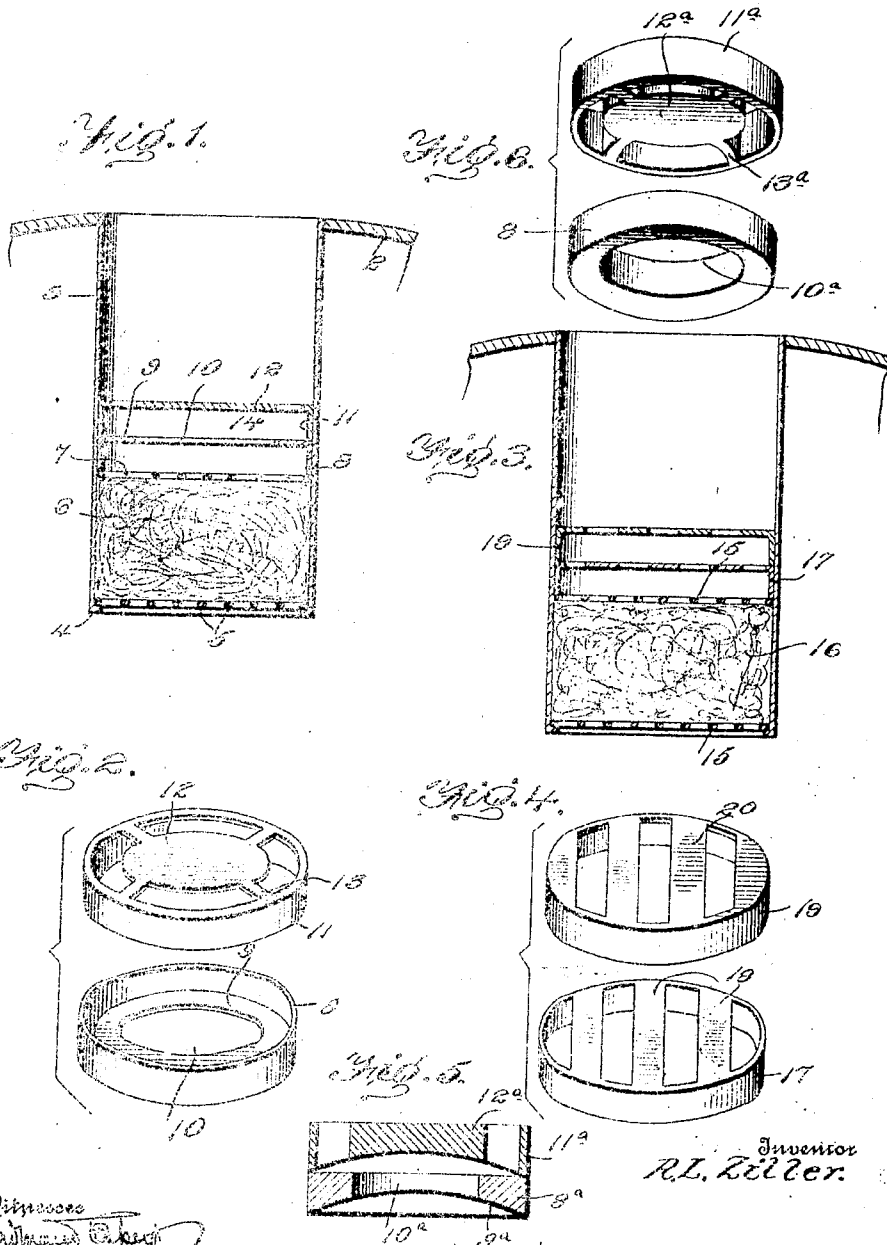


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 PROTECTOR FOR THE SAFETY DEVICES OF OIL CONTAINERS.
 APPLICATION FILED MAY 28, 1912.

1,039,006.

Patented Sept. 17, 1912



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UNITED STATES PATENT OFFICE.

ROBERT L. ZILLER, OF AUSTIN, TEXAS.

PROTECTOR FOR THE SAFETY DEVICES OF OIL-CONTAINERS.

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Specification of Letters Patent. Patented Sept. 17, 1912.

Application filed May 28, 1912. Serial No. 700,266.

To all whom it may concern:

Be it known that I, ROBERT L. ZILLER, citizen of the United States, residing at Austin, in the county of Travis and State of Texas, have invented certain new and useful Improvements in Protectors for the Safety Devices of Oil-Containers, of which the following is a specification.

