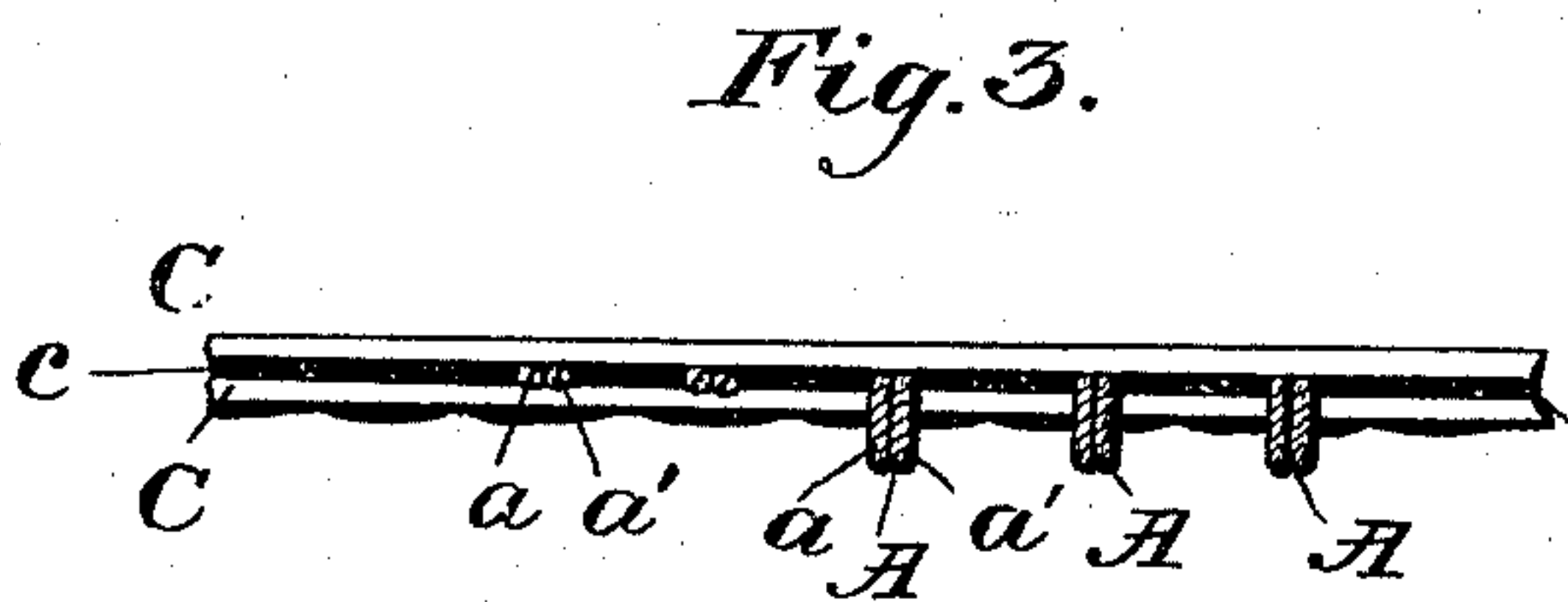
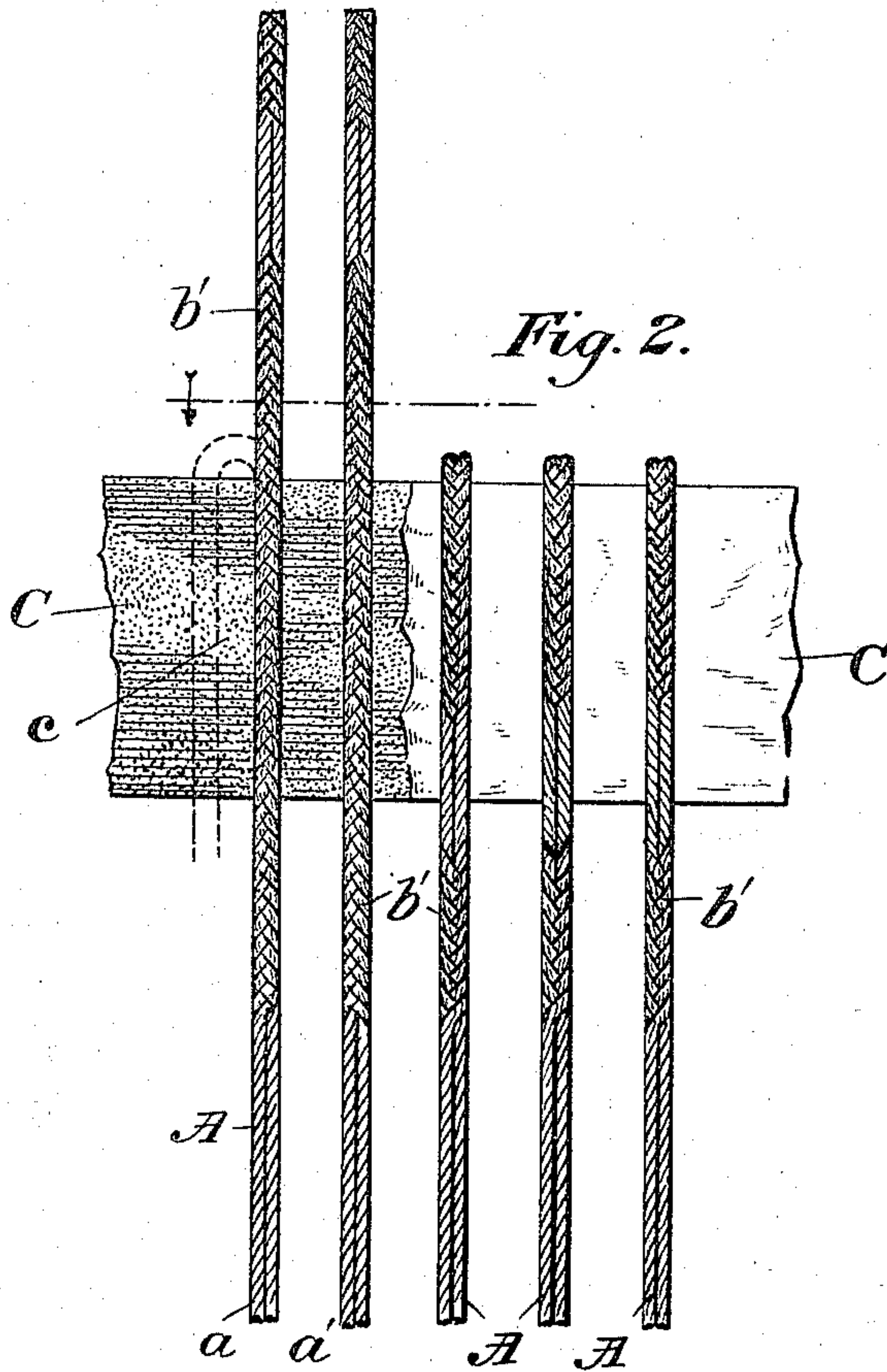
