

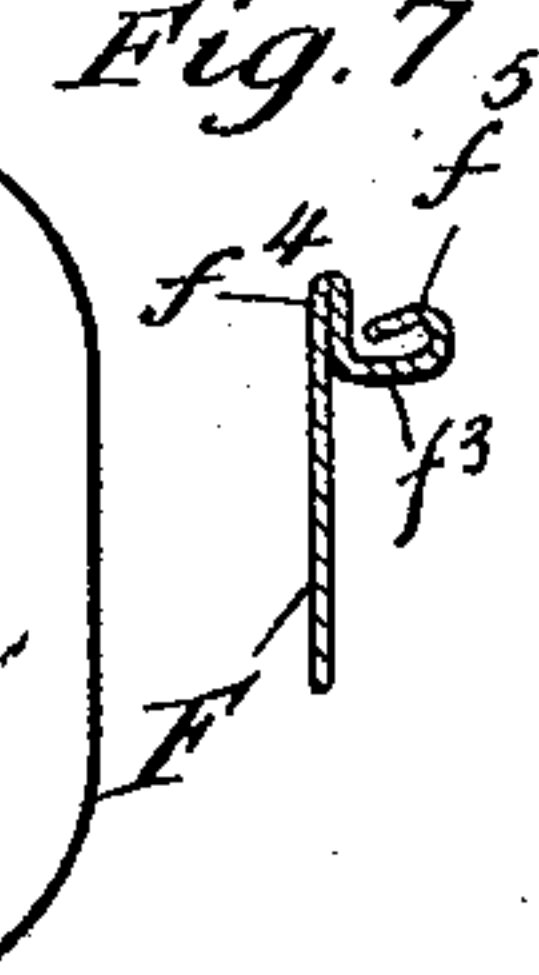
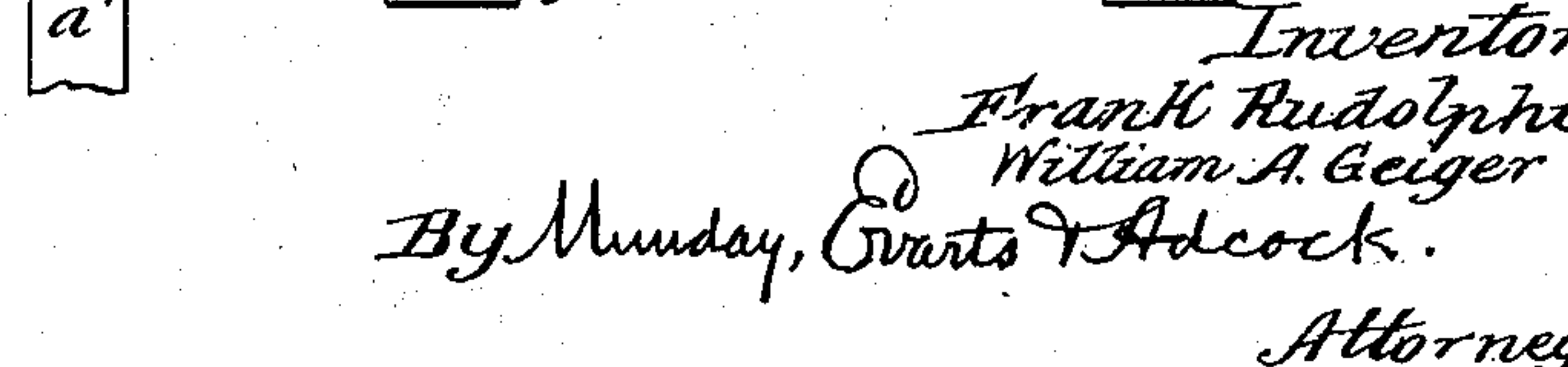
