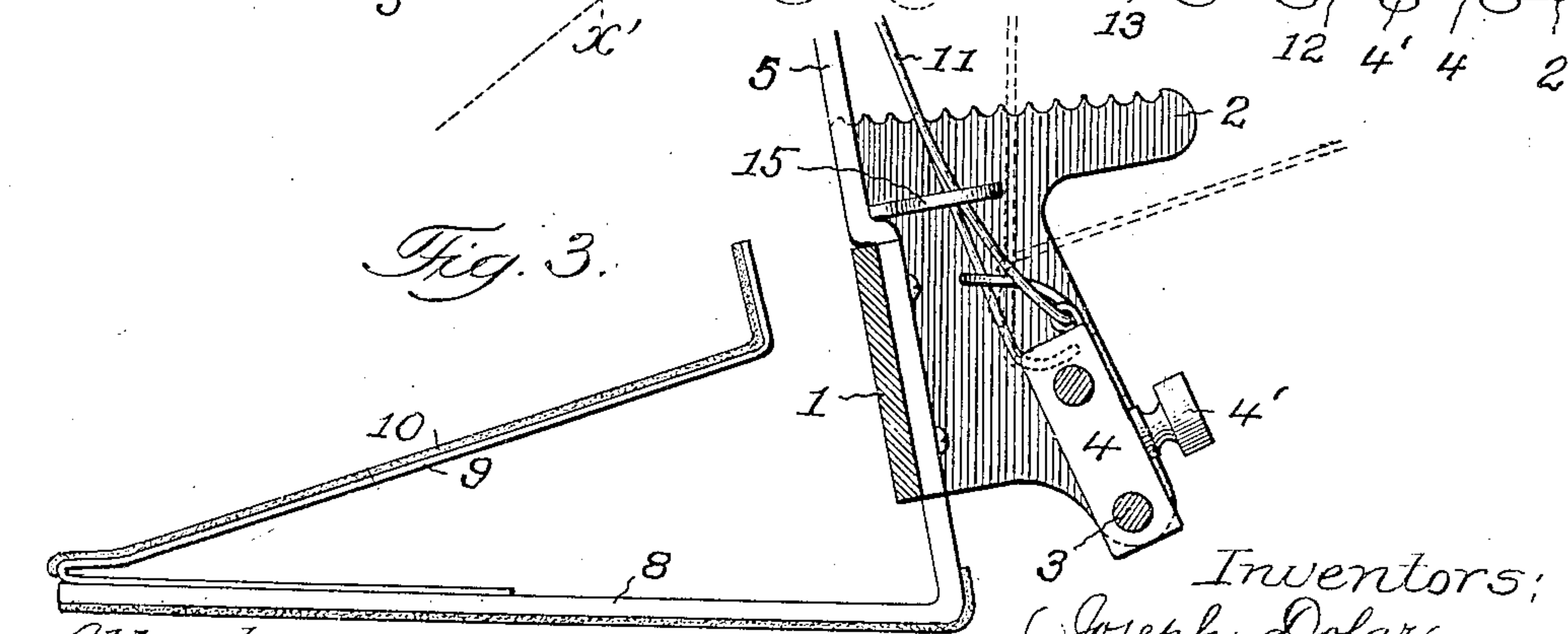
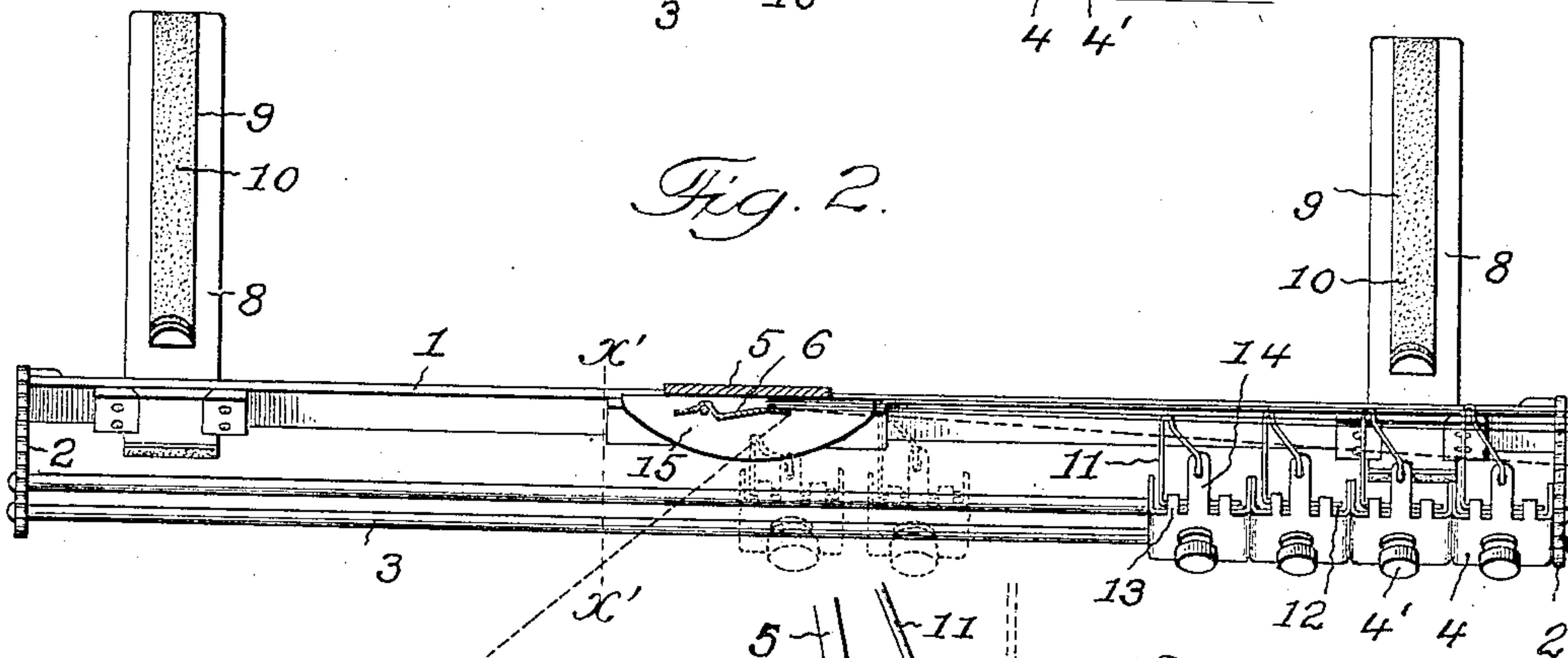
