

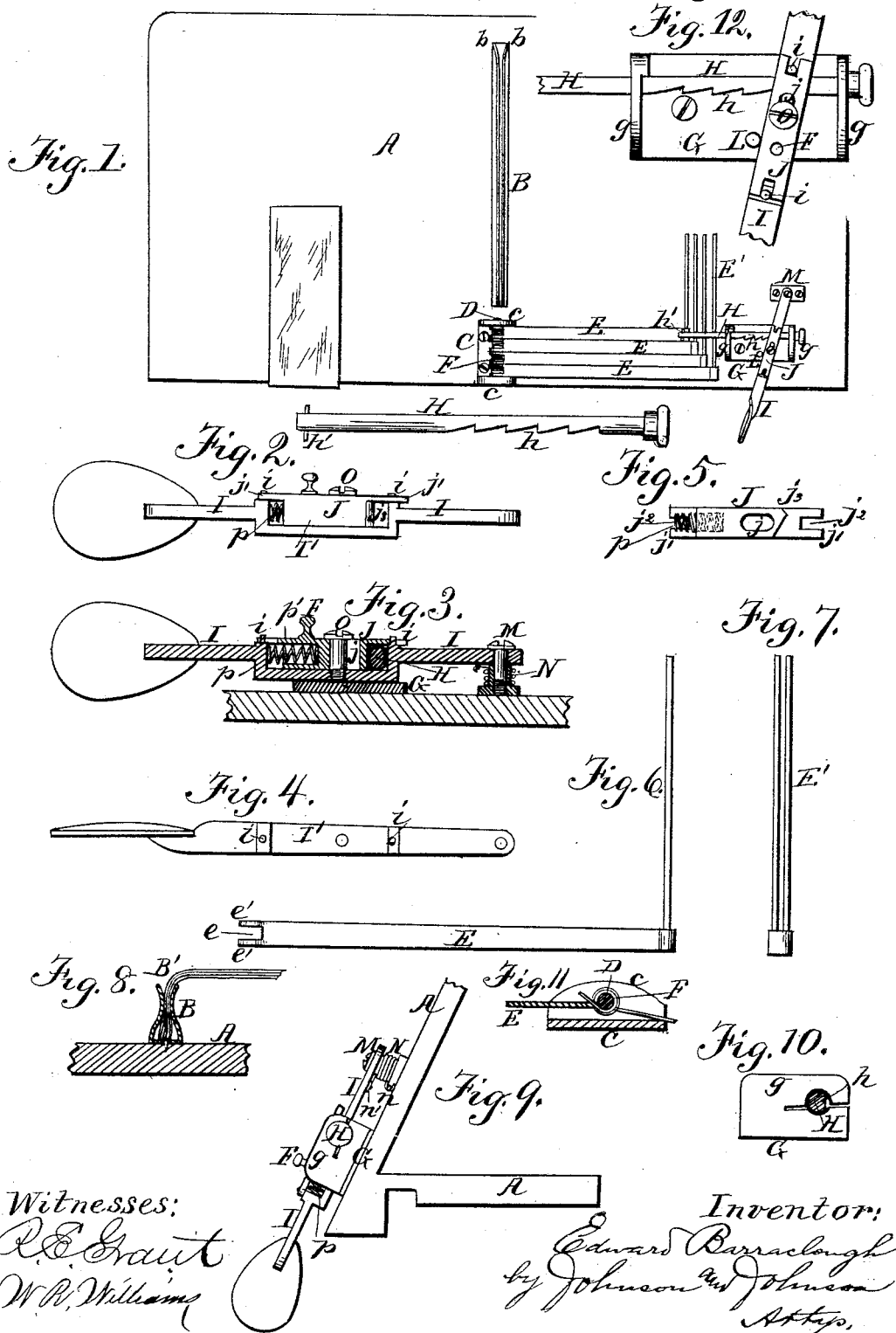
(No Model.)

