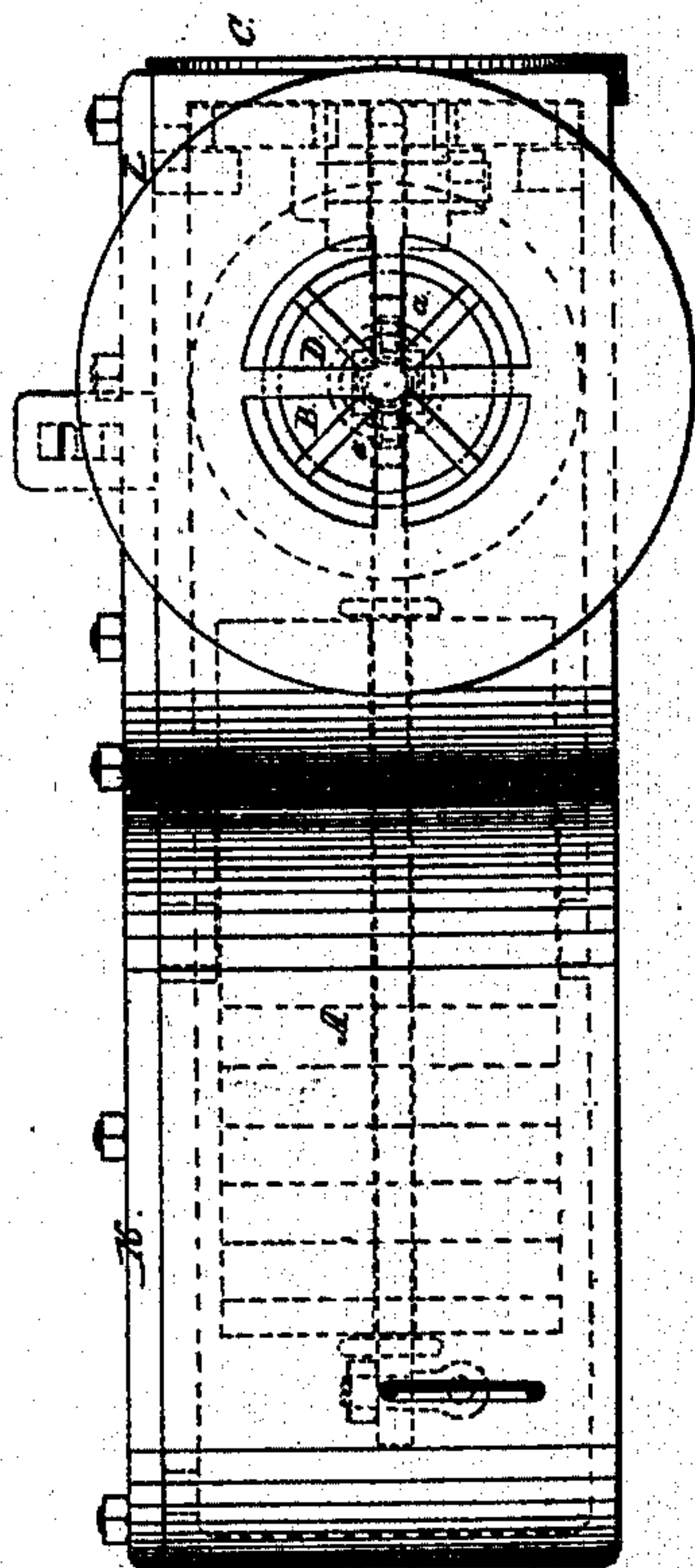
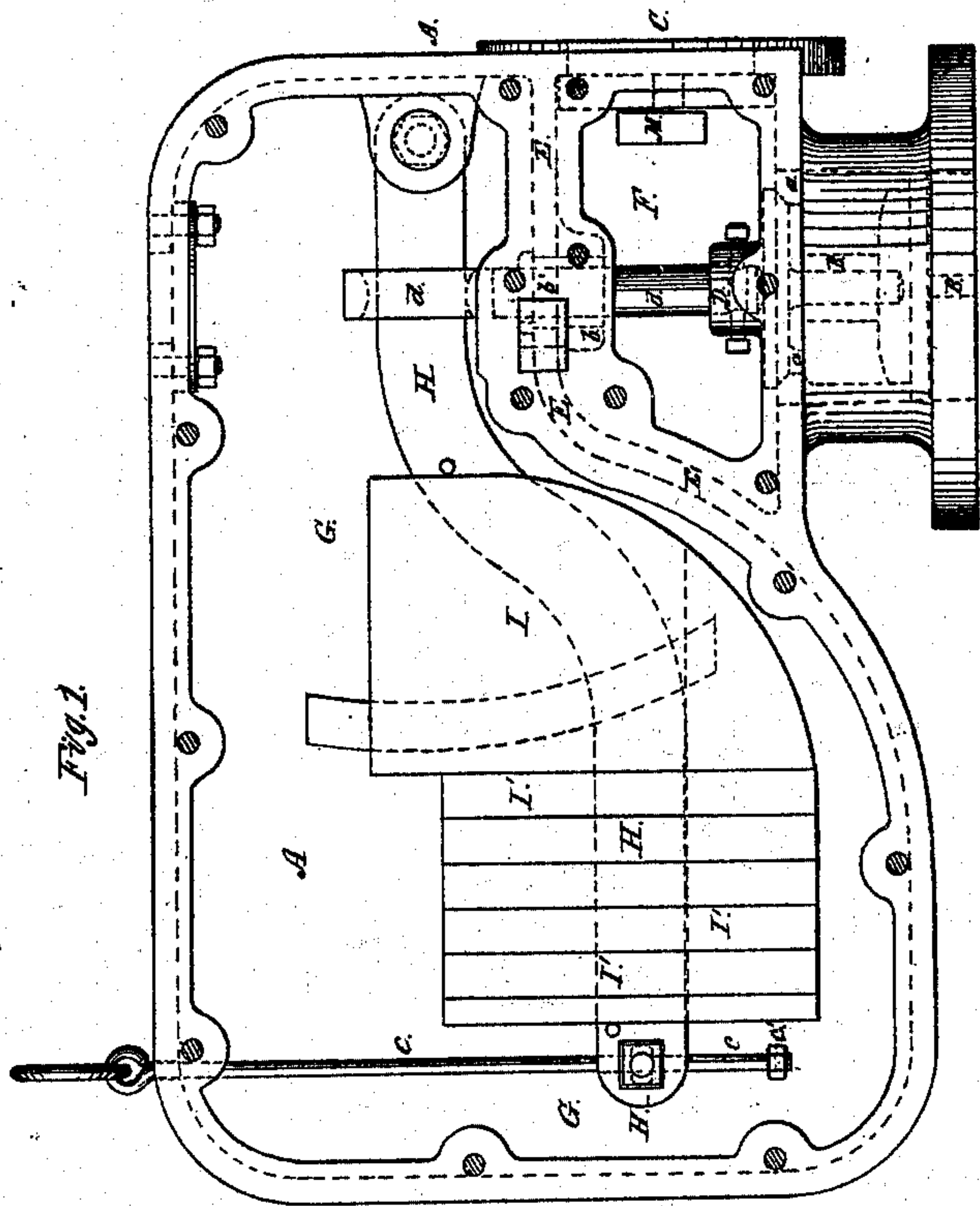
