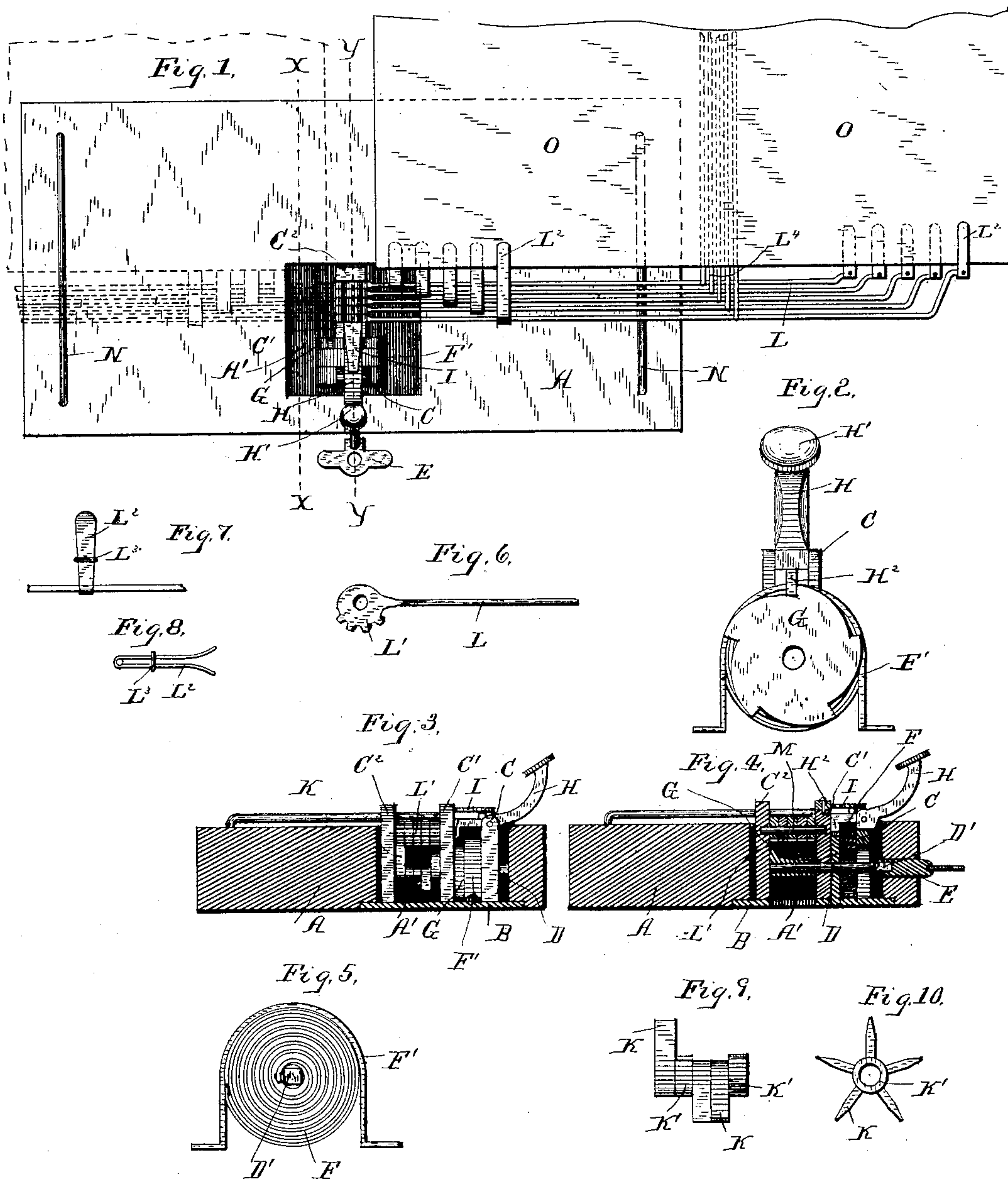


F. E. SACKETT.
MUSIC LEAF TURNER.

No. 318,509.

Patented May 26, 1885.



Witnesses,
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UNITED STATES PATENT OFFICE.

FREDERICK E. SACKETT, OF BRIDGEPORT, CONNECTICUT.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 318,509, dated May 26, 1885.

Application filed October 9, 1884. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK E. SACKETT, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Music-Turners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to that class of music-turners which not only hold the leaves of a piece of music firmly in place, but are adapted to turn the music, leaf by leaf, whenever a lever or operating device is given a light blow by the performer.

The object of my invention is to simplify and improve the construction of this class of devices, to devise a construction, in short, which will be simple and compact in arrangement, economical in cost, easy to manage, and not liable to get out of repair, which is the most serious objection to the devices of this class heretofore produced. With these ends in view, I have devised the simple and novel construction which I will now describe, referring by letters to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of the device in operative position; Fig. 2, a view from the back, the two rear standards and the leaf-holders being removed; Fig. 3, a section through the block on the line *x x*, Fig. 1, the entire device being in elevation; Fig. 4, a central section on the line *y y*, Fig. 1; Fig. 5, a view from the front, showing the spring within its case, the front standard and lever being removed; Fig. 6, a detail of one of the leaf-holders, showing the cogs or teeth by which it is operated. Figs. 7 and 8 are details illustrating the clips and links for holding the leaves, and Figs. 9 and 10 are details illustrating the construction and position of the radial arms.

