

(No Model.)

G. WILDEY & A. ROLLINS.

PRESS

No. 271,754.

Patented Feb. 6, 1883.

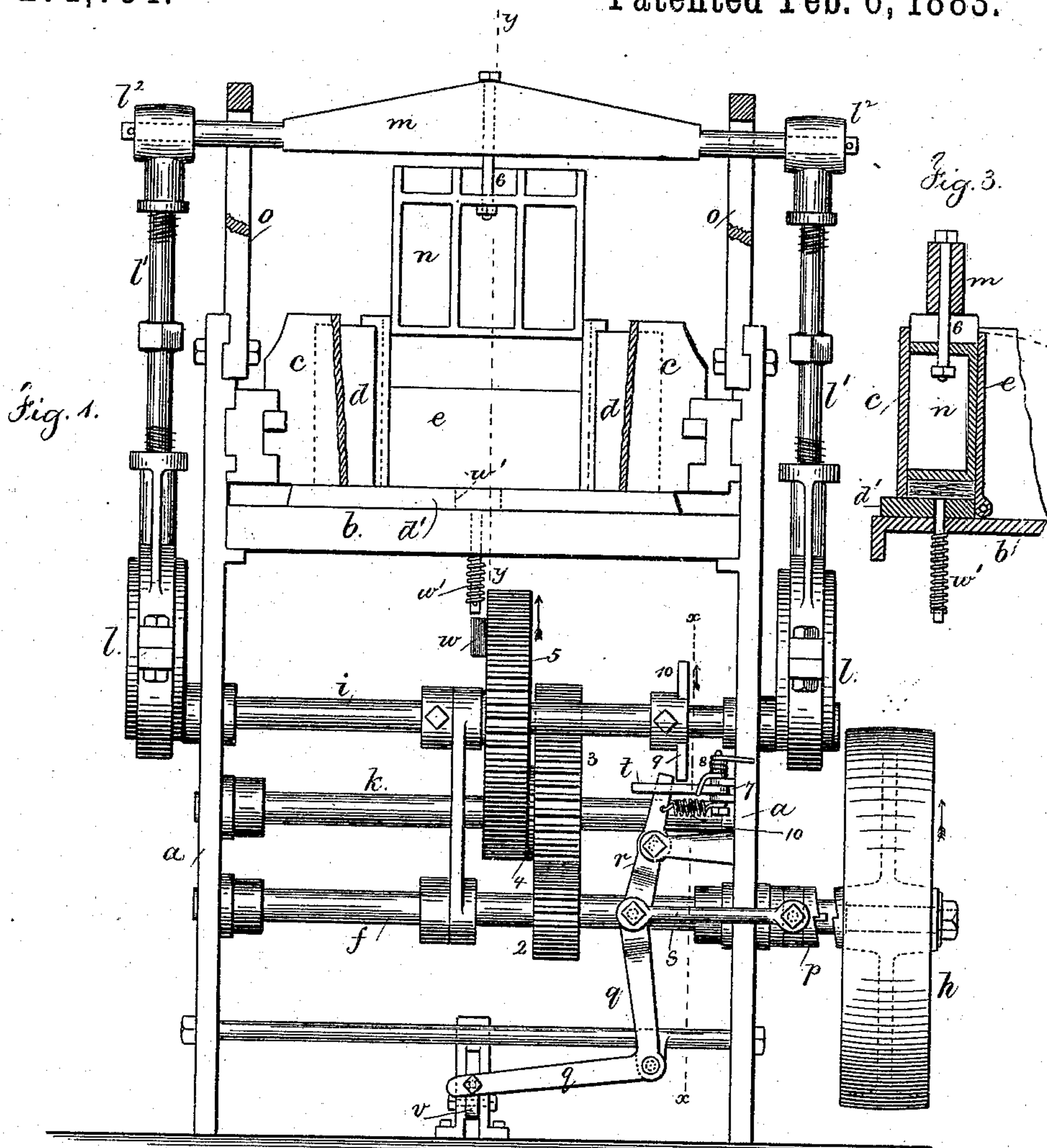


Fig. 3.

