

No. 626,692.

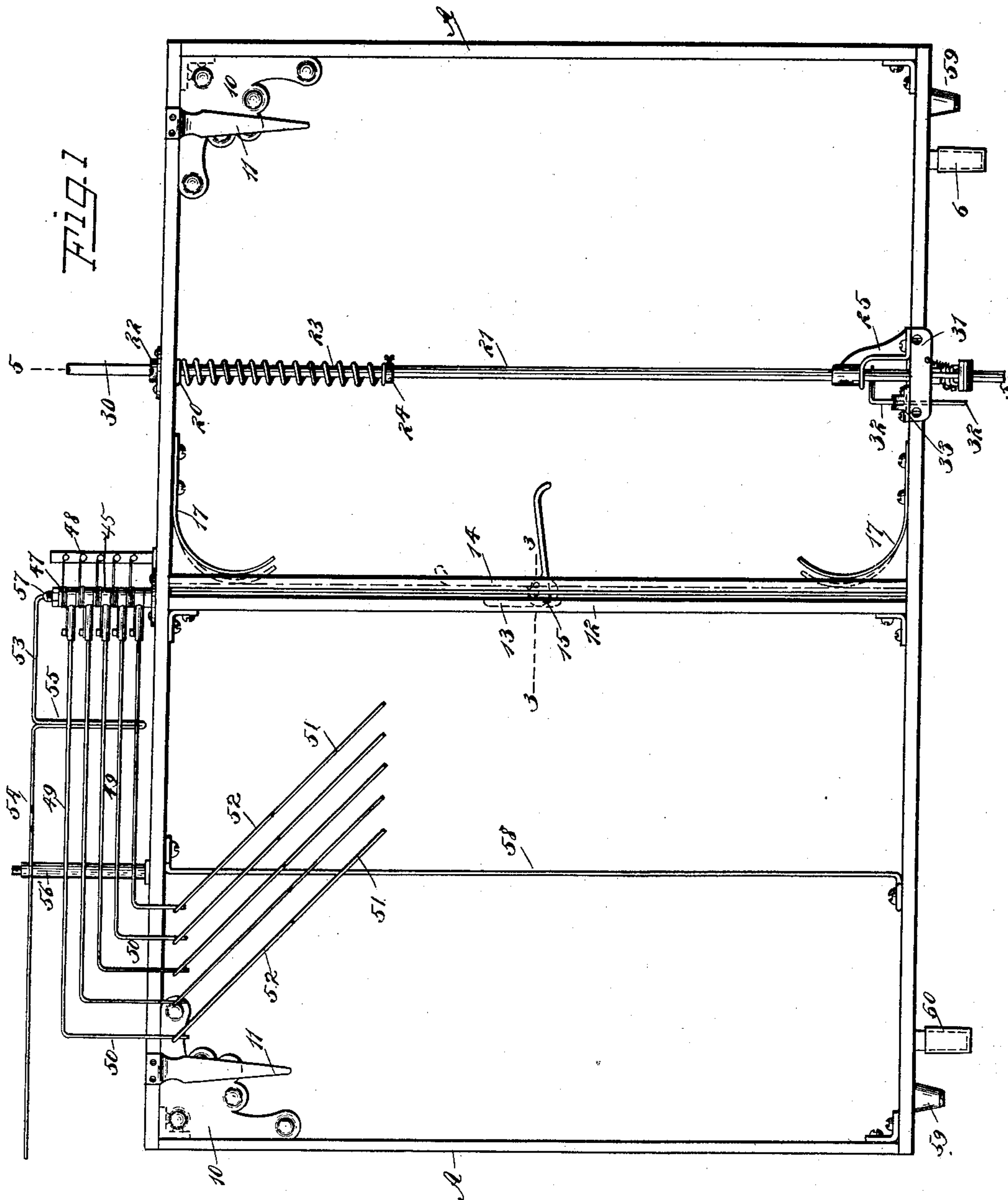
Patented June 13, 1899.

