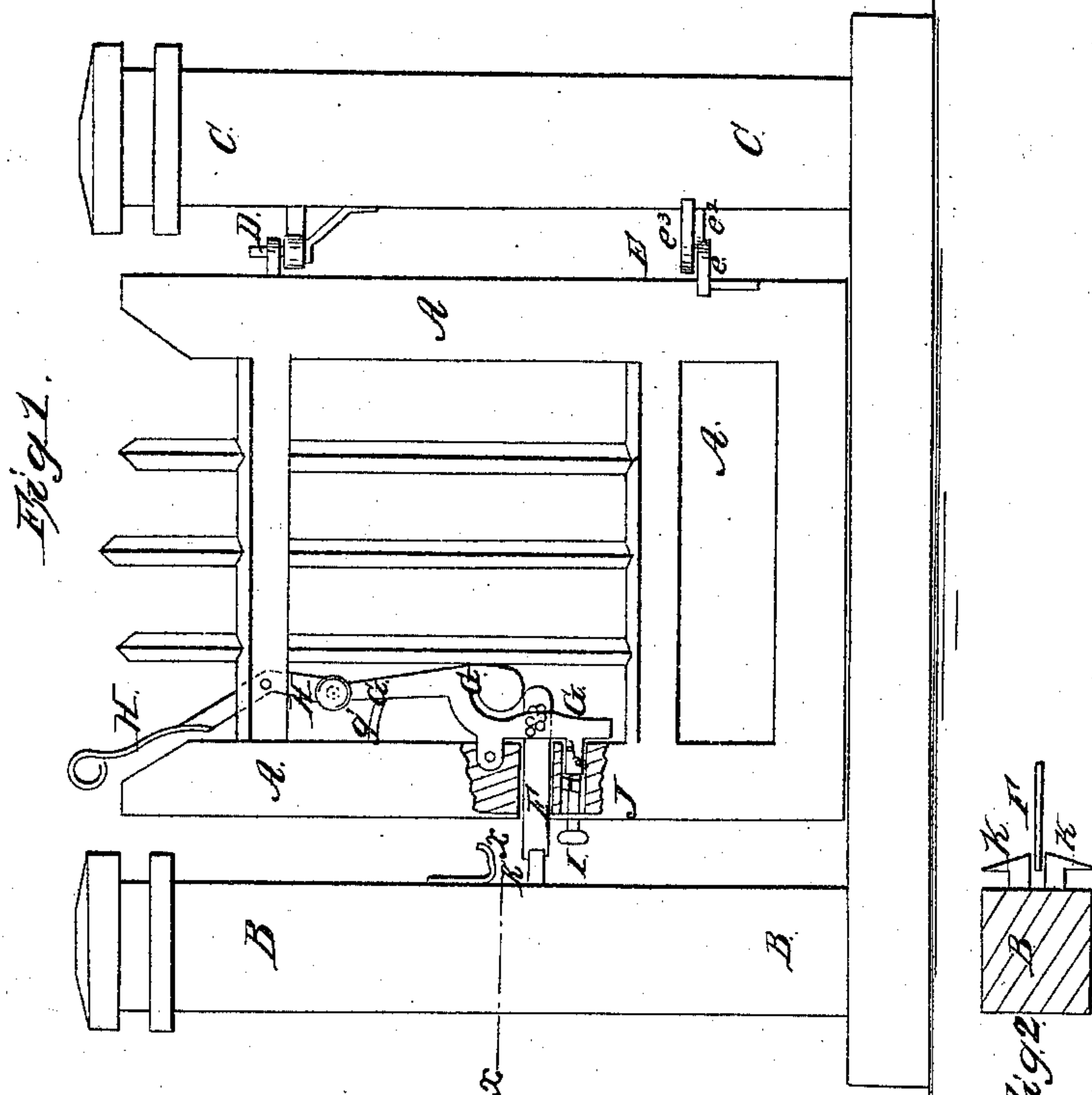
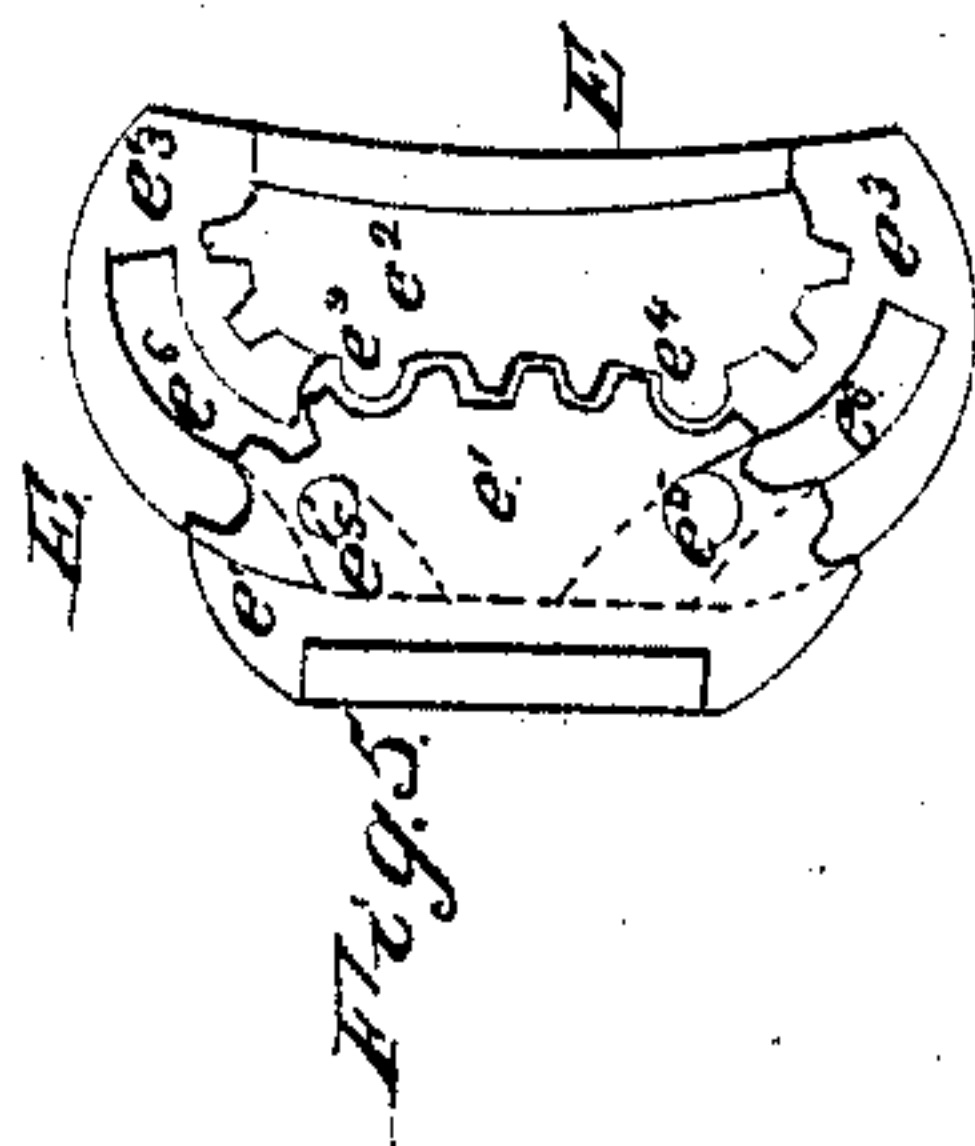