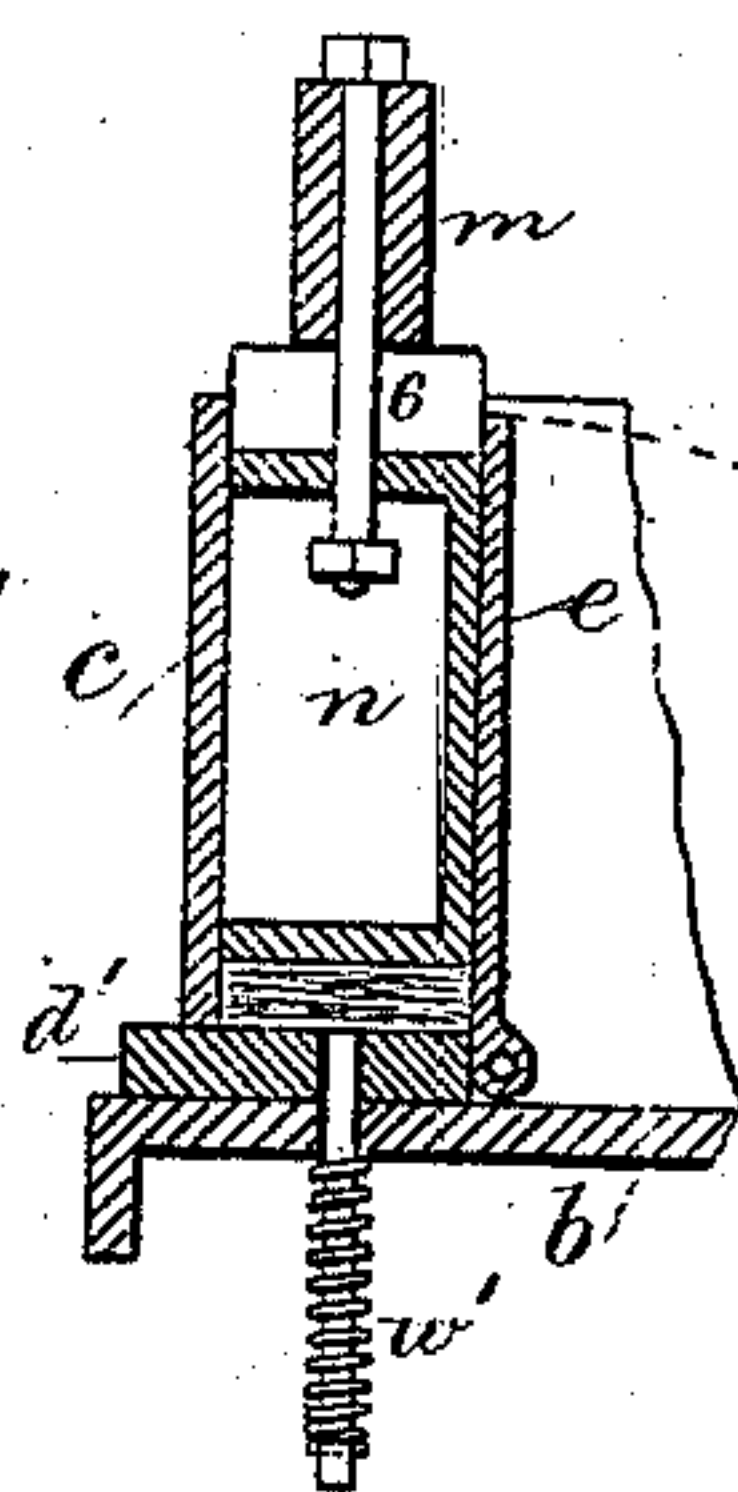
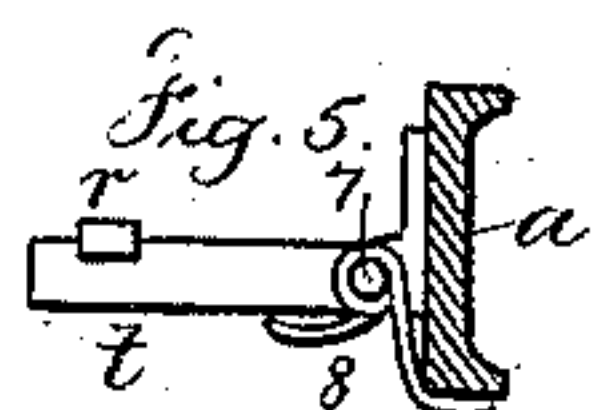
