

(No Model.)

F. H. PALMER.
SHEET METAL CAN.

No. 464,385.

Patented Dec. 1, 1891.

Fig. 1.

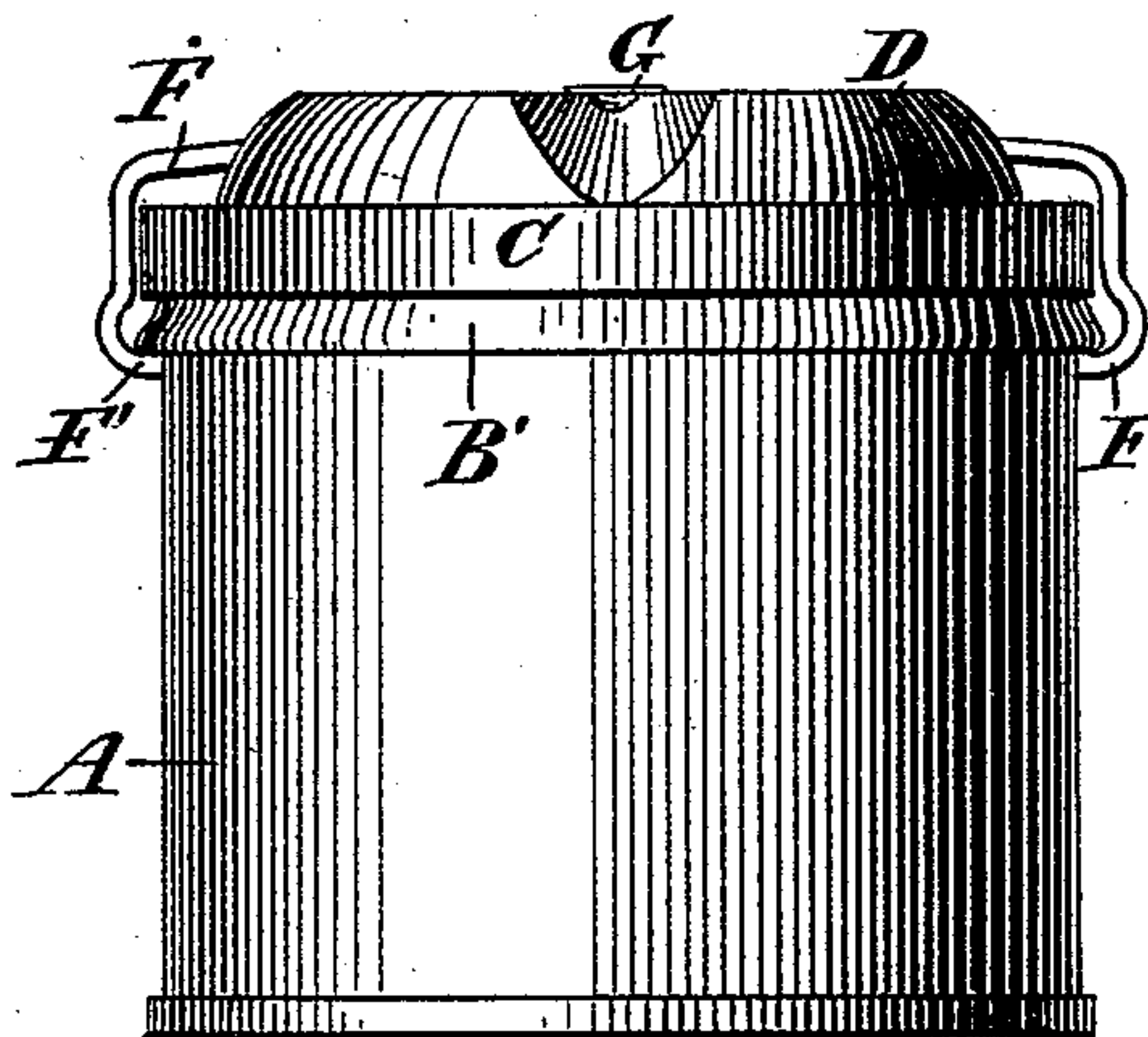


Fig. 2.

