

(No Model.)

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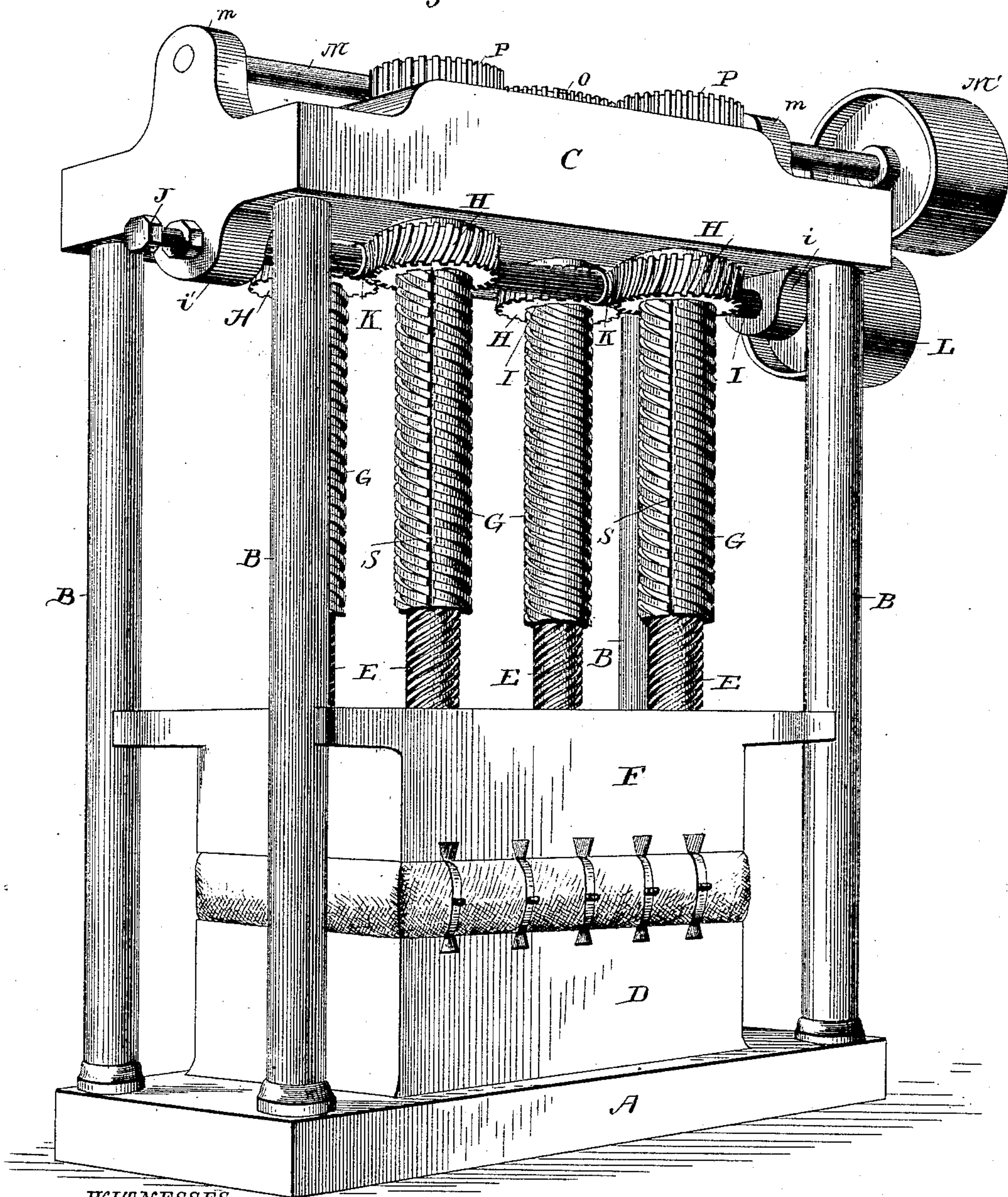
G. McGOVERN.

COTTON PRESS.

No. 327,297.

Patented Sept. 29, 1885.

Fig. 1.



WITNESSES.

