No. 842,649. PATENTED JAN. 29, 1907.

R. P. GREEN.

SHEET MUSIC TURNER.

APPLICATION FILED OCT. 9, 1905.

3 SHEETS—SHEET 1.

Fig. 1.

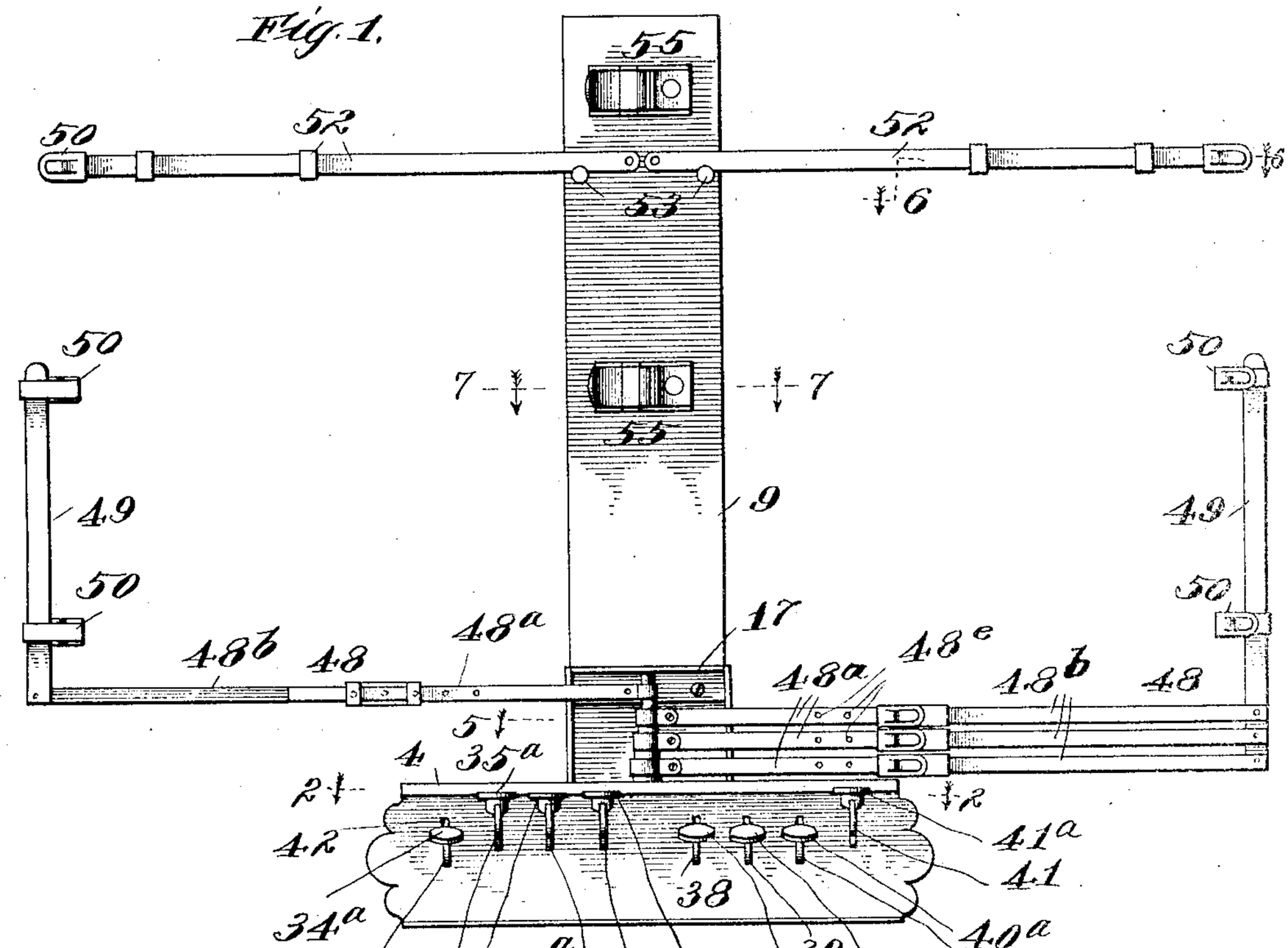
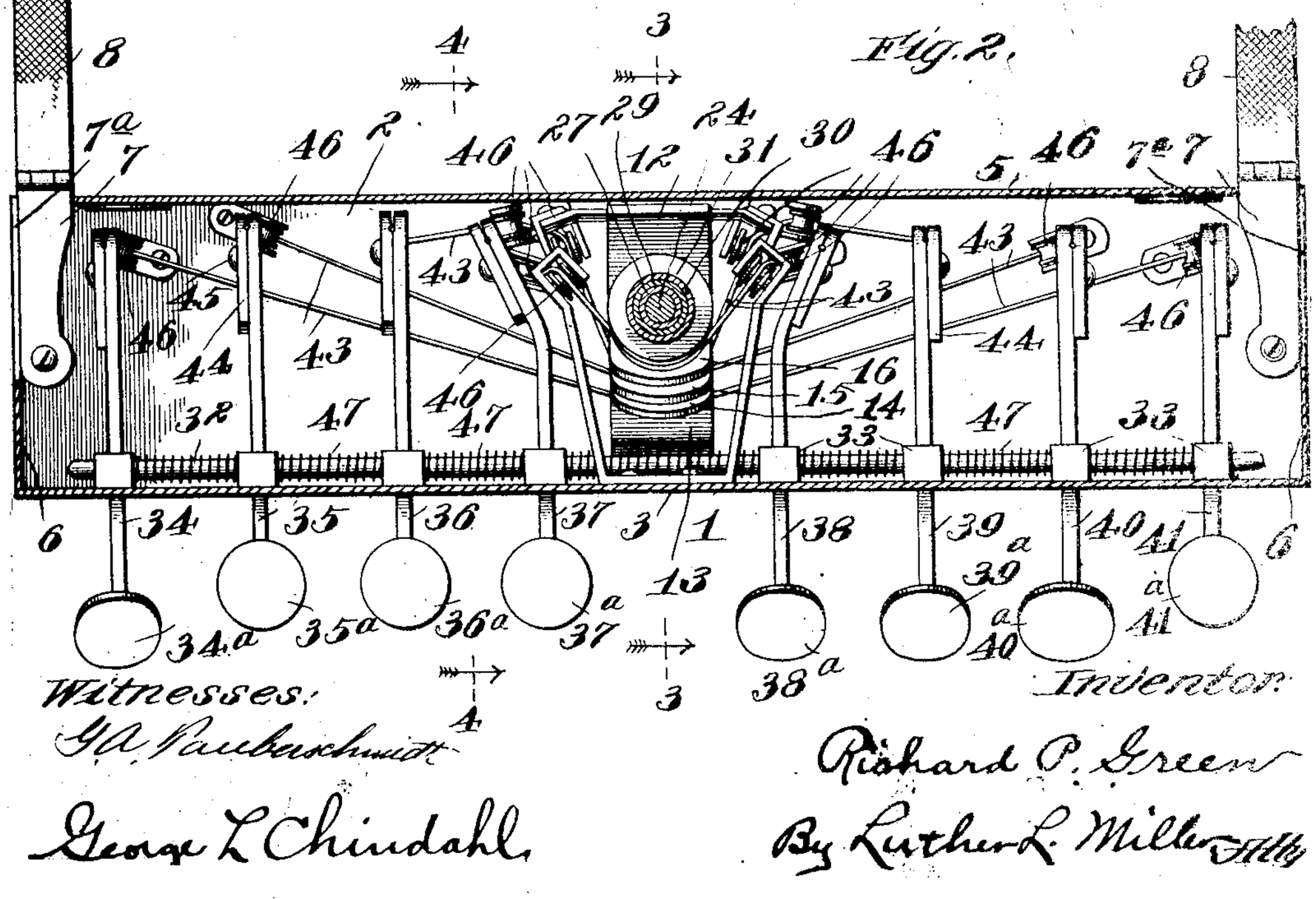


Fig. 2.