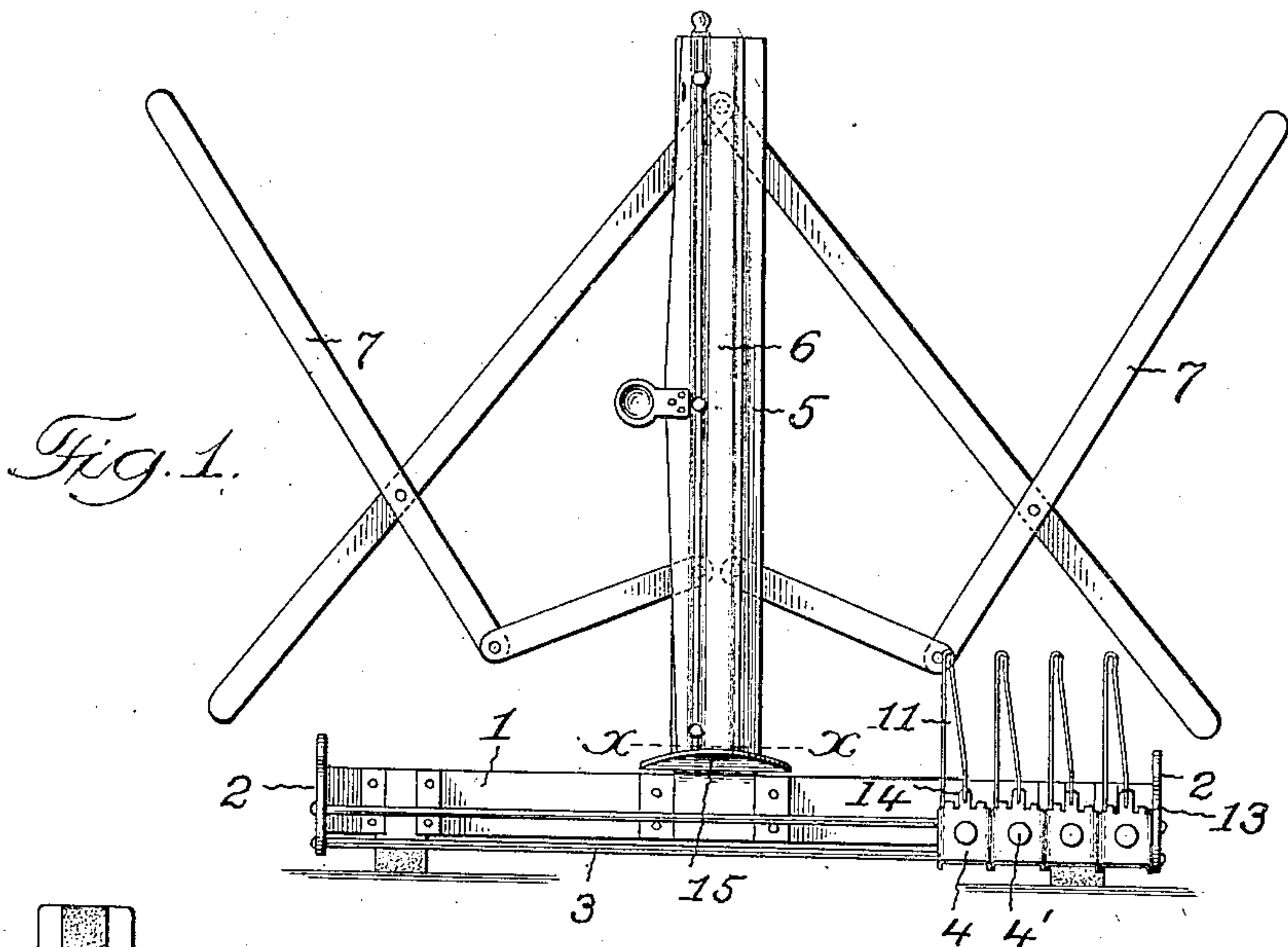


