

(No Model.)

2 Sheets—Sheet 1.

W. H. REYNOLDS, Dec'd.

M. REYNOLDS, Tutrix.

BALING PRESS.

No. 286,846.

Patented Oct. 16, 1883.

FIG. 1.

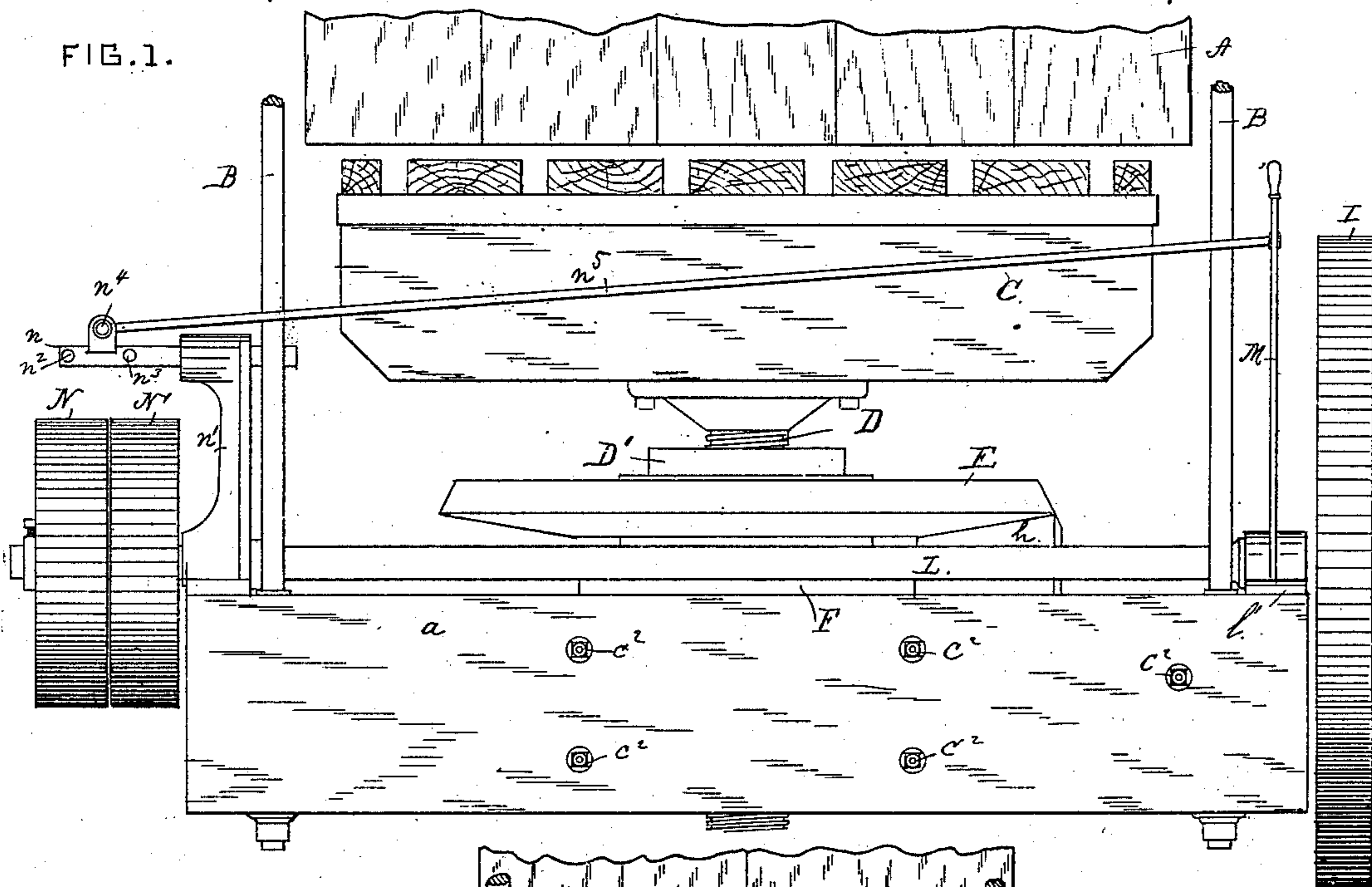
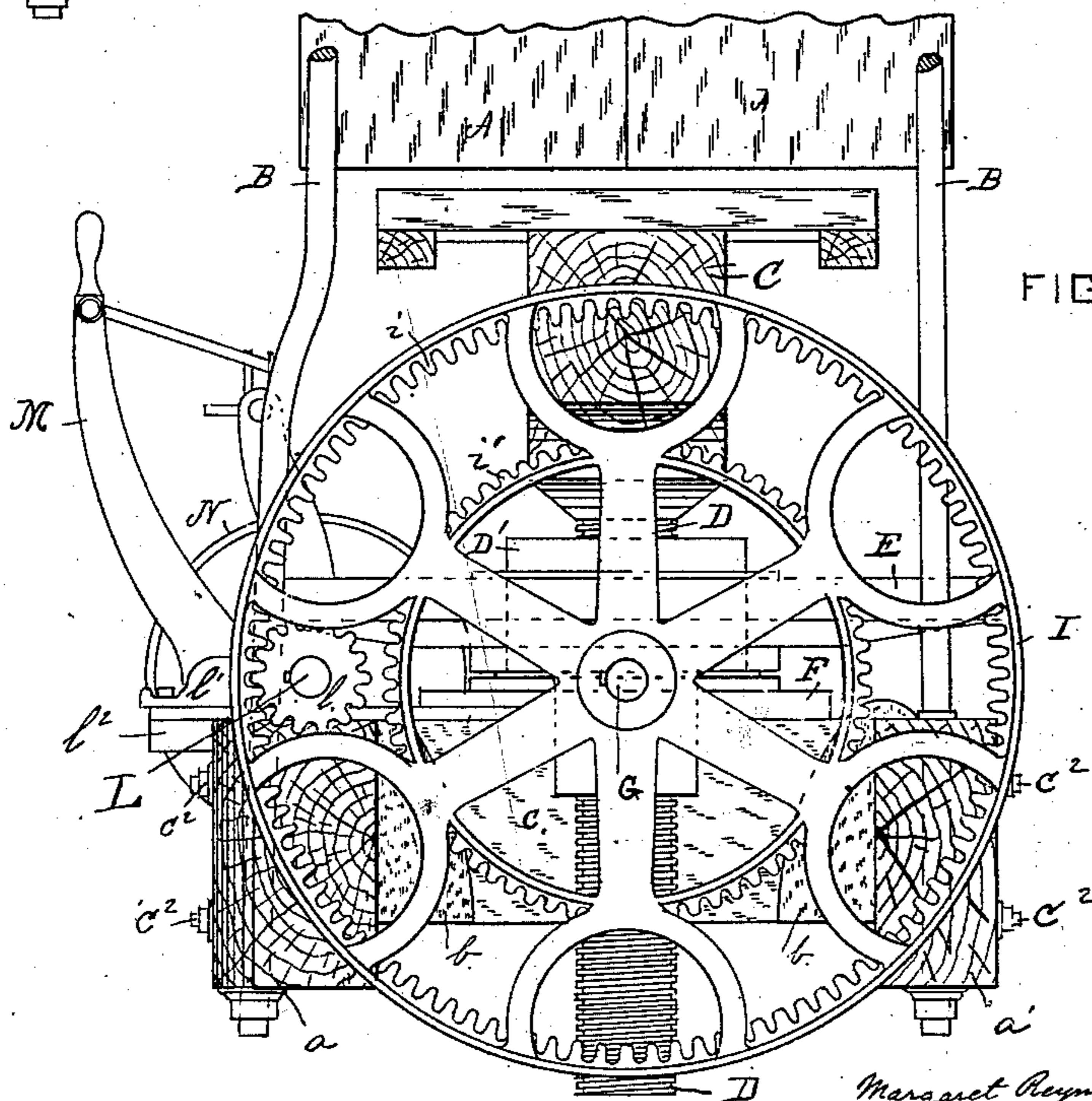


FIG. 2.



