

(No Model.)

W. WILSON, Jr.

SHEET METAL CAN.

No. 300,549.

Patented June 17, 1884.

Fig. 3.

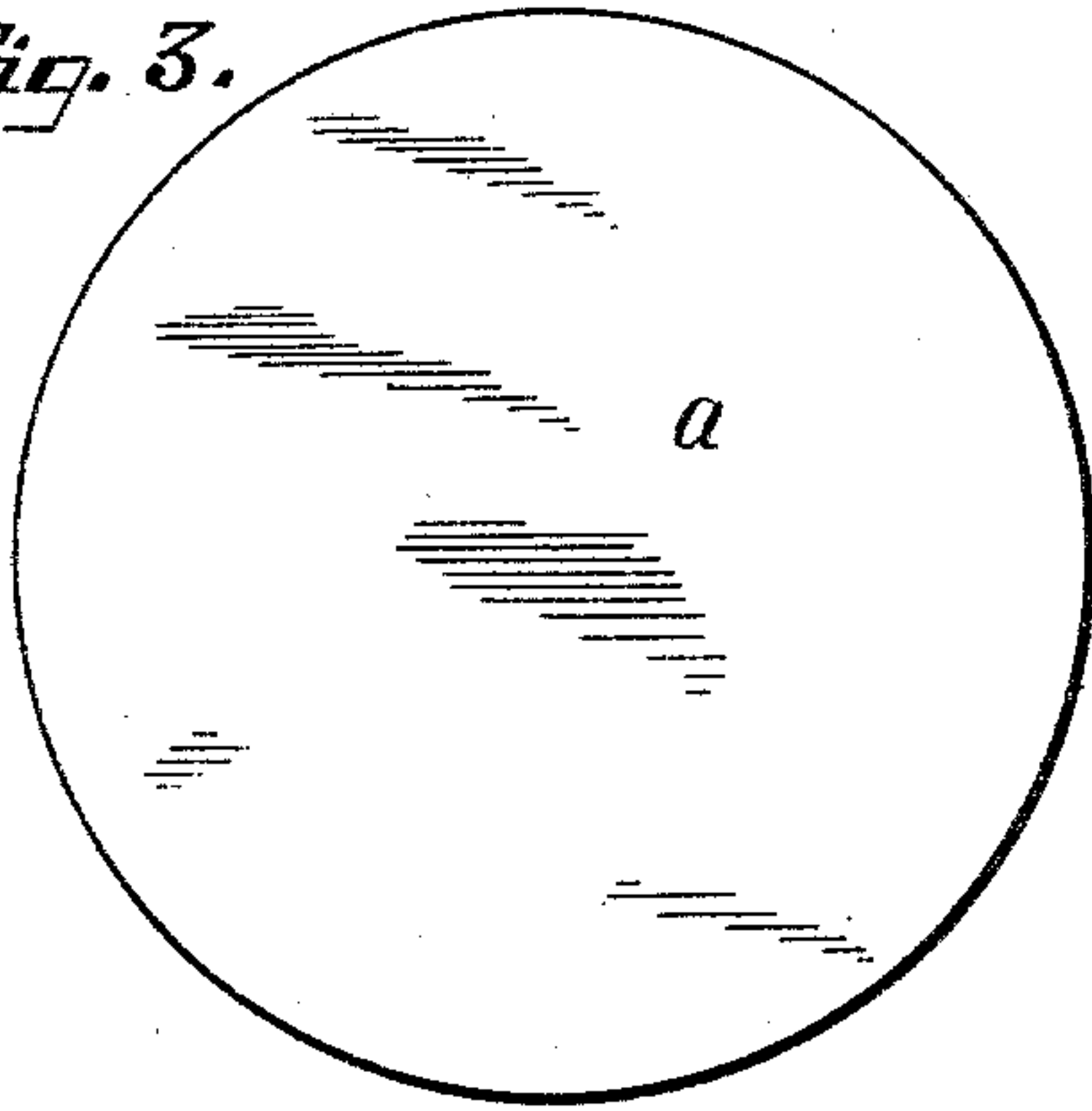


Fig. 6.

