

D. E. SHONGO.
MUSIC SHEET TURNER.
APPLICATION FILED MAR. 6, 1911.

1,066,330.

Patented July 1, 1913.

2 SHEETS-SHEET 1.

Fig. 1.

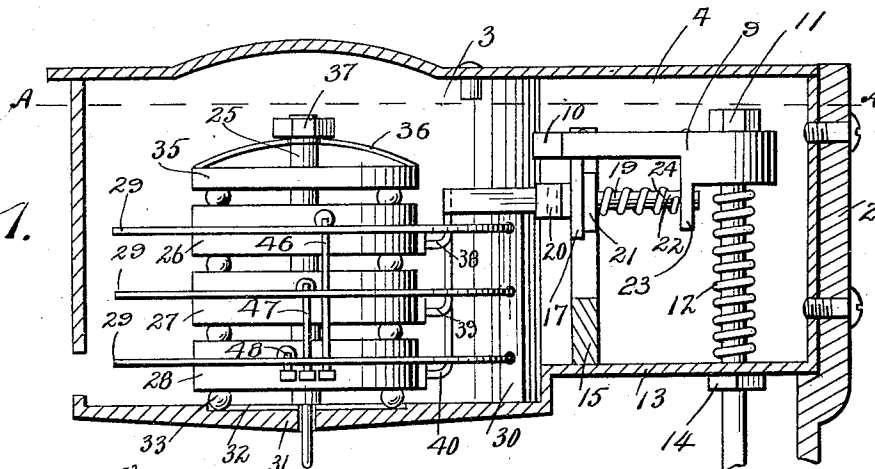


Fig. 2.

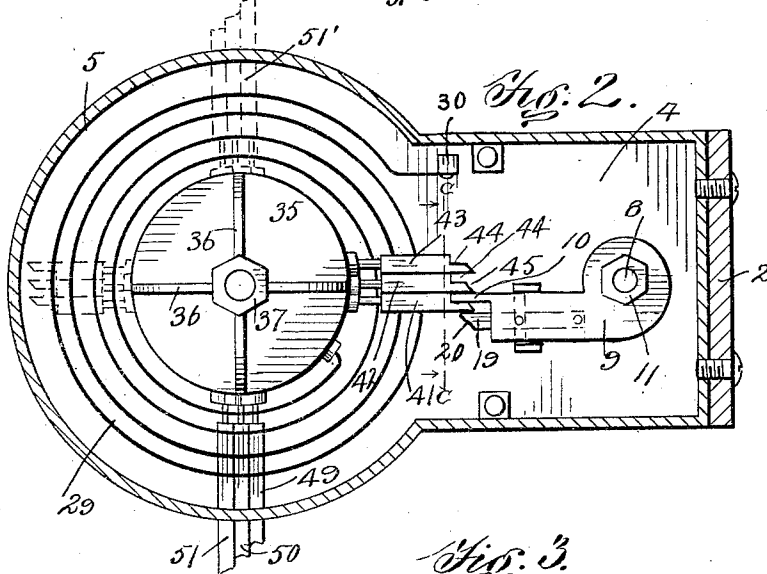
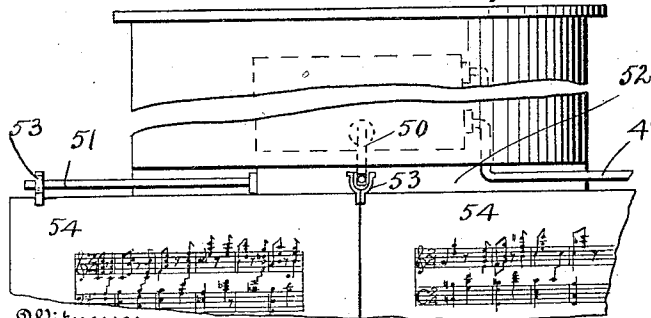


Fig. 3.



Witnesses

M. P. McKee
R. M. Gillespie

By

Rep. J. Reddick, Jr.

