

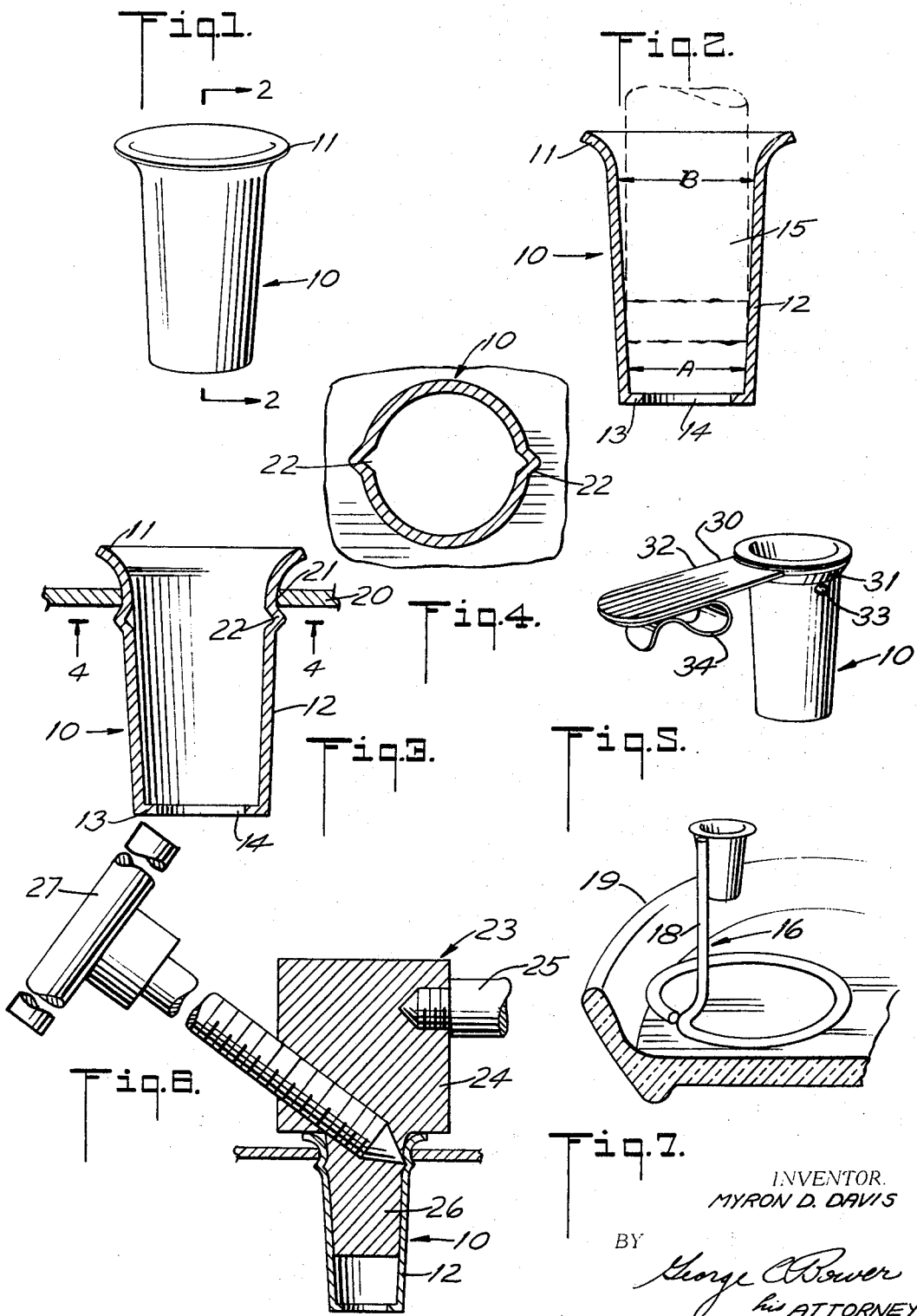
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CIGARETTE EXTINGUISHER

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CIGARETTE EXTINGUISHER
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ABSTRACT OF THE DISCLOSURE

This invention relates to cigarette extinguishers having an extended tubular portion large enough to receive the lighted end of a cigarette. The cigarette engages the tubular portion and is extinguished by the cooling action of the tubular portion. A particular feature of the cigarette extinguisher is an inward flange at the lower end for preventing the cigarette from passing through the tubular portion and not being extinguished. Another feature is the upper end being flared and having dimples for securing the tubular portion to a supporting plate.

Summary of the invention

Various types of cigarette extinguishing devices have been developed. It is desirable to provide cigarette extinguishing devices that are simple and easy to manufacture and are readily mounted in or on ash trays, particularly ash trays used in automobiles or aircraft.

In addition to the extinguisher being inexpensively manufactured, it is desirable to mount the extinguishers in automobile ash trays in a quick and simple manner to make the extinguisher available. An attachment means may be provided on the extinguisher for mounting the extinguisher on an ash tray or other convenient location.

An object of the invention is to provide a cigarette extinguishing device that is readily manufactured from metal tubing.

Another object of the invention is to provide a tubular type cigarette extinguishing device that limits the insertion of the cigarettes so that it cannot be forced out of the tube and continue to burn.

