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J. F. YOUNG & E. L. BRENNAN.

MUSIC TURNER.

APPLICATION FILED JUNE 28, 1906.

2 SHEETS—SHEET 1.

Fig. 2.

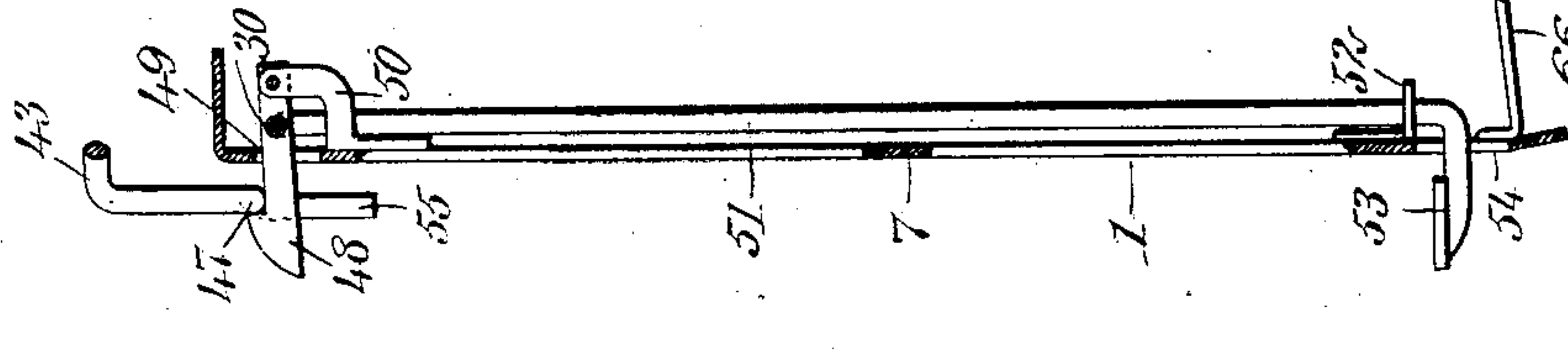


Fig. 1.

