E. W. WAITE.

Music Leaf Turners.

No. 153,508. Patented July 28, 1874.

Fig. 1.

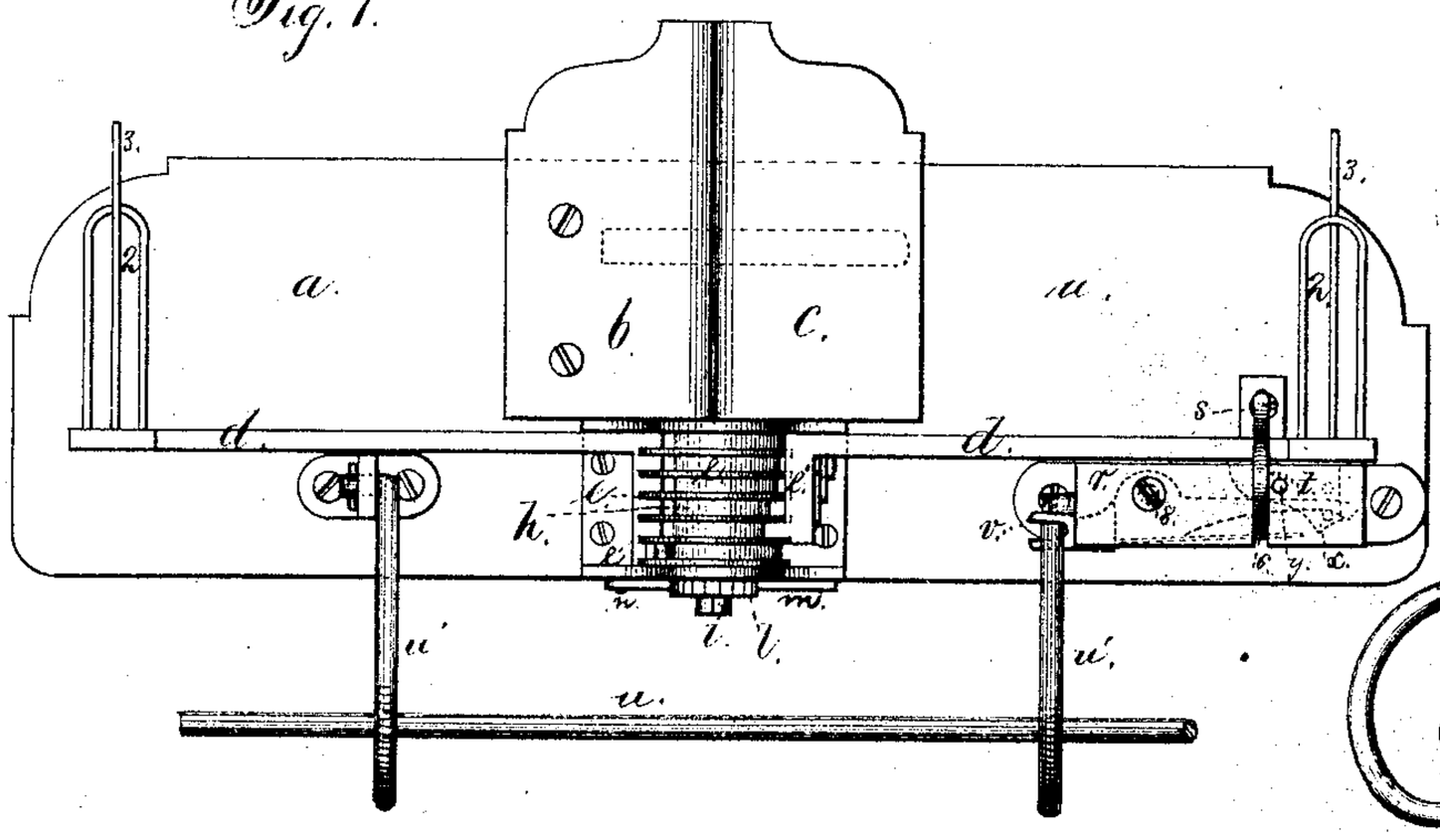


Fig. 5.

