

No. 843,325.

PATENTED FEB. 5, 1907.

A. L. CANFIELD.  
METHOD OF PACKING ISINGLASS.  
APPLICATION FILED FEB 9, 1906.

FIG. 2

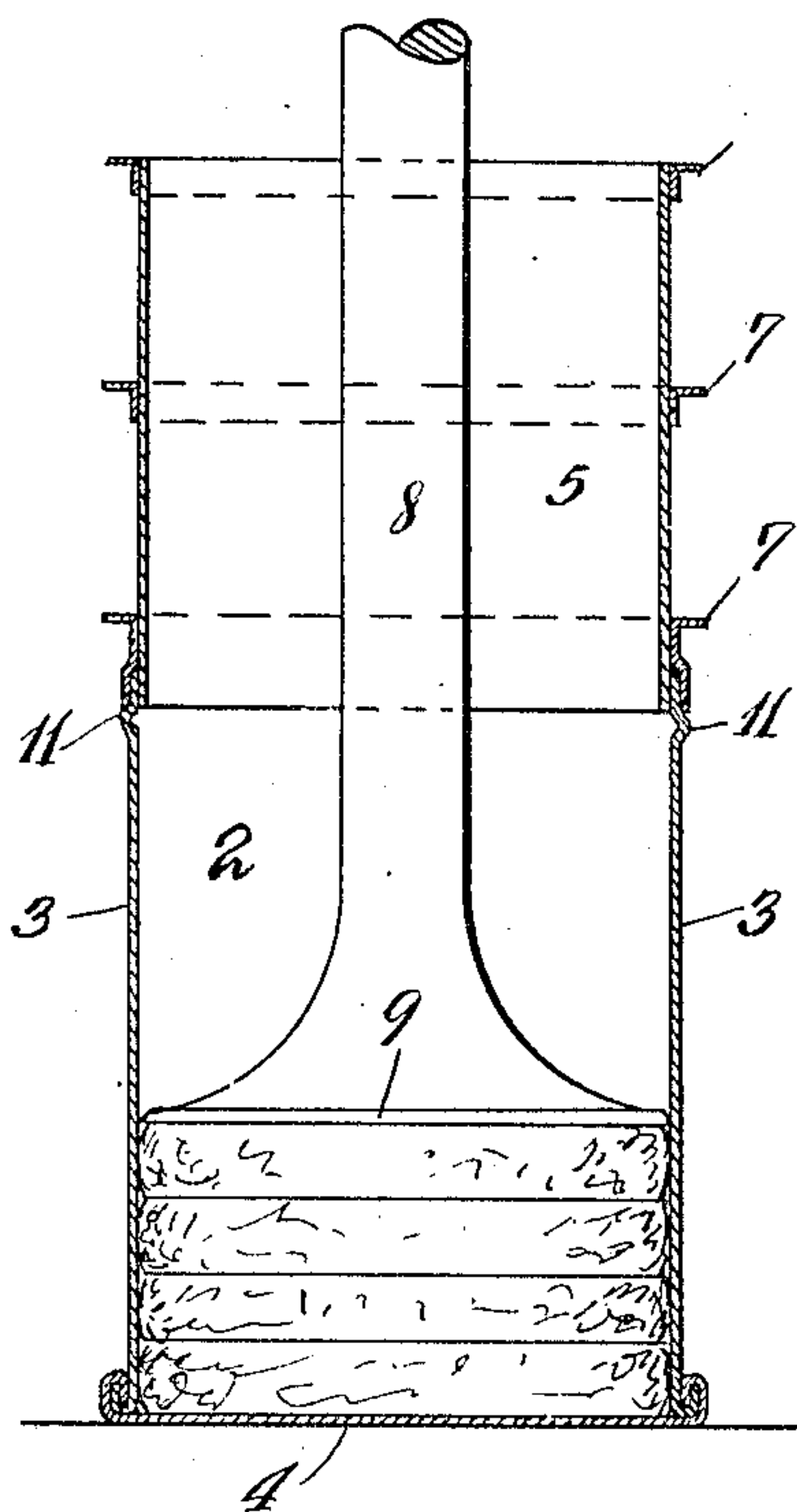


FIG. 1

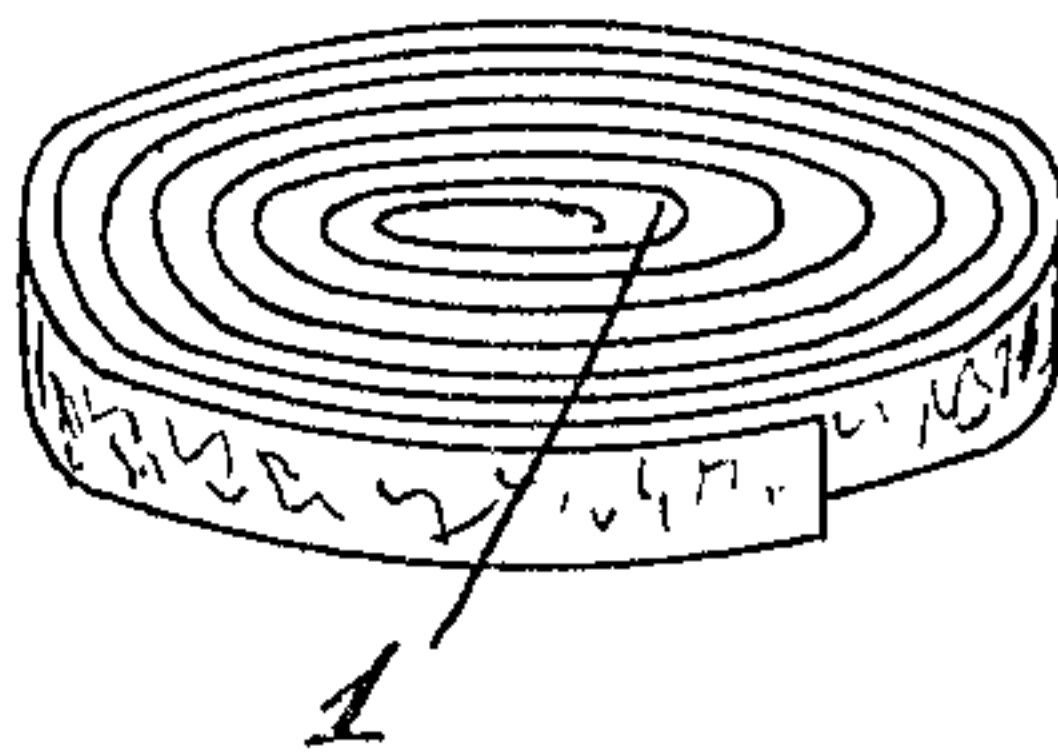