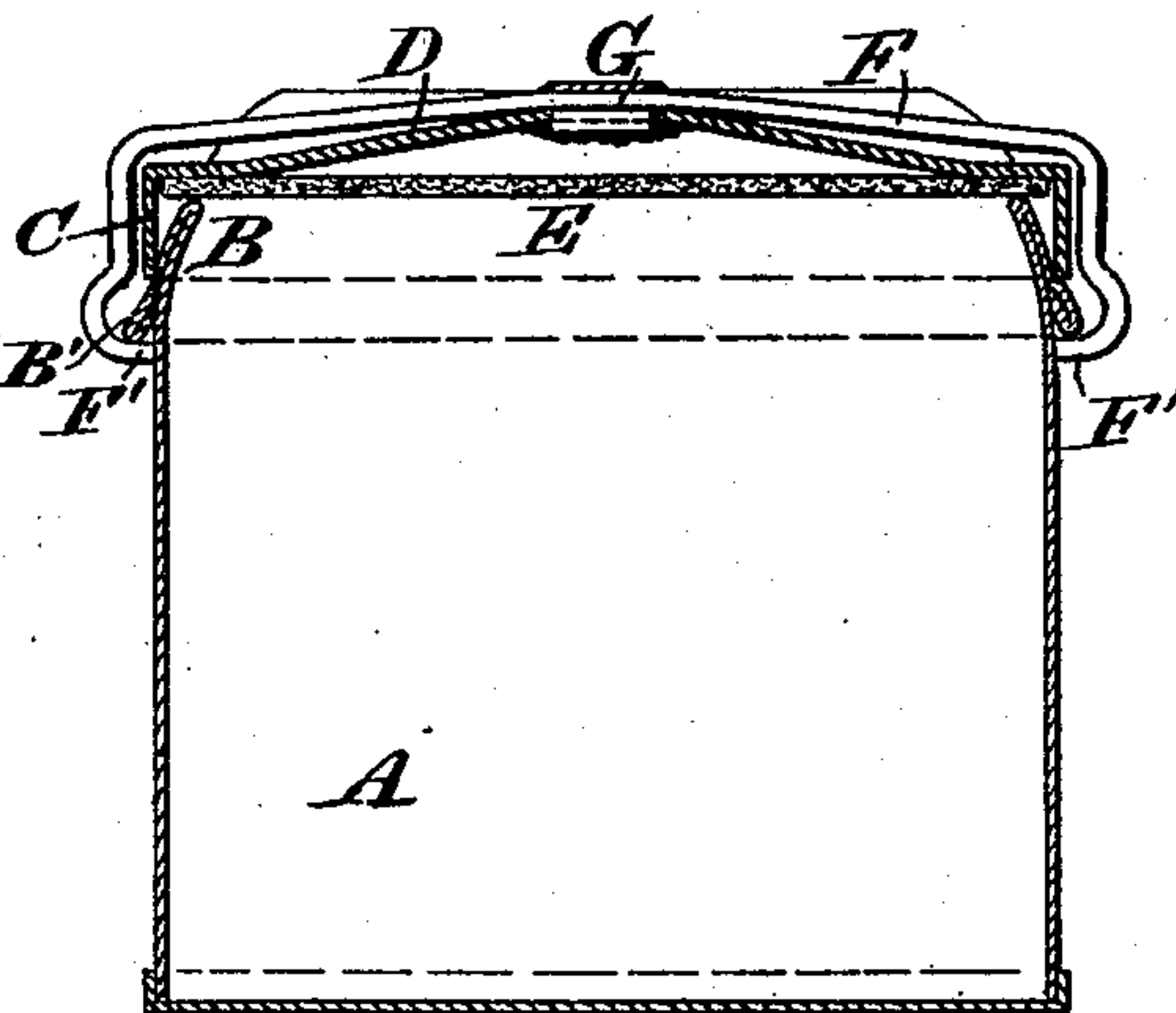


Fig. 5.



Fig. 3.

