No. 756,944. PATENTED APR. 12, 1904.

G. H. EDGINGTON.

MUSIC LEAF TURNER.

APPLICATION FILED FEB. 11, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

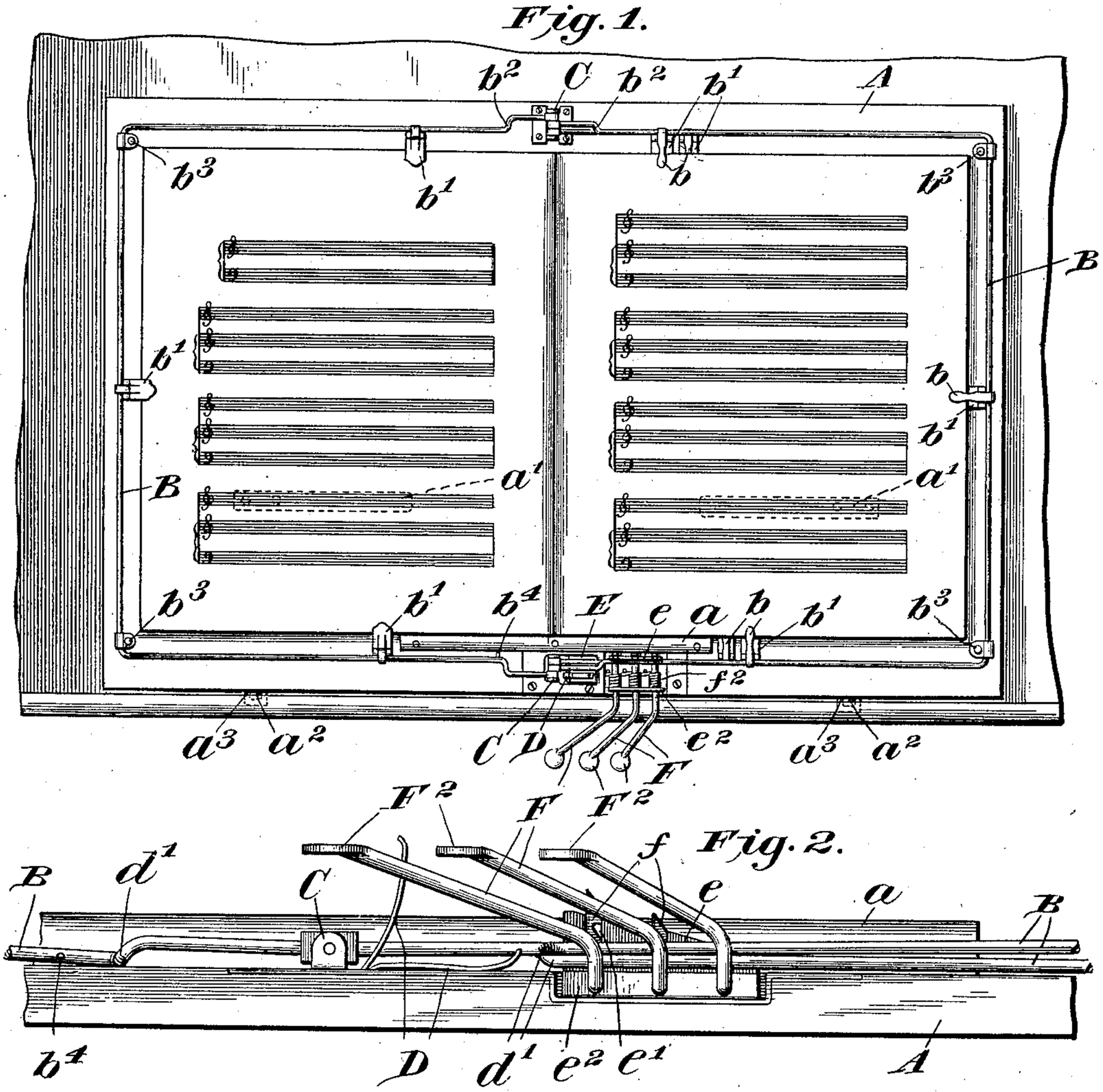
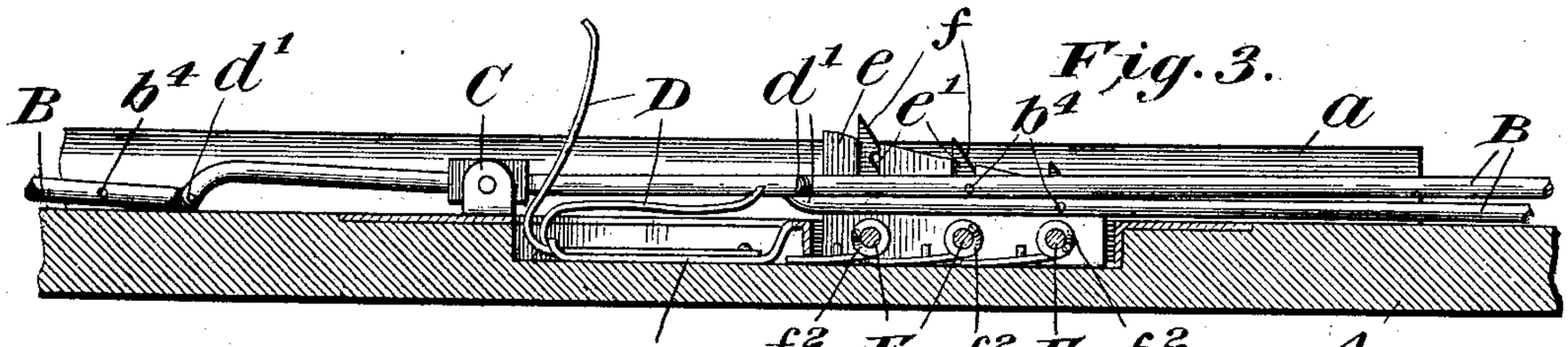


