

No. 772,173.

PATENTED OCT. 11, 1904.

J. W. O'NEEL & J. R. EDWARDS.

MUSIC LEAF TURNER.

APPLICATION FILED JAN. 7, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

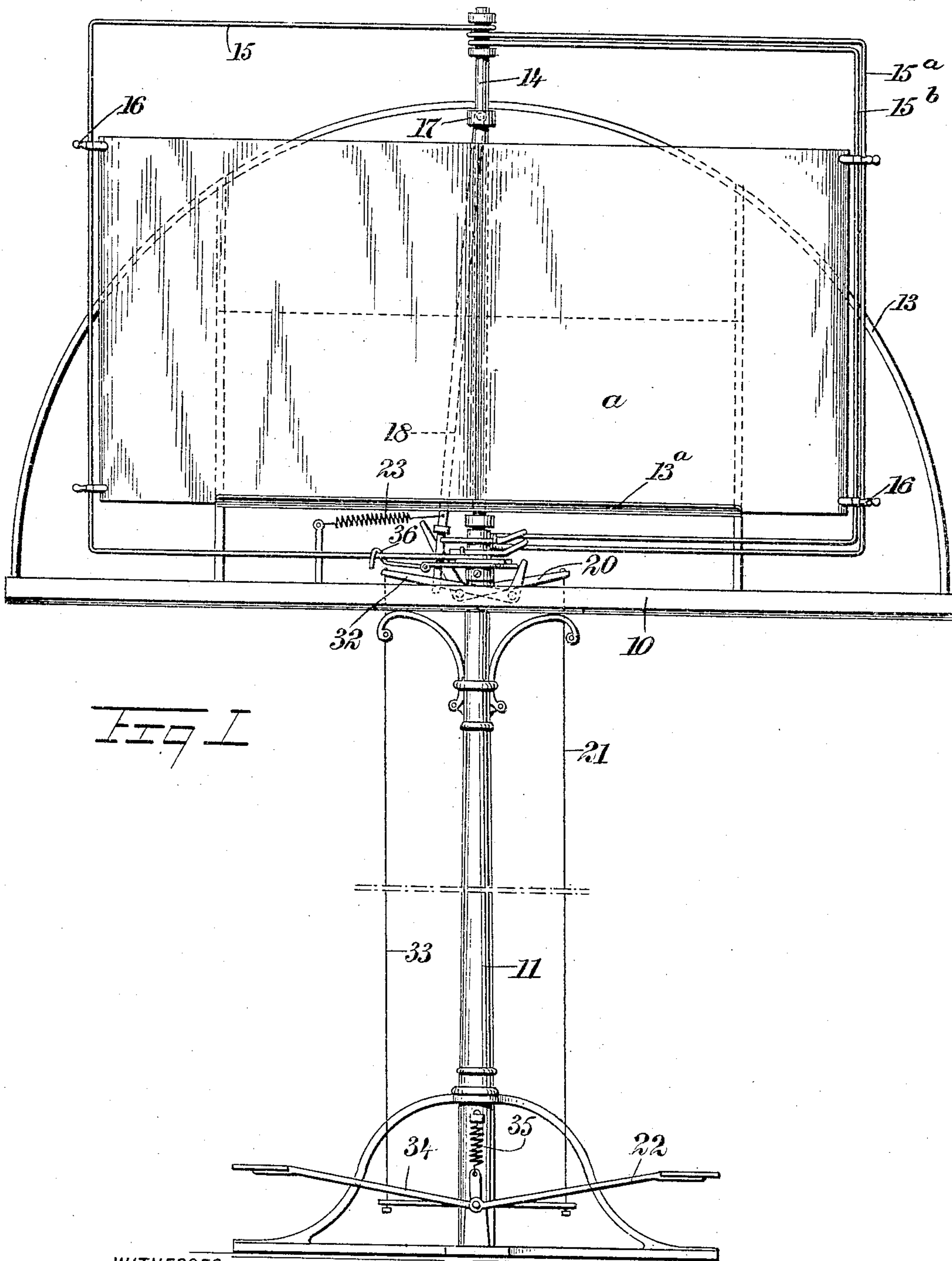


Fig I

WITNESSES:

