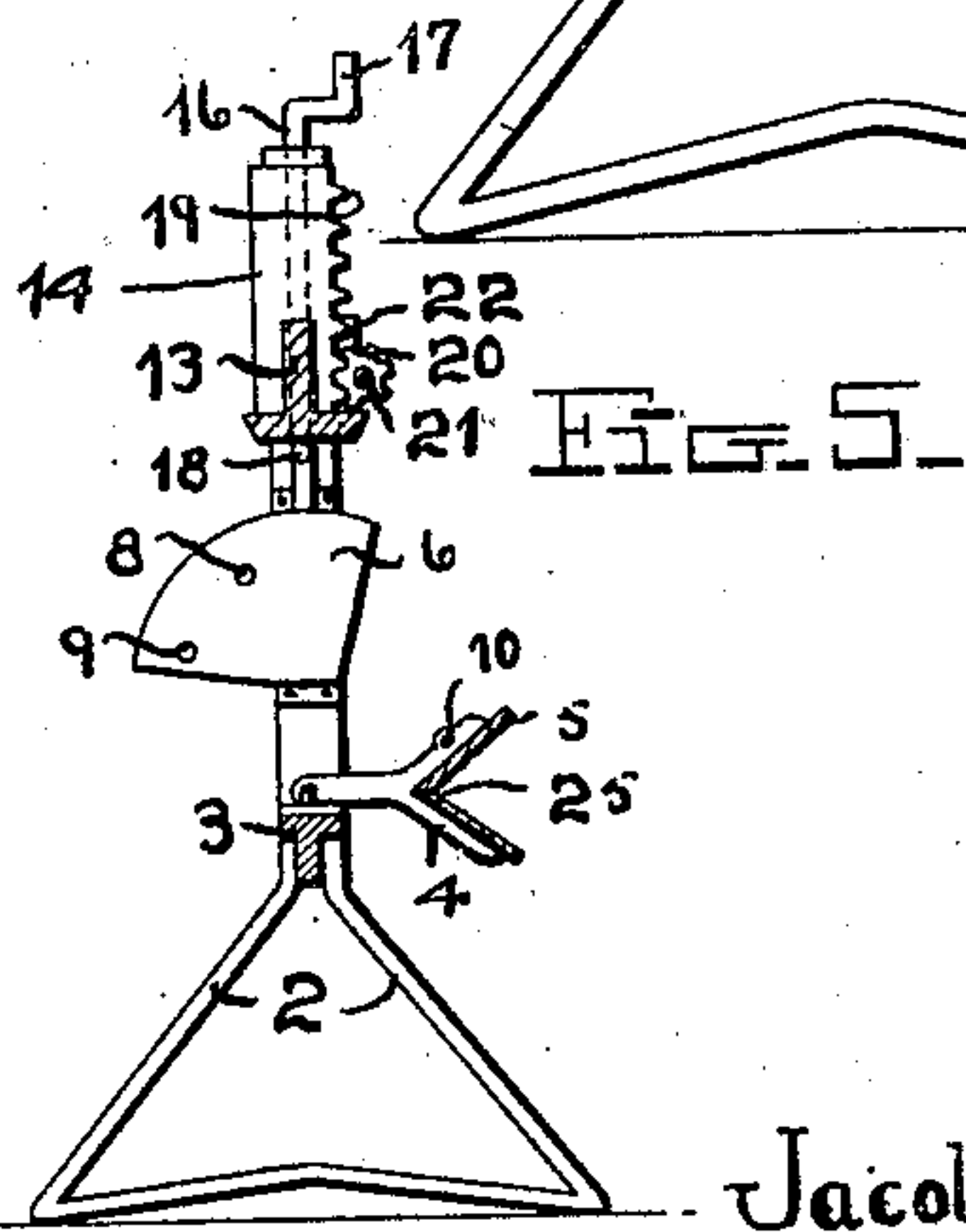
