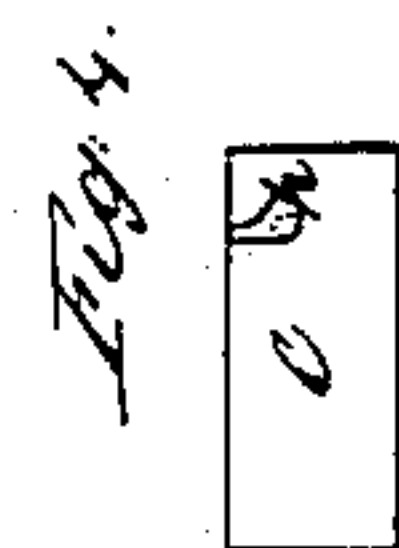
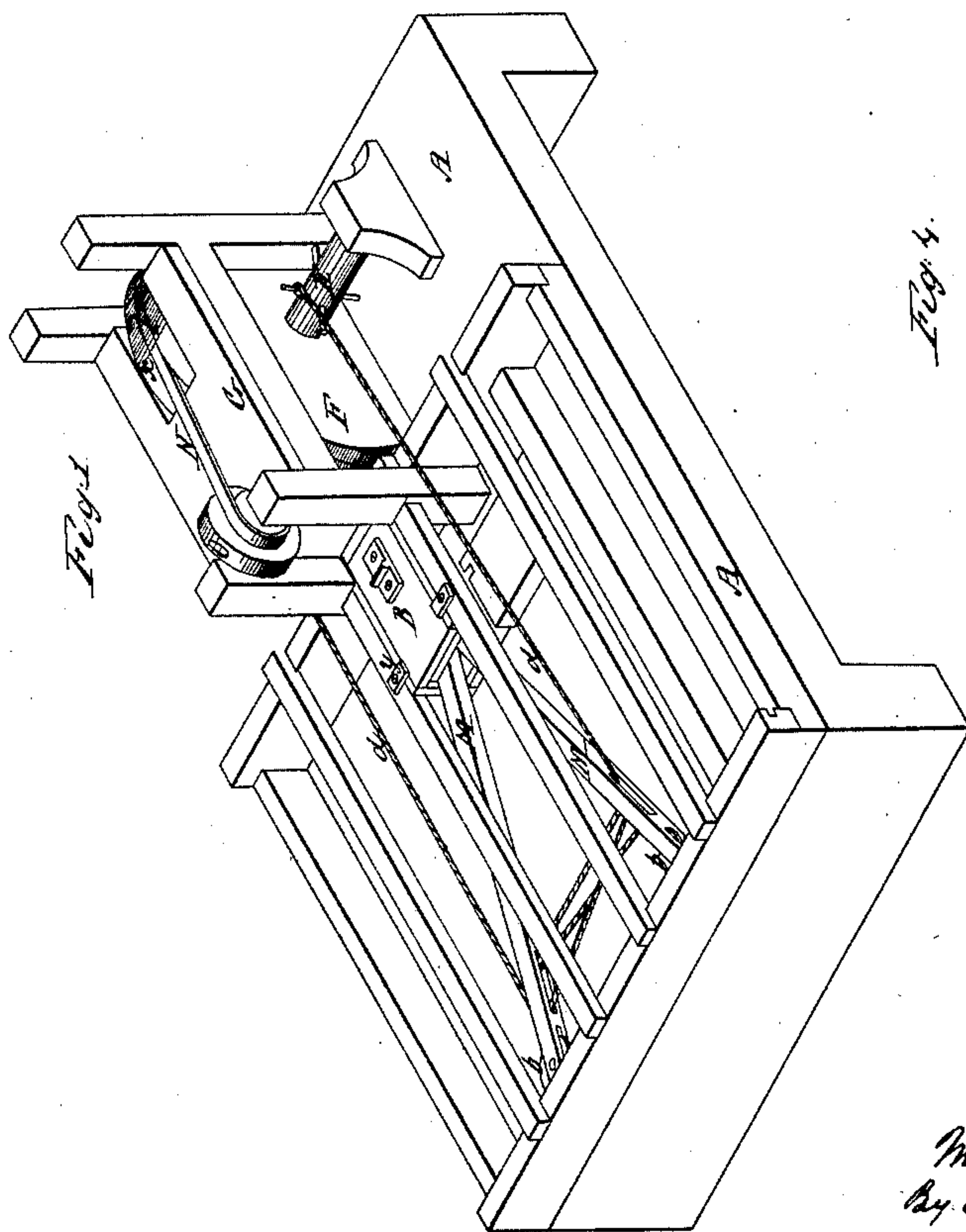
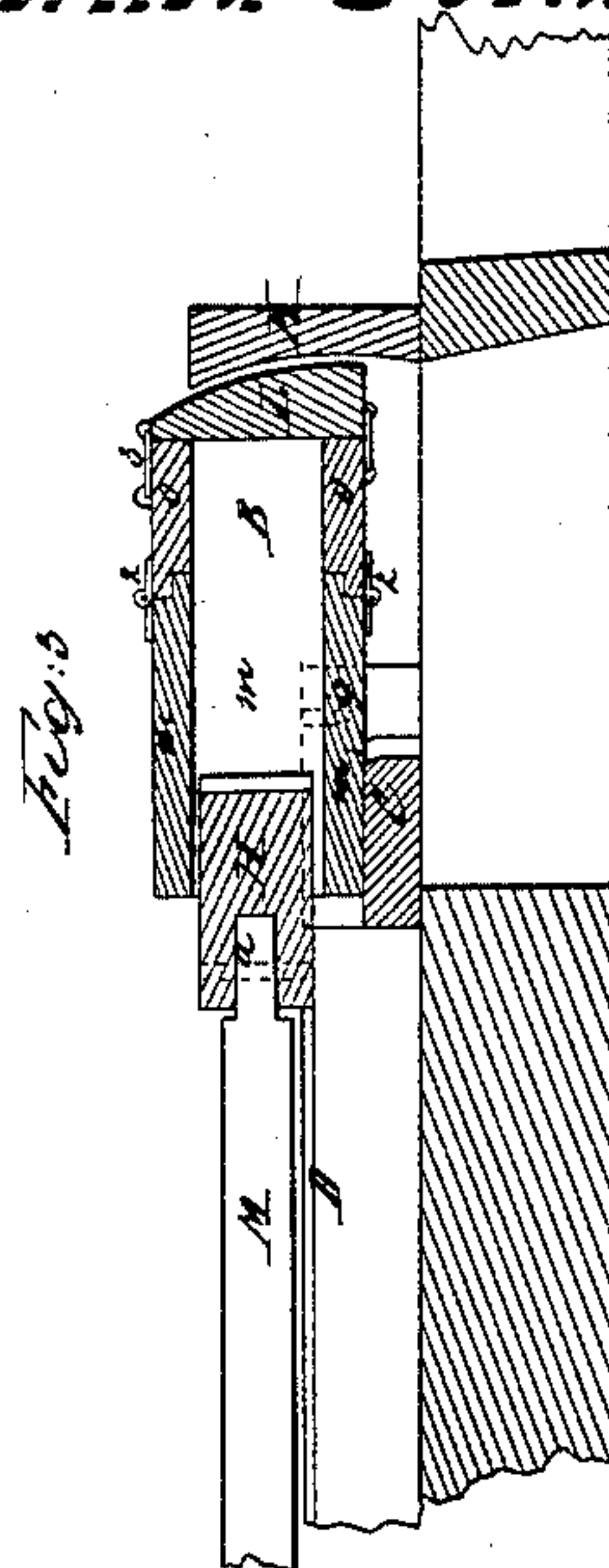
