July 29, 1947. F. A. ROBERTS 2,424,710

CIGARETTE ASH RECEIVER

Filed March 15, 1944

Fig. 1.

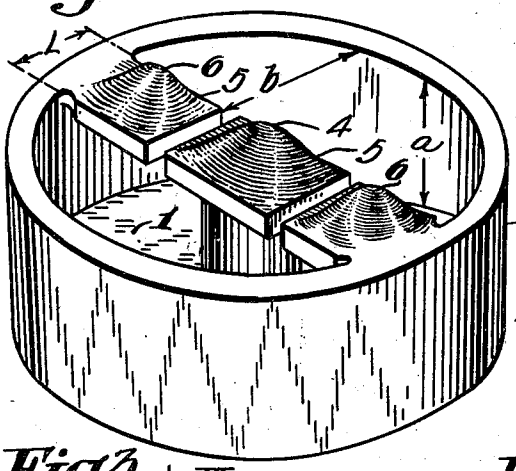


Fig. 2a.

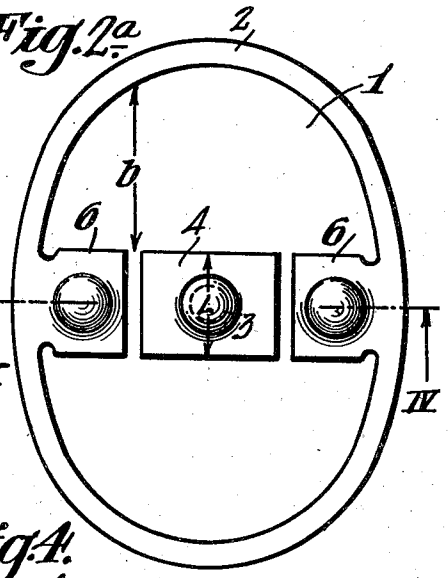


Fig. 3.

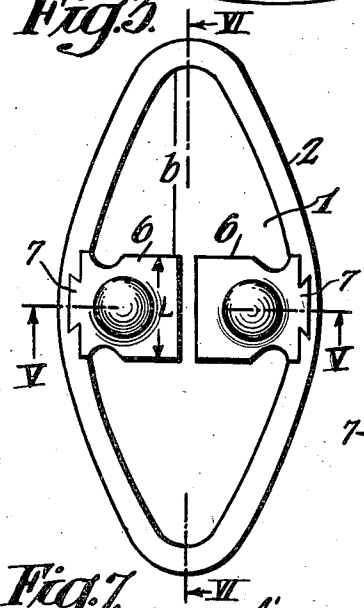


Fig. 4.

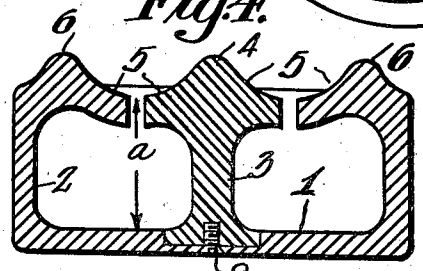


Fig. 2b.

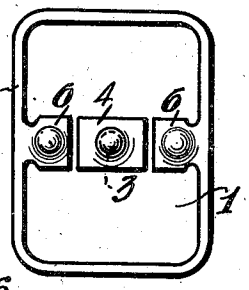


Fig. 5.

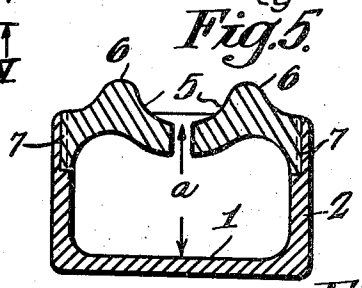


Fig. 7.

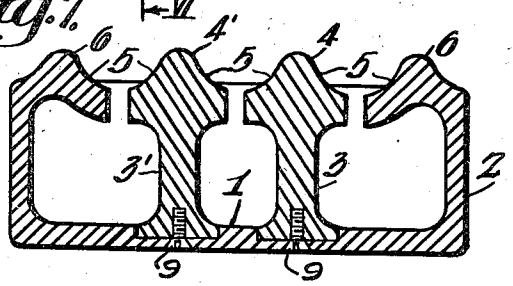
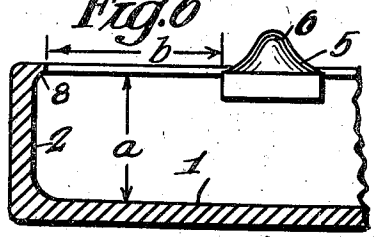


Fig. 6.



