Nov. 13, 1928. 1,691,564

E. CALDWELL

SMOKER'S NOVELTY

Filed Sept. 19, 1924 2 Sheets-Sheet 1

Fig. 1.

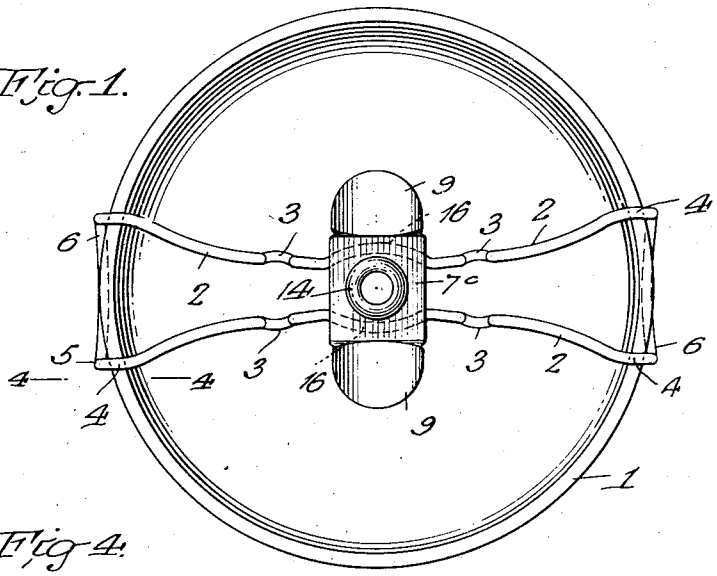


Fig. 4.

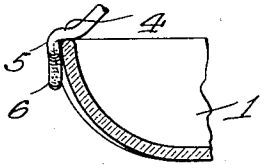


Fig. 2.

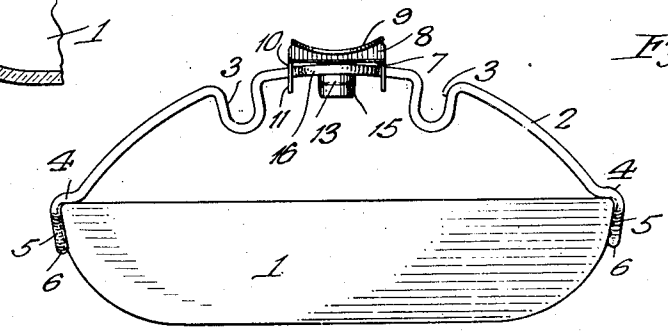


Fig. 3.

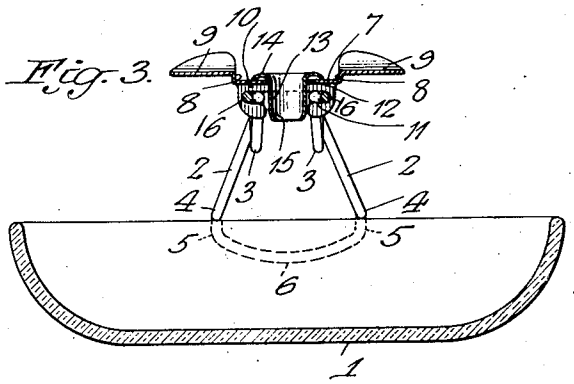
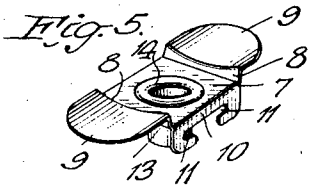


Fig. 5.



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Fig. 6.