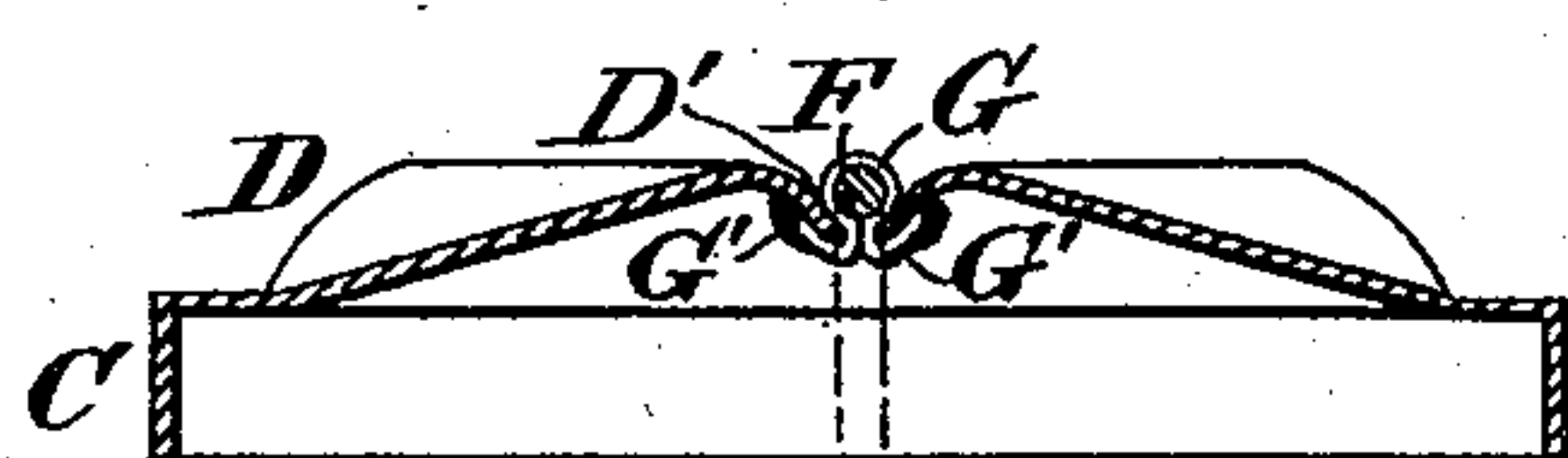


Fig. 6.

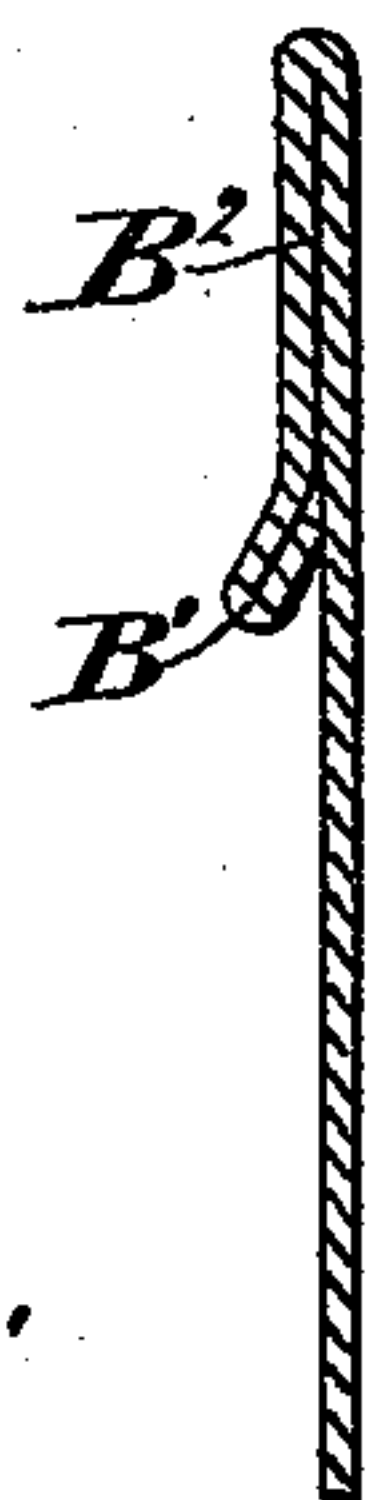


Fig. 4.