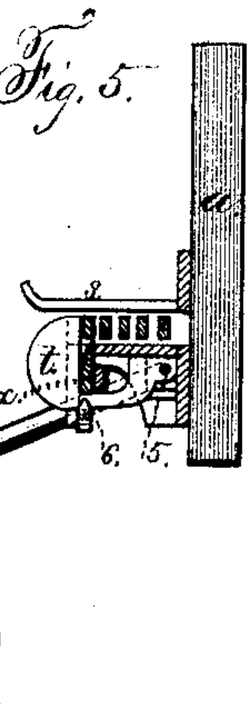


Fig. 2.

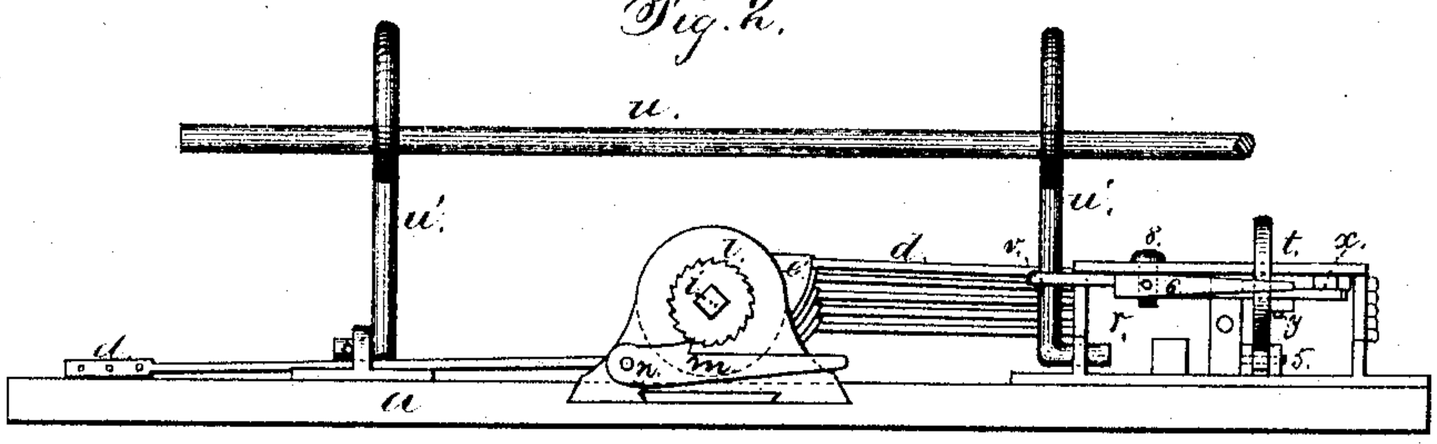


Fig. 3.

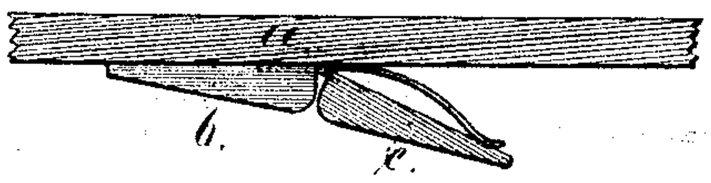
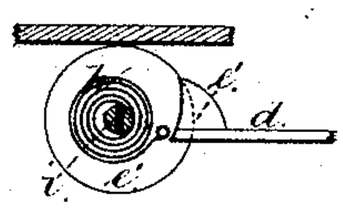


Fig. 4.



Witnesses:
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Geo. I. Pinckney

Inventor
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atty

UNITED STATES PATENT OFFICE.

ELBERTSON W. WAITE, OF BEDFORD, MASSACHUSETTS.

IMPROVEMENT IN MUSIC-LEAF TURNERS.

Specification forming part of Letters Patent No. **153,508**, dated July 28, 1874; application filed May 21, 1874.