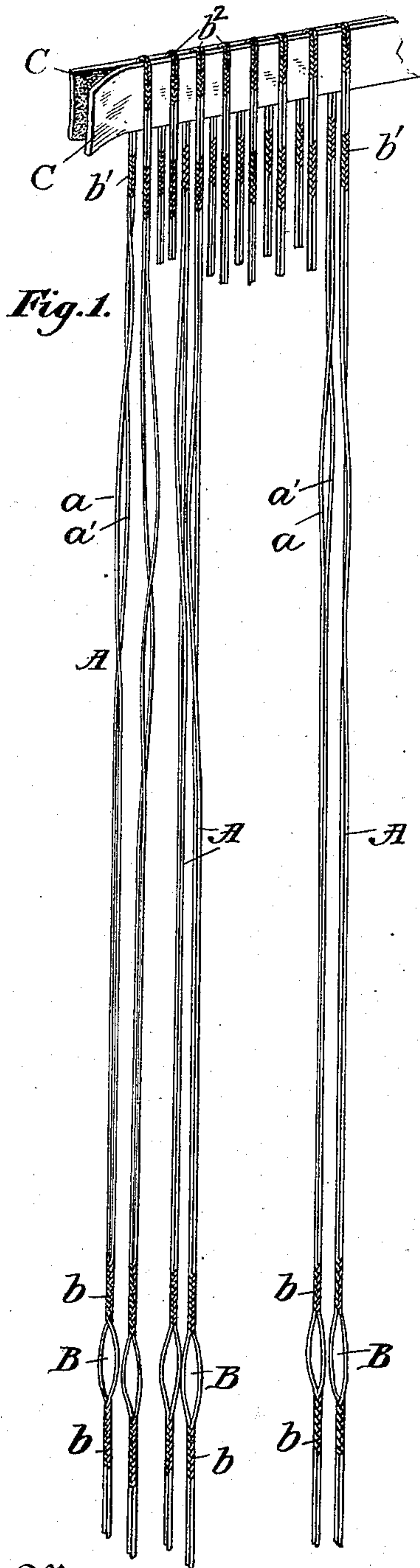


