

G. M. COHEN & G. DIETZ.
Music-Leaf Turners.

No. 154,945.

Patented Sept. 15, 1874.

Fig. 1.

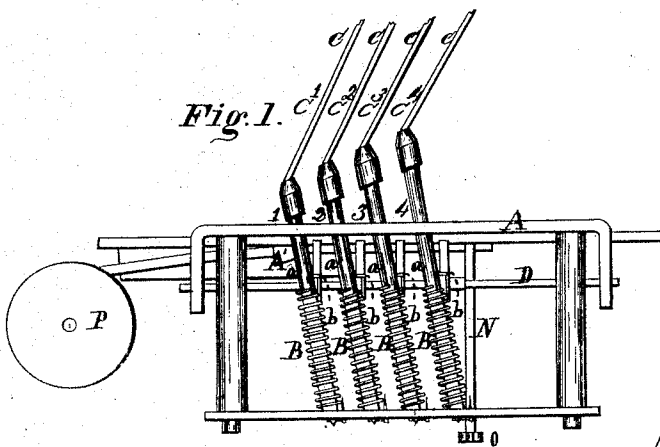
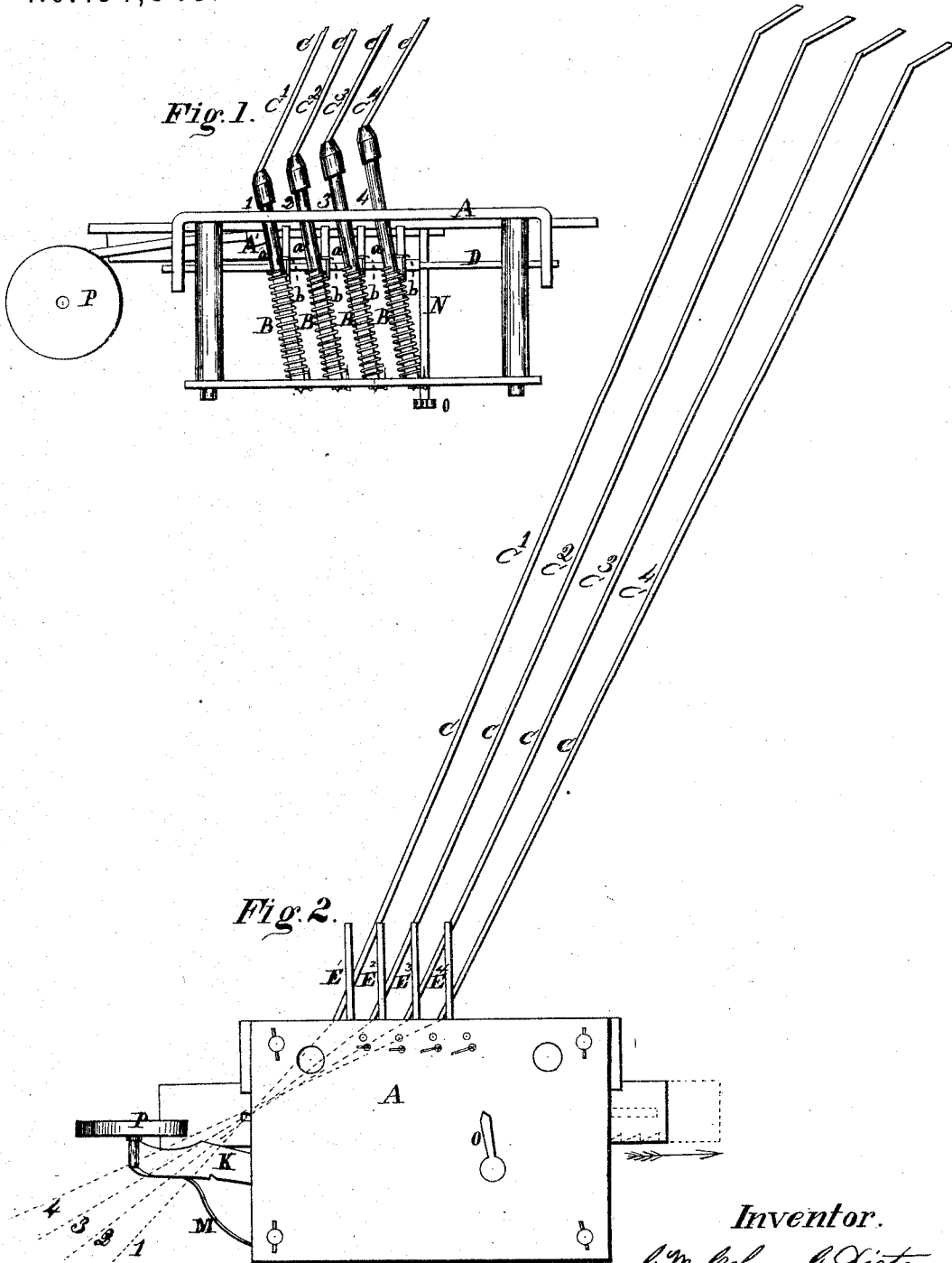


Fig. 2.