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LEAF TURNER.  
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# UNITED STATES PATENT OFFICE.

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## LEAF-TURNER.

964,093.

Specification of Letters Patent.

Patented July 12, 1910.

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*To all whom it may concern:*

Be it known that we, JOSEPH DOLAR, EDWARD DOLAR, and FRANK J. VYSA, citizens of the United States of America, and residents of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Leaf-Turners, of which the following is a specification.

10 This invention relates to leaf turners of the manually actuated type, and has for its various objects, to provide a simple, durable and effective structural arrangement and combination of parts in a leaf turning mechanism adapted to attain an easy and certain turning of a leaf as required, and which is adapted to afford a ready turning backward of any or all the leaves in repeating a portion or all the musical pieces; to provide a simple and efficient construction of the turning fingers and their accessories whereby the same can be readily inserted in proper place between the leaves of music; to provide means for receiving and holding the turned leaves in proper position, and to provide a simple and effective means for attaching the appliance in place upon a piano, all as will hereinafter more fully appear.

15 In the accompanying drawings: Figure 1, is a front elevation. Fig. 2, is an enlarged horizontal section on line  $x-x$ , Fig. 1. Fig. 3, is an enlarged transverse section on line  $x'-x'$  Fig. 2.

Similar numerals of reference indicate like parts in the different views.

Referring to the drawings, 1 represents a longitudinally extending plate constituting the supporting base of the mechanism.

2 are forwardly projecting end flanges on the plate 1, the tops of said flanges having a serrated form as shown, and adapted for holding engagement with the lower edges of the leaves comprising the piece of music.

3 is a slideway, preferably formed by a pair of rods, the ends of which are attached to the flanges 2, aforesaid.

4 are a series of carriages mounted to slide upon the slideway 3, and provided with hand knobs 4' for convenient manual actuation in the movement of the respective carriages from one end to the other of the aforesaid supporting base.

5 is a central vertical member secured to the plate 1, and provided with a vertical spring clip 6 adapted for holding engage-

ment with the back portion of a piece of music.

7 are skeleton supports arranged at the respective sides of the central vertical member 5 to form rests for the leaves of music when the same are turned to one side or the other. Said supports are preferably formed by a plurality of links hinged to each other and to the vertical member 5, and adapted to fold into a compact body for convenient storage, shipment and the like. For a like purpose the vertical member 5 is detachably secured to the plate 1 by a slip joint as shown.

8 are rearwardly extending brackets secured to the plate 1 near its ends, and preferably in a detachable manner by slip joints as shown.

9 are spring fingers secured in a resilient manner to the rear ends of the brackets 8, and in inclined relation thereto as shown. In the described construction the aforesaid brackets and spring fingers are adapted to be pushed beneath the upper front board of a piano to hold the appliance in position for use, and with a view to prevent marring of the piano, the contact faces of the brackets 8 and spring fingers 9 will be provided with a facing 10 of cloth or the like.