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3 SHEETS—SHEET 2.

Fig. 3.

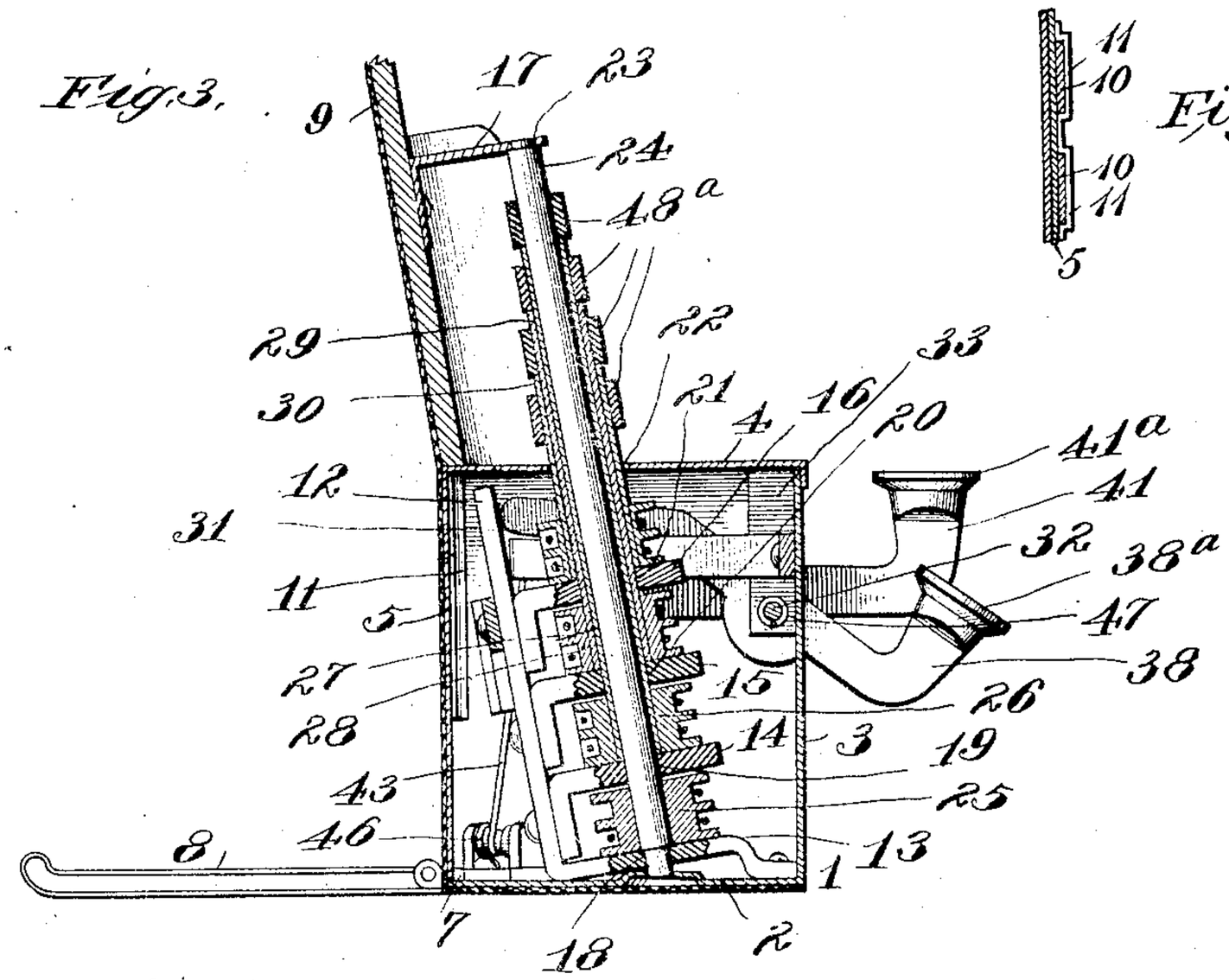


Fig. 8.

