(No Model.)

J. HIRD.

MUSIC LEAF TURNER.

No. 498,009. Patented May 23, 1893.

Fig: 1.

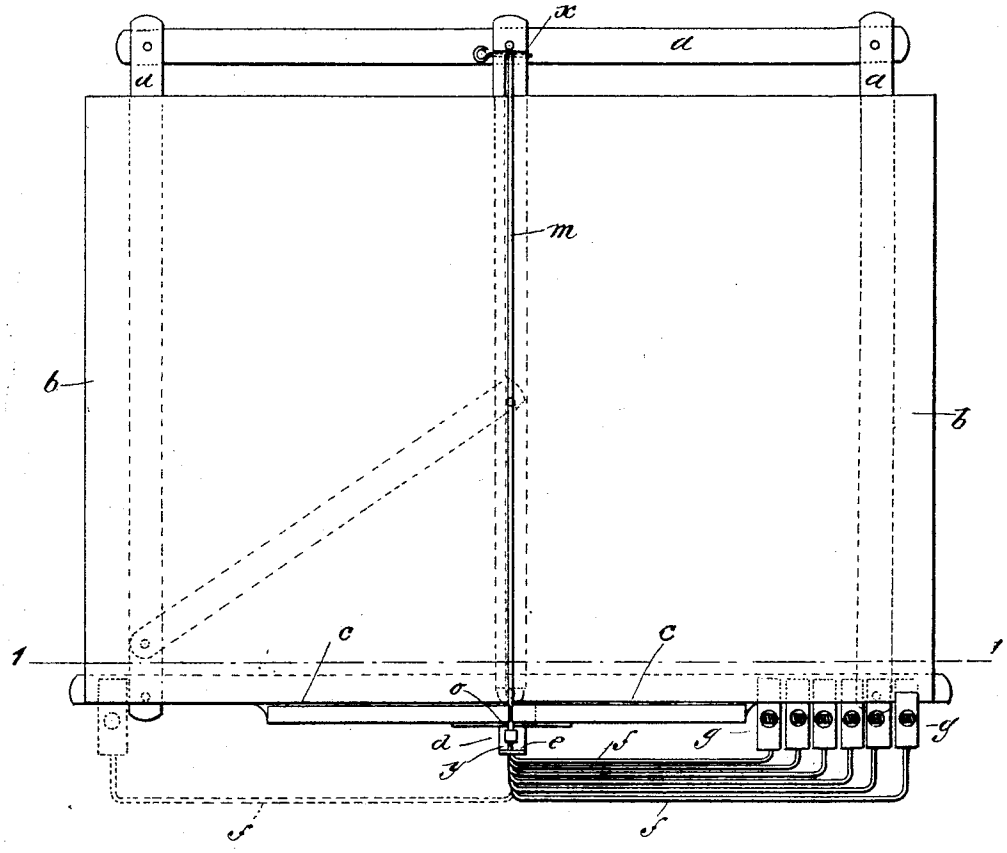


Fig: 2.

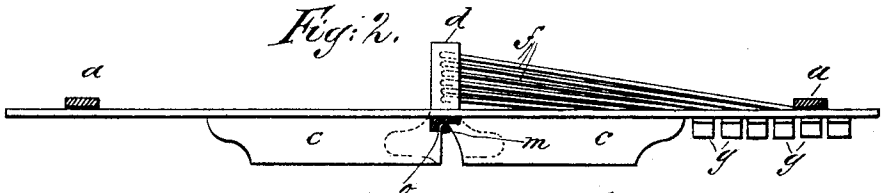
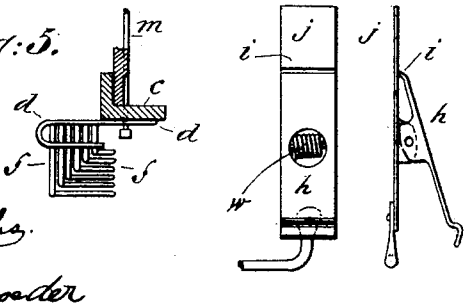


Fig: 3. Fig: 4.

Fig: 5.



WITNESSES:

H. Willard Griffiths.

Charles Schroeder

INVENTOR

J. Hird

BY Gulpel & Paeyeur

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES HIRD, OF BRISTOL, ENGLAND.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 498,009, dated May 23, 1893.

