

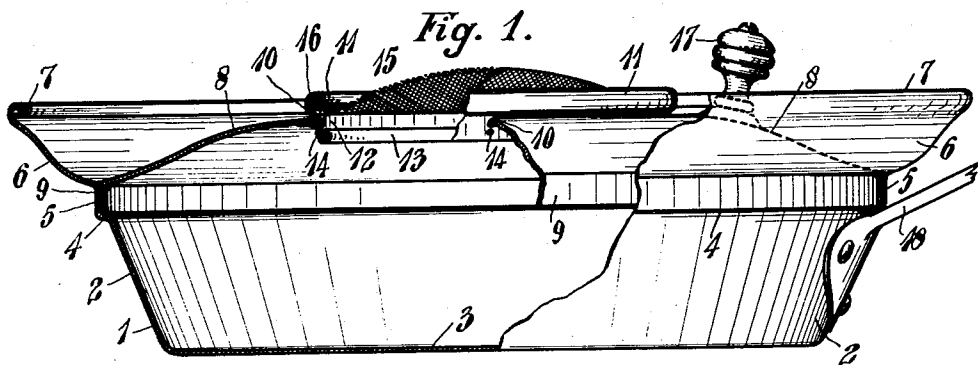
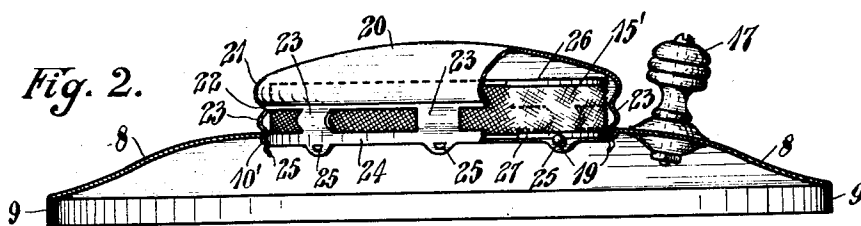
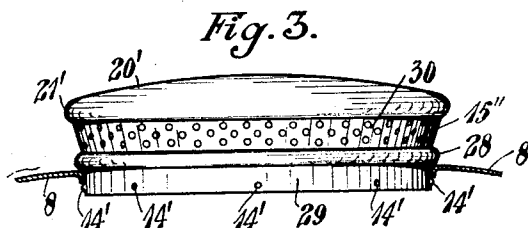
H. W. AND A. E. ZIMMERMANN.

FRYING PAN.

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1,368,007.

Patented Feb. 8, 1921.



Witnesses:

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UNITED STATES PATENT OFFICE.

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FRYING-PAN.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, HENRY W. ZIMMERMANN and ANNA E. ZIMMERMANN, citizens of Germany, residing at Cincinnati, in the
5 county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Frying-Pans, of which the following is a specification.

Our invention relates to cooking vessels
10 and the like, and its object is to increase reliability, efficiency and convenience of the use of such devices.

Our invention consists in the combination of parts and in the details of construction
15 and arrangement of parts as will hereafter be more fully described and claimed.

In the drawings:

Figure 1 is a side elevation, part in section, of a frying pan embodying our invention;

20 Fig. 2 is a similar view of a modified cover for such a pan; and

Fig. 3 is a similar view of part of a similar cover showing another modification of our invention.

25 As shown herein, our improved frying-pan comprises the main lower body part 1 of ordinary pan-shape in which the sides 2 are outwardly inclined upwardly all around from the flat bottom 3. But the rim of this
30 pan is continued outwardly and upwardly all around; first, in a narrow horizontal annular shoulder 4, succeeded by an upright annular wall 5, from which a trough part 6 curves outwardly and upwardly all around,
35 terminating in an inwardly turned bead 7 of rounded cross-section.

The cover comprises the main part 8 of a low dome-shape having around its periphery the down-turned vertical flange 9, which
40 fits snugly inside the annular upright part 5 of the pan 1 with the lower edge of the flange 9 resting on the shoulder 4 all around. The heights of these parts 5 and 9 are preferably such that the junction of the part 9 with the
45 part 8 of the lid comes about even with the junction of the parts 6 and 5 of the pan, so that the parts 8 and 6 form an annular trough or gutter entirely around the top of the pan.

50 The main part 8 of the lid has a large central opening with a short flange 10 turned down entirely around it. As shown in Fig. 1, the vent comprises a ring of sheet metal

formed into an inwardly downwardly turned bead 11 of circular cross-section at the top, and a straight up and down part 12 depend- 55
ing from this bead 11 to fit snugly down in the central opening of the lid against the flange 10 therearound, and having at its bot-
tom the inwardly and upwardly turned flat bead 13 with small lugs 14 pressed out from 60
it at intervals therearound to engage snugly under the lower edge of the flange 10 when the shoulder, formed at the junction of the upright part 12 with the top bead 11, fits
65 snugly down against the upper edge of the lid at the junction of the small flange 10 with the part 8. A sieve 15, preferably made of woven wire fabric and pressed into flat dome shape, has its edge 16 turned up and bound
70 inside the upper bead 11 of the just-described ring.

At one side close to the vent the lid has a suitable knob 17 extending up the same as pan lids usually have in the center. As
75 shown in Fig. 1, the pan 1 has riveted to one side a permanent handle 18 of the usual kind.

