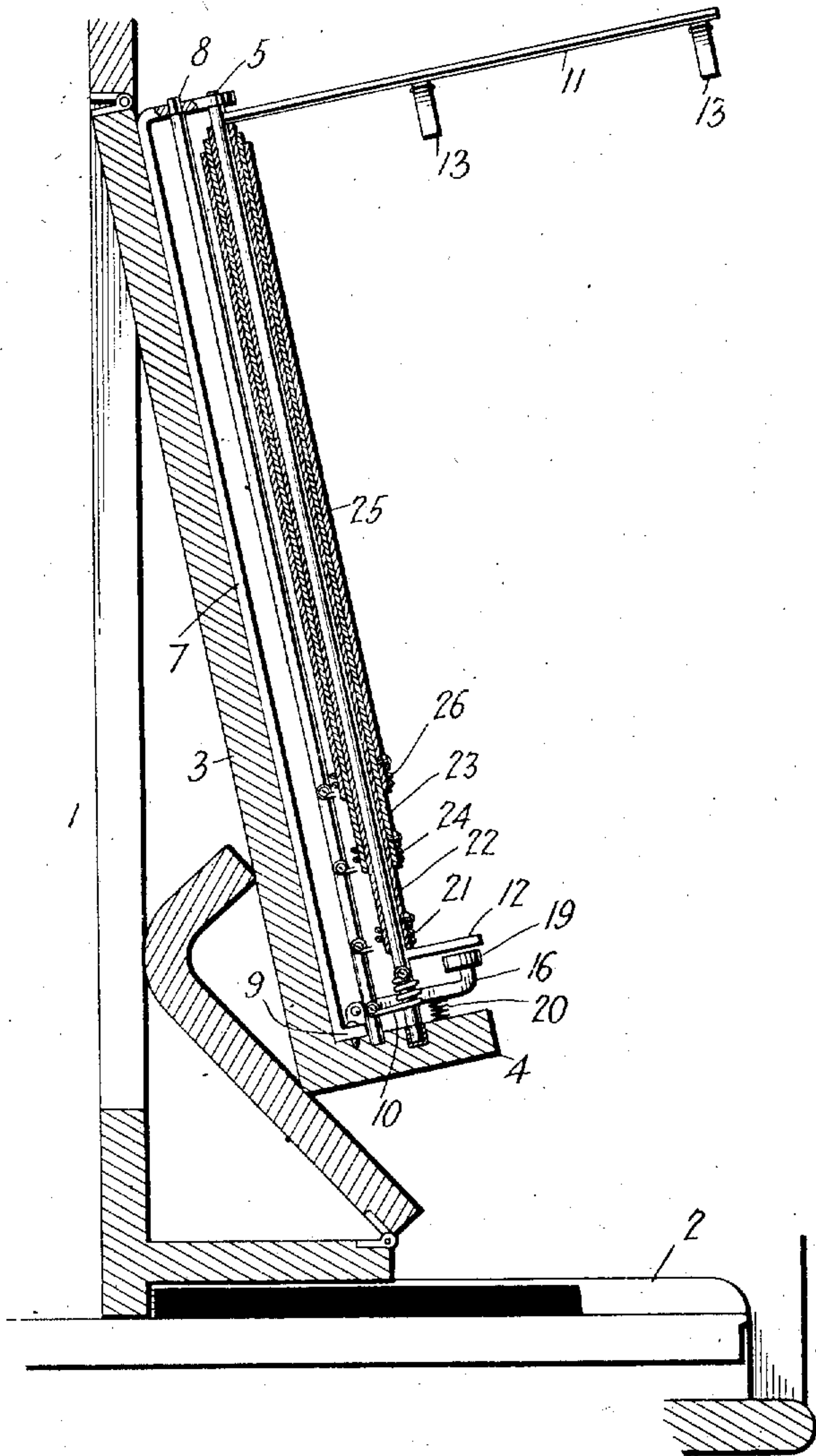
