

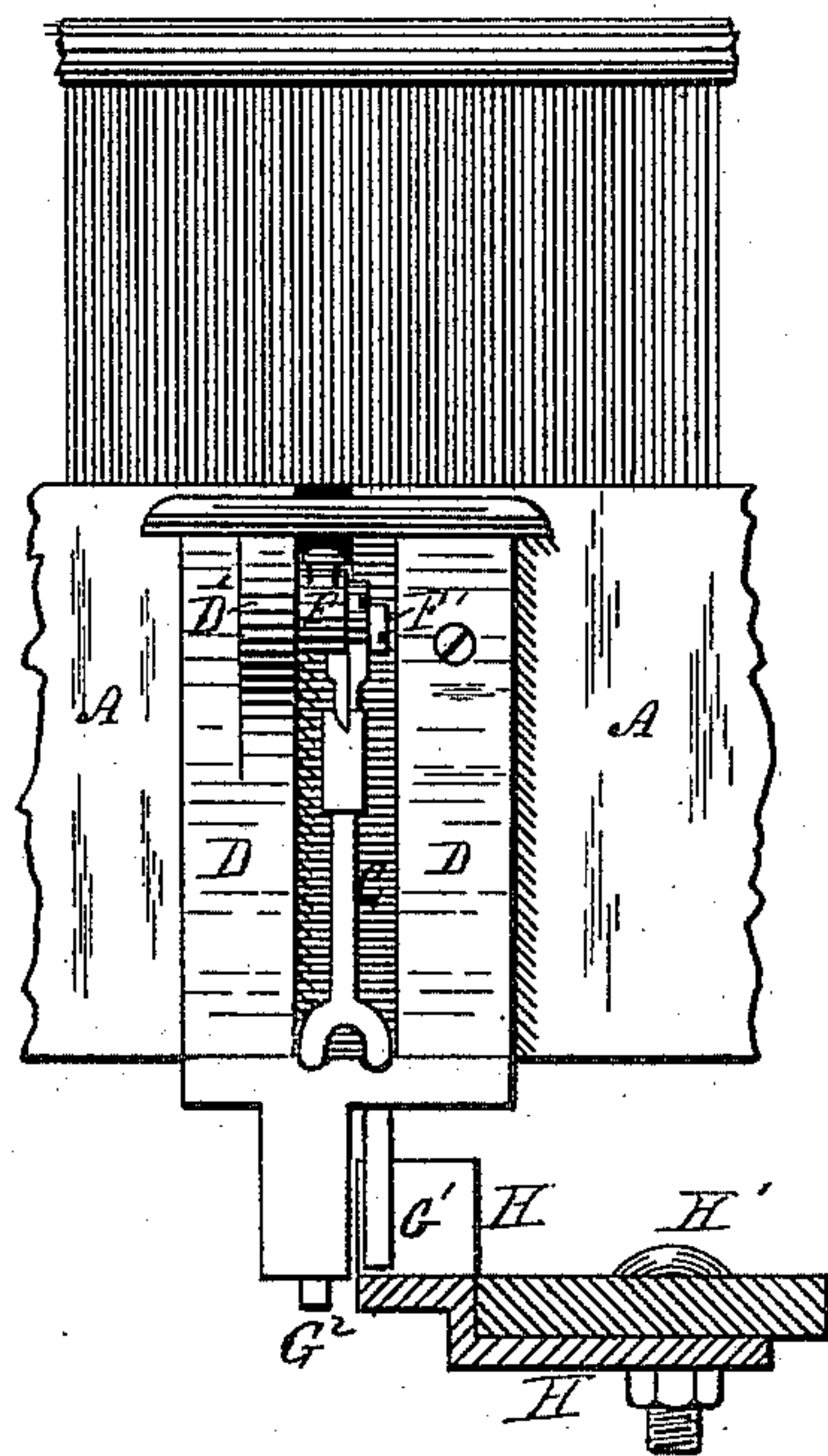