Attorney

55 Inventor

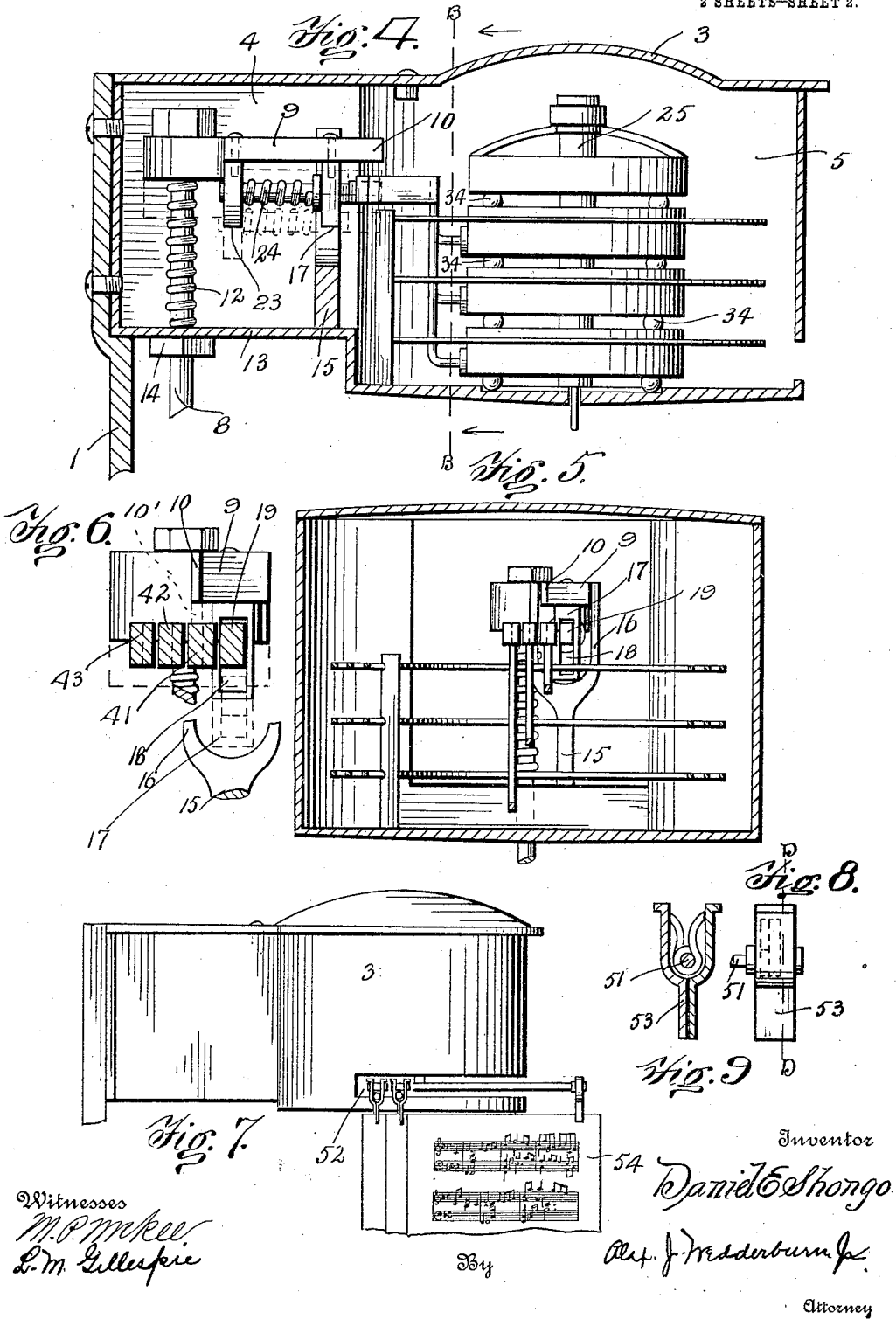
Daniel E. Shongo.

D. E. SHONGO.
MUSIC SHEET TURNER.
APPLICATION FILED MAR. 6, 1911.

1,066,330.

Patented July 1, 1913.

2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

DANIEL E. SHONGO, OF LAKE KATRINE, NEW YORK.

MUSIC-SHEET TURNER.

1,066,330.

Specification of Letters Patent.

Patented July 1, 1913.

Application filed March 6, 1911. Serial No. 612,617.