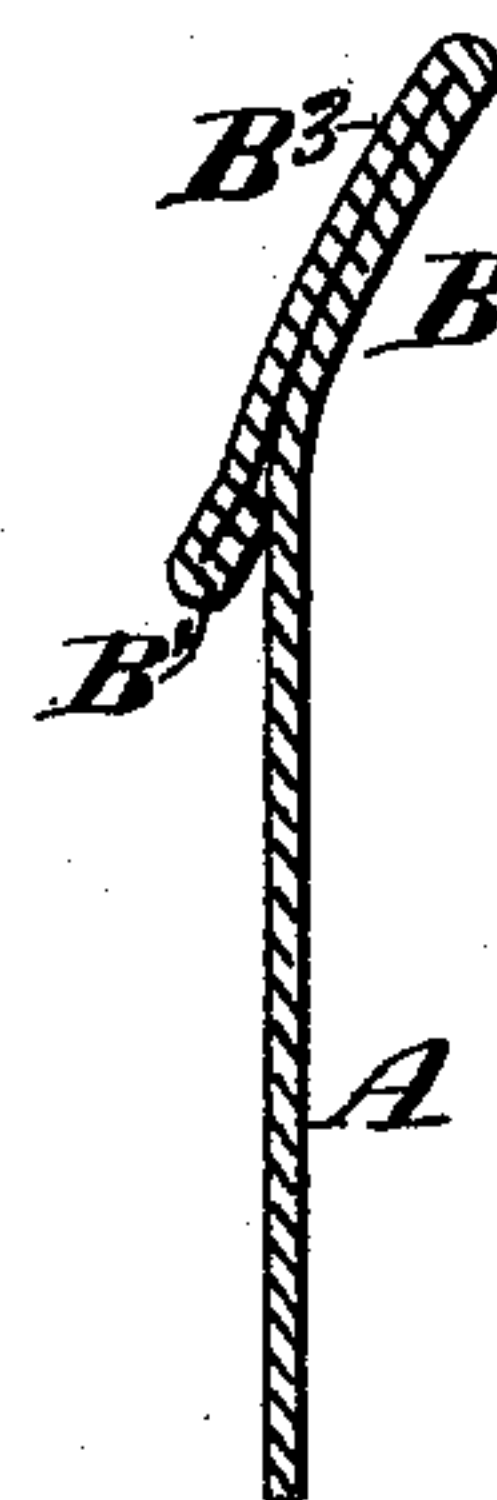
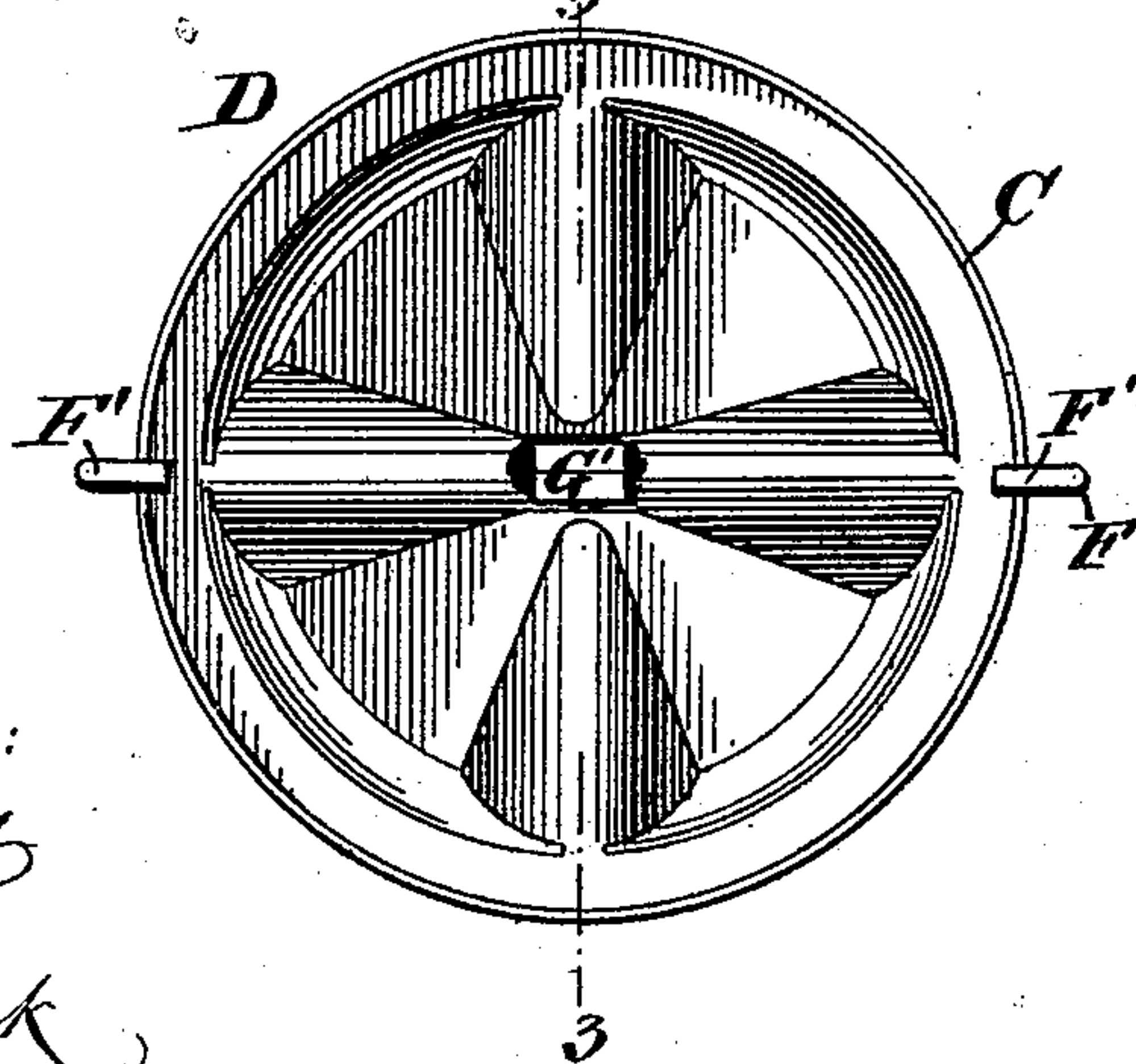