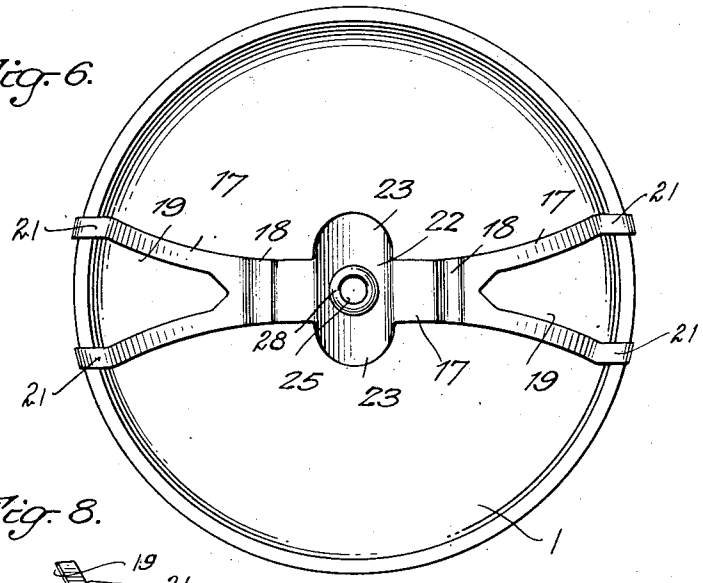


Fig. 8.

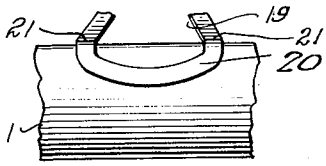


Fig. 7.

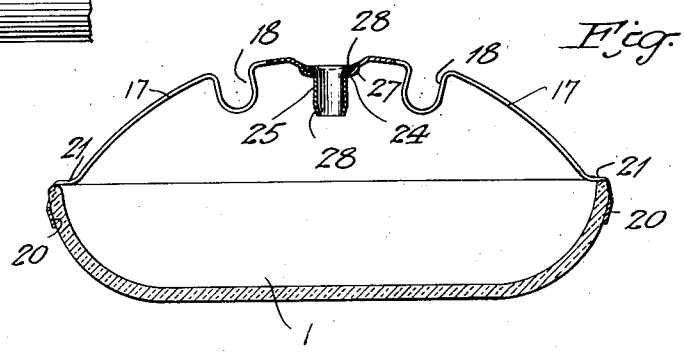


Fig. 9.

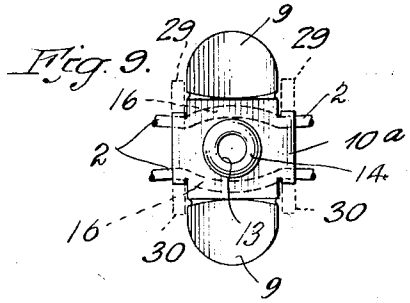
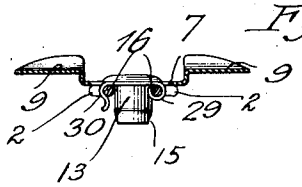


Fig. 10.



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Patented Nov. 13, 1928. 1,691,564

UNITED STATES PATENT OFFICE.

EDWIN CALDWELL, OF NEW YORK, N. Y.

SMOKER'S NOVELTY.

Application filed September 19, 1924. Serial No. 738,597.

This invention relates to smokers' novelties or articles and particularly to supports for cigars and cigarettes which may be advantageously utilized in connection with ash trays and the like.

An object of the invention is to provide an improved article of this type which may be readily applied to or removed from the usual types of ash trays or receptacles, and having means for the support of cigars and cigarettes in such a manner that their ends, which have been or are to be placed in the smoker's mouth, will not come into contact with any surface or article; which will always support burning cigars or cigarettes with the burning ends over the interior of the tray or receptacle so that in no event can burning tobacco or hot ashes fall upon tables or any surface outside of the tray; which will permit of the removal of the cigars or cigarettes for further smoking; which will automatically extinguish a burning cigar or cigarette when it burns into close proximity to the portion of the support in which it is gripped; with which danger of the cigars or cigarettes being unintentionally released is avoided; with which the cigarettes may be almost instantly extinguished in a simple manner, if desired; which may be embodied in various forms and artistic designs that may be readily cleaned; which may be readily applied to or removed from any of the standard sizes of ash trays; and which will securely grip either a flanged or unflanged open edge of a tray or receptacle.

