SMOKER'S DESK SET WITH AUTOMATIC TRAY DISCHARGE MECHANISM
8 Claims, 4 Drawing Figs.

ABSTRACT: A smoker's desk set having an ash receiver below which is arranged a sliding ash receiver drawer having an upper plate portion which serves as the ash receiver bottom when the drawer is in place, and which serves, in cooperation with a peripheral bottom edge of the ash receiver sidewall, to scrape ashes etc. into an open section of the drawer for removal upon withdrawal of the drawer.
SMOKER’S DESK SET WITH AUTOMATIC TRAY DISCHARGE MECHANISM

My invention relates to a smoker’s desk set with automatic ashtray discharge mechanism, and is directed particularly to a novel and improved ash discharge and removal mechanism for cigarette ashtrays or receivers forming a part of such a desk set.

Ashtrays or receivers having discharge means such as trap doors and the like are known. Such devices as have heretofore been devised, however, are deficient in many respects, principally in that their holding chambers into which the tray ashes and cigarette butts are discharged are difficult and messy to empty.

It is, accordingly, the principle object of this invention to provide a smoker’s desk set including a novel and improved discharge mechanism that obviates the above-described deficiencies of previous ash receiver mechanisms.

It is a more particular object to provide a smoker’s desk set with automatic ashtray discharge mechanism including an ash receiver in the top section of an ash removal drawer arranged below the ash receiver and operative to scrape ashes, butts, etc. in the ash receiver into the drawer for automatic emptying and removal.

Other objects, features and advantages of the invention will be apparent from the following description when read with reference to accompanying drawings. In the drawings, wherein like reference numerals denote corresponding parts throughout the several views:

FIG. 1 illustrates, in perspective, a smoker’s desk set including a discharge mechanism for cigarette ash receivers embodying the invention;

FIG. 2 is a top plan view of the desk set shown in FIG. 1;

FIG. 3 is a vertical cross-sectional view taken along the line of 3–3 of FIG. 2 in the direction of the arrows, illustrating details of the mechanism; and

FIG. 4 is a vertical cross-sectional view taken along the line of 4–4 of FIG. 3 in the direction of the arrows.

Referring now in detail to the drawings, reference numeral 10 designates, generally, a smoker’s desk set embodying the invention. The smoker’s desk set, the body of which may be fabricated of wood or molded of a tough synthetic plastic material, for example, is rectangular in shape, having spaced, parallel top and bottom walls 11 and 12, respectively, a backwall 13, left and right sidewalls 14 and 15 respectively, and a front wall structure 16. The front wall structure 16 defines substantially rectangular openings 17 and 18, slidingly received within which are drawers 19 and 20, respectively, drawer 19 being provided for holding cigarettes and drawer 20 constituting an ash receiver drawer forming part of the discharge mechanism comprising the invention, as is herein below more particularly described. As illustrated in FIGS. 1 and 2, the top wall 11 of the smoker’s desk set, near the rear end thereof, is preferably provided with a pair of symmetrically spaced pen receptacles 21, centrally located between which is a slot 22 for the reception of a cigarette lighter, indicated at 3 in FIG. 1. The slot 22 is bordered by an upper ornamental peripheral rim 23.

The ash receiver and discharge mechanism comprises a rectangular opening 24 in the top wall 11 above the ash receiver drawer 20. Cemented or otherwise secured in close fitting relation within the rectangular opening 24 is a heat-resistant, open-bottomed ash receiver sidewall structure 25, the upper end of which, at the outside, is formed with an increased thickness, peripheral, beveled portion 26 defining a circumferential shoulder which seats against an upper marginal portion of the top wall 11. The ash receiver sidewall structure 25 is preferably fabricated of a ceramic material to withstand the high temperatures of cigarette ashes and cigarette butts to be placed therein. The upstanding beveled portion 26 of the sidewall structure 25 is preferably of substantially the same cross-sectional shape as that of the peripheral rim 23 about the cigarette lighter slot 22 for uniformity of ornamental appearance.

