(No Model.)

2 Sheets—Sheet 1.

C. GITTUS, Jr.

MUSIC LEAF TURNER.

No. 604,825. Patented May 31, 1898.

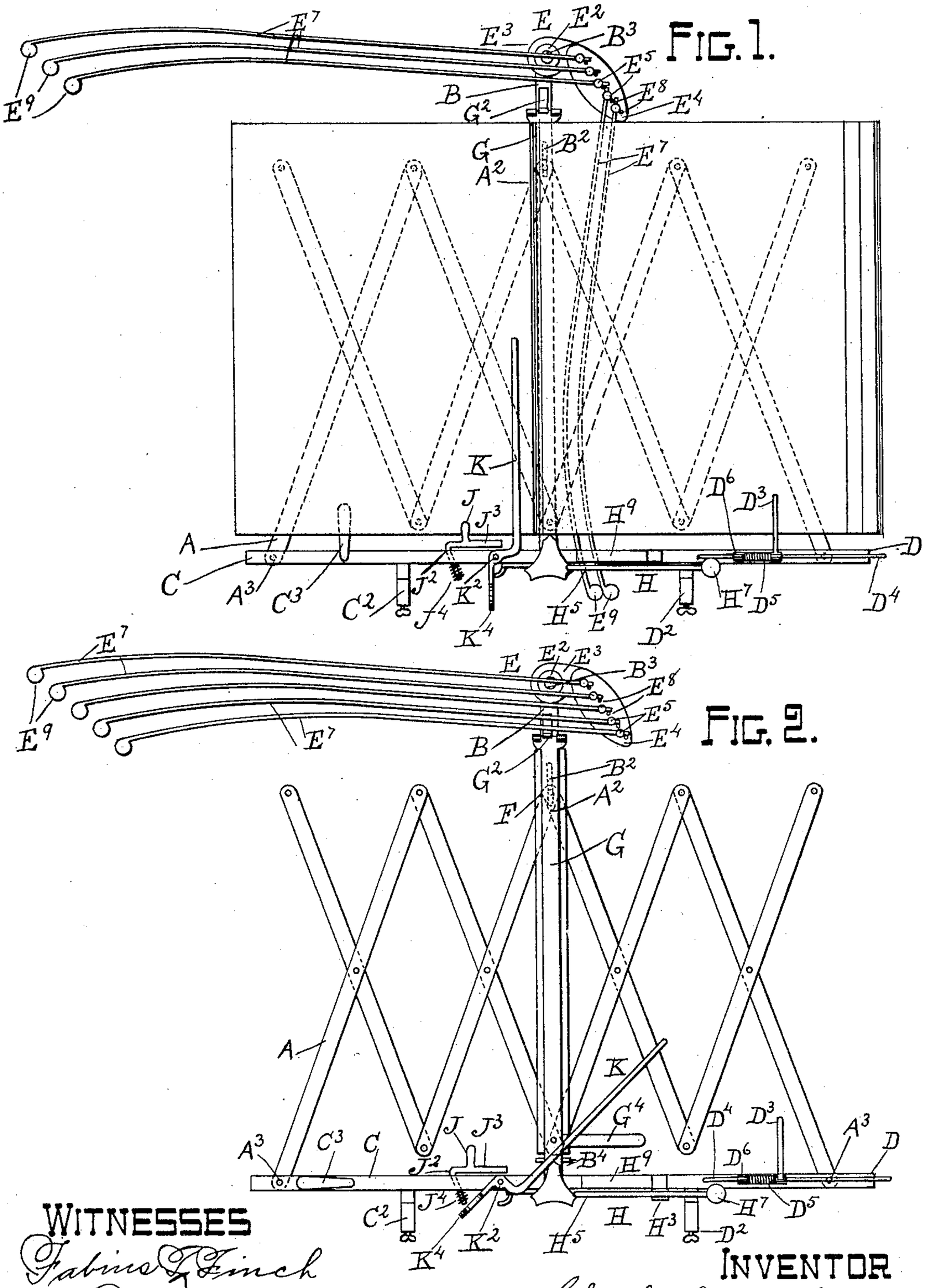

FIG. 1.