Fig. 4.



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FRANK H. PALMER, OF BROOKLYN, NEW YORK.

SHEET-METAL CAN.

SPECIFICATION forming part of Letters Patent No. 464,385, dated December 1, 1891.

Application filed April 13, 1891. Serial No. 388,718. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. PALMER, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Sheet-Metal Can, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved sheet-metal can which is simple and durable in construction, permits of readily placing and locking the cover upon the mouth of the can, and prevents leakage of the contents.

The invention consists of a can having a frusto-conical open end adapted to be engaged by the circular flange of the cover.

The invention further consists of a packing-disk held in the under side of the cover and engaged by the upper doubled-up edge of the frusto-conical end of the can-body, the contact being a considerable distance from the edge of the packing-disk, and the doubled-up edge firmly engaging the packing without cutting the same, so as to prevent leakage.

The invention also consists of certain parts and details and combinations of the same, as will be hereinafter fully described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement. Fig. 2 is a sectional side elevation of the same. Fig. 3 is a transverse section of the cover on the line 3 3 of Fig. 4. Fig. 4 is an inverted plan view of the cover, and Figs. 5, 6, and 7 are sectional elevations illustrating the forming of the frusto-conical end of the can-body.

The improved sheet-metal can is provided with the can-body A, the upper end or mouth B of which is formed in the shape of the frustum of a cone, the outside of which is engaged by the lower end of the annular flange C, projecting downward from the cover D. In the under side of the latter is held a packing-disk E, made of a suitable material and engaged at its under side by the upper edge of the frusto-conical end B of the can-body. In order to conveniently form this frusto-conical end B on the can-body A, the blank for the latter has one end bent outward upon it-

self to form a projection B' on the outside of the blank, as is plainly illustrated in Fig. 5. This end of the blank is then again bent outward upon itself, as at B², Fig. 6, so that the projection B' is a considerable distance below the upper edge of the blank. The doubled-up part B² is then passed between rollers, so as to be pressed inward, as illustrated at B³, Fig. 7, thereby forming the frusto-conical end B. Other suitable means may be employed for bending the doubled-up part B² inward to form the frustum of a cone.

