(No Model.)

J. S. & G. S. KNOWELS.

MUSIC LEAF TURNER.

No. 475,322. Patented May 24, 1892.

Fig. 1.

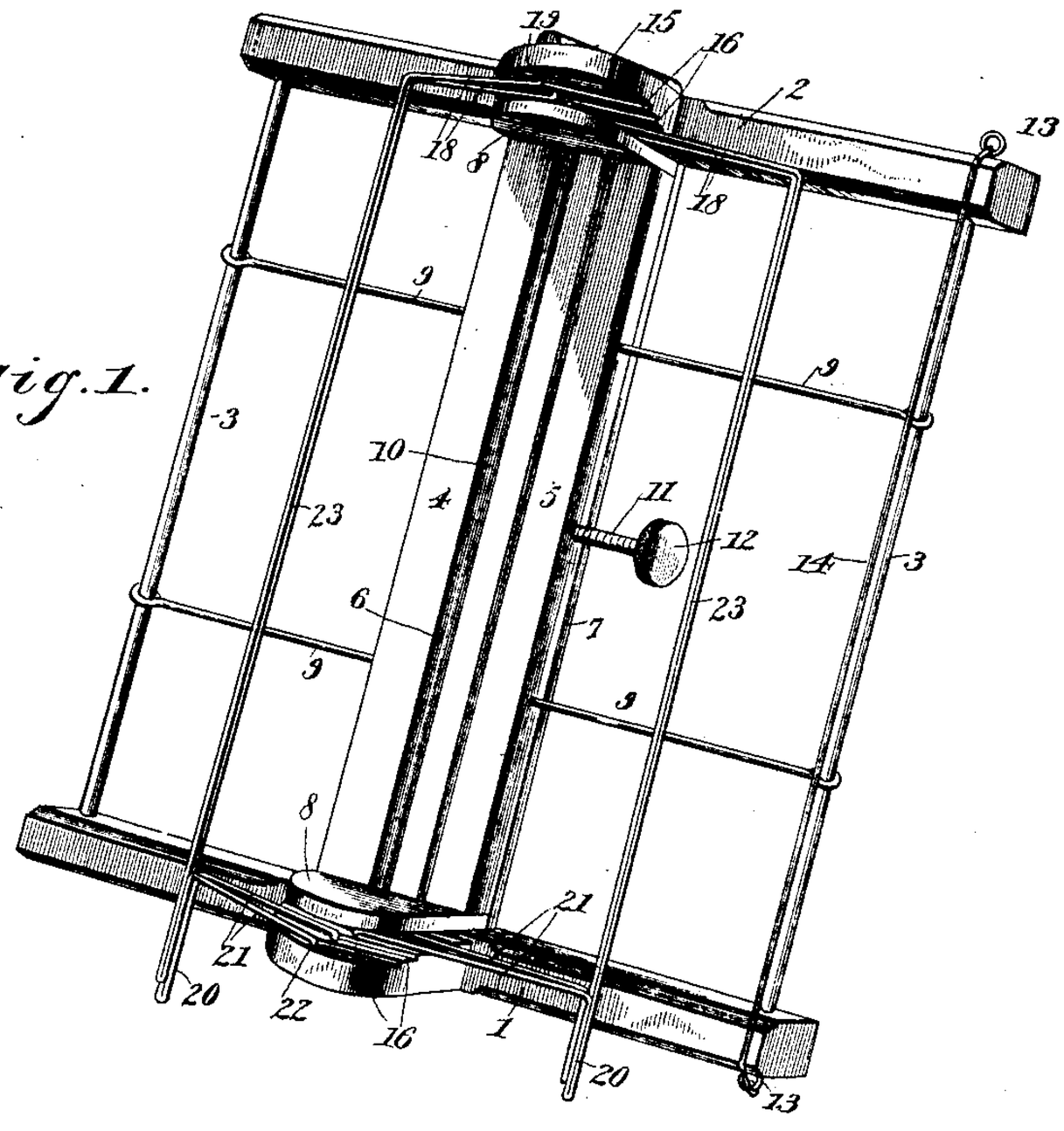


Fig. 2.