FIG. 2.

WITNESSES

Fabius T. Finch

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Charles Gittus, Jr.

by A. H. Ste Marie atty

(No Model.)

2 Sheets—Sheet 2.

C. GITTUS, Jr.

MUSIC LEAF TURNER.

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FIG. 3.

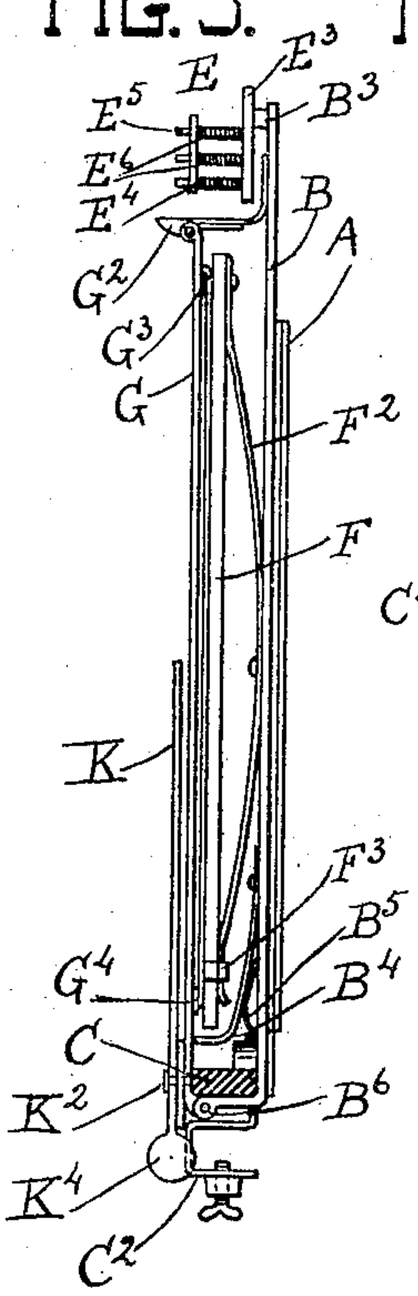


FIG. 4

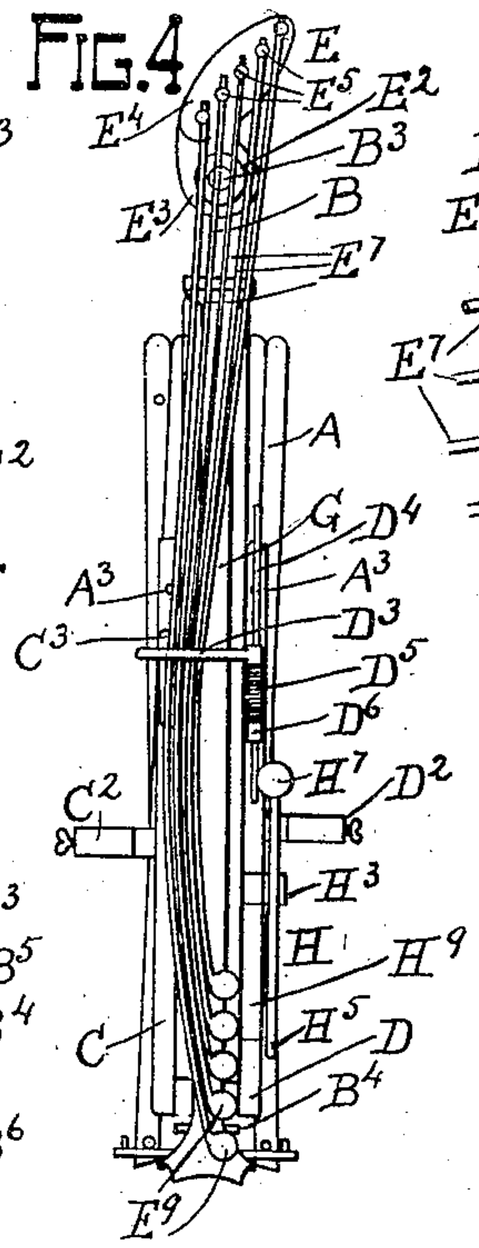


FIG. 5

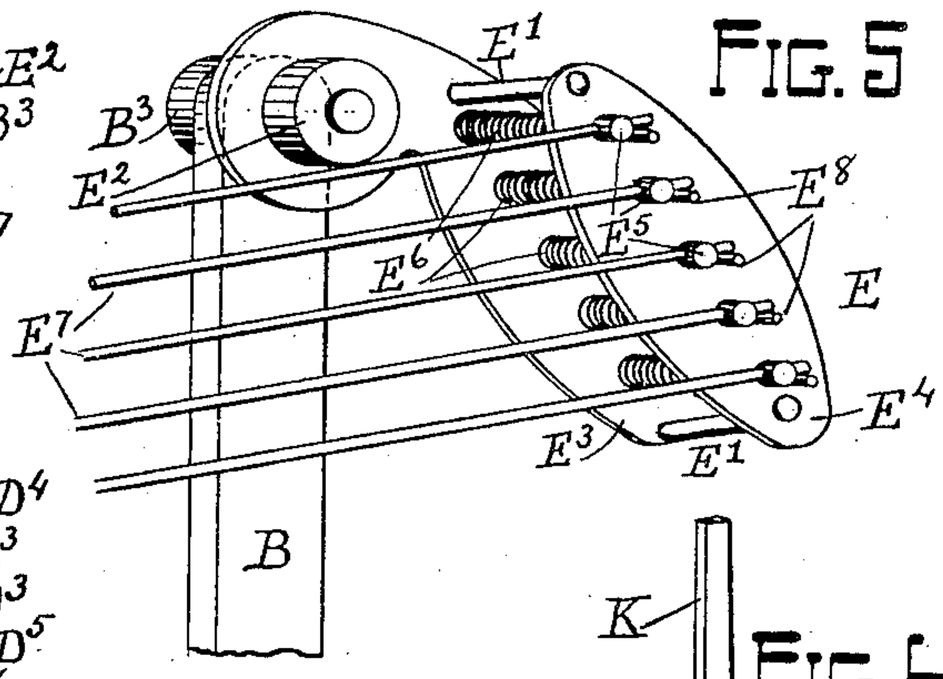


FIG. 6.

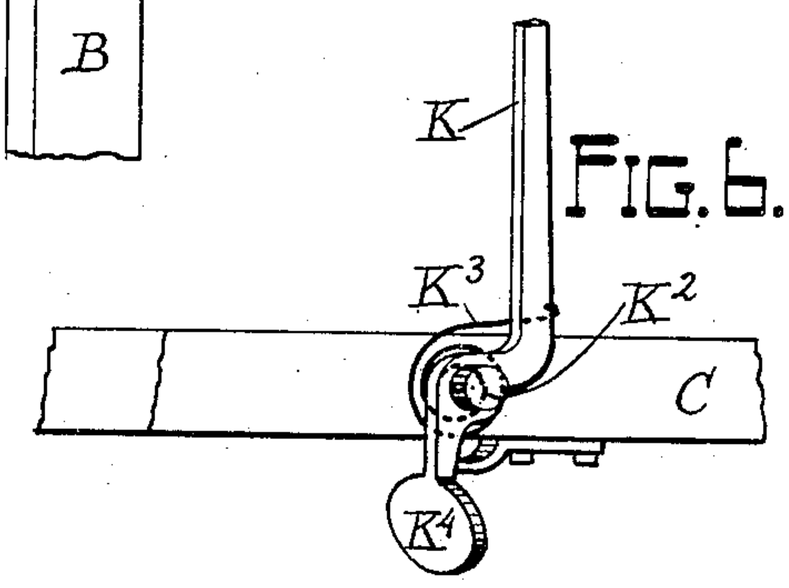


FIG. 7.

