

M. L. KEAGLE.  
MUSIC LEAF TURNER.  
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920,749.

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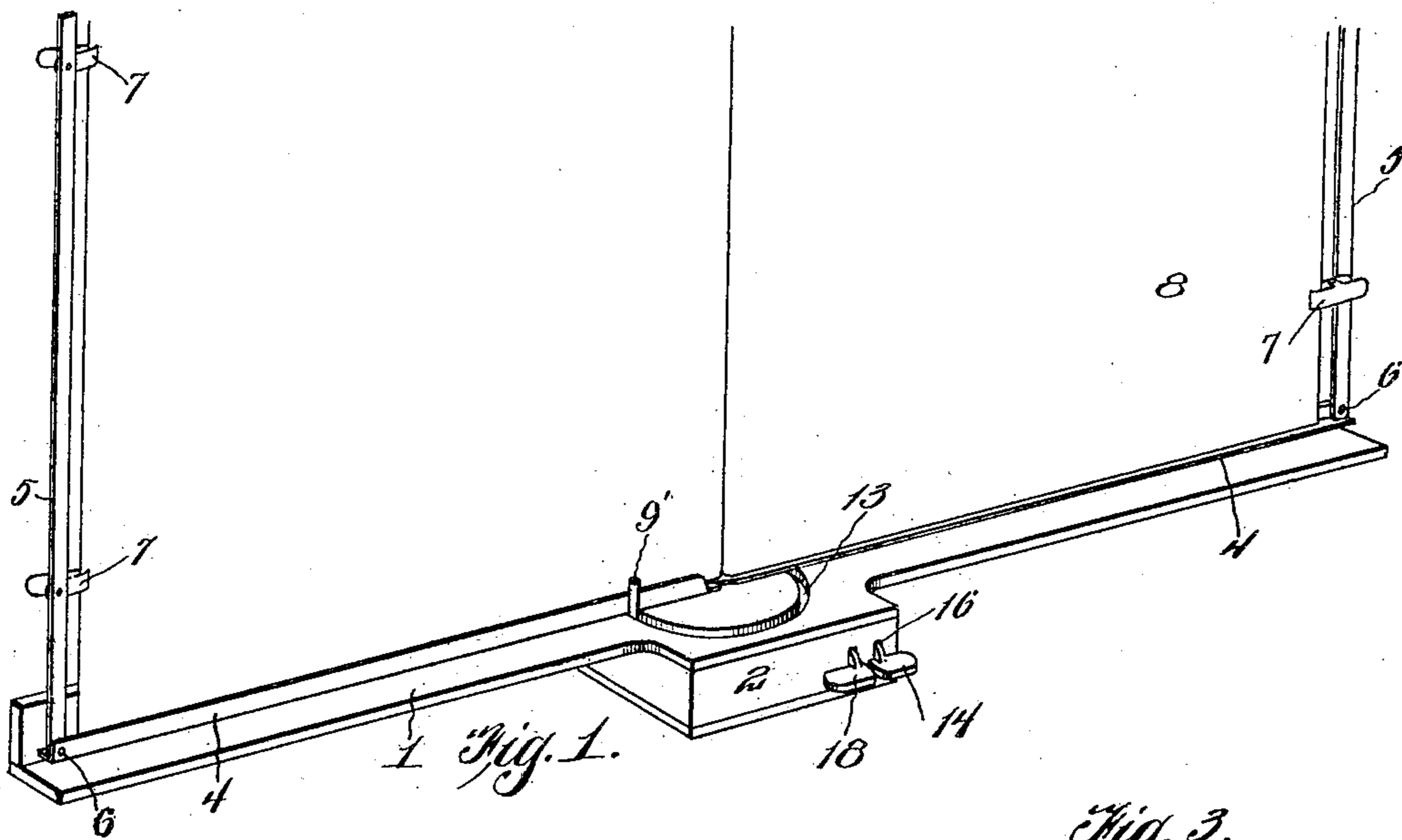


Fig. 2.

