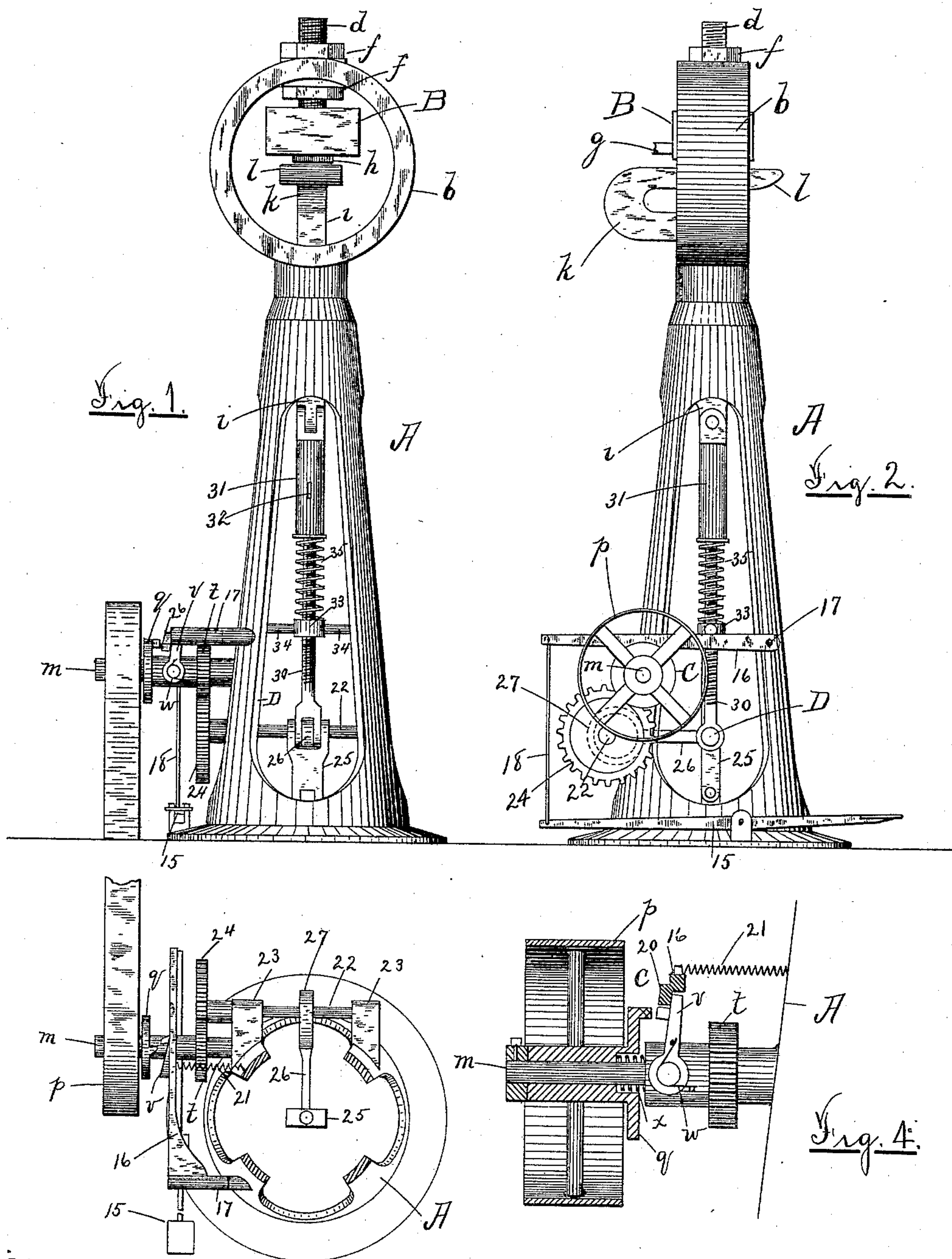


(No Model.)

G. H. PUTNAM.
GILDING MACHINE FOR BOOTS.

No. 442,915.

Patented Dec. 16, 1890.



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GEORGE H. PUTNAM, OF HOPKINTON, MASSACHUSETTS.

GILDING-MACHINE FOR BOOTS.

SPECIFICATION forming part of Letters Patent No. 442,915, dated December 16, 1890.

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To all whom it may concern:

Be it known that I, GEORGE H. PUTNAM, of Hopkinton, in the county of Middlesex, State of Massachusetts, have invented certain new and useful Improvements in Gilding-Machines for Boots, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation of my improved gilding-machine; Fig. 2, a side elevation of the same; Fig. 3, a plan view, partly in section; and Fig. 4, a sectional elevation showing the chute mechanism.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

My invention relates especially to a machine for stamping or imprinting the gilding onto the top of boot-legs; and it consists in certain novel features hereinafter fully set forth and claimed, the object being to produce a simpler, cheaper, and more effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the standard or frame of the machine, which is hollow and provided at its top with a cylindrical head *b*. A steam-box B is pendent in the head, and is adjustable vertically by means of a screw *d* and nuts *f*. A steam-supply pipe *g* opens into said box. A die *h* for imprinting the gilding is mounted on the bottom of the box B. A bar *i* is fitted to slide vertically in the standard and bears on its upper end a U-shaped head *k*, the arm *l* of which is adapted to be inserted in a boot-leg and be forced into engagement with the die *h*.