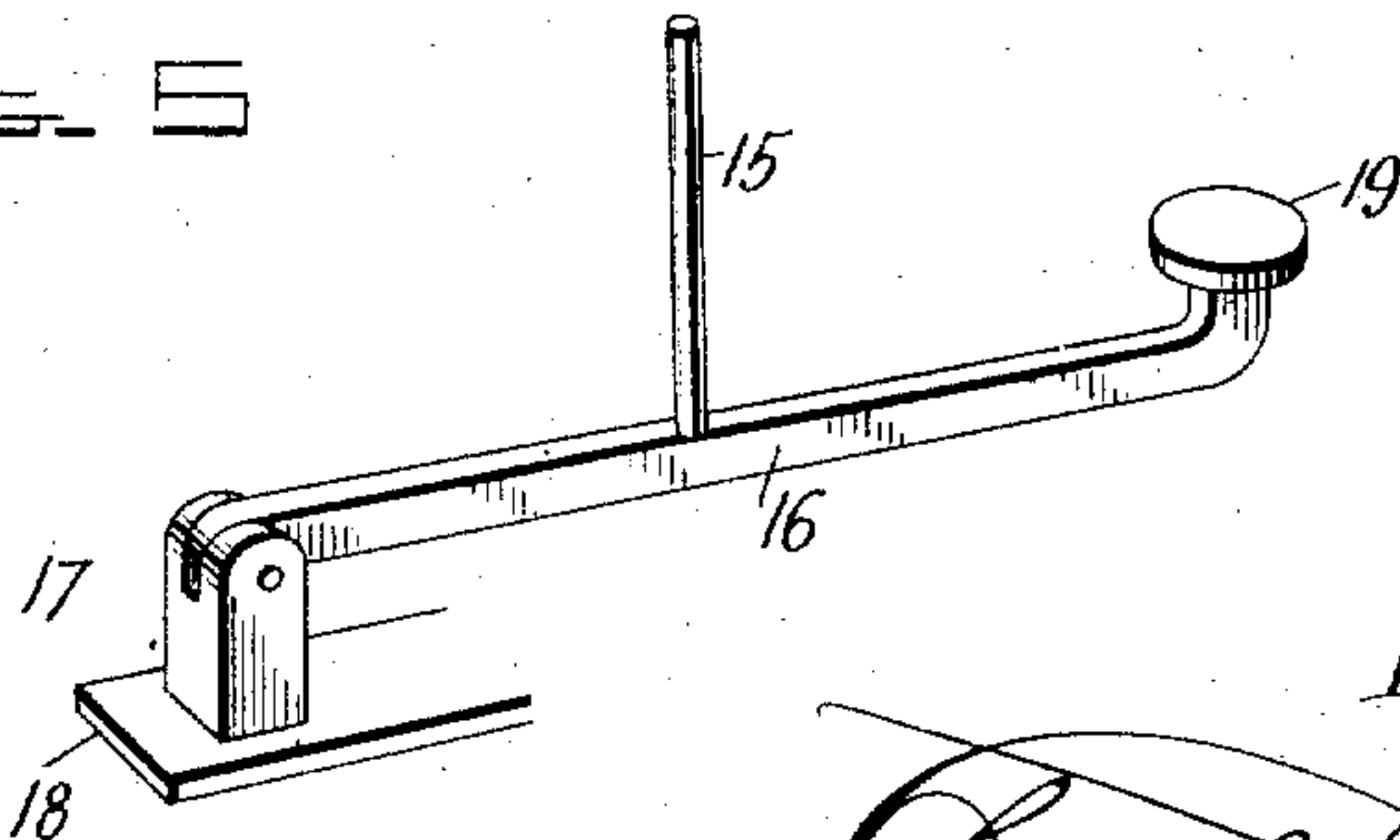


