No. 668,928. Patented Feb. 26, 1901.

W. P. PARSONS.

BOTTLE FINISHING MACHINE.

(Application filed Nov. 8, 1900.)

(No Model.)

Fig. 1.

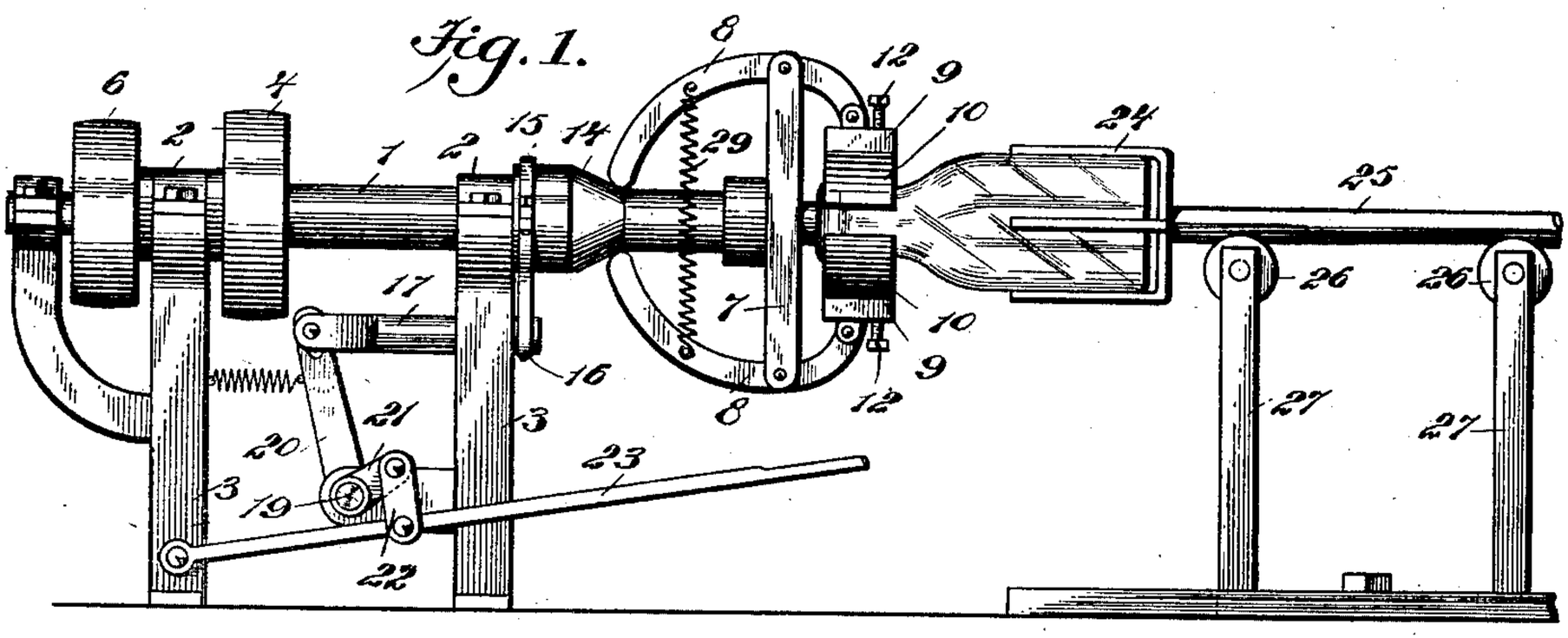


Fig. 2.