Another object of the invention is to provide a simple means for securing a cigarette extinguisher to a metal ash tray.

Other and further objects will be apparent from the following description taken in connection with the drawings.

Brief description of drawings

FIG. 1 is a perspective side view of the cigarette extinguishing device.

FIG. 2 is a sectional view taken along line 2—2 of FIG. 1.

FIG. 3 is a sectional view of a mounted cigarette extinguishing device.

FIG. 4 is a sectional view of a mounted cigarette extinguishing device taken along lines 4—4 of FIG. 3.

FIG. 5 is a perspective view of a cigarette extinguishing device with a spring clip for fastening onto an ash tray or the like.

FIG. 6 is a cross-sectional view illustrating a tool for fastening the cigarette extinguishing device to a supporting plate, as illustrated in FIG. 3.

FIG. 7 is a perspective view of a stand supporting a cigarette extinguishing device in an ash tray.

Detailed description

Referring to FIGS. 1 and 2 the cigarette extinguishing device 10 is formed from copper tubing by cutting the tubing into given lengths and swaging the upper end to form a conically flared flange 11. The flange is curved to merge with the generally annular wall 12. The wall

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12 tapers slightly towards the lower end. At the lower end the flange 13 extends inwardly normal to the wall 12 and forms an opening 14 slightly smaller than the inner diameter A of the wall 12. The upper end of the wall 12 has a slightly greater diameter than the diameter of an inserted cigarette as indicated by the dash lines in FIG. 2. The diameter A adjacent to the flange 13 is about or slightly less than the diameter B so that the end of the cigarette is forced or pressed against the wall 12. The flange 13 prevents the cigarette from being pushed through the device.

The cigarette is forced or pressed against the wall when it reaches the position shown in FIG. 2. This brings the cigarette into good contact with the wall 12 and the heat is conducted away from the lighted end and the cigarette is extinguished. The opening 14 permits the discharge of ashes and debris so that the chamber formed by the wall 12 is kept clear. The cigarette extinguisher may be made of any suitable heat conductive material and is preferably made of copper tubing.

The cigarette extinguisher 10 may be mounted on a bracket 16 formed from metal wire, such as steel, copper, brass or aluminum, and having an upwardly extending stem 18. The cigarette extinguisher 10 may be soldered or welded or otherwise attached to the stem 18. The cigarette extinguisher with the bracket may be placed in an ash tray 19.

The cigarette extinguisher may be mounted in a sheet metal support 20 by punching an opening 21 slightly smaller than the flare of the flange 11. The cigarette extinguisher then may be dropped through the opening so that the flange 11 engages the support 20. For securely holding the cigarette extinguisher in the support 20 dimples 22 are formed in the walls to extend outwardly underneath the support 20 for holding the extinguisher. The dimples 22 will be formed as illustrated in FIG. 6 by a tool 23. The tool 23 has a hexagonal head 24 with a handle 25 holding the tool and a projection 26 fitting into the flared end of the cigarette extinguisher. A threaded bore at an angle to the projection extends through the hexagonal head and projection for receiving a threaded punch mounted in the threaded bore having a conical tip. A handle 27 rotates the punch to press against the wall 12 and force it outwardly to form dimples 22 engaging against the support 20 as to preclude rattling when the device is mounted in a moving vehicle, as illustrated in FIG. 3.

If the cigarette extinguisher cannot be directly mounted in a support or bracket of an ash tray, it may be provided with a clip 30 having a conical portion 31 and a handle 32. The cigarette extinguisher 10 fits into the conical portion 31 and dimples 33 may be formed in a similar manner to the dimples 22 to fasten the clip and cigarette extinguisher together. The handle 32 as a generally U-shaped spring clip 34 welded or soldered to the handle 32 for mounting the cigarette extinguisher on an ash tray.

Various modifications and changes may be made in the foregoing embodiments without departing from the invention as set forth in the appended claims.

I claim:

1. A cigarette extinguisher comprising a tubular member having a chamber and an inwardly extending flange at one end and an outwardly extending flange at the other end for passing a lit end of a cigarette into said chamber to press against said tubular member in an extinguishing relation with said inwardly extending flange blocking the passage of an end of a cigarette through said tubular member and a support provided with an opening, said tubular member being adapted to fit into said opening and having dimples formed to engage said support and spaced from said outwardly extending flange

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for fastening said tubular member to said support between said dimples and outwardly extending flange.

2. A cigarette extinguisher as set forth in claim 1 wherein said tubular member tapers inwardly towards said end with said inwardly extending flange.

3. A cigarette extinguisher as set forth in claim 1 wherein said tubular member is generally cylindrical in shape and tapered inwardly towards said end with said inwardly extending flange for engagement by a lighted cigarette adjacent to said end.

4. A cigarette extinguisher as set forth in claim 1 wherein said support has a resilient clip means fastening said support in place.

5. A cigarette extinguisher as set forth in claim 1 wherein said flange is conically flared and said support has a conical shaped portion around said opening for interfitting with said flange.

6. A cigarette extinguisher as set forth in claim 1 wherein a bracket is provided having a base and an upwardly extending member longitudinally fastened to said tubular member for supporting the cigarette extinguisher in an upright position.

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