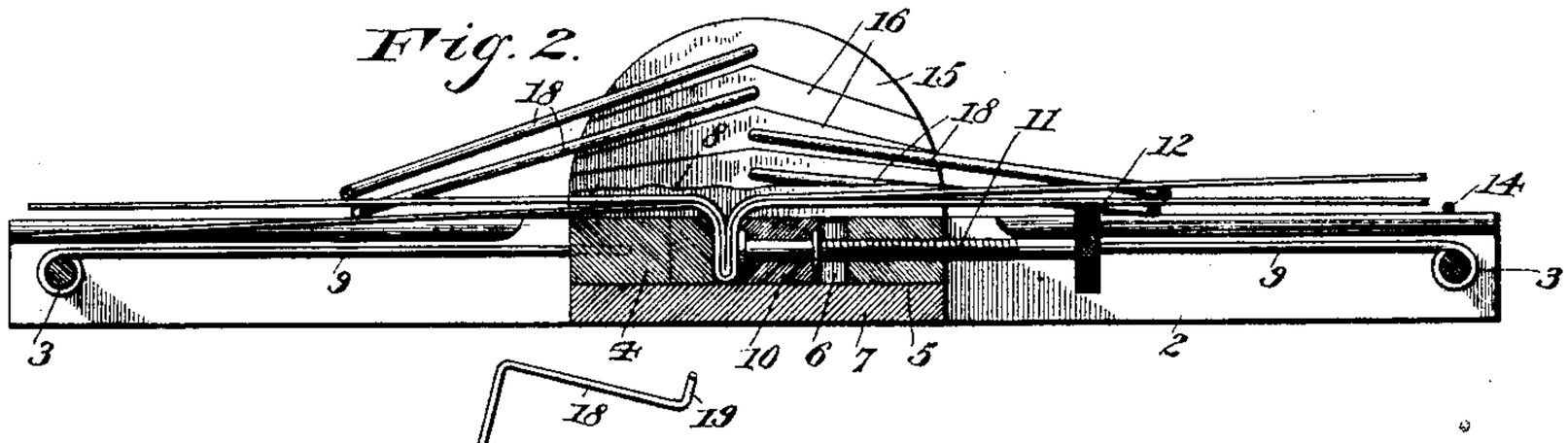
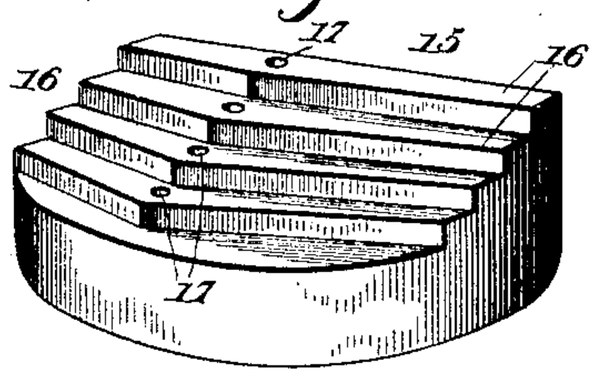


Fig. 3.

Fig. 4.



Witnesses;

J. W. Stevens.

J. A. Giggers.

Inventors.

John S. Knowels,

& Geo. S. Knowels,

By their Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JOHN S. KNOWELS AND GEORGE S. KNOWELS, OF BUFFALO, MISSOURI, ASSIGNORS OF ONE-FOURTH TO PETER S. KELLER, OF SAME PLACE.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 475,322, dated May 24, 1892.

Application filed January 28, 1892. Serial No. 419,575. (No model.)

To all whom it may concern:

Be it known that we, JOHN S. KNOWELS and GEORGE S. KNOWELS, citizens of the United States, residing at Buffalo, in the county of Dallas and State of Missouri, have invented a new and useful Music-Leaf Turner, of which the following is a specification.

This invention relates to improvements in music-leaf turners, the objects in view being to provide a cheap and simple support for music-books or loose sheet-music and means for retaining the same in position and for conveniently turning the leaves.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a music-leaf turner constructed in accordance with our invention. Fig. 2 is a transverse section of the same. Fig. 3 is a detail in perspective of one of the leaf-turning frames. Fig. 4 is a detail in perspective of one of the frame-supporting brackets.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates the lower horizontal base-bar, and 2 the upper or horizontal head-bar, the same being of suitable length and connected at their ends by a pair of vertical tie-bars 3. At each side of their centers the base and head bars are connected by central supporting-bars 4 and 5, spaced apart to form a recess 6 thereinbetween. A backing 7 connects the bars 4 and 5, and semicircular rests 8 are located at the juncture of the bars 4 and 5 and bars 1 and 2, such rests having their inner or rear edges recessed, as shown, to agree with the recess 6, heretofore mentioned. The structure is further braced by means of opposite pairs of transverse tie-rods 9, which at their outer ends engage the vertical tie-bars 3 and have their inner ends let into the bars 4 and 5. A clamping-bar 10 is mounted in the recess 6, the ends of the bar resting in the recesses formed in the rear edges of the rests 8, which thus act as keepers for the said clamping-bar. A clamping-screw 11 passes transversely through the center of the supporting-bar 5 and takes into the clamping-bar 10. The outer end of the screw is provided with a milled disk 12, which when manipulated between the thumb and forefinger of the operator will operate to feed the screw in or out, and thus clamp or release, in accordance with the direction of its movement, the edges of a series of music-sheets that may be interposed between the clamping-bar and the bar 4. The right-hand end of the bars 1 and 2 are provided with eyes 13, and an elastic strap or cord 14 is stretched between and fastened to the eyes, for a purpose hereinafter apparent.

