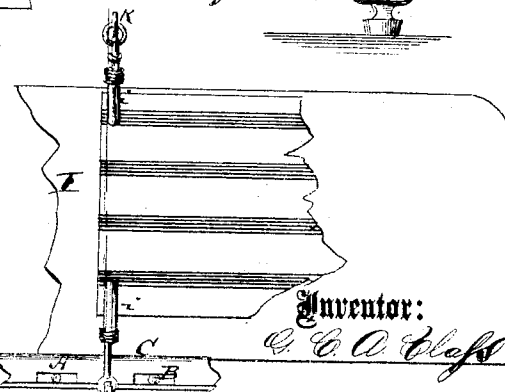
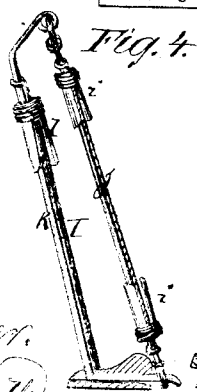
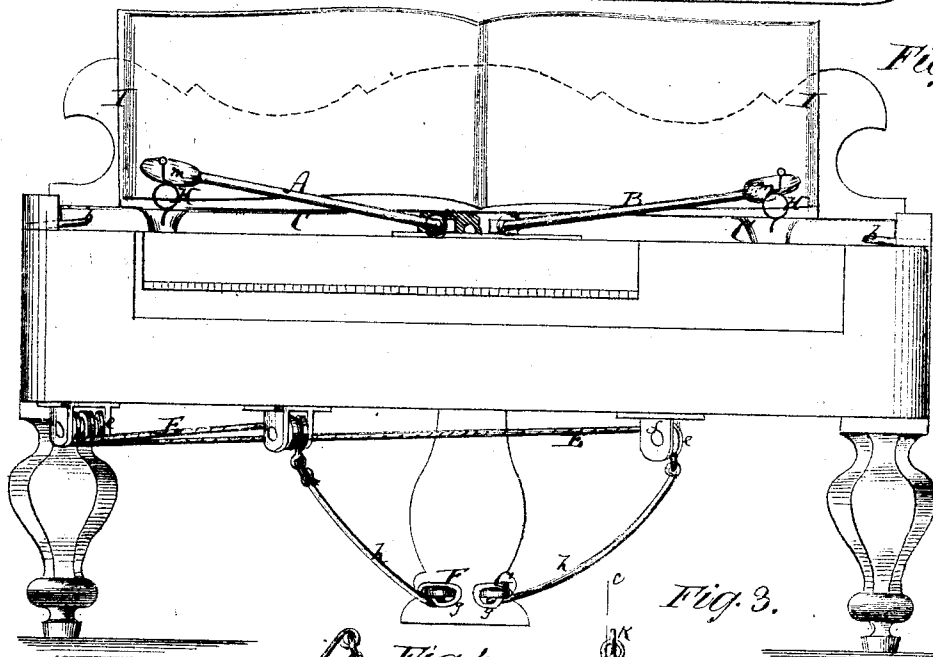
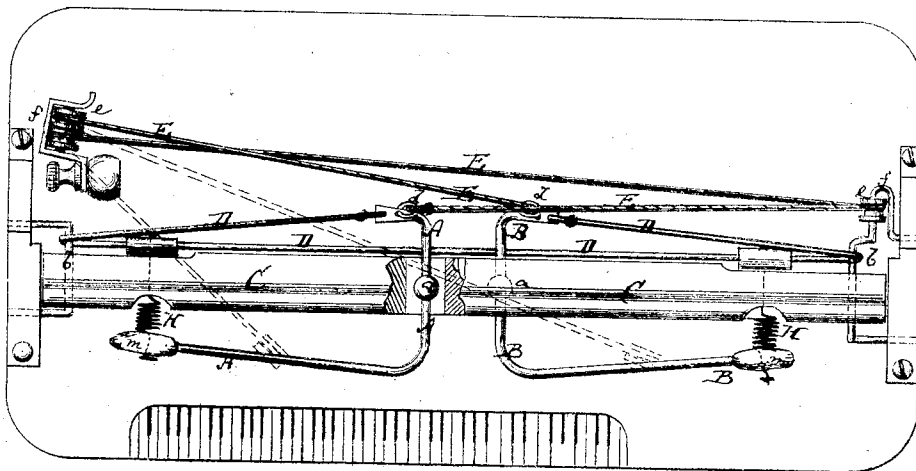


G. C. A. CLASS.
 Improvement in Music Leaf Turners.
 No. 120,038. *Fig. 1.* Patented Oct. 17, 1871.



Witnesses:
 John Becker.
 Francis McAuley.

