

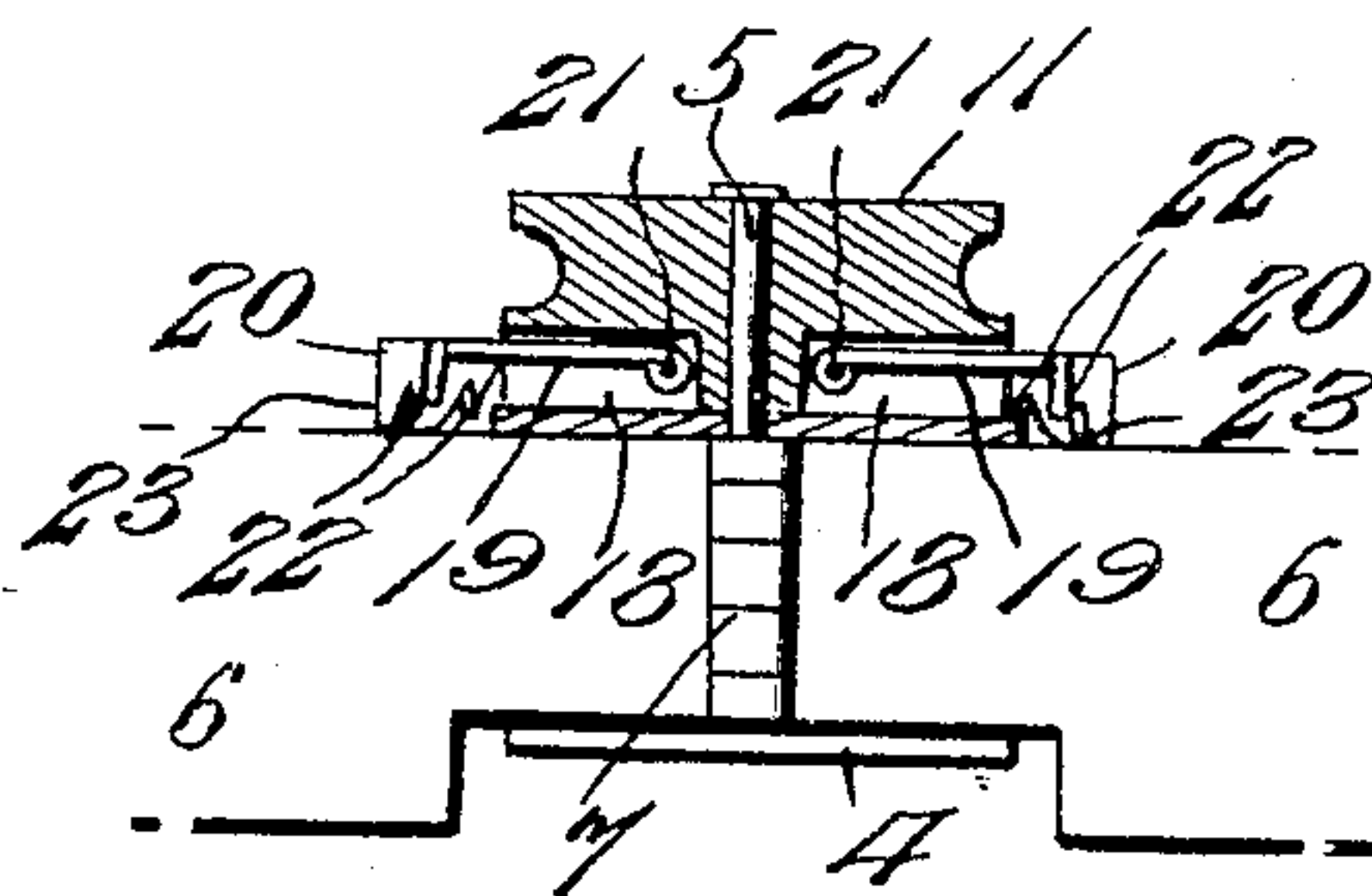
