

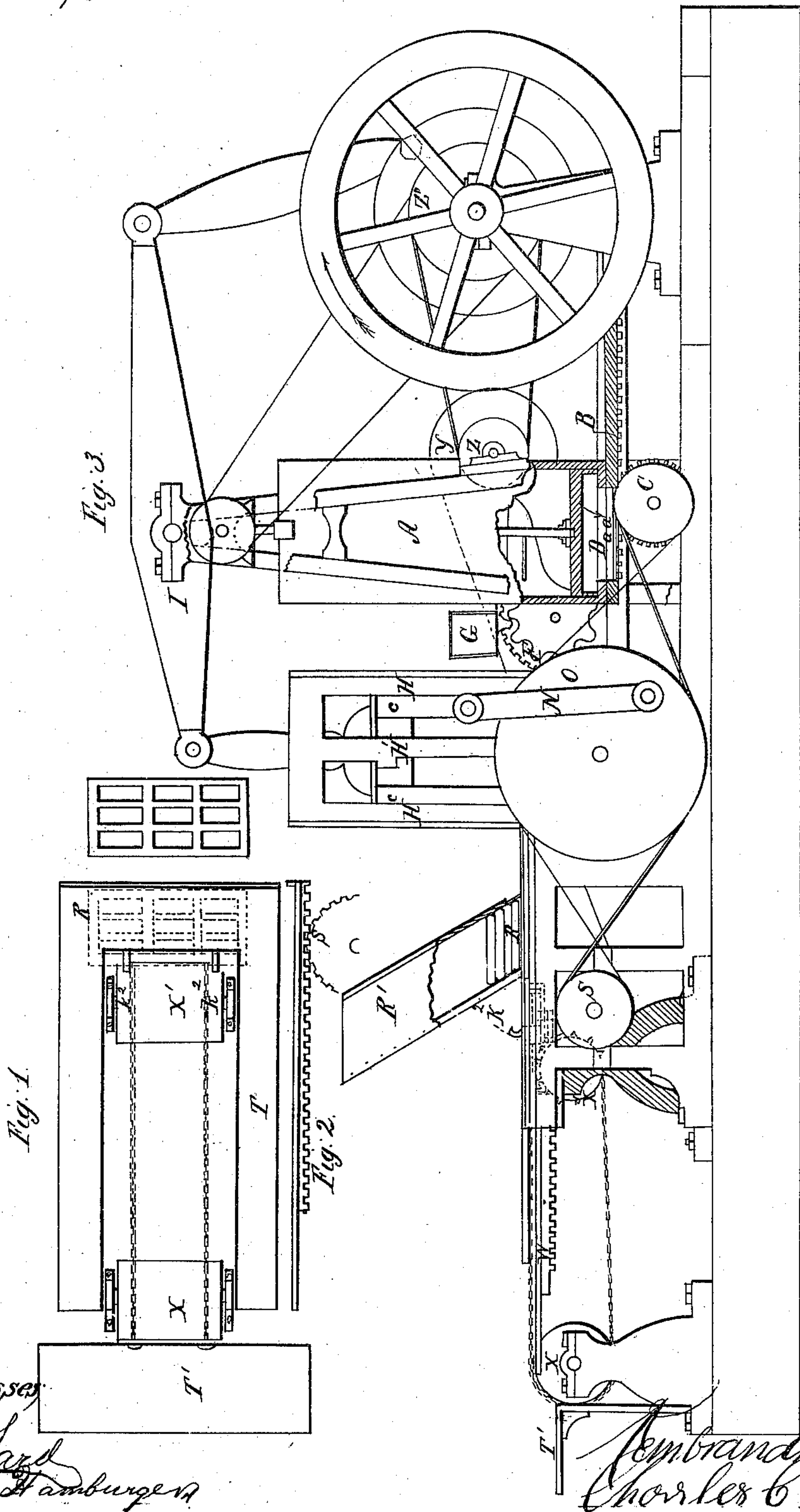
Sheet 1,
2 Sheets.

Lockwood & Schmidt

Brick Mach.

N^o 87,416.

Patented Mar. 2, 1869.



Witnesses,
H. P. Lard
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Inventors,

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Sheet 2,
2 Sheets.

