

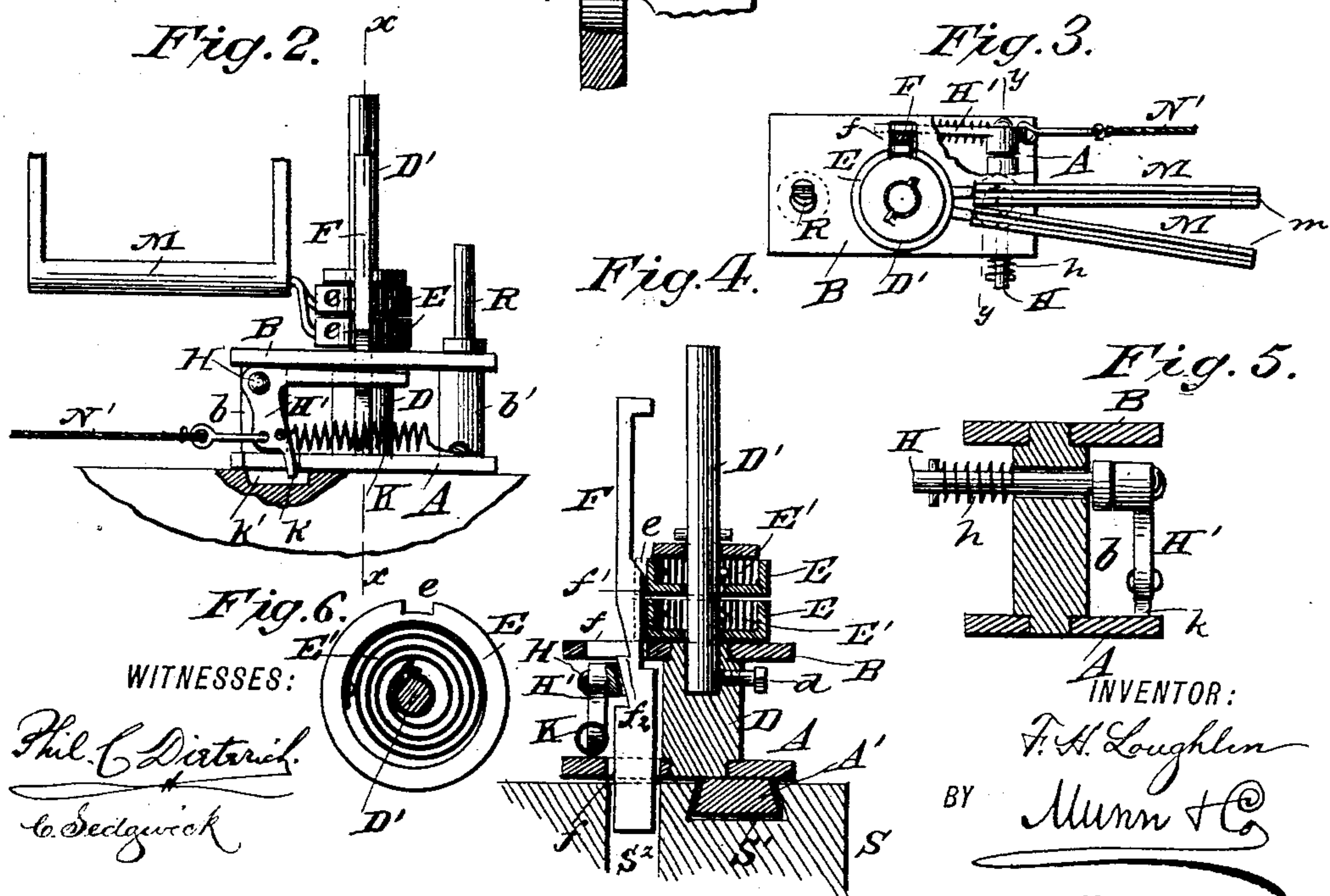
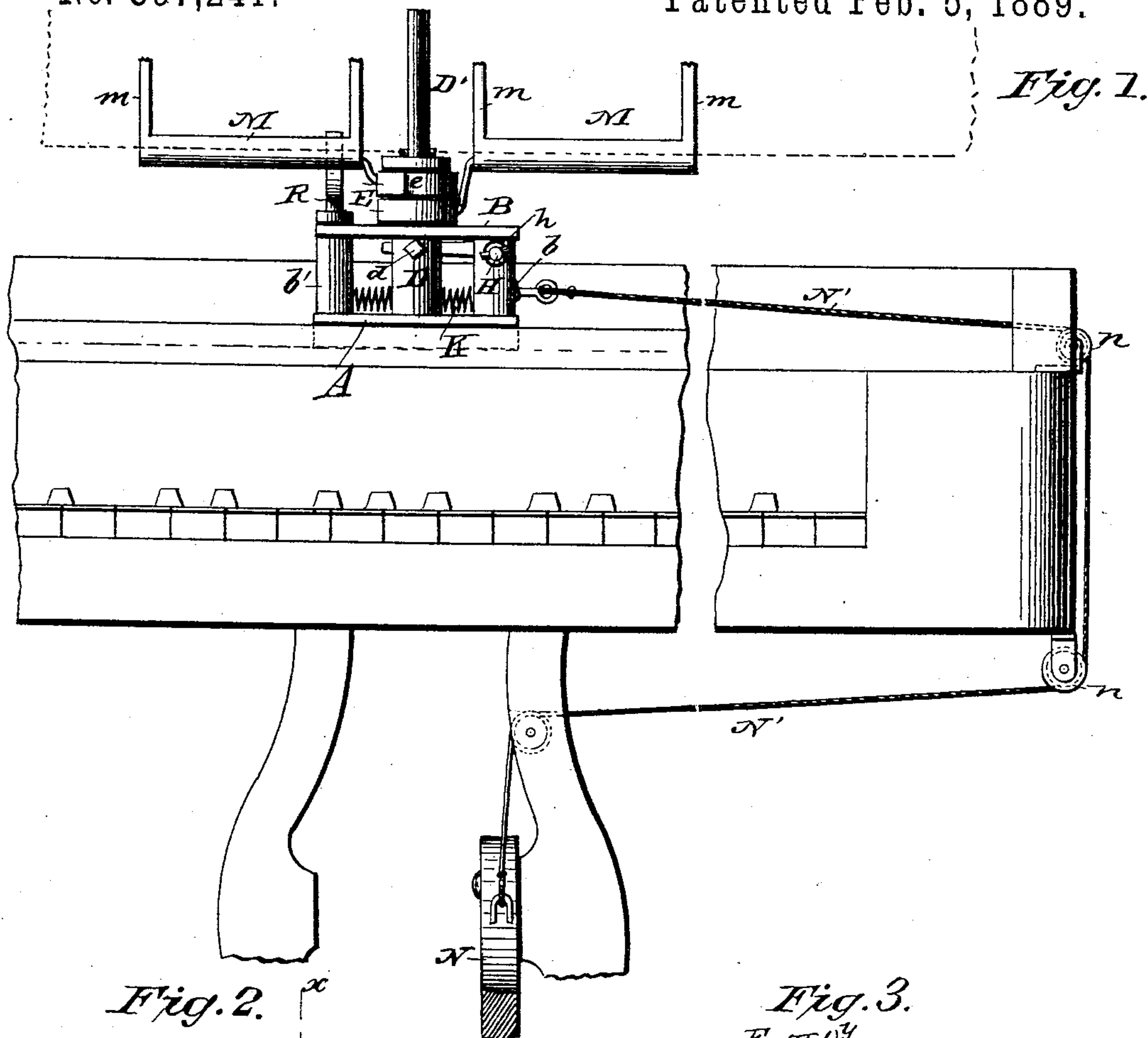
(No Model.)

