H. L. G. MOORE.

GREASE PROOF PAPER VESSEL.

APPLICATION FILED OCT. 11, 1912.

1,091,526.

Patented Mar. 31, 1914.

2 SHEETS—SHEET 1.

Fig. 1

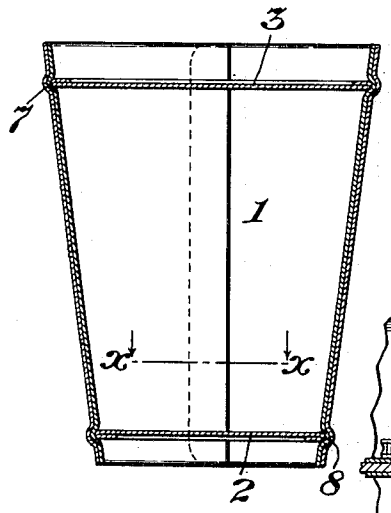


Fig. 12

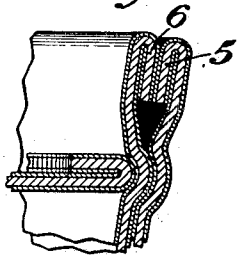


Fig. 9

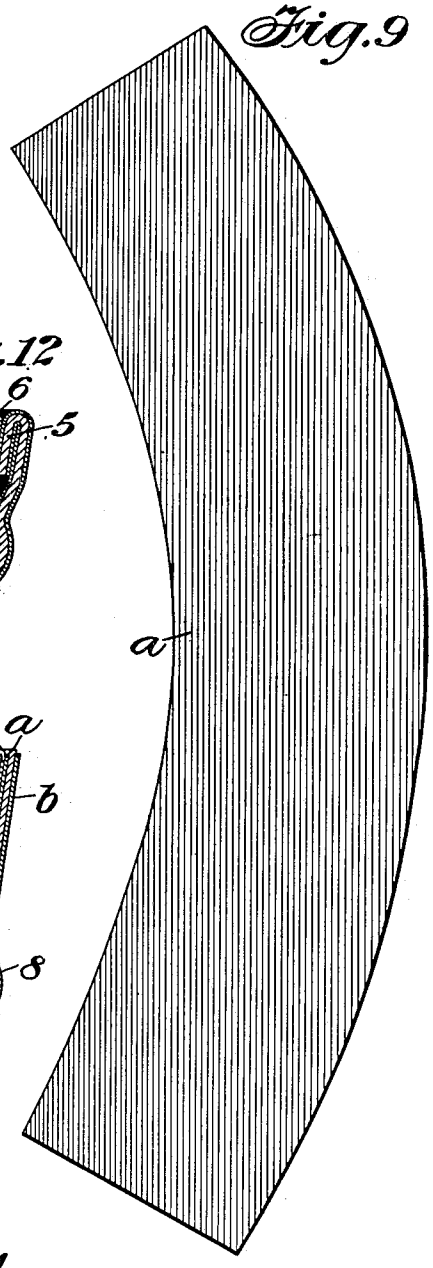


Fig. 5

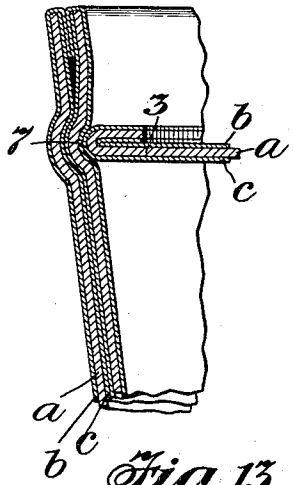


Fig. 6

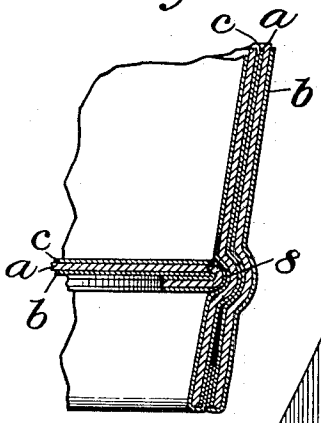


Fig. 13

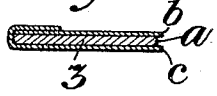


Fig. 11



WITNESSES

