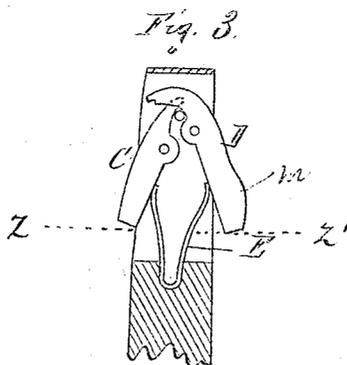
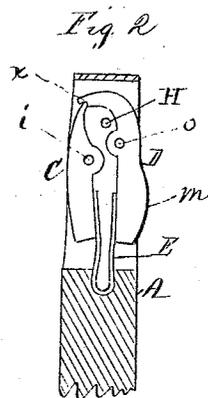
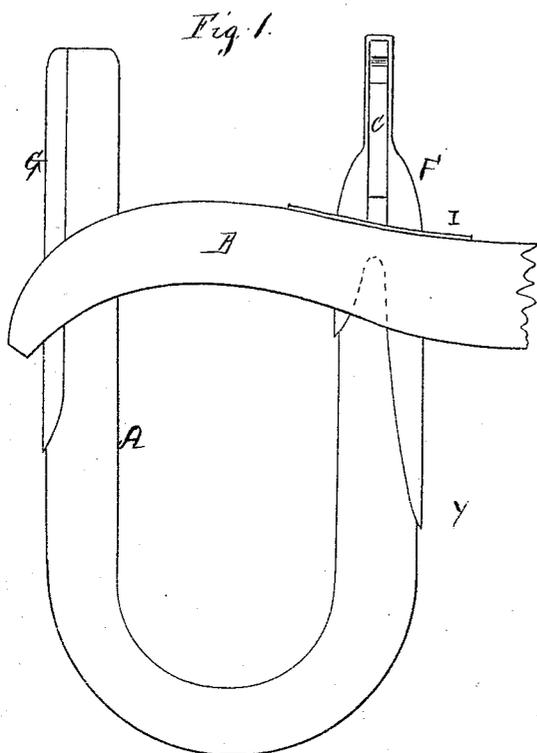


E. N. BACON.

Combined Bow-Fasteners and Guards for Ox-Yokes.

No. 145,381.

Patented Dec. 9, 1873.



Witnesses,  
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Inventor,  
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# UNITED STATES PATENT OFFICE.

ERDIX N. BACON, OF CHELSEA, VERMONT.

## IMPROVEMENT IN COMBINED BOW FASTENERS AND GUARDS FOR OX-YOKES.

Specification forming part of Letters Patent No. **145,381**, dated December 9, 1873; application filed November 15, 1873.

*To all whom it may concern:*

Be it known that I, ERDIX N. BACON, of Chelsea, in the State of Vermont, have invented a certain new and useful Improvement in Combined Ox-Bow Fasteners and Guards; and I hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings forming a part of this specification, in which—

Figure 1 is a side elevation of my improved fastener and guard. Fig. 2 is a vertical sectional view, showing the fastener closed. Fig. 3 is a vertical sectional view, showing the fastener opened.

It is well known to all conversant with such matters that the ordinary method of fastening the bows into ox-yokes, by means of pins passing through the bows, is very objectionable, the pins soon wearing into and spoiling the yoke, and being easily lost and broken. The strain on the bow produced by the pulling of the ox also tends to wear the bow, especially on its outer surfaces, thereby weakening it, and rendering it very liable to splinter up or break off at the point where it passes through the yoke, unless protected. The object of my invention is to obviate these difficulties and objections.

In Fig. 1, A is the bow; B, the yoke; I, a plate or guard attached to the top of the yoke; F, the frame or holder, in which the fastener is disposed, being extended to form a guard and strengthener, *y*; and G, a guard applied to the outside of the opposite end of the bow, the holder F, plate I, and guard G being of metal. My fastener consists of the frame or holder F, the two levers C D, suspended or hung on the pins *i o*, and a U-shaped spring, E, disposed in the top of the bow between the levers C D, as shown in Fig. 2, the free arms of the spring acting expansively against the inside of the levers to throw them apart, as seen in Fig. 3, H being a stop, against which the upper or short arms of the levers strike when thrown apart to their utmost extent. The lever D is somewhat longer than the lever C, and has a hooked-shaped bill or point provided with a shoulder or notch, *x*, against which the point or upper end of the lever C catches when the lower ends of both C and D are pressed inwardly to the position shown in Fig. 2. The fastener is shown in Fig. 3 as in use, the dotted line *z z'* representing the top of the yoke or guard I, against which the

lower ends of the levers strike, thus preventing the bow from being drawn out of or down through the bow-holes. The fastener frame or holder F is made of metal, and forms a socket for the upper end of the inner arm of the bow, as shown in Fig. 1, a part of the frame being extended down the outside of the bow, as shown at *y*, forming a guard and strengthener for the same.

It will be seen by the above that when the bow is detached from the yoke, and the levers are in the position shown in Fig. 3, if the bow is then forced through the bow-holes in the yoke, the long arms of the levers C D will be pressed inwardly by coming in contact with the yoke in passing through said holes, the spring E yielding to the pressure of the levers. When the bow has advanced through the yoke far enough to bring the long arms of the levers above the guard or plate I, the resistance to the spring E will be removed, and it will expand and throw the long arms of the levers apart, as shown in Fig. 3, thus locking or fastening the bow in position.

Whenever it is required to remove the bow from the yoke, the long arms of the levers are pressed inwardly until the short arm or point of the lever C is caught and held in the notch *x* of the lever D. If, now, the bow is drawn downwardly through the bow-holes, the cam-shaped surface *m* of the lever D, which, when the levers are in this position, projects slightly beyond the outer surface of the bow A, will, by coming in contact with the bow, press the lower end or long arm of the lever D still farther in toward the center of the bow, and thus detach the short arm of the same lever from the point of the lever C, allowing said point to escape out of the notch *x* and pass behind the upper end of the lever D, as shown in Fig. 3, the lever D being so shaped as to admit of this.

Having thus described my invention, what I claim is—

1. The bow-fastener consisting of the holder F, notched lever D, lever C, and spring E, combined to operate substantially in the manner set forth and specified.

2. The holder F, extended as shown at *y*, to form a strengthener and guard, substantially in the manner described.

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