

No. 695,982.

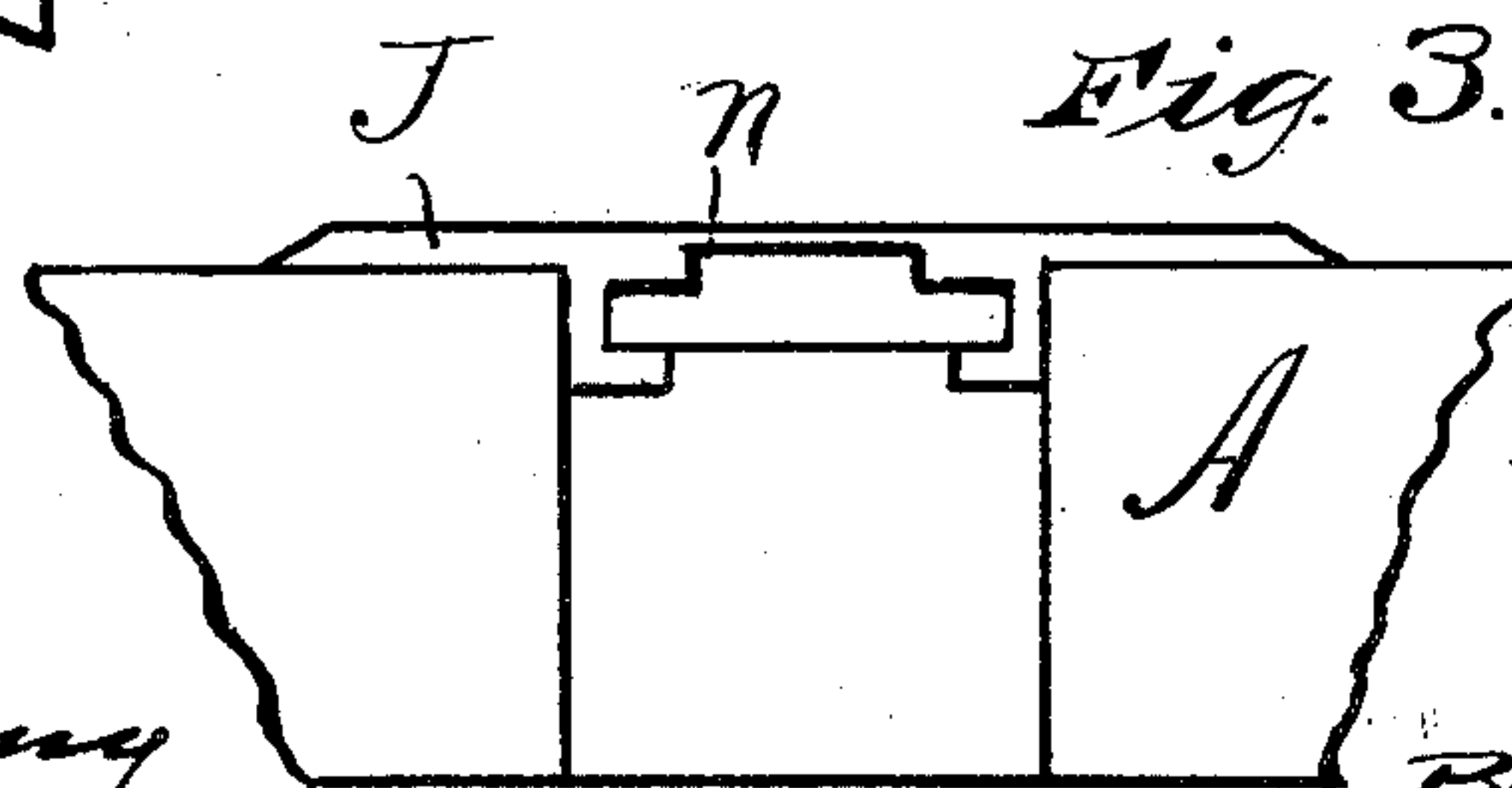
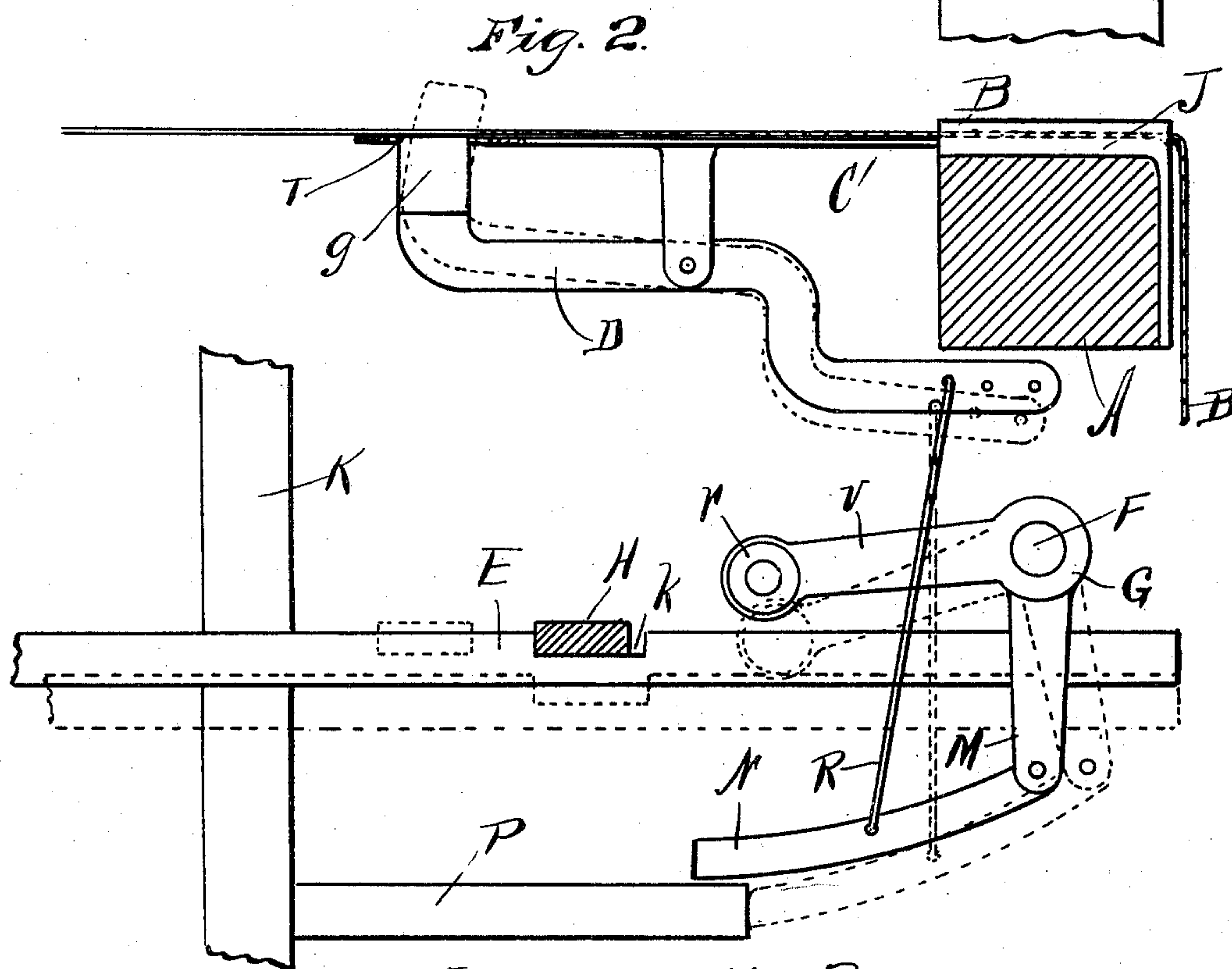
