(No Model.)

J. R. BRIDGES.

DEVICE FOR FEEDING THREAD TO KNITTING MACHINES.

No. 440,416. Patented Nov. 11, 1890.

FIG. 1.

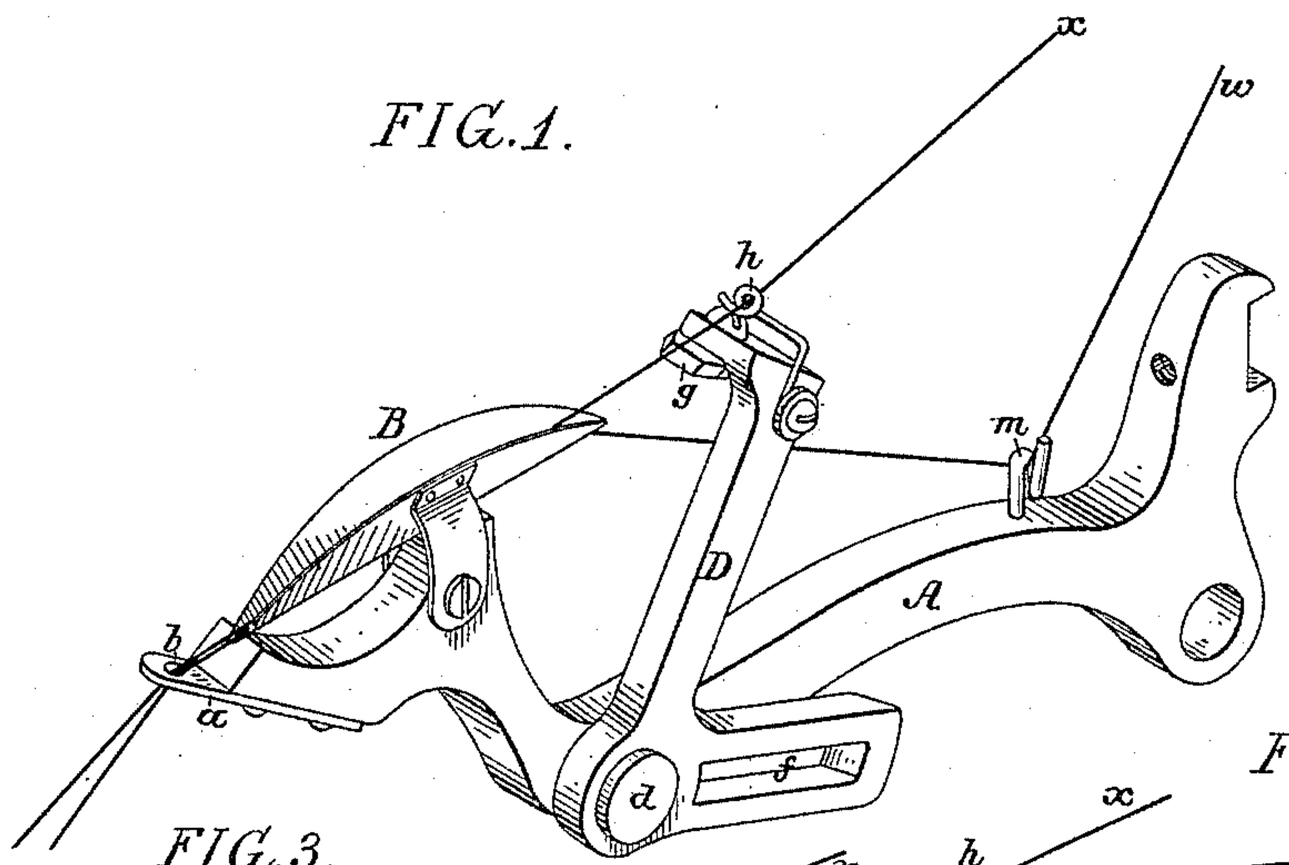


FIG. 3.