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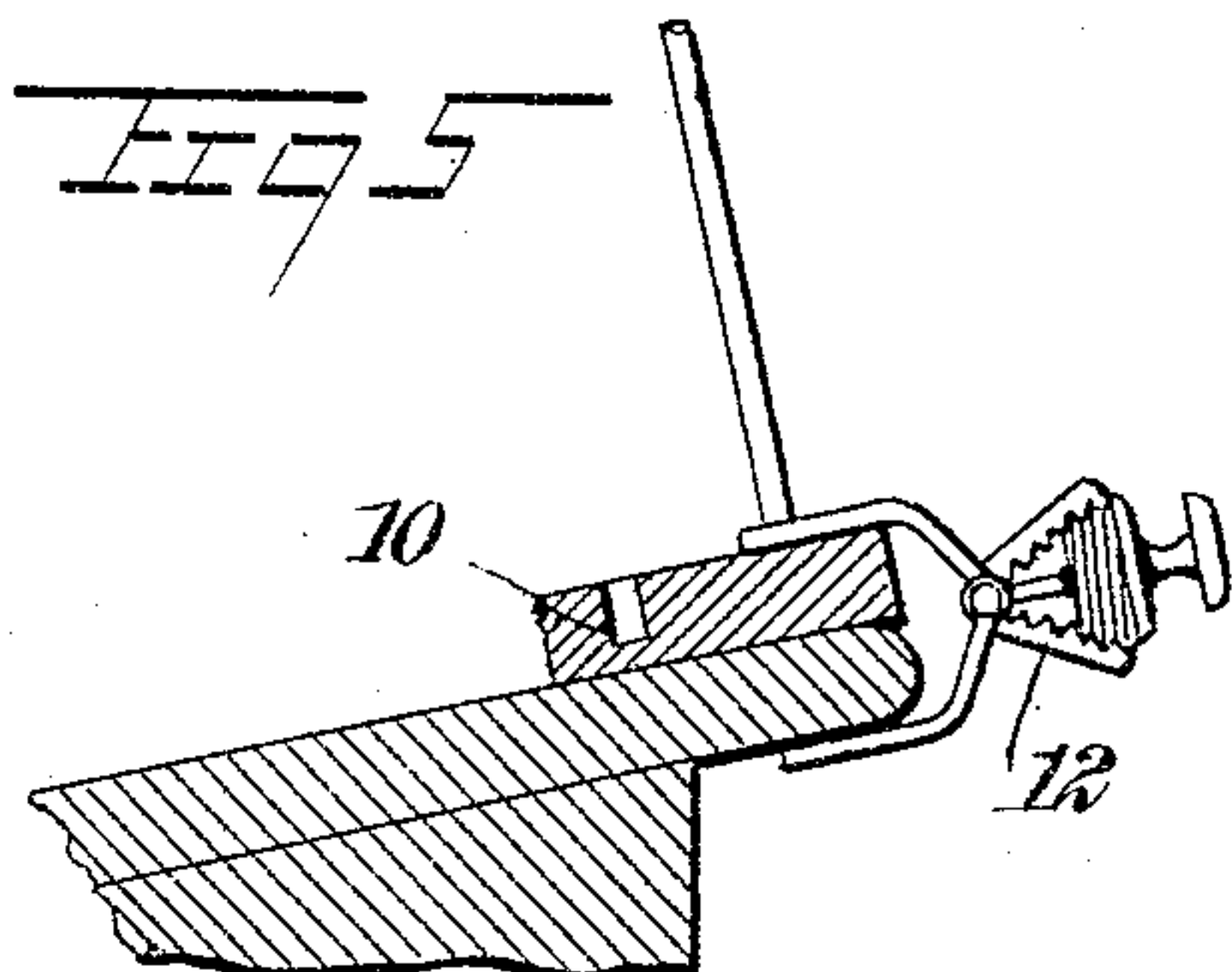
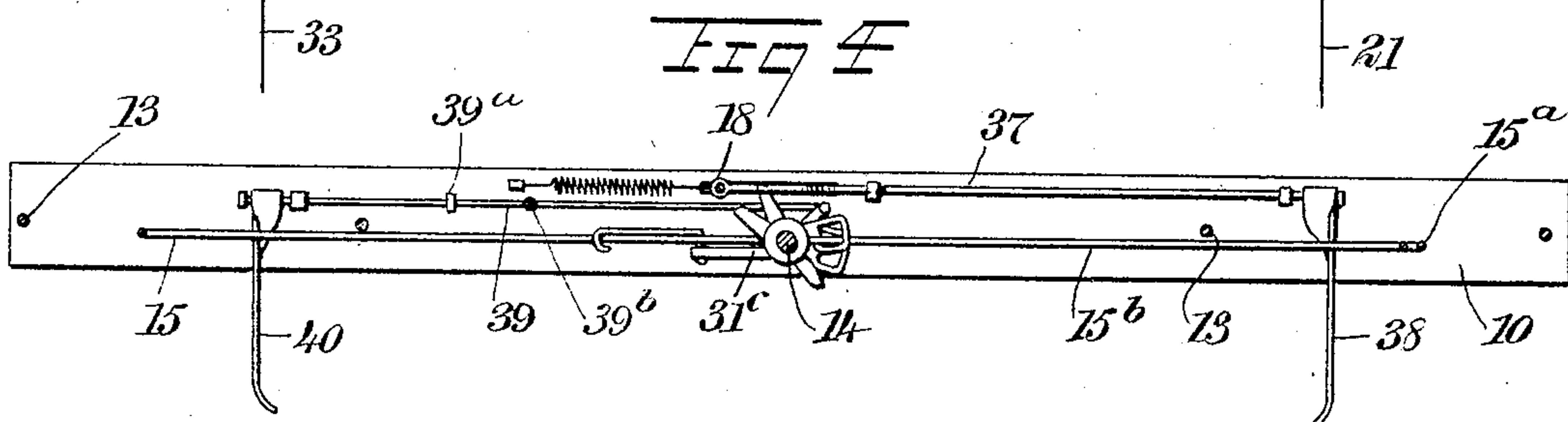
