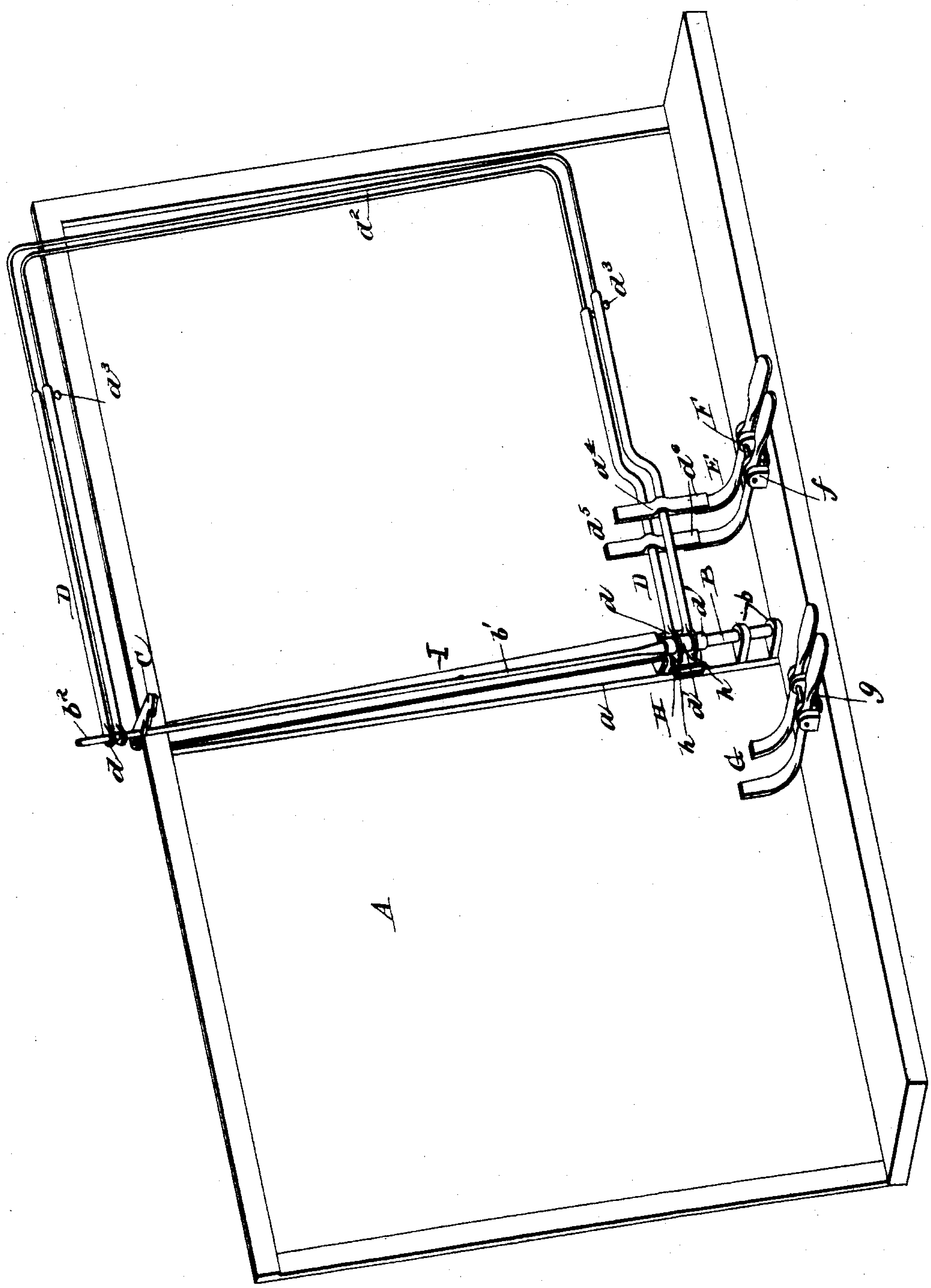
(No Model.)

E. R., D. J. & G. DAVIS.

MUSIC LEAF TURNER.

No. 539,671. Patented May 21, 1895.



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UNITED STATES PATENT OFFICE.

EDWIN R. DAVIS, DAVID J. DAVIS, AND GRIFFITH DAVIS, OF IRONDALE, OHIO.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 539,671, dated May 21, 1895.

Application filed November 22, 1894. Serial No. 529,632. (No model.)

To all whom it may concern:

Be it known that we, EDWIN R. DAVIS, DAVID J. DAVIS, and GRIFFITH DAVIS, citizens of the United States residing at Irondale, in the county of Jefferson, State of Ohio, have invented certain new and useful Improvements in Music-Leaf Turners; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to improvements in music leaf turners.

The invention will first be described in connection with the accompanying drawing, and then particularly pointed out in the claims.

In the drawing, the figure is a perspective view of a device embodying our invention.