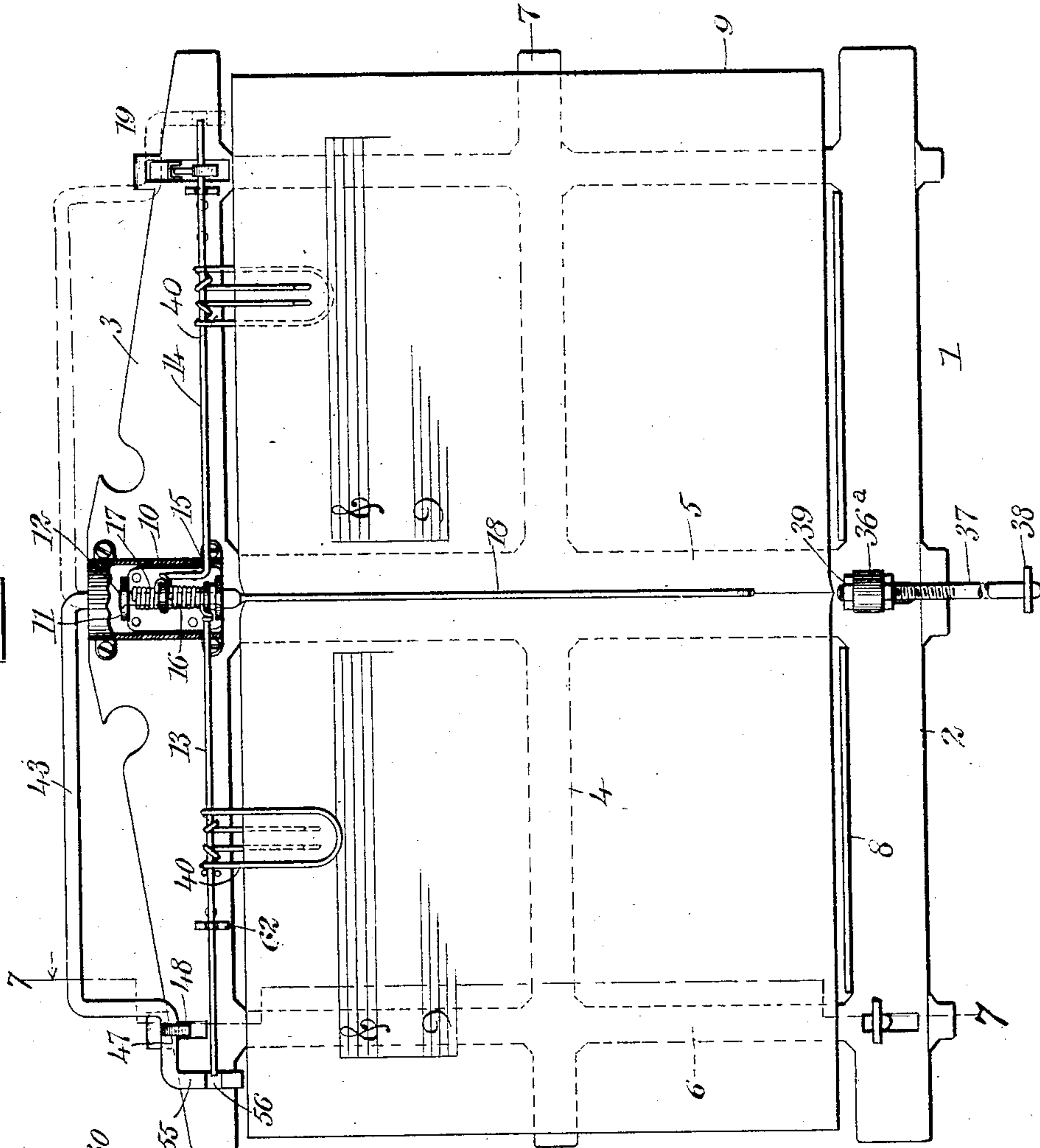
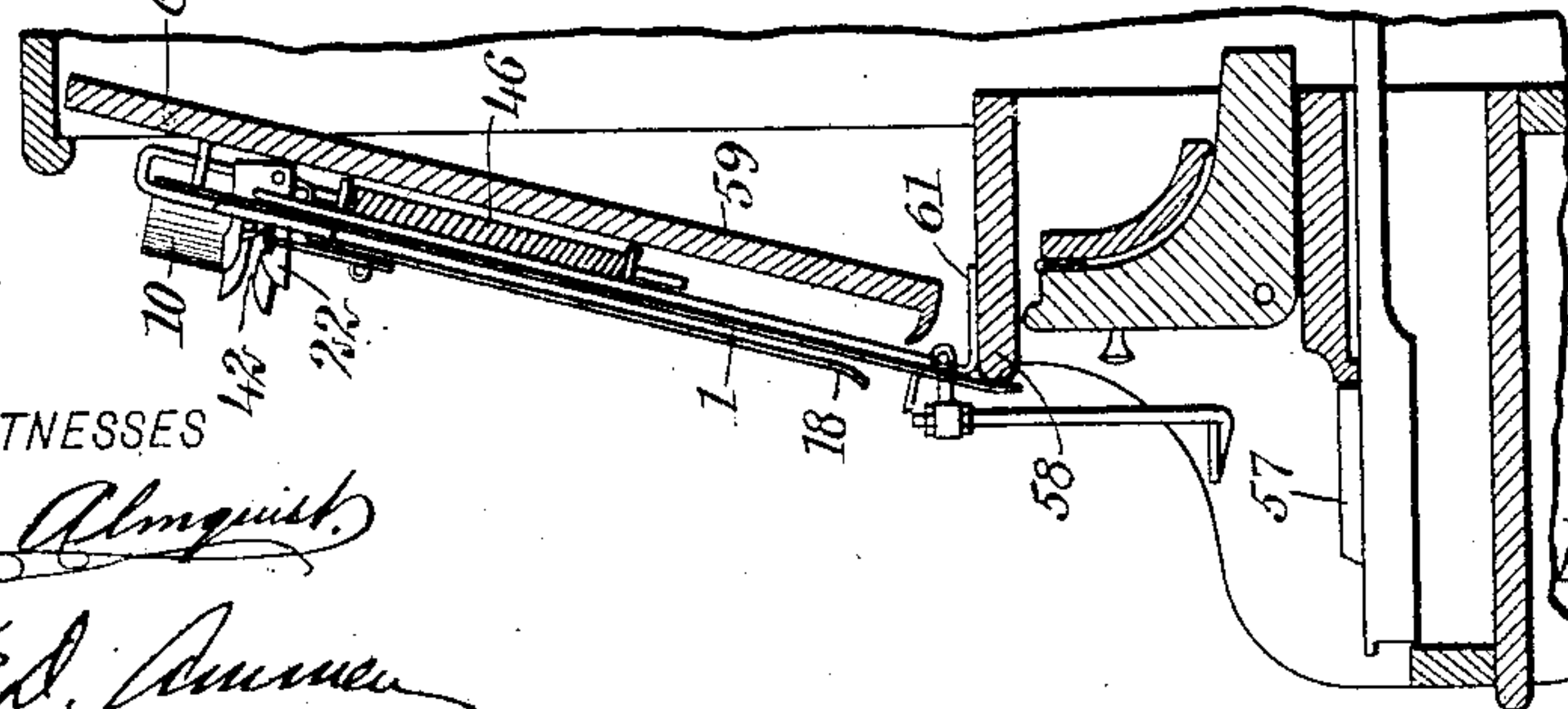