Similar letters indicate like parts in all the figures.

I have represented my improved turner as placed in a block, so that it may be used upon any instrument by simply placing it upon the rack. If preferred, however, it may be

placed in the rack itself, thus making it a permanent part of the instrument.

A represents the block or rack having a recess, *A'*, in which the device is placed, being secured therein in any suitable manner. B is the base-plate of the device, and *C C'* and *C²* standards projecting therefrom, which support the operative parts of the device.

D is a shaft journaled in standards *C' C²*, and squared at its front end to form a post, *D'*, for a key, E. The key may be either permanent or removable. I preferably, however, use a removable key, which is inserted through an opening in the front of the block.

F is a coiled spring, one end of which is attached to the inside of case *F'* and the other to the shaft. I have shown the spring as adapted to be wound up by rotating the shaft toward the left.

G is a ratchet-wheel carried by the shaft.

H is an operating-lever pivoted at the top of standard C, the outer end of which is provided with a button, *H'*, which is adapted to be touched by the finger of the performer when it is desired to turn a leaf. The inner end of this lever is provided with a pawl or tooth, *H²*, which engages the ratchet-wheel, being held in contact therewith by a spring, I, secured to standard *C'* or to any fixed portion of the device.

K represents a series of arms rigidly secured to the shaft and projecting radially therefrom at equal distances apart. I preferably construct these arms as illustrated in Figs. 9 and 10—that is, collets *K'* are tapped or riveted on the shaft, and the arms are driven into or brazed to the collets. These arms may or may not be provided with gear-teeth at their outer ends, and are adapted to engage sectors of gear-teeth *L'* at the inner ends of the leaf-holders L. These leaf-holders are journaled on a pin or stud, M, whose ends are secured in standards *C' C²*. Each of the leaf-holders is provided with two or more clips, which may be so formed as to hold the leaves themselves, or may be provided with links *L³*, which slip over the clips, causing them to hold the leaves when the links are pushed up.

L⁴ indicates rods attached to the leaf-holders about midway between the clips. These rods

lie under the leaves of music and support them as they are turned. I preferably make the rods about half as long as the leaves are high.

N represents rests on opposite sides of the block, against which the leaf-holders rest.

O indicates one of the leaves of a sheet of music.

In Fig. 1 I have shown in full lines at the right the positions of the leaf-holders before the first leaf has been turned. The dotted lines at the left show the positions of the leaf-holders after the leaves have been turned.

For convenience in illustration I have shown five leaf-holders only. Any number, however, may be used in the device, and any portion of those in the device may be used at one time. The number of teeth in the ratchet-wheel should of course correspond with the number of leaf-holders.

The operation is as follows: The sheets of music are placed within the clips. The leaf-holders are then all turned to the left, (the position shown in dotted lines in Fig. 1.) In this position the teeth on the sectors L' on the leaf-holders are all upon the upper side, (the reverse of the position shown in Fig. 6,) so that they cannot be engaged by arms K. This permits the shaft to be turned to the left in the act of winding, there being no engagement of the arms with the sectors. After the spring is fully wound up, the leaves or sheets are all turned to the right. (See full lines in Fig. 1.) This brings the sectors L' upon the lower side, as shown in Fig. 6, in which position they are adapted to be engaged by arms K. When it is desired to turn a leaf, lever H is quickly touched with just sufficient force to lift the pawl or tooth H² out of engagement with the ratchet-wheel for an instant only. This allows the spring to act to turn the ratchet-wheel toward the right until its rotation is stopped by the next tooth of the ratchet-wheel coming in contact with pawl H², which is instantly forced down by spring I after it has been lifted by the touch of the performer. The rotation of the shaft carries arms K around with it, thus

causing each arm in turn to engage the corresponding sector L', imparting rotation thereto, and carrying the leaf-holder and leaf of music over to the left.

I do not desire to limit myself to the exact construction shown, as it is obvious that the details may be varied within reasonable limits without departing from the spirit of my invention.

Having thus described my invention, I claim—

1. In a music-turner, the combination, with a single shaft carrying a ratchet-wheel and a series of arms, of a spring for operating said shaft, a spring-pressed pawl or tooth for controlling said ratchet-wheel, a finger-lever for operating said pawl or tooth, and a series of independently-movable leaf holders or turners having sectors of gear-teeth, and thus adapted to be operated by said arms, substantially as set forth.

2. In a music or leaf turner, the combination, with a supporting block or rack having standards, of a shaft journaled in said standards, and provided with a ratchet-wheel and a series of arms, a volute spring for operating said shaft, a finger-lever extending lengthwise of said shaft, and having a spring-pressed pawl or tooth for controlling said ratchet-wheel, and a series of leaf holders or turners having teeth, and thus adapted to be operated by said arms, substantially as set forth.

3. The combination, with a block or rack having a recess, A', and standards within said recess, in which are journaled a shaft having a ratchet-wheel and a series of radial arms, and a series of leaf-holders adapted to be engaged by the arms, of a spring for actuating the shaft, and a pawl and ratchet for controlling its movement.

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

FREDERICK E. SACKETT.

Witnesses:

A. M. WOOSTER,
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