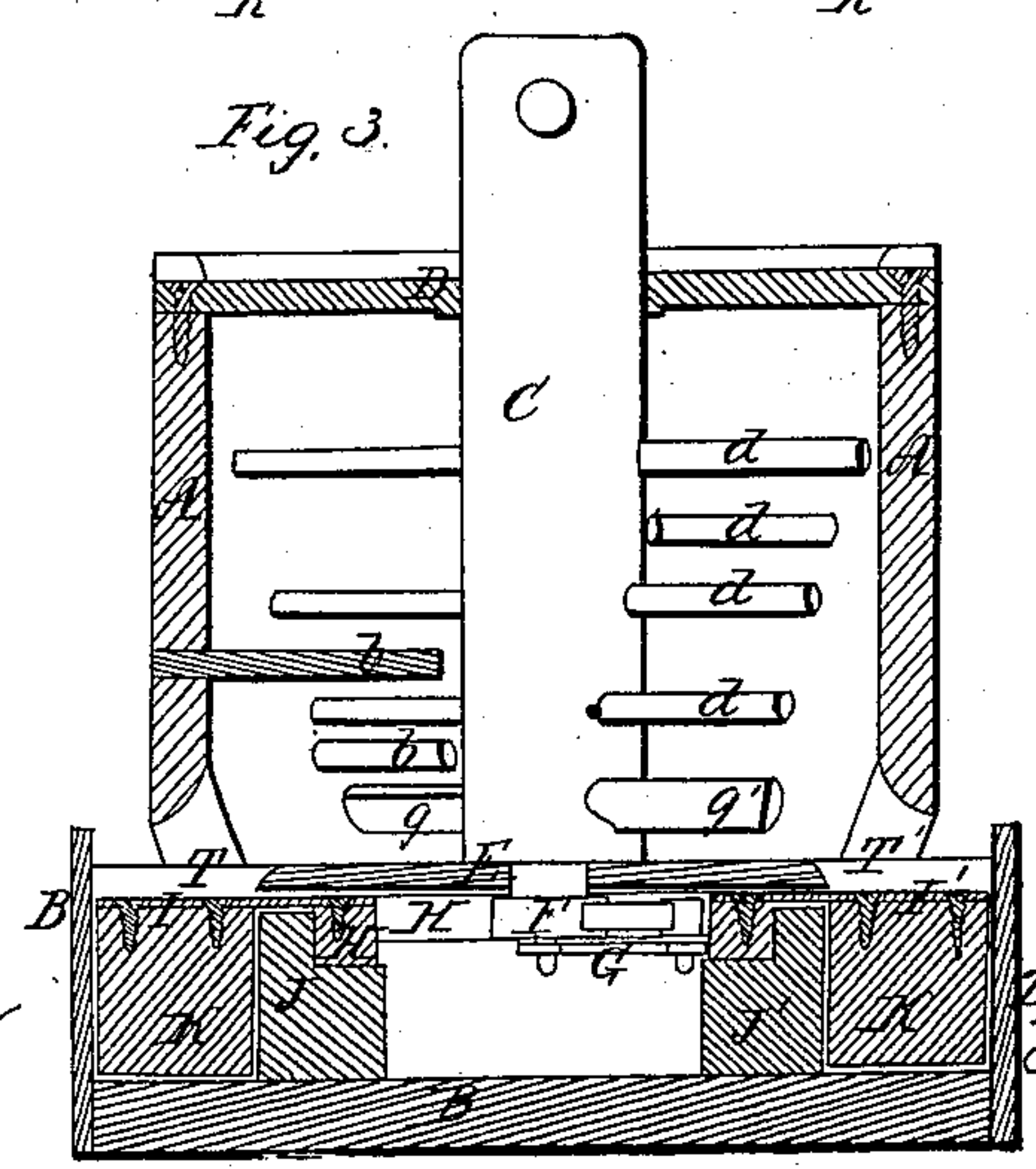
