

(No Model.)

W. E. LOCKMAN.
STEAM TRUNK LID PRESS.

No. 284,215.

Patented Sept. 4, 1883.

Fig. 2.

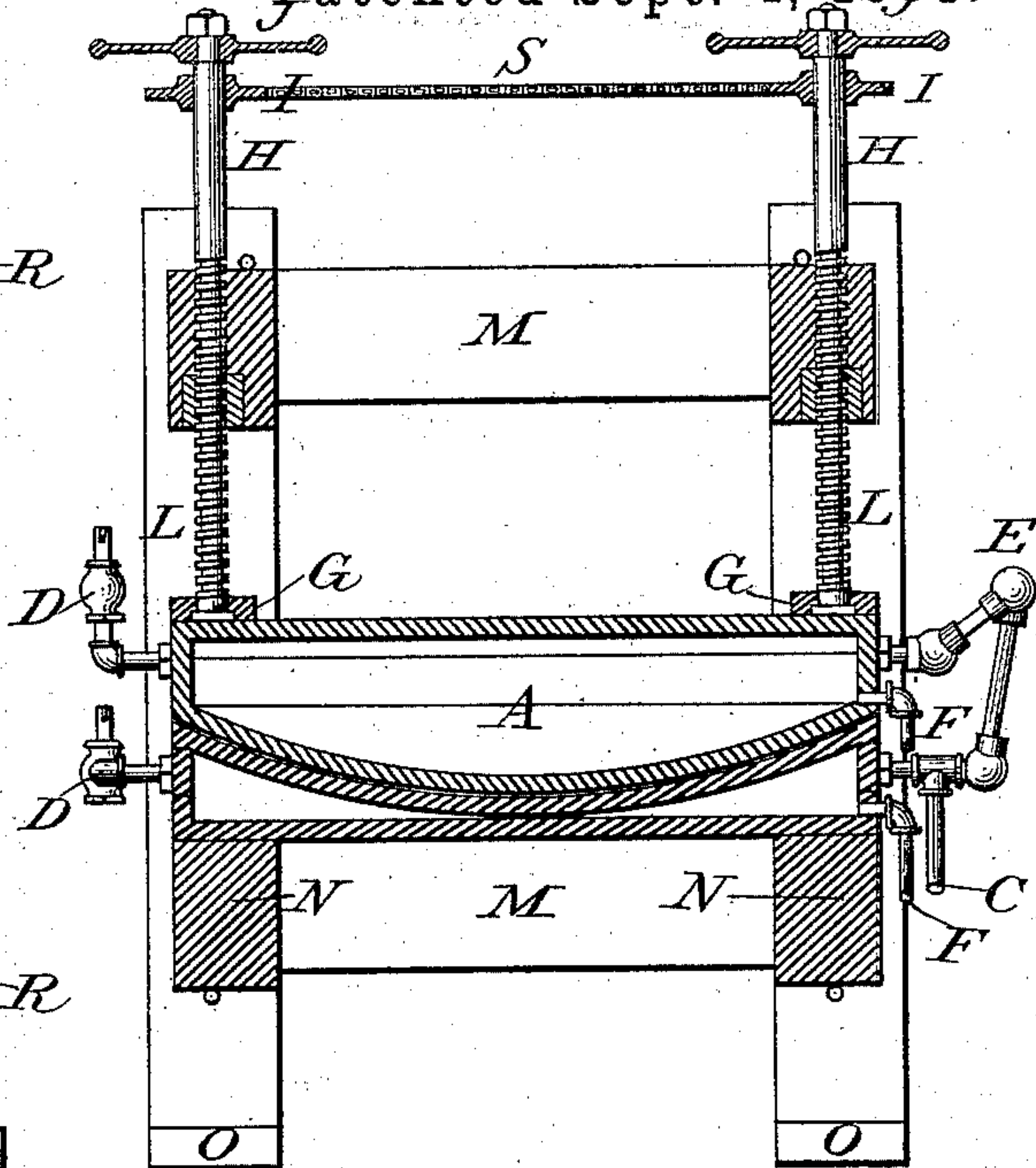
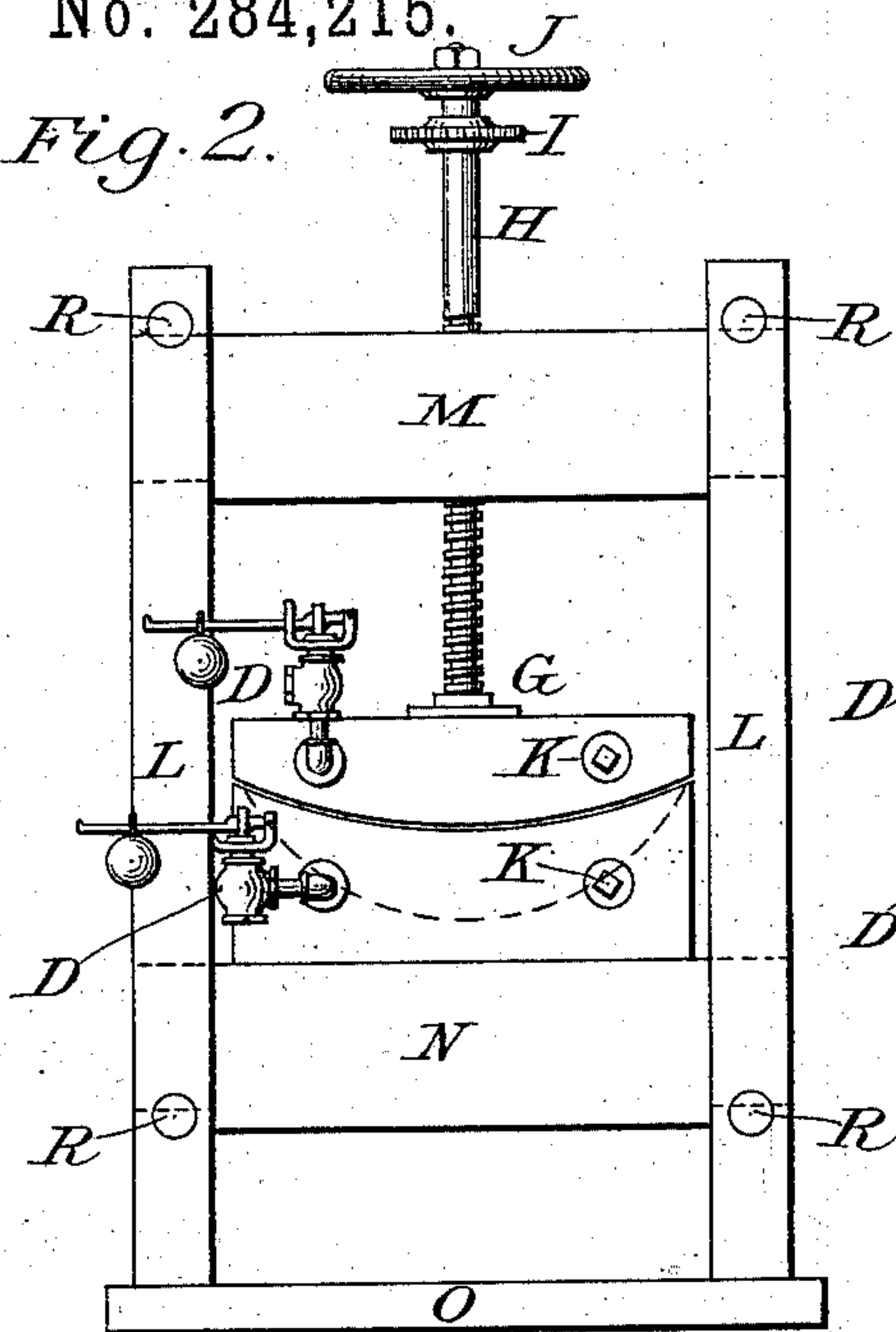


