

N. S. LONG.
Butter Press.

No. 232,356.

Patented Sept. 21, 1880.

Fig. 1.

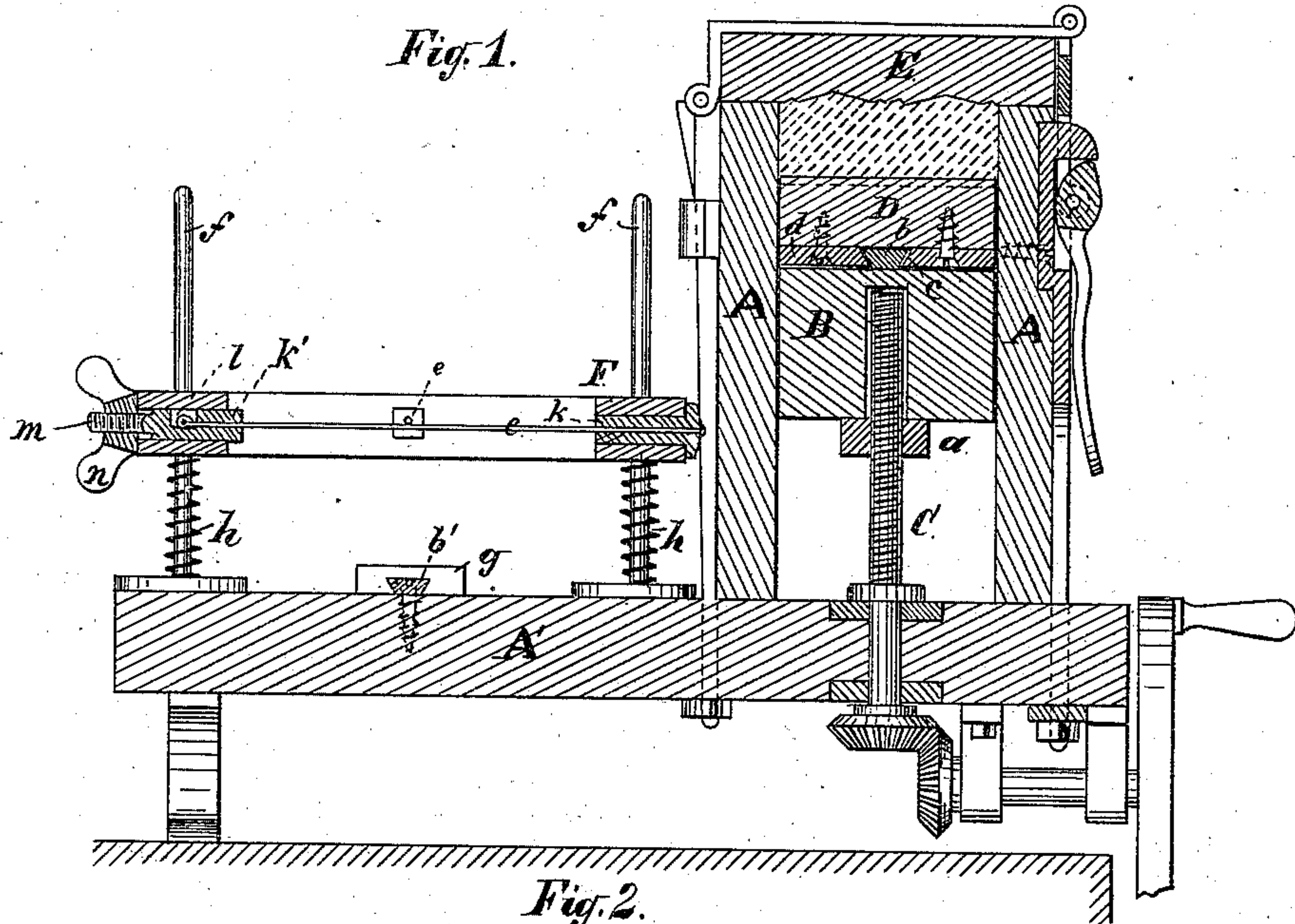


Fig. 2.

