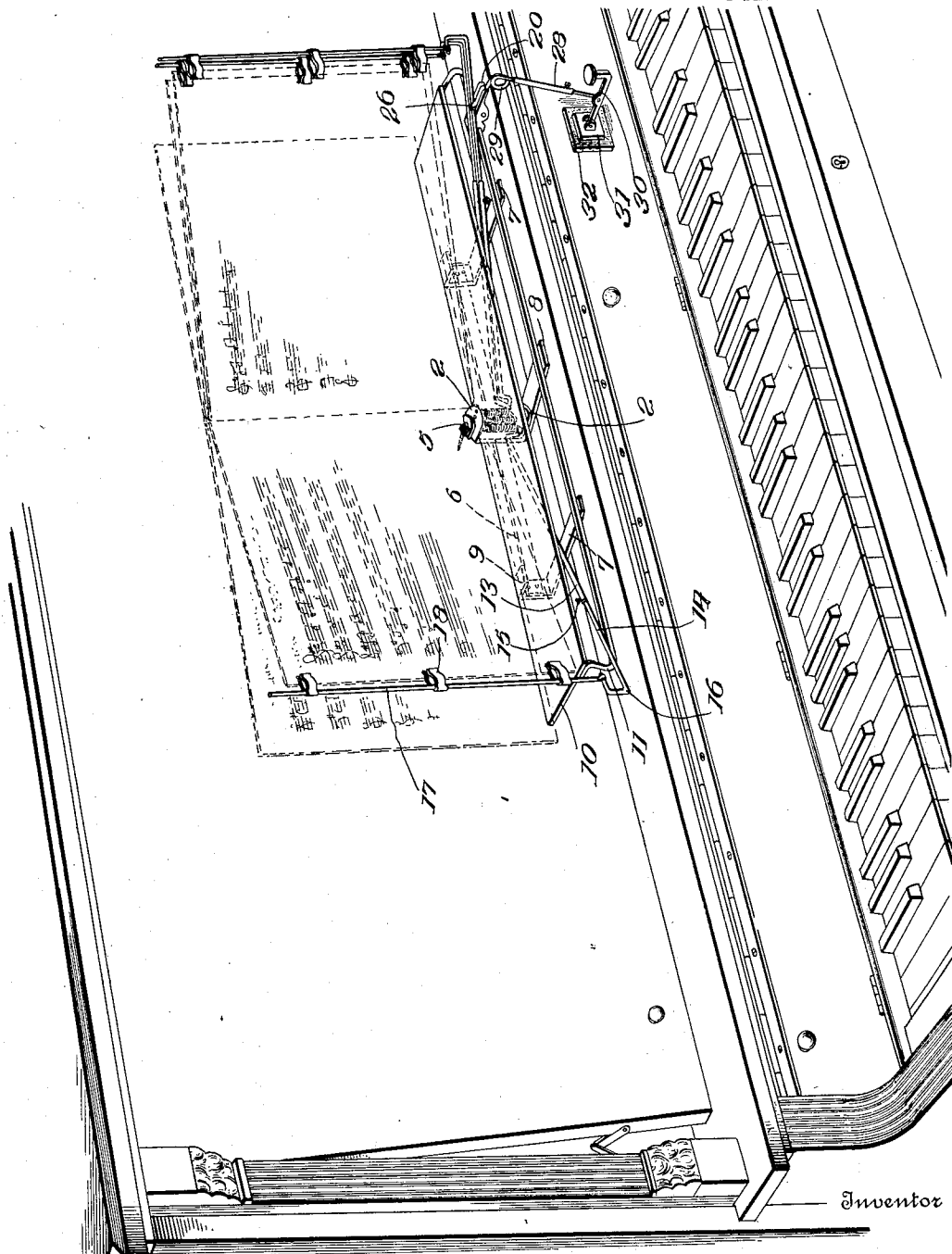


G. E. FERGUSON.
MUSIC LEAF TURNER.
APPLICATION FILED MAR. 26, 1912.

1,077,134.

