

(No Model.)

2 Sheets—Sheet 1.

C. W. ENOS.
FIRE ENGINE LIGHTER.

No. 529,024.

Patented Nov. 13, 1894.

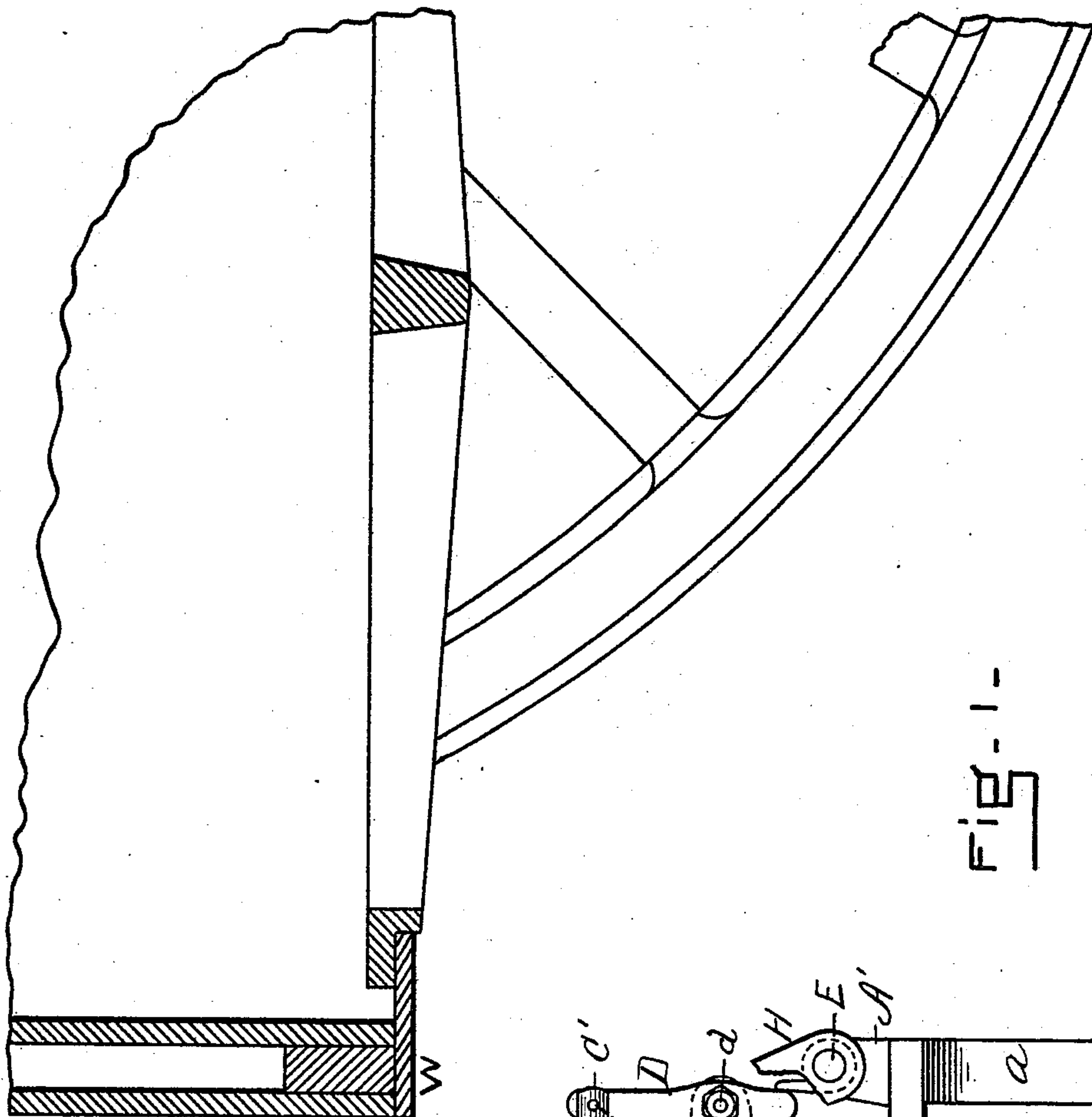
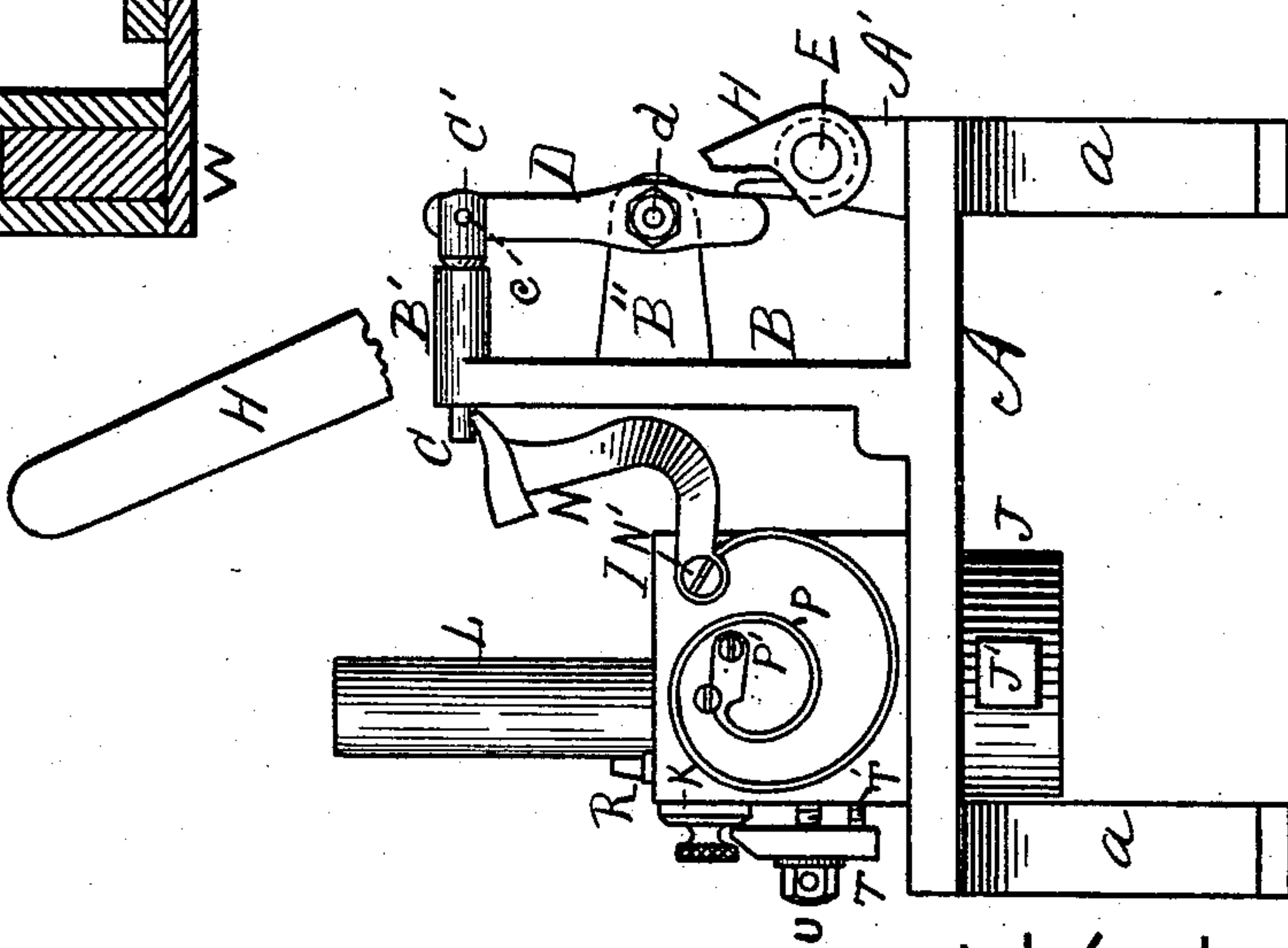


