

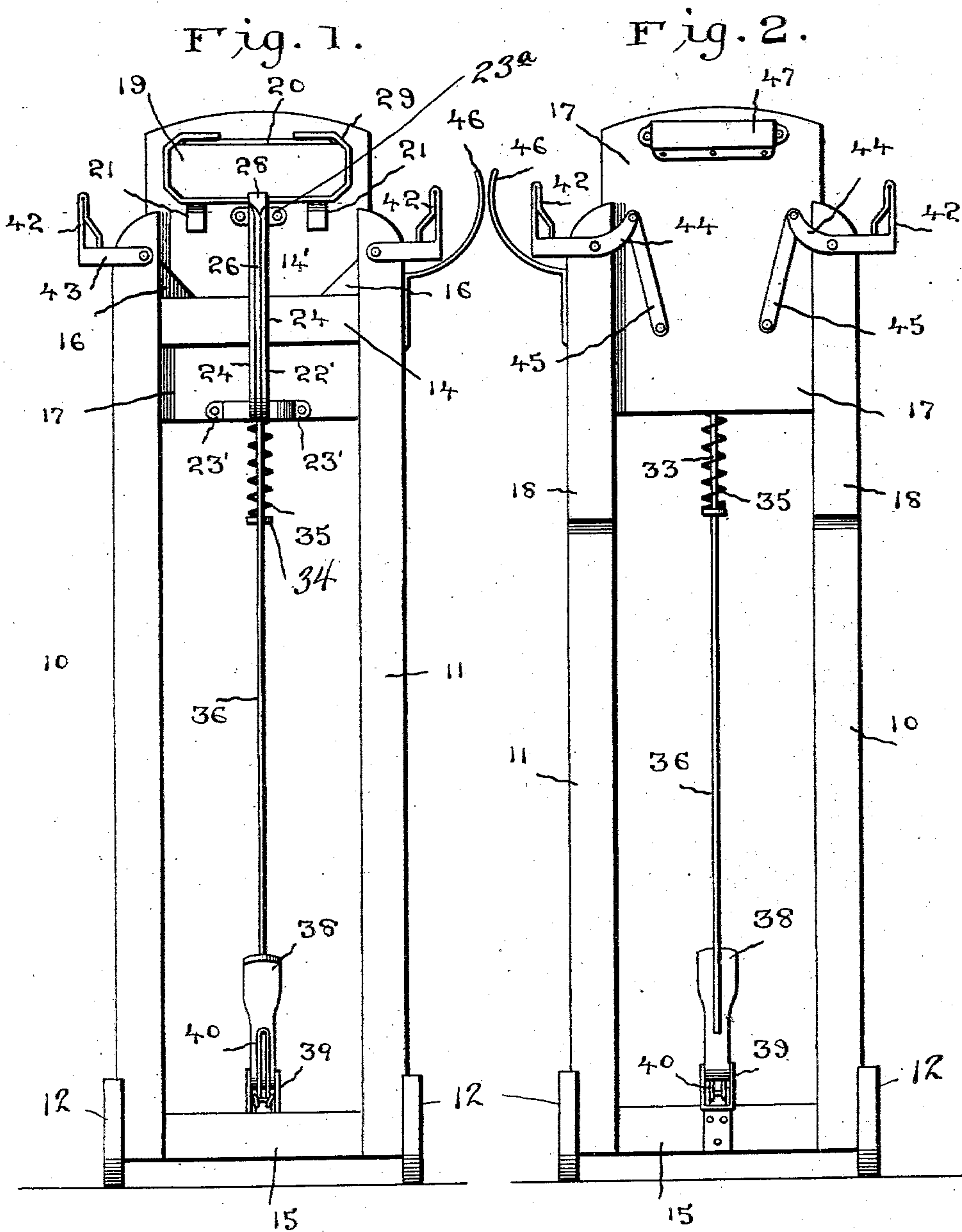
No. 753,140.

PATENTED FEB. 23, 1904.

W. J. KENNEDY.
BOX OR BASKET MAKING MACHINE.
APPLICATION FILED SEPT. 12, 1903.

NO MODEL.

4 SHEETS—SHEET 1.



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4 SHEETS—SHEET 2.

Fig. 3.