To all whom it may concern:

Be it known that I, DANIEL E. SHONGO, a member of the Seneca Nation of New York State Indians, residing at Lake Katrine, in the county of Ulster and State of New York, have invented certain new and useful Improvements in Music-Sheet Turners, of which the following is a specification.

This invention relates to improvements in music sheet turning devices and has for its object to provide a device by means of which a music sheet may be automatically turned just at the moment desired by the person reading the music.

Another object of the invention is to provide an automatic music sheet turner which may be set into operation by the pressure of the foot against a pedal.

With the above and other objects in view I have invented the device illustrated in the accompanying drawings in which—

Figure 1 is a longitudinal vertical sectional view of a music sheet turner device the operating mechanism shown in elevation. Fig. 2 is a horizontal sectional view taken on line A—A of Fig. 1. Fig. 3 is a front elevation of the device being partly broken away. Fig. 4 is a view similar to Fig. 1 taken from the opposite side of the device. Fig. 5 is a vertical sectional view taken on line B—B of Fig. 4. Fig. 6 is a fragmental sectional view taken on line C—C of Fig. 2. Fig. 7 is a reduced side elevation showing the operation of the device. Fig. 8 is an enlarged detail view of a music sheet clamp and Fig. 9 is a sectional view taken on line D—D of Fig. 8.

Like reference characters indicate like parts throughout the specification and in the various views in the drawings in which—

1 is a support to the upper end 2 of which is secured a box 3 having a reduced portion 4 and an enlarged portion 5. Pivoted to the lower portion 6 of the support 1 is a treadle 7 to which is pivotally secured the lower end of a rod 8 the upper end of which passes into the portion 4 of the box 3 and carries a member 9 which is provided with an interference finger 10. The member 9 is held onto the rod 8 by a nut 11 and a coil spring 12 is mounted on the rod one end of which spring abuts the lower side of the

member 9 and the other end the bottom portion 13 of the box so that when a pressure is exerted on the treadle 7 drawing the rod 8 55 down said rod will be forced back to its normal position by the spring 12 as soon as the pressure on the treadle is discontinued. A stop 14 is mounted on the rod 8 adjacent the outer portion of the box bottom 13 to 60 prevent the spring from raising the rod too high.

Mounted on the bottom 13 is a member 15 having its upper portion 16 bifurcated to receive and guide the members as it is 65 moved up and down by the action of the rod 8. To the member 9 is secured a depending guide 17 having a slot 18 therein in which a catch 19 is horizontally slidable. This catch is provided with a beveled face 70 20 and has a head 21 which engages the member 17 permitting the head of the catch 19 to pass through said slot 18 and a certain distance. The rear portion 22 of the catch member is slidable through an open- 75 ing in the depending portion 23 of the member 9 and a spring 24 is adapted to hold the catch normally projected.

In the enlarged portion 5 of the box is mounted a shaft 25 over which are rotatably 80 seated a series of disks 26, 27 and 28 each of which have one end of a clock spring 29 secured to the edges thereof. The other ends of these springs are secured to a post 30 fixedly mounted in the box 2 that when 85 the disks are rotated in one direction the tension on the spring attached thereto will cause the disk to rotate back to its normal position as soon as released.

The bottom 31 of the box is provided with 90 a runway 32 for the balls 33 upon which the disk 28 rests and grooves (not shown) are provided in the upper and lower surfaces of each of the disks 26, 27 and 28 in which the balls 34 run. Thus a ball bearing 95 is formed between each of the disks in order to reduce friction therebetween and permit the rotation of either one of the disks at a time without movement of the other disks. Also mounted on the shaft 25 above the 100 aforesaid disks is a tension disk 35 which is held down by a spring 36 which may be tightened or loosened by means of the nut 37, screw threaded to the upper end of the

shaft 25. Secured to the disks 26, 27 and 28 are arms 38, 39 and 40 respectively which extend upwardly and carry members 41, 42 and 43 each having fingers 44 which are provided with bevel faces 45. Also secured to each of the disks 26, 27 and 28 are arms 46, 47 and 48 respectively each of which carry an arm 49, 50 51 respectively. These arms project through an elongated opening 52 in the box 3. Secured to the ends of each of these arms are spring clips 53 which are adapted to engage music sheet leaves 54. A stop 55 is secured to the support 6 for regulating the downward movement of the treadle 7.