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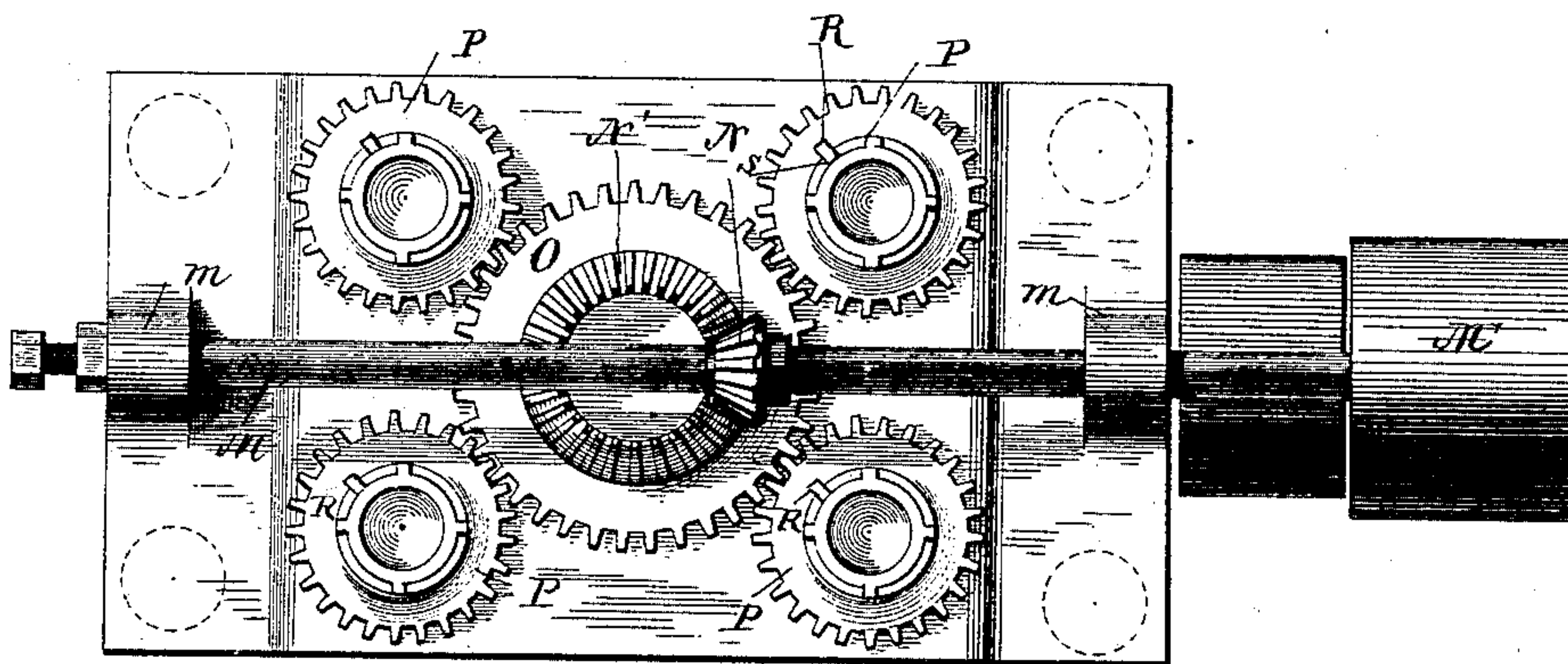


Fig. 2.

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Fig. 3.