Fig. 1.

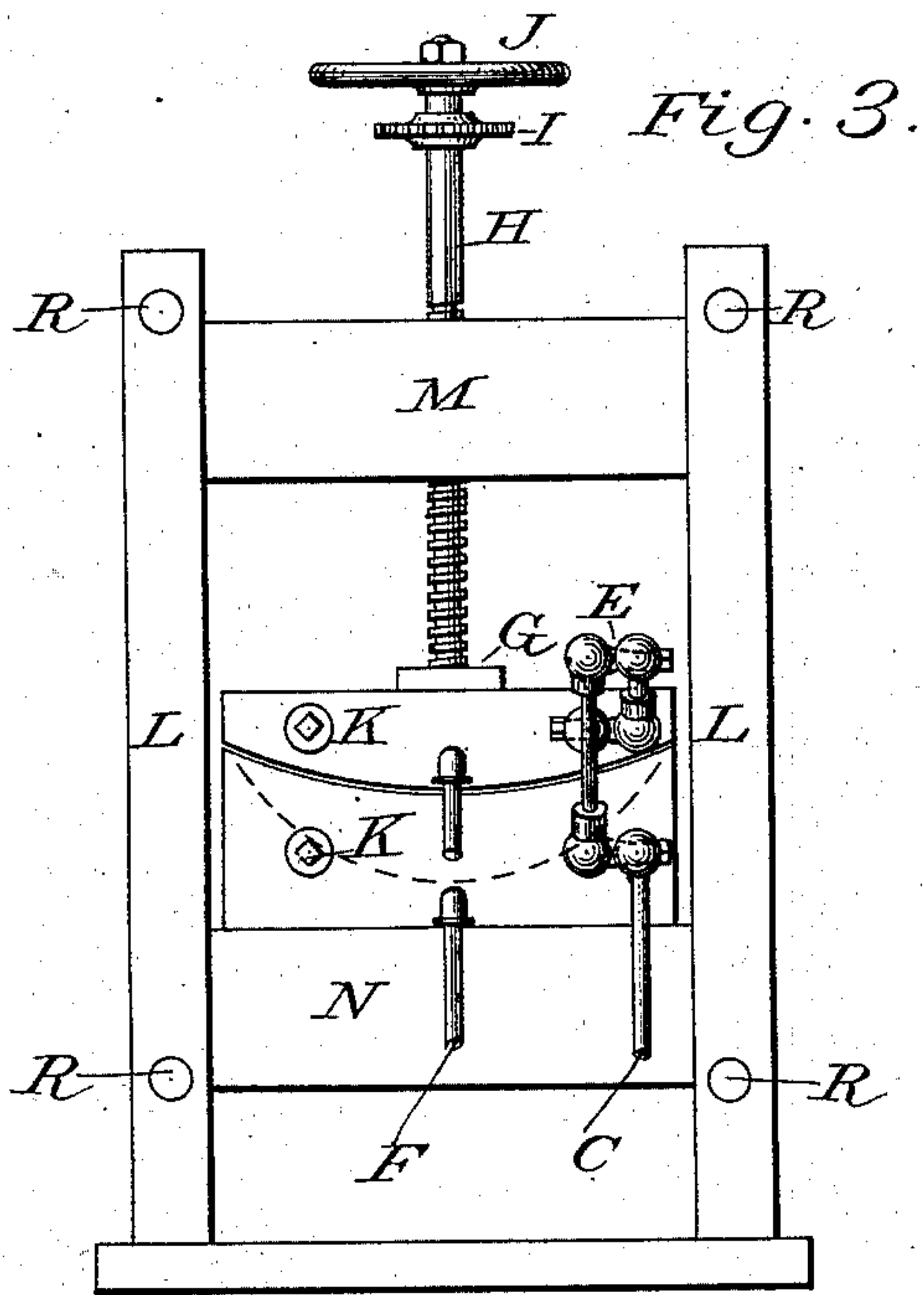
