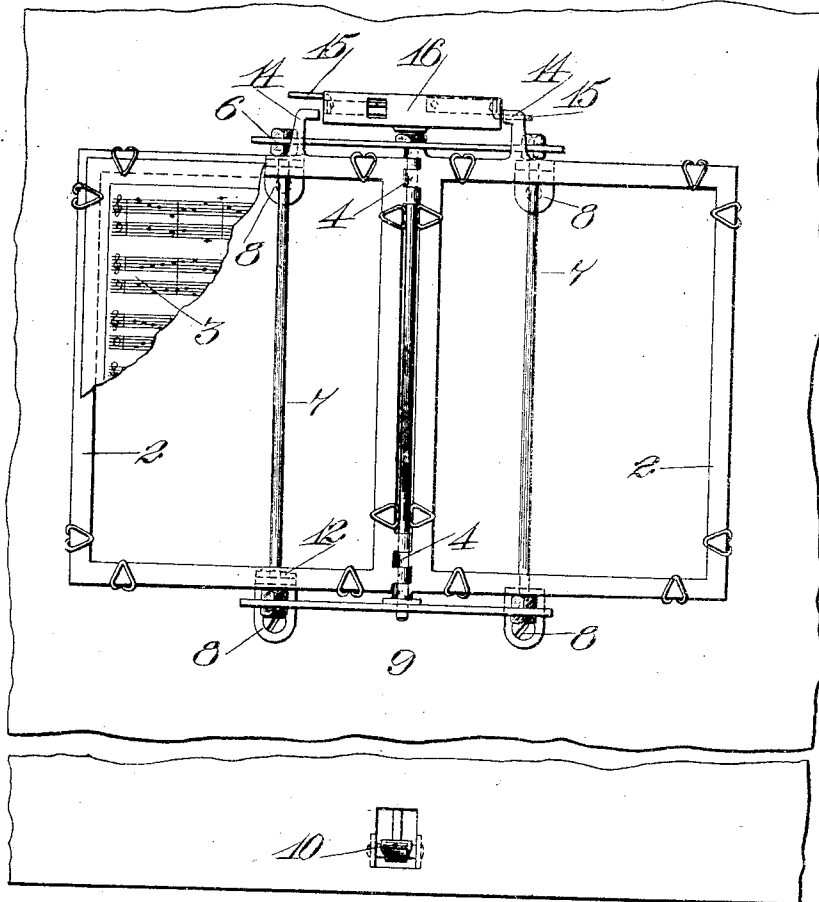
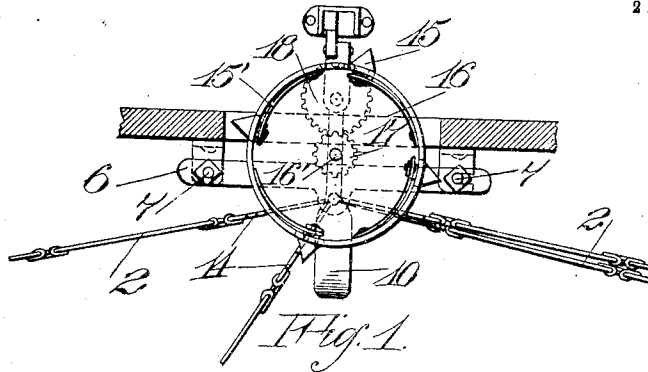


R. A. GIBSON.
MUSIC LEAF TURNER.
APPLICATION FILED FEB. 10, 1909.

942,821.

Patented Dec. 7, 1909.