Patented Oct. 28, 1913.

2 SHEETS—SHEET 1.



Witnesses
W. H. Woodson
Edmund Speer

FIG. 1.

By

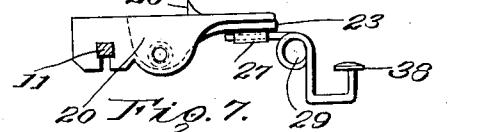
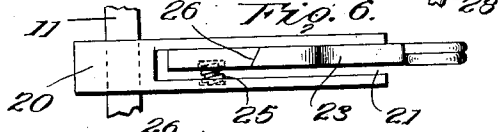
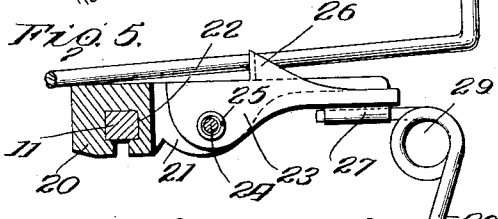
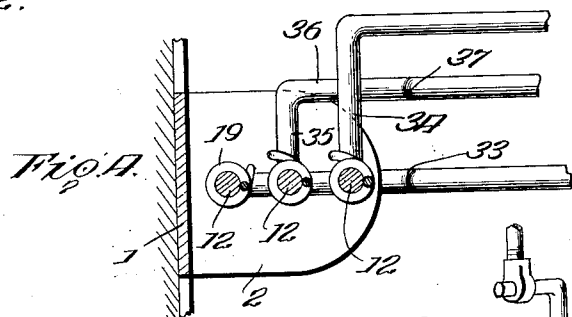
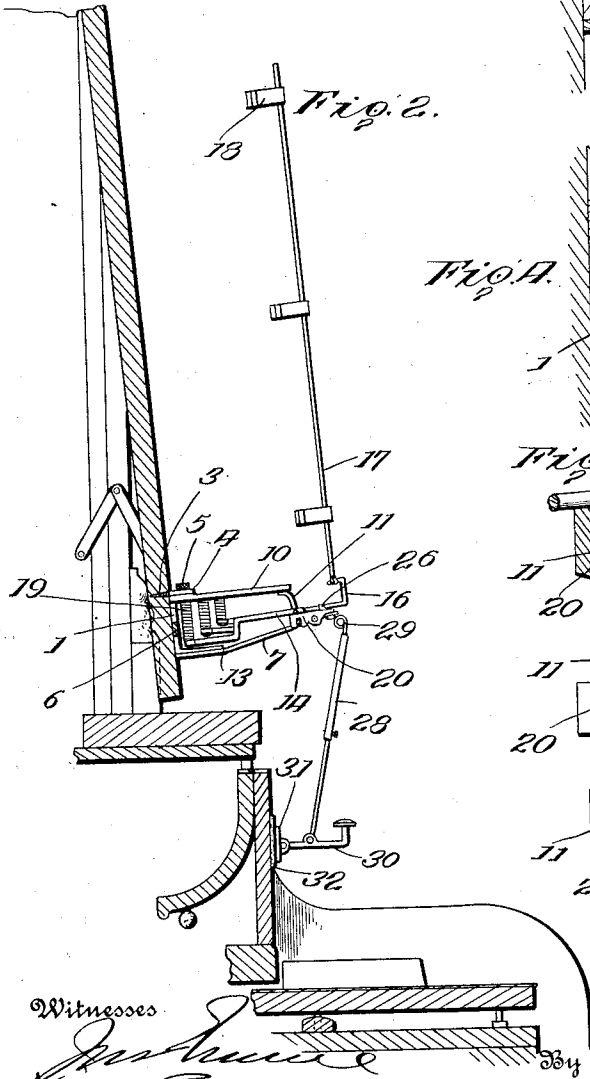
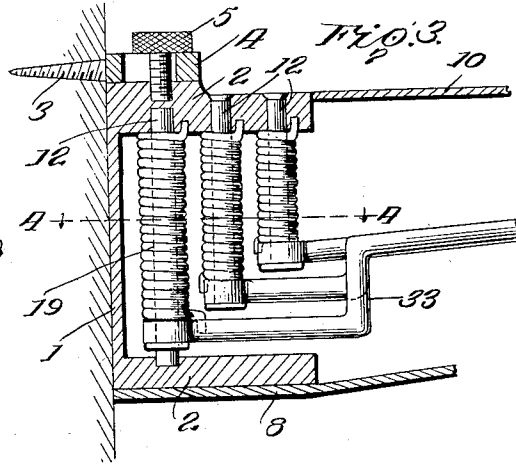
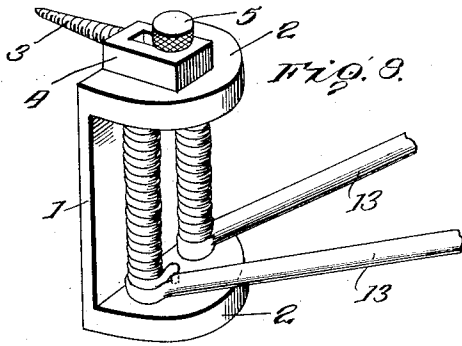
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2 SHEETS—SHEET 2.