Referring to the drawing, A is a rack to receive the sheet music, being made of wood or metal as preferred, and arranged to rest upon the ordinary piano rack or be secured to the top of a stand for use with such instruments as violins, &c. In the center of this rack is secured a central style *a* to the lower end of which is attached a pair of bearings, *b* in which is mounted a spindle, B, passing through the upper bearing and provided with an elastic extension *b'* which forms a clamping rod and is adapted to be engaged by a catch, C, pivoted to the upper edge of the rack, this catch having a series of serrations or teeth by means of which the wire may be adjusted to or from the central style *a* of the rack. The extreme end of the extension rod *b'* projects above the catch C to form a top spindle b^2 as shown.

On the spindles B and b^2 are mounted the ringed ends of a series of tubular page-operators D, the said ringed ends *d*, being separated, on the lower spindle B, by a series of collars or washers *d'* while the outer ends of the said tubular page-operators D are connected by U-shaped frames or finger bars, d^2, which enter the tubes D and are secured therein by set-screws d^3 by means of which the finger-bars may be adjusted in or out to rest on the outer margin of the music leaves of any size, it being understood that the distance from the upper to the lower tubular page-operators D is greater than the greatest depth of the maximum size of sheet music.

To each of the lower tubular page-openers D is secured a contact plate d^4 by any suitable means, such as solder or screws, said contact plates extending upward from the catches or fingers which rest upon the sheets of music, as at d^5, while the lower ends d^6 of said contact plates extend down beyond the lowest page operator and are arranged to engage each with its respective tripper E of a series of trippers which consist of bell cranks pivotally mounted on a stud or spindle, F, which is journaled in bearings, *f*, fixed to the bottom of the rack. The contact plates d^4 are not arranged one over the other, but instead are each placed a little nearer the spindle B than is the one attached to the page opener above it, whereby each contact plate will be engaged by its respective tripper only, and vice versa. A similar set of trippers G is placed on the opposite side of the music rack for a purpose hereinafter explained.

The operation of our device is as follows: The catch, C, at the top of the rack is released and the clamping rod *b'*, which is elastic, is sprung up, away from the central style *a*. The book or folio of music is then opened and placed with its center below the clamping rod, the latter being then secured firmly against the book or folio by engaging its end with the catch, C, the said clamping wire engaging such tooth of the said catch, as is best adapted for holding the music tightly against the central style *a*, or against a leaf-spring I secured to the style, *a*. The page openers D with their fingers d^2 are so moved as to bring one finger d^2 between each page of music and all the leaf-turners on the right hand side of the center of the rack. When, now, it is desired to turn a page of music, it is only necessary to strike the projecting end of the tripper E, which is farthest from the center style *a* a sharp blow, whereupon its inner end will engage its respective contact plate d^4 and cause the first page opener to swing over, thus turning the page until it occupies a position on the left of the central style *a*. The next page is turned in a similar manner, by striking on the next tripper and so on.

If it is necessary to turn the music backward, as in case of repetition of some passages, the proper trippers at the left are struck, the operation being plain from what has been said before.

In order to return the trippers G to their normal positions each one is provided with a leaf spring *g* inserted beneath it and attached to the frame, the free end of each spring bearing on its respective tripper as will be plain from the drawing. Furthermore, to insure the turning of each page when raised by the tripper, the rear face of the ringed end of each page-opener D has a projecting V-shaped portion *h* which is arranged to bear against and compress a leaf-spring H secured to the central style *a* of the rack, whereby the springs will hold each page-operator down against the page of music, but when the said page operators are raised by the trippers until past the central position, they will be carried beyond rapidly by the said springs H, as will be plain to those skilled in the art.

The leaf-spring I serves to force the music sheets toward the rod *b'* and thus assist in holding the same.

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

1. In a music leaf-turner, the combination, with a central spindle having a flexible extension forming a clamping-rod, of a series of page turning devices pivoted on the spindle, a series of contact-plates secured to the page turning devices, and a series of trippers arranged to engage the contact-plates, substantially as and for the purpose described.

2. In a music leaf-turner, the combination, with a central spindle, having a flexible clamping rod, and a series of tubular page operators journaled on the spindle, of a series of U-shaped fingers adjustably secured in the page operators, a series of contact plates attached to the page operators, and a series of trippers arranged to engage said contact-plates, substantially as and for the purpose described.

3. In a music leaf-turner, the combination, with a rack having a central style, of a spindle mounted on said central style and having a flexible extension forming a clamping-rod, a catch on the rack and arranged to engage the top end of the said clamping rod, a series of tubular page-operators journaled on the spindle above and below the clamping-rod portion of the same, a series of U-shaped frames adjustably secured in the page-operators, a series of contact plates secured to said page operators, one beyond the other, and a series of trippers secured to the rack and arranged to engage with said contact plates, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

EDWIN R. DAVIS.
DAVID J. DAVIS.
GRIFFITH DAVIS.

Witnesses:
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J. W. BRANT.