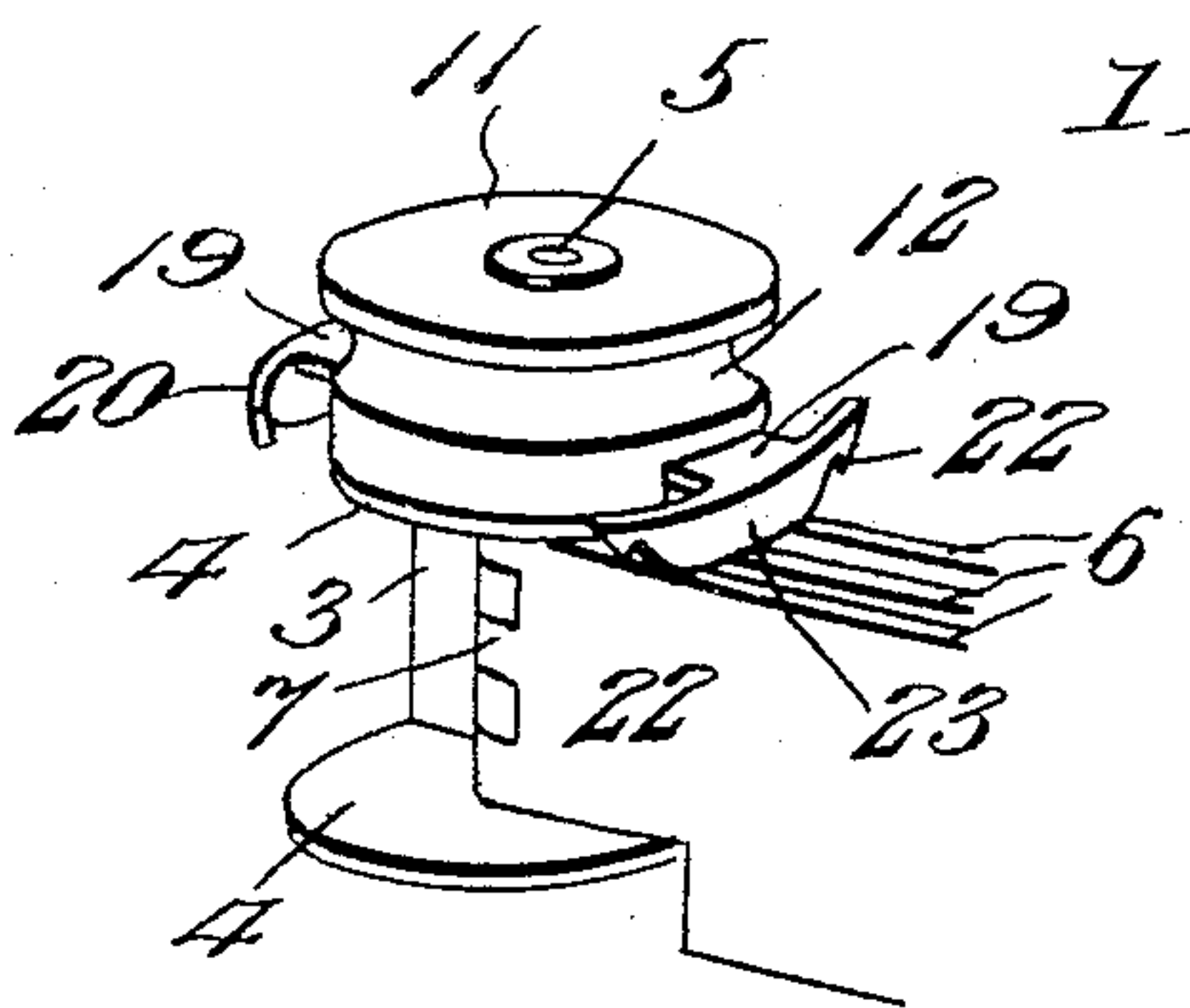