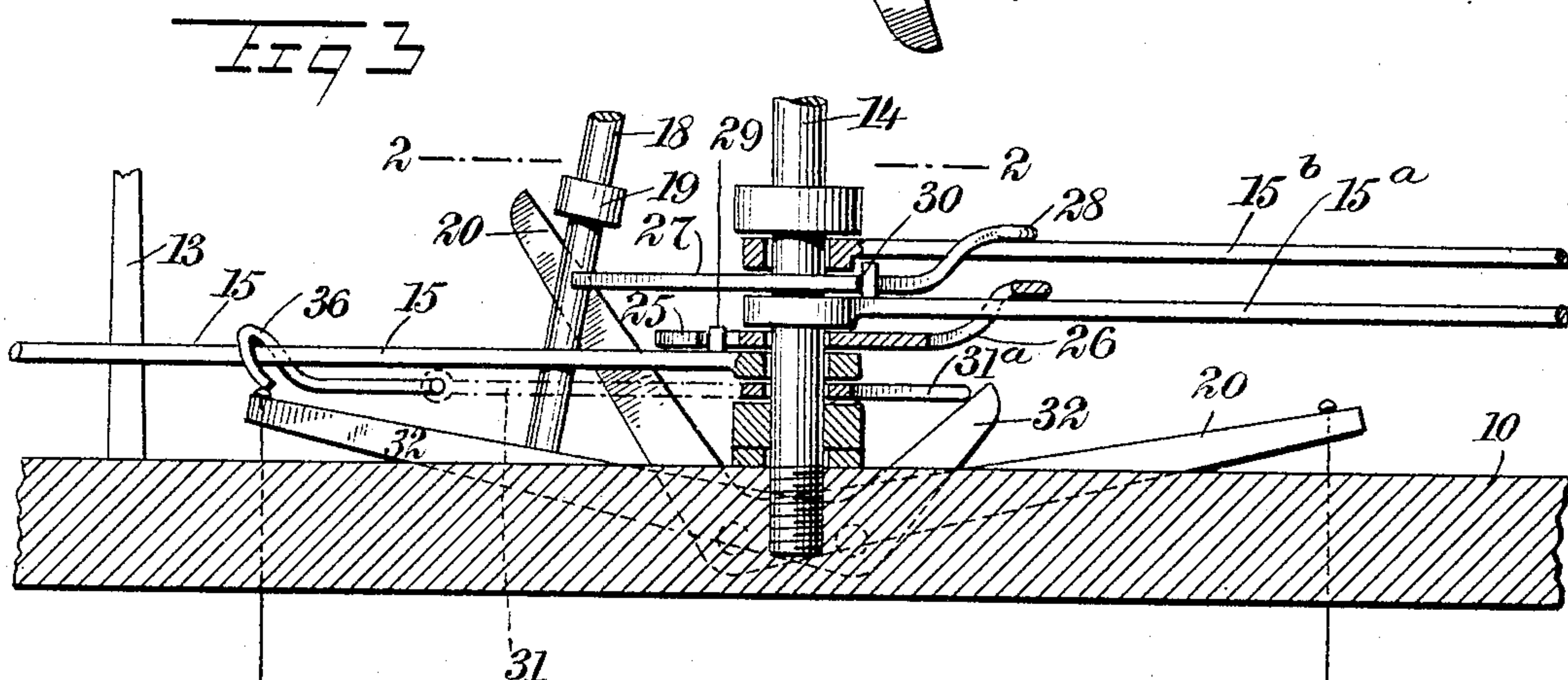
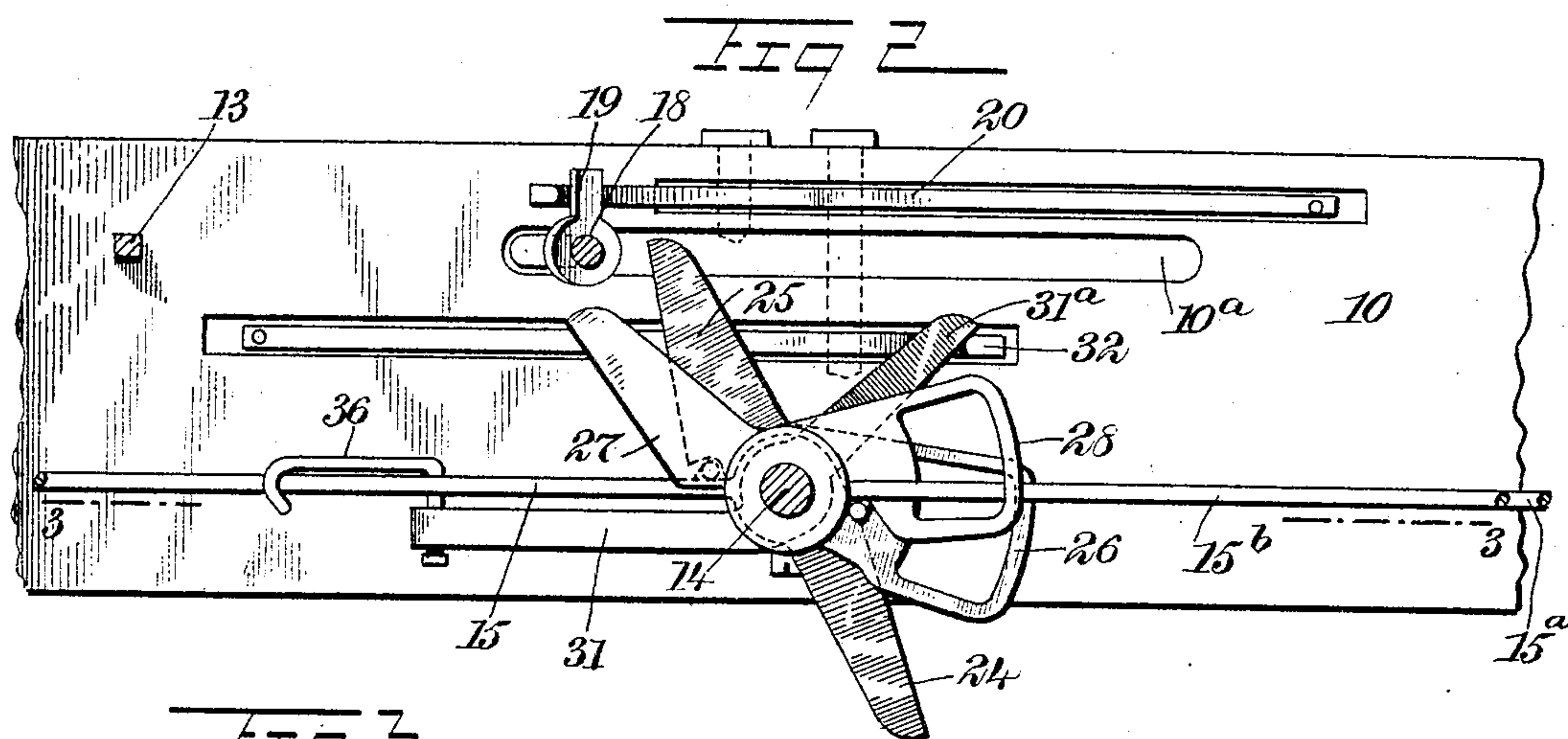
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JAMES W. O'NEEL AND JOHN R. EDWARDS, OF LAFAYETTE, OREGON.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 772,173, dated October 11, 1904.