2 SHEETS—SHEET 1.



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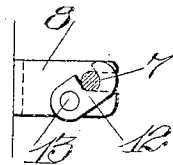
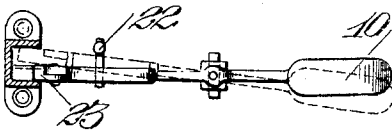
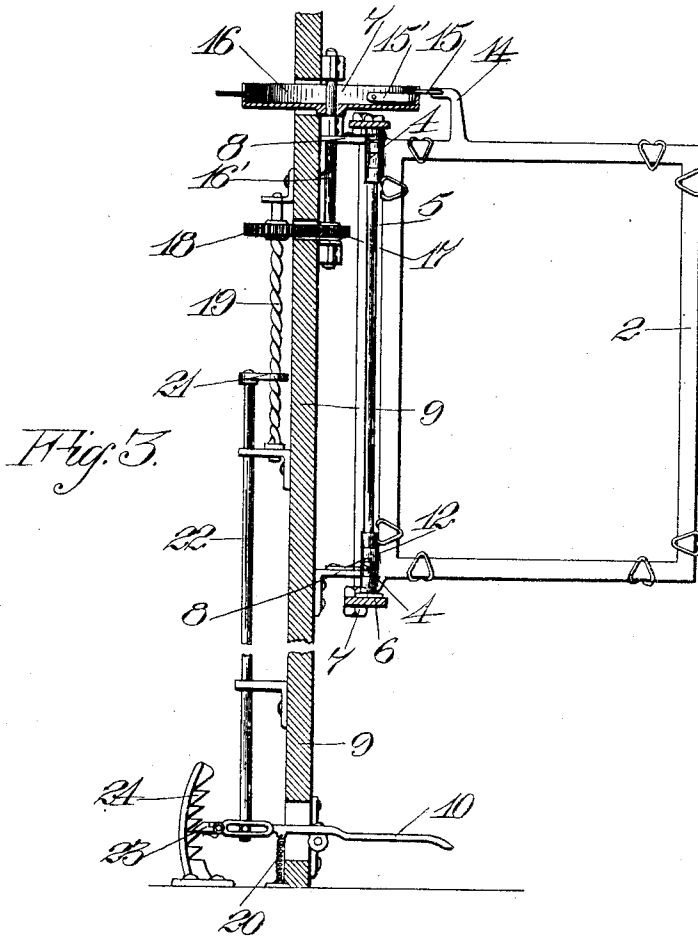
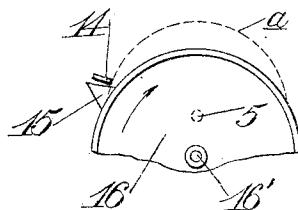


Fig. 4.

Fig. 6.

Fig. 5.

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UNITED STATES PATENT OFFICE.

ROBERT A. GIBSON, OF SOUTH BERKELEY, CALIFORNIA, ASSIGNOR OF ONE-HALF TO
JOHN B. SARTOLOU, OF OAKLAND, CALIFORNIA.

MUSIC-LEAF TURNER.

942,821.

Specification of Letters Patent.

Patented Dec. 7, 1909.

Application filed February 10, 1909. Serial No. 477,057.

To all whom it may concern:

Be it known that I, ROBERT A. GIBSON, a citizen of the United States, residing at South Berkeley, in the county of Alameda and State of California, have invented new and useful Improvements in Music-Leaf Turners, of which the following is a specification.

This invention relates to music leaf holders and turners.

Among the several purposes of my invention, is to devise a music leaf holder and turner adapted to be mounted in proper relative position to a piano, or in some cases with the musician's ordinary music stand; and comprehends in the construction shown, a pedal connection for turning the leaves.

Another purpose of the device is to provide a music holder which may be readily dismantled from the turning mechanism so that leaves of music may be added or removed at will; and a particular feature of the apparatus is the embodiment of means whereby any or all of the leaves may be returned to the normal position at pleasure.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a plan view of the device. Fig. 2 is a front elevation. Fig. 3 is a side elevation. Fig. 4 is a detail of the pedal connections. Fig. 5 is a detail sectional plan, showing a locking latch. Fig. 6 is a diagrammatic view representing the action of an actuator on a leaf holder.

