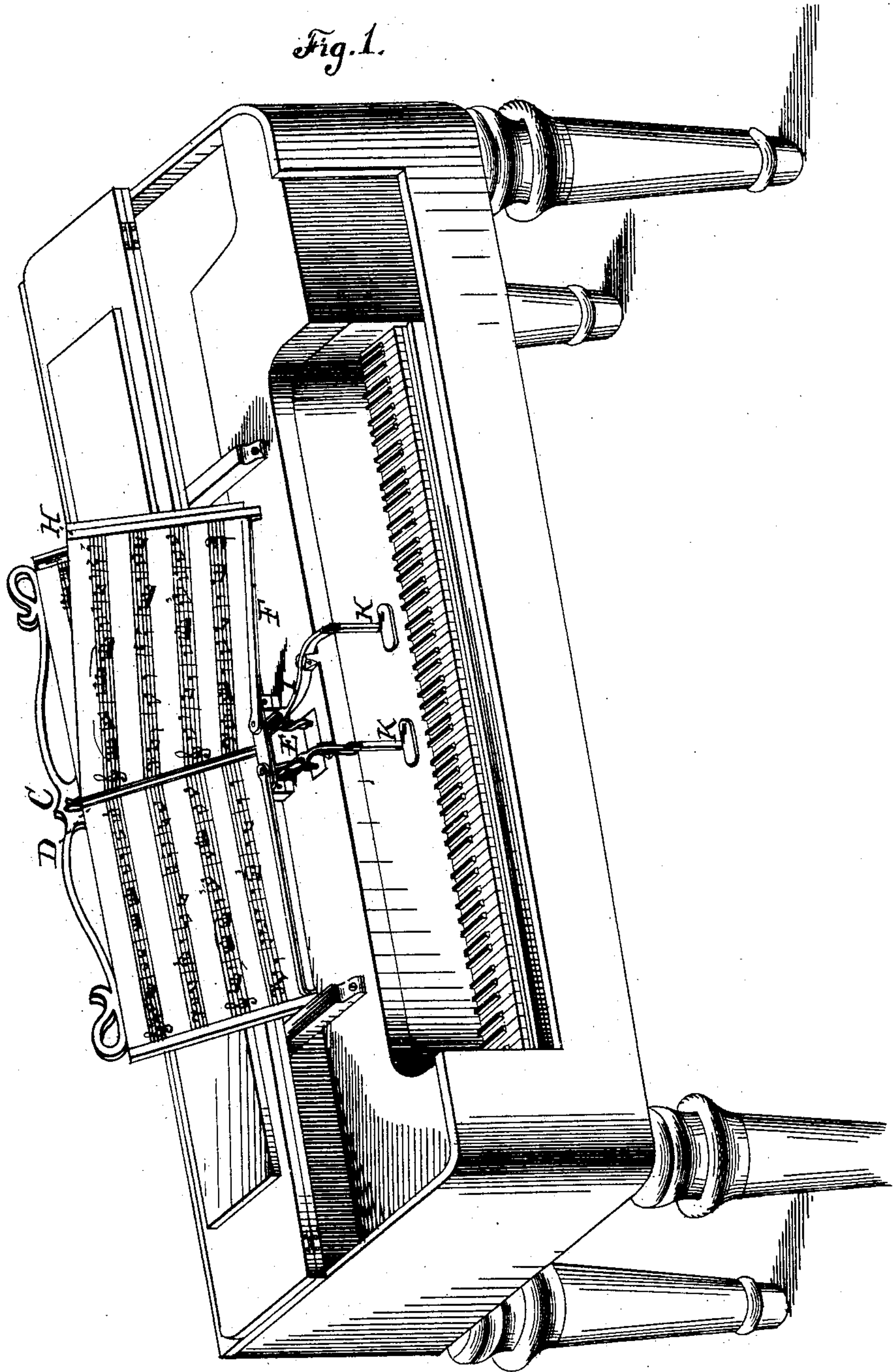


T. BERRY.
Music-Leaf Turner.

No. 224,861.

Patented Feb. 24, 1880.

