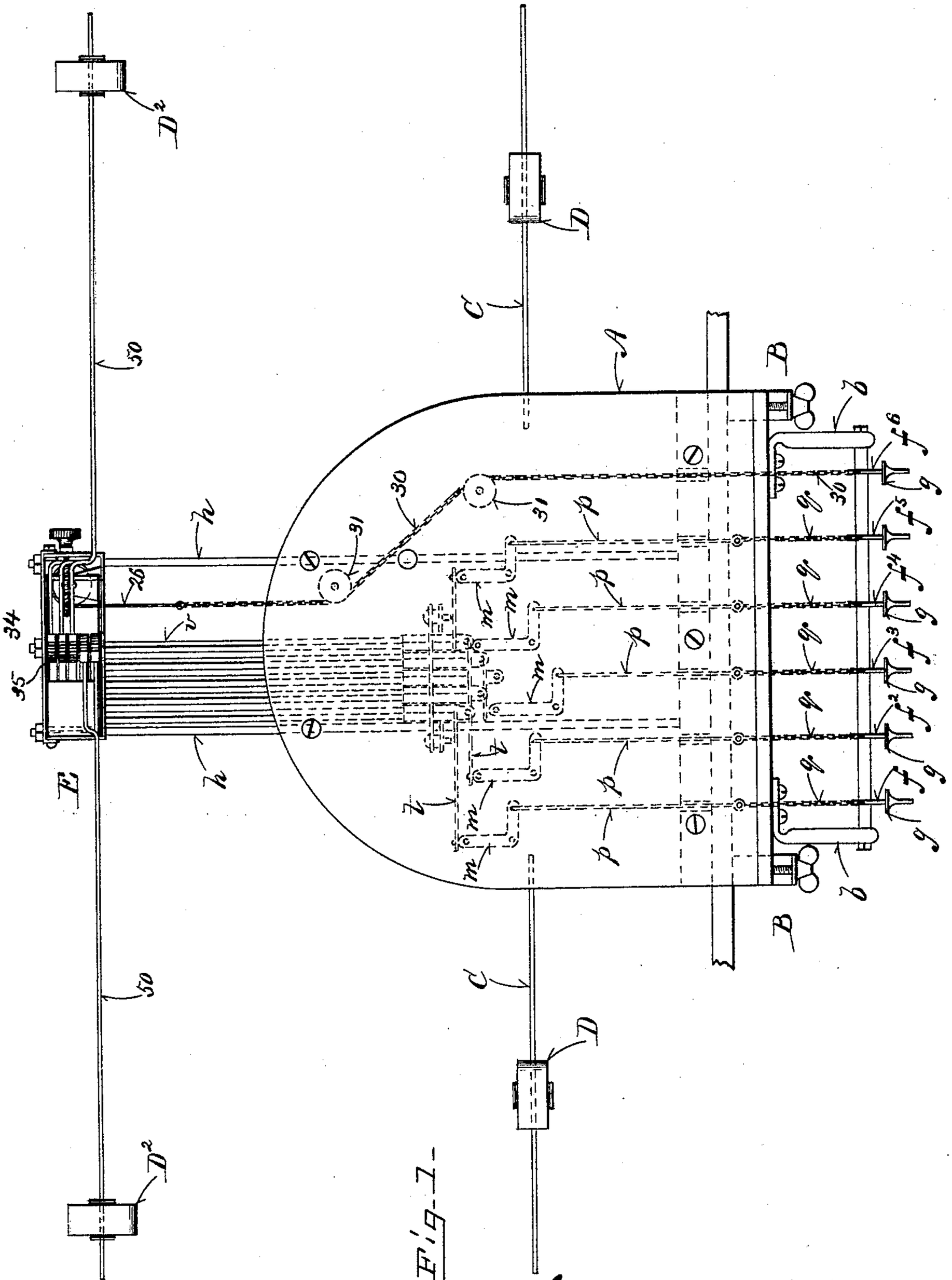
(No Model.)

2 Sheets—Sheet 1.

C. P. HOLLIS.

MUSIC TURNER.

No. 520,207. Patented May 22, 1894.



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(No Model.) 2 Sheets—Sheet 2.

C. P. HOLLIS.

MUSIC TURNER.

No. 520,207. Patented May 22, 1894.