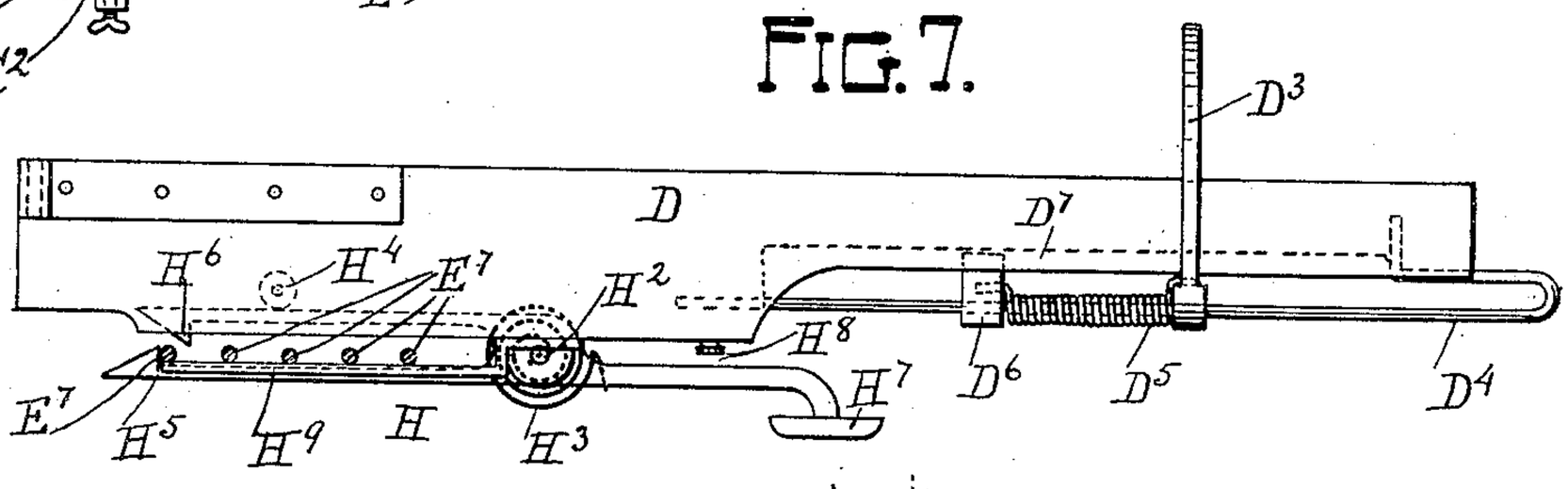
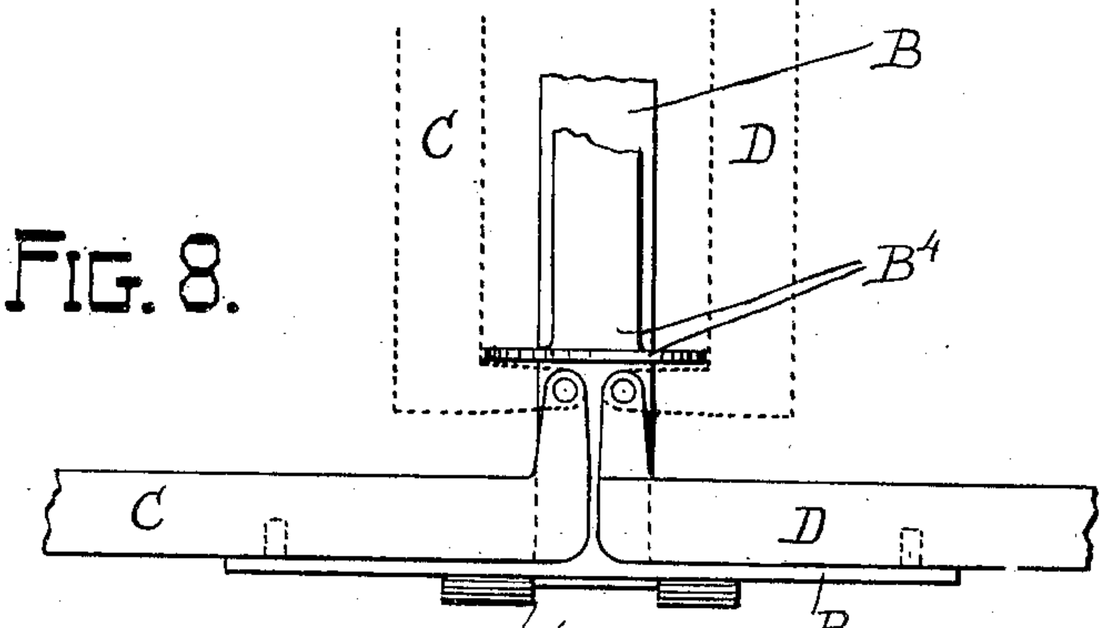


