

(No Model.)

J. HAND.

FLY NET.

No. 370,696.

Patented Sept. 27, 1887.

FIG. 1.

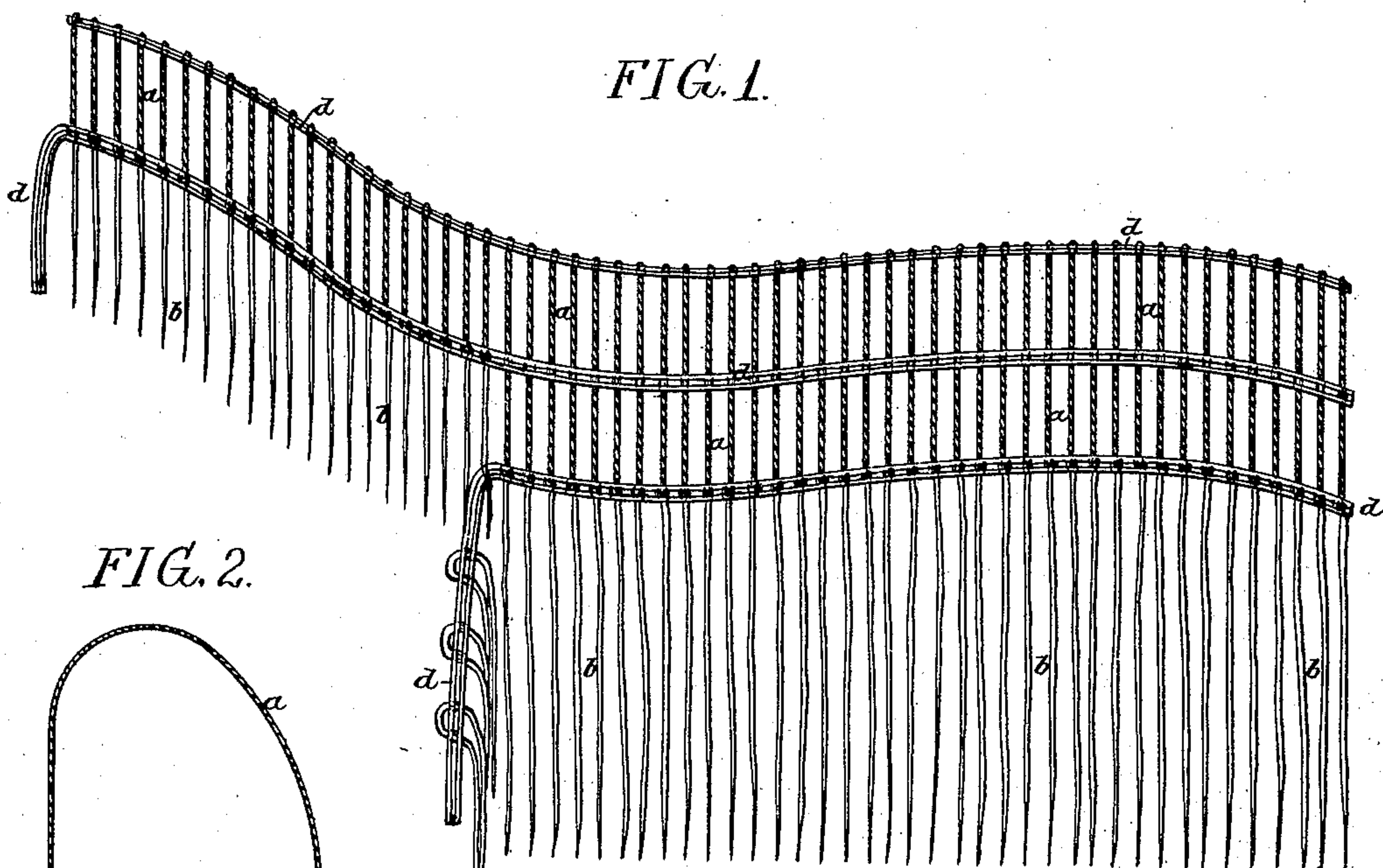


FIG. 2.