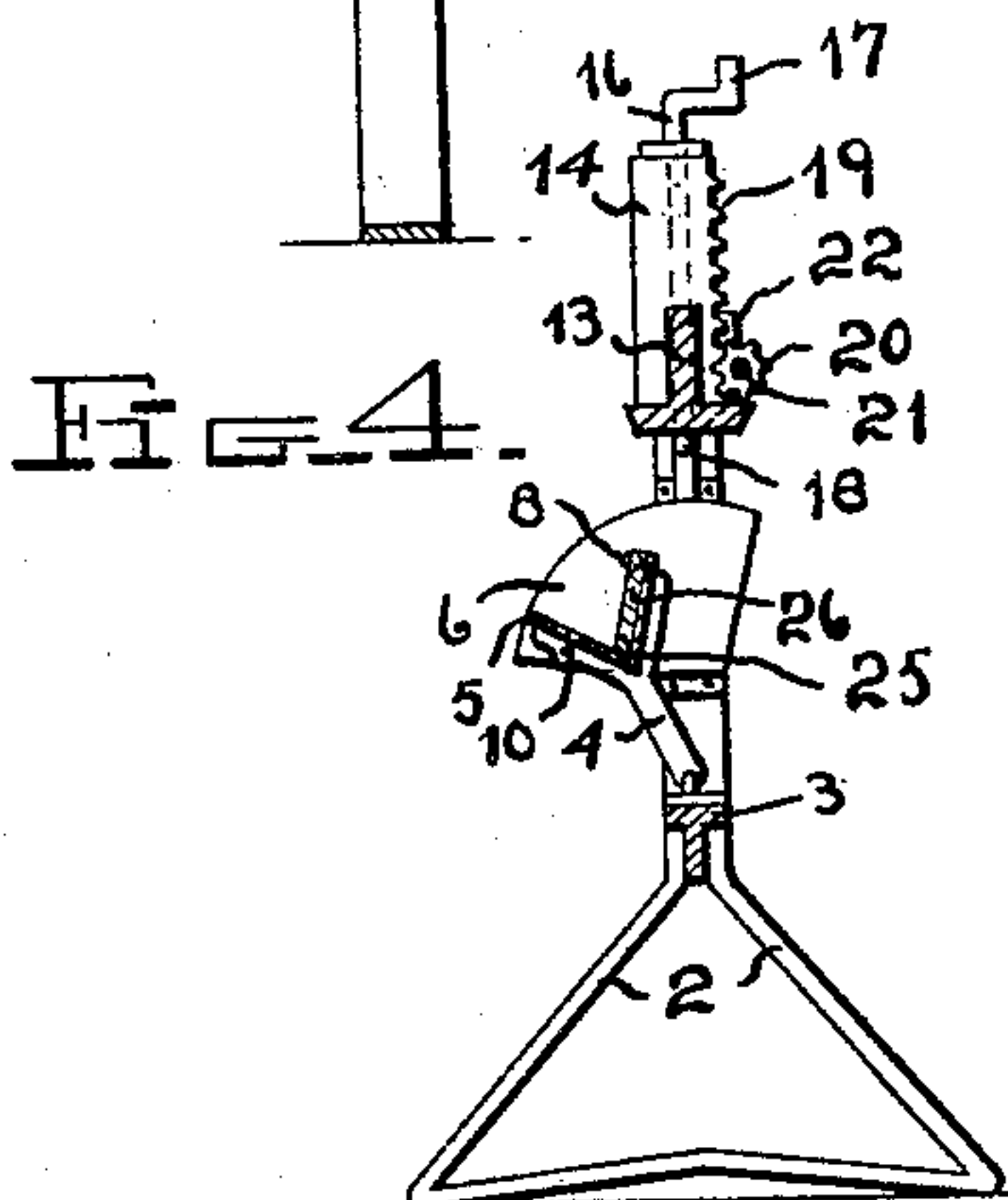
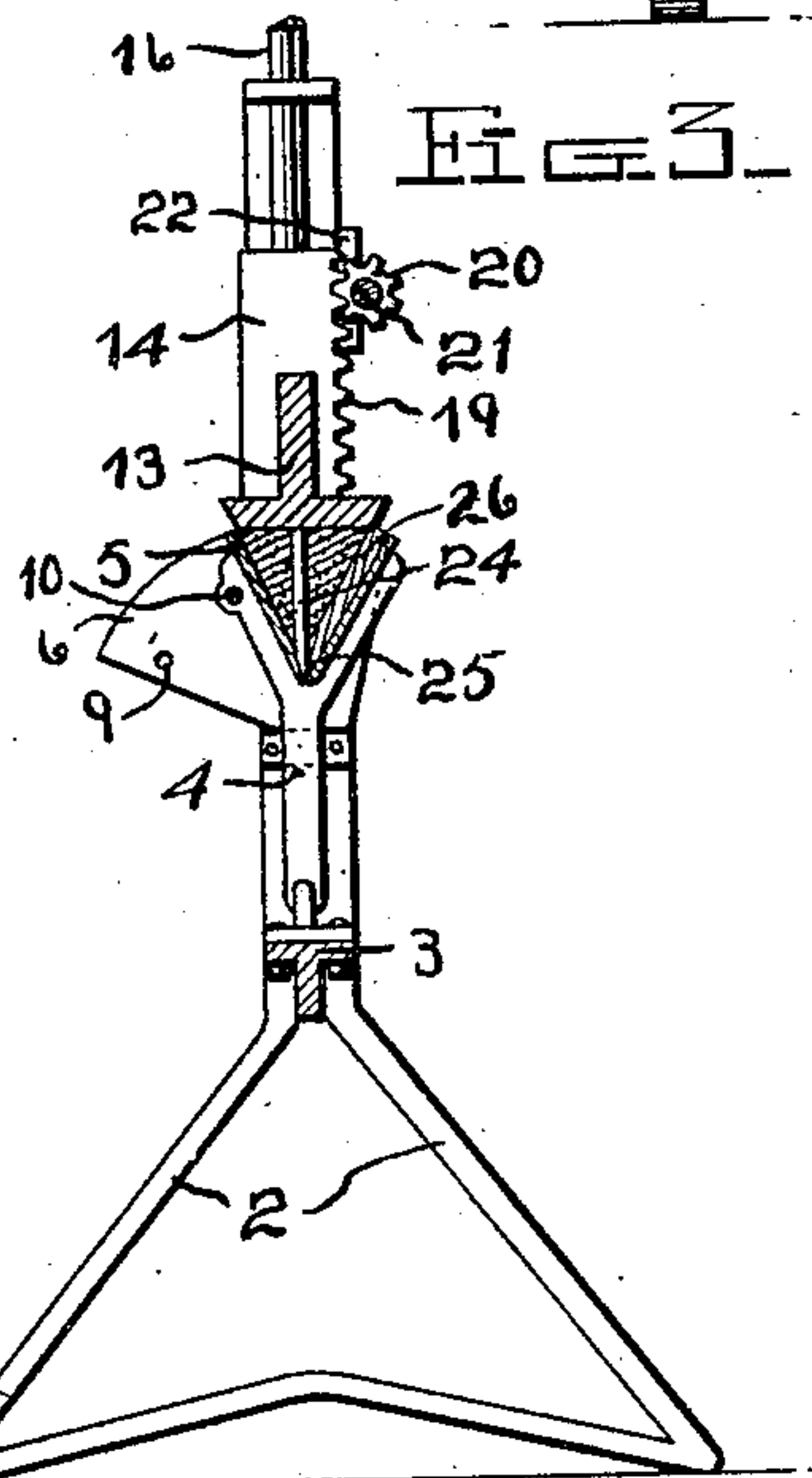