Fig. 5.

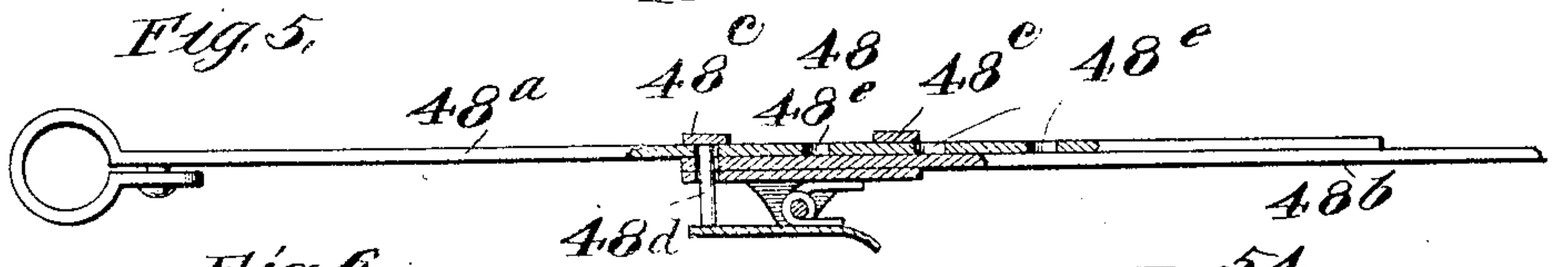


Fig. 6.

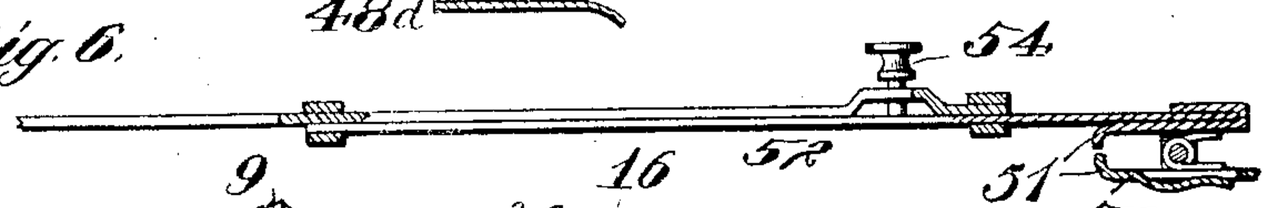


Fig. 4.

