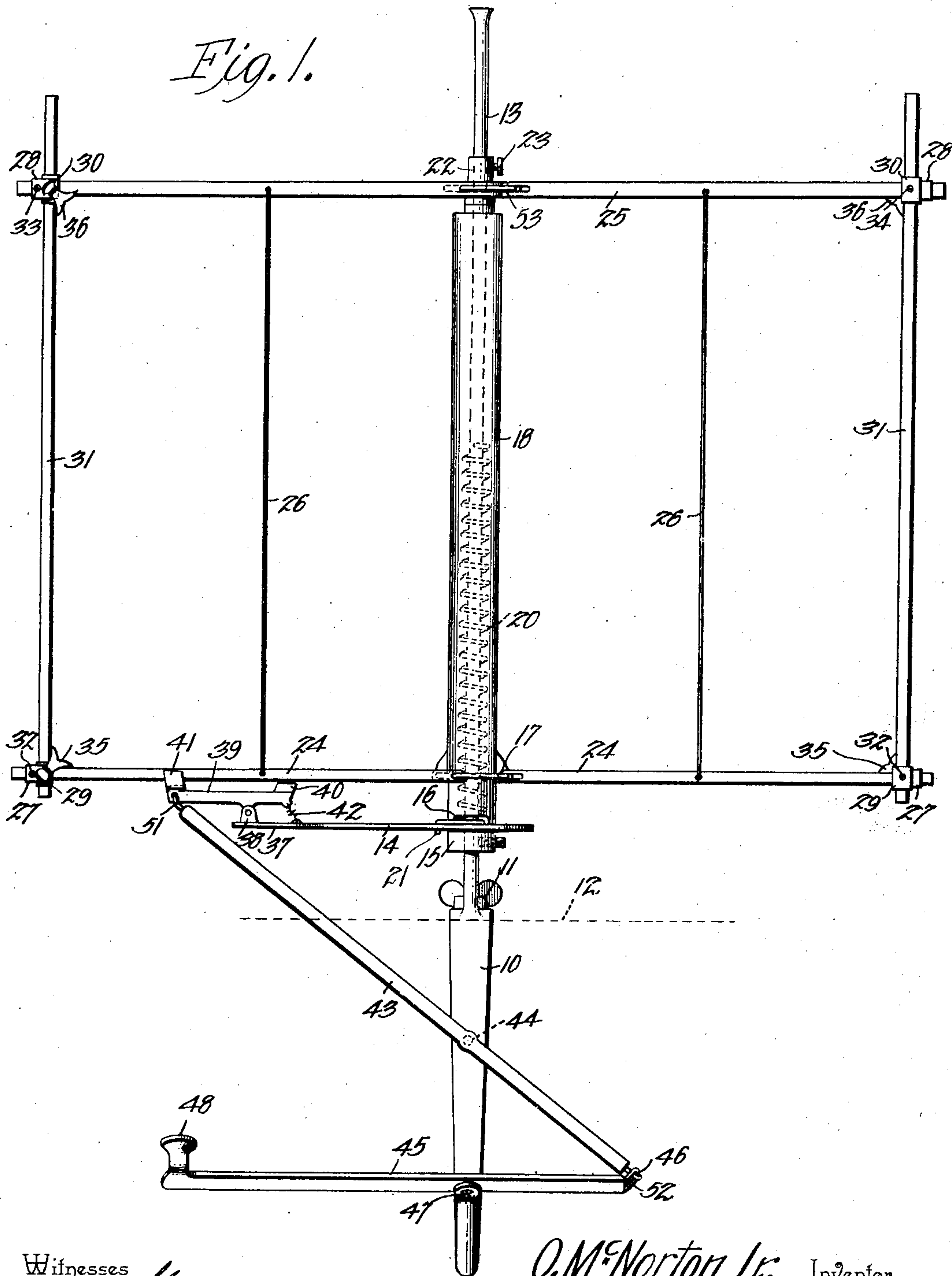


O. McNORTON, JR.
MUSIC HOLDER AND TURNER.

APPLICATION FILED AUG. 5, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



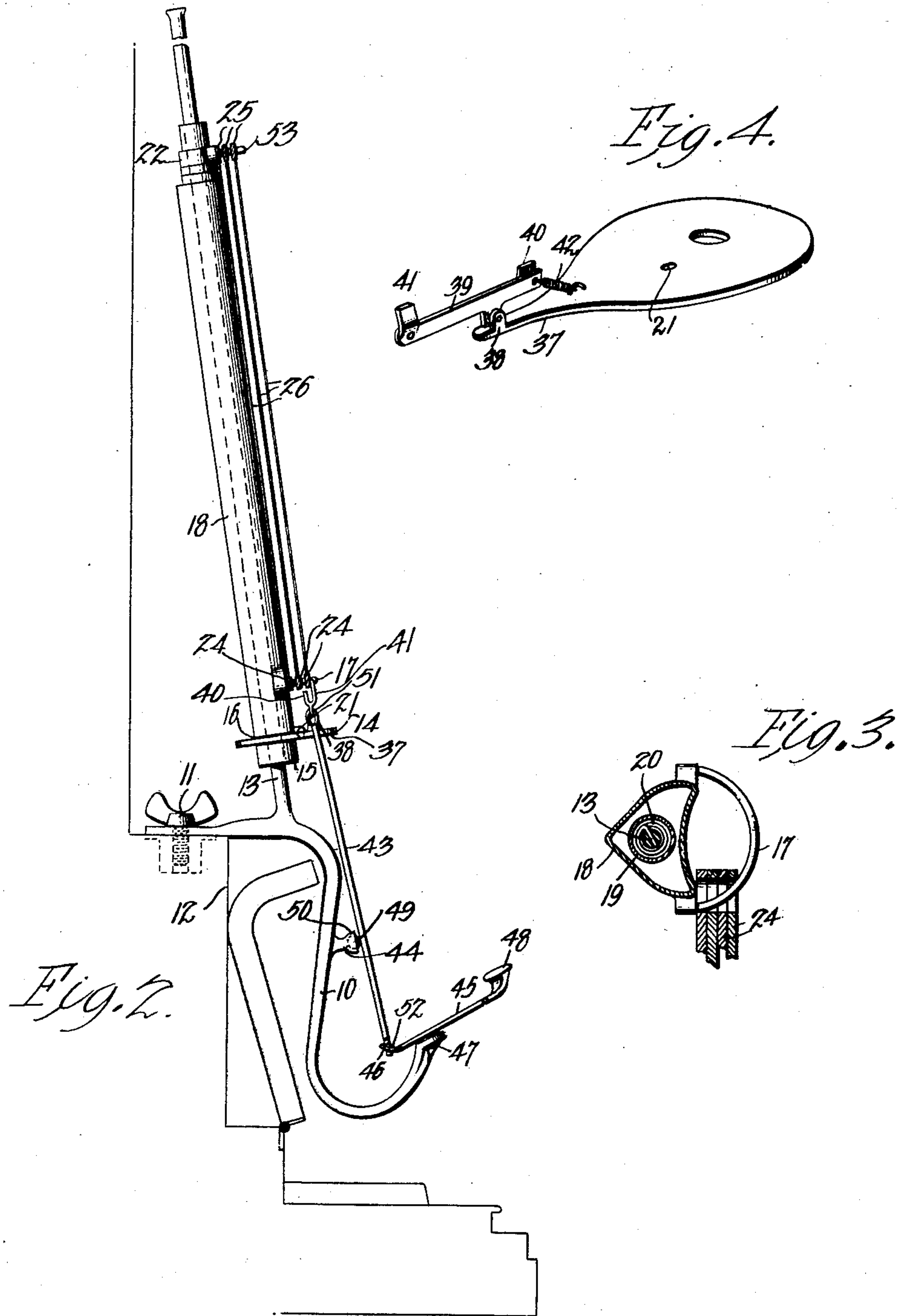
Witnesses
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2 SHEETS—SHEET 2.



Witnesses
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O. McNorton, Jr., Inventor.
by C. H. Woodward
Attorneys

UNITED STATES PATENT OFFICE.

ORVILLE MCNORTON, JR., OF GLEN JEAN, WEST VIRGINIA.

MUSIC HOLDER AND TURNER.

SPECIFICATION forming part of Letters Patent No. 739,904, dated September 29, 1903.

Application filed August 5, 1902. Serial No. 118,532. (No model.)

To all whom it may concern:

Be it known that I, ORVILLE MCNORTON, Jr., a citizen of the United States, residing at Glen Jean, in the county of Fayette and State of West Virginia, have invented a new and useful Music Holder and Turner, of which the following is a specification.