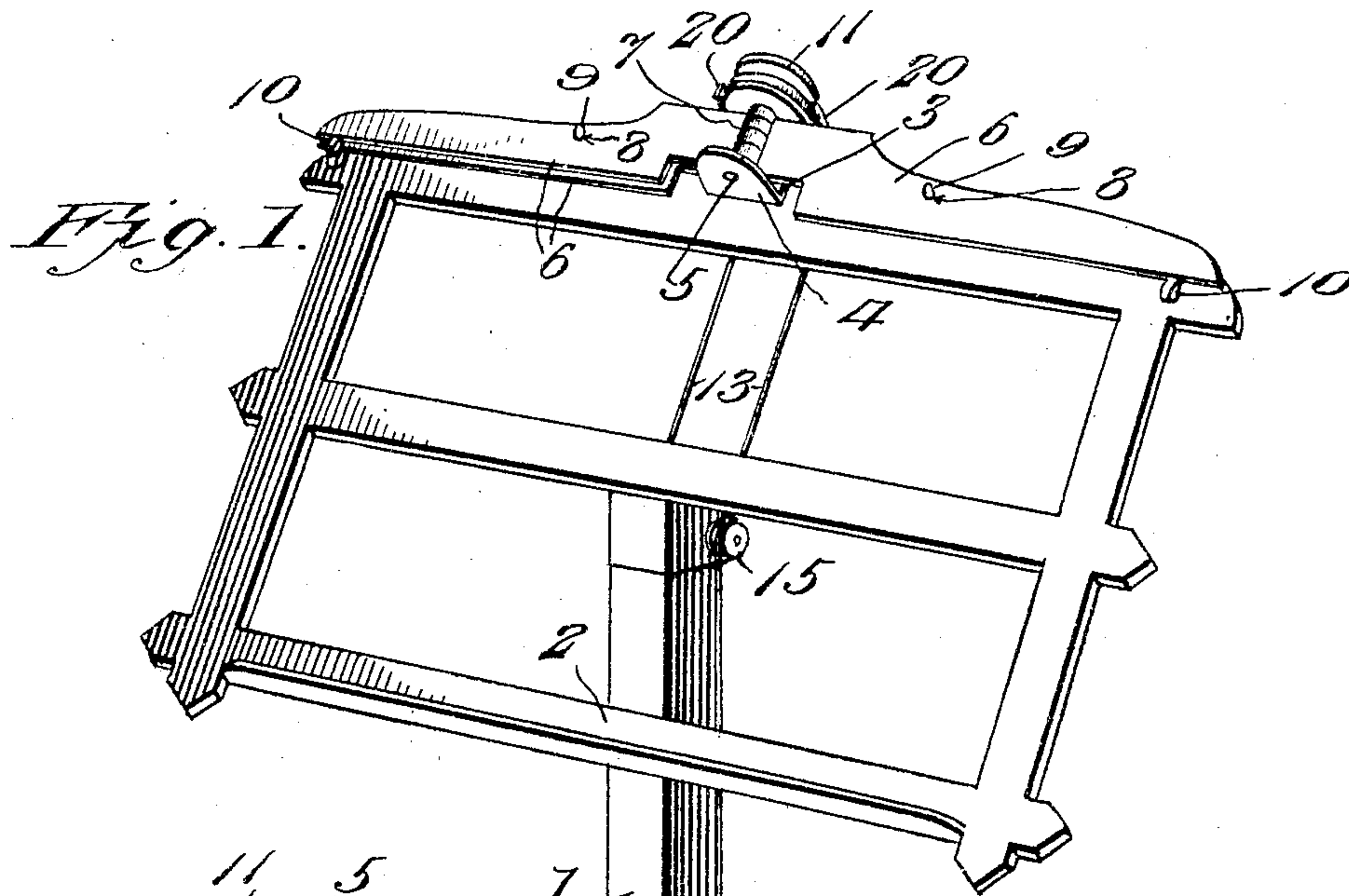
No. 771,978.

