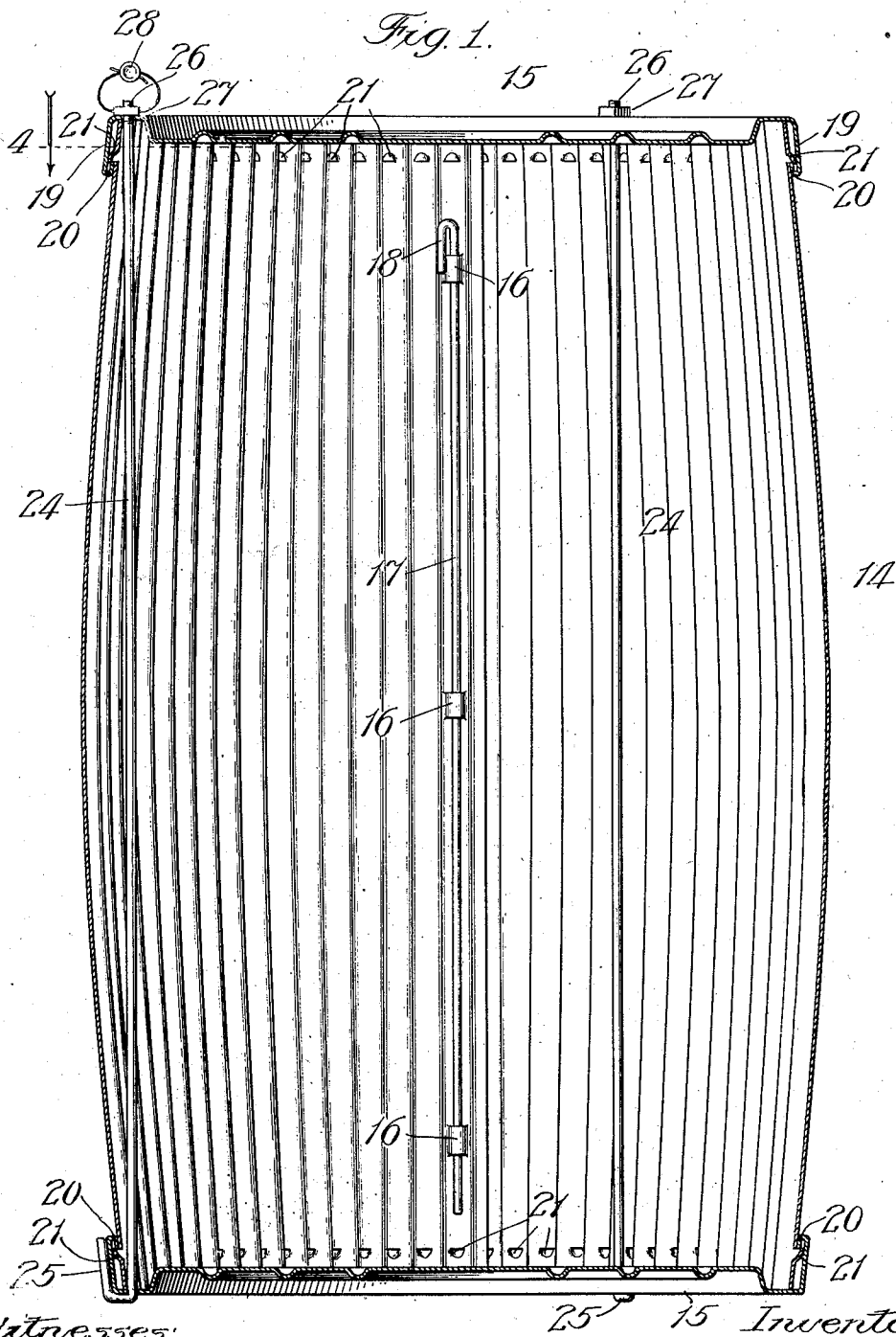


S. L. A. KILLION.
SHEET METAL PACKING CASE.
APPLICATION FILED JAN. 3, 1911.

1,011,445.

Patented Dec. 12, 1911.