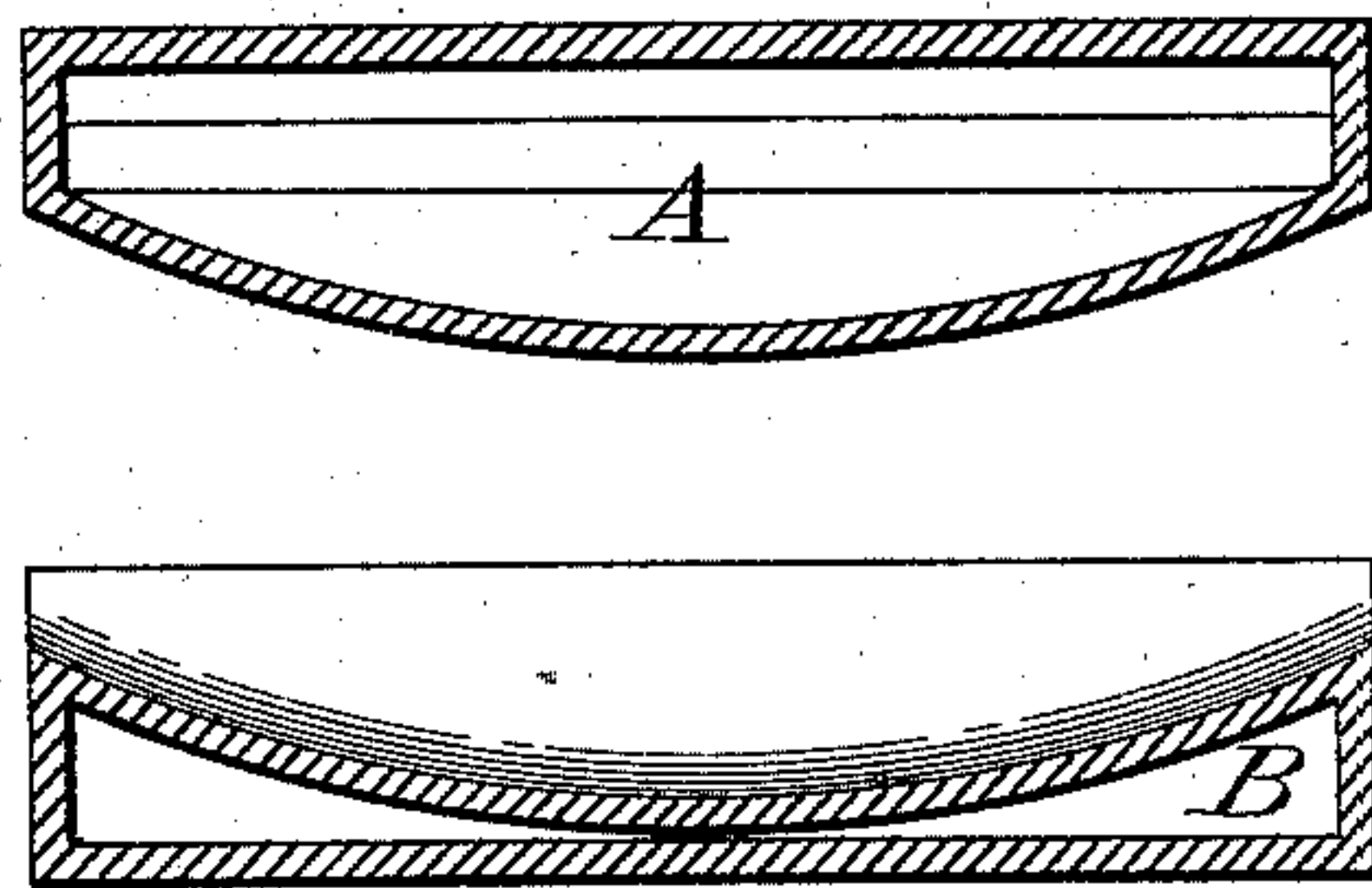


