S. J. COLE.

MUSIC LEAF TURNER.

APPLICATION FILED MAY 2, 1911.

1,036,963. Patented Aug. 27, 1912.

Fig. 1.

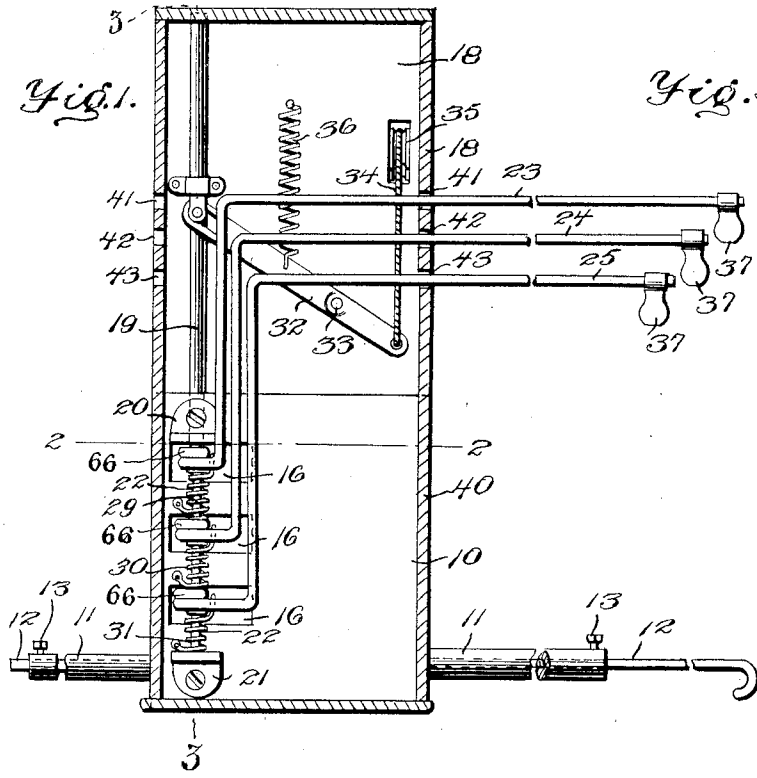


Fig. 3.

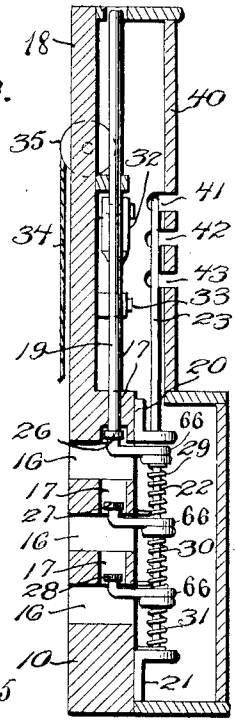


Fig. 2.

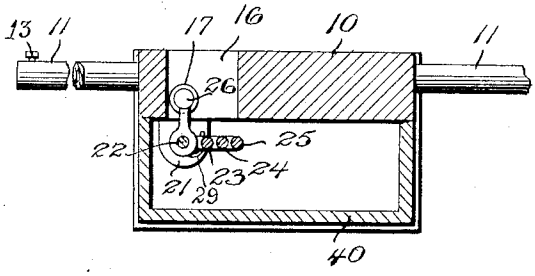
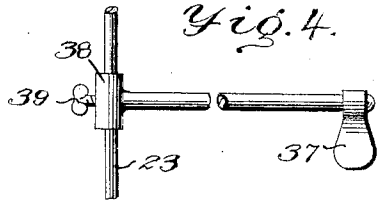


Fig. 4.



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UNITED STATES PATENT OFFICE.

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MUSIC-LEAF TURNER.

1,036,963. Specification of Letters Patent. Patented Aug. 27, 1912.

Application filed May 2, 1911. Serial No. 624,651.

To all whom it may concern:

Be it known that I, SAMUEL J. COLE, a citizen of the United States, residing at High Spire, in the county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in Music-Leaf Turners, of which the following is a specification.

This invention relates to improvements in devices for turning the leaves of music, and may be employed in connection with pianos, organs, music racks or stands or the like, and has for one of its objects to simplify and improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a device of this character so arranged that a plurality of spring-controlled fingers are released successively at the option of the performer to automatically turn the leaves as required.

With these and other objects in view, the invention consists of certain novel features of construction as hereinafter shown and described, and then specifically pointed out in the claims.

The improved device, as before stated, may be employed in connection with a piano, organ, or other musical instrument, or with music racks or stands, and may be provided with suitable clamping devices whereby the device may be connected to the instrument or stand, and may be modified as to size and the number of leaf-engaging members, but for the purpose of illustration the improved device is shown arranged to be clamped to the music rack of a piano or like instrument and arranged with three of the turning members, and in the drawings thus employed:

Figure 1 is a sectional elevation of the improved device; Fig. 2 is a section on the line 2—2 of Fig. 1; Fig. 3 is a section on the line 3—3 of Fig. 1; Fig. 4 is a detail view of a modified construction of the leaf turner member.

The improved device comprises a supporting body 10 for resting upon the music rack and to which the mechanism is connected. A clamping device is applied to the body 10 and comprises two tubular arms 11 extending from each side of the body and in each of which a rod 12 is slidably engaged and adapted to be clamped within the tube at any desired point by a set screw 13. At their outer ends the rods 12 are provided with hooks 15 to engage around the ends of the music rack. By this simple means the body 10 may be readily clamped to the rack and adjusted to fit racks of various sizes.

