

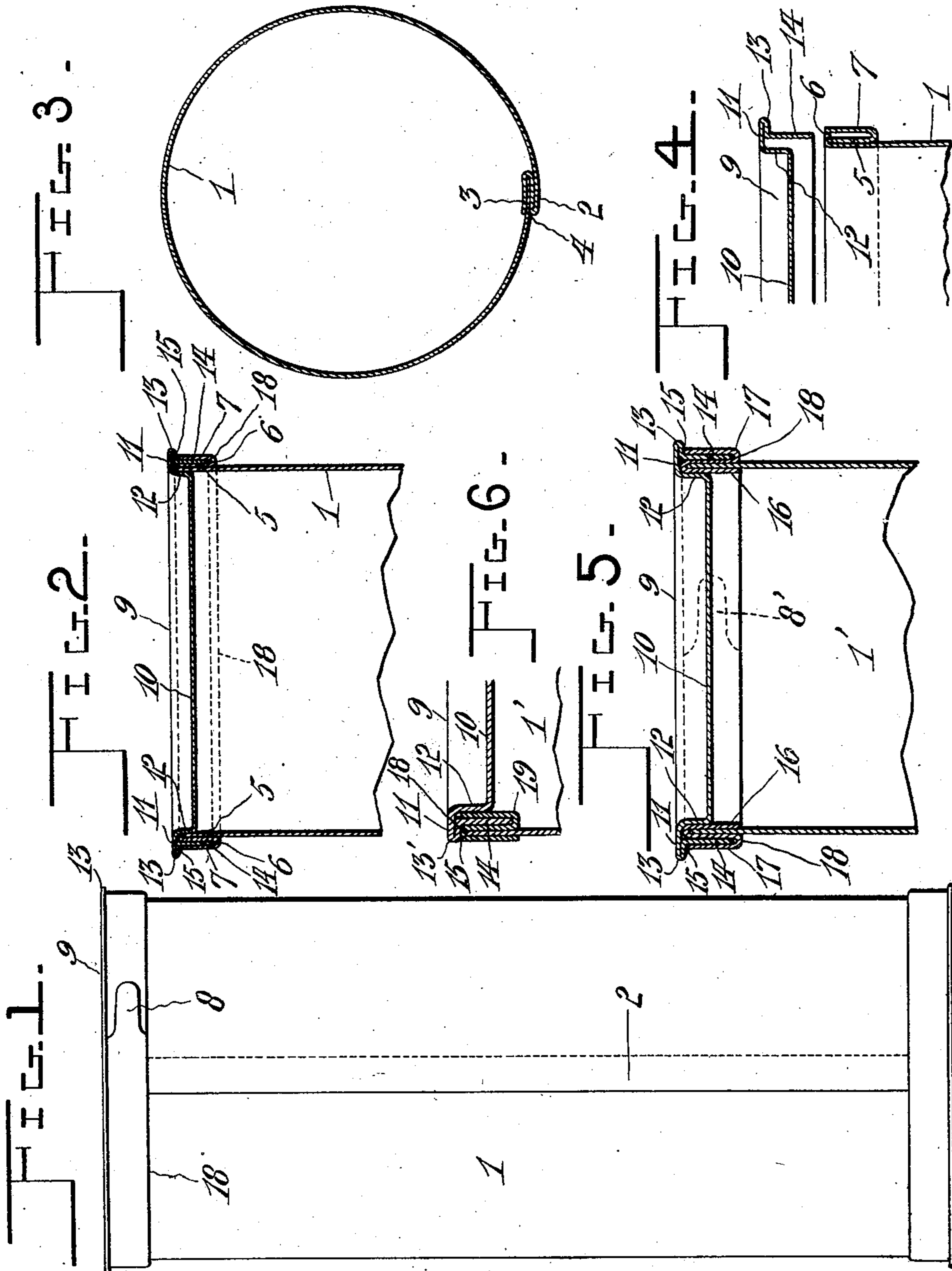
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J. J. SHANNON.
CAN.

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NO MODEL.



Witnesses:

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JOHN J. SHANNON, OF MONTREAL, CANADA.

CAN.

SPECIFICATION forming part of Letters Patent No. 749,231, dated January 12, 1904.

Application filed November 3, 1902. Serial No. 129,856. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. SHANNON, a subject of the King of Great Britain, residing at 163rd Chatham street, in the city of Montreal, county of Hochelaga, and Province of Quebec, Canada, have invented certain new and useful Improvements in Cans; and I do hereby declare that the following is a full, 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.

