

No. 118,858.

Patented Sep. 12, 1871.

fig. 1.

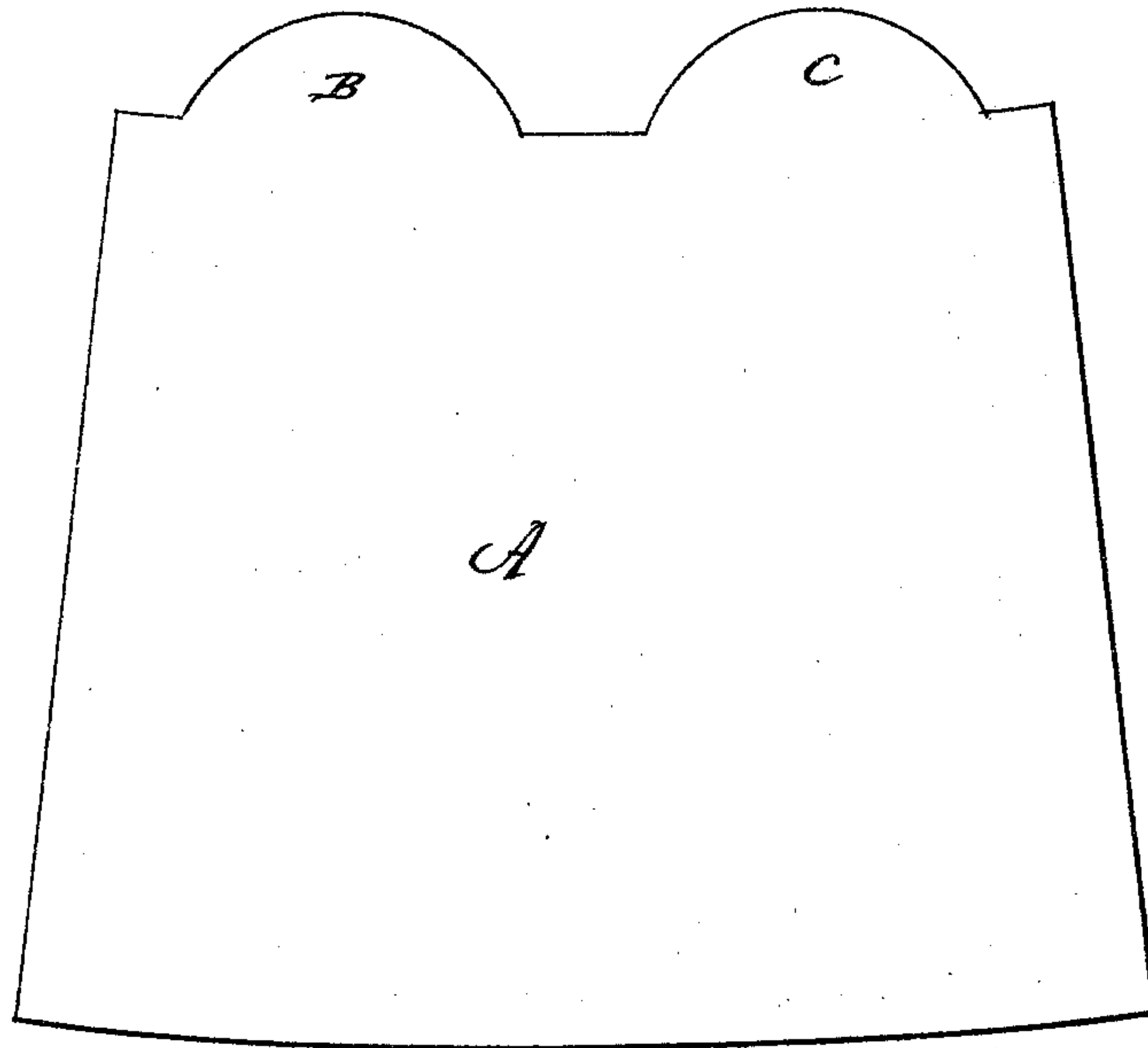


fig. 2.