Fig. 1.



WITNESSES

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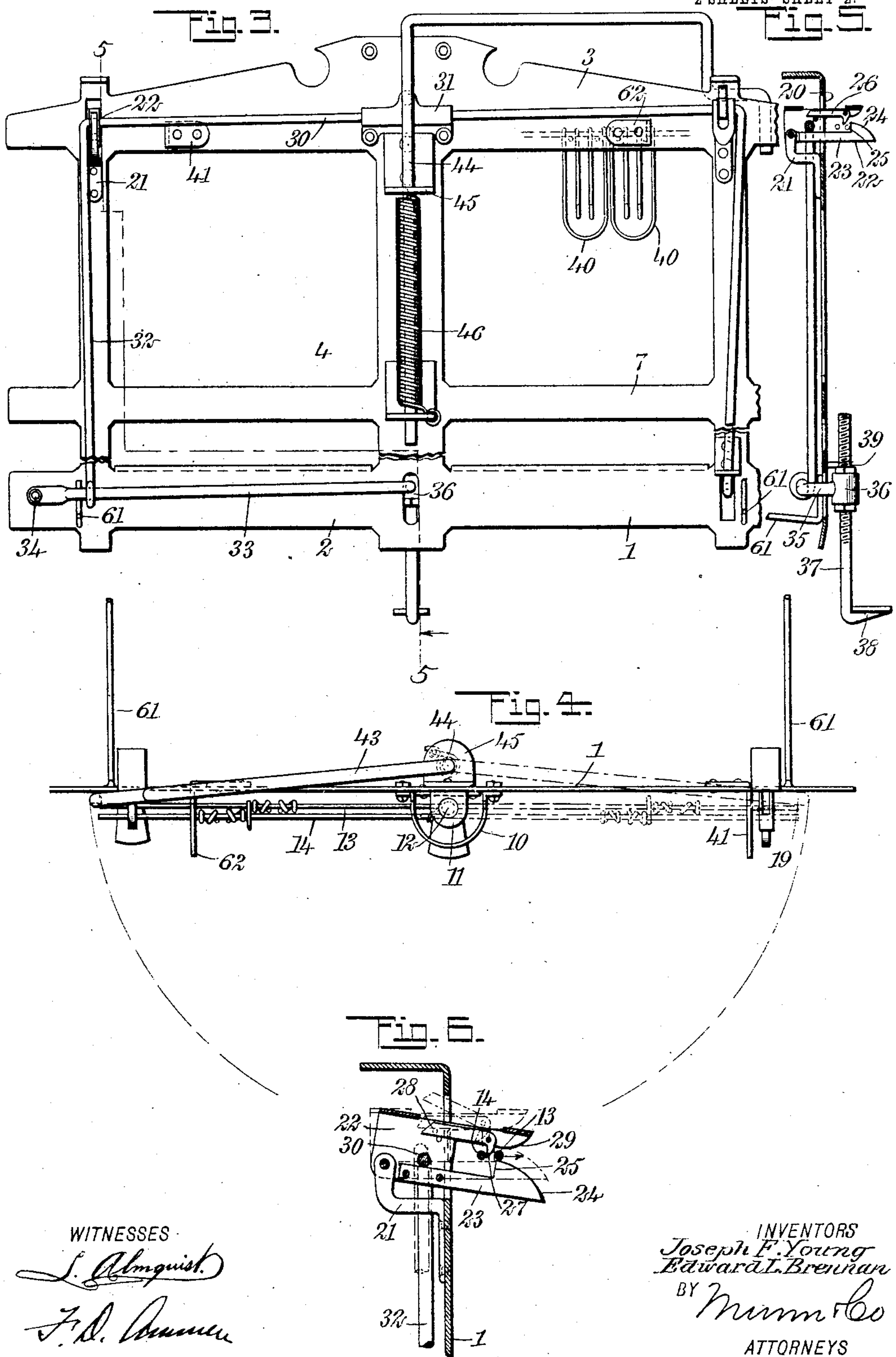
PATENTED AUG. 20, 1907.