To all whom it may concern:

Be it known that I, ELBERTSON W. WAITE, of New Bedford, in the State of Massachusetts, have invented an Improvement in Music-Leaf Turners, of which the following is a specification:

The back edges of the sheet-music or other leaves are held between clamping jaws or clips, and swinging arms actuated by springs are employed to turn the leaves over from one side to the other. The leaves are placed into peculiarly-constructed holders holders at the ends of the swinging arms, and these arms are liberated in succession by a latch operated upon by a finger-bar running along below the music, which bar also actuates a detainer simultaneously to hold back the other turning-arms.

In the drawing, Figure 1 is an elevation of the turner complete. Fig. 2 is an inverted plan of the same, and Fig. 3 is a plan of the back clamp.

The back *a* of the music-turner may be of any desired character, either a holding-stand or the swinging rest usual in pianos, organs, &c.; and it may be adapted to receiving a book upon a rest or ledge, or it may be provided with the stationary clamping-piece *b* and moving spring-clamp *c*, by means of which the back edges of a piece of sheet-music may be firmly held. Each turning-arm *d* is connected to a disk, *e*, by an angle-piece, *e'*, of greater or less length, so that the arms *d* swing in one plane, and the disks *e* are one above the other upon the center-pin *i*, and there are intervening spaces for the springs *h*. These springs are similar to watch-springs. The outer ends are connected to the respective disks and the inner ends to the center-pin *i*, a convenient mode of connecting the springs and center-pin being to slot the said center-pin and bend the end of the spring so as to pass through such slot, as illustrated in the detached view, Fig. 4. The end of the center-pin is made with a ratchet-wheel, *l*, and polygonal head, by means of which the springs may be placed under more or less tension and retained by the pawl *m* upon the stock *n* that supports the parts of the turner. At the outer end of each turning-arm *d* is a long loop, 2, preferably of wire, and a wire, 3, placed between the parts of the loop. This forms a spring-holder for the edge of the sheet, such sheet being entered between the spring-wire and the loop. Any desired number of arms may be employed in this music-turner, and they are swung around to the right, above the box *r*, beneath the finger *s*, and behind the latch *t*. This latch *t* is upon a fulcrum, 5, (see the detached section, Fig. 5,) and the spring 6 serves to press that latch upwardly. The horizontal swinging bar *u* is attached to the arms *u'*, that are connected by eye-plates to the music-rack, and this bar *u* extends along the front of the stand or instrument sufficiently to allow the musician easily to lift it lightly by the hand or finger applied beneath it at any part of the length thereof. The forked lever *v* upon the fulcrum 8 is moved by one of the arms *u'* of this bar *u*, and the spring 6 is upon said lever, and the said lever *v* operates the latch to press the same down and liberate the turning-arms when the said bar *u* is lifted; but in consequence of the spring 6 the latch *t* can be depressed by the arms *d* as they are pushed back into place without moving said bar *u*. The detainer *x* is a plate swinging upon a fulcrum, *y*, and shaped and positioned so as to enter between one turner and the next. The weight of the bar *u* holds the detainer out of action; but when said bar is raised the detainer *x* is passed in between the first and second arm, so as to hold all the others except the front one, and that is liberated by the latch being pressed down, and swings across by the action of its spring carrying the leaf with it. As the bar *u* drops the latch is raised and the detainer drawn down as before.

I claim as my invention—

1. The arms *d* of the music-turner, provided with disks *e*, through which the center-pin *i* passes, and volute springs connected at

their ends, respectively, to the disks and center-pin, in combination with the ratchet-wheel and pawl for adjusting such springs simultaneously, substantially as set forth.

2. The horizontal lifter-bar *u*, in combination with the latch of the leaf-turning arms, for operating such latch at a greater or less distance, as set forth.

3. The detainer *x*, in combination with the latch *t*, lever *v*, and its spring 6, that acts upon the latch, constructed and relatively arranged, substantially as set forth.

Signed by me this 13th day of May, A. D. 1874.

ELBERTSON W. WAITE.

Witnesses:

GEO. T. PINCKNEY,

GEO. D. WALKER.