PATENTED OCT. 11, 1904.

C. F. GREINER.
MUSIC LEAF TURNER.
APPLICATION FILED JUNE 20, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:
Wm. Koerth.
Chas. S. Hoyer.

INVENTOR
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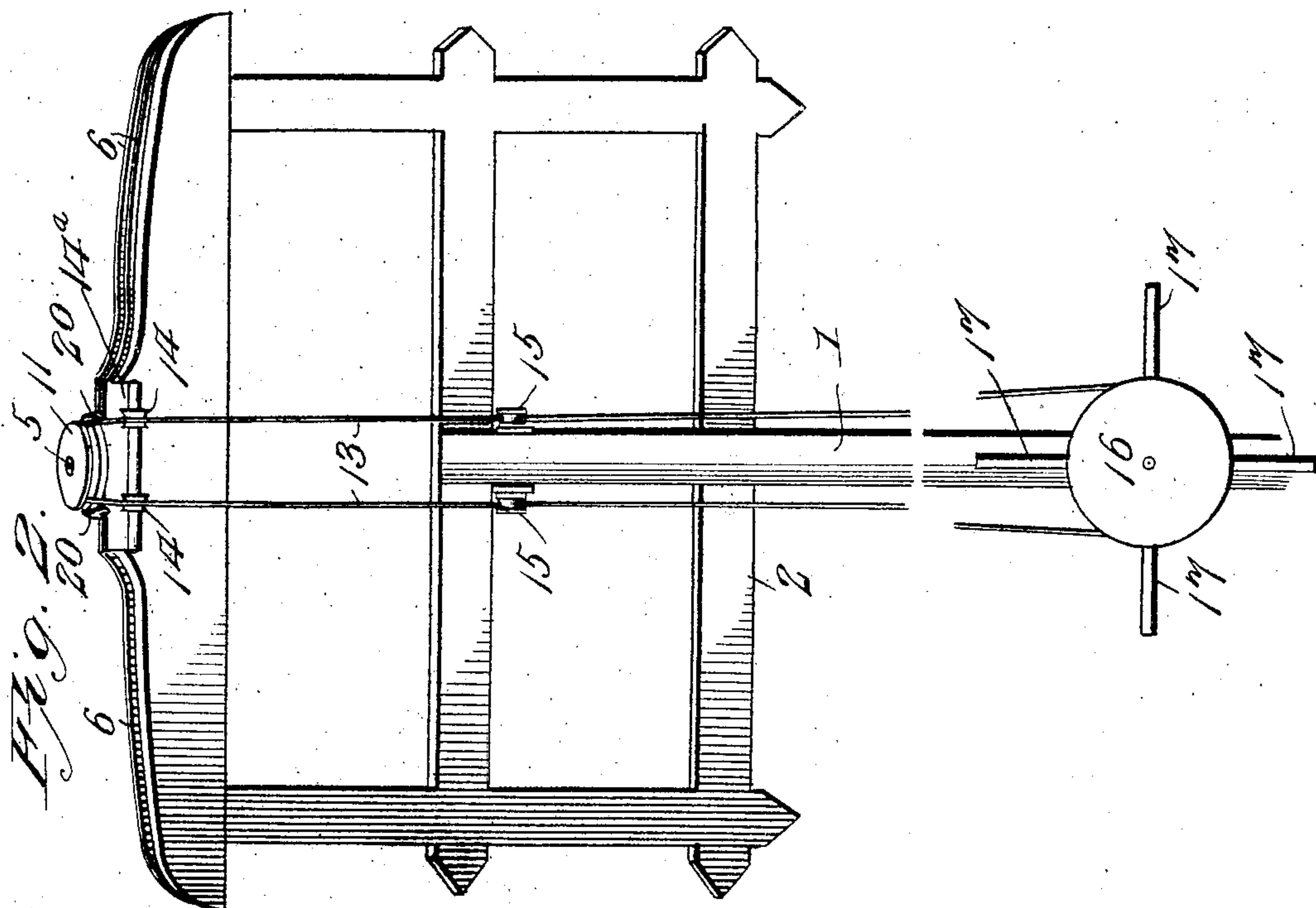
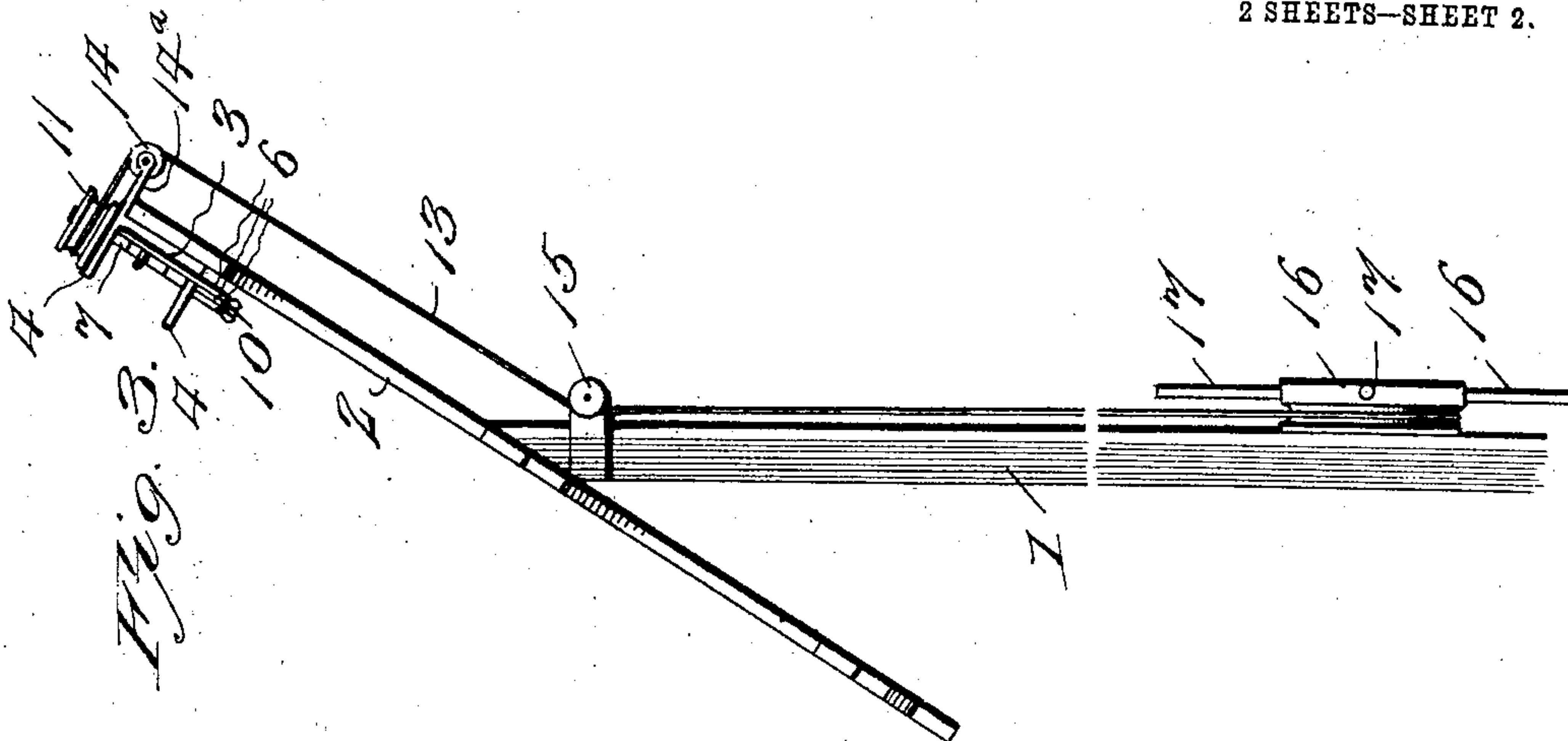
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UNITED STATES PATENT OFFICE.

