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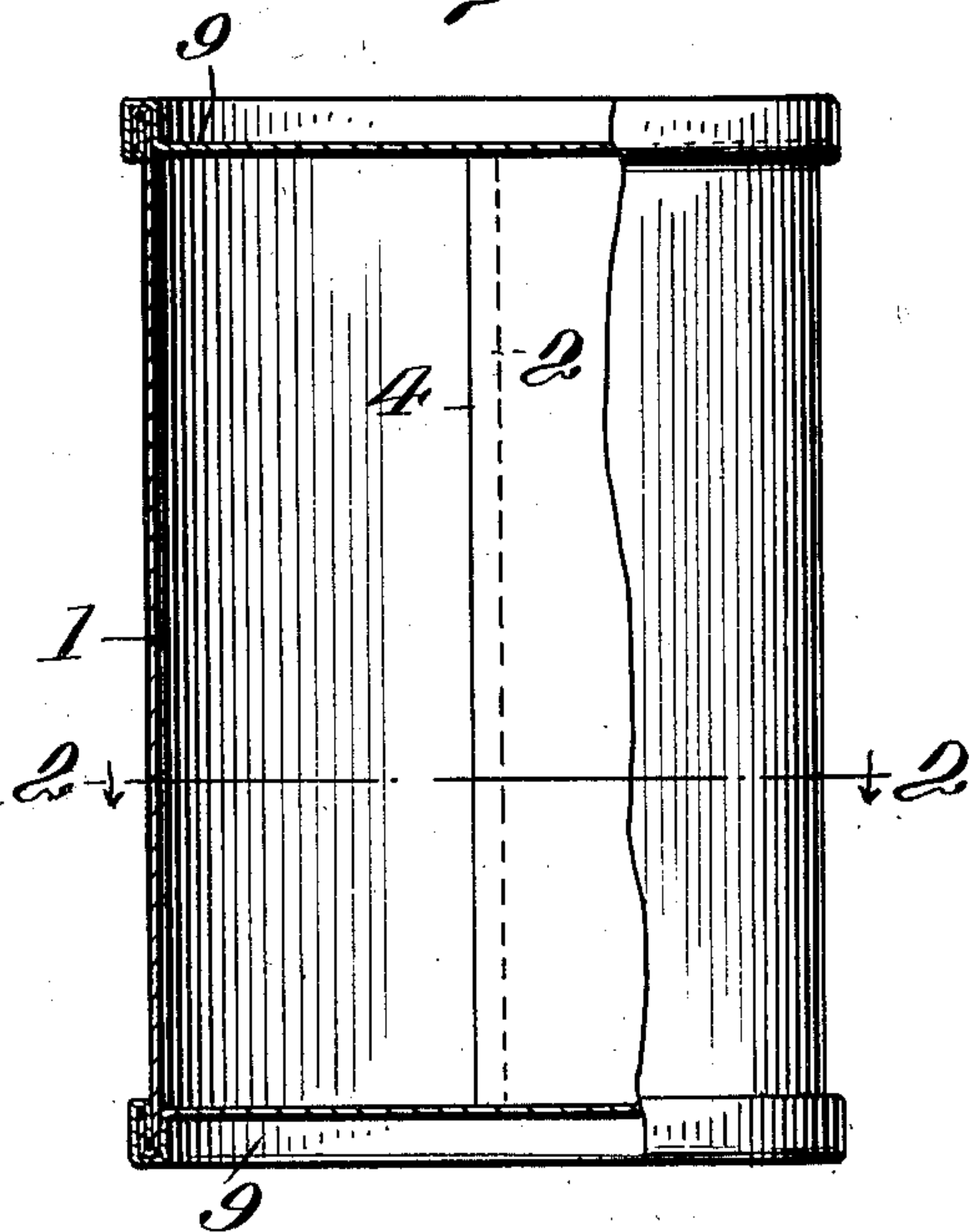
F. A. PRAHL

