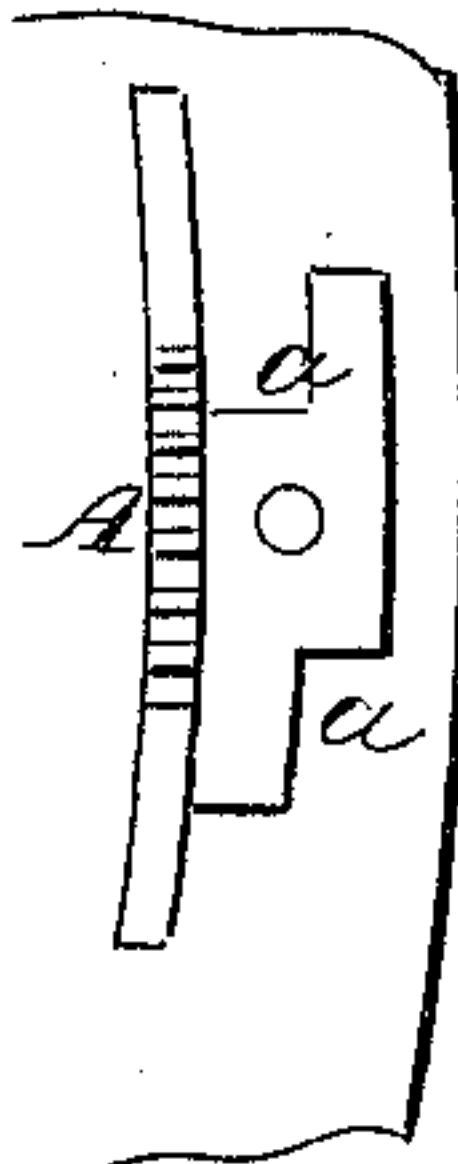
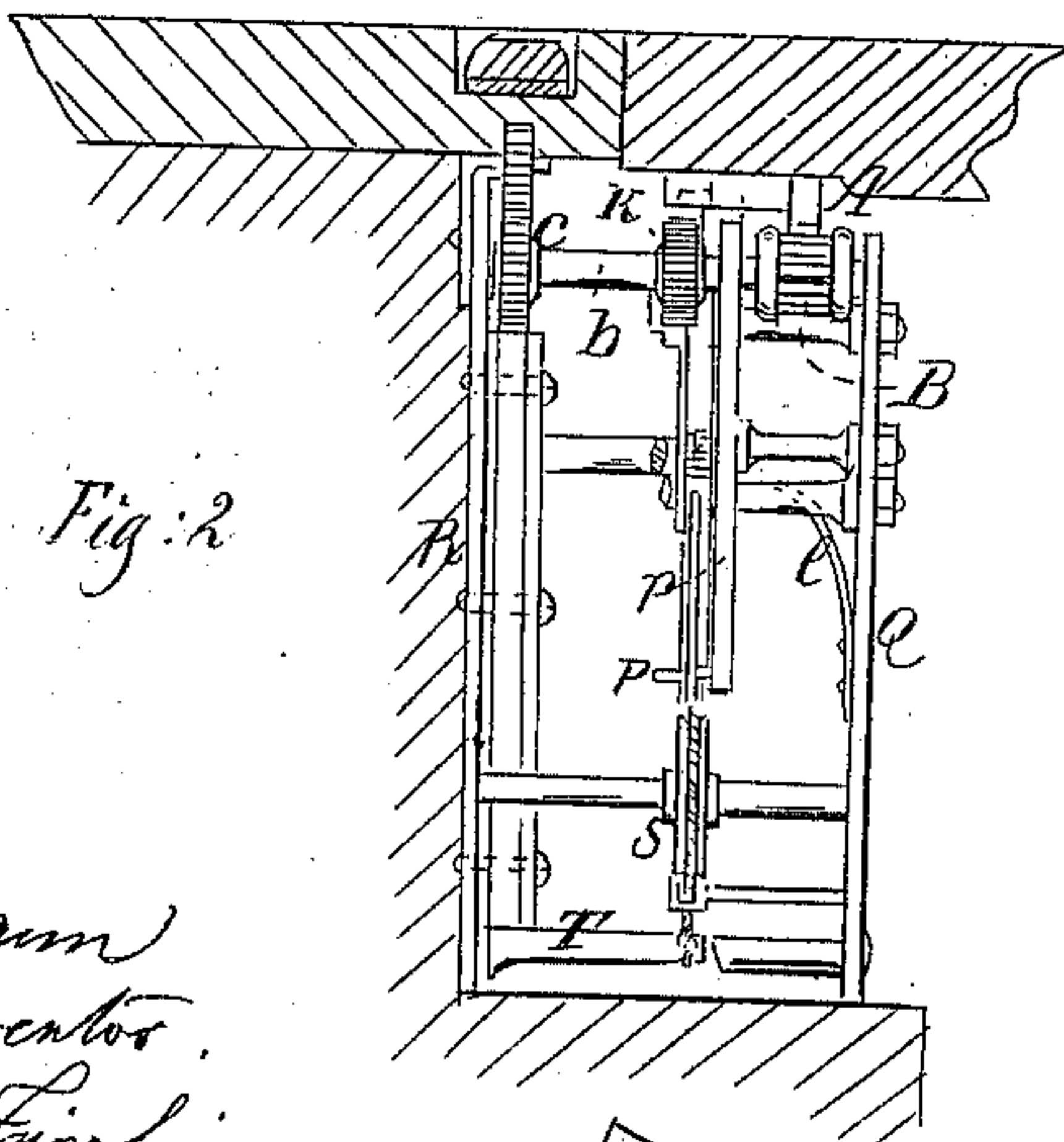