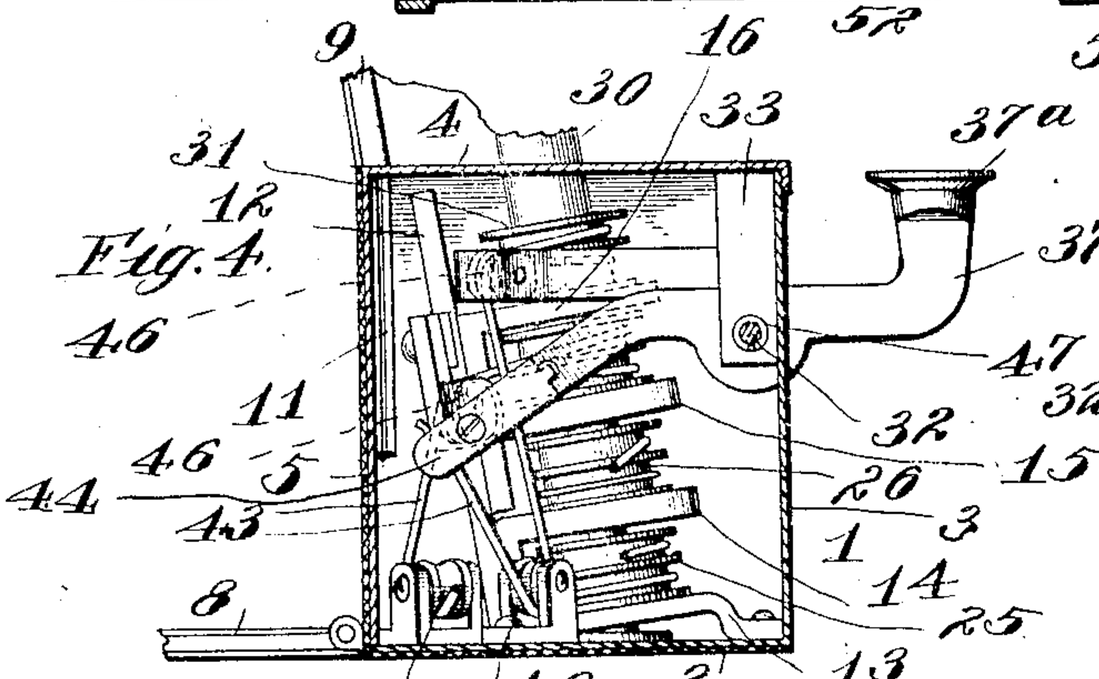


Fig. 9.

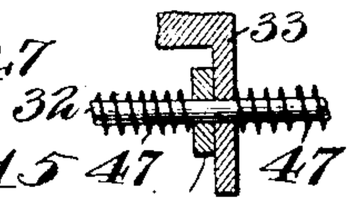
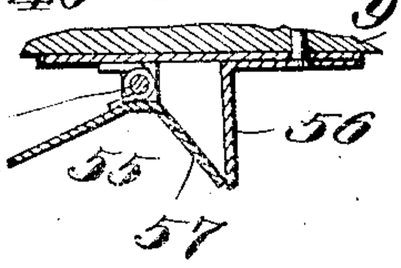


Fig. 7.



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SHEET MUSIC TURNER.