FIG. 8.



WITNESSES

Fabius I. Finch

A. C. Fraser

INVENTOR

Charles Gittus, Jr.

by A. H. Ste Marie atty

UNITED STATES PATENT OFFICE.

CHARLES GITTUS, JR., OF GOLDEN GATE, CALIFORNIA, ASSIGNOR OF TWO-THIRDS TO ARTHUR F. FARMAN, JR., AND LOUIS C. GITTUS, OF SAME PLACE.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 604,825, dated May 31, 1898.

Application filed April 30, 1897. Serial No. 634,624. (No model.)

To all whom it may concern:

Be it known that I, CHARLES GITTUS, Jr., of Golden Gate, in the county of Alameda, State of California, have invented a new and useful Music-Leaf Turner, particularly described in the following specification and illustrated in the accompanying drawings, which are referred to therein.

My invention relates to improvements in or connected with music-stands, and is designed to produce a simple and practical device for holding and turning the pages of music to accommodate a person singing or playing an instrument; and one of the main features of my invention is that it may be folded up into a small and compact bundle and easily carried from place to place.

In the drawings, Figure 1 is a front view of my device spread open with sheet-music placed on it as in actual use. Fig. 2 is a similar view showing the instrument extended as before, but no music on it. Fig. 3 is a sectional edge elevation. Fig. 4 is a front view of the instrument folded, as when carried from place to place. Fig. 5 is a detailed view of the head that carries the wires that turn the leaves of music. Fig. 6 is a detailed view of a small lever and key used in connection with my invention. Fig. 7 is a plan view of the right lower part of the instrument, showing the key and catch by which the wires that turn the pages are held in place and by which they are released when it is desired to turn a page. Fig. 8 is a detailed view of the central portion of the lower part of my invention.

In this specification similar letters refer to similar parts throughout.

In my music-leaf turner the back proper, which supports the sheets of music, is composed of lazy-tongs A, spread out, as shown in Fig. 2. These lazy-tongs are secured to the back of a vertical bar B by a rivet passing through their lower middle joint and through the bar B and by a rivet passing through their upper middle joint A^2 and through a slot B^2 in the bar B, as shown in Fig. 2, so as to permit the said joint A^2 to rise as the lazy-tongs are folded and to lower as they are spread. The vertical bar B and the lazy-tongs A, attached thereto, are supported by two cross-bars C and D, which are hinged to the vertical bar B near its lower end, as shown in Fig. 8, and so arranged that when the leaf-turner is spread for use they may be lowered and fastened to the lazy-tongs by means of pins A^3 A^3, passing through the lower outside ends of the lazy-tongs and engaging holes near the outer ends of the bars C and D, as shown in Fig. 2. Thus the bars C and D are kept in their horizontal position by the lazy-tongs, and the lazy-tongs are kept spread by the bars C and D.

The lower end of the bar B is bent forward at right angles and spread, as shown in Fig. 8, so as to afford a support for the bars C and D and form a hinge for the front clamp-bar G, to be hereinafter described.

To the bottom of the bars C and D are fastened **S**-shaped clamps C^2 and D^2, provided with set-screws, as shown in Figs. 1, 2, and 3, by means of which the leaf-turner is fastened to a music-stand or other support.

At the top of the bar B a head E is fastened by a stationary screw or bolt B^3, passing through the said bar B from back to front and having screw-threads on its front end, which engage similar screw-threads in a nut E^2, formed on the back plate of the head E and so constructed that when the head E is turned to the right it is made tight to the bar B and assumes the position shown in Fig. 5, but when the head is turned to the left the grip of the screw is loosened and the head assumes the position shown in Fig. 4.