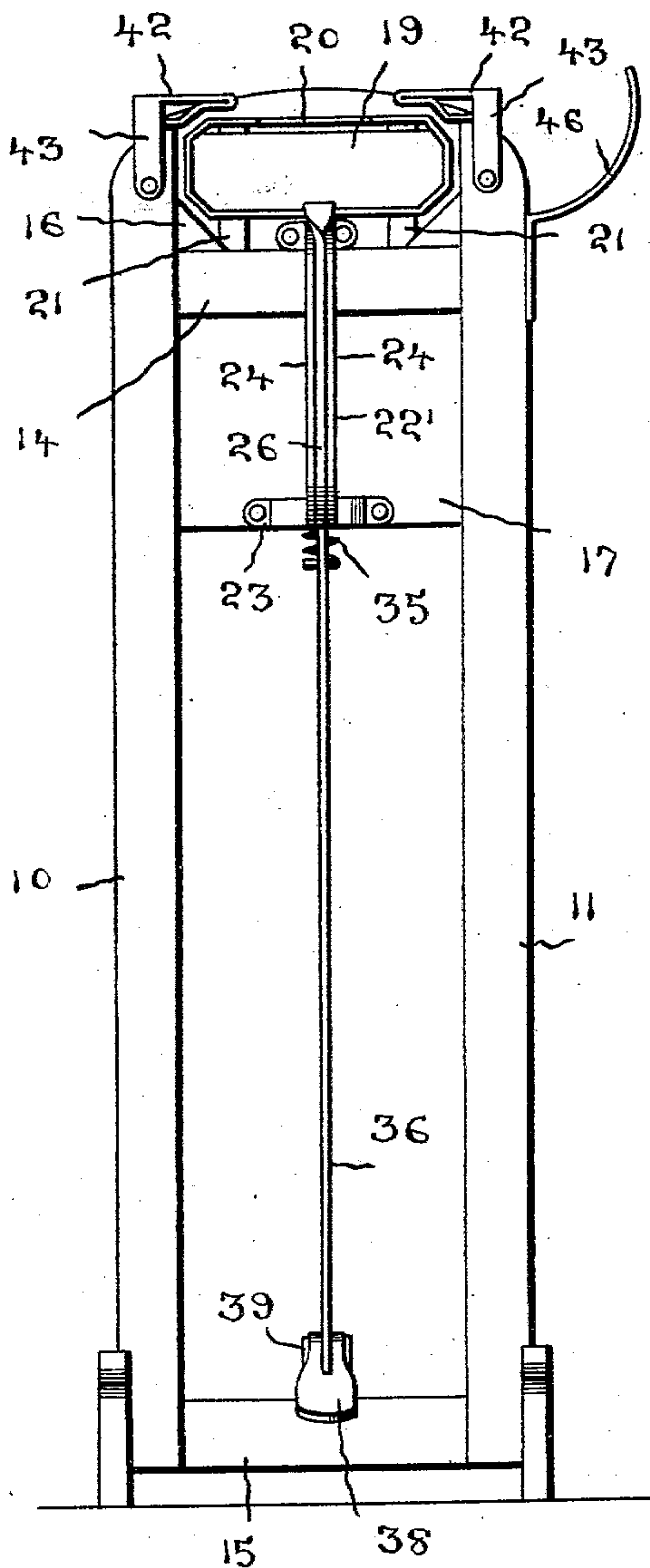
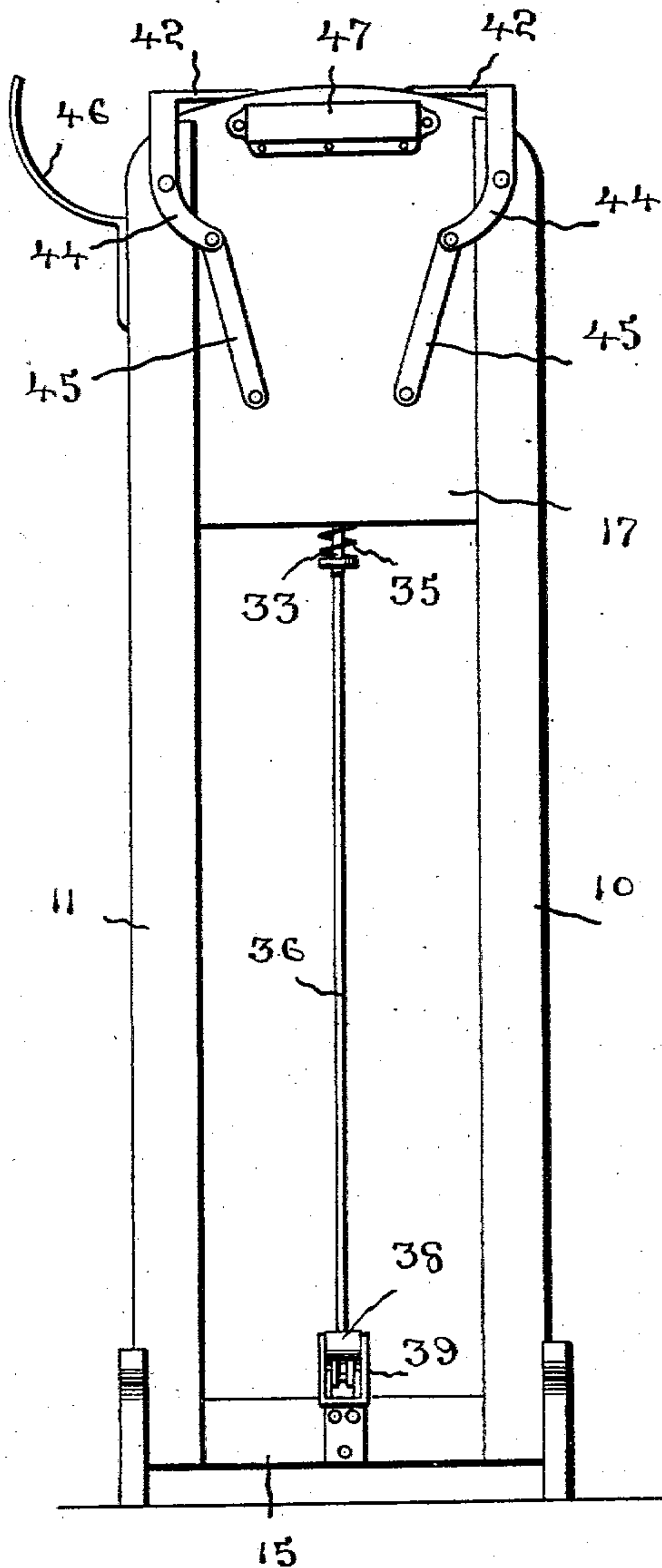