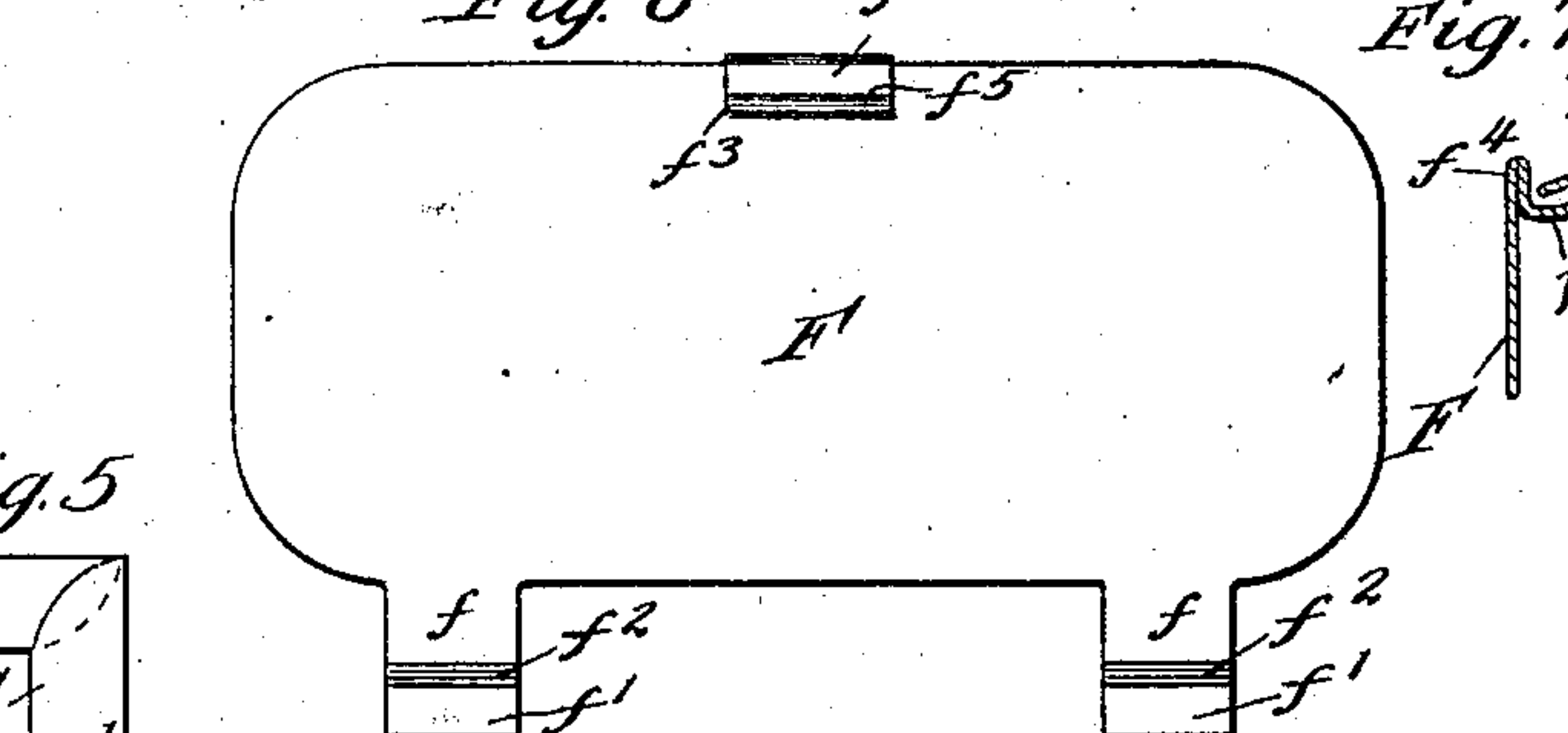
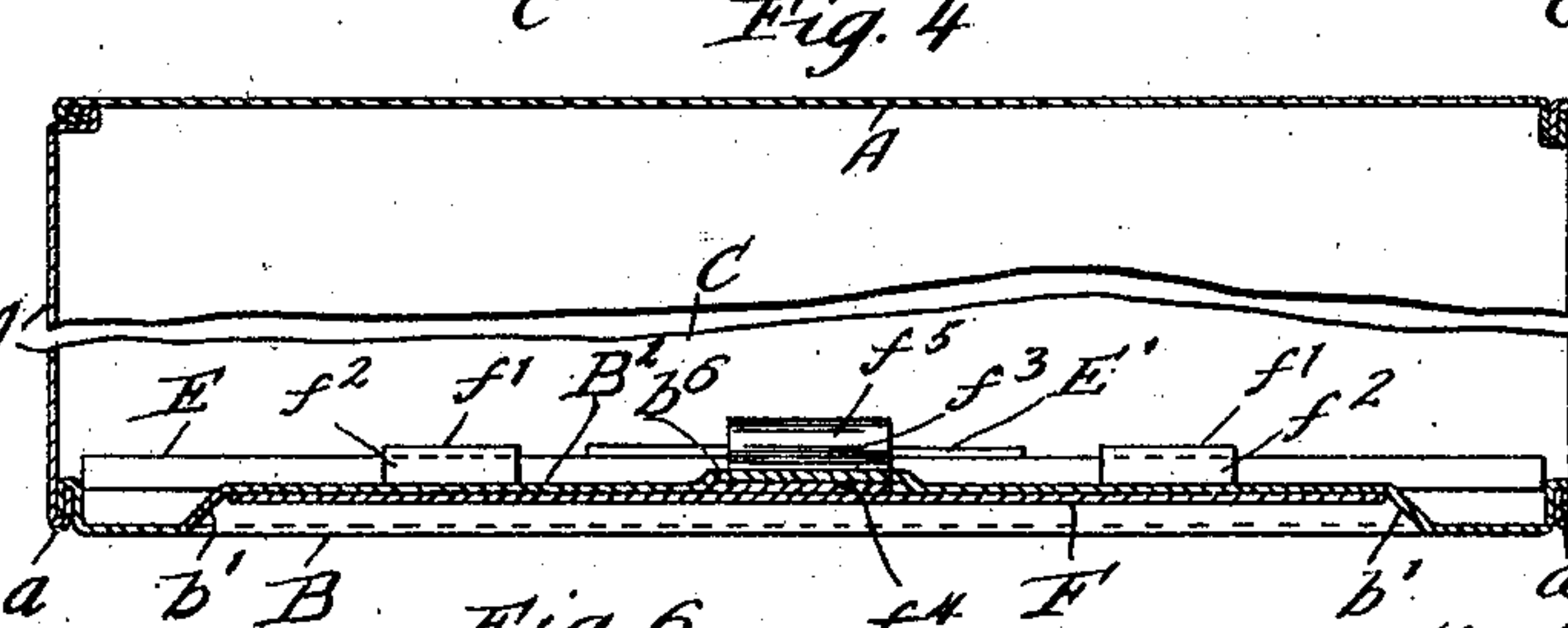
