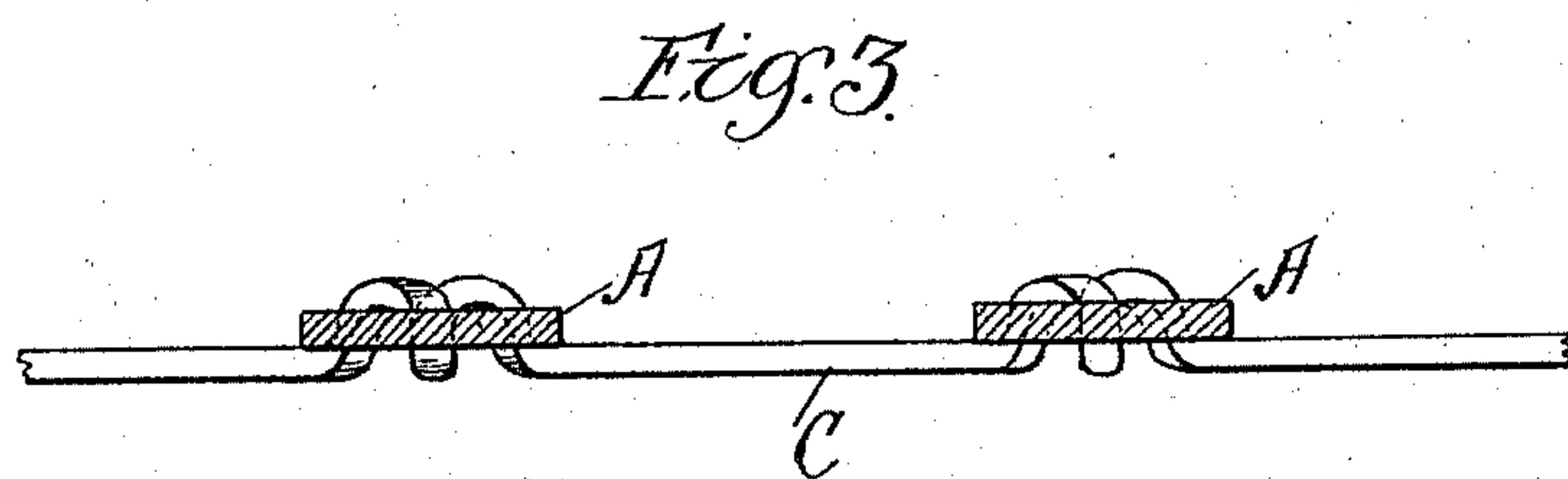
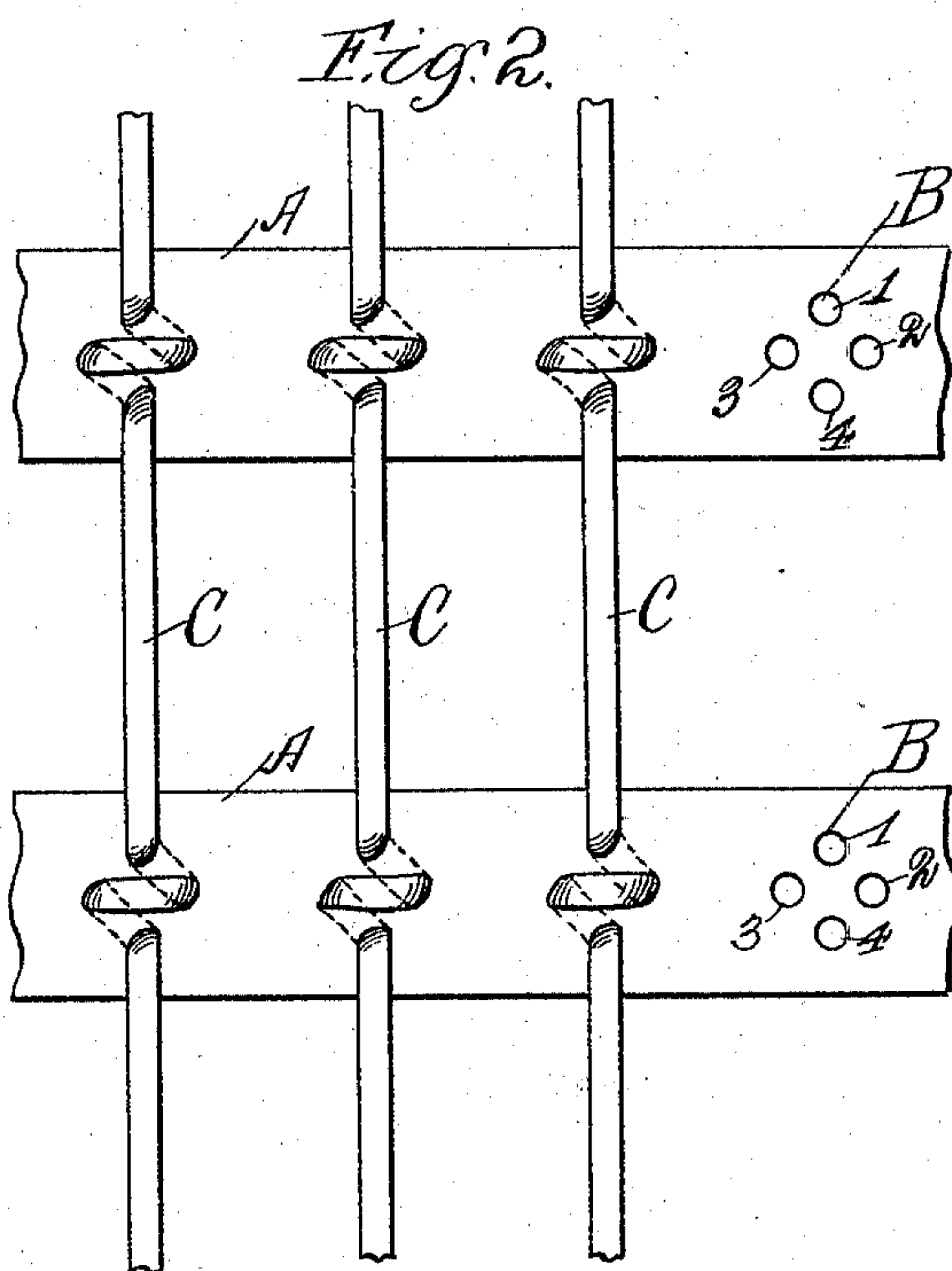
