

No. 611,688.

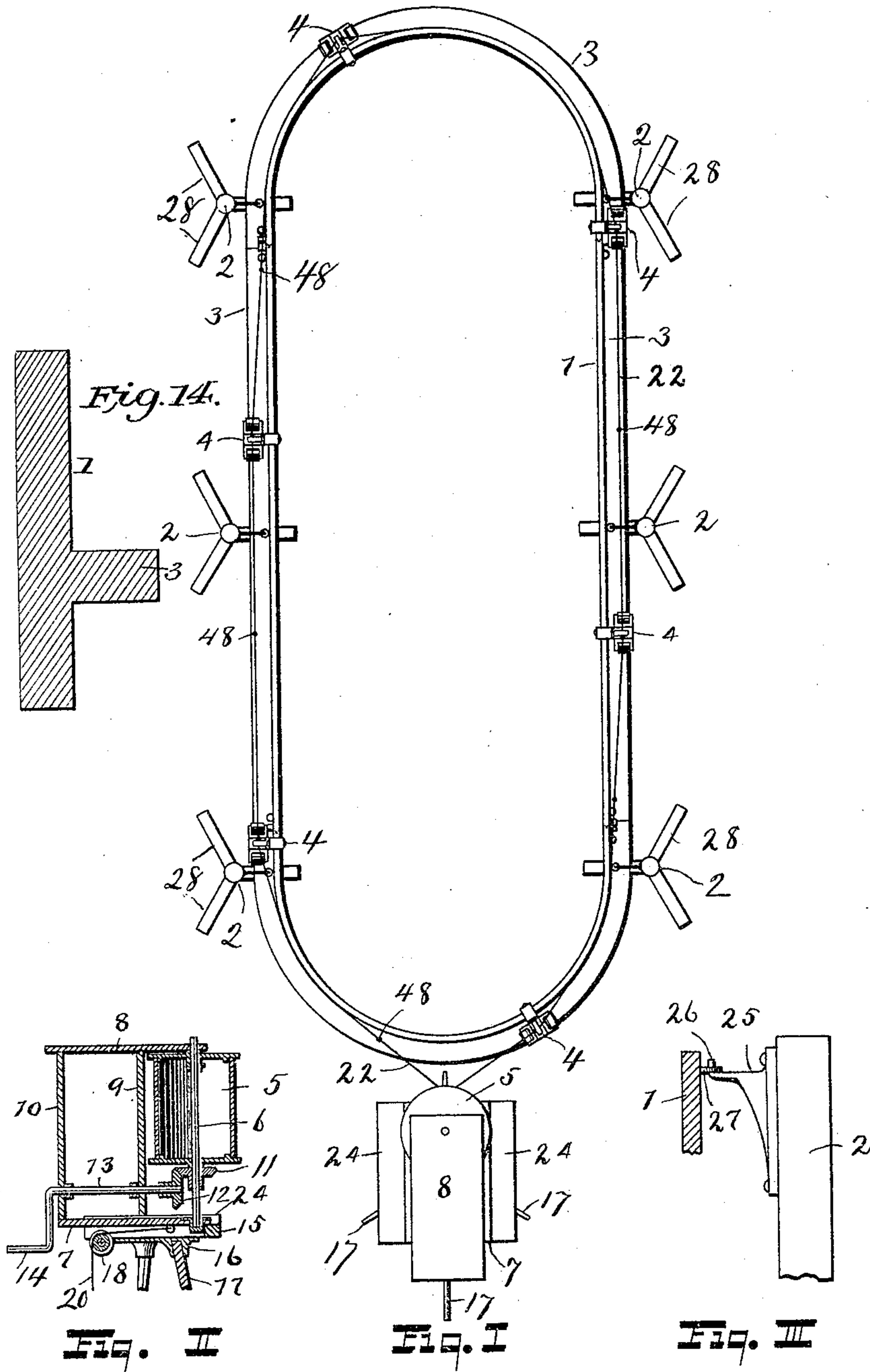
Patented Oct. 4, 1898.

T. JACKSON.
CLOTHES DRYING APPARATUS.

(Application filed June 29, 1896.)

(No Model.)

