

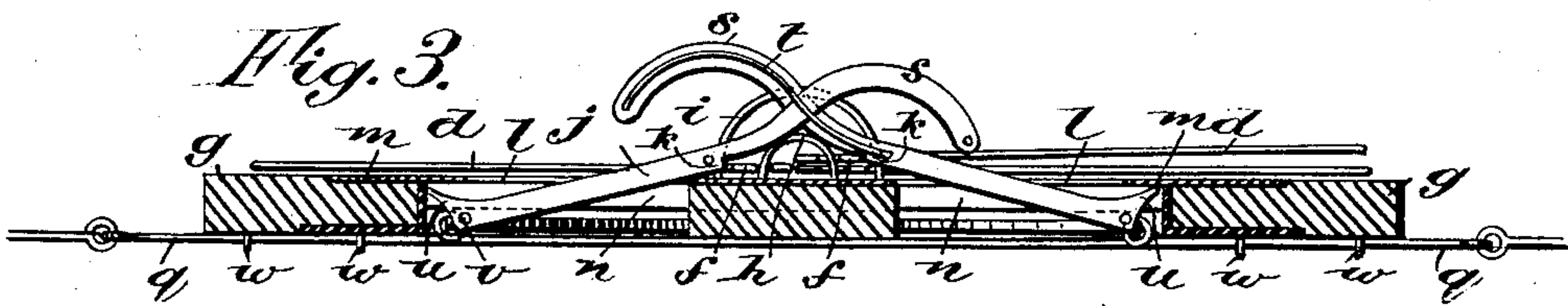
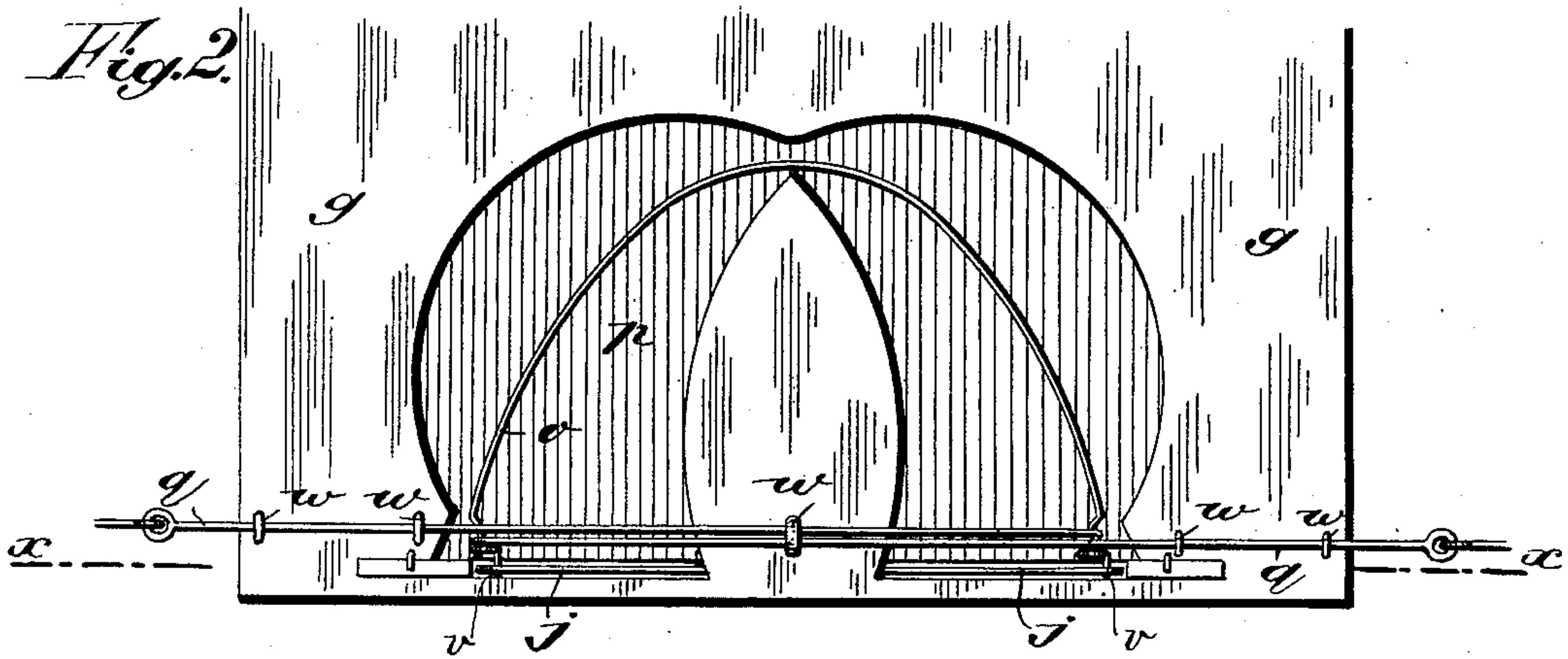