Inventor:
 G. C. A. Class
 PER *Munn & Co.*
 Attorneys.

UNITED STATES PATENT OFFICE.

GEORG CARL AUGUST CLASS, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN MUSIC LEAF-TURNERS.

Specification forming part of Letters Patent No. 120,038, dated October 17, 1871.

To all whom it may concern:

Be it known that I, GEORG CARL AUGUST CLASS, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Music Leaf-Turner; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a plan or top view, partly in section, of a piano provided with my improved music leaf-turner. Fig. 2 is a front elevation of the same. Fig. 3 is an enlarged face view of the music-holder. Fig. 4 is a vertical section of the same on the line *c c*, Fig. 3.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide a simple and effective attachment to pianos, music-desks, and instruments, whereby the leaves of music can be easily turned to either side by a slight treadle motion. The invention consists in a new arrangement of vibrating levers or arms, which are, by cords, connected with the treadles, and provided with elastic end pieces for taking hold of and turning the paper by friction. The invention also consists in the use of a new self-adjusting paper-holder.

A and B in the drawing are two wire levers or arms, each about eight inches long, and bent in shape by a rounded elbow, the ends slightly turned up. These wires carry knuckles or balls *a a*, which have their bearings in slots of a bar or frame, C, placed and secured upon the instrument. The front end of each arm A B carries an elastic bulb or finger, *m*. The back ends of the two levers A B are connected with each other by an elastic band, D, which is drawn over wires or other frames *b* that are affixed to the ends of the piano. The band D has the tendency of drawing and keeping the levers A B down. Small rings *d* are drawn through the levers A B, near their back ends, to connect the same by ropes or cords E E with treadles F and G, respectively. The cords E pass over pulleys *e*, which are hung in frames *f* fastened to the ends and bottom of the piano. The treadles are or may be surrounded by rubber rings *g*, to which the cords E or wires *h*, connecting with the same, are secured. H H are two spiral springs of fine wire, connected with the band D and fitted

through the bar C, so that their spiral parts are in front of said bar. The several leaves of music are put between the coils of the springs H and thereby separated. To insure the turning of single leaves in sheet-music little pinchers *i i* or round springs are secured to an elastic cord, *j*, held vertical by an upright wire, *k*, which projects from the center of the piano. This wire *k* carries another sliding spring, *l*, whereby a sheet, I, of pasteboard is held in place as a support for the music to lean against. The little pinchers or round springs *i* are fastened to the elastic cord *j* by means of a thin wire, on which they can easily turn. The whole arrangement can be laid down whenever the pasteboard sheet is disconnected from the wire.

The paper is applied by leaning it against the plate or sheet I, putting the leaves between the convolutions of the springs H. Loose sheet-music leaves are only held by sliding the pinchers *i* over their edges from above or below.

Whenever a pedal, F or G, is used the elastic finger *m* is elevated and doubles the leaf with which it is in contact; it is then, by a sudden relaxation of the foot, quickly brought back to its original position, and moving quicker than the paper, is brought behind the leaf. By the next motion of the treadle the finger swings the leaf clear over, and then by a gradual relaxation of the treadle the finger moves back to its first position.

The apparatus can be applied to pianos, organs, music, and reading-desks, and similar devices.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The swinging arms A B, connected with the elastic band D and with the treadles F G, and provided with the elastic fingers *m*, to operate substantially as herein shown and described.

2. The spiral springs H H applied to the music leaf-turning apparatus for holding the leaves the requisite distances apart, as specified.

3. The paper-holding apparatus, consisting of the pinchers *i i*, elastic cord *j*, wire *k*, slide *l*, and sheet I, all arranged substantially as herein shown and described.

G. C. A. CLASS.

Witnesses:

CHRISTOPH ROMANUS,
CARL SEHNERT.

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