A further object is to provide an improved article which will satisfy any or all of the above objects; which may be manufactured more or less from wire or sheet metal in various forms and artistic designs; and which will be simple, attractive in appearance, durable and relatively inexpensive. Various other objects and advantages will be apparent from the following description of several embodiments of the invention, and the novel features will be particularly pointed out hereinafter in connection with the appended claims.

In the accompanying drawing:—

Fig. 1 is a plan of a tray having a bridge attached thereto and constructed largely of bent wire in accordance with the invention;

Fig. 2 is a side elevation of the same;

Fig. 3 is a transverse sectional elevation of the same;

Fig. 4 is a sectional elevation of one end of the bridge and a portion of the tray, the section being taken substantially along the line 4—4 of Fig. 1;

Fig. 5 is a perspective of the snuffer and cigar rest which forms a part of the improved bridge;

Fig. 6 is a plan of a tray similar to Fig. 1 except that it is a stamping from sheet metal;

Fig. 7 is a longitudinal sectional elevation of the same;

Fig. 8 is an inside elevation of one end of the bridge and adjacent portion of the tray;

Fig. 9 is a plan of a modified construction of bridge of the bent wire type, utilizing a slightly different connection between the snuffer and the wire portion of the bridge; and

Fig. 10 is a side elevation of the parts shown in Fig. 9.

Referring particularly to the embodiment of the invention which is illustrated in Figs. 1 to 5, the ash tray or receptable 1 may be of any suitable construction such as of glass, porcelain, or of metal and, as illustrated, is not provided with a peripheral flange around its open edge, although such flange could be provided, if desired. This tray may be of any of the standard sizes and shapes or of any special size or shape.

A wire 2 is secured together at its free ends, such as by welding the same, so as to form a closed elongated loop of a length somewhat greater than the diameter of the open edge of the tray or receptacle to which it is to be applied. This wire 2, intermediate of its ends and at each side of the center, is provided with notches, slots or looped indentations forming pockets 3 which are somewhat U-shaped, and the pockets upon the two stretches of wire are preferably aligned for a purpose which will appear presently. The wire loop is bent into an arch shape throughout its length to constitute an arch bridge, and at the point where it meets the open edge of the tray is shouldered or offset slightly as at 4 so as to rest substantially horizontally upon the upper edge of the tray, and then the extreme ends 5 are bent so as to overlie the outer periphery of the tray.

Each end of the bridge which is bent over the peripheral surface of the tray is some-

what elongated laterally as shown in Figs. 1 and 3, the cross stretch 6 connecting the two side stretches being arcuately curved downwardly as shown in Fig. 3. When the bridge is removed from the tray this cross stretch 6 lies approximately in one plane but when applied to the periphery of the circular tray as shown in Fig. 1, it also, in addition to its downward curvature, curves inwardly as shown in Fig. 1, and I have found that by providing this downward curvature of the stretch 6, a more perfect and secure gripping of the surface of the tray by the bridge is obtained.

It will be observed that by reason of the arch shape of the bridge, it rises above the open face of the tray and, when the ends of the bridge are sprung apart to apply it to a tray, the bridge will be flexed, and not stretched materially, so that the pockets or notches 3 in the bridge will be slightly closed and not opened by this springing apart of the ends of the bridge. These repeated applications of the bridge 2 or its removal from the tray will thus always tend to close the pockets 3 instead of opening them as would be the case if the bridge were stretched more instead of flexed. By reason of the shoulders 4 and the cross stretch 6, a convex portion of the tray periphery will be largely enclosed between these three portions of the bent wire at each end of the bridge, which convex projecting portion will serve as an effective anchorage lug for the ends of the bridge. Thus the tray may be carried about by the bridge as a handle in perfect safety.

