July 30, 1957 M. A. SCHLATTERER 2,800,909

COMBINATION CIGARETTE SUPPORT, EXTINGUISHER AND EXPELLER

Filed Nov. 28, 1955 2 Sheets-Sheet 1

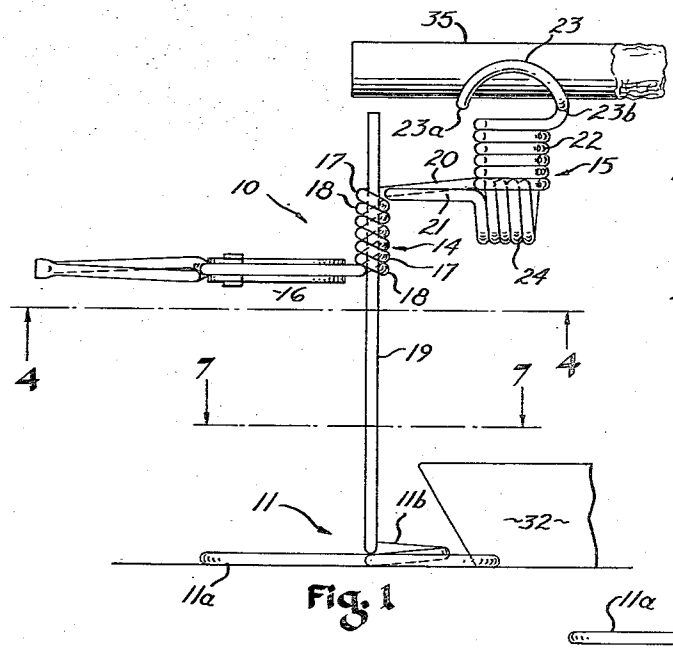

Fig. 1

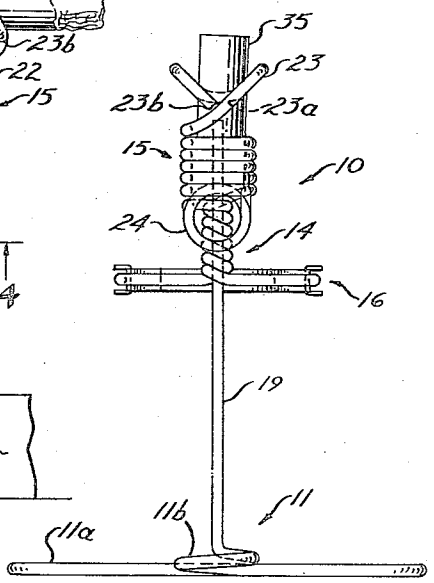

Fig. 2

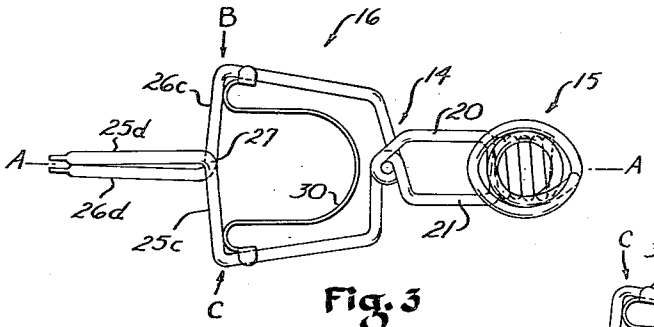

Fig. 3

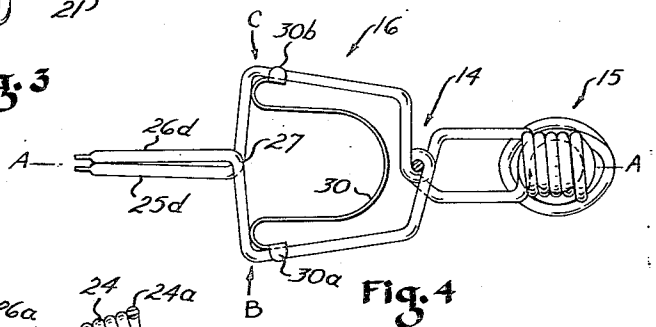

Fig. 4

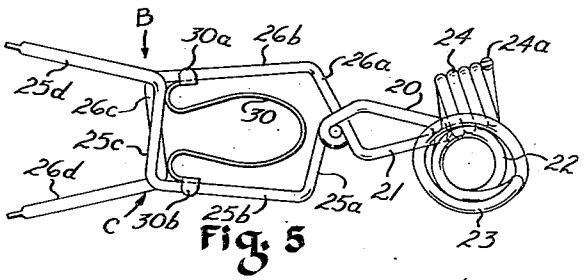

Fig. 5

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COMBINATION CIGARETTE SUPPORT, EXTINGUISHER AND EXPELLER

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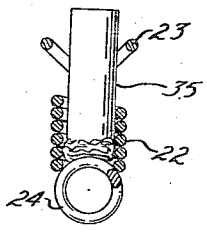

Fig. 6

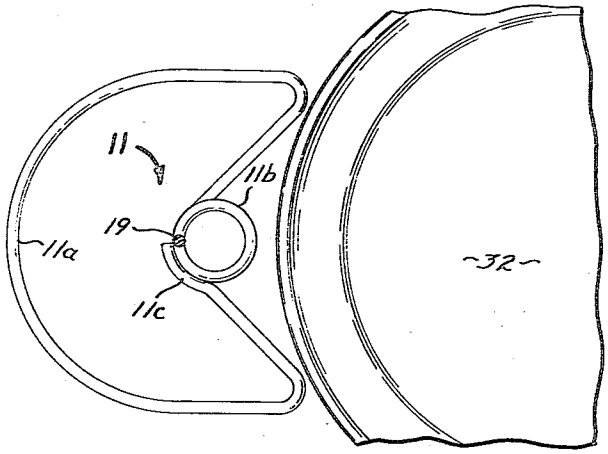

Fig. 7

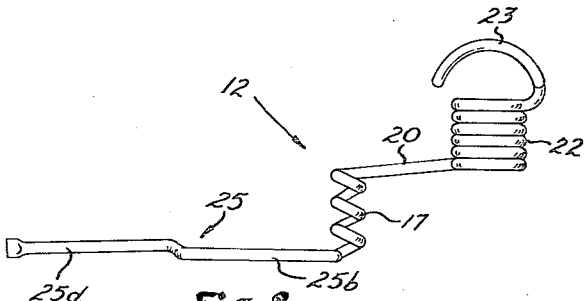