Application filed January 7, 1904. Serial No. 188,057. (No model.)

To all whom it may concern:

Be it known that we, JAMES W. O'NEEL and JOHN R. EDWARDS, citizens of the United States, and both residents of Lafayette, in the
5 county of Yamhill and State of Oregon, have invented a new and Improved Music-Leaf Turner, of which the following is a full, clear, and exact description.

This invention relates to a music-leaf turner
10 of that class in which a number of wings intended to be attached, respectively, to the music-leaves are arranged to be turned in succession by operating devices actuated either from the hands or feet of the musician.

15 The principal novelty of the invention lies in the manner of mounting and successively operating the wings and in the devices for returning any one or all of the wings either to repeat a part or the whole of the music or to
20 place the apparatus in position for renewed operation of any sort.

The invention involves various other novel changes, and all will be fully set forth hereinafter.

25 This specification is an exact description of one example of our invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification,
30 in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of the invention applied to a band music-stand. Fig. 2 is a sectional plan view on the line 2 2 of Fig. 3.
35 Fig. 3 is a sectional elevation on the line 3 3 of Fig. 2. Fig. 4 is a view showing a form of the invention in which the base is adapted to be clamped on any desired support and the operations of the music-leaf turner are per-
40 formed by hand rather than by foot movement; and Fig. 5 is a detail view showing a clamp for holding the device shown in Fig. 4 on a piano, organ, or other musical instrument.

45 10 indicates the base of the apparatus. This may, for example, be mounted on a band music-stand 11, as shown in Fig. 1, or, as shown in Figs. 4 and 5, it may be arranged separately therefrom, so that it may be clamped
50 or otherwise mounted upon any other support.

Fig. 5 shows a clamp 12, one or more of which may be employed for fastening the base, for instance, to an organ, a part of which is represented in Fig. 5.

13 indicates any suitable back, which is 55 mounted on the base 10, as shown. This back may be formed of wire or rods, as illustrated, or it may be made ornamental and of wood or other material, as desired.

13^a indicates a ledge which is sustained by 60 the back 13 and is adapted to carry the book or music-sheets, which is indicated at *a* in Fig. 1.

Mounted on the base 10 and standing in front of the back 13 is a perpendicular shaft 65 14, and on this shaft are arranged to swing the wings or turning members 15, 15^a, and 15^b of the music-leaf turner. The drawings illustrate three wings; but obviously any number may be employed. Said wings are adapt- 70 ed to be respectively connected, by means of clasps or other devices 16, to the leaves or the music-sheets, so that as the wings are thrown from one side to the other the leaves or sheets of music will be turned as is customary in 75 this class of apparatus.

As shown in Fig. 1, a collar 17 is carried by the upper portion of the shaft 14, and from said collar is hung to swing freely the actuator-bar 18, which projects down preferably 80 into a slot 10^a, formed in the base 10. This actuator-bar has a stud 19 attached thereto, and according to the construction shown in Figs. 1 to 3 said stud is engaged by an elbow-lever 20, fulcrumed on the base 10 and hav- 85 ing a connection 21 with a treadle 22, arranged in the lower part of the stand 11, so that the elbow-lever may be operated by the foot of a musician. 23 (see Fig. 1) indicates a spring for holding the actuator-bar 18 yieldingly in 90 the position shown in Fig. 1, the lever 20 moving the bar rightward from such position by the engagement of said lever with the stud 19. The wing 15 has an operating-finger or contact member 24 attached thereto. The 95 wing 15^a has an operating-finger or contact member 25 mounted loosely on the shaft 14, (see Fig. 3,) and said finger is formed with a loop 26, embracing loosely the lower arm of the wing 15^a. 27 indicates an operating-fin- 100

ger for the wing 15^b, this finger being mounted on the lower part of the shaft 14 and having a loop 28 loosely embracing the lower arm of the wing 15^b. The wing 15 has on its lower arm a stud 29, this stud being adapted to engage the operating-lever 25 when the wing 15 is moved to the leftward position, (shown in Figs. 2 and 3,) and the wing 15^a has on its lower arm a stud 30, which is adapted to engage the operating-lever 27 when the said wing 15^a moves from the rightward position (shown in Figs. 2 and 3) to the leftward position. When all of the wings are moved over to their rightward position, the fingers 27 and 25 lie in vertical line with each other, and the finger 24 lies just ahead of the finger 25 in the path of the actuator-bar 18. Upon operating the lever 20 the actuator-bar is moved over and caused to engage with the finger 24, thus throwing the wing 15 to its leftward position, the finger 24 assuming the position shown in Fig. 2. In this connection it should be observed that the actuator merely starts the movement of the wing and that afterward the wing acquires sufficient momentum to enable it to continue and finish its leftward movement. As the wing 15 reaches its leftward position the stud 29 engages the finger 25, as shown in Figs. 2 and 3, and throws the finger forward into the path of the actuator 18. A second operation of the actuator will then throw the wing 15^a leftward, and when this takes place the stud 30 engages the finger 27 and moves the same into the path of the actuator, so that upon a third movement of the actuator the wing 15^b is moved leftward.