Fig. 4.



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4 SHEETS—SHEET 3.

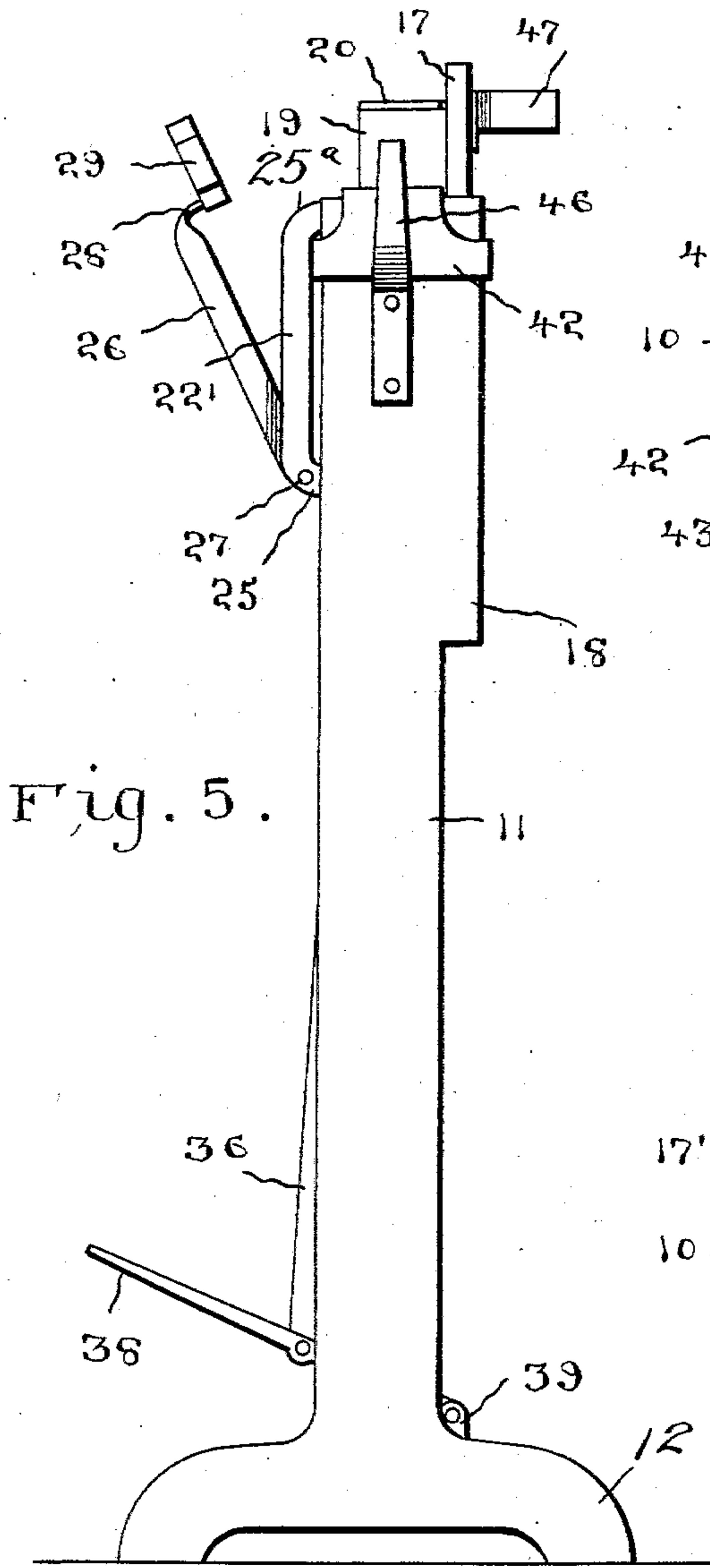


Fig. 5.