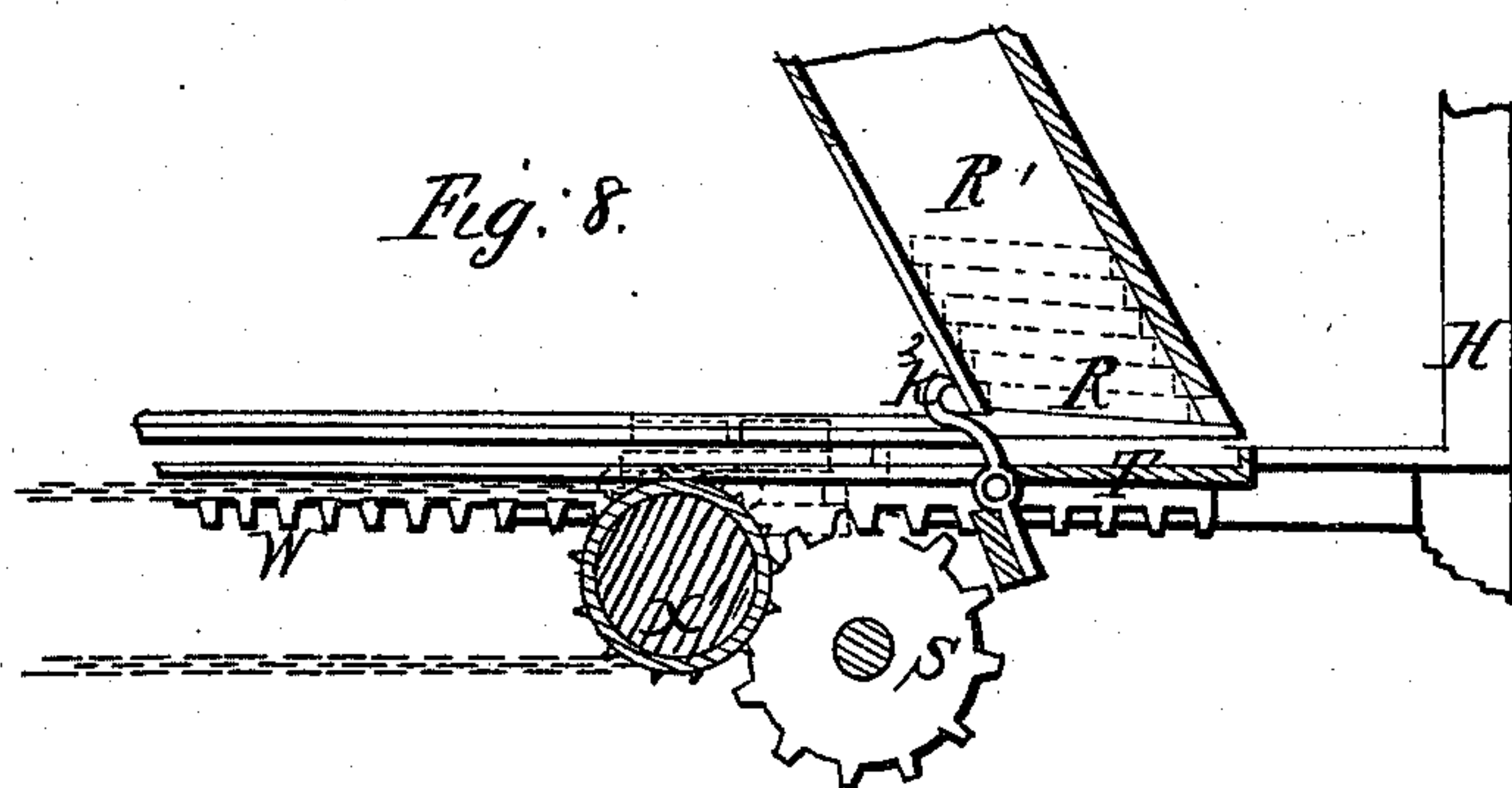
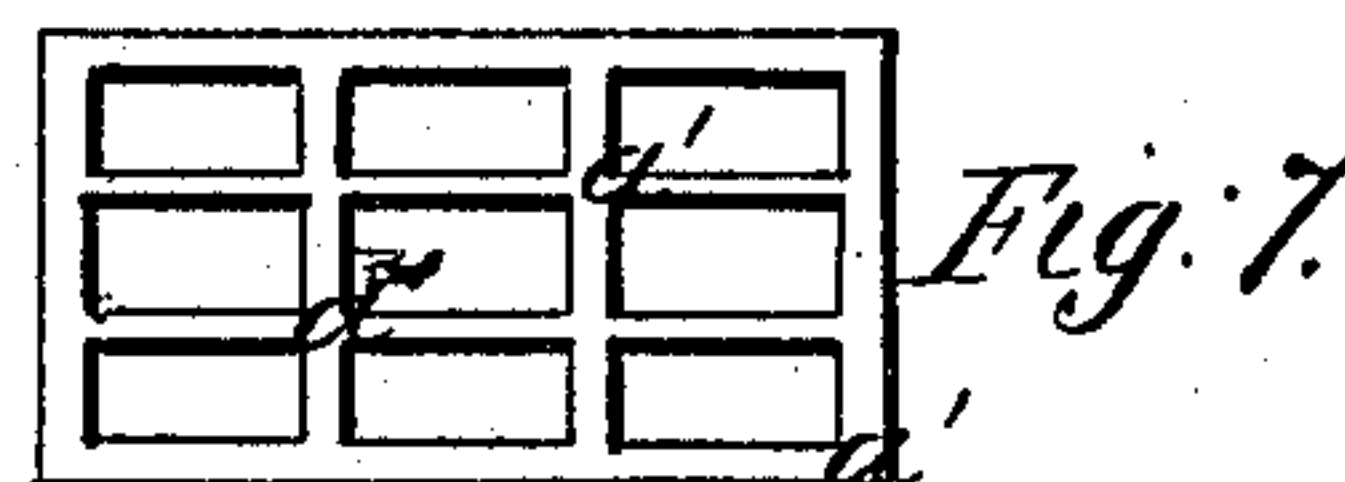