This invention relates to devices employed in connection with musical instruments, more particularly pianos and organs, for the purpose of supporting the music in a convenient position for the performer and adapted to be turned when required without interrupting the movements of the player or retarding the action, and has for its object the production of a device which may be readily operated by the hand of the performer or adapted to be operated by the foot or knee, as may be preferred; and the invention consists in certain novel features of the construction, as hereinafter shown and described, and specified in the claims.

In the drawings illustrative of the invention, Figure 1 is a front elevation. Fig. 2 is a side elevation. Fig. 3 is an enlarged transverse section through the supporting-standard. Fig. 4 is a perspective view, enlarged, of the trip-plate detached.

The device will preferably be attached centrally to the front of the piano and so located that the music will be supported in substantially the same position as when resting upon the ordinary music-rack. It may be mounted in any suitable manner, and the mounting may be varied to adapt the device to pianos, organs, or other similar instruments of different styles, makes, and forms. The fastening means may be modified and varied to suit circumstances, and I do not, therefore, wish to be limited to any specific form or construction of the means whereby the device will be attached to the instrument. Different forms of instruments may require modifications in the fastening means, and I therefore claim the right to modify these fastening means as required without departing from the principle of the invention.

For the purpose of illustration a conventional form of bracket 10 is shown attached by a tap-screw 11 to the frame 12 of the piano, a sectional detail of the latter being shown

for the purpose of illustration. Rising from the bracket 10 is a standard 13 in the form of a rod, as shown. The rod 13 is a fixture, and supported upon this rod is a sleeve 15, having an annular cavity 16 near its upper end, in which a plate 14 is supported rotatively, the annular cavity receiving the plate and firmly supporting it and effectually preventing sagging when force is applied to rotate it. Rising above the sleeve 15 is a casing 18, concaved on its front side to receive and support the backs of music-books and the sheets of music and convexed on its rear side and through which the rod 13 passes vertically, as shown. Within the casing 18 is located another casing 19, preferably tubular in form, and affording a support for a coiled spring 20, surrounding the rod 13 within the tubular casing 19. The upper end of the spring 20 is engaged to the rod 13 within the casing 19, and the lower end of the spring is carried out through a horizontal slot in the lower edge of the casing 18 just above the plate 14 and firmly engaged thereto at 21, as shown. By this simple means it will be understood that the spring 20 exerts its force to maintain the plate 14 normally in one position. Near its lower end the casing 18 is provided with a segmental guide-bar 17, disposed at right angles to the casing and extending forwardly of the device and affording means for receiving and guiding the music-turning frame.

The standard 13, the sleeve 15, and the two-part casing 18 19 are all firmly united, as will be understood.

The segmental guide 17 has its counterpart at 53 above the casing 18 supported by a sleeve 22, the latter being provided with a set-screw 23, by which the collar may be firmly secured to the standard 13 after it has been properly adjusted. Movably coupled to the segmental guides 17 and 53 are a plurality of arms 24 and 25, any required number being employed, each opposite pair of the arms being adjustably coupled at one or more points by tie-wires 26 to afford intermediate support to the sheets of music when in position upon the device and prevent the said leaves from being forced out of position when said leaves are turned.

Attached to each of the arms 24 and 25 are sleeves 27 and 28, slidably disposed thereon. Each of the sleeves 27 28 is provided, respectively, with a reversely-disposed sleeve 29 30, the latter adapted to receive and adjustably support the vertical bars 31. The sleeves 27 28 will be provided with set-screws 32 33, respectively, by which they may be adjusted upon their respective bars 24 25 to any desired point, while the sleeves 30 will likewise be provided with set-screws 34, by which they may be adjusted vertically upon the bars 31, and thus correspondingly vertically adjust the bars 25. By this means it will be understood that by adjusting the sleeves 30 vertically upon the bars 31 and the sleeve 22 vertically upon the rod 13 above the casing 18 the bars 25 may be correspondingly adjusted vertically with relation to the bar 24, and at the same time it will be obvious that the bars 31 may be adjusted horizontally along the bars 24 25. Each of the sleeves 27 28 will be provided with a spring-clamp 35 36, adapted to engage the outer corners of a sheet of music or the outer corners of a leaf of a book which it is desired to turn with the device, and by the ability to adjust the bars 31 25 it will be readily understood the sleeves 35 36 may be adjusted to correspond to any size of a sheet of music or any-sized leaf of a book. By this arrangement the coupled bars 24 25 are free to be turned around upon the guides 17 53 and consecutively reversed in position.

