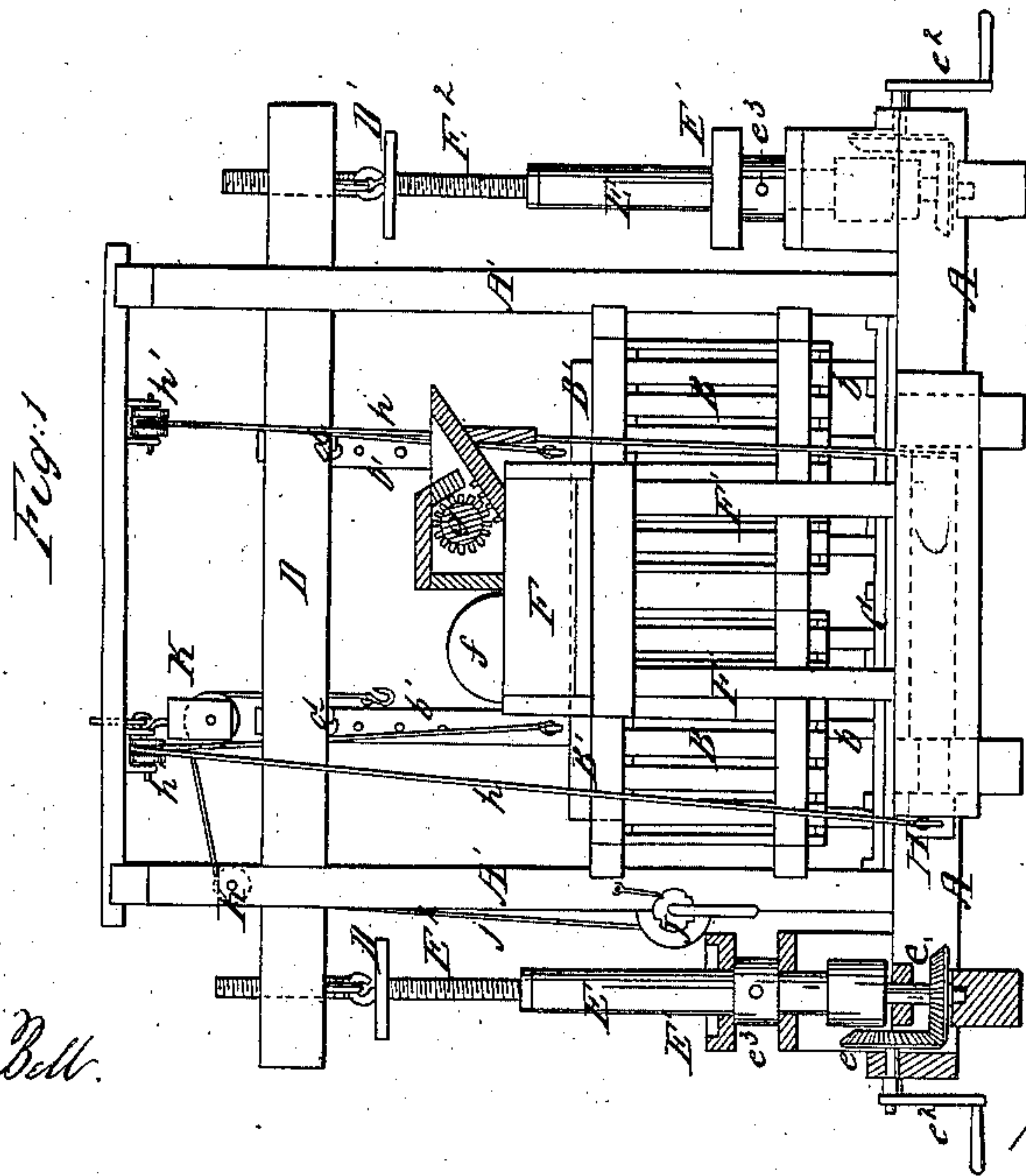
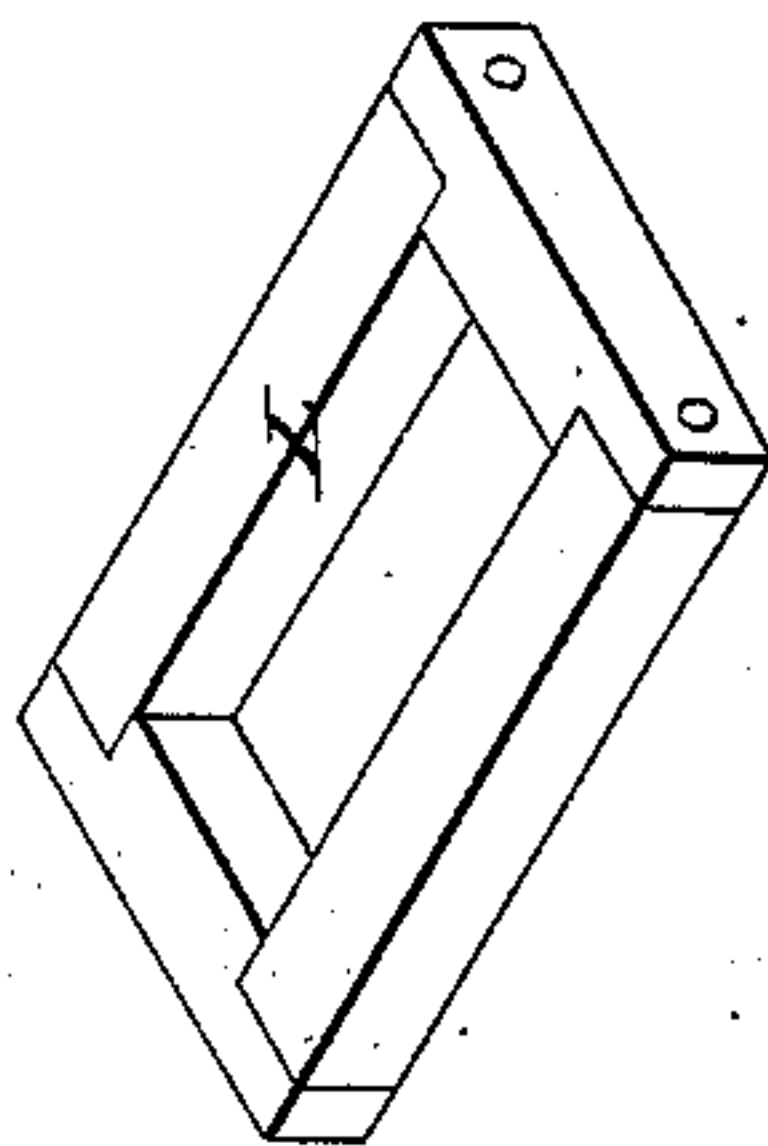
