A. Robertson,

Spice Box,

No. 21,274. Patented Aug. 24, 1858.

Fig. 6.

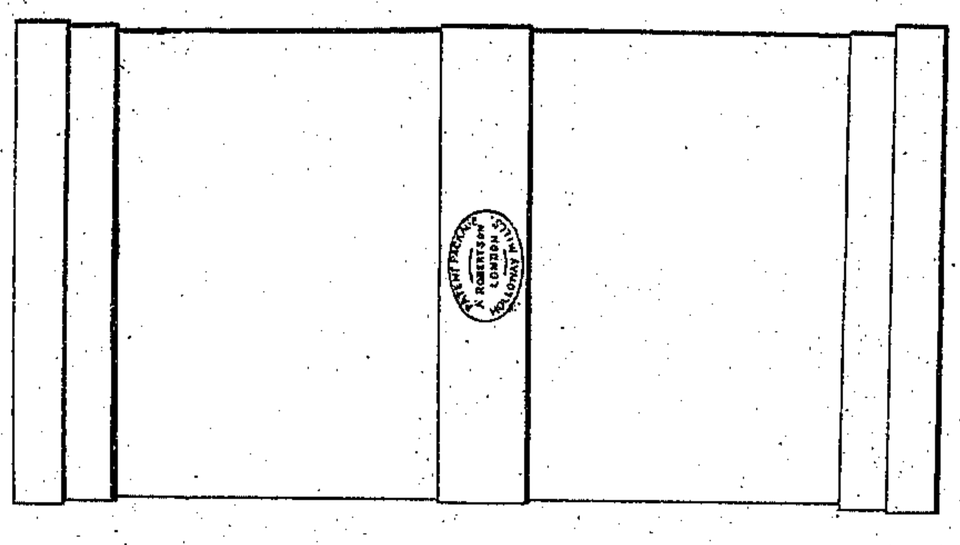


Fig. 7.

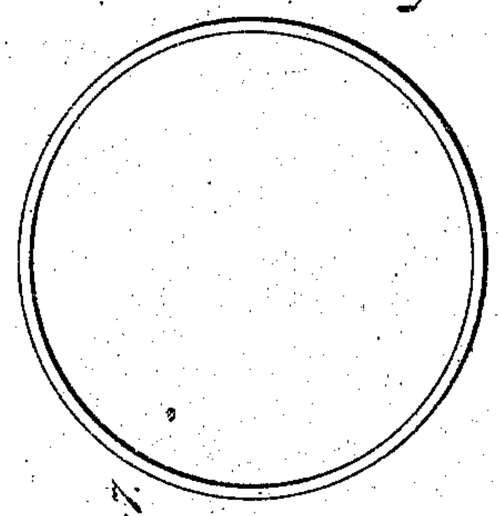


Fig. 3

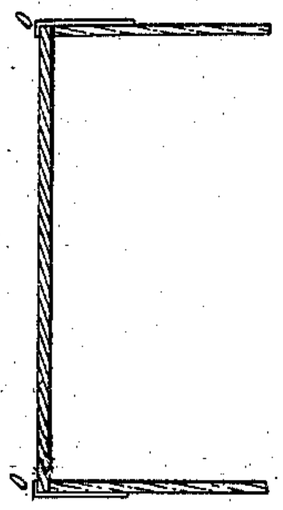


Fig. 4.