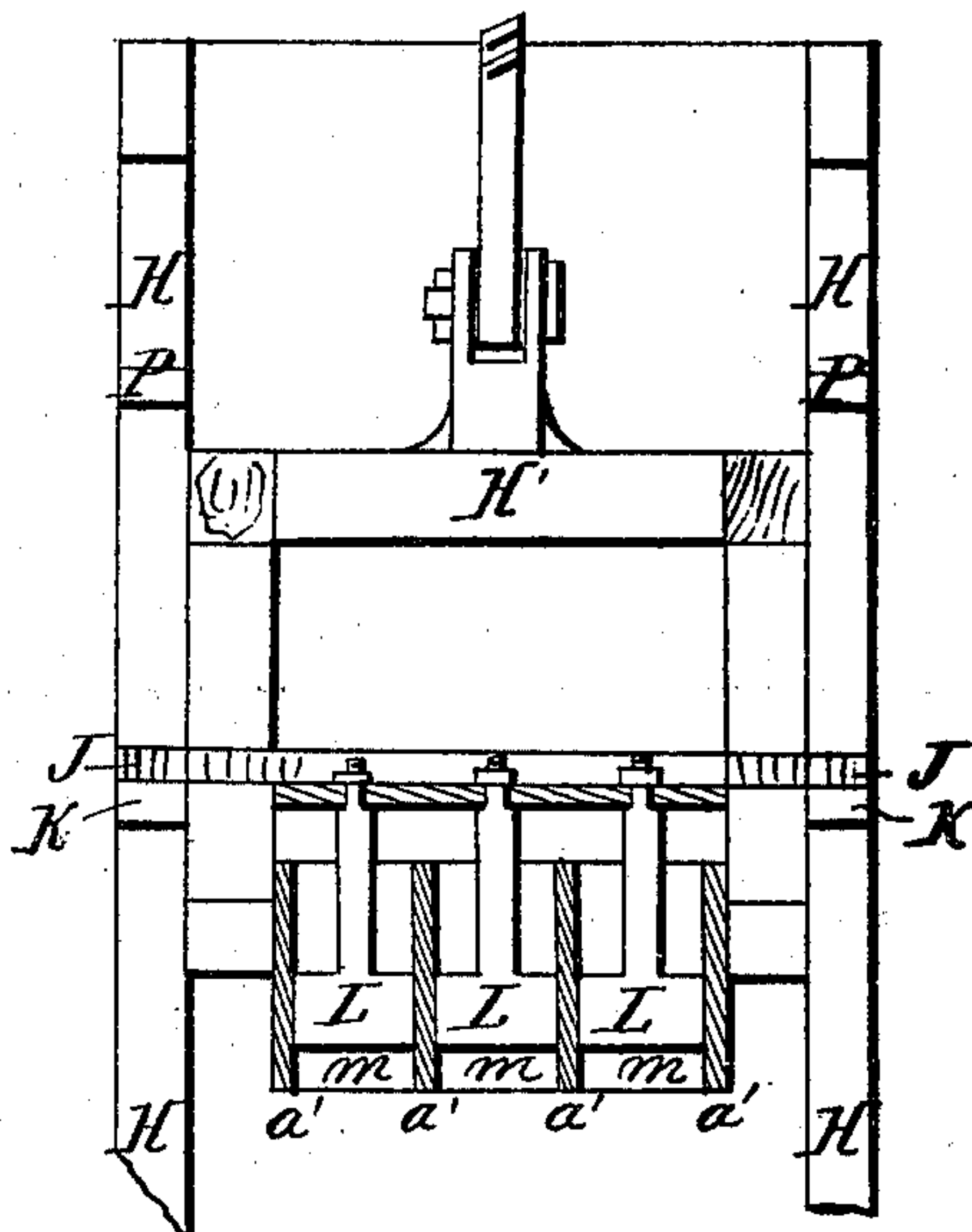
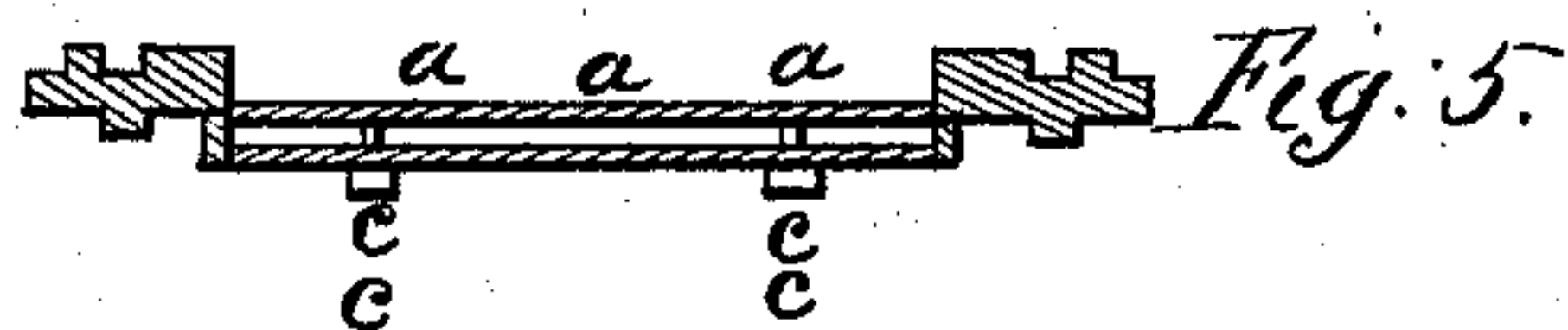