CHARLES F. GREINER, OF ST. LOUIS, MISSOURI.

MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 771,978, dated October 11, 1904.

Application filed June 20, 1903. Serial No. 162,429. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. GREINER, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented
5 new and useful Improvements in Music-Leaf Turners, of which the following is a specification.

This invention relates to music-leaf turners, and has for its object to produce a simple,
10 cheap, and effective device of the character referred to by means of which the several leaves or sheets of the piece of music may be individually and successively turned over from left to right or from right to left, the op-
15 erating mechanism being adapted to turn the leaves as well in one direction as the other.

The music-leaf turner hereinafter described may be mounted upon a stand or music-rest of any description either designed to be
20 placed upon the floor or the piano or organ or other musical instrument.

With the above general objects in view the invention consists in the novel construction, combination, and arrangement of parts, as
25 hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a music stand or rest, showing the music-leaf turner of this inven-
30 tion applied thereto. Fig. 2 is a rear elevation of the same. Fig. 3 is a side elevation thereof. Fig. 4 is a detail perspective view of the rotary head, catches, and portions of the leaf-turning arms. Fig. 5 is a sectional
35 view of the same, taken in line with the combined spindle and hinge-pin.

Like reference-numerals designate corresponding parts in all the figures of the drawings.

40 Referring to the drawings, I have therein illustrated an ordinary music stand or rest comprising an upright 1 and a table or rest member 2, upon which the sheet-music is placed.

45 In carrying out the present invention a bracket 3 is fastened to the upper portion of the music-rest 2, said bracket comprising the parallel ears or flanges 4, through which passes a combined hinge-pin and spindle 5.
50 Connected with the hinge-pin 5 are leaf-turn-

ing arms 6, which are preferably constructed of pieces of sheet metal having the necessary stiffness to turn the sheets one by one. The arms 6 are provided at their inner ends with sleeves or knuckles 7, which receive the hinge-
55 pin 5, the hinge being similar to an ordinary rule-joint, so that the arms may be folded successively upon each other in either direction. Each of the arms is provided with a
60 hole 8, which receives a stay-pin 9, two of such pins being employed and arranged at opposite sides and equidistant from the hinge-pin 5, so that when the arms reach their limit of movement in either direction they are im-
65 paled upon the pins 9, so as to prevent any undue strain being brought to bear on the hinge. Each arm is provided with one or more spring-clasps 10 for engaging the upper
70 edge of one of the leaves in primarily arranging the sheet-music, so that each page or sheet of music is engaged by a separate and independent arm 6.

Mounted upon the upper end of the combined spindle and hinge-pin 5 is a rotary head 11 resembling an ordinary grooved pulley,
75 the same being provided with a peripheral groove 12, in which is received an endless operating-cord 13, which extends from the rotary head 11 backward around guide-pulleys
80 14, supported by a rearwardly-projecting plate 14^a, thence downward in front of direction-pulleys 15 to and around a relatively large operating pulley or wheel 16, the latter
85 being provided with a series of rotating arms or spokes 17, adapted to be engaged by the foot or finger of the operator for the purpose of revolving the wheel or pulley 16 and im-
90 parting movement to the cord 13 and thereby to the rotary head 11. It will be seen that the operating-cord, as well as the guide and direction pulleys, is arranged behind the mu-
95 sic-rest, so as not to interfere with the music and the turning of the same.