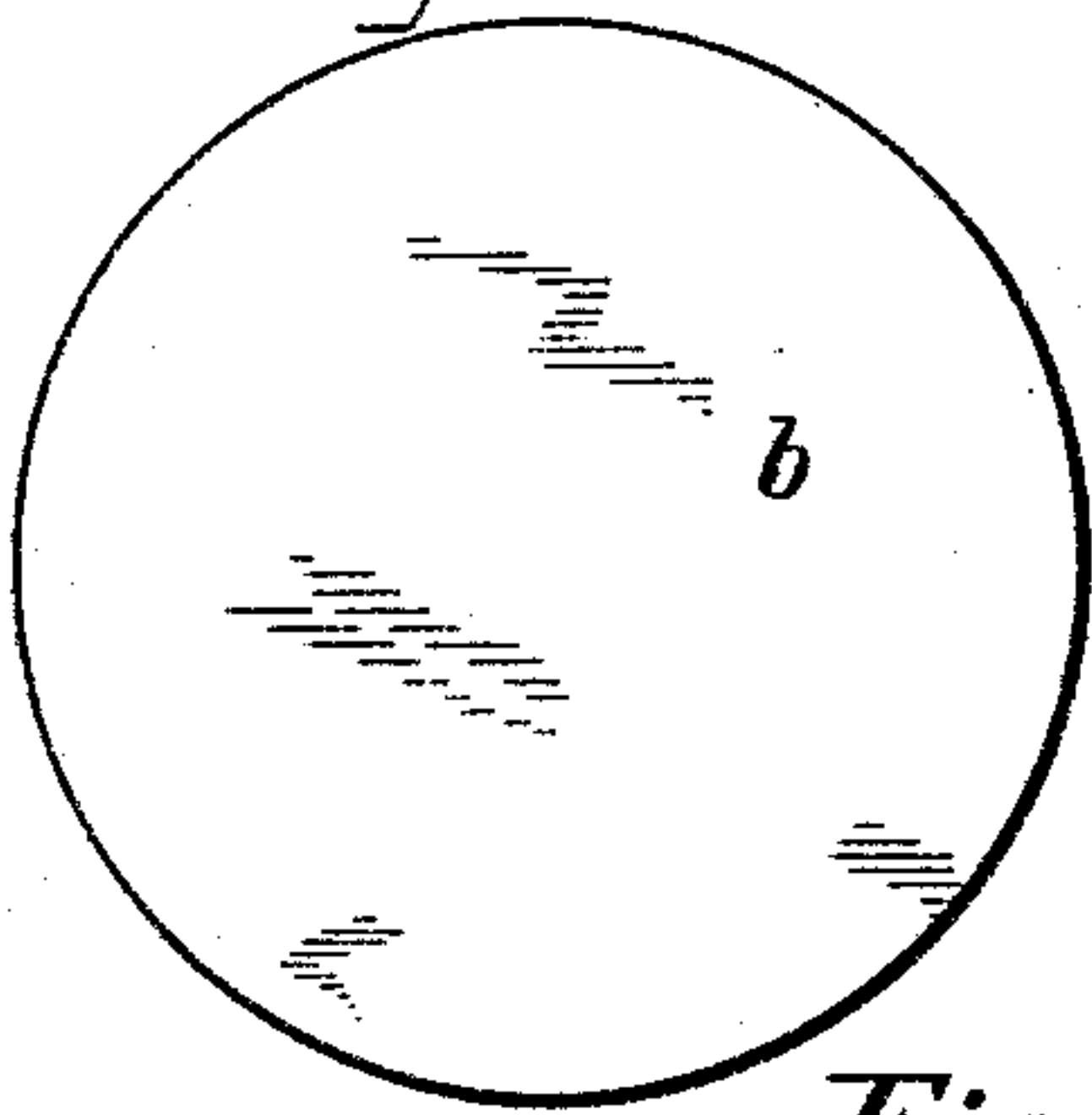


Fig. 4. F



Fig. 5.

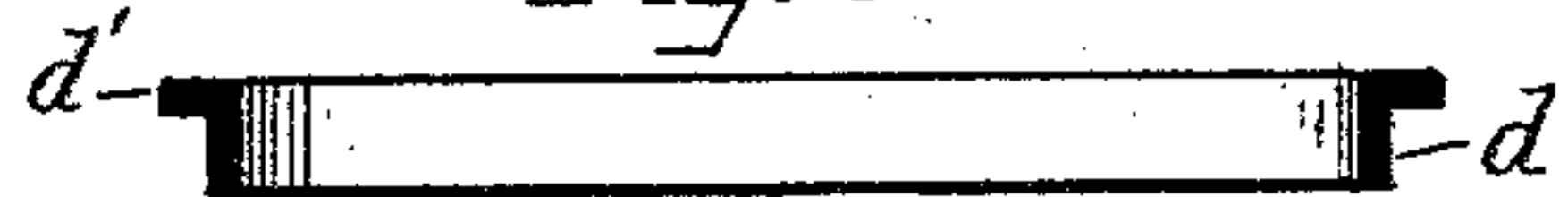


Fig. 1.