1,077,134.



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UNITED STATES PATENT OFFICE.

GURNETT E. FERGUSON, OF INSTITUTE, WEST VIRGINIA.

MUSIC-LEAF TURNER.

1,077,134.

Specification of Letters Patent.

Patented Oct. 28, 1913.

Application filed March 26, 1912. Serial No. 686,385.

To all whom it may concern:

Be it known that I, GURNETT E. FERGUSON, a citizen of the United States, residing at Institute, in the county of Kanawha and State of West Virginia, have invented certain new and useful Improvements in Music-Leaf Turners, of which the following is a specification.

This invention relates to leaf turners and has for its object the provision of mechanical devices whereby the leaves or sheets of a musical composition may be rapidly turned without interrupting a rendition of the composition.

The objects of the present invention are to simplify the construction and operation of music leaf turners and to provide an apparatus which may be readily applied to any piano and be easily operated by the performer without causing a perceptible interruption of the performance.

The object of the invention is attained in a mechanism of the character illustrated, and the invention resides in certain novel features which will be hereinafter first fully described and then more particularly pointed out in the appended claims.

In the drawings: Figure 1 is a perspective view of my improved device showing so much of a piano as is necessary to illustrate the operative position of the invention; Fig. 2 is a vertical transverse section of the same; Fig. 3 is an enlarged detail section through the main support; Fig. 4 is a horizontal section on the line 4-4 of Fig. 3; Fig. 5 is a view partly in elevation and partly in section of the trip device; Fig. 6 is a plan view of the trip device; Fig. 7 is a view of a modification of the trigger; Fig. 8 shows a modified arrangement of the leaf-carrying arms.

In carrying out my invention, I employ a bracket 1 which consists essentially of a standard or back plate having lugs 2 projecting forwardly from its upper and lower ends. This bracket is placed against the desk of the piano and into the desk, immediately above the bracket, I insert a screw 3 having a slotted or looped head 4 through which a set screw 5 is inserted to engage the upper lug 2, as shown most clearly in Fig. 3. The screw 3 and the slotted head 4 of the same constitute a hanger to which the bracket 1 is firmly secured by the set screw 5, and as the head of the set screw will project over the walls of the slot the