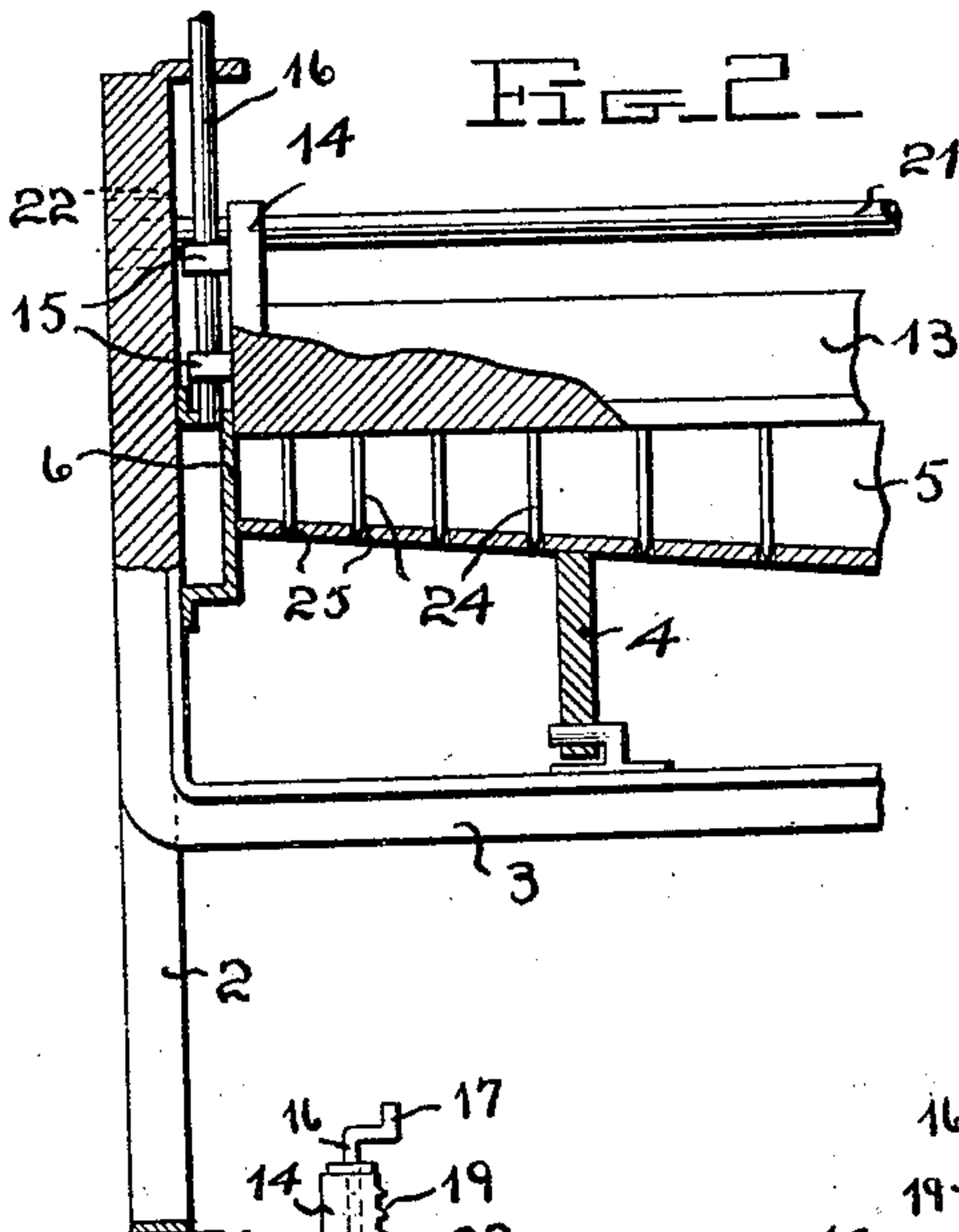