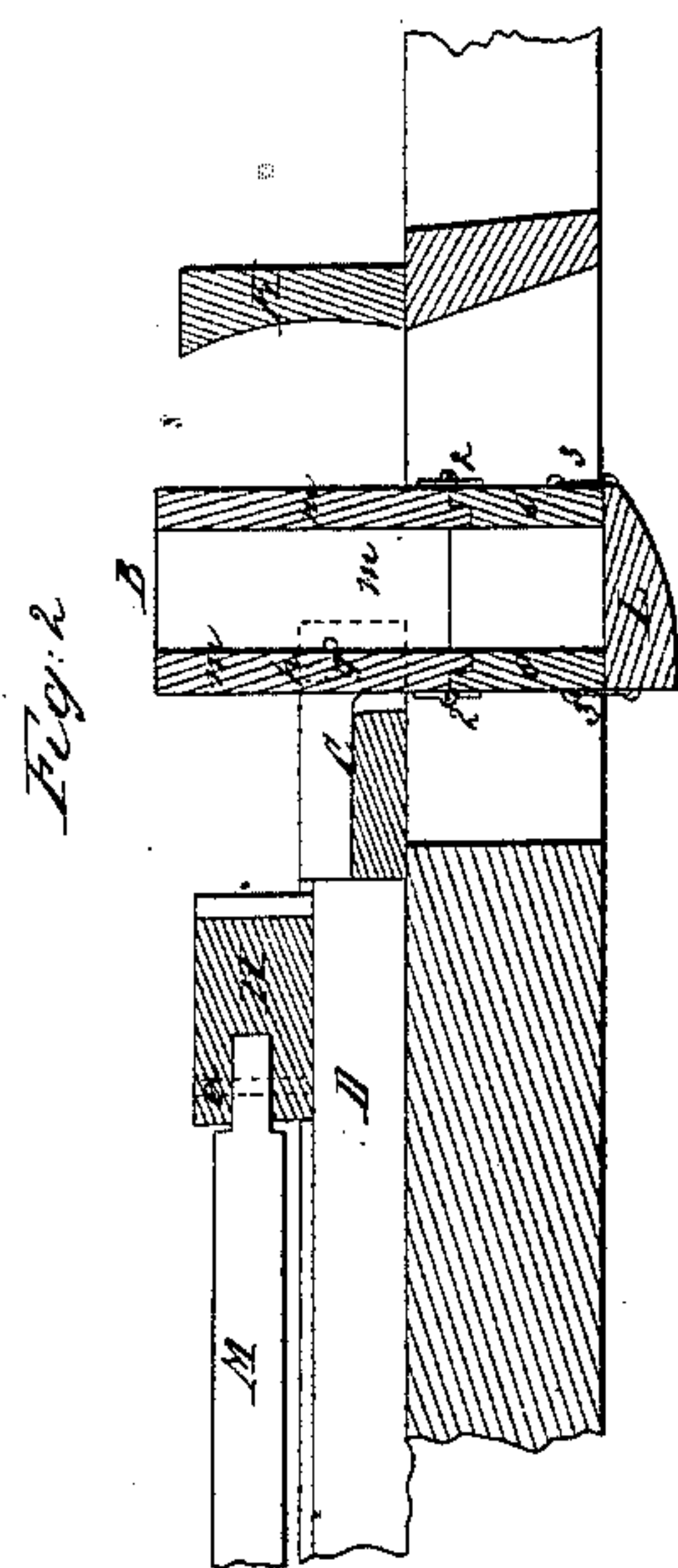