Fig. 1-



WITNESSES

J. M. Hartnett.
L. B. M. Williams

INVENTOR

Charles W. Enos
By his Atty
Henry Williams

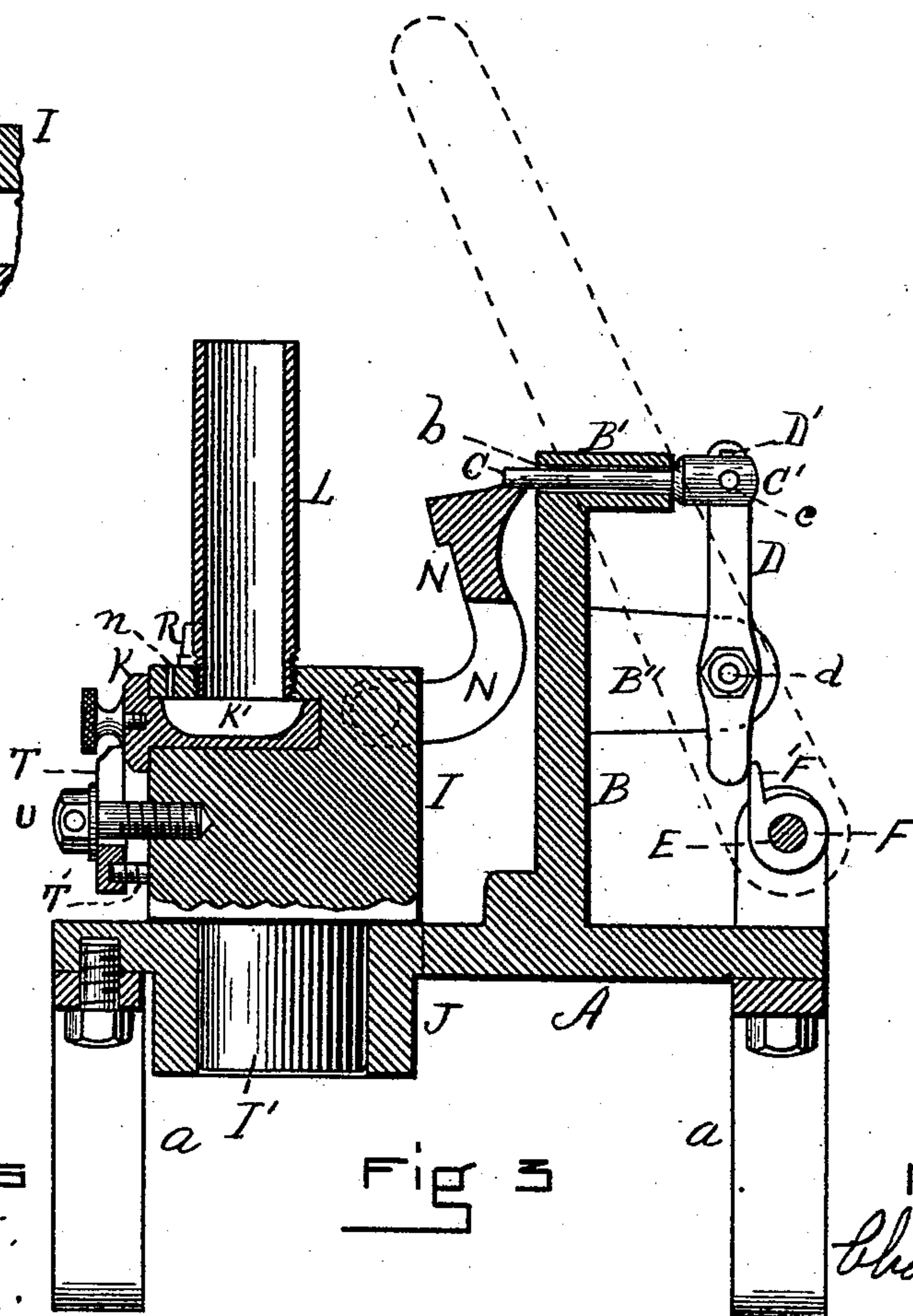
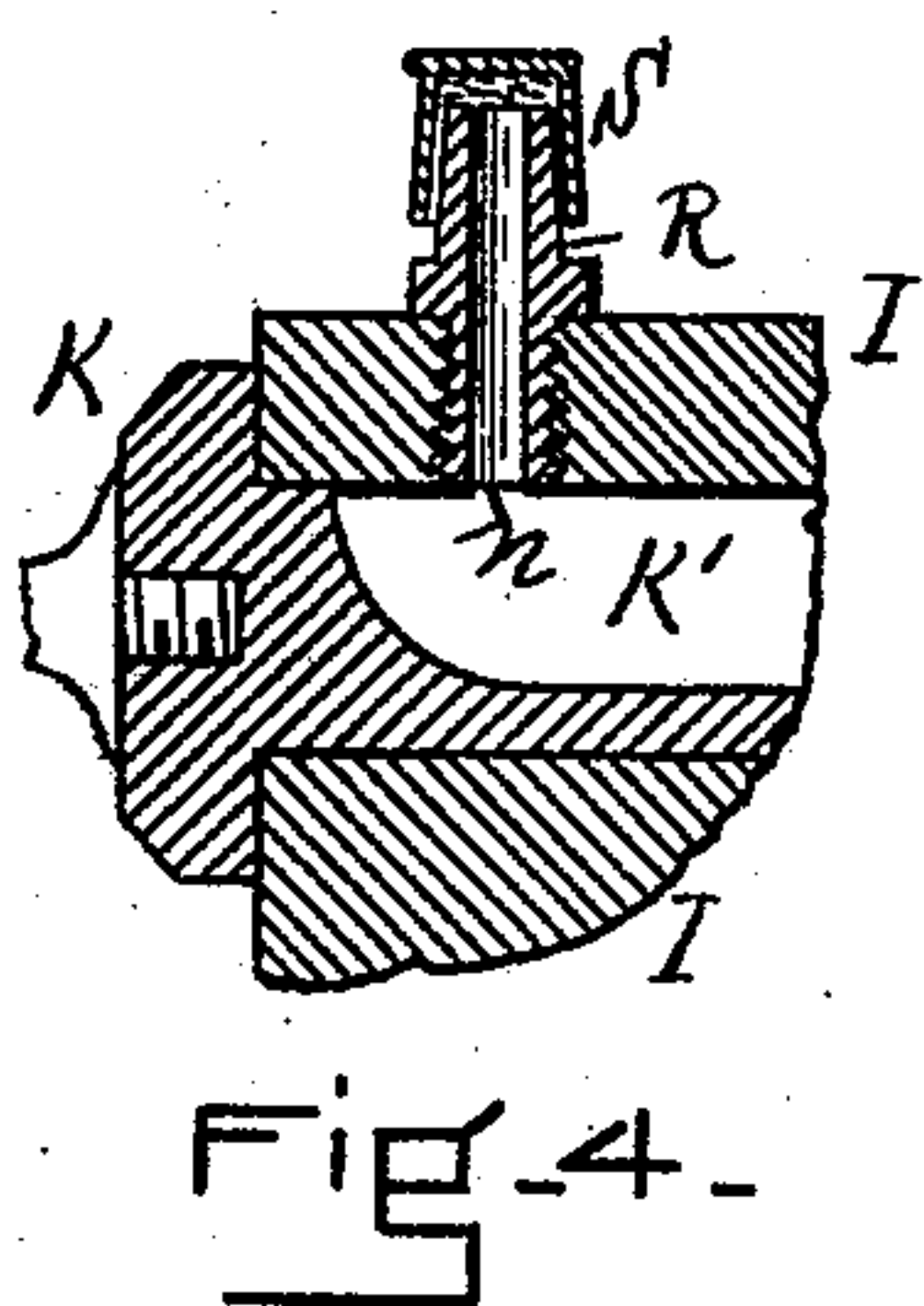