Fig. 2.

Fig. 3.



Witnesses

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 4.

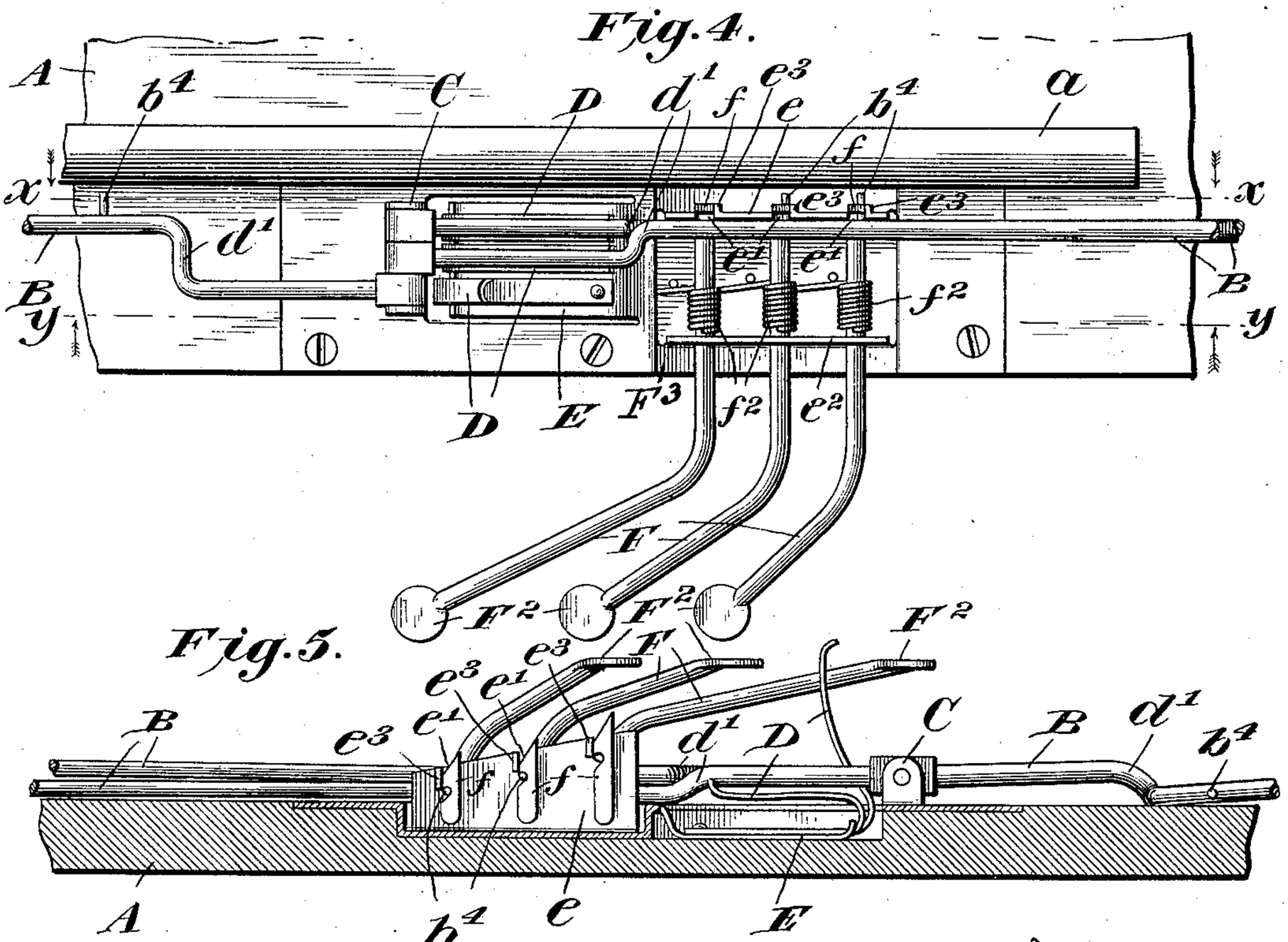


Fig. 5.

Fig. 6.

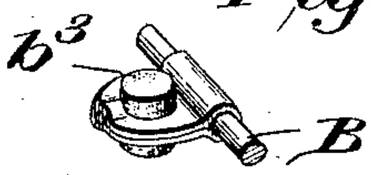


Fig. 7.

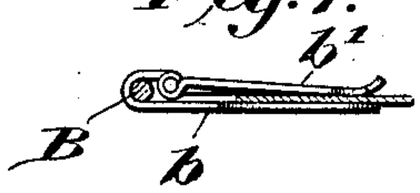


Fig. 8.

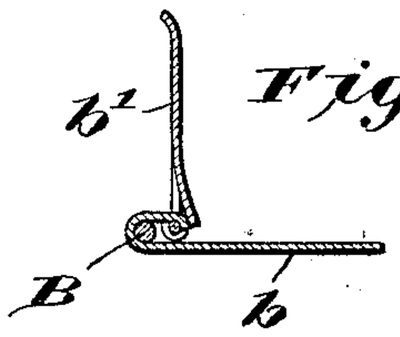


Fig. 9.

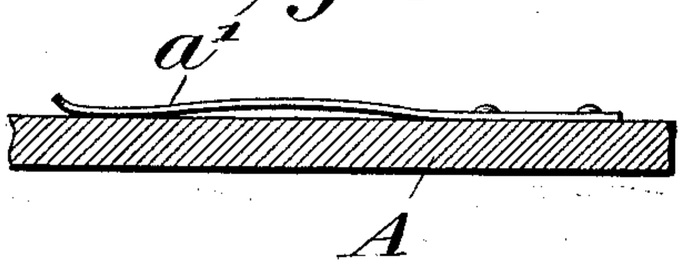
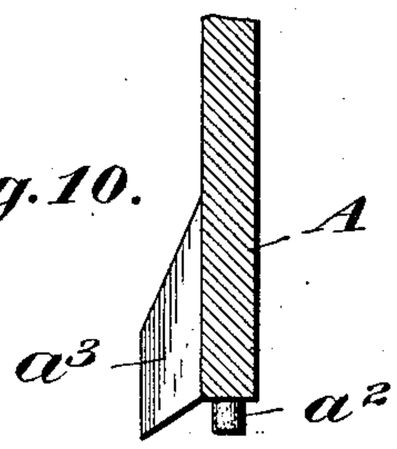


Fig. 10.



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UNITED STATES PATENT OFFICE.

GEORGE H. EDGINGTON, OF WATERLOO, IOWA.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 756,944, dated April 12, 1904.

Application filed February 11, 1903. Serial No. 142,907. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. EDGINGTON, of Waterloo, in the county of Blackhawk and State of Iowa, have invented certain new and useful Improvements in Music-Leaf Turners; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is an improvement in sheet-music-turning devices, being especially adapted for piano, organ, or orchestral use and designed to turn single sheets or a plurality of sheets in proper sequence. The sheet-music is properly secured in the holder before the performer begins to play, and when so arranged the operator can automatically turn the sheets successively, as hereinafter explained.

The various novel features of the invention for which protection is desired are summarized in the claims and will be fully comprehended from the description of the device illustrated in the drawings, which embodies the invention in a practical form, although I do not restrict myself to the specific size or construction of parts therein shown.