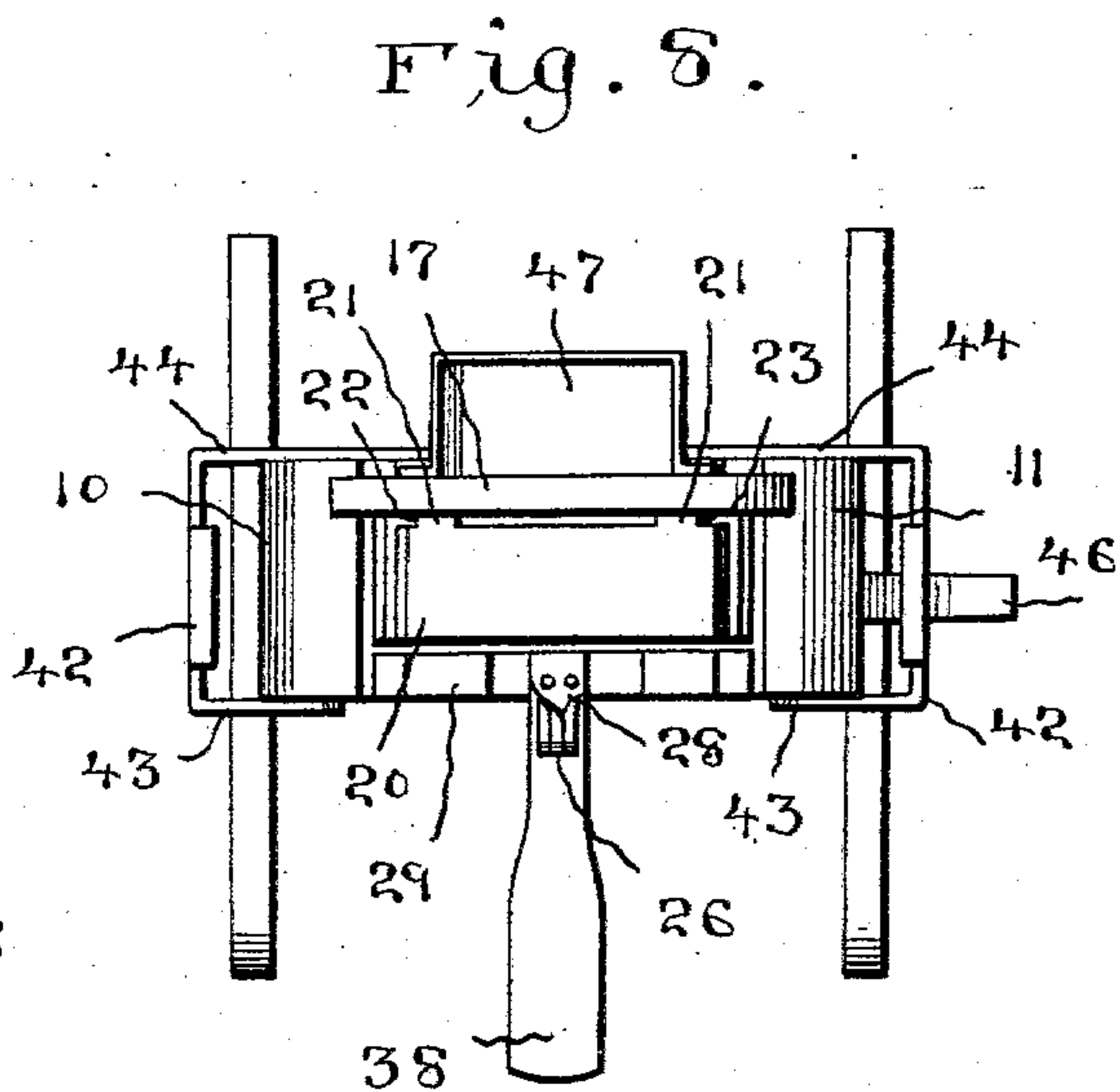


Fig. 8.