In the embodiment of my invention as actually reduced to practice, I have provided a plurality of suitable frames or holders 2 adapted to receive and hold sheets of music, such as indicated at 3; the rear vertical edge of each frame or holder 2 being provided with upper and lower bearing-rings or eyes 4, through which loosely passes a removable pivot rod 5 inserted through perforations in the supporting plates 6. The latter are rigidly secured to the opposite ends of suitably spaced rods 7 which are adapted to be inserted into slots in suitable brackets 8 secured at the proper elevations on the front board 9. The plates 6 and spaced rods 7 constitute a carrier for the hinged holders 2, of which there may be any desired number. The pivot rod 5 is headed at the upper end which prevents its dropping out when

passed through the holes in the plates 6. By making rod 5 removable it enables the holders to be taken out, or others inserted, as more or less are required. This carrier with its music leaf holders may be suitably attached to any convenient support, and the holders and leaves turned by any suitable means.

In the present instance, I have illustrated the device applied to the front of a piano and the leaves turned by suitable connections with an operating pedal 10.

One vertical pair of the brackets 8 is provided with small turnable hooks or catches 12 adapted to be turned about their pivots 13 and clasp the rods 7 to hold the carrier and music leaf holders in position. In this way it is a simple matter to dismount the carrier and then remove the pivot rod 5, so that the number of holders 2 may be changed, if necessary.

Each holder 2 is provided with a small upwardly and inwardly projecting lug 14; each of the lugs 14 upon the several frames 2 having its inward extension in a different horizontal plane from the others. Each lug 14 is disposed in the path of a corresponding spring-supported actuator 15, each in a different horizontal plane and all carried by the turnable disk 16. Disk 16 is secured upon the shaft 16', to the lower end of which is fastened a pinion 17 adapted to engage with a gear 18 secured upon the upper end of a twisted rod or screw 19 journaled upon the rear side of the board 9.

The pivot rod 5 is disposed eccentric to the shaft 16' so as to accomplish in the best manner the proper sequential turning of the several music leaf holders 2. As each lug 14 is engaged by its respective horizontally-disposed actuator 15 when the disk 16 is rotated a requisite distance, the several holders 2 will thus be turned successively about the pivot 5; each holder moving practically through an arc of 180°, so that the sheets will always lie flat. Another and particular purpose of having the rod 5 eccentric to and in front of the shaft 16' is to allow each lug 14, as its holder 2 is turned to the left, to clear itself of its actuator 15 when the frame hits the left-hand rod 5, the continued rotation of the disk 16 in the same direction forcing the actuator to yield sufficiently to escape the now stopped frame 2, thus permitting the disk 16 to be further rotated so

that the next actuator 15 will be brought into engagement with its respective frame-lug 14; thus turning each leaf successively, while the drum revolves in the same direction, though intermittently, whenever the pedal 10 is worked.

Each of the actuators 15 consists of a wedge-shaped piece housed and working radially in the disk or drum 16, and normally pressed outward into operative position by means of a spring 15'.

As shown in Fig. 6, the dotted line *a* represents the arc of movement of a lug 14. When the lug 14 is at the left-hand side of Fig. 6 (which in playing position would represent the open position of the sheet ready for playing), this lug 14 is in engagement with an actuator 15. Consequently, if the drum 16 is turned in the direction of the arrow, the actuator 15 pushes lug 14 in front of it, and so turns the sheet of music. However, as the actuator 15 passes nearest the pivot 5, the lug 14 is at the farthest point from the pivot 16'; and the outer end of the member 15 is rounded, or made wedge-fashion, so that at this point the lug 14 is released, and the actuator passes on beyond and in front of the lug 14. However, as the music sheet holders which carry the lugs 14 are light and turn easily on their pivots, the initial impulse given to the holder by the actuator is sufficient to make the holder turn clear over, even after the actuator is released in the manner described.

If it is desired to turn back any of the leaves, as is so frequently necessary in playing certain pieces of music, the rotation of the disk 16 is reversed so that the actuator 15 for the holder which carries the leaf to be re-played will engage behind the rear side of its lug 14, and carry the holder and leaf back to their original position on the right-hand side in front of the player; the return movement of the disk being accomplished by a spring 20, as will be shortly described.