E. BARRACLOUGH.

MUSIC LEAF TURNER.

No. 348,098.

Patented Aug. 24, 1886.



UNITED STATES PATENT OFFICE.

EDWARD BARRACLOUGH, OF BROOKLYN, NEW YORK.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 343,093, dated August 24, 1886.

Application filed May 12, 1886. Serial No. 201,911. (No model.)

To all whom it may concern:

Be it known that I, EDWARD BARRACLOUGH, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Music-Leaf Turners, of which the following is a specification.

This invention relates to that class of music-leaf turners which hold the piece of music in place and turn the leaves by spring-actuated leaf-holders held against the tension of their springs by a tripping device, which is actuated by the finger of the performer to release a holder, when, by the retraction of its spring, it will flop over and carry the leaf with it.

The object of the invention is to simplify and improve the construction of the tripping device, whereby it is rendered more efficient and durable in use, and not liable to get out of repair.

A further object is to improve the general structure of this class of devices, whereby it is economical in cost, easily kept in repair, and readily managed by any performer.

With such ends in view the invention consists in the novel construction, arrangement, and combination of parts, more fully hereinafter set forth and particularly claimed, and shown in the annexed drawings, in which—

Figure 1 is a front view of a device of my construction embodying my improvements. Fig. 2 is a side view of the tripping lever and pawl. Fig. 3 is a longitudinal section through the tripping lever and pawl. Fig. 4 is a plan view of the tripping-lever detached and with the pawl removed. Fig. 5 is a reverse or bottom view of the pawl. Fig. 6 is a side view of one of the leaf-holders, and Fig. 7 is an end view. Fig. 8 is a cross section of the music-holder. Fig. 9 is a side view of the lower right-hand corner of the music rest or stand, showing the tripping device in elevation. Fig. 10 shows the slotted bearing for the ratchet-bar. Fig. 11 shows the spring for actuating the music-holder. Fig. 12 is a detail of the tripping device.

The base or plate A represents any suitable support or rest for the music, and forms a means for holding the operating parts in their relative positions.

The music-holder B is made of a strip of

spring metal folded or bent into a nearly cylindrical form, leaving a space between the adjacent sides, which approach, forming the opening B', through which the piece of music projects. In order that the side edges may not do injury to the piece, they curve to each side of the opening. The top of the holder has the upper corners, *b*, turned back, presenting a mouth, which receives the lower edge of the piece of music and guides it into the opening B'. This is essential, as it facilitates the insertion of the piece within the holder. A plate, C, having flanges or lugs *c* projecting therefrom, is located beneath the holder, and supports a rod, D, in line with the music-holder. This rod forms the pivotal support for the leaf-holders E, the inner ends of which are bifurcated and bent around the rod, leaving a space, *e*, between the bifurcations *e'*. Coil springs F, mounted on the rod within the space between the bifurcations *e'*, and having their opposite ends entering and bearing the one on the side of the holder, the other on the plate, are always under tension, to keep the holders in place down upon the rest A on the left of the holder. The outer ends of the holders are provided with clips E', comprising two bars, between which the leaf is held.

The tripping device comprises a keeper or base, G, a ratchet-bar, H, supported in lugs extending from the base, a tripping-lever, I, pawl J, and fulcrum or pivotal support M for the lever. The ratchet-bar is mounted in lugs or flanges *g*, projecting from the base or keeper, and is of a length to be extended across the clips of the holders and keep them down upon the right-hand side of the music-rest. The teeth *h* extend downward, and are of a length to correspond with the stroke of the lever, which is limited in its forward movement by striking against one of the lugs of the keeper, and in its backward movement by a stop, L. The lever is pivotally supported at one end upon a stud, M, and a coil-spring, N, surrounding the stud, having one end engaging a lug, *n*, on the side thereof, and its other end engaging a lug, *n'*, Fig. 9, near the end of the lever, carries the latter back to its normal position against the stop L, after being actuated to move the ratchet-bar forward for releasing one of the holders. It is provided with a de-