3 SHEETS—SHEET 1.



Witnesses:

E. C. Gaylord.
Chas. H. Bull.

Inventor:

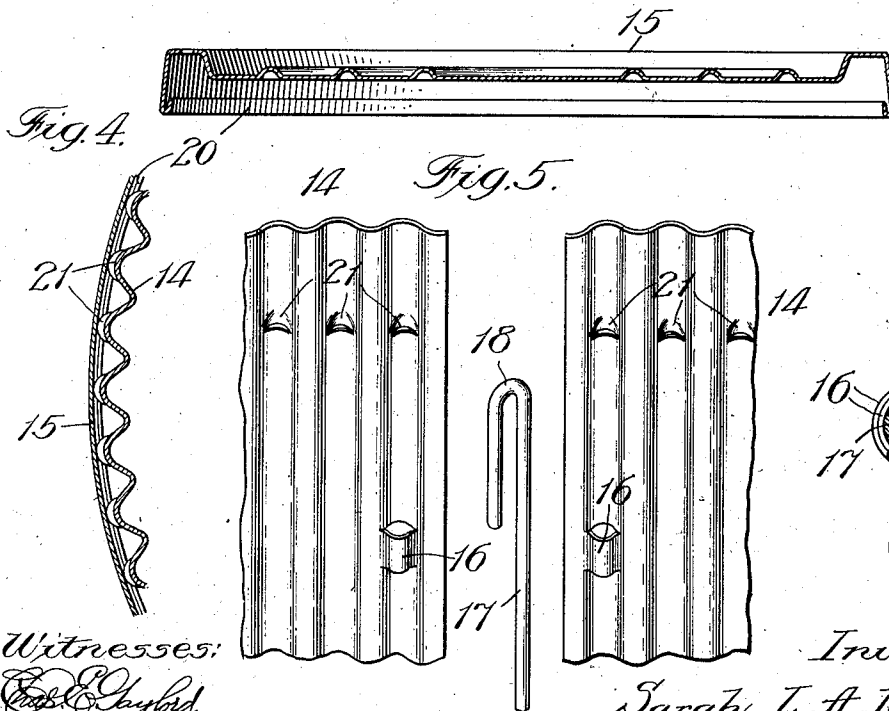
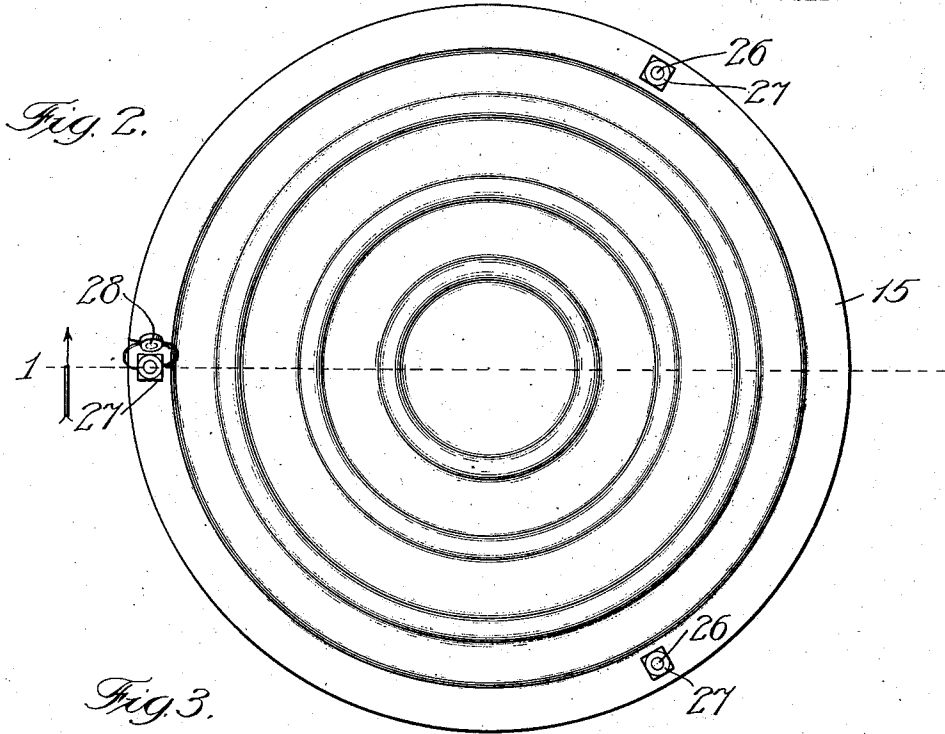
Sarah L. A. Killion,
By J. D. G. Smith, Secy, Christman & Wiles,
Attys.

