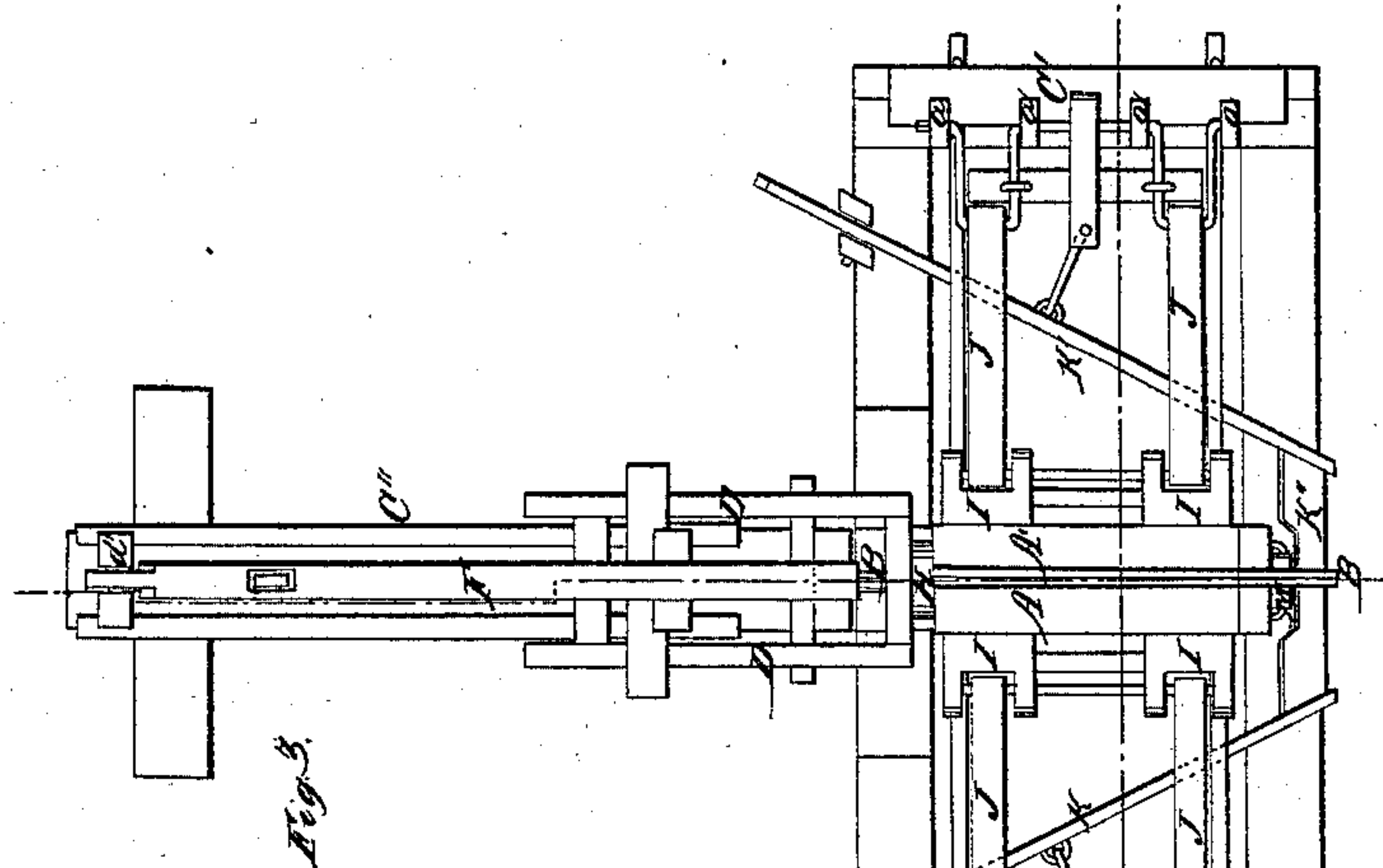
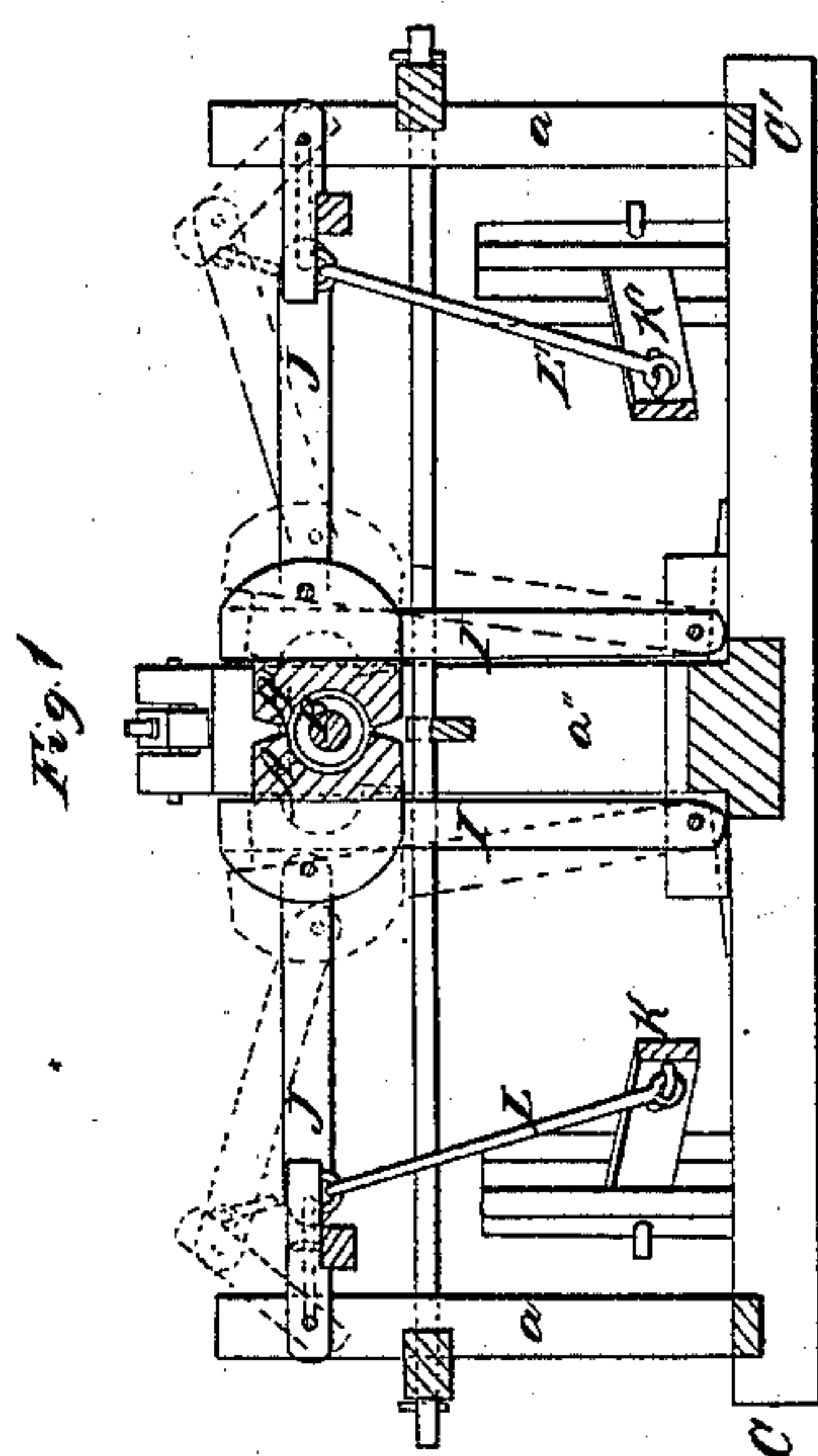
