

(No Model.)

J. FLEMMING.
MUSIC LEAF TURNER.

No. 530,031.

Patented Nov. 27, 1894.

Fig 1.

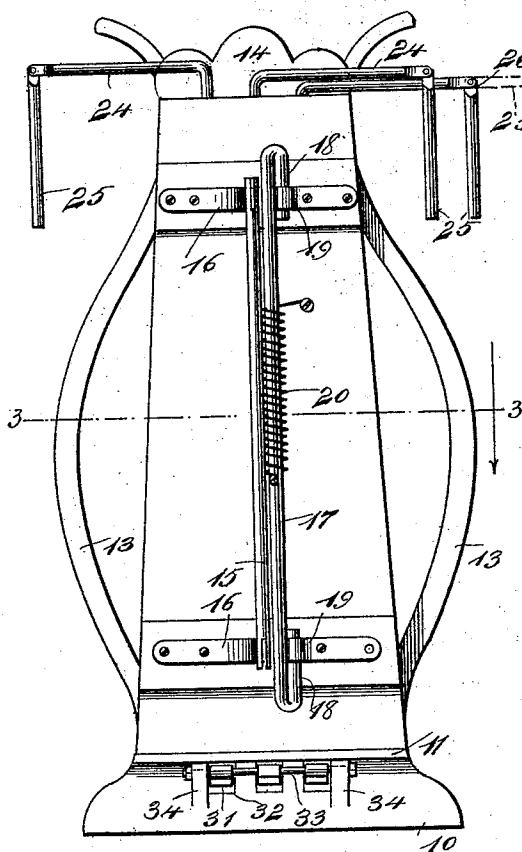


Fig 2.

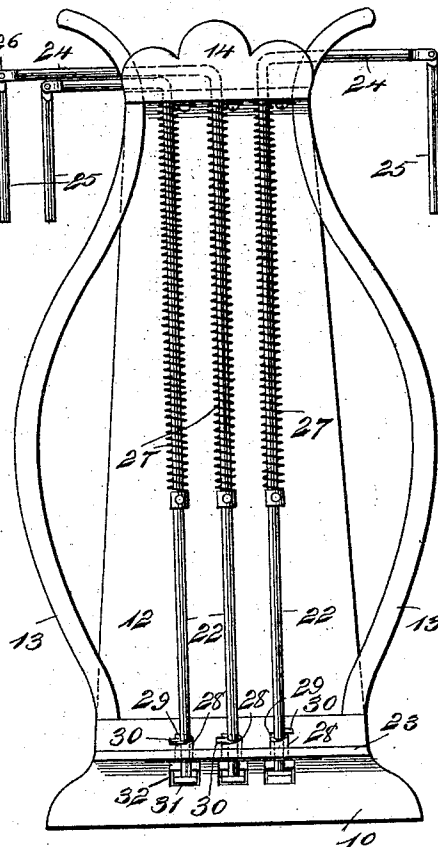


Fig 3.

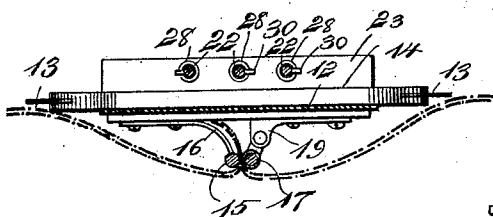
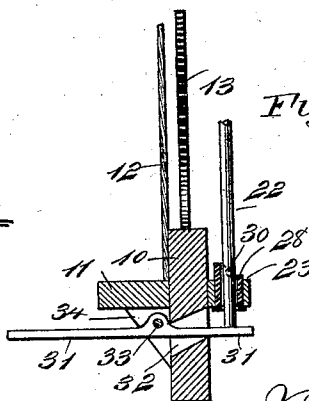


Fig 4.



WITNESSES:

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JAMES FLEMMING, OF BUFFALO, NEW YORK.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 530,031, dated November 27, 1894.

Application filed April 3, 1894. Serial No. 506,182. (No model.)

To all whom it may concern:

Be it known that I, JAMES FLEMMING, of Buffalo, in the county of Erie and State of New York, have invented a new and improved Music-Leaf Turner, of which the following is a full, clear, and exact description.

My invention relates to improvements in music leaf turners; and the object of my invention is to produce a very simple device of this kind, which may be, if desired, attached to a piano or other musical instrument, which is provided with a series of arms which may be conveniently arranged behind the music leaf to be turned, and which, on the striking of certain keys, releases mechanism which actuates the arms and swings them around so as to turn the leaves.

A further object of my invention is to construct the device so that it may be easily made to hold a piece of music as well as to turn the leaves.

To these ends my invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

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

Figure 1 is a front elevation of the device embodying my invention. Fig. 2 is a rear elevation of the same. Fig. 3 is a sectional plan on the line 3—3 of Fig. 1; and Fig. 4 is an enlarged detail sectional view, showing one of the releasing keys and its connection with one of the turning arms.