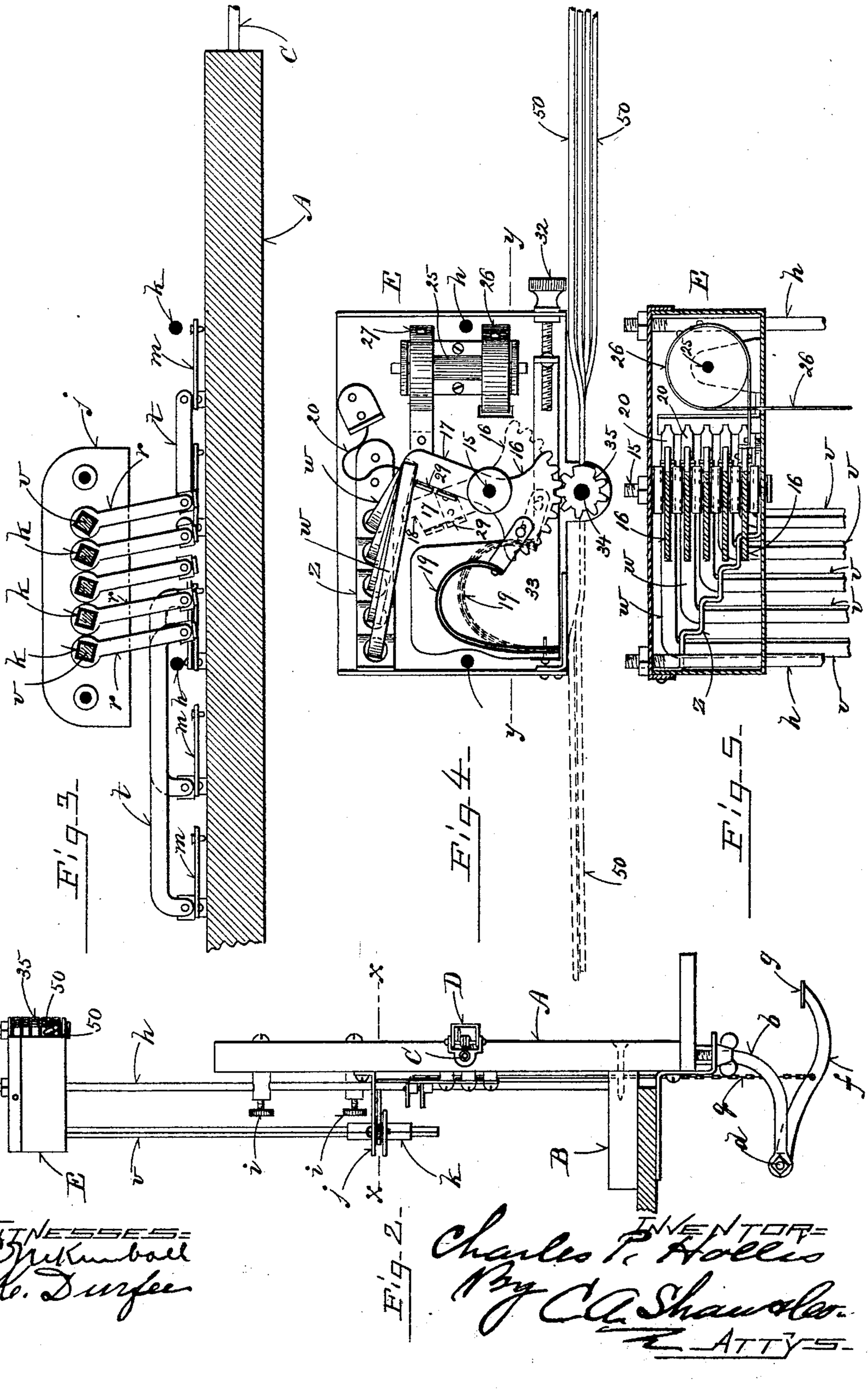

FIG. 3.

FIG. 4.

FIG. 5.

FIG. 2.

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UNITED STATES PATENT OFFICE.

CHARLES P. HOLLIS, OF BOSTON, MASSACHUSETTS.

MUSIC-TURNER.

SPECIFICATION forming part of Letters Patent No. 520,207, dated May 22, 1894.

Application filed January 8, 1894. Serial No. 496,140. (No model.)

To all whom it may concern:

Be it known that I, CHARLES P. HOLLIS, of Boston, in the county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Music-Turners, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation of my improved music turner; Fig. 2 an edge elevation of the same; Fig. 3 a horizontal section taken on line, *x*, *x*, in Fig. 2; Fig. 4 a top plan view enlarged, the top cap being removed; and Fig. 5 a vertical section taken on line, *y*, *y*, in Fig. 4.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

