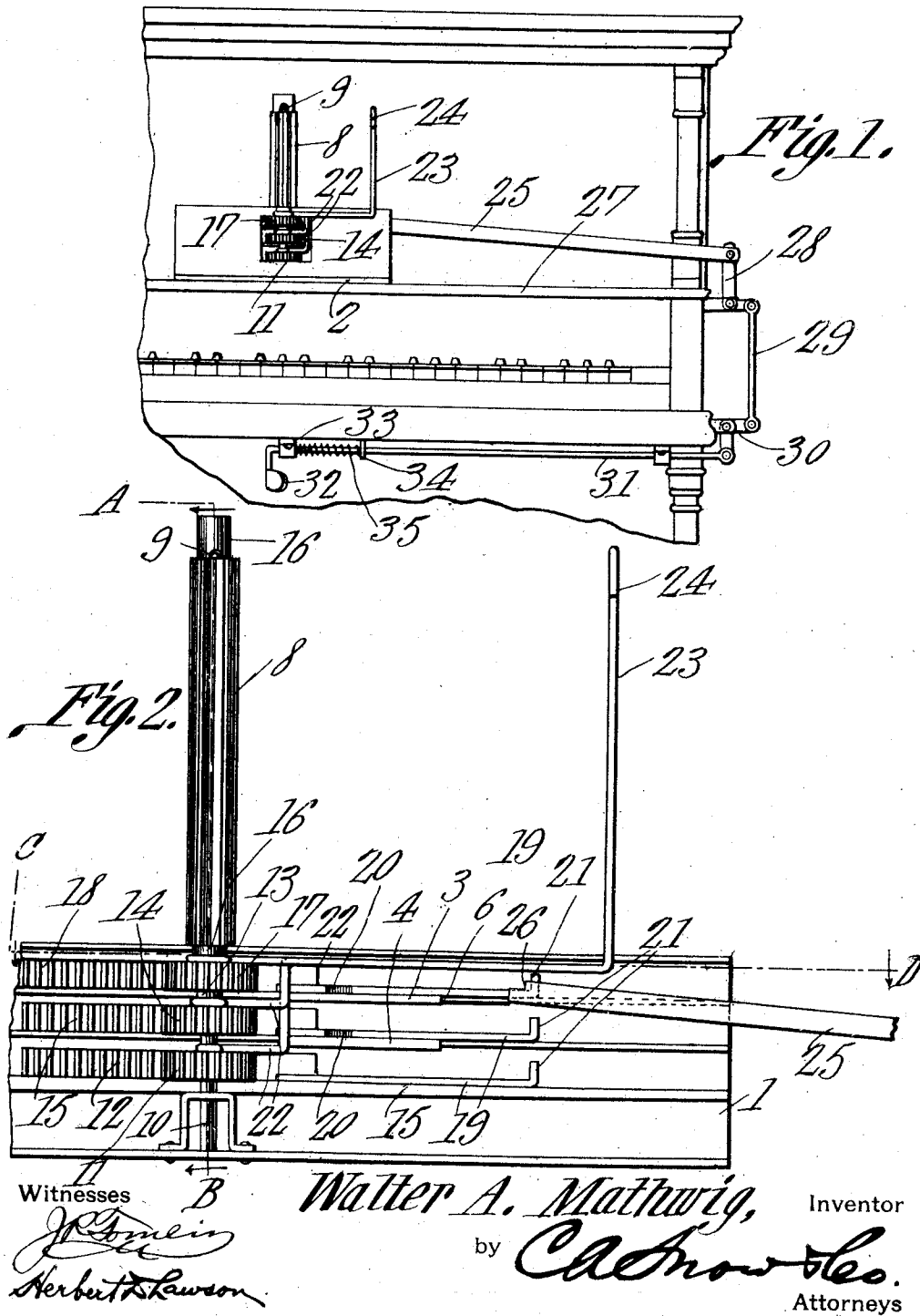


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MUSIC LEAF TURNER.
APPLICATION FILED JULY 7, 1910.