3 Sheets—Sheet 1.



WITNESSES
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Taylor Jackson,

INVENTOR

BY
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HIS ATTORNEY

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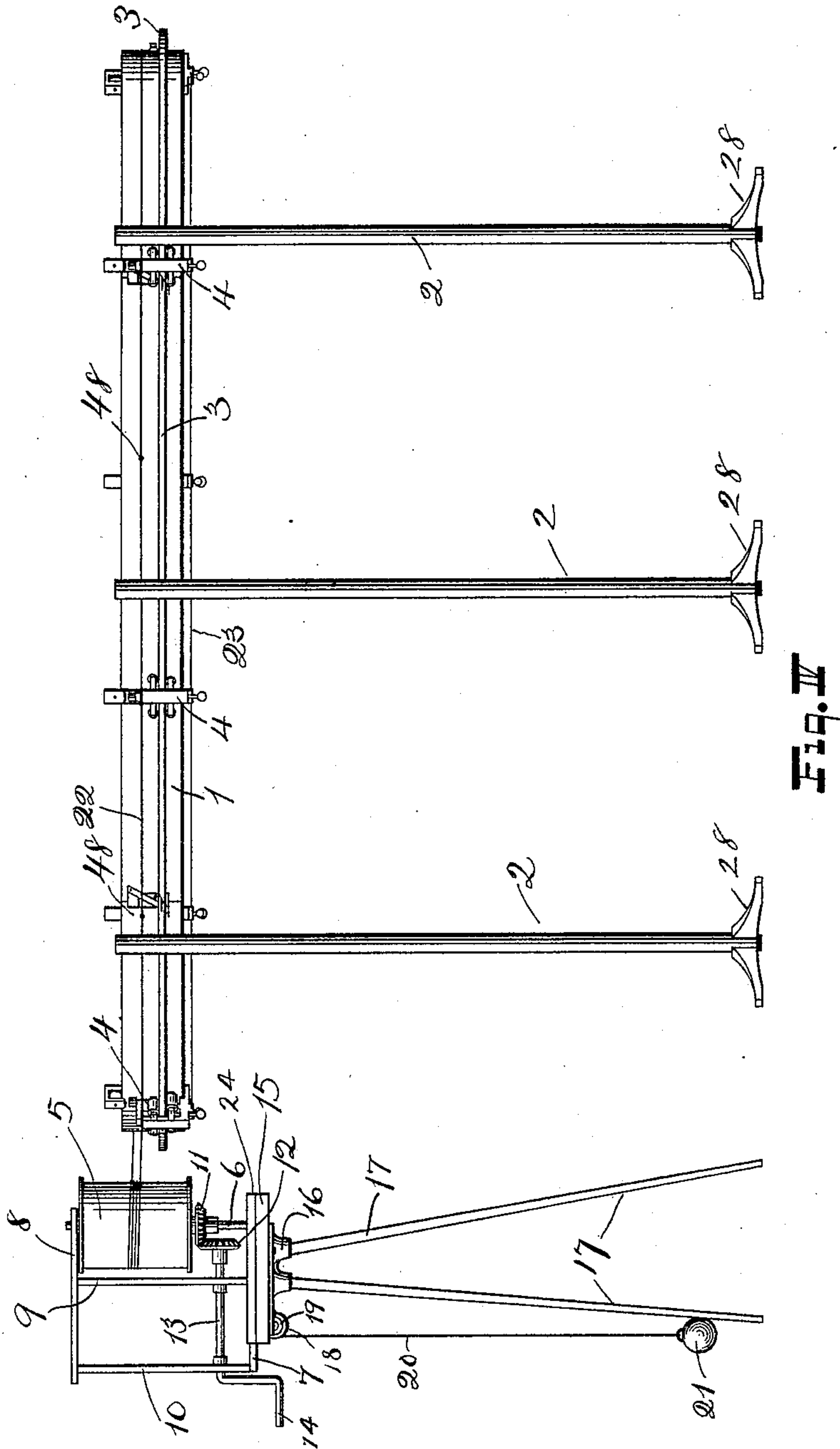
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