WITNESSES

Jno. R. Young
S. M. Jenkins

Margaret Reynolds, individually
as tutrix administering estate of
William H. Reynolds—INVENTOR

By H. N. Jenkins
ATTORNEY

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FIG. 3.

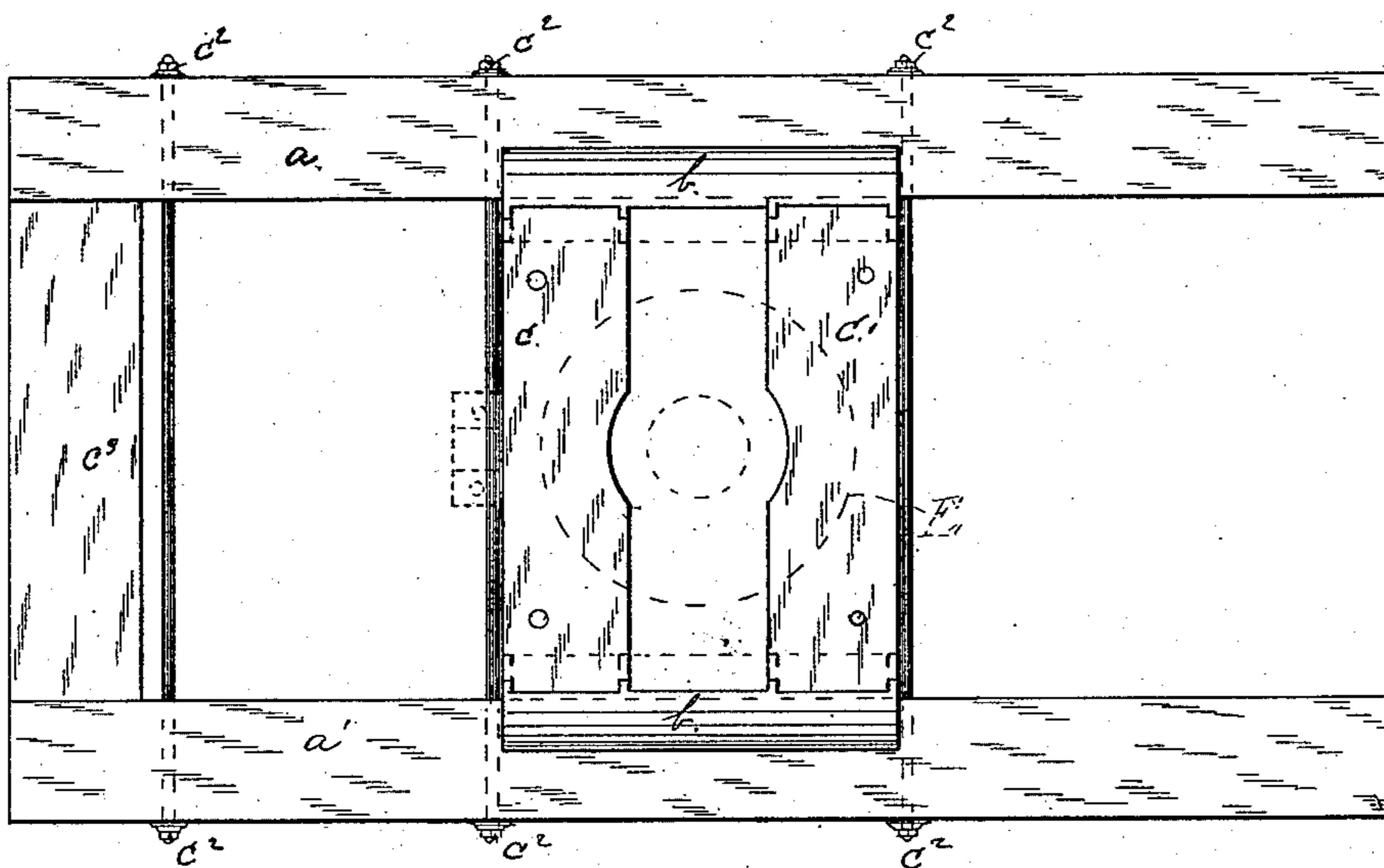


FIG. 4.