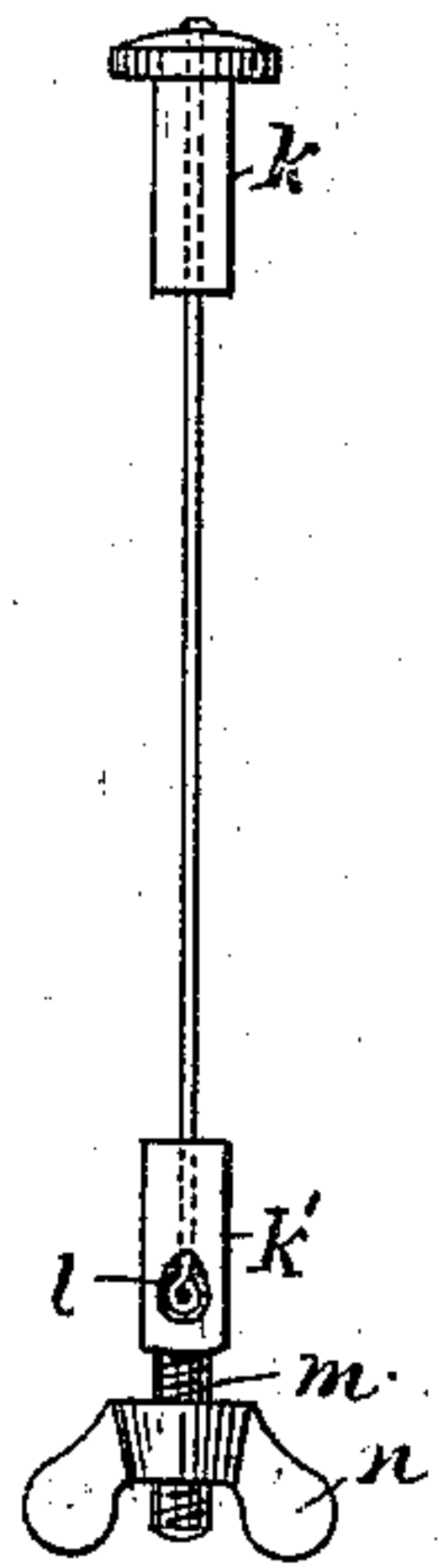


Fig. 2.