981,780.

Patented Jan. 17, 1911.

2 SHEETS—SHEET 1.

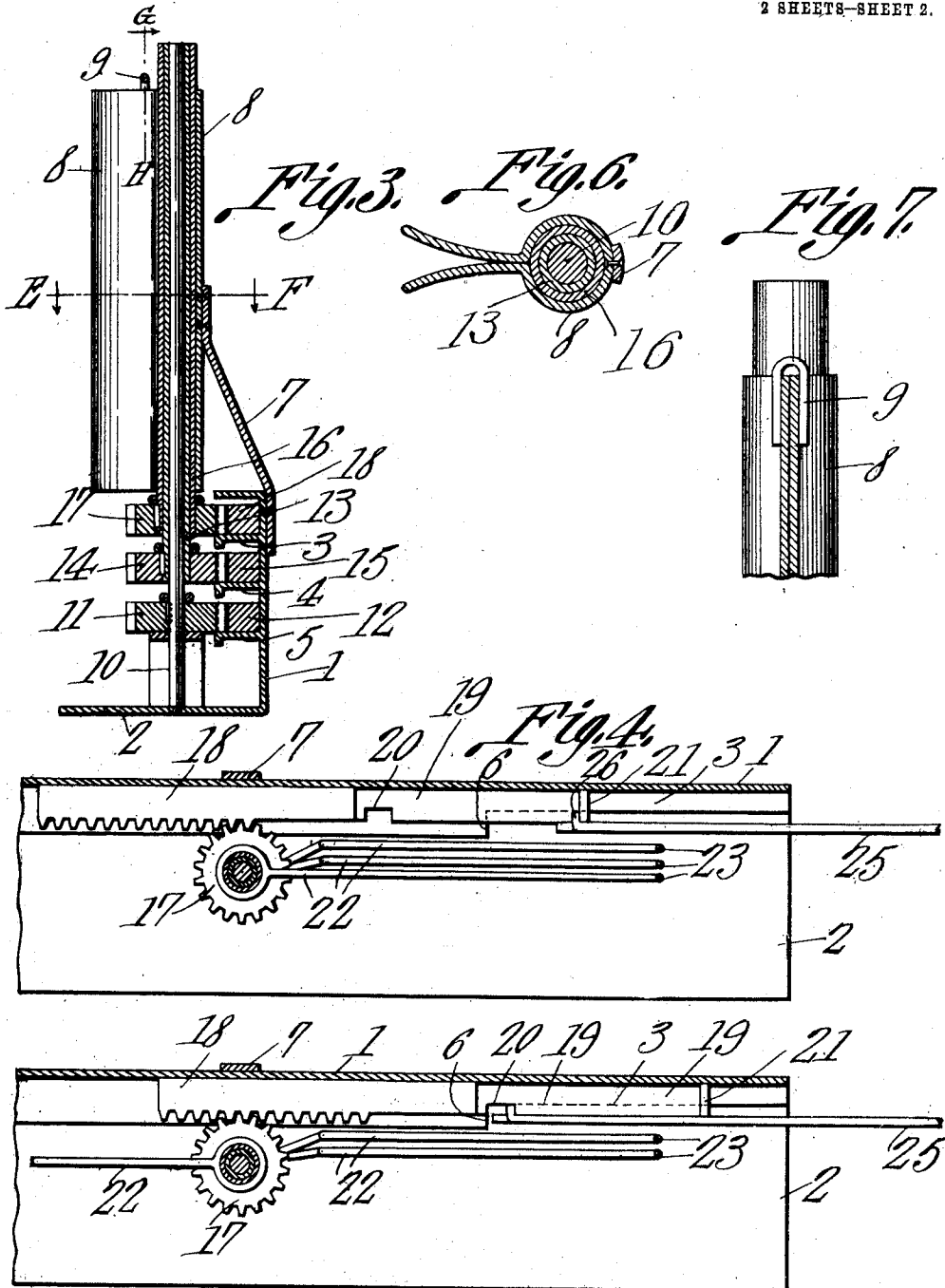


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Witnesses

W. A. Mathwig
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UNITED STATES PATENT OFFICE.

WALTER A. MATHWIG, OF FRANKFORT, SOUTH DAKOTA.

