

975,589.

Patented Nov. 15, 1910.

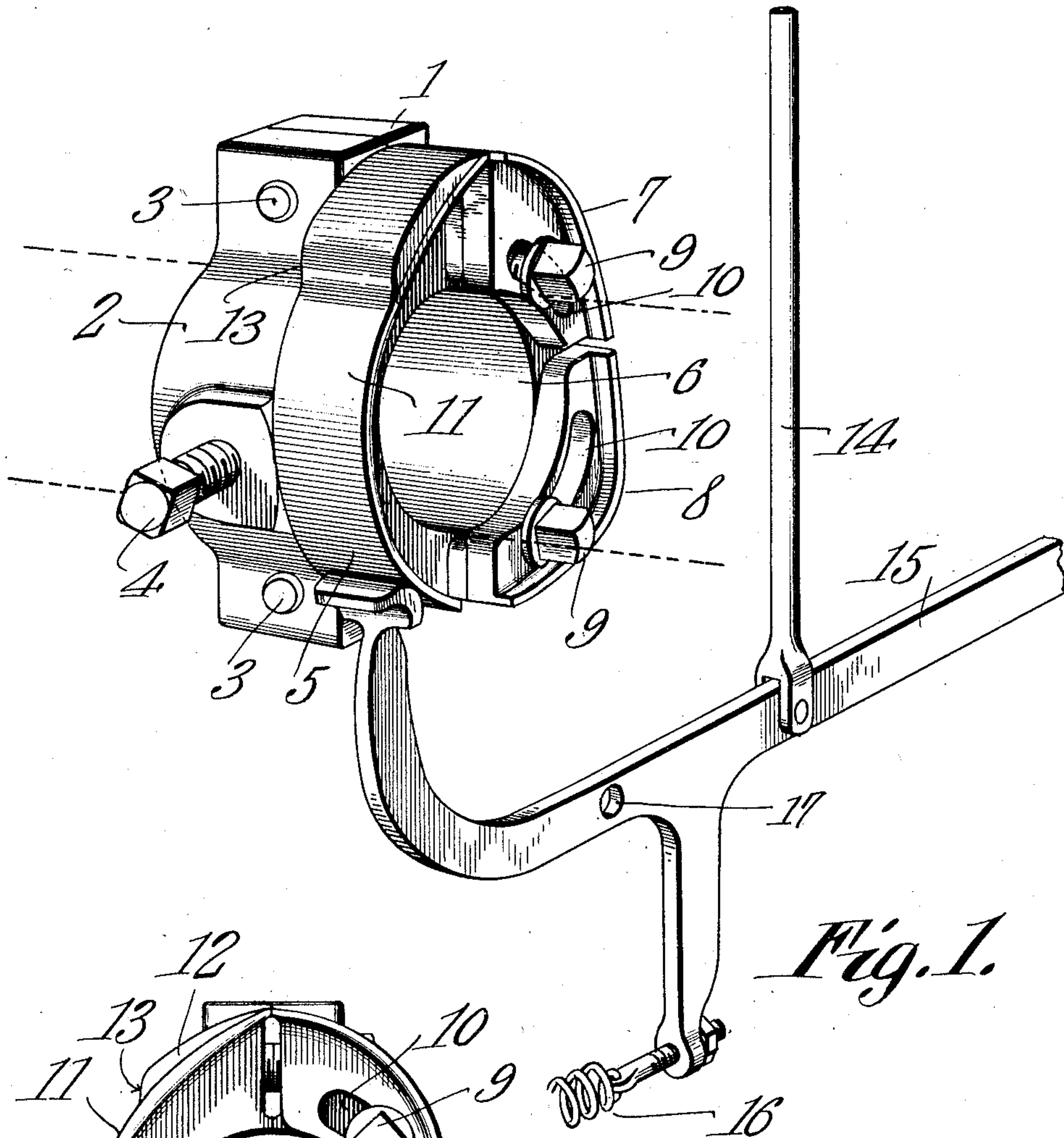


Fig. 1.

