Nov. 27, 1934. C. ARTHUBER 1,981,981

ASH TRAY

Filed July 9, 1932

Fig. 1

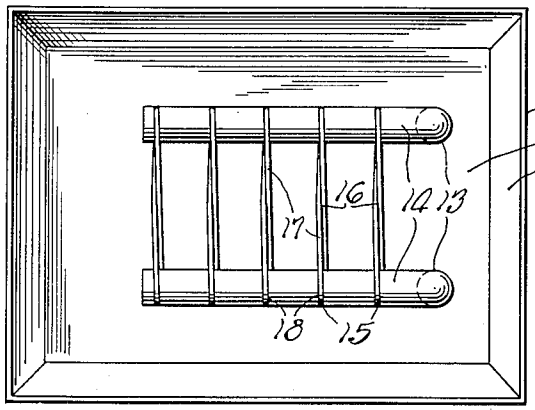
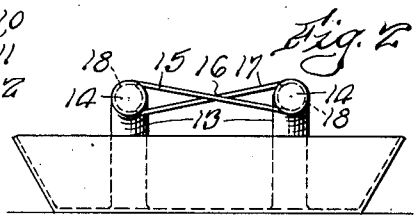


Fig. 2



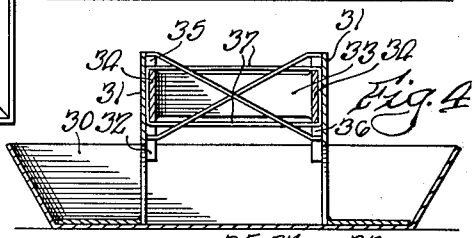
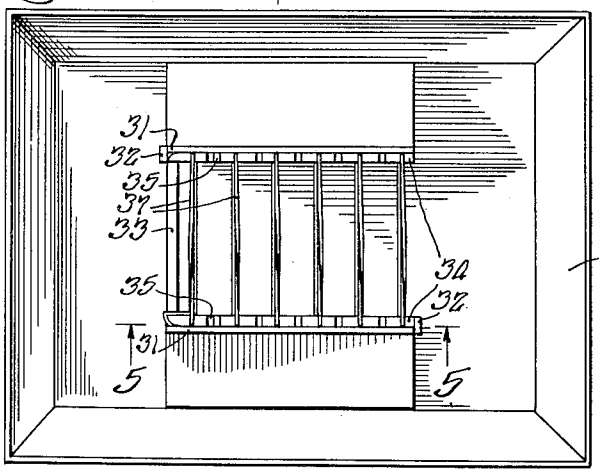


Fig. 4

Fig. 3.



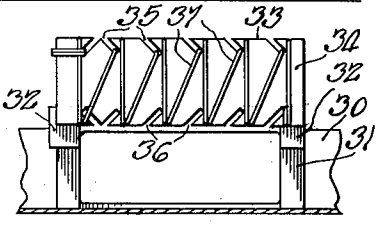


Fig. 5

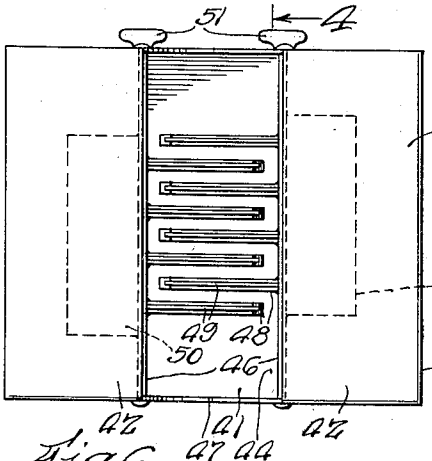
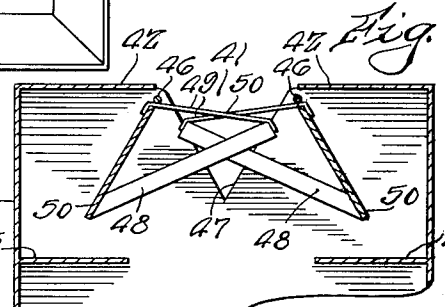


Fig. 6

Fig. 7



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Patented Nov. 27, 1934

1,981,981

UNITED STATES PATENT OFFICE

1,981,981

ASH TRAY

Charles Arthuber, Chicago, Ill.