A shaft *m* is fixed near the foot of the body A and bears a loose driving-pulley *p*, the hub of which is extended at *q*, forming one section of a clutch C. A gear *t* is loose on said shaft and is provided with an elongated hub on which a clutch-lever *v* is pivoted, said lever forming the companion section of the clutch C. A spring *w* on the lever-pivot (see

Fig. 4) acts expansively to throw said lever into engagement with the opposite section *q*. One edge of the clutch-lever *v* is beveled peripherally, as best shown in Fig. 3. A coiled spring *x* is interposed between the pulley and gear-hubs to prevent them accidentally working into contact. A treadle 15 is mounted on the base of the standard. A horizontal lever 16, parallel with the treadle-lever, is pivoted at 17 to the standard above the shaft *m* and connected with said treadle by a pivoted rod 18. The lever 16 has a lug 20, adapted to engage the clutch-section *v* (see Fig. 4) and hold it out of contact with the companion section *q*. A coiled spring 21 connects said lever with the standard. A shaft 22, journaled in lugs 23 on the standard, bears a gear 24, which meshes with the gear *t*. A vertical lever 25 is pivoted within the standard. A horizontal rod 26 is pivoted to the upper end of said lever and bears an eccentric 27 at its outer end, which works on the shaft 22. A screw-threaded rod 30 is pivoted by one end on the pivot of the eccentric-lever, its upper end working vertically in a sleeve 31, pivoted to the lower end of the bar *i*. A pin on said screw-threaded rod works in a vertical slot 32 (see Fig. 1) in said sleeve. A nut 33, provided with arms 34, works on the threaded rod 30, and a coiled tension-spring 35 is interposed between said nut and the sleeve 31.

In the use of my improvement, steam, being admitted to the box B, heats the die *h*. The boot-leg to be gilded is adjusted on the arm *l* of the head *k*. The operator then depresses the treadle 15, freeing the clutch-section *v* from the lug 20 of the lever 16. Said section is at once thrown into engagement with the section *q* on the pulley rotating the gear *t*. The eccentric 27 is driven by its shaft 22, moving the toggle-joint D, formed by the levers 25 and 26 and rod 30, into the position shown in Fig. 2, forcing the bar *i* upward and the boot-leg into contact with the die *h*. The treadle is at once released, and at the termination of a revolution of the gear *t* the beveled edge of the clutch-section *v*, engaging the lug 20 of the lever 16, disconnects the clutch and stops the gears. The gears are so timed that a complete revolution of the pulley causes a semi-revolution of the eccentric. When the clutch is disconnected, as de-

scribed, the parts are thus left with the boot held firmly in contact with the die. It requiring the application of heat for a considerable time to complete the gilding process, the operator by this arrangement of parts is not obliged to tend the machine while this contact is effected. By again depressing the treadle the clutch engages as before and the eccentric moves another half-revolution, actuating the toggle D and lowering the head *k* out of contact with the die, when the boot may be removed.

Having thus explained my invention, what I claim is—

1. In a gilding-machine for boots, a standard and die mounted thereon, in combination with a plunger provided with an arm for the boot-leg, a toggle-joint, and operating mechanism for actuating said plunger, substantially as set forth.

2. In a gilding-machine for boots, a body provided with a die, in combination with a plunger mounted on a toggle-joint, a driving-shaft actuating an eccentric for moving said joint, a loose pulley on said shaft, and a treadle-actuated mechanism for fixing said pulley, substantially as described.

3. In a gilding-machine for boots, the combination of a body provided with a steam-heated die, a spring-cushioned plunger adapted to be forced into contact with said die, an eccentric for actuating said plunger, and a treadle-actuated clutch mechanism for intermittently driving said eccentric, substantially as described.

4. In a gilding-machine, a body or standard, a driving-shaft provided with a loose pulley, mechanism for automatically fixing and releasing said pulley, a plunger adapted to receive the boot-leg, a crank driven by said shaft for actuating said plunger, and a die

mounted in said body in position to be engaged by said plunger, substantially as set forth.

5. In a gilding-machine for boots, the combination of a body provided with a die, a spring-cushioned plunger having a head for receiving the boot-leg, a driving-shaft and loose pulley, an eccentric driven by said shaft for actuating said plunger, and a spring-actuated clutch mechanism adapted to fix said pulley and automatically release it at the termination of a revolution thereof, substantially as described.

6. In a gilding-machine for boots, the body, driving-shaft, and loose pulley, in combination with a spring-cushioned toggled plunger, an eccentric for actuating said plunger, driven by a shaft geared to the driving-shaft, a spring-actuated clutch for fixing said pulley, and a treadle mechanism for governing said clutch, all being arranged to operate substantially as described.

7. In a gilding-machine for boots, the body provided with the steam-die, in combination with the toggled plunger-bar *i*, having the head *k*, the shaft 22, and eccentric 27 for actuating said plunger, the shaft *m* and loose pulley *p*, the clutch C, and treadle mechanism for governing said clutch, substantially as described.

8. In a gilding-machine for boots, the shaft *m*, loose pulley *p*, and gear *t*, in combination with the clutch C, comprising the beveled section *v* and companion section *q*, and the treadle mechanism for governing said clutch, substantially as described.

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