The rotary head 11 is provided with diametrically opposite recesses 18, in which are
95 received the shanks or stems 19 of a pair of oppositely-arranged catches 20, the inner ends of the shanks 19 being pivoted, as shown at 21, which allows the catches 20 to descend by
100 gravity. Each catch comprises a pair of catch

lips or hooks 22, arranged at opposite ends thereof, while between the hooks 22 the catch is provided with a depressed body portion 23, which normally rests and moves across the upper edges of the leaf-turning arms 6, as best illustrated in Figs. 4 and 5. As the rotary head 11 is turned by the means hereinabove described one or the other of the catches 20 is moved across the upper edge of the arms 6. Just as the depressed portion 23 of the catch passes out of engagement with the arms 6 the rear end catch lip or hook 22 descends and engages the outermost leaf-turning arm, and in the further rotation of the head 11 the said outermost arm is swung through a half-circle, carrying with it the music-leaf attached thereto by the clasp 10. In this way all of the arms are successively swung from one side to the other, and it will be seen that the device will operate with equal facility or certainty in either direction, so that the leaves may be successively turned from right to left, or vice versa, and in case a leaf is turned too soon it may be immediately turned back by the mechanism described. Each of the lips or hooks 22 of each catch 20 alternately occupies a forward and rearward position of the structure, accordingly as the catch is moved in one direction or the other, so that the catch on the left-hand side is operated to carry one of the arms to the right. The then rearward lip engages the arm, as already described. Meanwhile the catch on the right-hand side is moved around reversely and takes the place of the catch first named, and on operating the said first-named catch rearwardly to carry the arm to the left the operation is substantially the same as before; but the now forward (previously the rearward one) lip of this catch slips past the arm, the latter being engaged by the now rearward (previously the forward one) lip of the catch. The catch 23 will not be prevented from being swung to the rear by the lip 22 catching on the last arm 6 by the plate 14^a, over which it freely moves and holds up said catch until the latter is in position to clear the same, when the catch will immediately gravitate and engage said arm. The same is equally true of the catch 20, which likewise moves over the plate 14^a.

While the music-leaf-turning device hereinabove described has been shown applied to an ordinary music-stand, it will be understood that said device is applicable to any form of music-rest whether the same be constructed to stand upon the floor or piano or form a part of the piano or organ or other musical instrument. I therefore do not desire to be limited to the exact arrangement hereinabove shown and described and accordingly reserve the right to make such changes in the form,

proportion, and minor details of construction as properly fall within the scope of the appended claims.

Having thus described the invention, I claim as new—

1. A music-leaf turner, comprising a series of leaf-turning arms, a rotatable head in proximity to the arms, means for operating the head at will and duplicate movable catches supported by the head for successively actuating the arms, each of said catches being formed with a depressed portion normally resting across the upper edges of the arms, and said portion having at each end thereof a lip for engaging said arms.

2. A music-leaf turner, comprising a series of leaf-turning arms, a rotatable head in proximity to the arms, a cord and pulley for operating the head at will, and duplicate movable catches supported by the head for successively actuating the arms, each of said catches being formed with a depressed portion normally resting across the upper edges of the arms, and said portion having at each end thereof a lip for engaging said arms.

3. A music-leaf turner, comprising a series of leaf-turning arms, a hinge-pin on which all of the arms turn, a rotatable head mounted on one end of the pin, means for operating the head at will, and duplicate movable catches supported by the head for successively actuating the arms, each of said catches being formed with a depressed portion normally resting across the upper edges of the arms, and said portion having at each end thereof a lip for engaging said arms.

4. A music-leaf turner, comprising a series of leaf-turning arms, a rotatable head in proximity to the arms, means for operating the head at will and a movable catch supported by the head for successively actuating the arms, said catch being formed with a depressed portion normally resting across an edge of the arms, and said portion having at each end thereof a lip for engaging said arms.

5. A music-leaf turner, comprising a series of leaf-turning arms, a rotatable head in proximity to the arms, a cord and pulley for operating the head at will, and a movable catch supported by the head for successively actuating the arms, said catch being formed with a depressed portion normally resting across an edge of the arms, and said portion having at each end thereof a lip for engaging said arms.

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

CHARLES F. GREINER.

Witnesses:

HENRY F. GILL,
W. B. UPTON.