

No. 637,413.

Patented Nov. 21, 1899.

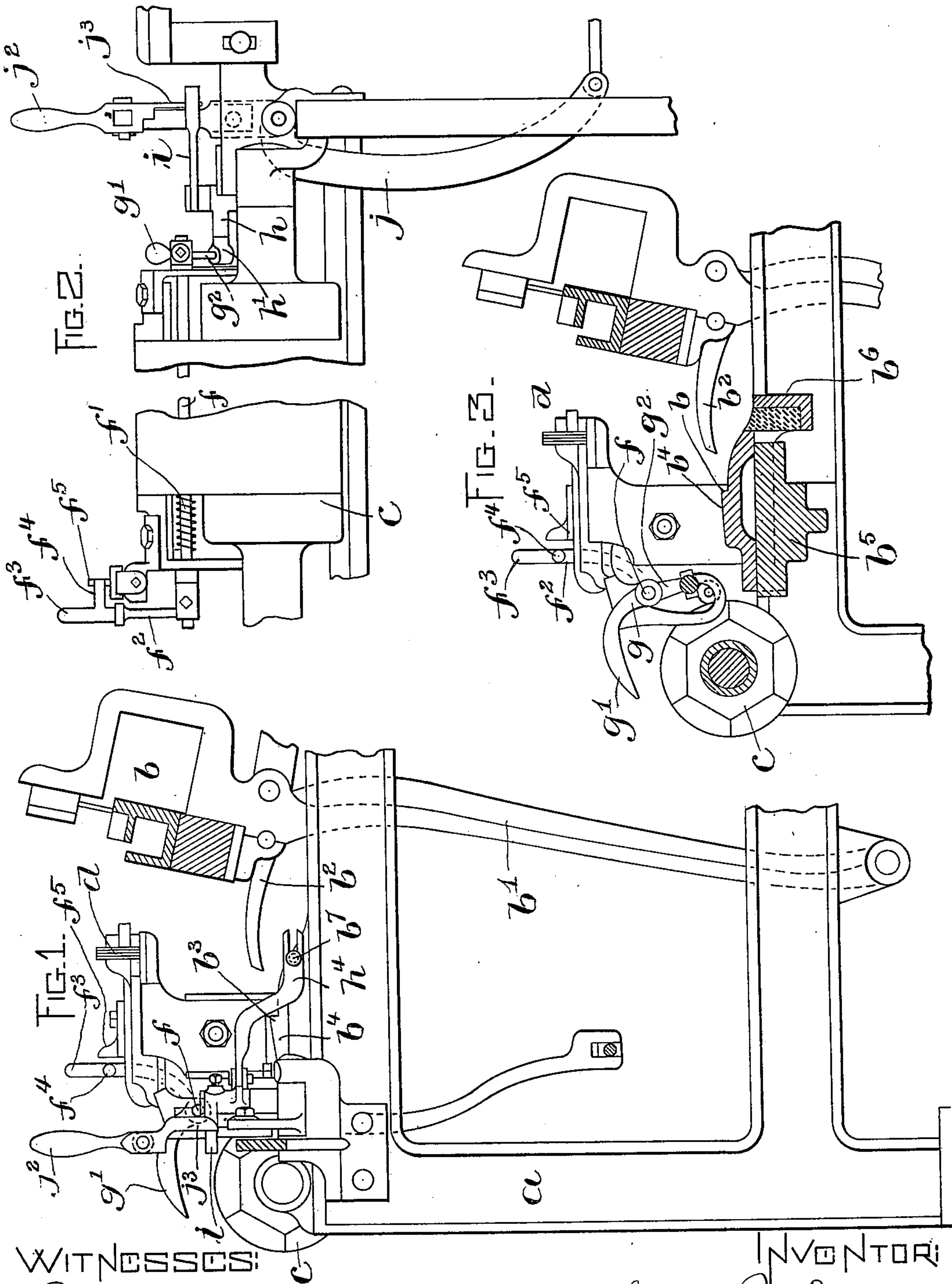
G. POOLE.

STOP MOTION MECHANISM FOR LOOMS.

(Application filed July 31, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:
E. Batchelder
P. W. Chitt

INVENTOR:
George Poole
by Wright Brown & Quincy
his Atty

No. 637,413.

Patented Nov. 21, 1899.