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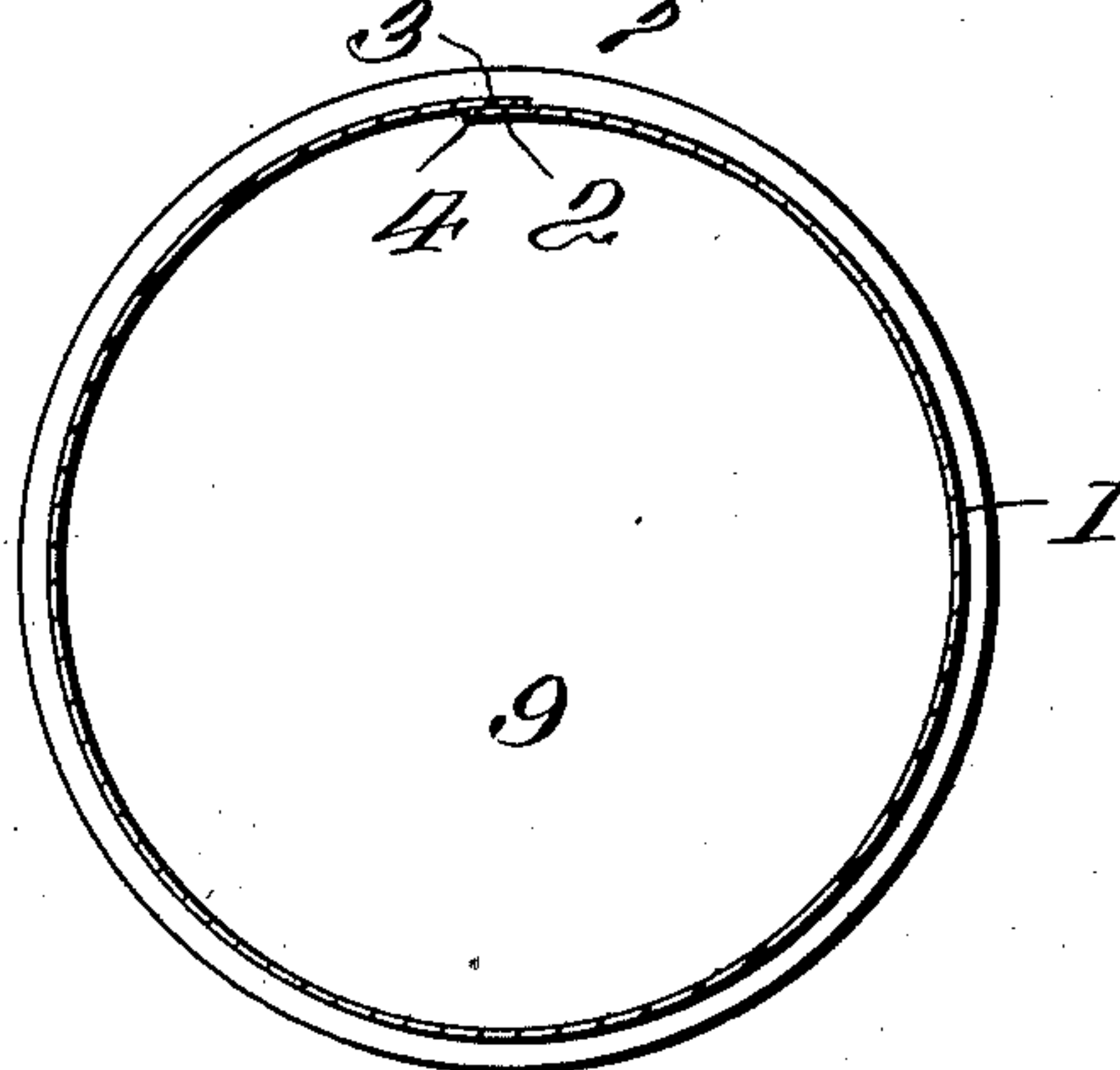
METHOD OF MAKING CONTAINERS