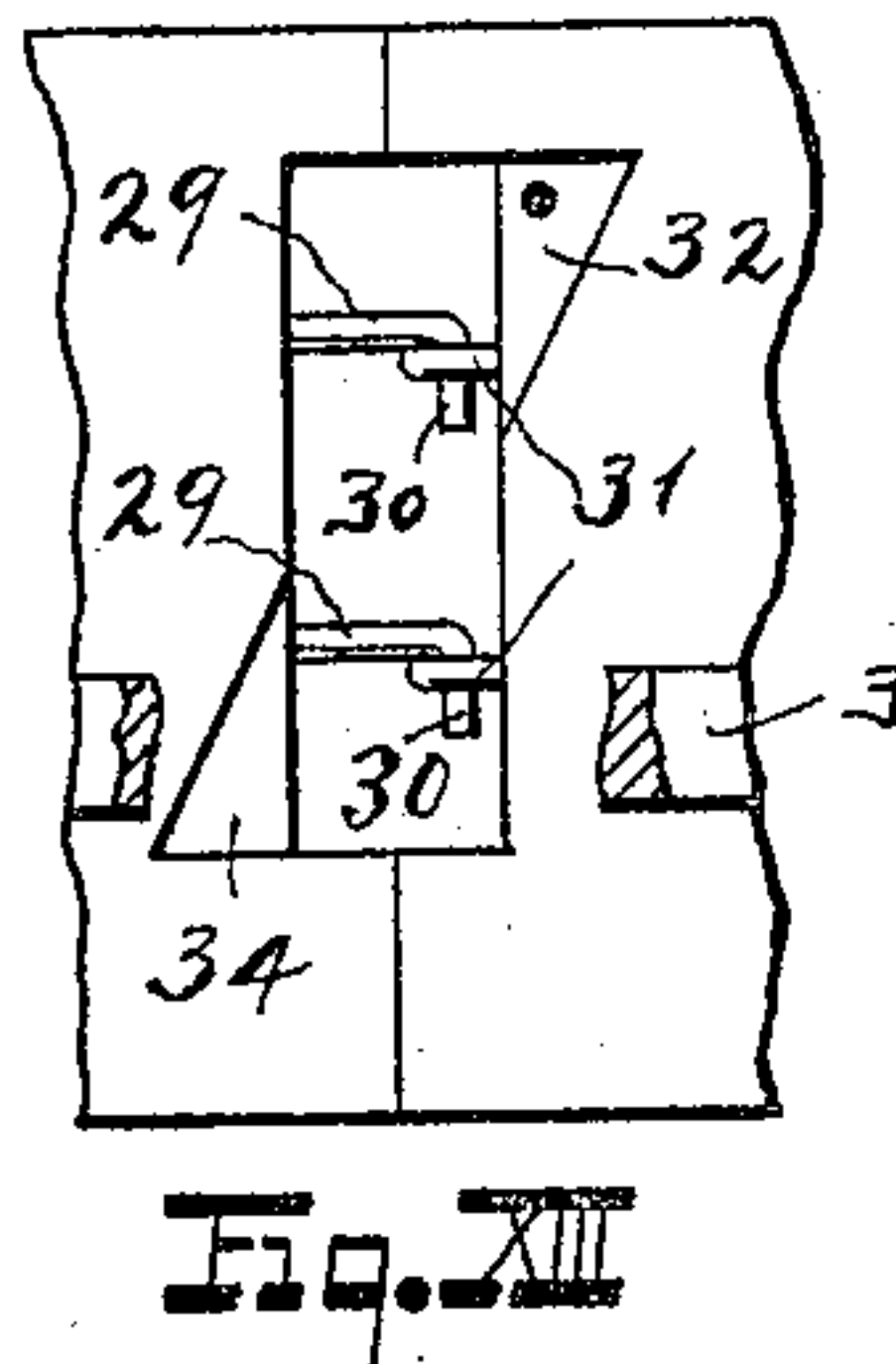
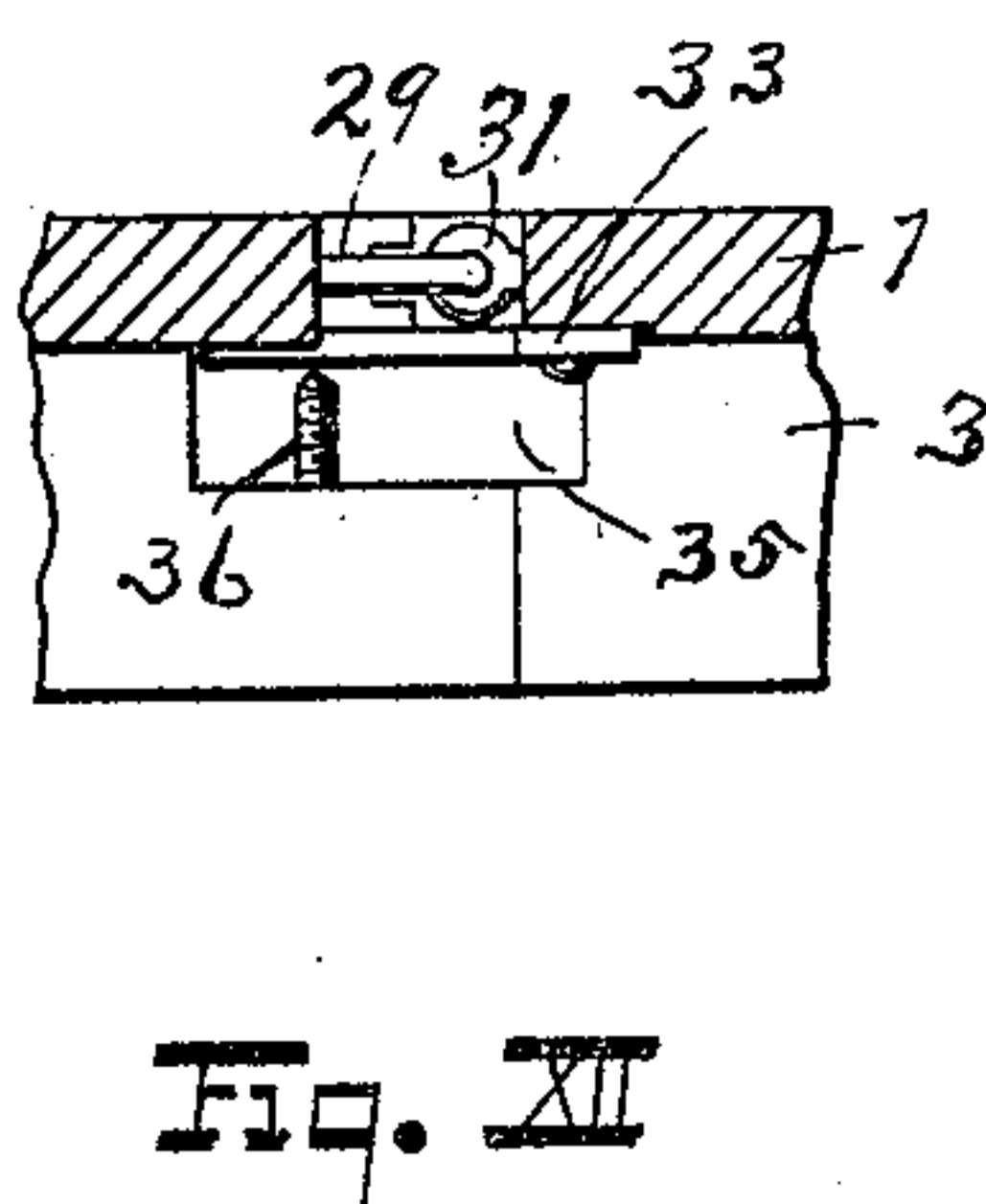
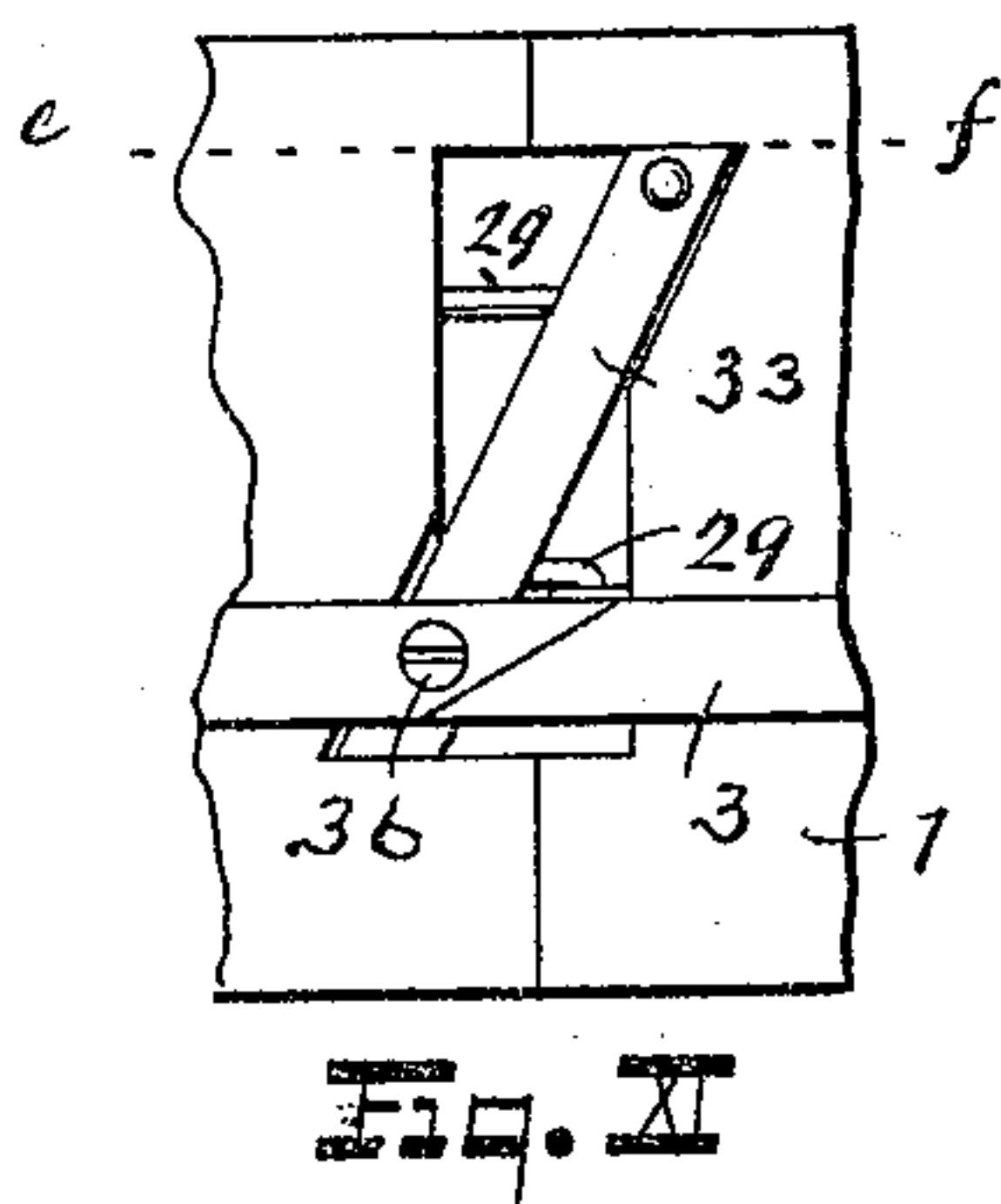