Fig. 8

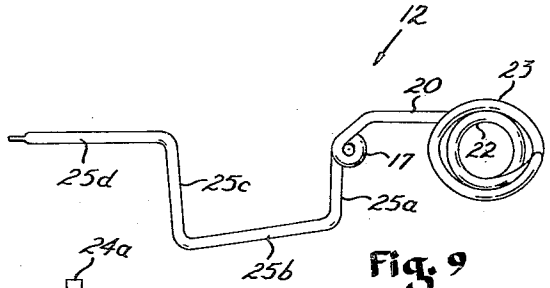

Fig. 9

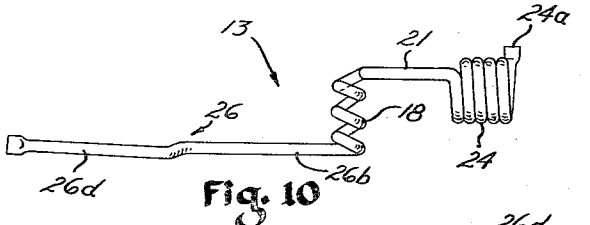

Fig. 10

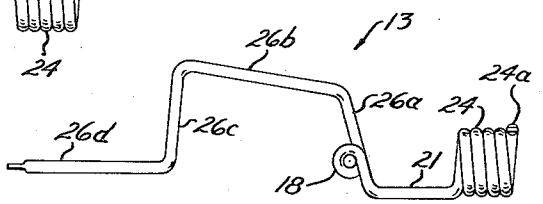

Fig. 11

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United States Patent Office 2,800,909 Patented July 30, 1957

2,800,909

COMBINATION CIGARETTE SUPPORT, EXTINGUISHER, AND EXPELLER

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Application November 28, 1955, Serial No. 549,303

7 Claims. (Cl. 131—235)

This invention relates to an accessory for ash trays and more particularly to a combination cigarette support, extinguisher and expeller device adapted to be used in combination with a smoker's ash tray.

