

(No Model.)

P. H. ADAMS.
MUSIC LEAF TURNER.

No. 553,746.

Patented Jan. 28, 1896.

Fig 1.

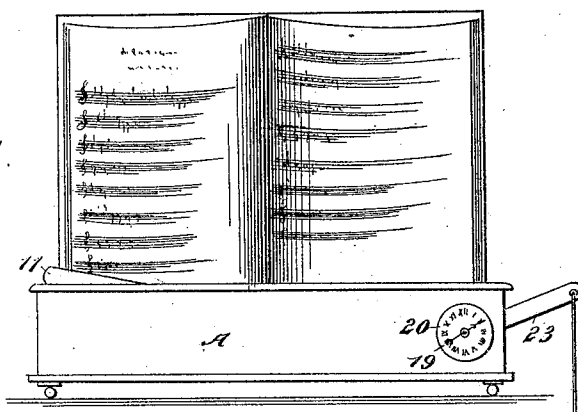


Fig 2.

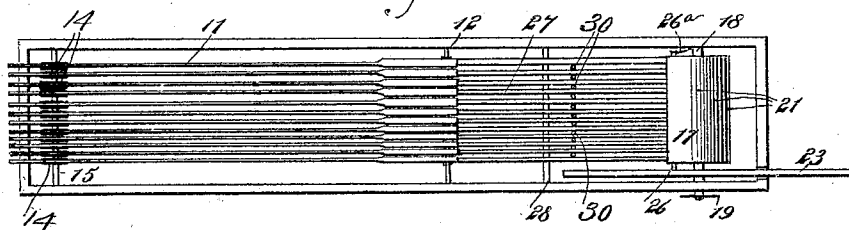


Fig 4.

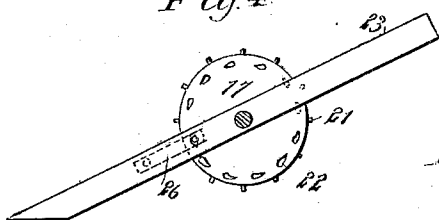


Fig 3.

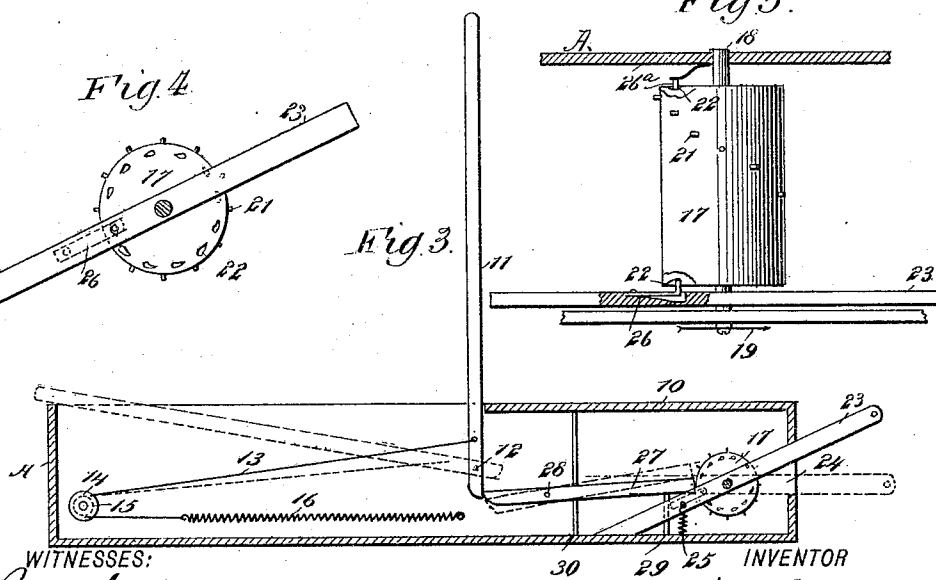
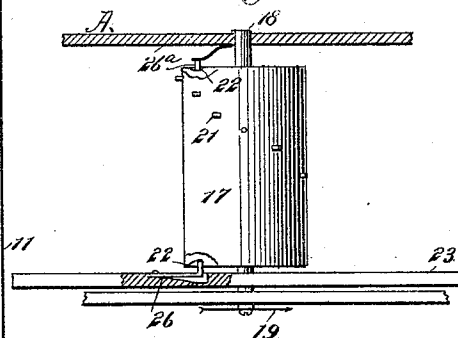


Fig 5.



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MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 553,746, dated January 28, 1896.

Application filed April 1, 1895. Serial No. 544,033. (No model.)

To all whom it may concern:

Be it known that I, PETER HOWARD ADAMS, a subject of the Queen of Great Britain, at present residing at Osorno, Chile, have invented a new and useful Improvement in Music-Leaf Turners, of which the following is a full, clear, and exact description.

My invention relates to an improvement in music-leaf turners, and it has for its object to provide a device which will quickly turn the leaves of music upon touching a lever, and without injury to the sheets turned.

Another object of this invention is to provide a machine of the above character which will be simple, comprising very few parts, and which will be positive in its action.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of the machine, illustrating the music in position thereon. Fig. 2 is a plan view of the machine, the top being removed. Fig. 3 is a longitudinal section through the machine. Fig. 4 is a detail side elevation of the drum and lever for turning it, the drum controlling the music-turning arms; and Fig. 5 is a plan view of the drum and a partial plan view and sectional view of the lever adapted for manipulating the drum.