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MUSIC LEAF TURNER.

(Application filed Apr. 7, 1898.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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ROBERT HAMMOND, OF LAKE GEORGE, NEW YORK, ASSIGNOR OF ONE-HALF TO WILLIAM HOWE, OF SAME PLACE.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 626,692, dated June 13, 1899.

Application filed April 7, 1898. Serial No. 676,761. (No model.)

To all whom it may concern:

Be it known that I, ROBERT HAMMOND, of Lake George, in the county of Warren and State of New York, have invented a new and Improved Music-Leaf Turner, of which the following is a full, clear, and exact description.

The object of my invention is to provide a music-leaf turner which will be simple and durable in its construction and exceedingly light; and a further object of the invention is to provide a music-leaf turner which may be readily applied to a piano or a like instrument or to any form of music-rack in a convenient and expeditious manner.

Another object of the invention is to construct the music-leaf turner with gripping devices for the leaves that will not tear the said leaves as they are carried from one side to the other of the device and to provide a single trip mechanism, through the medium of which the leaf-carriers may be released one after the other as rapidly as may be desired, and whereby the releasing of one leaf-carrier will not in any manner interfere with the remaining carriers.

A further object of the invention is to provide an improved means for holding a sheet of music or a book-cover in the device.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully described, and set forth in the claims.

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

Figure 1 is a front elevation of the improved music-leaf turner. Fig. 2 is a plan view thereof. Fig. 3 is an enlarged horizontal section taken practically on the line 3 3 of Fig. 1. Fig. 4 is an enlarged bottom plan view of that portion of the music-leaf turner at which the trip mechanism is located. Fig. 5 is an enlarged broken vertical section taken substantially on the line 5 5 of Fig. 1. Fig. 6 is a detail view of one of the sheet-clamping arms. Fig. 7 is a side elevation of a portion of the trip mechanism removed from the device. Fig. 8 is a perspective view of the upper portion of the trip-rod and the retaining-hook adapted for connection with said rod.

Fig. 9 is a vertical section through a post adapted to carry the shifting arms for the sheets, and Fig. 10 is a side elevation of one of the bearings for the shifting arms.

The frame A is preferably in the shape of a parallelogram and is made of a very light material and of skeleton form. The frame is provided at each upper corner with a plate 10, against which the upper edges of the cover of a book may rest, the covers being held in engagement with the said plates by means of spring-fingers 11, attached to the frame and extending vertically across the plates. At the center of the frame a bar 12 is secured, extending from the top to the bottom, and a second parallel bar 14 is provided, which is free to have lateral movement. The fixed center bar 12 is provided with a recess 13, which recess receives the cam-head 15 of a lever 16, the lever being pivoted in the movable central bar 14, as shown in Figs. 1 and 3. The movable central bar is provided with a vertical tongue 18 and the fixed bar with a corresponding groove 19. When the lever 16 is carried downward, forcing the cam-head to rise against the wall of the recess 13 of the fixed intermediate bar, the movable bar 14 will be carried in direction of the right-hand side of the frame against the tension of springs 17, which have bearings at its top and at its bottom. In this way a space is formed, as shown in Fig. 3, in which the back of a book may be placed or the rear edge of a piece of music. The book-cover or sheet-music being in position between the bars 12 and 14, the lever 16 is carried upward to the position shown in dotted lines in Fig. 1, whereupon the cam-head 15 of the lever will permit the movable bar to move toward the fixed bar 12, and thus clamp the book or sheet between the two bars.

Between the center and the right-hand end of the frame a bearing 20 is placed in the upper member of the frame, and in the said bearing the upper portion of a trip-rod 21 is mounted to slide, the said rod being held against rotation in any suitable way. A collar 22 is secured upon the rod above the bearing, which will engage with the bearing when the rod is in its lowest position. A spring 23 is coiled around the rod near its upper end, having bearing against the top of the frame and

against the collar 24, secured on the rod within the frame, as shown in Figs. 1 and 5.