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CIGARETTE ASH RECEIVER

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Application March 15, 1944, Serial No. 526,563

14 Claims. (Cl. 131—240)

1

This invention relates generally to cigarette ash receivers and more particularly to open, table-type ash receivers compactly proportioned to provide ample ash capacity, maximum fire protection and optimum utility.

The instant invention is an improvement upon the devices disclosed and claimed in applicant's copending U. S. application, Serial No. 489,322, filed June 2, 1943, entitled "Tobacco ash receivers."

In normal use, it is quite customary for a smoker temporarily to place a lighted cigarette in an ash receiver between active smoking intervals. Heretofore, many types of ash receivers in common use have provided serious fire hazards, since lighted cigarettes inadvertently left burning therein could fall out of the receiver with resultant damage to furniture adjacent thereto.

Other types of ash receivers in common use have included means for automatically quenching a lighted cigarette placed therein, with resulting waste of smoking materials and unnecessary inconvenience for the smoker. Various types of cigarette clamping devices have been employed to obviate the disadvantages mentioned heretofore, but such devices have in general provided quenching or uneven burning if the lighted cigarette burned therein for any considerable interval.

The devices described in said copending application, identified heretofore, comprise a cylindraceous ash receiver having side substantially vertical to a substantially flat base portion. A supporting structure, or pedestal, projects upwardly from the center of the base portion to support a flattened cigarette supporting portion at a height substantially equal to the maximum height of the vertical side portions. Preferably, the cigarette supporting portion includes at least one hemi-cylindrical depression to receive, and fix the relative positions of cigarettes placed thereon.

In order to obviate the disadvantages encountered with ash receivers wherein a cigarette burns unevenly, or is quenched, as the burning portion of the cigarette coincides with the cigarette support, applicant's original devices, described in said copending application, include at least one projection of small cross-sectional dimensions in each of the hemi-cylindrical supporting depressions. The small projecting elements insure sufficient air circulation on all sides of the cigarette to facilitate substantially uniform combustion thereof.

Said copending application furthermore discloses means which include provision for effectively insuring that a cigarette inadvertently displaced from the cigarette support will fall into the ash receiver. This feature is accomplished by proportioning the device so that the vertical sides have an internal depth of more than one-half the lengths of standard, or "king size," cigarettes; and, in addition, the minimum spacing between the side portions and the cigarette supporting portion is approximately the same as the internal depth of the side portions.

2

The instant invention includes all of the desirable features of applicant's original invention described heretofore, while providing a more economical construction, and more pleasing appearance. In addition, applicant's improved device, if desired, conveniently may be molded to provide a unitary structure. The novel cigarette support, which comprises an important part of the instant invention, greatly facilitates uniform combustion of a lighted cigarette placed thereon. Due to the curved contour of all portions thereof, cleaning also is facilitated.

Briefly, the improved construction comprises a cylindrical body portion having (in the case of an embodiment of the invention having a single cigarette support) two cooperative projecting elements extending inwardly from opposite sides of the top edge of the tray and terminated by cooperative concave depressions separated by a narrow gap. The resultant structure thereby comprises a concave depression to support the cigarette, and a ventilating slot or gap to facilitate uniform cigarette combustion even in the immediate neighborhood of the relatively sharp slot edges of the projecting elements which contact the cigarette. In a second embodiment of the invention having two cigarette supports, the projecting elements extending from opposite sides of the top edge of the tray each cooperate with adjacent sides of a centrally disposed supporting pedestal which also includes similar cooperative concave depressions to form two slotted concave cigarette supports in conjunction with said projecting side elements.

In order to insure that cigarettes may be placed only in the supporting depressions therefor, the remaining portions of the projecting elements and supporting pedestal are crowned or curved in a manner to provide poor supporting surfaces sloping toward said concave depressions.

