

No. 758,706.

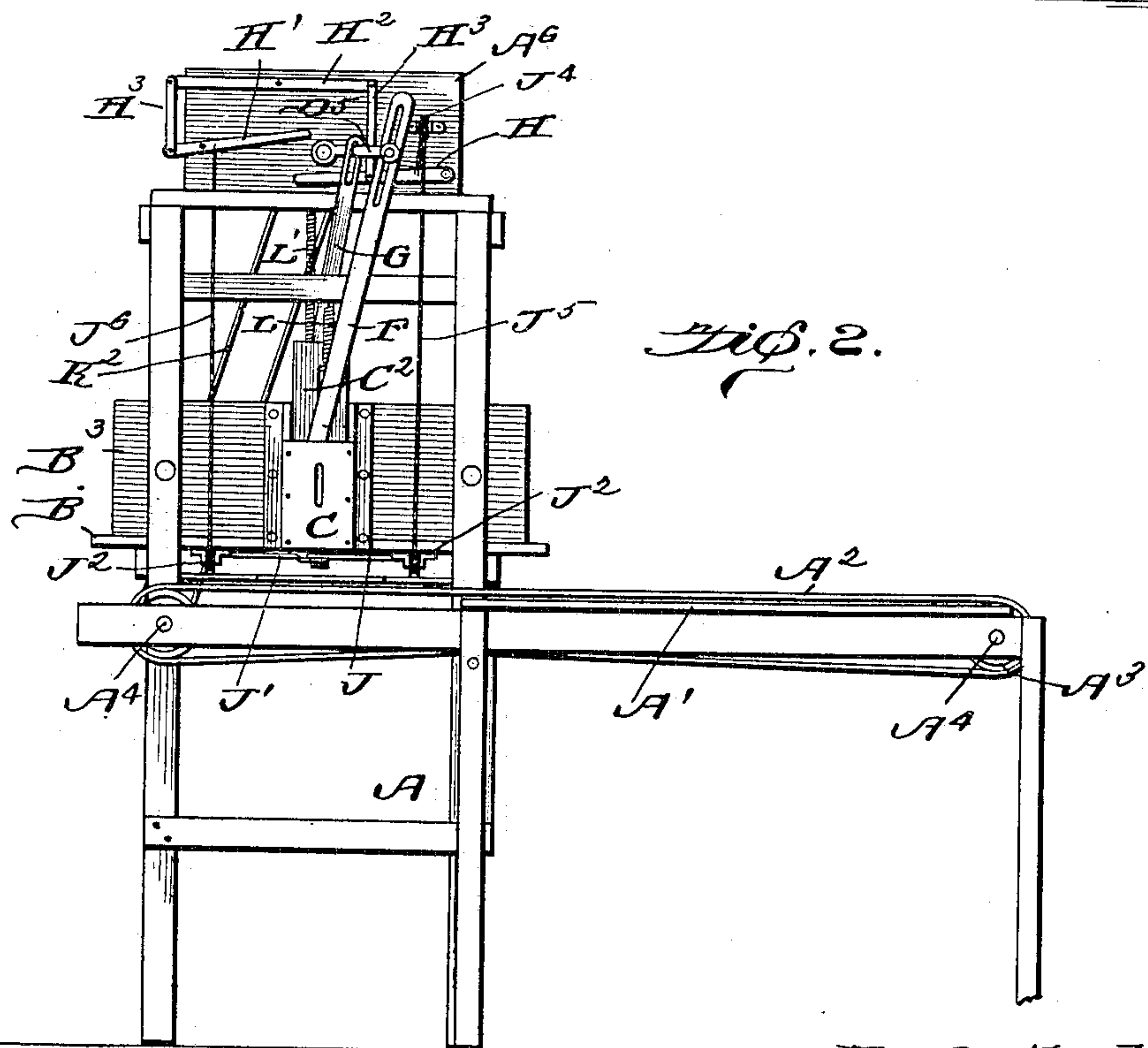