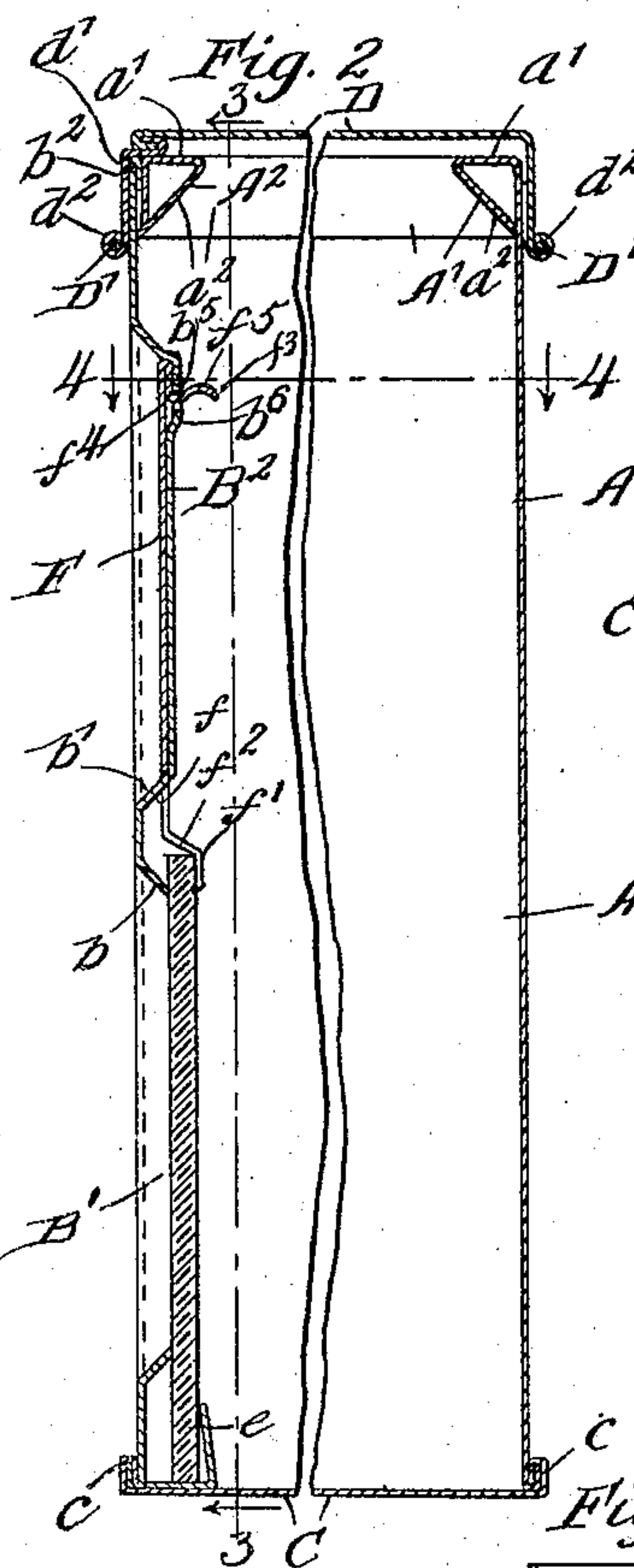
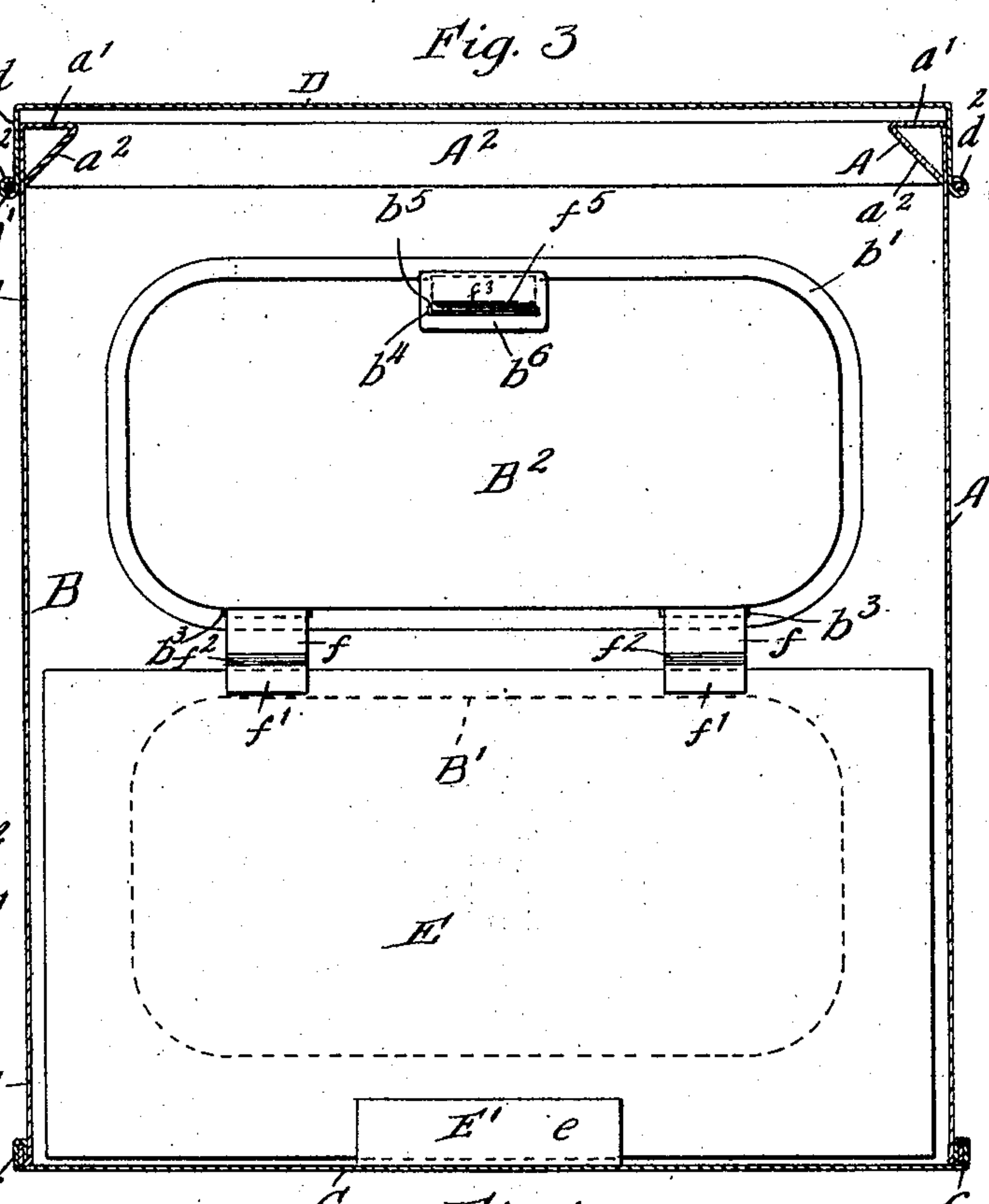
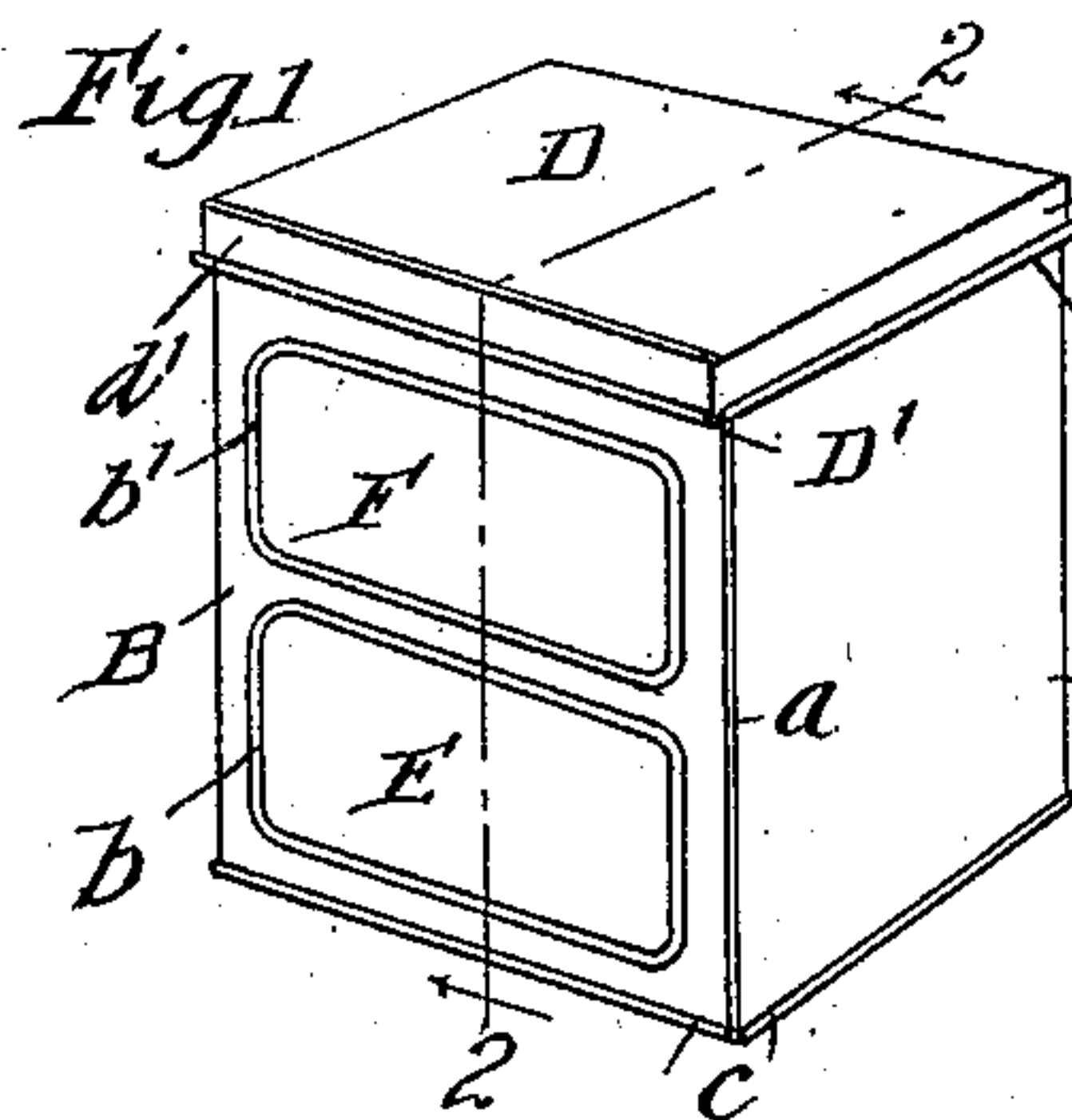
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PATENTED MAR. 27, 1906.

