

Oct. 18, 1932.

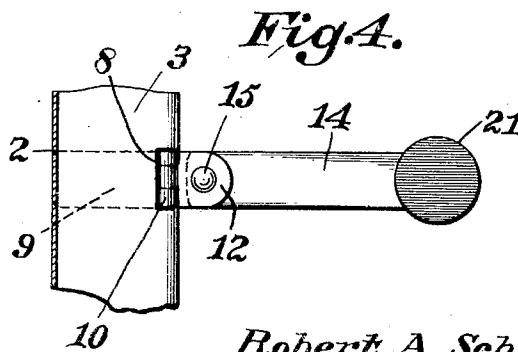
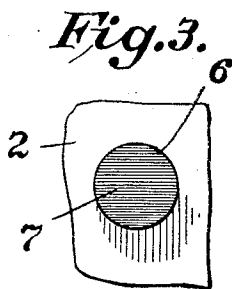
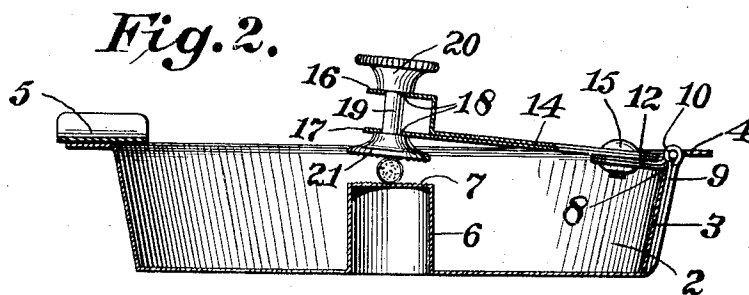
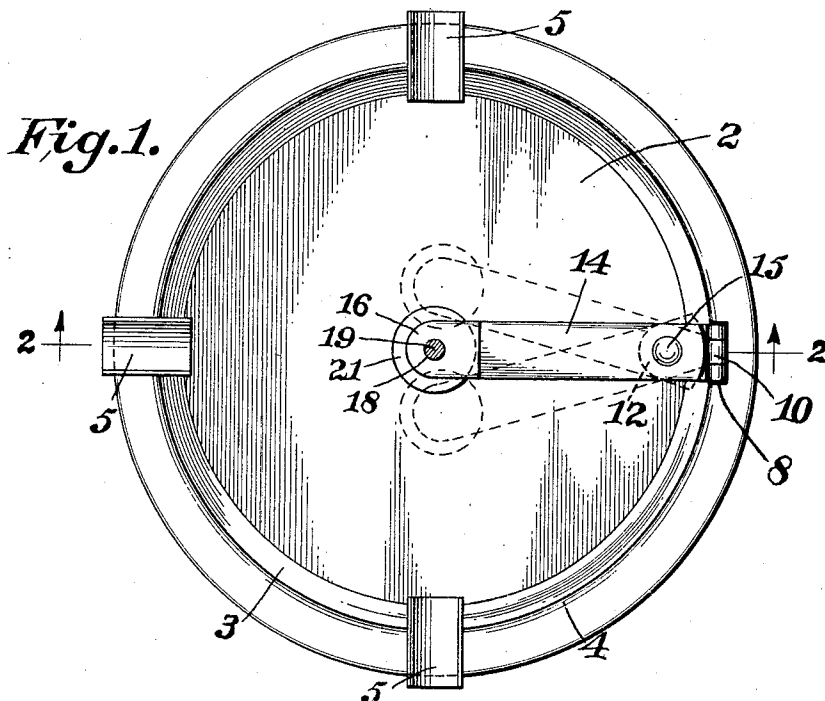
R. A. SCHLEGEL

