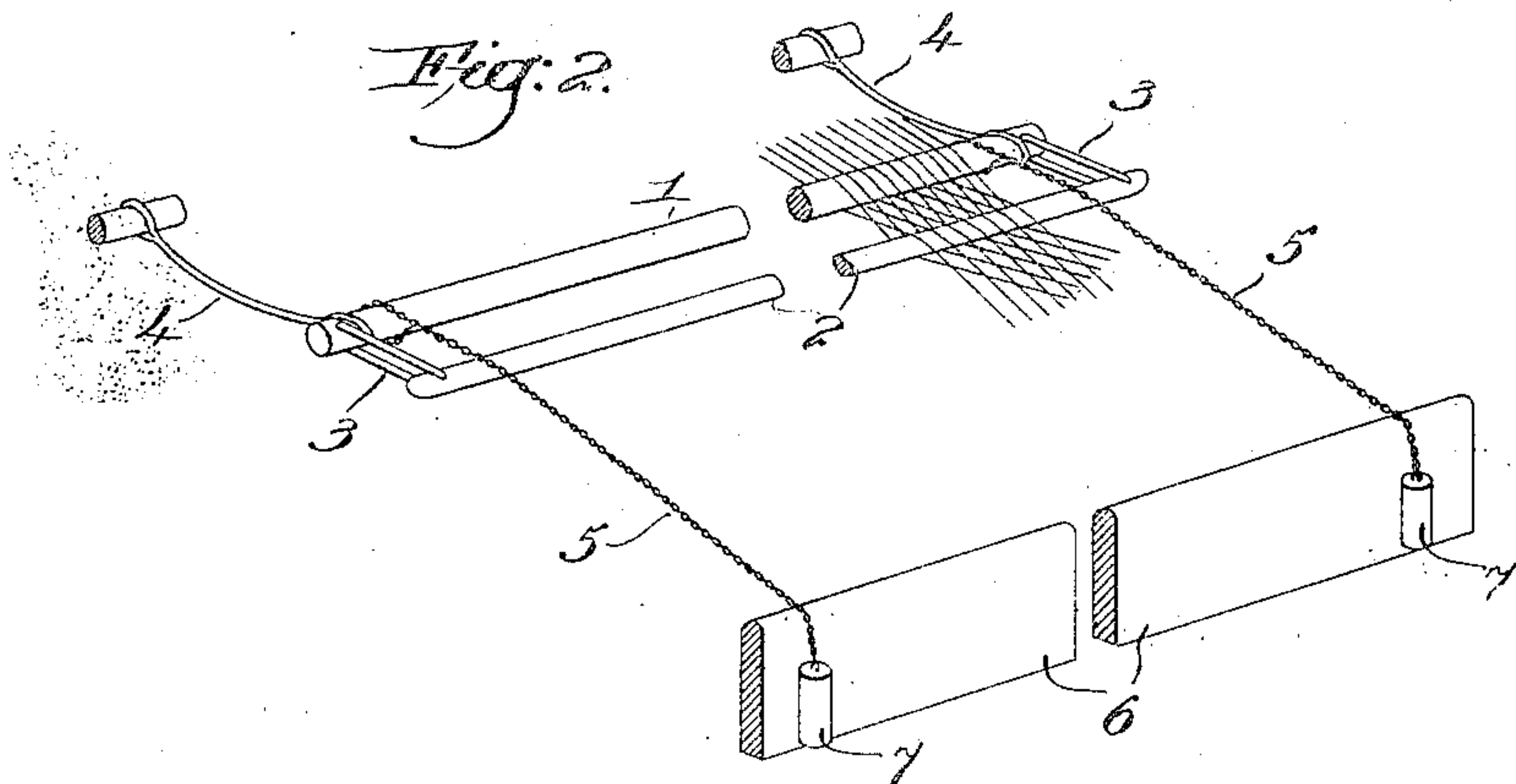