Fig. 1.



WITNESSES:

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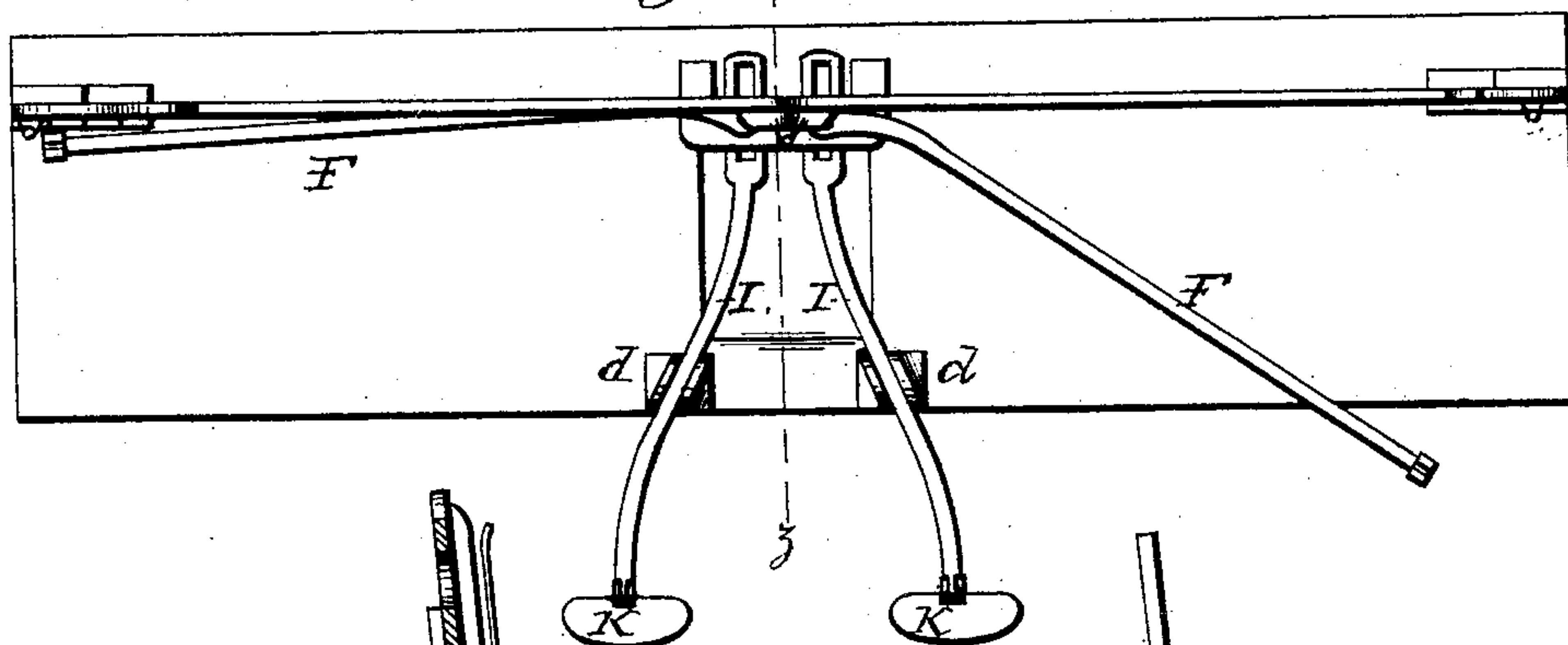