In said drawings, Figure 1 is a front elevation of my device in use. Fig. 2 is an enlarged plan view of the lever mechanism. Fig. 3 is a sectional view on line $y\ y$, Fig. 4. Fig. 4 is an enlarged front elevation of the lever mechanism. Fig. 5 is a section on line $x\ x$, Fig. 4. Fig. 6 is a detail view of one of the buffers; Fig. 7, a detail edge view of one of the leaf-clamps closed, and Fig. 8 a similar view of leaf-clamp open. Fig. 9 is a detail section showing the leaf-holding spring a'. Fig. 10 is a detail section showing one of the rests a^3.

When the device is to be used as a portable music-leaf turner, it comprises a back board A, to which the leaf-turning frames are attached. This board has a back-rest a and two flat springs a', under which the back of an ordinary music-book may be held, so as to retain the same upon the holder when the device is to be used for turning the leaves of small books. On the lower edge of the board are rubber buttons a^2, which are to rest upon the ledge of the music-rest of an ordinary piano or organ, and back of these rubber buttons are depending beveled blocks a^3, which are adapted to engage behind the ledge and prevent the board falling therefrom. The board is set at an angle of about sixty degrees, so that the music can be most easily read by the performer. To the board are attached a series of music-leaf-turning frames B. These frames are constructed substantially alike, so that the description of one applies practically to all. Each frame is U-shaped and is pivotally connected at its ends to brackets C, attached to the upper and lower ends of the board. The pivot-pins in these brackets are vertical, so that the frames will swing or turn longitudinally of the board. The upper and lower members of the frame are provided with leaf-clamps which have one fixed leaf b and a spring-leaf b', which latter can be sprung open, as indicated in Fig. 8, to allow the edge of a leaf to be laid therebetween, and then closed thereupon, as indicated in Fig. 7, holding the leaf securely. One or more of these catches may be also attached to the outer vertical portion of the frame to engage the outer edge of the sheet of music. The frames are of the proper size to receive the ordinary-size sheet-music, and the catches will hold the same securely. The frames may also be provided at their outer corners with rubber buffers b^3, which project on each side of the frame, so as to prevent metallic contact between the adjacent frames or any annoying jar or noise when the frames are turned. Adjacent to the lower pivot of each frame are suitable springs arranged to throw the frames to the left, and when the frames are thrown to the right these springs are put under tension. Any suitable springs may be employed for this purpose; but, as shown, leaf-springs D are employed, which may be secured in a metal housing E, and each has its free end projecting outwardly in position to engage the lower member of a respective frame when it is turned to the right, so as to be put under tension thereby. In order to permit the frames to be operated by independent springs, their lower members are bent slightly near their ends, as shown at d',

so that the adjacent parts of the frames at this point will lie in the parallel vertical planes and not be superimposed, as are the other portions of the frames. The upper ends of the frames may also be similarly deflected, as indicated at b^2, for the same purpose. When any frame is turned to the right, thus putting its spring under compression, it is necessary to hold it down until it is desired to release it, and for this purpose suitable catches are employed which may be released by slight pressure on a button or lever connected therewith. As shown, each frame is provided with a catch-pin b^4 near its pivot, which when the frame is turned to the right enters a slot e' in an upstanding plate e and is held therein by a pivoted catch f, which catch is mounted on the inner end of a rocking shaft F, which is journaled in the plate e and in adjacent parallel plate or flange e^2 on housing E, as shown. A coil-spring f^2 is placed on each shaft F intermediate the plates e e^2, one end being fast to the shaft and the other bearing against the board or housing, so that the spring will normally rock the shaft and hold its catch f in position to close its slot e' in plate e, this movement of the shaft and catch being limited by a lip e^3 on plate e adjacent to the slot. There will be a series of rock-shafts F and catches f corresponding in number to the number of turning-frames B attached to the board, and the pins b^4 on the successive frames are set farther from the pivots thereof, so that each pin b^4 will properly engage its own controlling-catch f. The catches f are preferably beveled on their upper ends, as shown, so that when the frames are turned toward the right the pins b^4 will engage the beveled heads of the catches and ride into the slots e' and be locked therein, as indicated in Fig. 5. The lower ends of the rock-shafts F may be extended below the board and deflected a little to the left, so as to bring their ends into central position below the board and give sufficient leverage thereon. The rock-shafts may be provided with finger-pieces F^2, suitably numbered, if desired, so that the player can understandingly release the frames, which is properly done by pressing back the finger-pieces in succession from left to right. These rock-shafts F are bent at an obtuse angle. Their portions F^3, which are journaled in plates e and e^2, are arranged parallel, and each is rotatable in its bearings in said plate, so that by rocking or turning the parts F^3 on their axes the catches f are vibrated. The lower parts of rock-shafts F are bent to one side and at slightly-different angles, so as to bring their finger-pieces F^2 into alinement in a convenient position below the board and at about the center thereof. The bent lower ends of the rock-shafts form levers whereby the upper parts F^2 thereof may be easily rocked by a very light touch on the key-pieces. Of course the upper or outermost frame B should be released first, and if the proper finger-piece is depressed, so as to cause its catch f to release the pin b^4 on the outermost frame, the spring engaging said frame immediately throws it over to the left and in so doing turns the sheet of paper.