In the example of Fig. 2, the lid, so far as concerns its main part 8 is the same as in Fig. 1; as is also its knob 17. Also the central opening of this lid is the same, ex- 80
cepting that its surrounding depending flange 10' has at intervals therearound inwardly and upwardly turned tongues 19. The vent comprises the cupola 20, with a dome-shaped top having a depending rim 21
85 of inturned rounded cross-section terminated at its bottom by a slight straight depending annular flange 22 integral with which, at suitable intervals there-around, are narrow
90 connecting parts 23 which have their bottoms integral with a ring 24 that fits down in the central opening of the part 8 against the
95 flange 10' thereof all around. These connecting parts 23 bend outwardly and inwardly in their downward extent so as to form shoulders to engage at the junction between the flange 10' and part 8 of the lid.

The ring 24 has projecting down from its lower edge integral eyes 25, so positioned that each one of them receives a respective 100
one of the tongues 19 of the flange 10'. A sieve 15' is made of a narrow strip of woven wire fabric bent around to fit snugly inside the ring 24 and rim 21, and having suitable

sheet metal bindings 26 and 27 at its upper and lower edges. The tongues 19 where they extend in through the eyes 25 are bent up around the lower binding 27 of the sieve 15', and thus hold the cupola 20 and sieve 15' securely to the part 8 of the lid.

In the example of Fig. 3, the cupola 20' is of the same dome-shape and has the same kind of depending rim 21' as in Fig. 2, but the sieve part 15'' is integral therewith, and inclines inwardly somewhat in its downward extent to an annular outwardly extending bead 28 from which continues downwardly the ring 29 integral therewith, and having small lugs or bosses 14' pressed out to fit under the lower edges of the depending flange 10 around the central opening of the part 8 of the lid, which will be understood to be as the lid in Fig. 1. The sieve part 15'' has a large number of perforations 30, so that it may function as the sieves 15' and 15 of the preceding examples.

The lid, having the vent as in any one of the examples, permits the necessary escape of steam and vapors from the frying contents of the pan; and compels these to escape through some foraminous element, such as any of the sieves shown. Such an element or sieve traps the greases or other liquids thrown up by the escaping steam or vapors, and thus prevents them from being scattered over surrounding objects such as the stove or other vessels, or the person or apparel of the cook. Where these inflammable liquids are free to escape they often become ignited and cause the entire contents of the frying pan to ignite; thus being somewhat dangerous and resulting in a loss of the greases or the like and somewhat impairing the qualities of the cooking contents of the pan. As is well known, it would be impracticable to confine the steam or vapors to the vessels because they would generate sufficient pressure to become dangerous. This escape is usually provided for by either leaving the top of the frying pan entirely open or else merely laying thereon a very loosely fitting lid. Either of these methods permits the ready scattering of the greases or other liquids, as just mentioned.

Our invention provides for the necessary escape of the steam or vapors, and prevents the objectionable scattering of other contents of the vessel.

Not only is the vent designed to arrest these substances, but according to our invention is adapted to conduct them promptly back into the main part of the frying pan without arresting or contamination of these substances. This is due to the proper relation of the rim parts of the vent to the main part thereof. Thus, in Fig. 1, these substances will not only drip directly from the sieve 15 down into the vessel, but those which run therealong toward the rim thereof will

meet this rim or ring and run downwardly and radially inwardly onto the lower bead 13 thereof to drip therefrom into the vessel. In Fig. 2 the substances striking the side of the cupola top will run down to the rim and sieve 15' and downwardly and radially inwardly over the ring 24 into the vessel; while those striking the sieve 15' will run down thereon and into the vessel in the same way.

Likewise, in Fig. 3, where the perforated sheet metal sieve part 15'' is downwardly and inwardly inclined to facilitate this conduct of these substances from said sieve part and from the under side of the cupola top down into the vessel over the ring 29. In either one of these examples the openings through the wire sieve 15' or the perforated sieve 15'' permit ample escape of the steam or vapors. Any of these devices therefore, in the lid of the vessel, constitutes a combined vent for the steam or vapors and an arrester for the liquids or other substances, the escape and scattering of which is objectionable.

Any slight defect in the working of this part so that some of these substances do escape through the vent and arrester will be compensated for by means of the trough formed by the part 6 of the vessel together with the part 8 of the lid inclined thereto. Very seldom will any of these substances escape through the arrester with sufficient force to go beyond the limits of the upturned trough part 6. They will, therefore, be caught by this part 6, which is further adapted for this due to the inturning of its top bead 7. The trough will also counteract to any overboiling of the vessel, as may sometimes occur as in deep frying operations where the grease or other liquid, together with the steam or vapors generated thereby may force the entire lid up from the vessel. In such event the overboiling liquids will be effectively caught by the trough 6, and fended back downwardly by the roll rim or bead 7 to return to the vessel 1 under the raised lid.

While certain constructional details are deemed preferable in connection with our invention, and we have shown and described these rather specifically in elucidating the construction and use of our invention, as is required, we do not wish to be understood as being limited to such precise showing and description, but having thus fully described our invention, what we claim as new and desire to secure by Letters Patent is:

1. In a frying pan, a cover having an opening and having a downturned flange around said opening, a foraminous vent, and a rim around said vent fitting down in said opening, having an annular shoulder bearing against said cover around its junction with said flange, and having means to engage with lower parts of said flange at intervals.

2. In a frying pan, a main part of said pan having an upwardly outwardly inclined rim, a cover fitting down in said rim and inclined downwardly to said rim, all around, 5 from its central part, a foraminous vent in said central part, and a rim around said vent to conduct arrested liquids inwardly and downwardly into the pan, said pan rim receiving such liquids as are not arrested in said vent.

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