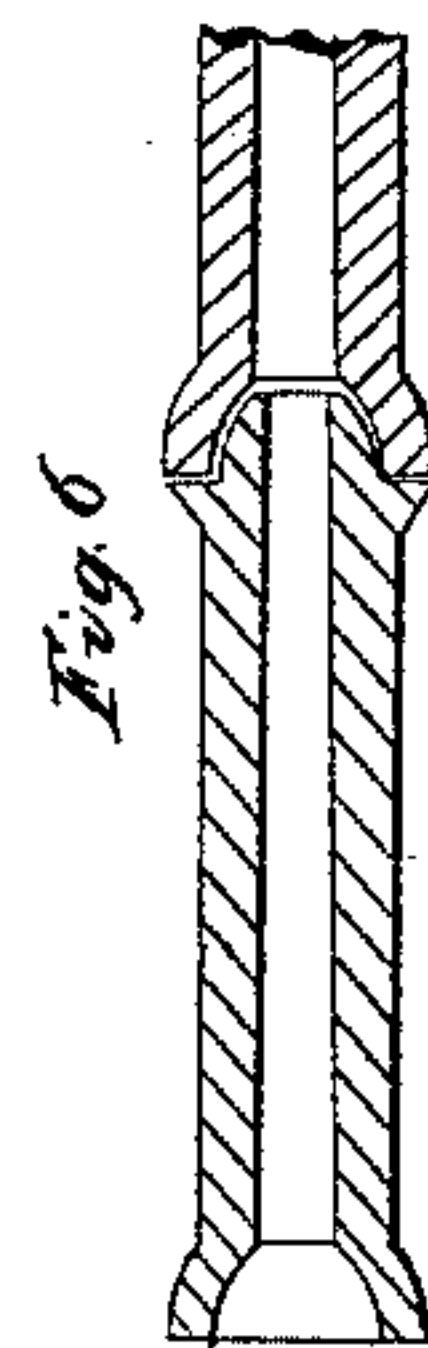