A cigar rest and cigarette snuffer preferably is secured across the upper central part of the arch as shown in Figs. 1, 2 and 3, this combined cigar rest and cigarette snuffer being shown separately and in perspective in Fig. 5. It comprises a stamping 7 of sheet metal having oppositely disposed upstanding shoulders 8, and extensions 9 leading from said shoulders in opposite directions from one another and approximately parallel to the body of the stamping. Such extensions 9 are preferably made concave so as to provide two spaced concave supports in which a cigar may be supported without danger of it rolling off. The side edge portions extending between the shoulders 8 are bent at right angles to the plane of the stamping and in the opposite direction from the shoulders 8 so as to form depending flanged edges 10. The opposite ends of each flange are made hook-shaped to form hooks 11 which extend toward one another for a purpose which will appear presently.

The stamping 7, in the flat portion between the shoulders 8, is provided with an aperture 12 into which a tubular sleeve 13 may be secured such as by a force fit, the sleeve having a flange 14 upon its upper end which limits the movement of the sleeve through the aperture. The depending end 15 of the sleeve is made convergent or tapering both internally and externally, the external taper facilitating the insertion of the sleeve into the aperture and the internal taper providing a constriction of the passage to compress the lighted end of a cigarette which may be forced therein in order to extinguish it as will be explained more fully hereinafter.

In applying the combined cigar rest and cigarette snuffer to the bridge, the two longitudinal stretches of the wire at the central portion are sprung together, and the cigar rest and snuffer placed over the same with the sleeve 13 depending between the stretches and with the hooks 11 depending along the outer sides of the longitudinal stretches so that when the wire stretches are released, they will spring apart and into interlocking engagement with the hooks 11. This effectively locks the cigar rest and snuffer to the bridge or arch without the use of solder or special securing operations except those of assembly, and this method of attachment is a very simple operation which requires but a moment of time.

In order that the cigar rest and cigarette snuffer will not slide along the arch so as to interfere with the pockets 3, the stretches of wire at their central portions are oppositely bowed as at 16, the length of the arcuate bow being approximately the distance between the flanges 10 of the cigar rest so that the flanges 10 by their engagement with the ends of the bowed sections of the arch will limit the sliding of the cigar rest in both directions. The oppositely bowed sections 16 of the wire bridge also serve as a locating element for the cigar rest when the latter is being applied thereto, so that the rest will always be in the central portion of the arch.

Referring particularly now to the embodiment of the invention illustrated in Figs. 6 to 8, the bridge 17 is formed by stamping the same as a strip from sheet metal and, intermediate of its ends and at each side of its center, is looped or doubled upon itself to form pockets or indentations 18 which correspond to the pockets or indentations 3 of the preceding embodiment. The strip is bent into the shape of an arch and an opening 19 is cut out of each end so that when it projects over the edge of the tray, some of the convex surface of the tray may project through the opening, whereby this projecting surface will serve as an anchoring lug for the ends of the bridge or strip. The cross end portion 20 at each end of the bridge is preferably curved downwardly in a manner similar to the curvature of the cross stretch 6 of the wire of the preceding embodiment. The end portions of the bridge are also offset or shouldered as at 21, where they rest upon the edge of the tray,

which shoulders will serve as abutments for the ends of the arch and correspond to the shoulders 4 of the preceding embodiment.

The central part of the arch is made transversely concave as at 22, and this concave portion has extensions 23 upon opposite sides so as to form an elongated transversely extending concave cigar rest. In the center of the concave portion the bridge has an aperture 24 in which a tubular sleeve 25 is secured, such as by a force fit, in the same manner that the sleeve 13 is secured in the cigar rest of the preceding embodiment. The upper end of the sleeve 25 is provided with a flange 26 corresponding to the flange 14 of the preceding embodiment, and the portion of the bridge surrounding the tubular sleeve is slightly countersunk as at 27, into which the flange 26 may rest so that its upper surface will be approximately flush with or below the concave cigar rest and thus not interfere with the placing of a cigar in the rest. The lower end 28 of the sleeve 25 is tapered convergingly as in the preceding embodiment for a purpose which will appear presently.