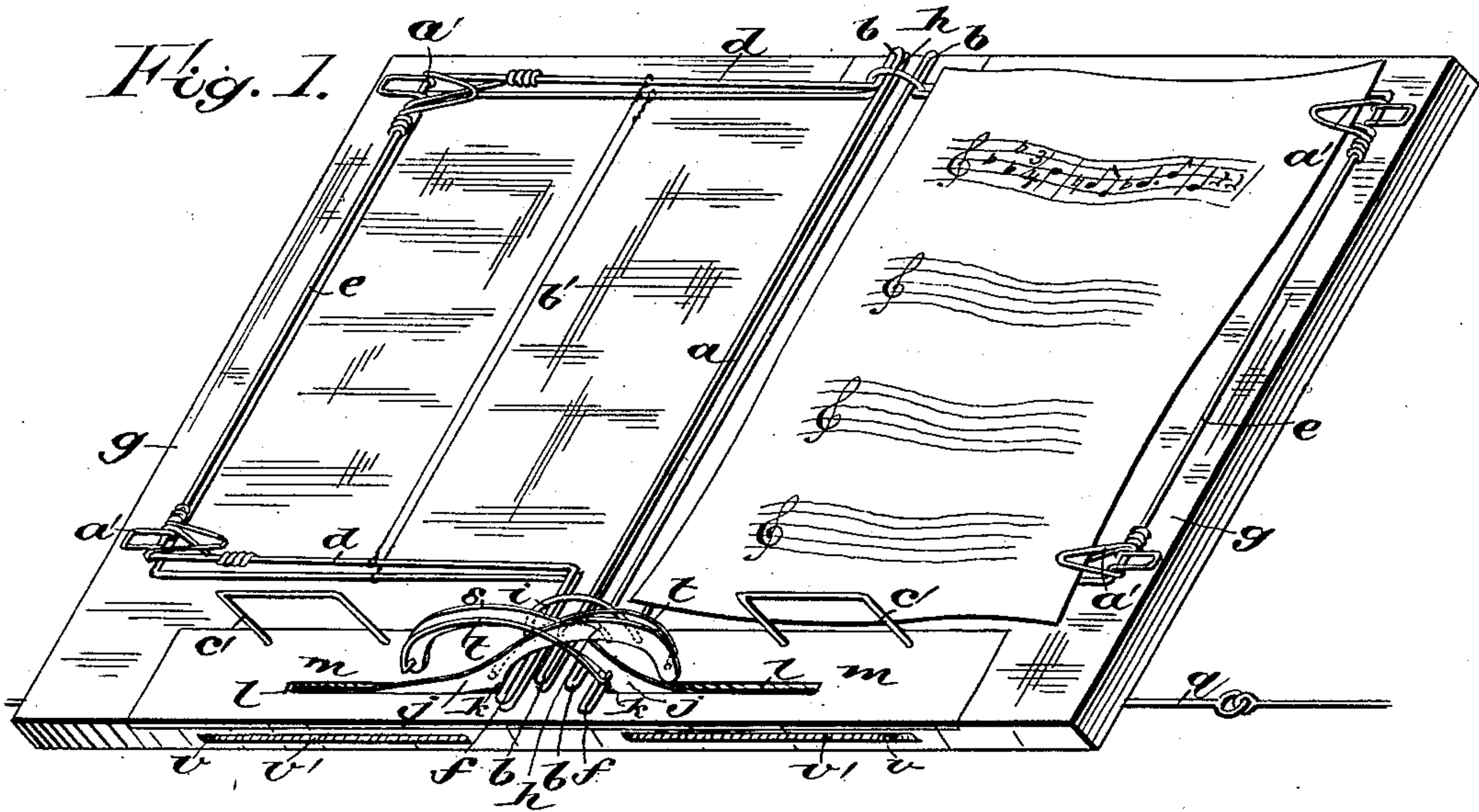
(Model.)

