

O. M. Stillman.

Stop Motion.

No 2.333.

Patented Nov. 10, 1841.

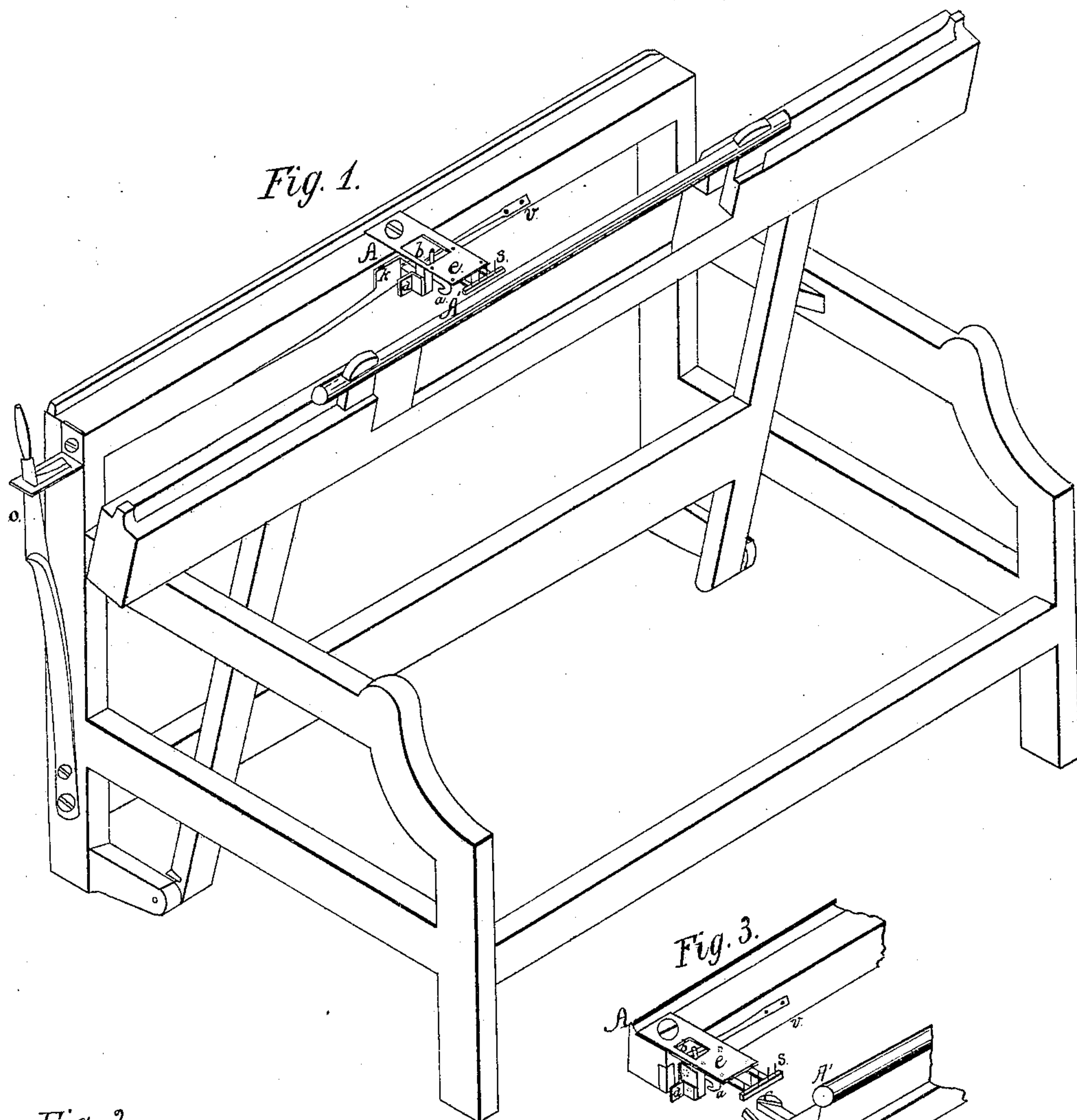