(No Model.)

N. & J. CHAIZE.
HEALD FOR LOOMS.

No. 535,529.

Patented Mar. 12, 1895.



Witnesses

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UNITED STATES PATENT OFFICE.

NICOLAS CHAIZE AND JACQUES CHAIZE, OF ST. ETIENNE, FRANCE.

HEALD FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 535,529, dated March 12, 1895.

Application filed April 28, 1892. Serial No. 431,069. (No model.) Patented in France May 14, 1891, No. 213,478; in England November 24, 1891, No. 20,404; in Belgium November 28, 1891, No. 97,376; in Italy November 30, 1891, No. 30,844, and in Austria-Hungary December 3, 1891, No. 16,507 and No. 36,774.

To all whom it may concern:

Be it known that we, NICOLAS CHAIZE and JACQUES CHAIZE, citizens of the Republic of France, residing at St. Etienne, Department of Loire, France, have invented certain new and useful Improvements in Healds for Looms; and we 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention has been patented in France May 14, 1891, No. 213,478; in England November 24, 1891, No. 20,404; in Belgium November 28, 1891, No. 97,376; in Italy November 30, 1891, No. 30,844, and in Austria-Hungary December 3, 1891, No. 16,507 and No. 36,774.

The invention relates to healds for looms, and its object is to improve the mode of securing the leashes at top and bottom, so that no knotting or tying or sewing is necessary.

The invention consists in a heald composed of leashes made in a continuous length, secured and spaced at each end by means of two tie bands of fabric, tissue or elastic material strongly cemented together and holding the heald leashes between them. The heald leashes are formed as described in English Patent No. 2,727 of 1881, being constructed of threads or cords plaited together except at the eyes or mails. The continuous length thus made is doubled back and forth between the tie bands, so as to bring the eyes into the correct positions.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a heald composed of continuous leashes collected and secured between tie bands. Figs. 2 and 3 are details on a large scale showing the manner of securing the leashes.

The two strands or cords *a a'* which constitute the leash A are each composed of a suitable number of threads doubled, twisted or plaited together. These cords run parallel, and at certain regular intervals the threads composing them are all plaited or braided together into one cord. This inter-braiding of the cords is effected for a certain distance *b* above and below each eye or mail B, and also at the points which measure off the length of each leash, as *b'*.

The heald is made up by doubling the continuously formed leash at the points *b²* and securing one leg of the loops thus formed between suitable tie bands C, each composed of a strip of flexible material, preferably stout woven tape. These strips are firmly secured to the leashes and to each other by means of strong cement *c*. Both legs of the loop *b'* may pass between the tie bands if desired, as indicated in dotted lines in Fig. 2. The distance between the tie bands may be maintained by means similar to those adopted in existing healds, and they may be connected with the shafts in the customary manner.

Having thus described our invention, what we claim is—

In a heald, the combination with leashes made in a continuous length and doubled into loops at each end of a leash, of a tie band composed of two separate strips of flexible material held together by cement and inclosing one leg of each of said loops between them, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

NICOLAS CHAIZE.
JACQUES CHAIZE.

Witnesses:

JULES HASDORFF,
D. CHIBAULT.