Application July 9, 1932, Serial No. 621,612

5 Claims. (Cl. 131—51)

The present invention has to do with ash trays and the like and relates particularly to a means for permitting of the complete combustion of a cigarette or the like without staining the cigarette paper in order that the cigarette may remain in a sweet condition until consumed.

It is well known to the cigarette smoker that the usual result of placing a cigarette or any tobacco article upon an ash tray or receptacle or upon a supporting surface is to cause a part of the wrapper to become stained and discolored with what is called "tobacco mud" with a resulting change in the taste of the smoke of the article. A cigarette loses its sweetness and the smoke becomes acrid and unpleasant. It is not unusual to hear people say that a cigarette which has been put down for a moment or two is not fit to be smoked when again picked up.

Study of this peculiarity by the applicant has led to the discovery of the cause of the staining of the wrapper and the reason for the change in the taste of the cigarette. Following these discoveries, a remedy for overcoming the untoward effect was sought with the result that the present invention came into being.

The primary object of the present invention is the provision of the new and novel support for a cigarette while burning.

Another object of the invention is an unique device for supporting a cigarette while it is burning and so arranged that no stain will accumulate on the wrapper and no resulting deterioration in the taste of the cigarette will result.

A further object of the invention is an improved device for holding a cigarette or the like while lighted and collecting the ashes therefrom, the device preventing the cigarette from becoming sour no matter how long it burns while on the support.

Still another object of the invention is a new and useful ash tray.

These objects and such other objects as may hereinafter appear are obtained by the unique arrangement, improved combination and new construction of the several elements forming the subject matter of the invention, several forms of which are illustrated in the accompanying drawing hereby made a part of this specification, and in which:

Figure 1 is a plan view of one form which the invention may take;

Figure 2 is a side elevation of the form of the invention shown in Figure 1;

Figure 3 is a plan view of a second form of the invention;

Figure 4 is a transverse section taken on the line 4—4 of Figure 3;

Figure 5 is a longitudinal fragmentary section taken on the line 5—5 of Figure 3;

Figure 6 is a plan view of the third form of the invention; and

Figure 7 is a transverse section of the form of the invention shown in Figure 6.

Like reference characters are used to designate similar parts in the drawing and in the specification which follows.

In Figures 1 and 2, one form of the invention is shown. In such form of the invention, there is a pan or the like 10 which has a bottom 11 from which sides 12 extend upwardly. The sides 12 of the pan 10 and the outward extent of the sides 12 thereof is such that any ashes which may fall from the cigarette support to be shortly described will fall within the pan 10, and the pan is preferably of a size which will permit of any cigarette which may fall from the support dropping within the area of the pan 10 and its sides 12 and not therebeyond.

Suitably secured in a pan 10 or otherwise attached thereto or disposed therein are two uprights 13. Said uprights 13 above the level of the edges of the sides 12 of the pan 10 are bent longitudinally of the pan 10 to form supports 14 between which wire or wires 15 may be stretched. In the preferred form, the wires 15 are so arranged that there is a low section 16 about the median line between the two wire supports, and two upwardly sloping sections 17 from such median line section 16 toward the two supports 14. If desired, the wire may be shaped to produce a truly horizontal section instead of the V-shaped part 16 illustrated.

If wire 15 is employed to provide the rest for the cigarette, the longitudinal sections of the two members 14 may be suitably grooved or scored at 18 to receive the wire 15. Any suitable means may be employed to secure the wire 15 in position. Individual sections thereof may be obtained and these secured in position by spot welding, by soldering, or in any other conventional manner. The wire may be stretched in any other desired way as through apertures in the longitudinal members.

The material of the wire 15, preferably, is of a nature which will not permit it to stretch because of the application of heat thereto. For the wire 15, there may be substituted thin plates or strips, preferably having a seat portion at the center and sides sloping upwardly from the seat portion, the strips to be of thin mica or any other

suitable material which is fire proof, but preferably not metal, although metal may be used with a fair degree of success.

The net work of wires 15 is arranged with spaces therebetween slightly greater than the diameter of a cigarette. Such spacing is not critical, but desirable. The wire 15 should be of the finest nature possible, and the finer it is the more desirable and suitable for the purpose for which it is used.