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2 SHEETS—SHEET 2.



WITNESSES

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JOSEPH F. YOUNG AND EDWARD L. BRENNAN, OF MORRISTOWN, NEW JERSEY.

MUSIC-TURNER.

No. 863,824

Specification of Letters Patent.

Patented Aug. 20, 1907.

Application filed June 26, 1906. Serial No. 323,488.

To all whom it may concern:

Be it known that we, JOSEPH F. YOUNG and EDWARD L. BRENNAN, both citizens of the United States, and residents of Morristown, in the county of Morris and State of New Jersey, have invented a new and Improved Music-Turner, of which the following is a full, clear, and exact description.

This invention relates to music turners, and is intended especially to be used by piano players for turning the music set before them.

The object of the invention is to produce a device of this class which is simple in construction, and which will operate substantially automatically to turn the leaves of the music, and further to provide such an arrangement as will enable the leaves to be returned to their normal condition when the piece is to be played a second time.

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 vertical section through the forward portion of a piano and illustrating the manner in which the device is applied in practice; Fig. 2 is a front elevation of the device, representing a sheet of music held thereupon; Fig. 3 is a rear elevation of the device, certain parts being broken away; Fig. 4 is a plan of the device, certain parts being represented in dotted outline; Fig. 5 is a vertical section taken on the line 5—5 of Fig. 3; Fig. 6 is a section showing details of the releasing mechanism for the arms turning the leaves; this view is upon an enlarged scale; and Fig. 7 is a vertical section taken on the line 7—7 of Fig. 2 and illustrating the releasing mechanism for a replacer which moves the arms into their original position when the piece is to be repeated.

Referring more particularly to the parts, and especially to Fig. 2, 1 represents the frame of the device, which consists of a plate presenting a lower bar 2 and an upper bar 3. The body of this plate is formed with openings 4 punched therein, so that a main central bar 5 is formed and vertical side bars 6, together with an intermediate horizontal bar 7 as shown. On opposite sides of the central bar 5 the upper edge of the bar 2 is turned down so as to form a lip 8 against which the lower edge of the music 9 may rest. Preferably at its middle point the upper bar 3 is provided with a barrel 10 on its forward face, within which there is arranged a bracket 11 carrying a rigid pin 12 upon which arms 13 and 14 are attached. These arms extend through a circumferential slot 15 formed in the lower end of the barrel 10 as shown. Within the barrel 10 the arms 13 and 14 are formed respectively

into springs 16 and 17 which surround the pin 12 and are rigidly attached thereto. The arm 14 is offset upwardly so as to connect with the spring 17 which is disposed above the spring 16 as shown. These springs tend to hold the arms 13 and 14 toward the right; that is, in the position of the arm 14. Projecting down from the barrel 10, we provide a stem 18, preferably formed of wire, which is adapted to hold the music folio at its rear edge where the leaves fold.

We provide means for normally holding the arms 13 and 14 at the right side, and for releasing them one at a time when the leaves of the music are to be turned. This releasing mechanism 19 is illustrated very clearly in Figs. 5 and 6. We provide the upper bar 3 of the frame 1 with a vertical slot 20 disposed near the extremities of the arms 13 and 14 when they are disposed toward the right. To the rear side of the frame at this point we attach a rigid bracket 21, and pivotally attached to this bracket there is attached a small shoe 22 which extends through the slot 20 and projects on the forward face of the frame. This shoe is formed below with a forwardly projecting tongue 23 which presents a curved forward lip 24 and an abrupt shoulder 25 constituting a catch to retain the arms. Just above the shoulder 25 on the shoe 22 there is pivoted a pawl 26, the said pawl having a tooth 27 which projects down toward the shoulder 25 as indicated. This pawl has a long tail 28 which projects inwardly through the slot 20 and acts as a counterbalance tending to hold the pawl in a downwardly projecting position. The forward face of the spur or tooth 27 is preferably inclined as indicated most clearly in Fig. 6. The forward portion of the shoe 22 which projects over the tongue 23 is formed into a curved lip 29 lying opposite the lip 24. These lips converge inwardly as shown, so that they tend to guide the arms 13 and 14 into position behind the shoulder 25 in a manner which will be described more fully hereinafter.