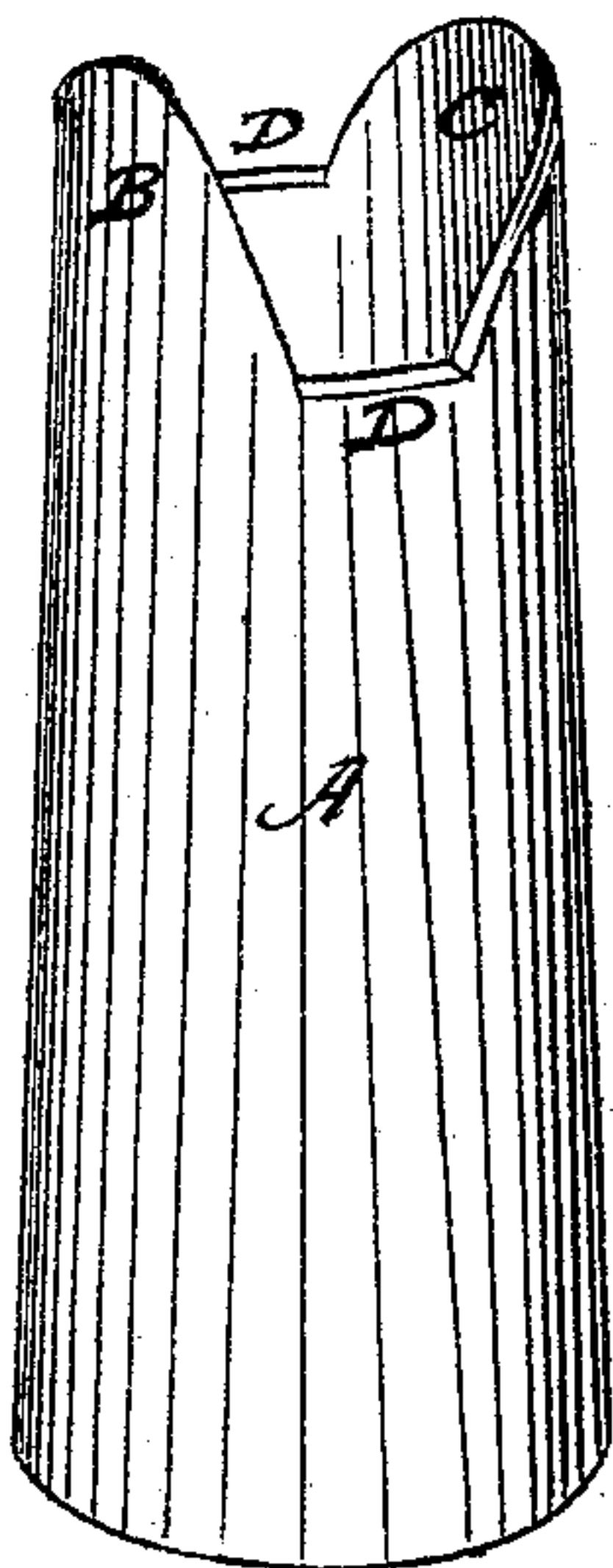
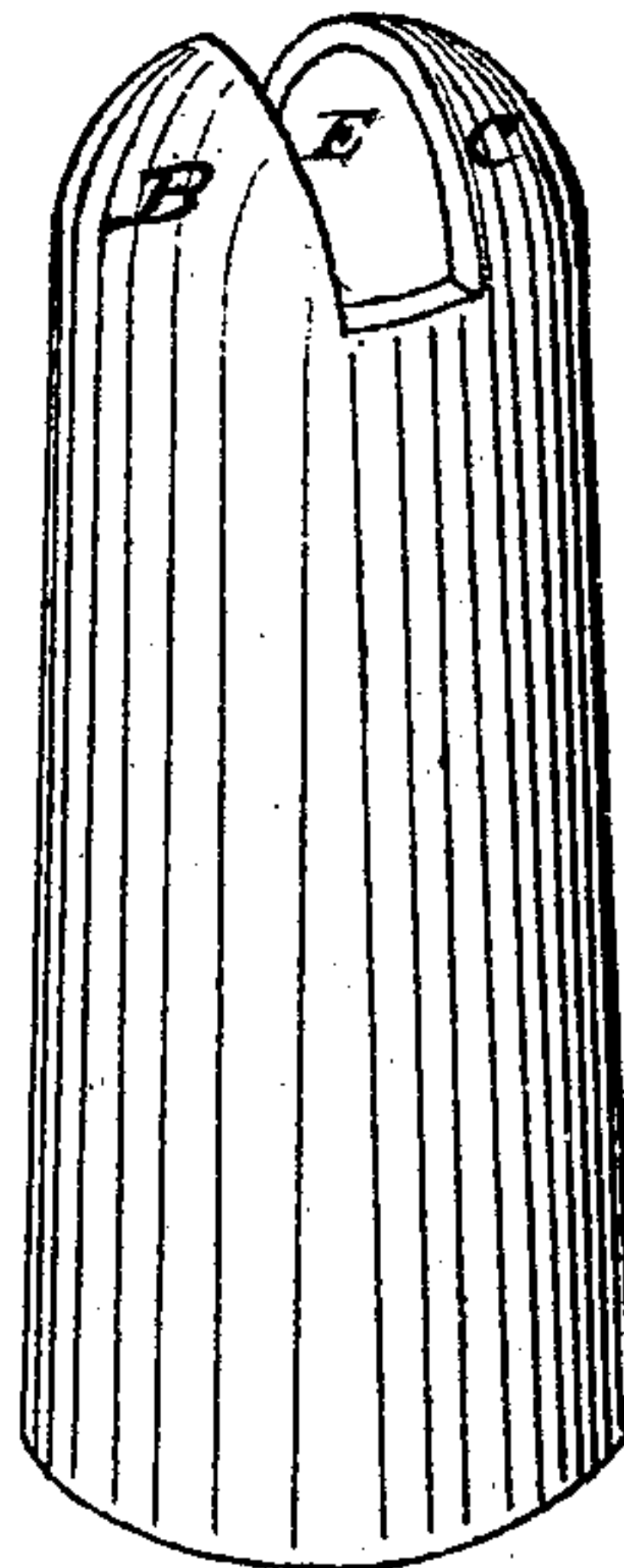