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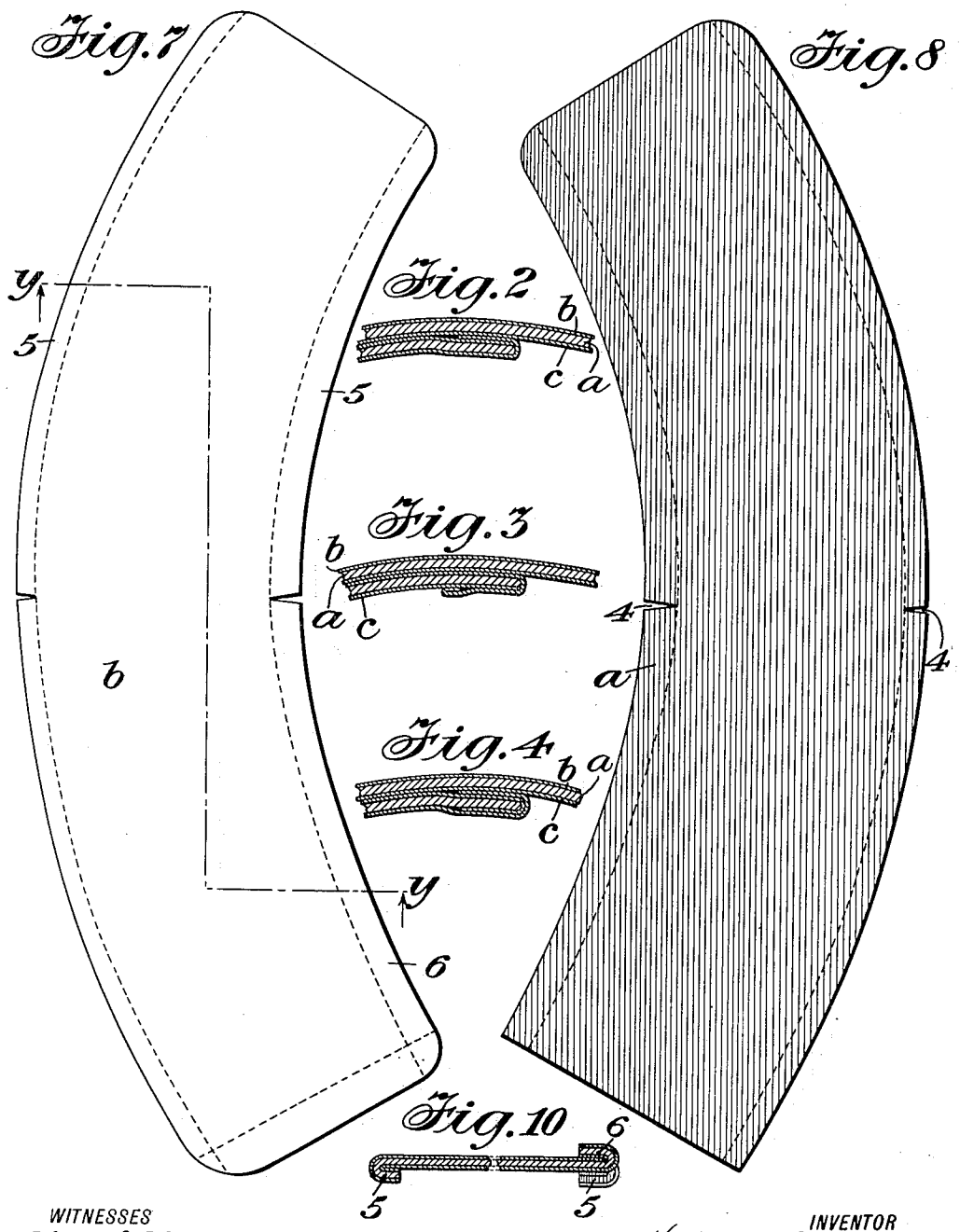
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UNITED STATES PATENT OFFICE.

HERBERT L. G. MOORE, OF RICHMOND HILL, NEW YORK, ASSIGNOR OF ONE-HALF TO HIMSELF, AND ONE-HALF TO HENRY A. VREELAND, OF NORTH PATERSON, NEW JERSEY.

GREASE-PROOF PAPER VESSEL.

1,091,526. Specification of Letters Patent. Patented Mar. 31, 1914.

Original application filed May 23, 1912, Serial No. 699,097. Divided and this application filed October 11, 1912. Serial No. 725,103.