An object of the present invention is to provide a novel cigarette extinguishing device which is constructed of two wire members formed in part into suitable cooperating coil means for receiving and extinguishing a cigarette, and handle means for effecting separation of said coil means to permit discharge of the cigarette therefrom.

Another object of the present invention is to provide a novel cigarette extinguisher which quickly and readily extinguishes the glowing embers of a cigarette by the process of rapid heat conduction and thereby eliminates objectionable smoldering normally accompanying a partially snuffed cigarette.

A further object of the present invention is to provide a cigarette extinguisher having means to support or rest a burning cigarette over an ash tray in a manner which makes it easy for the smoker to reach.

A further object of the present invention is to provide a stand for the cigarette extinguishing device which is formed from one piece of wire bent into a desired configuration and permitting the extinguisher to be positioned proximate to any existing ash tray and thereby facilitate depositing the cigarette within said tray.

Further objects of the present invention and certain practical advantages will be referred to in or will be evident from the following description of one embodiment of the invention, as illustrated in the accompanying drawings, in which:

Fig. 1 is a side elevational view of my novel cigarette support and extinguisher shown mounted on a suitable base and located in operative position adjacent an ash tray.

Fig. 2 is a front elevational view of the cigarette support and extinguisher.

Fig. 3 is a top plan view of the device having its supporting base removed.

Fig. 4 is a bottom plan view of the device taken along the plane of line 4—4 of Fig. 1.

Fig. 5 is a top view of the cigarette extinguisher showing the device in a position wherein the bottom coil member has been pivoted with respect to the upper coil member, to a cigarette discharging position.

Fig. 6 is a fragmental, vertical cross sectional detail view showing a cigarette positioned with its burning tip within the device during the extinguishing process.

Fig. 7 is a fragmental view of the base support member positioned adjacent an existing ash tray taken along the plane of line 7—7 of Fig. 1.

Fig. 8 is a detailed side elevational view of one of the two wire members composing the cigarette extinguishing device of Fig. 1.

Fig. 9 is a top plan view of the wire member shown in Fig. 8.

Fig. 10 is an enlarged side elevational view of the other wire member composing the device of Fig. 1.

Fig. 11 is a top plan view of the wire member shown in Fig. 10.

Before describing in detail the herein disclosed embodiments of the invention, it is to be understood that the present invention is not limited to the structural details or the particular arrangement of parts herein shown, as devices embodying the present invention may take other forms. It also is to be understood that the phraseology and terminology herein used are for purposes of description and not of limitation, as the scope of the present invention is denoted by the appended claims.

Referring now to the drawings wherein like reference characters refer to corresponding parts in the various views, my novel cigarette support and extinguisher consists of a main body portion **10** which is pivotally mounted on a supporting base member **11**. The main body portion **10** is constructed of a pair of wire members **12**, as seen in Figs. 8 and 9, and **13** as seen in Figs. 10 and 11. The wire members are each formed and then united about a central pivot to create the present device, consisting of a central body or coil portion **14**, head portion **15** and tail portion **16**, as seen in Figs. 3 and 4. As seen in Figs. 8 and 10, each of the wire members is provided with a vertically disposed coil having somewhat open or spaced windings **17** and **18** respectively. Both of the coils **17** and **18** are constructed so that they may be entwined or screwed together, into an interlocking relationship, as shown in Figs. 1 and 2, about a central upstanding pivot pin **19** which is a part of the base **11**. Each of the coils **17** and **18** has an arm **20** and **21** respectively extending forwardly from the upper end of said coils. The wire member shown in Fig. 8 is provided with a vertically disposed cylindrical coil **22** having a central opening extending therethrough, of a diameter which will loosely and easily receive the lighted end of a cigarette. As seen in Figs. 8 and 9 the vertically disposed tubular coil **22** is a continuation of the arm **20** and forms at its upper end a cigarette supporting portion provided by an elongated dished loop **23**. This loop **23** has two half-oval portions converging downwardly toward a connected meeting point **23*a*** and a disconnected meeting point **23*b*** (Figs. 1 and 2).