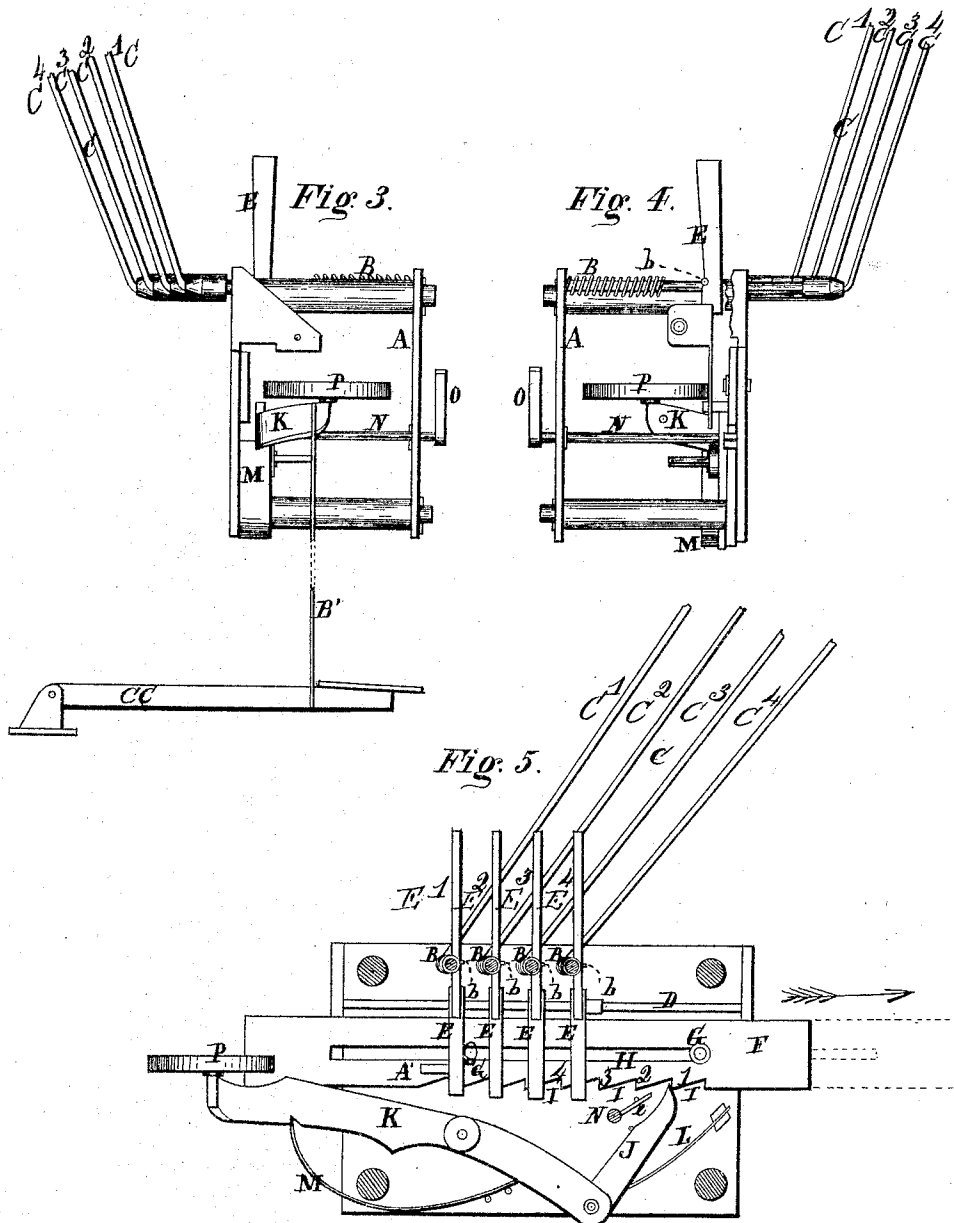
Witnesses.
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UNITED STATES PATENT OFFICE.

GUSTAVUS M. COHEN AND GREGOR DIETZ, OF CLEVELAND, OHIO.

IMPROVEMENT IN MUSIC-LEAF TURNERS.

Specification forming part of Letters Patent No. 154,945, dated September 15, 1874; application filed July 17, 1874.

To all whom it may concern:

Be it known that we, GUSTAVUS M. COHEN and GREGOR DIETZ, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and Improved Music-Book-Leaf-Turning Apparatus; and we do hereby declare that the following is a full, clear, and complete description thereof, reference being had to the accompanying drawings making part of the same.

Figure 1 is a plan view of the apparatus. Fig. 2 is a side view. Figs. 3 and 4 are end views. Fig. 5 is a vertical longitudinal section.

Like letters of reference refer to like parts in the several views.

This invention is for turning over the leaves of a music-book as it stands upon the instrument in front of the performer, whereby is avoided the reaching of the hand of the player to the book and the interruption of the music by so doing.