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3 SHEETS—SHEET 2.



Witnesses:
E. C. Payford,
Chas. A. S. Sull.

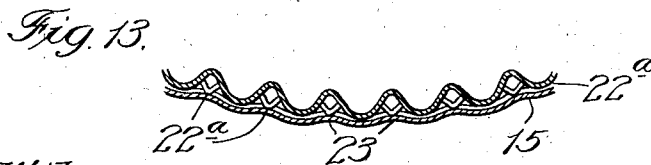
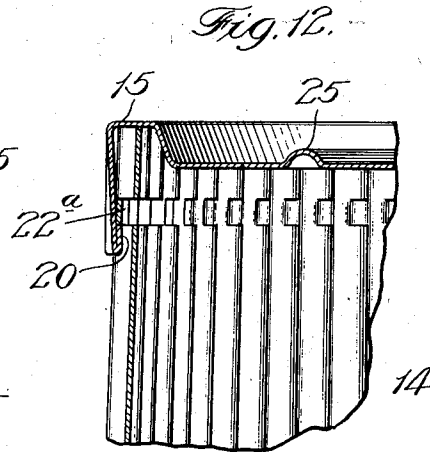
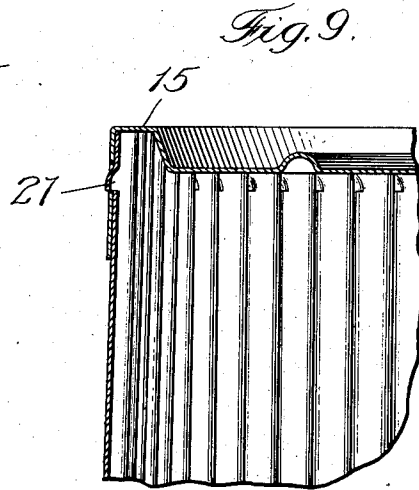
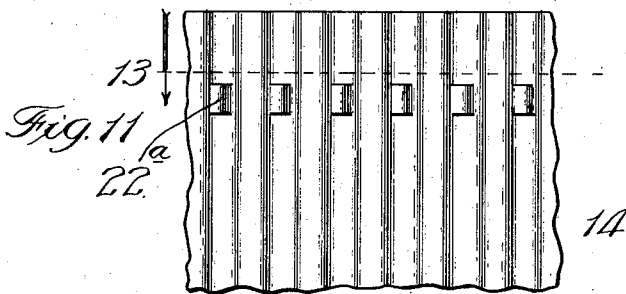
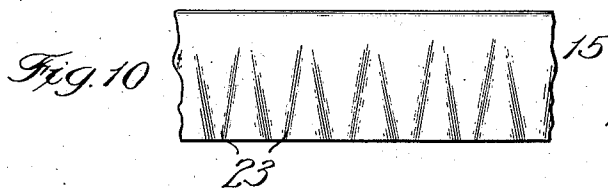
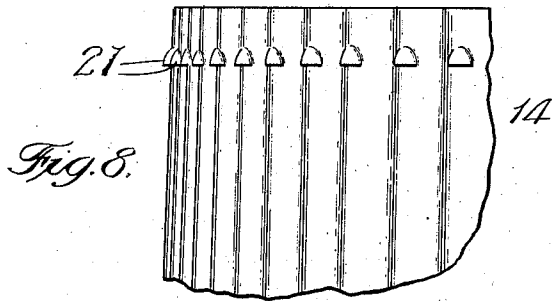
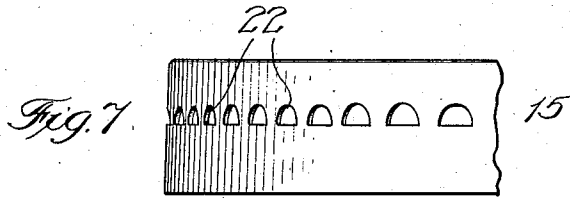
Inventor:
Sarah L. A. Killion,
By D. J. Dymally, Sec. Christon & Wilson,
Attys. at Law.

