

No. 629,287.

Patented July 18, 1899.

W. L. DAVIES.
TOBACCO PRESS.

(Application filed Feb. 21, 1898.)

(No Model.)

2 Sheets—Sheet 1.

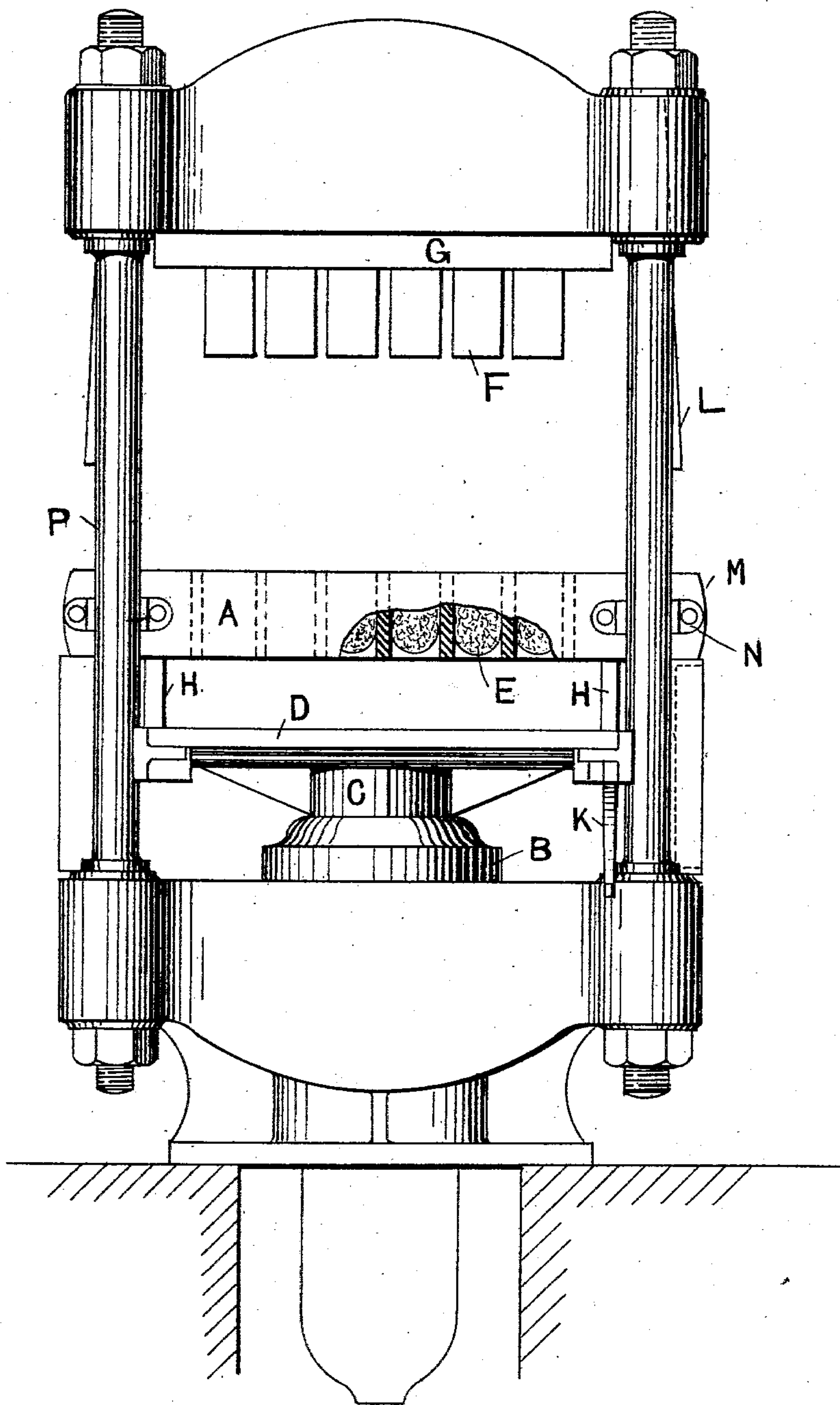


FIG. 1.

