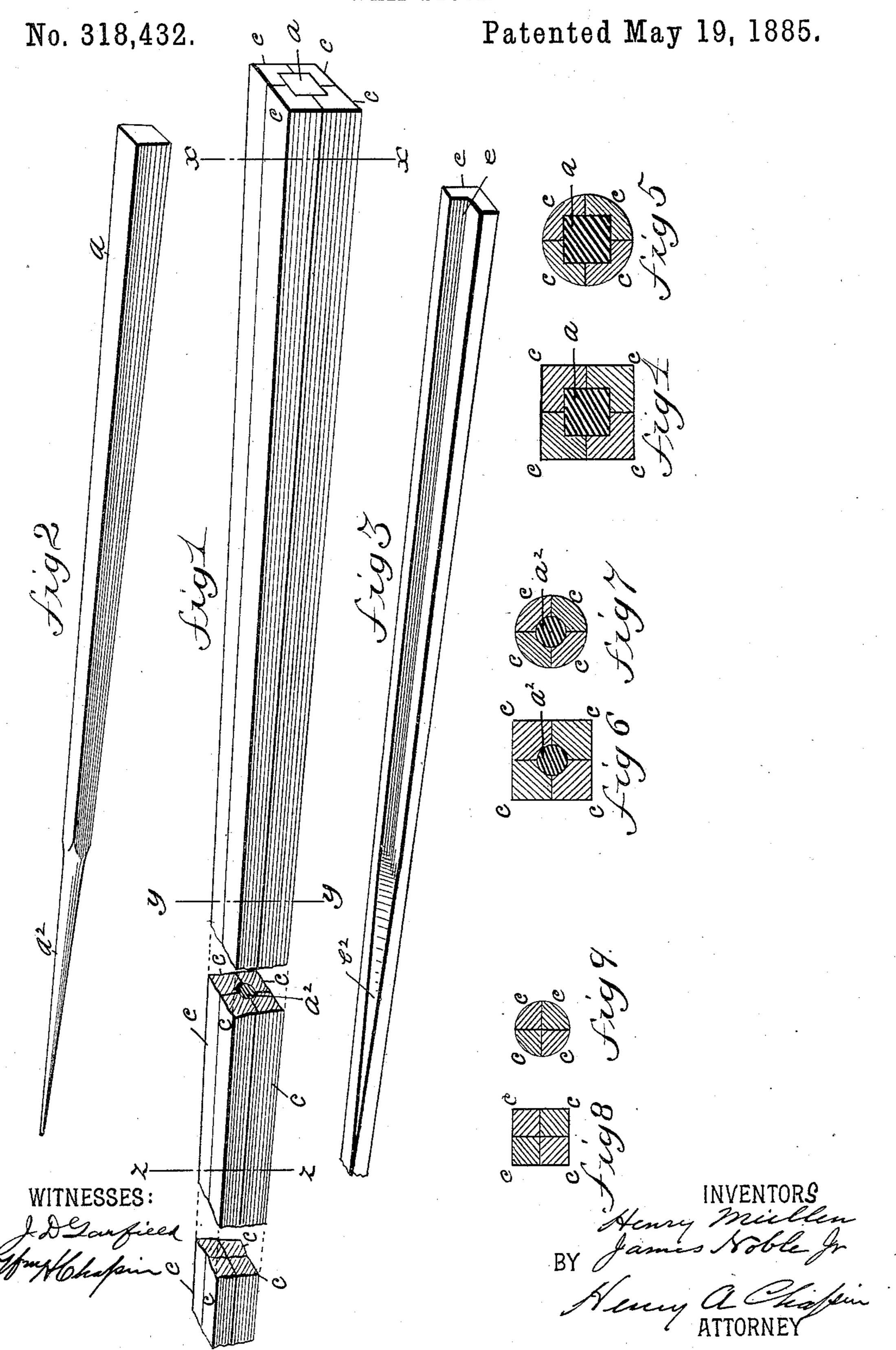
## H. MULLEN & J. NOBLE, Jr.

WHIP STOCK.



## United States Patent Office.

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## WHIP-STOCK.