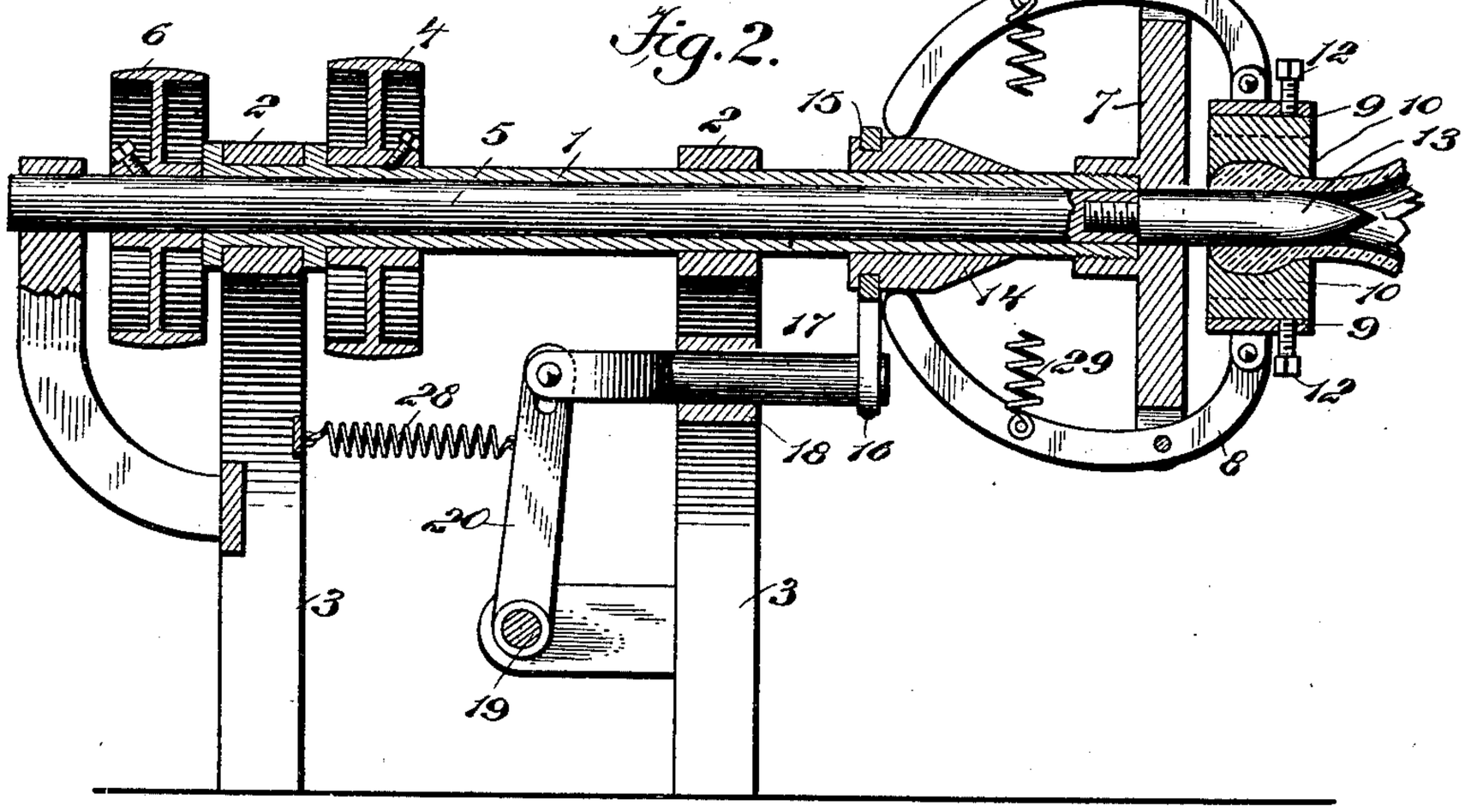
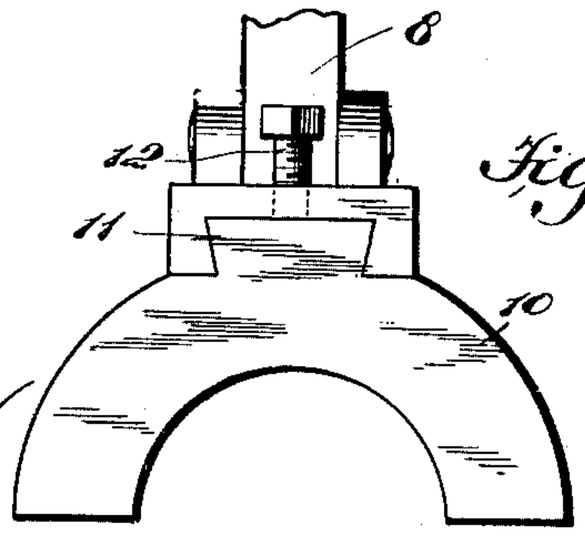


Fig. 3.



WITNESSES:

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WILLIAM PHILLIPS PARSONS, OF ALBANY, INDIANA.

BOTTLE-FINISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 668,928, dated February 26, 1901.

Application filed November 8, 1900. Serial No. 35,854. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PHILLIPS PARSONS, a citizen of the United States, and a resident of Albany, in the county of Delaware and State of Indiana, have invented a new and Improved Bottle-Finishing Machine, of which the following is a full, clear, and exact description.