M. Murchison

Cotton Press

N^o 30493.

Patented Oct. 23, 1860.



Witnesses

*E. Cohen
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UNITED STATES PATENT OFFICE.

MURDOCH MURCHISON, OF DENMARK, TENNESSEE.

IMPROVEMENT IN COTTON-PRESSES.

Specification forming part of Letters Patent No. 30,493, dated October 23, 1860.

To all whom it may concern:

Be it known that I, MURDOCH MURCHISON, of Denmark, in the county of Madison and State of Tennessee, have invented certain new and useful Improvements in Cotton-Presses; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of said cotton-press. Figs. 2 and 3 represent longitudinal vertical sections through the press-box and follower. Fig. 4 represents a detached view hereinafter to be referred to.

My invention relates to the arrangement of a horizontal and tilting press-box with a follower, horizontal lever-arms, and windlass, by which I obtain great advantages in the construction and operation of cotton-presses, as will be more fully explained hereinafter.

It relates also to the manner of making the boxes or bearings of the trunnions of said press-box oblong, so that it may have free play on being turned from one position to another, and so that when in a horizontal position it may be pressed against a resisting-sill while the cotton is being pressed, and thus relieve the trunnions from the pressure.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents a raised platform, on which the entire apparatus is mounted. B represents the horizontal press-box. It is hung to the sill C by means of its trunnions *g*, on which it can be swung freely. The horizontal follower H, for compressing the cotton, moves on the guide-pieces D, which retain it in its true position before it enters the press-box. It is operated by two arms, M, which are pivoted to the follower at *a*, and which are spread or contracted by means of blocks and tackle, the upper ends of said arms being guided by the friction-rollers *b*, which run within the groove *c* of the frame. The ropes *d* of the tackle pass around a windlass, E, which is operated by a large wheel, F, which may be operated by horse or other power, said horse moving on the upper part, *x*, and close to the platform G. The windlass E may be operated, though, by means of any other suitable power. The press-box B is composed of the side pieces, *m*,

and the bottom piece, L. It is hung to the sill C by means of the trunnions *g*, which rest in the bearings *h* of said sill, and it is secured in its horizontal position by means of the buttons *y*. The external shape of the bottom L is that of an arc of a circle struck from the center *g*, and there is a small space between this bottom and the concave resisting-sill K when the press-box is in a horizontal position, so that it may easily be tilted. The press-box can be moved to the sill K by reason of the oblong bearings *h* of the trunnions *g*, bringing the bottom L in close contact with said sill, and thus relieving the trunnions from all strain when the cotton is being compressed in the press-box. The lower parts, *o*, of the sides of the press-box are hinged to said sides by means of hinges 2, and can be opened and closed for the purpose of removing the bale from the press-box, and are secured to the bottom L by means of the hooks or staples 3.

When the box is to be filled with cotton, the follower is withdrawn, and the press-box being released from the buttons *y*, it is turned to the vertical position represented in Fig. 2. The cotton can now be easily entered, and when the box is full it is returned to its horizontal position, its rear part resting on the sill C, and it is therein secured by means of the buttons *y*. The windlass E is then turned, and the follower presses the cotton and causes the box to move longitudinally until the bottom L is in contact with the resisting-sill K, when the bale is finished by the further action of the follower H without in the least straining the trunnions *g*. The bale being compressed, the box is turned to the vertical position represented in Fig. 3, and by loosening the hooks 3 the sides and bottoms of the box yield, and the finished bale drops from the press.

The advantage of arrangement of the different parts of this press is that the press is mounted on a low platform, thereby avoiding costly and heavy frames, as are required in vertical presses, and as a consequence the entire labor of raising the cotton to a considerable height, when the box is to be filled, is entirely dispensed with, thus making the press cheap in its construction and easy in its operation.

The band N and pulley O are designed for making a power which may be communicated to the gin from the press.

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

1. The arrangement of a horizontal and tilting press-box, B, with a horizontal follower, H, levers M, tackles *d*, and windlass E, when constructed and arranged substantially in the manner and for the purpose herein described.

2. Hanging the cotton-box B by its trunnions in the horizontal slots *h* of the frame, so

that the press-box, when in its horizontal position, can be moved longitudinally toward the resisting-sill, and thus relieve said trunnions from all strain while the cotton is being pressed, substantially in the manner herein described.

MURDOCH MURCHISON.

Witnesses:

THOMAS D. TARVER,
GRANVILLE W. WRAY.