SPECIFICATION forming part of Letters Patent No. 318,432, dated May 19, 1885.

Application filed March 2, 1885. (No model.)

To all whom it may concern:

JAS. NOBLE, Jr., citizens of the United States, residing at Westfield, in the county of 5 Hampden and State of Massachusetts, have invented new and useful Improvements in Whip-Stocks, of which the following is a specification.

This invention relates to improvements in to whip-stocks, the object being to provide improvements in the preparation and arrangement of the several parts which enter into the manufacture of rattan whip-stocks, whereby the number of said parts is reduced without 15 prejudice to the quality of the product and a saving in cost is secured.

In the drawings forming part of this specification, Figure 1 is a perspective view, partly in section, of a part of a whip-stock con-20 structed according to our invention. Fig. 2 is a perspective view of our improved whipstock spike. Fig. 3 is a perspective view of a section of our improved stock-sidings. Figs. 4 and 5 illustrate, respectively, the square and 25 the rounded portions of sections of the stock through the line x x, Fig. 1; and Figs. 6 and 7 and 8 and 9 are similar views, in section, of the stock through the lines yy and zz, respectively, in Fig. 1.

In the drawings,  $\alpha$  is the central butt-spike, having a tapered cylindrical point,  $a^2$ . c c c care the rattan sidings, each of which has a groove, e, therein, having two sides at right angles to each other of gradually-diminishing 35 width from the butt-end of the siding upward and terminating in a curved tapering groove,  $e^2$ , and above the latter the said siding is of square form in cross-section, as shown.

Heretofore the metallic spike constituting 40 the center piece of the stock at the butt has been made substantially of the form shown in Fig. 2 below the tapering cylindrical point  $a^2$ , and its point or upper end has been made in the form of a long wedge. The said spike 45 constituted the above-mentioned portion of the center piece of the stock, and the center piece above the spike consisted of a square piece of rattan (in cross-section) having its end split and the said wedge end of the spike so inserted therein, and having the said ends of rattan and spike united and secured one to the other by winding a cord around them, or by other suitable means, the said rattan center piece extending ordinarily to the upper

Be it known that we, Henry Mullen and | ter piece having been made, the whip-stock was completed by laying long tapering rattan sidings square in cross-section against the flat sides of the spike and the rattan center, and filling the spaces between said sidings oppo- 60 site the four corners of the spike and center piece with "chink-pieces" having substantially the form in cross-section of the pieces c in Fig. 9, and said center piece, sidings, and chink-pieces were all firmly cemented 65 together.

In our improved construction the abovenamed rattan center piece above the spike and the chink-pieces between the sidings are dispensed with, and the stock consists of the 70 spike a and the grooved sidings c, all cemented together in the usual way. The spike a, having the tapering cylindrical point  $a^2$ , is inclosed within the sidings c, each of the latter having formed therein the above-de-75 scribed groove e, adapting it to fit upon the corner of the spike and along against the side of the cylindrical point thereof,  $a^2$ , the said part  $e^2$  of the groove in the siding providing therefor. When so fitted and secured around 80 the spike a, the four sidings cccc constitute a solid butt, as shown, and above the point  $a^2$  of the spike the said four sidings lie side by side, as shown. When the stock so constructed is rounded preparatory to finish- 85 ing it, it takes the forms in section substantially as shown in Figs. 5, 7, and 9.

What we claim as our invention is— 1. A whip-stock consisting of a tapering spike square in cross-section having a taper- 90 ing cylindrical point and four sidings, substantially as described, each having a groove therein fitting upon and corresponding to the form of the corners of the spike and the cylindrical sides of the point thereof, the said sid- 95 ings lying side by side above the point of the spike, all suitably secured together, substantially as set forth.

2. The within-described sidings for whipstocks, consisting of strips of suitable mate- 100 rial each having a tapering groove formed therein having sides at right angles to each other, said groove terminating in one of tapering curved form, substantially as set forth.

HENRY MULLEN. JAMES NOBLE, JR. Witnesses:

H. A. CHAPIN, J. D. GARFIELD.