Considering the two embodiments illustrated in Figs. 1 to 8, the arch-shaped bridge may be secured to an ash tray by a springing apart of the ends of the arch, until they fit over the diammetrically opposite edges of the tray, and then when released they will securely grip the tray with the arch extending over the open face of the tray. The shoulders 4 or 21 rest upon the upper edge of the tray and serve as abutments for normally taking up the thrusts of the arch shaped bridge, which thrusts may occur when cigarettes are forced into the pockets 3 or 18 or into the sleeves 13 or 25. Since the thrusts are taken up by these shoulders as abutments, the ends of the arch will not separate when ordinary downward forces are applied to any part of the arch. In this manner the bridge is not likely to become loosened by forces normally expected to be applied thereto in use. Since the ends of the bridge fitting over the periphery of the tray are open, the convex portions of the tray may project through the openings and serve as anchoring lugs for the bridge, so that the tray may be carried about by the bridge without danger of separation therefrom. By reason of the downward curvature of the cross stretches 6 and 20 when applied to circular trays, a more effective gripping of the tray is effected than where the cross stretches are straight.

A lighted cigar may be supported upon the bridge by placing it transversely thereof upon the cigar rest; that is, in the embodiment shown in Figs. 1 to 5, the cigar would be placed upon the concave ears 9, and in the embodiment illustrated in Figs. 6 to 8, the cigar would be placed in the cavity 22 at the top of the arch. It will be observed that with the cigar supported in this manner, the lighted end will always be above the tray so that any ashes or burning tobacco falling therefrom, will drop into the tray, and the other end, which has been or is to be placed in the mouth of the smoker, will be supported clear of all other objects and surfaces so as to avoid contamination.

The diameter or width of the pockets 3 and 18 is preferably slightly less than the normal diameter of a cigarette so that when a cigarette is forced laterally into the pockets, a slight compression of the cigarette will be necessary, with the result that the cigarette will be firmly supported transversely of the bridge. If the cigarette is burning, it will burn only into proximity to the first point of support in the pocket, at which time, by reason of the compression of the cigarette in the pocket, the material of the bridge, which is usually metal, will, by conduction, lower the temperature of the burning tobacco below the temperature of combustion and thus extinguish automatically the burning cigarette. Consequently, the cigarette can never burn far enough to release itself from the pocket, and, even if it were released, it would onlv fall into the tray.

In the embodiment shown in Figs. 1 to 5, the points in the stretches of wire in which the pockets 3 are formed are perferably slightly divergent so that a cigarette forced into two aligned pockets 3 at one side of the cigar rest will be flexed slightly, thus being effectively gripped by the bridge. If desired, the pockets may be slightly constricted at their entrance or opening, so that when a cigarette is forced therein it may be allowed to expand slightly and thus be more securely anchored.

If one desires to immediately extinguish a burning cigarette, it is merely necessary to inset such cigarette, lighted end first, into the sleeve 13 or 25, and by reason of the convergence or constriction of the lower end of such sleeve, the lighted end will be compressed. By reason of its contact with the material of the sleeve, which is of good conducting material, the burning end of the cigarette will be chilled below the temperature of combustion so as to immediately extinguish the same. A cigarette forced into such a sleeve will be extinguished in approximately five seconds. This avoids the necessity of numerous repeated tampings of the lighted end of the cigarette in the bottom of a tray, which is the common method of extinguishing cigarettes, and which practice is usually disagreeable to smokers. While any suitable material may be utilized for the material of the bridge or sleeves 13 and 25, the entire bridge and sleeves are preferably made of good heat conducting material such as metal.

In the assembly of the bridge shown in Figs. 1 to 5, it is merely necessary to compress the two long stretches of the wire of the bridge together slightly, and snap the cigar rest over the central portion thereof. It will be observed that with such a construction, no soldering or attaching operations are necesary and the oppositely curved portions 16 will serve as self-centering devices for the cigar rest and will prevent displacement of such rest along the bridge. This construction has another advantage in that the cigar rest may be readily removed in order that all the surfaces of the bridge and rest may be exposed for the purposes of cleaning.