1,882,973

ASH TRAY AND EXTINGUISHER

Filed July 18, 1930

2 Sheets-Sheet 1



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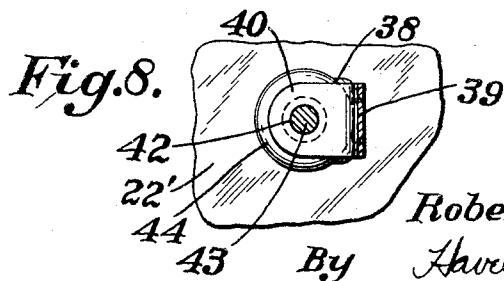
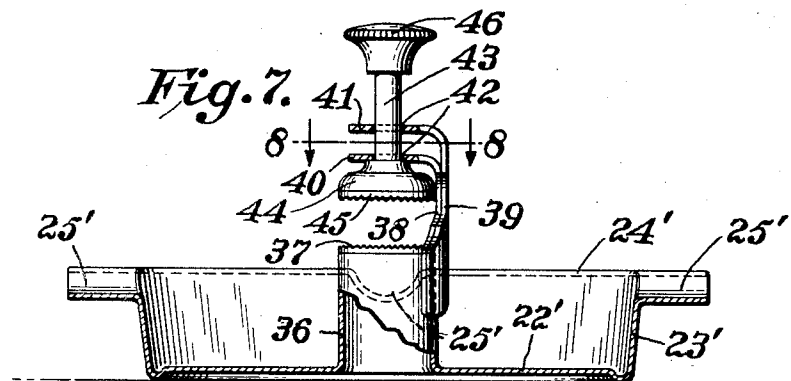
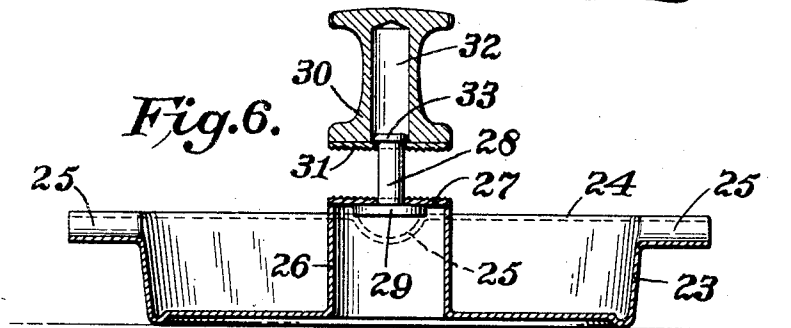
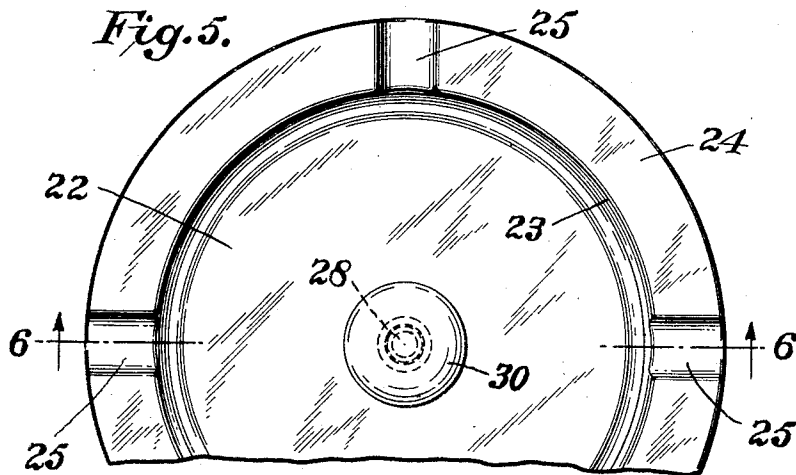
R. A. SCHLEGEL

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ASH TRAY AND EXTINGUISHER

Filed July 18, 1930

2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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ASH TRAY AND EXTINGUISHER

Application filed July 18, 1930. Serial No. 468,947.

The object of this invention broadly is to provide an ash tray with means for extinguishing a lighted cigarette or the like by first crushing and then disintegrating the lighted end thereof, and finally cleaning and crushing and disintegrating surfaces.

A specific means for carrying out this object will be set forth in the following description, making reference to the accompanying drawings which form a part of this specification, and wherein:—

Fig. 1 is a top plan view of one form of the invention.

Fig. 2 is a vertical sectional view taken therethrough on the line 2—2.

Fig. 3 is a top plan view of the anvil.

Fig. 4 is a bottom view of the extinguisher arm.