My invention relates to safety appliances for containers holding inflammable explosive fluids, and particularly to that class of safety devices as disclosed in my Patent No. 1,011,395, granted on the 12th day of December, 1911. In my said patent, I disclosed a safety appliance including a mass of resilient, refractory, independent filaments placed within the duct of an oil can, oil tank or other container for explosive inflammable fluids and preventing the passage of heat and flame to the interior of the tank, permitting, however, the passage of air into the tank and the passage of liquid out of the tank.

My present invention is designed as a means for preventing mischievous persons from picking out these filaments through the openings of the wire screens holding the filaments in place within the duct, tube or other passage wherein they are disposed, and also preventing the insertion of a sharp pointed implement into the duct or passage and into the mass of filaments which might tend to temporarily or permanently force the filaments to one side or otherwise injure the same.

A further object is to provide a device of the character referred to in the above paragraph which will not impede in any manner the passage of liquid either into or out of the container, nor impede the passage of air.

With these objects in view, my invention consists broadly speaking in the provision of a plurality of barriers spaced from each other and disposed in staggered relation above the filamentous packing, these barriers being so formed and arranged with relation to each other as to provide a more or less circuitous channel for liquid in passing into or out of the container, and entirely shielding and protecting the mass of resilient filaments.

My invention is illustrated in the drawings wherein:

Figure 1 is a fragmentary transverse section of a container for explosive fluids, the

protective device for the container being shown in section. Fig. 2 is a perspective detail view of the baffle members removed from the safety tube. Fig. 3 is a like view to Fig. 1 but showing a modified form of the device. Fig. 4 is a perspective view of the baffle members illustrated in section in Fig. 3. Fig. 5 is a diametrical sectional view of a modified form of the baffle members. Fig. 6 is a perspective view thereof.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

Referring now particularly to Figs. 1 and 2, 2 designates a portion of a container of any suitable character shown herein as a tank for containing inflammable fluids, though the invention is intended to be applied to any form of container whatever.

Extending down into the container is a duct designated 3, this duct being preferably made of metal and of any desired length. The duct at its lower end is shown as provided with an inwardly projecting flange 4 forming a seat for a wire screen 5 of relatively large mesh. Disposed upon the screen 5 is a mass of filamentous material 6 preferably the filamentous material described in my prior patent above referred to. Preferably disposed upon the top of this filamentous material is a wire screen 7 of relatively large mesh. These screens 5 and 7 are merely intended to hold the filamentous material in place. Disposed outward of or above the screen 7 or the mass of filamentous material 6, if the screen 7 is not used, is a baffle member 8. In the form of the invention shown in Fig. 2, this baffle is made of metal and consists of an annular ring having an external diameter approximately the same as the internal diameter of the duct 3 and having an inwardly turned annular flange 9. It will be seen that this baffle member is hollow, and that when inserted in the manner shown in Fig. 1, the flange 9 is spaced from the wire netting 7. It will also be seen that the opening 10 of the baffle member 8 is located at the center.

Disposed above or outwardly of the baffle member 8 is the baffle member 11 consisting of an annular ring having a diameter equal to the internal diameter of the duct 3 and having a centrally disposed solid portion 12 preferably of the same size or slightly larger than the opening 10, this central solid

portion 12 being connected to the annular wall 11 by radiating supporting webs 13.

It will be seen that a space 14 is left between the annular wall of the member 11 and the central solid portion 12, this space extending nearly entirely around the circumference of the member 11. It is also to be noted that the space 14 is subdivided by the webs 13 into a plurality of sections and that the total area of the sections 14 is the same as the area of the opening 10 of the member 8. It will likewise be noted that the member 11 is hollow and that the solid portion 12 is supported in spaced relation to the flange 9 and that thus ample space is left for fluid to flow through the members 8 and 11 out of or into the container. These baffles 8 and 11 it will be seen have barrier portions therefore which are placed in staggered relation to each other and that no implement can be forced or introduced into the duct beyond these baffles 8 and 11 and into engagement with the filaments 6.

In Fig. 5 I show another form of my invention which is practically the same in operation as that shown in Fig. 1 but in which the baffles are made of porcelain or like material. In this form, 8^a is a baffle corresponding to the baffle 8. This baffle is annular in form and has a central opening 10^a corresponding to the opening 10. The under face of the baffle, however, is slightly beveled or concaved as at 9^a so that a space is left between the body portion of this annular baffle and the wire netting; the annular baffle 8^a only touching the wire netting at the periphery.