A bearing 25 is secured upon the lower portion of the frame, through which bearing the lower part of the trip-rod 21 extends. The lower portion of the trip-rod also extends through an opening 26 in the bottom of the frame, as shown in Fig. 5. The lower portion of the trip-rod at one side is provided with a series of steps or notches 27, particularly shown in Fig. 5. The upper end of the trip-rod 21, as shown in Fig. 8, is provided with a slot 28, which receives a tongue 29, formed upon the horizontal member of an angle retaining-hook 30, the vertical member of the hook extending downward parallel with the front of the rod a predetermined distance. Ordinarily a plate 31 is attached to the front of the bottom portion of the frame at that portion through which the trip-rod passes, as shown at Fig. 1, and at the left of the plate 31 a retaining-lever 32 is fulcrumed, the fulcrum of which retaining-lever is between ears 33, formed upon the upper face of the bottom of the frame, as shown in Fig. 1. The lever 32 is an angle-lever, and its vertical member extends through the slot 34 in the bottom member of the frame, as shown in Fig. 4. The horizontal member of the retaining-lever 32 is adapted to engage with the notched or stepped surfaces in the trip-rod, as shown in Figs. 1 and 5, being held in such engagement by a spring 35, which is attached to the vertical member of the lever below the frame and to the under face of the frame, as illustrated in Figs. 4 and 5.

In connection with the trip-rod a shifting device is employed. (Shown in detail in Fig. 7.) This shifting device consists of a lever 36, preferably curved and made to terminate at its free end in a finger-plate 36^a. The lever 36, as shown in Fig. 4, is pivoted between ears 37, attached to the plate 38, secured upon the bottom portion of the frame in front of the opening 26, through which the trip-rod passes. An arm 40 is secured to each side of the lever in front of its fulcrum, and these arms are spaced apart and are carried, preferably, rearward in parallel lines and upward in direction of the aforesaid opening 26. The arms 40 of the lever have pivoted between them a dog 41, and this dog is prevented from moving forwardly beyond a predetermined extent by pins 42, located on the dogs and engaging shoulders on the arms 40, as shown in Fig. 7. A spring 43 is attached to the dog and to the rear end of the lever 36, causing the pins 42 of the dogs to be normally in engagement with the aforesaid shoulders on the lever-arms 40. The lever 36 is provided with a spring 39, attached to the lever in front of one of the arms 40, and preferably to the front plate 31. When the lever 36 is forced rearward, its spring 39 is placed under tension and the dog 41 will engage with one of the notches or steps 27 in the trip-rod and will carry the said rod upward a distance cor-

responding to the distance between steps. When the trip-rod has been thus elevated, it will be held in its elevated position by the retaining-lever 35. When the shifting lever 36 is released, the dog will slide freely down the steps or notches 27. In order that the dog shall not catch in the steps when it is being carried upward, a recess 41^a is made in the under face of the dog at that point where it would be liable to engage with the stepped surface of the trip-rod in advance of the working end of the dog.

At the center of the frame a post 44 is secured upon the top rail or member, and a series of collars 45 is mounted to turn loosely on the said post, one collar resting upon the other, and each collar is provided with a tubular extension 46, as shown in Fig. 10. A spring 47 is attached to each collar and wound thereon a sufficient number of turns, the opposite end of the spring being secured to an upright 48, attached to the frame and located at the right-hand side of the post, as shown in Fig. 1. These springs have a tendency to carry the extensions 46 of the collars 45 toward the left-hand side of the frame. A shifting arm 49 is secured at one end in each extension 46 of each collar. These shifting arms are one above the other and are graduated in length, each shifting arm being provided with a downwardly-extending or perpendicular member, the lower edges of the members 50 being in the same horizontal plane. A sheet-clamping arm 51 is attached to the vertical or pendent member 50 of each shifting arm, and the sheet-clamping arms extend diagonally across the frame, their inclination being downward and in direction of the center of the frame, as shown best in Fig. 1. Each sheet-clamping arm is provided with a return bent spring end 52, made undulating or with a series of curves, so that various points of the return portion of a sheet-clamping arm will engage with the body of the arm, as shown in Fig. 6. Thus it will be observed that the edge of a sheet of music or the side edge portion of a page may be slipped between the body of a sheet-clamping arm and its return-section 52 and be held firmly. The diagonal position of the sheet-clamping arms insures a sheet of music against injury when carried from right to left, or vice versa.