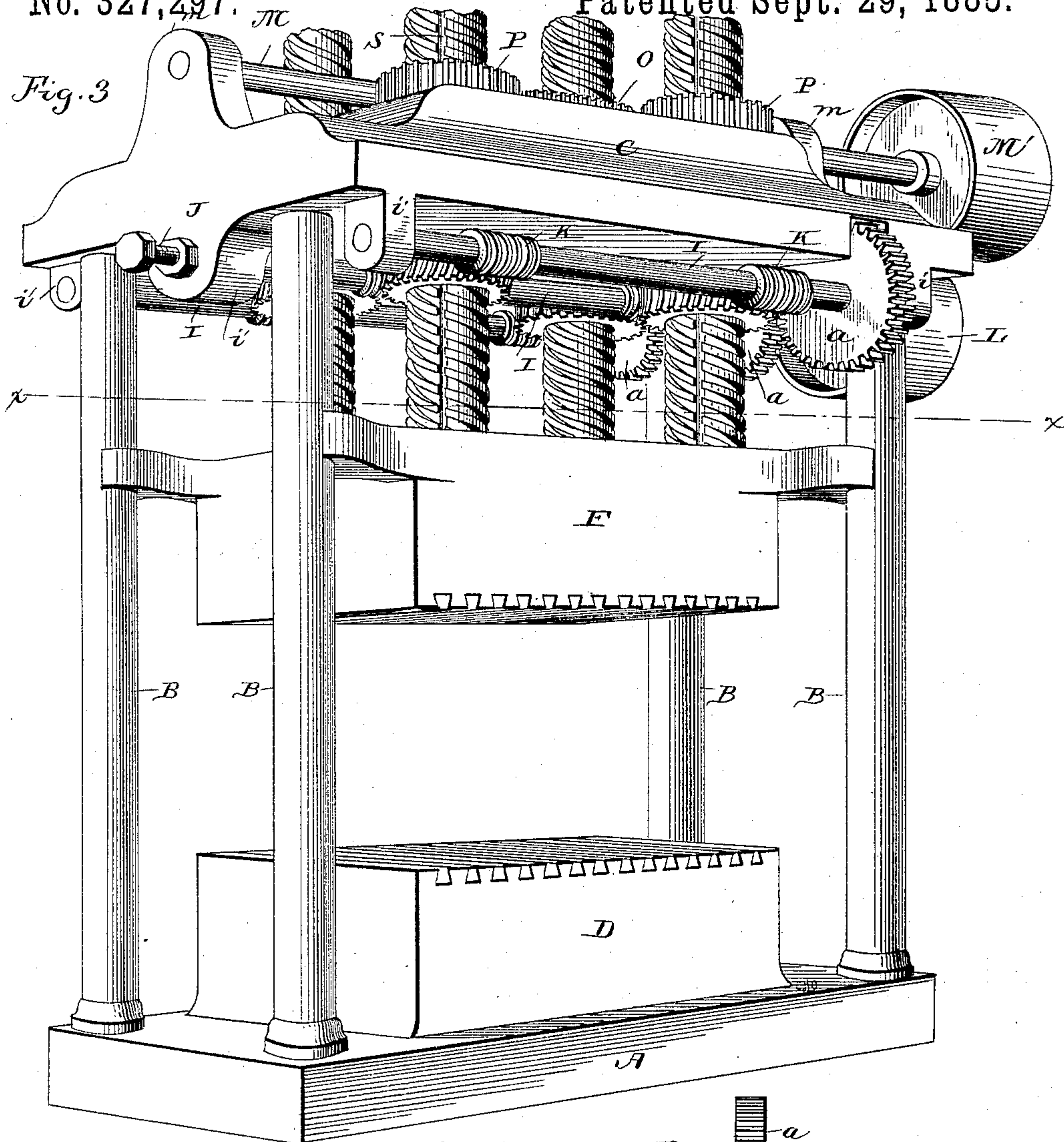
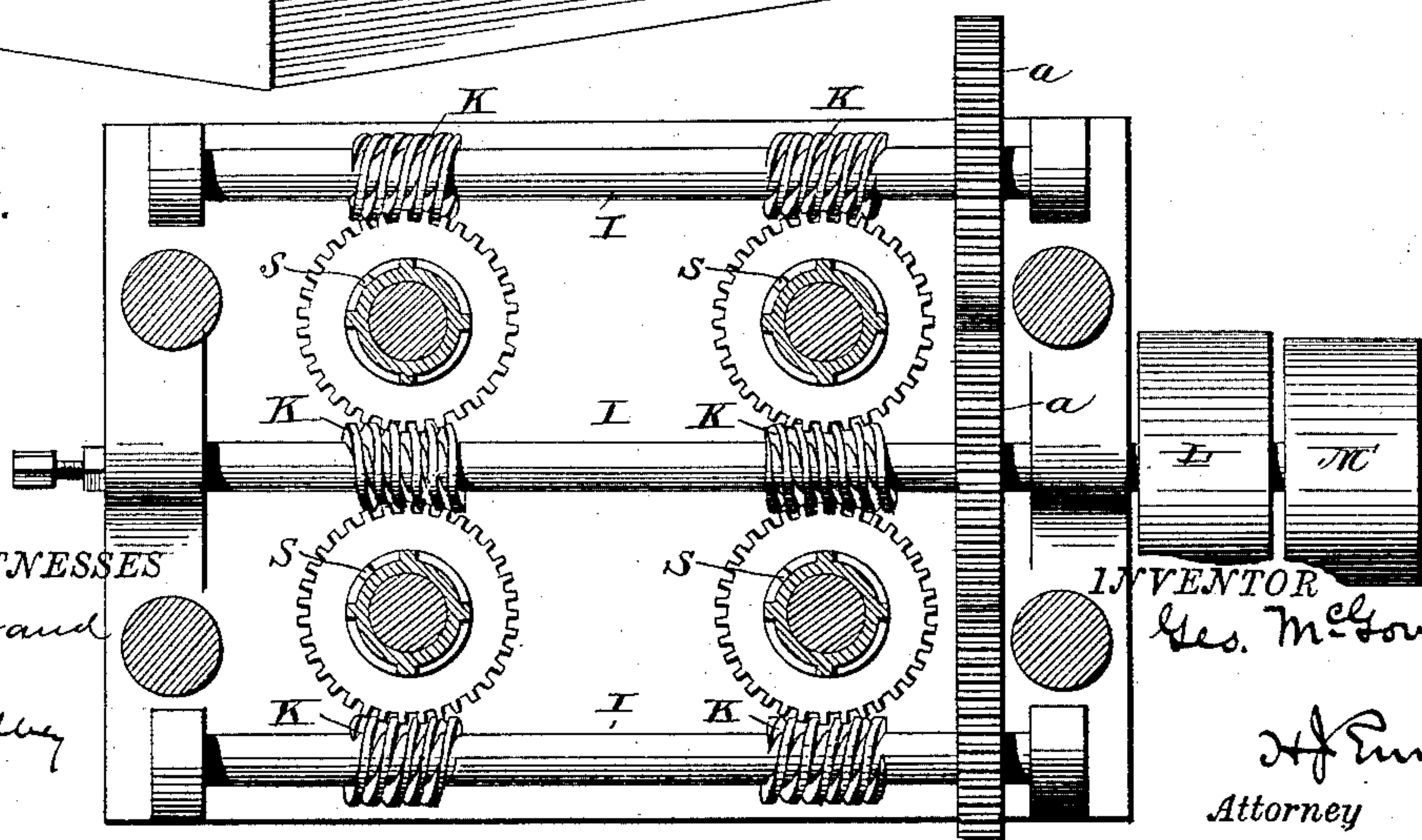