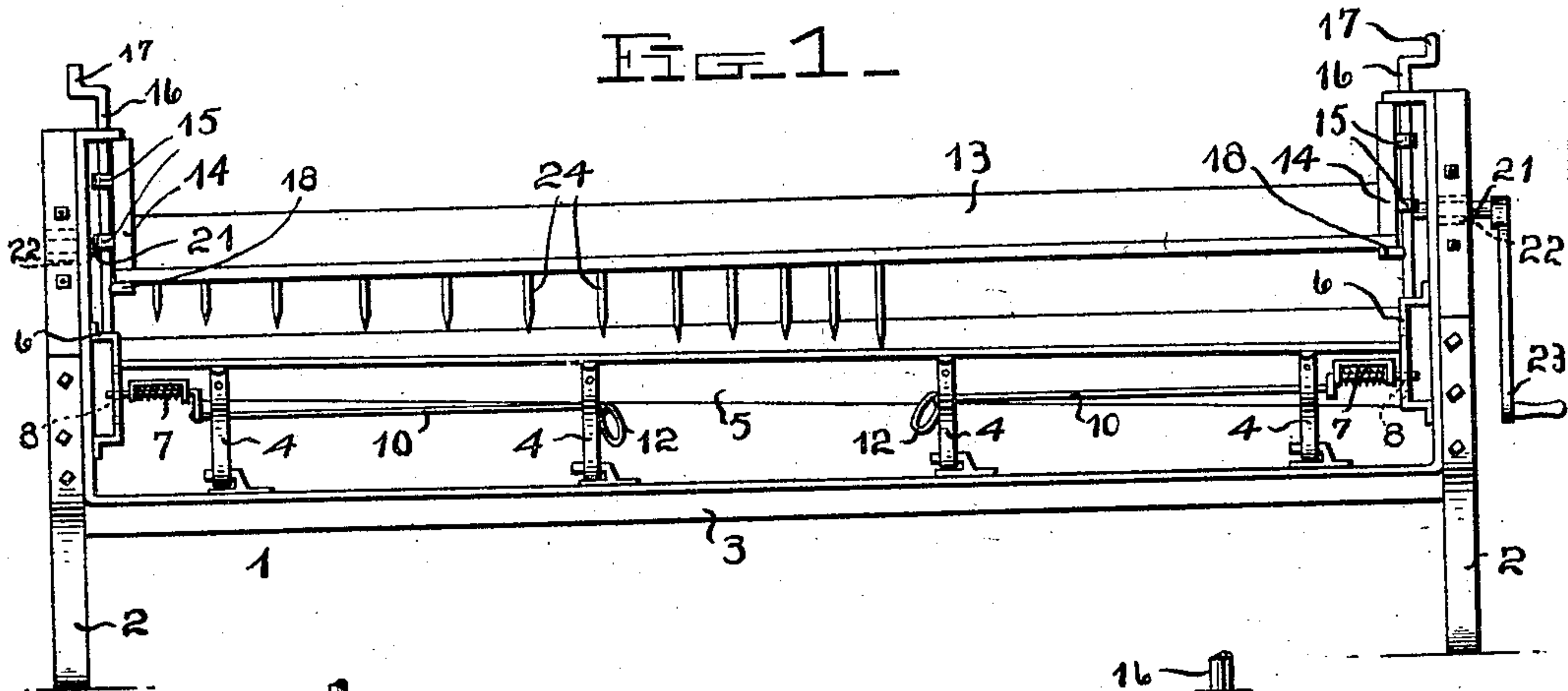