An assembling-arm 53 is mounted to turn in a socket 53^a, made in the upper end of the post 44, the arm being prevented from leaving its socket by a suitable nut 57. (Shown in Fig. 1.) The horizontal member of the assembling-arm extends over and parallel with the uppermost shifting arm and also extends beyond the free end of the uppermost shifting arm, as shown in Fig. 1. The horizontal member of the assembling-arm is provided with a downwardly-extending member 55, arranged to engage with the rear surface of all of the shifting arms when they are at the left-hand side of the frame. The assembling-arm when at the left-hand side of the frame

bears against a post 56, against which post the several shifting arms likewise have bearing. The horizontal member of the assembling-arm is further provided with a curved section 54, adapted to receive the upper end of the trip-rod 21 when the said assembling-arm has been carried to the right-hand side of the frame. A rod 58 is located between the left-hand end of the frame and the center bar 12, being secured to the top and bottom of the frame, the rod 58 serving to prevent the possibility of the sheets of music falling rearward through the frame, the trip-rod 21 at the right-hand side of the frame serving a like purpose.

In the operation of the device, the music having been fitted between the intermediate or clamping bars 12 and 13, the sheets of music are secured to the sheet-clamping arms by passing the sheets between the body of the said arms and their return-sections 52. This is done when the shifting arms are at the left-hand side of the frame. The assembling-arm is now carried toward the right-hand side of the frame and will take with it all of the shifting arms and the sheets of music connected therewith. Prior, however, to carrying the shifting arms from the left to the right the shifting lever 36 is operated to carry the trip-rod upward to its highest position, which position will enable the shifting arms to be brought under the retaining-hook 30, and as soon as the shifting arms are in such position the retaining-lever 32 is drawn outward, releasing the trip-rod and permitting its spring 23 to force the rod downward, thus bringing the retaining-hook of the trip-rod over all of the shifting arms. The assembling-arm may then be restored to its normal position at the left of the frame. After the sheet of music has been played and it is desired to turn that sheet it is simply necessary to press downward on the shifting lever 36, whereupon the dog connected with the said lever will elevate the trip-rod one notch, thus carrying the re-

taining-hook 30 above the lowermost shifting arm, and said arm being released will be immediately carried over to the left-hand side of the frame by its spring 47. In the same manner one shifting arm after the other may be released to turn one sheet after the other until all of the sheets have been turned.

At the bottom of the frame, near each end, a lug 59 is formed, having its lower end covered with felt or a like material, and adjacent to each of the said lugs an L clip or clamp 60 of spring material is located, the said clamp being provided with a covering of a yielding material. When the device is to be attached to the rack of a piano, for example, the lower ends of the lugs will engage with the top of the rack and the horizontal members of the clamps 60 will engage with the bottom of the rack.

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

1. In a music-leaf turner, the combination, with a shifting arm, of a sheet-clamping arm attached to the shifting arm at an angle there- to greater than a right angle, the said sheet-clamping arm comprising a straight body provided with a return spring end, the return end of the arm being curved, providing a contact between the return portion of the arm and the body thereof, for the purpose set forth.

2. A music-leaf turner, having a pivoted shifting arm, and a sheet-clamping arm attached thereto, said clamping-arm being double for a short distance from the end which is attached to the shifting arm and extending diagonally of the sheet and the two parts acting as springs to hold the sheet between them and one part having a series of reversed bends giving it a waving outline, substantially as described.

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Witnesses:

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