My invention relates to can-making.

There have been placed upon the market a variety of cans intended to contain canned foods of various kinds. These cans are usually water-tight, and many of them are known as "top-opening" cans. Such cans are usually opened by tearing off a strip on the periphery of the can near its top, permitting thereafter the removal of its cover, and the term "top-opening" is applied to such cans which do not reduce their height upon removal of the said peripheral strip. This is evidently very desirable, for otherwise the cans could not be filled to the brim, and when a receptacle of this kind is not filled to the brim the food is not so well preserved, and, furthermore, where its contents are of a liquid nature some of it will be spilled upon opening the same.

It is the object of this invention to produce a can of very simple construction which is or may be constructed entirely without solder and yet which is at the same time water-tight, and, further, to provide such a form for the cover and the can at its mouth as will insure perfect tightness of the cover and at the same time facilitate the removal of the same simply and easily and without reducing the height of the can.

The invention resides in the construction and combination of parts to be more fully described hereinafter and definitely set forth in the claims.

In the drawings, Figure 1 represents in side elevation a can constructed according to my invention. Fig. 2 represents the upper portion of such a can in vertical cross-section. Fig. 3 represents the same in horizontal cross-section. Fig. 4 is a view representing the

body of the can and the cover shown in Fig. 2 just as the cover is being applied to the can. Fig. 5 is a view similar to Fig. 2, but showing a modified construction. Fig. 6 is also a similar view showing another modified form.

Throughout the drawings and specification the same numerals indicate like parts.

Referring more particularly to the parts, 1 represents the body of the can. It consists, substantially, of a cylinder formed of a metallic sheet and having a vertical seam 2. In order to form this seam, one of the vertical edges of the can is provided with a crimp or double fold, so that there are formed three plies of metal, there being a space 3 formed between the innermost ply and the ply next to it. In this space is received the opposite vertical edge 4 of the can, all of which is clearly shown in Figs. 1 and 3. In constructing this body the sheet is rolled so that it tends to assume a smaller diameter than that of the finished can, whereby in making the can it is only necessary to guide the edge 4 properly for it to enter and establish itself in the aforesaid space or recess 3. This form is most advantageous in facilitating the rapid construction of these cans. After the edge 4 has been received, as shown in Fig. 3, the seam is then rolled, so that the plies of material occurring at the seam are pressed firmly together, and the result is a water-tight seam.

The mouth of the can is crimped downwardly and upwardly successively, as shown most clearly at 5 in Fig. 4, so as to form a space or recess 6 very similar to the aforesaid space 3 described in connection with the vertical seam of the can, and the outermost layer or fold 7 is provided with an integral projecting tongue 8, (shown in Fig. 1,) which is for a purpose which will appear hereinafter.

The cover 9 is formed into a depressed central portion 10, substantially flat, as shown, and at its edges has an elevated flange 11 and a vertical portion 12, connecting the same with the depressed portion 10. Beyond the flange 11 the metal is crimped back upon itself, so as to form a bead 13, below which is a downwardly-projecting cylindrical flange 14. This flange 14 is adapted to be received by the recess 6 in the same manner as the edge 4 is re-

ceived by the recess 3. The arrangement of the parts when the cover is in place is most clearly shown in Fig. 2, and it should appear that not only is the flange 14 established between two plies of metal, but the portion 12 of the cover passes well down into the mouth of the can, receiving the two inner folds of the mouth of the can between itself and the flange 14. In this manner a very intimate connection is formed between the cover and the body of the can, and it should be observed that the projecting bead covers the raw edge of the outermost ply 7, which is advantageous in preventing accidental cutting of the hands upon the edge.

The method of attaching the bottom of the can is the same as that described in connection with the attachment of the cover, except that the tongue 8 is dispensed with. After the ends of the can have been set in place in the manner described their peripheral seams may be rolled, so that the plies of material are pressed more firmly together, resulting in a substantially water-tight joint. I prefer, however, to dip the ends of the can, so that they are soldered along the crack 15, as indicated.