FIG. 5



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3 SHEETS—SHEET 3.

FIG. 6

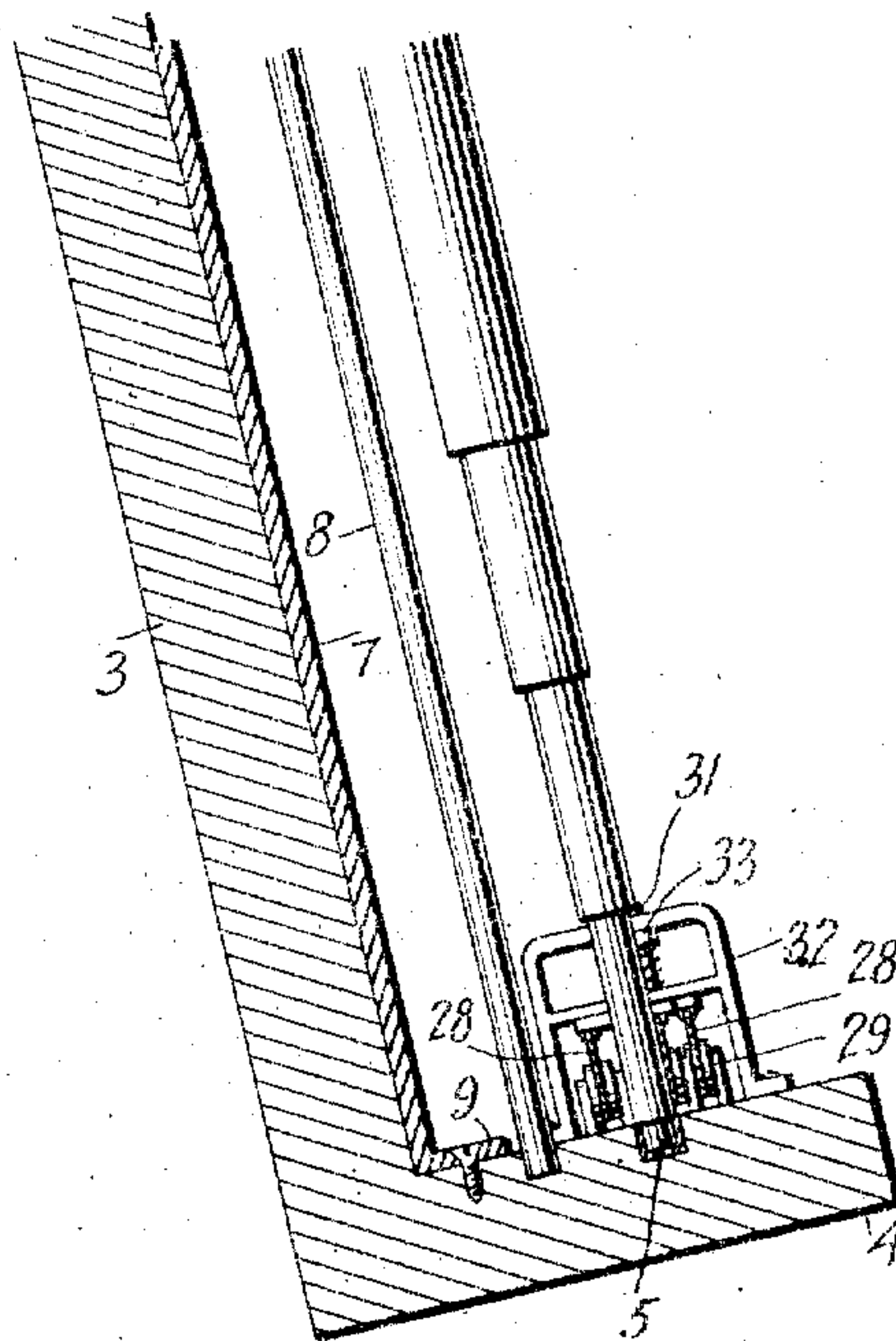