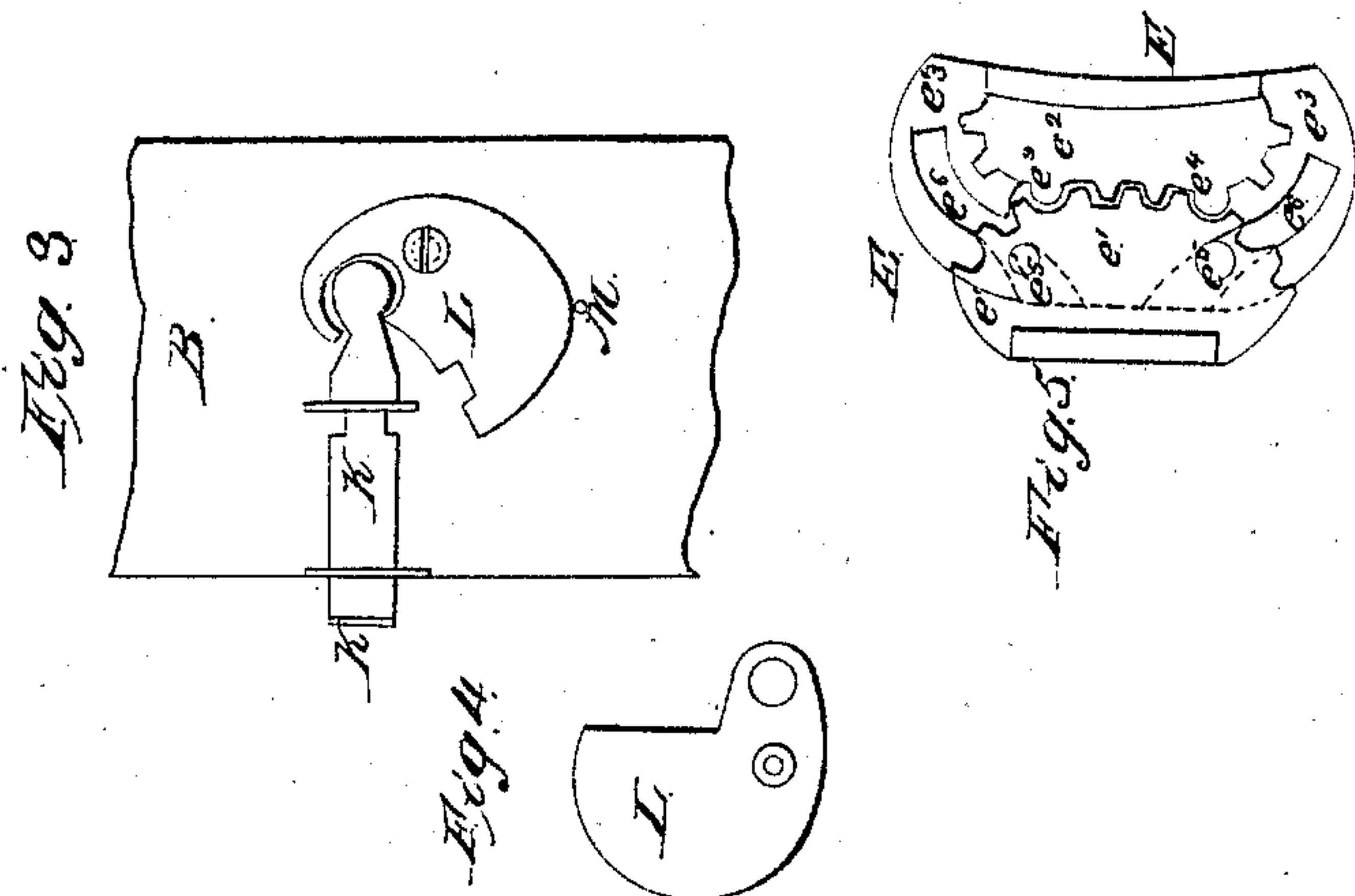