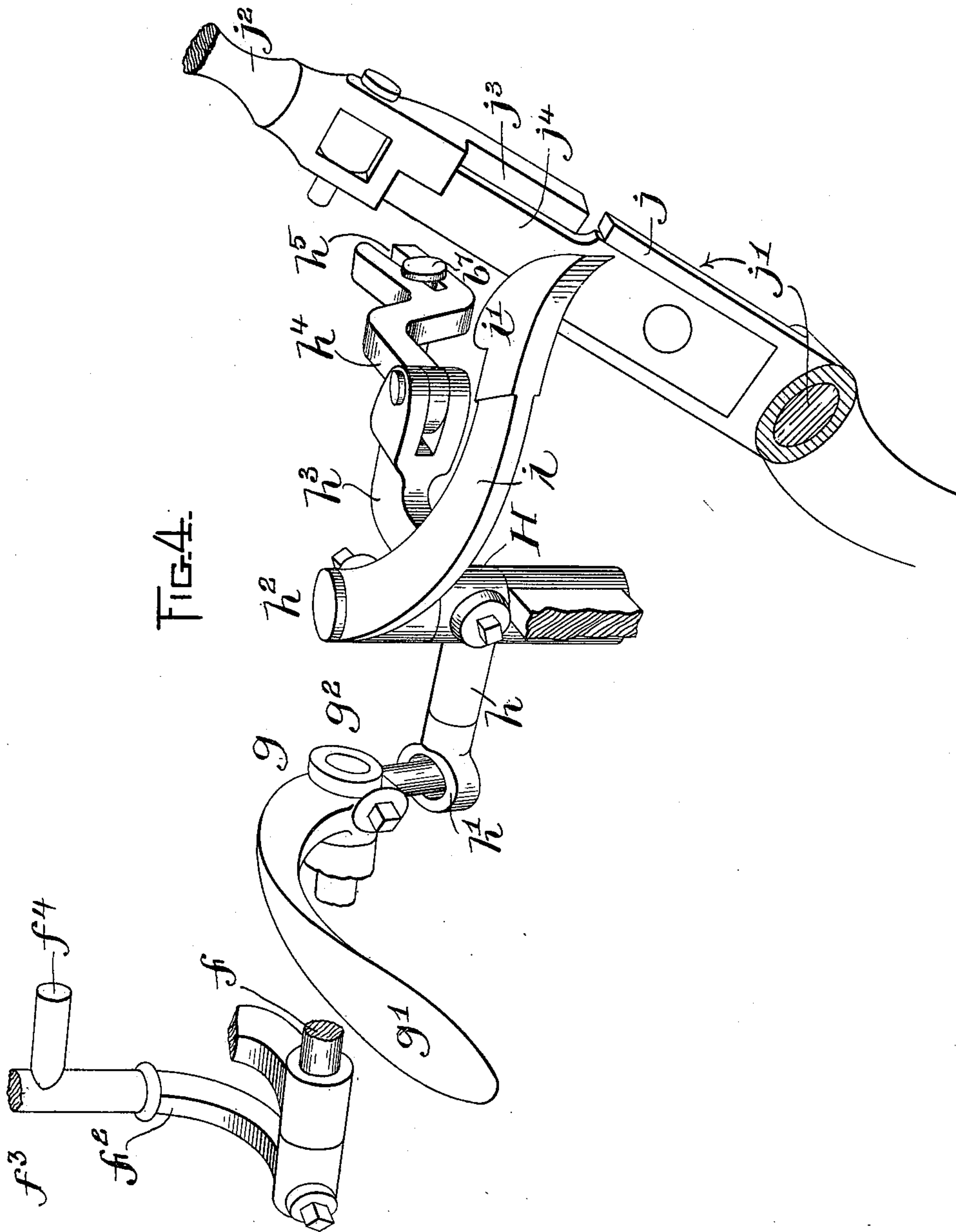
G. POOLE.

STOP MOTION MECHANISM FOR LOOMS.

(Application filed July 31, 1899.)

(No Model.)

2 Sheets—Sheet 2.



WITNESSES:
E. Batchelder
P. W. Pezzetti.

INVENTOR:
George Poole
by Wright Brown & Son
his Atty

UNITED STATES PATENT OFFICE.

GEORGE POOLE, OF THOMPSONVILLE, CONNECTICUT.

STOP-MOTION MECHANISM FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 637,413, dated November 21, 1899.

Original application filed October 3, 1898, Serial No. 692,478. Divided and this application filed July 31, 1899. Serial No. 725,612. (No model.)

To all whom it may concern:

Be it known that I, GEORGE POOLE, of Thompsonville, town of Enfield, in the county of Hartford and State of Connecticut, have
5 invented certain new and useful Improvements in Stop-Motion Mechanism for Looms, of which the following is a specification.

This invention has relation generally to looms for weaving plush and other similar
10 "pile fabrics," and more particularly to the stopping mechanisms therefor, having for its object to provide certain improvements therein whereby the loom may be stopped manually or automatically to meet certain conditions and requirements.
15

The invention consists in a loom possessing certain features of construction and relative arrangement of parts, all as fully illustrated upon the drawings now to be described in
20 detail and finally pointed out in the claims hereunto appended.

Reference is to be had to the accompanying drawings, and to the letters marked thereon, forming a part of this specification, the same
25 letters designating the same parts or features, as the case may be, wherever they occur.