Operation: To put the sheet of music into the holder, all of the frames should be raised at right angles to the board sufficiently to allow the music to be slid under the frames from left to right into proper position on the board. In putting in the music the front cover of same (if any) should be turned to the left and laid flat upon the board. The first or outermost frame is then laid down, the clips are opened, then the first sheet of music is laid over the clips, which are closed thereon, then the second frame is laid down to the left and clips opened and a second sheet of music secured thereto, and so on successively until all the leaves are in the grasp of successive frames. Then the frames should be turned over to the right, care being taken to press down the successive frames near their lower pivots, so that their pins b^4 engage the proper catches. Then the performer while playing can by slightly touching the keys on the successive rock-shafts F release the frames in proper sequence, and the springs will throw the frame to the left, turning the sheets of music until the piece has been played. Then all the frames may be turned again to the right with one motion, resetting the music into position for turning once more.

The holder and turner can be made with few or many frames, as desired. Ordinarily three will be sufficient. The flat steel springs on the face of the board can be used to hold open a song or hymn book; but they are disregarded when using the leaf-turner for the ordinary sheet-music. It will be observed that each frame forms three sides of a square or will surround the top, bottom, and outermost edges of a sheet of music, and each frame is pivoted at each end, and the clips thereon engaging the top, bottom, and outer edges of the sheets makes it possible by my invention to turn a single sheet of music—that is, a sheet of music unattached to a book or other sheet—and do it properly, which is a decided advantage in this class of devices, as in ordinary sheet-music the leaves are not bound together. The devices will turn the sheets properly and hold them securely even if used in a strong draft of air. It will also be noted that in the construction shown the springs are not attached to the frames, but come into play as the frames are moved from a central position to the right. This gives greater freedom of movement and facilitates the placing of sheet-music in the apparatus and also simplifies the construction thereof.

Having thus described my invention, what

I therefore claim as new, and desire to secure by Letters Patent thereon, is—

1. In a music-leaf turner, the combination of a sheet-engaging frame, pivoted to swing from right to left, leaf-engaging devices on the said frames, a pin on the lower member of the frame, a spring engaging the frame and adapted to be put under tension when the frame is turned to the right, a rocking catch adapted to engage the pin and hold the frame when turned down to the right, a rock-shaft having its upper end rotatably journaled in suitable supports, and carrying said catch which is rigidly attached thereto and having its lower end bent to one side to enable its upper end to be rocked and cause the catch to disengage the pin and release the frame when the lower end of the shaft is pressed back, substantially as described.

2. In a music-leaf holder, the combination of a board, a series of leaf-turning frames attached thereto pivoted so as to swing from left to right, sheet-music-holding devices on said frames, springs secured adjacent to the lower pivots of the holders in the path of movement of the frames and adapted to be engaged by the frames as the latter are turned down to the right and be put under compression thereby; catches engaging the frames to hold them down and parallel spring-controlled rock-shafts having their upper portions extending at right angles to the lower part of the frame and rotatably journaled in suitable supports, and having their lower portions bent to one side and provided with keys so that by pressing back said keys the shafts will be rocked, said catches being rigidly secured to the upper ends of said shafts on their extremities, for the purpose and substantially as described.

3. The combination of a series of leaf-turning frames pivoted at their upper and lower ends so as to swing horizontally from left to right, sheet-music-engaging clips on the said frames, a series of springs adjacent to the lower pivots of the frames and respectively adapted to engage the frames when they are turned down to the right and be put under compression thereby, and pins attached to the lower ends of the frames, beveled catches adapted to respectively engage the pins on the frames, parallel rocking shafts, having their inner ends journaled in suitable supports and carrying said catches and having their outer ends bent to one side and provided with finger-pieces on their extremities, and springs for rocking and holding said rock-shafts normally in position to cause the catches to engage the pins on the lower members of the frame and hold the latter until the catches are released by rocking the shafts, substantially as specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

GEORGE H. EDGINGTON.

In presence of—
A. B. LOVEJOY,
S. T. MEARS.