Upon the rear face of the frame 1 we provide a resilient spring bar 30, the body of which extends longitudinally of the upper bar 3 and is rigidly attached upon the rear face thereof by a suitable bracket 31. Referring to Fig. 3, which shows the rear side of the frame 1, this bar 30 extends through the shoe 22 aforesaid, and beyond the shoe it is formed with a downward extension or arm 32. The resiliency of this spring bar 30 normally tends to hold the shoe in an elevated position. In order to enable the shoe to be forced downwardly when desired, the lower extremity of the arm 32 is attached to a lever 33 pivoted at 34 upon the rear side of the lower bar 2. This lever extends toward the central portion of the frame 1, at which point it is formed with a forwardly projecting finger 35 which extends through a vertical slot 36 formed in the frame 1 at this point. On the forward side of the frame this

finger 35 is formed into a head 36^a through which passes a threaded stem 37. This stem is formed below into a foot 38 adapted to be depressed by one's finger. Above and below the head 36^a the stem 37 is provided with a nut 39 which enables the height of the foot to be adjusted.

Referring to Figs. 5 and 6, it should be understood that when the shoe 22 is depressed, the spur 27 of the pawl 26 will be forced downwardly so as to engage the innermost of the arms 13 and 14; that is, it will engage the arm 14. The arm 13 will then lie on the outer side of the tooth or spur 27, and as the downward movement progresses, it will be released from the shoulder 25, as indicated in Fig. 6. The resiliency of the spring of this arm then operates to throw the arm over to the opposite position in such a way that it may be the means of turning a leaf of the music. In order to enable the arms 13 and 14 to be attached temporarily to the leaves, we provide the same with clips 40 which may have substantially the form shown. These clips are adapted to be forced over the edges of the leaves, as will be readily understood.

With the construction described for the releasing mechanism 19, it should be understood that the arms 13 and 14 will be released in succession. After the first arm is released, the second arm moves up so as to come in contact with the shoulder 25 so as to be rotated thereby. While we have illustrated only two of these arms, there may be more of them if desired. In order to assist in guiding the arms 13 and 14 into the space between the lips 24 and 29 near the shoe 22, we provide a guide bracket 41 which projects forwardly on the frame and is formed with a horizontal slot 42 in which the arms pass, as will be readily understood.

We provide means for returning the arms 13 and 14 to their normal position at the right which enables the music upon the folio to be played again. For this purpose, a replacer 43 is employed which consists of an arm having a shank 44, as indicated in Fig. 3, which shank extends vertically behind the central bar 5 of the frame 1, being rotatably mounted in suitable brackets 45. Between these brackets around the shank 44 there is arranged a helical spring 46 which normally tends to hold the replacer 43 at the left of the frame 1 and in the position shown in Fig. 2. The outer extremity of the arm of the replacer 43 is offset downwardly so as to form a neck 47 and this neck is adapted to be engaged by a catch 48, as indicated very clearly in Fig. 7. The said catch 48 projects through a slot 49 in the frame 1 and is pivotally mounted at its rear extremity upon a fixed bracket 50. Through the catch 48 the aforesaid spring bar 30 passes, and this bar normally tends to hold the catch in an elevated position. Beyond the catch 48 the spring bar 30 has a downward extension or arm 51, the lower extremity whereof is guided through a bracket 52 near the lower portion of the frame 1, and beyond this bracket the arm 51 is formed with a forwardly extending foot 53 which projects through a slot 54 in the frame 1 and is adapted to be depressed by one's finger. Beyond the neck 47, the replacer 43 is formed into a downwardly projecting finger 55 which is formed on its forward face, as indicated in Fig. 2, with a notch 56. In this notch or recess the extremities of the arms 13 and 14 are received. These arms are just long enough to engage the edge of the fin-

ger 55, as shown, this arrangement being adopted for a purpose which will appear more fully hereinafter. It should be understood that the replacer 43 normally occupies the position in which it is shown in Fig. 2, being held in this position by the spring 46. When the piece of music has been played and the two arms 13 and 14 occupy the position at the left of the frame, the piano player depresses the foot 53, which releases the replacer 43. The spring 46 of the replacer is of considerably greater strength than the springs 16 and 17, so that the replacer suddenly rotates toward the right of the frame and toward the position in which it is indicated in dotted lines in Fig. 2. In this way the arms 13 and 14 are returned to their normal position at the right. They pass into the shoe and are caught behind the shoulder 25 therein.