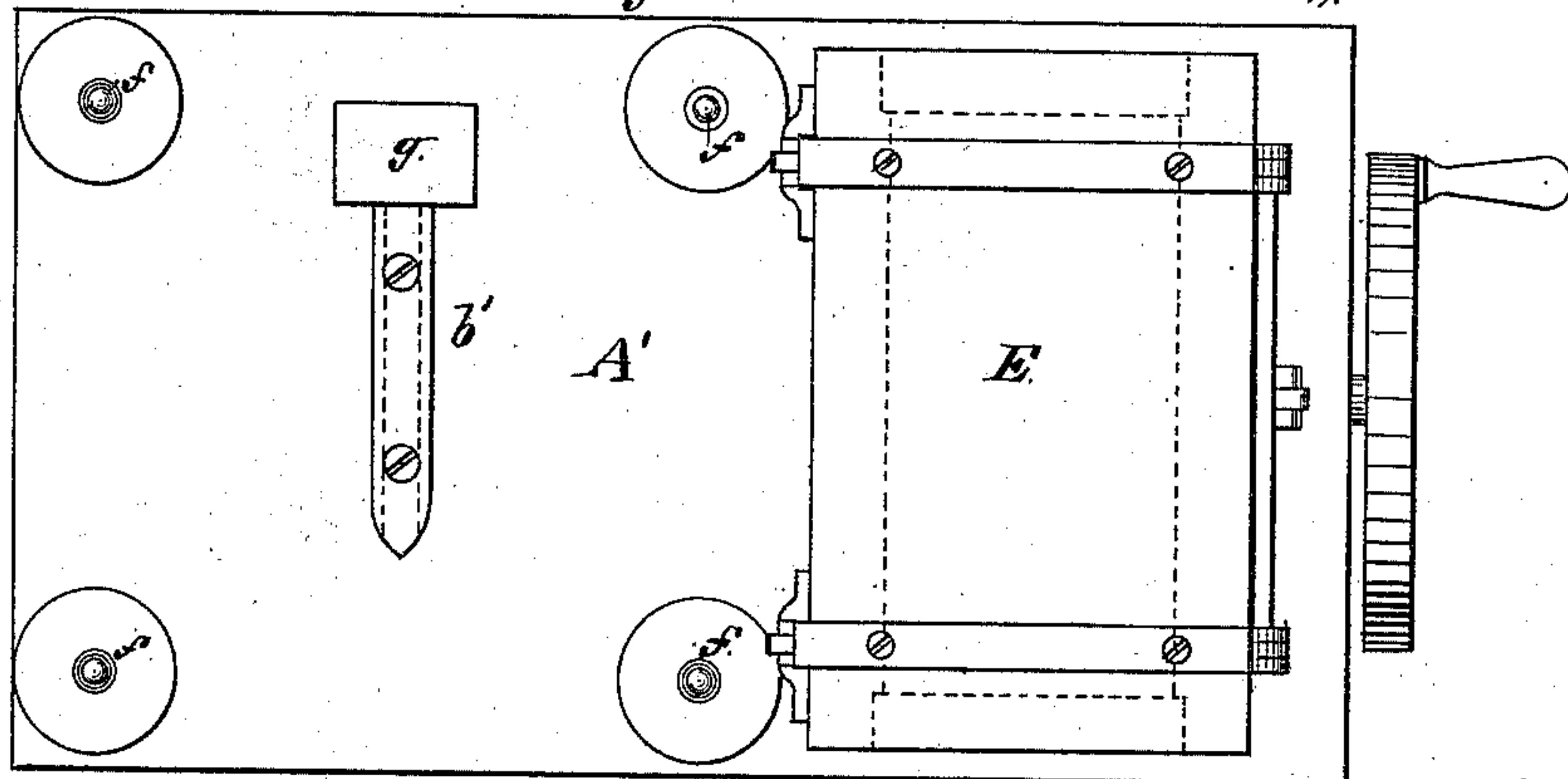


Fig. 4.