No. 841,080.

PATENTED JAN. 8, 1907.

J. B. ENGSTROM.
FENCE POST MOLD.
APPLICATION FILED MAR. 26, 1906.



Witnesses
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UNITED STATES PATENT OFFICE.

JACOB B. ENGSTROM, OF MANCHESTER, IOWA.

FENCE-POST MOLD.

No. 841,080.

Specification of Letters Patent.

Patented Jan. 8, 1907.

Application filed March 26, 1906. Serial No. 308,022.

To all whom it may concern:

Be it known that I, JACOB B. ENGSTROM, a citizen of the United States, residing at Manchester, in the county of Delaware and State of Iowa, have invented certain new and useful Improvements in Fence-Post Molds; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to molds for forming fence-posts of plastic material.

The object of the invention is to improve the construction of mold shown and described in United States Letters Patent numbered 784,667, granted to me March 14, 1905.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side view of the mold with the pressing device and plunger in raised position. Fig. 2 is an enlarged detail longitudinal sectional view through one end of the mold, showing the plunger in a lowered position. Fig. 3 is a cross-sectional view through the mold, showing the parts in position for pressing and molding a post. Fig. 4 is a similar view showing the plunger in elevated position and the mold-box tipped slightly to one side to facilitate the filling thereof, and Fig. 5 is a similar view showing the mold tipped in the opposite direction for removal of the finished post.