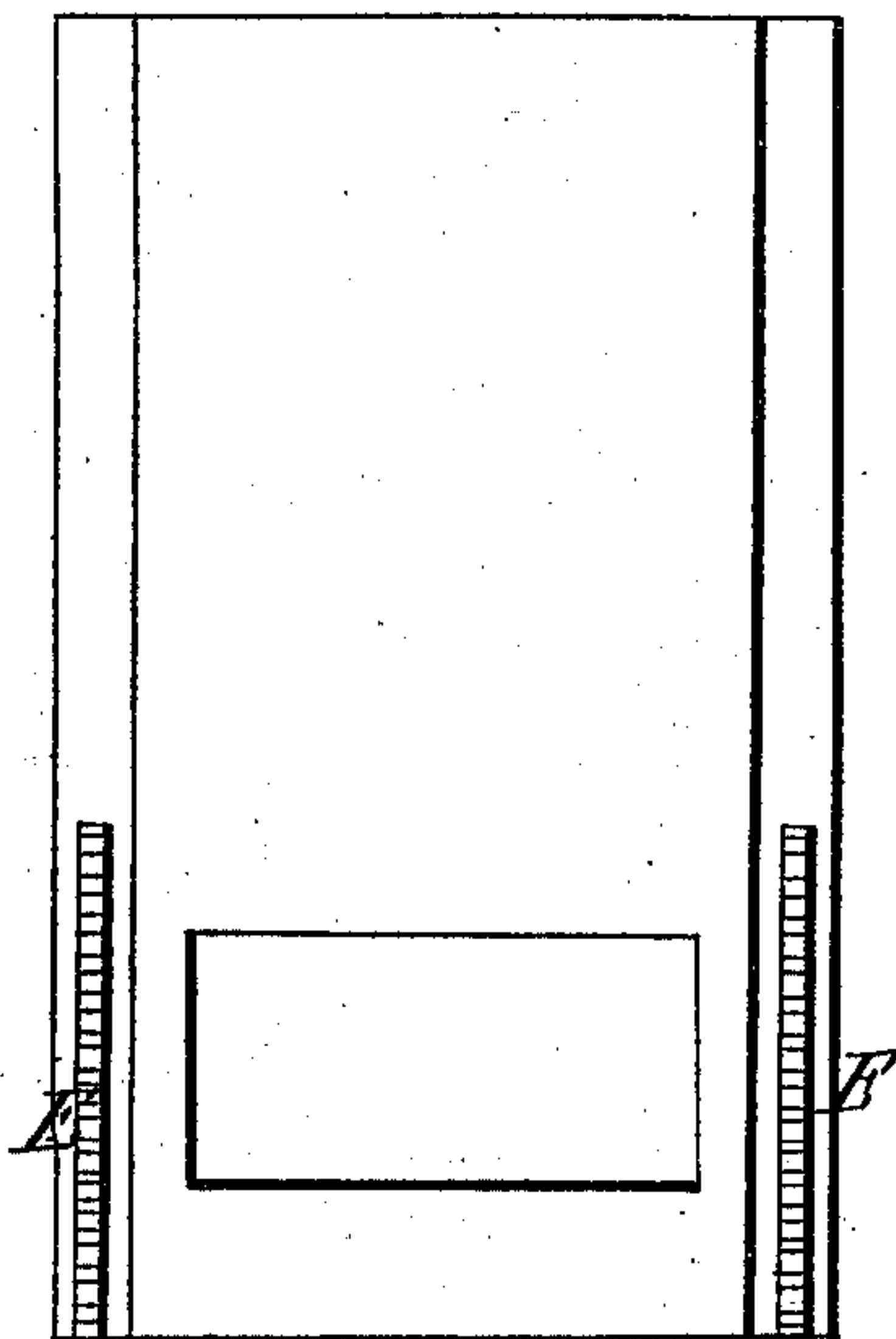
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Fig. 4.