Filed July 6, 1926

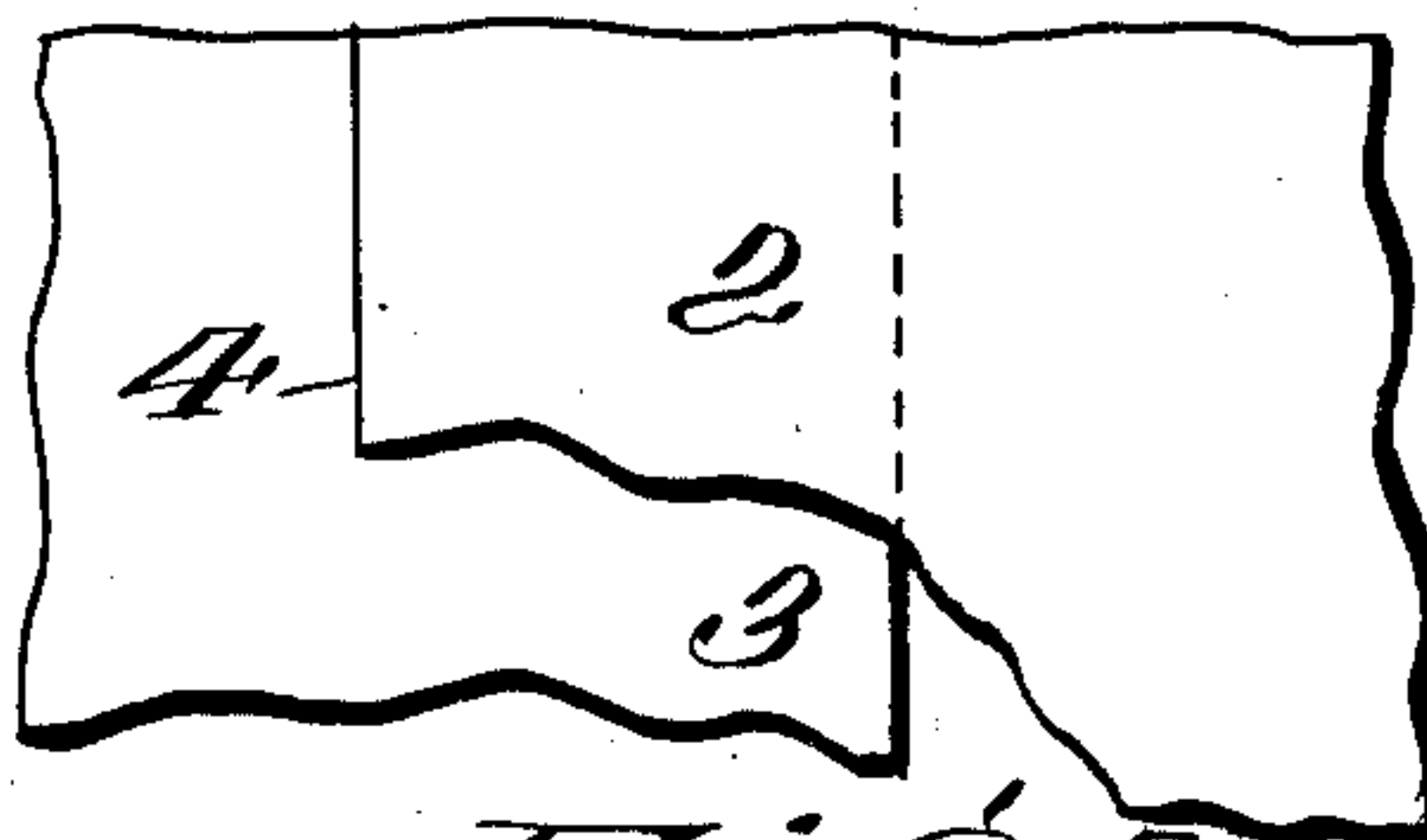
F'ig. 1.