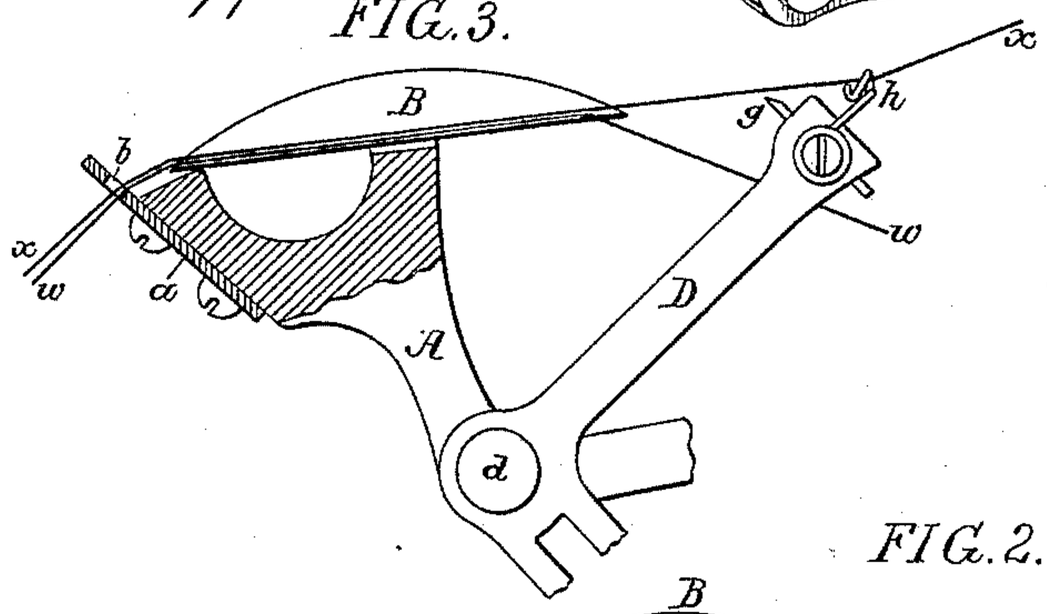


FIG. 4.

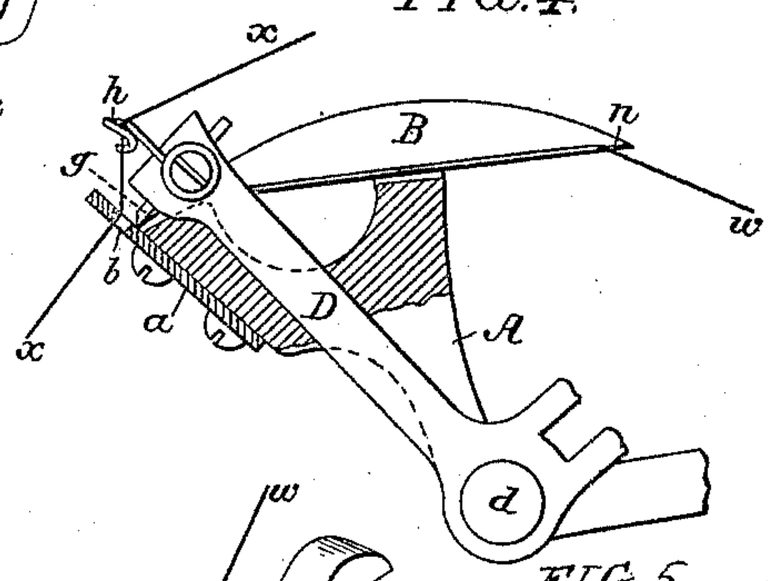


FIG. 2.