Fig. 5 is a top plan view of a second form of the invention.

Fig. 6 is a vertical sectional view taken through line 6—6 of Fig. 5.

Fig. 7 is a vertical sectional view of a third form of the invention, and

Fig. 8 is a horizontal sectional view taken on line 8—8 of Fig. 7.

Referring to the drawings, and the first form, reference numeral 1 designates an ash tray, pressed, spun or otherwise shaped from sheet material, preferably metal, and having the upper edges of its side wall 3 flanged as at 4 in a usual manner. To this rim are attached cigarette rests 5 of well-known form. The bottom of the tray 2 is provided with a hollow anvil 6 which is preferably struck up from the same, though it may be separately attached, and its top or crushing face 7 is suitably roughened to provide a milling surface to assist in the disintegration of the cigarette end, as will be referred to later.

The wall 3 at the point of juncture with the flange 4 is formed with an aperture 8, through which extends one leaf 9 of a hinge 10, said leaf being suitably attached to the outer face of the wall 3, the other hinge leaf 12 extending inwardly toward the center of the tray and having pivotally attached to its upper side, an arm 14 by means of a rivet 15.

The hinge and rivet permit vertical and horizontal swinging of the arm 14, vertical

movement being limited by contact of the arm or hinge with the flange 4, and horizontal movement being arrested at both limits by the corners of the arm 14 engaging the barrel of the hinge 10.

The arm 14 is preferably formed of two layers of strip metal suitably united throughout most of their lengths, the unjoined free ends 16 and 17 being separated by bending the upper lamination upwardly and again into parallelism with its original plane, these spaced ends 16 and 17 being provided with aligned openings 18.

Journalled within openings 18, similarly formed in these spaced ends 16 and 17, is a cylindrical stem 19 provided at its upper end with a knob handle 20 and at its lower end with an extinguishing head 21, the latter being provided on its under face with disintegrating or milling surfaces for cooperation with the roughened upper faces 7 of the anvil 6. When inactive, the head 21 rests upon the anvil 6, the arm 14 assuming a horizontal position to best display advertising matter that may be applied to the upper face of said arm.

In service, the tray and supports 5 are used in the usual manner, and when it is desired to extinguish the cigarette, the knob 20 is grasped between the fingers and the arm 14 raised to permit insertion of the lighted cigarette end between the head 21 and anvil surface 7. The handle 20 is then forced downwardly, causing the head 21 to crush the cigarette end against the anvil surface 7, which alone may be sufficient to extinguish the fire from the tobacco, but to make the extinguishment more effective and rapid, the knob 20 is rotated between the operator's thumb and fingers causing a corresponding rotation of the head 21. During the rotation of the head 21, the teeth of its roughened bottom grip the cigarette, as do the teeth of the roughened anvil surface 7, and the cigarette end is twisted apart and completely disintegrated, the small particles falling over the edge of the anvil into the tray. It will be observed that the action is the same whether the unlighted end of the cigarette is held by the fingers of the operator or not, since the roughened portions take a firm grip

upon the cigarette, tearing the cigarette apart between the rotating head 21 and stationary anvil top 7.

If the unlighted end of a cigarette is held while its lighted end is being extinguished, it is apparent the lighted end will be pinched and torn off and the remaining portion of the cigarette left uninjured for future use.

Much of the shredded tobacco and paper will be automatically expelled by centrifugal action from between the head 21 and anvil top 7, but at the axial centers where centrifugal action is negligible some may remain, and by then swinging the arm 14 laterally as indicated by dotted lines in Fig. 1, the head 21 is moved horizontally across the anvil top 7 thereby scraping all cigarette tobacco and paper from between the same.

Reliance is not made entirely upon a straight motion crushing action for snuffing the fire from a cigarette end, but while such crushing movement continues, the cigarette end is completely disintegrated and each burning shred separately snuffed between the crushing head and anvil, and finally deposited with the ash in the bottom of the tray.

In the second form of the invention, the tray 22 is provided with a surrounding wall 23 and rim flange 24, the cigarette holders being in the form of indentations 25 in said rim flange, though they may be attached as in the first form, as this is optional. The anvil 26 with its roughened top 27 is similar to the anvil of the first form.