11 are a series of resilient prongs individual to the carriages 4, and which are adapted for insertion between individual leaves of the piece of music. Each of said prongs preferably consists of an inverted V shaped piece of wire, one member of which is formed with a horizontal extension having pivotal bearing in pivot ears 13 on the top of a carriage 4, while the other member passes through a slotted guide finger 14 on said carriage and is formed with a curved end adapted to bear against the back of the carriage and limit the rearward movement of the turning prong. Such construction at the same time permits of a free forward and downward tilt of the said prong in the operation of placing the same beneath an individual leaf of a piece of music. In the preferred construction the member aforesaid which passes through the guide finger 14 has resilient bearing in the guide slot of the same to yieldingly maintain said prong in a normal and upright position between adjacent leaves of a piece of music.

15 is a breast plate secured to the central part of the plate 1 and having a segmental forward edge arranged in the path of the



aforesaid resilient prongs 11, and adapted in the longitudinal shifting movement of said prongs and their carriages 4, to force the prongs, and with them the leaves of the music piece, in an outward direction, to insure a very easy turning of the leaves, and an avoidance of any tendency on the part of said prongs to tear the music leaves.

In the practical use of the present mechanism, the series of carriages 4, with their resilient prongs 11, will be pushed to the extreme right of the appliance, as illustrated in Figs. 1 and 2. The piece of music is then connected by its back to the central vertical member 5, by means of the clip 6, after which the series of resilient prongs 11 are inserted between the series of music leaves in a serial manner. As so arranged and in the progress of the performance an end of a page is reached, the performer grasping the hand knob 4, of the first carriage to the left, moves the same to the extreme left of the appliance to effect a turning movement of the music leaf, and repeats the operation with the succeeding carriages as the performance progresses.

With the present construction the whole series of leaves can be returned to the initial position in a repetition of the performance, or any desired number of the leaves can be returned to such initial position, at a single operation of the carriages as a whole, and in a very rapid and convenient manner.

Having thus fully described our said invention what we claim as new and desire to secure by Letters Patent is:—

1. A leaf turner comprising, a stationary base having means for holding a piece of music by its back, a longitudinal slideway mounted on said base, a series of carriages mounted on said slideway and adapted for direct manual actuation, and a series of prongs carried on said carriages and adapted for engagement beneath sheets of the piece of music.

2. A leaf turner comprising, a stationary base having means for holding a piece of music by its back, a longitudinal slideway mounted on said base, a series of carriages mounted on said slideway and adapted for direct manual actuation, and a series of resilient prongs pivotally attached to said carriages and adapted for engagement beneath sheets of the piece of music.

3. A leaf turner comprising, a stationary

base having means for holding a piece of music by its back, a longitudinal slideway mounted on said base, a series of carriages mounted on said slideway and adapted for direct manual actuation, a series of resilient prongs carried on said carriages and adapted for engagement beneath sheets of the piece of music, and a central breast plate having a segmental front arranged in the path of said prongs.

4. A leaf turner comprising, a stationary base having means for holding a piece of music by its back and provided with a pair of rearwardly extending attaching brackets, forwardly extending fingers secured in a resilient manner at their rear ends to said brackets, a longitudinal slideway mounted on said base, a series of carriages mounted on said slideway and adapted for direct manual actuation, and a series of prongs carried on said carriages and adapted for engagement beneath sheets of the piece of music.

5. A leaf turner comprising, a stationary base having a central vertical member, a spring clip attached to said central member, skeleton supports secured to the sides of said vertical member, a longitudinal slideway mounted on said base, a series of carriages mounted on said slideway and adapted for direct manual actuation, and a series of prongs carried on said carriages and adapted for engagement beneath sheets of a piece of music.

6. A leaf turner comprising, a stationary base having means for holding a piece of music by its back and provided with forwardly projecting flanges at its ends, the top of said flanges having a serrated form, a longitudinal slideway mounted between said flanges, a series of carriages mounted on said slideway and adapted for direct manual actuation, and a series of prongs carried on said carriages and adapted for engagement beneath sheets of the piece of music.

Signed at Chicago, Illinois, this 28 day of August 1909.

JOSEPH DOLAR.  
EDWARD DOLAR.  
FRANK J. VYSA.

Witnesses:

ROBERT BURNS,  
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