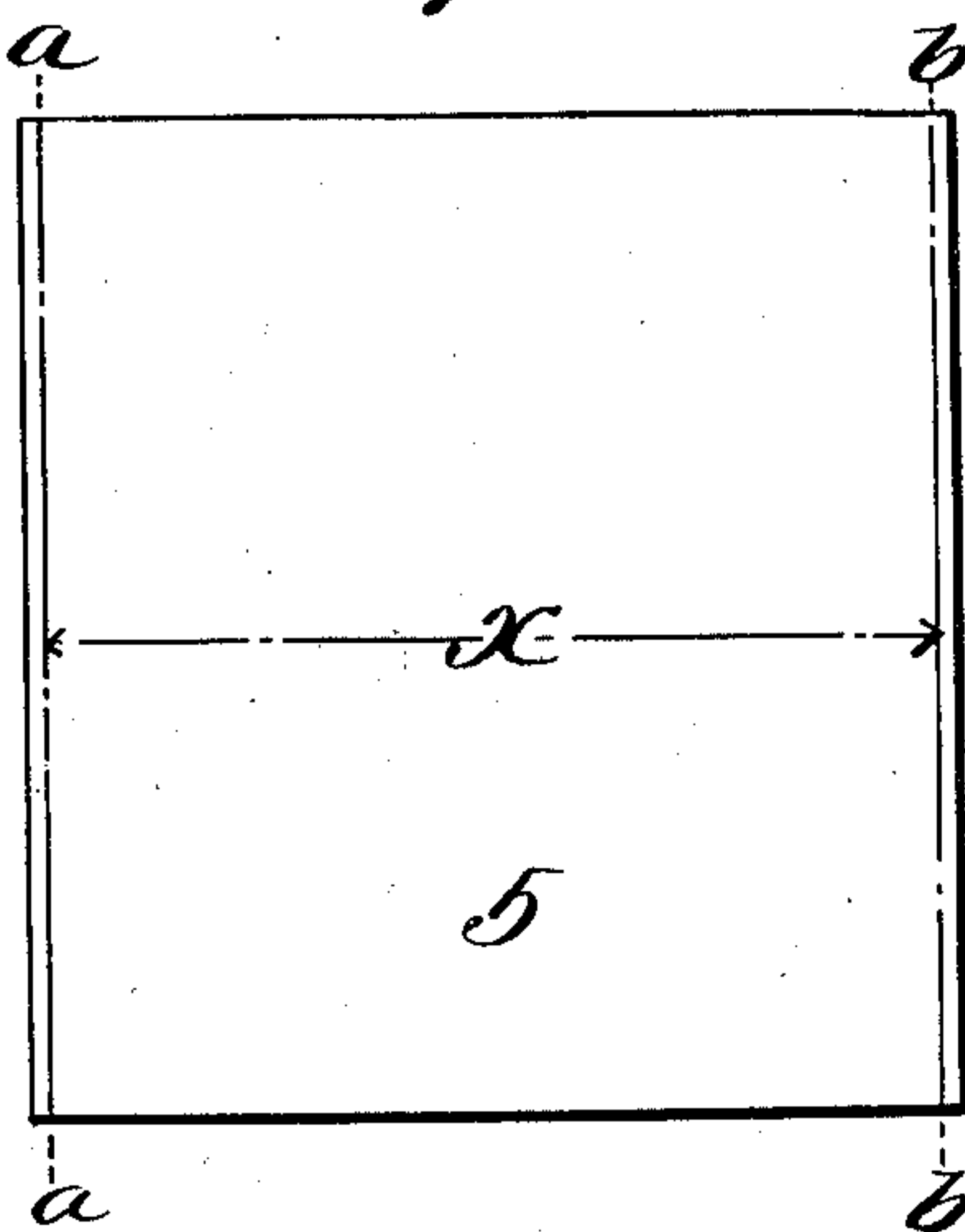
F'ig. 2.