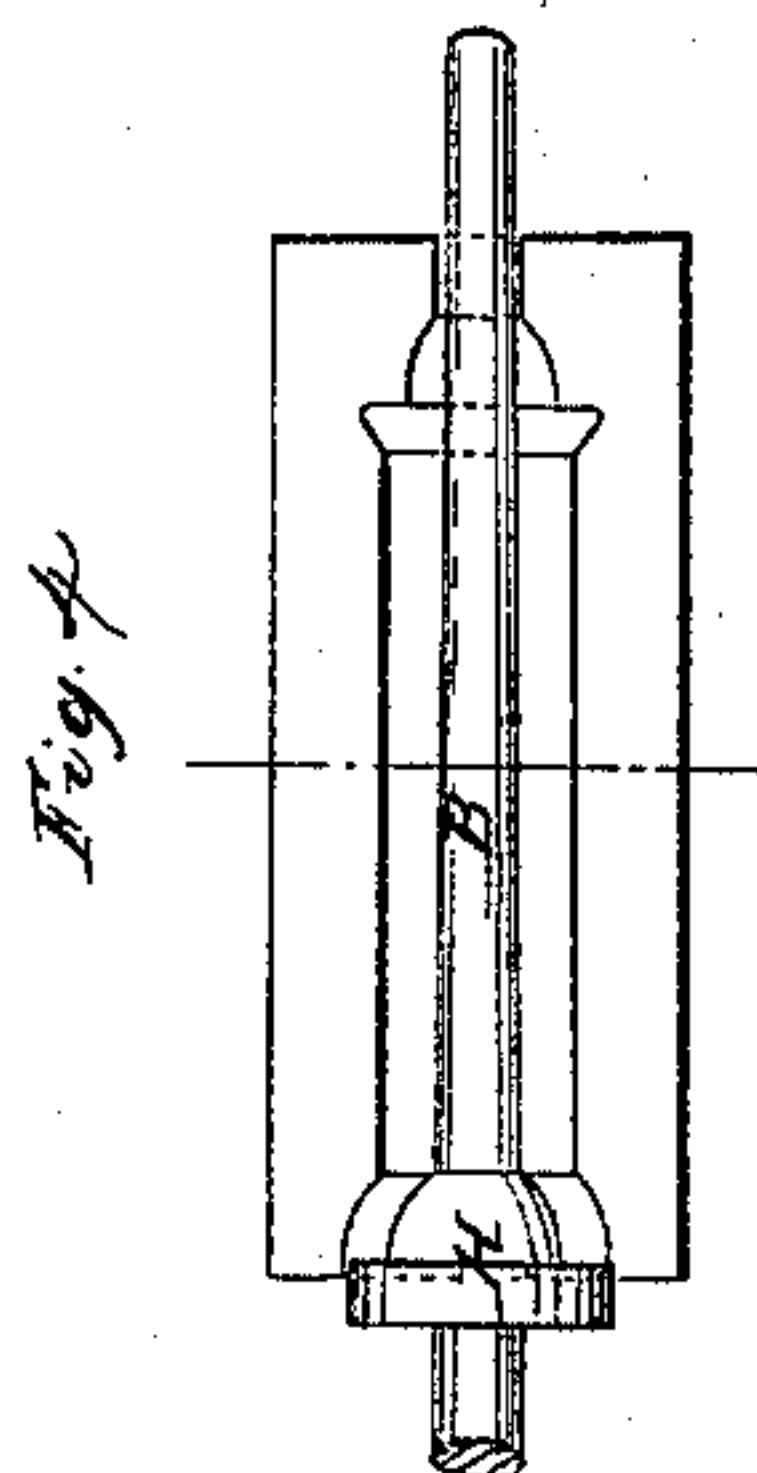
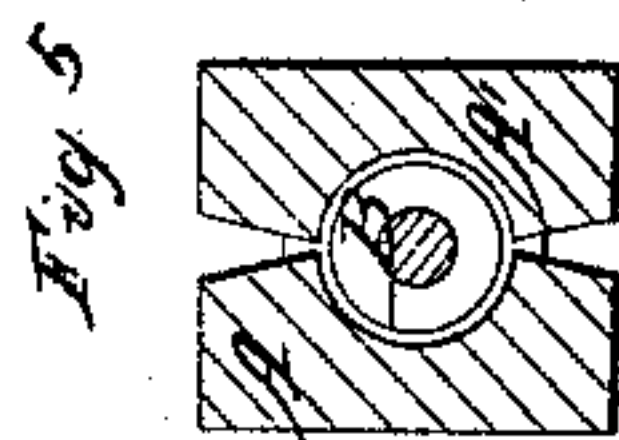