FIG. 3

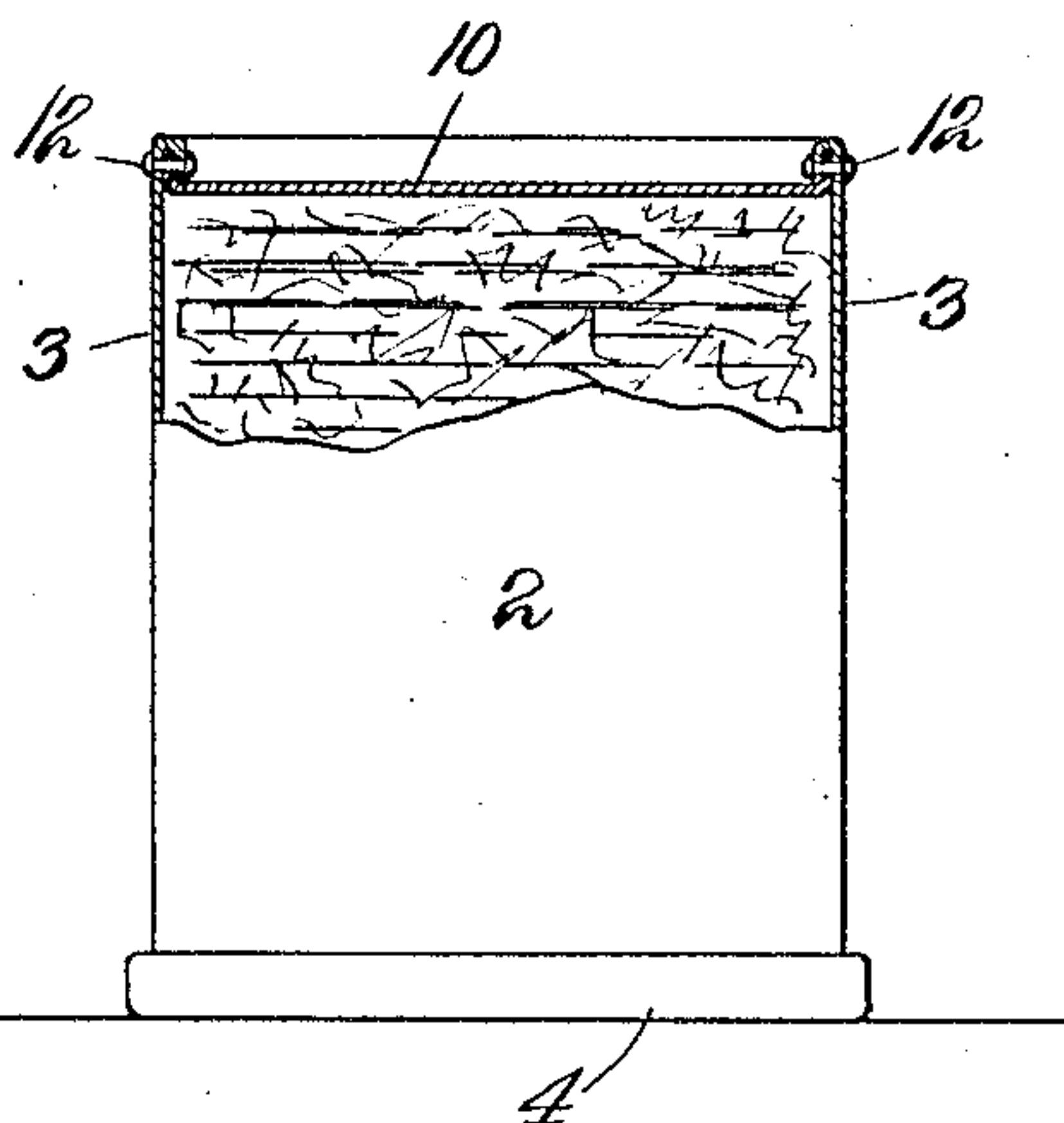
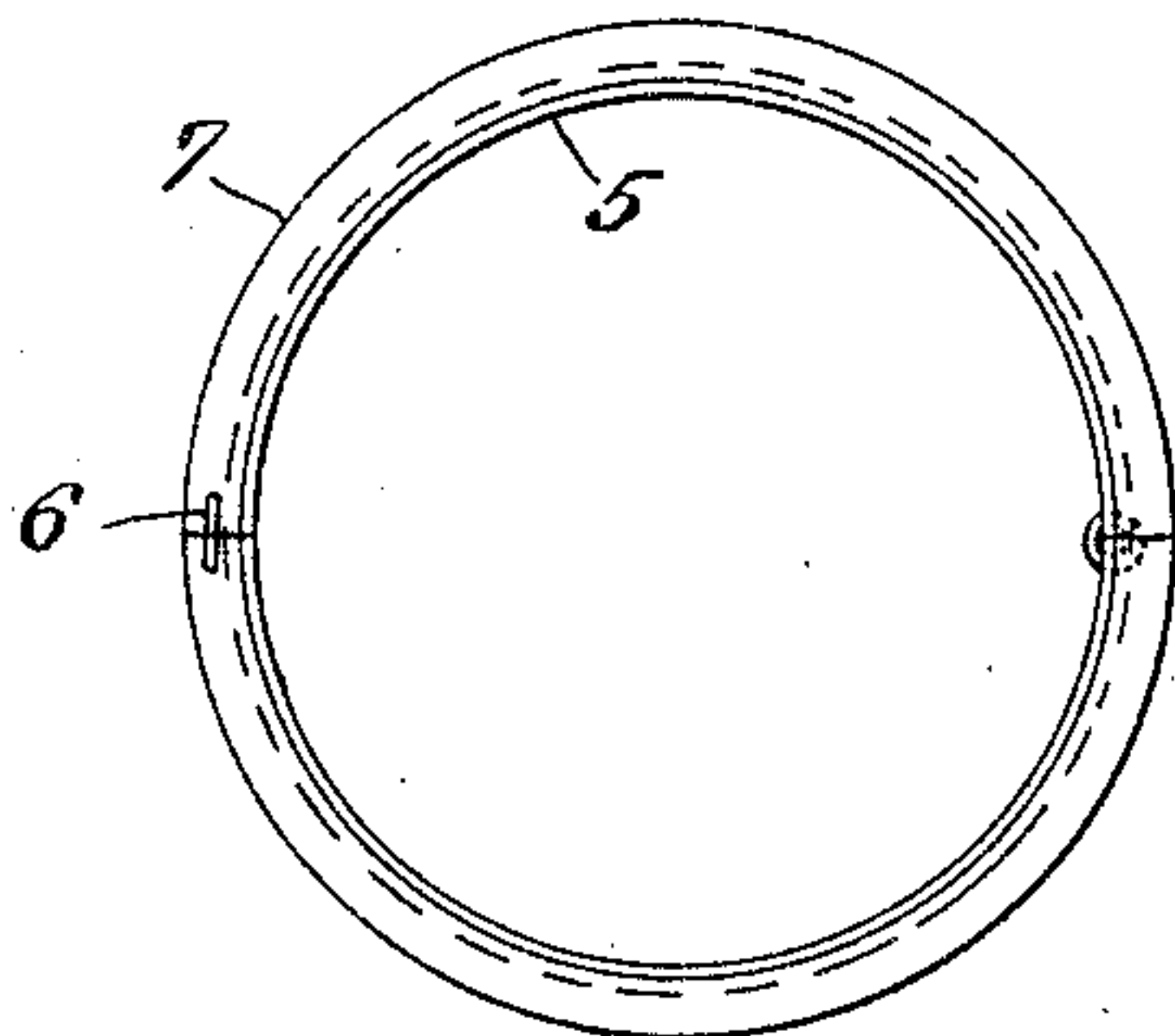