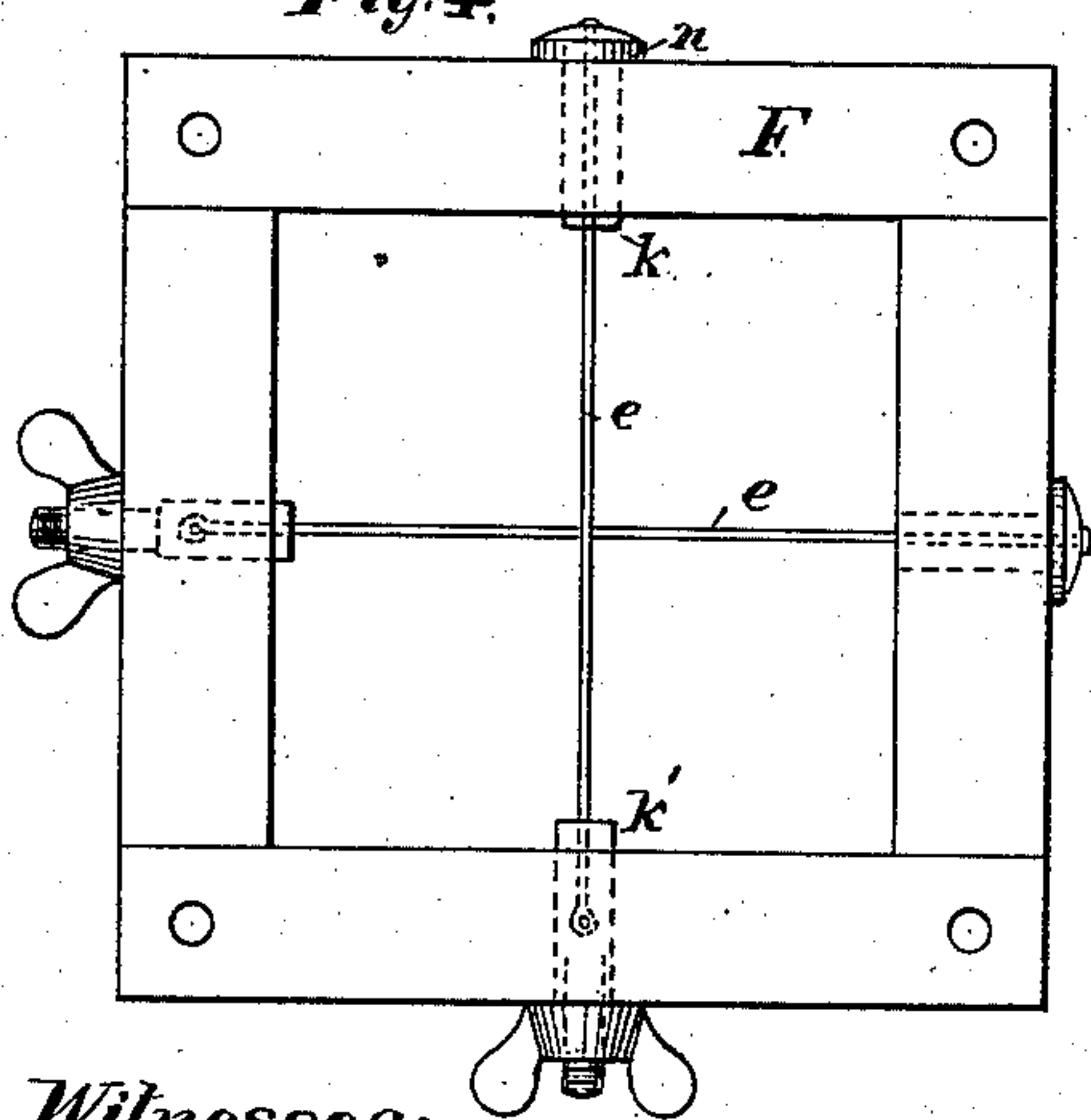


Fig. 5.