In Figs. 9 and 10 a slight modification of the cigar rest shown in Figs. 1 to 5 is illustrated. The construction is similar to that of Figs. 1 to 5 except that the side edge portions 10^a corresponding to the flanges 10 of the Figs. 1 to 5 instead of being bent at right angles to the main body portion 7, will remain in the same plane and have tongues 29 and 30 at the ends at each side for attachment of the rest to the bridge. Two of the tongues 29 at one end of the rest are during the assembly of the bridge, bent around one of the stretches of wire of the bridge at each side of the bowed section 16, so as to serve as a hinged connection between the rest and the bridge. The tongues 30 at the other end of the rest are preferably bent as shown in Fig. 10 to form snap hooks which automatically snap over the other stretch of wire of the bridge to yieldingly hold the cigar rest to such other stretch of wire. In this manner the cigar rest will remain in engagement with both stretches of wire of the bridge, and yet may be swung upwardly about one of the stretches of wire to expose, for cleaning purposes, both of its faces and the portion of wire covered thereby. The position of the tongues 29 and 30 before being bent is shown by dotted lines in Fig. 9.

In all cases where the tubular snuffer is used, it may be noted that immediately when a cigarette is forced, lighted end first, into such snuffer, the immediate chilling of the lighted end which follows, will retard the rate of combustion and, since both ends of the tube are open, sufficient air will always be admitted to prevent smoking during such combustion as occurs. Therefore the instant that the burning cigarette is inserted into the snuffer, all smoking is immediately checked and if the cigarette is compressed to any extent at the lighted end, it will be rapidly extinguished.

The depths of the pockets 3 and 18 should preferably be greater than the normal diameter of a cigarette so that by reason of the compression of the cigarette when forced therein and its elongation by such compression, the area of the pocket walls in contact with the cigarette will be as great as possible in order that the conduction will be a maximum.

It will be obvious that various changes in the details, arrangements of parts, and materials, which have been herein described and illustrated for the purpose of explaining the nature of the invention, may be made by those skilled in the art within the principle and scope of the invention as expressed in the appended claims.

I claim:

1. A bridge for ash receptacles comprising a somewhat resilient, flexible, arch-shaped element having a distance between its ends slightly less than the distance between two walls of a tray to which it is to be applied, whereby it may be sprung across the open face of the said tray for support thereabove and a sleeve of good heat conducting material, having a passage downwardly convergent, attached to the bridge element intermediate its ends and above the open face of the said tray, the smaller end of said passage being less than the normal diameter of a cigarette when a cigarette is forced endwise of itself therein, lighted end first, its lighted end will be compressed and chilled to decrease its rate of combustion.

2. A bridge for ash receptacles comprising an elongated closed loop of resilient wire, bent lengthwise into an arch-shape with the distance between its ends slightly less than the distance between opposite walls of a tray over which the ends may be sprung for support, said ends having shoulders where they pass over the upper edges of the tray so as to serve as abutments for the arch, said bridge having, intermediate of its ends, means for supporting a cigarette above the open face of the tray.

3. A bridge for ash receptacles comprising an elongated closed loop of resilient wire, bent lengthwise into an arch-shape with the distance between its ends slightly less than the distance between opposite walls of a tray over which the ends may be sprung for support, said ends having shoulders where they pass over the upper edges of the tray so as to serve as abutments for the arch, the ends of the wire loop being laterally elongated where they engage the tray so as to be securely anchored thereto.

4. A bridge for ash receptacles comprising an elongated closed loop of resilient wire, bent lengthwise into an arch-shape with the distance between its ends slightly less than the distance between opposite walls of a tray over which the ends may be sprung for support, said ends having shoulders where they pass over the upper edges of the tray so as to serve as abutments for the

arch, the ends of the wire loop being laterally elongated where they engage the tray so as to be securely anchored thereto, the cross stretch at each end being also downwardly curved to increase the firmness with which it will grip a convex surface of a tray.