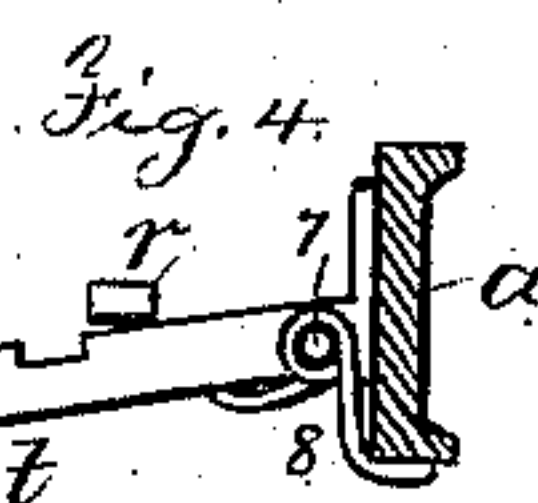
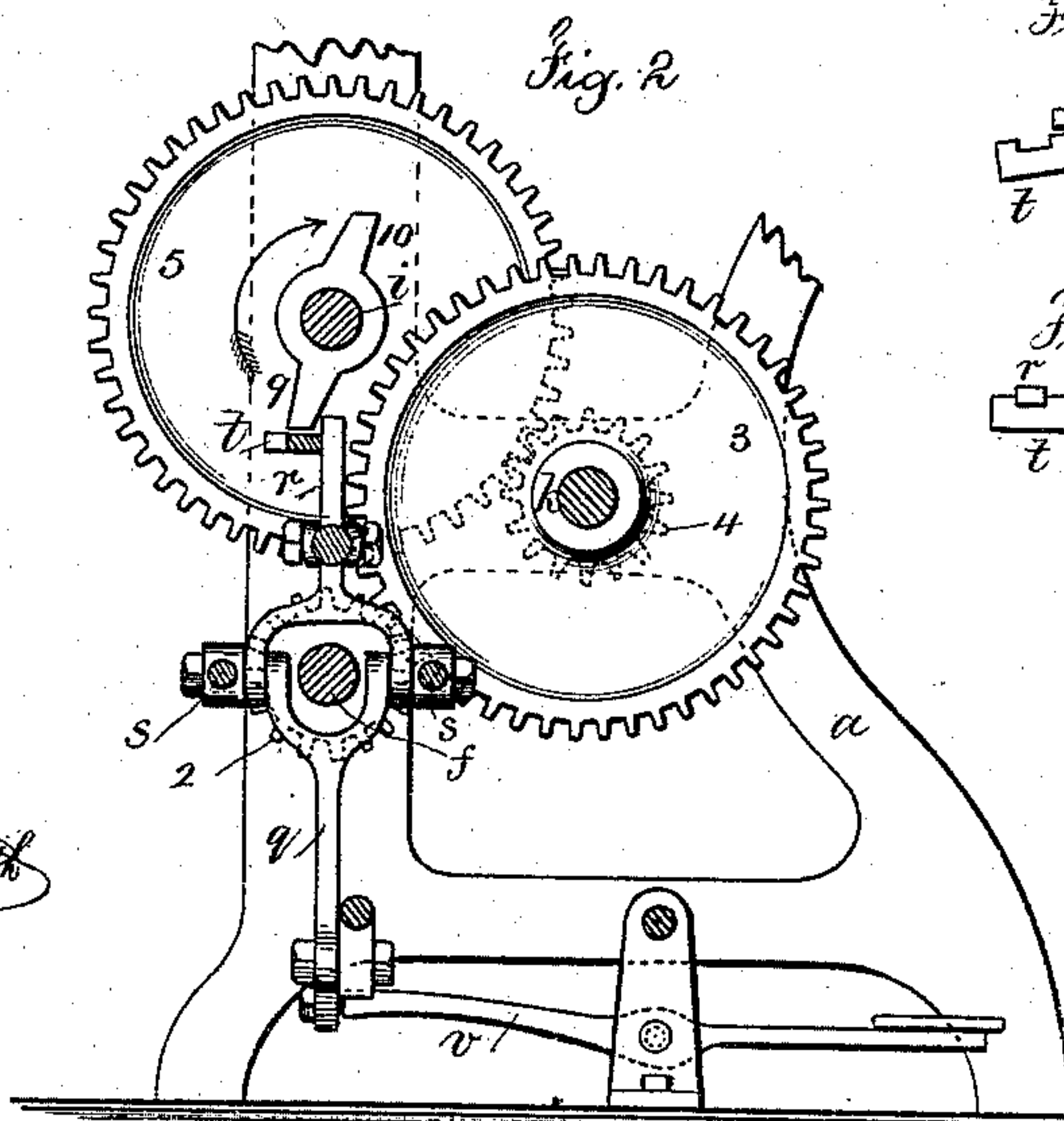