In carrying out the invention the body of the machine consists of a box or casing A, the top whereof is provided with a cover 10 at one end only. Within the casing at a point below the inner end of its cover 10 a series of music-turning arms 11 is fulcrumed upon a cross bar or rod 12, the fulcrum of the arms being near their inner ends, and said inner ends are curved upon one side, as shown in Fig. 3. These arms are placed side by side, and when not in use rest upon the upper edge at the open end of the casing, as shown in Fig. 2. Each arm has attached to it above its pivot a cord 13, and each cord is made to pass over a pulley 14, all of the pulleys being

mounted to turn on a rod 15, extending transversely from side to side of the casing at its open end and near the bottom. Each cord 13 is passed around its pulley 14 and is then attached to the end of a spring 16, the said spring at its opposite end being secured within the casing at a point near the central portion of its bottom. These springs serve to normally hold the leaf-turning arms 11 in their lower or horizontal position, as shown in Fig. 3.

At the covered end of the casing a cylinder 19 is fixed on a shaft 18, which is in turn journaled in the sides of the casing, and the forward end of the shaft has attached to it a pointer 19, the same being outside of the casing and adapted to work over a dial-plate 20. This dial-plate may bear the same characters as the dial of a clock or may be provided with any numbers, it being adapted to indicate the number of leaves of music that have been turned over.

A series of spirally-arranged pins 21 is secured upon the cylinder, the pins being at predetermined intervals apart, and in each end of the cylinder openings 22 are made corresponding in number and corresponding in position with the number and position of the pins 21. The cylinder is adapted to turn from left to right, and the right-hand end of each opening 22 is straight or practically so, while the left-hand end is inclined or tapering.

A lever 23 is mounted loosely on the shaft 18, as best shown in Fig. 5, the lever being made to extend through an opening 24 in the end of the casing, where it may be struck by hand. The lever is normally held in an upwardly-inclined position (shown in Figs. 3 and 4) through the medium of a spring 25, and its lower end is beveled in order that this position may be maintained. The lever is provided near its inner end with an angular spring-catch 26, the said catch being adapted to enter the opening 22 in one end of the cylinder, and when the lever is pressed downward this catch engages the shoulder of the opening with which it operates and turns the said cylinder a distance corresponding to the peripheral length between two teeth 21, and when the lever is released the spring 25 will return the lever to its normal position and

in so doing will carry the catch 26 backward to engage with the next hole, while a second spring-catch 26^a, attached to the casing A, enters an opening 22 at the opposite side of the cylinder and by engagement with its shoulder holds the cylinder against turning.

The latches and the openings 22 correspond to ratchets and pawls, and it is evident that such devices may be substituted if found desirable.

A number of locking-arms 27 or latch-bars, corresponding to the number of leaf-turning arms employed, are fulcrumed near their inner ends upon a rod 28, and the inner ends of these locking or retaining arms are beveled or rounded off, as shown in Fig. 3, while their rear ends are made to rest normally upon pins 29, which limit their downward movement. The outer end of each retaining or locking arm 27 is adapted to be engaged by one of the pins 21, the number of pins corresponding to the number of retaining or locking arms, and guide-pins 30 are arranged one between each of the arms 27, so as to prevent their lateral displacement.

When a music-turning arm is elevated to a vertical position, as shown in Fig. 3, it will press down the inner end of its mating retaining or locking arm 27 and pass the same. In so doing the outer end of the locking or retaining arm will fall, causing its inner end to bear against the straight portion of the lower end of the leaf-turning arm, maintaining the arm in its vertical position. Supposing it to be the first arm that is to be employed in turning the sheet of music, when the lever 23 is pressed downward the cylinder 17 will have been turned a suitable distance to cause one of its pins 21 to lift up the rear end of the locking or retaining arm 27, thereby depressing its inner end and releasing the music-turning arm, which will turn the sheet resting upon it, since the music-turning arm will be drawn downward by its spring 16, and the arm in passing across the face of the sheet will smooth it out and will hold it in its turned position, as shown at the left in Fig. 1. Each time that the cylinder is turned to turn a sheet a record will be made on the dial 20, it

being seen that the shaft 18 rotates with a step-by-step movement.

Two or more or the entire number of arms in the machine may be set between the sheets of music before commencing to play, if desired, and it will be understood that the machine may be provided with any desired number of such leaf-turning arms.

It will be understood that the apparatus is to be placed upon that place on the piano which is adapted for the reception of the music sheet or book, so that a part of the said sheet or book may rest upon the top 10 of the casing and the other side upon the opposite end of the box A, the book being allowed to tilt back upon the usual support.

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

1. The combination with a casing having an upper side one-half of which is open, a pin-cylinder journaled within the casing and beneath the covered upper side thereof, a lever loose on the trunnion of the cylinder, a pawl carried by the lever and engaging with the cylinder, a series of trip-levers fulcrumed within the casing and also beneath the covered upper side thereof, the said trip-levers being respectively engaged with the pins on the cylinder, and a second series of levers, the same being spring-actuated and held in a vertical position by direct engagement with the trip-levers, substantially as described.

2. In a music-leaf turner, the combination with a casing having its top half open, of a cylinder revoluble in the casing and located beneath the covered portion of the top, the cylinder having pins projecting from its sides, a series of levers fulcrumed in the casing and beneath the covered top, a second series of levers also fulcrumed in the casing and capable of swinging upwardly and of being limited by the said top, and a series of springs respectively connected to the second levers, substantially as described.

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Witnesses:

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