Nov. 23, 1943. C. HENDRICKS 2,334,925

ASH RECEIVER

Filed Aug. 22, 1940 2 Sheets-Sheet 1

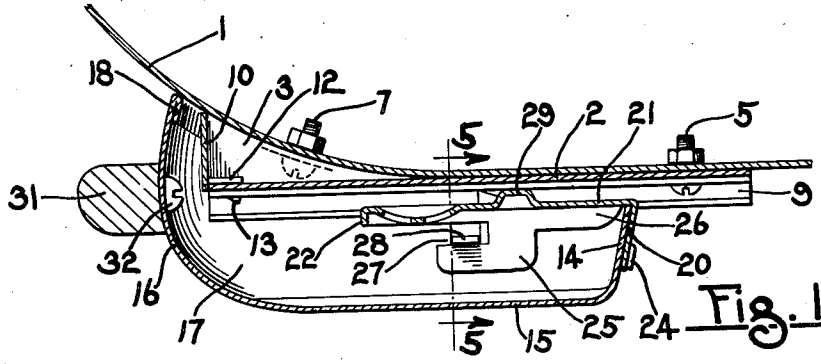


Fig. 1.

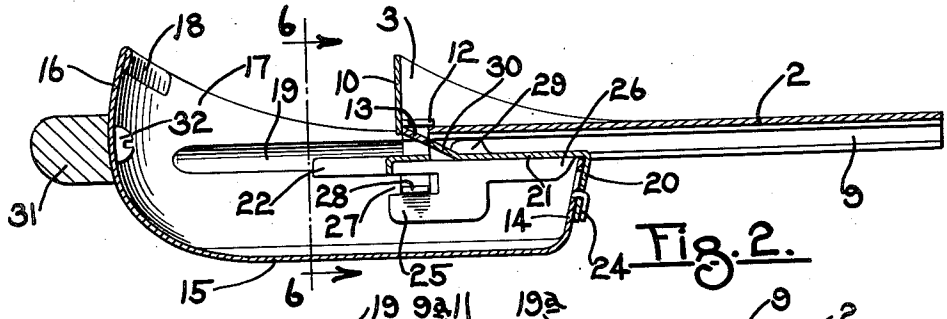


Fig. 2.