Fig. 2



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE WILDEY AND ALPHEUS ROLLINS, OF BROOKLYN, NEW YORK.

PRESS.

SPECIFICATION forming part of Letters Patent No. 271,754, dated February 6, 1883.

Application filed December 14, 1882. (No model.)

To all whom it may concern:

Be it known that we, GEORGE WILDEY and ALPHEUS ROLLINS, both of Brooklyn, in the State of New York, have invented an Improvement in Presses, of which the following is a specification.

In Letters Patent No. 242,258 a machine adapted to compressing tobacco into plugs is described and shown, in which the mold is formed of an adjustable back plate, a bottom, movable ends, and a hinged apron forming the front, and the loose tobacco placed within such mold is compressed into a plug by a vertically-moving plunger actuated by arms and a foot-lever.

Our invention is made with special reference to operating by power a press of the general character above mentioned, so as to increase the working capacity of the same and lessen the labor of the operator; but our improvement may be applied to other forms of presses. We provide a main shaft, on which is a loose driving-pulley that is revolved continuously, and there is a sliding clutch on this shaft, connected by rods with levers under control of the attendant. When the levers are moved by the attendant the main shaft is coupled with the driving-pulley and rotates with it, and motion is given by gearing to a second shaft provided with eccentrics that act through rods and a cross-head to raise and lower the plunger. A latch holds the levers when the driving-pulley is coupled to its shaft, and arms upon the second shaft disconnect the latch at the extreme upward and downward movements of the plunger and stop the machine automatically at these times. A lifter raises the plug of tobacco from the mold when the plunger is raised.

In the drawings, Figure 1 is an elevation at the rear of the machine, part of the back plate of the mold being removed. Fig. 2 is a section at the line *x x*. Fig. 3 is a section at the line *y y*, with the plunger down. Fig. 4 shows the position of the latch when the main shaft is not coupled to the driving-pulley, and Fig. 5 the position of said latch when the driving-pulley and shaft are coupled.

The side frames, *a a*, support a table, *b*, and are to be of a size and shape adapted to receive the parts hereinafter set forth.

The plate *c*, forming the back of the mold,

the movable end pieces, *d d*, the bottom *d'*, and the hinged apron *e*, forming the front of the mold, and the means for closing and opening said mold, are similar to corresponding parts in aforesaid Letters Patent, and our invention does not relate thereto, and a reference is hereby made to said patent for a description of these parts.

f is the main shaft, supported in the side frames, and carrying the loose pulley *h*, that is revolved continuously.

i is the second shaft, that is rotated by means of the gearing 2 3 4 5 and intermediate shaft, *k*, when the main shaft is coupled to its driving-pulley.