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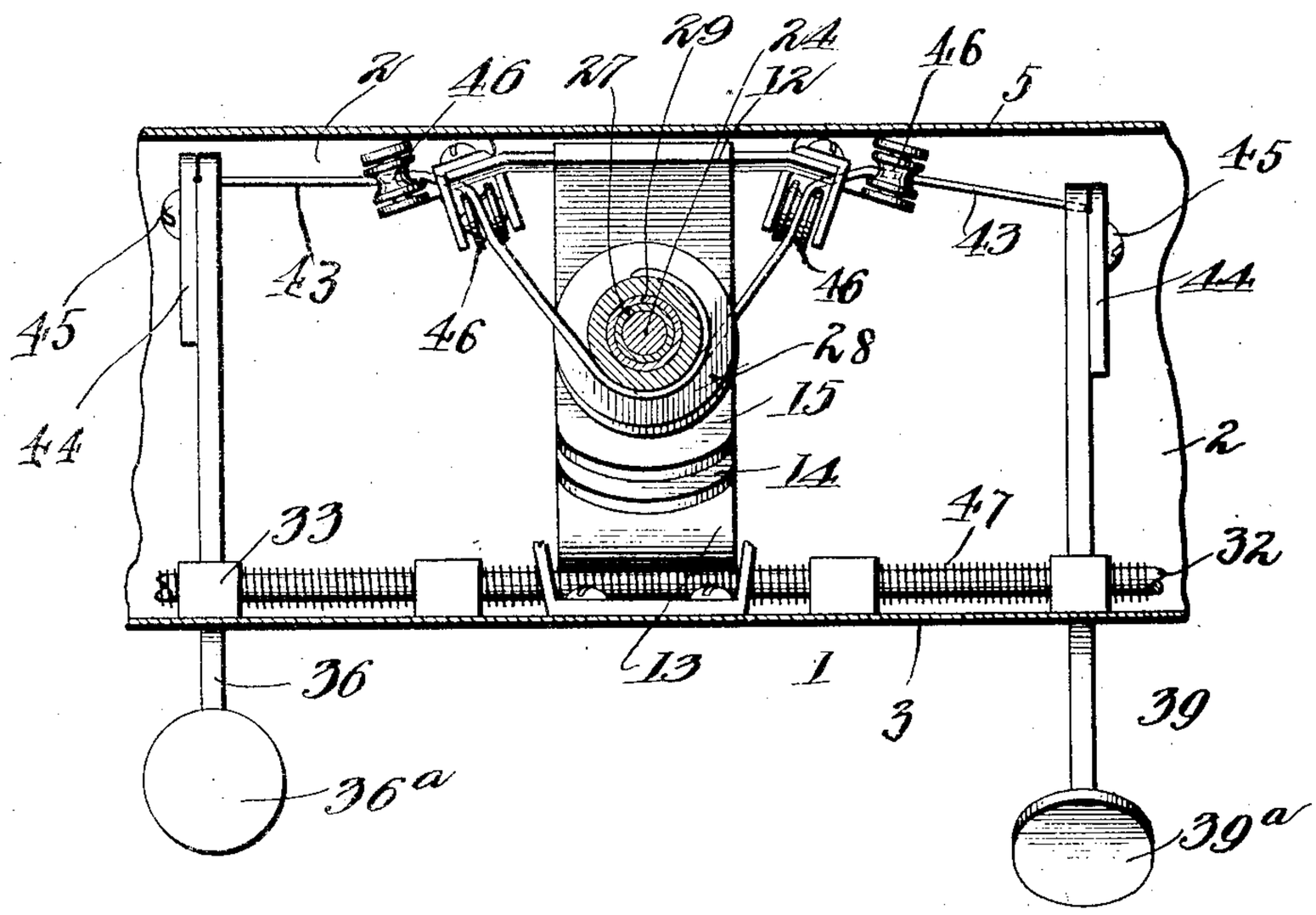
3 SHEETS—SHEET 3.

Fig. 10.



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SHEET-MUSIC TURNER.

No. 842,649. Specification of Letters Patent. Patented Jan. 29, 1907.

Application filed October 9, 1905. Serial No. 281,956.

To all whom it may concern:

Be it known that I, RICHARD P. GREEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sheet-Music Turners, of which the following is a specification.

This invention relates to devices for supporting sheet-music in proper position before the player of a musical instrument and for turning over the sheets of music as needed.

One of the objects of the invention is the production of an improved sheet-music turner adapted to turn the sheets or leaves in either direction—that is, from right to left, and vice versa.

Another object of the invention is the production of a sheet-music turner the action of which in turning the music is positive and certain and under the direct control of the operator.

In the accompanying drawings, Figure 1 is a front elevation of a sheet-music turner embodying the features of my invention. Fig. 2 is a horizontal sectional view through said turner on the plane of dotted line 2 2 of Fig. 1. Fig. 3 is a vertical section taken on dotted line 3 3 of Fig. 2, and Fig. 4 is a similar view on dotted line 4 4 of Fig. 2. Fig. 5 is a detail view of one of the leaf-holding arms intended to engage the intermediate sheets, and Fig. 6 is a view of one of the arms for holding the outer leaves or sheets. Fig. 7 is a sectional detail view of a clip for securing the bound or folded edges of the music to the turner. Fig. 8 is a detail sectional view of the means for detachably securing the standard to the casing. Fig. 9 is a detail view of the means for preventing sidewise movement of the key-levers. Fig. 10 is a fragmental horizontal sectional view through the casing, showing one of the winding-drums, the two key-levers for rotating said drum, the cords connecting said key-levers with the drum, and the guide-sheaves over which said cords run.