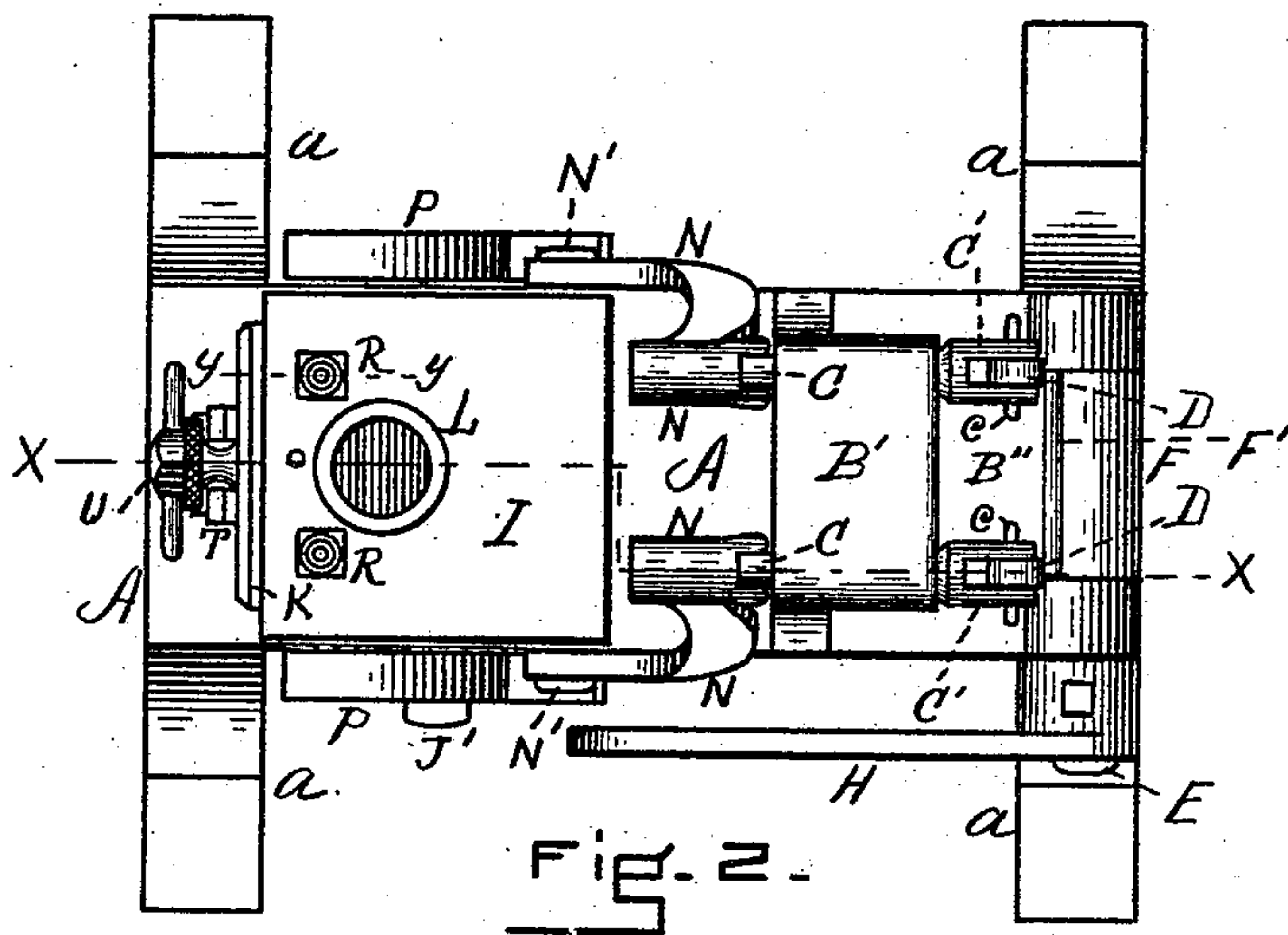
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J. M. Hartnett.
B. M. Williams