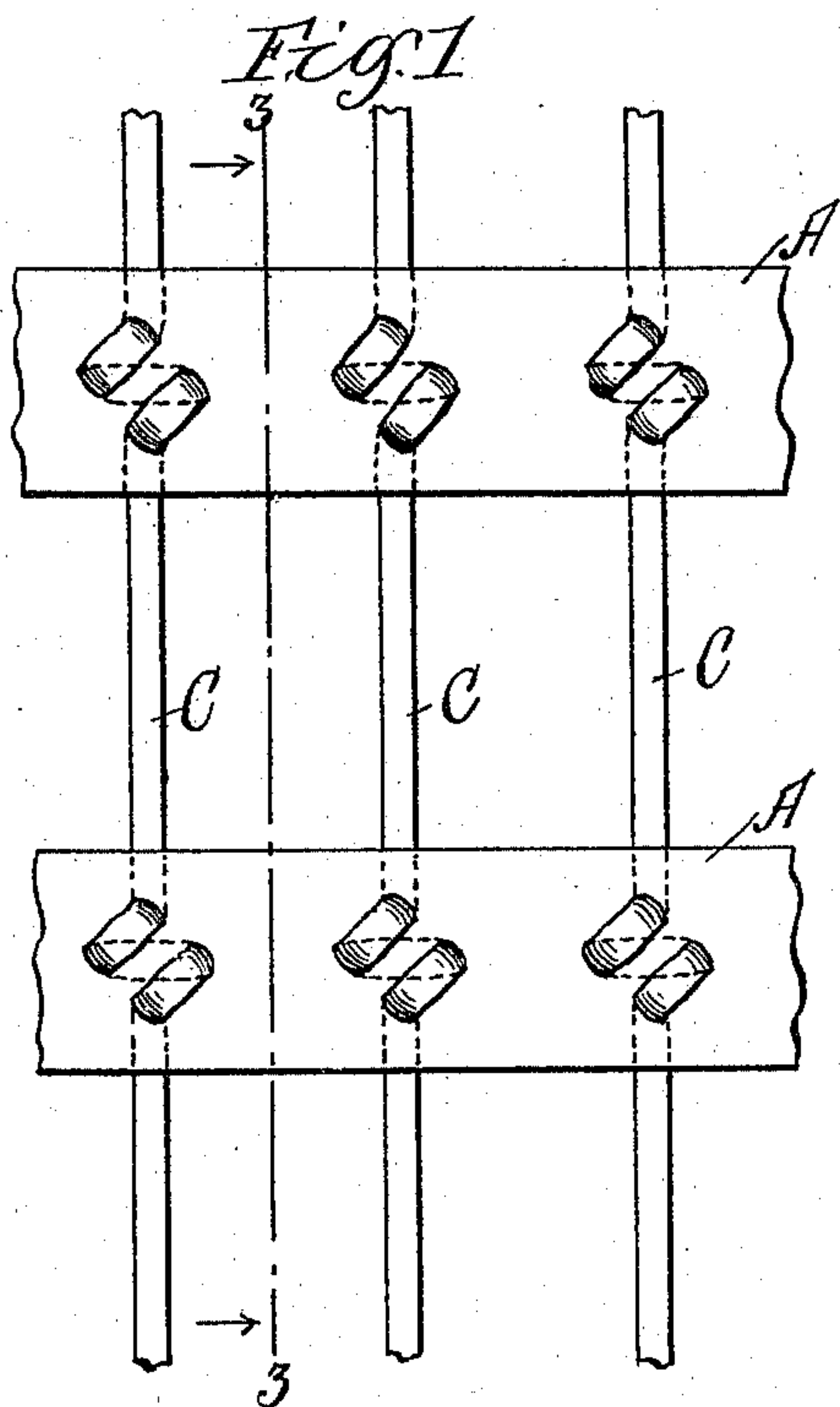