F. RUDOLPHI & W. A. GEIGER.

SHEET METAL DISPLAY CAN

APPLICATION FILED SEPT. 29, 1905.



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UNITED STATES PATENT OFFICE.

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SHEET-METAL DISPLAY-CAN.

No. 815,981.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed September 29, 1905. Serial No. 280,594.

To all whom it may concern:

Be it known that we, FRANK RUDOLPHI and WILLIAM A. GEIGER, citizens of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Sheet-Metal Display-Cans, of which the following is a specification.

Our invention relates to improvements in sheet-metal display-cans for containing, shipping, storing, and displaying for sale crackers, bakery goods, and other articles.

The cans to which our invention relates are large rectangular returnable cans, usually some ten or twelve inches in each dimension, in which the front plate of the can is made of brass or other burnishable metal, so that when the can is returned to the bakery to be refilled its brass display front may be reburnished, and thus given a new and bright appearance suitable for containing the fresh crackers with which it is refilled. In these cans a portion of the front plate is cut away, leaving an opening closed by a glass plate through which the contents of the can may be seen or displayed, and the cans also bear on their front the name of the bakery whose goods are in the can, or other sign or advertisement. For a great many years past the name or sign has usually been stamped up in raised or embossed letters on the brass front itself in the advertising mat or space left therefor above the display-opening. The raised or embossed letters, however, are objectionable because they offer an obstruction to the buffing-wheel in the reburnishing operation and also a lodgment for the buffing-powder around the bases of the letters, making it difficult to cleanly or perfectly remove the buffing-powder, and the raised letters in the sheet-brass are also in time liable to be dented or battered or worn through at the corners, and thus give the can a dilapidated appearance, however brightly the front may be reburnished, and the name or sign stamped up in raised letters on the sheet-brass is also not very distinct, and attempts have heretofore been made to overcome these objections or difficulties in the old brass-front display-can with the embossed sign by providing the brass front plate of the can with a second opening above the display-opening and soldering pocket-pieces on the inside of the brass front thereof adjacent to

this second opening and providing the can with a sheet-metal color-printed sign-plate fitting on the inside of the front plate, as shown and described, for example, in the Larkin patents, Nos. 764,296 and 764,297, of July 5, 1904; but this Larkin construction of removable sign-plate display-can materially weakens the brass front plate by the additional opening therein and is more or less objectionable on account of its increased cost, due to the several additional parts or pieces required and the labor and expense of soldering them in place, and the operation of soldering the sign-plate pocket-pieces on the inside of the brass front plate is liable to produce verdigris or other poisonous compounds, which if not perfectly removed may come in contact with the food products placed in the can.