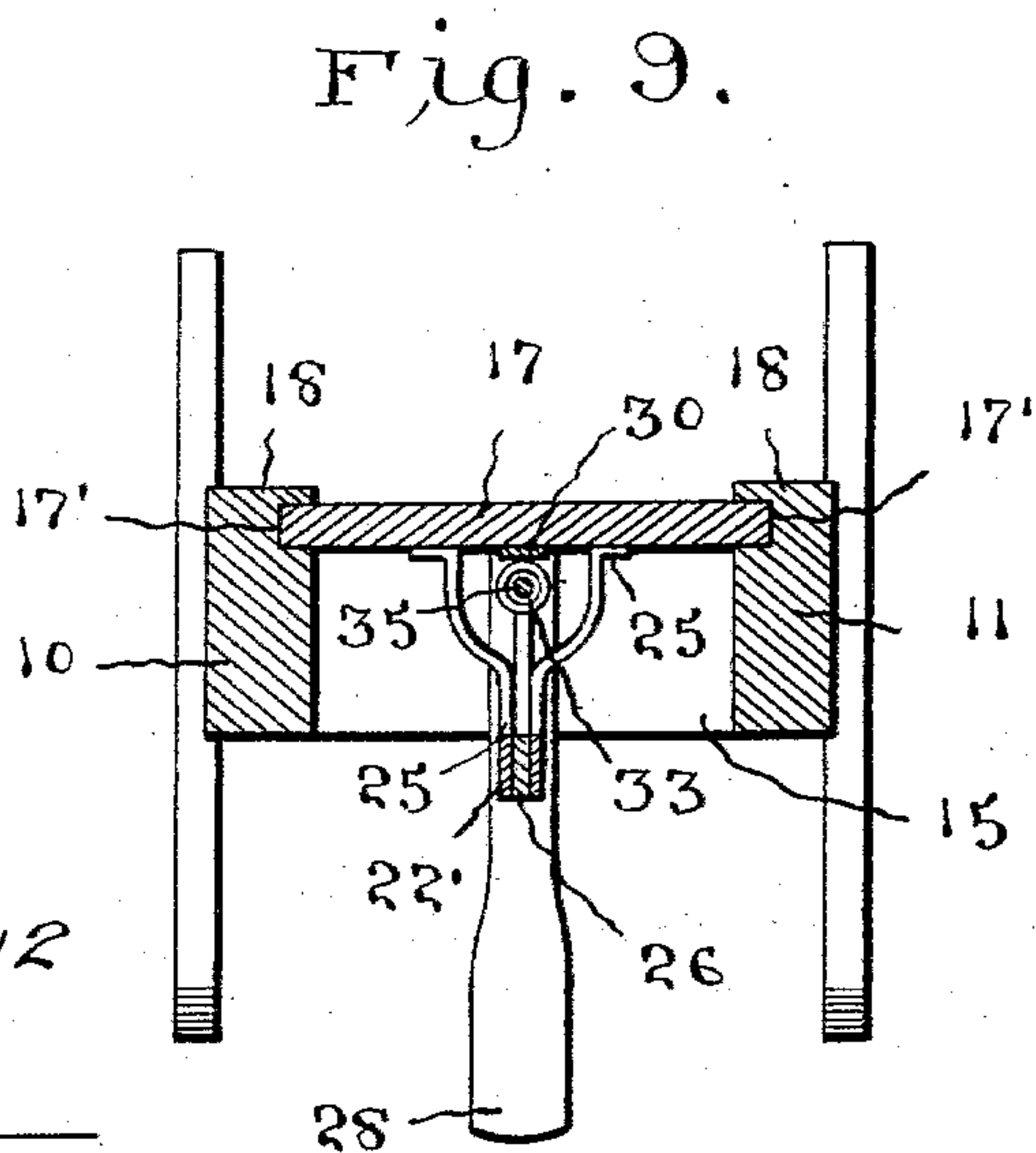


Fig. 9.

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4 SHEETS—SHEET 4.

Fig. 6.