The construction and operation of the apparatus are as follows:

In the drawing, A represents a frame, obliquely across the top whereof are journaled spindles *a*, Fig. 1, which may be of any desirable number. Around each spindle is coiled a spring, B, one end of which is fastened to the frame, whereas the opposite end is fastened to the spindle. The purpose of said springs will presently be shown. From the end of each spindle projects a rod, C, Fig. 2. Said rods are fixed rigidly in the ends of the spindles. D, Fig. 1, is a bar, whereon are loosely fitted levers E, Fig. 5, and which are so arranged in relation to the spindles as to pass upward between them, so that one lever becomes the accompaniment of one spindle, and with which it is made to engage by a pin, *b*, projecting from the side of each spindle into a notch made in the edge of each lever, as shown in Fig. 4. Back of the lower end of the levers is a slide, F, Fig. 5, secured to the side of the frame by studs G projecting from said side into a slot, H, whereby the slide is permitted to move reciprocally, as will hereinafter be shown. In the lower edge of the slide are a series of notches, I, corresponding in number to the number of levers. J is a pawl pivoted to the end of the key K, and is

kept engaged with the notches of the slide by a spring, L, whereas the key is held up by a spring, M. To the shaft N, Fig. 3, is secured a finger, *e*, Fig. 5, so arranged as to engage the pawl J. On the outer end of the shaft is a handle, O, whereby the shaft is turned for causing the engagement of the finger with the pawl.

Having described the construction and arrangement of the apparatus, the practical operation of the same is as follows: The apparatus is placed near the music-rest of the piano or organ, and in such relation to the music-book that the rods C will lie between the leaves of the book that are to be turned over in the course of the performance. The position of the rods when adjusted between the leaves of music is such as shown in Fig. 2, in which position the first rod, 1, is supposed to be under the first leaf to be turned, the rod 2 under the second leaf, rod 3 under the third leaf, rod 4 under the fourth leaf, and so on as there may be rods. The position of the rods is maintained by the pin *b* in the notch of the levers, as shown in Fig. 5. Said figure shows the relation of the several parts when the apparatus is adjusted for operation. Now, in order to turn over a leaf, the player strikes his finger upon the button P of the key K, the effect of which will be to push the slide F in direction of the arrow by means of the pawl J in the notch 1. This movement of the slide will cause the lug A', Figs. 1 and 5, projecting from the side of the slide, to push outward the lower end of the lever 1, which will recede the upper end and disengage it from the pin *b*. The shaft *a*, being thus liberated from the lever, will suddenly revolve by the recoil of the spring B, thereby throwing the rod over to the position indicated by the dotted lines 1, Fig. 2. This movement of the rod carries with it the leaf of music under which it was placed, and turns it over onto the left-hand side or page of the open book. The upward movement of the key, by the spring M, moves the pawl to an engagement of another notch, 2, corresponding to the next lever, E 2, and rod C 2. On again depressing the key by striking upon the button, the slide is moved onward another notch, thereby causing the lug A' to force out-

ward the lever 2, as was forced outward the lever 1, which will in like manner, as before, in the case of rod 1, be carried over to the position indicated by the dotted line 2. The movement of this rod also carries with it the leaf of the book under which it was placed, turning it from the right over onto the left hand. The upward movement of the key, by the reaction of the springs M, together with the action of the springs L, draws back the pawl, and makes it engage with the notch 3 of the slide corresponding to the 3 lever, 3 shaft, and rod.

The operation of the key, as above described, will turn the 3 rod and its leaf of music, and so on to any number of rods and levers that are applied to the apparatus. The dotted lines in Fig. 5 indicate its position after having been pushed out for operating the rods for the purpose specified.

In order to reset the rods under the leaves of the book, the slide F is pushed back to the position shown in said Fig. 5. To this end the finger *e* on the shaft N, referred to above, is made to impinge upon the pawl, and thereby prevent it from engaging the notches in the slide, so that said slide can be pushed back, for the purpose aforesaid—viz., for resetting the rods.

This apparatus is represented as being operated by hand. It can, however, be easily arranged to be operated by the foot by attaching a cord, B', Fig. 3, to the key K, and to a

treadle, C C, located near the foot of the performer. In either case the operation of the device will be alike.

It will be obvious that by the use of this apparatus much inconvenience and interruption of the music will be avoided, as the performer can instantly turn over the pages of the music by a simple tap of the finger on the button of the key or by the foot, as the case may be.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The rods C, more or less in number, spindles *a*, springs B, and pins *b*, all arranged to operate in combination with the levers E, slide F, and lug A', substantially in the manner and for the purpose set forth.

2. The key K, spring M, pawl J, and spring L, in combination with the slide F and levers E, in the manner as described, and for the purpose specified.

3. The rods C, spindles *a*, springs B, pins *b*, levers E, slide F, lug A', key K, pawl J, and frame A, all combined and arranged to operate substantially in the manner as described, and for the purpose specified.

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Witnesses:

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