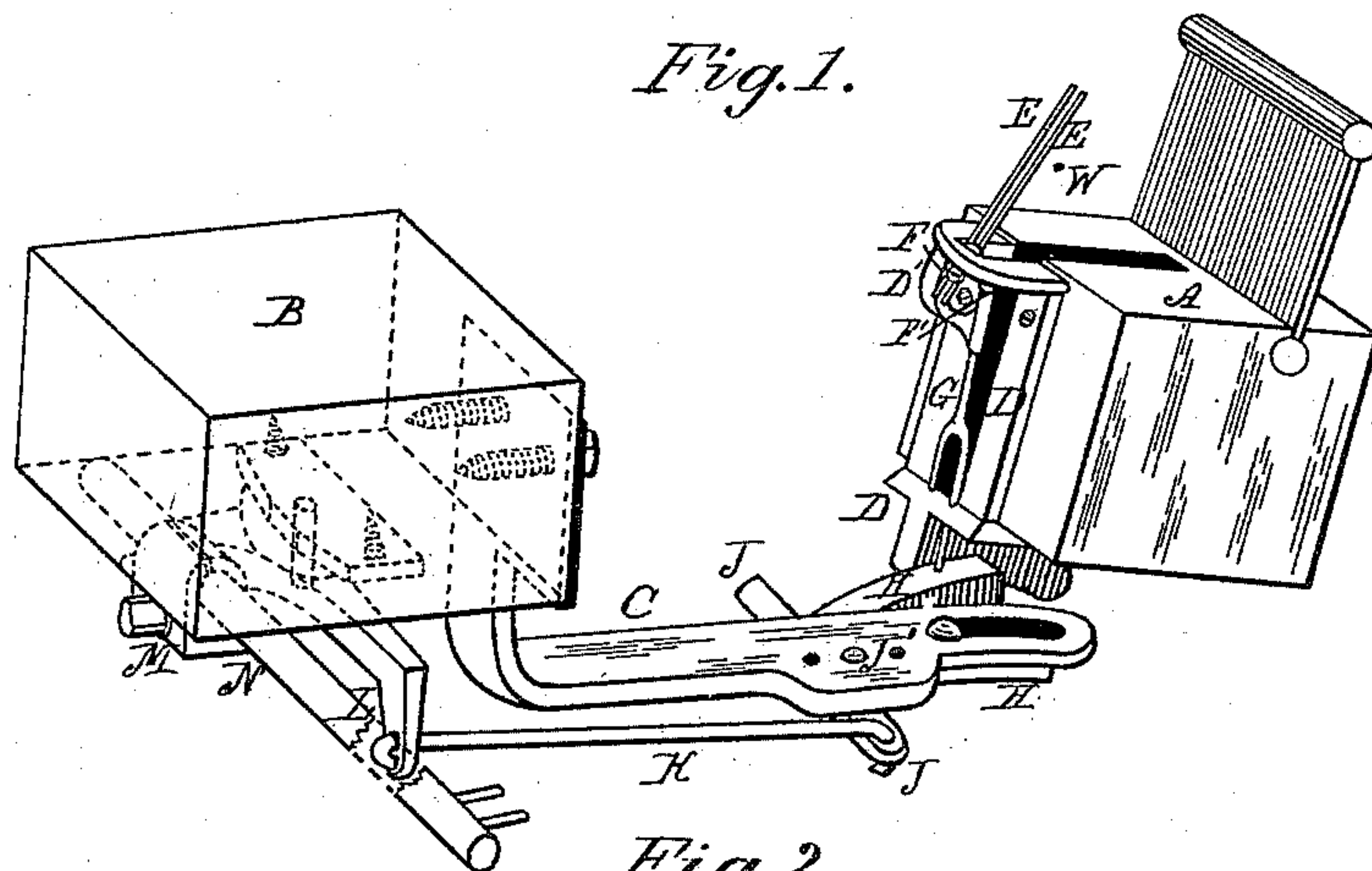
(No Model.)