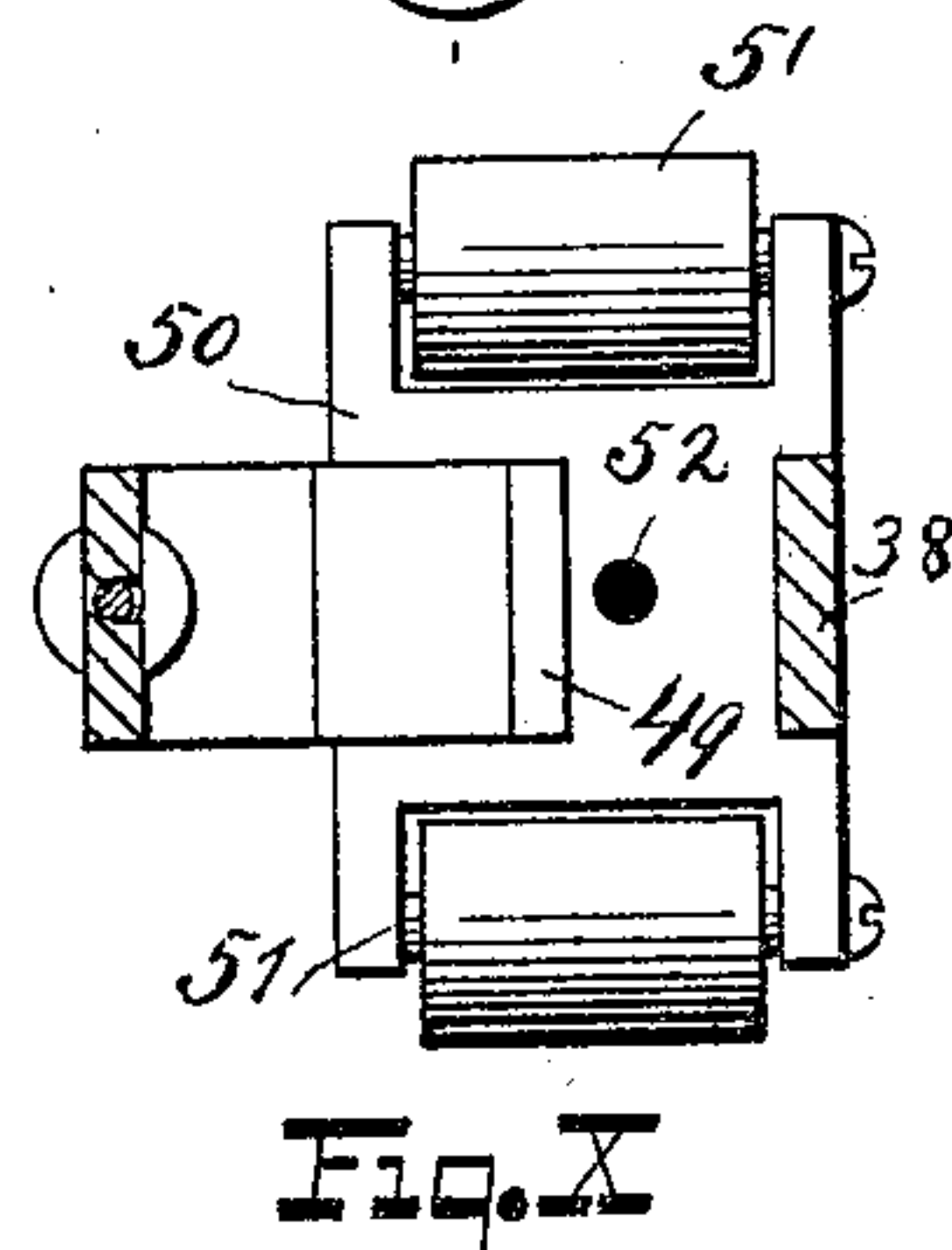
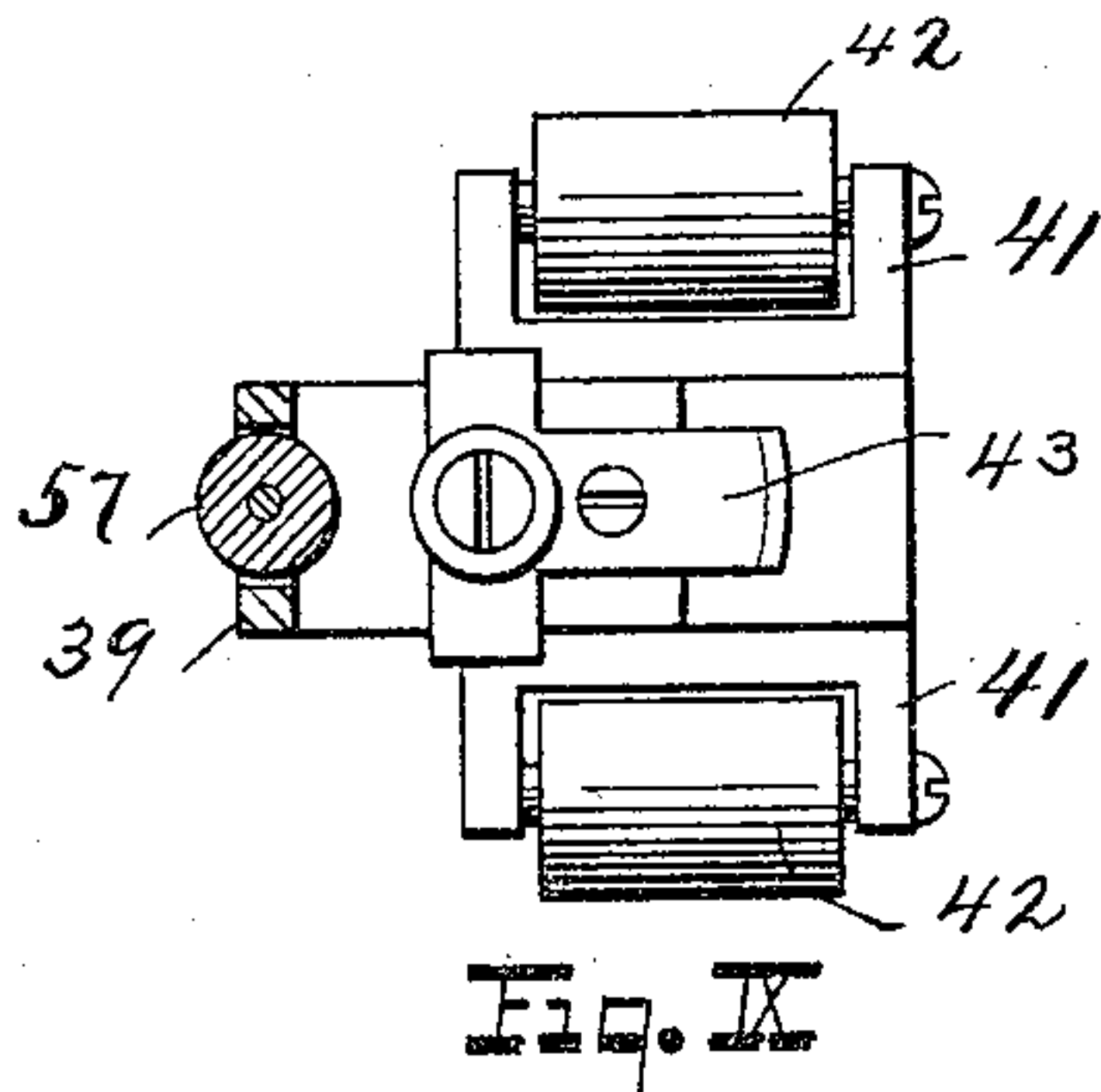
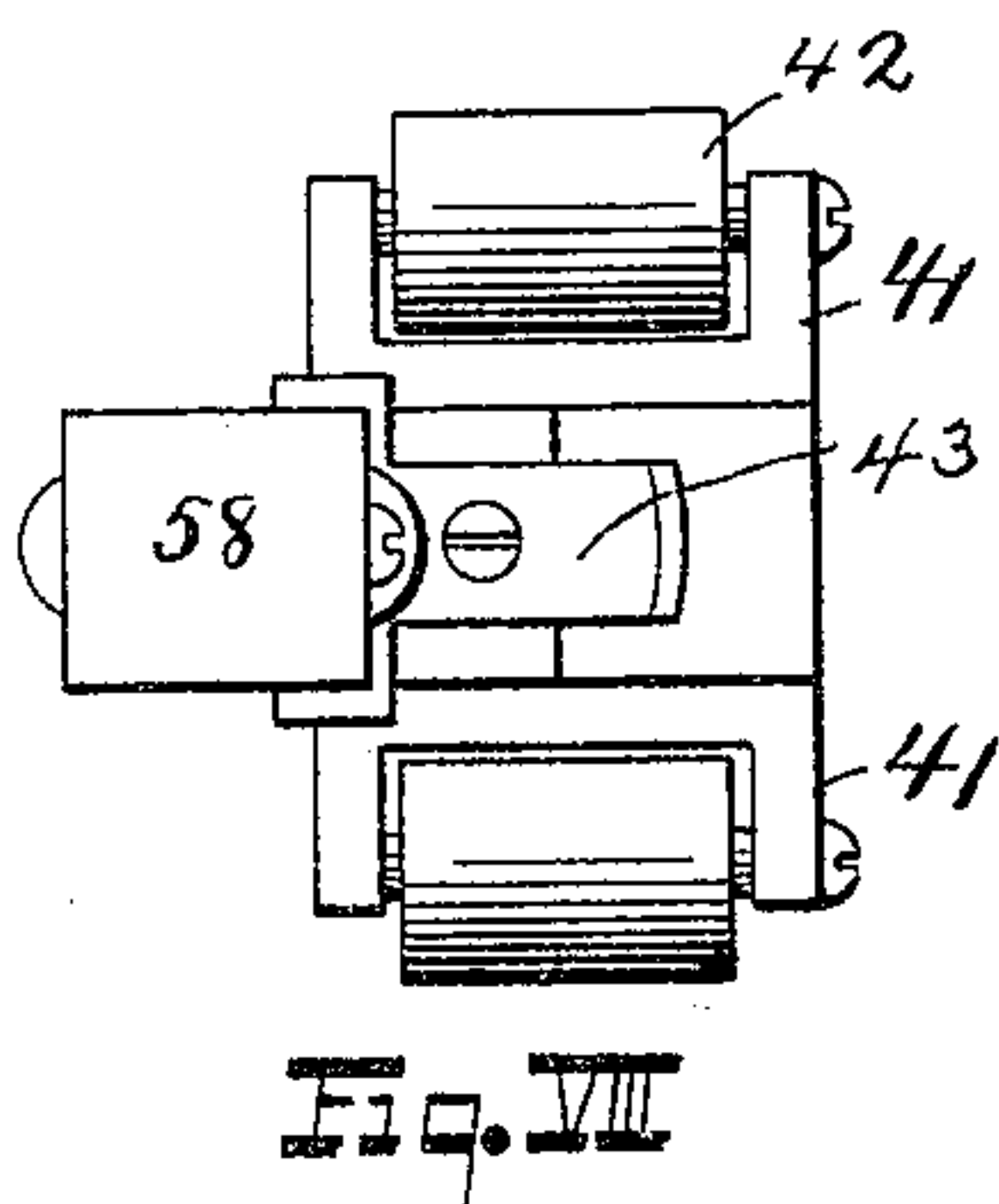
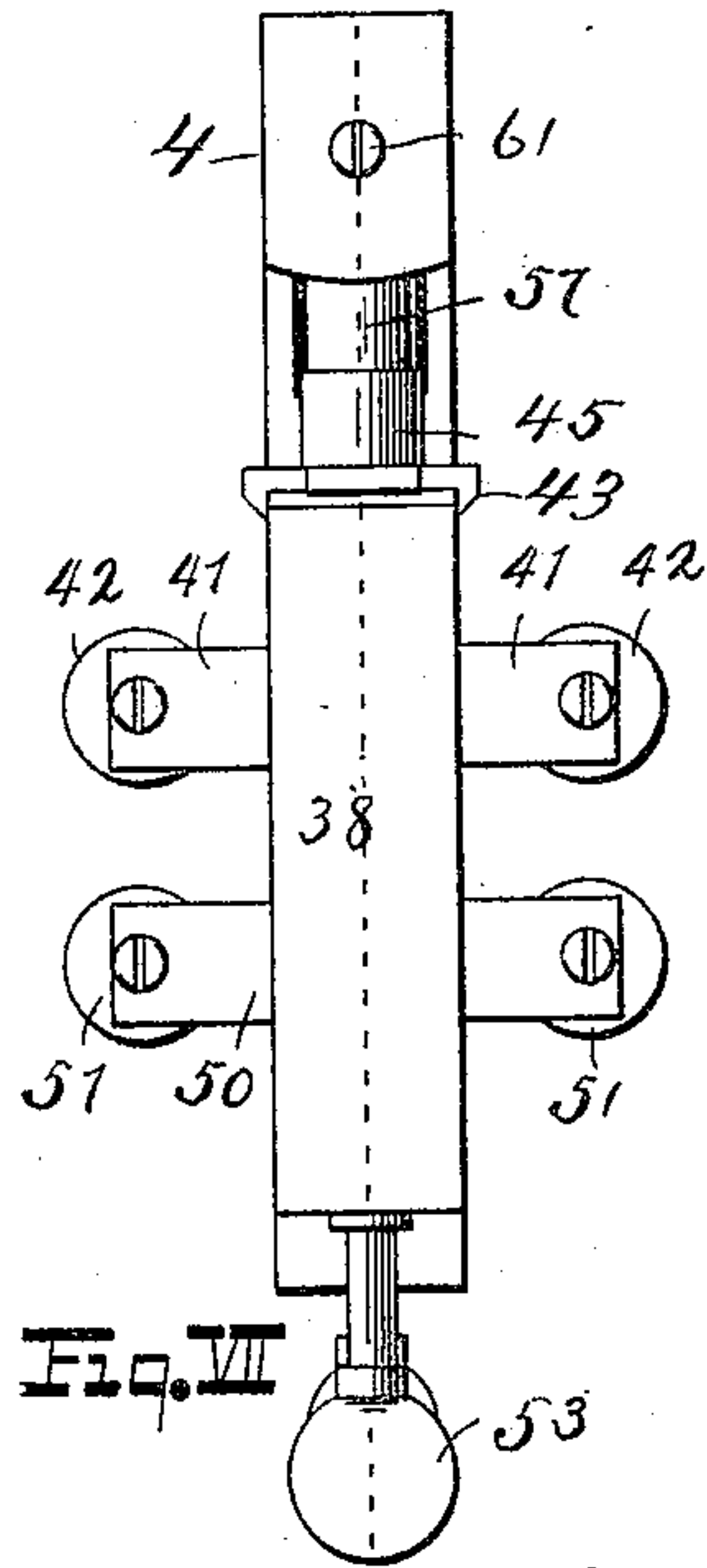