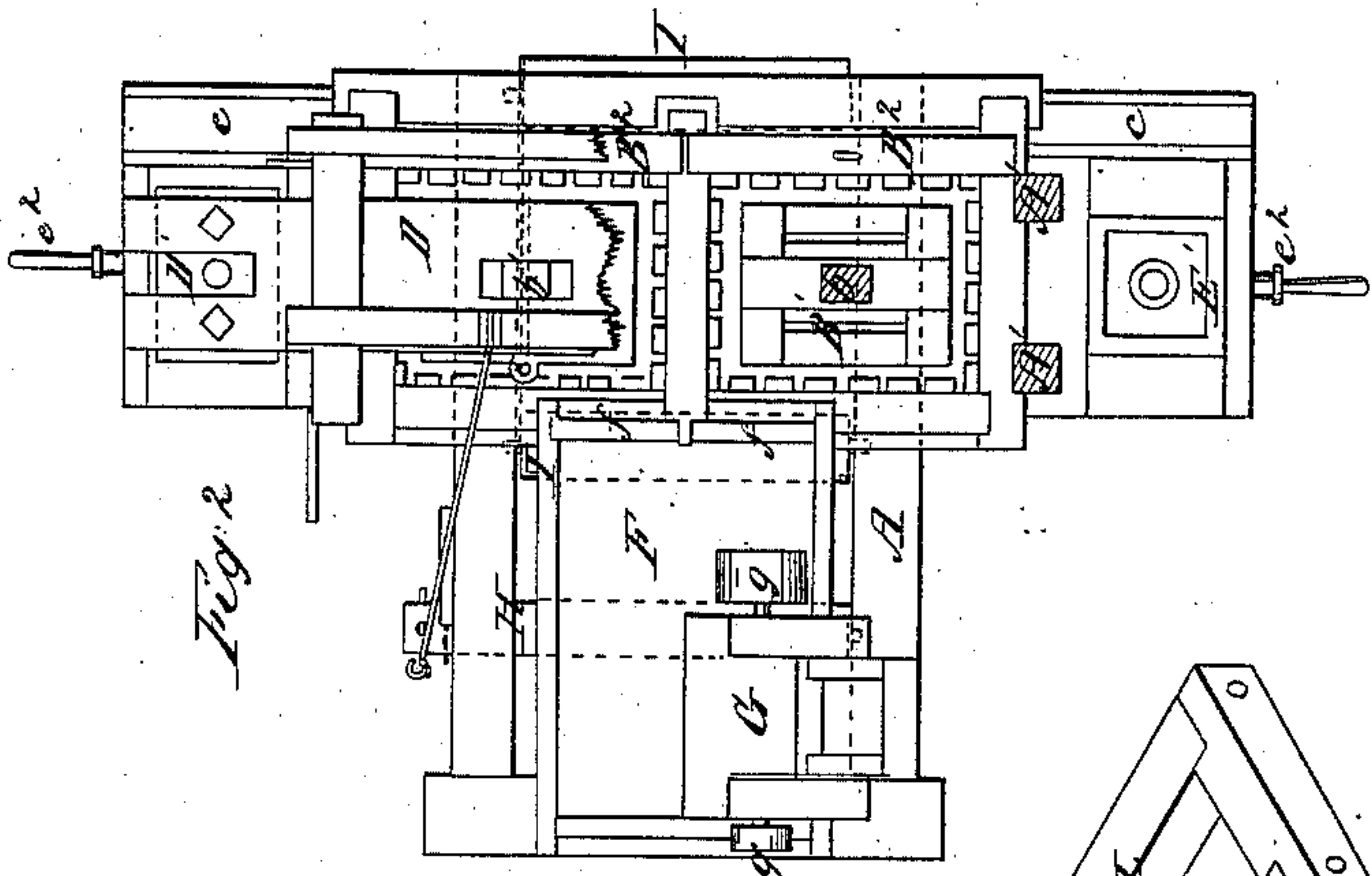