2 Sheets—Sheet 1.

A. T. & D. T. FOX.
MUSIC LEAF TURNER.

No. 279,737.

Patented June 19, 1883.



WITNESSES:

Chas. Beyer
C. Bedgwick

INVENTOR:

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BY

Mum Co.

ATTORNEYS.

(Model.)

2 Sheets—Sheet 2.

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Fig. 4.

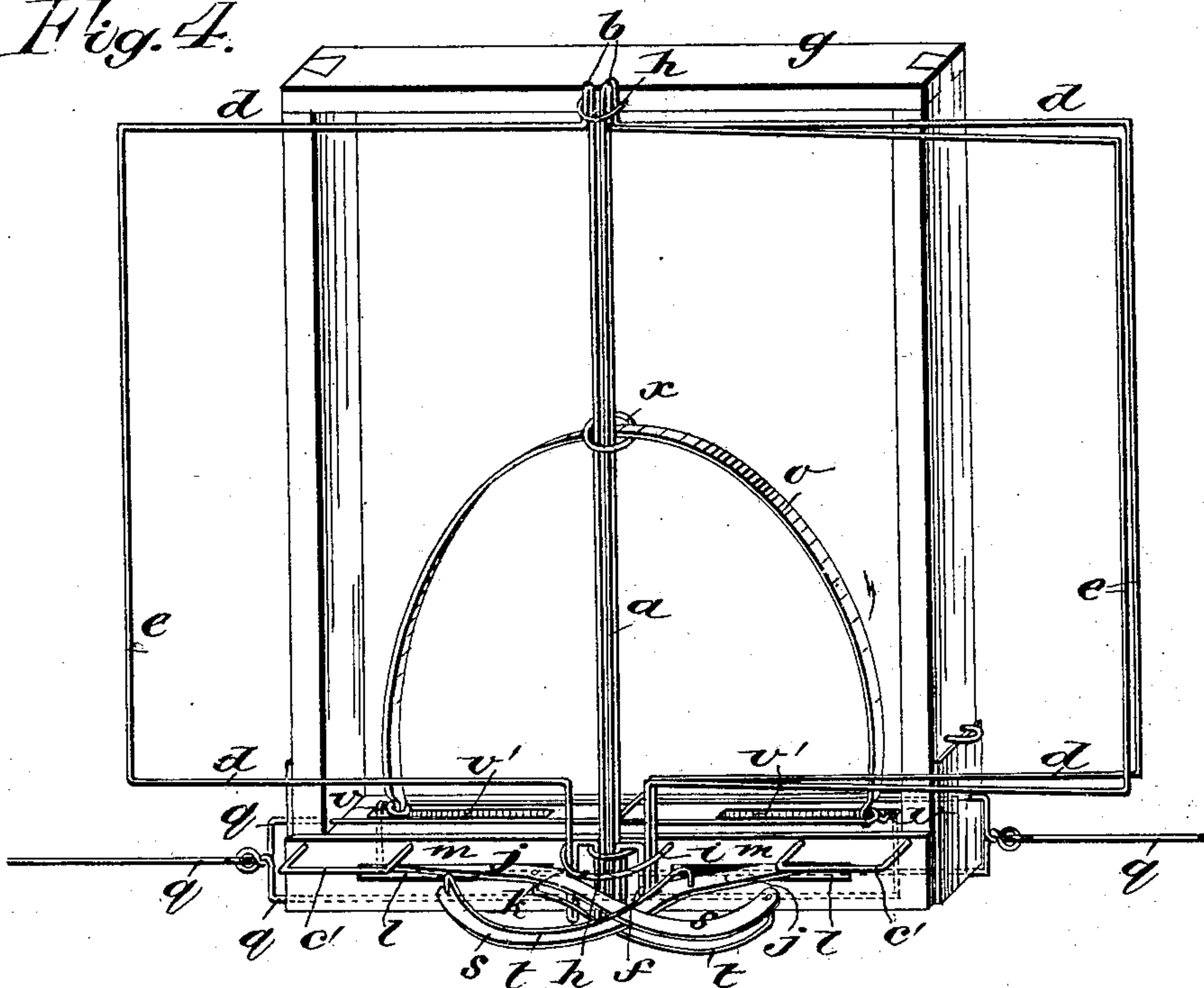
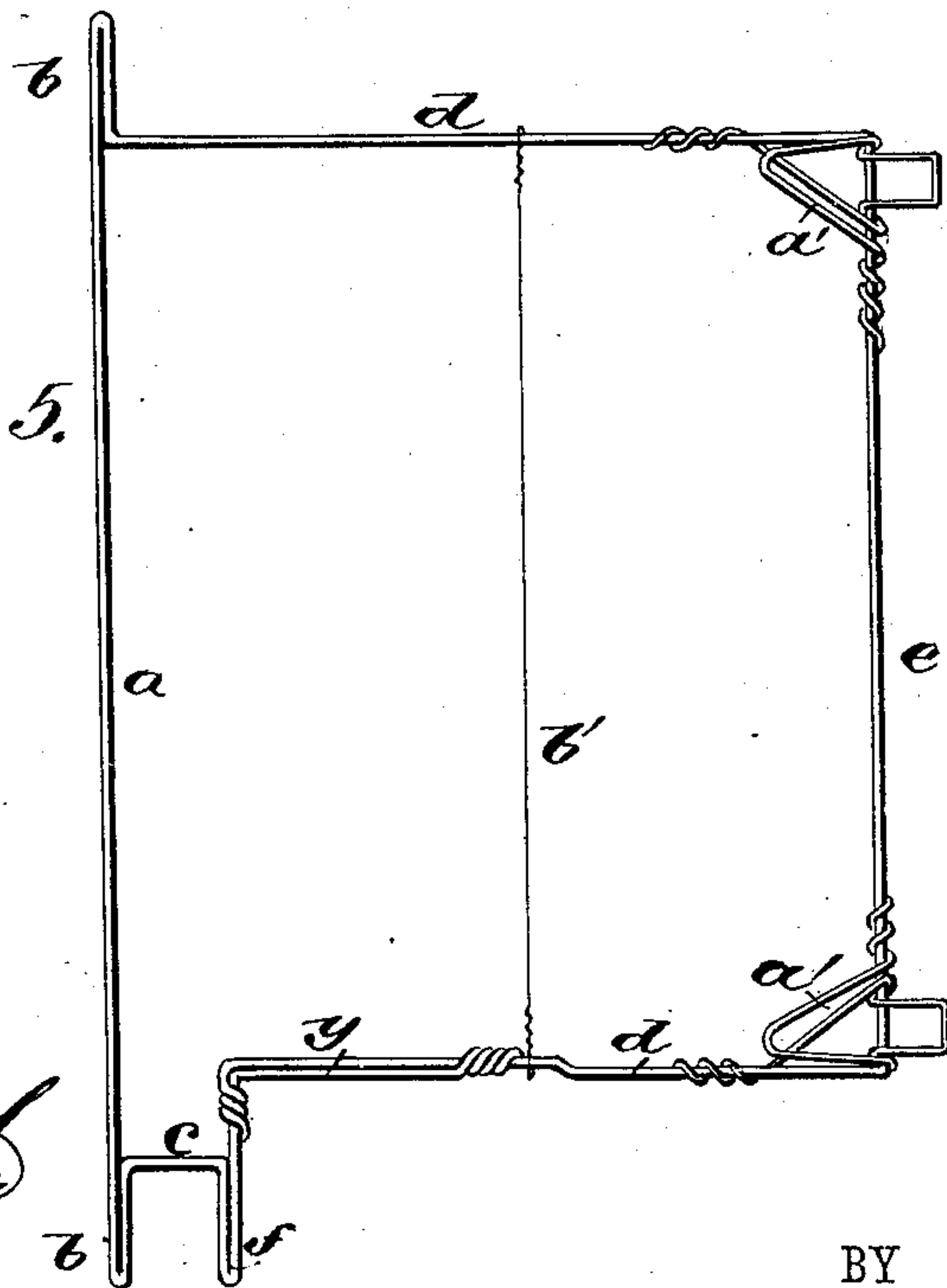