Fig. 5

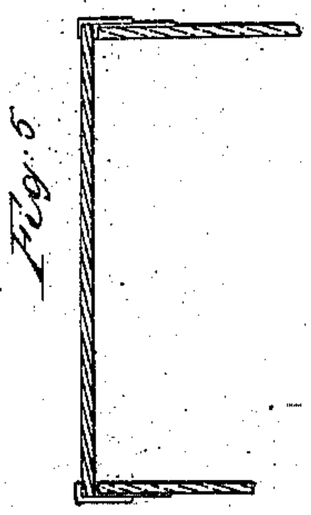


Fig. 1

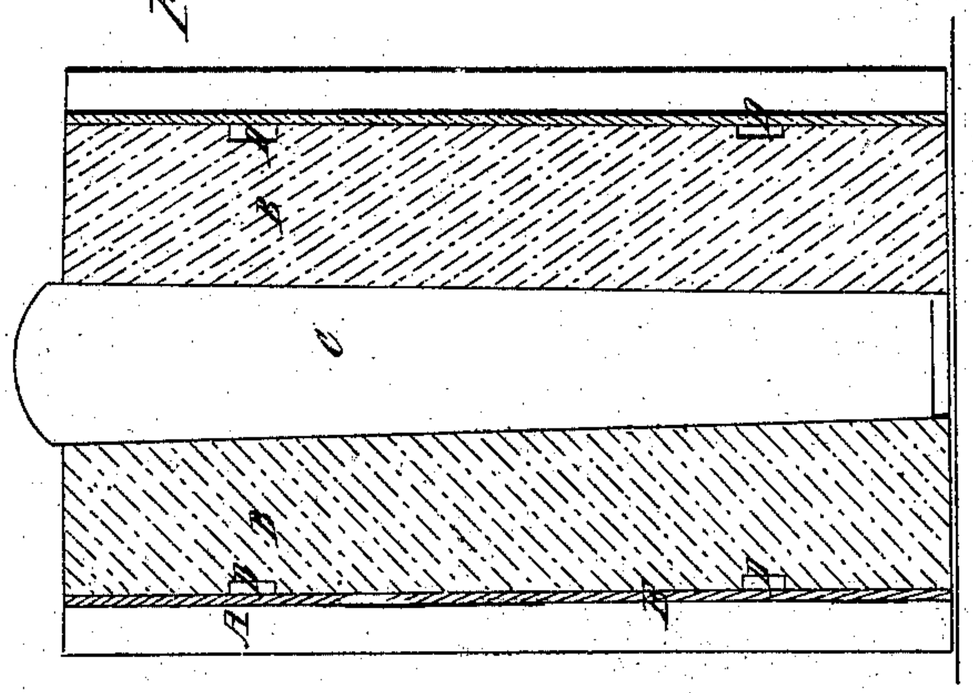
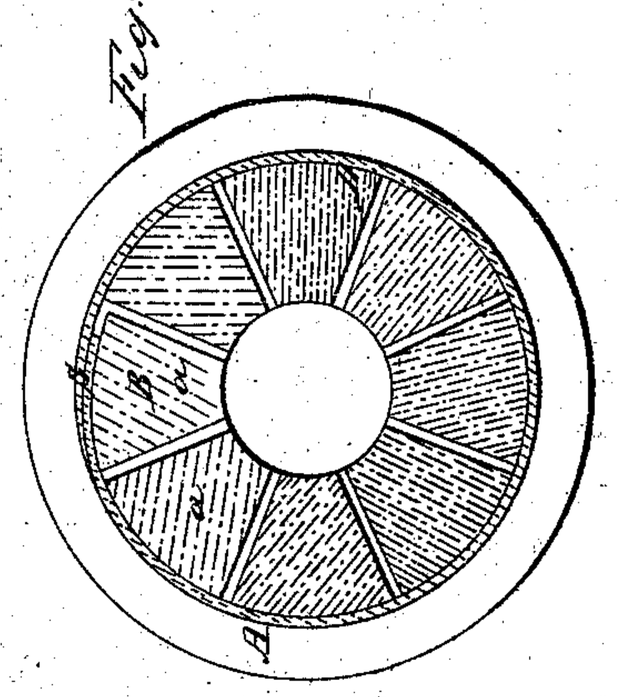


Fig. 2



UNITED STATES PATENT OFFICE.

ALEXANDER ROBERTSON, OF UPPER HOLLOWAY, MIDDLESEX, ENGLAND.

PACKAGE FOR DRY GOODS.

Specification of Letters Patent No. 21,274, dated August 24, 1858.

To all whom it may concern:

Be it known that I, ALEXANDER ROBERTSON, of Upper Holloway, in the county of Middlesex, England, have made a new Invention for a New Manufacture of Packages for Dry Goods; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification.

My invention consists in the adaptation of wood and metal, to be combined as hereinafter-mentioned, for the formation, in suitable shapes and sizes, of packages for dry goods. With regard to the shape of the packages, I prefer the cylindrical form as the most useful and convenient, although I do not confine myself to that particular shape. For the manufacture of the packages I use wood as free from scent as possible; and for strong packages I select a piece of wood of the requisite length and breadth, and have it cut with circular saws into suitable thicknesses; but for the more common description of goods, I have the selected piece of wood scaled with a knife, or ordinary scale-board machine. Having thus cut or scaled the selected piece of wood into suitable thicknesses of thin boards, similar to those used for veneering, but varying in thickness from one twentieth of an inch to one fifth of an inch, more of less, according to the size and strength required and the nature of the goods to be packed, I take one of the said thin boards and pass it through suitable bending rolls, by which process it assumes a form approximately to the circular tube in which it is afterward to be finished. At this stage I allow it to dry or season for a few days, after which I proceed to complete the cylindrical tube in the following manner.

Figure 1 in the accompanying drawing represents a vertical section of the apparatus employed for the complete formation of the thin boards of wood into tubes after they have been passed through the bending rolls and dried or seasoned, as before mentioned. Fig. 2 is a plan of the top of the same apparatus.