Above and below the brackets 8 and agreeing in size therewith are music-leaf-turning supporting-brackets 15. These brackets have their inner faces inclined, as shown, and at opposite sides of their vertical centers are provided with a series of offsets 16. These offsets or steps rearwardly diverge from the centers and are arranged one above the other to such a number as will agree with the number of turning-frames to be employed. At the intersection of each pair of offsets perforations 17 are formed.

In constructing the turning-frames, of which, as before stated, there is a series, wire of suitable gage is employed. Blanks of suitable length are cut and each at one side of its center is laterally bent to form the upper horizontal branch 18, terminating at its extremity in an upwardly-turned bearing end 19. Below its center the blank is bent or doubled upon itself to form a manipulating-arm 20, and after such doubling and continuing upon itself for a short distance is laterally bent to form a lower horizontal branch 21, the extremity of which is downwardly bent to form a lower bearing end 22, which occurs vertically below the end 19. By this construction of frame a central intermediate vertical portion 23 is formed, as will be obvious. These frames are graduated in length, as shown, so that the largest frame will have its bearings 19 and 22 terminating in the outer pair of perforations 17 of the two brackets 15, the next frame in the pair of perforations immediately above, and so on throughout the series, so that the frames are capable of swinging by each other.

In operation, supposing, for instance, sev-

eral pieces of loose music are to be employed, they are assembled evenly together and their back edges inserted into the space or recess 6. The clamping-screw is then manipulated, so that the bar 11 will clamp said edges against the bar 4. It will be obvious that the leaves may now be turned in the same manner as if they were regularly bound. Between each set of leaves the straight intermediate portions 23 of the turner-frames are introduced. Any portion of the music not to be employed may be held in place by the elastic cord heretofore described. Now by throwing all of the leaves and turner-frames to the right, the music is in position ready for use. As the music is played from one page the musician simply turns to the next page, which may be expeditiously and conveniently accomplished by grasping the front arm 20, and so on throughout the several sheets. The frames being of different lengths it will be seen that the arms will project downwardly to different degrees, so that in turning from right to left the first frame to be turned will have its arm projecting below the remaining arms, and so on throughout the series, the succeeding arm always being below the remaining arms.

From the foregoing description, in connection with the accompanying drawings, it will be seen that we have provided a music-leaf turner which is very simple in its construction, is very convenient to musicians, is capable of use either upon a piano or suitable stand, and is adapted for use in connection with an accumulation of loose sheets of music in book form, as may be desired.

Having described our invention, what we claim is—

1. In a music-leaf turner, the combination, with a frame-work having a vertical recess, of a clamping-bar mounted loosely for movement and extending throughout the length of the recess and adapted to clamp sheet-music, means for operating the clamping-bar and leaf-turning devices, substantially as specified.

2. In a music-leaf turner, the combination, with the upper and lower transverse bars, and the pair of connecting-bars located near the center of the transverse bars and combining to form an intermediate space, of a clamping-bar mounted for sliding in the space, and a set-screw passing through one of the bars and into the clamping-bar and provided with a milled disk, substantially as specified.

3. In a music-leaf turner, the combination, with the transverse base and head-bars, the vertical supporting-bars spaced apart and connected by a back-piece, of the upper and lower semicircular rests located at the juncture of the base and head-bars and the supporting-bars and having their rear edges recessed to conform to the space between the supporting-bars, a clamping-bar mounted in the space and having its ends located in the recesses of the rests, whereby the latter constitute keepers, a clamping-screw for operating the clamping-bar, and leaf-turning frames pivoted above and below the rest, substantially as specified.

4. In a music-leaf turner, the combination, with the upper and lower brackets, the adjacent faces of which are inclined and provided with a series of pairs of offsets or steps rearwardly diverging from the center of the brackets and provided at the centers with bearing-perforations, of a series of wire frames graduated in length and mounted in the perforations, each frame consisting of the intermediate vertical portion 23, the horizontal branches 18 and 21, terminating in the bearing ends 19 and 22, respectively, and the arm 20, formed at the juncture of the branch 21 and the straight portion 22, substantially as specified.

5. In a music-leaf turner, the combination, with the upper and lower brackets, the adjacent faces of which are inclined and provided with a series of pairs of offsets or steps rearwardly diverging from the center of the brackets and provided at the centers with bearing-perforations, of the series of rectangular frames terminating in bearing ends mounted in the perforations and provided with a series of handles or arms graduated in length, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

JOHN S. KNOWELS.
GEORGE S. KNOWELS.

Witnesses:
W. B. DAVIS,
D. F. OLINGER.