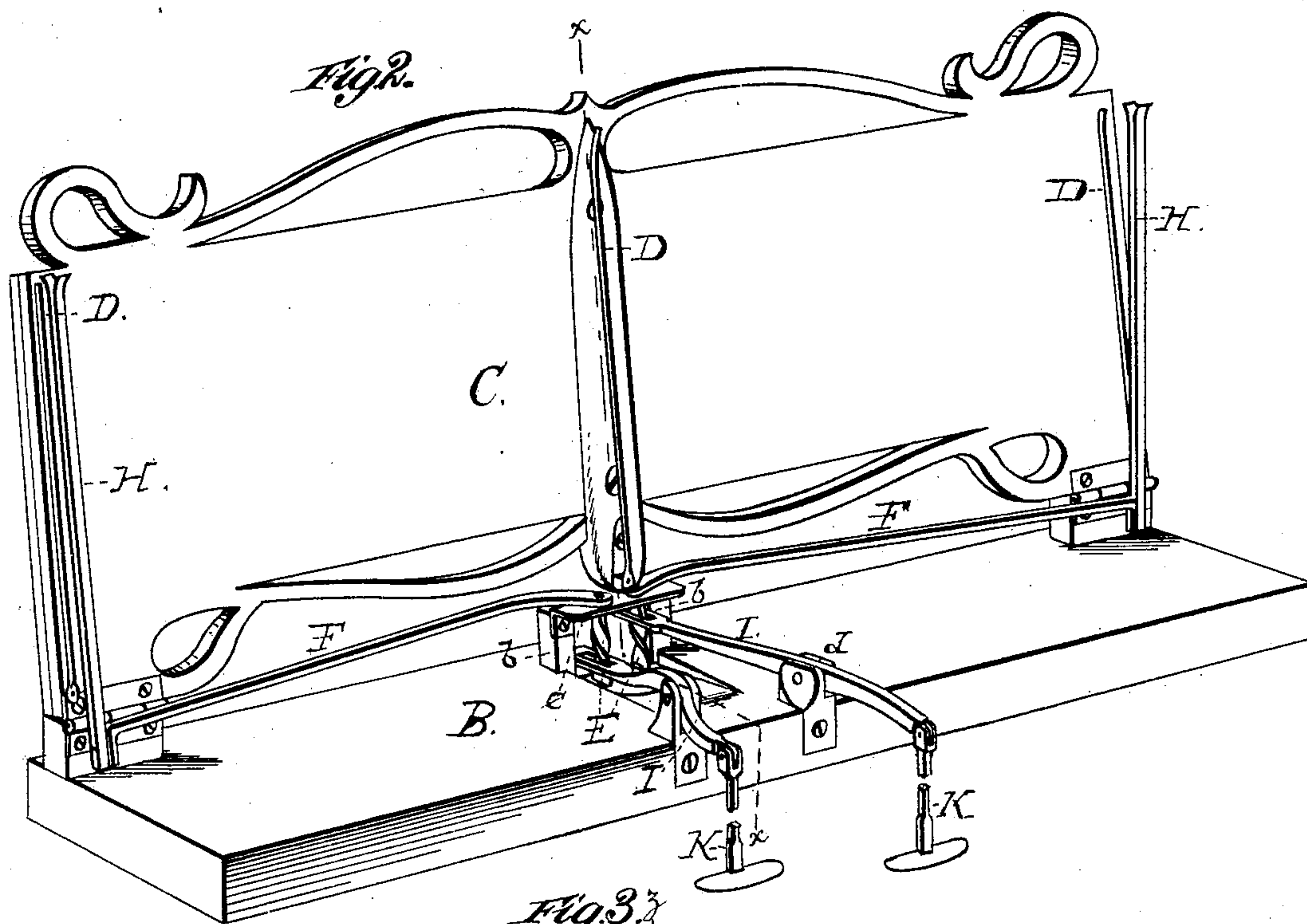
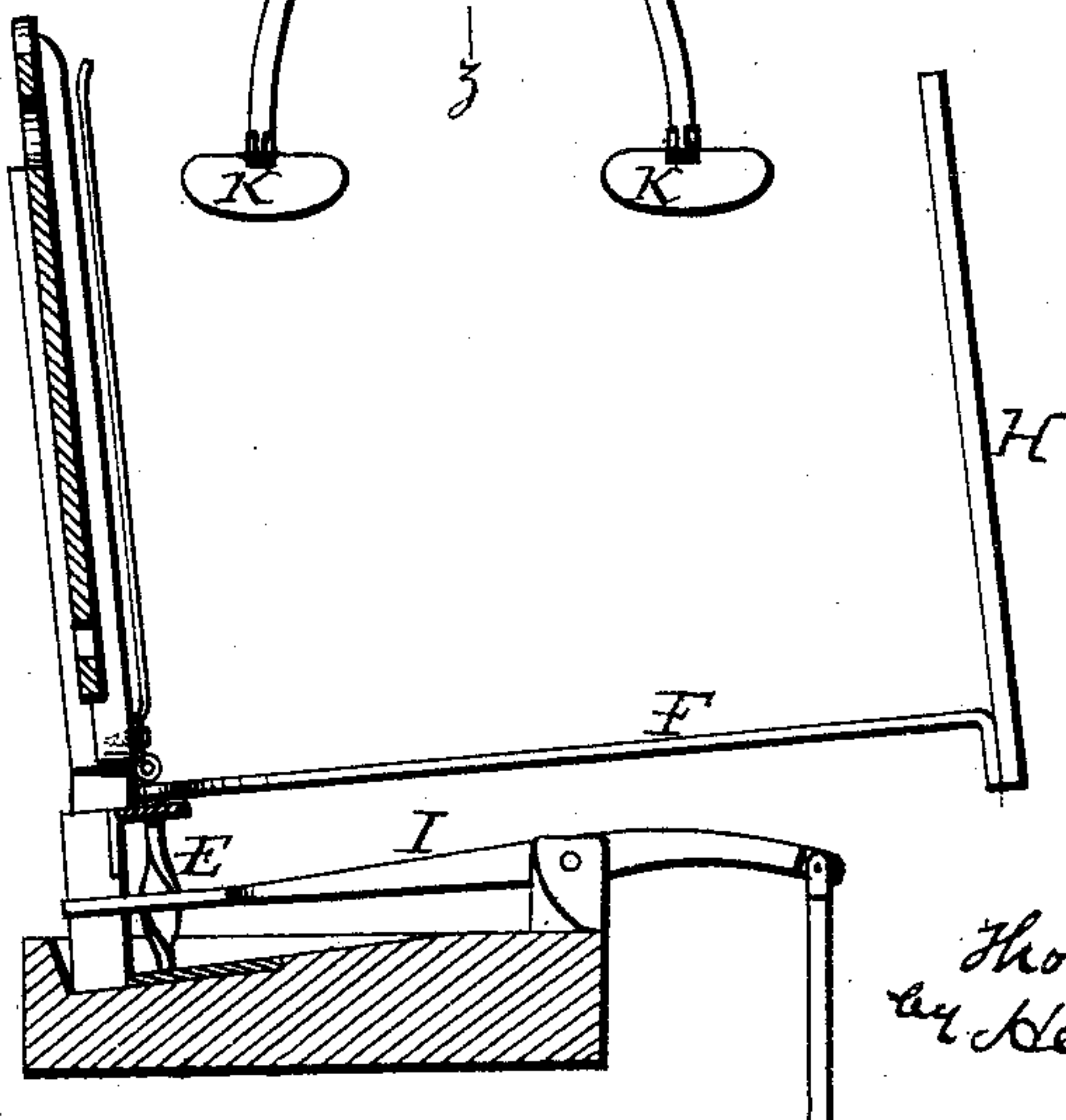


