

(No Model.)

E. C. SMITH.

BELT HINGE.

No. 322,986.

Patented July 28, 1885.

Fig. 1.

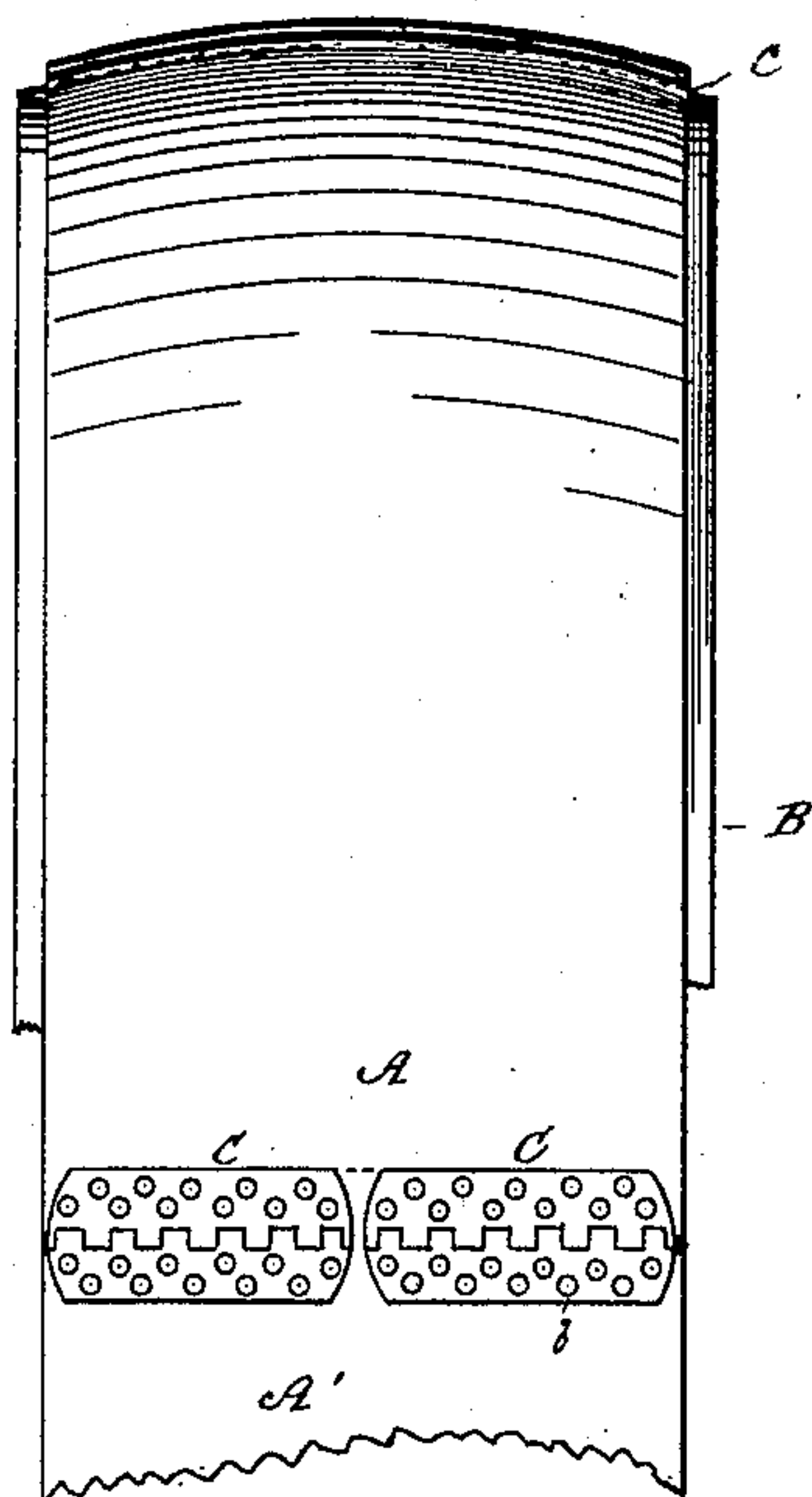


Fig. 2.