The head E is composed of two plates, a larger back plate E^3, having a nut E^2 formed on its left end, which engages the screw B^3, as heretofore described, and a front plate E^4 somewhat smaller. The two plates E^3 and E^4 are attached to one another by rivets E′ and pivots E^5, as shown in Fig. 5. Each of the pivots E^5 is wrapped by a spiral spring E^6, one end of which is attached to the back plate E^3 of the head and the other end is passed through the pivot just back of the front plate E^4. Through each of the pivots E^5 is passed one of the long wires E^7, which operate to turn the pages of the music, as will be hereinafter described.

The sheet-music or music-book is supported by the rest B^4, (shown in Fig. 8,) fastened to

the vertical bar B just above the point where the horizontal bars C and D are hinged to said bar B, as before described. This rest B^4 is made to stand out from the bar B by means of a small flat spring B^5, fastened to the front face of the bar B and pressing against the rest B^4, as shown in Fig. 3.

The music is held in position on the leaf-turner by two clamp-bars F and G, as shown in Fig. 3. The back clamp-bar F is held in position by a flat spring F^2, riveted at its upper end to said clamp-bar F and at its middle portion to the vertical bar B and passing through a loop F^3 at its lower end. Said loop F^3 is fastened to the lower end of the bar F and permits the flat spring F^2 to slide easily in it, so that when the clamp-bar F is pressed back toward the bar B the spring is permitted to straighten out. The front clamp-bar G is fastened at its lower end by the hinge B^6, formed on the lower end of the vertical bar B, as hereinbefore described, and at its upper end it is caught by the spring-catch G^2 and held firmly against the back clamp-bar F, as shown in Fig. 3. The spring-catch G^2 is fastened to the upper end of the vertical bar B and projects forward at right angles to said bar B and engages a notch formed in the upper end of the said front clamp-bar G. The front clamp-bar G is provided with a wire G^3, fastened to its back face, as shown in Fig. 3, for the purpose of giving stiffness to said bar G and intended to fit in the crease of the sheet or book, and thus cause it to fold easily.

It is intended that the sheet should be rested upon the rest B^4 and caught and firmly held between the clamp-bars F and G, the front bar G being placed over the last or right-hand page. For the purpose of keeping said last page spread out smooth in position there is provided a finger G^4, riveted to said bar G by a single rivet and extending to the right, as is shown in Fig. 2. If it is not desired to use said finger or when said music-leaf turner is folded up, it may be swung upward and parallel with the bar G, to which it is attached. When the music is thus spread out upon the lazy-tongs and supported and clamped, as before described, it is necessary to hold the left-hand cover or title page in position, and for that purpose is provided the finger C^3, as shown in Fig. 1. Said finger C^3 is attached to the front face of the left-hand lower cross-bar C by means of a single pin, so that when not in use it may be swung down parallel with the bar C, to which it is attached, as shown in Fig. 2, and when in use it is swung upward, so as to engage the lower edge of the left cover-page, as shown in Fig. 1.

In order to hold in position the right-hand pages not yet read, I have provided a spring-finger D^3, which is attached to the right cross-bar D, as shown in Figs. 1 and 2 and detailed in Fig. 7, and which exerts sufficient pressure upon the unread pages to hold them back in position against the lazy-tongs, but at the same time permits them to be turned to the left by the wires E^7. The finger D^3 is secured to the cross-bar D by a small rod D^4, which passes through an eye formed on the lower end of the finger D^3. The small rod D^4 is attached to the cross-bar D a little to the left of the middle of said cross-bar and extends thence to the right and parallel with the bar D, the right end of said bar D^4 being bent backward and fastened to the right end of the bar D, as shown in Fig. 7, so as to prevent the finger D^3 from sliding off said rod D^4. The finger D^3 is held back against the lazy-tongs or sheets of music resting thereon by means of a spiral spring D^5, wrapped around the rod D^4 and one end of which is passed through said finger just above the eye formed on its lower end, and the other or left end of said spring D^5 is passed through a small block D^6, likewise sliding on the bar D^4. Said block D^6 is provided with an eye through which the rod D^4 passes and is made to slide in a groove D^7 in the cross-bar D, which it so engages as to be prevented from turning with the torsional strain of the spring D^5 and at the same time permitted to slide back and forth along the bar D with the spring D^5 and the finger D^3, thereby allowing the latter to be set according to the width of the sheet-music which it is intended to hold down.