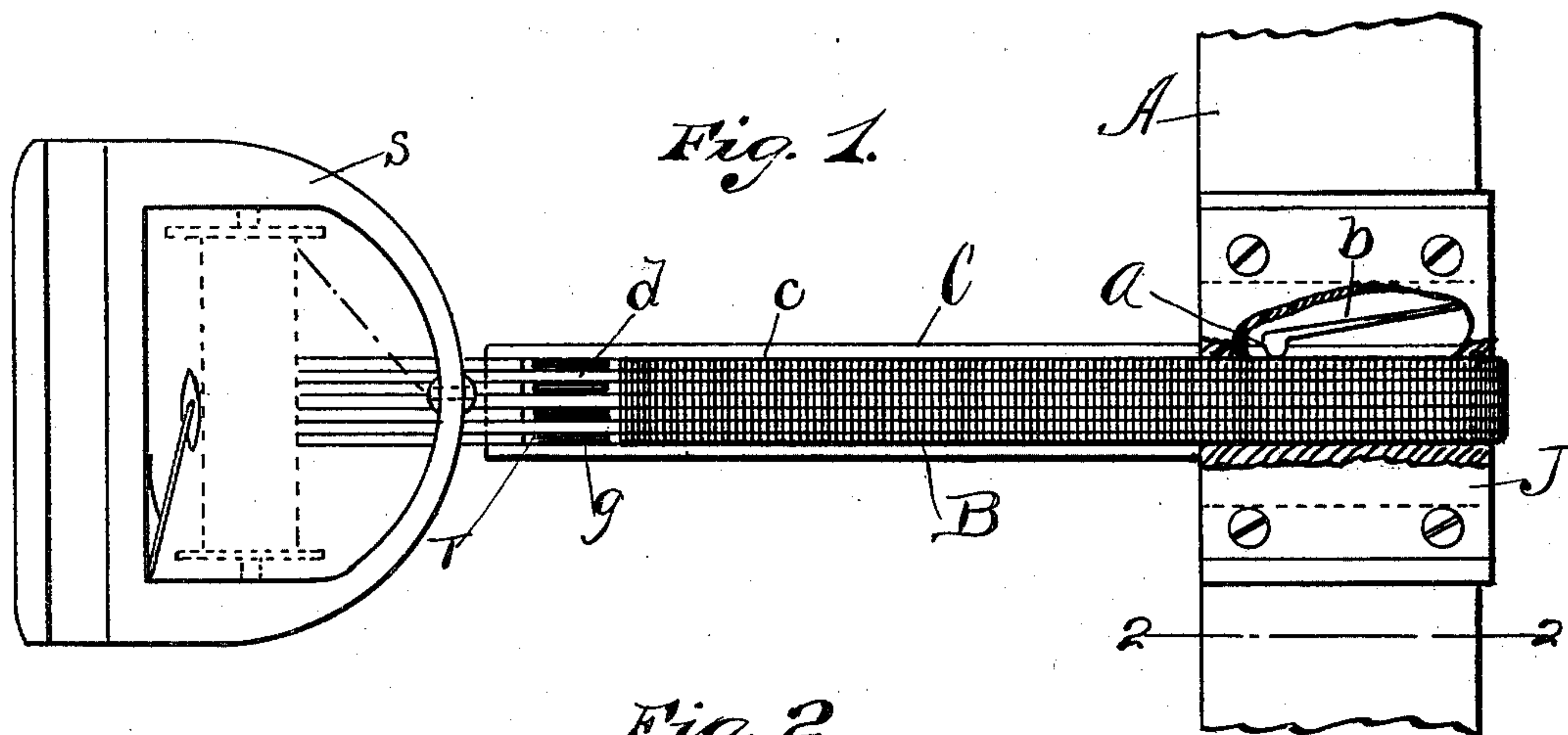
Patented Mar. 25, 1902.