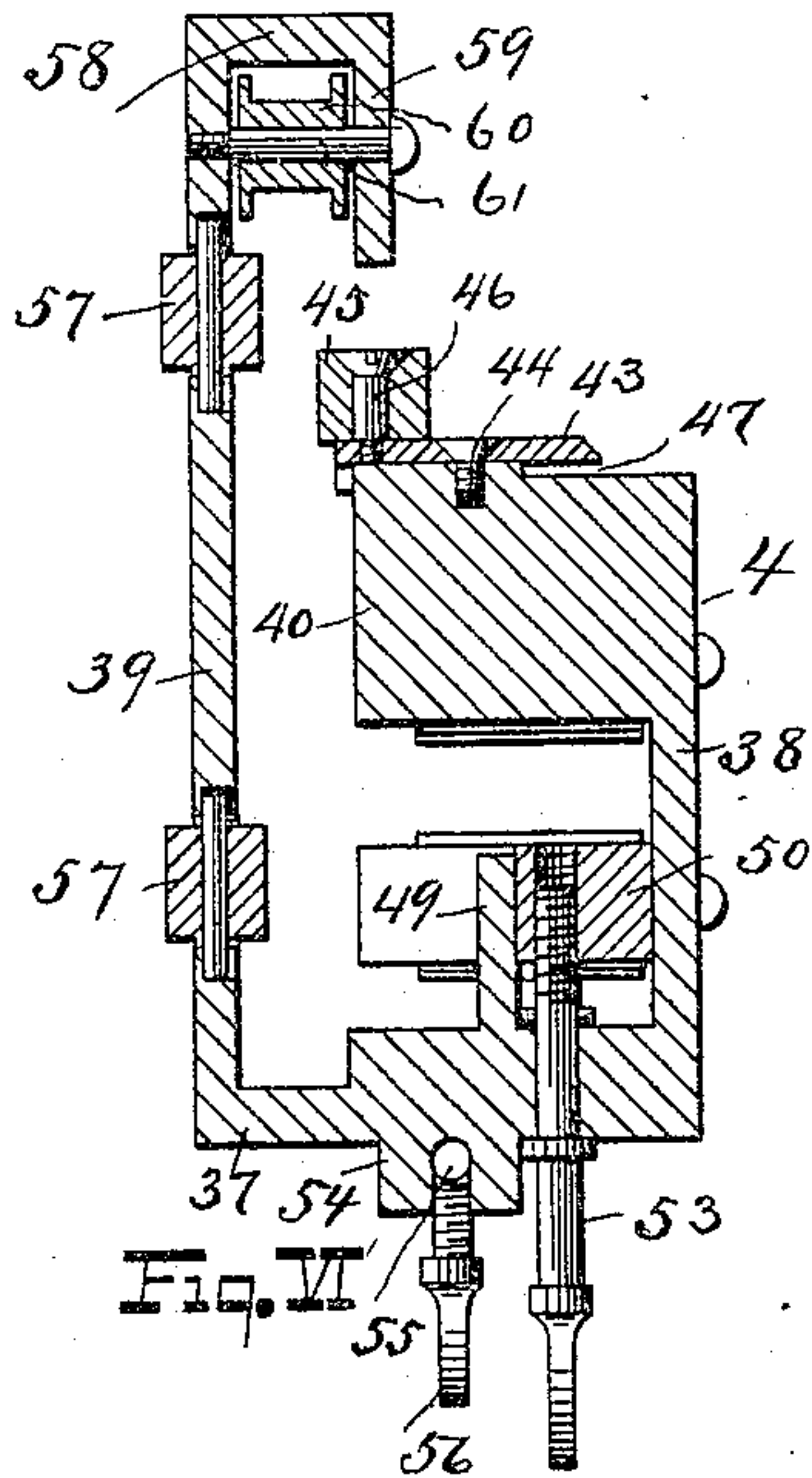
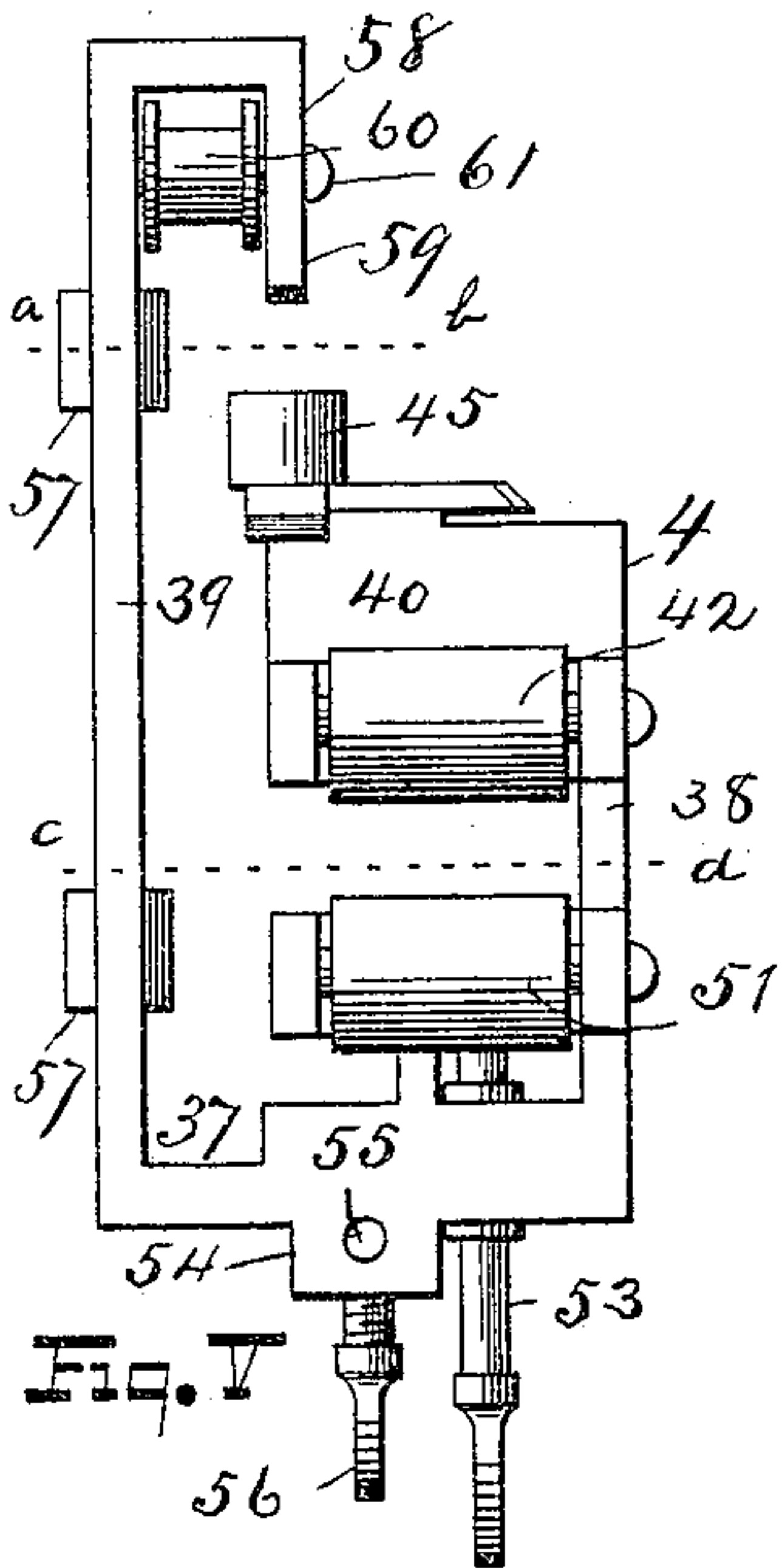
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UNITED STATES PATENT OFFICE.