As illustrated in FIGS. 3 and 4, the ash receiver drawer 20 has secured between the sidewalls 27 and 28 a transverse, rectangular bridge plate 29 which, as illustrated in FIGS. 3 and 4, is of such size and of such height, and so positioned, that when said drawer is in fully closed position, as illustrated in FIG. 4 said bridge plate provides the bottom wall for the ash receiver sidewall structure 25. The bridge plate 29, by way of example may be of sheet metal bent downwardly at each end to provide opposed leg portions 30 and 31 adapted to be conveniently cemented or otherwise affixed against inside portions of respective drawer sidewalls 27 and 28.

In operation, it will be understood that cigarette ashes, butts, matches and the like will be deposited upon the bridge plate 29 within the ash receiver sidewall structure 25 until such time as emptying or removal becomes necessary, whereupon it is only required to withdraw the ash receiver drawer 20 to effect automatic removal or dumping of said ashes, etc. into that portion of said drawer directly behind the bridge plate 29. With such operation, it will be readily apparent that it is unnecessary to touch the ash receptacle and associated mechanism, thereby minimizing any possibility of soiling the hands. It is a simple matter thereafter to empty the drawer and replace it for subsequent use. It is to be noted that the upper surface of the bridge plate 29 fits snug against the peripheral lower end surface of the ash receiver sidewall structure 25 so that it will be scraped clean every time the drawer 20 is removed from and replaced within its drawer opening 18 in the desk set 10. The interior of the ash receiver drawer 20, if not made of a fireproof material, can be made fireproof such as by lining with metal foil.

While I have illustrated and described herein only one form in which my invention can conveniently be embodied in practice it is to be understood that this form is presented by way of example only and not in a limiting sense. The invention, in brief, comprises all the embodiments and modifications coming within the scope and spirit of the following claims.

I claim:

1. A smoker’s desk set with automatic ashtray discharge mechanism comprising, in combination, a desk set body having spaced, parallel top and bottom walls and a front wall, a drawer opening means in said front wall, an open-topped ash receiver drawer slidably arranged in said drawer opening means, vertically arranged ash receiving opening means in said top wall and in alignment with said ash receiver drawer when said drawer is fully received in said ash receiver drawer, a substantially rectangular bridge plate extending from side to side within a forward portion of said receiver drawer and so arranged as to be in close-fitting enclosing relation with respect to the underside of said ash receiver opening to provide a bottom surface for said ash receiver opening, said ash receiver opening means and said enclosing means being arranged near the forward end portion of said ash receiver drawer to effect scraping off of said bottom surface of said ash receiver opening into the rearward end of said ash receiver drawer when said ash receiver drawer is removed from said drawer opening means.

2. A smoker’s desk set as defined in claim 1 wherein said ash receiver opening means comprises a peripheral sidewall member extending downwardly of the underside of said body top wall.

3. A smoker’s desk set as defined in claim 2 wherein said peripheral sidewall member is of a heat-resistant material.

4. A smoker’s desk set as defined in claim 1 wherein said ash receiver opening is substantially rectangular in shape.

5. A smoker’s desk set as defined in claim 1 wherein said bridge plate comprises spaced, parallel leg portions at the ends thereof the extremities which are secured to the inside portions of the opposed sidewalls of said ash receiver drawer near the forward ends thereof.
6. A smoker's desk set as defined in claim 2 wherein said peripheral sidewall member is integrally formed with an upstanding portion providing a circumferential rim above the upper surface of the top wall of said body member.

7. A smoker's desk set as defined in claim 6 including means providing a second drawer opening in said front wall opening means, and a cigarette storage drawer slidably arranged in said second drawer opening.

8. A smoker's desk set as defined in claim 7 including means providing a slot opening in said top wall centrally located near the rear end thereof for receiving a cigarette lighter.