pression, I', in which works the sliding pawl J, and pins *i* on each side of the depression. The pawl J fits into the depression in the lever, and is held in place by a screw, O, extending through a slot, *j*. Extensions *j'*, projecting from each end of the pawl, bear upon the lever on each side of the depression, and slots *j''* in the ends of said extensions receive the pins *i* and give direction to the pawl in its reciprocating movements. The rack-bar is located between a side of the depression and the end of the pawl, which end *j''* is beveled to form a tooth for engaging with the ratchet-bar during the forward stroke of the lever and carry it with it, thereby releasing one of the holders. The lever, being free, will return to its first or normal position, and be in readiness to advance the ratchet-bar another step, thereby releasing another holder. The pawl during the return-stroke of the lever rides the teeth of the bar, which is held simply by the friction of its bearings, which are slotted to take up for wear, as most clearly shown in Figs. 9 and 10. A coil-spring, *p*, interposed between the pawl opposite its beveled end and the side of the recess in the lever keeps the tooth *j''* in contact with the rack-bar. It may be seated in a socket, *p'*, formed in either the lever or pawl, or both, as desired.

From the foregoing description the operation of the device will be readily understood by one conversant with the use of similar devices. The ratchet-bar may be moved in its bearing by disengaging the pawl from its teeth, which may be done by grasping a knob, F, and pulling against the tension of the spring *p*. The ratchet-bar is moved by means of a knob on its end, and a pin, *N*, on its opposite end forms a stop to prevent its displacement from the keeper.

What I claim as my invention is—

1. In a music-leaf turner, the combination, with the spring-actuated leaf-holders, of a tripping device comprising a base having lugs, a ratchet-bar mounted in and free to slide through said lugs and retain the holders against the tension of their springs, a lever pivoted at one end and provided with a depression between its ends, pins extending from the lever on each side of the depression, a pawl seated in the depression, and having end extensions overlapping the lever on each side of the depression and slotted to receive the pins, and a stop to limit the backward movement of the lever, substantially as described.

2. The herein shown and described tripping device for music-leaf turners, comprising the following elements in combination: a keeper having lugs, a ratchet-bar mounted in and free to slide through said lugs, a lever having a depression between its ends and pivoted on a stud at one end, a coil-spring surrounding the stud and connecting it with the lever, pins extending from the lever on each side of the depression, a slotted pawl seated therein, and having a beveled end forming a tooth for engaging the teeth of the rack-bar, and provided with end extensions to overlap the lever on each side of the depression, said ends being slotted to receive the pins, a bolt passing through the slot in the pawl for holding it in place, a coil-spring interposed between the end of the pawl and a side of the depression, a knob projecting from the pawl, and a stop for limiting the backward movement of the lever, substantially as set forth.

3. The combination of the vertically-inclined stand-plate A, having leaf-turning devices, with a music-leaf holder secured to said plate, consisting of the bent strip of spring sheet metal B, flaring at its meeting edges B' and at its upper end, *b*, whereby the sheets of music are quickly inserted and held within the holder, as shown and described.

4. In a music-leaf turner, the combination, with a base-plate having lugs and a rod held between the lugs, of a leaf-holder provided with a clip at one end, and having its opposite end bifurcated and bent around the rod, having a space between the bifurcations, and a coil-spring mounted on the rod between the bifurcations, and having its ends extended, the one bearing on the holder, the other on the base, substantially as shown and described.

5. The combination, with the pivoted spring-actuated leaf-turners, of the keeper or base G, having lugs *c*, provided with the split bearings, the slide ratchet-bar H, fitted within the split bearings, and the pivoted lever T, having a spring-actuated slide-pawl, whereby the ratchet-bar is held by the friction of its split bearings against the non-acting movement of the slide-pawl, substantially as described.

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

EDWARD BARRACLOUGH.

Witnesses:

WILLIAM M. BROWN,
JOSEPH H. COMERFORD.