MUSIC-LEAF TURNER.

981,780.

Specification of Letters Patent.

Patented Jan. 17, 1911.

Application filed July 7, 1910. Serial No. 570,841.

To all whom it may concern:

Be it known that I, WALTER A. MATHWIG, a citizen of the United States, residing at Frankfort, in the county of Spink and State of South Dakota, have invented a new and useful Music-Leaf Turner, of which the following is a specification.

This invention relates to devices for turning the leaves of sheet music and its object is to provide a simple and compact device of this character which can be readily applied to a piano, organ or other like instrument and which can also be applied to an ordinary music stand.

Another object is to provide means whereby the leaves of the music can be turned in proper succession without interfering with the movement of the hands of the performer and without requiring the removal of the feet from the pedals of the instrument.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a front elevation of a portion of a piano having a music leaf turner mounted thereon. Fig. 2 is an enlarged front elevation of a portion of the turner. Fig. 3 is a section on line A—B Fig. 2. Fig. 4 is a section on line C—D Fig. 2, and showing the operating strip and rack engaged thereby in one position. Fig. 5 is a view similar to Fig. 4 and showing the parts in another position. Fig. 6 is a section on line E—F Fig. 3. Fig. 7 is a section on line G—H Fig. 3.

Referring to the figures by characters of reference 1 designates a back plate having a forwardly extending ledge 2 at the lower edge thereof and extending forward from the back plate and above the ledge are superposed supporting flanges 3, 4 and 5, each of the flanges 3 and 4 being cut away longitudinally for a portion of its length to form an intermediate shoulder 6. The two shoulders 6 are disposed in vertical alinement and are located adjacent to one side of the plate 1. A bracket 7 extends upwardly from and is fixedly secured to the center portion of the plate 1 and is secured, at its upper end, to an elongated clip 8 formed of spring metal and disposed vertically above the center of the

ledge 2, the longitudinal edge portions of this clip being flared, as clearly indicated in Figs. 2 and 7 and said clip being adapted to be spread apart to receive the fold portion of sheet music. If desired, a clip such as shown at 9 may be placed in engagement with the upper end portion of the clip 8 so as to hold said clip 8 against spreading after the sheet music has been placed in position.

A shaft 10 is journaled at its lower end within the ledge 2 and extends into the back portion of the clip 8, there being a gear 11 keyed or otherwise secured to this shaft and meshing with a rack 12 which is slidably mounted on the ledge 5. The tubular shaft 13 is journaled upon the shaft 10 and is located above the gear 11, this shaft having a gear 14 keyed or otherwise secured to it and meshing with a rack 15 which is slidably mounted on the flange 4. Another or outer tubular shaft 16 is journaled on the shaft 13 and is disposed entirely above the gear 14, there being a gear 17 secured to this shaft 16 and meshing with a rack 18 which is slidably mounted on the ledge 3. The gears 11, 14 and 17 lap the respective ledges and said ledges thus serve to support said gears as well as the shafts to which the gears are secured. All of the shafts extend loosely into the back portion of the clip 8.

Each of the racks 12, 15, and 18, has a tongue 19 extending from one end thereof and slidably mounted upon the adjoining ledge or flange, said tongue being provided, close to the rack, with a recess in the outer longitudinal edge thereof. An ear 21 extends upwardly from the free end of the tongue.

Arms 22 are secured to the respective shafts 10, 13 and 16, and are extended perpendicularly to said shafts and terminate in upstanding portions 23, each of which may be provided with a hooked terminal 24 or the like for engaging the edge of a sheet of music.