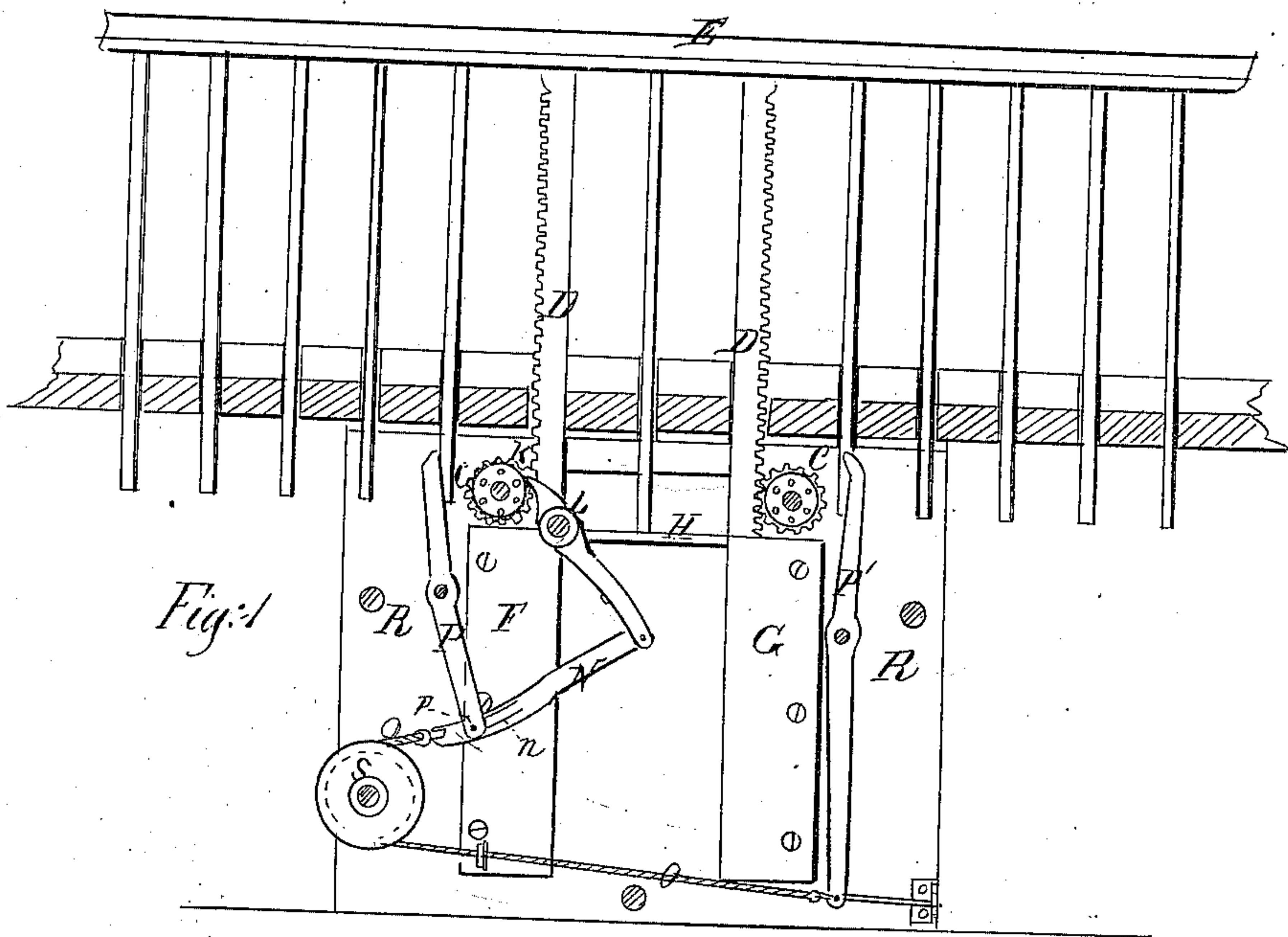