Formed transversely through the body 10 at spaced intervals are cavities 16, and extending downwardly into the body are apertures 17 which also extend through the cavities 16 as shown in Fig. 3. Preferably the body 10 is formed of less thickness at the upper portion as represented at 18, and the aperture 17 extends downwardly in advance of the reduced portion as shown, so that a plunger 19 may be passed downwardly through the aperture and likewise through the recesses 16, the object to be hereafter explained.

Connected to the face of the body 10 above and below the recesses 16. are ears 20—21 in which a pin 22 is supported, the pin being thus located in advance of the outer face of the body 10 and transversely of the recesses 16. The leaf-turning arms are mounted to swing upon this pin 22 and are preferably formed of wire, and as before stated, three of the arms are shown for the purpose of illustration and designated by the characters 23—24—25. Each of the arms is coiled around the rod 22 as shown at 66 with the shorter ends directed inwardly and thence upwardly to form stops 26, 27 and 28 for extending respectively into the apertures 17 as represented in Fig. 3, the stops thus bearing against the side walls of the recesses and serving to hold the rods locked in position with the outer ends engaged with the music leaves, as hereafter explained.

The arm 23 is provided with a spring 29 coiled around the rod 22 and operating to move the arm 23 into its outward position while similar springs 30—31 are connected to the arms 24—25. By this means when the arms are turned into position shown in Figs. 1 and 2, and the stops 26—27—28 inserted into the aperture 17, the arms will be locked in position against the resistance of the springs as will be obvious.

The plunger 19 is provided with an operating lever arm 32 pivoted at 33 to the reduced portion 18 of the body, and from which a pull cord 34 leads over a guide pulley 35 and thence to a point convenient for the performer. This cord may be conducted to any suitable point and arranged to be actuated by the foot of the performer, or by

the hand as may be preferred, but as the manner of actuating the cord is not a portion of the present invention it is not deemed necessary to illustrate this part of the device. A spring 36 is connected to the arm 32 and operates to maintain the plunger 19 yieldably in its withdrawn position as shown in Fig. 1. In actuating the improved device the arms 23—24—25 are arranged flatwise against the base 10—18 and connected at their free ends respectively with the sheets of music to be turned, the arm 23 being preferably connected with the outermost sheet of music, the arm 24 connected to the intermediate sheet of music and the arm 25 connected to the innermost sheet of music. With the device thus arranged when the first sheet of music is to be turned the performer draws upon the cord 34 with the result of depressing the plunger 19 against the stop 26 of the arm 23 and forces the stop downwardly against the resistance of the spring 29 and thus detaches the stop from the aperture 17 and releases the arm 23 so that the spring 29 throws the arm around one half of a complete revolution carrying the sheet of music with it. The spring 36 then returns the plunger 19 to its upward position. When the next sheet of music is to be turned the performer again pulls the cord and depresses the plunger against the stop 27 which releases the arm 24 and causes the intermediate sheet of music to turn. Upon the release of the cord the spring 36 returns the plunger to its former position again. When the third sheet of music is to be turned, the performer repeats the performance and again depresses the plunger 19 and releases the third stop 28 and permits the arm 25 to turn the last sheet of music. It will be obvious that any required number of arms and their stops may be employed, the only difference being that the throw of the plunger 19 will be increased for each additional arm employed.

If preferred, suitable spring clips illustrated at 37 may be attached to each of the arms at their outer ends to engage with the sheets of music and thus connect them more firmly with the arms.

In Fig. 4 is illustrated a modification of the construction consisting in connecting the horizontal portions of the arms 23 to the vertical portions by collars 38 each collar having a set screw 39 operating against the vertical portion of the arm. By this means the arms may be adjusted to any extent required.

A suitable inclosing casing indicated as a whole at 40, is arranged upon the supporting base 10 and provided with the slots 41, 42 and 43 through which the arms 23—24—25 operate. By this arrangement all parts of the mechanism will be concealed except portions of the horizontal parts of the arms.

Having thus described the invention, what I claim is:

1. A body having a plurality of recesses spaced apart and in vertical alinement and a plurality of apertures in vertical alinement and communicating respectively with said recesses, a plurality of leaf-turning arms mounted to swing relative to said body and each spring-controlled and provided with a lateral projection extending respectively into said recesses, the terminal of each projection being directed upwardly into one of said vertically alined apertures and retained thereby against the resistance of the springs, and a releasing means operating through said apertures to successively release said stops from the same.

2. A body having a plurality of recesses spaced apart and in vertical alinement and with a plurality of apertures in vertical alinement and communicating respectively with the recesses, a rod supported upon said body, a plurality of leaf-turning arms swinging upon said rod and each spring-controlled and provided with a lateral projection extending into one of the recesses, each of said projections having an upwardly directed stop engaging respectively in the alined apertures, and means operating to successively release said stops from the apertures.

3. A body having a plurality of recesses spaced apart and in vertical alinement and a plurality of apertures in vertical alinement and communicating respectively with the recesses, a plurality of leaf-turning arms spring-controlled and mounted to swing relative to said body and each provided with an upwardly directed stop engaging in one of said vertically alined apertures and retained thereby against the resistance of the spring, a trip rod arranged to successively engage said stops and release them from the apertures, and means for actuating said trip rod.

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

SAMUEL J. COLE. [L. S.]

Witnesses:
C. O. SHEAFFER,
H. HALL SHARP.