Disposed above and preferably resting upon the baffle 8^a is the baffle 11^a. This consists of a ring of material having a central solid portion designated 12^a connected by radiating webs 13^a to the annular ring. These webs are beveled upward so that the under face of the solid portion 12^a is higher than the lower edge of the peripheral ring forming the margin of the member 11^a. In this construction also it will be noted that the baffles are hollow so that when resting upon each other, the main portions thereof will be spaced apart, and also that the solid portion 12^a has staggered relation to the solid portion 9^a just as in the form previously described. This form of the device can be made very cheaply by pressed porcelain which is both strong and heat-resisting. In both of these forms, the fact that the upper baffle does not rest upon the one beneath, not only provides a space through which the liquid is able to flow easily, but the arrangement also protects the packing from heat when there is flame in the duct, as the upper baffle member only touches the lower one at the rim and the heating of the upper disk will convey only a relatively negligible amount of heat to the baffle beneath it.

In Figs. 3 and 4 I show another form of the invention. In these figures, 3 designates a duct such as previously described formed with a flange 4. The mass of resilient filaments 16 is held in place by means of the oppositely disposed screens 15. Resting upon the uppermost or outermost screen is a baffle member 17 comprising a marginal ring and bars 18 extending transversely across the ring at spaced intervals.

Disposed upon the baffle member 17 is a baffle member 19 which is of precisely the same construction as the member 18 and rests thereon and is formed with transversely extending bars 20. There is this likeness however between the baffle members 17 and 19 that the bars 18 and 20 have a staggered relation with regard to each other when the baffle members are properly placed within the duct so that the bars of one member are disposed directly opposite the openings of the next adjacent member, thus preventing the insertion of an implement such as a nail, wire etc. into the duct and past the baffle members or into engagement with the filaments. It will be noted that in this form of the invention, the baffle members are substantially hollow, that is, the bars 18 and 20 are less in depth than the exterior peripheral ring, and that this holds the bars in spaced relation just as the solid portion 12 in the form shown in Fig. 1 was held in spaced relation to the solid portion 9. It will be of course understood that I may use any number of these baffle plates and that I am not limited to the number illustrated in the drawings. It will also be seen that in Fig. 1 the outlet spaces for the liquid between the bars of one baffle member is the same in area as the area of the spaces between the bars in the other baffle member. By reason of the fact that I use a plurality of baffle members, it is possible to combine various forms of baffle members in any one duct, or to provide any desired number of these baffle members. Further it will be seen that these baffle members are very easily inserted and removed when desired, and that they form a thorough protection to the mass of resilient filaments in the interior of the duct.

It is to be understood that the separate baffle members might be connected to each other instead of being separate and independent, and also that these baffle members after being put in place might be soldered or otherwise attached to the duct so as to prevent any removal of the baffle members or any shifting of the parts.

What I claim is:

1. The combination with a duct of a container for holding explosive fluids and a non-explosive device mounted in the duct, of means for preventing tampering with the said non-explosive device and including a

plurality of baffles disposed exterior to the non-explosive device, each having cutaway and solid portions, said baffles being disposed in spaced relation to each other and the solid portions of one baffle registering with the cutaway portions of the next adjacent baffle.

2. The combination with a duct of a container holding explosive fluids, of a mass of filamentous, refractory material disposed in said duct, and means for preventing tampering with the said filaments consisting of a plurality of baffles disposed exterior to the mass of filamentous material, each having cutaway and solid portions, the said baffles being disposed in spaced relation to each other and the solid portions of one baffle registering with the cutaway portions of the next adjacent baffle.

3. The combination with a duct of a container holding explosive fluids and non-explosive devices mounted in the duct, of means for preventing tampering with the said devices including a plurality of baffles disposed exterior to the non-explosive devices, the said baffles each having an annu-

lar peripheral portion and having a cutaway and solid portion carried by the annular portion, the solid portion of one baffle registering with the cutaway portion of the next adjacent baffle.

4. The combination with a duct of a container holding explosive fluids, said duct having an inwardly turned flange at one end, of a screen supported on the flange, a mass of filamentous, refractory material supported upon the screen, a screen holding said mass in place, and means for preventing tampering with the filamentous material and consisting of a plurality of baffles disposed exterior to the mass of filamentous material, each having cutaway and solid portions, said baffles being disposed in spaced relation to each other, the solid portion of one baffle registering with the cutaway portion of the next adjacent baffle.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT L. ZILLER. [L.S.]

Witnesses:

JAMES WALTER GRAHAM,

WALTER RICHARD MANNING.