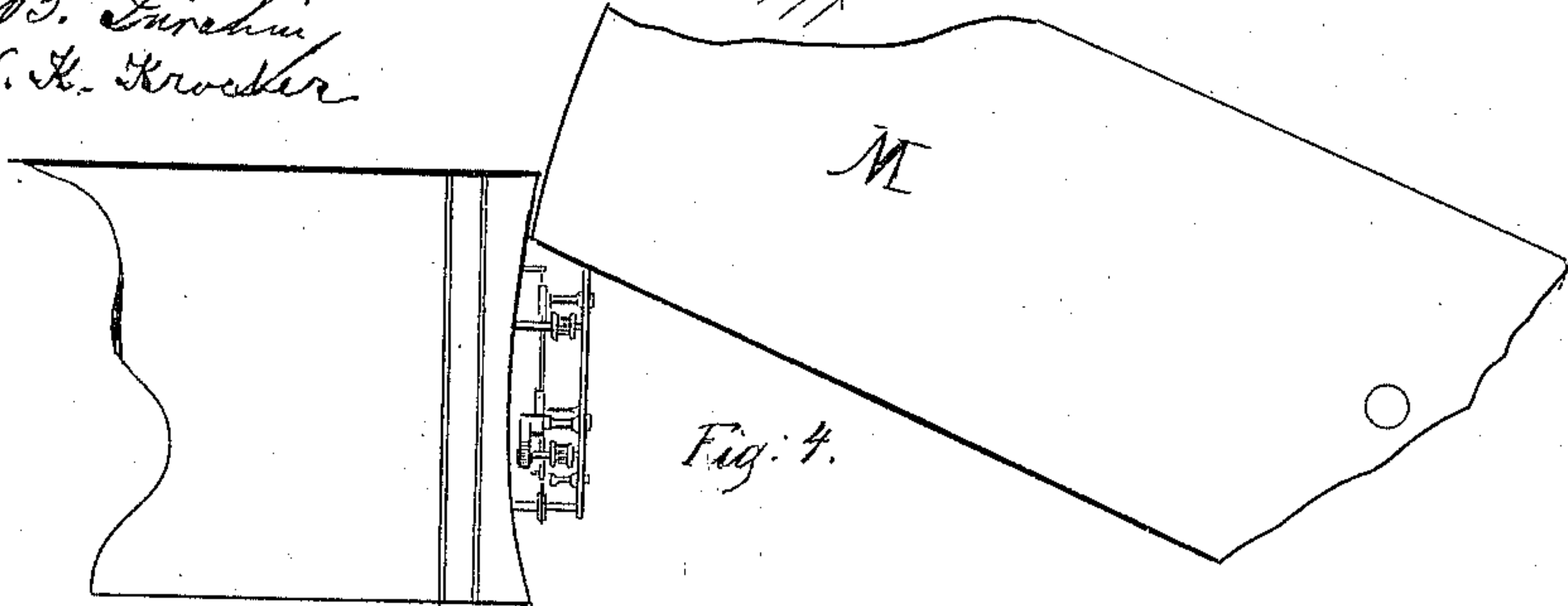
# *Lehmann, Ferry Guard.*

*No. 81,383.*

*Patented Aug. 25. 1868.*



*John Lehmann  
Inventor.  
Witnesses: J. B. Linschmeier  
N. H. Kroschke*



# United States Patent Office.

JOHN LEHMANN, OF CROWN POINT, INDIANA.

*Letters Patent No. 81,383, dated August 25, 1868.*

## IMPROVED BRIDGE-GUARD OR BARRIER.

*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, JOHN LEHMANN, of Crown Point, in the county of Lake, and State of Indiana, have invented certain new and useful Improvements in "Bridge-Barrier;" and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

In the accompanying drawing—

Figure 1 is an elevation of the device from the river, when the bridge is open.

Figure 2 is the plan of the same.

Figure 3 is a plan of segment A, and

Figure 4 is the plan of machinery and of the bridge.

The nature of my invention consists in the combination of racks, ratchet-wheels, and a pawl, so arranged, that, with the opening of a draw-bridge, a barrier is raised up to guard people from accidents.

Cog-segment A is secured to the bottom of the bridge, near its edge, and acts upon the ratchets B B as the bridge M opens or closes. Pinions C C are firmly set on the same shafts, *b b*, with ratchets B B, and their cogs gear into vertical racks D D, which support and move barrier E, and are suitably enclosed and kept in position by plates F G. Plate H is secured to the bottom of and in the middle of the barrier, and to