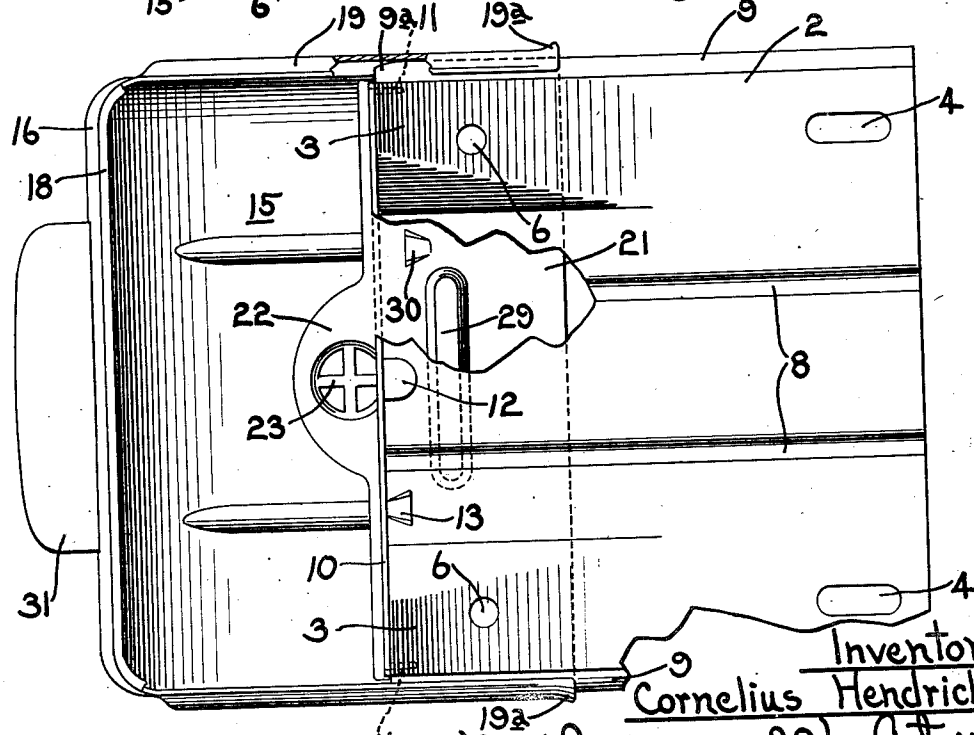


Fig. 3.

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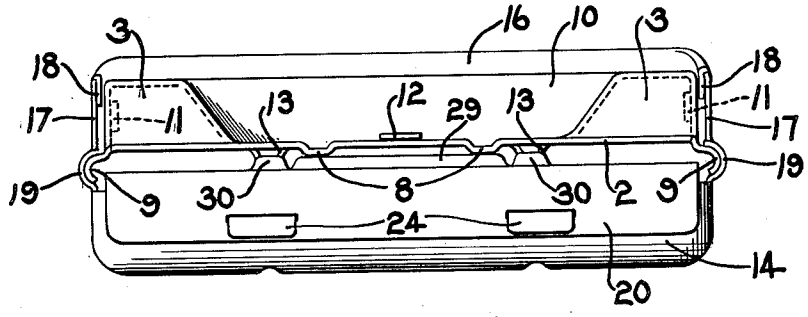


Fig. 4.

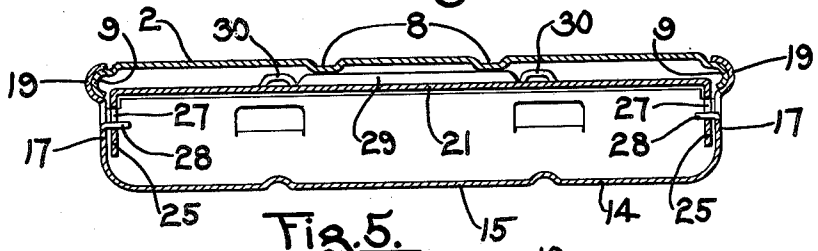


Fig. 5.

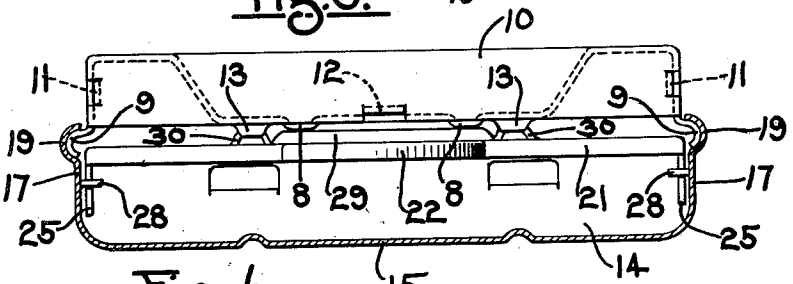


Fig. 6.

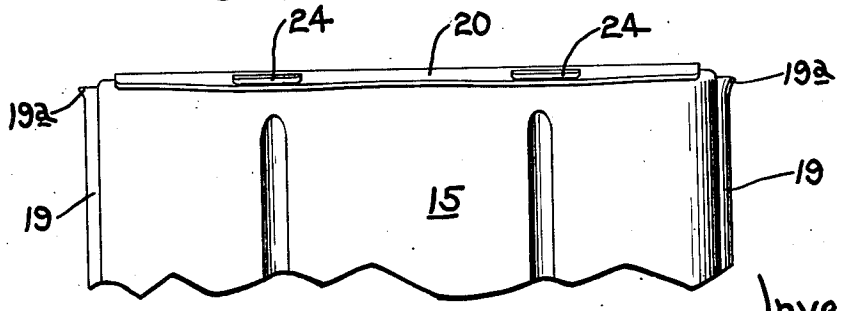


Fig. 7.