The music-turner of my invention may be supported upon a special stand or pedestal, or it may be attached to the piano-case in a position convenient for the player to operate. In the drawings I have shown an embodiment adapted to be attached to or supported upon the piano, 1 being the inclosing casing for the principal parts of the mechanism, said casing comprising the base-plate 2, the front wall 3, the upper wall 4, the rear wall 5, and the end walls 6. Arms 7, secured to each end of the base-plate 2, have pivotally connected with their outer ends fingers 8, adapted to swing in a vertical plane, said fingers having upturned rear ends. The turner is secured to the piano-case by inserting the fingers 8 beneath the lower edge of the music-board.

A standard 9 is detachably mounted upon the casing 1 by means of two fingers 10, rigidly secured to said standard and adapted to lie within standing loops or keepers 11, fixed to the rear wall 5 of the casing, said standard being inclined rearwardly slightly with reference to the casing. The base-plate 2, the rear wall 5, the fingers 8, and the rear side of the standards 9 are covered with felt or a similar material to prevent marring the piano-case.

A post 12 is firmly fixed to the base-plate 2 and centrally thereof in a position slightly inclined to the rear, said post having a foot portion 13 and three arms 14, 15, and 16, said foot portion and arms extending perpendicularly to said post. A bearing-plate 17 is mounted upon the forward side of the standard 9. In the foot portion 13, the arms 14, 15, and 16, the upper wall 4 of the casing 1, and the bearing-plate 17 are formed alined bearing-openings 18, 19, 20, 21, 22, and 23, respectively, the opening 20 being slightly larger than the openings 18 and 19, the opening 21 larger than the opening 20, and the opening 22 larger than the opening 21. A shaft 24 is rotatably mounted in and extends through said series of bearing-openings. A double-grooved winding-drum 25 is fixed upon the shaft 24 between the foot portion 13 and the arm 14, and a similar drum 26, having fixed thereto the sleeve or tubular shaft 27 is rotatably mounted upon the shaft 24 between the arms 14 and 15, said sleeve 27 extending upwardly to a point near the bearing-plate 17. A drum 28, similar to the drums 25 and 26, is rotatably mounted upon the sleeve 27 between the arms 15 and 16 and has fixed thereto a sleeve 29, surrounding the sleeve 27 and extending through the openings 21 and 22 to a point above the upper wall 4 of the casing. Upon said sleeve 29 is rotatably mounted a sleeve 30, having fixed to its

lower end a winding-drum 31, said sleeve 30 extending through the opening 22 to a point above the wall 4.

A fixed shaft 32 is supported upon the inner side of the front wall 3 in blocks 33, and upon said shaft are pivotally mounted key-levers 34, 35, 36, 37, 38, 39, 40, and 41, the levers numbered 34 to 37 being arranged at the left of the longitudinal center of the casing 1 and the remaining levers at the right thereof. Openings 42 are formed in the front wall 3, through which said levers extend, the forward ends of said levers being provided with keys 34^a 35^a, &c., adapted to be engaged by a finger of the operator, and the rear ends thereof being connected with the drums upon the shaft 24 and the sleeves 27, 29, and 30 by means of cords or cables 43. The cords connected with the key-levers 34 and 41 are secured upon the periphery of the winding-drum 25, each lying in one of the grooves in said drum, and in like manner the levers 35 and 40 are connected with the winding-drum 26, the levers 36 and 39 with the drum 28, and the levers 37 and 38 with the drum 31. The cords 43 are adjustably secured to their key-levers by means of clamping-plates 44 and screws 45 in order that slack in said cords may readily be taken up. Sheaves 46, rotatably mounted upon the base-plate 2, the front plate 3, and the post 12, guide the cords 43 in their passage from the key-levers to the winding-drums. The key-levers may be held from endwise movement upon the shaft 32 in any suitable way. The means herein shown is coil-springs 47, surrounding said shaft and bearing against the blocks 33 and the key-levers for holding each lever against the side of the adjacent block.