Among the objects of the invention are to provide an improved cigarette ash receiver having ample ash capacity, compact proportions and optimum utility. Another object of the inven-

tion is to provide an improved open-type ash receiver insuring maximum fire protection for cigarettes placed therein. A further object is to provide an improved open-type ash receiver having provision for supporting lighted cigarettes temporarily placed therein in a manner to facilitate uniform combustion thereof.

Additional objects include means providing an improved open-type ash receiver having cylindraceous side portions substantially normal to a substantially flat base portion, means projecting from said side portions providing at least one cigarette support, and wherein the proportions and relative spacing of said side portions and said cigarette support are selected to insure that cigarettes placed on said support may fall only into said receiver. Another object of the invention is to provide a novel open-type ash receiver insuring maximum fire protection and facilitating uniform combustion of lighted cigarettes placed thereon, wherein said receiver is proportioned to insure that cigarettes placed therein may fall only within said receiver, and that said cigarettes will be supported in a manner providing sufficient air space between the support and the cigarette to insure uniform combustion thereof.

The invention will be described in further detail by reference to the accompanying drawing of which Figure 1 is a perspective view of a first embodiment thereof, Figure 2*a* is a plan view of a second embodiment thereof, Figure 2*b* is a modification of Fig. 2*a*, Fig. 3 is a plan view of a third embodiment of the invention, Figure 4 is a cross-sectional elevational view taken along the section line IV—IV, of the embodiments shown in Figs. 1, 2*a* and 2*b*, Figure 5 is a cross-sectional elevational view taken along the section line V—V of the embodiment shown in Fig. 3, Fig. 6 is a fragmentary cross-section view of a modification of the embodiments of Figs. 1, 2*a*, 2*b* and 3, taken along the section line VI—VI, and Figure 7 is a modification of Figure 4. Similar reference numerals are applied to similar elements throughout the drawing.

Referring to Figures 1 and 4, the ash receiver comprises a substantially flat circular base portion **1** having cylindraceous side portions **2** substantially normal thereto. It should be understood that both the base portion and the sides may be varied in shape, in a manner designed to provide pleasing proportions; for example, the base portion may be rectangular or elliptical, and the side portions may include curved or ribbed portions to improve the appearance or ability thereof to retain ashes in the presence of strong air currents.

From the center of the base portion **1** of the receiver, a supporting column, or pedestal, **3** projects normally therefrom, and terminates in an enlarged crowned cigarette supporting element **4** having a pair of concave depressions **5** on opposite sides thereof, adapted to cooperate with similarly shaped concave depressions on adjacent sides of crowned projecting elements **6**, which extend inwardly from opposite portions of the side wall **2**. The projecting elements **6** do not touch the crowned supporting element **4**, but form therewith concave depressions each having a central longitudinal gap to fix the position of cigarettes placed therein. The width of the cigarette supporting elements **4**, **6** along the axes of the depressions **5** therein, should be sufficient to insure satisfactory cigarette support without necessitating careful balancing of the cigarette thereon. For example, a length L of one inch has been found to be satisfactory. Preferably, the top surfaces of the supporting element **4** and projecting elements **6** are crowned, to provide poor cigarette supporting surfaces which thereby will encourage the smoker to place the cigarette in one of the depressions intended therefor, since in all other positions, the cigarette will fall into the lower portion of the tray, or into one of said concave supporting depressions. The height of the lowest portions of the depressions **5** should be the same as, or slightly less than, the height of the top edges of the side portions **2**.

Generally speaking, it is desirable that an ash receiver be as compact as possible in view of the particular requirements for ash capacity and ability to retain ashes in the presence of reasonably strong air currents. The instant devices balance these requirements with a third: namely, provision for insuring that cigarettes placed on the receiver may be displaced only into the base portion of the receiver.

To accomplish all three requirements, in each of the modifications of the invention disclosed the internal depth (*a*) of the side portions **2** is selected to be approximately five-eighths of the length of a standard $2\frac{3}{4}''$, or king size $3\frac{5}{16}''$, cigarette, as desired. In addition, the minimum spacing (*b*) between the maximum radial projection of the cigarette supporting depression **5** and the inner dimension of the top edge of the side portions along the extensions of the cigarette axes is also selected to be approximately the same as the internal side depth (*a*). A receiver proportioned as described heretofore insures that cigarettes placed thereon will always fall within the receiver, since the center of gravity of the cigarette is always over the receiver cavity.