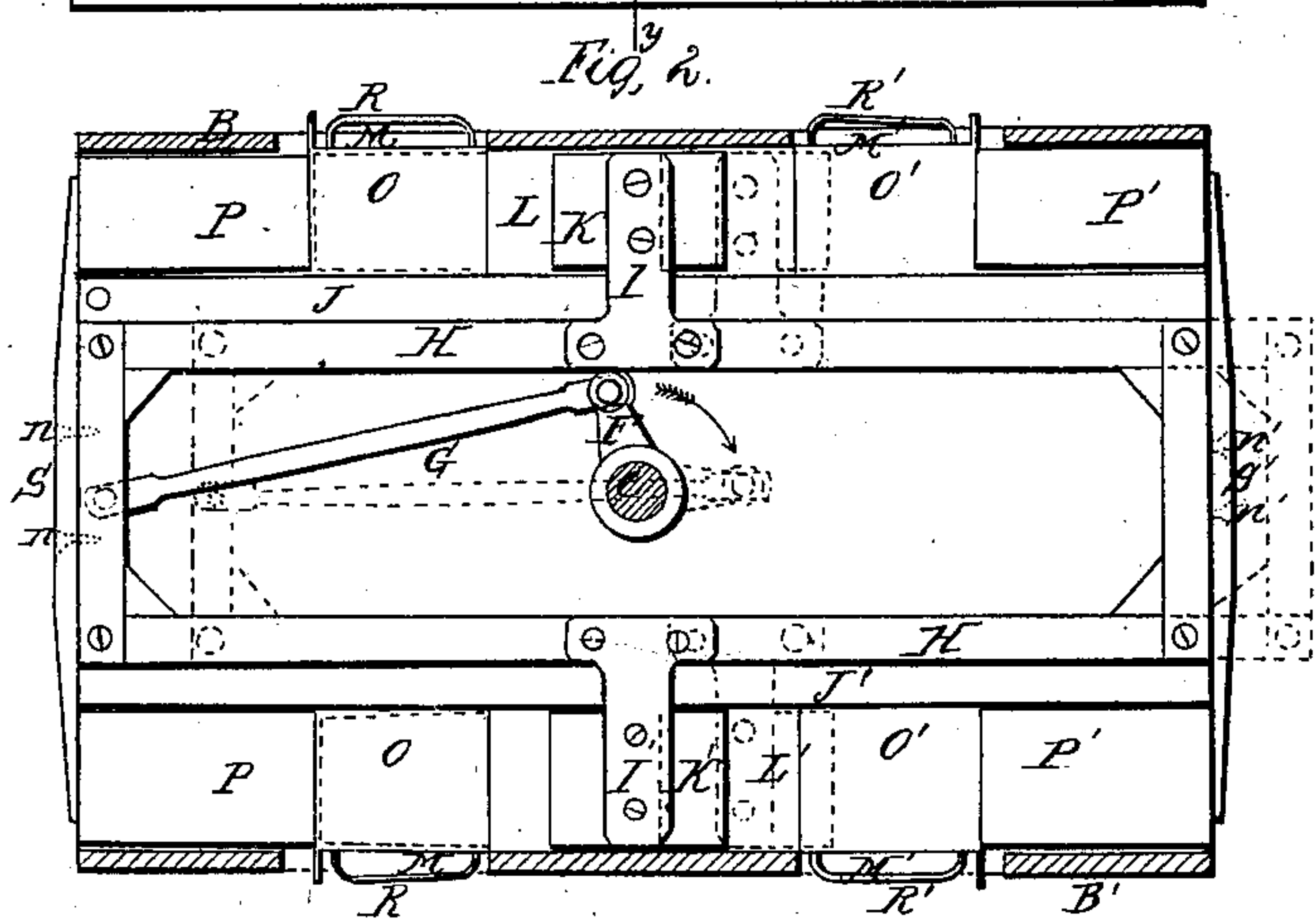