Witnesses

T. C. Burdine
D. E. Burdine

William L. Davies,
Inventor,
by Dodge and Sons,
Associate Attys

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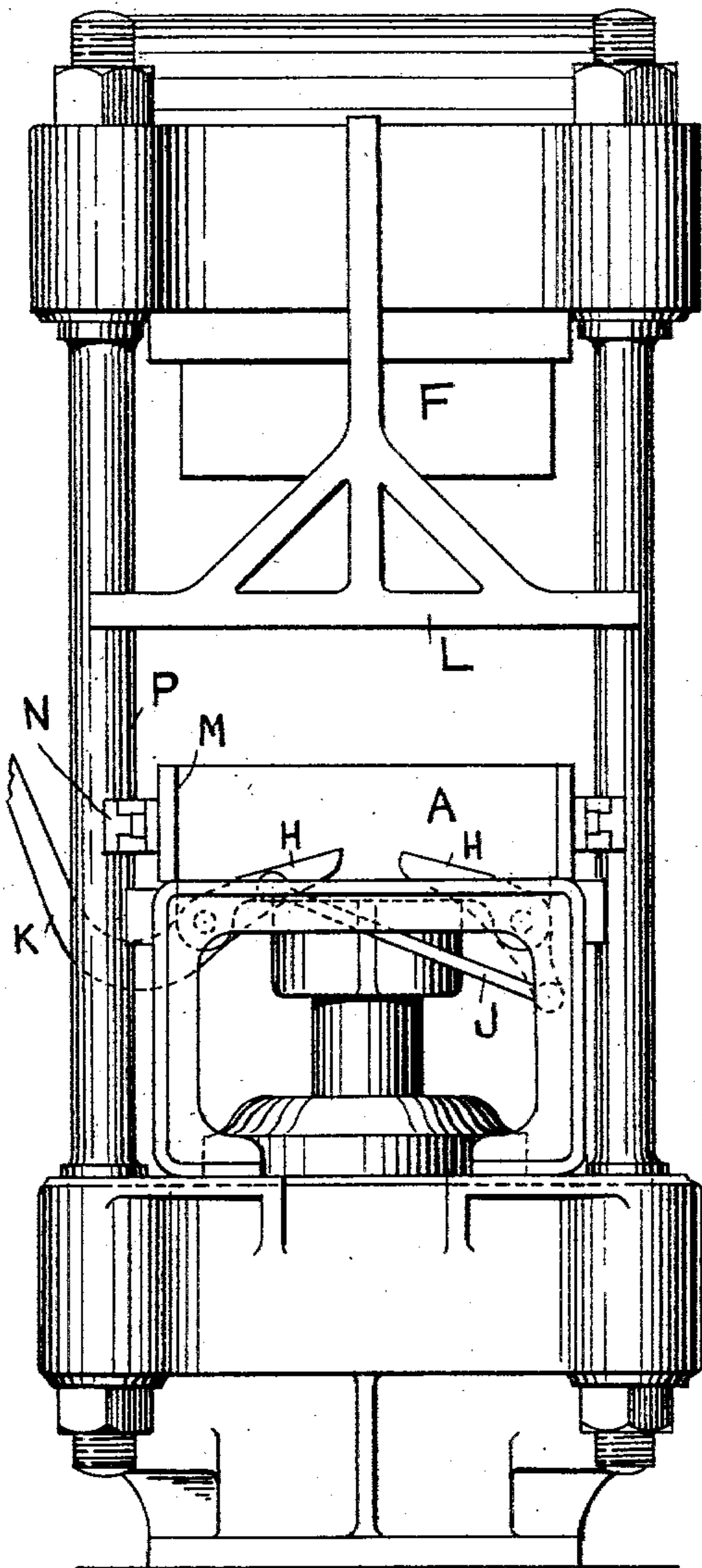


FIG. 2.