*B. Greenside,*

*Gate Latch.*

*N<sup>o</sup> 66,832.*

*Patented July 16, 1867.*



*Witnesses*  
*Wm. Green*  
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# United States Patent Office.

BURTON GREENSIDE, OF FORT DODGE, IOWA

*Letters Patent No. 66,832, dated July 16, 1867.*

## IMPROVEMENT IN GATES.

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

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, BURTON GREENSIDE, of Fort Dodge, in the county of Webster, and State of Iowa, have invented a new and improved Gate; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my improved gate, part being broken away to show the construction.

Figure 2 is a detail sectional view, taken through the line *x x*, fig. 1.

Figure 3 is a detail view of one of the catches and drops.

Figure 4 shows a modified form of the drop.

Figure 5 is a detail under side view of the hinge.

Similar letters of reference indicate corresponding parts.

My invention has for its object to improve the construction of gates that swing both ways, so as to make them more satisfactory and reliable in operation; and it consists in the combination and arrangement of the cogged plates, grooved cap, and the two guard-pins with each other; in the combination and arrangement of the adjustable latch and weighted operating lever with each other; in the combination of an additional lever with the operating lever and adjustable latch; in the combination of an adjusting-screw and nut with the weighted lever and adjustable latch; and in the combination of one or more catches and drops with each other; the whole being constructed and arranged as hereinafter more fully described.