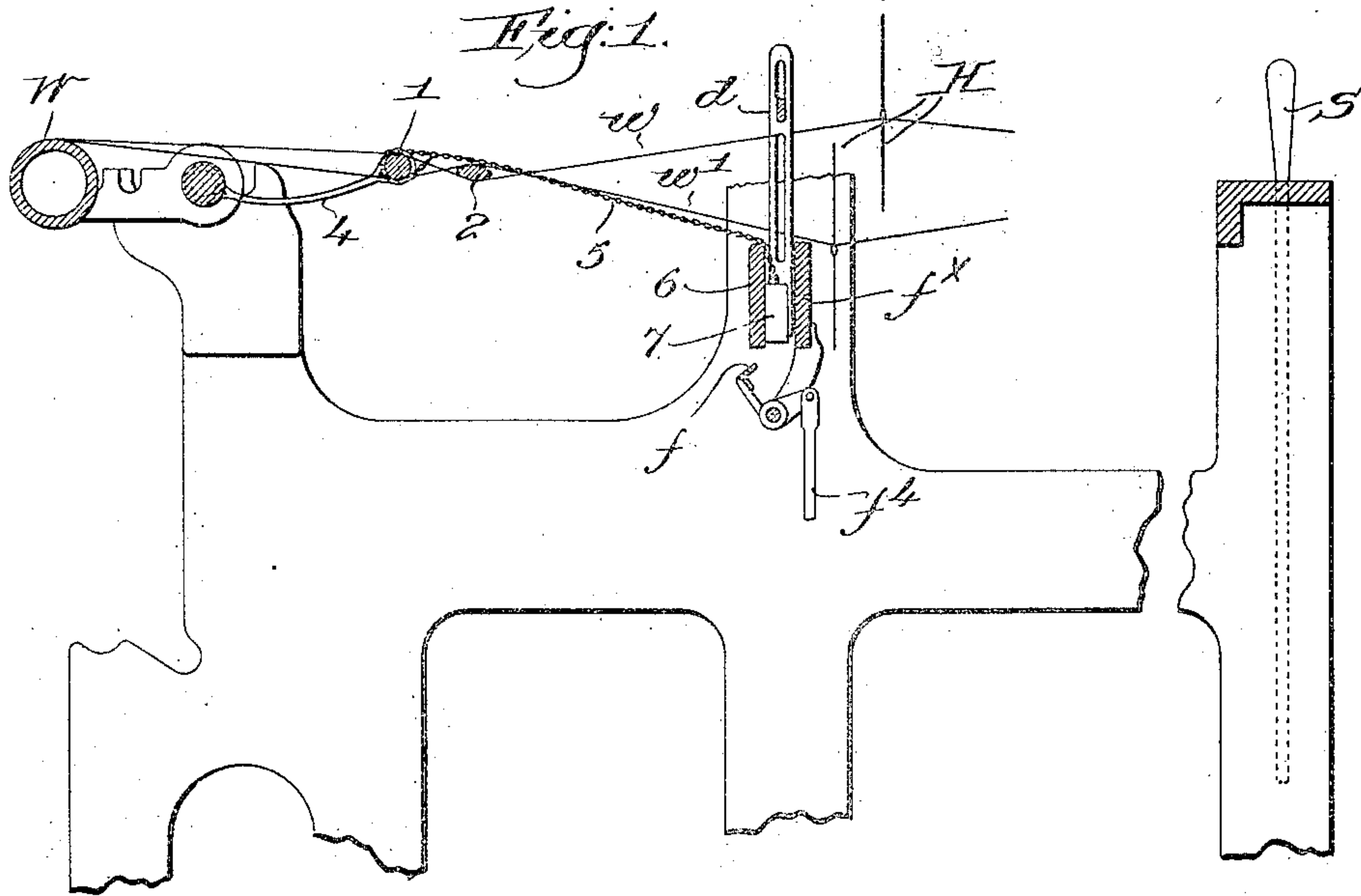