An actuating strip 25 is arranged above the ledge 2 and in front of the plate 1, this strip having a lug 26 extending at right angles from the free end thereof, said lug being adapted to ride upon any one of the flanges 3, 4 and 5, the length of said lug being less than the depth of the recesses 20. This strip 25 extends to one side of the musical instrument 27 on which the device is mounted and is pivotally connected to one arm of a bell crank lever 28. The other

arm of this lever is connected by a rod 29 to a bell crank lever 30 which, in turn, is connected to a rod 31 extending under the keyboard of the instrument. A knee plate 32 is attached to one end of the rod 31 and said rod is mounted in a suitable guide 33. A collar 34 may be secured to the rod and a spring 35 interposed between said collar and the guide 33 for the purpose of holding the rod 31 and the parts connected thereto normally in predetermined positions. When the parts are in their normal positions the arms 22 are extended to the right of the performer. The sheets of music are adapted to be placed on the ledge 2 and to be placed in engagement with the respective upstanding portions 23. Strip 25 is placed with its lug 26 resting on the tongue of the upper rack 18. When it is desired to turn the first sheet of music the plate 32 is shifted by a knee of the operator so as to place the spring 35 under stress and movement is transmitted through the bell crank lever and the rods 29, to the strip 25 which is drawn laterally so as to cause the lug 26 to move against the ear 21 on the upper tongue 19 and thus draw the rack 18 longitudinally. As the upper gear 17 meshes with the rack 18, said gear will be rotated so as to swing its arm 22 from the right to the left of the operator, thus turning the sheet which is attached to the arm. When the plate 32 is released the parts will return to their initial positions. As the recess 20 is brought beyond the shoulder 6 by this movement of the tongue 19, it is apparent that upon the completion of the return movement of strip 25, the lug 26 will drop through the recess 20 and pass the upper flange 3 and onto the tongue 19 connected to the rack 15. When the knee plate 32 is again shifted this intermediate rack will be moved so as to turn its gear 14 and the arm 22 connected to it, thus bringing the recess in the tongue 19 past the shoulder 6 on flange 4 so that, upon the return movement of the strip 25, the lug 26 will pass through the recess 20 and drop onto the tongue 19 of the lowest rack. This rack can then be operated in the same manner as has been heretofore described. Obviously by increasing the number of racks and flanges for supporting them, the capacity of the device is proportionately increased. After the leaves have been turned in the manner described, one or more of them can be turned back to their initial positions by grasping the leaves or the arms 22 and swinging them to the right. The member 25 can be reset for the

purpose of repeating the foregoing operation, by lifting it out of engagement with the lower tongue 19 and placing it back in the position illustrated in Fig. 2. This is permissible in view of the fact that the member 25 is capable of springing laterally to a sufficient extent to allow the lug 26 to move off of the tongue thereunder.

It is to be understood of course that in lieu of providing a knee plate 32 for the purpose of operating the parts, the rod 29 can be extended down to a pedal or the like, this last structure being particularly desirable when the turner is used upon a music rack or stand such as used in orchestras.

Various changes may be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention as defined in the appended claims.

What is claimed is:—

1. A music leaf turner including superposed gears, separate means movable with the respective gears for engaging leaves to be turned, supporting flanges, racks mounted to reciprocate upon the flanges and meshing with the respective gears, a reciprocatory actuating member, notched means operated by said member when moving in one direction for shifting a rack in one direction and for opening the notch, said notch being normally closed by the flanges, said notch being in the path of the actuating member when moved in the opposite direction to direct the said member by gravity into operative relation with the next adjoining rack.

2. A music leaf turner including superposed gears mounted for rotation, leaf-engaging devices connected to the respective gears, a rack meshing with each gear, supports for the racks, a notched tongue extending from each rack and having an upstanding projection, and an oscillatory actuating member mounted upon one of the tongues, said member being movable in one direction to engage the upstanding portion and shift the gear and being movable in the opposite direction into and through the notch and upon the tongue of the next adjoining rack.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WALTER A. MATHWIG.

Witnesses:

J. J. S. McKEE,
L. K. HARRIS.