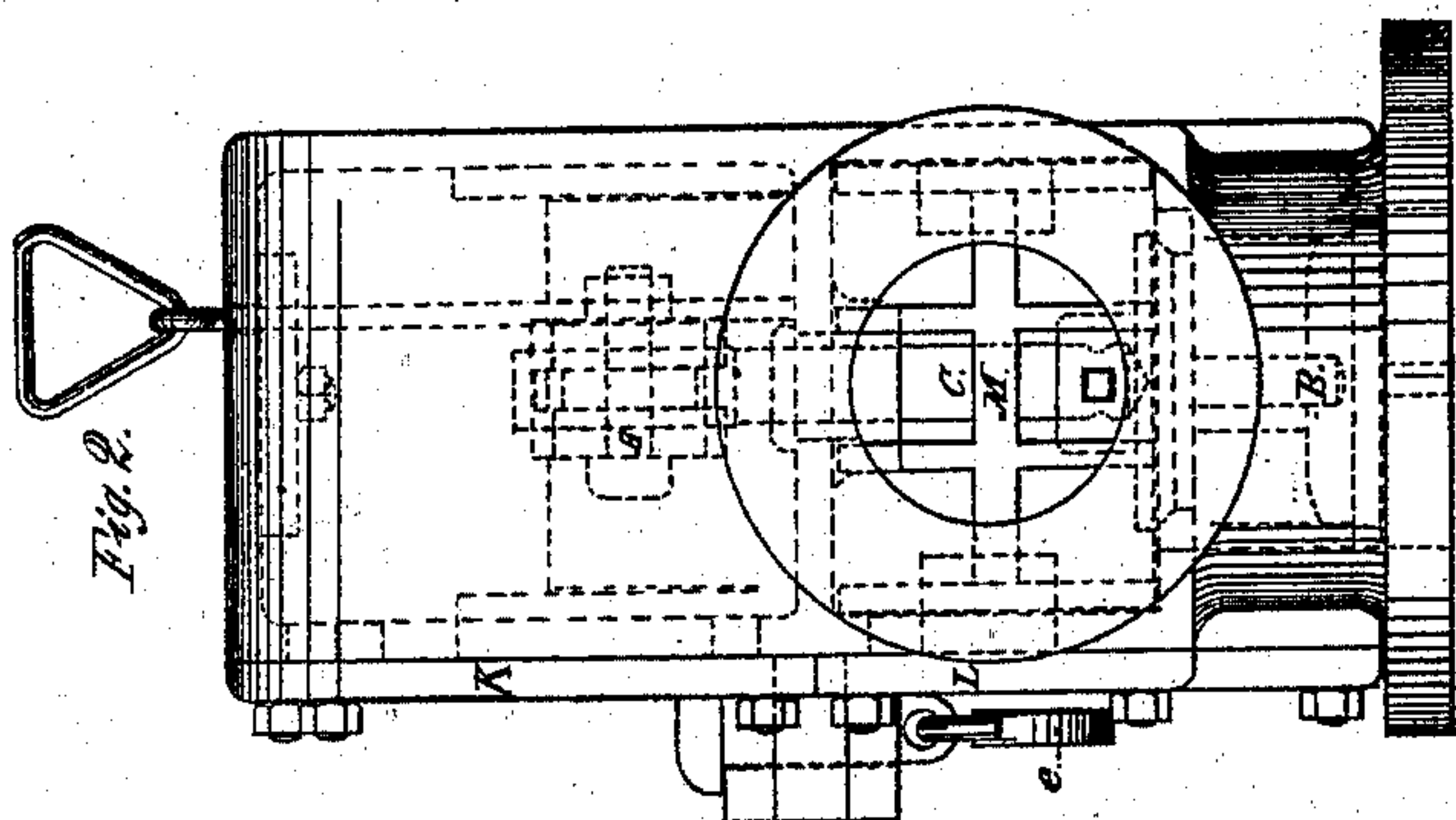