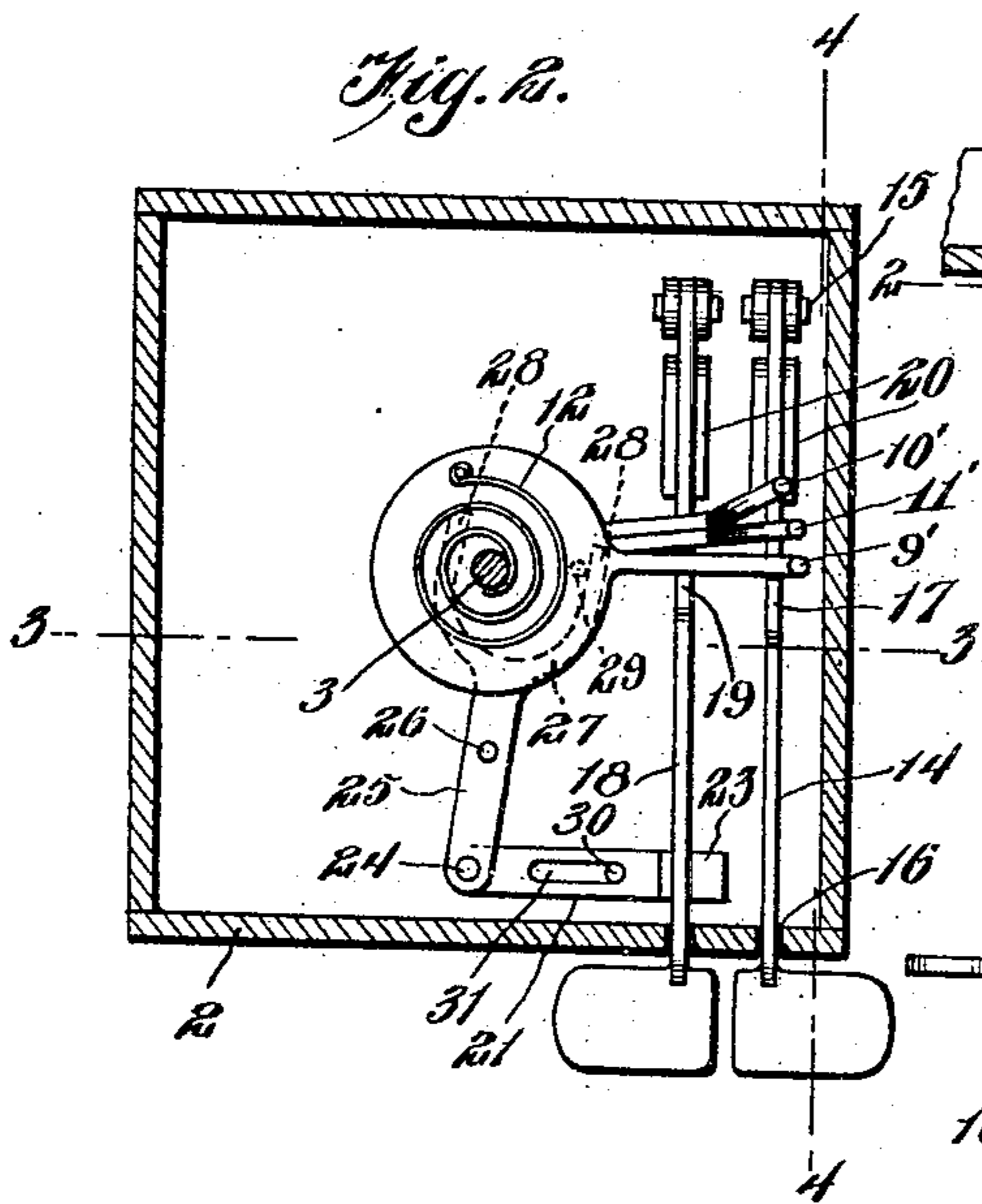


Fig. 3.