The object of our invention is to produce a sheet-metal display-can having the customary display-opening in its front plate and a removable inside-fitting glass plate for closing the same and provided also with a removable sheet-metal sign-plate, so that the sign-plate may be removed while the brass front of the can is being reburnished when it is returned to be refilled, and which will be of a simple, strong, and durable construction composed of few parts, and in which the sign-plate itself will serve as the means for removably holding the glass plate in place, and in which the removable sign-plate shall also have integral devices for holding it removably in place, and whereby all extra parts and pieces may be entirely dispensed with, and also the labor, expense, and danger incident to soldering parts to the inside of the brass front plate may be entirely dispensed with.

Our invention consists in the means we employ to practically accomplish this object or result—that is to say, it consists in a display-can having in combination a brass or burnishable-metal front plate furnished with the customary display-opening in its lower portion and a removable inside-fitting glass plate and provided with a countersink or recess in its upper portion to receive an external removable sign-plate and a removable sign-plate fitting on the outside of the front plate and having an internal glass-plate holder which projects through a slot or opening in the front plate and engages the upper edge of the glass plate to hold the same re-

movably in place, the sign-plate being also provided with an integral holder or device for holding the sign-plate removably in place on the outside of the front plate.

5 Our invention also consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of a display-can embodying our invention. Fig. 2 is a central vertical section on line 2 2 of Fig. 1. Fig. 3 is a vertical section on line 3 3 of Fig. 2. Fig. 4 is a horizontal section on line 4 4 of Fig. 2. Fig. 5 is a detail top view showing one corner of the can-body. Fig. 6 is a detail rear view of the removable sign-plate, and Fig. 7 is a detail cross-section showing a modification of the integral tongue on the sign-plate for holding the sign-plate in place.

In the drawings, A represents the three sheet-metal upright side plates and B the sheet-brass or burnishable-metal front plate, forming the body of the can, C the bottom plate, and D the hinged cover. The bottom plate C is secured by external folded seams *c* to the lower edges of the side plates A and front plate B. At the upright corners of the body the sheet-metal sides A and front plate B are united by internal folded seams *a*. The upright side plates A of the body have at their upper ends horizontal right-angle flanges *a'*, preferably about one-half inch in width, and angle-flanges *a''*, the lower edges of which meet and are soldered to the vertical sides A, thus forming hollow triangular stiffening and strengthening bars or braces A' at the upper end of the can-body at three sides thereof and at its remaining or front side a similar hollow triangular stiffening and strengthening bar A², having a corresponding horizontal flange *a'* and angle-flange *a''*. At the corners of the body the meeting horizontal flanges *a'* and meeting angle-flanges *a''* of the hollow strengthening bars or braces A' A² overlap each other and are securely soldered together, thus forming a continuous hollow strengthening-bar all around the upper end of the can-body.

The brass front plate B has a display-opening B' in its lower portion surrounded by an intumed angle-flange *b* and a countersunk portion B², surrounded by a marginal wall or angle-flange *b'*, the countersink forming an external seat or recess to receive the externally-fitting removable sheet-metal sign-plate F. The brass front plate B has a fold *b''* at its upper edge to give a smooth upper finish thereto, and it fits snugly against and is soldered directly to and supported by the hollow triangular strengthening-bar A² at the front side of the can. The thin brass front plate B is thus given a strong support at its upper end by the bar A², and a much stronger

and better construction is produced than in the cans heretofore in use, where a slot or passageway is left between the bar A² and the front plate B for the removal and insertion of an inside-fitting plate.

The hinged cover D has a right-angle integral flange *d* at three of its edges and a front flange *d'* of a separate piece and preferably of brass to correspond to the brass front B of the can-body. The lower edges of the cover-flanges *d d'* have rolls or coils *d''*, embracing a wire D', which completely surrounds the cover and forms also the pivot of its hinge.

E is a removable inside-fitting glass plate held in place at its lower end against the angle-flange *b*, surrounding the opening B' in the brass front plate B, by a fixed guide E', preferably of sheet metal and secured immovably in place by an angle-flange *e* thereof, which is embraced in the folds of the seam *c*, which unites the bottom plate C with the front plate B of the can.