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE MCGOVERN, OF RICHMOND, VIRGINIA.

COTTON-PRESS.

SPECIFICATION forming part of Letters Patent No. 327,297, dated September 29, 1885.

Application filed June 3, 1885. (No model.)

To all whom it may concern:

Be it known that I, GEORGE MCGOVERN, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Cotton-Compresses; 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to cotton and hay presses, and the object is to provide a simple, reliable, and effective press of great power, whereby the ordinary bales of hay or cotton may be taken as they come from the ordinary form of press and compressed into one-quarter or one-third of their bulk, to economize space in transportation. Heretofore this has been accomplished by ponderous, complicated, and expensive presses, costing from fifty to one hundred and fifty thousand dollars, and thereby placing them out of the reach of the cotton-grower, and my invention is intended to overcome these difficulties and to construct a press at a cost of a few hundred dollars to accomplish the same work; and to these ends the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described.

In the accompanying drawings the same letters of reference indicate the same parts of the invention.

Figure 1 is a perspective elevation of my improved compress. Fig. 2 is a top plan view showing the gearing for raising the follower. Fig. 3 is a perspective elevation of the compress with the follower raised, and also shows the additional gearing for increasing the power and effectiveness of the press; and Fig. 4 is a cross-section of Fig. 3 on the line *xx*, looking upward.

A is the base; B B, the stanchions or columns supporting the top C, and D the follower bed-plate.

E E are solid screws, having their lower ends rigidly secured to the follower F.

G G are sleeves, screw-threaded internally

to correspond with the screws E E and externally to correspond with the thread in the nut-worms H H, the internal thread of these sleeve-screws G G being of a greater pitch than that on their outside, after the form of the mechanical movement known in the art as a "Hunter" or differential screw. The nut-worms H H are provided with collars, (not shown,) which allow them to revolve, and at the same time keep them in position in the top C.

I is a shaft journaled in bearings *i i'*, the latter provided with an adjusting-screw, J, for taking up the end play of said shaft.

K K are screws formed integral with the shaft I, and they mesh with the corresponding threads on the periphery of each pair of nut-worms H H. It will thus be seen that if the shaft I be rotated by means of its pulley L the nut-worms H H are revolved, which force the follower down slowly with a pressure of many hundred tons.

In Fig. 3 the shaft I is triplicated, and provided with gears *a a a*, which intermesh and give the auxiliary shafts a correspondingly uniform motion, so that their screws, which engage the opposite sides of the nut-worms, will rotate them equally and with uniform power. This system is fully illustrated in the section shown in Fig. 4.

The top plan view, Fig. 2, shows the means for rapidly raising the follower after the bale has been compressed.

M is a shaft journaled in bearings *m m*, and provided with a pulley, *m'*, for operating it. N is a bevel-gear secured to the shaft M, and meshing with a beveled gear, N', cast upon the face of the gear O, which is provided with a stud, (not shown,) by means of which it is journaled in the top C. This gear O gives uniform motion to the gears P, one of which encircle each of the sleeve-screws G, and each of these gears P is provided with a rigid key, R, which fits in a slot or keyway, S, in the sleeve-screw G. It will thus be seen that as the gears P are rotated in the proper direction the nut-worms H act as stationary nuts, and the follower is rapidly raised.

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

1. A compress provided with two or more

screws, G, provided with worm-nuts H, in combination with the shaft I and screws K, as and for the purpose set forth.

2. The combination, with the screws G, 5 having worm-nuts H, and gears P, of the shaft M, having gear N, and the gears N' and O, as set forth.

3. The combination, with the screws E and

G, provided with the worm-nuts H, of the shaft I, provided with screws K, as set forth. 10

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

GEORGE McGOVERN.

Witnesses:

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L. PLACIDE PEYROUX.