In order to accomplish each intermittent forward rotation of the disk 16, and turn the leaves of music consecutively to the left, the screw 19 is engageable by a nut 21 mounted upon the upper end of a suitably guided rod 22 which is connected with the rear end of the pedal lever 10, so that as the pedal is depressed the rod 22 is consequently elevated, and the nut 21 which engages the screw 19, causes the screw and gear 18 to be revolved; and from thence the power is transferred by gear 17 to rotate the disk 16. In order to prevent the lever returning in case the pressure by the foot is removed, the pedal 10 is provided with a pawl 23 engageable with a rack 24 having teeth so spaced as to correspond with the required amount of circular motion of the actuators 15, so that the operator, after having turned one

of the holders to the left, may engage the pedal in a notch in the rack 24, and remove his foot from the pedal.

After having played through any piece of music, or if desiring to turn back a page or more for review, or repeat, the pedal 10 is disengaged from the rack 24, thus permitting the spring 20 to immediately draw the rod 21 downwardly, thus reversing the motion of the gears 17—18 and of the disk 16, and consequently turning the holders to the right.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. In a music leaf turner, the combination of a series of pivoted music leaf holders, a suitable support for the same, a single drum, means for revolving the drum, and spring pressed actuators on said drum and arranged in different horizontal planes and adapted to successively engage said holders to turn them.

2. In a music leaf turner, the combination with a series of pivoted music leaf holders, a suitable support for the same, a single drum, means for revolving the drum, actuators arranged in different horizontal planes and secured to said drum and projecting from the perimeter thereof, said actuators being yieldingly mounted and normally pressed outwardly and adapted to engage successive holders to turn them, and means by which said drum is adapted to turn the holders in either direction.

3. In a music leaf turner, the combination of a series of music leaf holders, a carrier for said holders, said carrier comprising spaced plates and upright rods connecting the same, a removable pivot rod carried by the plates and engaging eyes on the holders, about which rod the holders are turnable, and means including slotted projections and latches pivotally mounted thereon for attaching the carrier to a support.

4. In a music leaf turner, the combination of a series of music leaf holders, a carrier for said holders, said carrier comprising spaced plates connected by upright rods, said plates carrying a removable pivot rod engaging eyes on the holders, and about which pivot rod said holders are turnable, and means for attaching said carrier to a suitable support, said last-named means including slotted brackets engageable by the said upright rods, and pivoted latches on the brackets for removably holding the carrier in position.

5. In a music leaf turner, the combination of a series of music leaf holders, a carrier for said holders, said carrier comprising spaced plates connected by upright rods, said plates carrying a removable pivot rod engaging eyes on the holders, and about which pivot rod said holders are turnable, means including slotted brackets and latches piv-

oted thereon for attaching said carrier to a suitable support, and mechanical means for turning said holders successively, said last-named means including a drum pivoted eccentric to the said pivot rod and carrying a plurality of actuators engageable with the holders to turn them, a pedal, and pedal connections with the drum for actuating the drum.

6. In a music leaf turner, the combination of a series of music leaf holders, a carrier for said holders, said carrier comprising spaced plates connected by upright rods, said plates carrying a removable pivot rod engaging eyes on the holders, and about which pivot rod said holders are turnable, means for attaching said carrier to a suitable support, and means for turning the holders, said means including a drum pivoted eccentric to said pivot rod, radially-acting, spring-operated actuators on the drum engageable successively with the holders, and means for rotating the drum.

7. In a music leaf turner, the combination

of a series of music leaf holders, a carrier for said holders, said carrier comprising spaced plates connected by upright rods, said plates carrying a removable pivot rod engaging eyes on the holders, and about which pivot rod said holders are turnable, means for attaching said carrier to a suitable support, and means for turning the holders, said means including a drum pivoted eccentric to said pivot rod, radially-acting, spring-operated actuators on the drum engageable successively with the holders, and means for rotating the drum, said actuators disposed in different horizontal planes, and the holders having lugs in similar planes engageable by respective of said actuators.

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

ROBERT A. GIBSON.

Witnesses:

CHARLES A. PENFIELD,
CHARLES EDELMAN.