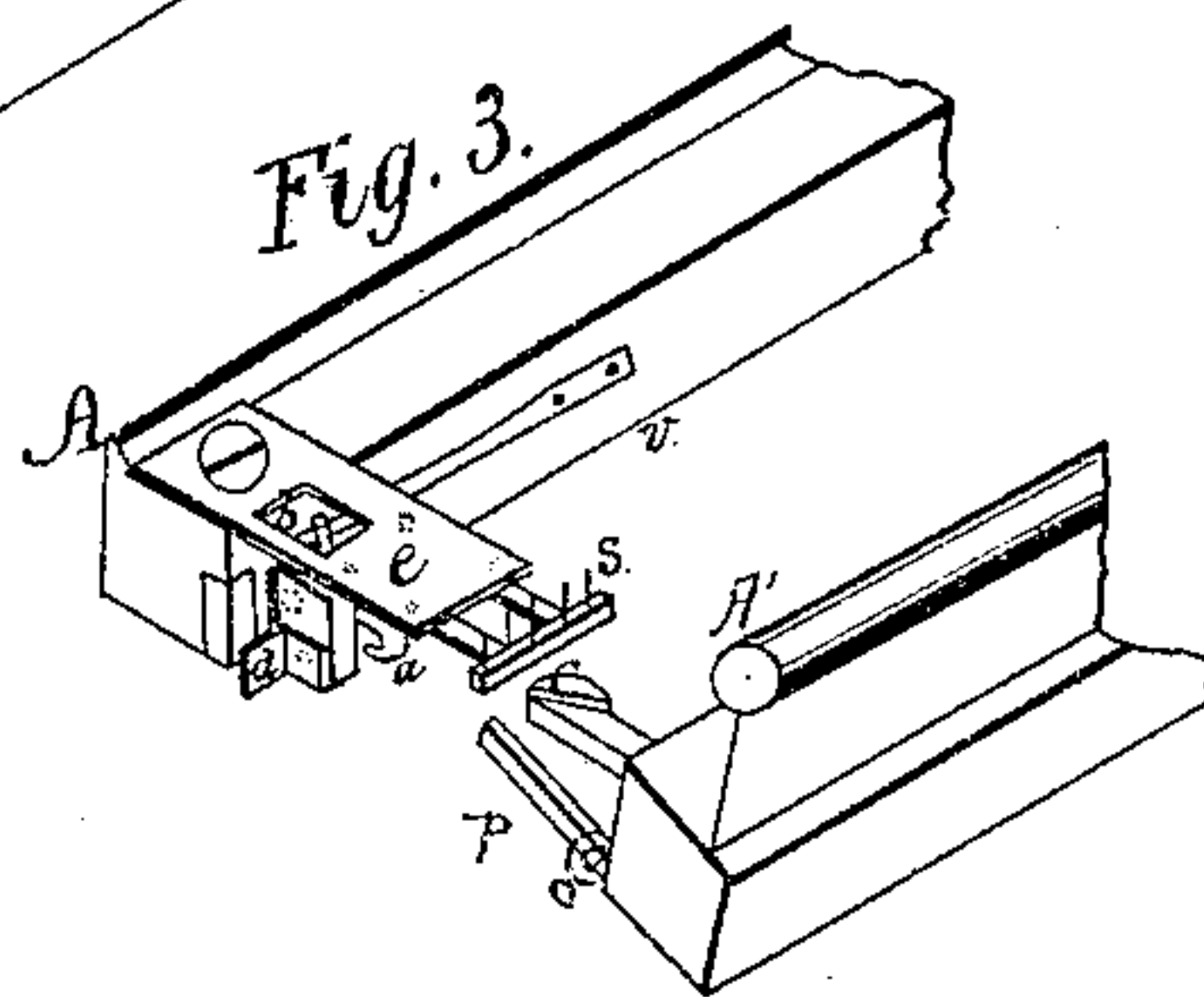
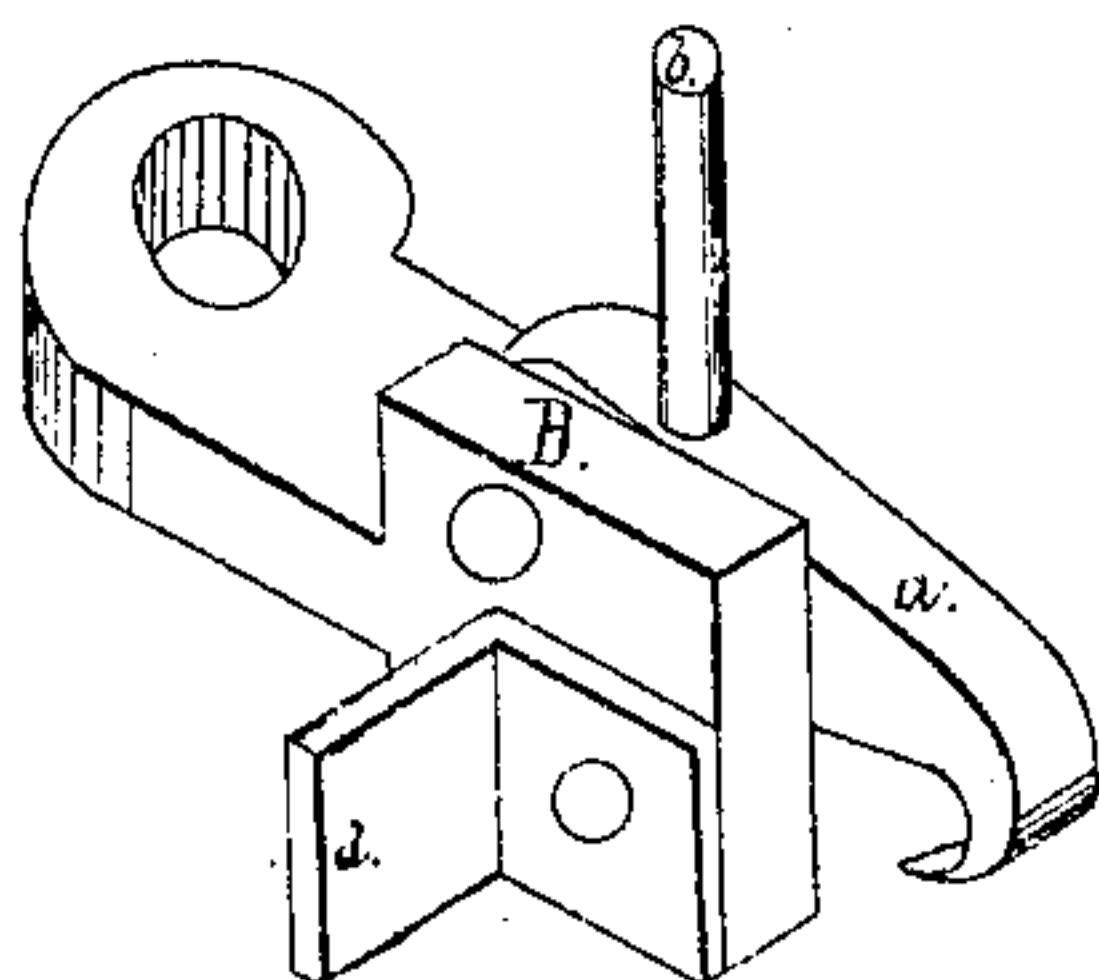