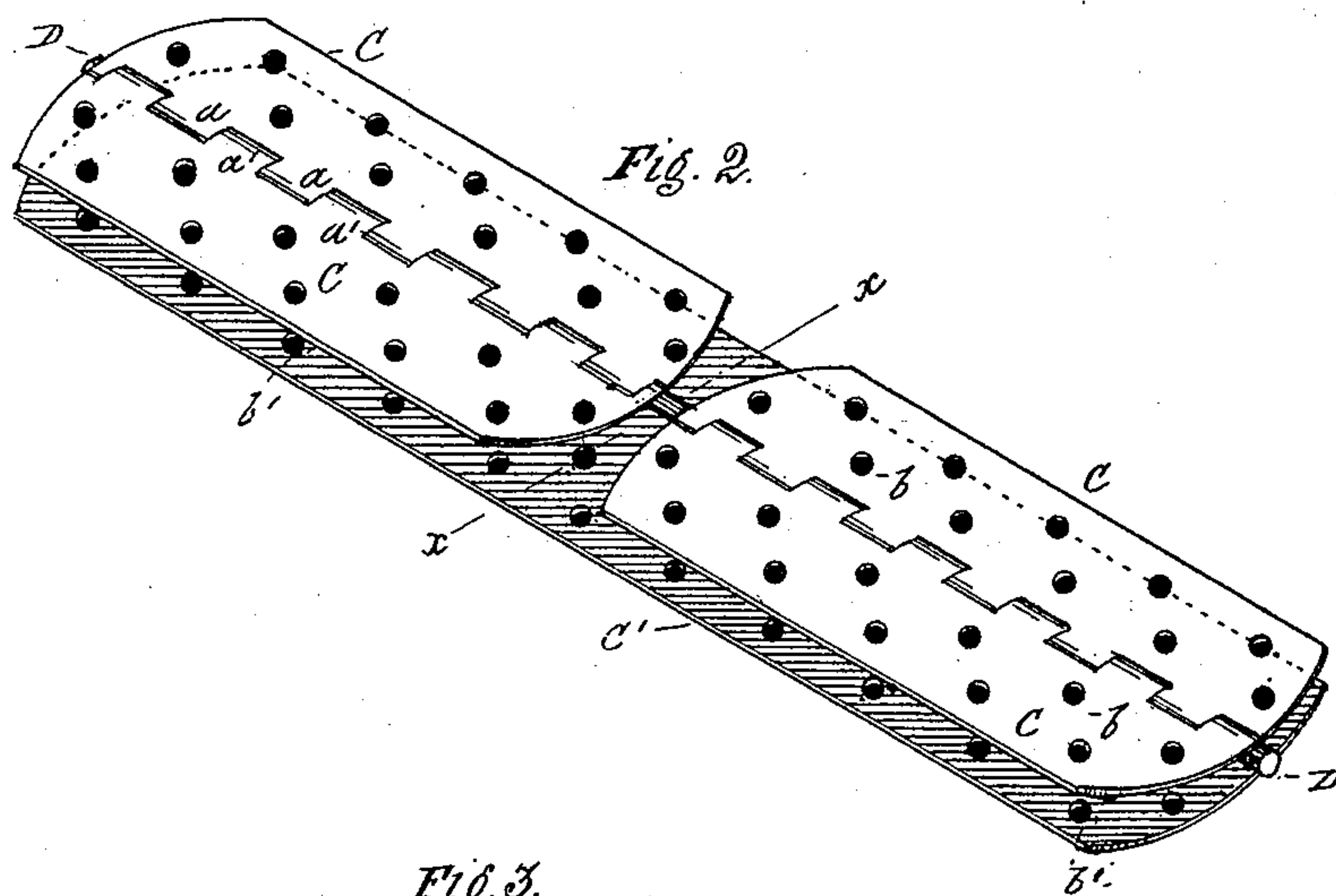
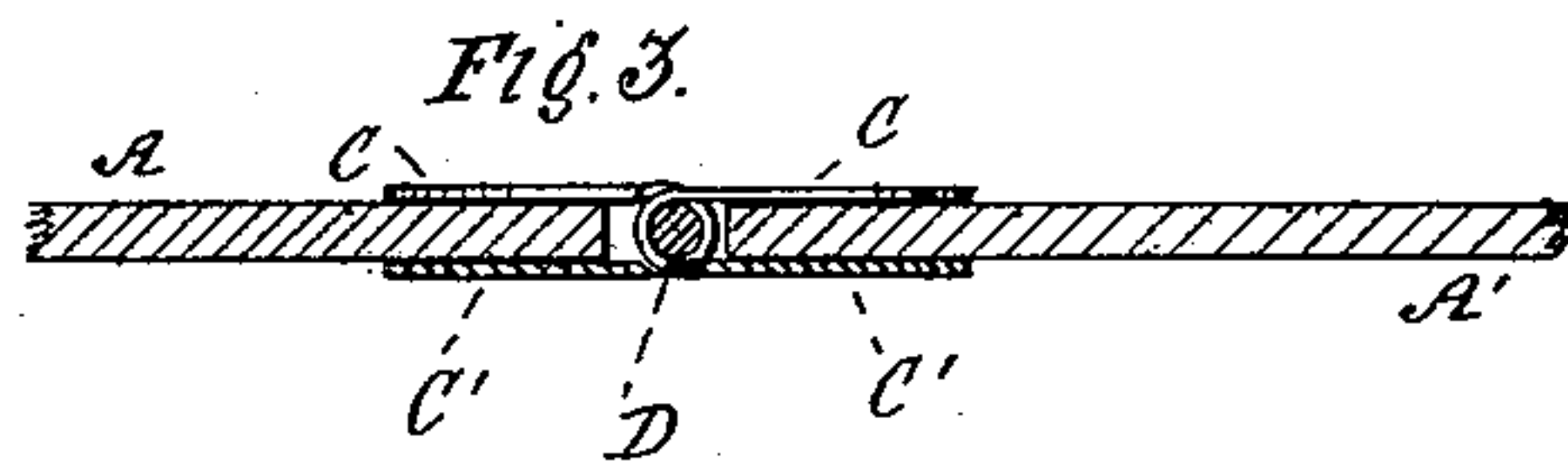