The engagement between the ends of the arms 13 and 14 and the finger 55 is so slight that when the arms 13 and 14 are arrested at the shoe, the replacer continues its movement, the finger 55 snapping over the ends of the arms so that it comes against the face of the frame 1 behind the arms. In this way the arms are released from the replacer, and when released from the releasing mechanism 19, they can return one at a time to their normal position.

By reason of the adjustable stem 37, the height of the foot 38 may be arranged to suit any piano upon which the device may be set. In Fig. 1, the device is illustrated in position on the piano, the keyboard being represented at 57 and the music rest at 58. In the illustration, the piano represented is supposed to have a tilting music rack 59 which is pivoted at 60 near its upper edge and is adapted to be moved forwardly into an inclined position, as indicated. Against the forward face of this rack our device rests. In order to support the device in position, the frame 1, near the lower edge thereof, is provided on its rear side with rearwardly projecting fingers 61, and these fingers are preferably formed of stout wire and are adapted to lie against the upper side of the music rest 58, as indicated. These fingers may be bent into any desired position, so as to adapt the device to use on pianos of various construction.

In order to guide the arms 13 and 14 as they come against the face of the frame at the left, we provide a guide bracket 62 similar to the guide bracket 41 aforesaid.

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

1. In a music turner, in combination, a frame adapted to hold a music folio, arms adapted to engage the leaves of said folio, means for turning said arms one at a time, and a spring-actuated replacer adapted to return said arms simultaneously.

2. In a music turner, in combination, a frame adapted to hold a music folio, swinging arms adapted to engage the leaves of said folio to turn the same, springs in connection with said arms for turning the same individually, a swinging replacer arm, a spring therefor, means for normally retaining said replacer arm on the side toward which said first arms move in turning the sheets, means for retaining said first arms, means for releasing said first arms individually, and means for releasing said replacer arm to return said first arms collectively by the force of said second named spring.

3. In a device of the class described, in combination, a frame adapted to support a music folio, arms pivotally mounted upon said frame and having means for engaging

the edges of the leaves of said folio, means for swinging said arms one at a time to turn the leaves, a replacer arm pivotally mounted on said frame, means tending to throw said replacer arm in a direction to return said first
5 named arms to their normal position, and a movable catch adapted to hold said replacer arm.

4. In a device of the class described, in combination, a frame adapted to support a music folio, arms pivotally mounted on said frame and having means for engaging the
10 edges of the leaves of said folio, means for actuating said arms to turn said leaves, a replacer arm pivotally mounted on said frame and having a finger engaging the extremities of said first named arms, means for actuating said re-
15 placer arm to return said first named arms to their normal position, said finger having a slight engagement with said first named arms whereby said finger may pass behind the ends of said first named arms when the same are returned to their normal position.

5. In a music turner, in combination, a frame adapted
20 to support a music folio, arms movably mounted thereupon and adapted to engage the edges of the leaves of said folio, means for moving said arms one by one from the right to the left on said frame, a replacer arm having

a finger engaging the extremities of said first named arms and pivotally mounted on said frame, a spring tending
25 to move said replacer arm toward the right to return said first named arms to their normal position, a catch normally engaging said replacer arm, and means for releasing said catch.

6. In a music turner, in combination, a frame adapted
30 to support a music folio, arms adapted to turn the leaves of said folio, a stem having a foot projecting forwardly from said frame near the middle portion thereof, mechanism connected with said stem for controlling said arms, a spring-actuated replacer arm coöperating with said first
35 arms to return the same to their normal position, a spring-arm having a foot projecting forwardly from said frame, and means operated thereby for controlling said replacer arm.

In testimony whereof we have signed our names to this
40 specification in the presence of two subscribing witnesses.

JOSEPH F. YOUNG.

EDWARD L. BRENNAN.

Witnesses:

SHERWOOD BARRETT,

JOHN P. LYONS.