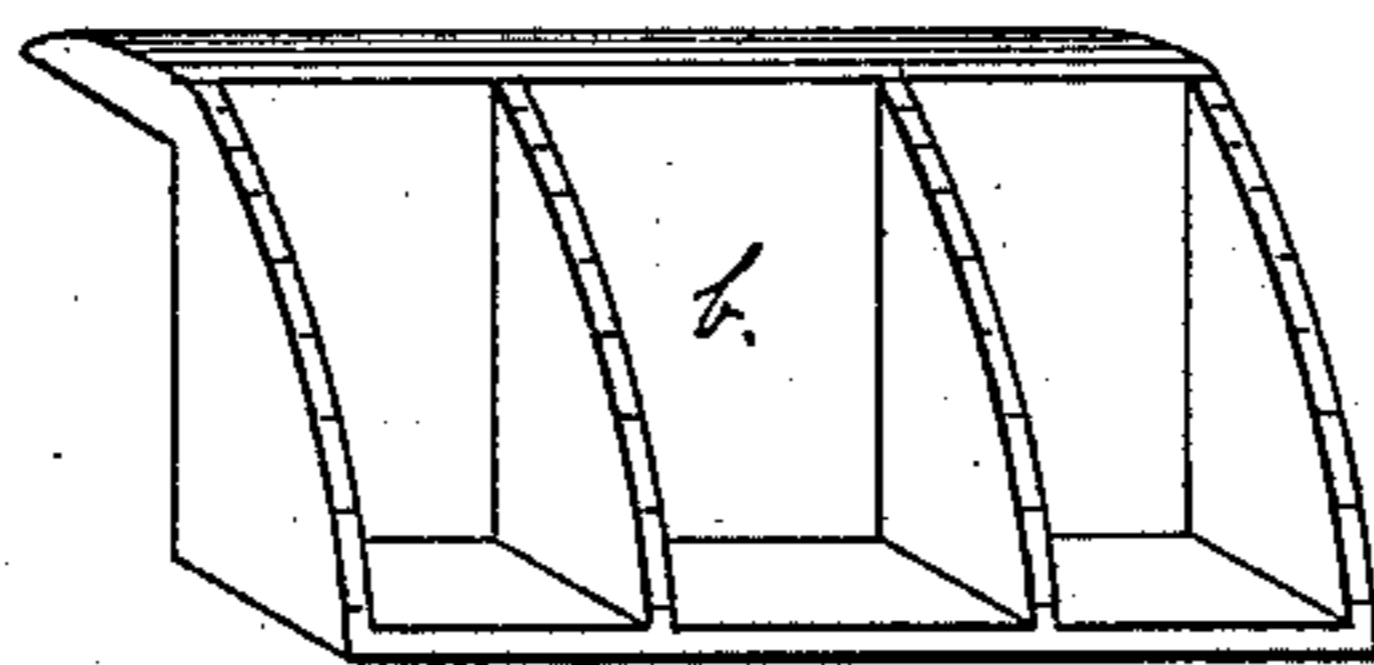


FIG. 6