FIG. 4



Witnesses  
*Julian D. Foster.*  
*Geo. N. Kerr.*

*Arthur L. Canfield* Inventor  
By his Attorney *C. V. Edwards.*

# UNITED STATES PATENT OFFICE.

ARTHUR L. CANFIELD, OF MONTCLAIR, NEW JERSEY.

## METHOD OF PACKING ISINGLASS.

No. 843,325.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed February 9, 1906. Serial No. 300,219.

*To all whom it may concern:*

Be it known that I, ARTHUR L. CANFIELD, a citizen of the United States, residing at Montclair, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Methods of Packing Isinglass, of which the following is a full, clear, and exact specification.

This invention relates to a method of packing isinglass, gelatin, or similar substances, and more particularly has reference to improvements whereby such material may be packed in more compact form than heretofore and at the same time be more effectually protected against deterioration and damage in transit.

"Isinglass" as it is technically known—a form of gelatin—is used in large quantities in the art of brewing, as well as in numerous other arts, and is commonly prepared from fish-sounds. This material is generally packed in wooden boxes for shipment to the trade under more or less pressure; but there is considerable objection to this method of packing, since the material is bulky and also because it is frequently ruined by moisture, which causes it to swell and break the boxes. To prevent this, the boxes are in some instances bound with metal hoops; but this expedient is expensive, and, furthermore, does not prevent the material from being ruined by moisture. Such boxes are expensive, bulky, and cannot be made in an economical manner so as to withstand damage in transit.

The objects of my invention are to provide an improved method of preparing this material for shipment whereby a greater quantity can be packed in a given space and at the same time reduce the chance of damage by moisture while in transit, as well as the cost of the packing-cases.

These objects I accomplish by my invention, which consists generally in forming cylindrical coils of the isinglass, piling them edgewise one on another, and confining them under pressure in a moisture-proof containing-package which will not break by reason of the pressure and which will not require external securing devices. By my method of preparing and shipping isinglass a large saving in bulk is secured, besides a stronger and lighter containing-package, and there will be no loss because of damage by moisture or otherwise in transit.

The invention will be more fully described in connection with the accompanying drawings, which illustrate an embodiment of my invention.

Figure 1 represents a coil of the material. Fig. 2 represents the containing-package and the manner of compressing the material therein. Fig. 3 represents a commercial package, partly in section, containing isinglass prepared for shipment according to my preferred method. Fig. 4 is a detail of a former used to hold the material.