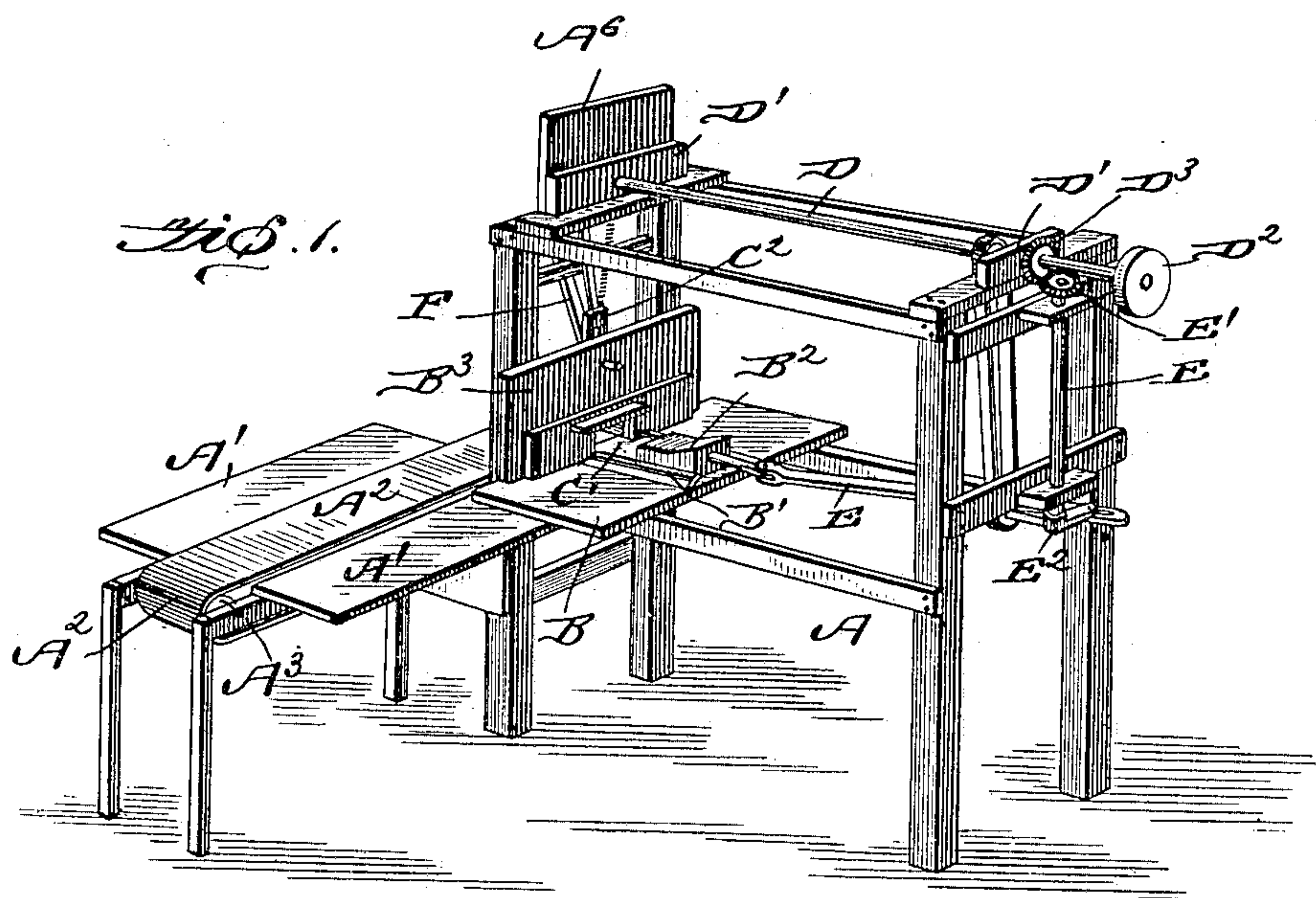
PATENTED MAY 3, 1904.