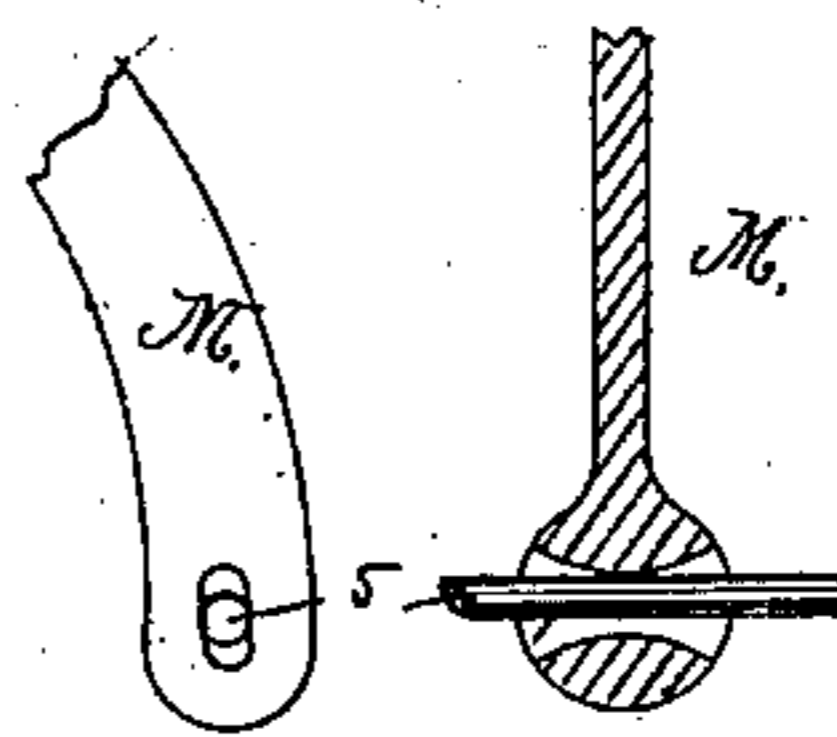
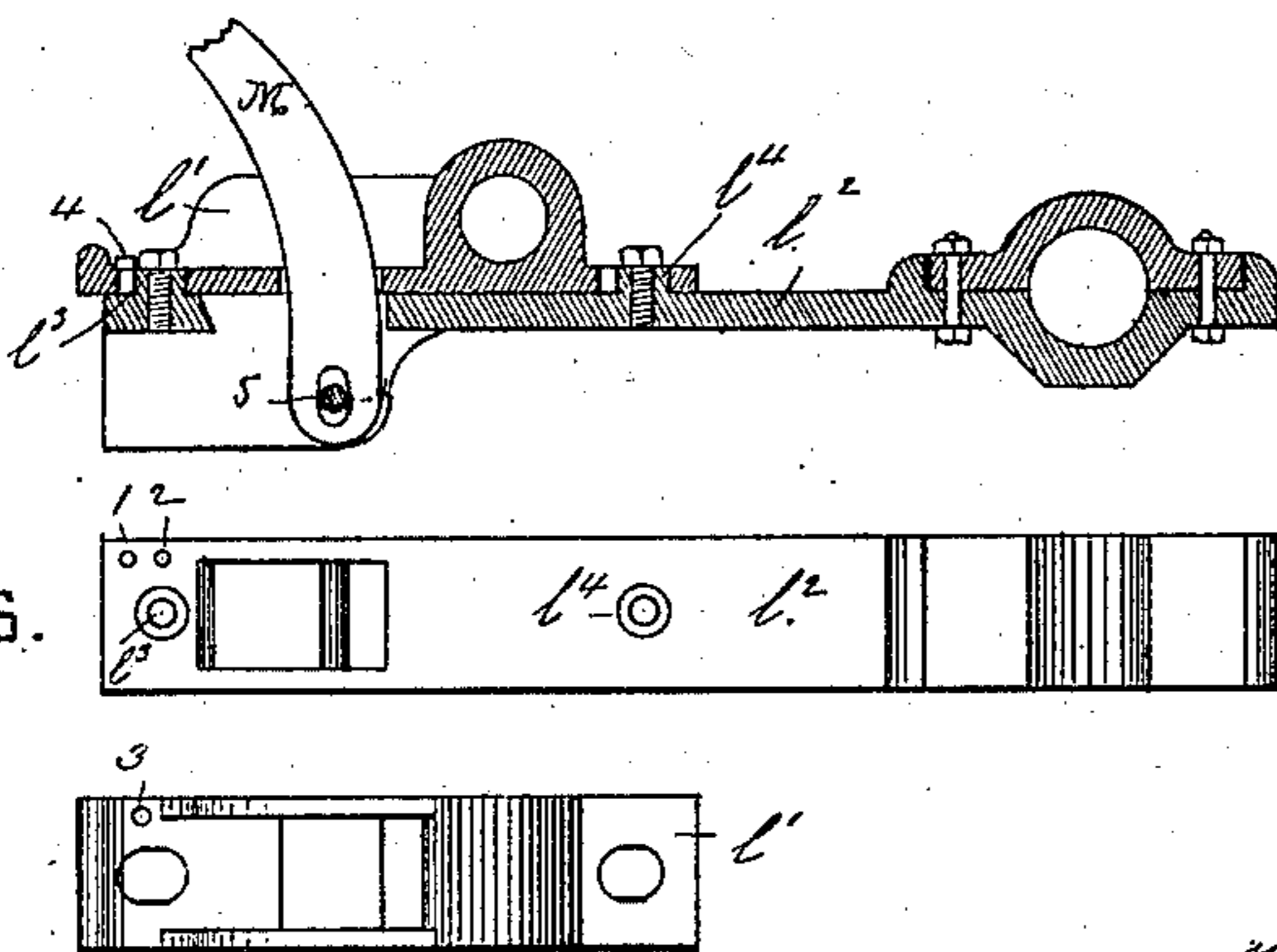


