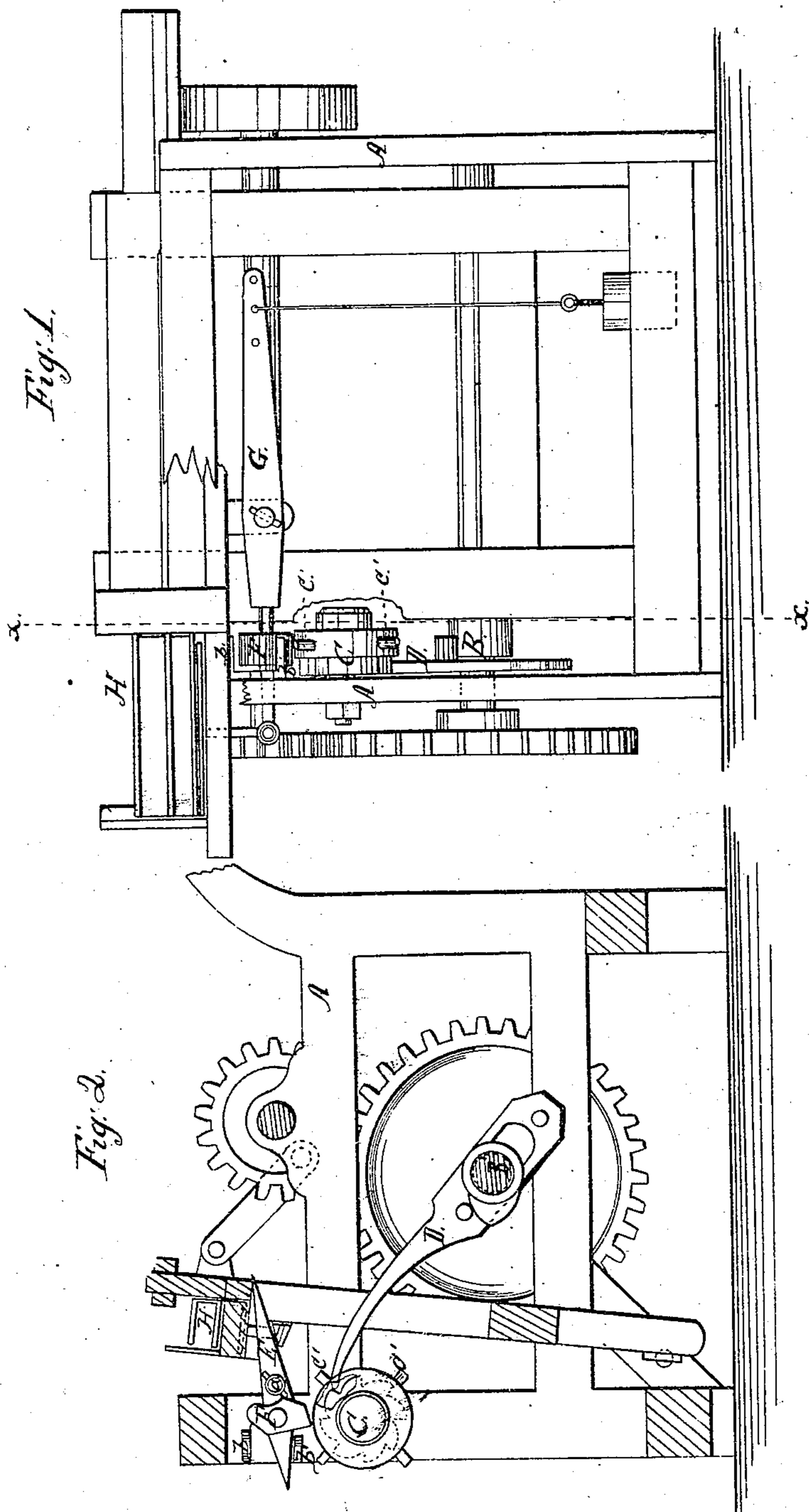


No. 81,005.

PATENTED AUG. 11, 1868

M. RICE.
LOOM ACTUATING SHUTTLE BOX.



Witnesses.
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MICHAEL RICE, OF UPLAND, PENNSYLVANIA.

Letters Patent No. 81,005, dated August 11, 1868.

IMPROVEMENT IN LOOMS-ACTUATING SHUTTLE-BOXES.

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, MICHAEL RICE, of Upland, in the county of Delaware, and State of Pennsylvania, have invented a new and useful Improvement in Shuttle-Box Motion; 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, in which—

Figure 1 represents a front elevation of a loom, with my improved apparatus applied to it.

Figure 2 represents a section of the same, on the line $x x$ of fig. 1.

Similar letters of reference indicate like parts.

The nature of my invention relates to improvements in apparatus for operating shuttle-boxes in looms, which is designed to simplify and cheapen the same.

It consists in suspending the shuttle-boxes on the outer ends of levers pivoted to the lay, from the inner ends of which are suspended balancing-weights, and providing a vibrating wedge-shaped lever, which is operated by a tappet-wheel, deriving motion from a pawl actuated by the driving-shaft, which vibrating-lever alternately raises and lowers the outer end of the said shuttle-box lever, as will be more fully described on reference to the accompanying drawings.

A represents the frame of a loom; B, the driving-shaft, which actuates the tappet-wheel shaft C through the medium of pawl D.

E represents a wedge-shaped lever, pivoted at a , and provided with a weighted lug, F. The outer end of said lever works between brackets, b and b' . The inner end of the same being vibrated by the tappets C' acting on the aforesaid lug, takes alternately above and below the lever G on the lay, on the outer end of which lever the shuttle-box H is supported.

When the tappets C' are brought under the lug, the inner end of the lever E is depressed, so that when the lay comes up, the lever G rides up the inclined upper face of the lever E, the bracket b preventing the lever G from bearing the inner end of the lever E downward, and when the tappets pass from under the lug F, the lever G passes under the inner end of the lever E, and is borne down, the bracket b' preventing the lever G from raising the inner end of the lever E.

The pawl is arranged on the driving-shaft, so as to be actuated at every two picks of the lay.

The lever G is provided with a weight to balance the boxes in either position.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

The shuttle-box-actuating mechanism, combined and arranged substantially as herein shown and described.

MICHAEL RICE.

Witnesses:

WILLIAM CAMPBELL,

JOHN WOLFENDEN.