When the music is in position, held by the rest, clamp-bars, and fingers, as heretofore described, and when the head E is turned to the right in the position shown in Figs. 1, 2, and 5, the left or free ends of the wires E^7 are successively brought down and one is placed back of each page which it is desired to turn. When so brought down, the wires E^7 are held in position by the double catch H, as shown in Figs. 1 and 7. At their upper ends the wires E^7 are passed through the pivots E^5, so as to partake of the torsional movement which the said pivots receive from the spiral springs wrapped around said pivots, as before described. Stops or pins E^8 project from the front face of the plate E^4, near the pivots E^5, and are so arranged as to engage the upper ends of the wires E^7 when said wires assume a horizontal position under the torsional strain transmitted to said wires by the pivots E^5 from the spiral springs wrapped around said pivots, as before described and as shown in Fig. 5. Thus the wires E^7 when released from the double catch H are prevented by the pins E^8 from rising above a horizontal position and when so raised are kept apart and parallel with each other.

The double catch H is fastened to the lower face of the cross-bar D by a pivot-pin H^2, with the hooks of said catch turned to the left or center of the music-leaf turner. The left or hook ends of said catch are held back by a coil-spring H^3, one end of which is passed through the pivot-pin H^2 and the other end of which is fastened to the right shank of the catch H. The stop or bumper H^4, projecting from the lower surface of the cross-bar D, prevents the hook ends of said double catch from going

back farther than a position parallel with D, all of which is detailed in Fig. 7. The left or hook ends of said catch consist of two prongs H^5 and H^6 with hooks bent toward each other formed on their left ends. H^5 is slightly longer than H^6, is placed in front of it, and sufficiently far from it to allow the wires E^7 to pass easily between them. The right end of the catch H consists of a short rod running parallel with the rod D, having a button H^7 formed on its right end and bent forward at right angles to said rod. Thus it is seen the catch H is a lever having its fulcrum at the pin H^2 and so arranged that when the button H^7 is pressed back the hooks H^5 and H^6 move forward; but to prevent the button end of said catch from being pushed back too far there is provided the stop H^8, which projects from the lower surface of the cross-bar D, as shown in Fig. 7.

The wires E^7 when held by the hooks H^5 and H^6 are also held from moving in a direction from back to front by the stationary rod H^9, which is fastened to the front face of the cross-bar D just above the pin H^2 and extends to the left to about the left end of the longer prong H^5. Said rod H^9 is provided with an elbow near its right end, causing it to extend parallel with the bar D and sufficiently far from it to permit the wires E^7 to pass easily between said bar H^9 and said cross-bar D.

For the purpose of holding the pages which have been read back against the left side of the lazy-tongs there is provided a spring-finger J, the main stem J^2 of which passes obliquely through the cross-bar C from top to bottom and a projection J^3 of which extends to the right parallel with C and is so constructed that when one of the wires E^7 is released from the double catch H it engages said projection J^3 and raises it, allowing the page just turned by said wire to pass under said finger J. The finger is brought back to its original position by the torsional strain which it receives from the spiral spring J^4, wrapped around the lower end of the oblique stem J^2, and one end of which spring is passed through said stem and the other end is fastened to the cross-bar C. The torsional strain on the wire J^4 causes the upper free portion of the spring-finger to press inwardly against the sheet of music, as shown in Fig. 1, and the finger J remains in contact with the lower edge of the sheet, as shown in Fig. 1, until one of the wires E^7 is released, and this wire catches behind the prong J^3 and turns it outward and backward sufficiently far to cause the finger J to release the sheet and to allow the sheet which has just been turned to pass behind it. The moment the wire E^7 has passed the spring J^4 snaps the finger J back into position again against the sheet which has just been turned.

