

(No Model.)

A. B. COLEMAN.

PROCESS OF MANUFACTURING HORSE COLLARS AND OTHER ARTICLES.

No. 374,452.

Patented Dec. 6, 1887.

Fig. 1.

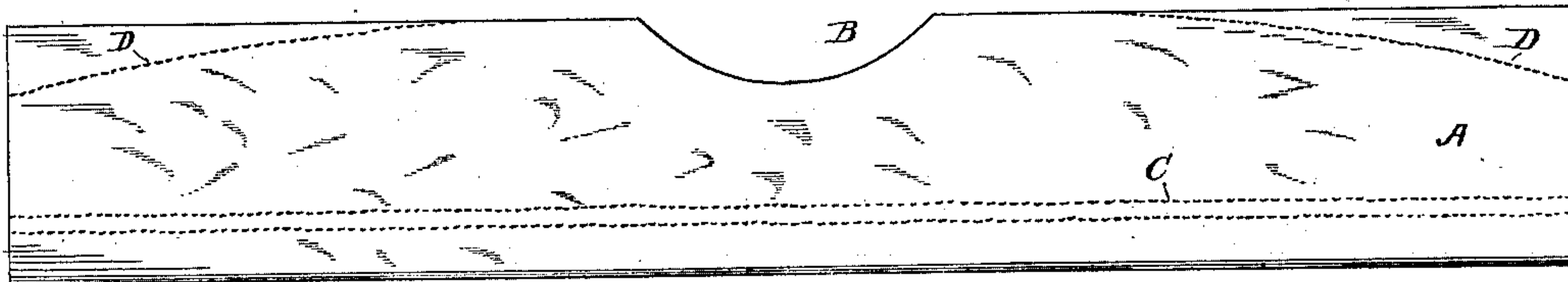


Fig. 2.