It should be understood that any or all of the proportions described may be varied within reasonable limits without departing from the spirit and scope of the invention. A "universal" cigarette receiver should be proportioned for the "king size" cigarettes, while, however, smaller receivers may be proportioned for "standard" size cigarettes. Obviously the same procedure may be followed for providing a receiver having similar characteristics for standard cigars.

Figure 2*a* is similar in all respects to the device described in Figure 1, with the exception that the base portion **1** is substantially elliptical, and the side portions **2** are disposed substantially normal to the edges of the elliptical base portion. The dimensions *a* and *b* are proportioned in the same manner as described heretofore in Figure 1. The cigarette supporting structure may extend across either the long or short axes of the base, and also may be identical to the supporting structure described therein. If desired, the base portion **1** may be rectangular as indicated in the fragmentary view of Figure 2*b*.

In all of the devices described in Figures 1, 2*a* and 2*b*, the supporting column, or pedestal, **3** may be screwed to (see screw **9** in Figure 4), or otherwise readily removable from, the base portion **1** to facilitate cleaning of the various components. Furthermore, a plurality of such supporting columns, positioned to cooperate with each other and with the side projecting elements **6**, may be provided to permit more than two cigarette supporting slotted depressions. Figure 7 is a center cross-sectional view of such a modification of the invention.

The third embodiment of the invention illustrated in Figs. 3 and 5 comprises an elliptical base portion **1** having side portions **2** substan-

tially normal thereto. The supporting means for a single cigarette comprises only the two crowned projecting elements 6—6, as described heretofore. The projecting elements 6—6 extend inwardly from the opposite central portions of the longer sides of the unit, whereby the concave depressions 5—5 of the elements 6—6 cooperate to form a single concave cigarette supporting depression having a central longitudinal slot or gap. The dimensions *a* and *b* are proportioned as described for the other embodiments and modifications of the invention. The projecting elements 6—6 are crowned for the same reasons as described heretofore, and may be integral with, or demountable from, the side portions 2 as, for example, by bayonet supports 7.

Figure 6 shows a fragmentary cross-sectional elevational view of the vertical side portion 2, wherein the upper edge 8 thereof is curved inwardly to a slightly smaller radial dimension than the remainder of the side portion 2. It should be understood that this modification contemplates the same general proportions of the dimensions *a* and *b*, but that the inwardly curved sides provide a receiver having better ash retaining characteristics in the presence of strong air currents.

It should be understood that the devices described may be constructed of glass, ceramics, metal, plastics, wood or any other materials commonly used for ash receivers. It should also be understood that the base portion 1 may be substantially flat for table use, or it may be supported on any type of pedestal commonly used for such purposes. It further should be understood that both the central and side projecting supporting elements may be separately or collectively demountable or they may be formed or molded integrally with the side and base portions. Furthermore, in the rectangular or elliptical embodiments, the cigarette supporting structure may be turned 90° from the orientation illustrated herein. In such case, the distance *b* should be determined along the axis of the support depression, between the support and the side portion.

Thus the invention described comprises three embodiments, and modifications thereof, of open-type ash receivers providing ample ash capacity, maximum fire protection and optimum utility, efficiency and convenience.

I claim as my invention:

1. An ash receiver including a dished body portion having side portions contiguous with a base portion thereof, said side portions having an internal depth of the order of five-eighths the length of a standard cigarette, at least one supporting structure projecting from said side portion, a second supporting structure, said structures each including an externally hollowed portion cooperating to provide at least one longitudinally slotted concave depression for supporting a cigarette, the minimum distance between the ends of said slotted depression and the upper edge of said sides being along the axis of said depression of the order of said internal depth of said sides, said proportions of said receiver providing means for minimizing fire hazard and said slot promoting uniform combustion of lighted cigarettes placed thereon.