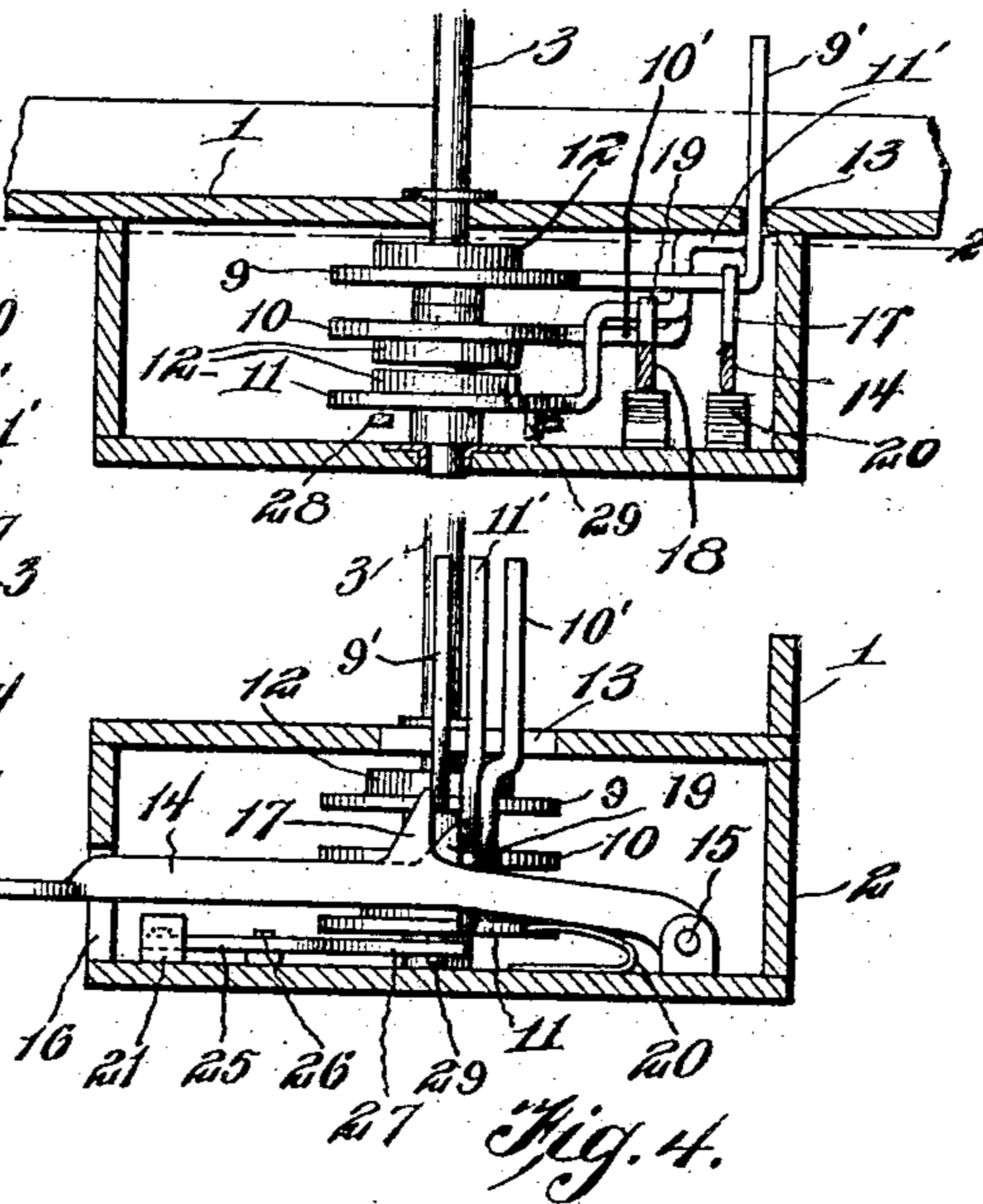
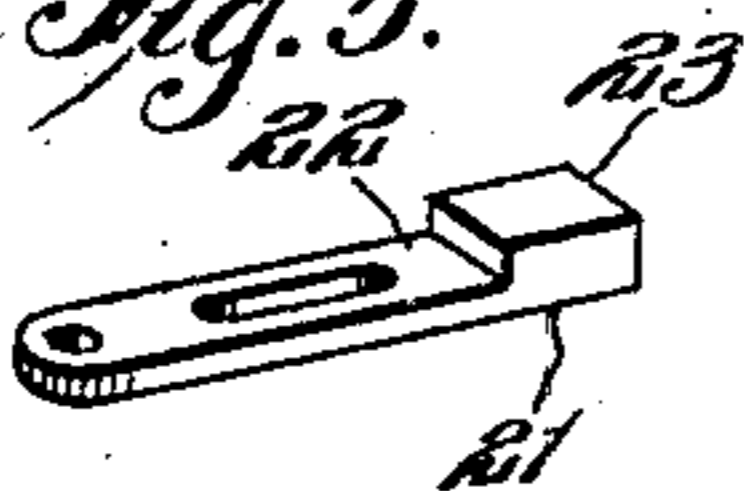