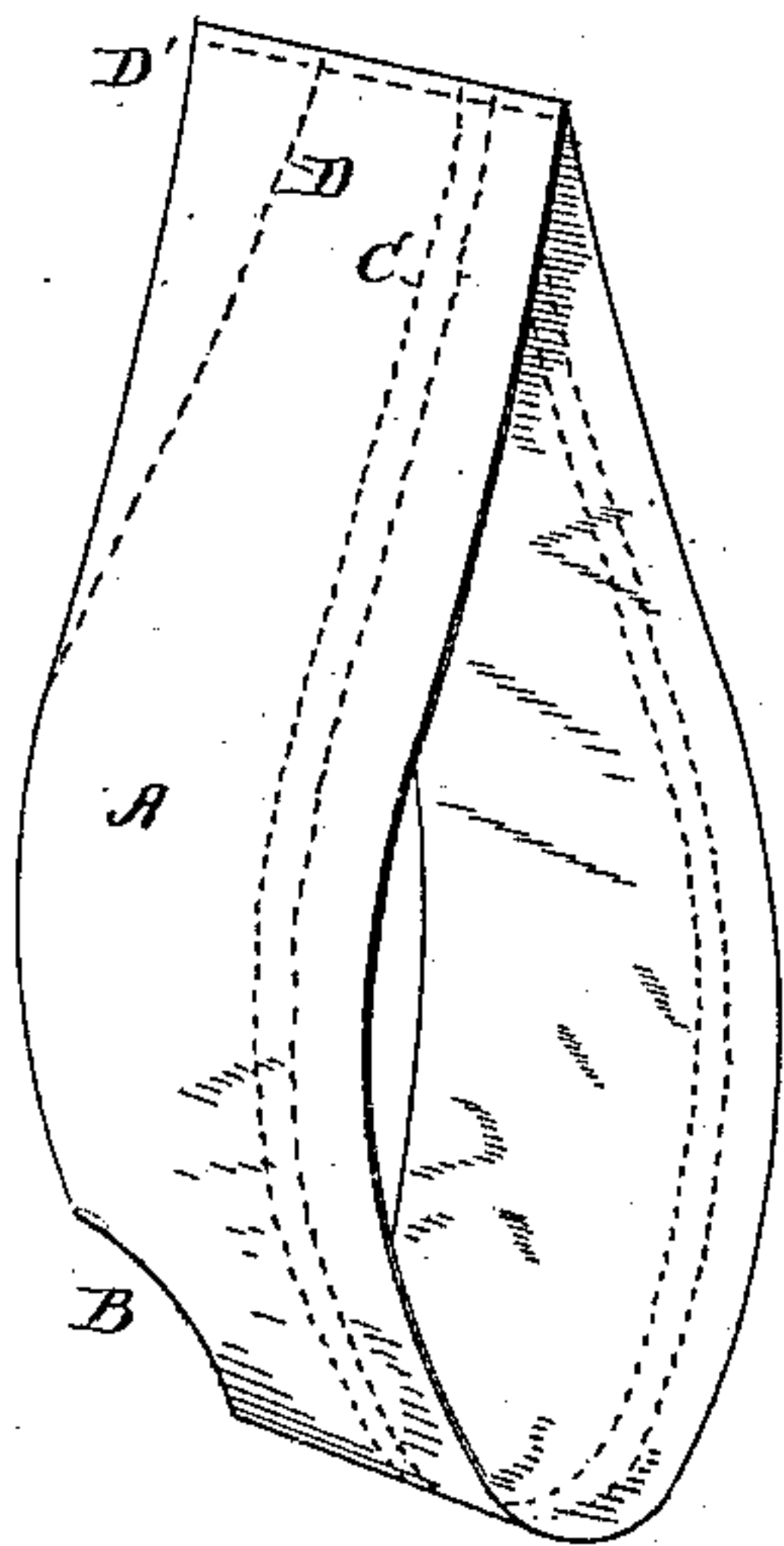


Fig. 3.

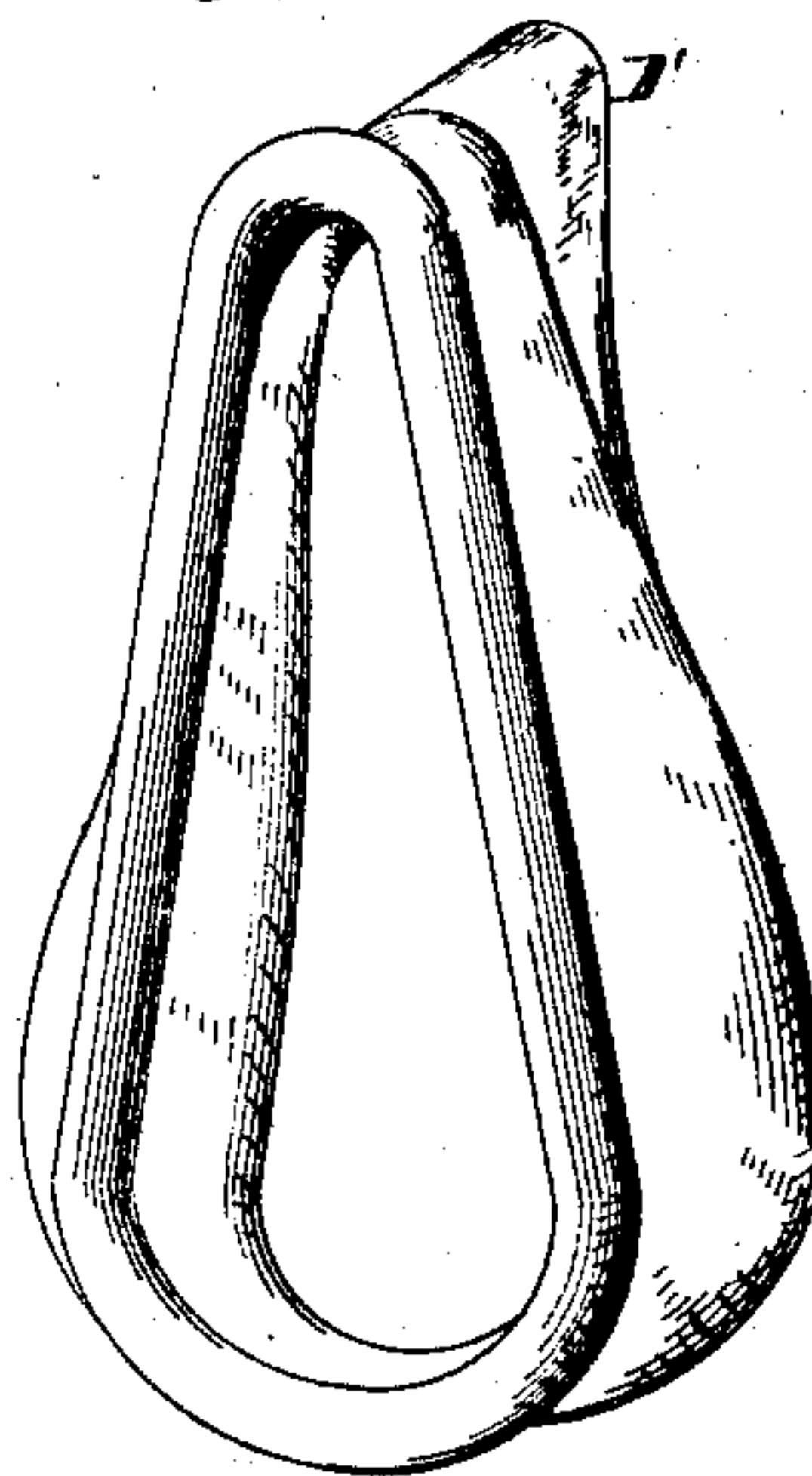
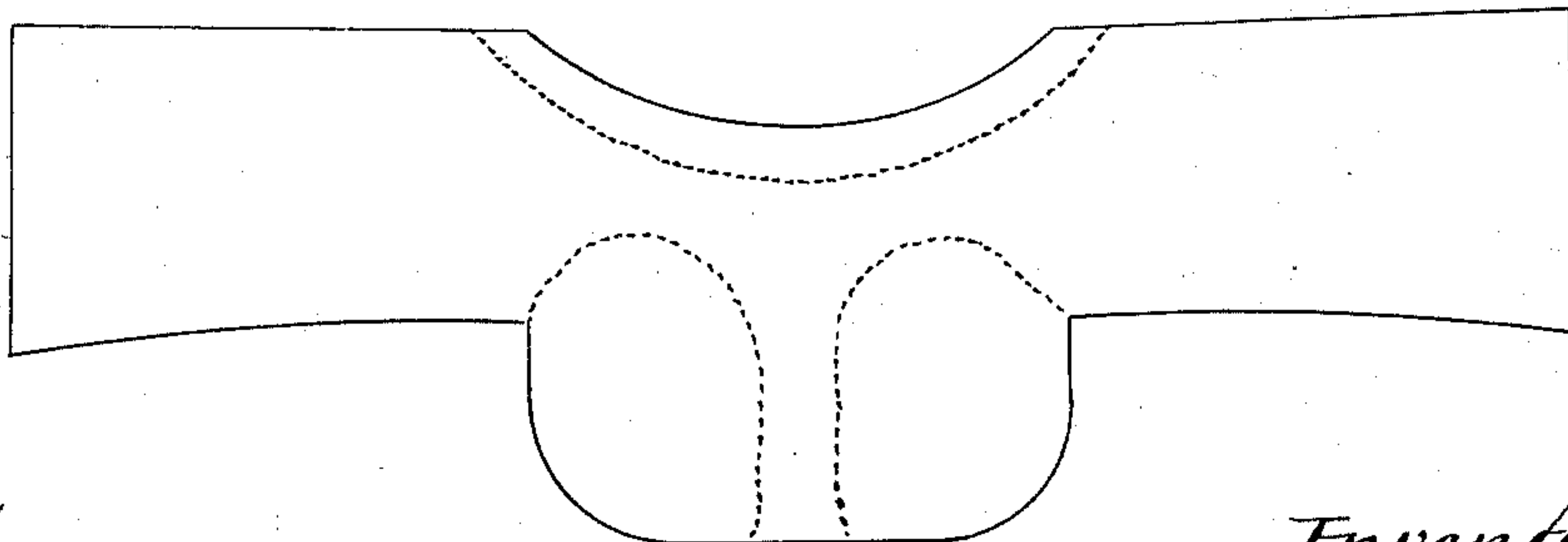