bracket will be rigidly suspended on the said hanger. When it is desired to remove the apparatus from the piano, the set screw 5 is withdrawn, whereupon the leaf turner may be lifted from the desk. It will thus be seen that the application of the device to the desk of a piano does not unduly mar or mutilate the same, as the only effect is to form the small hole necessary to receive the screw 3. Extending to each side from the standard or back plate 1 of the bracket are supporting bars 6 having forwardly projecting arms 7 secured to their ends, and a similar arm 8 projects forwardly from the lower lug 2. Forwardly projecting lips, indicated in dotted lines at 9 in Fig. 1 are provided at the ends of the lateral bars 6 in alinement with the arms 7 and upon these lips I place the shelf or book rest having its inner edge centrally notched to fit around the upper lug 2 of the main bracket. To the outer end of the said shelf I secure a bail or support 11 which depends from the corners of the said shelf and rests upon the forwardly projecting arms 7 and 8, as clearly shown. This bail 11 is angular in cross section, as shown most clearly in Fig. 5, and the trigger, presently more specifically described, is mounted upon the said bail. Arranged between the lugs 2 and supported thereby are a plurality of vertical pivot pins 12 from the lower ends of which extend the leaf-engaging and turning arms. The said leaf-engaging and turning arms comprise inner tubular sections 13 and outer sections 14 slidably fitted within the tubular sections and adjustably secured therein by set screws 15, as shown and as will be readily understood. The outer ends of the sections 14 are turned upwardly, as shown at 16, and carry vertical rods 17 upon which are mounted clasps or other form of leaf holders 18, as will be understood. Springs 19 are coiled around the pins 12 and at their upper ends are secured in the upper lug 2, their lower ends bearing against the sides of the tubular sections, as shown most clearly in Fig. 4, whereby the springs tend to swing the said sections the entire leaf-engaging arms to the left of the apparatus.

Slidably mounted upon the bail or supporting bar 11 is a trigger device consisting of a bracket 20 having an elongated forwardly projecting body with a longitudinal slot 21 opening through its front end

and provided near its rear end with a transverse angular bore, shown at 22, to engage the supporting bar 11. Within the slot 21 is a dog 23 which is pivotally mounted by means of the pin 24 and is held normally in the position shown in Fig. 5 by a spring 25 coiled around said pin and having its ends secured to the bracket and the dog, respectively. On the upper edge of the dog, intermediate the ends thereof, is an upstanding tooth 26 which normally projects above the bracket 20, as shown, to hold the leaf-carrying arms against the tension of the springs 19. On the under edge of the dog, at the front end of the same, is a sleeve or eye 27 in which is fitted the upper end of an extensible link 28 consisting of telescoping members as shown, the said link being coiled upon itself, as shown at 29, to form a spring between the sleeve or eye 27 and the trip lever 30 which is pivotally attached to the lower end of the link. This trip lever 30 is fulcrumed upon a plate 31 adapted to rest against the piano as shown in Figs. 1 and 2, a pad 32 of any suitable material being interposed between the plate and the piano to prevent marring of the surface. The spring 29 should have sufficient tension to hold the said plate firmly against the piano so that it will not be dislodged in the operation of the device, but at the same time its engagement with the piano is such that it may be readily swung to one side when the piano is to be closed. The upper end of the extensible link fitting in the sleeve 27 forms a hinge connection therewith so that when the piano is to be closed the trip lever and the link pivoted thereto may be swung laterally so as to clear the ledge of the piano, as will be readily understood on reference to Fig. 2.

The trigger is shifted along the supporting bar or bail 11 so that the tooth 26 will extend upward in front of the foremost leaf-carrying arm as shown in the drawings, it being understood that when the device is to be used as many of the said arms as necessary will be arranged at the right side of the desk with the clasps or other devices 18 engaging the outer edges of the several leaves whereby as the arms are successively released the leaves will be successively carried to the left. The arms extend from their respective pivots over the support 11 and are held at the right side of the device by the tooth 26 against which the foremost arm bears, each of the remaining arms bearing respectively against the arm immediately in front thereof.