When a piece of music is to be connected in place upon the device, the individual sheets are connected to the clamps 35 36 by their outer corners, while their folded central portions are placed opposite the casing 18 and within its concaved outer surface.

When a music-book is to be employed or music bound into a book or portfolio, the back of the book or portfolio is placed in the concaved outer surface of the casing 18 and the leaves of the music which is to be played connected in successive order to the clamps 35 36, as many of the bars 24 25 31 and their respective sleeves and clamps employed as required, the remainder of the bars lying quiescent or inoperative. The sheets of music or the leaves of the book are then in position to be turned when required, and a mechanism operative at the will of the performer is attached to the device and forms a part of the invention and will be described as follows: The plate 14 is provided with an extension, as at 37, which latter is provided with ears 38 for pivotally supporting a short arm 39, the arm having a short end extending inward toward the center of the rod 13 and turned upward, as at 40, while the outer end of the arm is extended in the opposite direction and to a greater distance beyond the center 38 and turned upward, as at 41, to a higher point than the opposite end 40, as shown. The upturned portions 40 and 41 are

not in radial alinement with the standard 13; but the longer end 41 is in advance of the shorter end 40, as indicated in Fig. 4. Attached to the end 40 is a spring 42, exerting its force to maintain this end depressed and the longer end elevated. When elevated, the end 41 will project across the path of the arm 24, and when the end 41 of the member 39 is depressed the end 40 will be raised into the path of the arm 24. Pivotally engaging the bracket 10 intermediately of its length, as at 44, is a lever 43, the upper end of which movably engages the outer end of the bar 39. The lever 43 is also pivotally connected to another lever 45 at 46, and said lever 45 is pivotally connected at 47 to the bracket 10. At the free end of the lever 45 is an operating-knob 48, convenient to the hand of the performer. The pivotal joints between the levers 43 45 and bracket 10 are preferably of the ball-and-socket order or so arranged that the levers will have free movement in all directions to prevent cramping the parts when operated, and the joints between the levers 43 45 and between the lever 43 and arm 39 will preferably be yieldable loose links, as by their peculiar arrangement the parts are constantly changing their relative angles when operated.

The universal-joint feature is illustrated in Figs. 1 and 2, consisting in spherical knobs 47 49, one on each lever, the knob 49 engaging a socket 50 upon the central portion of the bracket 10, while the knob 47 engages a corresponding socket 53 on the lower end of the bracket, as shown.

The joint between the lever 43 and arm 39 is formed by interlocking loose links 51, and the joint between the levers 43 45 is formed by similar loose links 46 52. By this simple means it will be obvious that when the lever 45 is swung around from left to right the upper end of the lever 43 will correspondingly receive the same motion, carrying the plate 14 with it. It will be noted that the lever 45 and plate 14, with its extension 37, move in parallel lines, and that consequently the longer end of the short arm 39 will be drawn downward by the action of the lever 43 as the plate 14 is swung around and project the short end 40 upward, causing it to engage the outermost of the arms 24 and carry the latter, together with its attachments, around with it, reversing its position. Then when the knob 48 is released the spring 20 will immediately return the plate 14 and its associated levers 43 45 to their normal position, and the spring 42 will cause the end 41 of the arm 39 to extend upward in the path of the next arm 24. Then when another sheet is to be turned the same action is repeated, and so on as often as may be required. By this simple means the arms 24, together with their connections and attachments, are picked off successively at each movement of the knob 48, and the device resets itself as often as there are sheets of the music connected to the

clamps. The knob 48 may be placed in position convenient to the foot of the operator, if preferred, or by slight modifications it may be arranged to be operated by the knee or
5 ankle.

The device may be constructed of any size or of any desired material, but will preferably be of steel and as light as will be suitable with the requisite strength.

10 Having thus described my invention, what I claim is—

1. A device of the class described, comprising a standard, a plurality of vertically-aligned horizontal bars movably connected by one
15 end to the standard near the extremities thereof, sleeves engaging the free ends of the bars, and a connecting-bar engaging the sleeves of two opposite and vertically-aligned bars, said connecting-bar being longitudinally adjustable on the horizontal bars, the upper bars
20 being vertically adjustable on the connecting-bar and standard, and means for successively turning said bars.