The wire member **13**, as seen in Fig. 10 is provided with a horizontally disposed tubular coil end portion **24** which is adapted to closely underlie and form a bottom for the vertically disposed coil portion **22** of wire member **12**. The axis of coil **24** normally intersects the axis of coil **22** and is perpendicular thereto. The tail portion **16** of the device lies to the left of the central body portion **14** as seen in Figs. 1, 3, 4 and 5 and is formed by the leg members **25** and **26** of the wire members **12** and **13** respectively, as shown in Figs. 8, 9, 10 and 11. As seen in Figs. 3 and 4, the leg members **25**, **26** are symmetrically formed about a central line A—A of the device. Each of the leg members **25** and **26** provides half of the tail section. From the lower end of each coil **17** and **18**, the leg members have portions **25*a*** and **26*a*** which extend laterally to the side in directions substantially opposite to each other; portions **25*b*** and **26*b*** which extend rearwardly along lines substantially parallel to the central axis A—A; and portions **25*c*** and **26*c*** which extend inwardly toward each other to a point **27** wherein they closely overlap each other substantially along the central axis A—A of the device, as seen in Figs. 3, 4, 9 and 11. Each leg member has a handle portion **25*d*** and **26*d*** respectively which extends rearwardly substantially along the central axis A—A and each terminates a short distance beyond the point **27**.

In order to assemble the present device, wire member **13**, as seen in Fig. 10, is first inserted upon the upstanding support pin **19**. The support pin **19** frictionally engages the inner surface of the central coil **18** in such a manner

as to support the weight of the member but still permit it to be rotated. Thereafter, the wire member **12**, as seen in Fig. 8, is inserted upon the support pin **19** and the two members rotated in the proper direction so that the coil sections **17** and **18** become entwined with each other as seen in Figs. 1 and 2. When in an assembled position, the horizontally disposed tubular coil **24** underlies and forms a closure for the bottom of the vertical disposed tubular coil **22**. As seen in Figs. 1 and 2, the upper curved surface of the horizontally disposed tubular coil member **24** slightly penetrates into the hollow bottom of the vertically tubular coil **22**.

The tail section **16** is provided with legs **25** and **26** in order to form finger engaging parts which are used to effect a separation between the tubular coil members **22** and **24** respectively. By grasping the portions **25***b* and **26***b* between the thumb and forefinger and applying a squeezing pressure at the points B and C as seen in Figs. 3 and 4 the two wire members will be caused to assume the position shown in Fig. 5 wherein the lower horizontally disposed tubular coil **24** is pivoted with respect to the vertically disposed tubular coil **22**, to open the bottom of the tubular coil member **22**. There is sufficient play and screw action between the coils **17** and **18** in addition to spring action in handle portions **25** and **26** due to their overlapping disposition, to permit the horizontal tubular coil **24** to be pivoted from beneath the vertically disposed tubular coil **22**. As seen in Fig. 5, the squeezing action is limited by portion **25***d* which is engaged by the forefinger at point B and portion **26***d* which is engaged by the thumb at point C. Upon release of the tail section **16** a leaf spring **30** returns the device to its closed or normal operating position, as seen in Figs. 1, 2 and 3. The spring **30** has ends releasably secured to each of the leg portions **25***b* and **26***b* by means of suitable pairs of tabs **30***a* and **30***b* which embrace **26***b* and **25***b* respectively and are held there by spring pressure. In the absence of spring **30** the operator may grasp the spaced portions **25***d* and **26***d* and by squeezing them toward one another from the position of Fig. 5, cause the lower horizontally disposed coil section **24** to once again take a position in which it underlies the vertically disposed tubular coil **22**. The length of the portions **25***c* and **26***c* of each leg **25** and **26** determines the amount of separation available between the two coil sections **22** and **24**. The entwined coil sections **17** and **18** are so constructed as to permit lateral pivoting of the two wire members about the support pin **19** without binding or other adverse effects.

