

T. NAYLOR.

Improvement in Loom Weft-Stop Mechanisms.

No. 126,410.

Patented May 7, 1872.

Fig 1.

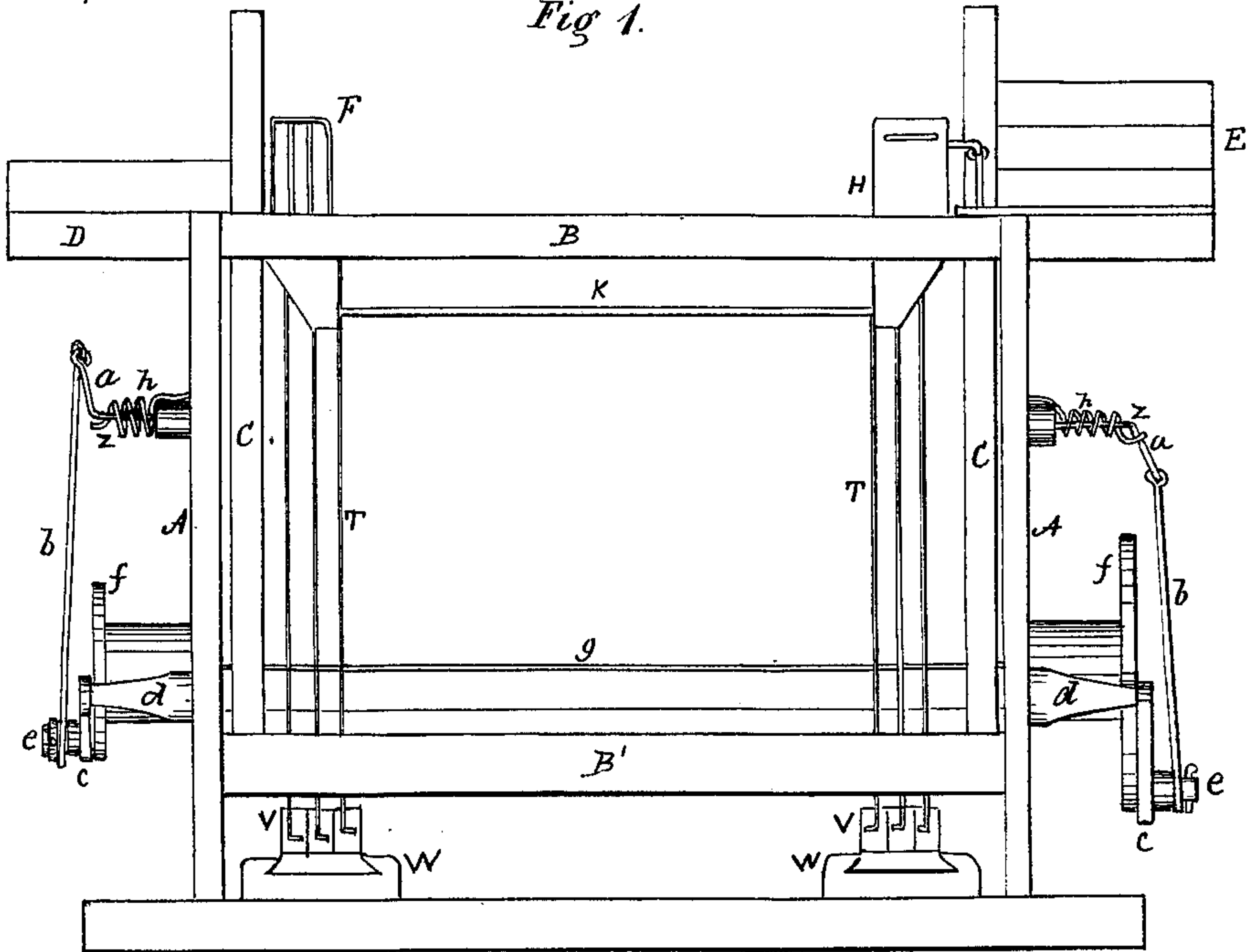
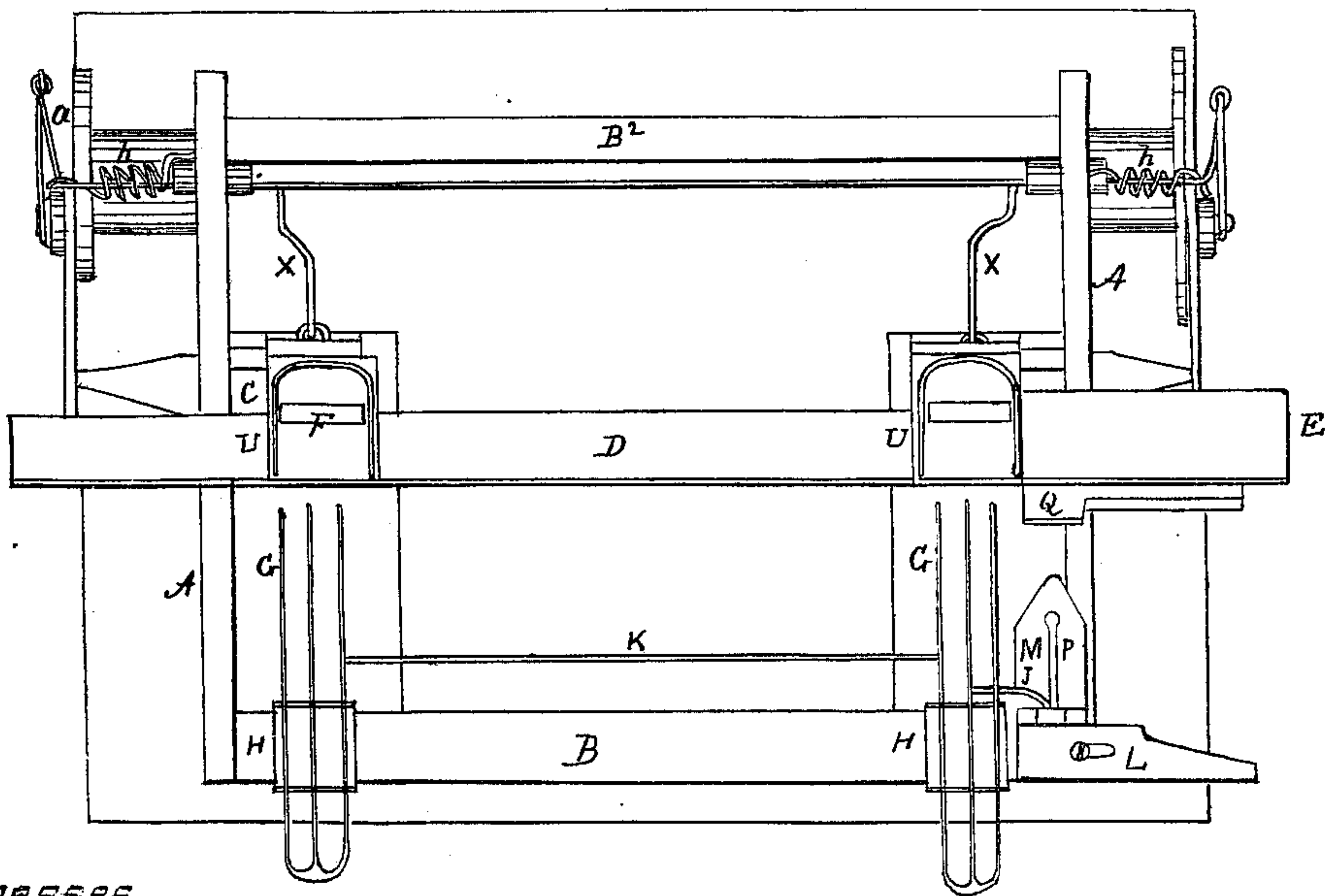