Fig. 2.



UNITED STATES PATENT OFFICE.

O. M. STILLMAN, OF STONINGTON, CONNECTICUT.

METHOD OF STOPPING A POWER-LOOM WHEN THE WEFT OR FILLING FAILS.

Specification of Letters Patent No. 2,333, dated November 10, 1841.

To all whom it may concern:

Be it known that I, O. M. STILLMAN, of Stonington, in the county of New London, State of Connecticut, have invented a new and useful Improvement in Weaving Plaids and other Cloths by Power, called a "Stop-Motion;" and I do hereby declare that the following is a full and exact description.

The nature of the invention consists in making the loom stop of itself when the filling breaks or runs out, thereby making perfect checks; and even cloth by using a positive takeup.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

The loom is constructed in the usual form with change-boxes or otherwise. I then place a small iron plate (*e*, Fig. 1) on the top of the breast beam under the cloth near the center, projecting toward the reed. On the underside of said plate is placed a slide (*S*) the part under the plate being in the form of a staple, and extending back to the square hole in the plate so as to come against the pin (*b*) which stands up in the hook (*a*). The other end being a small bar with several small pins or teeth made of wire or needles that stand up between the threads of the warp forward of the cloth. The piece of iron (*B*, Fig. 2) is placed on the underside of the breastbeam under the plate (*e*) and is supported by a bolt passing through it into the beam and left sufficiently loose to turn a little on the bolt. The hook (*a*) is attached to the inner end of the piece (*B*) by a pin on which it works easy so that the hook may rise and fall. The pin (*b*) is made fast in (*a*) and stands up near the breast beam passing through the hole in the plate (*e*). A small spring (*v*), fastened on the breastbeam presses the pin (*b*) forward against the slide (*S*). A piece of steel (*d*) is riveted to the side of (*B*) making a right angle with it, and set so as to lap on to the end of the lever (*h*), which is hung on the underside of the breastbeam and extends to

the handle (*O*). The lever being common to power looms by which they are stopped by the protecting pin (*P*), Fig. 3 striking it at (*K*).

Now when a thread of filling is thrown into the warp the reed brings it up against the teeth of the slide (*S*) which are also brought up to the cloth, the inner end of the slide forcing the pin (*b*) back toward the breastbeam bending the spring (*v*) and raising the hook (*a*) so as to let the hook (*c* Fig. 3) pass under it without collision. The teeth being woven in are held by the thread until the lay moves back and the harness changes to spring the web, which raises the cloth sufficiently to set them free when the spring (*v*) throws them forward in the warp ready to receive another thread. When there is not thread to hold the teeth they follow the reed as it moves forward, thereby letting down the hook (*a*) in time to come in contact with the permanent oblique hook (*c*, Fig. 3) against which it slides, by which means (*B*) is forced sideways, turning on its bolt, which brings the arm (*d*) hard against the lever (*h*) moving it sufficiently to stop the loom as in case of the protecting pin (*p*) striking it at (*k*). The motion of (*d*) being circular it slides on the lever (*h*) a little as it brings it back, which brings (*d*) before the protecting pin (*p*) and stops the lay should its momentum carry it far enough after the belt is thrown off. In starting the loom the handle (*o*) presses the lever (*h*) against (*d*) which throws it and the hook (*a*) back to their place.

What I claim as my invention and desire to secure by Letters Patent is—

The employment of the teeth attached to the slide, for the purpose of stopping the loom when not woven in as above described.

O. M. STILLMAN.

Witnesses:

CHARLES PERRY,
THOMAS PERRY.