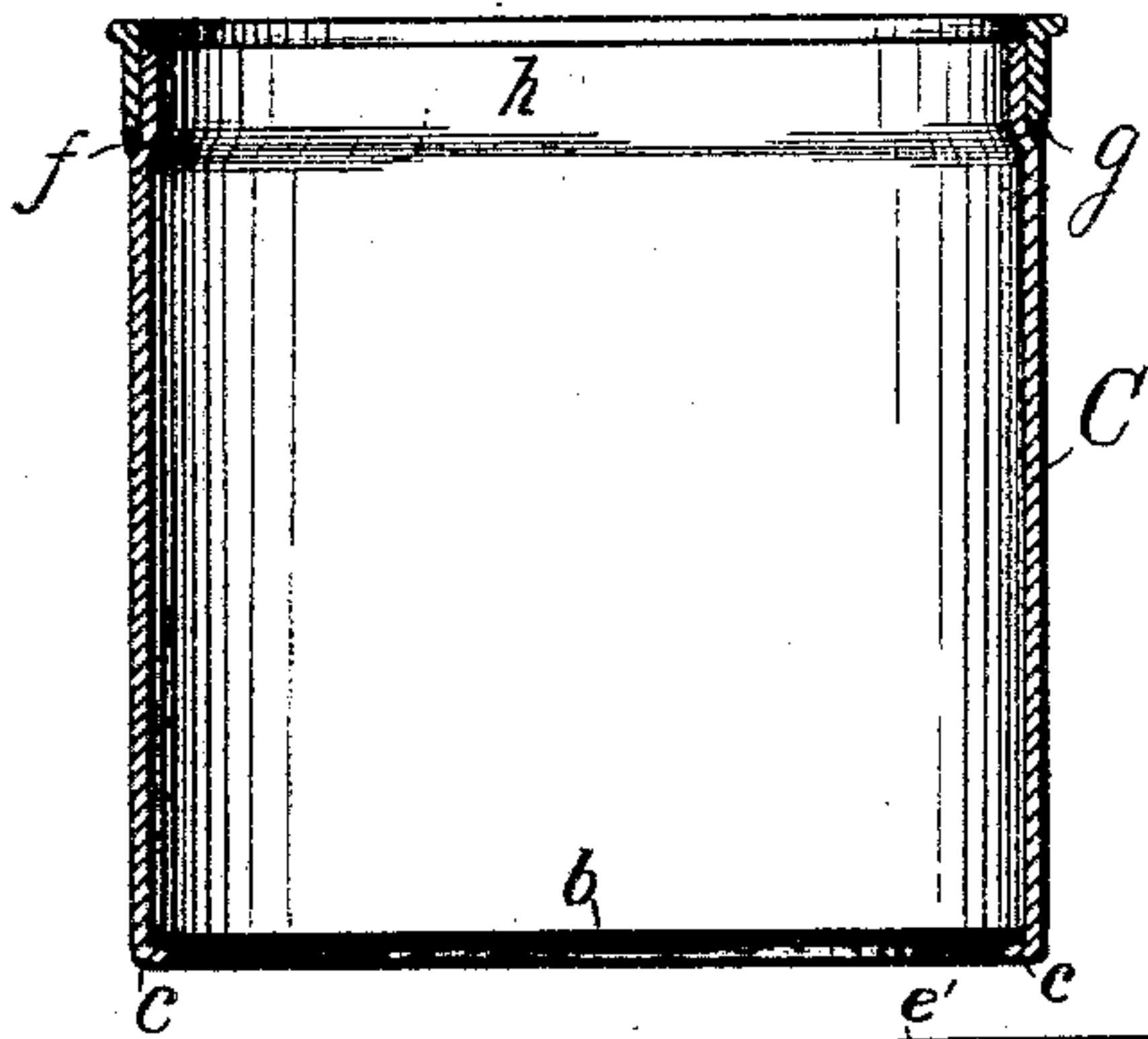


Fig. 2.

