

(No Model.)

M. A. McMARTIN.
MUSIC LEAF TURNER.

No. 469,587.

Patented Feb. 23, 1892.

Fig. 1.

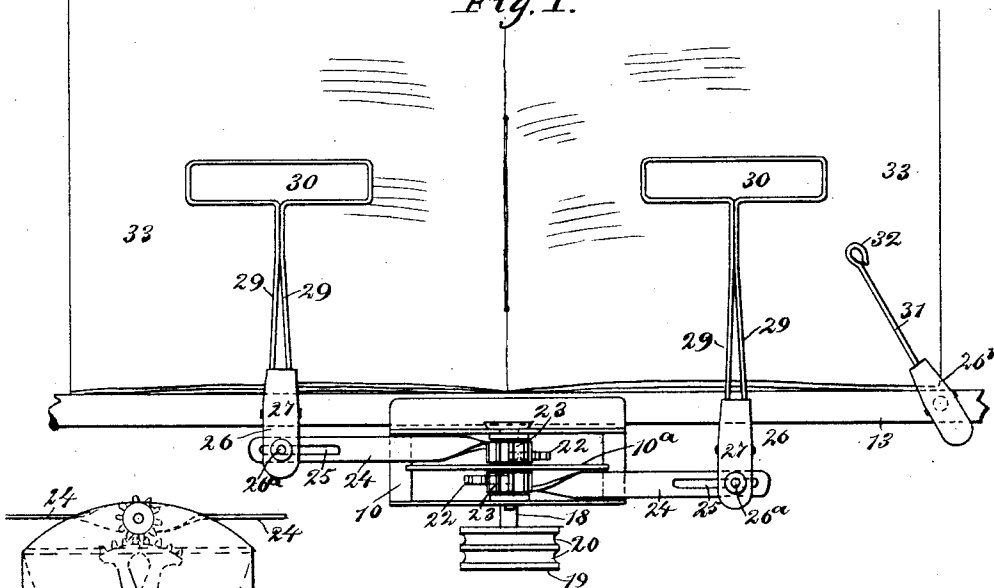


Fig. 2.

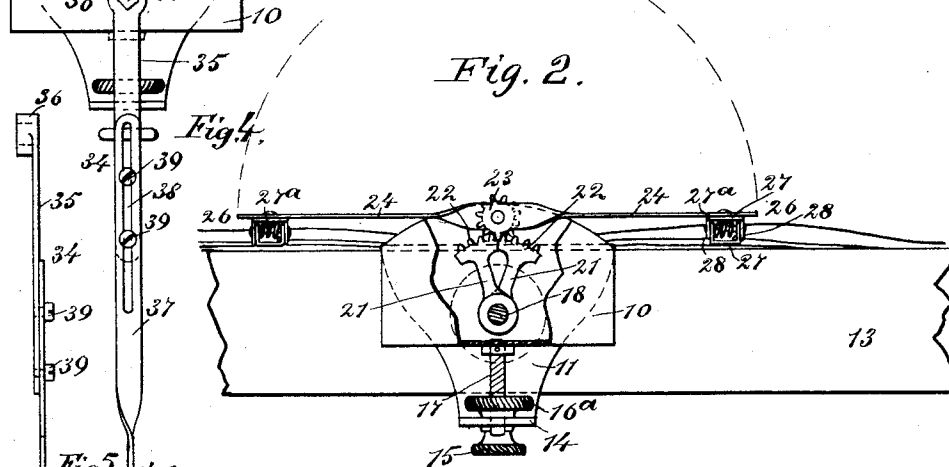
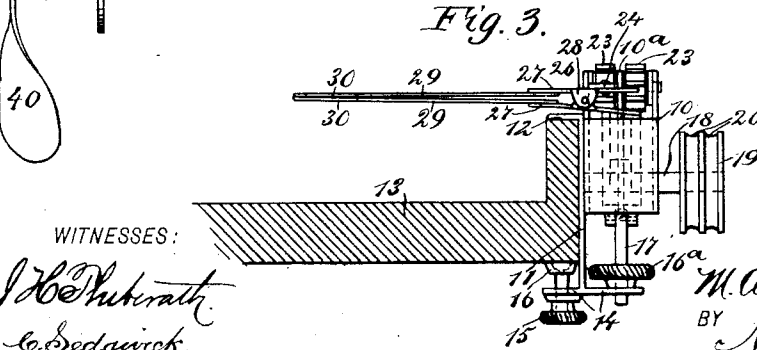


Fig. 3.