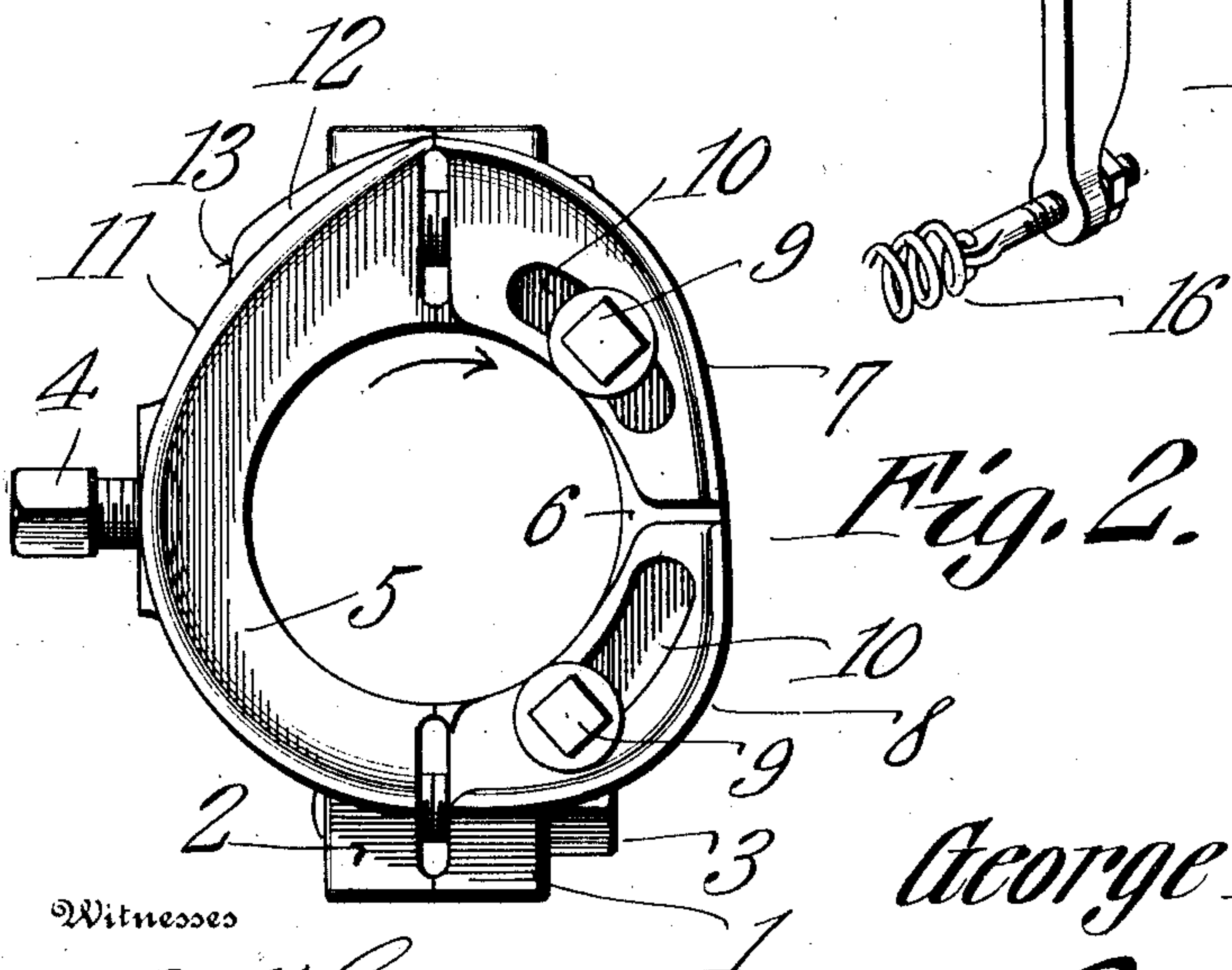


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE T. WATKINS, OF KANNAPOLIS, NORTH CAROLINA.

CAM.

975,589.

Specification of Letters Patent.

Patented Nov. 15, 1910.

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To all whom it may concern:

Be it known that I, GEORGE T. WATKINS, a citizen of the United States, residing at Kannapolis, in the county of Cabarrus and State of North Carolina, have invented a new and useful Cam, of which the following is a specification.

This invention relates to improvements in cams and has special reference to the center stop-motion cams of Crompton and Knowles looms.

The cams heretofore constructed release the heel of a stop-motion before the dagger reaches its striking point so that the dagger will be permitted to bound over and make thin places in the cloth.

It is the object of my invention to provide a cam in which this defective operation will be obviated and the dagger will be released just in time to strike without having any time to rebound.

The invention consists in certain novel features of the device illustrated in the accompanying drawings, all of which will be hereinafter first fully described and then particularly pointed out in the appended claim.

In the drawings,—Figure 1 is a perspective view of my improved cam in its operative position, the shaft being indicated by dotted lines. Fig. 2 is a side elevation of the cam detached.

As shown in the drawings, the cam is constructed in two members 1 and 2 adapted to be secured together by means of bolts 3 and secured to the cam shaft by a set screw 4. The members 1 and 2 carry respectively the operating portions or bodies 5 and 6 which when placed together form a substantially oval shaped operating body. The operating member 5 is constructed in one integral piece, while the operating body 6 is provided with the usual adjustable face portions 7 and 8 secured to the said body 6, by means of set screws 9 passing through slots 10, as will be readily understood, and is of the usual construction.

In carrying out my present invention, I employ a straight or plane surface 11 on the higher portion of the body 5 and at the extremity of the said portion I attach a pro-

jection 12 having a shoulder 13 at its end which is remote from the extremity of the body 5. The outer face of this projection 12 is very slightly curved and extends up to the extremity of the working body 5, while the shoulder 13 rises somewhat abruptly from the straight face 11 of the said body.

The cam is secured upon the main cam shaft, which is indicated by dotted lines in Fig. 1, at the rear of the loom and bears upon a lever 15 to which the lifting rod 14 it attached, the said lifting rod extending up to the stop motion heel. The lever 15 is pivoted at 17 and held in constant contact with the working surface of the cam by a spring 16, as will be readily understood. In the operation of the device, when the plane surface 11 of the cam is passing over the lever 15, the shuttle will be passing back from the magazine end of the loom, so that the lifting rod will be perfectly clear from the heel of the stop motion, and the filling plaids will be prevented from bouncing up in the shuttle. The dagger will then be at its highest point in position to strike the slat and throw the loom in action to get a new bobbin, while when the lifting lever 15 is passing over the projection 12 the dagger will be lifted from place at proper intervals to strike on every other stroke without any time to rebound.

The cam rotates in such direction that its upper portion travels toward the right in the drawings and just as the shoulder 13 leaves the lever the lifting rod is released from the heel of the stop-motion and the dagger is raised to its highest point just in time to strike the slat with shuttle in magazine end so that the dagger will have no time to bounce.

Having thus described my invention what I claim and desire to secure by Letters Patent is:—

A cam for actuating the lifting rod in a loom stop motion, the same comprising two members each of which carries its body portion, one body portion having a substantially plane surface extending to the high point of the cam and a projection on its face extending away from said high point and grow-

ing thicker to the remote end of the projection where the latter has an abrupt shoulder merging into said plane surface, two face portions adjustably secured to the other
5 body portion, means for connecting the members, and means for securing the cam to a shaft.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GEORGE T. WATKINS.

Witnesses:

OSCAR BELK,

J. M. RICHARDSON.