Fig. 4.



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UNITED STATES PATENT OFFICE.

AMBROSE B. COLEMAN, OF OTTERVILLE, ONTARIO, ASSIGNOR OF ONE-HALF
TO JOHN WILLIAM LANG, OF TORONTO, CANADA.

PROCESS OF MANUFACTURING HORSE-COLLARS AND OTHER ARTICLES.

SPECIFICATION forming part of Letters Patent No. 374,452, dated December 6, 1887.

Application filed May 28, 1887. Serial No. 239,675. (No model.)

To all whom it may concern:

Be it known that I, AMBROSE BOOTH COLEMAN, a subject of the Queen of Great Britain, residing at Otterville, in the county of Oxford and Province of Ontario, Canada, have
5 invented certain new and useful Improvements in the Process of Manufacturing Horse-Collars, Saddles, &c., of Felt or other Fibrous Material; and I do declare the following to be a full,
10 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 the letters and figures of reference
15 marked thereon, which form a part of this specification.

My invention relates to the manufacture of horse-collars, or other articles of a similar character, of felt or other fibrous material,
20 and has special reference to the process of forming, covering, or stuffing, fulling, shaping, and finishing the same.

For convenience of description, while I show in the drawings a saddle-blank, I have
25 illustrated and described my process as applied to the making of a horse-collar, although I do not confine myself to that alone, as it is evident that my process is equally applicable to the manufacture of other articles of like nature without any material departure from the
30 process hereinafter fully set forth and described.

In the accompanying drawings, Figure 1 represents a tubular blank, of felt or other fibrous
35 material having fulling properties, cut and stitched, so as to assume the form of a horse-collar when it is properly filled and its ends united. Fig. 2 represents a blank folded in the form of a collar previous to its being filled.
40 Fig. 3 represents the filled blank after it has passed through the fulling-machine and been shaped and finished on the shaping-block. Fig. 4 represents a fibrous blank having fulling properties, cut and stitched, as indicated, to
45 form a saddle.

