

(No Model.)

S. D. CASE.
MUSIC LEAF TURNER.

No. 538,153.

Patented Apr. 23, 1895.

Fig. 1.

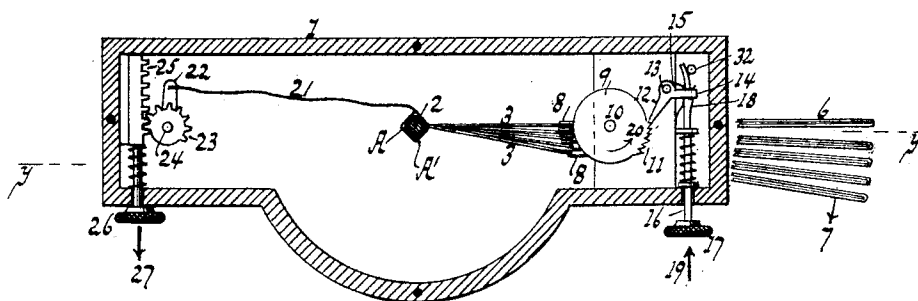


Fig. 2.

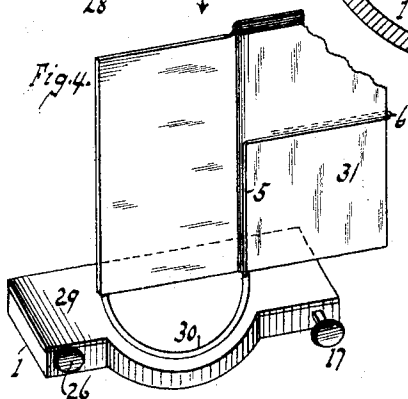
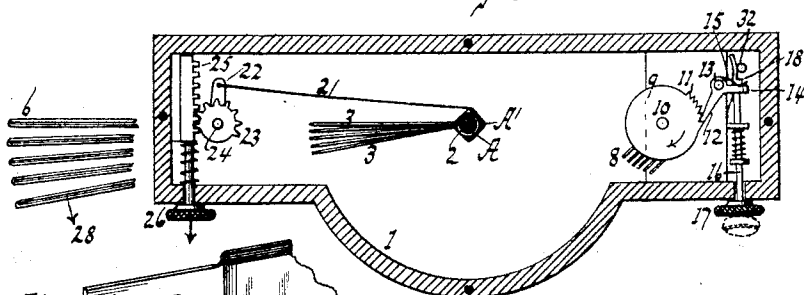


Fig. 5.

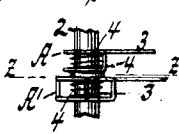


Fig. 6.

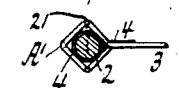
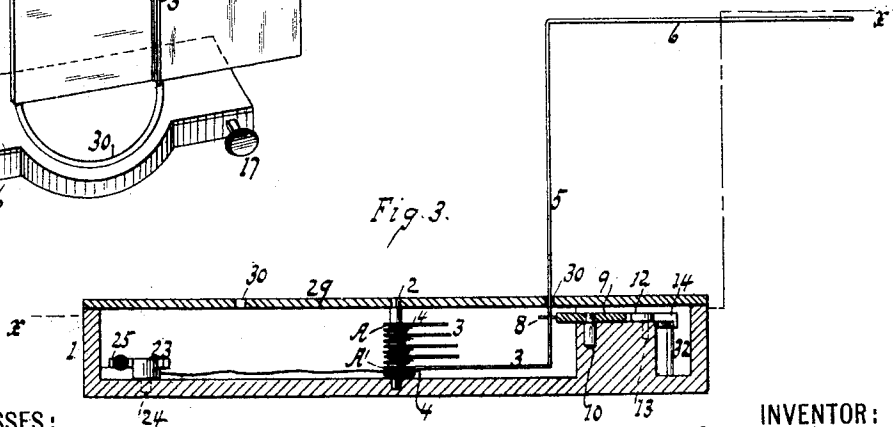


Fig. 3.



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UNITED STATES PATENT OFFICE.

SANFORD D. CASE, OF ROCK HILL, NEW YORK.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 538,153, dated April 23, 1895.

Application filed August 29, 1894. Serial No. 521,648. (No model.)

To all whom it may concern:

Be it known that I, SANFORD D. CASE, a citizen of the United States, residing at Rock Hill, in the county of Sullivan and State of New York, have invented new and useful Improvements in Music-Leaf Turners, of which the following is a specification.