(No Model.)

J. D. DUNCAN.  
FASTENING FOR FLY NETS.

No. 582,156.

Patented May 4, 1897.



Witnesses.  
Wm. M. Rheem.  
Paul E. Zinkens

Inventor  
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# UNITED STATES PATENT OFFICE.

JOHN D. DUNCAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO JULIA F. DUNCAN,  
OF SAME PLACE.

## FASTENING FOR FLY-NETS.

SPECIFICATION forming part of Letters Patent No. 582,156, dated May 4, 1897.

Application filed August 10, 1896. Serial No. 602,352. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN D. DUNCAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fastenings for Fly-Nets; and I do hereby 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 relates to a novel construction in a fly-net for horses, the object being to provide a device of this description in which the thongs or cords will not pull out of place in the straps and thus cause unevenness in the net; and it consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a fragmentary view in elevation of the front or outer faces of the straps of a fly-net, showing the manner of passing the thongs or cords therethrough. Fig. 2 is a similar elevation of the inner faces of the straps. Fig. 3 is a sectional view on the line 3 3 of Fig. 1.

Heretofore, as far as I am informed, fly-nets have been made by passing the thongs or cords through two perforations in each of the straps and in other cases by winding the same partially around the straps. All of these constructions, however, have not given satisfaction, for the reason that the thongs or cords either slipped through said perforations and made the net very uneven or they required too much additional length and greater labor and thus became too expensive. The only fly-net on the market to-day besides my own is the first named, in which the cords or thongs are passed through only two perforations in each of the straps.

My invention is designed to overcome the above objections and to provide a neat and strong fly-net, and to this end I provide each of the straps A with sets of four perforations B, through which the thongs or cords C are passed. The said perforations B are set to form the four corners of a square, the diagonals

of which are respectively parallel with and perpendicular to the long edges of the straps A.

For purposes of description I have indicated said perforations B by the numerals 1, 2, 3, and 4. The thongs or cords C are first passed through the perforations 1 from inner to the outer faces of the straps and thence through the perforations 2 in the opposite direction. Then they pass lengthwise along the inner faces of the straps A to the perforations 3, through which they again pass to the outer faces of the straps, and thence through the perforations 4 to the inner faces. This operation is of course carried out consecutively with each strap, and the thongs or cords pass from the perforations 4 in one strap to the corresponding perforations 1 in the next adjacent strap.

By means of the above-described arrangement of the perforations the ends of the thongs or cords passing through the perforations 1 and 4 are always in alinement and make a very neat and even net, which will always retain its original shape.

I claim as my invention—

A fly-net comprising straps provided with sets of four perforations at regular intervals arranged in a square whose diagonals are respectively parallel with and perpendicular to the long edges of said straps, and thongs or cords secured in said perforations by passing the same first through the uppermost thereof from the inner to the outer faces of said straps, thence through one of the middle perforations in the opposite direction, thence through the other of said middle perforations to the outer faces of said straps, and thence through the lowermost of said perforations to the inner faces of said straps, or vice versa, whereby the portions of said thongs or cords between said straps are held in alinement.

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

JOHN D. DUNCAN.

Witnesses:

RUDOLPH WM. LOTZ,  
PAUL E. ZINKEISEN.