fig. 3.



Witness

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Improvement in Ferrules.

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FIG. 4

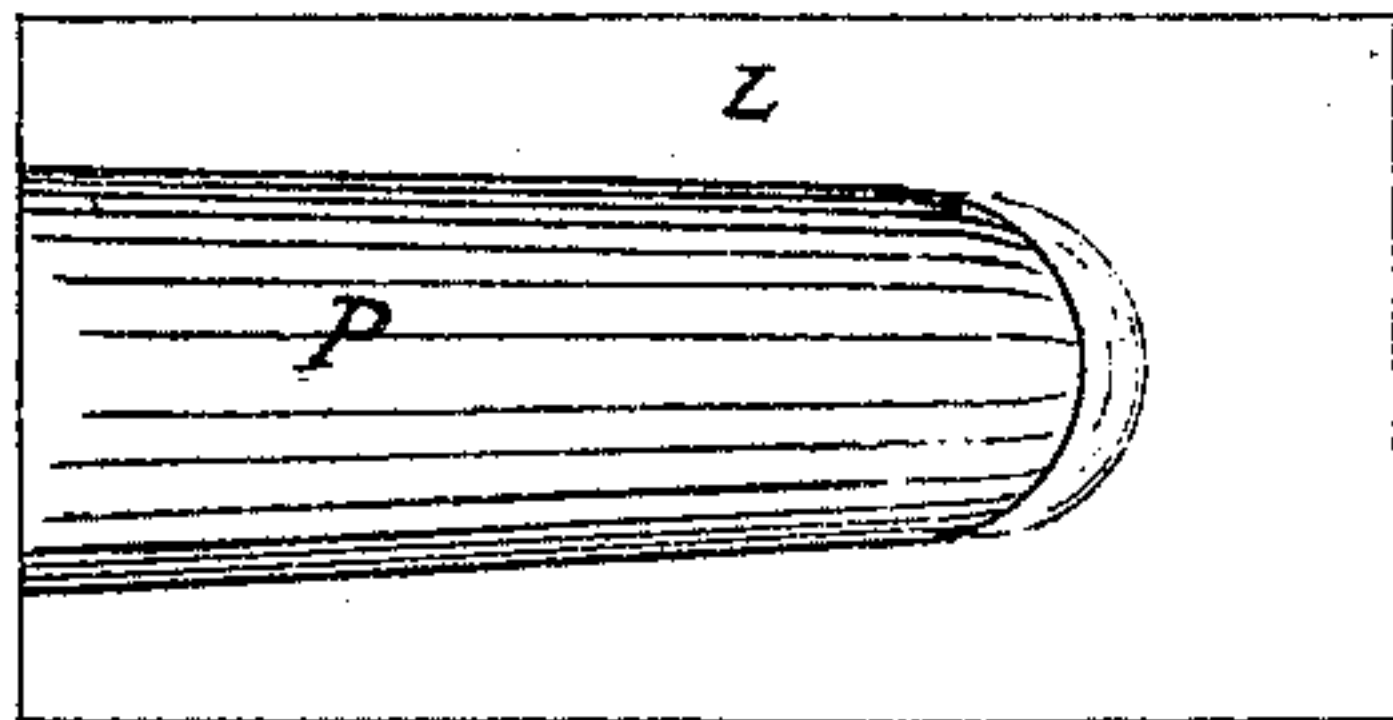