The removable externally-fitting sheet-metal sign-plate F, having the name or sign printed or lithographed thereon in colors, fits in its seat or recess formed on the outside of the front plate B by the countersink B² therein and is removably held in place at its lower edge by an integral tongue or tongues *f* thereon, which project through suitable slots *b''* in the front plate B at the base of the angle-flange *b'*. The integral tongue *f* on the sign-plate has an integral extension or lip *f'* overhanging and engaging the inner face of the glass plate E at the upper end or edge thereof and also preferably a shoulder or curved portion *f''*, which projects over the upper edge of the glass plate E, and thus prevents the glass plate from slipping upward or tilting inward. The removable externally-fitting sign-plate itself thus constitutes the means for removably securing the glass plate E in place on the inside of the front plate, and all separate glass-holder devices such as have heretofore been employed are entirely dispensed with.

The removable externally-fitting sign-plate F is provided at its upper edge with an integral sign-plate-holding device *f''*, preferably in the form of an integral tongue on the sign-plate, which is folded back on the sign-plate at *f'''* and projects, preferably, substantially at right angles to the sign-plate through a slot *b'''* in the front plate B at the countersunk portion B² thereof. The integral sign-plate-holding device *f''* has a hump or shoulder *f'''*, which engages the edge *b'''* of the front plate B, surrounding the slot *b'''*, and thus securely locks the sign-plate in place. When the sign-plate is pressed into its seat at its upper edge, the spring-acting holder *f''* is sprung downward by engagement with the edge *b'''* of the slot *b'''* until the shoulder or hump *f'''* on the spring-holder *f''* passes the locking edge *b'''*. In removing the sign-plate the integral

spring sign-plate holder f^3 is pressed downward by the thumb or finger until its locking-shoulder f^5 again passes the locking edge b^5 . The front plate B is provided with a supplemental countersink or recess b^6 to receive the folded portion f^4 of the spring-holder f^3 , and thus permit the sign-plate to fit snugly and flat against the countersunk portion B^2 of the front plate.

10 In operation the removable glass plate E is first put into the can through the open upper end or mouth of the can-body, with its lower end or edge within the guide E' . The externally-fitting removable sign-plate E is then
15 put in place on the outside of the front plate B, its glass-holding tongue or device $f' f^2$ being first inserted through the slot b^3 and then by the tilting movement of the sign-plate F it is seated at its upper edge or portion and its
20 spring-acting integral holder f^3 forced into engagement with the locking or holding edge or device b^5 on the front plate. By this means—this cooperative combination of
25 front plate, removable inside-fitting glass plate and removable outside-fitting sign-plate furnished with integral holding devices for itself and for the glass plate—the removable plates E and F are both securely held in place and may be readily removed when required
30 and replaced, and at the same time the can is given a very strong, simple, and durable construction and is composed of few parts and may be cheaply manufactured, and the interior of the can at the front portion thereof is
35 left comparatively smooth and free from projecting parts or devices liable to break or fray the crackers contained in the can. Our improved can thus possesses many advantages over those heretofore in use both in respect to
40 simplicity and cheapness of construction and strength and durability and efficiency in operation.

In the modification illustrated in Fig. 7 the sign-plate-holding tongue f^7 on the sign-plate
45 is given a loop form.

We claim—

1. In a sheet-metal display-can, the combination with a brass or burnishable-metal front plate having a display-opening in its
50 lower portion, and a countersink in its upper portion to form an external seat for a sign-plate, of a removable inside-fitting glass plate, and a removable outside-fitting sign-plate having integral holding devices for holding
55 said glass plate and itself removably in place, substantially as specified.

2. In a display-can, the combination with the front plate having a display-opening therein, of a removable inside-fitting glass
60 plate, and a removable outside-fitting sign-plate having an integral tongue thereon engaging the upper edge of the glass plate to hold it in place, substantially as specified.

3. In a display-can, the combination with

the front plate, having a display-opening
65 therein, of a removable inside-fitting glass plate, and a removable outside-fitting sign-plate having an integral tongue thereon engaging the upper edge of the glass plate to
70 hold it in place, said removable sign-plate being furnished with an integral spring-acting tongue projecting through a slot in the front plate to hold the sign-plate in place, substantially as specified.

4. In a display-can, the combination with
75 the front plate having a display-opening therein, a removable inside-fitting glass plate, and a removable outside-fitting sign-plate provided with a holder for the glass plate,
80 substantially as specified.

5. In a display-can, the combination with the front plate having a display-opening therein, a removable inside-fitting glass plate, and a removable outside-fitting sign-plate
85 provided with a holder for the glass plate, said sign-plate being also provided at its upper portion with a holder for itself, substantially as specified.

6. In a sheet-metal display-can, the combination with a front plate having a display-
90 opening therein, of an inside-fitting removable glass plate, and an outside-fitting removable sign-plate provided with a tongue furnished with a plate-holding lip, substantially
95 as specified.