Of the drawings, Figure 1 represents in side elevation, partially in section, a portion of a loom embodying my invention. Fig. 2
30 represents a front elevation of the same, parts being broken away. Fig. 3 represents a section taken through the slide or bunter. Fig. 4 represents a perspective view of the connections between the various stopping mechanisms.
35

Referring to the said drawings, the standard *a*, the lay *b*, the swords *b'*, the take-up *c*, and the magazine *d* are all of the ordinary construction. The lay carries the usual dagger *b²*,
40 which in case of a mispick is allowed to drop and engage a shoulder *b³* on the slide or bunter *b⁴* on the support *b⁵*. The rear end of the bunter bears against a block *b⁶* of rubber, which cushions it to prevent jarring of the
45 loom.

Extending across the front of the loom is a rock-shaft *f*, encircled by a spring *f'*, which normally holds it yieldingly against movement. Secured to the end of this shaft far-
50 thest from the magazine is an upright arm *f²*, terminating in a handle *f³* and provided

with a lug *f⁴* to receive the thrust of the filling stop-slide *f⁵*. I have not shown the filling stop-motion, which comprises a fork and its coacting parts, as they are familiar to
55 those skilled in the art to which this invention relates. On its other end the shaft is provided with a two-armed lever *g*, one of its arms *g'* projecting forwardly, as shown in Fig. 3, and terminating in a handle, and the
60 other shorter arm *g²* being cylindrical and projecting downwardly into an eye *h'*, swiveled in the end of one of the arms of a two-armed lever *H*, secured upon a vertical rock-shaft *h²*. The arm *h* of said lever is arranged
65 perpendicularly to said arm *g²* and carries said eye, while the other arm *h³* is pivoted to a connecting-rod *h⁴*, having its free end slotted, as at *h⁵*, to receive a stud *b⁷*, projecting laterally from the bunter or slide *b⁴*. There is a
70 head on the stud *b⁷*, as shown in Fig. 4, to prevent its being disengaged from the slotted end of the connecting-rod *h⁴*. By this arrangement it will be seen that the rocking of the shaft *f* or the actuation of the bunter *b⁴*
75 will cause the vertical shaft *h²* to rock also. Secured to said shaft *h²* is an arm or latch *i*, the hook or stop *i'* of which is adapted to engage the shipper-lever *j*, which is fulcrumed at *j'*. This lever is provided with a pivoted
80 handle *j²*, having a finger *j³* adapted to move past the edge of the reduced portion *j⁴* thereof, the parts being so arranged that when the shipper-lever is swung in the direction of the arrow in Fig. 4 to start the loom the hook *i'*
85 engages the edge of the said reduced portion *j⁴*. In order, therefore, to disengage the lever from the hook, the handle *j²* is pushed rearwardly and its finger *j³* engages the end of said hook and thrusts it out of engagement
90 with the said lever, the usual spring forcing the shipper-lever into position to disengage the clutch members on the power-shaft and stop the loom. The loom may also be stopped manually by means of the handles *f³* or *g'*,
95 one at each side of the loom, so as to be quickly grasped by the operative in whatever position he may be with relation to the loom. The said handles *f³* *g'* are drawn forward to rock the shipper-shaft *f*, which in turn swings
100 the stud *g²* rearwardly, thereby rocking the shaft *h²* and throwing the hook out of engage-

ment with the shipper-lever. The warp stop-motion (not shown) may be likewise connected with the devices previously described, whereby it will be seen that in case of a mis-pick, the failure or breakage of a filling-thread, or the breakage of a warp-thread the loom will be automatically stopped.

This is a division of my copending application, Serial No. 692,478, filed October 3, 1898.

10 Having thus explained the nature of the invention and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made or all of the modes of its use, 15 I declare that what I claim is—

1. In a loom, the combination of a rock-shaft, a filling stop-motion adapted to rock said shaft, a second rock-shaft transverse to the first-mentioned shaft, and operatively 20 connected thereto, a latch connected to said second shaft, and a shipper-lever adapted to be held in operative position by said latch.

2. In a loom, the combination of a shipper-lever, a latch for said lever, a rock-shaft on 25 which said latch is mounted, a second rock-shaft, a filling-stop-motion mechanism arranged to rock the last-mentioned shaft, mech-

anism actuated by reason of the failure of a shuttle to reach its box, connections between the last-mentioned mechanism and the said 30 first rock-shaft, and connections between said second rock-shaft and said first rock-shaft.

3. In a loom, the combination of a shipper-lever, a rock-shaft having a latch to engage said lever, and also having an arm, a cross-shaft provided with an arm engaging the first-mentioned arm to rock the rock-shaft and dis-engage the latch from the shipper-lever, and a handle on said cross-shaft. 35

4. In a loom, the combination of a shipper-lever, a rock-shaft having a latch to engage said lever, and also having an arm, a cross-shaft provided with a two-armed lever, one arm engaging said arm, and the other constituting a handle, and a spring for holding 45 said latch in engagement with said shipper-lever.

In testimony whereof I have affixed my signature in presence of two witnesses.

GEORGE POOLE.

Witnesses:

C. F. BROWN,
M. C. MORRIS.