TAYLOR JACKSON, OF KANSAS CITY, KANSAS.

CLOTHES-DRYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 611,688, dated October 4, 1898.

Application filed June 29, 1896. Serial No. 597,358. (No model.)

To all whom it may concern:

Be it known that I, TAYLOR JACKSON, a citizen of the United States, residing at Kansas City, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Clothes-Drying Apparatus, of which the following is a specification, reference being had therein to the accompanying drawings.

10 My invention relates to improvements in clothes-drying apparatus.

The object of my invention is to provide a clothes-drying apparatus in which a clothes-carrying line is sustained by a series of carriers which are mounted upon and are adapted to be moved around an endless track.

My invention provides also novel means, hereinafter described, for propelling the carriers around the track, whereby the clothes-carrying line may be moved, so that the clothes carried on the line may be moved from or brought to a given point for the convenience of the person who is operating the apparatus.

My invention further provides, in connection with carriers adapted to travel upon an endless track, an endless cable adapted to engage with the carriers for the purpose of propelling them, means for providing a constant tension to the cable, and means for imparting motion to the cable.

My invention still further provides certain novel and useful features of construction and arrangement of the different parts, hereinafter fully described and claimed.

35 By the use of my invention the operator may remain in a sheltered position while placing the clothes in a position by which they will be exposed to the heat of the sun and the drying influences of the wind or removing them from the line after they have been dried.

40 In the accompanying drawings, illustrating my invention, Figure 1 represents a plan view of my invention. Fig. 2 represents a central vertical section of the drum and parts connected therewith. Fig. 3 represents a detail view showing a side elevation of one of the brackets which support the track. Fig. 4 represents a side elevation view. Fig. 5 represents a rear elevation view of one of the carriers. Fig. 6 represents a transverse vertical sectional view of the same. Fig. 7 represents a right-side elevation of the same. Fig. 8 represents

resents a top view of one of the carriers. Fig. 9 represents a horizontal sectional view taken on the dotted line *a b* of Fig. 5. Fig. 10 represents a transverse sectional view taken on the dotted line *c d* of Fig. 5. Fig. 11 represents a side elevation of a portion of the track where two sections of the track are joined. Fig. 12 represents a horizontal sectional view taken on the dotted line *e f* of Fig. 11. Fig. 13 represents a view similar to the one shown in Fig. 11, the peripheral flange of the track being broken away and some of the parts removed. Fig. 14 represents a vertical cross-sectional view of a section of the track 1.

Similar numerals of reference indicate similar parts throughout the several views.

1 indicates a track, preferably elliptical in form and composed of several sections, the ends of adjacent sections being secured together in a manner hereinafter described.

2 indicates several posts arranged around the track at suitable points for the purpose of supporting the same in a horizontal position above the ground.

3 is a peripheral flange extending horizontally from the outside wall of the vertical portion of the track 1.

4 indicates several carriers, to which the clothes-carrying line is attached and which are adapted to travel upon the track 1.

5 indicates a vertical cylindrical-shaped drum rigidly secured upon a vertical shaft 6, the upper and lower ends of which are pivotally mounted in openings in the horizontal parallel plates 8 and 7, respectively. Connecting the said plates 7 and 8 are two vertical parallel plates 9 and 10. Secured rigidly upon the shaft 6 is a bevel gear-wheel 11, which meshes with another bevel gear-wheel 12, which is rigidly secured upon the inner right end of a horizontal shaft 13, which is pivotally mounted in bearings in the two plates 9 and 10. The outer end of the shaft 13 is crank-shaped, as indicated by 14. The plate 7 is mounted upon and adapted to have a sliding connection with a horizontal platform 15, which is secured upon the top of a horizontal plate 16, to the under side of which are secured three supporting-legs 17, the lower ends of which are adapted to rest upon the floor or ground. To the under side of and at the rear of the plate 16 is a grooved roller or

pulley 18, which is pivoted between two lugs 19, which project from the under side of the plate 16. A cord 20 is secured at one end to the under side of the plate 7 and passes through a central slot in the platform 15, to the left, and over the roller 18. From the roller 18 the cord 20 hangs vertically and has secured to its lower end a weight 21, the function of which is to exert a constant strain upon the cord 20 for the purpose of retracting or holding the plate 7. An endless cable 22 has several turns around the drum 5, which is located adjacent to one end of the track 1, and from the drum extends around the outside of the track 1 above the flange 3. An endless line 23, which serves as the clothes-line, is secured to the under side of each of the carriers 4, the number used depending upon the length of the track 1. At each side of the plate 7 is a plate 24, which is rigidly secured to the top of the plate 15 and serves as a side guide for the plate 7. On the inner side of each of the posts 2, near its upper end, is secured a bracket 25, the outer end of which is provided with an upwardly-extending projection 26, which is inserted in an eye 27, which is secured to the track-rail 1. The lower ends of the posts 2 may be driven in the ground or they may be provided with outwardly-extending feet, as indicated by 28.

The manner of making the joints of the track-sections is best shown in Figs. 11, 12, and 13. Each end of a section has cut there-in a rectangular recess. In the recess in one end are secured two horizontal rods 29, located one above the other and provided with a downwardly-extending projection each, as designated by 30. The projections 30 are adapted to engage two hook-eyes 31, correspondingly located in the recess in the end of the contiguous section. In the end of the section in which the eyes 31 are located, upon the outer side thereof, is a triangular recess 32, in which is secured the upper end of an arm 33, the lower end of which is adapted to enter a similar triangular recess 34 in the contiguous section. A rectangular recess 35 is provided at the joining-place of abutting ends of the sections, forming the peripheral flange 3, which permits the withdrawal from or insertion of the free end of the arm 33 with respect to the recess 34. Opposite to the lower end of the arm 33, in the flange 3, is a screw-threaded transverse opening, in which is fitted a common machine-screw 36, the inner end of which is adapted to rest against the arm 33 for the purpose of retaining it in the recess 34.