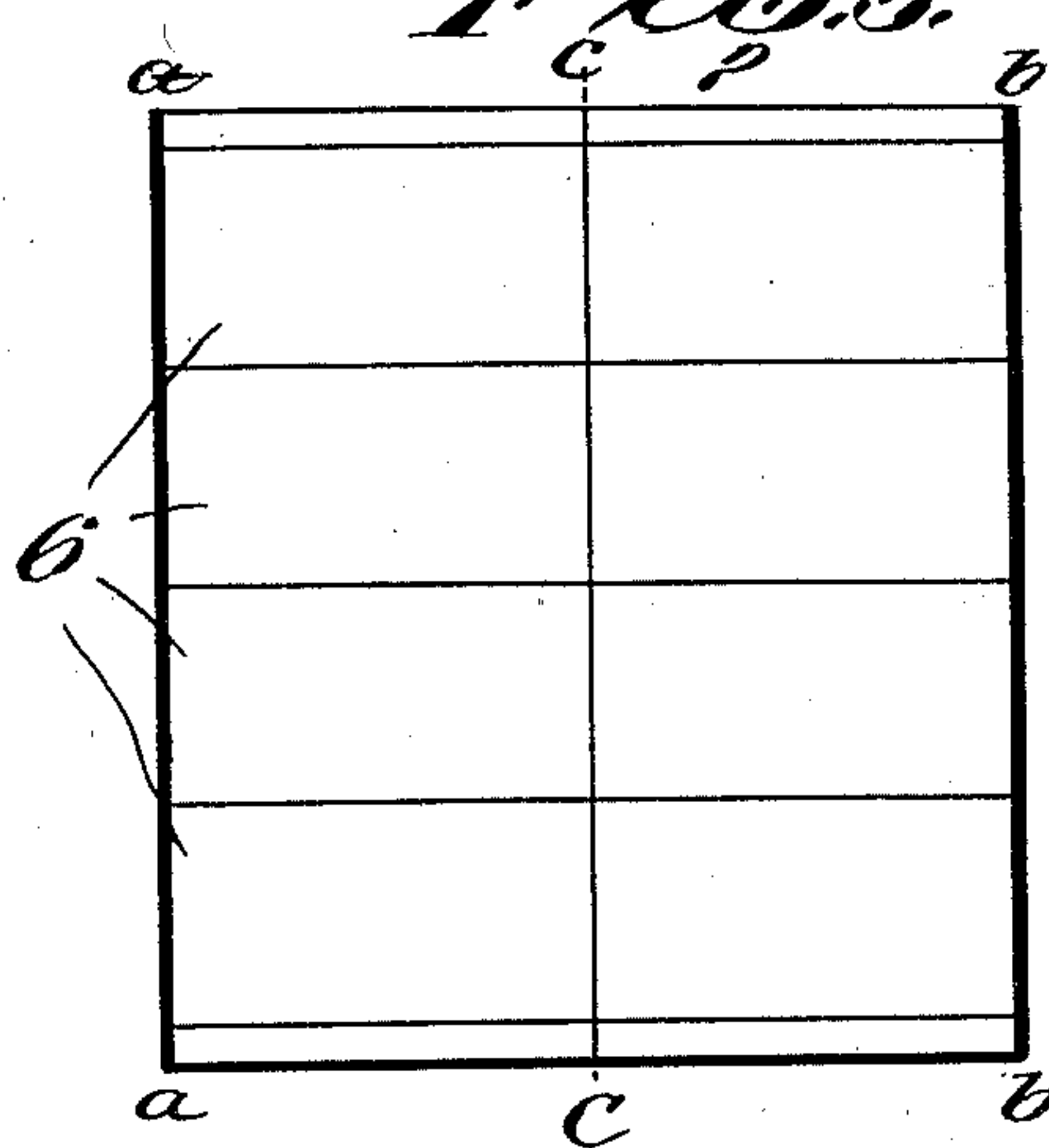
F'ig. 3.



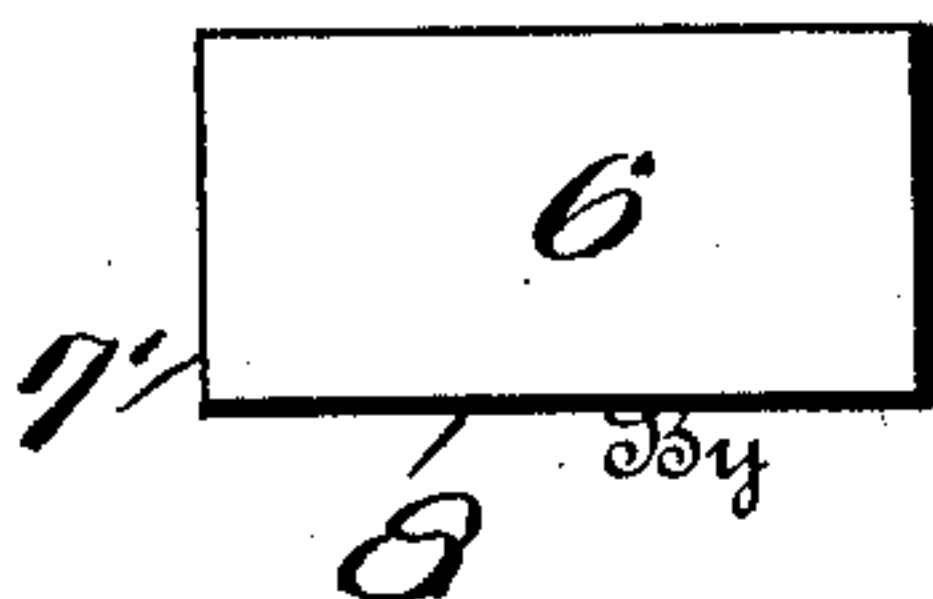
F'ig. 4.