The upper ends of the shaft 24 and sleeves 27, 29, and 30 support horizontal leaf-holding arms 48, each of which arms is adjustable in length, being made in two sections 48^a and 48^b, the section 48^a extending through standing loops 48^c on the section 48^b and being arranged to be fixed in any adjusted position by any suitable means. As herein shown said means comprises a spring-pressed locking-pin 48^d, carried by the section 48^b, adapted to enter any one of a series of openings 48^e in the section 48^a. At its free end each leaf-holding arm 48 carries a vertical arm 49, provided with suitable means for gripping the edge of a sheet of music, such as a plurality of spring-actuated clips 50, each comprising two jaws 51.

The first and last pages of the music are supported upon the standard by means of extensible arms 52, pivotally mounted upon the standard, their pivotal movement in one direction being limited by the stop 53. The arms 52 are sectional, as shown in Fig. 6, one section sliding within loops upon the other section and the sections being secured in adjusted relation by means of a set-screw 54. At the outer end of each arm 52 is a clip 50 for gripping the upper outer corners of the first and last pages of the music.

The folded or bound edges of the music are releasably secured to the standard 9 by means of two spring-clips 55, each comprising a fixed jaw 56, a pivoted jaw 57, and a spring 58, tending to close the jaw 57 against the fixed jaw 56.

In use the music-turner is mounted upon the piano and the sheet-music secured upon the standard by means of the clips 50 and 55, the arms 48 and 52 being adjusted in length to correspond with the size of the sheets. Assuming that all of the intermediate sheets or leaves secured to the arms 48 are at the right of the player, the player turns said sheets successively from right to left, as required, by depressing the keys 34^a, 35^a, 36^a, and 37^a. If desired, any sheet thus turned may be restored to its original position by depressing the corresponding one of the keys 38^a, 39^a, 40^a, and 41^a. The pivotal movement of one of the key-levers rotates its shaft or sleeve 24, 27, 29, or 30 by means of the connecting-cord 43, unwinding said cord from the winding-drum and winding up on said drum the cord connecting said drum with the opposite corresponding key-lever.

The music-turner may be reduced to a small compass by detaching the standard 9 from the casing 1 and folding the arms 52 together upon their pivots.

I claim as my invention—

1. In a sheet-music turner, in combination, a rotatable shaft; a winding-drum fixed thereon; a sleeve surrounding said shaft and having fixed thereto a winding-drum; two key-levers for each of said winding-drums; a flexible connection between each lever and its winding-drum; and leaf-holding means attached to said shaft and said sleeve at points removed from said winding-drums.

2. In a sheet-music turner, in combination, a rotatable vertical shaft; a winding-drum fixed on said shaft; a sleeve on said shaft carrying a winding-drum, each of said winding-drums having two grooves in its periphery; a horizontal shaft; two key-levers on said shaft for each of said winding-drums, a cord connecting each of said levers with its winding-drum, each cord lying in one of the grooves of said drum and being wound in opposite directions thereon; and two leaf-holding arms, one fixed to said vertical shaft and the other to said sleeve.

3. In a sheet-music turner, in combination, a casing; a post therein having a foot portion and a plurality of arms; a vertical shaft rotatably supported by said foot portion and said arms; a winding-drum fixed on said shaft, lying between said foot portion

and one of said arms; a sleeve surrounding said shaft and bearing a winding-drum lying between two of said arms; a horizontal shaft supported in said casing; two levers upon said shaft for each of said winding-drums; a cord connecting each of said key-levers with its winding-drum; guide-sheaves rotatably mounted in said casing for said cords; and two leaf-holding arms, one secured to said vertical shaft and the other to said sleeve.

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