My invention relates especially to a device for turning sheet music on a piano; and it consists in certain novel features hereinafter fully set forth and claimed, the object being to produce a simple, cheap and effective device of this character.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the plate or music-rack, which may be of any suitable form and is attached by clamps, B, to the ordinary rack of the piano. Projecting laterally and horizontally from each side of the plate, A, there is a rod, C, which is detachably secured to said plate and upon which adjustable spring catches or clamps, D, are mounted, said clamps being designed to hold the covers of a sheet-music from accidentally turning. In hangers, *b*, pendent from the lower edge of the rack, A, there is a rock-shaft, *d*, mounted. On said shaft a series of levers, *f*, f^2, f^3, f^4, f^5, f^6, are fast. Each of these levers projects horizontally under the rack and has a finger piece, *g*, in position convenient to be struck by the player. Two vertical standards, *h*, are secured in the clamp, B, at the rear of the rack and support the turning mechanism proper arranged in a box, E, at the top of said standard. Said standards are detachable and are held by set-screws, *i*. In a bracket, *j*, secured to the back of the rack a series of squared tubes, *k*, are independently rotatable, said tubes corresponding respectively to the series, *f*, to f^5. On the back of the rack a series of bell-crank levers, *m*, shown by dotted lines in Fig. 1 are pivoted. These bell-crank levers correspond respectively with the arms or levers, *f*, to f^5, and are connected therewith by rods, *p*, and chains, *q*, the chains, *q*, being employed so that the pull of the levers, *f*, on the corresponding bell-cranks may be readily adjusted. Each squared tube, *k*, has an arm fixed thereto each of which is pivotally connected by levers, *t*, with the vertical arm of the corresponding bell-crank, *m*, so that when the lever, *f*, for example, is depressed, the corresponding squared tube, *k*, will be rocked. In each tube, *k*, a right angle rod, *v*, is disposed and rocks with said tube. The short arms, *w*, of these rods project into the box, E, and are supported in a terrace-brace, *z*. Said rods are in parallelism in the same plane and are of different lengths so that their arms are vertically over each other as shown in Fig. 5.

On a vertical shaft, 15, within the box, E, a series of segment gears, 16, are journaled equally numbered to and corresponding with the rods, *z*. Each gear has an arm, 17, in the outer end of which there is a notch or shoulder, 18, said notches being respectively engaged by the free ends of the arms, *w*, of the rods, *v*. Each gear is pushed by a spring, 19. Each arm, *w*, is held in the same corresponding notch, 18, by a flat spring, 20. On a shaft, 25, (see Fig. 4) two reels 26 and, 27, of band wire are mounted. The band wire, 27, is connected with the arm, 17, of the lower segment-gear, 16, and is wound in opposite direction to the band wire, 26.

Each of the arms, 17, has upwardly projecting lugs, 29, which will engage an edge of the succeeding arm and when the band wire, 27, is reeled will carry all of the segment gears simultaneously from right to left, as viewed in Fig. 4, so that the rod arms, *w*, can take in the notches of said gears and set the device as hereinafter described.

The band wire 26, passes downward through the bottom of the box, E, and is connected by

a cord, 30, passing over pulleys, 31 (see Fig. 1) with the lever, f^6.

The tension of the springs is regulated by a thumb-screw, 32, carrying a plate, 33, on which said springs are mounted. On a vertical shaft, 34, at the front of the box, E, a series of mutilated pinions, 35, are mounted. Said pinions mesh respectively with the segment-gears, 16. From each pinion horizontally arranged wires or turner-arms, 50, project and correspond respectively with the keys, f, to f^5.

In the use of my invention, the music is disposed on the rack, A, with the arms, 15, at the right as viewed in the figures, which is their normal position and in which they are held by the lock-bars, v, taking in the notches of the gears, 16. When it is desired to turn a sheet the operator connects the arms, 50, by means of a catch, D^2, similar to that shown on the rods, C, to each succeeding sheet of music. These arms in their normal position are thus above the upper edge of the sheet. The operator then strikes the lever, f^5, rocking the corresponding squared tube, k, which frees the corresponding segment-gear, 16, from the rod, v, and the spring, 19, of said gear throws it from left to right as viewed in Fig. 4, driving the pinion in opposite direction and throwing the corresponding arm, 50, from right to left carrying with it the sheet. Each succeeding key, f^4, f^3, f^2, and, f, may be operated in like manner for the succeeding sheets or leaves. To return the sheet the key, f^6, is depressed drawing down the band-wire, 26, reeling the band-wire, 27, which throws all the segment-gears simultaneously in opposite direction and carries the wires, 50, back. The gears are locked as before by the arms, 20, of the lock-bars, v.

Any number of arms, 50, may be employed with the corresponding actuating mechanism therefor.

Having thus explained my invention, what I claim is—

1. The segment gears respectively provided with upwardly projecting lugs engaging succeeding gears; and the turner-arms actuated by said gears in combination with the key operated band-wire reels for returning said arms.

2. The combination with the rack of the key-operated rocking lock-bars, v; the notched spring-pushed segment-gears engaged by said bars and the turner arms having geared hubs meshing with said segments all being arranged to operate substantially as described.

CHARLES P. HOLLIS.

Witnesses:
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