In the preferred form of the invention, I employ three leaf-carrying arms and arrange the pivot pins 12 one behind another, as shown in Fig. 4, the pins being successively shorter toward the front, as shown in Fig. 3, to permit each arm to swing under

the pins in front of its own pivot. To bring the front ends of all the arms into position to extend over the bar 11 and rest upon the bracket 20, I form the inner ends of the arms as shown in Figs. 3 and 4 upon reference to which it will be noted that the arm carried by the rearmost pivot extends in a radial plane of its pivot throughout its length but at a point in advance of the foremost pivot it is bent sharply upward, forming a riser 33 from which it extends forwardly substantially in the plane of the arm mounted on the foremost pivot. The arm on the front pivot is carried laterally, as shown at 34, before extending to the front but has no riser while the intermediate arm is carried laterally, as at 35, a short distance, then carried forwardly under the lateral portion 34, as at 36, and then formed with a short riser 37, from which it extends forwardly between the other arms and in the same plane therewith. This formation of the arms, it will be readily seen, spaces them apart at their inner ends and the several parts are so arranged and proportioned that the arms will extend across the bracket 20 at varying angles thereto. When during the course of the performance it becomes necessary to turn the leaf, the player depresses the trip lever 30, thereby exerting a downward pull upon the dog 23 through the link 28. This movement withdraws the tooth 26 from its engagement with the leaf-carrying arm so that the spring 19 will be free to act and at once turns the arm to the left side of the apparatus. As the dog is thus drawn downward, the tension of the spring 25 will be increased and the rear end of the dog will be projected slightly upward so that it will enter the space between adjacent leaf-carrying arms and thereby prevent the second arm swinging to the left side of the apparatus. The trip lever 30 and its support may be dispensed with by providing a button or finger piece 38 adjacent the coil 29 as shown in Fig. 7. If the device is made smaller with only two leaf-carrying arms, the pivots may be arranged side by side, as shown in Fig. 8, and in this event the leaf-carrying arms may be straight.

Having thus described my invention, what is claimed is:

1. In a leaf turner, the combination of a fixed support, a screw inserted in said support and having a slotted head, a bracket below said head, a fastening device inserted through the slotted head into said bracket, a plurality of leaf-turning arms pivoted on said bracket, means for turning said arms, means for normally holding the arms against movement, and means for releasing said leaf-turning arms.

2. In a leaf turner, the combination of a support, a plurality of leaf-turning arms

movable over the support, a trigger mounted on the support and normally in the path of the arms to hold them against said movement, a trip lever disposed below the trigger, and a link connecting the trip lever with the trigger whereby movement of the trip lever will cause the trigger to release a leaf-turning arm, said link having a spring formed therein between its ends whereby to hold the trip lever against a fixed support.

3. In a leaf turner, the combination of a support, a plurality of leaf-turning arms movable over the support, a trigger mounted upon the support and normally in the path of the arms to hold them against movement, a trip lever provided with means for frictionally engaging a piano frame below the support, and connections between the said lever and the trigger whereby movement of the lever will cause the trigger to release an arm.

4. In a leaf turner, the combination of a support, a plurality of leaf-turning arms movable over the support, a trigger mounted on the support and normally in the path

of the arms to hold the same against movement, and a trip for causing the trigger to release an arm hinged to and depending from the free end of said trigger and having a resilient portion immediately adjacent its hinged connection with the trigger, said hinged connection permitting the trip to swing laterally about the longitudinal axis of the trigger.

5. In a leaf turner, the combination of a fixed support, a series of leaf-turning arms independently pivoted thereon, means for turning said arms, and a trigger mounted on the support to extend horizontally under and be brought against the foremost arm, the rear end of the trigger being adapted to rise between adjacent arms as each arm is successively released by the trigger and the trigger being adjustable along the support.

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

GURNETT E. FERGUSON. [L. s.]

Witnesses:

WM. A. SPRIGGS,
CHAS. E. MITCHELL.