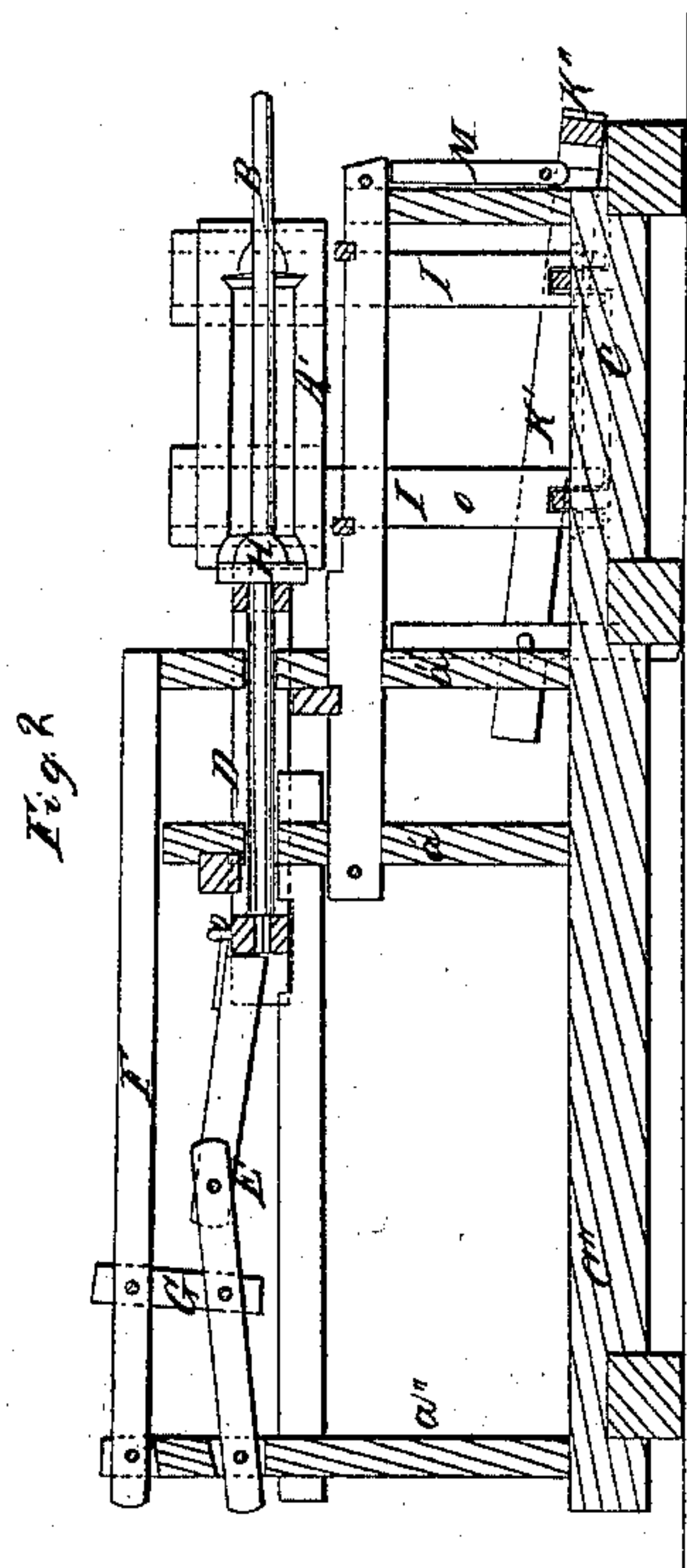