Each of the carriers 4 is constructed as follows: The main frame of the carrier is provided with a base portion 37, which is horizontally disposed and from which at each end extend upwardly two vertical projections 38 and 39, respectively. Inwardly extending from the upper end of the arm 38 is a rectangular-shaped arm 40. (Best shown in Figs.

5 and 6.) Upon both the right and left sides of the arm 40, as viewed in Fig. 7, is secured a U-shaped lug 41, between the arms of which is pivoted a horizontal roller 42, which is adapted to bear upon the upper side of the flange 3 and thus support the carrier. Upon the inner end of the arm 40 is fitted a plate 43, which is fitted in a horizontal position upon the top of the arm 40 and is secured thereto by means of a vertical screw 44, which extends through an opening in the plate 43 into a screw-threaded opening in the arm 40. A roller 45, which is adapted to bear against the outside of the track 1, is revolvably mounted upon a vertical shouldered screw 46, the lower end of which is secured in a screw-threaded opening in the inner end of the plate 43. Below the outer end of the plate 43 the arm 40 is cut away, thus forming a groove 47, in which is adapted to lie the cable 22. The cable 22 has secured to it at different places a number of buttons 48, adapted, when the cable is drawn through the slot 47 in the carrier, to be drawn against the plate 43 and move the carrier with it. From the base of the carrier and between the arms 38 and 39 extends upwardly a vertical arm 49. A horizontal rectangular plate 50 (best shown in Fig. 10) is provided with grooves in its right and left sides, in which are movably fitted the arms 38 and 49, respectively. In a recess provided in each end of the plate 50 is pivotally mounted a horizontal frictional roller 51, adapted to bear against the under side of the flange 3 of the track 1. For the purpose of adjusting the plate 50 upwardly or downwardly the said plate is provided with a central vertical screw-threaded opening 52, in which is fitted the upper end of a thumb-screw 53, which extends through and is revolvably fitted but not longitudinally movable in a vertical opening in the base 37 of the carrier-frame. Transversely through a depending projection 54 on the under side of the base 37 extends a horizontal opening 55, in which is secured the clothes-carrying line 23 by means of a vertical thumb-screw 56, which is fitted in a vertical screw-threaded opening which extends from the under side of the projection 54 and connects with the opening 55. In each of two openings, one above the other, in the arm 39 of the carrier is pivotally mounted a vertical friction-roller 57, which is adapted to bear against the inner wall of the track 1. The upper end of the arm 39 is provided with an inwardly-extending horizontal projection 58, from the outer end of which downwardly extends a vertical projection 59. A friction-roller 60, adapted to rest upon the top of the track 1, is pivotally mounted upon a horizontal shouldered screw 61, which extends through an opening in the projection 59 into a screw-threaded opening in the arm 39.

My invention is operated as follows: The track is first suspended upon the brackets 25, the posts 2 having been placed in position. The drum 5 and its supporting mechanism are

then placed near one end of the track, as shown in Fig. 1. The carriers 4 are then placed on the track in a position such that the roller 60 will rest upon the top of the rail 1, the rollers 42 upon the top of the flange 3, the rollers 51 upon the bottom of the flange 3, the roller 45 upon the outer side of the rail 1, and the rollers 57 upon the inner side of the rail 1. The clothes-line has one end passed through the opening 55 in each one of the carriers, after which the two ends of the line are united and the set-screws 56 tightened. The cable 22 is then passed through the slot 47 in each of the carriers, and the carriers are then moved along the track, a button 48 being in the rear of each carrier. The carriers are moved around the track by rotating the crank 14, which through the intermediacy of the shaft 13, the gears 11 and 12, and the shaft 6 causes a rotation of the drum 5. The cable 22 being wound several times around the drum 5 is thus caused to pass around the track and by means of the buttons 48 moves the carriers along the track. By suspending the clothes to be dried upon the clothes-line 23 they may be made to complete the circuit of the track when the drum is made to revolve. When the carrier on passing around the track arrives at the end of the track where the cable leaves the track and passes around the drum, the cable slips out of the slot 47 and the carrier is drawn along the track by means of the clothes-line 23 until such time as it arrives at a point on the track where the cable will again pass into the slot 47. The arrangement of the buttons on the cable is such that the distance between the buttons will be the same as the distance apart that the carriers are located upon the clothes-line. The weight 21 by its drawing the carriage upon which the drum is mounted rearwardly causes a constant tension upon the cable, and thus permits considerable latitude in adjusting the support for the drum with reference to the track.

My invention may be made of any suitable material and the track may be of any desirable size and located at any height that is suitable. Various modifications in construction may be made while yet retaining the spirit of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a clothes-drying apparatus, the combination with a plurality of carriers, of a track upon which the carriers travel, a clothes-sup-

porting line in the form of a loop connecting each of the carriers, a rotatable drum movably mounted upon a suitable support, a cable which passes around the drum and connects with the carriers, means by which the said cable may be made to engage with or be disengaged from the carriers, means for rotating the drum, and means for providing a constant tension of the cable, substantially as described.

2. In a clothes-drying apparatus, the combination with a plurality of carriers, of a continuous track upon which the carriers are adapted to travel, a clothes-carrying line connecting each of the carriers, a rotatable drum a cable which passes around the drum and which is adapted to engage the carriers, a frame for supporting the drum, a crank-arm revolubly mounted in the said frame, and gearing connecting the crank-arm with the drum, substantially as described.

3. In a clothes-drying apparatus, the combination with the track 1, of the supporting-posts 2, carriers 4 adapted to travel upon the track, line 23 connecting the carriers, drum 5 rotatably mounted in a suitable frame, cable 22 which forms a loop embracing the drum and the track and to which the carriers are adapted to be connected, a support for the drum-frame upon which the said frame is movably mounted, and means for moving the drum away from the track for the purpose of establishing a constant tension in the cable, substantially as described.

4. In a clothes-drying apparatus, the combination with the track 1, of the supporting-posts 2, carriers 4 adapted to travel upon the said track, line 23 connecting the carriers, the drum 5, a frame upon which the drum is rotatable, a crank-arm revolubly mounted in the said frame, gearing connecting the drum and crank-arm, a support for the frame upon which the frame is movable toward or from the track, pulley 18 pivoted to the said frame-support, a cord which passes over the said pulley and is connected at one end to the said frame, a weight secured to the other end of the cord, and a cable which passes around the drum and is connected with each of the carriers, substantially as described.

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

TAYLOR JACKSON.

Witnesses:

WARREN D. HOUSE,
K. M. IMBODEN.