The pages of music are turned by my device as follows: The sheet-music being in position, as before described, and one of the wires E^7 being placed back of each page desired to be turned, said wires are held down in succession by the longer or front prong H^5 of the catch H and slightly separated from each other by the knobs E^9, formed on the lower ends of said wires, as shown in Fig. 1. When the button H^7 is pressed back, (it may be operated by the finger or may be connected with a treadle and operated by the foot,) the hook H^5 is brought forward; but the wires E^7 are prevented from coming forward with it by the rod H^9, and thus the first wire to the left is entirely released from the catch and is made to go up and assume the position shown in Fig. 2 by the spring E^6. The second wire in succession to the left is, however, caught by the back or shorter hook H^6 as said hook moves forward and is prevented from following the wire already released. When the pressure is removed from the button H^7, the catch resumes its normal position and the wires are again held by the longer hook H^5. This operation may be repeated until all of the wires E^7 are released from the catch H and all of the pages under which said wires were placed are turned by said wires from right to left and placed under the spring-finger J, engaged by the wires E^7 in their upward movement, as before described.

The wires E^7 may each be provided, if desired, with a light rubber cushion (not shown) in order to avoid any noise that might possibly result from their coming into contact with or striking against one another—for instance, after they are released from the double catch—but this is only optional and not an indispensable feature of my invention.

K designates a small detachable lever which may be used in connection with my improved leaf-turner whenever the music that is played is to be repeated—for example, parts that are sung in chorus. This lever is pivoted at K^2 on the bar C and is normally kept in an erect position over the left side of the music-book, as shown in Figs. 1 and 6, by means of a spiral spring K^3, one end of which is attached to the lower arm of said lever and the other end of which is attached to the pivot-pin K^2, the shorter arm of said lever resting against a stop C^4, secured to the under side of the bar C. A thumb-piece K^4 is provided on the lower end of the lever K, by which the lever is operated. The lever K, it will be seen, will throw back any leaf that may be turned over it by any of the wires E^7, previously placed under such leaf, whenever the thumb-piece is forced outward, so as to bring the lever's long arm into the position represented in Fig. 2. Whenever a leaf is thus to be turned back, there are placed under it a number of wires equal to the number of times the said leaf is to be read. These wires, being released one by one, will turn the leaf again to the left as many times as the lever is brought into use and the music repeated.

Having now described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a music-leaf turner, the cross-bar D, provided with a longitudinal groove in its outer edge near one end, and the rod D^4 secured to the cross-bar, combined with the spring-actuated finger D^3 placed upon the rod, and the sliding block D^6 placed upon the rod and having its inner end to catch in the groove, substantially as shown.

2. A leaf-turner comprising a supporting-bar, lazy-tongs connected therewith, and side bars hinged to said supporting-bar and adapted to be secured to the ends of said lazy-tongs, substantially as described.

3. A leaf-turner comprising a supporting-bar, a clamp-bar thereon upon which the sheet or book is placed, a spring-supported rest for the lower edge of the sheet or book, a top clamp-bar hinged at one end to said supporting-bar, and a catch for the other end of said top clamp-bar, substantially as described.

4. A leaf-turner comprising a supporting-bar, means for clamping the sheet or book thereon, spring-actuated wires secured to a head on said bar in such a way as to extend out therefrom in a horizontal position and adapted thence to be forced down and placed under the sheet or under certain leaves of the book, a catch to retain said wires down, and means for releasing the latter consecutively from said catch, substantially as described.

5. A leaf-turner comprising a supporting-bar, a screw or bolt passing through the upper end thereof, a head provided with a nut engaging said screw or bolt, wires secured to pivots in said head, springs wrapped around said pivots and arranged to exert a torsional strain on the same, and stops bearing on said wires and limiting the action of said springs, substantially as described.

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

CHARLES GITTUS, JR. [L. S.]

Witnesses:

ARTHUR F. FARMAN, JR.,

LOUIS C. GITTUS.