*E. T. Jewett,*  
*Tile Machine.*

*N<sup>o</sup> 43,310.*

*Patented June 28, 1864.*



Witnesses  
*Henry Morris*  
*Geo. W. Reed*

Inventor.  
*E. T. Jewett*  
*Per my atty*



# UNITED STATES PATENT OFFICE.

E. T. JEWETT, OF ST. ALBANS BAY, VERMONT.

## CEMENT-PIPE MACHINE.

Specification forming part of Letters Patent No. 43,310, dated June 23, 1864.

*To all whom it may concern:*

Be it known that I, E. T. JEWETT, of St. Albans Bay, in the county of Franklin and State of Vermont, have invented a new and Improved Machine for Making Cement Pipes; and I 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, making a part of this specification, in which—

Figure 1 is a sectional elevation of my invention; Fig. 2, a side sectional elevation of the same; Fig. 3, a plan view of the same; Fig. 4, an enlarged side elevation of the mold, mandrel, and pipe; Fig. 5, a sectional end elevation of the mold and mandrel, enlarged; Fig. 6, an outline showing the form of the finished pipe.

Similar letters of reference indicate like parts.

The molds by which the exterior of the pipes are formed are composed of two parts or jaws, A A', each part having a concavity to be filled with cement. Between the jaws A A', I arrange a horizontal movable mandrel or core-rod B.

C C' C'' is a cruciform frame, upon which uprights or posts *a* are arranged, as shown. The rear end of the mandrel B passes through the uprights *a' a'*, and is also set in a horizontally-moving frame, D, which is arranged upon and guided by the said uprights in the manner shown. The rear end of the frame D is connected by means of a toggle, E, with the rear post or upright, *a''*, jointed to the upper end of which is a lever, F, to which one link of the toggle E is connected by means of the link G, as shown. By raising the lever F the mandrel B will be withdrawn, and by pressing down the lever the toggle will be thereby straightened and the mandrel will be pushed forward. At the front end of the frame D upon the mandrel C' there is a head or block, H, corresponding to the inner form that the head of the pipe is to have when finished.

In operating the machine the jaws A A' are opened to receive the cement, and the mandrel B is pressed forward. The jaws A A' are then closed, which presses the cem-

ent into the cavities of the jaws and around the mandrel B and the head H. The lever F is now raised, which withdraws and loosens the mandrel from the center of the cement mass. The jaws A A' are then opened, when the finished section of the pipe may be withdrawn from the mandrel. The inner edges or faces of the jaws A A' are beveled or inclined from the edges of their pipe-cavities outward, so that when the jaws are pressed together they only touch at the edges of the cavities aforesaid, a space of increasing width being left between the remaining portion of the faces of the jaws, as shown in Figs. 1 and 5. The object of this peculiar construction of the jaw-faces is to permit the ready exit and escape of the superabundant clay or cement when the jaws approach each other. The jaws A A' are attached to vertical rods I I I I, which are pivoted to the lower part of the frame, as shown. The upper ends of these rods I are connected by means of the toggles J J J J with the uprights *a*, in the manner shown. These toggles are raised and depressed simultaneously by means of two levers, K K', which are connected by a front bar, K''. The rear ends of the levers K K' are pivoted to the frame of the machine, as shown. By moving the front bar, K'', up or down the jaws A A' will be opened or closed. The front bar, K'', is held and pressed down by means of the lever M, which is pivoted to the front of the machine, as shown.

I do not confine my machine to the production of cement pipes only, for it is adapted also to the making of pipes of clay and all other kinds of plastic material.

I do not confine myself to the precise form and arrangement of the upright toggles and levers here shown, as they may be varied to suit the skill and pleasure of the maker; but,

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. While disclaiming the general principle of forming molding-jaws with beveled edges to permit the escape of surplus clay, I claim the bevel-faced jaws A A', when constructed and operated in the manner herein specified.

2. The combination of the jaws A A' with the rods I, toggles J, and levers K K, substantially as herein shown and described.

3. The combination of the horizontally-moving mandrel B with the jaws A A', substantially in the manner and for the purpose herein shown and described.

4. The combination of the toggle and lever F with the mandrel B, substantially as herein shown and described.

ELEAZER T. JEWETT.

Witnesses:

WM. BRIDGES,  
A. J. SAMSON.