L. A. SHELDON.
BUTTER PRINTING MACHINE.

APPLIOATION FILED JULY 11, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



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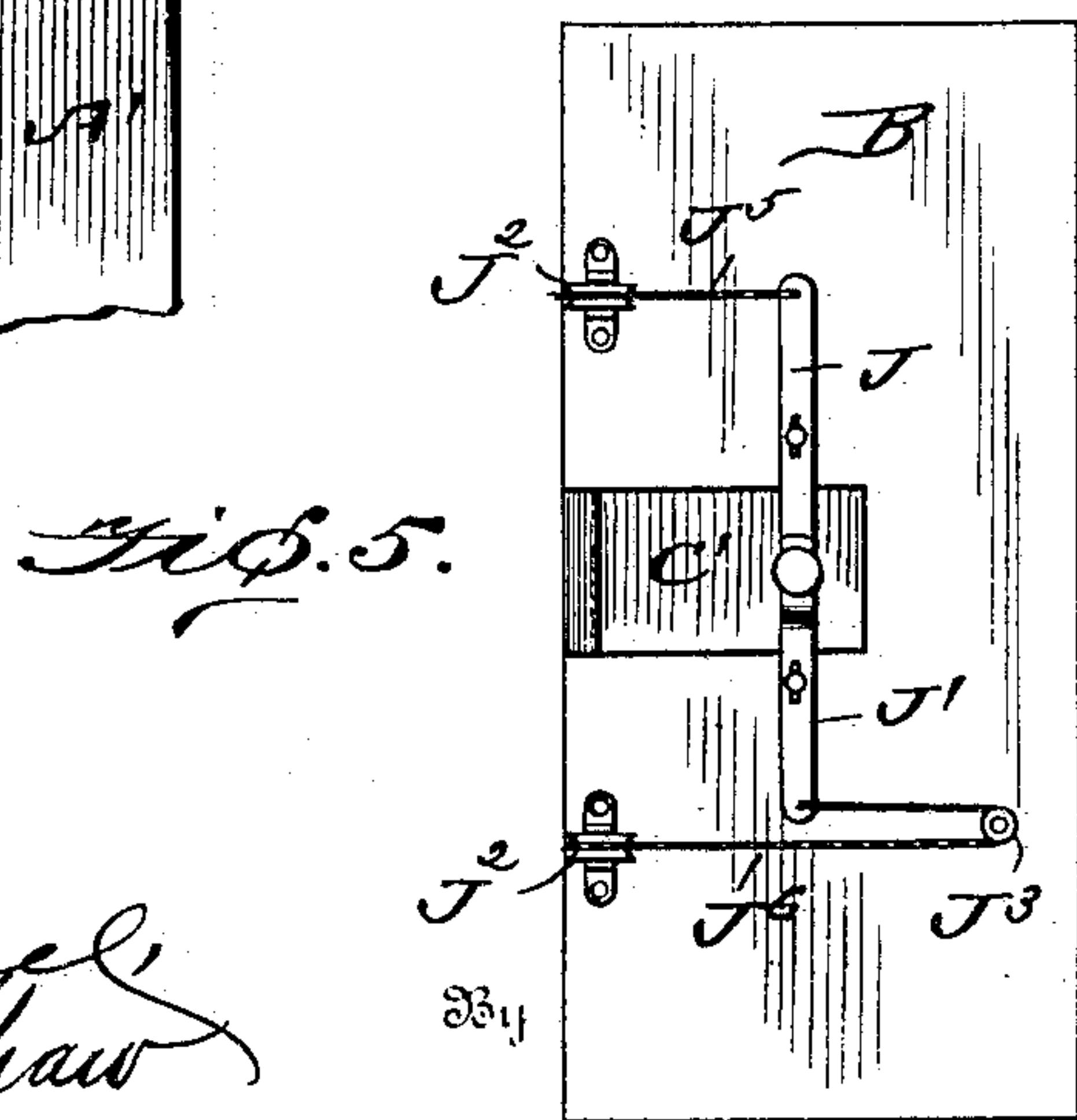
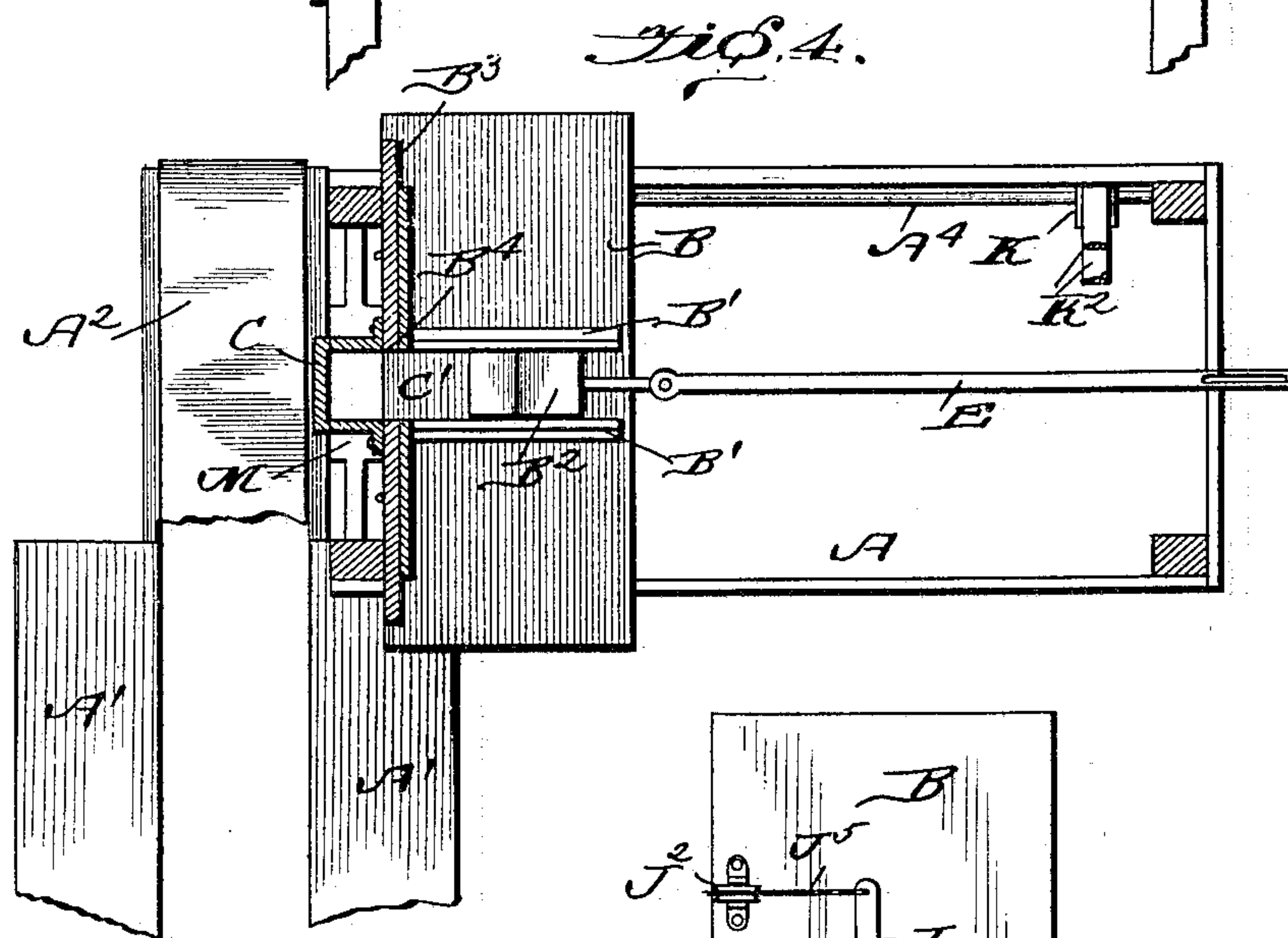
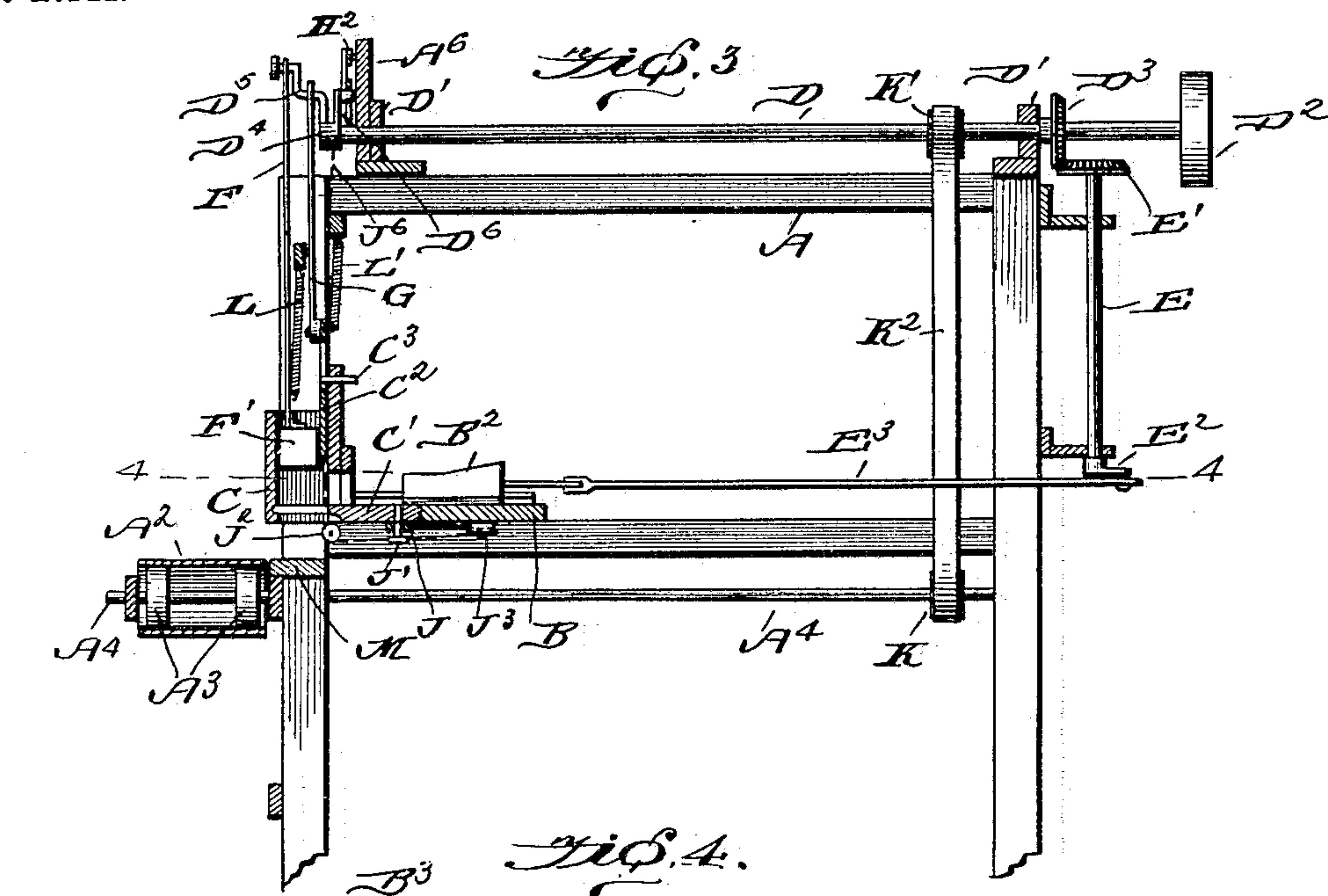
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Witnesses
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UNITED STATES PATENT OFFICE.