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3 SHEETS—SHEET 3.



Witnesses:
Ed. E. Chyford,
Chas. A. Buell

Inventor:
Sarah L. A. Killion,
By Dyxumforth, Lee, Crittton & Miles,
Attys. #

UNITED STATES PATENT OFFICE.

SARAH L. A. KILLION, OF CHICAGO, ILLINOIS.

SHEET-METAL PACKING-CASE.

1,011,445.

Specification of Letters Patent.

Patented Dec. 12, 1911.

Application filed January 3, 1911. Serial No. 600,420.

To all whom it may concern:

Be it known that I, SARAH L. A. KILLION, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Sheet-Metal Packing-Cases, of which the following is a specification.

My invention relates to an improvement in the construction of sheet-metal packing-cases of the class exemplified in Letters Patent No. 898,484, dated September 15, 1908, to J. H. Killion, and the pending application of said John H. Killion, Serial No. 476,899, filed on the 9th day of February, 1909.

The primary object of my invention is to provide, in a sheet-metal case in the class referred to, novel and effective means for adapting the cover or head to be self-fastening securely in place by the act of applying it thereto; and my further object is to improve the construction in matters of detail.

In the accompanying drawings, Figure 1 is a view in vertical sectional elevation of a corrugated sheet-metal packing case, in the form of a barrel, provided with my improvements, the section being taken on line 1, Fig. 2; Fig. 2 is a plan view of the same, but omitting any showing of the bilge of the barrel, to avoid confusion in the illustration; Fig. 3 is a view in cross-sectional elevation of one of the two similar covers or heads of Fig. 1; Fig. 4 is a broken section on line 4, Fig. 1; Fig. 5 shows broken parts of the corrugated barrel-body, representing the edge-ports of the continuous sheet forming it and which are made to overlap one another, separated to illustrate loops struck up out of them to register with each other by the overlapping and admit through them a securing-rod shown between the separated edges; Fig. 6 is a broken section through the overlapping fastened edges; Fig. 7 is a broken view in elevation of the cover or head, showing a modification, Fig. 8 is a similar view of the barrel-body showing a modification to cooperate with the modified construction of the cover, and Fig. 9 is a similar view showing the cover of Fig. 7 applied to the body of Fig. 8; Fig. 10 is a broken view in elevation of the cover or head showing a further modification; Fig. 11 is a view like that presented in Fig. 8 showing a further modification to cooperate with modified cover-construction of Fig. 10, and Fig. 12 is a view like that presented in Fig. 9, showing the cover

of Fig. 10 applied to the body of Fig. 11; and Fig. 13 is a section on line 13, Fig. 11.

While my present improvements are applicable to corrugated sheet-metal packing-cases generally, whether of the barrel, drum, box or other type of container, they are shown in the drawings as applied to the barrel form of receptacle, and the description hereinafter contained is therefore, and for the sake of brevity, confined to that particular form.

The body 14 of the barrel is a sheet of steel corrugated lengthwise of the body, which is formed with a bilge. Barrels of the present kind are shipped to users in knock-down condition to save space and freight, by nesting the body-portions through their separated edges and nesting the pan-shaped heads 15, these parts being shown to be substantially like the corresponding parts in said application Serial No. 476,899. The user assembles the parts by bringing together and, in the present case, lapping and fastening the edge portions of the body, and applying the heads or covers over the ends of the same. For fastening these edge-portions, adjacent to each are struck up out of the metal in a corrugation of the respective portion, a series of alining loops 16 to project inwardly, the loops in each series being equidistant apart to cause corresponding ones on the two edge-portions to register by lapping the edges of the body sufficiently to bring the members of each pair of the loops into proper coincidence, whereby also the lapping corrugations intermesh and strengthen the joint. To fasten the parts together, a rod 17, having a hook 18 formed on its upper end affording a stop to hold it against longitudinal downward displacement, is passed through the series of intermeshing loops.