Fig 2.



Witnesses

Robt. Mason

I S Lyon

Timothy Naylor.

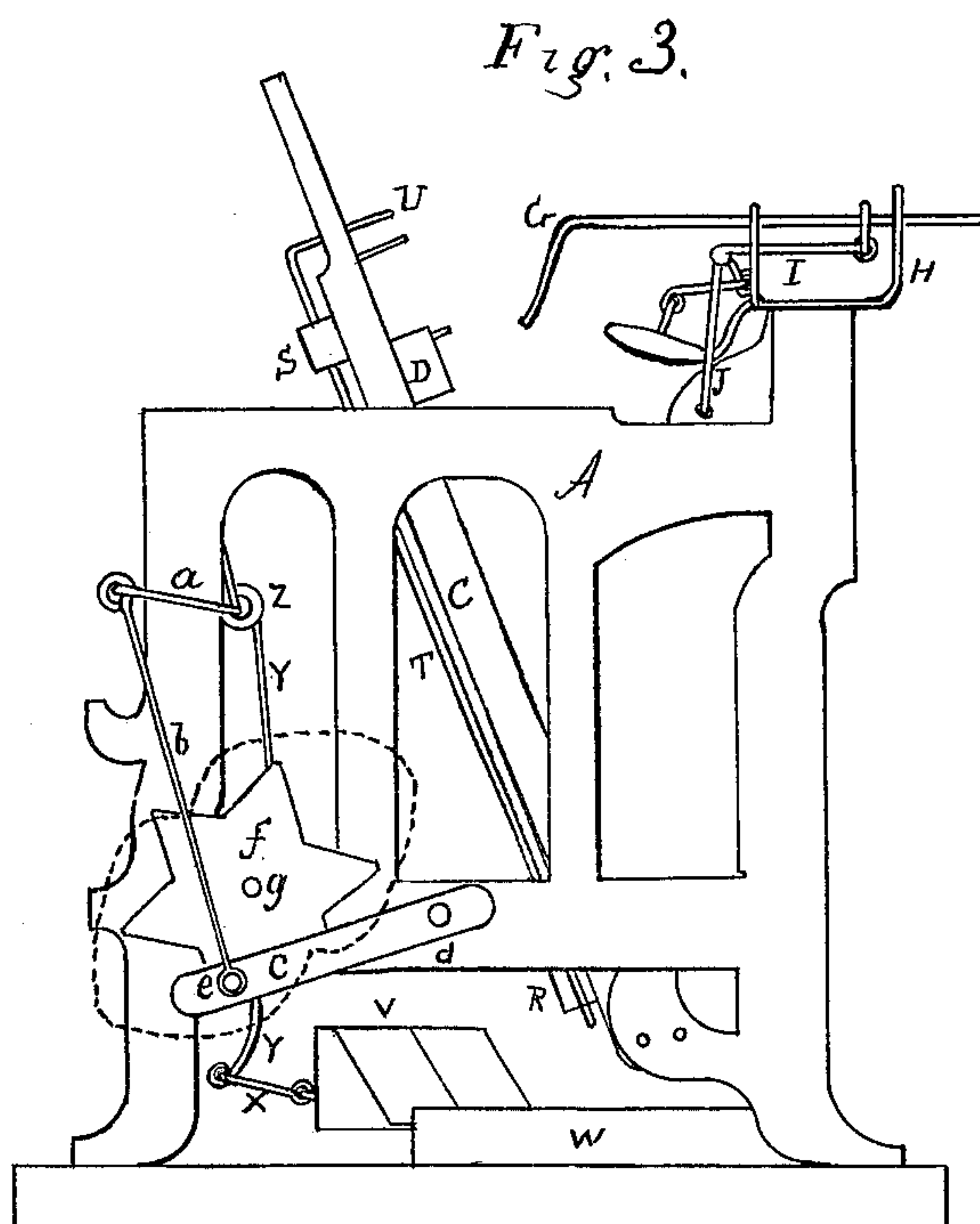
By his Atty. J. Dennis Jr.