F'ig. 5.



F'ig. 6.



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UNITED STATES PATENT OFFICE

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METHOD OF MAKING CONTAINERS

Application filed July 6, 1926. Serial No. 120,716.

The invention relates to new and useful improvements in the method of making a metal container.

5 An object of the invention is to provide a container made from metal plates coated in the sheet with the non-oxidized metal prior to the cutting of the sheets and the forming of the body of the container wherein the side edges of the body portion are lapped and
10 secured together, and the edge of the inner lapped portion of the side seam is coated with the non-oxidized metal, the same as the side faces of the sheet.

15 A further object of the invention is to provide a method of making a container of the above type wherein the sheet is so trimmed and coated prior to the cutting of the same into blanks, that the edge of the lapped portion of the side seam of the body portion of
20 the container is coated with a non-oxidizing metal.

These and other objects will in part be obvious and will in part be hereinafter more fully described.

25 In the drawings which show by way of illustration one embodiment of the invention—

Figure 1 is a vertical sectional view through a portion of a container embodying
30 my improvements;

Fig. 2 is a transverse sectional view through the container;

35 Fig. 3 is a detail of a portion of the side seam viewed from the inside of the container;

Fig. 4 is a plan view of a black sheet with the edges trimmed preparatory to the coating of the sheet;

40 Fig. 5 is a view of the sheet after it is coated and the manner of cutting the sheet into blanks for forming the bodies of containers indicated thereon, and

Fig. 6 is a plan view of a blank ready for forming the container body.

45 The invention is directed broadly to a container and method of making the same, which container is formed from sheet metal coated with a non-oxidizing metal such as tin. It has long been the practice to make metal con-
50 tainers from tin plate by cutting the plates

into blanks and then rolling the blanks and lapping the edge portions thereof to form the side seam, these lapped portions being permanently secured together by soldering. The blanks are formed by cutting the metal after
55 the black sheets are coated with tin, and as a result, the cutting through of the sheet exposes the iron or black plate forming the body portion of the sheet and on which the coating is placed. When the edge portions
60 are lapped to form the body as above noted, this forms a container wherein there is an exposed edge of the iron plate on the inner surface of the container. The present in-
65 vention is directed to a container wherein this edge which has usually been exposed is covered with the tin so that the entire inner surface of the container after it is formed is coated with tin. The invention is also di-
70 rected to a method of forming such a container wherein the coating of the edge which has heretofore been exposed is accomplished during the coating of the side faces of the black plate with the tin. In carrying out the
75 invention, the black sheet which is provided for coating with tin, is trimmed so that the width of the plate is twice the width of a blank used in making the body of the con-
80 tainer. After the sheet has been thus prepared, it is passed through the molten tin, and the entire sheet, including the edges, coated with tin. The sheet is then split down through the middle and cut transversely so
85 as to form the blanks. By this method of first trimming the sheet and then coating it with tin, the body blank can be formed wherein one edge at least at the side of the blank is coated with tin. The blank is then
90 rolled into a body in such a way that this edge which is coated is on the inside of the container.