To all whom it may concern:

Be it known that I, HERBERT L. G. MOORE, a citizen of the United States, residing at Richmond Hill, in the county of Queens, State of New York, have invented an Improvement in Grease-Proof Paper Vessels, of which the following is a specification.

My invention relates to a sealed paper vessel for holding oils and greasy substances, and is a modification of the invention shown and described in my co-pending application Serial No. 699,097, filed May 23rd 1912, the present application being a division of said application.

The object of the present invention is to render the vessel proof against leakage of the most penetrating oily or greasy substance, and to accomplish this, as in my original application, I provide a body with a bottom and cover, each part being formed of a piece of paper or other fibrous material covered on both sides with a grease proof material and connected together in such manner that all edges of the fibrous member of the body, cover, and bottom of the vessel are out of contact with the contents and protected therefrom by the grease proof material.

In the accompanying drawings, in which like reference characters indicate like parts throughout the several views, Figure 1 is a vertical section illustrative of a vessel constructed according to my invention, but showing the parts each in one thickness to economize space on the drawing. Fig. 2 is a sectional plan in enlarged size of a portion of the body part taken at a point indicated by the broken line *x x* Fig. 1, and illustrating the preferred manner of protecting the edge of the inner lap. Fig. 3 is a similar view to Fig. 2 illustrating a slightly modified form of covering the edge of the inner lap. Fig. 4 is a similar view showing another slight modification in the manner of covering said edge. Fig. 5 is a sectional view enlarged showing the upper left hand portion of a vessel constructed according to my invention. Fig. 6 is a view similar to Fig. 5 of the lower right hand portion of a vessel constructed according to my invention. Fig. 7 is a plan view of a blank for the grease proof covering and inner lining of my improved vessel. Fig. 8 is a plan view of one form of the filler or fibrous center member of my improved vessel. Fig. 9 is a similar view to Fig. 8 of another form of the filler or fibrous center member. Fig. 10 is a sectional view taken at approximately the line *y y* on Fig. 7 of the complete blank composed of a filler or fibrous center member and an inner and outer covering of grease proof material both cut to the form shown in Figs. 7 and 8, and the respective edges of same bent preliminary to forming the vessel. Fig. 11 is a view similar to Fig. 10 of a completed blank formed of an outer and inner grease proof covering of the form shown in Fig. 7 and a center fibrous filler cut to the form shown in Fig. 9 in which case the edges of the grease proof coverings only are bent over the edges of the center filler. Fig. 12 illustrates the manner in which the top and bottom of the body portion will be folded when the vessel is formed with the filler or fibrous center cut of the shape shown in Fig. 8 and the edges bent as shown in Fig. 10. Fig. 13 is a cross section of a portion of the cover illustrating a modified form of protecting the edge of the fibrous member.

1 indicates the body portion of a vessel which is preferably cylindrical and which may be of uniform circumference or tapered. 2 indicates the bottom of the vessel, and 3 the cover of the same. Each of these parts are formed of a paper or other fibrous center member *a* covered on each side with grease proof material *b c*. The grease proof material *b c* is caused to adhere to the paper or fibrous member *a* by any suitable adhesive material.

In forming the body member, the grease proof covering material *b c* is made of a greater length than the paper or other fibrous member *a* at that end which comes within the vessel when the body portion is folded upon itself, so that the extended ends of such grease proof material may be turned over the cut edge of the paper or other fibrous center member *a*, as shown in Figs. 2, 3 and 4.

The grease proof covering material *b c* may be extended on both sides of the paper or other fibrous member *a* at one end so that it may be folded over the edge of the inner lap in the manner shown in Fig. 4, or it may be extended on only one side of the member *a* at one end so as to be folded over the edge

of the inner lap in the manner shown in Fig. 2 or that shown in Fig. 3.

In forming the body member of the shape shown in Fig. 8, after the grease proof covering has been applied, and before the blank is folded or rolled to shape, I make a cut 4 on each side of the blank midway between the ends, and fold over the opposite edges of one half of the blank toward each other and flat upon the blank, while the edges at the other side of the cuts 4 are folded over in a like manner toward each other but upon the opposite side of the blank as shown in Fig. 10. These lapped over portions 5 and 6 are preferably secured against the sides of the blank by suitable adhesive material. This manner of forming the body portion is illustrated in Fig. 12 wherein all three thicknesses of the blank are folded in the folds 5 and 6, but if desired the grease proof material *b c* may be extended beyond the longitudinal edges of the member *a* (as well as on one end as before described), and these longitudinally extended portions of the grease proof material folded over the cut edges of the member *a*, as illustrated in Figs. 5, 6 and 11.