J. M. YUILL.
 LEASE CONTROLLED STOP MOTION FOR LOOMS.
 APPLICATION FILED OCT. 9, 1908.

929,811.

Patented Aug. 3, 1909.



Witnesses,
 Edward F. Allen
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 atty.

UNITED STATES PATENT OFFICE.

JAMES M. YUILL, OF MANCHESTER, NEW HAMPSHIRE, ASSIGNOR TO DRAPER COMPANY, OF
HOPEDALE, MASSACHUSETTS, A CORPORATION OF MAINE.

LEASE-CONTROLLED STOP-MOTION FOR LOOMS.

No. 929,811.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed October 9, 1908. Serial No. 456,920.

To all whom it may concern:

Be it known that I, JAMES M. YUILL, a citizen of the United States, and resident of Manchester, county of Hillsboro, State of New Hampshire, have invented an Improvement in Lease-Controlled Stop-Motions for Looms, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention has for its object the production of an extremely simple stop-motion for looms, controlled by the leasing means, whereby the loom will be stopped automatically upon the occurrence of a "draw" in the warp. This term "draw" is applied to the sticking together of warp-threads back of the leasing means, the sticking or catching being due to the slashing material or to some other cause, a draw tightening the threads improperly and making a bad place in the cloth if not corrected.

My invention is so simple that it can be readily applied to a loom without any material change in the leasing means, provided one member of such means is capable of movement longitudinally of the warp when a draw occurs, and without the attachment of any additional parts to the loom structure.

Herein I have shown my invention as applied to a loom in such manner as to cooperate with a warp stop-motion of well known type to effect loom stoppage upon the occurrence of a draw.

Figure 1 is a transverse section of a portion of a loom, with my invention applied thereto; Fig. 2 is a perspective view of the draw-detecting means, to more clearly show the simplicity thereof.

Herein I have shown the leasing means as two ordinary lease-rods 1, 2, connected at their ends in usual manner by straps or thongs 3, and limited as to their forward movement by suitable straps 4, the lease-rods being located between the harnesses H and whip-roll W.

The warp stop-motion herein shown, see Fig. 1, is substantially such as shown in United States Patent No. 621,310 dated March 14, 1899, each of the detectors d cooperating with threads w, w' in the two divisions of the warp, and being held normally by such threads out of the path of movement of a normally vibrating feeler f .

Stoppage of the feeler by a dropped detector

acts through the link f^1 , (by mechanism not shown) to effect release of the shipper S, as in said patent, the lower ends of the detectors being vertically movable behind the usual stop plate f^x .

In accordance with my present invention I attach to the back lease-rod 1, at each end thereof a flexible member, preferably a light chain 5, said chains being led forward over the top of the front lease-rod 2 and over the rounded upper edge of a supporting bar or plate 6, suitably secured at its ends on the loom frame and far enough behind the stop plate f^x to permit a dropped detector to descend freely, the bar or plate 6 being a component and usual part of such warp stop-motions as herein referred to.

To the free end of each chain 5 I attach a small weight 7, shown as cylindrical, the weights being of such length that normally their lower ends are held above the path of movement of the feeler f . The weights serve as detents or arresters for the feeler, and are normally maintained inoperative, as shown. If now some of the warp threads stick together so firmly that they will not separate on reaching the lease-rod 1, thereby forming a "draw," said lease-rod will be pulled forward, letting up on the connections 5 and permitting either or both of the arresters 7 to descend into the path of and arrest the feeler f . This engagement and arrest of the feeler operates to effect loom stoppage just as if the feeler had been arrested by a dropped detector.

The simplicity of the device and its ease of operation will be manifest, and it will be apparent that said device can be arranged to cooperate with any usual form of normally vibrating feeler arranged to effect loom stoppage when arrested.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. In a loom, leasing means movable in the direction of warp travel upon the occurrence of a "draw," a normally vibrating feeler forming part of stopping means for the loom, a feeler-arrester, and a continuous flexible connection between and directly attached at its ends to said feeler-arrester and leasing means, respectively, to normally maintain said arrester out of the path of the feeler, movement of the leasing means by a "draw" in the direction of warp travel

slackening and letting off the flexible connection to permit movement of the feeler-arrester into the path of and to arrest the feeler.

- 5 2. In a loom, warp-stop-motion mechanism, including a normally-vibrating feeler, and "draw-detecting" means, comprising a vertically movable weight constituting a feeler-arrester, a flexible and continuous con-
10 nection between and directly attached at its ends to the weight and to a lease-rod of the loom, respectively, and a fixed support for and over which the connection slides and

from which it hangs adjacent the weight, the said connection being movable longitudinally in the direction of the weight to position the same in the path of and to arrest the feeler by the occurrence of a draw, to effect stoppage of the loom. 15

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses. 20

JAMES M. YUILL.

Witnesses:

H. A. SALLS,

P. H. SULLIVAN.