The operation of this invention is as follows: The arms 49, 50 and 51 are brought to the position shown in Fig. 2 causing the arms 41, 42 and 43 to take the position shown in the same view, the bevel faces 45 thereof having engaged the bevel face 20 of the catch 19 forcing it rearwardly to permit the passage of said arms to the position shown. The clips 53 are then each clamped to the outer end of the music sheets to be turned. When the person reading the music desires to have the page turned he presses the foot piece 55 with his foot thus drawing the rod 8 down thus causing the catch 19 to release the finger 44 of the arm 41 thus permitting the spring attached to the disk 26 to rotate said disk thus carrying the arm 51 from the position shown in full lines in Fig. 2 to the position shown in dotted lines 51', the arm carrying with it the music leaf. When the rod 8 is brought down to release the arm 41 the finger 10 slips into the position vacated by said arm as indicated by dotted lines 10' in Fig. 6, and the arms 42 and 43 are kept from rotating. When the treadle is released the latch 19 and the interference finger 10 again take their normal position. The operation is repeated until all of the sheets have been turned.

Having now described my invention that which I claim to be new and desire to procure by Letters Patent is;

1. A music sheet turner comprising a casing having an opening, a plurality of music sheet holders projecting therethrough, means for rotating said holders, a finger for each holder means for temporarily holding said fingers against movement, a beveled tongue formed upon each finger, a reciprocating member mounted in said casing, an arm having a bifurcated end in which said member is guided, said means consisting of a spring engaged latch carried by said member engaged by said latches in their reverse movement, means for actuating said member to move said latch out of the plane of said fingers to release a finger, and a stop carried

by said member engaging said remaining fingers when said latch is disengaged.

2. A device of the kind described comprising a casing having a segmental opening, a vertical shaft disposed therein, a plurality of disks independently rotatable mounted on said shaft, a post, a spring coiled around each disk and connected to said post, a plurality of horizontally alining sheet holders projecting through said opening, rods connecting each disk with a holder, a finger for each holder disposed in horizontal alinement in a group, a rod connecting each disk to an arm, a beveled tongue formed upon each arm, a reciprocating member mounted in the casing, a spring engaged finger carried by said reciprocating member having a beveled end engaging one of said fingers to hold them all against movement, said latch being disengaged when said member is actuated to release a finger, a stop carried by said member engaging said remaining fingers when said latch is disengaged, means for actuating said member, and means for guiding said reciprocating member.

3. A device of the kind described comprising a casing having a segmental opening, a vertical shaft disposed therein, a plurality of disks independently rotatable mounted on said shaft, a post, a spring coiled around each disk and connected to said post, a plurality of alining sheet holders projecting through said opening, rods connecting each disk with a holder, a finger for each holder, a rod connecting each disk to a finger, a beveled tongue formed upon each finger, a reciprocating member mounted in said casing, an arm having a bifurcated end in which said member is guided, a spring engaged latch carried by said member engaged by said fingers in their reverse movement, means for actuating said member to move said latch out of the plane of said fingers to release a finger, and a stop carried by said member engaging said remaining fingers when said plunger is disengaged.

4. A music sheet turner comprising a casing having an opening, a standard upon which it is mounted, a plurality of sheet holders projecting through said opening, means for rotating said holders, a plurality of alining fingers moved by said means, a vertical rod adjacent the standard and passing through said casing, a spring coiled about the protruding end of said rod, a projecting member mounted on the top of said rod and having a tongue on its free end and spaced apart depending lugs, a member having a bifurcated top in which said projecting member is guided, a beveled nose formed upon each finger, a latch mounted in said lugs having a beveled end normally pro-

jecting in the range of movement of said
grouped fingers but retractile thereby in
their reverse movement, a spring coiled on
said latch between said studs, and secured
5 to the latch and one end of said studs, a
treadle pivoted to the bottom of said verti-
cal rod to depress it against the tension of
said first-named spring to disengage said

latch and to cause said tongue to occupy its
place. 10

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

DANIEL E. SHONGO.

Witnesses:

AUGUST C. FRIEDRICH,

THEO. BRINK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."