Fig. 5.



Witnesses

Louis R. Heinrichs  
C. Bradway.

Martin L. Keagle

Inventor

Victor J. Evans

Attorney

# UNITED STATES PATENT OFFICE.

MARTIN L. KEAGLE, OF PARSONS, WEST VIRGINIA.

## MUSIC-LEAF TURNER.

No. 920,749.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, MARTIN L. KEAGLE, a citizen of the United States, residing at Parsons, in the county of Tucker and State of West Virginia, have invented new and useful Improvements in Music-Leaf Turners, of which the following is a specification.

This invention relates to an apparatus whereby the leaves of sheet or other music can be easily and quickly turned by the musician without noticeably interrupting the playing, the apparatus being designed for use in connection with pianos and similar instruments, or for music stands.

The invention has for one of its objects to provide an apparatus of this character which is of comparatively simple and inexpensive construction, thoroughly reliable and efficient in use, and conveniently manipulated.

Another object of the invention is the provision of a music leaf turner consisting of a plurality of swinging elements to which the leaves of the music to be turned are attached and which are turned at the proper time by the depression of a key by the musician, one key serving to control at least two of the swinging elements that turn the leaves, so that the leaves will be turned by successively depressing the key.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one of the embodiments of the invention, Figure 1 is a perspective view of the music leaf turner. Fig. 2 is a horizontal section on line 2—2, Fig. 3, showing the operating mechanism of the apparatus. Fig. 3 is a vertical section on line 3—3, Fig. 2. Fig. 4 is a section on line 4—4, Fig. 2. Fig. 5 is a perspective view of the device for controlling the depression of the key for successively turning the leaves.

Similar reference characters are employed to designate corresponding parts throughout the several views.

Referring to the drawing, 1 designates a music rest of any suitable construction which is provided at its middle with a casing 2 containing the operating mechanism of the apparatus. Rising from the casing is a fixed post 3 on which the leaf-turning ele-

ments or arms 4 are adapted to swing. On the extremities of these arms are uprights 5 pivotally connected to the arms at 6 so that they can fold down upon the latter when the apparatus is not in use, and on these uprights are clasps 7 for gripping the edges of the leaves 8 of the music. In the present instance, the arms 4 are made of angle stock so that the bottom edges of the leaves will be engaged by the arms to move therewith.

The mechanism within the casing 2 comprises a plurality of arm-actuating elements 9, 10 and 11, mounted to turn independently on the post 3 as an axis. Each element is connected with a spiral spring 12 that has its inner ends rigidly secured to the post and which imparts power to move the leaf-turning arms 4. On the said elements are fingers 9', 10' and 11', that have their extremities bent upwardly to extend through an arcuate slot 13 in the top of the casing 2 and concentric with the post 3. Each finger is adapted to engage behind a leaf-turning arm so as to swing the latter when the musician depresses a key. The finger 9' is controlled by a key 14 that is pivoted at 15 in the rear of the casing 2 and has its forward end projecting out of the casing through a slot 16. On this key is an upwardly-extending lug or stop 17 behind which the finger 9' engages when the apparatus is set or in operating position. The arms 10' and 11' are controlled by a single key 18 disposed parallel to and adjacent the other key and provided with an abutment 19 to engage both fingers. Under the keys are arranged springs 20 for holding the levers in locking position, and for returning the same after being depressed. The lever 18 is adapted to have two depression strokes of different lengths, whereby the fingers 10' and 11' will be successively released by successively depressing the key or lever. For this purpose, a stroke-limiting device 21 is arranged in the casing 2 directly under the key 18, said device being in the form of a slide having a stepped portion to provide surfaces 22 and 23 at different levels. The device 21 is connected by a pivot 24 with a lever 25 mounted on a fulcrum 26 and having its rear end formed into a yoke 27 that extends under the element 11 so that its bifurcations 28 will be engaged by a pin 29 on the said element, whereby the movement of the latter will oscillate the lever 25. The movement of the device 21 is limited by a pin 30 fixed on the