The device is provided with a suitable base board 10 having a ledge 11 on its front side on which music may rest if desired, and it has a back board 12 which serves as the body of the device and is also provided with side braces 13, the braces and back board being secured to the top piece 14 which is thick enough to provide a support for the turning arms as described below. The construction of the frame of the device, however, is not very material, and it may be changed or altered at will without affecting the principle of the machine.

On the front of the device is a holder for the music, which has a rod 15 extending longitudinally on the front side of the back plate and supported on the free ends of the springs 16

which are secured to the back plate near the top and bottom, as shown clearly in Fig. 1. Opposite this rod 15 and parallel with it is a swinging rod 17, the ends of which are doubled over and returned, as shown at 18, thus forming cranks which are journaled in the butts or brackets 19 which are secured to the back board 12 opposite the hinge springs 16. The rod 17 has on it a spiral spring 20, one end of which is secured to the rod and the other to the back board 12, and the tension of the spring is such as to press the rod 17 against the rod 15, so that when the back edge of a book or sheet of music is placed between the two rods, it will be held there, as illustrated in Fig. 3, and the rods may be sprung apart to permit the easy insertion of the book.

On the back side of the device are parallel rods 22, see Fig. 2, which are mounted at their lower ends in a ledge 23 on the base 10 and at the top in the top piece 14, and the arms are bent outward at a right angle, as shown at 24, at points above the top piece, and these outer bends terminate in depending ends which are adapted to be placed behind the music leaves to be turned and the end portions or fingers 25 are hinged to the parts 24 of the rods, as shown at 26, so that they may be turned upward into a horizontal position if desired, to enable the music to be the better manipulated while the parts are being adjusted.

It will be seen that the rods 22 with their bent portions 24 and depending fingers 25 are the arms adapted to turn and move a leaf, and if desired these parts may be made each in a single piece, although the hinge construction is preferable. Each rod 22 has on it a spiral spring 27, one end of which is secured to the rod and the other to the frame of the device, and the tension of the rod is such as to turn the finger 25 from right to left. Each rod 22 has its lower end inclosed in a bushing 28, which has a shoulder 29 at the top and on one side, while the top edge is inclined from the top of this shoulder to the base thereof, thus forming a cam on which the pin 30 of the rod may ride. This bushing is fixed, and when the arm comprising the rod and its finger is turned from right to left, the pin catches behind the shoulder 29 and holds the arm in this position. Each rod 22 rests on

the rear end of a key 31 which projects forward through a slot 32 in the base 10 and is fulcrumed on a rod 33 held in lugs 34 on the base. There is a key for each rod 22 and the
 5 keys project forward far enough to enable them to be easily struck by the finger. I have shown the device provided with three turning arms, but it will be understood that a greater or less number may be used without
 10 affecting the principle of my invention.

The device is used by placing the music in the holder on the front of the turner, as described. Then one of the arms, comprising the parts 24 and 25, is turned to the right, being
 15 retained by the pin 30 and bushing 28, as specified, a leaf is placed in front of the arm, another arm is turned, and so on, and when a leaf is to be turned the operator strikes the key 31 connected with the arm of the leaf to
 20 be turned, and this raises the rod 22 so as to lift the pin 30 above the bushing 28 and the spring 27 then turns the arm, which carries the leaf with it.

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

1. A music leaf turner, comprising a supporting frame, a holder on the front of the frame, spring pressed arms journaled on the
 30 back of the frame near the top and bottom thereof, and extending over the top and front of the frame, a projection on each of said arms arranged near the lower end thereof, means for engaging the said projection, and
 35 a releasing key for each arm fulcrumed in the frame, the rear ends of the said keys being adapted to engage the lower ends of the arms and lift the same to disengage the projection, substantially as described.

40 2. The combination, with the frame and the vertically movable and spring-turned rods

thereon having at their upper ends depending fingers to engage the music leaves, of the fixed bushings encircling the rods and provided with shoulders, pins on the rods to en-
 45 gage the shoulders of the bushings, and keys fulcrumed beneath the rods and adapted to engage the lower ends thereof, substantially as described.

3. The combination with the frame and the
 50 leaf turning mechanism thereon, of the holder comprising a longitudinally extending rod supported in front of the body of the frame, and a second swinging spring pressed rod arranged parallel with the first rod and having
 55 its ends doubled to form cranks, the crank ends being journaled on the front of the frame, substantially as shown and described.

4. The combination with the frame and the
 60 leaf turning mechanism thereon, of the holder comprising springs secured to the front of the frame near the top and bottom thereof, a rod arranged on the front of the frame and supported on the free ends of the said springs,
 65 brackets secured on the front of the frame opposite the said springs, and a second swinging spring-pressed rod journaled in the said brackets and held parallel with the first rod,
 substantially as described.

5. The combination, with the frame and the
 70 leaf-turning mechanism thereon, of the holder comprising a rod held on the face of the frame in spring supports, a second rod doubled at its ends to form cranks, the second rod being
 75 parallel with the first, brackets secured to the frame to support the cranks, and a spring on the second rod secured to the rod and to the frame, substantially as described.

JAMES FLEMMING.

Witnesses:

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 FRANK J. CONDON.