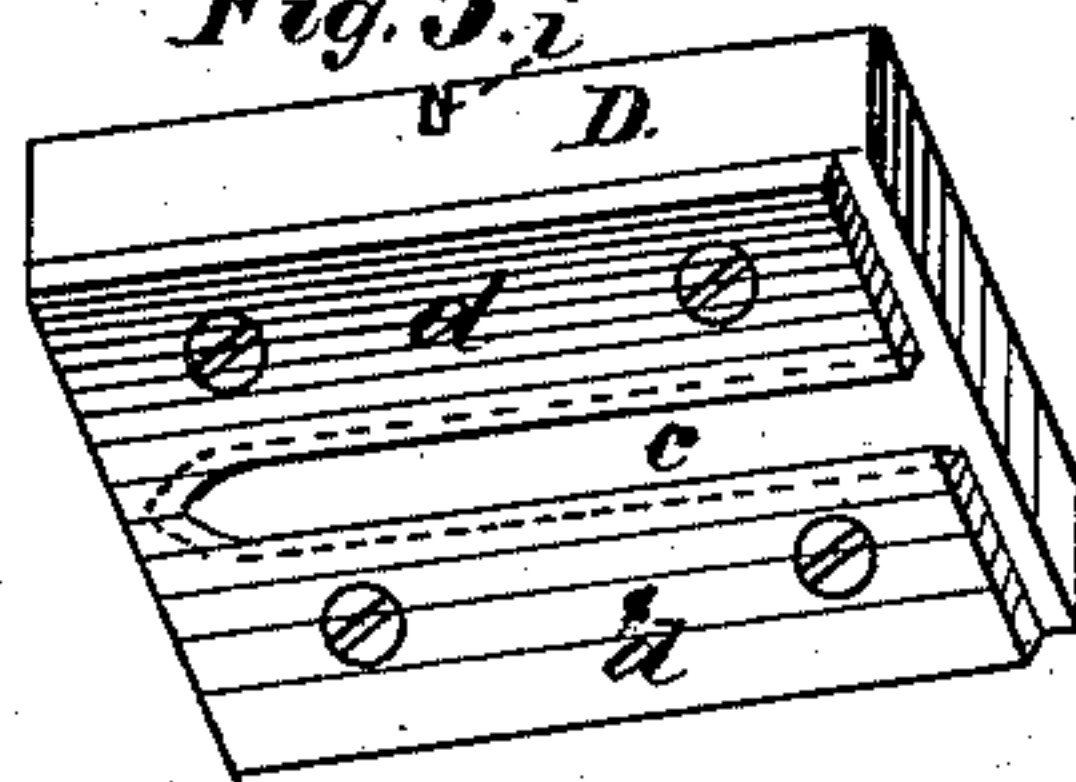
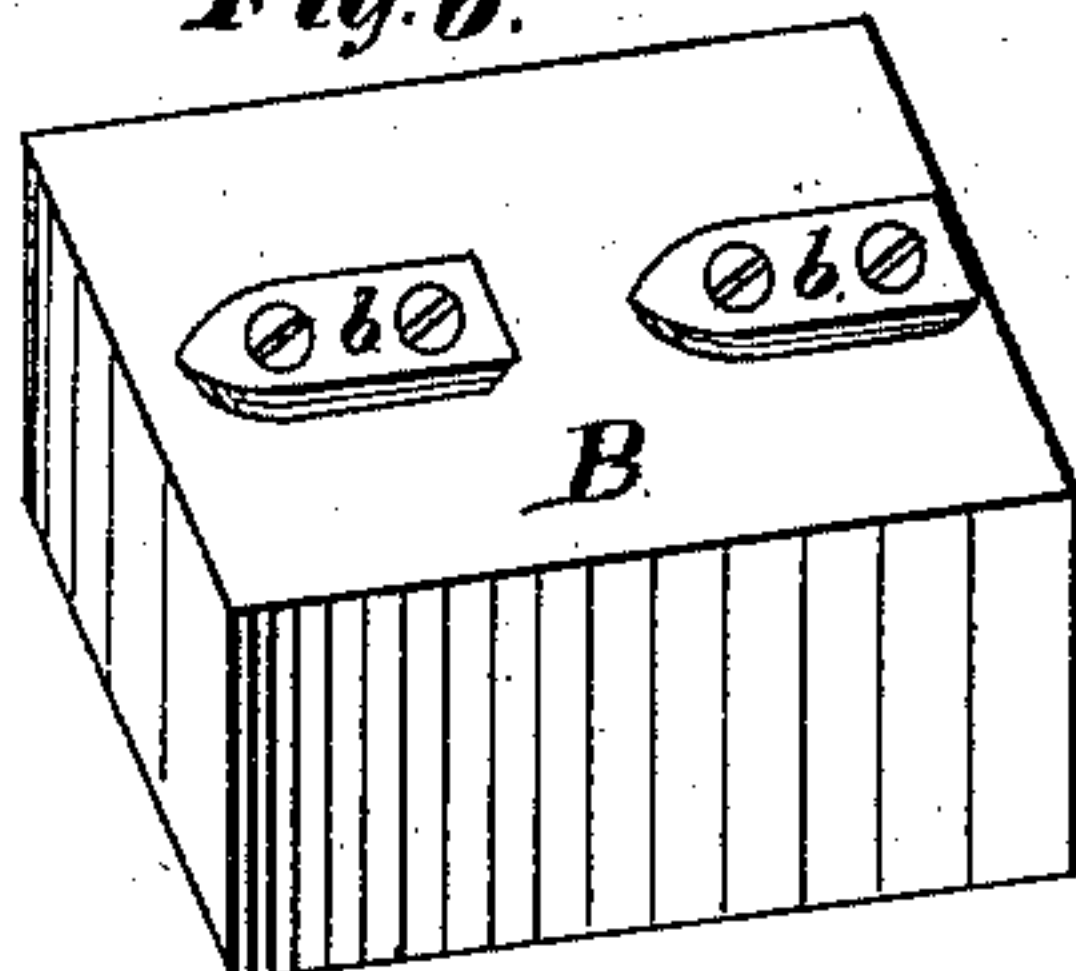


Fig. 6.



Witnesses:
Henry Eichling
B. E. Clark

Inventor
Nathan S. Long
By Hitch & Hitch
his attys.

UNITED STATES PATENT OFFICE.

NATHAN S. LONG, OF MARYSVILLE, OHIO.

BUTTER-PRESS.

SPECIFICATION forming part of Letters Patent No. 232,356, dated September 21, 1880.

Application filed February 18, 1880.

To all whom it may concern:

Be it known that I, NATHAN S. LONG, of Marysville, Union county, State of Ohio, have invented a new and useful Improvement in Butter-Presses, of which the following is a specification, reference being had to the accompanying drawings, forming part of the same.

Figure 1 is a central vertical section of a butter-press containing my improvements. The other figures, from 2 to 6 inclusive, are detailed views of detached parts, hereinafter described.

My invention relates to a butter-press for which Letters Patent of the United States No. 205,109 were granted to me June 18, 1878; and it consists in the improvements thereon herein described and claimed.

