

(No Model.)

A. N. REEVES.

SHUTTLE CHECK AND BINDER FOR LOOMS.

No. 509,945.

Patented Dec. 5, 1893.

Fig. 1.

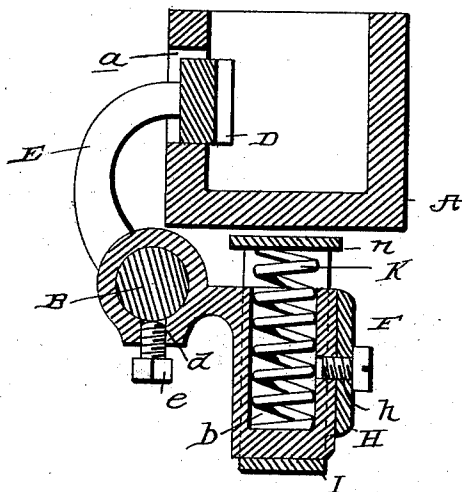


Fig. 2.

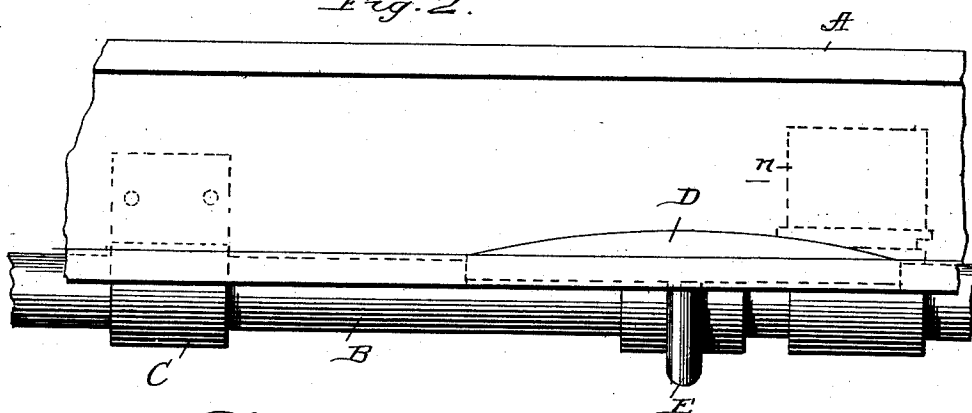
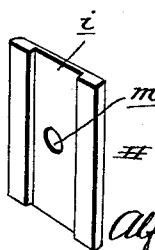
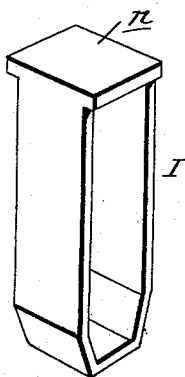
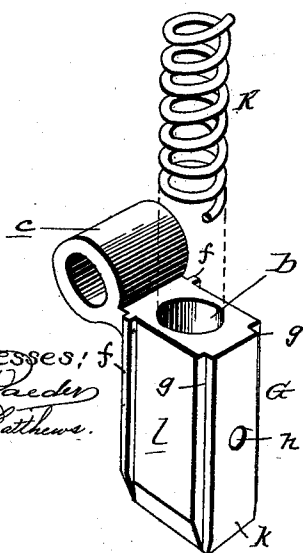


Fig. 3.



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SHUTTLE CHECK AND BINDER FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 509,945, dated December 5, 1893.

Application filed July 29, 1893. Serial No. 481,888. (No model.)

To all whom it may concern:

Be it known that I, ALFRED N. REEVES, a citizen of the United States, residing at Woonsocket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Shuttle Checks and Binders for Looms; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to an improvement in shuttle checks and binders for looms, and it has for its prime object to so construct such devices that they may be readily adjusted to check the shuttle at any time after the dagger has cleared the bunter, or when the shuttle is about half way in the shuttle box, thereby checking the shuttle gradually so as to prevent it from turning or flying out of the box.

Other objects and advantages will appear from the following description and claims when taken in connection with the annexed drawings, in which—

Figure 1, is a vertical, cross sectional view of my improvements applied to a similar section of a lay. Fig. 2, is a plan view of the same. Fig. 3, is a perspective view of my improved device showing the constituent parts disconnected or separated.

Referring by letter to said drawings:—A, indicates a shuttle box or lay, which may be of any ordinary or approved construction, having an aperture *a*, in one of its vertical side walls.