5. A bridge for ash receptacles comprising an elongated closed loop of resilient wire bent lengthwise into an arch-shape with the distance between its ends slightly less than the distance between opposite walls of a tray over which the ends may be sprung for support, the longitudinal stretches of the wire of the loop having, intermediate the ends of the arch, approximately U-shaped indentations with a distance between the walls of the indentations slightly less than the normal diameter of an ordinary cigarette, whereby when a cigarette is forced laterally of itself into an indentation, the cigarette will be compressed somewhat and held in the indentation by such compression.

6. The bridge substantially as set forth in claim 5 in which the indentations are formed in both of the longitudinal stretches of the wire with the indentations in the two stretches approximately aligned with one another.

7. The bridge substantially as set forth in claim 5 in which the indentations are formed in both of the longitudinal stretches of the wire, with the indentations in the two stretches approximately aligned with one another, the stretches at the points where the indentations are formed being non-parallel so that when a cigarette is forced laterally of itself into two aligned indentations for support, said cigarette will be flexed slightly to increase the grip thereon.

8. An ash receptacle including a tray member, a bridge comprising an elongated closed loop of resilient wire bent lengthwise to make the plane of the two stretches of wire arch-shaped and with the distance between the ends of the loop slightly less than the distance between the opposite walls of said tray and over which the ends may be sprung for support, and a rest for cigars or cigarettes extending across and attached to the longitudinal stretches of wire of the loop intermediate the ends of the arch.

9. An ash receptacle including a tray member, a bridge comprising an elongated closed loop of resilient wire bent lengthwise to make the plane of the two stretches of wire arch-shaped, and with the distance between the ends of the loop slightly less than the distance between the opposite walls of said tray and over which the ends may be sprung for support, and an element having opposed hooks which may be hooked over the two longitudinal stretches of wire of the loop when said stretches are sprung toward one another, said element having thereon a concave surface for the support of cigarettes and cigars.

10. An ash receptacle including a tray member, a bridge comprising an elongated closed loop of resilient wire bent lengthwise to make the plane of the two stretches of wire arch-shaped and with the distance between the ends of the loop slightly less than the distance between the opposite walls of said tray and over which the ends may be sprung for support, an element having opposed hooks which may be hooked over the two longitudinal stretches of wire of the loop when said stretches are sprung toward one another, and a snuffer carried by said element having a converging passage, the walls of which are formed of good heat conducting material and the cross section of the passage at its smaller end being somewhat less than the normal cross section of a cigarette whereby when a cigarette is inserted, lighted end first, into said passage, the lighted end will be compressed in the converging passage, causing a retardation of the burning and finally extinguishment by reason of the chilling of the burning tobacco by conduction of its heat through the walls of the passage.

11. An ash receptacle including a tray member, a bridge having spaced wire stretches across the tray member, and a clip for attachment to said stretches, said clip having opposite side flanges notched to provide hooks extending toward one another and between which hooks the wire stretches may be sprung when the clip is attached thereto, said clip having a concave supporting surface for cigars and cigarettes.

12. An ash receptacle including a tray member, a bridge comprising two spaced approximately parallel stretches of wire and a clip for said spaced parallel stretches, said clip having at opposite ends spaced hooks extending toward those of the opposite end, whereby the hooks may be snapped over the stretches of wire when the latter are sprung together, said stretches of wire having oppositely bowed sections between the spaced hooks serving as automatic centering and holding means for said clips.

13. An ash receptacle including a tray member, a bridge comprising two spaced stretches of wire extending between opposite sides of a tray, and a clip for said spaced stretches, said clip having spaced hooks extending toward one another whereby the hooks may be snapped over the stretches of wire where the latter are sprung together, said stretches of wire having changes in curvature at approximately where engaged by the hooks to serve as automatic centering and holding means for said clips.

In witness whereof, I hereunto subscribe my signature.

EDWIN CALDWELL.