FIG. 7

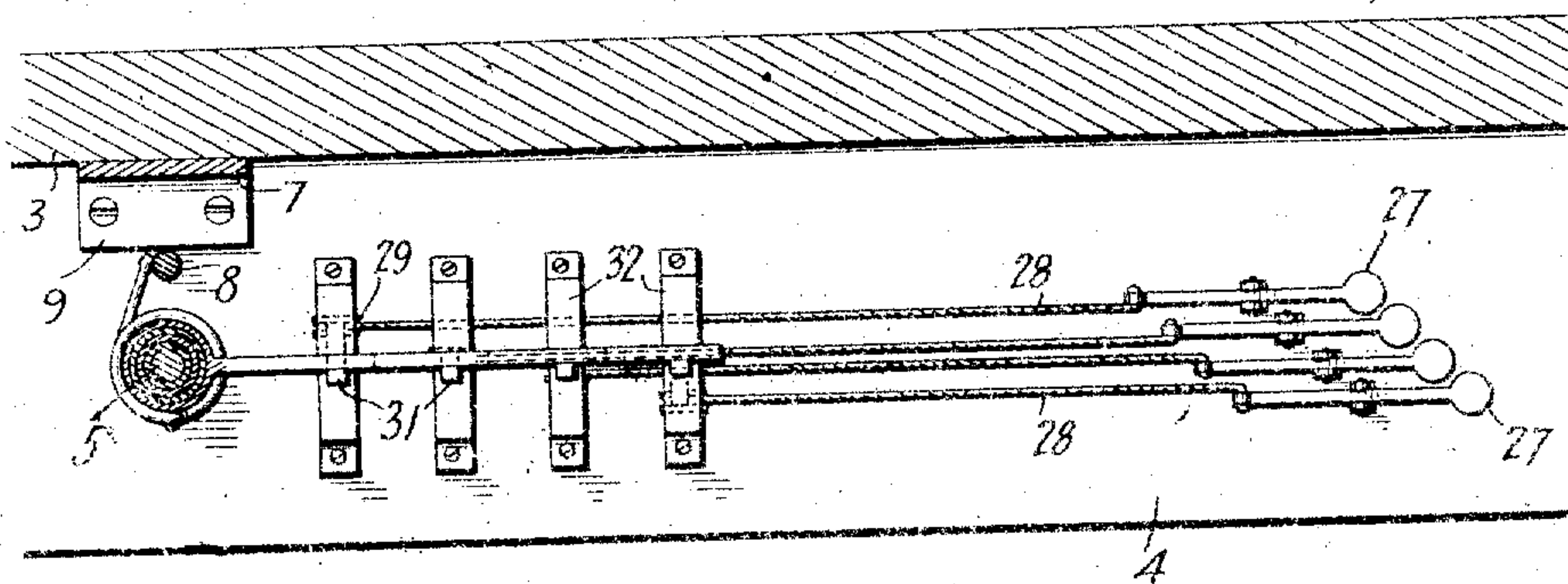
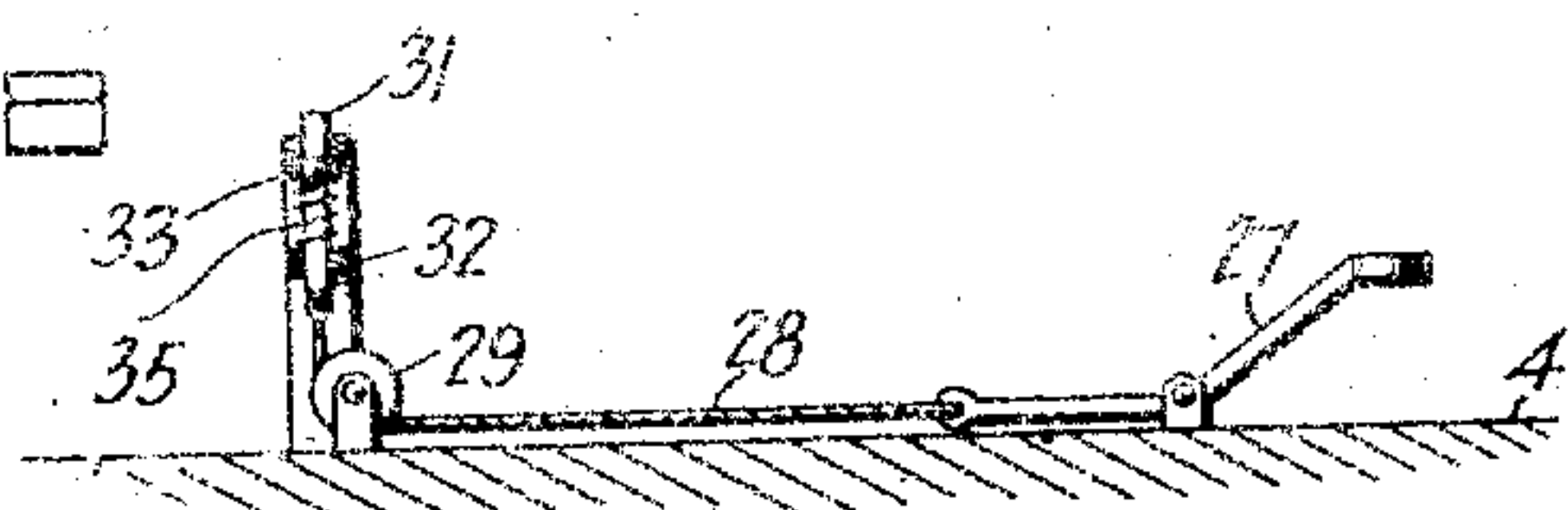