Extending upwardly from the center of the anvil top 27 is a post 28, the same being mounted rigidly in any suitable manner, as by soldering its head 29 to the under face of the anvil top 27. Vertically slidable on this post 28 is an extinguisher head 30, the same having a roughened lower face 31 for co-operation with the roughened anvil top 27.

The upper end of the post enters the central bore 32 of the extinguisher head 30 and is headed at 33 to prevent complete separation of the extinguisher head therefrom. Thus, the extinguisher head 30 is permitted straight-line vertical movement as well as rotative movement, so that when the end of a cigarette is placed between the roughened surfaces 27 and 31, the head 30 may be forced manually downwardly to first crush the lighted cigarette end, and later said head may be rotated to disintegrate the crushed end, the crushed cigarette shreds being worked over the edge of the anvil top 27 falling into the tray 22. Continued rotation of the head 30 will completely clean the roughened faces 27 and 31 of the remaining cigarette portions.

In the third form, the tray 22' is formed with a surrounding wall 23', flange 24', cigarette holders 25', anvil 36, and roughened anvil top 37, as in the second form. A bracket

formed of two layers of metal 38 and 39 are secured together as by soldering, and at their lower ends are mounted on one side of the anvil 36, preferably by soldering.

The upper ends of the layers 38 and 39 are bent inwardly to overlie the anvil and form parallel spaced arms 40 and 41 formed with registering apertures 42 through which extends a stem 43 for rotation and vertical sliding movement. The lower end of this stem is provided with an extinguisher head 44 having roughened bottom 45, and the upper end of the stem is provided with a finger knob 46. By placing the lighted end of a cigarette between the surfaces 37 and 45 and pushing downwardly upon the knob 46, the cigarette is extinguished and by then rotating the finger knob 46 and head 44, the crushed cigarette end is torn to shreds between the roughened surfaces 37 and 45, continued rotation of the extinguisher head serving to completely clean the roughened surface and to throw the shreds outwardly over the edge of the anvil into the tray.

In all forms, the extinguisher head first moves downwardly against the anvil to crush the lighted cigarette end, after which the extinguisher head is rotated to cause the crushed cigarette end to be completely disintegrated between the roughened faces of the extinguisher head and anvil. While, in the first form, continued rotation of the extinguisher will clean all remaining cigarette shreds from between the roughened surfaces and throw them outwardly into the tray, horizontal swinging movement of the extinguisher head may follow to still more effectively clean the roughened surfaces, or may be entirely relied upon to clean such surfaces if the extinguisher head is only rotated sufficiently to shred the crushed cigarette end without removing the shreds from the anvil top.

While specific forms of the invention are illustrated, and described, the right is reserved to make such changes in the details of construction as fall within the scope of the appended claims.

What is claimed:

1. In a device of the character described, an ash tray, an anvil located within the tray and surrounded thereby and having an imperforate upper face elevated above the bottom of the tray, a plunger having an imperforate lower face, means mounting the plunger for movement toward and from the anvil to permit a cigarette end to be crushed between the said faces, said plunger being rotatable relatively to the anvil, both of said faces being provided with roughened milling surfaces whereby the cigarette end while being crushed will be shredded and the shreds as created forced from between the said faces and into the surrounding tray by centrifugal action when the plunger is rotated relatively to the anvil.

2. In a device of the character described,
an ash tray, an anvil located within the tray
and surrounded thereby and having an im-
perforate upper face elevated above the bot-
5 tom of the tray, a plunger having an im-
perforate lower face, means mounting the
plunger for movement toward and from the
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10 able relatively to the anvil, both of said faces
being provided with roughened milling sur-
faces whereby the cigarette end while being
crushed will be shredded and the shreds as
15 created forced from between the said faces
and into the surrounding tray by centrifugal
action when the plunger is rotated relatively
to the anvil, and means permitting the plung-
er to be reciprocated across the anvil to re-
20 move any clods of cigarette shreds not re-
moved by centrifugal action from the central
portions of the milling surfaces.

In testimony whereof I affix my signature.

ROBERT A. SCHLEGEL.

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