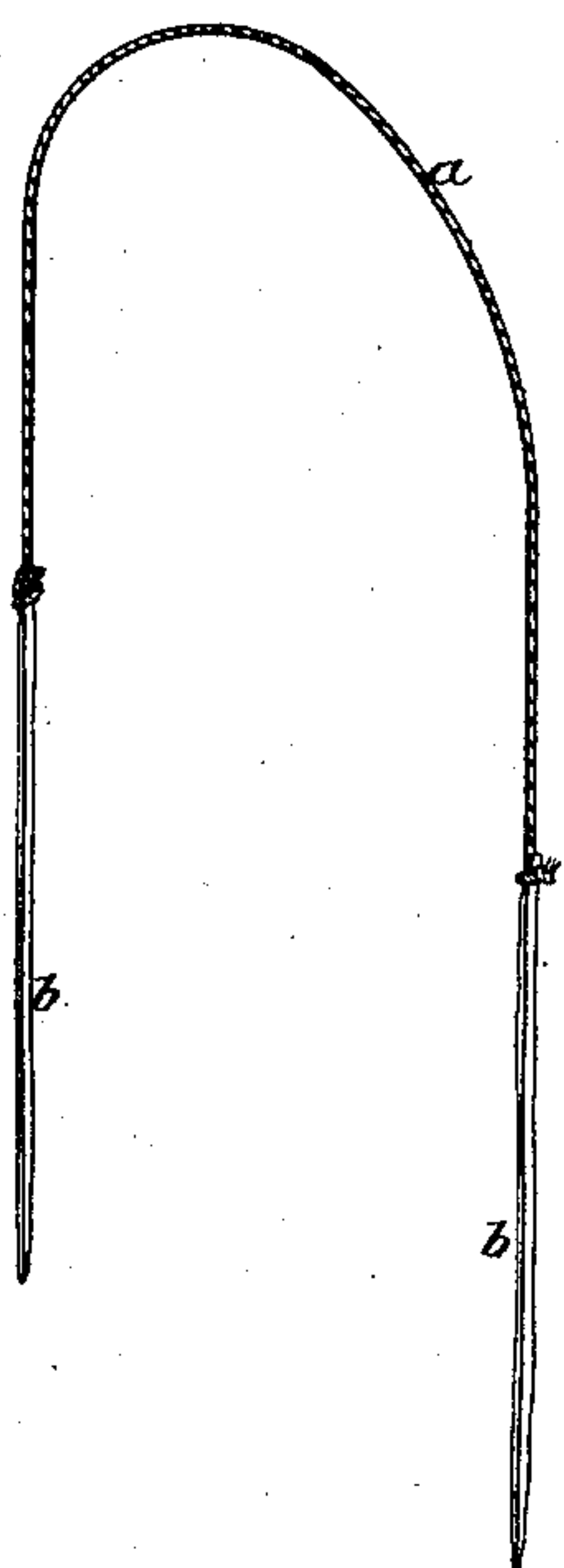
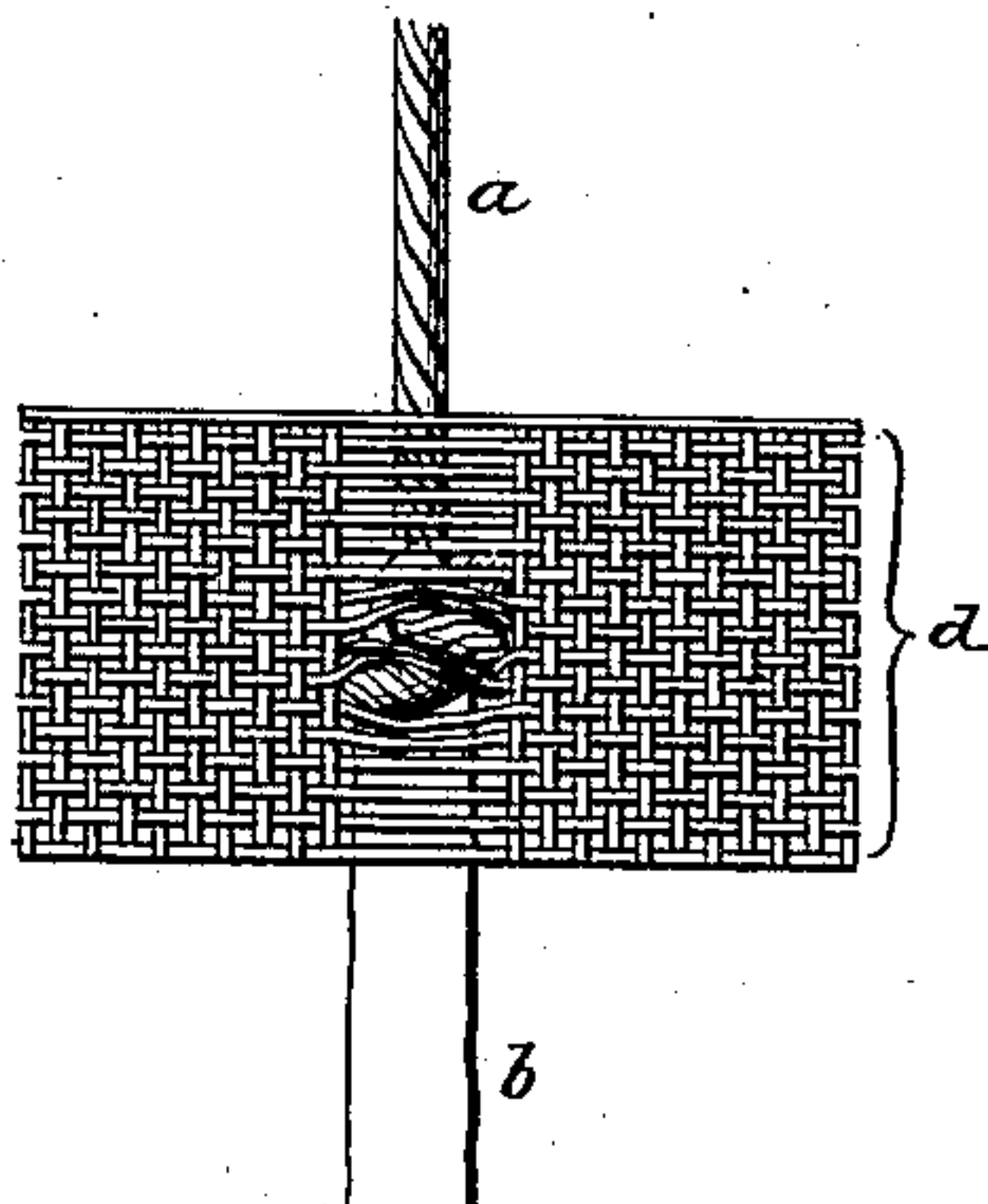