Referring more particularly to the drawings, 1 denotes a supporting-frame comprising uprights or standards 2 arranged at each end thereof, and a longitudinally-disposed connecting-bar 3, which is secured at its opposite ends to said standards, as shown. Pivottally mounted on the connecting-bar 3 is a series of substantially V-shaped supporting-brackets 4, in which is secured a mold-box 5, said box being substantially V-shaped in cross-section and preferably tapering longitudinally, as shown.

On the standards or uprights 2 adjacent to each end of the mold-box 5 are secured segmental end plates 6, over which the open ends of the mold-box are adapted to slide when said box is rocked or tilted in one direction or the other in the process of forming

the post. Secured to one side of the mold-box 5 at each end thereof are spring-projected catch-bolts 7, which when the box is in an operative position are adapted to be engaged with apertures 8, formed in the end plate 6, thereby holding said mold-box in an operative position. The end plates 6 are also provided with apertures 9, adapted to receive the ends of the latch-bolts 7 when the mold-box is tilted to one side, as shown in Fig. 4, to facilitate the filling of the box. The latch-bolts 7 are connected at their inner ends to releasing-rods 10, which extend through suitable guides in the supporting-brackets 4, said rods having connected to their inner ends operating devices or handles 12, by means of which the bolts may be retracted from the apertures in the end plates 6.

Slidably mounted between the upper ends of the standards 2 is a pressing block or plunger, said plunger comprising a longitudinally-disposed bar having on each end vertically-disposed upwardly-projecting arms 14, on the outer sides of which are secured apertured guide-lugs 15, adapted to slidably engage guide-rods 16, arranged on the inner sides of the standards 2 and connected at their lower ends to the plates 6 and projecting at their upper ends through apertured ears or lugs secured to the end standards 2 of the frame, as shown. The upper ends of the guide-rods 16 have formed thereon crank-handles 17, by means of which said rods may be turned. Formed on or secured to the rods 16 in a suitable position is a detent-pin 18, which is adapted to be engaged with the plunger 13 to hold the same in a raised or inoperative position. The detent 18 is engaged with the plunger by turning said guide-rods 16 a one-fourth revolution, said rods being turned by the cranked upper ends thereof, as hereinbefore described.

On one side of the arm 14 of the plunger are arranged toothed racks 19, adapted to be engaged by pinions 20, mounted on a longitudinally-disposed shaft 21, which is journaled in bearings 22 on the adjacent side of the standards 2, as shown. The shaft 21 is provided on one end with a crank-handle 23, whereby the same may be turned in one direction or the other to engage the pinions 20 with the racks 19, thereby raising and lowering the plunger 13 on the guide-rods 16.

If desired, the under side or pressing-surface of the plunger 13 may be provided with

a series of downwardly-projecting pins or rods 24, which when the plunger is lowered are adapted to be forced through the plastic material in the mold-box and to engage apertures 25, formed in the bottom or apex of the mold-box. By means of the rods or pins 24 a series of holes will be formed through the post to receive the line-wires of the fence when the posts are set up for use. If desired, a suitable pallet-board 26 may be provided for use in connection with the mold-box and is adapted to lie in engagement with the inner wall of one side of the box, so that when the latter is tipped downwardly to the position shown in Fig. 5 said board, together with the finished post, may be readily removed from the mold-box and a new pallet-board arranged therein for the formation of another post.