FIG. 8



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# UNITED STATES PATENT OFFICE.

IRA T. GERMAN, OF DELMAR, DELAWARE.

## MUSIC-LEAF TURNER.

No. 891,056.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed December 7, 1907. Serial No. 405,543.

*To all whom it may concern:*

Be it known that I, IRA T. GERMAN, a citizen of the United States, residing at Delmar, in the county of Sussex, State of Delaware, have invented certain new and useful Improvements in Music-Leaf Turners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention has reference to music leaf turners, and it aims, generally, to provide an exceedingly simple, inexpensive, and efficient mechanism of that nature designed for attachment to the music rest of a piano or organ of any ordinary type.

More especially, however, the invention resides in the provision of such a mechanism consisting primarily of a series of nested vertical members each of which includes an arm provided with clips adapted for engagement with a sheet of music, said members being each capable of an independent partial rotation upon its axis, to swing its arm from one position to another, and, in consequence, turn the sheet with which it is connected.

The invention further resides in the particular devices employed for effecting the rotation of said members, for holding the members against rotation, and for releasing the last-mentioned devices from engagement with said members, to permit their rotation by the first-mentioned devices.

The invention will be readily understood from a consideration of the following detailed description, and its preferred embodiment is illustrated in the accompanying drawings in which like parts or features, as the case may be, are designated by corresponding reference numerals in the several views.

Of the said drawings:—Figure 1 is a fragmental front elevation of a piano equipped with the present invention, the music sheets being shown in dotted lines. Fig. 2 is a top plan view of the attachment. Fig. 3 is an enlarged transverse sectional view of Fig. 1. Fig. 4 is a side elevation partly in section. Fig. 5 is an enlarged detail view of one of the operating levers, the rod carried thereby, and the block to which the strip is pivoted. Fig. 6 is a side elevation of a modified form of the invention. Fig. 7 is a transverse sectional view of Fig. 5. Fig. 8 is an en-

larged detail view of one of the rockers shown in Figs. 6 and 7 and the cord fastened thereto.

Referring more particularly to the drawings, 1 designates, generally, the piano, which is of any ordinary type, 2 the key-board, and 3 the music rack, upon the base 4 of which the leaf-turning attachment as a whole is mounted. Said rack base has formed in its upper face a bearing which receives the lower end of a vertical shaft 5, the other end of which is fitted in a bearing formed in the laterally bent upper end of a standard 7, said bent end being fastened to the upper end of a stationary brace 8 whose lower end is likewise fitted in a seat formed in the base 4, to which latter the foot 9 of the standard is also secured, said brace being located directly in the rear of said shaft and between the latter and said standard.