Fig. 5.



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UNITED STATES PATENT OFFICE.

AMOS T. FOX AND DANIEL T. FOX, OF MOUNT PLEASANT, PENNSYLVANIA.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 279,737, dated June 19, 1883.

Application filed February 14, 1883. (Model.)

To all whom it may concern:

Be it known that we, AMOS T. FOX and DANIEL T. FOX, of Mount Pleasant, in the county of Westmoreland and State of Pennsylvania, have invented a new and Improved Music-Leaf Turner, of which the following is a full, clear, and exact description.

Our invention consists of wire frames or fliers pivoted on the board of the musical instrument, usually employed for holding the music, or on a specially-provided board or frame, and contrived for application of sheet or book music, with pawls arranged for turning the sheets both ways by means of pull wires or cords to be worked by a foot-treadle or other device, and a spring for retracting them, and also for causing them to hold the wire frames down when turned, all as herein-after fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of our improved music-turner, showing it in front view with a music-sheet applied to it. Fig. 2 is an elevation of the same in back view. Fig. 3 is a section on line *x x*, Fig. 2. Fig. 4 is a perspective front view of the turner in modified form. Fig. 5 is a plan view of one of the wire frames or fliers.

We make wire leaf frames or fliers for turning the music-leaves by bending small wires into the rectangular form represented, and being shown separately in Fig. 5, of which *a* represents the axial part; *b*, pivots; *c*, offsets through which to pass the music-leaves; *d*, arms; *e*, cross-bars, and *f*, push-studs; and we pivot the fliers to the board or frame *g* by staples *h* for the pivots, in which the pivots are to be sufficiently slack to allow the fliers to lie flat on each other; and we also employ a larger staple, *i*, at the lower end of the board, for a guide to the push-studs *f* when subject to the pawls *j*, by which the fliers are pushed over from side to side of the board or frame. These pawls have notches *k*, by which they engage the push-studs *f*, and they extend through slots *l* of plates *m* into chambers *n* in the base of the board or frame, where they connect with the end of a bow-spring, *o*, arranged in a recess, *p*, in the board, or in the space within

the frame, for retracting said pawls, which are also connected at said end with the pull-wires *q*, by which the pawls are to be thrust forward for pushing over the fly-frames, the pull-wires being extended from the pawls in the direction for pulling them toward the center of the board, where the frames are pivoted, and the spring being connected to pull them back. From the notches the pawls have the curved extensions *s*, crossing each other under guards *t*, that are for the pawls on the pushing side to lift the one on the falling side, so that it will not bear on the push-stud of the frame and prevent it from falling. These extensions of the pawls are bent down toward the frame or board, so that the ends will project past the edges of the leaves of the music, and thus will not fall on them. The pawls have an extension, *u*, beyond the pivot *v*, which extends into a guide-slot, *v'*, cut in or through the edge of the bottom board, to further steady the action, the said pawl-extensions *u* being thrust against the end wall of the recess by the spring *o*, to cause pressure by the pawls on the push-stud *f* when the frames lie in their positions to keep them down.