FIG. 5.



WITNESSES

Jno. R. Young,
S. M. Jenkins

Margaret Reynolds, individually and
as tutrix administering estate of

William H. Reynolds INVENTOR

By H. M. Jenkins

ATTORNEY

UNITED STATES PATENT OFFICE.

MARGARET REYNOLDS, OF NEW ORLEANS, LOUISIANA, TUTRIX OF WILLIAM H. REYNOLDS, DECEASED.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 286,846, dated October 16, 1883.

Application filed June 1, 1883. (No model.)

To all whom it may concern:

Be it known that WILLIAM H. REYNOLDS, deceased, late a resident of the city of New Orleans, parish of Orleans, and State of Louisiana, did invent a certain new and useful Improvement in Baling-Presses; and I do hereby declare the following to be a full, clear, and correct description of the same, reference being had to the annexed drawings, making a part of this specification.

This invention relates to certain improvements in baling-presses, more especially to that class for which Letters Patent were granted William H. Reynolds, July 11, 1871, and May 6, 1873, and numbered, respectively, 116,869 and 138,583.

The improvements consist, first, in a system of gearing for operating the follower in such manner as to insure great power thereupon during the pressing process, and a quick speed thereto after the discharge of the pressed bale, whereby the follower may be run back at a rapid rate, and thus prepare the press for a second bale.

The invention further consists in the combination, with a screw-press, of a reversing-gear and a belt-shifting device, as will be hereinafter more fully set forth.

The invention further consists in a lower frame or foundation, so constructed as to be capable of being readily taken apart when desired, and to present, when put together, a solid rest for the nut-bearing plate.

The invention also consists in the novel combination and arrangement of parts, as hereinafter described.

On the drawings, Figure 1 is a side elevation of a portion of a revolving press provided with the improvements. Fig. 2 is an end elevation of the same. Fig. 3 is a plan or top view of the lower frame or foundation. Fig. 4 is a detail in perspective of one of the ribbed side plates for supporting the cross-timbers or rest for the nut-bearing plate. Fig. 5 are detail views of the pinion-shaft sliding bearing, and Fig. 6 details of the lower end of the operating-lever.

The letter A designates the press-box; B, the supporting-rods; C, the follower, and D the screw, which operates in a nut, D', that is

fitted and secured within the hub of the master-wheel E, and which has its lower end of a reduced diameter, so as to pass through the central opening of a bearing-plate, F, and rest and operate thereupon. G is a horizontal shaft, having a pinion, *h*, secured to its inner end, so as to engage the wheel E, all of which is common in revolving screw-presses.

The improvements which are now desired to be secured consists in a double-rimmed wheel, I, secured to the outer end of the shaft G, and having its adjacent faces provided with teeth, as shown at *i i'*, and of a shaft, L, having a pinion, *l*, secured to one of its ends, the said end of the shaft journaled in a bearing, *l'*, capable of being moved forward or backward, thereby adapting the pinion to engage the teeth of either the larger or smaller rim of the wheel.