F. B. WILKINS.

WEFT STOP MOTION FOR NARROW WARE LOOMS.

(Application filed Nov. 22, 1901.)

(No Model.)



Witnesses.

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FRED B. WILKINS, OF WOONSOCKET, RHODE ISLAND.

WEFT STOP-MOTION FOR NARROW-WARE LOOMS.

SPECIFICATION forming part of Letters Patent No. 695,982, dated March 25, 1902.

Application filed November 22, 1901. Serial No. 83,264. (No model.)

To all whom it may concern:

Be it known that I, FRED B. WILKINS, a resident of the city of Woonsocket, in the county of Providence and State of Rhode Island, have
5 invented certain new and useful Improvements in Weft Stop-Motions for Narrow-Ware Looms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to weft stop-motions for narrow-ware looms used for weaving tapes,
15 ribbons, and other like fabric. It is fully described and illustrated in this specification and the annexed drawings.

Figure 1 represents a top view of the device attached to a part of the breast-beam of a
20 loom with a shuttle passing. Fig. 2 shows an elevation of the device on the breast-beam in section with the parts connecting the stop-motion with the shipper-bar that casts off the belt. Fig. 3 is a part of the breast-beam from
25 the inner side.

The construction and operation of the invention are as follows:

A represents part of a breast-beam of a loom.