WITNESSES:

J. B. Huberath
C. Sedgwick

INVENTOR:

M. A. McMARTIN
BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

MARTIN A. McMARTIN, OF RATON, TERRITORY OF NEW MEXICO, ASSIGNOR
TO HIMSELF AND JAMES R. GIVENS, OF SAME PLACE.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 469,587, dated February 23, 1892.

Application filed April 15, 1891. Serial No. 388,975. (No model.)

To all whom it may concern:

Be it known that I, MARTIN A. McMARTIN, of Raton, in the county of Colfax and Territory of New Mexico, have invented a new and
5 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 the invention is to produce a simple and convenient
10 device which may be quickly and securely fastened to a piano, organ, music-rack, or any convenient support and which is adapted to quickly and accurately turn the leaves of
15 sheet-music in either direction. The device may be also used for turning the leaves of other kinds of books, although it is especially intended for turning music-leaves.

The invention consists in certain features
20 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,
25 in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the device adjusted upon a support and applied to a book. Fig. 2 is a broken end view of the same, partly
30 in section. Fig. 3 is a side elevation of the device, showing in section the support to which it is attached. Fig. 4 is a front elevation showing the main shaft provided with an extensible handle instead of a pulley, and Fig.
35 5 is a detail edge view of the extensible handle.

The mechanism of the device is supported in an approximately rectangular case 10, the upper portion of which is separated by a longitudinal and vertical partition 10^a, and the case is held to slide vertically on a plate 11,
40 which plate is doubled over at its upper end, as shown at 12, so that it will fit upon a support, as 13, and the lower end of the plate 11 terminates in a horizontal plate 14, and in the back portion of this plate is mounted a thumb-screw 15, the upper end of which terminates
45 in a head 16, which is adapted to rest against the under side of the support 13, so that by adjusting the bent end 12 of the plate 11 upon
50 the upper portion of the support and the

screw 15 on the under portion the plate and the case mounted thereon will be securely held in place.

In the front portion of the plate 14 is a vertical screw 17, which connects with the lower
55 portion of the case 10 and which is adapted to move through the case, and this screw is provided with a thumb-nut 16^a, which is supported on the upper side of the plate 14, and
60 by turning the nut the screw will be turned so as to change the position of the case.

A shaft 18 is mounted horizontally in the case near the lower part thereof, and this shaft extends out through the front of the case and
65 is provided with a pulley 19, having grooves 20 in its face. The pulley is adapted to be turned by hand; but, if desired, a belt or cord may be secured in the grooves and its ends extended downward to connect with the
70 treadle mechanism, so that the pulley may be turned by foot-power, or it may be turned by the knees of the operator, suitable connections being made with the pulley, so that by
75 pressure of the knees the pulley will be turned either to the right or left. Instead of using the pulley, however, the shaft 18 may be provided with an extensible handle 34, which
80 consists of two parts, the upper part 35 having at one end a head 36, which fits a squared portion of the shaft, and the lower part 37, which has a longitudinal slot 38 therein, and is held to the upper part by screws 39, which extend
85 through the slot. By loosening the screws the position of the lower end of the handle in relation to the upper end may be changed, and the parts are held together by tightening the screws. The lower end of the part 37 of the
handle terminates in a thumb-piece 40.