Fig. 6.



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REMBRANDT LOCKWOOD AND CHARLES C. SCHMITT OF NEW YORK, N. Y.

Letters Patent No. 87,416, dated March 2, 1869.

IMPROVED BRICK-MACHINE.

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

To all whom it may concern:

Be it known that we, REMBRANDT LOCKWOOD and CHARLES C. SCHMITT, of the city, county, and State of New York, have invented a new and useful Improvement in Brick-Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in brick-machines, whereby it is designed, by the employment of a sliding clay-receiver, reciprocating moulding-apparatus, and delivering-carrier, arranged to receive the clay from the bottom of the mill, and carry it to the vertically-reciprocating moulding-apparatus, where it is moulded and delivered to the delivering carrying-apparatus, which delivers the moulded bricks from the mill, to provide an improved and simple apparatus for accomplishing the moulding and pressing of bricks.

In the accompanying drawings—

Figure 1 represents a plan view of a part of the apparatus for removing the moulded bricks.

Figure 2 represents the device for operating the same.

Figure 3 represents a side view of our improved machine, with some parts shown in section.

Figures 4 and 5 represent the clay-carrying table in plan and section.

Figure 6 represents a section of the pressing and moulding-apparatus.

Figure 7 represents the face of the moulding-apparatus.

Figure 8 is a detached sectional view, showing the means for removing, from the reservoir, the boards upon which the bricks are carried from the moulds to the endless carrier, to discharge them from the machine.

Similar letters of reference indicate corresponding parts.

A represents a clay-grinding and mixing apparatus, of ordinary construction, having a passage, D, through the bottom, and arranged above a sliding carrier, B, having a recess, *a*, provided with an adjustable bottom for receiving the clay through the said passage D.