1 represents a coil of isinglass or similar material before being packed, and 2 a metallic package or case composed of the cylindrical or polygonal side 3 and a bottom 4, constructed to resist internal pressure. For this purpose the side and bottom may be flanged and interlocked, as shown, so as to form a strong joint and at the same time be easily rendered waterproof, as by soldering or the tightness of the joint itself.

The coils 1 are preferably made of such diameter as to approximately fit within the cylindrical or polygonal case or package 2 and are packed therein by pressure. Because of the high compressibility of this material it is desirable to compress as large a quantity as possible in one operation in order to save expense, and to this end a supplemental open-ended former or jacket 5 is provided, which is placed over the case 2, as seen in Fig. 2, so as to contain a quantity of uncompressed coiled material additional to that which the case 2 will normally contain. This former may be composed of hinged sections separably secured by a latch 6 and strengthened by outside hoops 7.

8 is a ram, operated by any suitable power, having a head 9, which may be made collapsible to facilitate withdrawal, as is well known in connection with mandrels and analogous devices. The case and former having been filled with coils overlying each other and preferably laid edgewise, pressure is applied by the ram to compress the material into the case 2 to the desired degree. The ram is then removed and more coils supplied, sufficient when compressed to fill the case, together with a flanged cover or lid 10, and the whole again compressed by the ram until the lid can be fastened by turning down the end of the case 2 beyond the beading 11. Additional fastenings, as rivets 12, may then



be applied, and the cover may also be soldered if further security against moisture is desired. By releasing the latch 6 the former may be removed after the material has been  
5 pressed out of it without relieving the pressure of the ram on the material within the case 2. The package is now ready for stock or shipment and may be kept indefinitely without danger of deterioration.

10 Such a package will withstand a much greater pressure from the contained material than can any wooden box even when bound with hoops, and inasmuch as the material will not be injured by any pressure  
15 which can be applied to it, besides being capable of a considerable degree of compression, it follows that a very much greater quantity of material can be packed in a given space by my method of packing than has  
20 been possible with the known methods commonly used. There is now a considerable loss, due to moisture and other causes, such as destruction of the cases and spoiling of material in shipping isinglass, which will be  
25 entirely saved by my invention, and there will also be an additional saving in transportation charges, because a greater weight can be packed in a given space in a lighter package. Furthermore, the package itself is  
30 cheaper to manufacture. It will therefore be seen that with my improved method of packing compressible materials subject to deterioration by moisture, such as isinglass, the objections and loss heretofore encountered will be avoided and the cases used will  
35 be less expensive and contain a greater quantity of material.

The specific details of my invention may be modified according to the varying characteristics of the material to be packed without departing from the scope of my invention, and I do not restrict myself to any particular material or construction of package.

40 Having thus described my invention, I declare that what I claim as new, and desire to secure by Letters Patent, is—

1. The method of packing compressible sheet material, which consists in forming sheets into coils, compressing a plurality of

such coils laid edgewise into a cylinder, and closing said cylinder while holding the coils under pressure, substantially as described. 50

2. The method of packing compressible sheet material into a cylinder, which consists in forming sheets into flat coils of greater diameter than thickness, compressing while supported against lateral displacement, a plurality of such coils laid edgewise into said cylinder, and closing said cylinder after the coils have been compressed within its end, substantially as described. 55 60

3. The method of packing compressible sheet material which consists in winding sheets into flat coils, laying a plurality of said coils edgewise in a cylinder of substantially the diameter of said coils and having one end closed, compressing said coils and a cover into the cylinder by a ram, fastening said cover under pressure, and withdrawing said ram, substantially as described. 65 70

4. The method of packing isinglass which consists in forming it into sheets, winding said sheets into coils, compressing said coils laid edgewise into a case adapted to withstand pressure, and closing said case in such manner as to withstand pressure, substantially as described. 75

5. The method of packing isinglass which consists in forming said material into sheets, rolling said sheets to form coils, compressing said coils in a metal case adapted to withstand interior pressure, and closing said case in such manner as to withstand pressure, substantially as described. 80

6. The method of packing isinglass which consists in forming said material into sheets, rolling said sheets to form coils, compressing said coils in a case adapted to withstand interior pressure, and hermetically closing said case in such manner as to withstand pressure, substantially as described. 85 90

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

ARTHUR L. CANFIELD.

Witnesses:

JULIAN S. WOOSTER,  
GEO. A. HOFFMAN.