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UNITED STATES PATENT OFFICE

2,334,925

ASH RECEIVER

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Application August 22, 1940, Serial No. 353,700

3 Claims. (Cl. 206—19.5)

This invention relates to containers and more especially to ash receivers which are particularly adapted to be secured to the under side of the instrument panel of an automobile.

The type of ash receiver to which this invention is directed is commonly known as the drawer type which is differentiated from those ash receivers which have a pivotal movement within an opening in the instrument panel. While I have preferred to show all features of my invention as applied to this drawer type receiver, it is to be understood that certain of these novel features may be employed as well with the tilting or pivoted type.

The majority of automobile ash receivers at the present time are provided with a container which is itself not finished or grained and the only part thereof which is finished in this manner is usually the decorative panel which is secured to the front end thereof. This present invention, however, is directed to a type of receiver or container which has no ornamental panel at the front end thereof but rather is itself grained and finished before stamping. The container is stamped by a die from a single length of sheet metal and, for this reason, the upper portion of the front extends slightly rearwardly and the back extends upwardly from the bottom also slightly rearwardly substantially parallel to that portion of the front to facilitate withdrawal of the die.

Another feature of the invention is the construction of the cover plate in such a manner that it may be fastened securely to the under side of the instrument panel by screws which are so located that they do not normally interfere with the sliding movement of the container thereon.

Also in this type of receiver it is possible to make all the corners rounded so that there will be no possibility of catching clothing or the like thereon.

These and other important objects and purposes of the invention will appear more fully as the description proceeds.

To the accomplishment of the foregoing and related ends said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims. The annexed drawings and following description set forth in detail certain means and one mode for carrying out my invention, said means constituting, however, but one of various ways in which the principle of my invention may be employed.

In said annexed drawings wherein like reference numerals refer to like parts throughout the various views:

Fig. 1 is a vertical central section from front to rear through the device of my invention showing the container in closed position and secured in place to the under side of the instrument panel of an automobile.

Fig. 2 is a section parallel to that of Fig. 1 but taken through a stop member 13 on Fig. 3, and showing the container in open position.

Fig. 3 is a plan view of the container in open position with parts broken away to show certain details.

Fig. 4 is a rear elevational view of the structure.

Fig. 5 is a vertical section taken substantially on the plane of line 5—5 of Fig. 1.

Fig. 6 is a vertical section taken substantially on the plane of line 6—6 of Fig. 2, and

Fig. 7 is a fragmentary under plan view of the container showing more particularly the rear end thereof and the manner in which the spring means is secured thereto.

Referring now more particularly to the drawings the numeral 1 indicates a portion of the instrument panel of an automobile of the modern type which has a curved under side as shown and then extends rearwardly in substantially a horizontal plane. The cover plate which acts to cover the open upper side of the container when in closed position comprises a plate 2 the central part of which is located in a horizontal plane throughout the entire length thereof, but at each side and for a short distance inwardly therefrom the plate is curved upwardly at its front end as at 3 in substantially the same arc as that of the under side of the instrument panel so that it may lie snugly thereagainst. At the extreme rear end of the plate 2 it is provided with holes or slots 4 through which the screws 5 are adapted to pass upwardly through an alined opening in the instrument panel to secure the plate thereto. Also, each of the upturned portions of the plate at each side of the forward end thereof is provided with an opening 6 which has a screw 7 passing upwardly therethrough and through the curved portion of the instrument panel whereby it may be secured thereto, all of which is clearly shown in Fig. 1 of the drawings.

The plate is also provided with a plurality of downwardly extending ribs 8 extending from the front to the rear thereof to not only aid in strengthening the plate but to serve another purpose which will be more fully described hereinafter. Also, at each side of the plate it is

curved outwardly, downwardly and then inwardly from the top thereof to provide the guide tracks 9.

