

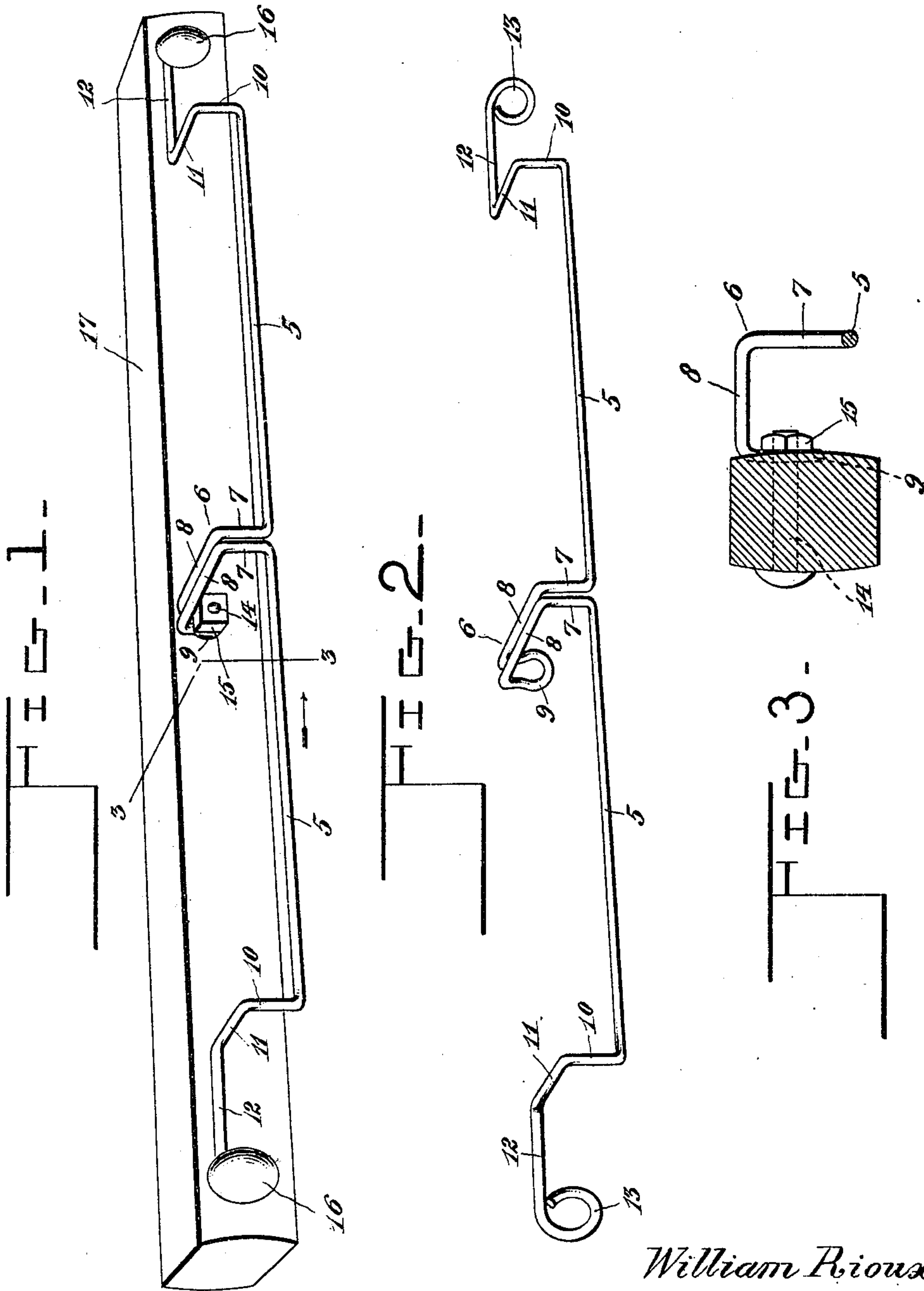
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Patented Aug. 27, 1901.

W. RIOUX.
SHUTTLE GUARD FOR LOOMS.

(Application filed Aug. 4, 1900.)

(No Model.)



Witnesses:
John F. Deufferwald
J. Ed. Page

William Rioux,
Inventor

By *Marion Marion*
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM RIOUX, OF FALL RIVER, MASSACHUSETTS.

SHUTTLE-GUARD FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 681,460, dated August 27, 1901.

Application filed August 4, 1900. Serial No. 25,870. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM RIOUX, a citizen of the United States of America, residing at Fall River, county of Bristol, State of Massachusetts, have invented certain new and useful Improvements in Shuttle-Guards for Looms; and I do hereby declare that the following is 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.