B, indicates the dagger rod, which is suitably supported in a bracket C, which is secured to the under side of the lay, as shown, so as to hold the dagger rod along one of the longitudinal sides of the lay, and partly beneath the same.

D, indicates the swell, which is arranged in the aperture *a* of the lay and is connected to or formed integral with a curved finger E, which extends outwardly and downwardly from the swell, and is fixed upon or formed integral with the dagger rod.

F, indicates my improved checking device which operates in conjunction with the swell. This checking device as better shown in Fig.

3, of the drawings, comprises a socket piece G, having its opening *b*, centrally and vertically disposed, and carries a laterally extending lug eye *c*, at its upper end on one side, which has a screw tapped aperture *d*, to receive a set-screw *e*. This arm or lug eye is designed to receive the dagger rod and be adjustably secured thereto by means of the set-screw *e*. The socket piece G, may be provided on opposite sides with external guide flanges *f*, and its outer side may have its corners rabbeted or recessed longitudinally, as shown at *g*, and this rabbeted side is furthermore provided with a screw tapped aperture *h*.

H, indicates a plate which is of a greater width than the rabbeted side of the socket piece, and is provided with a central recess *i*, on its inner side to receive the central, longitudinal projected portion *k*, and the vertically longitudinal sides of this plate H are designed to extend beyond the adjacent sides *l*, of the socket piece, so as to form a guide way for the buffer, as will be presently described.

I, indicates the buffer, which is here shown as of an angular loop form, designed to snugly embrace the opposite sides of the socket piece, and is guided in its vertical reciprocatory movements thereon by means of the flanges *f*, of the socket piece and the projected longitudinal edges of the plate H. The plate H, is provided with a hole *m*, and a screw is employed which takes through this hole and into the screw tapped aperture *h*, to hold said plate in position.

K, indicates a buffer spring which may be of a spiral or coil form. This spring is placed in opening of the socket piece and is designed to impinge against the under side of the head *n*, of the buffer I, so as to keep the same normally raised.

In practice, the socket piece assumes a position below the bottom of the lay, and the parts are so connected that the buffer will be held by the action of the spring at about one eighth to one fourth of an inch from the bottom of said lay, and it will be seen that when the shuttle is about half way in the shuttle box, the swell being brought into contact, the buffer will be brought through the medium of the socket piece, against the under side of the

lay, thereby checking the movement of the shuttle gradually, and thus preventing it from turning or flying out of the box. As the shuttle comes in contact with the swell, the swell finger being pushed out, it will turn the dagger rod, and raising the socket piece will bring the buffer against the lay, thereby exerting a gradual spring pressure, thereunder, which will cause a similar pressure between the swell and the shuttle.

Having described my invention, what I claim is—

1. The combination of a lay having an aperture as *a*, the swell, the dagger rod, the finger interposed between the swell and dagger rod and secured to the latter, a piece as *G*, also secured to the dagger rod and disposed beneath the lay, a buffer loosely mounted on the piece *G*, and adapted to move upon the same, and a spring exerting an upward pressure against the buffer, substantially as and for the purpose set forth.

2. The combination with the lay, having the aperture; of the swell projecting therein, the dagger rod, the finger leading from said swell and secured to the rod, the socket piece adjustably secured to said rod and arranged beneath the lay, the vertical reciprocatory buffer embracing said socket piece, and the buf-

fer spring arranged in the socket piece and bearing against the under side of the head of the buffer, substantially as specified.

3. As an improved article of manufacture, the checking device comprising the socket piece constructed as described, and having the lateral lug eye, the vertically disposed socket, and the guide flanges and rabbets on the outer sides thereof, the spring arranged in said socket piece, the buffer slidable on the socket piece and covering the spring, and the plate and set screw for holding the buffer in position, the whole adapted to serve upon a dagger rod, substantially as specified.

4. The socket piece constructed as described, and having the lateral lug eye, the vertically disposed opening, and the spring arranged in said opening, in combination with the dagger rod, the lay having the aperture *a*, the arm carrying the swell arranged in said aperture and secured at its opposite end to the dagger rod, all adapted to operate, substantially as specified.

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

ALFRED N. REEVES.

Witnesses:

GEO. W. SPAULDING,
CAROLINE R. MASON.