R. ROBINSON.  
LOCKED SAFETY VALVE.

No. 61,872.

Patented Feb. 5, 1867.



Witnesses:  
E. H. Tinsche  
J. A. Serrin,

Inventor:  
R. Robinson  
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Attorneys,



# United States Patent Office.

ROBERT ROBINSON, OF NEW YORK, N. Y.

*Letters Patent No. 61,872, dated February 5, 1867.*

## IMPROVEMENT IN LOCK-UP SAFETY VALVES.

*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, ROBERT ROBINSON, of the city, county, and State of New York, have invented a new and improved Safety Valve for Boilers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a safety valve, which is so constructed that it can be adapted to boilers of different capacity; that it can be sealed and locked by the Government inspectors without allowing the engineer to have access to it to change the prescribed weights; that the engineer may, whenever he thinks necessary, open the valve to blow off steam, and that those portions of the valve which are necessarily surrounded by steam are divided from the other parts, so that the levers and weights may be inspected when steam is on or at any desired moment. In the annexed drawings my invention is completely illustrated—

Figure 1 being a side elevation of my improved valve, the face plate being removed.

Figure 2 is an end view of the same.

Figure 3 is a bottom view of the same.

Similar letters of reference indicate like parts.

A represents a case, which is made of cast iron, or any other suitable metal, and which connects, through a channel, B, with the steam boiler, and through a channel, C, with the atmosphere. The valve-seat *a* is arranged in the channel B, and the valve D is guided by its stem, *d*, which passes through a guide-box, *b*, in the partition E, by which the valve-chamber F is separated from the main chamber G of the case. The valve-stem *d* is hung to a weighted rod, H, which is hinged to the inside of the casing, as shown. A series of slip-weights, *I'*, may be arranged or provided to be placed on the end of the rod H, besides the fixed weight I, whereby this valve might be adapted to boilers of different capacities, that is to say, to boilers which can sustain more or less pressure. This arrangement, it will be seen, leaves the chamber G perfectly free from steam, and thus the weights may be inspected at any time when steam is on. The case is to be closed by two covers, K and L, the former closing the chamber G, the latter the steam chamber F. Each cover should be secured to the case by bolts and nuts, and may also be provided with staples, or other devices, so that a lock, *e*, can be applied by Government inspectors to the covers, by which it can only be opened. The engineer can have access to the valve for the purpose of opening it for blowing steam off, or to prevent the valve from being clogged, and to become out of order, by means of a rod, *c*, which passes loosely through the end of the lever H, and which is provided at its lower end with a head, *c'*, as shown. Thus the engineer can at all times open the valve by means of this rod, *c*, but he cannot use the same for the purpose of adding to the weight on the lever. The channel or escape C is guarded by a frame, M, to prevent any person from having access to the valve through that opening, said frame being secured to the inside of the case.

I do not claim novelty in the partition E and grating M, as they have before been used.

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

1. The plates K and L, separately removable, when so arranged as to afford access to either chamber F or G without opening the other.
2. The combination and arrangement of the valve-chamber F, weight-chamber G, partition E, blow-off C, valve D, and lever H, substantially as and for the purposes set forth.

ROBERT ROBINSON.

Witnesses:

THOS. HARRISON,  
A. V. BRIESEN.