At the front of the cover plate a substantially vertical member 10 is located which abuts up against and covers the upturned sides of said plate and extends from one side to the other thereof. Each end of the member 10 is provided with inwardly extending ears 11 which bear against and are welded to the inner side of that portion of the plate extending downwardly at the outer sides of the upturned portions 3. At substantially the center of the plate 10 there is provided an inturned tongue 12 which is also secured such as by welding or other desired means to the front of the plate at its upper side to thereby rigidly hold the member 10 securely in place.

The stop members 13 are located at the front of the cover plate adjacent each upturned portion 3 which cooperate with other stop means on the container, as will be seen later, to limit the outward movement thereof. By providing two of these stops 13 the container will automatically square itself when it is pulled out to usable position.

The container itself, as previously mentioned, is stamped from a single length of sheet metal to the form shown in Figs. 1 and 2 and which includes the back 14, the bottom 15, the front 16, which is curved upwardly and slightly rearwardly, and the vertical sides 17. The upper edge of the front is return bent downwardly upon itself as at 18 to provide a rounded corner at the top thereof. It should also be noted here that each of the sides 17, after extending forwardly at their top edges in a substantially horizontal plane for a short distance, continue upwardly and forwardly in the form of an arc which has substantially the same radius as that portion of the under side of the instrument panel against which it abuts when in closed position. It is also to be noted that the back of the container 14 extends upwardly and slightly rearwardly from the vertical so that it is substantially parallel with the upper portion of the front and, as pointed out hereinbefore, when the front and back are thus made parallel it permits the removal of the die which has formed the complete container.

Each of the sides 17 is provided with substantially channel shaped guide tracks 19 which extend from the rear substantially to the front of the container and which are adapted to receive the guides 9 on the cover plate to thereby mount the container for sliding movement thereon.

Secured to one end of the container, and preferably to the rear end as shown, is a member of spring metal which has a rear downwardly extending portion 20 and a forwardly extending portion 21 which extends the full width of the container and part way toward the front thereof. The front edge of the spring 21 is curved outwardly in the form of an arc as at 22, where, if desired, there may be located a snuffer 23 to facilitate the putting out of cigars, cigarettes and the like. The rear 14 of the container, at spaced apart points, is provided with rearwardly and downwardly extending ears 24. There are corresponding slots in the rear 20 of the spring 21 to receive these ears which are thereafter bent downwardly as shown in Figs. 1 and 2 to thereby clinch tightly the spring against the rear of the container. As a matter of fact, as will be clearly seen by viewing Fig. 7, the normal position for the bottom edge of the back 20 is to be spaced slightly from the back 14 of the container, but when the ears 24 are bent against the spring to clinch it in place, there is sufficient force applied thereto to bend the back of the spring at these particular points against the back of the container. It will be noted in Fig. 7 that the central portion and each end of the back 20 are not in the same plane as those portions which are clinched by the ears 24. The result of this construction is to impart to the horizontal portion 21 of the spring a tension or tendency to move upward out of the horizontal position. The reasons for this construction will be presently described.

Each side of the spring 21 is extended downwardly to form the plates 25 which are of the configuration shown in Figs. 1 and 2 and which are narrower at their rear ends as at 26 and are then widened out considerably and are provided at their forward edges with an opening or inwardly extending slot 27. Also at the points where these openings or slots 27 appear, in the sides of the container there are struck inwardly the ears 28 against which the lower edge of the opening 27 abuts by reason of the upward tension thereon caused by the clinching action of the ears 24. From this construction it will be seen that the spring 21 due to the limiting action of the ears 28 is normally in a horizontal position but may be pressed downwardly a limited distance, depending upon the width of the slot 27, by applying pressure to the forward end thereof for as soon as such pressure is released the spring will again return to its horizontal position.