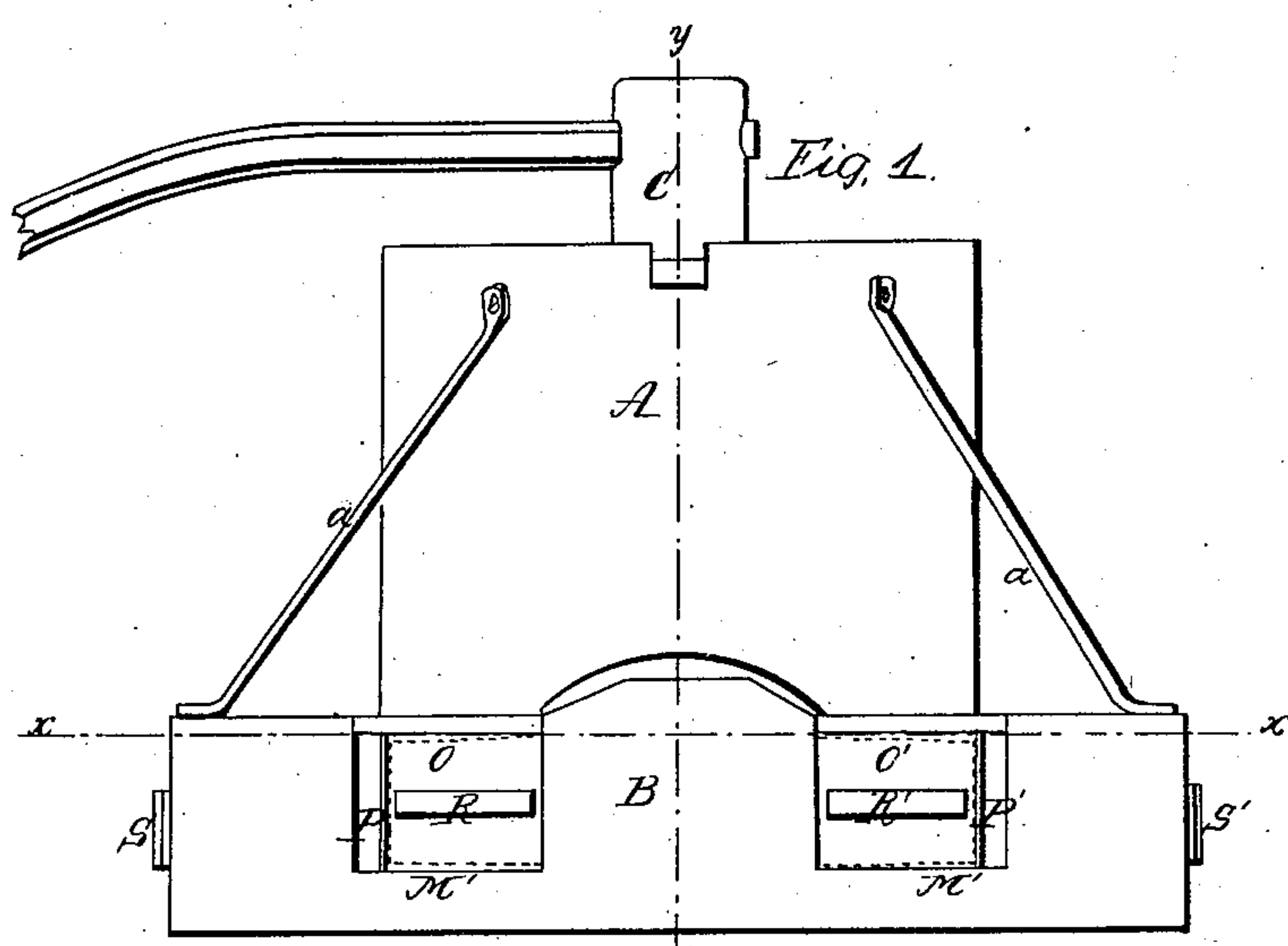