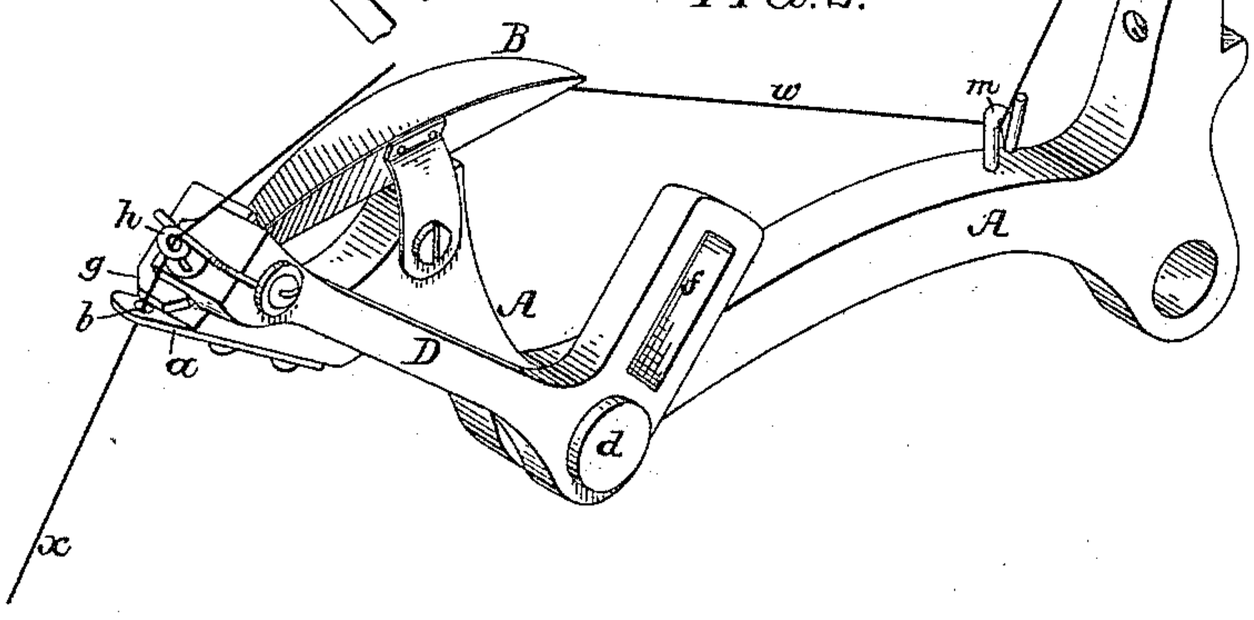
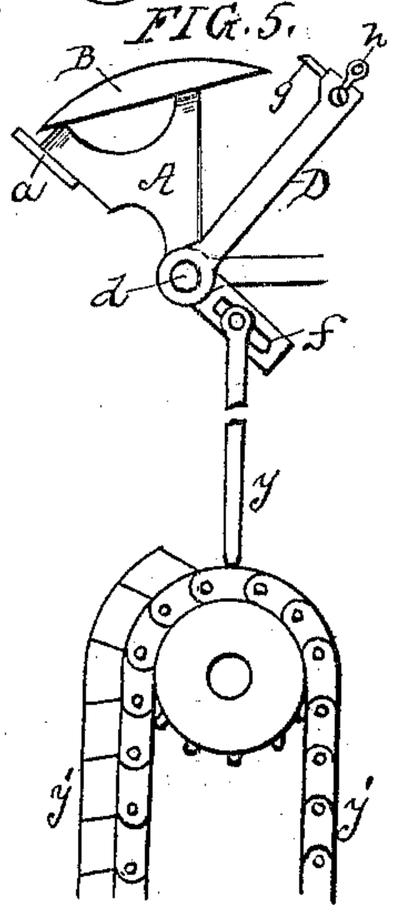


FIG. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

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DEVICE FOR FEEDING THREAD TO KNITTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 440,416, dated November 11, 1890.

Application filed August 12, 1887. Renewed October 9, 1890. Serial No. 367,603. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. BRIDGES, a citizen of the United States, and a resident of Findlay, Hancock county, Ohio, have invented certain Improvements in Devices for Feeding Thread to Knitting-Machines, of which the following is a specification.