Mounted to swing on the shaft 14 below the lower arm of the wing 15 is a return member 31, which is in the form of an elbow-lever, the arm 31^a whereof forms a finger adapted to be actuated, according to the construction shown in Figs. 1, 2 and 3, by an elbow-lever 32. Said elbow-lever has a connection 33 with a treadle 34, mounted on the base of the stand 11, and 35 indicates a spring which serves to hold the elbow-lever 32 normally in the position shown in Figs. 2 and 3.

36 indicates a dog pivotally carried on the return member 31. This dog is capable of removable engagement with any one of the wings. Figs. 2 and 3 show it engaged with the wing 15. In order, therefore, to return the wings from the leftward to the rightward position, it is only necessary to engage the dog 36 with the wing 15 and to operate the lever 32, the wing 15 moving rightward and carrying with it the wings 15^a and 15^b. The dog 36 may be engaged with any one of the wings desired, and it will also be observed that by engaging the dog with the wing 15 after said wing has been thrown leftward after the operation of the actuator 18 it may be returned to the rightward position, so as to enable the musi-

cian to repeat that part of the music on the page connected with the wing 15.

Fig. 4 shows essentially the same mechanism, except that the actuator 18 is connected with a slide-rod 37, having a handle 38 attached, thus enabling the actuator to be operated by hand rather than by the treadle 22. (Shown in Fig. 1.) Also the return-actuator 31 is connected with a slide-rod 39, having a handle 40, whereby the return-actuator is moved in the same manner as the actuator. Said rod runs through a guide 39^a and has a joint 39^b therein to allow for the swing of the finger 31^c. In other respects the structure is the same as that before described.

By means of this apparatus by a simple movement of the hand or foot the leaves may be turned in the necessary succession, and they may be moved backward in whole or in part, so that any desired portion of the music may be repeated at will.

Various changes in the form, proportions, and minor details of the invention may be resorted to at will without departing from the spirit and scope thereof. Hence we consider ourselves entitled to all such variations as may lie within the intent of our claims.

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

1. The combination of two independently-movable wings; a finger connected with each, the fingers having limited independent movement with respect to their respective wings and also having surfaces engaging the wings when the fingers are in a certain position, for the purpose specified, and an actuator coacting with the fingers.

2. The combination of a wing, a finger connected therewith and having limited independent movement, a second wing independent of the first, the second wing and finger having opposing surfaces engaging when the parts are in a certain position, and an actuator.

3. The combination of two independent wings, a finger connected to each, said fingers having limited independent movement on their respective wings, a third independent wing, the third wing and one of the two first-named wings having surfaces respectively coacting with the two fingers, for the purpose specified, and an actuator.

4. In a music-leaf turner, the combination of a wing, a finger having a loop loosely receiving the wing, means coacting with the finger to position the same, and an actuator for the finger.

5. In a music-leaf turner, the combination of a wing, a finger connected therewith and having limited movement independent thereof, means coacting with the finger to position the same, and an actuator for the finger.

6. In a music-leaf turner, the combination of a shaft, a wing mounted to swing thereon,

a finger mounted to swing thereon and having limited independent movement with respect to the wing, means coacting with the finger to position the same, and an actuator for the
5 finger.

7. In a music-leaf turner, the combination of a wing, a finger connected therewith and having limited movement independently thereof, a second wing, means connected there-
10 with and coacting with the finger to position it, and an actuator for the finger and second wing.

8. In a music-leaf turner, the combination of two wings, a finger having limited inde-
15 pendent movement with respect to one wing,

the second wing and said finger having oppos- ing coacting surfaces for the purpose speci- fied, an actuator for said second wing and fin- ger, a return member, an actuator therefor, and a dog carried by the return member and
20 adapted to engage the wings.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JAMES W. O'NEEL.
JOHN R. EDWARDS.

Witnesses:

JAMES H. DERBY,
GEORGE MOOR.