At the outer ends of the shaft *i* are eccentrics, *l l*, from which extend rods *l' l'* to the cross-head *m*, to which the plunger *n* is connected by the bolt 6. The ends of the cross-head move in vertical slots in the guides *o*, secured to the upper part of the side frames, *a*.

p is a clutch fitted to slide upon a feather on the main shaft *f*, and said clutch is connected to the levers *q* and *r* by the rods *s*.

t is a notched latch, pivoted at 7, and kept in contact with the upper end of the lever *r* by a spring, 8. 9 and 10 are the unlatching-arms upon a hub on the shaft *i*.

The operation of the machine is as follows: The operator places the loose tobacco in the mold, brings the movable ends *d* and front *e* to place, and then presses with his foot upon the lever *v*. This acts, through the bent lever *q* and rods *s*, to slide the clutch *p* into contact with teeth on the hub of the driving-pulley *h*, so that the shafts *f*, *k*, and *i* are set in motion, and the plunger *n* is brought down by the eccentrics *l*, rods *l'*, and cross-head *m* to compress the tobacco in the mold. The lever *r* having been moved by the action of the lever *q*, its end is caught by the latch *t*, as shown in Fig. 5, so that the latch prevents the clutch *p* being disconnected from the driving-pulley, and obviates the necessity of the operator keeping his foot upon the lever *v*. The shaft *i* makes one half-revolution during the descent of the plunger *n*, and as it completes this half-revolution the arm 10 comes in contact with the latch *t*, pushing it back and separating it from the lever *r*, and the spring 10 draws the levers *q* and *r*, rods *s*, and clutch *p* back into

the position shown in Fig. 1 and uncouples the shaft *f* from the driving-pulley *h*, stopping the press. When the pressure has been applied upon the tobacco and the press stops, then the operator opens the molds and again presses upon the lever *v* to couple the shaft *f* and hold the lever *r* by the latch *t*. The shaft *i* then makes another half-revolution and the plunger *n* is raised. The arm 9 now disconnects the latch *t* from *r* and the machine is again stopped; but just before the plunger reaches its extreme upward movement a cam, *w*, upon the wheel 5 acts upon the lifter *w'*, which raises the plug of tobacco out of the mold.

In order to adjust the plunger with reference to the thickness of plug to be formed, the ends of the rods *l' l'* are made with right and left hand screw-threads, entering correspondingly-threaded parts in sockets upon the eyes *l²* and the straps of the eccentrics *l*, so that by turning said screw-rods the plunger is raised or lowered, as desired.

We claim as our invention—

1. The shaft *f*, loose pulley thereon, clutch *p*, rod *s*, levers *q* and *r*, and latch *t*, in combination with the shaft *i*, arms 9 and 10, mold, plunger, and eccentrics *l*, and rods *l'*, for actuating the plunger, substantially as and for the purposes specified.

2. The shaft *i*, wheel 5, cam *w* thereon, and lifter *w'*, in combination with means for rotating said shaft, the mold and plunger, and mechanism for actuating said plunger, substantially as and for the purposes specified.

3. In a press for compressing tobacco into plugs, the combination of a mold, plunger, cross-head, eccentrics, adjustable connecting-rods between the eccentrics and cross-head, and means for rotating the shaft and eccentrics, and an automatic stop-motion, substantially as and for the purposes specified.

4. In a press for plug-tobacco, a mold with movable sides and a plunger for the same, in combination with a revolving shaft and mechanism for moving the plunger, and an automatic stop-motion that arrests the movement of the plunger after the pressure has been applied, and also when the plunger is raised for filling the mold, substantially as specified.

Signed by us this 7th day of December, A. D. 1882.

GEORGE WILDEY.
ALPHEUS ROLLINS.

Witnesses:

GEO. T. PINCKNEY,
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