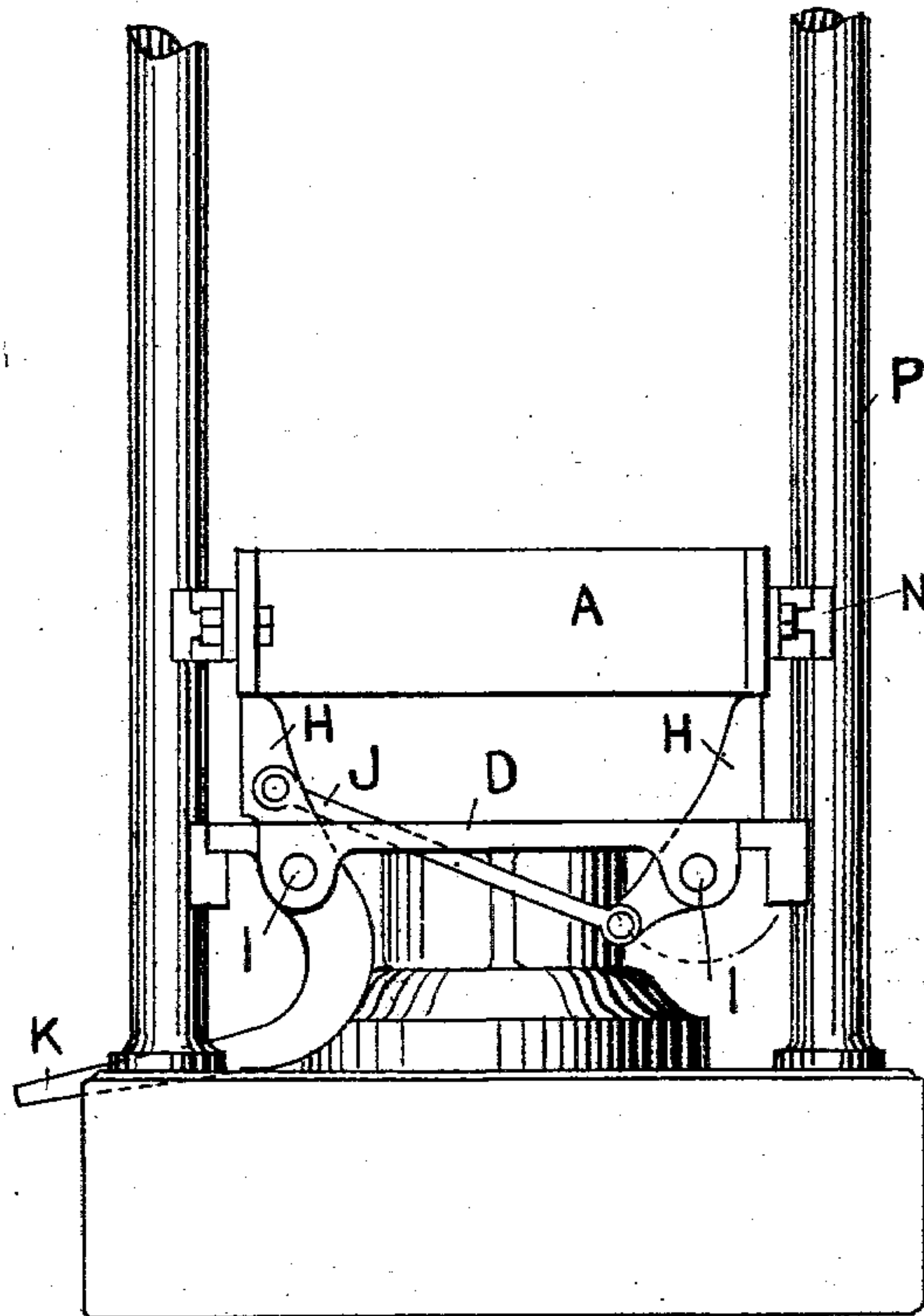


FIG. 3.

Witnesses

Attest By and me
D. E. Burdine.

William L. Davies,
Inventor.
by Dodge and Sons,
Associate Attys.

UNITED STATES PATENT OFFICE.

WILLIAM LEONARD DAVIES, OF CHESTER, ENGLAND.

TOBACCO-PRESS.

SPECIFICATION forming part of Letters Patent No. 629,287, dated July 18, 1899.

Application filed February 21, 1898. Serial No. 671,109. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LEONARD DAVIES, tobacco and snuff manufacturer, a subject of the Queen of Great Britain, residing at Chester, in the county of Chester, England, have invented certain new and useful Improvements in Tobacco-Presses, of which the following is a specification.

This invention has for its object an apparatus for pressing or packing tobacco, whereby the process is more easily and quickly accomplished and the true symmetry of the tobacco-packages maintained. The apparatus hitherto most generally in use consists of a frame, of metal, divided into compartments, into which plungers descend and compress the tobacco placed therein. A roll of tobacco being placed in each compartment and a follower or flat plate being inserted above it, the plunger descends and compresses the tobacco with the required pressure. The plunger is again raised and another charge and follower put into each compartment. The pressure is again applied, and so on successively until the compartments are full, when the tobacco is forced out by means of blows from a rammer.

