No. 702,281. Patented June 10, 1902.

C. N. BROWN.

SHUTTLE FOR LOOMS.

(Application filed Dec. 6, 1901.)

(No Model.)

Fig. 1.

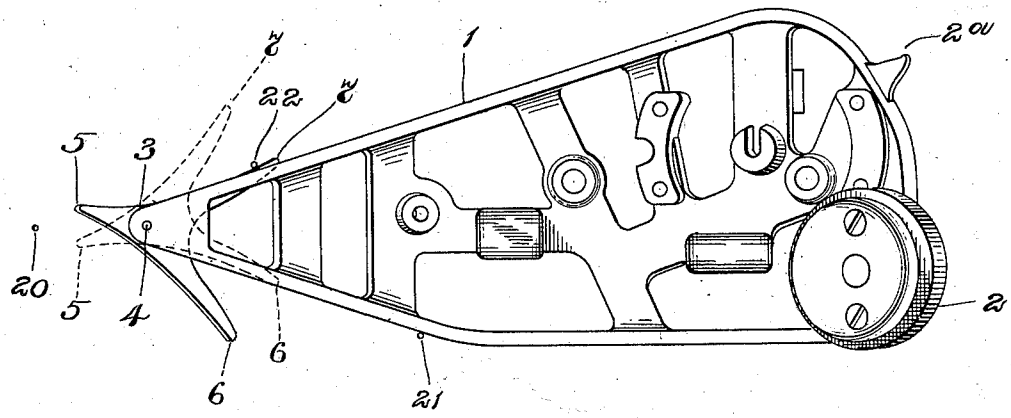
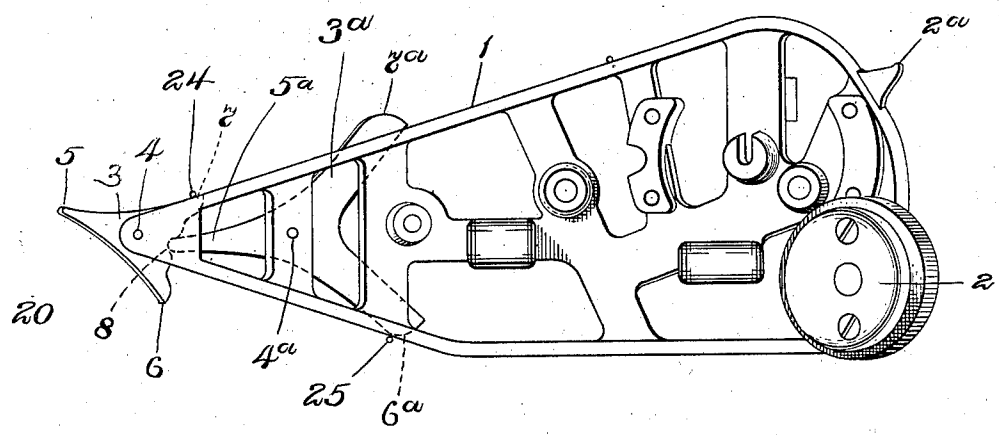


Fig. 2.



Witnesses:
P. W. Pezzetti.
George Pezzetti

Inventor;
C. N. Brown
by Wright, Brown & Quinby
Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES N. BROWN, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO JAMES S. WILSON, OF CHELSEA, MASSACHUSETTS.

SHUTTLE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 702,281, dated June 10, 1902.

Original application filed June 10, 1901, Serial No. 63,892. Divided and this application filed December 6, 1901. Serial No. 84,937. (No model.)

To all whom it may concern:

Be it known that I, CHARLES N. BROWN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Shuttles for Looms, of which the following is a specification.

This invention relates to a shedding-shuttle; and it consists in the novel features of construction and relative arrangement of parts hereinafter fully described in the specification, clearly illustrated in the drawings, and particularly pointed out in the claim.

Reference is to be had to the accompanying sheet of drawings, forming a part of this application, wherein like characters indicate like parts wherever they occur.

Figure 1 in side elevation shows a shedding-shuttle constructed in accordance with my invention. The central portion of the shuttle is broken away in order to have space to show the front end of the shuttle on a scale large enough to illustrate its mode of operation. Fig. 2 is a view similar to Fig. 1, showing one modification.

The framework 1 of the shuttle is like that shown, but not claimed, in my application Serial No. 63,892, of which this application is a division. The particular shape, however, of the framework may be varied as desired. In the form shown 2 represents a roller carried by the rear end of the framework. 3 represents a general V-shaped plate pivoted at 4 to the free end of the shuttle-frame 1. The nose or point 5 of this plate is arranged to pass under or over a given warp-thread, as 20, according as the wing 6 or 7 of said plate is engaged by a warp-thread 21 or 22, that has passed said nose 5. Although this particular form of shuttle is especially desirable for use in circular looms, I do not wish to be understood as limiting myself to such use, as the form of the shuttle may be varied to accommodate it to the particular loom in which it is desired to use it.

As the shuttle is forced through the warp in any desired way the warp-threads engaging the wings 6 and 7 alternately cause the nose 5, and consequently the shuttle-frame 1, on which the cop or bobbin (not shown) is mounted, to pass under one warp-thread or set of warp-threads and over the next, and so on.

Referring to Fig. 2, the shedding action of the nose 5 is supplemented by means of the wings 6^a 7^a of the plate 3^a, pivoted at 4^a to the framework in the rear of the plate 3. The plate 3^a is formed with a nose 5^a, arranged in a recess 8 at the rear of the plate 3. The wings 6 and 7^a tend to throw the nose 5 down, while the wings 7 and 6^a tend to throw the nose 5 up. If for any reason a particular warp-thread, as 24, should miss the wing 7, a preceding warp-thread 25, that has passed under the nose of the shuttle, would engage the wing 6^a, and thus in either event the nose of the shuttle would be thrown up at the proper time. A like mode of operation would exist if the warp-thread should miss the wing 6. The plate 3^a and its wings constitute a supplemental device to insure the accuracy of the operation of the nose 5. In the form shown 2 represents a roller adapted to be engaged by a moving part for driving the shuttle. 2^a represents a finger for engaging the shuttle-thread in the machine in my application above referred to in order to insure the return of that thread to its proper slot. These parts, however, require no special description in this application and are merely referred to for purposes of completeness.

Having thus explained the nature of my invention and described a way of constructing and using the same, though without attempting to set forth all the forms in which it may be made or all the modes of its use, what I claim, and desire to secure by Letters Patent, is—

A self-shedding shuttle comprising a frame, a nose pivoted upon said shuttle, and means arranged to be engaged by warp-threads to change the plane of said nose, whereby the nose on said shuttle is automatically caused or made to occupy a predetermined plane with respect to a predetermined warp-thread.

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

CHARLES N. BROWN.

Witnesses:

E. BATCHELDER,

A. D. HARRISON.