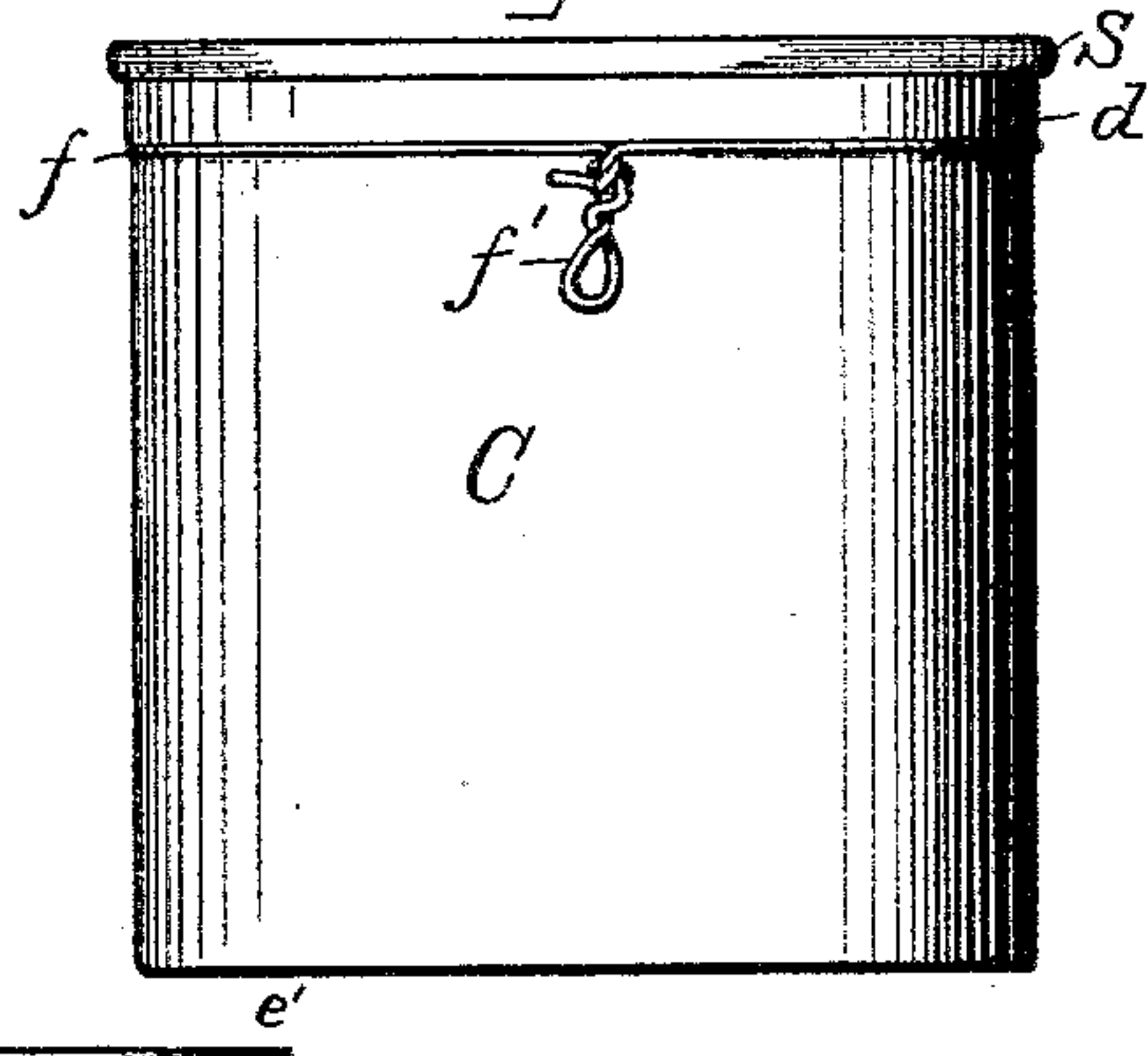


Fig. 7.



Fig. 8.