Fig. 3.



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BELT-HINGE.

SPECIFICATION forming part of Letters Patent No. 322,986, dated July 28, 1885.

Application filed May 4, 1885. (No model.)

To all whom it may concern:

Be it known that I, EUGENE C. SMITH, of the city of New York, in the county and State of New York, have invented a new and useful Improvement in Belt-Hinges; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

10 This invention relates to an improvement in means for connecting the two ends of a pulley-belt, so as to dispense with the usual belt-lacing, which soon wears out, and to connect said ends securely and permanently, and
15 at the same time to enable the belt to fit snugly to the face of the pulley when the latter is curved. More especially it is designed as an improvement on a certain belt-hinge for which Letters Patent No. 294,923 were granted
20 to me March 7, 1884, and which consists of double plates forming a hinge, which said plates are riveted to the adjacent ends of the belt, which latter are thereby securely connected. In the said patent belt-hinge both
25 the upper and lower plate are made continuous or each in one piece, and the rigidity of the metal of which they are made prevents them from adapting themselves to the face of the pulley when the same is curved; and the
30 object of this improvement is to obviate that difficulty by constructing the hinge in such manner that it will readily adapt itself to the curved face of the pulley when passing over the same. To this end I form one or both
35 plates of the hinge (either the upper or lower, or both) in two or more sections or parts, and pivot the whole on a continuous rod or pintle, as hereinafter particularly set forth and described.

40 In the accompanying drawings, Figure 1 represents my improvement applied to a belt upon a pulley having a curved face. Fig. 2 is an isometrical perspective view of my belt-hinge detached from the belt, and Fig. 3 is a
45 sectional view on the line *x x*.

Similar letters of reference indicate the same parts in all the figures.

A and A' represent the meeting ends of a belt which are to be connected.

50 B represents a portion of a pulley having a curved face.

C and C' are thin metal plates (preferably of steel) cut out to form a hinge, and bent centrally over a longitudinal and continuous rod or pintle, D, alternate portions *a a'* being passed over opposite sides of said rod D. The ends of the belt are inserted, respectively, between the upper and lower plates thus formed on each side of the rod D, and are riveted thereto by means of suitable rivets passed
60 through rivet-holes *b b'*, set opposite to each other on the upper and lower plates. This construction is shown substantially in my patent above referred to, and is not herein claimed.

65 My improvement consists in making either the upper plate, C, or the lower plate, C', or both the upper and lower plates, in sections, which sections are pivoted or hinged on the rod D, so that whenever the hinge passes over
70 the crown *c* of the pulley it will readily conform and adapt itself to the curved surface of the face of the pulley.

In the drawings I have shown the upper plate divided into two sections and the lower
75 plate made continuous; but the upper plate may be made continuous and the lower plate divided into sections; or, if preferred, both the upper and lower plates may be divided into sections of two or more, as desired, all
80 of the sections being hinged on the rod D, as before described. The hinge is made somewhat shorter than the width of the belt, so that when the latter becomes stretched by use it will not project over the sides thereof, and
85 the ends and corners of the plates may be rounded, so as not to chafe the belt. The surfaces of the plates which lie against the leather may also be roughened, so as to take a firmer hold thereon, and for the same pur-
90 pose the rivet-holes may be punched so as to leave a burr on the inside of the plate next the leather.

I do not broadly claim in this application a belt-hinge composed of two plates hinged
95 together and attached to the meeting ends of a belt, as that has already been used. My present improvement consists in adapting such a hinge to conform to the curvature of the face of the pulley by dividing said plates
100 into sections.

What I claim as my invention is—

A belt-hinge composed of two double plates, C and C', each turned over and hinged upon a continuous central rod or pintle, D, as described, one or both of said plates being divided into sections and thereby made capable of flexure transversely and longitudinally, and said plates provided with rivet-holes *b b'*,

set opposite to each other on opposite plates, as and for the purpose set forth.

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Witnesses:

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