A to-and-fro motion is imparted to the carrier by means of a shaft and pinion, operated by the pulley C, which derives motion from the wheel O, having an oscillating motion imparted to it from the vertically-sliding, pressing, and moulding frame, working in the vertical guides H, the same being connected by the links N, and the said pinion working in a rack on the under side of the carrier B.

The moulding-frame is operated by a walking-beam, I, operated from the driving-shaft, or it may be operated by any other competent means.

The carriage B, and the means for operating it, are so adjusted, with reference to the moulding-apparatus, that when the latter is in its most elevated position, the recess *a*, of the carrier, will be in the position to receive a charge of clay from the mill through the passage D, and the downward movement of the moulding-frame will cause the carrier to be moved under the said frame, sufficiently in advance of the completion of the movement of said moulding-frame, to allow the moulding-apparatus to act on the clay in the said carrier, to form it into bricks, as follows, the clay being sufficiently condensed as it is pressed into the said recess:

a' represents moulds, projecting downward from the mould-carrying slide H', in a manner to be forced into the clay in the recess *a*, and thereby separate and shape it into the desired form.

L represents plungers or followers, connected to the adjustable bar J, and arranged to work vertically in the said moulds, serving as a means to effect the delivery of the brick out of the moulds, after having been carried up by the moulds to which they adhere.

In the downward movement of the slide H', the bar J will strike the ledges K of the guides H, and thereby be arrested in its movement, while the moulds are continued to the bottom of the recess *a*.

When the slide H' rises, the ends of the bar J strike corresponding ledges or stops, P, on the guides H, and thereby arrest the movement of the plungers, and cause them to discharge the moulded brick from the moulds *a'*, which continue sufficiently in their ascent to insure the accomplishment of the same.

T represents another carrier, arranged to receive the brick when so discharged from the moulds, and deliver them out of the machine. It is arranged to slide in ways, and a to-and-fro motion imparted to it from the wheel O, in a manner similar to that by which the carrier B is operated.

It is provided with swinging catches, K², which, on the inward movement of the same, pass through the bottom of a reservoir, R', arranged above the said carrier, and take therefrom the lowermost board, R, of a series, which is kept supplied to the said reservoir, and cause it to be carried under the moulds, just previously to the dropping of the brick, to receive them, on which they are carried back, by the return movement of the carrier T, to such a position that the projecting edge of the board will be caught by the endless chains, working over the rollers X' X, and be by them delivered to the table T', from which they may be taken away.

The swinging catches K² are thrown down below the board R, by their pendent parts striking against the first roller X', as shown in red, fig. 8, to allow the boards to be carried off by the chains, and the remaining boards in the reservoir may be prevented from

falling down within the range of the catches by any suitable latch-mechanism, to be actuated at the commencement of the inner movement of the carrier T.

The carrying-chain rollers X X may be operated by a belt from the driving-pulleys Z' Z'', or by any other means suitable to give a continuous rotary motion.

At F and G we have represented in outline a mechanism for sanding the recess *a* and the carrying-boards, consisting of a shaking sand-box, G, arranged to be agitated by a toppel-wheel, F, having, on its shaft, cog-wheels, gearing into racks on the upper face of the carrier B, and deriving motion therefrom; but we make no claim of this arrangement of sanding-mechanism.

The bottom of the recess *a* may be adjusted, for the purpose of varying its capacity to receive a greater or less amount of clay, and the stops K and P may be adjusted on the guides H.

The position of the mould-boxes *a'* may be also adjusted on the frame H', all as may be desired, for the purpose of regulating the thickness of the moulded bricks, and the amount of pressure to be imparted to them.

We claim as new, and desire to secure by Letters Patent—

1. The arrangement of the followers L with the moulds *a'*, the bar J, frame H', and the adjustable stops K and P, all substantially as and for the purpose specified.

2. The combination, with the reciprocating moulds *a'*, followers L, and the grinding-apparatus A, of the reciprocating carrier B, having a recess, *a*, substantially as and for the purpose specified.

3. The combination, with the vertically-reciprocating moulds *a'*, of the carrier T and the endless chains, substantially as and for the purpose described.

4. The combination, with the carrier T, provided with the swinging catches K², of the reservoir R' and carrying-boards R, substantially as and for the purpose described.

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