F. O. TUCKER.

WEFT STOP MOTION FOR LOOMS.

No. 298,917.

Patented May 20, 1884.



Witnesses.

Edwin T. Nimock.  
Wilmot Horton.

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# UNITED STATES PATENT OFFICE.

FREDERICK O. TUCKER, OF HARTFORD, CONNECTICUT.

## WEFT STOP-MOTION FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 298,917, dated May 20, 1884.

Application filed July 28, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK O. TUCKER, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Weft Stop-Motions for Looms; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My improvement relates to a mechanism to be placed upon looms for the purpose of stopping the machine whenever the weft-thread breaks, or for any other reason is absent, and fails to pass through the warp.

The object of my invention is to provide a simpler and cheaper device than has heretofore been used for the above purpose.

In the accompanying drawings, illustrating my invention, Figure 1 is a perspective view of part of the lay and breast-beam of a loom provided with my improved stop-motion. Fig. 2 is a front view of the part of the stop-motion attached to the lay, showing also portions of devices attached to the breast-beam.

A is the lay.

B is the breast-beam.

C is an arm extending from the breast-beam toward and under the lay, to support the cam which raises the feelers.

D is a metallic frame secured to the lay for containing the working parts of the stop-motion. This is attached to the front and under sides of the lay, as shown in Fig. 1.

E E are the feelers. They are shown in Fig. 1 raised in about the position in which they remain when the weft-thread is present, and in Fig. 2 they are down in the position when the weft-thread is absent, and the loom will be stopped. The position of the weft is shown at W in Fig. 1.

F is a block to which the feelers are attached in the customary manner. It is pivoted to a projection, D', upon the frame D.

G is a vertically-moving bar, the upper end of which is pivoted to a crank-pin, F', upon the block F. The lower end of bar G is forked, and each of the two parts passes separately through socket-bearings in the frame D. These two parts are shown at G' and G<sup>2</sup> in

the drawings. The part G' is operated by a cam, H, upon the arm C at each rearward movement of the lay, so that as the lay moves back the bar mounts the cam and raises the feelers into the position shown in Fig. 1. The end of the branch G<sup>2</sup> extends down below the frame D when the feelers are down, and as it moves forward encounters the end of the lever J and pushes it so as to stop the loom. When the feelers are raised, this branch of the bar G does not reach down far enough to touch the lever J. The cam H and the lever J are both attached to the arm C—the former by the bolt H', by which the cam can be set in any desired position, and the lever J by means of the pin J', upon which it turns horizontally.

K is a connecting-rod reaching from the lever J to the rocking bar L, which enters into a clip, M, screwed to the bar N, for shifting this bar endwise to stop the loom. The bar N operates to stop the loom in any of the customary ways. It may be provided with a fork, as shown in the drawings; or it may release a shipping-lever in the usual manner.

The operation of my invention is as follows: At each backward movement of the lay the end of the bar G' rises upon the surface of the cam H and raises the feelers. When the lay moves forward, if the weft-thread is present, the feelers are held up by it, and the end of the bar G<sup>2</sup> passes over the lever J without touching it. If, however, from any cause, the weft-thread is absent, the falling of the feelers down into the slot in the top of the lay allows the end of the rod G<sup>2</sup> to descend and encounter the lever J, which is then moved, and the bar N is shifted to stop the loom.

What I claim as my invention is—

The forked bar G, in combination with the feeler-block F, the feelers E, the cam H, the lever J, the frame D, and the arm C, said bar and feeler-block being connected to the frame D, adapted to be attached to the lay, and said cam and lever being connected with the arm C, adapted to be attached to the breast-beam or other stationary part of a loom, substantially as described.

FREDERICK O. TUCKER.

Witnesses:

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