The letter *l'* designates a bearing-plate, on which the bearing *l'* operates. This plate is provided on its upper surface with projections *l'' l'''*, which serve as guides for the aforesaid bearing. This plate is also provided with perforations 1 2, and the bearing-plate with a perforation, 3, so that by means of a bolt or pin, 4, it may be securely held in its inner or outer position. The bearing *l'* is operated by means of a lever, M, the lower end of which operates in a slot made in the bearing and in the top of the bearing-plate, as shown more fully in Fig. 5. This end of the lever is pivoted in the bearing-plate by a bolt or pin, 5, which passes through a peculiarly-shaped slot in the said lever, whereby it is adapted to move in either a forward or backward manner, or from side to side, as may be desired.

The pinion-shaft L is provided on its outer end with a fixed and loose pulley, N N', over which a belt is shifted by means of a rod, *n*, having a sliding movement in a standard, *n'*, said rod provided with pins *n'' n'''* for straddling the belt, and having a wrist or pin, *n''''*, whereby it is connected by a rod, *n''''''*, with the operating-lever M. The above arrangements permit of the shifting of the belt from the tight to the loose pulley whenever it is desired to change the motion of the press, thereby avoiding all possibility of injury to the same. In the pressing of the material, the pinion is

made to operate in the teeth of the outer rim, which gives the greatest amount of leverage. After the bale has been secured, the pinion, by means of its lever M, is shifted to the inner or smaller surface, when the follower is rapidly run up to the top of the box, and the press thereby made ready for the reception of material for a subsequent bale.

The lower frame or foundation is composed of two parallel timbers, *a a'*, and a pair of metal plates, *b*, having flanges at their upper rear edges, so as to adapt them to rest on the said timbers, and each having a lower shelf with connecting-ribs, said shelf adapted to receive the ends of short timbers *c c'*, so as to form a bed or rest for the nut-bearing plate, which is provided at one side with a journal-bearing for the inner end of the pinion-shaft, the outer end of which is supported on a timber, *c''*, that is secured between the ends of the parallel timbers.

The letter *c''* designate bolts whereby the whole frame is secured together.

Having described the invention, what is now claimed, and desired to be secured by Letters Patent, is—

1. In a baling-press provided with a screw and master-wheel, the combination of a pinion meshing with said master-wheel and attached to a shaft carrying a wheel having two rims; the adjacent faces of which are provided with teeth, a pinion adapted to be thrown into gear with either of the aforesaid toothed surfaces, for the purpose of changing the direction and speed of the follower, substantially as set forth.

2. The combination, in a baling-press operated by a screw and master-wheel, a pinion meshing with said master-wheel and fitted on

a shaft carrying a wheel having two rims, the adjacent faces of which are provided with teeth, a shaft having movable bearings, and provided at one end with pulleys and at the other end with a pinion adapted to be thrown into gear with either of the adjacent faces of the double-rimmed wheel, and an operating-lever having a slotted end, substantially as and for the purpose set forth.

3. The lever M, having a slotted lower end for adapting it to operate on a pin, as described, a sliding bearing, shaft, and pinion, for the purpose set forth, in combination with a belt-shifting device, and rod *n''*, for connecting same with the lever M, substantially as and for the purpose specified.

4. In a baling-press, a reversing-gear consisting of a double-rimmed wheel, I, shaft G, pinion *h*, and master-wheel E, with its nut D', in combination with the shaft L, pinion *l*, sliding bearing *l'*, and operating-lever M, with the sliding rod *n* and connecting-rod *n''*, substantially as and for the purpose specified.

5. In a baling-press, a lower frame or foundation composed of two parallel timbers, a pair of ribbed plates adapted to fit on the inner sides thereof, and a set of cross-timbers adapted to fit in the said plates and form a solid bed or rest for the nut-bearing plate, the whole secured together by means of bolts, substantially as shown and described.

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

MARGARET REYNOLDS,

Tutrix of Wm. H. Reynolds' Estate.

Witnesses:

D. A. MULLANE,

H. N. JENKINS.