Fig 3

INVENTOR

Charles W. Enos

By his Atty

B. M. Williams

UNITED STATES PATENT OFFICE.

CHARLES W. ENOS, OF PEABODY, MASSACHUSETTS, ASSIGNOR OF ONE-HALF
TO WILLIAM B. FLANAGAN, OF SAME PLACE.

FIRE-ENGINE LIGHTER.

SPECIFICATION forming part of Letters Patent No. 529,024, dated November 13, 1894.

Application filed January 17, 1894. Serial No. 497,188. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. ENOS, a citizen of the United States, residing at Peabody, in the county of Essex and State of Massachusetts, have invented a new and Improved Fire-Engine Lighter, of which the following is a specification.

This is a device for lighting the fires in the fire engines as they are started for the scene of a fire from their position in the engine house. The device is intended to stand in the path of the engine as it stands in the engine house, beneath it and in front of the boiler, or in front of the engine itself. As the engine starts to answer an alarm of fire, a lever extending up from the device is struck by the boiler as it moves over the machine, and the movement of this lever releases a hammer which drops upon a cap thus igniting a fulminate, with the result that the flames shoot quickly up through a chimney or flue into the engine as it passes over it, quickly lighting the fire. Thus the time usually spent in lighting the engine is saved.

The nature of the invention is fully described below, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my device as it stands in position to be struck by the moving fire engine. A portion of the actuating lever is broken out in order to illustrate other parts of the device. A portion of the boiler and a wheel of a fire engine is shown in the proper position relative to the lighter. Fig. 2 is a plan view of the device. Fig. 3 is a longitudinal vertical section taken on line *x*, Fig. 2, the position of the lever being shown in broken lines. Fig. 4 is an enlarged sectional detail, on line *y*, Fig. 2, showing one of the caps and nipples and adjacent parts.

Similar letters of reference indicate corresponding parts.

In all the figures, the device is in the same position, viz., ready to be struck by the engine moving over it.

A represents a table or bed, preferably of metal and supported by legs *a* which may be secured to the floor by screws if desired. From this bed extends the upright B provided at its upper end with the horizontal integral

guide-plate B' having two horizontal perforations *b* longitudinal with the machine. Within these perforations lie and slide two pins or holders C whose rear ends C' are bifurcated to receive the upper ends of trip levers D pivoted at *d* to the opposite side of the rearward projection B'' from the frame or upright B. The upper ends of the trip levers D are vertically slotted, at D' to receive the pins *c* extending through them from the bifurcated ends C' of the holders or rods C. A shaft E has its bearings in suitable ears or brackets A' on the table, and a sleeve F provided with a lip F' (Fig. 3) is rigidly secured on the shaft, and constitutes a trip, the operation of which is described below. An actuating lever H is fast on the shaft E and is long enough to extend for quite a distance above the rest of the machine.

I represents a metallic block secured to the table A in any desired manner, preferably by means of a cylindrical base I' held in a round well J by means of a set screw J'. This block is chambered out to receive a drawer K within whose recess K' is placed a quantity of fulminate. A chimney or stack L is secured in the block I and communicates with the recess in the drawer. Hammers N are pivoted at N' to opposite sides of the block and are held normally up under the forward projecting ends of the sliding bolts C, and are adapted when released, to be forced down upon caps S (Fig. 4) on the nipples R, by the springs P one end of each of which is secured at P' to the block and the other end bearing against the hammer. Holes *n* connect the caps with the recess K' in the drawer K.

The device is placed in the path of the fire engine, preferably beneath it and in front of the boiler, the position of which is shown at W, Fig. 1. The lever H is in a raised position as shown, and the lip F' on the shaft E lies against the lower ends of the trip levers D and supports the lever in such raised position. When the engine starts it forces the lever H forward and down, rotating the shaft E and hence moving the lip F' forward. This forces the lower ends of the trip levers D forward and the rear ends back, pulling back the rods or holding pins C, and releasing the

hammers N which are forced down by the springs P upon the caps S on the nipples R. The caps explode the fulminate in the drawer K, and a jet of flame rushes up through the stack L and lights the fire in the engine as it passes over the device on the way to the supposed conflagration.

In order to prevent the drawer from being blown out, I provide a bifurcated clamp T which can extend up over the edge of the drawer and be held there by the screw or bolt U. A pin or screw T' serves as a lower projection from the clamp and is equal in length to the distance that the drawer projects from the block I.

It will be seen from the above that in this device the mechanism of the lighter is put into operation automatically, that is, by a simple movement of the engine over the lighter, whereby said engine engages the lever H, and the fire in the engine is lit automatically, there being nothing necessary but the mere passage of the engine over the device.

Having thus fully described my invention,

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

1. In a fire lighter for fire engines, the frame A B B'', the shaft E provided with the fast collar or sleeve F provided with the lip or trip F', the lever H fast on said shaft, the levers D, holding pins or rods C sliding in the perforations in the guide plate B', and hammers N and exploding or igniting mechanism, substantially as described.

2. In a fire lighter for fire engines, the frame, block I provided with the drawer K for the fulminate, stack leading up from the said drawer, nipples R and hammers N, trip or releasing mechanism for allowing the hammers to drop, and lever for actuating the releasing mechanism, said lever being of length to be struck by the engine as it passes over it, substantially as set forth.

CHARLES W. ENOS.

Witnesses:

HENRY W. WILLIAMS,
J. M. HARTNETT.