In general, the press consists of a box, A, mounted upon a table, A', within which box a presser-block, B, is made to rise and fall by a screw, C, caused, by suitable mechanism, to rotate in a bearing in the bottom of the box, and working in a nut, a, fixed in the block. On the block is placed a plate, D, upon which is placed the butter to be pressed into the desired form. The cover E of the box is secured down over the plate mentioned, and the butter is pressed between the plate and the cover by running up the block on the screw.

In the patent above referred to a device is provided for cutting the mass of pressed butter into blocks, consisting of a frame having wires or blades stretched across it, this frame being arranged within the box so that, by the downward movement of the frame, the wires or blades are made to pass through the mass of the butter, cutting it into the desired blocks or cubes, or otherwise; but I find that the working of this device, as arranged in the machine described in said patent, is attended with some inconvenience, which it is the object of the present improvements to obviate. I will proceed to describe these improvements.

Instead of having the plate D lie loose upon the block B, I attach it to the block, so that it must necessarily move downward as well as upward with it, and yet permit the plate to be readily detached from the block at pleasure. This I accomplish by means of a dovetail rib, b, secured on the upper face of the block B, and a corresponding groove, c, in the bottom

face of the plate D. Preferably, an iron plate, d, provided with such a groove, is secured to the said plate, as shown in the drawings. This permits the said plate, by a lateral sliding movement, to be placed upon and removed from the block at pleasure, the rib sliding in and out of the groove, as the case may be. With this device it is evident the plate D is secured to the block B so that both must move together, while the plate may be readily removed from the block. The cutting-frame F, provided with its cross-wires e, instead of being placed within the box, I now arrange to move up and down upon rods f, secured in the table A', by the side of the box A. Upon the table, under the said frame, I secure another dovetail rib, b', like b, made to fit into the groove c of the plate D. After the butter is pressed in the box A, the cover E being raised, the block B is run up, and the plate D, with the butter on it, is detached from the block and placed on the table, under the frame F, it being laid upon the face of the table at one side and slid to its place, the rib b' fitting into the groove c.

g is a stop-block, secured upon the table, into contact with which the plate D is pushed in adjusting it under the cutting-frame F. The said frame rests upon spiral springs h, placed on the rods f. The plate holding the pressed butter being adjusted in place under the frame F, as described, the frame is pressed down, compressing the springs, causing the wires to pass through the butter, and cutting it into blocks. The recoil of the springs, the pressure being removed, will raise the frame to its first position, when the plate D may be withdrawn and the butter removed from the plate.

A small groove, i, may be made in the upper face of the plate D to receive the lower one of the cross-wires, thus permitting the upper wire to pass entirely through the butter and into contact with the face of the plate.

It is important that the wires f should be kept taut. To this end I secure each wire in iron heads k k', that pass through opposite sides of a frame, F. The head k has a flange on its outer end and a hole drilled longitudinally through it. The wire, having a small loop formed on one end, is passed through the head with the looped end outward. The head k' has a recess, l, formed in its side and a hole

drilled through from its inner end into this recess. The wire is then passed through this hole, the end coming out in the recess. A small loop is then formed on this end, also of
5 the wire, which, when formed, lies within the recess, leaving the body of the head free to slide in and out of the hole through the frame in which it is placed. A screw-thread, *m*, is formed on the outer end of the head *k'*, that is
10 provided with a nut, *n*. By these means the wires may at pleasure be readily put in place and removed and tightened at pleasure.

The machine above described may, of course, be used for pressing and cutting not merely
15 butter, but also soap or any other analogous substance.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The plate *D*, provided with the groove *c*,
20 the table *A'*, provided with the rib *b*, stop-block

g, and posts *f*, on which are placed the springs *h*, and the frame *F*, provided with the wires *e*, all constructed and combined to operate as and for the purpose described.

2. The device for holding and straining the
25 wires *e*, consisting of the head *k*, provided with a flange and a hole longitudinally through it, through which passes one end of the wire, and the head *k'*, provided with a screw-thread, *m*, and nut *n*, on its outer end, a recess, *l*, and a
30 hole drilled through from the opposite or inner end into said recess, through which passes the end of the wire, provided with a loop that lies within said recess, all as and for the purpose described.

NATHAN S. LONG.

Witnesses:

JAMES W. HOPKINS,
LEONIDAS PIPER.