F. H. LOUGHLIN.

MUSIC LEAF TURNER.

No. 397,241.

Patented Feb. 5, 1889.



WITNESSES:

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FRANK H. LOUGHLIN, OF SYRACUSE, NEW YORK.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 397,241, dated February 5, 1889.

Application filed June 13, 1888. Serial No. 276,926. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. LOUGHLIN, of Syracuse, in the county of Onondaga 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 an improvement in music-leaf turners, and has for its object to provide a simple, cheap, and effective device capable of ready attachment to and detachment from a musical instrument or music-stand, and whereby the leaves of sheet-music may be independently turned in an expeditious and convenient manner.

The invention consists in the construction and combination of the several parts as will be hereinafter fully set forth, and pointed out in the claims.

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

Figure 1 is a front elevation of the device applied to a piano. Fig. 2 is a rear view of the same. Fig. 3 is a plan view. Fig. 4 is a central vertical section on line *x x* of Fig. 2. Fig. 5 is a transverse vertical section on line *y y* of Fig. 3; and Fig. 6 is a plan view of a drum, adapted to carry the leaf-holders, having the top removed.

In carrying out the invention the base-plate *A* is provided with a dovetail rib, *A'*, upon the under face, and a second or top plate, *B*, is supported a distance above the base-plate, parallel therewith, by studs or posts *b b'*.

A vertical standard, *D*, is secured, respectively, to the top and base plates in any approved manner, being preferably stepped in said plates, as best shown in Fig. 4. In the upper end of the standard *D* a perpendicular recess is produced, in which recess the lower end of a cylindrical rod, *D'*, is introduced and retained in rigid position by a set-screw, *d*, passing through the standard to an engagement with the rod, or through the medium of other well-known fastening devices.

A series of hollow drums, *E*, is held to turn upon the rod *D'*, each of which drums contains a coiled spring, *E'*, one end of which spring is secured to the rod, the other end being attached to the inner wall of the drum, as best

illustrated in Figs. 4 and 6. In the periphery of each drum a diametrical slot, *e*, is cut, for a purpose hereinafter set forth.