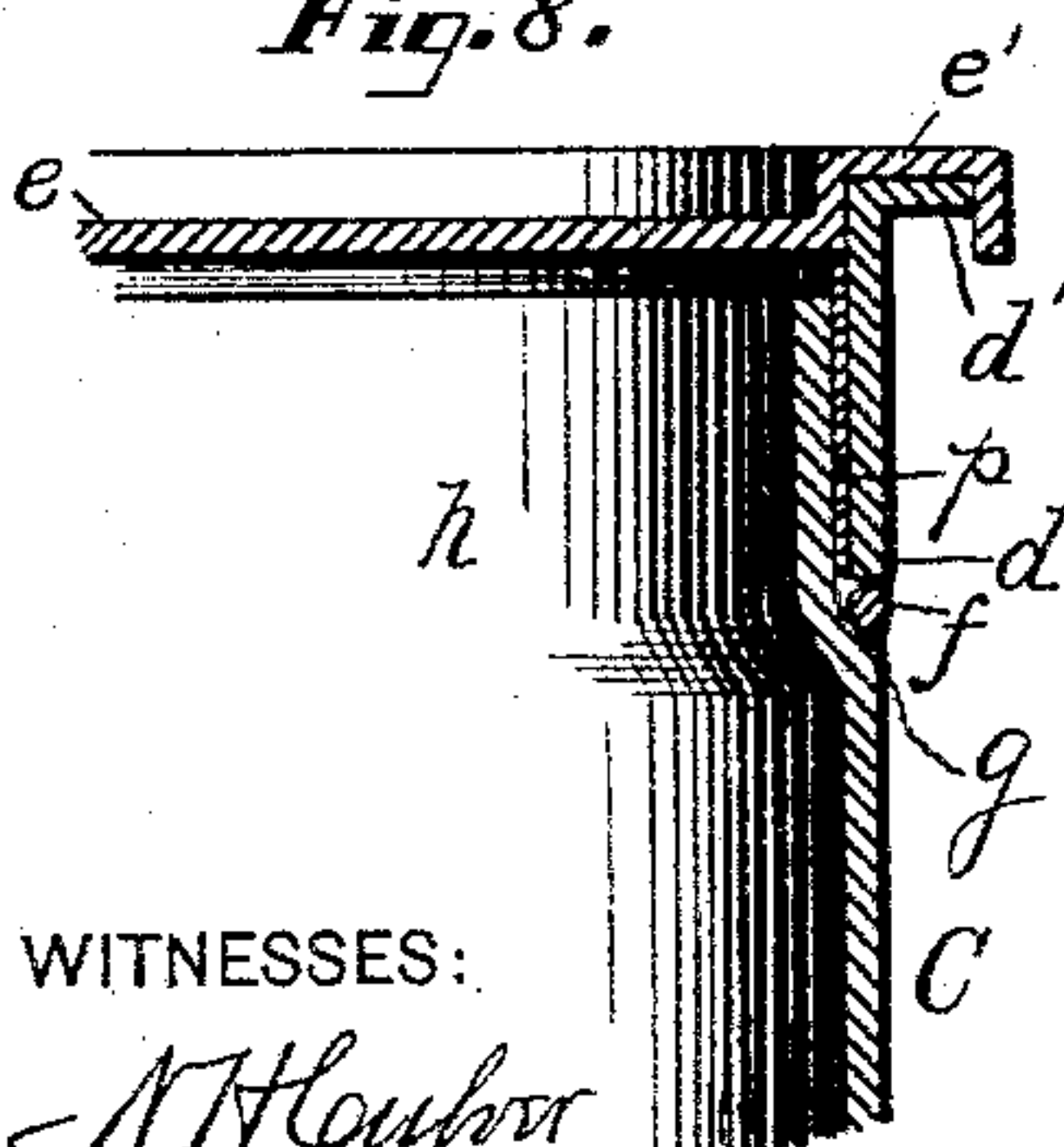


Fig. 9.