This invention relates to improvements in machines for finishing bottle-necks; and the object is to provide a machine of this character by means of which the interior and exterior of glass-bottle necks may be simultaneously and quickly finished.

I will describe a bottle-finishing machine embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a bottle-finishing machine embodying my invention. Fig. 2 is a sectional elevation thereof, and Fig. 3 is a front view of one of the exterior-finishing devices employed.

Referring to the drawings, 1 designates a hollow shaft mounted to rotate in bearings 2, supported on legs 3, and having attached to it a driving or band wheel 4. Mounted to rotate in the hollow shaft is a shaft 5, to which a driving or band pulley 6 is attached. On the forward end of the hollow shaft 1 is a cross-head 7, to which curved arms 8 are pivoted. To the outer ends of the arms 8 jaws or blocks 9 are attached, so as to have a slight swinging motion relatively to the arms, and removably engaging with these blocks or jaws are the exterior-finishing devices 10. These finishing devices are here shown as semicircular, and they have dovetailed head portions 11, designed to engage in correspondingly-shaped slideways in the blocks or jaws, and when adjusted the finishing devices are held by set-screws 12.

Removably attached to the forward end of the interior shaft 5 is a finishing-plug 13 for finishing or shaping the interior of the bottle-neck. By making the exterior-finishing devices 10 removable and the finishing device 13 also removable it is obvious that finishing devices of different sizes or forms may be employed. The exterior-finishing devices are moved into contact with the bottle-neck by means of a tapered chuck or sleeve 14, movable on the hollow shaft. A ring 15 engages loosely in an annular channel formed in the base portion of the chuck 14, and from an arm 16 on this ring a rod 17 extends through an opening in a cross-bar 18 of the machine-frame. From a rock-shaft 19, journaled in a suitable support on the machine-frame, an arm 20 extends to a connection with the rod 17, and from a short arm 21 on said rock-shaft and extended at substantially right angles to the arm 20 a link 22 extends to a connection with a foot-treadle 23.

In operation the bottle to be finished is held in a frame 24, the handle 25 of which is supported on grooved rollers 26, arranged in standards 27. When the neck of the bottle is placed over the interior-finishing device 13, the foot-treadle 23 is to be moved downward, which will cause the chuck or sleeve 14 to move forward, and by engaging its incline with the ends of the arms 8 the said ends of the arms will be caused to move apart and the exterior-finishing devices will be moved into close contact with the bottle-neck. The pressure may be regulated by the pressure on the foot-treadle, as by releasing the pressure somewhat on the foot-treadle a spring 28, connected at one end to the arm 20 and at the other end to the machine-frame, will draw the rod 17 rearward, consequently drawing the chuck or sleeve 14 rearward, so that the rear portions or ends of the arms 8 will be drawn toward each other by a spring 29, connecting the arms. Of course during the operation the shafts will be rapidly rotated one independently of the other.

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

1. In a bottle-neck-finishing machine, a tubular shaft, a cross-head mounted on said tubular shaft, arms pivoted to said shaft, means for moving the rear portions of said arms toward each other, blocks or jaws attached to the forward ends of said arms, finishing devices having connection with said blocks or jaws, a tapered sleeve movable on the hollow shaft, a ring engaging in a channel in said sleeve, a rod mounted to slide and having

connection with said ring, a rock-shaft, an arm extended from said rock-shaft to said rod, means for moving the rock-shaft, a shaft mounted to rotate in the hollow shaft, and a finishing device carried by said last-named shaft, substantially as specified.

2. In a bottle-neck-finishing machine, a tubular shaft, a cross-head mounted on said tubular shaft, curved arms pivoted to said shaft, a spring connecting the rear portions of said arms, blocks or jaws attached to the forward ends of said arms, finishing devices having removable connection with said blocks or jaws, a tapered sleeve or chuck movable on the hollow shaft, a ring engaging in a channel in said sleeve or chuck, a rod mounted to slide and having connection with said ring, a rock-shaft, an arm extended from said rock-shaft to said rod, a foot-treadle having connection with the rock-shaft for moving it in one direction, a spring for moving it in the opposite direction, a shaft mounted to rotate in the hollow shaft, and a finishing device carried by said last-named shaft, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM PHILLIPS PARSONS.

Witnesses:

HENRY PEDLEHEIM,

SMITH CLARK.