# Z. LUDINGTON. PEAT MACHINE.

No 85,178.

Patented Dec. 22, 1868.



Witnesses,  
R. Hunter Newlon  
Marshall N. Lewis.

Inventor,  
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# United States Patent Office.

ZALMON LUDINGTON OF UNIONTOWN, PENNSYLVANIA.

Letters Patent No. 85,178, dated December 22, 1868.

## IMPROVED PEAT-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 I, ZALMON LUDINGTON, of Uniontown, Fayette county, and State of Pennsylvania, have invented a new and useful Improvement on Peat-Machines; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification, of which—

Figure 1 is a longitudinal elevation.

Figure 2, a horizontal section through the line *x x* of fig. 1.

Figure 3, a vertical section through line *y y* of fig. 1.

Like letters refer to like parts in all the drawings.

To enable others to make and use my invention, I will proceed to describe its construction and operation.

A is a cylindrical case, attached to the chest B, and rigidly secured to it by the braces *a* and *a'*.

C is a shaft, with radial crushing-arms, *d d d* and *g*.

*b b b* are similar arms, secured to the inner circumference of the cylinder A.

D and E are bearings, supporting the shaft C in a vertical position.

F is a crank, secured to the end of the shaft.

G is a connecting-rod, connecting the gate H with the crank.

K and K' are mould-blocks, rigidly connected to the gate H by the metal plates I and I'.

J and J' are timbers, which provide ways for the gate H, and form the chambers, L and L', in the chest B.

O and O' are moulds, provided with handles, R R and R' R'.

P P and P' P' are blocks, loosely fitted in the chambers L and L'.

S and S' are springs, fastened on the end of the chest B by the screws *n n* and *n' n'*.

The operation of the machine is as follows:

A rotary motion (either horse or steam) being applied to the shaft C, and peat supplied to the machine at the opening in the top of the cylinder A, the peat, in passing through the cylinder, is thoroughly ground by the revolving arms *d d d* and the stationary arms *b b b*. Upon reaching the bottom of the cylinder, it comes in contact with the revolving arms *g* and *g'*, and is forced, through the openings T and T', into the chambers L and L'. The crank F, being secured to the lower extremity of the shaft C, revolves with it, and transmits motion, through the connecting-rod G, to the gate H, which imparts motion to the mould-blocks K and K', they being rigidly connected to the gate by the metal plates I and I'.

The crank F not only gives the most desired motion to the mould-blocks K and K', but produces an immense and increasing leverage as it nears the centres, thus bringing the most powerful pressure to bear where it is most required.

As the chambers L and L' are filled with peat from the cylinder A, and the blocks K and K' being driven back and forth by the crank F, the moulds O and O' are alternately filled with peat, and pressed into solid square blocks by the mould-blocks entering the moulds, as shown in fig. 2 in red outline, the solidity of the blocks of peat being regulated by the strength of the springs S and S', which allow the moulds, with the blocks P P and P' P', to be forced back when the pressure becomes too great. The elasticity of these springs also prevents the possibility of the machines being strained or broken.

As the moulds are filled, they are removed from the machine by their handles, R R and R' R' and empty ones inserted.

As the mould-blocks K and K' enter the moulds, they are not filled flush with their edges, as in other machines, but there is a cavity left between the edges of the moulds and the block of peat. This greatly facilitates the emptying of the mould, as the block of peat is ejected by gently striking the mould on the ground in an inverted position.

To insure the emptying of the mould, so as to preserve the peat in smooth, square, solid blocks, the moulds are constructed, of sheet-metal, in a square form, with the inner sides made smooth, and slightly tapering inward, to give draught to the block of peat in leaving the mould.

Having thus described the construction and operation of my invention,

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

1. The arrangement of the gate H, secured to the mould-blocks K K' by metal plates I I', in combination with the moulds O O', blocks P P', and springs S S', when operated, through shaft C, by crank F and connecting-rod G, or their equivalents, substantially as and for the purpose set forth.

2. The blocks P P' and springs S S', in combination with the moulds O O', blocks K K', and reciprocating gate H, as and for the purpose herein set forth.

ZALMON LUDINGTON.

Witnesses:

R. HUNTER HERNLON,  
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