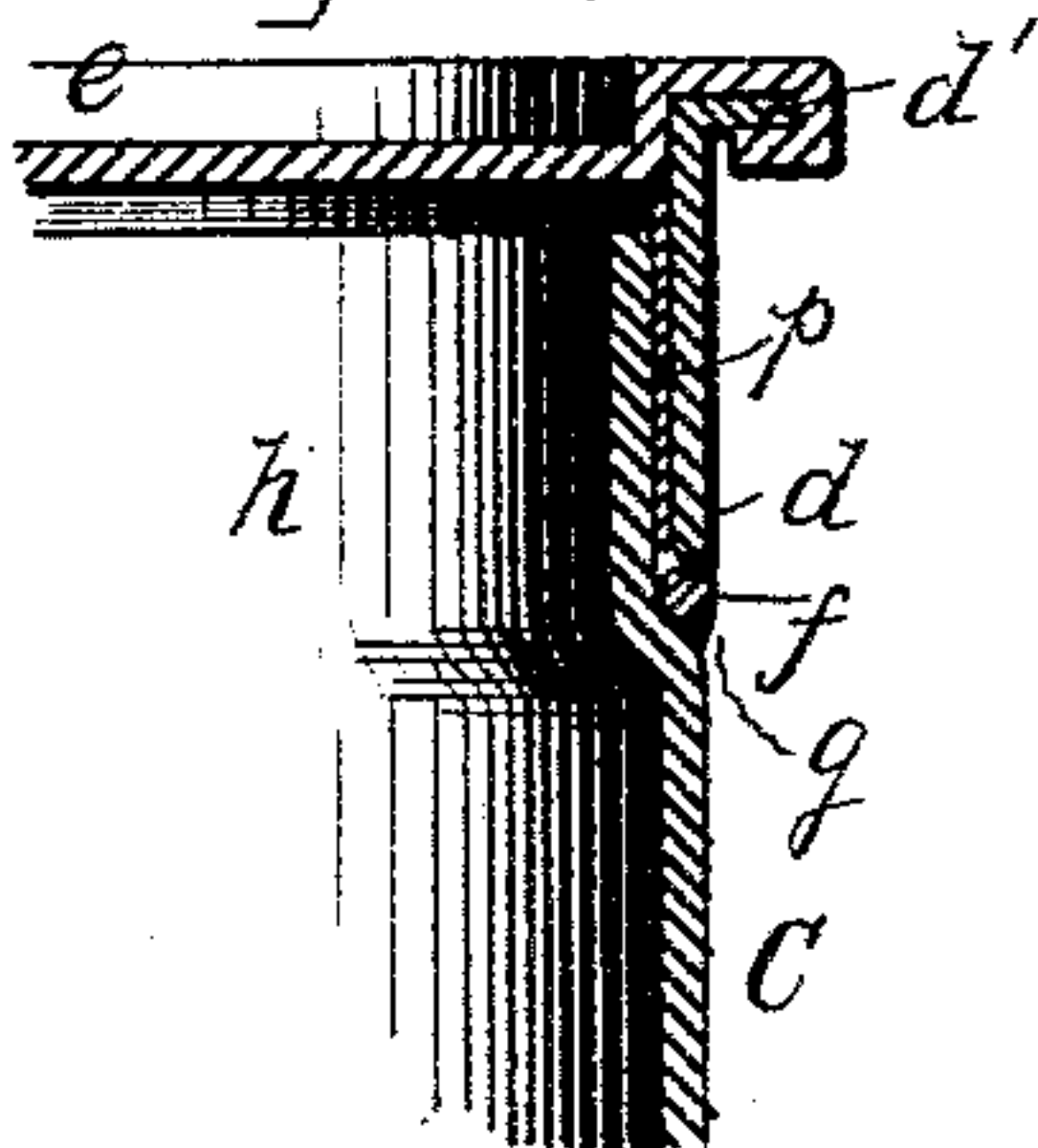
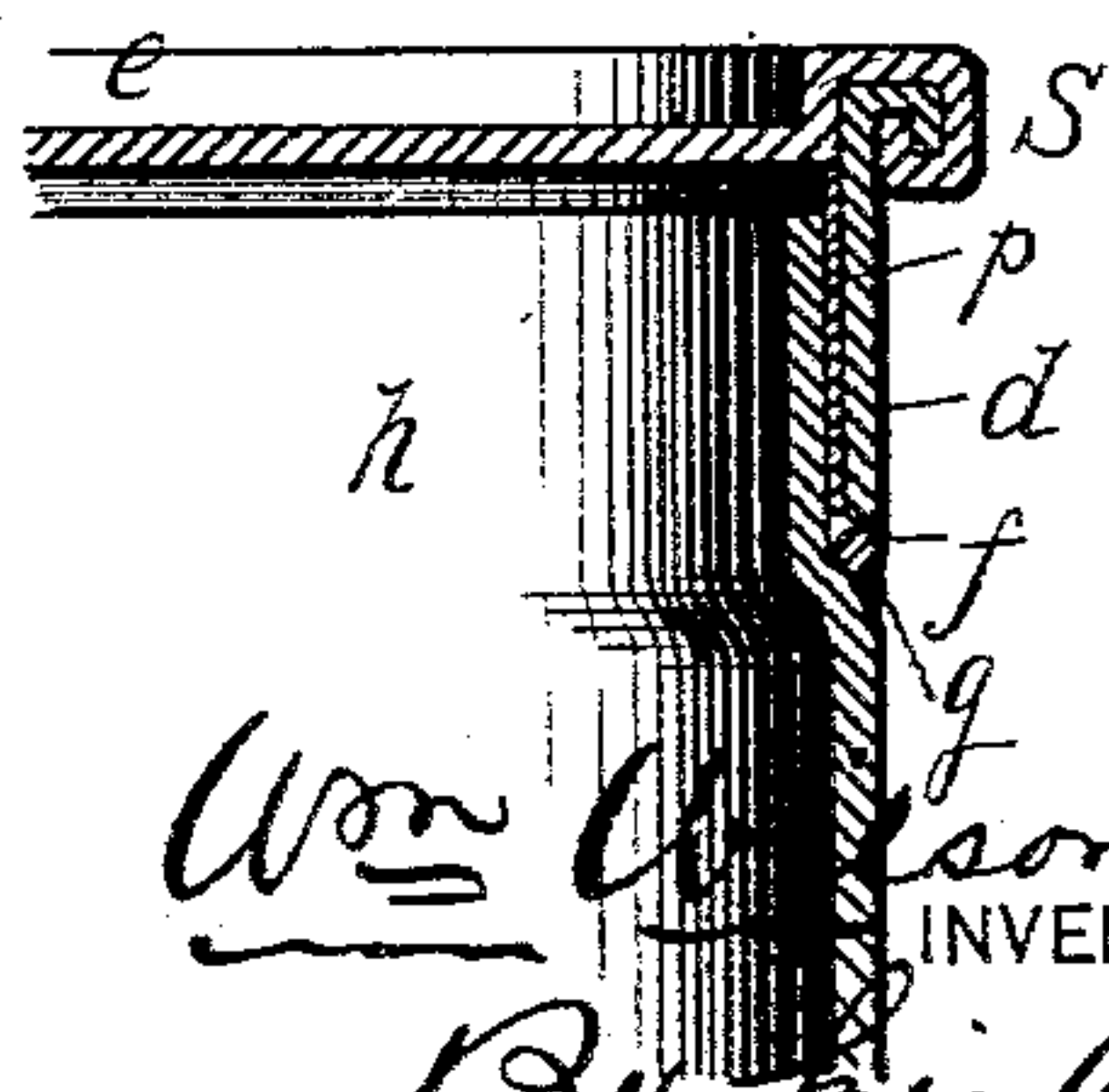