2. In a music-leaf holder and turner, a standard, holders for the sheets of music movably
25 supported upon the standard, a spring-operated plate rotatively engaging said standard, a spring-controlled trip-arm pivotally supported on said plate, said arm being provided
30 with terminal projections adapted to be extended alternately into the paths of said holders, one in advance thereof and the other in the rear when said arm is operated, and means under the control of the performer for operating
35 said pivoted trip-arm and rotating said plate.

3. In a music-leaf holder and turner, a standard, holders for the sheets of music movably supported upon the standard, a spring-operated plate rotatively engaging said standard,
40 a spring-supported trip-arm pivoted to said plate, said arm being provided with terminal projections adapted to be extended successively into the paths of said holders, one in advance thereof and the other in the rear
45 when said arm is operated, an operating-lever under the control of the performer, and a rod connecting said lever and said pivoted trip-arm to depress said trip-arm and operate
50 said plate.

4. In a music-leaf holder and turner, a standard, holders for the sheets of music movably supported upon the standard, a spring-operated plate rotatively engaging said standard
55 and extended at one side, a trip-arm pivotally mounted upon the extended portion intermediately of its ends and provided with a projection extending from one end into the paths of said holders and in advance thereof, and a
60 projection extending from the opposite end of said pivoted arm and adapted to project into the paths of the holders in the rear thereof when said trip-arm is operated, a spring disposed to maintain said trip-arm normally
65 with its inner end depressed, and means un-

der the control of the performer for operating said trip-arm and rotating said plate, substantially as described.

5. In a music-leaf holder and turner, a standard, holders for the sheets of music movably
70 supported upon the standard, a spring-operated plate rotatively engaging said standard, a spring-retained trip-arm movably mounted upon said plate said arm being provided with terminal projections one adapted to be extended
75 successively into the paths of said holders in advance and the other in the rear thereof when the arm is operated, an operating-lever under the control of the performer, a rod pivoted intermediately of its length and
80 flexibly united by its ends respectively to said operating-lever to said trip-arm, whereby by the action of said operating-lever said trip-arm is depressed and said plate rotated to cause said holders to be successively re-
85 versed in position, substantially as described.

6. In a music-leaf holder and turner, an outer casing having a concaved outer surface, a standard secured in said casing and extending beyond the ends thereof, an inner tubular
90 casing between said standard and said outer casing, music-sheet holders movably supported upon said outer casing at their lower parts and adjustably engaged to said standard above said outer casing, a plate rotatively
95 engaging said outer casing beneath said holders, a coiled spring inclosing said standard within said inner tubular casing and connected by one end to said standard and the other end engaging said plate and adapted to
100 maintain said plate in its normal position, means carried by said plate for successively engaging said holders, and means under the control of the performer for intermittently operating said plate.
105

7. In a music-leaf holder and turner, a standard, holders for the sheets of music movably supported upon the standard, a spring-operated plate rotatively engaging said standard,
110 a spring-controlled trip-arm pivotally mounted upon said plate intermediately of its ends, and having a projection on one end adapted to be extended successively into the paths of said holders in advance thereof and with a
115 projection on its other end adapted to be successively extended into the paths of the holders in the rear thereof when said trip-arm is operated, substantially as described.

8. In a music-leaf holder and turner, a standard, holders for the sheets of music movably
120 supported upon the standard, a spring-controlled plate rotatively engaging said standard, a spring-controlled trip-arm pivotally mounted upon said plate intermediately of its ends, said arm being provided with terminal
125 projections adapted to be extended successively into the paths of said holders one in advance thereof and the other in rear when said trip-arm is operated, and means for operating said plate and trip-arm consisting
130

of an operating-lever under the control of the performer, a rod pivoted intermediately of its length and united by its ends respectively to said operating-lever and to said
5 pivoted trip-arm, with the pivotal means for said levers and rods consisting of studs in one member having globular heads engaging corresponding sockets in the other member, whereby the requisite free movement in all

directions is obtained, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ORVILLE MCNORTON, JR.

Witnesses:

ROBERT ESSE,
J. J. CONVOY.