As seen in Figs. 1, 2 and 7, the support pin **19** is a part of the one-piece base support member **11** which is also constructed of wire such as copper, aluminum or any other suitable material. The support base member **11** includes a horizontally disposed V-shaped bottom portion **11***a* having an open side so as to provide a space by which the support pin **19** and extinguishing device **10** may be positioned adjacent to the peripheral edge of an ash tray **32** such as seen in Figs. 1 and 7. One end of the V-shaped wire is bent back upon itself, then into a single loop **11***b* for the purpose of providing additional support at the base of the upstanding pin **19** which extends upwardly from loop **11***b*. The other end of the V-shaped wire is bent back upon itself toward the center of the base **11** to end at **11***c* against loop **11***b* as seen in Fig. 7. With the provision of the one-piece wire base member **11** it will be seen that the entire device is made up of wire having substantially the same diameter and preferably the same color characteristics.

In use, the lighted end of a cigarette **35** is inserted into the opening provided in the vertically disposed tubular coil **22** so that its burning end contacts the upper surface of the horizontally disposed tubular coil **24**. When the lighted tip of a cigarette is inserted into coil **22** so that it contacts the surface of the tubular coil **24** as seen in Figs. 2 and 6, the heat of the cigarette is so rapidly dissipated and absorbed by the tubular coils **22** and **24**, due to the high conductivity of the wire, that the cigarette is extinguished almost immediately. The extinguishing process is further aided by the fact that little air can reach the burning tip of the cigarette when it is positioned as shown in Fig. 6.

I have found in actual tests that a handkerchief may be placed across the upper surface of the lower coil **24** and the lighted end of a cigarette inserted thereupon, as seen in Fig. 6, without in any way damaging the handkerchief; due to the extreme rapidity with which the coils conduct heat away from the lighted end of the cigarette.

After the cigarette has been extinguished, the operator may grasp the leg portions **25***b* and **26***b* between the thumb and forefinger, in the manner heretofore described with reference to Fig. 3, and by exerting pressure thereupon cause the lower tubular coil **24** to pivot away from beneath the vertical tubular coil **22**. Thus, the bottom of the vertically disposed tubular coil **22** is open as shown in Fig. 5 and the cigarette, which has a diameter slightly less than the inner diameter of the coil **22**, drops freely through the coil into an awaiting ash tray **32**.

It will be noted that the curved upper surface of the lower tubular coil **24** has a self-cleaning effect since it scrapes the bottom edges of the coil **22** as it swings past said coil. Also, the fact that the upper surface of the lower coil projects upwardly into the bottom of the upper coil **22** provides for a camming or self-locking action wherein the lower coil more or less automatically snaps into proper position below the upper coil **22**. The outer end of lower coil **24** is provided with an upstanding tab **24***a* which acts as a stop to prevent the coils from going beyond the proper closed position.

As previously mentioned, the upper end of the vertical tubular coil **22** is provided with an open loop **23** having an inside diameter somewhat greater than the inside diameter of the coil **22** and of such form as to readily support a cigarette in a horizontal position above the ash tray **32** as seen in Fig. 1. The entire main body portion of the cigarette extinguisher may be pivoted about the support pin **19** so as to position the cigarette **35**, as seen in Fig. 1, at an angle which is most comfortable for the smoker. When inserting the cigarette into the vertically disposed tubular coil **22** for extinguishing, the loop portion **23** acts as a guide in directing the cigarette to a position as shown in Figs. 2 and 6 and further as a guard to retain the cigarette in an extinguishing position as shown in Figs. 2 and 6.

For the purpose of cleaning and the like, the extinguisher may be placed in an open position such as seen in Fig. 5 wherein the two coil members may be quickly and readily cleaned through the use of a small brush or other cleaning implement.

In view of the foregoing description, taken in conjunction with the accompanying drawings, it is believed that a clear understanding of the construction, operation, and advantages of the device will be quite apparent to those skilled in this art.

Having thus described my invention and illustrated its use, what I claim is new and desire to secure by Letters Patent is:

1. A device of the class described to be used in conjunction with an ash receptacle comprising a plurality of wire parts pivoted together, a first of said wire parts forming a vertically disposed tubular member, a second of said wire parts forming a movable bottom closure for said tubular member adapted to be withdrawn to open the bottom of said tubular member, and said wire parts further forming means for effecting relative closing and separating movement of said first and second wire parts.

2. A device of the class described to be used in conjunction with an ash receptacle comprising two parts pivoted together intermediate their ends, said parts forming upper and lower portions extending toward the receptacle, a hollow vertically disposed tubular member form-

ing the upper portion, said lower portion forming a movably mounted bottom closure for said tubular member adapted to be pivoted sidewardly to open the bottom of said tubular member, said parts further forming a pair of handles extending in the opposite directions to said upper and lower portions, and said handle enabling relative closing and separating movement of said upper and lower portions.