FIG. 5

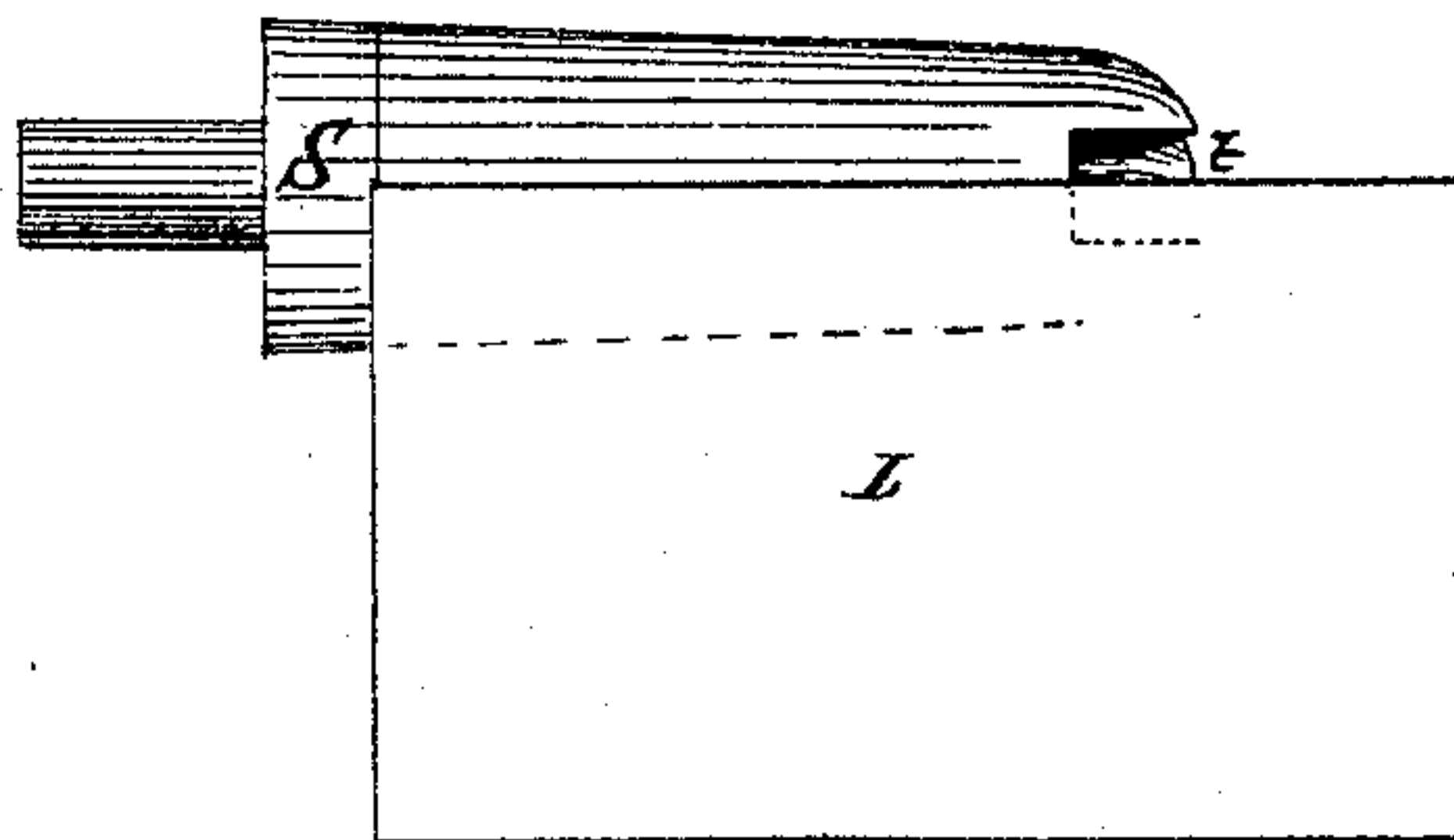
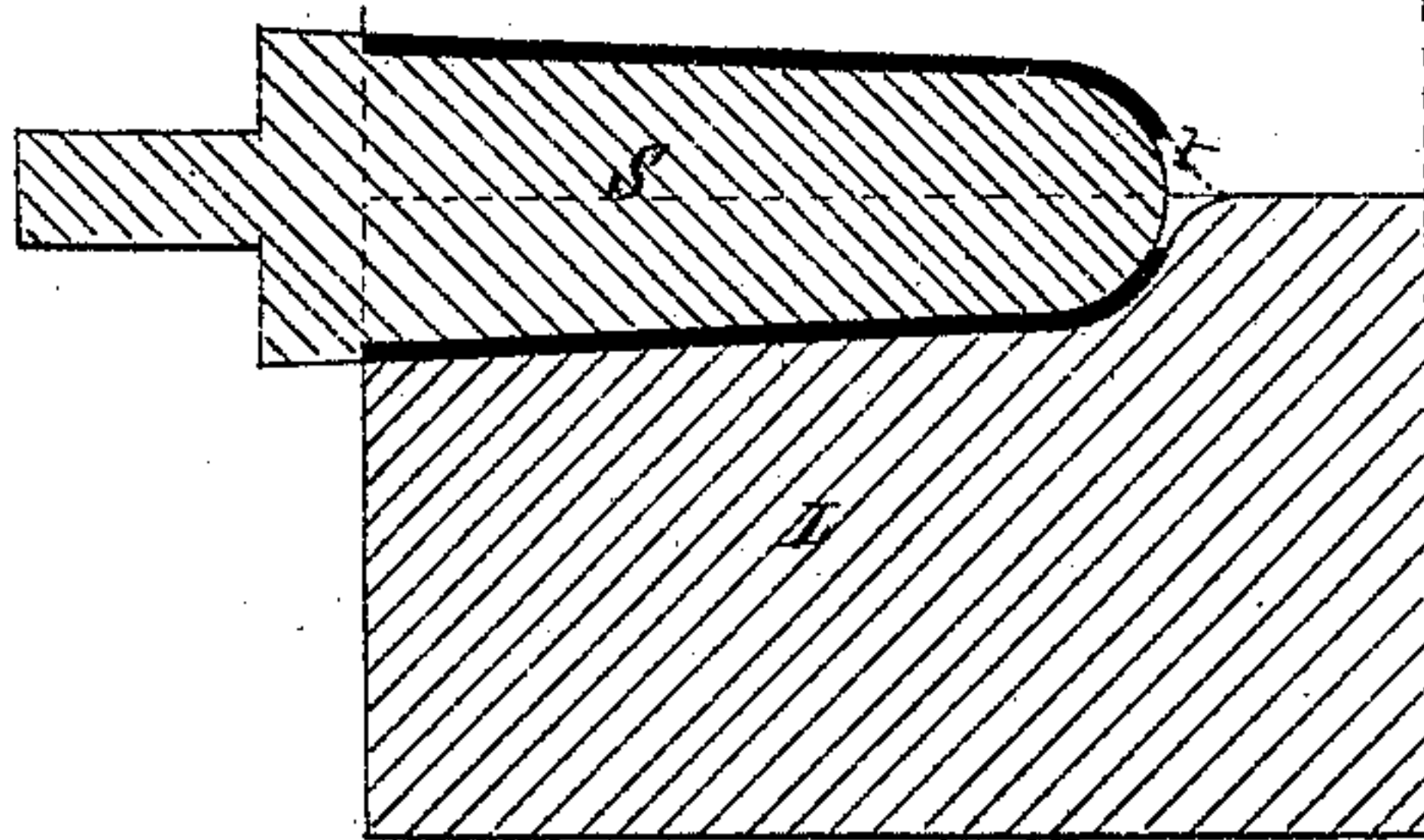