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UNITED STATES PATENT OFFICE.

TIMOTHY NAYLOR, OF MANCHESTER, IOWA.

IMPROVEMENT IN LOOM WEFT STOP MECHANISMS.

Specification forming part of Letters Patent No. 126,410, dated May 7, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, TIMOTHY NAYLOR, of Manchester, Delaware county, in the State of Iowa, have invented certain new and useful Improvements in Looms for Weaving; and I hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawing forming part of this specification.

The nature or essence of my invention consists in the particular construction and arrangement of devices forming the improvements in looms for weaving, described in the following specification and represented in the accompanying drawing, in which the frame of a loom and such other parts are shown as are necessary to illustrate my improvements.

In the drawing, Figure 1 is the elevation of the front of a loom with my improvements. Fig. 2 is a plan or top view; and Fig. 3, the elevation of one end.

In the above-mentioned drawing, A A are the two ends, connected by the breast-beam B, and bottom bar B¹, and back bar B², which may all be made in the form shown, and fastened together to form the frame of the loom. C C are the swords supporting the lay D, which swords are provided with pivots in their lower ends, which work in holes in the ends A, when the lay is vibrated in the process of weaving. At one or both ends of the lay D a series of shuttle-boxes, E, is arranged to traverse vertically in such manner as is well known to loom-makers and weavers. Just inside the swords C is fastened the grid or grate F, which moves with the lay, and, when the weft lies across the grid F and the lay swings toward the breast-beam B, the bent fork G is pushed back in the stand H, fastened to the breast-beam.

My improvements, which will now be described, are designed for looms with movable or traversing shuttle-boxes carrying two or more shuttles. An arm, R, is fastened to the sword C near its lower end, and a stand, S, is fastened to the back side of the lay over it, and both are perforated for the rods T to traverse in. The upper ends of the rods T

are provided with arms U U, which project forward each side of the upright grid F across the lay, so that the shuttle and weft will pass over them if they lie in the notch in the top of the lay, or under them if the rod to which they are joined is raised up by the traversing cam or shoe V, which is made in the form shown, and arranged to traverse in the stand W fastened to the floor under the loom. The stand W has a dovetailed groove, to which the cam V is fitted, so as to traverse freely when moved by the link X, which connects it to the arm Y of the rock-shaft Z, which turns in a long hub fastened to the end A of the frame. The rock-shaft Z has an arm, a, at its outer end, connected by a link, b, to a stud, e, in the sweep c, which vibrates on the pivot d fastened in the end A for that purpose. The stud e projects through the sweep c, and is acted on by the cam f on the shaft g, which turns in boxes in the ends A. The stud e is pressed against the cam f by a coiled spring, h, on the shaft Z acting against the arm a. There is a series of inclines on the cam V, which, when the cam is pushed forward under the ends of the rods T, push them up in succession, and one of the arms U raises the weft-thread out of the way of the fork G when the shuttle supplying that particular thread is lying idle in one of the boxes; or the arms U may be arranged to depress the threads below the ends of the fork G, out of the way of the fork as it passes through the grid F. The sweep c may be extended beyond the stud d under the shuttle-boxes, and connected to them to operate the shuttle-boxes.

I claim—

The combination and arrangement of the vertical reciprocating rods T T, provided with rigid arms U U, constructed and operating as set forth, with the traversing-cams V V, provided with separate inclines for each rod, and actuated by the cam f through suitable connections, as described.

TIMOTHY NAYLOR.

Witnesses:

JOHN W. FORD,
CHAS. C. LEWIS.