The object of this invention is to simplify the construction of leaf turners and the invention resides in the novel features of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 shows the leaf turner in plan view with the arms in position before they have turned, the view being a section along $x x$ Fig. 3. Fig. 2 is a view like Fig. 1 showing the arms after having turned. Fig. 3 is a front elevation in section along $y y$ Fig. 1. Fig. 4 is a perspective view of the leaf turner. Fig. 5 is a detail view of the shaft. Fig. 6 is a section along $z z$ Fig. 5.

In the frame or box 1 is keyed or fixed a shaft 2 on which the arms 3 (more or less in number) can turn independently of one another. Each arm 3 is engaged by a spring 4 braced or fixed at one end to shaft 2 so as to be under proper tension. Each arm 3 carries an extension 5 having a finger 6 which at its free end is bent back upon itself to form a loop between the members of which is slipped a sheet of music. The springs 4 tend to rotate the arms 3 with fingers 6 in the direction of arrow 7, that is in the direction to turn a leaf, or from the position shown in Fig. 1 to the position shown in Fig. 2.

The arms 3 can be held against rotation by being engaged between teeth 8 on a disk 9 adapted to rotate on a stud 10 and having teeth 11 adapted for engagement by a pawl or detent 12 swinging on pivot 13 and having its arm 14 engaged by spring 15 for pressing the pawl 12 toward the teeth 11. A slide rod 16 has a finger button 17 and a toe 18 which latter rests on pawl arm 14. When the slide rod 16 is pushed in the direction of arrow 19 the toe will first press on arm 14 and then slip off said arm so as to lift pawl 12 out of engagement long enough to allow the disk 9 to rotate the space of one tooth 11 in the direction of arrow 20, whereupon the pawl engages the next succeeding of the teeth 11.

The rotation of disk 9 in the direction of arrow 20 is effected by a spring 4 swinging that one of arms 3 which at the moment of turning is the leading arm of the unturned or unactuated arms out of engagement with teeth 8, the next succeeding arm 3 being caught and held by teeth 8 until button 17 is again pressed. By successive actuations of button 17 one finger 6 after the other is swung so as to turn its contained leaf.

To the leading arm of the series of arms 3 is connected a string 21 connected to arm 22 extending from gear wheel 23 turning on pivot 24 and engaged by rack 25 having a button or handle 26. By pulling handle 26 in the direction of arrow 27 the leading one of the arms 3 will be set back to its starting point, said leading arm pushing back with it the succeeding arms 3 so that all the arms 3 can be returned to the starting point or moved in the direction of arrow 28 from the position shown in Fig. 2 to that shown in Fig. 1.

The top plate 29 of the box 1 has a groove or slit 30 for the passage of the arm extensions 5. The arms 3 formed of wire have their free ends readily bent into eyes A to encircle shaft 2. The eye A' of the leading arm is enlarged so that the cord or flexible connection 21 will be effectively wound about this eye when this leading arm moves forward to turn the first leaf, the unwinding of this cord by handle or retractor 26 as already noticed serving to return the leading arm, which in its turn presses back or returns all succeeding arms that may have been turned.

The manner in which a finger 6 engages a leaf 31 is seen in Fig. 4. The leaf turner is readily placed upon a piano or elsewhere as it may be required.

The inner end of slide 16 is curved or bent so as to be deflected in its inward movement by a properly located stud 32 so that the toe 18 will properly release pawl 12 at the required moment.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a leaf-turner, the combination of a series of pivoted arms provided with springs for successively turning them in one direction, a rotary disk having teeth projecting from its periphery at equal distances apart, said teeth acting to successively embrace said pivoted

arms intermediate their ends and hold them against the action of their springs, a pawl for holding said disk and provided with a handle for releasing it to cause the teeth to release
5 the arms one by one, substantially as described.

2. In a leaf-turner, the combination of a series of pivoted arms provided with springs for successively turning them in one direction, a
10 rotary disk having teeth projecting from its periphery at equal distances apart, said teeth acting to successively embrace the said pivoted arms intermediate their ends and hold them against the action of their springs, a
15 pawl for holding said disk and provided with a handle for releasing it to cause the teeth to release the arms one by one, and independent mechanism for simultaneously returning said
20 arms to their initial position in engagement with said teeth, substantially as described.

3. In a leaf-turner, the combination of a series of pivoted arms provided with springs for

successively turning them in one direction, a rotary disk having teeth projecting from its periphery at equal distances apart, said teeth
25 acting to successively embrace the said pivoted arms intermediate their ends and hold them against the action of their springs, a pawl for holding said disk and provided with a handle for releasing it to cause the teeth to
30 release the arms one by one, a retracting cord wound by the forward rotation of the arms, and a handle for unwinding the cord to simultaneously return the arms to their initial positions in engagement with the said teeth,
35 substantially as described.

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

SANFORD D. CASE.

Witnesses:

GEORGE RUNDLE,
M. A. RUNDLE.