FIG. 6



Witnesses.

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UNITED STATES PATENT OFFICE.

SILAS E. JERALDS, HORACE A. NETTLETON, AND EDWIN R. LAWTON, OF WEST CHESHIRE, CONNECTICUT.

IMPROVEMENT IN METHODS FOR MANUFACTURING FERRULES.

Specification forming part of Letters Patent No. 118,858, dated September 12, 1871.

To all whom it may concern:

Be it known that we, SILAS E. JERALDS, HORACE A. NETTLETON, and EDWIN R. LAWTON, of West Cheshire, in the county of New Haven and State of Connecticut, have invented a new Improvement in the Construction of Ferrules; and we do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification and represents, in—

Figure 1, a view of the blank preparatory to forming the ferrule; Fig. 2, the ferrule partially formed; Fig. 3, the ferrule complete; Fig. 4, a top view of one part of the die; Fig. 5, a side view of one part of the die with the ferrule in place; and in Fig. 6, a central section of same.

This invention relates to an improvement in the construction of ferrules with round or spherical ends, in which said spherical end is the slit to receive the shank of the tool.

Heretofore these ferrules have been formed either by drawing up from a blank into the form required and then slitting the end, or by inserting a solid piece into the end of the tube, the said piece having been first formed with the required slit. The first can only be produced in metals of sufficient ductility to admit of this process. The second process is too expensive for practical use.

Our invention, which overcomes the last-named difficulty, enables us to produce ferrules from iron or steel; and consists in first cutting the blank of the length required for the ferrule, and of the width and shape, so that when rolled to bring the edges together the desired form for the barrel or tubular portion will be attained; and the lower end of the blank is provided with two projecting tongues of semicircular form, which, when the tube is sloped, will be upon opposite sides of the said tube; then, by a spherical-shaped die, these projections are struck up to form the spherical end of the ferrule, the shape of the edges of the projection being such that when so struck up they will produce the slot required in the end of the ferrule.

A is the blank, of the length required for the ferrule and of the width and shape, so that

when rolled into tubular form the desired form will be attained, here represented as conical. On the lower end of the blank we form two projections, B C, of semicircular form, so that when rolled into tubular shape, as in Fig. 2, the two projections will be upon opposite sides, and with spaces D D between them equal upon both sides; then, in a spherical or suitably-formed die, these projections B C, as more fully hereinafter described, are struck to the form required, as in Fig. 3, the edge of the projections being of such shape that when so struck they will form the slot E required for the insertion of the tool.

It will be understood that the edges of the blank, when brought together, are brazed, soldered, or otherwise secured together, and this may be done before or after the end is struck up.

The dies by which the end is struck up and the manner of using them are illustrated in Figs. 4, 5, and 6. The two parts of the die are alike. I shall, therefore, for convenience, call the part L, represented, the lower part of the die, in which a space, P, is formed corresponding to one-half of the ferrule; and when the two parts are together they are open at one end.

The ferrule, after having been brought into cylindrical shape, is placed upon a former, S, which closely fits the ferrule, and the former, with the ferrule therein, is set into the lower die, so that the slot *t* of the ferrule will be parallel with the surface of the die. The former is firmly held in place by power in the rear; then the upper part of the die struck thereon forces the lips on the ferrule down onto the spherical end of the former, as seen in Figs. 5 and 6.

By this construction much time is saved over and above the common construction, inasmuch as the slit is formed in cutting the blank and requires no time; and, further, this may be formed of metal of slight ductility, as steel or iron.

We claim as our invention—

The method herein described for constructing ferrules.

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