The heads 15, which are shown to be alike, are essentially pan-shaped to provide a circumferential flange 19 about each for encircling the end of the body; and the disk-member of the head may also be circumferentially grooved, as shown, like that in the aforesaid application, though that is not essential to the present improvement. It is, however, an essential feature of my present improvement that the circumferential flange of each head shall be constructed to adapt it to interlock, by the act of applying it, with outward projections about the body-portion

near its ends, and thus become secured against withdrawal. This result may be accomplished by the means provided for the purpose illustrated in Figs. 1 and 3, wherein
5 the head-flange is shown to be provided with an in-turned lip 20 and the body 14 has near each end a circumferential series of teeth 21 struck up out of the successive corrugations to project outwardly therefrom,
10 whereby pressing a head 15 upon either end of the body will force the lip 20 over the teeth or projections, and the resilience of the corrugated body will spring the teeth into the path of the lip, as it clears them, to obstruct withdrawal of the head, requiring
15 contraction of the end of the barrel-body to withdraw the teeth from engagement with the lip to free the head; for which operation I have devised a special implement forming
20 the subject of my co-pending application filed concurrently herewith on the third day of January, 1911, Serial No. 600,421.

Instead of forming the head with the lip 20 on its flange for the aforesaid purpose
25 the flange may be provided, as shown in Fig. 7, with a circumferential series of apertures 22 to register with the projections 21, which spring into the apertures when the cover is forced into place to produce such registration, thereby locking it against withdrawal.
30 The same result is attained by the construction illustrated in Figs. 10 to 13, inclusive, where the projections at 22^a are struck up out of the body-portion to protrude outwardly at the depressed sections of the corrugations, and the head-flange, then also
35 provided with an in-turned lip 20 to interlock with the projections in the manner described with relation to the construction in
40 Figs. 1, 3 and 4; is furthermore corrugated, as represented at 23, to interfit more or less indifferently with the corrugations of the body-portion.

To assemble the parts of the barrel, the
45 edges of its corrugated body are brought together and lapped to cause their mutually-lapping corrugations to intermesh and thereby bring together the members of each pair of the loops 16, when the rod 17 is inserted
50 through the latter; and then the heads 15 are applied as described.

For reinforcing the structure, stay-rods 24 may be provided (Figs. 1 and 2) in any desired number, each to extend along a corrugation through the barrel and thus prac-

tically out of the way of its contents. The preferred form of stay-rod is that shown, passing through holes near the edges of the heads 15 and provided with a hook 25 on one end to embrace the flange of the adjacent head and with a screw-thread 26 on its
60 opposite end protruding through the other head, beyond which a nut 27 is applied to it and may be locked, as by passing through it and through the rod 24, perforated for the
65 purpose, the shackle of an ordinary lead-disk and wire seal 28.

What I claim as new and desire to secure by Letters Patent, is—

1. In a container of the character described, the combination of a body-portion comprising a corrugated sheet of metal with its edges lapping one another and releasably fastened together, heads on the ends of said
75 body-portion having flanges surrounding said ends, and stay-rods passing along the corrugations through said body-portion and through the heads near their flanges, each rod having a hook on one end embracing one head-flange and a screw-thread on the op-
80 posite projecting end with a nut thereon, for the purpose set forth.

2. In a headed sheet-metal container of the character described, the combination of a longitudinally corrugated body-portion
85 provided with a circumferential series of outwardly-extending projections on the corrugations, and a flanged head having an in-turned lip about its flange and surrounding thereat the end of said body-portion with
90 its lip interlocking with said projections under the outward spring-action of the body-portion, for the purpose set forth.

3. In a headed sheet-metal container of the character described, the combination of a
95 longitudinally corrugated body-portion provided with a circumferential series of outwardly extending projections on the outwardly-protruding sections of the corrugations, and a head having a corrugated flange
100 provided with an in-turned lip and surrounding the end of said body-portion with its lip interlocking with said projections under the outward spring-action of the body-portion, for the purpose set forth.

SARAH L. A. KILLION.

In the presence of—

A. U. THORIEN,
R. A. SCHAEFER.