Fig. 4.



Witnesses:
Archibald D. Dutton
Chas. Bunge

Inventor:
William Erastus Lockman

UNITED STATES PATENT OFFICE.

WILLIAM ERASTUS LOCKMAN, OF ST. LOUIS, MISSOURI.

STEAM TRUNK-LID PRESS.

SPECIFICATION forming part of Letters Patent No. 284,215, dated September 4, 1883.

Application filed April 11, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ERASTUS LOCKMAN, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have invented a new and useful Steam Trunk-Lid Press, of which the following is a specification.

My invention relates to improvements in trunk-lid press-machines; and the objects of my said invention are to give form and shape to the wooden boards out of which trunk-lids are made, and also that while shape and form are being given to the wooden boards out of which trunk-lids are made said wooden boards become, through the application of steam, perfectly dry and free from moisture, and ever afterward retain the shape and form given them, without liability to warp or change.

I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of the entire machine, giving a side view of the same. Fig. 2 is a front end view of the machine. Fig. 3 represents the other end of the machine, showing the steam-connection; and Fig. 4 represents the hollow sections of the steam-chambers.

Similar letters refer to similar parts throughout the several views.

The frame-work of the machine L and M rests upon a wooden sill, O. The frame-work is held together by bolts R. Within the frame-work are two hollow cast-iron steam-chambers, A and B. The lower steam-chamber, B, is stationary and rests upon a wooden base, N. The upper steam-chamber, A, is connected with iron screws H. These iron screws pass through the frame-work M and are attached to the top of said steam-chamber by iron plates G, which fit over the knob on the end of the screws, and which plates are then affixed to the steam-chamber by iron cap-screws. There are tooth-wheels I at the upper end of the screws H, around which an endless chain works, connecting the two screws of the machine. There are also at the end of the screws wheels J, by which the same are operated. The turning of either of these wheels causes the upper steam-chamber to raise or lower at the pleasure of the person operating the machine. By operating this screw H the surfaces of the steam-chambers A and B come together. The lower

steam-chamber has a concave surface and the upper one a convex surface. These steam-chambers are supplied with steam through adjustable knuckle-joints E. Steam-connection with the knuckle-joints is had by an iron pipe, C. These knuckle-joints adjust themselves to the raising or lowering of the upper steam-chamber. There are also stop-cocks F connected with both steam-chambers, which serve to drain the same when necessary. A pressure of about twenty-five pounds of steam is usually kept in the steam-chambers, and to avoid accidents safety-valves D are attached to each steam-chamber to relieve any over pressure.

The object and nature of the machine is best explained by describing the operation of it. Wooden boards out of which trunk-lids are made are thoroughly steamed in what is ordinarily called a "steam-box." This steaming process causes the boards to become thoroughly saturated with moisture. These boards, one or more, are then placed in the machine between the two heated steam-chambers. The wheel at the end of the screw is turned and the upper steam-chamber of the press descends upon the wooden boards placed on the lower steam-chamber. In this way pressure is applied to the boards, and they assume the form of the trunk-lid. While the pressure is being applied to the boards they are also subjected at the same time to the great heat (produced by the steam) of the steam-chambers. The boards are kept in the press between the heated steam-chambers with the pressure applied for about eight minutes. The pressure is then withdrawn by turning the screw and raising the upper steam-chamber. The boards are then taken from the press and have the form and shape of trunk-lids, and are also perfectly dry and free from moisture, because of the heat to which they are subjected when in the machine. The boards, then being dry and free from moisture, afterward retain their shape and form, do not warp or change, and are ready for immediate use in the construction of trunk-lids.

The originality of this invention is well shown by considering the old machine now in use for giving form and shape to trunk-lid boards. The old machine is a wooden affair, with no steam chambers or connection what-

ever. The press is made of wood, and two men are required to operate it—one at each screw. The boards are taken from the steam-box wet and full of moisture and placed in
5 this wooden press. Form and shape are given to the boards by applying pressure; but after the boards are taken out they are still wet and moist and require to be dried in the sun, or by heat subsequently applied. The result
10 is they warp and lose their shape. Great loss of time and material is also occasioned by having to dry the boards after they are taken from the machine. The present invention obviates all of these difficulties. When boards
15 are taken from the machine, they are dry and free from moisture, have perfect form and shape, and afterward retain it. There is no loss of time. On the contrary, there is a saving of time and also of labor. One man can
20 operate it. The old idea required two men.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, in a trunk-lid press-machine, of two hollow cast-iron steam-chambers, A and B, the surface of one being concave and
25 the surface of the other convex, with steam-connection E and C, for the purpose of giving form and shape to the boards out of which trunk-lids are made, and while form and shape
30 are being given to the boards aforesaid the same are, by the heat of the steam-chambers, rendered perfectly dry and free from moisture without liability to warp or change, all substantially as set forth.

WILLIAM ERASTUS LOCKMAN.

Witnesses:

ALBERT BURGESS,
ANDREW S. FLETCHER.