Prior to my invention it has been common to employ a guard in connection with a lay top bar of a loom, which guard has ordinarily been made from a length of stout wire having its ends bent so as to form attaching-arms provided with eyes, through which are passed the bolts that secure the end portions of the guard-wire to said lay top bar. This guard-wire has its major portion disposed parallel with the lay top bar and over the path of track of the shuttle as it flies through the shed; but so far as I am aware it has not been heretofore proposed to construct this wire guard with means which tend to strengthen or reinforce the major length of the wire at a point intermediate between its attachment of the lay top bar.

The ordinary guard-wire, which is unsupported between its ends or terminal portions, is liable to be deflected and bent out of its proper parallel relation to the lay top bar by the shuttle striking against the same or from any one of a variety of causes.

The object of the present improvement is to provide an improved guard which will be made entirely from a single length of wire and which shall be braced or strengthened at a point between its end terminal portions, whereby a cheap and simple guard is produced which is not liable to be bent or deflected out of its proper position relative to the lay top bar.

With these ends in view the invention consists in the novel construction and arrangement of parts, which will be hereinafter fully described and claimed.

In the drawings hereto annexed, forming a part of this specification, Figure 1 is a perspective view of my improved wire guard attached to a portion of a lay top bar. Fig. 2 is a similar view of the guard removed from

the lay top bar. Fig. 3 is a transverse section in the plane of the dotted line 3 3 on Fig. 1.

The same numerals of reference denote like parts in each figure of the drawings.

In making the shuttle-guard of my invention I select a proper length of stout wire and proceed first to bend the same at or about its middle in a manner to form a strong shank 6. The portions of the wire that form the guard proper are indicated by the numeral 5 as arranged in the same horizontal plane and in alinement with each other, and the shank 6 is between these lengths 5 of the guard, owing to the fact that the wire is first bent upon itself to form the arms 7 and 8 and the eye 9. It is to be understood that the eye is first formed by bending the middle portion of the wire around a suitable former. Then the two portions of the wire are bent in directions at right angles to the vertical axis of the eye 9, so as to form the arms 8. The wire is then again bent at right angles to the arms 8 and in a manner to form the arms 7, and finally the two portions of the wire are bent to form the guard lengths 5, all as indicated more clearly by Fig. 2. The arms 7 and 8 lying substantially close together permits of the construction of a substantially continuous guard, (indicated by 5 5.) The arms 7 and 8, in connection with the eye 9, constitute the shank 6, and these two arms are disposed in close relation or in actual contact for the production of a strong simple shank at the middle portion of the wire guard.

As is usual in the art the end portions of the wire are bent to form the end arms 10, thence into the right-angled arms 11 12, and finally into the loops 13. The central eye 9 and the end loops 13 of the wire guard lie in the same vertical plane longitudinally of the guard; and these parts 9 13 are adapted to be applied firmly against one face of the lay top bar 17, as shown by Figs. 1 and 3. A bolt 14 passes through the eye 9 of the central shank 6 and through the lay top bar, and the threaded end of this bolt receives a nut 15, that is adapted to bind against the eye 9, so as to clamp the latter firmly against one side of the lay top bar. The end loops 13 of the guard are secured to the lay top bar by the bolts 16 in the ordinary way.

From the foregoing description, taken in

connection with the drawings, it will be seen that the distinguishing feature of my invention resides in a wire shuttle-guard with a central shank between the two lengths 5 of the guard and between the attaching-arms at the terminal portions of the guard-wire, said central shank being adapted for attachment in a secure way to the lay top bar. The central shank serves as a stay to the operative length of the guard-wire against which the shuttle is adapted to impinge as it pursues its course through the shed, whereby the shank prevents the operative length of the guard-wire from bending when the device is in use. The entire guard is readily applied to the lay top bar, and the improved device can be manufactured at practically the cost of the ordinary wire guards now extensively in use.

Having thus described my invention, what I claim as new is—

In a loom shuttle-guard, the combination with a lay top bar, of a single-piece wire guard

provided at a point intermediate of its length with the stiff shank formed by bending said wire upon itself into the upstanding arms 7 located substantially close together, the off-standing arms 8, and the loop 9, the end portions of said wire having the angularly-disposed arms 10, 11, terminating in the eyes 13, whereby a substantially continuous guard is formed and braced at its center, the intermediate guide portions 5 of the guard lying in the same plane and in offstanding relation to the top bar when the eyes 13 and loops 9 are applied thereto, and bolts for individually securing the shank and the end portions of the wire to the top bar, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

WILLIAM RIOUX.

Witnesses:

HERBERT A. BORDEN,

HENRY H. EARL.