Fig. 10.



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UNITED STATES PATENT OFFICE.

WILLIAM WILSON, JR., OF GREENVILLE, DELAWARE, ASSIGNOR OF ONE-HALF TO CHARLES GREEN, OF SAME PLACE.

SHEET-METAL CAN.

SPECIFICATION forming part of Letters Patent No. 300,549, dated June 17, 1884.

Application filed February 8, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WILSON, Jr., a citizen of the United States, residing at Greenville, county of New Castle, and State of Delaware, have invented certain Improvements in Sheet-Metal Cans, of which the following is a specification.

My invention relates, in general, to a class of metallic vessels or "sheet-metal cans," so-called, employed for the hermetical inclosing of paints, preserved edibles, caustics, and other substances; and it relates, specifically, to that subdivision of the above class which comprehends what are known as "wire-rip" cans.

Generally stated, the object of the invention is the economical production of a strong and durable can. More specifically, the object is the manufacture of a wire-rip slip-cover can, the flanged rim of the cover of which is double-seamed with the top of the cover proper, and the bottom of which is conveniently formed from a blank produced in the manufacture of the flanged rim of the cover according to a method devised by me, and forming the subject-matter of a separate application for patent, filed November 17, 1883, as Serial No. 112,018, although it is not necessarily formed by such method.

In the accompanying drawings, which form a part of this specification, Figure 1 is a view in central vertical sectional elevation, and Fig. 2 a view in side elevation, of a can conveniently embodying a preferred form of my invention. Fig. 3 is a plan view of the blank from which, according to the method above referred to, are eventually struck both the flanged rim of the cover and the bottom of the can. Fig. 4 represents in central vertical sectional elevation the saucer-shaped form (designated for convenience as F) into which the blank *a* of Fig. 3 is, according to the method above referred to, first struck, Fig. 5 representing in similar view the flanged rim produced by the same method by striking from the saucer-shaped form of Fig. 4 its bottom, which becomes the blank *b*, represented in plan in Fig. 6, and is eventually employed as the bottom of the can proper. Fig. 7 represents in vertical central sectional elevation the top of the cover. Figs. 8, 9, and 10 are central vertical sectional elevational details, on an

enlarged scale, of a portion of the upper part of the can, illustrative at different stages of the union of the top of the cover with the flanged rim thereof by means of a double seam.

Similar letters of reference indicate corresponding parts in all the views.

The method which forms the subject of the application for patent hereinbefore mentioned being, in my opinion, not only the most economical but the best method which can be employed for the manufacture of the article which I claim as novel, and which constitutes the subject-matter of this specification, I have deemed it advisable to describe the said article herein as though it were necessarily manufactured by the said method, although this, it is proper to explain, is not the case, as other methods of manufacture may be resorted to with perhaps equal profit.