A, Fig. 1, represents the section of a cast-iron bored cylinder, to be made of the diameter and length required to fit the exterior of the intended package; E, Fig. 1, shows the tube of wood in section; B, Fig. 1, shows the section of a tubular wooden block, which I cut longitudinally into six or eight sections, as shown in the plan of the top of the apparatus, Fig. 2, and marked *a*, *a*, *a*, *a*, *a*, *a*, *a*, *a*; C, as shown in Fig. 1 and Fig. 2, is a conical plug in the center of the so-divided wooden block B. I then place one of the thin boards of wood so prepared as aforesaid within the cast-iron bored cylinder, having first applied to the joint, marked S, in Fig. 2, and all along its longitudinal edge, a sufficient quantity of glue, or other adhesive substance, in a liquid state, to effect by the necessary pressure a complete and permanent joining of the two longitudinal edges; I then put together the several sections, into which the tubular wooden block has been cut, marked *a*, *a*, *a*, *a*, *a*, *a*, *a*, *a*, in Fig. 2, so as to form them into a hollow cylinder, and I secure them in that position by india-rubber bands fitting into the grooves D, D, in Fig. 1. I then place the whole within the thin board marked E, Fig. 1; I then drive the plug C, Fig. 1, into this hollow cylinder, by which the thin board E is forcibly pressed to the inside of the cast-iron bored cylinder A, so as to form the thin board into a perfect cylindrical or tubular shape, and thoroughly to secure the joint so made. I use the cast-iron bored cylinder either singly, or in frames of twelve, or any other convenient number, and in either case I pursue the same process with each cylinder as above described for forming the thin boards into and securing the same in the cylindrical or tubular shape for the body of the package; and in every case, after driving the plug *c*, Figs. 1 and 2, I allow the whole to remain in that state for about twenty minutes; when the plug is forced out, the sections of the tubular wooden block are withdrawn; the tube of thin board is then removed from the cast-iron bored cylinder, and the apparatus is again ready for use. After removing the tube of thin board from the cast-iron bored cylinder, I allow the former to stand to dry for about an hour, when I find it become strongly jointed and ready for the further process of manufacture. In some cases, where greater strength than usual is required, I rivet the joint with tin or other soft metal rivets in addition to the use of glue or o ther adhesive substance, although for all general purposes I find the glue joint made as before described quite sufficient.

I now proceed to describe the method of

making the top and bottom of the tube of thin board, in order to complete the same as a package for dry goods. I take a strip of tin plate of suitable width and length to form a ring or rim around the outside of one end of the tube of thin board, and rivet or solder the ends together, so as closely to fit that end; I then turn over one edge of the tin plate ring or rim, so as to form a narrow flange all around the inside of the ring or rim, as shown at *o*, *o*, in Fig. 3 of the accompanying drawing; I then cut or punch a disk of wood, a little thicker than the thin board forming the tube, of a size to fit tightly into the tin plate ring or rim, and to rest upon the flange. I pursue the same process for the other end of the tube; and in order to make the end intended for the bottom of the package air-tight, and to fasten the same securely thereto, I take a strip of tin-foil or tin-foil paper, or any other suitable material, of sufficient width to cover part of the ring or rim of tin plate, and part of the adjoining portion of the body of the package, and I cause the same to adhere closely thereto by paste or glue, or other sufficiently adhesive matter. Fig. 4 shows the section of the top or bottom of a package, and another method of forming the ring or rim of tin plate, by indenting the same below the flange, shown in Fig. 3, for the top, and above the flange for the bottom, so as to form a circular groove for the reception and better securing in its position the disk of wood forming the top and bottom of the package; and this indentation is performed after the disk is placed inside the rim or ring, and while resting upon the flange. Fig. 5 shows the section of a top or bottom with two rims or rings, with a flange to each, similar to the one shown in Fig. 3; one of the flanges being formed so as to cover the edge of the tube of thin board, and the second or other rim or ring made with a flange upon which the disk of wood is to rest, and which rim or ring is made sufficiently large to cover part of the first-mention rim or ring, so that the two flanges form together a groove of the whole depth of the flange, and in which groove the wooden disk is tightly fixed and thoroughly secured. I use each of the methods above described as circumstances may require or suggest the adoption of one or other of them, according to the purpose for which the package may be wanted, some articles requiring a greater degree of security than others. I do not always confine myself to a wooden disk for the top or bottom of the package, as I sometimes use, where it may be desirable or useful, a covering or lid wholly of tin plate or iron plate. In order to add strength to the package, I fasten around the center of the outside a hoop or rim of any metallic substance; that which I generally adopt and which I find sufficient is a strip of very stout tinfoil, properly secured by glue or other adhesive matter, and upon which hoop or rim I generally impress my trade marks.

Fig. 6 in the accompanying drawing shows an elevation of the finished packages, and Fig. 7 is an end view of the same; the top and bottom shown in Fig. 6 are of the description shown in Fig. 5. The Fig. 6 is the full size of a package used for one pound of mustard.

Having thus described the nature of my invention, I hereby declare that I do not intend to confine myself to any particular kind or description of wood, although I prefer wood of close grain and texture and in some instances I line or cover the inside of the package with tinfoil or paper; and

I do hereby declare that what I claim as my invention is—

A new manufacture and process and method of manufacture of packages for dry goods by the combination of wood and iron or other metal, and constructed and made in manner hereinbefore described.

ALEX. ROBERTSON.

Witnesses:

ARTHUR FINCH,

JOHN McF. SWAIN.