Where the modified form shown in Fig. 5 is adopted, the body 1' of the can may be made with or without the folded seam described in connection with Figs. 1 and 3, and the mouth of the can is left perfectly plain, as shown. There is provided, however, an auxiliary strip 16, which consists, substantially, of a ring or annular member formed of three plies 17, as shown, the innermost ply extending downwardly. The mouth of the can is received in the space between the innermost ply and the central ply of the strip, while the flange 14 of the cover is received between the central ply of the strip and its outermost ply. The cover is of substantially the same shape as before, its central portion being depressed, as before, and with the same effects. This strip is provided with a tongue 8' similar to the tongue 8 and for the same purpose, and a can constructed in this manner may be dipped, as before, in solder. In order to open such a can, the usual key is employed, which passes over the tongue 8 and which is turned by the hand, so that the tongue and the outermost ply are torn off from the body along the folded edge 18. Tearing in this manner is much facilitated from the fact that the rolling which occurred will have very materially weakened the metal along the edge 18, where it is bent upon itself.

In cans of this class where the cover and the body fit each other very accurately once the cover has been removed it is often not replaced with facility, and often this is desirable—as, for instance, where the can is used as a receptacle for a commodity such as baking-powder or a similar ingredient in frequent use in the household or kitchen. The employment of this auxiliary strip enables

the cover to be replaced upon the can quickly where this is desired, as in the instance cited. The auxiliary strip after the can has been opened is intended to be removed completely from the mouth of the can, and the resulting increased space at the mouth of the can enables the cover now to be easily replaced.

It should be understood that in the drawings the thicknesses of the metal have been purposely exaggerated for the purpose of clearness, and a cover replaced upon the can from the mouth of which the auxiliary strip has been removed will fit with reasonable tightness.

In Fig. 6 an auxiliary strip 19, substantially similar to that shown in Fig. 5, is used, except that the outer ply extends downwardly and the innermost ply upwardly. In this case the mouth of the can is received between the central and innermost plies. The cover is formed substantially as before, with a peripheral bead 13'. When the auxiliary strip has been removed, the cover seats itself in the mouth with its flange lying within the mouth, its bead 13' resting on the edge of the mouth, as will be readily understood.

The bead 13 facilitates the soldering of the covers in place, enabling the soldering to be effected by simply dipping the cans. Evidently the bead forms a ledge or projection to which the solder adheres, so as to effectually seal the cover. The fact that the body of the cover is depressed into the ends of the can is also highly advantageous, because from this arrangement it will be assured that the contents of the can completely fills the same. When this is the case, of course the preserving quality of the receptacle is much enhanced.

While I have shown in the accompanying drawings the preferred form of my invention, it will be understood that I do not limit myself to the precise form shown, for many of the details may be changed in form or position without affecting the operativeness or utility of my invention, and I therefore reserve the right to make all such modifications as are included within the scope of the following claims or of mechanical equivalents to the structures set forth.

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

1. As a new article of manufacture, a can having an edge crimped to form an inner ply, a central ply, and an outer ply, a cover having a cylindrical flange, a depressed central portion and a cylindrical wall at the edges of said depressed portion, whereby a deep recess is formed between said cylindrical wall and said cylindrical flange, there being a space formed between said outer ply and said central ply adapted to receive said flange, said deep recess being adapted to receive said central ply and said inner ply snugly therein, said cover having a laterally-projecting pe-

ripheral bead lying adjacent to the edge of said outer ply, whereby said can may be dipped to seal said edge.

2. As a new article of manufacture, a can
5 having a body, a strip mounted in the mouth of said body, said strip comprising an inner ply, a central ply, and an outer ply, the outer edge of said body being received between said inner ply and said outer ply, a cover compris-
10 ing a cylindrical flange, a depressed central portion, and a cylindrical wall at the margin of said central portion whereby a deep recess is formed between said cylindrical wall and said cylindrical flange, said recess being adapt-
15 ed to receive the inner ply and the central ply of said strip, said flange being received between the central ply and the outer ply of said strip, said cover having a bead project- ing laterally therefrom beyond the edge of

said outer ply whereby said can may be dipped 20 to seal said edge.

3. As a new article of manufacture, a can comprising a body, an annular strip compris- ing a central ply an inner ply and an outer ply, said strip receiving the mouth of said can 25 between said inner ply and said central ply, a cover having a depressed central portion which lies against the inner face of said inner ply, and a flange received between said cen- tral ply and said outer ply, said cover having 30 a peripheral bead projecting laterally beyond said outer ply.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

JOHN J. SHANNON.

Witnesses:

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T. MYNARD.