2. An ash receiver including a circular dished body portion having sides substantially normal to a substantially flat base portion thereof, said sides having an internal depth of the order of five-eighths the length of a standard cigarette, a supporting structure projecting normally from one of said sides, a second supporting structure, said structures each including an externally hollowed portion cooperating to provide at least one longitudinally slotted concave depression for supporting a cigarette, the minimum distance between the ends of said slotted depression and the upper edge of said sides being along the axis of said depression of the order of said internal depth of said sides, said proportions of said receiver providing means for minimizing fire hazard and said slot promoting uniform combustion of lighted cigarettes placed thereon.

3. An ash receiver including a dished body portion having side portions contiguous with a base portion thereof, said side portions having an internal depth of the order of five-eighths the length of a standard king size cigarette, a supporting structure projecting from one of said side portions, a second supporting structure, said structures each including an externally hollowed portion remote from said side portion cooperating to provide at least one longitudinally slotted concave depression for supporting a cigarette, the minimum distance between the ends of said slotted depression formed by said remote portions of said structures and the upper edge of said sides being along the axis of said depression of the order of said internal depth of said sides, said proportions of said receiver providing means for minimizing fire hazard and said slots promoting uniform combustion of lighted cigarettes placed thereon.

4. An ash receiver including a circular dished body portion having sides substantially normal to a substantially flat base portion thereof, said sides having an internal depth of the order of five-eighths the length of a standard king size cigarette, at least one supporting structure projecting normally from one of said sides, a second supporting structure, said structures each including an externally hollowed portion remote from said supporting sides cooperating to provide at least one longitudinally slotted concave depression for supporting a cigarette, the minimum distance between the ends of said slotted depressions and the upper edge of the closest portion of said sides being along the axis of said depression of the order of said internal depth of said sides, said proportions of said receiver providing means for minimizing fire hazard and said slots promoting uniform combustion of lighted cigarettes placed thereon.

5. An ash receiver including a rectangular dished body portion having sides substantially normal to a substantially flat base portion thereof, said sides having an internal depth of the order of five-eighths the length of a standard cigarette, at least one supporting structure projecting normally from one of said sides, a second supporting structure, said structures each including an externally hollowed portion remote from said supporting sides cooperating to provide at least one longitudinally slotted concave depression for supporting a cigarette, the minimum distance between the ends of said slotted depression and the closest upper portion of said sides being along the axis of said depression of the order of said internal depth of said sides, said proportions of said receiver providing means for minimizing fire hazard and said slot promoting uniform combustion of lighted cigarettes placed thereon.

6. An ash receiver including an elliptical dished body portion having sides substantially normal to a substantially flat base portion thereof, said sides

having an internal depth of the order of five-eighths the length of a standard cigarette, at least one supporting structure projecting normally from one of said sides, a second supporting structure, said structures each including an externally hollowed portion remote from said supporting sides cooperating to provide at least one longitudinally slotted concave depression for supporting a cigarette, the minimum distance between the ends of said slotted depression and the upper edge of the closest portion of said sides being along the axis of said depression of the order of said internal depth of said sides, said proportions of said receiver providing means for minimizing fire hazard and said slot promoting uniform combustion of lighted cigarettes placed thereon.

7. An ash receiver including a dished body portion having side portions contiguous with a base portion thereof, said side portions having an internal depth of the order of five-eighths the length of a standard cigarette, at least one crowned supporting structure projecting from one of said side portions, a second supporting structure, said structures each including an externally hollowed portion remote from said side portions cooperating to provide at least one longitudinally slotted concave depression for supporting a cigarette, the minimum distance between the end of said slotted depression and the upper edge of said sides being along the axis of said depression of the order of said internal depth of said sides, said proportions of said receiver providing means for minimizing fire hazard and said slot promoting uniform combustion of lighted cigarettes placed thereon.

8. An ash receiver including a dished body portion having side portions contiguous with a base portion thereof, said side portions having an internal depth of the order of five-eighths the length of a standard cigarette, at least one demountable crowned supporting structure projecting from one of said side portions, a second supporting structure, said structures each including an externally hollowed portion remote from said side portion cooperating to provide at least one longitudinally slotted concave depression for supporting a cigarette, the minimum distance between the end of said slotted depression and the upper edge of said sides being along the axis of said depression of the order of said internal depth of said sides, said proportions of said receiver providing means for minimizing fire hazard and said slot promoting uniform combustion of lighted cigarettes placed thereon.