It will be seen that in forming the doubled-up part B² the upper edge of the can-body is rounded off, and this edge projects a considerable distance inward from the sides of the body, so that the packing-disk E is engaged by its rounded edge a suitable distance from the edge of the packing. At the same time the round part of the edge does not cut into the packing and destroy its efficiency.

In order to conveniently lock the cover D to the can-body A, the top of the cover is formed with a diametrical groove D', tapering downward from the middle to the ends, as is plainly illustrated in Fig. 2. At the middle or highest part of the groove D' is held an eye G, through which passes a bail F, made of spring-wire and having its ends curved downward over the sides of the can, the ends being provided with inwardly-extending lugs F', adapted to engage the under side of the projection B', formed on the can-body A, as previously described.

The eye G is preferably made in the shape of a clip, the ends of which are passed downward through a slot in the top of the cover D, the ends G' of the clip being bent in opposite directions upon the under side of the cover, as is plainly illustrated in Fig. 3. The bent-over ends of the clip are then soldered in place, the solder passing completely over and around the inner ends of the clip or eye, so that the slot in the cover is completely closed up to prevent leakage of the contents of the can and the bail F is rigidly secured to the eye G.

It will be seen that when the several parts are in place, as illustrated in Fig. 2, the lower end of the flange C fits snugly upon the outside of the frusto-conical end B at the doubled-up part B². The upper edge of the

frusto-conical end engages the under side of the packing-disk E a suitable distance from the edge of the latter, and the bail F securely holds the cover D in place by its end being pressed downward, so that the lugs F' snap under the annular projection B'. The cover D is thus securely locked in place on the can A, and the upper edge of the frusto-conical end B is firmly pressed in contact with the packing-disk E without cutting the latter.

A sheet-metal can constructed in this manner has its can-body greatly re-enforced and strengthened by doubling up the upper ends of the blank in the manner above described. By making the upper end in the shape of a frustum of a cone the flange C of the cover is readily placed in position and makes a tight fit on the outside of the end B when pressed downward in fastening the bail F to the can-body A, as above described. The annular projection B' also forms a stop for the flange C of the cover D. By holding the bail F in the eye or clip G a displacement of the said bail is not possible, as the bail is securely fastened in place by the clip G to the cover.

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

1. A sheet-metal can comprising a body made of a single piece of sheet metal and having a doubled-up frusto-conical end, a packing-disk adapted to be placed across the doubled-up frusto-conical end of the said body, and a cover formed with an annular cylindrical flange adapted to engage with its lower end the outside of the said frusto-conical end, the under side of the cover resting on the top of the said packing-disk, substantially as shown and described.

2. A sheet-metal can provided with a body made of a single piece of sheet metal and having a doubled-up frusto-conical end and a doubled-up annular projection arranged on

the lower edge of the outer part of the said doubled-up end, substantially as shown and described.

3. In a sheet-metal can, the combination, with a body having a frusto-conical end, the upper edge of which is rounded, and an annular projection formed on the outside of the can-body, the latter, as well as the frusto-conical end and the projection, being made of a single piece of sheet metal bent in the manner described, of a packing-disk adapted to be placed across the frusto-conical end of the said can-body, a cover engaging the said packing-disk and formed with a downwardly-extending annular flange engaging the said frusto-conical end, and a bail held on the said cover and having inwardly-projecting lugs at its ends, adapted to engage the annular projection on the can-body, substantially as shown and described.

4. In a sheet-metal can, the combination, with a body having a frusto-conical end, the upper edge of which is rounded, and an annular projection formed on the outside of the can-body, the latter, as well as the frusto-conical end and the projection, being made of a single piece of sheet metal bent in the manner described, of a packing-disk adapted to be placed across the frusto-conical end of the said can-body, a cover engaging the said packing-disk and formed with a downwardly-extending annular flange engaging the said frusto-conical end, a bail held on the said cover and having inwardly-projecting lugs at its ends adapted to engage the annular projection on the can-body, and an eye or clip secured in the middle of the said cover and carrying the said bail, substantially as shown and described.

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