Cider Mill.

N^o 79,771.

Patented July 7, 1868.



Witnesses,
J. Snowden Bell.
J. W. White.

Inventor
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per J. H. Alexander
Atty.

United States Patent Office.

WILLIAM S. OBORN, OF MARION, OHIO.

Letters Patent No. 79,771, dated July 7, 1868.

IMPROVEMENT IN CIDER-MILLS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM S. OBORN, of Marion, in the county of Marion, and State of Ohio, have invented certain new and useful Improvements in Cider-Mills; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 represents a view in elevation of my improved cider-mill.

Figure 2, a plan or top view of the same; and

Figure 3, a view in perspective of one of the frames or scrapers, which are placed on top of the furnace in the press-tubs.

The nature of my invention consists in providing one or more press-tubs, the plunger-rods of which are connected by pins to a press-beam, which is raised and lowered by means of screw-posts, operated by suitable gearing, together with a cylinder and concave for grinding the fruit, and appliances for elevating the platens, end-gates, and scrapers, after the pomace has been pressed.

In the accompanying drawings, which show a convenient arrangement of parts for carrying out the objects of my invention, A represents a substantial frame, to which the mechanism is attached. B B are the press-tubs, which are firmly secured to the uprights A'. The press-tubs are furnished with removable bottoms or racks, b, which rest upon a bed-plate, C, attached to the frame, from which spouts, c, carry off the cider. B¹ B¹ are the platens, which are attached to plunger-rods, b' b'. A number of holes are made in the plunger-rods, through which pins d pass, to connect them to staples on the lower side of the press-beam D, which moves vertically between the uprights A'. Vertical screw-posts or shafts, E, are mounted in bearings or steps on the frame A, and have screws, E², upon their upper ends, which connect with nuts D', attached by rings to staples on the lower side of the press-beam D. The screw-posts are rotated by means of bevel-gears, e, upon their lower ends, which engage similar gears, e¹, upon horizontal shafts, which are turned by the cranks e². Holes, e³, are made in the screw-posts, into which hand-spikes may be inserted for the purpose of turning them, if sufficient power cannot be exerted upon the cranks. Weight-tubs, E¹, are secured upon the screw-posts E.

The rotation of the screw-posts gives vertical motion to the press-beam D, by its connection with the nuts D', and consequently to the plunger-rods and their platens attached thereto. Frames or scrapers, L, fig. 3, are placed in the press-tubs, on top of the pomace, before the latter is pressed. A toothed cylinder, g, is mounted in a concave, G, and rotated by means of a pulley, g', upon its shaft, for the purpose of grinding the apples.

The grinder is placed above a pomace-trough, F, which rests upon the tops of the press-tubs, and upon uprights F', and is furnished with gates f, which allow egress for the pomace to the press-tubs. The press-tubs are provided with removable end-gates B², which form their rear sides, and which may be raised by means of a cord, j, passing over an adjustable pulley, K, and a stationary pulley, K', and wound upon a windlass, J. A windlass, H, is mounted in bearings in the frame A, to which cords h are connected, passing over pulleys h', and connected to the plunger-rods b', for the purpose of raising them after the pomace has been pressed. A cord can also be attached to the windlass passing under and around the rollers I I, for the purpose of removing the racks b, scrapers L, and the pulp from which the cider has been expressed, after the end-gates have been raised by the windlass J.

The apples having been ground by the cylinder g, the pomace passes into the trough F, and through the gates f into the press-tubs, where it is pressed by rotating the screw-rods to lower the press-beam D, and with it the plunger-rods and platens. At the close of the operation, the end-gates B² are raised by means of the windlass J, and the plunger-rods and platens raised, and the racks, scrapers, and pulp removed by the rotation of the windlass H, affording ready means of cleaning the press-tubs for further operation.

Having thus fully described my improved cider-mill, what I claim therein as new, and desire to secure by Letters Patent, is—

The press-beam D, plunger-rods b', screw-posts E, screws E², and swivel-nuts D', all arranged and operated substantially as herein set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

WILLIAM S. OBORN.

Witnesses:

JAMES L. WILSON,
MIAL BURRELL.