Heretofore slip-covers (not being drawn covers or those struck up from a single piece of metal) of a variety known as "rim-covers," and formed with a rim separate from the top, have not been made by double-seaming the rim with the top, (a desirable construction, because strong,) by reason of the expense incident to the amount of material necessarily wasted. The method referred to enables me to make a double-seamed rim-cover can without waste of material by proceeding in the following manner: I first take a circular blank, *a*, Fig. 3, of tinned iron or other desired sheet metal, of a predetermined diameter, and by a stamp or suitable press form it into the saucer-shaped form F. (Represented in Fig. 4.) I then conveniently, by means of a die or plunger whose exterior diameter is sufficient to exactly fill the interior of the saucer-shaped form, stamp the bottom out from the same, to form the blank *b*. (Represented in Fig. 6.) This blank *b* constitutes the bottom of the completed can, as shown in Fig. 1, it being dropped within the side body, C, of the can, and resting upon a circumferential inturned ledge, *c*, formed on the lower edge of said side body. The flanged rim represented in Fig. 5, which remains after the bottom has been punched from the saucer-shaped form of Fig. 4, constitutes the rim of my slip-cover, the vertical circular band *d* constituting the rim proper of the cover, and the horizontal flange *d'* consti-

tuting the flange proper, or member of the rim which is double-seamed with the top *e* of the cover represented in Fig. 7. Before, however, double-seaming the flanged rim with the top of the cover, and either before or after securing the bottom in place within the side body, the flanged rim in precisely the form represented in Fig. 5 is secured about the chine *h* of the can-body in the manner represented in Fig. 1 of the drawings—that is to say, by soldering a ripping-wire, *f*, to both the lower edge of the flanged rim and to a beveled shoulder, *g*, formed on the side body of the can conveniently by countersinking the chine or upper circumferential portion of the side body.

The application of the solder may be made as is most convenient, either by hand or machine, and the resulting product is a can-body having a flanged rim secured about its chine by being superimposed upon and soldered to a ripping-wire, itself soldered to the exterior of the can-body. The sealing of the parts is of course hermetical.

It is obvious that traction exerted upon the eye *f'*, Fig. 2, of the ripping-wire will cause the tearing of the wire from both the can-body and the flanged rim so as to set free the latter. This tearing of the wire is of course only resorted to when it is desired to open the sealed can. The side body, with the bottom sealed in place, and with the flanged rim hermetically sealed to it through the medium of the ripping-wire, is then covered by the top *e* of the cover, which is formed with an overhanging circumferential bead, *e'*, Figs. 7 and 8, which seats itself upon the flange *d'* of the flanged rim *d*, and tight closure is then effected and the flanged slip-cover as an entirety completed by double-seaming the overhanging bead of the top with the horizontally-projecting flange of the rim. The steps of the foregoing process of double-seaming are represented in Figs. 8, 9, and 10, of which Fig. 10 shows the completed double-seam joint, which is designated by the letter *s*, and shown also in Fig. 2.

P is a strip of packing material—such as stiff paper—interposed between the exterior of the can-body at or near its chine and the interior of the flanged rim, and which is designed to prevent the solder from connecting the body and rim together above the wire.

Such being a description of a preferred manner of carrying out my method of making a can, it is obvious that there results a substantial double-seamed slip-cover wire-rip

can which has been made with the least possible waste of material, which is both strong and easily opened, and which affords the amplest opportunity for completely filling the can proper, it being well known that many cans in which the top is soldered direct to the chine of the side body can be but imperfectly filled, because of the danger of the solder coming in contact with the contents, should they be fully level with the chine. The double-seaming does not of course necessitate the employment of solder, but is effected by means of seaming-rolls or kindred contrivances in the usual manner. I have represented, as a convenient construction, a countersunk chine terminating with a shoulder projection or bead, against which the ripping-wire rests. This shoulder is of advantage, because it enables the flanged rim to be made of the same diameter as the side body proper of the can, and yet to be adapted to be slipped over the chine of the same.

I have illustrated and described my invention as applied to a cylindric can. It is obvious that it is applicable also, by a suitable modification in the form of the blank *a* and in that of the side body, to cans of quadrangular or polygonal contour. It is also obvious that after my can has been opened the slip-cover, which remains, can be used to recover the can when but a part of the contents are removed.

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

1. As a new article of manufacture, an uncovered sheet-metal can the side body of which is provided with a flanged rim secured thereto by solder and a ripping-wire, substantially in the manner and for the purposes hereinbefore set forth.

2. In combination with the side body of a sheet-metal can, and with a flanged rim secured to said side body by solder and a ripping-wire, a top adapted to be double-seamed with the flange of the solder-secured rim, substantially as described.

3. The combination, to form a hermetically-sealed slip-cover wire-rip can, of the side body, the flanged rim, the ripping-wire, the solder, and the top double-seamed with the flanged rim, substantially as described.

In testimony whereof I have hereunto signed my name this 30th day of January, A. D. 1884.

WM. WILSON, JR.

In presence of—

C. GREEN, Jr.,

CHAS. C. GARRETT.