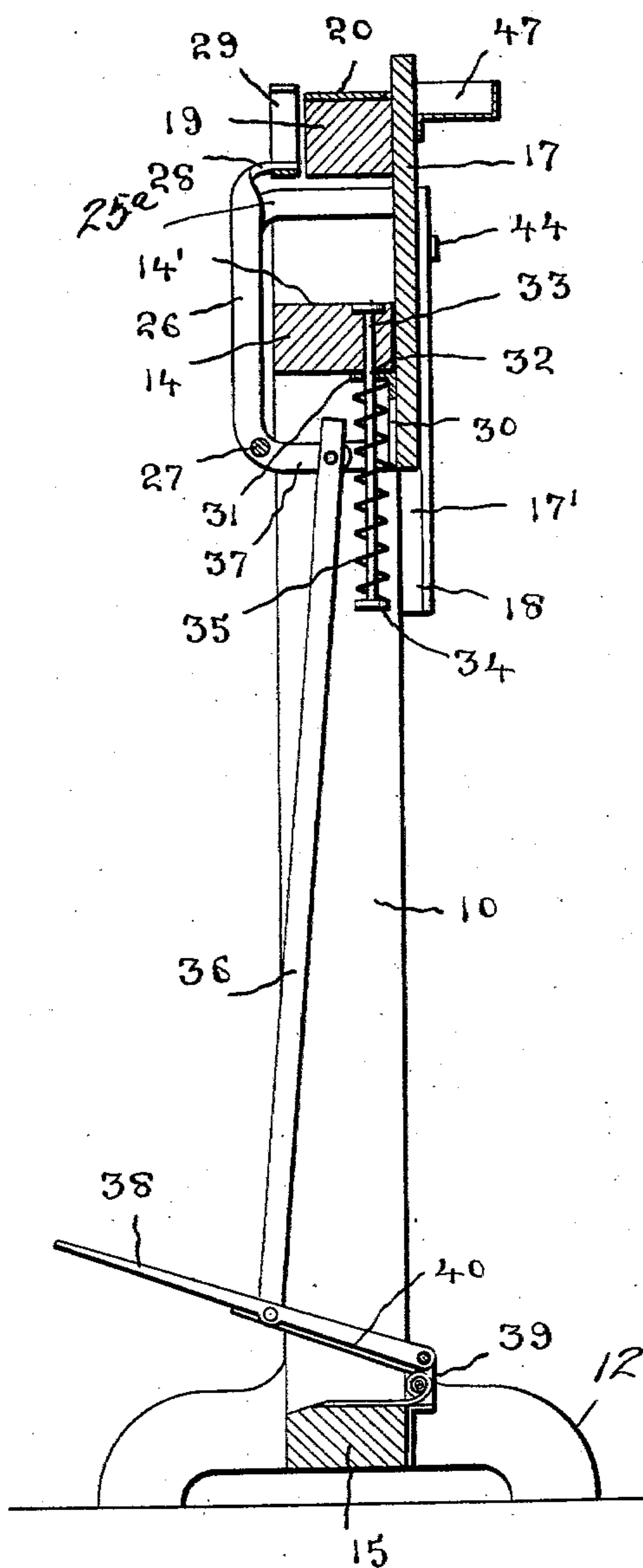
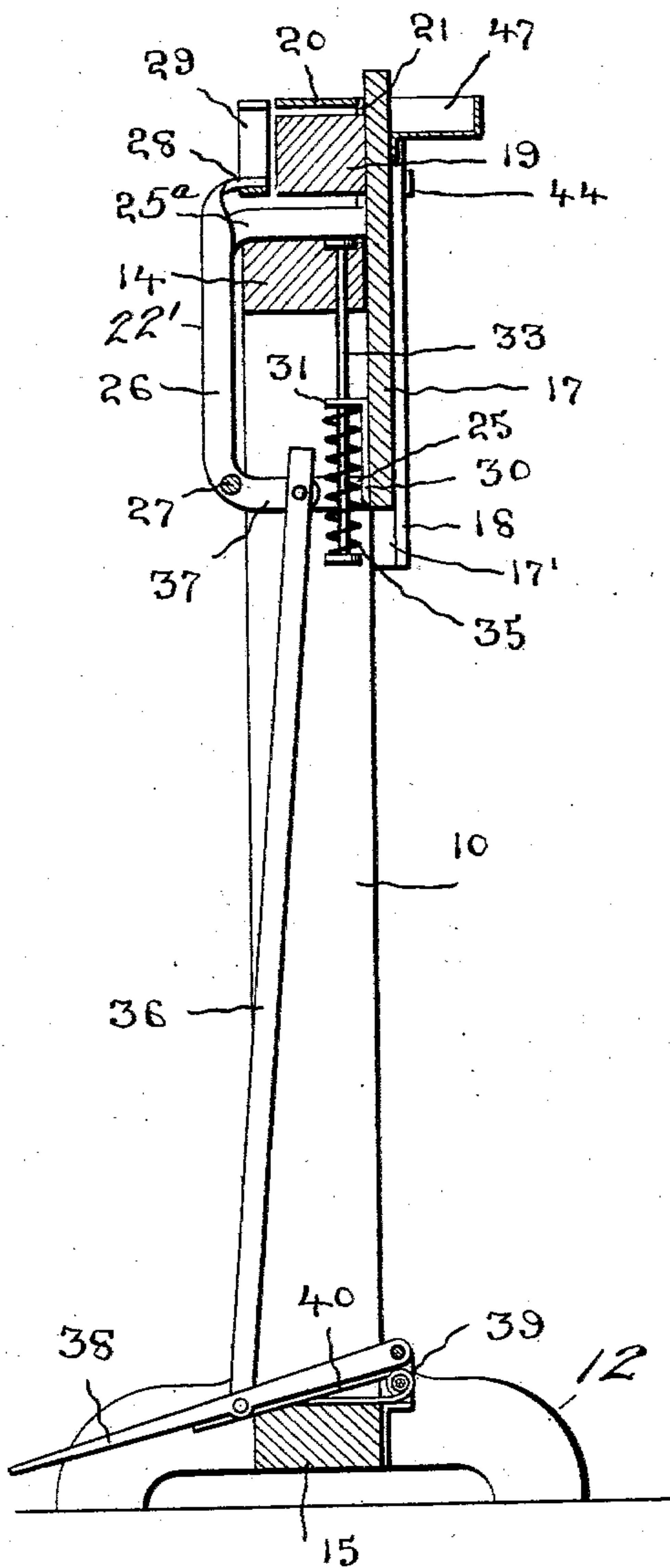


Fig. 7.



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UNITED STATES PATENT OFFICE.

WILLIAM J. KENNEDY, OF ROCKISLAND, TEXAS.

BOX OR BASKET MAKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 753,140, dated February 23, 1904.

Application filed September 12, 1903. Serial No. 172,999. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. KENNEDY, a citizen of the United States, residing at Rock-island, in the county of Colorado and State of Texas, have invented new and useful Improve-
5 ments in Box or Basket Making Machines, of which the following is a specification.

My invention relates to the class of box or basket making machines in which a sheet or
10 blank of thin flexible material for forming the body and a base or bottom sheet are assembled around a form and joined together.

The object of my invention is to improve machines of this type and facilitate the con-
15 struction of baskets, so that the same may be constructed in a more expeditious manner, and the same is constructed as follows, reference being had to the accompanying draw-ings, in which—

20 Figure 1 represents a front elevation of the machine complete with the gate and former-block thereof in a raised position. Fig. 2 shows a rear elevation of the same. Fig. 3 illustrates a front elevation with the gate and
25 former-block lowered into working position, while Fig. 4 represents a like view from the rear. Fig. 5 represents a side elevation of the machine. Figs. 6 and 7 show side eleva-tions with partial sections thereof, showing
30 the working parts in different positions. Fig. 8 shows a top plan view of the machine, while Fig. 9 shows a top plan view thereof in section.