In the drawings like letters indicate in the several figures similar parts.

A is the fibrous blank, preferably made in tubular form and of felt or other fibrous material having fulling qualities. The purpose of

the blank thus formed is to provide internal space for the filling that is necessary to give body and shape to the collar when finished.

A portion of the blank is cut away at B, midway between the two ends, as shown in
55 Fig. 1. The purpose of the cutting is to conform to the lesser circumference of the lower part of the collar when completed, and at the same time to provide a convenient opening for the introduction of the necessary filling
60 that is to give body and form to the collar.

The parallel rows of stitching C have for their object the separation of the blank into two longitudinal cells to be separately filled, the narrow or edge portion forming in the finished collar the outer rounded side or edge of
65 the hames groove or recess, the inner or larger portion forming the main body of the collar.

The hames-recess is formed by the rows of stitching, which cause the necessary depression, and thus prevent the portion of the blank between the rows from being filled.

The lines of stitching D, (seen on either side of the cut-away part B,) have for their purpose the restriction of the bag or fillable portion of the blank to the shape best calculated to secure the proper form and proportions in the completed collar. The end portions outside of the stitching form the cape D' at the
80 upper end of the collar.

After the blank has been cut and stitched and filled, as indicated, its two ends are united by stitches or otherwise, and it is ready for fulling. I use for the purpose of filling any
85 fibrous material having fulling qualities of a lesser degree than that used in the tubular blank, although in practice I prefer that the filling used shall have little or no fulling qualities, my object being to have the filling retain
90 as much as possible of its original pliability and compactness, so that the outer portion which holds the same will shrink and necessarily harden more effectually around it when subjected to the fulling treatment. Through
95 this I secure a compact body, having sufficient pliability to the material within it to withstand wear on its outer surface and yet be easy on the shoulders of the horse.

The filling of the blank should be carefully done, so that each portion to be filled shall pre-

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sent, when the opening B is to be closed, the relative uniformity of surface that is to be secured in the collar in its finished state.

After the filling has been completed and the opening closed the stuffed blank is thrown into a fulling-machine. By means of the pounding, beating, and treatment there received the blank or outer covering shrinks and hardens according to the length of time to which it is subjected to the fulling process. When properly fullled, the treated blank is put into position on a shaping-block, and there assumes the form provided for in the earlier stages of the process, whether it was for a horse-collar, a saddle, or any other article of a similar character, the fulling qualities of the original blank having caused it to so shrink and harden over the non-fullable filling as to give to the whole a compact form, as originally designed. While I prefer to first form the blank and then fill it into the required shape, it is evident that the same result can be attained by first shaping the non-fullable filling substance and afterward covering it with fibrous material having fulling properties, and then, as before described, putting it into a fulling-machine. The outer surface of the collar may be made water-proof by any well-known method.

It will be seen that my invention consists, broadly, in the covering of a fibrous material having little or no fulling properties with a fibrous material having fulling properties of a larger degree than the material so covered, subjecting the same to treatment in a fulling-machine, and afterward drying and shaping the material so fullled so as to assume the form required.

What I claim as new and of my own invention, and for which I ask Letters Patent of the United States, is—

1. The process of making horse-collars, saddles, and other articles capable of being filled, covered, and treated, as herein described, con-

sisting of the successive steps of first forming a blank or bag of the shape required, of felt or other fibrous material having fulling properties, then filling said blank with fibrous material having no fulling properties, or fulling properties of a less degree than said blank, next treating said blank so filled in a fulling-machine, and afterward drying said fullled material on a shaping-block, substantially as set forth and described.

2. The process of making horse-collars, saddles, and other articles capable of being filled, covered, and treated, as herein described, consisting of the successive steps of first forming the material that has little or no fulling properties into the shape of the article required, then covering said material so shaped with fibrous material having fulling properties in a larger degree than the material covered, then treating the material so shaped and covered in a fulling-machine, and subsequently drying and shaping the said material so fullled, substantially as set forth and described.

3. The process herein described for making horse-collars, saddles, and other similar articles, consisting of the successive steps of first forming a tubular blank of felt or other fibrous material having fulling properties, cutting, stitching, and shaping said blank, so as to assume the desired form when filled, next filling said blank with fibrous material having no fulling properties, or fulling properties of a less degree than the said blank, then treating the blank so filled in a fulling-machine, and afterward drying the same on a shaping-block, substantially as set forth and described.

In testimony whereof I affix my signature in presence of two witnesses.

AMBROSE B. COLEMAN.

Witnesses:

WM. H. H. KNIGHT,
J. S. BARKER.