The pull-wires *q* may be arranged singly, as in Figs. 2 and 3, in guide-staples *W*, or they may be double, as in Fig. 4, one member being above the lower frame-bar and passing through the side bars, and the other member below the lower frame-bar, so that they hold each other in place to some extent, and do not require the staples. In the arrangement of Fig. 4 the spring and the axial wires may be connected at the middle of each, or thereabout, by a ring, *x*, for supporting each other.

The arm *d*, on which the force of the pawls mainly takes effect in turning the fliers, may be re-enforced by overlapping the end portions of the wires of which the frame is made, as represented at *y*.

The fliers may have spring-clips *a'* fitted on them at the corners, as shown, or in any approved way, for fastening the corners of the leaves of music, and fine wires *b'* may be stretched across the fliers from one arm to the other for supporting the music-leaves when not as wide as the flyers, or otherwise requiring support.

It will be seen that by the offsets *c* the leaves of a book may be arranged in the fliers suit-

ably for being turned by them as well as separate sheets, and by the arrangement of the pivots *b* loosely in the staples *h* the number of fliers that may be arranged and properly
 5 worked together will be ample for any requirements, whether for music, lectures, or sermons, the wires being fine.

It will be noticed that the contrivance of one spring to operate both pawls, and also
 10 to hold the fly-frames down after being turned, simplifies the apparatus and lessens the number of parts, as well as cheapens the cost.

The staples *e'* are employed to rest the music on at the lower end.

15 Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination, in a music-leaf turner, of rectangular wire fly-frames having pivots
 20 *b*, push-studs *f*, offsets *c*, arms *d*, and cross-bar *e*, turning-pawls *j*, and a spring and pull wires, substantially as described.

2. The fly-frame of a music-leaf turner, made of wire and bent at one corner to form a pivot,
 25 *b*, push-stud *f*, and offset *c*, as shown and described.

3. The guard-staple *i*, in combination with the pivoted fly-frames having push-studs *f*, and with the push-pawls *j*, one or both, sub-
 30 stantially as described.

4. The combination, in a music-leaf turner, of fly-frames pivoted on a board or frame, a pair of push-pawls, *j*, and pull-wires for turning said fly-frames forward and backward, and
 35 a retracting-spring for the pawls, substantially as described.

5. The combination, with the pawls *j*, of the slotted plates *m*, the board having chambers *n* and recess *p*, the bow-spring *o*, and the pull-wires *q*, whereby the pawls may be operated
 40 as described.

6. The combination, in a music-leaf turner, of a bow-spring, *o*, located in the recess *p*, or space in the frame, with the pawls *j* of the fly-frames, arranged for turning them forward and
 45 backward, the said spring being connected at its ends with the pawls, respectively, substantially as described.

7. The pawls *j*, arranged with the fly-frames, and connected with the spring, and provided
 50 with stud *u*, arranged with relation to pivots *v* and the wall of the frame, for pressing the pawls on the frame and holding them down when turned, substantially as described.

8. The combination, with the fly-frames, of
 55 pawls *j*, for turning them in opposite directions, said pawls having extensions *s*, crossing each other, and provided with guards *t* for lifting the pawls from the falling frames, substantially as described.
 60

9. The combination, with the fly-frames, of pawls *j*, extended and crossed, the extensions being curved to prevent contact with the music-leaves, substantially as described.

AMOS T. FOX.

DANIEL T. FOX.

Witnesses:

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