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS BERRY, OF NORTH FORK, KENTUCKY.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 224,861, dated February 24, 1880.

Application filed July 9, 1879.

To all whom it may concern:

Be it known that I, THOMAS BERRY, of North Fork, in the county of Mason and State of Kentucky, have invented a new and valuable Improvement in Music-Rack and Music-Leaf Turner; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 is a perspective view of the improved music-leaf turner applied to a piano. Fig. 2 is a perspective view of the music-rack and leaf-turner detached. Fig. 3 is a top view looking down. Fig. 4 is a central sectional view taken through the lines *x x* and *z z* of Figs. 2 and 3, respectively.

This invention relates to certain improvements in that class of music-leaf turners in which a plurality of swinging fingers or arms are placed between the leaves of the music and successively tripped by the player, so as to quickly turn the music-leaves; and the improvements consist, first, in a music-folding rack, in combination with a music-leaf turner, the arms or fingers of which are capable of being folded with the rack; secondly, in a music-leaf turner having a pivoted lever operating on and in combination with pivoted worm-post, to cause the finger or arm carrying a sheet of music to be shifted in the usual manner; thirdly, in the construction and arrangement of the parts, as will be hereinafter more fully set forth.

In the annexed drawings, forming a part of this specification, I have represented a piano, showing my invention applied thereto.

The letter B represents the base-block, of any suitable form or construction, so as to assume the proper inclination of the music-rack of the piano, organ, or other instrument.

The music-rack C is secured to the base-block B by means of hinges, pivots, or other folding equivalent means.

The music-rack may be attached directly to the board of the piano which usually supports the rack. This music-rack is provided with three spring-arms, D, arranged at the center and ends thereof. These spring-arms are attached at their base or lower ends to the rack

by means of rivets or other well-known fastening means.

In Fig. 2 of the drawings I have shown two posts, *b b*, connected to the base-block B, and connected at their upper ends by means of a cross-bar, *c*. Arranged between these posts *b* are worm-shafts E, arranged sidewise of each other in the same plane, revolving in sockets formed in the base-block and cross-bar *c*. These worm-shafts may be constructed with threads on the post, a spiral wire like a corkscrew or an endless screw, and the diameter may vary for the purpose of shifting the music slowly or rapidly. To the upper ends of these worm-shafts, and above the cross-bar, but below the folding portion of the music-rack, are rigidly connected the levers F, which are slightly curved and bent downwardly at their outer ends, substantially as shown, to which are pivotally attached split or divided spring-arms H. These arms are divided, so as to hold the sheets of music, and are pivoted at their base to the extreme ends of the swinging levers, capable of being folded forward and downward, as shown in Fig. 2 of the drawings. This feature is important, since music-racks in pianos are hinged to be folded forward when the instrument is to be closed; otherwise, if the arms were rigid, it would be impossible to fold down the music-rack and close the piano.

Engaging with the worm-shafts are forked levers I, fulcrumed to small posts or projections *d* on the upper surface of the base-block. To the outer ends of the forked levers I are jointed the drop-keys K, of such length as not to interfere with the keys of the instrument or performer, and are so arranged as to be depressed and raised by the fingers of the performer. The inner ends of these levers I have slots of sufficient length to allow for the vertical movement of the lever when operating the swinging levers carrying the sheet of music. The outer end forked portion of the levers may be opened or closed, as may be deemed best.

The drop-keys K, which are designed to be immediately above the keys of the instrument and to be within easy reach of the performer, are arranged sidewise of each other in a vertical plane.

Operation: The leaves of the music are arranged at their center over the central wire of

the music-rack, and the outer ends passed between the spring-arms H, retained in this position, also, during the process of shifting the swinging levers or arms. When a piece of music consisting of four or more pages is used, the first and last pages are retained in position on the music-rack by the spring-arms D, and the intermediate leaves of the piece of music are placed in the vertical spring-arms H of the swinging levers F in proper order. One leaf at a time is shifted or turned as the music is played by depressing the proper key-lever, which puts into operation the intermediate mechanism until the piece is finished. I do not wish to confine myself to the specific construction herein described and shown, as it is of more importance to make the leaf-turner of a simple and cheap construction and to quickly shift the music-leaves, nor to the number of means for shifting or turning the sheets of music.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A music-leaf turner having a journaled worm-shaft and mechanical means for shifting the swinging arm carrying the sheet of music, substantially as described. 25

2. The combination, with a music-rack, of a plurality of journaled worm-shafts having attached to their upper ends arms for supporting the leaves of music, slotted levers, and drop-keys, substantially as described. 30

3. The combination, with the swinging levers F F, of the divided spring-arms H H, pivotally attached thereto at their base, capable of being folded forward and downward in the same direction with the folding music-rack, substantially as and for the purpose set forth. 35

In testimony whereof I have hereunto subscribed my name.

THOMAS BERRY.

Witnesses:

JOSEPH N. LEE,
W. T. BERRY.