Like numerals indicate like parts in the several figures.

35 The framework for supporting my box-forming machine comprises uprights 10 and 11, that are provided, respectively, with feet 12 and that are joined in spaced parallelism at their upper and lower portions with cross-
40 pieces 14 and 15. The cross-piece 14 is located as shown to provide above it a former-receiving space 14', while 16 designates angle-blocks that are fitted, respectively, into the corners formed by the junction of the cross-
45 piece with the respective uprights, thereby constituting a bed member of an opposing forming and clamping means.

17 designates a gate that is slidably sup-
50 ported for reciprocation in a vertical plane in the guiding-grooves 17', formed between

the upper portions of the rear face of the up-rights and the cleats 18 secured thereto.

19 represents the former or block, which is mounted in a horizontal position to project forwardly on the upper front face of the gate 55 and which may be of any desired shape, but which, as illustrated, is shown to be of a size and shape which when lowered substantially fills the space 14' provided by the parts above referred to to form, in conjunction with the
60 cross-piece 14 and blocks 16, an opposing forming and clamping means. Said former-block is provided on its upper face with a plate 20, that is formed with depending arms 21, that project downwardly through recesses
65 22 and 23, formed in the block, which plate normally lies flatwise to serve as an anvil, but which when said block is carried down into the former-space 14' causes the ends of the arms to contact with the upper face of the
70 cross-piece 14 to raise the plate 20 slightly from the block for the purpose to be hereinafter described.

22' designates duplicate vertical members located forwardly of the machine and pro-
75 vided with angular branches 25 and 25^a, having their ends secured to the front face of the gate by means of clips 23' and 23^a, said mem-bers being spaced apart to form a guide for the reception and working of a bell-crank fol-
80 lower-lever 26, the extremity of the lower and shorter arm of which is fulcrumed at 27 be-tween the lower part of said vertical members, as shown. The said follower-lever carries on
85 its upper portion an angle-arm 28, which lat-ter carries on its outer end a bottom-holder 29, that comprises a resilient frame having the contour of the bottom of the box and which is adapted to embrace same and that is
90 capable when thus disposed of being swung into the plane of the front face of the former-block and which serves to hold the bottom of the box and press the same within the pro-
95 jecting portion of the body of the box against the front face of the forming-block.

The angle-arm 28 serves as a shoulder that is adapted to embrace or bear on the upper edges of the arched bars when the follower-lever is swung to its extreme inner position,
100 as shown in Fig. 7, and thereby forms a con-

nection that causes the descent of the gate 17, when said follower is actuated further by a downward thrust of the operating-lever. The gate thus arranged and equipped is adapted
 5 to carry a guide-piece 30, that is provided with an extension-piece 31, which projects forwardly at right angles thereto and which is provided with an opening 32, that adapts it to fit on or over the rod 33, that extends down-
 10 wardly from the cross-piece 14 and which is provided at its lower end with a head or shoulder 34.

Interposed between the extension-piece 31 and the head 34 of the rod and mounted on
 15 the latter is an expansive coiled spring 35, that is normally extended to hold the gate in a raised position in order to normally present the former carried thereby also in a raised position. The downward reciprocation of said
 20 gate is effected by the following means, which include a vertically-movable treadle-rod 36, that is connected at its upper end with the inwardly-turned arm 37 of the follower-lever 26, while its lower end is connected with the
 25 treadle-bar or foot-lever 38. The treadle-bar is pivotally mounted on the supporting-bracket 39, attached, as shown, to the lower cross-piece 15. As an auxiliary means to assist in the return of said treadle to its full
 30 limit of travel to throw the follower-lever back after the coiled spring has ceased to pull thereon there is a secondary spring 40, that is shown as being connected at its lower end to the bracket 41 and which contacts with its
 35 opposite end with the under face of the treadle-bar. From the structure thus described it will be seen in what manner the gate and follower-lever are reciprocated.

42 represents the folding levers or wings,
 40 which are provided with arms 43 and 44, that are pivoted, respectively, on the front and rear faces of the upper end portions of each of the uprights 10 and 11 and which are pivotally connected to the link-levers 45, that in
 45 turn are fulcrumed to the rear face of the gate, as shown in Figs. 2 and 4, and which are thrown to and fro in timed movements and which are capable of being swung into substantially the same plane as the upper face
 50 of the forming-block when the latter has been carried down into the forming-space, thereby serving to make the ultimate foldings of the end portions of the blank on said former.

46 represents an arm that is positioned on
 55 the side of the machine and serves as a gage to prescribe the proper endwise position of the blank to be formed.

47 represents a nail-box located on the rear face of the gate.