Any number of drums may be provided upon the rod *D'*, one drum being employed for each leaf to be turned. Ordinarily, five drums will be sufficient.

To the rear of the drums aligning-openings *f* are made in the top and base plate in which a latch-rod, *F*, is held to reciprocate. Upon the forward edge of the said latch a series of lugs, or a lengthy lug, *f'*, is secured or cast integral therewith, one lug being provided for each drum used, which lugs are purposed, when the drums are revolved and the spring contained therein contracted, to enter the slots *e* of the drums and retain the same against the tension of the springs. When a single lug is employed, as shown, it is of a length equal to the combined height of the drums. In the rear edge of the latch a series of notches, *f''*, is produced, preferably corresponding in number to the drums, the uppermost of which notches is preferably located below the horizontal plane of the lowermost end of the lug *f'*.

A pintle, *H*, is transversely journaled in the post *b* beneath the top plate, and upon the rear end of said pintle an elbow-lever, *H'*, is rigidly fastened, the extremity of the horizontal member of the lever being adapted to engage the notches in the latch, as best shown in Fig. 2. The said elbow trip-lever is held in contact with the latch by a spring, *h*, coiled upon the pintle, having a bearing against the front side of the post and likewise against a stop formed upon the forward extremity of the pintle, as clearly shown in Fig. 5. The said horizontal member of the elbow-lever *H'* is held in such position by a coil-spring, *K*, secured to the inner side of the vertical member, at or near the extremity, and also to the opposite end of the base-plate, as shown in Fig. 2. The movement of the elbow-lever is limited by a spur, *k*, projected from the bottom of the vertical member, which spur travels in a slot, *k'*, in the base-plate.

To each of the several barrels a longitudinally-slotted arm, *M*, is secured, provided at each end with upwardly-projecting slotted pins or tines *m*, which arms and tines are purposed to clamp the several sheets of the

music at the bottom of the page, as illustrated in dotted lines, Fig. 1.

The pins or tines and likewise the arms may be of any desired length.

5 To attach the device to a musical instrument—for instance, a piano—a block, S, provided with a dovetail groove, S', in the upper face, is permanently attached to the base of the swinging rest or to the front board immediately in advance of the rest. The block S
10 is likewise provided with a slot, S², adapted to receive the latch of the device. It will thus be observed that by sliding the dovetail rib upon the base of the device into the similar groove of the block the turner is expediently and conveniently applied.

The elbow-lever is actuated by a pedal, N, pivoted in any approved manner to the lyre, which pedal is connected by a cord, N', with
20 the vertical member of the elbow-lever, as best shown in Fig. 1. The cord N' passes over pulleys n, suitably placed, and is detachably secured to the said lever.

In operation the arms M are bunched, as
25 illustrated in Fig. 3, whereby the several slots e in the drums are brought in vertical alignment, and the latch is drawn upward until the lug f' thereon engages each of the said slots, as shown in Fig. 4, and the leaves of
30 the music to be turned are inserted in said arms.

Upon pressing upon the lever N the elbow-lever bears upon the lower notch, f², of the latch and depresses the same to such an extent that the upper barrel is disengaged
35 from the lug, whereupon the spring E', acting, revolves the released barrel, causing the arm attached thereto to make about a half-revolution, the same being stopped by contact with a pin, R, projected upwardly from the
40 post b', as best shown in Fig. 1. By pressing the pedal again the next drum is revolved, and so on until the last leaf is turned.

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

1. The combination, with a base, a spring-actuated elbow-lever pivoted to the same, and an upwardly-extending vertical post secured to the upper surface, of a series of spring-actuated drums revolving upon said post provided with a diametrical peripheral slot, arms horizontally projected from said drum, and a perpendicular latch provided with an offset upon one edge and notches in the opposite
55 edge, all combined to operate substantially as shown and described.

2. The combination, with a base, a spring-actuated elbow-lever pivoted to the same, and an upwardly-extending vertical post or bar, of a series of spring-actuated drums revolving upon said post provided with a diametrical peripheral slot, slitted arms horizontally projected from the drums, a perpendicular latch provided with an offset upon one edge
65 and notches in the opposite edge, a foot-lever, and connections between said foot-lever and elbow-lever, substantially as shown and described.

3. The combination, with a supporting-
70 block provided with a dovetail groove, a base provided with a dovetail rib adapted to enter said groove, a spring-actuated elbow-lever pivoted upon said base, and a vertical post or bar extending upward from the same, of a series of spring-actuated drums revolving upon said post provided with a diametrical peripheral slot, slitted arms horizontally projected from the drums, a perpendicular latch provided with an offset upon one edge and
80 notches in the opposite edge, a stop-pin secured upon the base, a foot-lever, and connections between said foot-lever and elbow-lever, all combined to operate substantially as set forth.

FRANK H. LOUGHLIN.

Witnesses:

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