Towards its lower end the shaft is provided with a coil-spring 10 attached at its upper end thereto and at its lower end to the brace, the shaft being further provided adjacent its opposite ends with a pair of laterally-projecting arms 11 and 12, the former of which carries a pair of spring clips 13, adapted to be engaged with a sheet or sheets on the right-hand side of the open piece of music 14 when swung a sufficient distance in that direction, the movement of said arm into such position effecting a partial rotation of the shaft 5, to which the arms are rigidly secured, and, in consequence, a tensioning of the spring 10. In order to hold the clip arm in such position and to prevent a backward rotation of the shaft, the lower arm 12, when moved to the right, is adapted to be engaged by a vertical rod 15 whose upper end extends into the path of movement of said arm. This rod is carried by a horizontally-disposed lever 16 pivoted at one end between a pair of up-standing ears formed on a block 18 disposed longitudinally of the base plate and secured thereto, the other end of the lever being bent upwardly and provided with a button or head 19 by means of which it is depressed, said lever being normally held in raised position by a coil-spring 20 interposed centrally between the lever and base plate. It will therefore be apparent that when the lever is depressed, its rod 15 will be released from engagement with the arm 12 whereupon the shaft 5 is free to rotate to the left under the tension of its spring 10, turning the sheet or sheets to which the clips 13 are clamped.



The shaft 5 is further provided with a coil-spring 21 which is disposed above the arm 12 and is connected at its lower end to the brace 8 and at its upper end to a hollow tubular member or sleeve 22 fitted loosely upon said shaft and extending to within a short distance of the upper end of the latter. Upon this sleeve is loosely mounted a second sleeve 23 which terminates short of the ends of the first-mentioned sleeve and is connected at its lower end to one end of a coil spring 24 which embraces the projecting lower end of the first-mentioned sleeve and is likewise fastened at its lower end to the brace. A third sleeve 25 is fitted in like manner upon the second sleeve and likewise terminates short of the ends thereof, being connected at its lower end in a similar manner to one end of a coil-spring 26 disposed upon the projecting lower end of the second sleeve and secured at its other end to the brace. Each of the sleeves 22, 23, and 25 is likewise provided at opposite ends with a pair of laterally-projecting arms 11' and 12' whose arrangement is similar to that of the arms 11 and 12 carried by the shaft 5, the upper arm 11' of each sleeve being provided with leaf-engaging clips 13. The lower arm 12' of each sleeve, when moved to the right, is likewise adapted to be engaged by a vertical rod 15' carried by a lever 16', the last-mentioned element being normally held in raised or operative position by a spring 20', the several levers being likewise pivoted at their inner ends between pairs of ears formed on the block 18 and having their outer ends provided with buttons 19'.

By reason of the coil-spring connection between each sleeve and the braces, it will be apparent that each sleeve is capable of an independent partial rotation upon its axis, the nested arrangement of the sleeves permitting such movement, as will be understood, it being possible, therefore, to successively release the arms 12' thereof from engagement with the corresponding rod 15' by depressing the lever 16' by which the latter is carried. It is also to be understood that the main shaft 5 is likewise capable of a partial rotation independently of the sleeves, as already described.

In the modified construction shown in Figs. 6 and 7 the base 4 is provided at one or both ends, as preferred, with a series of rockers 27 which correspond to the levers 16 and 16' in the preferred form, each rocker being connected by a cord 28, which runs beneath a pulley 29, with the lower end of a vertical rod 31 which, in like manner corresponds to the rod 15 or 15', as the case may be, the upper end of said rod being in the paths of motion of the arms 12 and 12'. Each rod 31, which is slidable through a perforated guide 32 secured to the base plate, has fastened thereto a collar 33 against which

bears the upper end of an expansible coil spring 35, the tension of said spring normally holding the rod in raised or operative position. The actuation of the rockers will effect the rotation of the shaft and sleeves as in the preferred form. The number of sleeves utilized may be greater or less than that shown, the number of levers or rockers varying accordingly, and numerous other modifications and changes may be made within the scope of the appended claims, as the invention is not intended to be limited to the exact details of construction described and illustrated.