casing and extending into a longitudinal slot 31 of the member 21.

When the parts are in the position shown in Figs. 2 to 4, inclusive, the music-turning arms are in set position and ready to turn the leaves. After the first two pages of music have been played, the musician depresses the lever 14 so as to release the finger 9', whereupon the latter is swung around on the post 3 by the expansion of the spring 12 and consequently carries the first music-turning arm 4 to the position shown in Fig. 1. When the third and fourth pages have been played, the musician depresses the key 18, which is limited in its downward movement by the higher surface 23 of the device 21. This movement will be sufficient to release the finger 11', so that its spring 12 will cause the second arm 4 to be turned. As the element 11 turns, the pin 29 engages the left bifurcation 28, Fig. 2, and causes the lever 25 to be moved in a direction to shift the device 21 and bring the lower surface 22 under the key 18, thus automatically positioning the parts so that the next depression of the said key will release the finger 10', as when it is desired to turn the next leaf.

In placing the music in the apparatus, the leaves to be turned are attached to the respective arms by the clips 7 on the uprights 5, and after being thus attached, the arms 4 are swung to the right into set position, thus exposing the first and second pages of the music. As the arms 4 are turned to the right, the fingers 9', 10' and 11' are moved with them and these fingers engage the abutments 17 and 19 and cause the keys to be depressed until the fingers pass behind the abutments, whereupon the springs 20 will raise the keys so that the abutments will hold the fingers in set position. During this setting movement of the apparatus, the pin 29 on the element 11 engages the right bifurcation 28 of the lever 25 so as to remove the latter in a direction to restore the stroke-limiting device 21 for the key 18. In the present instance, an apparatus is shown for turning three leaves, but it is to be understood that the leaf turning elements may be multiplied to any desired extent and if preferred, only two leaf-turning elements controlled by a single key may be employed.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the apparatus which

I now consider to be the best embodiment thereof, I desire to have it understood that the apparatus shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claims appended hereto.

Having thus described the invention, what I claim is:—

1. In an apparatus of the class described, the combination of a plurality of leaf-turning elements, spring-actuated members for moving the elements, a key for holding the members in set position, a device against which the key strikes when depressed for controlling the strokes of the key to release the members one at a time, and means actuated by one of the members for operating the said device.

2. In an apparatus of the class described, the combination of a post, swinging leaf-turning elements mounted thereon, swinging members on the post and arranged to turn the elements, a spring for each member, a key for holding the members in set position, and means arranged to limit the depression of the key whereby the successive strokes thereof are of different lengths to release the members one at a time.

3. In an apparatus of the class described, the combination of a plurality of swinging leaf-turning elements, actuating members therefor, springs for actuating the members, a key arranged to hold the members in set position against the tension of their springs, a device for limiting the strokes of the key to release the members successively, a lever connected with the device for shifting the same, and means on one of the members for actuating the lever.

4. In a device of the class described, the combination of three leaf-turning elements, spring-actuated members one engaging each element to operate the same, two of the members being arranged one over the other, a depressible key provided with means for engaging both of the said members for releasing the same successively by depressing the key different distances, means arranged in coöperative relation with the key for controlling the lengths of the strokes thereof, a device for actuating the last-mentioned means by the movement of the first member, and an additional key for releasably holding the third member in set position.

In testimony whereof I affix my signature in presence of two witnesses.

MARTIN L. KEAGLE.

Witnesses:

W. W. BURLEW,  
C. BRADWAY.