It will be seen that whether the folds 5 and 6 are of the three thicknesses of material as shown in Figs. 10 and 12, or whether such folds are of the grease proof material only, as shown in Figs. 5, 6 and 11, that, when the body portion is formed by rolling the blank into the desired shape for use, no fold either at the top or bottom of the vessel comes either on the inner or outer surface of the vessel, and that when the folds 5, 6, are of the grease proof material only, there will be no folded over edges of the center member *a* either at the top or bottom of the vessel, while at the same time all the cut edges of the center member *a* are covered by the folded over portions of the grease proof material *b c*.

At a predetermined distance from the upper edge of the body portion, an annular groove 7 is formed in the inner surface, while at a predetermined distance from the bottom edge of the body portion a similar groove 8, is formed.

The cover 3 is of a shape corresponding with the shape of the vessel at its upper part and is of a size adapted to be forced into the annular groove 7, so that it will fit snugly therein.

In the preferred form of cover, the edge is folded over upon itself as shown in Fig. 5, but if desired the fibrous member *a* of the cover may be cut of a size to snugly fit the annular groove 7 in the body portion, and the grease proof covering on the bottom of the cover be cut of a larger diameter, so that it may be folded over the edge of the fibrous member and thus protect such edge from contact with the contents of the vessel, as illustrated by the sectional view Fig. 13. In either case the folded over portion is caused to closely adhere to the top surface of the cover by a suitable adhesive material.

The bottom 2 has its edge folded over downwardly upon itself, which folded over portion is caused to closely adhere to the under surface of the bottom by a suitable adhesive material. This bottom is of a shape corresponding with the shape of the lower part of the vessel, and is of a size adapted to be forced into the annular groove 8.

When the bottom 2 is forced into the groove 8, it fits therein sufficiently tight to effectually seal the bottom, but as an additional precaution I prefer to dip the lower portion of the vessel in shellac or other suitable sealing substance. After the bottom has been thus positively sealed, the vessel is ready for filling, and having received its contents, the cover 3 is pressed into the annular groove 7, when the top of the cover is sealed in a similar manner to the bottom, and in addition to such sealing, the entire exterior of the vessel may, if desired, be coated with the substance known as "water-glass" which gives a finished appearance to the same.

It will readily be seen that in a vessel constructed as above described, the fibrous member *a* and all the cut edges of the several parts are positively protected from contact with the contents of the vessel, and the most penetrating substance cannot possibly leak or ooze through the vessel at any point.

I claim as my invention:

1. A vessel for holding oily substances, provided with a suitable cover and bottom and formed from a blank composed of a fibrous member covered on both sides with a grease-proof material, said blank having a notch on each side midway between the ends, the opposite edges of one half of said blank being folded over toward each other upon one side of the blank, and the edges on the other half of said blank being folded over toward each other upon the opposite side of the blank whereby when the blank is rolled into shape there will be no fold on the inner or outer surface either at the top or bottom of the vessel, the grease-proof material being extended beyond the edge of the fibrous member on the inner lap of the blank and folded over such edge.

2. A vessel for holding oily substances, provided with a cover and bottom and formed from a blank composed of a fibrous member covered on both sides with a grease-proof material extended beyond the longitudinal edges of the fibrous member, said extended portions of the grease-proof material having a notch on each side of the fibrous member midway between its ends, the opposite extended portions of the grease-proof

material on one half of said fibrous member being folded over toward each other upon one side of the fibrous member, and the other opposite portions of said extended grease-proof material being folded over toward each other upon the opposite side of the fibrous member whereby when the blank is rolled into shape there will be no folded over edge of the fibrous material either at the top or bottom of the vessel, nor any fold on the inner or outer surface either at the top or bottom of the vessel, the grease-proof material being extended beyond the edge of the fibrous member on the inner lap of the blank and folded over such edge.

Signed by me this 9th day of October 1912.

HERBERT L. G. MOORE.

Witnesses:

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GEO. T. PINCKNEY.