A is the gate, B is the front or catch-post, and C is the rear or hinge-post. D is the upper hinge, about the construction of which there is nothing new. E is the lower hinge, the plate  $e^1$  of which is made with a downwardly-projecting flange, by means of which it is secured to the gate A. The forward edge of the plate  $e^1$  is cogged, as shown in fig. 5.  $e^2$  is a plate which is made with a downwardly-projecting flange, by means of which it is attached to the post C. The forward edge of the plate  $e^2$  is toothed or cogged, to mesh into the teeth of the plate  $e^1$ .  $e^3$  is a plate or cap attached to or formed solid with the plate  $e^2$ , and which projects over the plate  $e^1$ , as shown in figs. 1 and 5.  $e^4$  are two rest-cogs, upon which the gate rests or is pivoted while swinging. The part of the plates  $e^1$  and  $e^2$  between the rests  $e^4$  may be made curved, as shown in the drawings, or it may be made straight, and it may have cogs formed upon it, or may be made smooth, as may be desired.  $e^5$  are two guard-pins, which are securely attached to the plate  $e^1$ , and enter and work in curved grooves  $e^6$  formed in the under side of the cap or plate  $e^3$ . The grooves  $e^6$  are curved in substantially the form shown in fig. 5, that is to say, their inner parts are long arcs curving inward, and their outer parts are short arcs curving outward, so that the said pins may move freely through the said grooves while the gate is swinging. F is the latch, which passes through and works in a horizontal slot in the front vertical bar of the gate A. The rear end of the latch F enters and is pivoted in a slot formed in the lower part of the lever G by a pin passing through the said lever and through one or the other of the several holes formed in the rear end of the said latch, so that it may be adjusted to compensate for the swelling or shrinking of the gate. Upon the forward side of the lever G, a little above the latch F, is formed a projection or ear, by means of which the lever is pivoted to the front vertical bar of the gate, as shown in fig. 1. The lever G is made of such a form or is so weighted that its own weight will hold its lower end forward into such a position as to catch upon the catch or catches attached to the post B.  $g^1$  is a curved arm attached to the upper part of the lever G, which enters and works in a curved hole formed in the post B for its reception, to hold the said lever in a vertical position both when at rest and when being operated. When the gate is placed in situations where it may be convenient to open it from on horseback, a lever, H, is pivoted to the upper part of the gate, its lower end being pivoted to the upper end of the lever G, and its upper end extending up into a position to be conveniently reached and operated. I is a screw, which passes in through the forward side of the front bar of the gate, and is arranged in such a way that it may be free to turn, but can move neither forward nor back. J is a long nut placed upon the screw I, the forward end of which rests against a projection or arm,  $g^2$ , formed upon the lower part of the lever, and which enters a slot in the gate-bar, so that the position of the lever G, and consequently of the latch F, may be adjusted to compensate for the shrinking or swelling of the gate. K are latches having inclined heads, as shown



in fig. 2, which enter a recess formed in the post B, and to their inner ends are pivoted the upper ends of the drops L, which are pivoted to the post B, or to the sides of a case or box fitted into the said recess formed in the said post. The drops L may be pivoted to the catch K either by having a socket formed in their upper ends, as shown in fig. 3, or by means of a pivoting pin, as indicated in fig. 4. The drops L should be so pivoted as to move freely upon their pivoting points without coming in contact with or rubbing against the sides of the box or case. And they need be no heavier than just sufficient to force out the catches K when pushed in by the advancing latch of the gate. M is a stop pin, so placed as to prevent the drops from dropping down so as to push the catches out too far. In case the gate is so situated or constructed that it can swing but one way, but one movable catch and drop may be used, the other being stationary or being replaced by a stop pin or cleat.

*Claims.*

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

1. The combination and arrangement of the cogged or toothed plates  $e^1$ ,  $e^2$ , and the cap or plate  $e^3$ , having two curved grooves,  $e^6$ , formed in its lower side to receive and guide the two guard-pins  $e^5$  attached to the plate  $e^1$  with each other, substantially as herein shown and described, and for the purpose set forth.

2. The combination and arrangement of the adjustable latch F and weighted operating lever G with each other and with the front vertical bar of the gate, substantially as herein shown and described, and for the purpose set forth.

3. The combination of the lever H with the weighted lever G and latch F, and with the upper part of the gate, substantially as herein shown and described, and for the purpose set forth.

4. The combination of the adjusting-screw I and nut J with the lower part of the weighted lever G and with the front vertical bar of the gate, substantially as herein shown, and for the purpose set forth.

5. The combination of one or more movable latches K and pivoted drops L with each other and with the post B, substantially as herein shown, and for the purpose set forth.

BURTON GREENSIDE.

Witnesses:

JOHN D. STROW,

JAS. R. STROW.