9. An ash receiver including an elliptical dished body portion having side portions contiguous with a base portion thereof, said side portions having an internal depth of the order of five-eighths the length of a standard cigarette, at least one demountable crowned supporting structure projecting from one of said side portions, a second supporting structure, said structures each including an externally hollowed portion remote from said side portions, said hollowed portions of said side projecting structures cooperating to provide at least one longitudinally slotted concave depression for supporting a cigarette, the minimum distance between the ends of said slotted depression and the upper edge of said sides being along the axis of said depression of the order of said internal depth of said sides, said proportions of said receiver providing means for minimizing fire hazard and said slot promoting uniform combustion of lighted cigarettes placed thereon.

10. An ash receiver including a dished body portion having side portions contiguous with a base portion thereof, said side portions having an internal depth of the order of five-eighths the length of a standard cigarette, a supporting structure projecting from the center of said base portion substantially equidistant from and coextensive with opposite ones of said side portions, said structure including at least two externally hollowed portions remote from said base, separate supporting elements projecting from opposite ones of said side portions, said elements each having externally hollowed portions cooperating with one of said hollowed portions of said supporting structure, said cooperating portions providing separate longitudinally slotted concave depressions each for supporting a cigarette, the minimum distance between the ends of said slotted depressions and the upper edge of said sides being along the axes of said depressions of the order of said internal depth of said sides, said proportions of said receiver providing means for minimizing fire hazard and said slots promoting uniform combustion of lighted cigarettes placed thereon.

11. An ash receiver including a dished body portion having side portions contiguous with a base portion thereof, said side portions having an internal depth of the order of five-eighths the length of a standard cigarette, a plurality of cooperating supporting structures projecting from said base portion, said structures each including at least two externally hollowed portions remote from said base, adjacent hollowed portions of said structures cooperating, separate supporting elements projecting from opposite ones of said side portions, said elements each having externally hollowed portions cooperating with one of said hollowed portions of said supporting structures, said cooperating portions providing separate longitudinally slotted concave depressions each for supporting a cigarette, the minimum distance between the ends of said slotted depressions and the upper edges of said sides being along the axes of said depressions of the order of said internal depth of said sides, said proportions of said receiver providing means for minimizing fire hazard and said slots promoting uniform combustion of lighted cigarettes placed thereon.

12. An ash receiver including a dished body portion having side portions contiguous with a base portion thereof, said side portions having an internal depth of the order of five-eighths the length of a standard cigarette, a plurality of demountable cooperating supporting structures projecting from said base portion, said structures each including at least two externally hollowed portions remote from said base, adjacent hollowed portions of said structures cooperating, separate supporting elements projecting from opposite ones of said side portions, said elements each having externally hollowed portions cooperating with one of said hollowed portions of said supporting structures, said cooperating portions providing separate longitudinally slotted concave depressions each for supporting a cigarette, the minimum distance between the ends of said slotted depressions and the upper edge of said sides being along the axes of said depressions of the order of said internal depth of said sides, said proportions of said receiver providing means for minimizing fire hazard and said slots promoting uniform combustion of lighted cigarettes placed thereon.

13. An ash receiver including a dished body portion and having side portions contiguous with

a base portion thereof, the length of said side portions being of the order of five-eighths the length of a standard cigarette, and at least one cigarette supporting structure projecting from one of said side portions, a second supporting structure, said structures cooperating and providing at least one longitudinally slotted concave depression for supporting a cigarette, the minimum distance between the ends of said slotted depression and the upper edge of said sides being along said slot axis of the order of the length of said side portions, said proportions of said receiver providing means for minimizing fire hazard and said slot promoting uniform combustion of lighted cigarettes placed thereon.

14. An ash receiver including a dished body portion having side portions contiguous with a base portion thereof, at least one supporting structure projecting from one of said side portions, a second supporting structure, said supporting structures each including an externally hollowed portion cooperating to provide at least one

longitudinally slotted concave depression for supporting a cigarette, said slot promoting uniform combustion of lighted cigarettes placed thereon.

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