The shaft 18 is provided with arms 21, which
90 extend upward therefrom and which terminate in toothed segments 22, and these segments mesh with independent gear wheels or pinions 23, which are mounted on each side of the central partition 10^a in the case, and
95 each pinion carries an arm 24, which extends radially from the pinion and which is slotted near the end, as shown at 25, so that a spring-clamp 26 may be adjustably secured to the arm by means of a pin 26^a, which extends
100 through one leaf of the clamp and through the slot in the arm. These spring-clamps are

arranged at right angles to the arms, and are of a common form, each consisting of two similar leaves 27, which are arranged opposite each other and which are provided with overlapping lugs 28 near the center, which lugs are pivoted together, so that the leaves may swing toward and away from each other, and the leaves are normally held with their front ends pressed together by means of a spiral spring 27^a, which is coiled around the pivots of the clamps and the ends of which press against the rear ends of the leaves 27. This construction is not shown in detail; but the clamps are of common form and the construction will be readily understood.

Each clamp 26 carries a leaf-holder, which leaf-holder is composed of two similar separable parts, which are secured to the front ends of the clamps. These parts comprise two similar wire members 29, which extend from the front end of a leaf 27, and are arranged nearly parallel with each other, converging slightly toward their outer ends, and the outer ends of the members 29 terminate in a rectangular loop 30. The two parts of the holder composed of the members 29 and the loops 30 are arranged so that the loops will come opposite each other, and the pressure of the clamp 26 will normally hold the two parts of the holders together, so that the loops 30 will press against each other, as shown in Fig. 3, and when a leaf is inserted between the parts of the holder it will be seen that the parts will be pressed upon opposite sides of the leaf and will hold it securely in place.

The support 13 is provided with a clamp 26^b, which is arranged at one side of the main device, and the outer leaf of the clamp terminates in a spring-wire 31, which is bent into the form of a circle at the ends, as shown at 32, so that there will be no danger of its tearing a leaf, and this spring wire or arm 31 serves to hold the leaves of the book in position, which are not held in the holders formed of the members 29 and loops 30.

To operate the device, it is clamped to a support in the manner described: A book is arranged upon the support adjacent to the device, the holders are opened by pressing upon the rear ends of the clamps 26, and the leaves 33 of the book are inserted between the two parts of the holders. When the machine is provided with two arms 24, as shown in the drawings, the arms are arranged so that they will extend in the same direction and the holders will thus be enabled to clasp two leaves of a book when the book is opened, as shown in Fig. 1. To turn the leaves, the operator simply turns the pulley 19 to the right or left, as desired, and this turns the shaft 18, the arms 21, the gear wheels or pinions 23, the arms

24, and the leaf-holders, and it will be readily seen that the operation of turning the leaves is extremely simple and can be done very quickly. It will be observed, too, that as the leaves are held securely in the holders they cannot blow about or accidentally turn over.

I have shown the device provided with two arms and a holder for each arm; but it is obvious that a greater number may be provided, if desired.

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

1. A music-leaf turner comprising a vertically-adjustable case, a clamping device for securing the case to a support, a revoluble shaft pivoted in the case and provided with operating means, swinging arms having their inner ends geared to the shaft, and spring leaf-holders adjustably secured in the outer ends of the arms, substantially as described.

2. In a music-leaf turner, the combination, with a main case and a shaft mounted therein, of swinging longitudinally-slotted arms geared to the shaft, and leaf-holders secured adjustably in the slotted ends of the arms by bolts or pins, each leaf-holder consisting of a spring-clamp and spring members secured to the inner ends of the clamps and terminating in loops, substantially as described.

3. A music-leaf turner comprising a main case adapted to be secured to a support, a shaft mounted transversely in the case, means for turning the shaft, swinging arms mounted in the upper portion of the case and geared to the shaft, and spring leaf-holders secured in the outer ends of the arms, each leaf-holder consisting of a spring-clamp and spring members secured to the front ends of the clamp members and provided with loops 30, between which the leaves are held, substantially as described.

4. In a music-leaf turner, the combination, with a main case carrying turning mechanism, as described, of a plate secured to the case and having its upper end bent as shown, and a clamping-screw arranged at the lower end of the plate, so as to align with its bent upper end, substantially as described.

5. In a music-leaf turner, the combination, with a main case carrying leaf-turning mechanism, of a plate secured to the case, a clamping device for securing the plate to a support, and a screw mechanism for raising and lowering the case on the plate, substantially as described.

MARTIN A. McMARTIN.

Witnesses:

T. A. SCHOMBURG,
CHRISTIAN P. PELS.