In filling the mold the box 5 is tilted slightly to one side and from beneath the elevated plunger, said box being held in tilted position by means of the engagement of the latch-bolts 7 with the apertures 9 in the end plates 6. After the box has been filled with plastic material the same is swung back to a vertical position beneath the plunger, in which position said box is held by the engagement of the latch-bolts 7 with the apertures 8 in said end plates 6, as hereinbefore described. When the box is in said vertical position with the plastic material therein, the detent-pins 18 on the guide-rods 16 are disengaged from the plunger and the latter is lowered by means of the rack-and-pinion operating mechanism connected therewith to engage the lower surface of the rod with the plastic material in the mold and to firmly press said material together, thereby forming a compact artificial-stone post. After the post has been thus pressed in the mold-box the plunger is raised by the engagement of the pinions 20 on the shaft 21 with the racks 19 on said plunger, and the latter is held in a raised position by the detent-pins on the guide-rod 16, as hereinbefore described. The latch-bolts 7 are now disengaged from the apertures 8 in the end plates, and said mold is tilted in a direction opposite to that in which it was tilted for filling until the supporting-brackets 4 engage the connecting-bar 3, in which position the pallet-board with the molded post is readily removed from the mold-box.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined by the appended claims.

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

1. In a mold of the character described, the combination with a supporting-frame having rigid supporting-standards connected by a longitudinally-disposed supporting-bar, of a mold-box pivotally connected to said bar, latch-bolts arranged on said mold-box to hold the same in an operative and a tilted position, a plunger slidably mounted between said standards, vertically-disposed guide-rods arranged on the latter, apertured guide-lugs secured to said plunger and to slidably engage said guide-rods when said plunger is raised or lowered, means whereby said plunger is operated, and means to support the same in an elevated position, substantially as described.

2. In a mold-box of the character described, the combination with a supporting-frame having rigid end supporting-standards connected by a longitudinally-disposed supporting-bar, of supporting-brackets hingedly connected to said bar, a mold-box arranged in said brackets, end plates secured to said standards at each end of said mold-box, spring-projected latch-bolts arranged on one side of said box to engage keeper holes or apertures formed in said plates, whereby said box is held in an operative position and in a tilted position for filling, a plunger arranged above said mold-box, vertically-disposed guide-rods secured to said standards, means to slidably engage said plunger with said guide-rods, means to raise and lower the plunger, and means to hold the same in an elevated position, substantially as described.

3. In a mold-box of the character described, the combination with a supporting-frame having rigid end supporting-standards connected by a longitudinally-disposed supporting-bar, of supporting-brackets hingedly connected to said bar, a mold-box arranged in said brackets, end plates secured to said standards at each end of said mold-box, spring-projected latch-bolts arranged on one side of said box to engage keeper holes or apertures formed in said plates, whereby said box is held in an operative position and in a tilted position for filling, a plunger arranged above said mold-box, vertically-disposed guide-rods secured to said standards, means to slidably engage said plunger with said guide-rods, detents arranged on said guide-rods to hold said plunger in an elevated position, crank-handles formed on the upper ends of said rods, whereby the same may be turned to engage said detents with and disengage the same from said plunger, and means to raise and lower the plunger, substantially as described.

4. In a mold-box of the character described, the combination with a supporting-frame having rigid end supporting-standards

connected by a longitudinally-disposed supporting-bar, of supporting-brackets hingedly connected to said bar, a mold-box arranged in said brackets, end plates secured to said standards at each end of said mold-box, 5 spring-projected latch-bolts arranged on one side of said box to engage keeper holes or apertures formed in said plates, whereby said box is held in an operative position and in a tilted position for filling, retracting rods and 10 handles connected to said bolt whereby the same are released from said keeper-holes, bearing-lugs arranged on the inner sides of said standards, guide-rods revolubly mounted in said bearing-lugs, a plunger arranged 15 between the upper ends of said standards, apertured guide-lugs arranged on the ends of said plunger to slidably engage said guide-rods, a detent formed on said rods, crank-

handles formed on the upper ends of the latter to turn the same to engage said detent 20 with and disengage the same from said plunger, whereby the latter is held in an elevated position, rack-bars secured to one side of said plunger adjacent to the opposite end thereof, 25 a longitudinally-disposed operating-shaft journaled in bearings on said standards, and pinions mounted on said shaft to engage said racks, thereby providing means for raising and lowering the plunger, substantially as 30 described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JACOB B. ENGSTROM.

Witnesses:

M. E. BLAIR,
F. C. HALL.