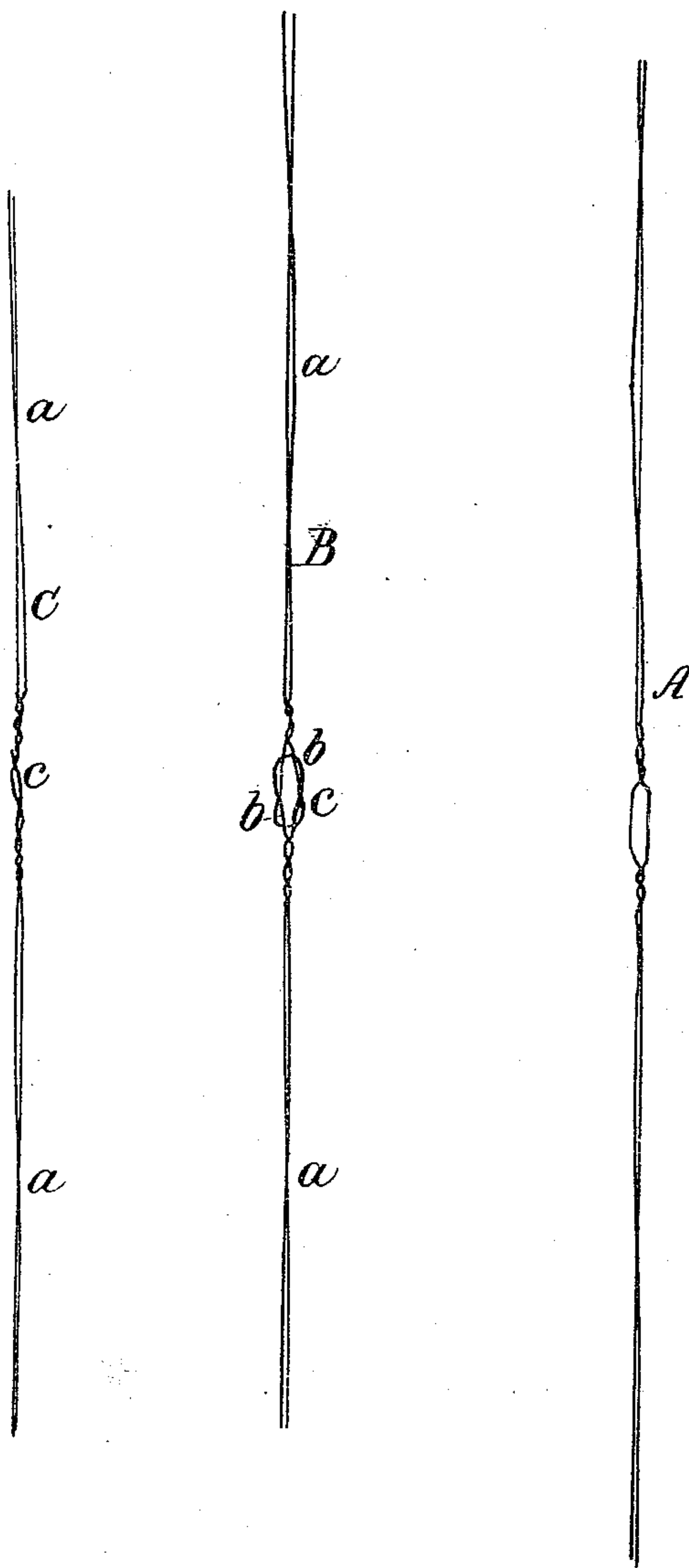


*J. Ashworth.*  
*Heddle for Loom.*

*N<sup>o</sup> 6,501.*

*Patented Jan. 29, 1867.*



*Witnesses*  
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# UNITED STATES PATENT OFFICE.

JOHN ASHWORTH, OF NORTH ANDOVER, MASSACHUSETTS.

## IMPROVEMENT IN THE EYES OF WIRE HEDDLES FOR LOOMS.

Specification forming part of Letters Patent No. **61,501**, dated January 29, 1867.

*To all whom it may concern:*

Be it known that I, JOHN ASHWORTH, of England, residing at North Andover, in the county of Essex and State of Massachusetts, have invented an Improved Heddle-Eye; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The invention relates to the construction of wire-heddle eyes for loom-harnesses; the object being to so form the top and bottom of the eye as to prevent the warp-yarn, or filaments thereof, from catching into the angle or crotch formed by the union and twist of the two wires, or two parts of wire making up the eye.

The construction of the common wire-heddle eye is represented at A in the drawing. It is made of two wires spread laterally to form the sides of the eye, and joined and twisted to form the top and bottom of the eye. Where so joined and twisted there are unavoidable angles, into which (particularly with certain kinds of yarns) the warp-threads, or filaments of the thread, are constantly liable to catch. To obviate this I make the eye double, or of two eyes interlooped, as seen at B and C, which

represent, respectively, a front view and an edge view of my improved eye. To make each part, a wire, *a*, is bent or doubled, and at the bend spread into an eye, *b*, as seen at B, and then twisted just above the eye, to form the means of connection between the eye and the heddle-bar. Two eyes being thus made in two wires, the end opposite to the eye of each wire is passed through the eye of the other wire, and the two wires then drawn out, bringing the two eyes together in the interlocked or interlooped form shown at *c*, and so that the bow of each respective eye shall be drawn up beyond the angle at the twist, as seen at B. The two bows at opposite ends of the double eye then form the seats or bearing-surfaces against which the warp-yarns must run, and prevent the yarns and filaments of yarn from coming into contact with the angle or twist in the wires.

I claim—

A wire-heddle eye for loom-harnesses, made by interlocking loops of two wires, substantially as set forth.

JOHN ASHWORTH.

Witnesses:

F. GOULD,  
L. H. LATIMER.