The dimensions of the pan 10 in relation to the two longitudinal sections 14 of the supporting member 13 is such that if a cigarette rolls accidentally from over the supporting wires 15 it will normally fall within the area of the pan 10 and sides 12 and roll inwardly thereof if it strikes the sloping side 12. At the end of the longitudinal section 14, whether the free end or the supported end, likewise there is an additional area of the pan and sloping sides to compensate for the angle of fall which any cigarette dropping from the support might take in its downward flight so that when the cigarette attains a lower level it will still be within the area of the pan 10 or its sides 12.

As shown, the longitudinal section of the supporting member 14 is relatively high above the pan. This is to obtain ready cleansing of the pan 10 into which the ashes drop from between the supports 14 and wires 15 and into which from time to time by accident cigarette stumps may fall. It also serves as a receptacle for cigarette stumps if such are placed therein by the smoker. By giving such height, it is a simple matter to thread a soft rag or cloth between the tray 10 and the supports 14 whereby to clean the tray 10 of the debris resulting from the burning of the cigarette or from the smoking of a cigarette.

The supporting members 13, as indicated previously, may be made detachable from the pan 10, in which event the height illustrated in the drawing is not necessary for cleansing may be had when the parts are separated.

In the form of the device shown in Figures 1 and 2, a lighted cigarette is disposed upon the wires 15 and particularly along the median section 16 thereof. If the cigarette is accidentally disposed adjacent to one of the supporting members 14, it will roll toward the center section of the stretched wire 15 and become deposited upon the center section 16 thereof.

The wires 15 being of very small diameter offer no resistance to the even combustion of the cigarette as it burns. As the cigarette burns to a wire, the area of the cigarette disposed against the wire is so slight that it is quickly traversed, and if any discoloration occurs upon the cigarette paper, it is of such a slight moment that it is not noticeable in the further smoking of the lighted cigarette, and does not prevent even burning over the narrow spotted area.

Because air is available to the cigarette from beneath, the entire cigarette burns evenly from end to end. If resting upon a flat surface, which is common to most cigarette holders, the underside of the cigarette is not free to the air and the result is that the under side of the cigarette does not burn satisfactorily. Over the contacting area, there is an accumulation of tobacco mud upon the paper wrapper resting against the flat support for the cigarette.

Whether the ashes drop through the wires 15 upon the consumption of the cigarette or remain in a coherent mass is immaterial. When the cigarette is picked up the ashes will remain behind because there is insufficient cohesion between the ashes and the unburned end of the cigarette to cause the ashes to rise with the cigarettes.

If the cigarette burns down adjacent to its end and too close for the fingers of the smoker to be used to grasp it, it may be allowed to remain upon the support. During the burning of this section, no bad odor is developed because of the complete consumption of tobacco and paper. Normally, the cohesion between the ashes and the unburned portion of the cigarette is such that the cigarette remains in a truly horizontal position until it burns completely.

If, for any reason, the cigarette moves from its longitudinal position, the angular position attained is such that the upper section of the end of the cigarette will strike the wire 15 next adjacent to the wire upon which the body of the cigarette is pivoted in its angular movement. If the spacing of the wires is such that the distance between wires is but slightly greater than the diameter of the cigarette, the unburned section of the cigarette will assume an angular position between the two adjacent wires 15 and remain in such position until fully consumed. If for any reason, one desires to force a cigarette between the wires 15, this may be readily done as the wires are spaced apart slightly more than the diameter of the cigarette.

In the form of the invention shown in Figures 3, 4 and 5, the structure is generally the same as that illustrated in Figures 1 and 2. In such second form of the invention there is provided a pan 30. In the pan are uprights 31 which form a seat 32 to receive a frame member 33. The frame member 33 is removably disposed in respect to seat 32 and the entire frame 33 may be telescoped thereinto either longitudinally or vertically as preferred.

Between the opposite sides 34 of the frame member 33 the wires are stretched in the same manner as wire is stretched in the form of the invention illustrated in Figures 1 and 2, or there may be series of slots 35 and 36 whereby a single wire 37 may be threaded over the whole frame 33. In this manner a readily removable and replaceable supporting member is obtained, and on which the wire 37 may be easily attached.

The action of the cigarette support thus provided in respect to the cigarette in this form of the invention is exactly the same as in the form of the invention previously described.

In the third form of the invention illustrated in Figures 6 and 7, there is provided a casing 40 which may have an opening 41 which is surrounded by top members 42. The top is supported by walls 43, and the device is closed by a bottom 44. There may be intermediate the top and bottom a shelf or dividing wall 45.