LAINER ALEXANDER SHELDON, OF LINCOLN, NEBRASKA, ASSIGNOR OF
ONE-HALF TO A. M. PRIEST, OF LINCOLN, NEBRASKA.

BUTTER-PRINTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 758,706, dated May 3, 1904.

Application filed July 11, 1903. Serial No. 165,173. (No model.)

To all whom it may concern:

Be it known that I, LAINER ALEXANDER SHELDON, a citizen of the United States, residing at Lincoln, in the county of Lancaster and State of Nebraska, have invented a new and useful Butter-Printing Machine, of which the following is a specification.

My invention is an improvement in butter-operating machines.

The object of this invention is to devise a machine having a platform upon which the butter can be placed, from whence it will be automatically carried into a mold, cut into one, two, or more pound blocks, as may be desired, pressed into the desired shape and stamped with the imprint of any desired design, and then ejected from the mold upon wrapping-paper and conveyed by a traveling belt to a table, when the wrapping operation is completed by hand.

My invention consists of the novel features of construction and combination of parts described hereinafter, particularly pointed out in the claims, and shown in the accompanying drawings, in which—

Figure 1 is a perspective view of my printing-machine. Fig. 2 is an end elevation of same. Fig. 3 is a vertical longitudinal elevation. Fig. 4 is a horizontal section on the line 4-4 of Fig. 3. Fig. 5 is a plan view of the under side of the platform, showing levers for operating the slide.

In the construction of a machine embodying my improvement I employ an open framework A, and adjacent one end of said framework is arranged a table and table-frame A', over which travels an endless conveyer-belt A². The belt runs over rollers A³, mounted upon suitable shafts A⁴, journaled in a portion of the table-frame. On the frame A, adjacent to and partially overlapping the table A', is a platform B. Parallel cleats B' are arranged on and transverse to the platform B, and between the cleats slide a plunger B². A suitable vertical end partition B³ is carried at the forward end of the platform, and the lower central portion of the partition is cut out, as shown at B⁴, the opening being in alinement with the plunger B². In front of

the partition is arranged a mold C, upwardly open and having a sliding bottom C', the forward edge of this bottom fitting into a horizontal groove formed in the inner face of the front wall of the mold, the rear wall of the mold being formed by the partition and the opening B⁴ permitting butter to be forced from the platform B by the plunger B² into the mold. Sliding vertically within the mold is a cutter C², sharpened on its lower edge and closing when in a lowered position the opening B⁴. The cutter is vertically slotted, and a pin C³, carried by the partition, projects into the slot and limits the movement of the cutter. Between the cleats in which the plunger slides the platform B is cut out, and the sliding bottom C' of the mold fits in this cut-out portion. To actuate these various movable parts, a shaft D is journaled in suitable bearings formed in blocks D', secured at the upper ends of the framework, and rigidly mounted on the shaft is a drive-pulley D² and a beveled gear D³. A vertical shaft E is journaled at the rear end of the frame and at its upper end carries a beveled gear E', meshing with the beveled gear D³, and at its lower end it has a crank E², connected to one end of a pitman E³, the opposite end of the pitman having pivotal connection with the plunger B². The forward end of the shaft D extends through a vertical board A⁶, carried at the upper part of the front end of the frame. On the forward end of the shaft D is a collar D⁴, carrying a double crank-arm D⁵, and to the rear of the crank-arm a roller-carrying arm D⁶. A pitman F has a slotted upper portion working on the outer cranked portion of the arm D⁵ and at its lower end is pivotally connected to a stamping or printing block F'. A second pitman G, slotted adjacent its upper end, fits over the inner cranked portion of the arm D⁵ and is pivotally connected at its lower end to the cutter C². Pivotally secured to the front of the board A⁶ are two arms H and H', projecting into the path of the roller-carrying arm D⁶ from opposite sides of the board, the arm H lying below the roller and the arm H' above it, so that when engaged by the arm D⁶ the arms H and H' will be moved in opposite directions. An arm

H² is pivotally secured intermediate its ends on the board A⁶ above the arms H and H' and is pivotally connected to these arms by links H³, and through the medium of these links and the arm H² a uniform reciprocatory movement is given the arms H and H'.