FIG. 3.



FIG. 4.



Witnesses
William D. Bonner.
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UNITED STATES PATENT OFFICE.

JAMES HAND, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO G. RALSTON AYRES, WILLIAM MONTGOMERY AYRES, AND LOUIS H. AYRES, ALL OF SAME PLACE.

FLY-NET.

SPECIFICATION forming part of Letters Patent No. 370,696, dated September 27, 1887.

Application filed April 25, 1887. Serial No. 236,001. (No model.)

To all whom it may concern:

Be it known that I, JAMES HAND, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain
5 Improvements in Horse-Nets, of which the following is a specification.

My invention consists of an improvement on the horse-net forming the subject of John C. Ayres' Patent No. 228,019, dated May 25,
10 1880, the object of my invention being, mainly, to cheapen the net without detracting from its efficiency.

In the accompanying drawings, Figure 1 is a side view of a horse-net made in accordance
15 with my invention; Fig. 2, a perspective view of one of the transverse cords of the net; Fig. 3, an enlarged view of part of one of said cords, and Fig. 4 an enlarged view showing the construction of part of the net.

The net forming the subject of the patent
20 above alluded to was composed of longitudinal textile tapes, or, as they are termed in the trade, "bars," and transverse strips of leather, usually termed "cords," these strips being
25 interwoven with said bars where they crossed the same, the leather cords being employed because their loose pendent ends formed lashes which would not become entangled, and the longitudinal textile bars being used because
30 such use facilitated the manufacture and reduced the cost of the net, as compared with one having longitudinal leather bars, to which the transverse cords were knotted. Each of the transverse cords of the patented net was,
35 however, composed of one piece of leather, and owing to their length the cost of these cords constituted by far the greater part of the entire cost of the net.

In carrying out my present invention, therefore, I use in place of the leather cords formerly employed, composite cords—that is to say, cords composed of a central textile portion, *a*, with leather lashes *b* secured to the
40 ends thereof, as shown in Fig. 2, these leather lashes constituting the loose pendent portions of the cord and being consequently free from that tendency to entanglement which is a defect of textile-cord lashes—a defect which is not wholly overcome even when such lashes
45 are provided with metal tips, as has been proposed. The length of the central textile portion, *a*, of the cord is such that in making the net the knots formed in joining the ends of said

central portion to the leather lashes *b* will coincide with the outermost or lowest of the longitudinal textile tapes or bars *d* of the net, and
55 will, by engagement with the warp-threads of said bars, serve to prevent lateral displacement of the cords.

The composite cords are cheaper than those
60 made wholly of leather, for the textile portions of the cords are inexpensive, and the short lashes *b* can be made of scrap or waste leather, and as the weaving of the net is not rendered any more difficult by the use of said
65 composite cords, it follows that the net can be manufactured more economically than one made in accordance with the patent referred to above.

The textile portion *a* of the cord shown consists of twisted strands; but a narrow textile
70 tape or band may be used in place thereof, and is regarded as the equivalent of the same.

In forming the breast portion of the net, looped leather strips are interwoven with the
75 lower tapes or bars, *d*, of the net, in the manner shown in Fig. 1, so as to form the lashes on this portion of the net.

Rubber or rubber-covered strips, or other equivalents of leather, may be used in making
80 the lashes *b*, although the use of leather is preferred.

I claim as my invention—

1. A horse-net composed of longitudinal textile tapes or bars with transverse cords
85 consisting each of a central textile portion, and lashes of leather or like material secured to the ends of the same, said transverse cords being interwoven with the tapes or bars, all substantially as set forth.

2. The combination of the longitudinal textile bars or tapes of a horse-net with transverse cords interwoven with said bars, each of said cords consisting of a central textile
90 portion, and lashes of leather or like material secured to the ends of the same, the protuberant joints engaging with the lower longitudinal bars of the net, all substantially as specified.

In testimony whereof I have signed my name
100 to this specification in the presence of two subscribing witnesses.

JAMES HAND.

Witnesses:

WILLIAM D. CONNER,
HARRY SMITH.