Extending across the spring 21 is an elongated upwardly extending rib 29 which is sufficiently long so as to engage the under sides of the ribs 8 in the cover plate so that when the container is mounted for sliding movement on the cover plate, the rib 29 will bear upwardly against the ribs 8 thereby forcing the container downwardly within the guides in the sides thereof so that a snug fit will result and prevent rattling.

Also at each side of the center of the spring 21 are located the stop members 30 which cooperate with the stop members 13 on the cover plate to limit the outward movement of the container. As specifically shown in the drawings and particularly in Fig. 2, the stop members 13 on the cover plate extend downwardly and rearwardly while the stop members 30 on the spring 21 extend upwardly and forwardly so that they will contact each other as indicated in Fig. 2 when the container has been moved outwardly a predetermined distance. When it is desired to remove the container completely for purposes of emptying the contents thereof, as becomes necessary quite often, it is necessary merely to exert a downward pressure on the forward end of the spring 21 so that the two stop members 13 and 30 will clear each other after which time the container may be completely removed.

It should be also noted that to facilitate the insertion of the container in the guideways of the cover plate, the guides on the container have been flared outwardly as at 19a and the forward ends of the guides 9 on the cover plate are turned inwardly slightly as at 9a. This construction will greatly facilitate replacing the container after it has once been removed.

Since, as it has been mentioned before, the container itself is grained and finished before stamping, it is a still further advantage from the manu-

facturing standpoint to have the rear 20 of the spring 21 secured to the rear of the container by clinching with the ears 24 since if it were to be welded thereto it would be necessary to scrape the paint off of the container at the point of welding. Therefore, this means of fastening saves an additional operation in the manufacture. Since the spring itself is preferably formed of an untempered steel, the stop means which have been provided to limit the up and down movement thereof becomes necessary to maintain the tension therein.

It should also be explained that the cover plate itself is made to extend rearwardly of the container a sufficient distance so that the screws 5 inserted therein will not be within the confines of the container when it is in closed position. Also, since the forward end of the cover plate extends upwardly the screws placed therein for securing to the instrument panel will not hamper the sliding movement of the container. This construction at both the front and back ends makes it unnecessary to construct the container in a special way to avoid striking these securing members in its sliding movement.

At the forward portion 16 of the container there may be provided the handle 31 which is secured thereto by means such as the screws 32.

When it is desired to open the container for use it is merely necessary to grasp the handle 31 and pull outwardly thereon which will then slide the container forwardly until the stop 30 thereon strikes the downwardly extending stops 13 of the cover plate; there being one of these stops at each side of the structure the container will automatically square itself when it has reached open position. Then when it is desired to empty the contents of the container there is required merely a slight downward pressure at the forward end of the spring 21 which will lower the stop members 30 and enable them to clear the stop members 13 so that the container may continue outwardly until the guide tracks on the container and the cover plate are clear from each other. Then returning the container to its position within the guide means has also been facilitated by the flaring outwardly of the rear ends of the guides 18.

Other modes of applying the principle of my invention may be employed instead of the one here shown, change being made as regards the structure herein disclosed provided, however, that the means stated by any of the following claims or the equivalent of such stated means be employed.

I claim:

1. An ash receiver comprising a container, a cover therefor, interengaging tracks on said cover and container providing a sliding connection between the members, a stop member extending downwardly from said cover near the front thereof, a spring member mounted on the container and extending substantially across the entire width thereof, a stop member on said spring member engageable with said stop member on the cover, flanges turned downwardly at the opposite sides of said spring member adjacent the respective sides of the container, each flange having an opening therein and ears struck inwardly from the sides of the container and extending into the openings of the flanges to limit the movement of said spring member.

2. The combination of elements defined in claim 1 in which said openings in said flanges extend through the forward edges of said flanges.

3. The combination of elements defined in claim 1 combined with means for attaching said spring member to the rear side of said container comprising clips struck rearwardly from said rear side of the container, openings in said spring member to receive said clips, said clips being clinched downwardly against said spring member and said openings in said flanges extend through the forward edges of said flanges.

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