the racks, to keep the barrier always in proper position while it is rising or lowering. On one of the shafts *b* is set ratchet-wheel K, to catch pawl L, made sufficiently heavy for the purpose, or retained in place by spring *l*, and connected with slotted bar N, to which chain O is secured. Catch-levers P P' are pivoted to the partition Q, which, with other partition, R, constitutes the supports to which shafts of the machinery are journaled. The pin, *p*, of the catch-lever P, sets in the slot *n* of bar N, and acts on the pawl L, while the lower end of the catch-lever P' is secured to the chain O, passed around pulley S, and acts on the pawl L also, but at the same time its lower end is connected by chain to spring T, which has the purpose to keep chain O always straightened, and hence to keep lever P' in its position. Spring T may be replaced by rope and weight. The tops of the catch-levers P P' fit into notches *a a* of the cog-segment A, and are pressed, one or the other, as the bridge opens or closes, thus disengaging pawl L from ratchet-wheel K, and allowing pinions C C to act on racks D D, and raise or lower the barrier E.

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

The combination of cog-segment A, ratchets B B, pinions C C, racks D D, pawl L, and catch-levers P P', all arranged and operating substantially as herein set forth, for the purpose of operating a bridge-barrier.

JOHN LEHMANN.

Witnesses:

J. B. TURCHIN,  
N. K. KROEBER.