7. In a sheet-metal display-can, the combination with a front plate having a display-
100 opening therein, of an inside-fitting removable glass plate, and an outside-fitting removable sign-plate provided with a tongue furnished with a plate-holding lip and also with a shoulder overhanging the upper edge of the glass plate, substantially as specified.

8. In a sheet-metal display-can, the combination with a front plate having a display-
105 opening therein, of an inside-fitting removable glass plate, and an outside-fitting removable sign-plate provided with a tongue furnished with a plate-holding lip, said sign-plate also having a spring-acting tongue fur-
110 nished with a locking-shoulder to hold said sign-plate in place, substantially as specified.

9. In a sheet-metal display-can, the combination with a front plate having a display-
115 opening therein, of an inside-fitting removable glass plate, and an outside-fitting removable sign-plate provided with a tongue furnished with a plate-holding lip and also with a shoulder overhanging the upper edge
120 of the glass plate, said sign-plate also having a spring-acting tongue furnished with a locking-shoulder to hold said sign-plate in place, substantially as specified.

10. In a sheet-metal display-can, the combination with a front plate having a display-
125 opening therein surrounded by an intumed angle-flange and provided with a countersunk portion surrounded by an integral angle-

flange, of a removable inside-fitting glass plate, a fixed guide engaging the lower end of the glass plate, and a removable outside-fitting sign-plate provided with an integral tongue having an integral glass-holding lip or extension engaging the upper end of the glass plate, substantially as specified.

11. In a sheet-metal display-can, the combination with a front plate having a display-opening therein surrounded by an intumed angle-flange and provided with a countersunk portion surrounded by an integral angle-flange, of a removable inside-fitting glass plate, a fixed guide engaging the lower end of the glass plate, a removable outside-fitting sign-plate provided with an integral tongue having an integral glass-holding lip or extension engaging the upper end of the glass plate, said front plate having a slot through the same at the base of the angle-flange surrounding the countersunk portion of the front plate for said tongue to project through, substantially as specified.

12. In a sheet-metal display-can, the combination with a front plate having a display-opening therein surrounded by an intumed angle-flange and provided with a countersunk portion surrounded by an integral angle-flange, of a removable inside-fitting glass plate, a fixed guide engaging the lower end of the glass plate, and a removable outside-fitting sign-plate provided with an integral tongue having an integral glass-holding lip or extension engaging the upper end of the glass plate, said removable sign-plate having at its upper edge an integral spring-acting sign-plate-holding tongue provided with a locking shoulder or hump, substantially as specified.

13. In a sheet-metal display-can, the combination with a front plate having a display-opening therein surrounded by an intumed angle-flange and provided with a countersunk portion surrounded by an integral angle-flange, of a removable inside-fitting glass plate, a fixed guide engaging the lower end of the glass plate, and a removable outside-fitting sign-plate provided with an integral tongue having an integral glass-holding lip or extension engaging the upper end of the glass plate, said removable sign-plate having at its upper edge an integral spring-acting sign-plate-holding tongue provided with a locking shoulder or hump, and the front plate having a supplemental countersunk portion to receive the base or folded portion of said

sign-plate-holding tongue, substantially as specified.

14. In a sheet-metal display-can, the combination with a front plate having a display-opening therein surrounded by an intumed angle-flange and provided with a countersunk portion surrounded by an integral angle-flange, of a removable inside-fitting glass plate, a fixed guide engaging the lower end of the glass plate, and a removable outside-fitting sign-plate provided with an integral tongue having an integral glass-holding lip or extension engaging the upper end of the glass plate, said front plate having a slot through the same at the base of the angle-flange surrounding the countersunk portion of the front plate for said tongue to project through, said removable sign-plate having at its upper edge an integral spring-acting sign-plate-holding tongue provided with a locking shoulder or hump, substantially as specified.

15. In a sheet-metal display-can, the combination with a front plate having a display-opening therein surrounded by an intumed angle-flange and provided with a countersunk portion surrounded by an integral angle-flange, of a removable inside-fitting glass plate, a fixed guide engaging the lower end of the glass plate, and a removable outside-fitting sign-plate provided with an integral tongue having an integral glass-holding lip or extension engaging the upper end of the glass plate, said front plate having a slot through the same at the base of the angle-flange surrounding the countersunk portion of the front plate for said tongue to project through, and the front plate having a supplemental countersunk portion to receive the base or folded portion of said sign-plate-holding tongue, substantially as specified.

16. In a display-can, the combination with the front plate having a countersink to form a seat for a removable external-fitting sign-plate, of a removable external-fitting sign-plate furnished with an integral tongue at its lower end projecting through a slot in the front plate and an integral spring-acting tongue furnished with a locking hump or shoulder and projecting through the slot in the front plate at the upper part of the countersink portion thereof, substantially as specified.

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