60 The operation is as follows: A rectangular-shaped blank of flexible material of proper length and width is taken and placed under the former and moved lengthwise until it touches the arm 46, where it is supported on the hori-
 65 zontal arms 25. A depression of the treadle-

bar by the foot of the operator carries the former with its under face in pressing contact with the blank, causing its end portions to be bent up and drawn in forcibly between the
 inner and corner faces of the uprights and
 70 the ends of the former-block in a manner to conform to the latter, and by reason of the continued descent of the former that portion of the body of the box is held pressed against the opposing bed members 14 and 16. The end
 75 portions of the blank extending above the ends of the former-block are engaged by the wings 42, which in turn fold said ends down upon the anvil-plate on the upper face of the
 80 former-block in overlapping relation, in which position the overlapping ends may be held by a continued pressure on the treadle-bar, while the anvil-plate is slightly raised to cause a clamping action and to clench the tacks, which
 85 are now driven into the overlapping ends by the operator.

The bottom of the basket is composed of a single piece or board that conforms to the shape of the basket and is introduced into the
 portion of the body thus formed, which pro-
 90 jects from the former-block. The bottom is held by the frame of the follower and holding-lever, which swings it into proper position upon the first movement of the treadle-bar by the operator, where it is held until nailed.
 95 The basket when thus completed is loosened on the former by the dropping back of the anvil-plate and is removed from the former-block.

As far as the main features of my invention
 100 are concerned other forms of the several parts of the machine may be employed without departure from my invention.

What I desire to claim as new and useful is—

1. In a box-making machine, the combina-
 105 tion with suitable uprights, of a vertically-reciprocatory plate, a former carried thereby, an opposing bed in operative relation to said former, coöperating folding-levers fulcrumed on said uprights, and having pivoted connec-
 110 tion with said plate, and means for operating said plate to actuate said former and folding-levers.

2. In a box-making machine, the combina-
 115 tion with suitable uprights, of a vertically-reciprocatory plate, a former carried thereby, an opposing bed in operative relation to said former, coöperating folding-levers fulcrumed on said uprights, and having pivoted link connection with the plate, and means for operating
 120 said plate to actuate said former and folding-levers, including a follower for the bottom portion of the box, adapted to be carried into operative relation to the former.

3. In a box-making machine, the combina-
 125 tion with suitable uprights, of a vertically-reciprocatory plate, a former carried thereby, an opposing bed in operative relation to said former, coöperating folding-levers fulcrumed on said uprights, and having pivoted connec-
 130

tion with said plate, and means for operating said plate to actuate said former and folding-levers, said opposing bed being constructed of a cross-strip between the uprights, and angle-blocks located in the angles formed by the intersection of the ends of said strip with said uprights.

4. In a box-making machine, the combination with suitable uprights, of a vertically-reciprocatory plate, a former carried thereby, an opposing bed in operative relation to said former, cooperating folding-levers fulcrumed on said uprights, and having pivoted link connection with the plate, and means for operating said plate to actuate said former and folding-levers, including a follower for the bottom portion of the box, adapted to be carried into operative relation to the former, said opposing bed being constructed of a cross-strip between the uprights, and angle-blocks located in the angles formed by the intersection of the ends of said strip with said uprights.

5. In a box-making machine, the combination with suitable uprights and a stationary forming-bed, of a vertically-reciprocatory plate, a former-block carried thereby, and means on the supports for guiding said plate and block, cooperating folding-levers fulcrumed on said uprights and having pivoted link connection with the plate, a follower, and treadle mechanism for operating the several parts, including a retracting-spring for the plate.

6. In a box or basket making machine, the combination of a framework, a gate arranged for vertical reciprocation thereon, a former carried thereby, a spring arranged in opposition to said gate, an opposing forming-bed, that is arranged beneath the former, and that is arranged to cooperate therewith, folding

levers or wings mounted on said frame, in operative relation to said former and connected respectively to said gate by pivoted levers a pair of brackets mounted on the front face of said gate in parallel planes, in a manner to provide a guide-opening, a bell-crank follower-lever pivoted to said brackets that is adapted to enter said guide-opening and to shoulder said brackets, and that is provided on its upper end with a bottom-holding frame, and a treadle mechanism connected with said follower-lever, substantially as described.

7. In a box-making machine the combination with suitable uprights, provided with cross-pieces and legs, and further provided with vertical guideways, a gate, a horizontally-disposed block disposed on the front face of said gate, an opposing forming-bed, that is adapted to be arranged in operative proximity to said block, and that comprises in its construction the angular sides produced by the union of the upper inner end portions of the uprights, and angle-blocks attached thereto, brackets secured to the front face of the gate, a follower-carrying lever pivotally mounted on said bracket, that is adapted to be swung into a plane coincident with that of the outer face of the former and that is adapted to shoulder on the upper portion of said bracket to cause a descending thrust when actuated to its extreme limit, and a spring-retracted treadle-bar suitably mounted, and a treadle-rod connecting said follower-carrying lever and said treadle-bar, substantially as described.

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

WILLIAM J. KENNEDY.

Witnesses:

A. T. RATCLIFF,

S. A. CROCKETT.