The object of my invention is to provide simple and effective means whereby either one or two threads may be fed to the needles of a knitting-machine, the change being effected instantly and, if desired, without any manipulation on the part of the attendant.

In the accompanying drawings, Figure 1 is a perspective view of the feeding device, the parts being in position for feeding two threads. Fig. 2 is a perspective view showing the parts in the position which they assume when but one thread is being fed to the needles. Fig. 3 is a side view, partly in section, showing the parts in the same position as in Fig. 1; and Fig. 4 is a like view showing the parts in the same position as in Fig. 2. Fig. 5 is a diagram illustrating means for operating the cutting-lever of the device.

A is an arm constructed at the inner end for being secured to any available bar or other support upon the knitting-machine, and having at the front end a projecting plate *a*, with an eye *b* for the passage of the thread or threads, and above and in the rear of this plate is a trough B, as shown in Figs. 1 and 2.

To a pin *d* on the arm A is hung a lever D, one arm of which is preferably provided with a slot *f* for the reception of a pin on a suitable operating-rod, the other arm of the lever being provided with a cutting plate or knife *g* and an eye *h* for the thread *x*, which passes from said eye to the eye *b* of the plate *a*. Another thread *w* passes through an eye *m* on the arm A, thence through an eye *n* at the upper end of the trough, and thence through the latter to the eye *b*. When both threads are being fed to the machine, the parts are in the positions shown in Figs. 1 and 3, the eye *h* of the lever D occupying such position that the thread *x* in its passage from said eye to the eye *b* passes through the trough on top or alongside of the thread *w*. When it is desired to stop the feeding of the thread *w* to the machine, however, the lever D is brought forward to the position shown in Fig. 4, and said thread *w* is pressed against the plate *a* by the knife *g*, and is severed thereby, while the eye *h* is caused to assume such a position in respect to the trough B that the thread *x* is lifted out of the latter, so that its continued forward movement has no influence over the thread *w*. When the feeding of the two threads to the machine is to be resumed, the lever D is again adjusted to the position shown in Figs. 1 and 3, which has the effect of again laying the thread *x* in the trough B in contact with the thread *w*, so that the latter is caused to partake of the forward movement of the thread *x*, and is carried into the machine thereby. Instead of the lever D, a pivoted arm to be operated by the attendant may be used, said arm carrying the knife and being heavy enough to insure the cutting of the thread on the descent of said arm, or the nipping of the thread so firmly between the blade *g* and the plate *a* as to insure the breaking of the thread between the machine and the point at which said thread is held; but I prefer to use the lever having a second arm for connection to an operating-rod *y*, leading to some moving part of the machine, so that the feeding of either single or double threads may be effected automatically. For this purpose the rod *y* for operating the lever D may be supported by the high links of a pattern-chain *y'* while the single thread is being used, and may be permitted to drop from such high links when the double thread is to be fed in, as shown, for instance, in the diagram, Fig. 5. The thread *w* may, as will be evident, be fed directly over the upper end of the trough, instead of through the eye *n*, without affecting the operation.

I claim as my invention—

1. In thread-feeding mechanism for knitting-machines, the combination of guide-eyes for two threads, an interposed trough or bearing for the threads, and an arm provided with means for nipping one of the threads, and having an end interposed between the two threads, substantially as specified.

2. The combination of guide-eyes for two threads, a trough interposed between said guide-eyes, and a pivoted arm having a cutting-knife and a guide-eye for one of the threads, all substantially as specified.

3. The combination of guide-eyes for two threads, an interposed trough or bearing for said threads, and a lever having an arm carrying a guide for one of said threads, and a cutting or nipping blade for the other thread, and a second arm, whereby said lever is operated, all substantially as specified.

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

JOHN R. BRIDGES.

Witnesses:
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