3. A device of the class described to be used in conjunction with an ash receptacle comprising two wire parts pivoted together intermediate their ends, said parts forming upper and lower portions extending toward the receptacle, said upper portion comprising an open-ended cylinder, said lower portion comprising a bottom closure for said open-ended cylinder and adapted to be pivoted to open the bottom of said cylinder, said wire parts further forming means extending in the opposite direction of said upper and lower portions, and effecting said means relative closing and separating movement of said upper and lower portions.

4. A plurality of wire members cooperating to form a cigarette receptacle and extinguisher, said receptacle and extinguisher comprising two wire members forming a central body portion and a head portion and a tail portion, said central body portion including intermediate pivot means, each wire member having an arm extending forwardly from said intermediate pivot means, the head portion of each wire member taking the form of a tubular coil provided at the forward end of each arm, one of said tubular coils being disposed in a vertical plane and the other of said tubular coils being disposed in a horizontal plane and providing a bottom closure for said vertically disposed tubular coil, said tail portion including leg members extending rearwardly from said intermediate pivot means, said leg members providing finger engaging pieces for effecting separation between said tubular coil members whereby the bottom of said vertically disposed coil may be opened to discharge the contents thereof and a stop member to limit the closing movement of said tubular coils.

5. A pair of wire members cooperating to form a cigarette receptacle and extinguisher, said receptacle and extinguisher comprising two wire members forming a central body portion and a head portion and a tail portion, said central body portion including a vertically disposed intermediate coil formed in each of said wires, said coils having spaced windings, the intermediate coils of the wire members being entwined with each other about a central pivot pin, the head portion of each wire member comprising a tubular coil provided at one end of each intermediate coil, one of said tubular coils providing a bottom closure for the other tubular coil, said tail portion comprising a leg member extending outwardly from the other end of each said intermediate coil, and said leg members providing finger engaging pieces for effecting separation between said tubular coil members whereby the bottom of said vertically disposed coil may be pivoted to open to discharge the contents thereof.

6. A pair of wire members cooperating to form a cigarette receptacle, each of said wire members comprising a central body portion, a head portion and a tail portion, each of said central body portions including a vertically disposed intermediate coil formed of said wire and having spaced windings, the coils of each wire member being entwined with each other about a central pivot pin, each wire member having an arm extending forwardly from the upper end of its intermediate coil, the head portion of each wire member having the form of a tubular coil provided at the outer end of each arm, one of said tubular coils being disposed in a vertical plane the other being disposed in a horizontal plane and providing a bottom closure for said vertically disposed tubular coil, said tail portion including a leg member extending rearwardly from the lower end of each intermediate coil, said leg members having a bent portion extending in opposite directions with respect to each other at the zone of said intermediate coil, each said leg then having a portion extending in a generally rearward direction, said legs then following a course toward each other to a point where they overlap, the ends of each leg member extending rearwardly and terminating a short distance beyond said point of overlapping, said tail portion providing finger engaging pieces for effecting separation between said tubular coil members whereby the bottom of said vertically disposed coil may be pivoted to open the bottom thereof to discharge the contents thereof, a stop member to limit the closing movement of said tubular coils, and a spring for returning said closure to a normally closed position.

7. A pair of wire members cooperating to form a cigarette receptacle and extinguisher, said receptacle and extinguisher comprising a central body portion, a head portion and a tail portion, said central body portion including a vertically disposed intermediate coil formed on each of said wires, said intermediate coils having spaced windings, said intermediate coils being pivotally entwined with each other, each wire member having an arm extending forwardly from its intermediate coil, the head portion of each wire member having the form of a tubular coil provided at the forward end of each arm, one of said tubular coils being disposed in a vertical plane, the other being disposed in a horizontal plane and providing a bottom closure for said vertically disposed tubular coil, said tail portion including leg members extending rearwardly from each intermediate coil, said leg members providing finger engaging pieces for effecting separation between said tubular coil members whereby the bottom of said vertically disposed coil may be pivoted to open the bottom thereof to discharge the contents thereof.

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