The invention, as a whole, is designed primarily for use in connection with sheet music, which is supported from the clips 13.

What is claimed is:—

1. The combination, in a music leaf turner, of a base plate; a shaft mounted thereon; a plurality of nested sleeves fitted upon said shaft; a member parallel with said shaft; a laterally-projecting arm secured to said shaft and each sleeve, each of said arms being provided with clips; a yielding connection between said member and said shaft, for imparting a rotary movement thereto; and separate yielding connections between said member and said sleeves, for imparting an independent movement to each of the latter.

2. The combination, in a music leaf turner, of a base plate; a shaft mounted thereon; a plurality of nested sleeves fitted upon said shaft; a member parallel with said shaft; separate tension springs connecting said member with said shaft and with each of said sleeves, for imparting an independent rotary movement to said shaft and to each sleeve; a laterally-projecting arm carried by said shaft; a laterally-projecting arm carried by each sleeve; an endwise movable member adapted for engagement with each of said arms; and individual means for moving each of said members.

3. The combination, in a music leaf turner, of a base plate, a standard mounted thereon and provided with a laterally bent upper end having a pair of bearing openings formed therein; a vertical shaft mounted upon the base plate and having its upper end fitted in one of the openings in the bent end of the standard; a vertical brace mounted upon the base plate between the shaft and the standard and having its upper end fitted in the other opening in the bent end of the latter; a plurality of nested sleeves fitted upon said shaft; separate tension springs connecting said brace with said shaft and with each of said sleeves, for imparting an independent rotary movement to said shaft and to each sleeve; a laterally-projecting arm carried by said shaft; a laterally-projecting arm carried by each sleeve; and clips carried by each of said arms.

4. The combination, in a music leaf turner,



of a base plate, a standard mounted thereon and provided with a laterally bent upper end having a pair of bearing openings formed therein; a vertical shaft mounted upon the  
 5 base plate and having its upper end fitted in one of the openings in the bent end of the standard; a vertical brace mounted upon the base plate between the shaft and the stand-  
 10 ard and having its upper end fitted in the other opening in the bent end of the latter; a plurality of nested sleeves fitted upon said shaft; separate tension springs connecting  
 15 said brace with said shaft and with each of said sleeves, for imparting an independent rotary movement to said shaft and to each  
 sleeve; an upper and a lower laterally-projecting arm carried by said shaft; an upper  
 20 and a lower laterally-projecting arm carried by each sleeve; clips carried by each of said upper arms; an endwise movable vertical  
 rod arranged for engagement with each lower  
 arm, to hold the latter against movement;  
 and individual means for releasing each rod  
 25 from such engagement.  
 5. The combination, in a music leaf turner,  
 of a base plate; a vertical shaft mounted

thereon; a plurality of nested sleeves fitted upon said shaft; a member parallel with said shaft; separate tension springs connecting  
 30 said member with said shaft and with each sleeve, for imparting an independent rotary movement to said shaft and to each sleeve;  
 a laterally-projecting arm carried by said shaft; a laterally-projecting arm carried by  
 35 each sleeve; a series of perforated guides mounted upon the base plate; an endwise movable rod slidable through the perfora-  
 tions in each guide; means for normally holding each rod in raised position, to engage  
 40 one of said arms and hold the same against movement; a flexible element connected at one end to each rod; and a rocker connected  
 to the other end of each of said flexible elements, for releasing the corresponding rod  
 45 from such engagement.

In testimony whereof, I affix my signature, in presence of two witnesses.

IRA T. GERMAN.

Witnesses:

JAMES H. TYRE,  
 W. E. GERMAN.