My invention is best described by aid of the accompanying drawings, in which—

Figure 1 is a side elevation of the machine; Fig. 2, an end elevation of same; and Fig. 3, a similar arrangement to Fig. 2, but the parts being in other working positions to those shown in Fig. 2.

In the drawings, A is a frame which is raised and lowered by means of hydraulic power in cylinder B pressing up the ram C, and its platform D. Frame A is divided into compartments for the charges of tobacco. (Shown in Fig. 1 at E.) Instead of making the plunger movable and the frame stationary, as has hitherto been the practice, I preferably reverse the arrangement and work the frame to and fro by hydraulic or other power, so that it shall rise and fall in such a manner that the tobacco in the compartments shall be pressed by pressure against stationary blocks or abutments. (Shown in the drawings at F.) These blocks F, which are so placed and sized as to enter the compartments of the frame with a close fit when the press-table is raised up to them, are attached to the under side of the top plate or roof of the press G, these blocks

F being a fixture and the frame A, resting on the platform, being lifted up to them by the hydraulic ram. Rolls of tobacco being put into each compartment, the pressure is applied by lifting the frame up and against the blocks, the latter entering the compartments and pressing the tobacco to the required degree. When this is effected, the frame is lowered, another charge of tobacco inserted in each compartment, and the operation is repeated with each charge, a follower or flat plate being by preference inserted between each charge and at each stroke of the press:

Instead of the pressed rolls of tobacco being forced out of the compartments with a rammer, as hitherto, and to avoid bruising the blocks of tobacco I provide a device as follows: Two blocks H are hinged to pivots I on the platform of the hydraulic ram and are connected by link J. One of them is also provided with a tailpiece K, which will act as a handle or treadle. They are shown at their lowest point in Fig. 2, but raised up to their highest point in Fig. 3, and they are pivoted and linked together in such manner that when in the position shown in Fig. 2 their upper surfaces will be immediately under the edge plates of frame A. During the operation of charging frame A these blocks H are turned into the position shown in Fig. 2. When, however, a sufficient number of layers of rolls, preferably three, have successively been submitted to the required pressure, two catches L are placed in such position as to come under the end flanges M and hold the same and prevent the frame from falling with the ram. The ram is now lowered, the blocks H placed in the position shown in Fig. 3, and again raised up. These force the frame A up against the blocks F, which, entering the frame as plungers, force out the blocks of tobacco and the followers without injury. The catches L are now removed, and the operation goes on as before.

N N are sliding bearings sliding on the polished pillars P P, so as to enable the frame A to accurately register with the blocks F.

In thus describing my invention it is obvious that the hanging catches L could be replaced by any other catch which could be temporarily run under the framework and be fixed as regards vertical motion of the frame-

work; also, that any other means for holding the frame A at its own height or thereabout above the platform D could be used in place of these hinged levers, as all that is required is to increase the height to which the frame A can be lifted and to leave a space below frame A on the platform D for the tobacco to fall out into. Furthermore, it is obvious that every part of this apparatus can be reversed, the blocks being below and the hydraulic press above. In such case, however, means would be required for clamping the frame A to the hydraulic press, and it would therefore not be so convenient as the arrangement I have set forth.

The apparatus is designed for pressing tobacco into blocks for cutting, the shape of the blocks depending, of course, on the form given to the compartments in the frame. In the form illustrated they will be oblong, with the corners of the blocks slightly rounded.

I claim as my invention—

1. In a machine for pressing tobacco and the like, the combination of a hydraulic press, a compartmented frame normally resting on the platform thereof; a series of stationary blocks F adapted to enter the compartments and compress the material placed therein;

and means for raising the frame from the platform and holding it in such elevated position while the press is being operated to raise the platform, whereby the blocks are caused to eject the compressed material from the compartments.

2. In a machine for pressing tobacco and the like, the combination of a hydraulic press; a frame normally resting on the platform thereof; blocks H pivoted to the platform and bearing upon the under face of the frame; and a link J connecting said blocks, substantially as and for the purpose described.

3. In a machine for pressing tobacco and the like, the combination of a hydraulic press; a frame normally resting on the platform thereof; blocks H pivoted to the platform and bearing upon the under face of the frame; a link J connecting said blocks, substantially as and for the purpose described; and a handle K extending from one of said blocks.

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

WILLIAM LEONARD DAVIES.

Witnesses:

G. C. DYMOND,

W. H. BEESTON.