Referring more in detail to the drawings, my improved container consists of a body portion 1 having the edge portions 2 and 3
95 overlapped and secured together permanently, preferably by soldering. This body portion is formed of sheet metal and preferably of a black steel sheet coated with tin. The sheet is so coated that the edge 4 of the edge
100 portion 2 is coated with tin. The article will

possibly be better understood by a description of the method of making. The black steel sheet indicated at 5 in Fig. 4 of the drawing is trimmed along the lines *a, a* and *b, b* so as to form a sheet wherein the width of the sheet *a* is twice the width of the blank used in the forming of the body portion of the container. The sheet is then passed through a molten bath of tin and coated with tin. The side faces, and also the edges of the entire sheet are coated with the tin. The plate 5 is then cut along the line *c, c*, which is midway between the side edges *a, a* and *b, b* of the plate. After the sheet is cut along the line *c, c*, it is then cut along transverse lines as indicated in Fig. 5, so as to form blanks for the body which are indicated at 6. The body blank is shown in plan in Fig. 6. The edge 7 of this body blank was one of the marginal edges of the main plate, and therefore, it is coated with tin. The other edges of the body blank are cut after the sheet is coated, and of course, the steel will be exposed along these edges. The body blank is then rolled into the body of the container in such a way that the edge 7 of the blank is on the inside of the container as indicated at 4 in Figures 1 and 2 of the drawings. The edge 7' is on the outside of the container, and therefore, any iron or steel which is exposed by the cutting of the blank is on the outside of the container. The edges 8, 8 of the blank 6 are at the top and bottom of the container, and when the ends 9 are attached to the formed body, these edges 8, 8 are rolled into the double seam, and therefore, the exposed iron or steel is concealed both from the inside and the outside of the container.

It will be seen from the above that I have provided a method of forming a container wherein the sheets may be coated with the tin in the usual way, and then cut into proper size blanks, after which each blank is passed through a body maker, and the body completed by the lapping of the side portions and the securing of the side portions together. All that is necessary is to properly stack the blanks after they are cut from the sheet and feed the blanks after they are stacked into the body maker in such a way that the coated edge will be on the inside of the lapped seam. After the container is made, the steel sheet forming the body portion of the metal sheet is entirely covered on the inside of the container, and this prevents any possible rusting or oxidization of the iron or steel on the inside of the container. The container, in effect, is free from oxidization, as it would be if the metal plate was coated with tin after the body portion of the container was formed.

While I have referred to the use of tin for coating the steel plates, it will be understood that any other non-oxidizing metal may be used. While I have also described

the steel sheet as being coated by passing the same through a molten bath of tin, it will be understood that it may be coated in any other way, the only essential feature being that the sheet shall be trimmed, and the method of coating shall be of such a character as to not only coat the side faces of the sheet, but also the edges of the sheet. It will be understood, therefore, that I do not use the term "coating" in a limited sense, but any method of depositing the tin on the sheet may be used.

While I have described my improved container and method of making the same as particularly useful in connection with the making of containers from steel plate coated with metal, such as tin, it will be understood that the method and container may also be made by using a non-oxidizing coating, such as lacquer for covering and protecting the steel sheet. The method of making the container would be precisely the same as that described above, and the container, when completed, will be precisely the same as that described above, except that the side faces and the edge of the sheet steel plate will be coated with the lacquer.

It is well understood that the edges of the cold rolled sheet when prepared for coating in the usual manner, are distorted and carry a certain amount of scale which prevents the metal coating from adhering to the same. By my improved method, however, wherein the sheet of steel after it is cold rolled and just before it is coated with tin, is trimmed, a clean edge is assured, to which a non-oxidizing metal will stick and cover the edge as well as the side faces of the sheet.

While I have described a round container, it will also be understood that the container may be otherwise shaped, without departing from the spirit of the invention as set forth in the appended claim.

Having thus described the invention, what I claim as new and desire to secure by Letters-Patent, is—

The process of making the body portion of a container including trimming a metal plate of proper thickness to form the body of the container so that it is twice the width of the blank used in the forming of the body, coating the entire plate, including the edges thereof, after it is trimmed, with a non-oxidized material, cutting said plate into blanks of a size to form the body of the container so that at least one side edge of the blank is coated with the non-oxidized metal shaping said blank into the body portion of the container with the side portions thereof lapped so that the coated edge is on the inside of the container, and permanently securing said lapped side edge portions.

In testimony whereof I affix my signature.

FREDERICK A. PRAHL. 130