30 C is a plate arranged to slide under a plate J, made fast on the top of the breast-beam A. This plate C extends when clear in so as nearly to touch the reed when it beats up the filling and has a square hole T in it near its
35 inner end. A lever D pivots in a stud extending down from the under side of the sliding plate C (see Fig. 2) and has on the upper side of the inner end a number of thin plates *g*, placed side by side, with a narrow space between them. These plates are so placed as
40 to stand with their upper ends in the hole T in the plate C, so as to bear up against the woven tape as it passes over it in the process of weaving.

45 A small shaft F is placed just under the breast-beam A and held at each end in bearings in the end frames of the loom. A hub G, held loosely on this shaft, has two arms or levers M and V extending from it in toward the
50 lathe K, (see Fig. 2,) and the lower one of these levers M holds the dagger N, which is arranged to be held up so that its end will not be struck

by the bunter P on the lathe K, when the plates *g* are prevented from rising in the hole T by the woven tape web *c* passing over them, 55 the dagger N being held up by the wire R, which connects it with the outer end of the plate-lever D. The other lever V on the same hub G has a roll on the stud *r* on its inner end arranged to stand over the lever E, that 60 holds the end of the shipper H in a notch *k*, made in its upper side, so that when the dagger N is allowed to drop, so as to be struck by the bunter P in beating up, the roll *r* will push down the lever E, as shown by the dotted lines, 65 and release the end H of the shipper, so that it will spring inward and by throwing off the belt stop the loom.

The plate J is preferably a piece of angle-iron that extends across the top of the breast- 70 beam A and down on its front to hold the parts of the beam in line, as it is parted here and a vacant space left (see Fig. 3) to allow the lever D on the sliding plate to fall back without striking the breast-beam. A hole *n* 75 is made through the front of the angle-iron to receive the sliding plate C, (see Fig. 3,) and ways are attached to the under side from the hole *n* to support the sliding plate C. A notch *a* is made in one side of the sliding- 80 plate C, and a spring-detent *b* is placed on one side (see Fig. 1) where the angle-iron is broken away, so as to spring into the notch and prevent the plate from moving back too easily. 85

The object of allowing the plate C to slide back is to avoid smashing the shuttle S when it happens to stop in front of the plate C, as the peculiar shape of the shuttles used in the narrow-ware looms makes it incapable of with- 90 standing a blow on the front.

In looms of this class, because of the shape of the shuttles and their limited motion, it is not found feasible to apply the well-known weft stop-motion used on wide looms, that 95 stop the loom instantly when the filling-thread breaks or runs out, and the users are satisfied if they can stop the loom before it has run many picks after the failure of the filling. This idea of a stop-motion has been 100 tried and found to work well, as it will be readily seen that so long as the filling-thread is intact and the warp as it passes over the hole T in the plate C has the filling-thread in

it the plates *g* cannot rise; but if the filling-thread stops and the warp passes over the hole *T* without filling the plates *g g* will be pushed up between the warp-threads by the weight of the levers below, (see dotted lines in Fig. 2,) and the dagger *N* will drop, so as to be struck by the bunter *P* and pushed back, causing the arm *V* to push down the lever *E* by the roll *r* to the position shown by the dotted lines and free the end of the shipper *H* from the notch *k*, so it will spring back and throw off the driving-belt and stop the loom.

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

1. In a narrow-ware loom the combination of a narrow plate held to slide in ways on the top of the breast-beam and having a hole in it near its inner end, a notch in said plate, a spring-detent to enter said notch in the plate and detain it in normal position, a lever held on a pivot in a stud on the under side of said plate, thin vertical plates held on the top of the inner end of said lever and under the

hole in said narrow plate, and means for connecting said lever with the belt-shipper, substantially as described.

2. In a narrow-ware loom, a plate held on the top of the breast-beam extending nearly to the reed when beating up and having a hole in it near its inner end, in combination with a horizontal lever held on a pivot on its under side and having thin vertical plates on the upper side of its inner end, a knee-lever held to swing on a shaft under the breast-beam and having a dagger in the end of one arm and a stud in the end of the other arm, a lever holding the belt-shipper and arranged to be struck by said stud, a connecting-link between said dagger and the horizontal lever, substantially as described.

In testimony whereof I have hereunto set my hand this 15th day of November, A. D. 1901.

FRED B. WILKINS.

In presence of—

BENJ. ARNOLD,
HOWARD E. BARLOW.