Intermediate the side walls 43 are two pivoting bars 46. Between the pivoting bars 46, the material at the side members 43 may also cut away at parts 47 to facilitate the insertion of cigarettes into the resting racks disposed on bars 46.

Such resting place comprises bars 48, a wire 49 and a skirt 50. The skirt 50 normally depends almost vertically from the bar 46. The bars 48 are disposed at an angle pointing upwardly from the lower end thereof, and the wire 49 is stretched from the bar 46 towards the top of the bar member 48.

As noticed, the various members upon oppo-

site sides of the opening are oppositely disposed. The disposition of the weight of the several members is such that the wires 49 slope downwardly and inwardly at a slight angle, thus providing at their overlapping sections a seat 50 for a cigarette, the overlapping sections being at substantially the lowest level of the wires 49. If a cigarette is placed upon the wires 49, it will burn in the same manner as in the previously described forms. If it is then desired to dump the stump or ashes into the receptacle beneath the wires, one or both of the pivoting bars 46 may be operated by a handle 51 or they may be operated conjointly by interlocking gears, there being only one handle necessary to operate the two members.

At all times, a cigarette is supported by wires 49 of small dimension with the result that a cigarette during its combustion has therebeneath little obstruction to the free access of air making even burning throughout the length of the cigarette on all sections thereof identical.

When mica is used as a support for the cigarette, it need not be in a single piece extending between the two standards which are provided for holding the cigarette but may be cut into sections which are angular to one another, one at each side or adjacent each supporting standard, thus causing the cigarette to roll to a horizontal portion adjacent the median line between the supports, such mica being in very thin sheets thus reducing the area of supporting material to a minimum.

What is claimed as new and is desired to be secured by Letters Patent of the United States is:

1. An ash tray comprising a receptacle, a cross member journalled at opposed sides of said receptacle, and cigarette supporting members arranged in parallel planes upon said cross member and presenting a relatively small area for contact with said cigarette, said supporting members being normally disposed to present said areas of contact substantially horizontally and adapted to be displaced thereby presenting said areas toward the vertical position.

2. An ash tray comprising a receptacle, cross members arranged in parallelism and journalled at opposite sides of said receptacle, cigarette supporting members having a surface of limited area for engaging such cigarette and disposed in parallel planes intermediate and normal to said journalled members and attached to one of said journalled members, and complemental cigarette supporting members having a surface of limited area for engaging such cigarette and disposed in planes parallel to and intermediate the first named supporting members and attached to the other of said journalled members, said supporting members being normally disposed to present said cigarette engaging areas to extend slightly downwardly between said journalled members, and said support members being adapted for movement into an ineffective position incident to rotation of said journalled members.

3. In an ash tray, a receptacle, and a support for holding a cigarette above the bottom of said receptacle and comprising opposed longitudinal members, and sets of support members having a narrow surface for engaging said cigarette, said support members being arranged juxtaposedly in parallel planes, the first of said sets including a part of said support members spaced alternately with respect to the remainder of said support members and depending from one of said longitudinal members, the second of said sets including the remainder of said members and depending from the other of said longitudinal members, said support members being adapted to be pivoted about said longitudinal members into a position ineffective to support said cigarettes, and means for pivoting said members in the opposite sides of the receptacle.

4. An ash tray comprising an enclosed receptacle having a top opening, a longitudinal member disposed pivotally at a side of said opening, cigarette supporting members having a narrow portion for engaging said cigarette and adapted to pivot about the principal axis in said longitudinal member, said cigarette engaging portions being normally disposed in vertical alignment with said opening in a substantially horizontal position, and means, including said longitudinal member, for pivoting said supporting members in the opposite sides of the receptacle for disposing said engaging portions into a substantially vertical position.

5. An ash tray comprising an enclosed receptacle having a top opening, longitudinal members pivotally disposed at opposed sides of said opening, a set of cigarette supporting members extending in spaced parallel relationship from one of said longitudinal members to present narrow sections thereof for engaging said cigarette in registry with said opening and adapted to be swung with said longitudinal member whereby said cigarette supporting members are rendered ineffective and removed to a side of said opening, a second set of cigarette supporting members extending from the other of said longitudinal members to present narrow sections for engaging said cigarette intermediate said supporting members of said first set and adapted to be removed from said opening to become ineffective by being swung with said second longitudinal member, and means, including said longitudinal members, for pivoting said sets of supporting members in the opposite sides of the receptacle.

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