Application filed July 19, 1892. Serial No. 440,546. (No model.) Patented in England August 21, 1891, No. 14,163.

To all whom it may concern:

Be it known that I, JAMES HIRD, lithographic printer, a subject of the Queen of Great Britain, residing at Bishopston, Bristol, in the county of Gloucester, England, have invented a Music-Leaf Turner, (for which I obtained Letters Patent in Great Britain, No. 14,163, dated August 21, 1891,) of which the following is a specification.

This specification relates to improvements in connection with music stands for the purpose of easily and readily turning the leaves of the music or the like.

The apparatus for this purpose consists first of a metal rod, piece of string, elastic or other suitable material placed down the center of an ordinary music stand to keep the music or other paper from shifting. Next a series of levers or arms—said levers working to and fro as required. On each of the levers there is fixed a gripper or fingers to take hold of and retain the music sheet: likewise if desired a small handle on each of the levers for the purpose of the turning process—or this handle may be dispensed with. As the said gripper arm is turned over, the gripper (which is previously attached to the sheet) turns the music thus saving much worry and trouble in getting at the sheet besides not requiring the the aid of a second person to turn the leaves over, all of which will be hereinafter fully described and finally pointed out in the claim.

Referring to the drawings annexed—Figure 1 is a view of an ordinary music stand having my present invention applied thereto, and the music in position. Fig. 2 is a top view in cross section on line 1—1 Fig. 1. Fig. 3 is an enlarged front view in detail of one of the grippers or fingers for gripping the sheet of music, &c. Fig. 4. is an edge view or side elevation of Fig. 3. Fig. 5 is a detail view of the bearing or step in which the various arms are pivoted or have their bearing.

a is an ordinary music stand or desk to support thereon the music *b*. *c* is the bottom piece on stand upon which the music *b* rests. Upon the under side of the part *c* the bearing piece or step *d* is screwed or clamped or otherwise suitably mounted and this piece *d* has the end *e* thereof turned under (as shown in Fig. 5) so as to form the bearing for the gripper arms *f*—each such arm *f* is mounted or pivoted in the step piece *d e* so as to be capable of turning therein and each arm and the elbow at the pivoted end thereof is of a different size to the one next adjacent thereto so that each arm and elbow thereon is clear of the other in its path of travel to and fro. Upon the opposite (*i. e.* free) end of each such gripper arm *f* is mounted a suitable gripping device or paper clipping appliance such as *g* (for instance such a device as shown in Figs. 3 and 4) which consists of a spring finger *h* which at its outer end *i* is kept by any suitable spring (such as the spiral spring *w*) constantly pressed down against the plate or finger *j* so as to firmly grip the music or other sheet when placed between the fingers *h* and *j*. A thin metal rod or wire (or other suitable material) *m* is placed from top *x* to bottom *y* of the stand as shown in Fig. 1 so that the sheets of music may be placed behind said rod *m* and then this rod *m* is sprung in behind a catch or projection *o* on the plate *d* and so retained in position.

Each sheet of music having respectively been gripped by one of the appliances *g* and all of the levers or gripping arms *f* having been placed over to the right hand side the operation is as follows:—As soon as it is desired to turn over the first leaf or sheet of music the longest arm *f* on the right hand side is moved (by the finger of the player or other person) across to the left hand side (as shown in dotted lines in Fig. 1) and takes with it the sheet of music attached to it—while all the other sheets of music being left behind until the arms *f* are one by one moved across from right to left as required.

The various parts may all be made in metal or of any other suitable material or combination of materials as desired.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

In a music-leaf turner, the combination,

with a music-rack, of the part *c*, the bearing-piece *d*, secured to the part *c* and having its end *e* turned over, a series of gripper-arms *f*, each having an elbow-end of different length mounted to turn in the bearing *d e*, which gripper-arms are of different lengths, a gripping device on the swinging end of each gripper-arm *f*, and the rod *m* passed through an aperture in the part *c*, and a catch for holding the upper end of said rod, substantially as set forth.

JAMES HIRD.

Witnesses:
WILLIAM T. HIBBINS,
Printer, Hotwells, Bristol.
WALTER E. EXELL,
Lithographer, 25 Langton Park, Bedminster.