To the under side of the platform B are pivoted intermediate their ends levers J and J', the inner end of each lever being pivoted to the sliding strip or bottom C'. Idle pulleys J² are secured adjacent the front edge of the platform, one on each side of the strip. To the rear of the free end of the lever J' is arranged an idle pulley J³. To the front of the board A⁶ above the arm H is arranged a pulley J⁴. A chain J⁵ is secured to the arm H and is passed over the pulley J⁴ and down over one of the pulleys J² and is then secured to the free end of the lever J. A chain J⁶ is secured at its upper end to the arm H', is passed down over the other pulley J², around the pulley J³, and its lower end is secured to the free end of the lever J'. The shaft A⁴ at the end of the table-frame adjacent the frame A is extended through the latter frame. A pulley K is fixedly secured to this shaft, and a pulley K' is similarly secured to the shaft D, and a belt K² runs over these pulleys and transmits power from the shaft D to the shaft A⁴, driving the belt A². Power can be applied to the shaft D in any desired manner.

In operating my device the butter is placed on the platform B in advance of the plunger, which forces a certain quantity of it through the opening B⁴, the bottom strip C' sliding in advance of the plunger. As a certain amount of butter—say one pound—is forced into the mold the cutter C² is forced downward by the pitman G and closes the opening B⁴. The pitman F forces the stamping-block downward, compressing the butter in the mold and imprinting the desired design thereon, and as the design is printed the arm H is struck by the roller-carrying arm D⁶, and through the medium of the chain J⁵ and lever J the strip C' is withdrawn from the mold and the butter forced downward out of the mold. Springs L and L' aid in drawing the stamping-block and cutter upward, and the pitman E³ having withdrawn the plunger the apparatus is ready to mold and print another pound of butter. An operator stands at the front of the machine and places sheets of wrapping-paper on a supplemental table M below the mold, and as soon as the printed butter is forced from the mold and falls upon the wrapper it is laid upon the conveyer-belt and carried to the table A', which may be of any desired length, where it is caught by the other operators and

the wrapping operation completed. The slots in the cutter and pitmen F and G permit adjustment, so that the size of the prints can be varied and the butter be molded into one, two, or five pound blocks, as may be desired.

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

1. A device of the kind described comprising a platform, a mold arranged in front of said platform, the rear wall of said mold having an opening formed in it, a plunger sliding on the platform in alinement with the opening, a cutter sliding vertically in said mold adjacent the rear wall of the mold and adapted to close said opening, a stamping-block working in said mold, a movable bottom in said mold, and means for actuating said plunger, cutter-block and movable bottom.

2. A device of the kind described comprising a frame, a platform, a plunger working across said platform, a mold arranged at the front of the platform and in the path of the plunger, a cutter working in said mold, a stamping-block working in said mold in unison with said cutter, means for opening the bottom of the mold during the descent of the stamping-block.

3. A butter-printing machine comprising a frame having a platform arranged therein, a mold in advance of said platform, a plunger adapted to force butter into said mold, a shaft carried by the frame, a double-cranked arm on said shaft, a stamping-block working in said mold, a pitman pivoted to the block and adjustably secured to the crank-arm, a cutter working in the mold parallel with the stamping-block, a pitman pivoted at the lower end to said cutter and having its upper end adjustably secured to the cranked arm, and means for rotating said shaft.

4. A butter-printer comprising a mold, a plunger, a cutter working in the mold, a stamping-block sliding vertically in said mold, a sliding bottom in the mold, a platform in the rear of the mold having a cut-out portion, levers pivoted at their free ends to the sliding bottom, and intermediate their ends to the platform, means for automatically moving said levers so as to reciprocate the sliding bottom, and means for actuating the plunger, cutter and stamping-block, as and for the purpose set forth.

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