F. B. STONE.
BINDER FOR LOOMS.
APPLICATION FILED DEC. 23, 1906.

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Witnesses

F. B. Stone

Attorneys

by Wm. Williams & Co.
To all whom it may concern:

Be it known that I, FREDERICK B. STONE, a citizen of the United States, residing at Salem, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in 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.

My invention has relation to new and useful improvements in devices commonly known as binders for affording elastic stopping means for the shuttles after being driven across the batten of a loom into the shuttle boxes.

One of the objects of the invention is to so construct a device of this character as to appreciably increase the lasting qualities thereof.

Further objects of the invention are to secure inexpensiveness and simplicity of construction and efficiency in the operation of the binder.

My invention possesses many advantageous features, some of the more important of which may be briefly enumerated as follows: It saves the wear on the face of the binder; it saves the wear on the shuttle by allowing the face of the binder to spring back; it relieves the strain on the tension rod fingers which press against the back of the binder, consequently relieving the strain on the picker stick, causing less breakage; it relieves the strain on the pick arm, causing less wear and breakage of the pick motion parts; it relieves the strain and wear on all strapping connected with the pick motion, also the loom picker attached to the picker stick, which relieves the impact of the shuttle at each pick.

In the accompanying drawings, in which like parts are designated by like characters throughout the several views,—

Figure 1 is a perspective view of my improved binder; Fig. 2 is a longitudinal sectional view; Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 1; and Fig. 4 a perspective view of the binder when the front face thereof is sprung inwardly.

My invention is described as follows: The numeral 1 represents the binder, which consists of an elongated body 2 of wood or other suitable material having a longitudinal recess 3 formed in its front face, substantially between its ends, and extending across its entire width, in which is fitted or secured a corresponding strip 4, of leather or other suitable flexible material. Said body is also provided near one end with a vertical orifice or perforation 5, whereby the binder may be pivotally secured to a shuttle box by a bolt or other equivalent means. A longitudinal slot 6 is formed in the body and runs parallel with and at a suitable distance from the front face of the binder, thereby leaving a longitudinal springing strip 7 between said recess and slot. The inner face of the body at the forward end of the slot 6 is preferably formed into or provided with a rounded shoulder 8 against which the shuttle strikes when it enters the box, thereby causing the greatest impact of the nose of the shuttle to be taken up by the strip 7, substantially lengthwise, but causing the pressure of the strip upon the side of the shuttle to be lateral after the shuttle has entirely entered the box. This presents the greatest resistance to check the force of the shuttle on entering the box but presents the least resistance when the shuttle is to be forced out of the box by the picker stick. To fully protect the face of the strip 7, the recess 3 is preferably extended over the shoulder 8 and to a suitable distance beyond the forward end of the slot 6. If found desirable in the use of the binder, the last-mentioned end of said slot may be extended beyond the adjacent end of said recess and communicate with the front face of the binder preferably on a bow or curve to form a rounding shoulder 9. In this case, the free end of said springing strip may be fastened back into place to the body of the binder or not, depending upon the give or spring required of the front face of the binder.

The back face of the binder is preferably straight, while the front face is preferably more or less curved as above described to enable it to spring more easily and readily.

My invention is of such construction, that it is susceptible of many slight changes without departing from the spirit thereof in its construction and application.

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

1. A binder for looms comprising an elongated body, the intermediate portion of which is provided with a curved slot adjacent to its inner face and a shoulder, said slot extending from said shoulder toward the rear end, whereby a flexible strip is formed having a shoulder near its forward end.

2. A binder for looms comprising an elongated body, the intermediate portion of which is slotted longitudinally adjacent to its inner face, the forward end of the slot communicating with said inner face on a curve, whereby a flexible strip is formed upon the inner face of the body, the free end of said strip being rounded and resting against the shoulder formed by the curved extension of said slot, the inner face of said strip being recessed intermediate its ends, and a buffer in said recess.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FREDERICK B. STONE.

Witnesses:

LOUIS A. KING,
WILLIAM B. BEEDE.