Oct. 13, 1925. 1,557,033

H. G. DAVIS

AIR HOSE PROTECTOR

Filed Feb. 11, 1924

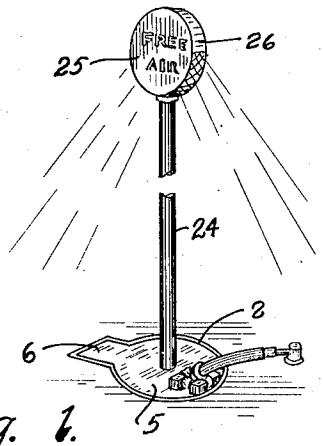


Fig. 1.

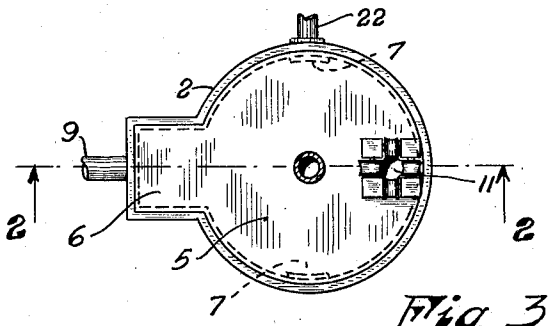


Fig. 3.

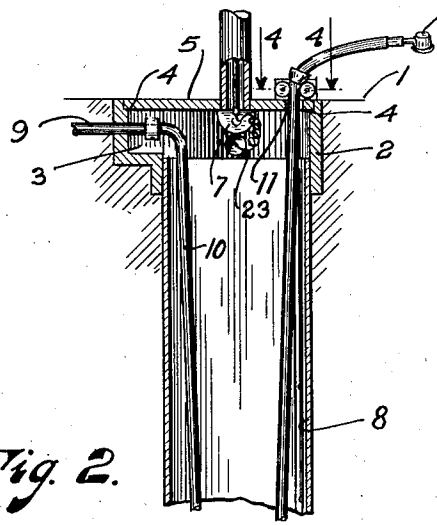


Fig. 2.

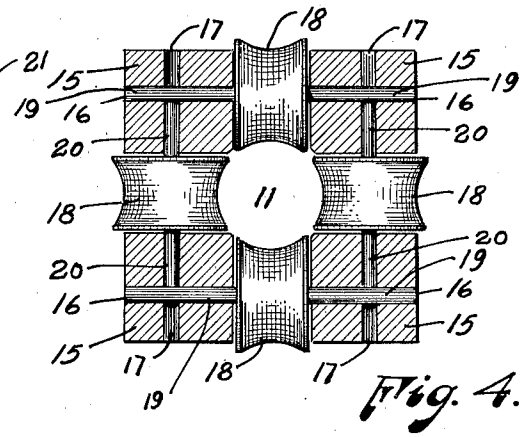
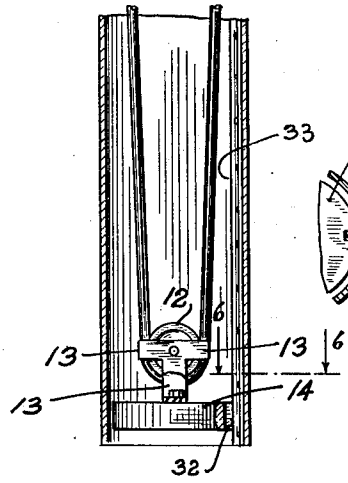


Fig. 4.



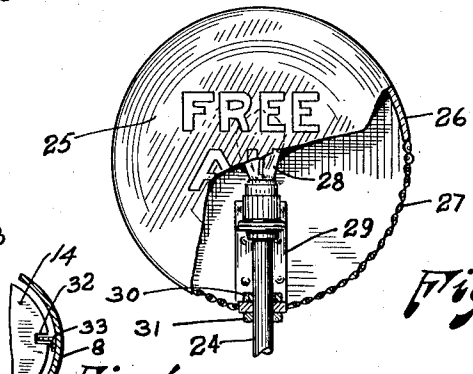


Fig. 5.

Fig. 6.

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UNITED STATES PATENT OFFICE.

HAROLD G. DAVIS, OF DENVER, COLORADO.

AIR-HOSE PROTECTOR.

Application filed February 11, 1924. Serial No. 692,060.

To all whom it may concern:

Be it known that I, HAROLD G. DAVIS, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Air-Hose Protectors; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

This invention relates to a means adapted to protect the air hose at automobile service stations and garages.

It is the universal custom today to have a supply of compressed air at all garages and filling stations for the convenience of the customers. The compressed air is piped to convenient locations near the curb or to any convenient place and a flexible hose is provided at the ends of the pipes. The hose is equipped with an automatic valve that opens when the hose is applied to the valve stem and closes when it is removed therefrom. When the user is through with the hose he ordinarily throws the same on the surface of the ground or pavement where it is in the way and presents an untidy appearance, both of which are highly objectionable.

In order to protect the hose from injury and prevent it from presenting an untidy appearance, efforts have been made to produce automatic reels which are enclosed in a suitable housing and which will permit the hose to be wound thereon when not in use. These automatic hose reels have not proven to be a commercial success and have not been extensively employed.

It is the object of this invention to produce a simple and efficient arrangement for protecting an air hose which, aside from its simplicity, shall have a neat appearance and be adapted to remove the hose from the surface of the ground and fully protect the same when not in use.

My invention, briefly described, consists of a suitable casting which may be embedded in a pavement or in the surface of the ground and having an opening for the reception of a tube which extends into the ground a distance substantially equal to one-half the length of the hose. The air pipe projects through the wall of the casting and one end of the hose is connected to the end of the pipe. A cover is provided for the casting. This cover has a hole therein through which the hose extends. A pulley and weight are applied to the hose within the tube and tend to pull it down thereinto.

In order better and more clearly to describe my invention, I shall have reference to the accompanying drawing which shows the present preferred embodiment thereof, and in which:

Fig. 1 is a perspective view showing the appearance of my device when installed;

Fig. 2 is a vertical diametrical section taken on line 2—2, Fig. 3;

Fig. 3 is a top plan view of the casing with the cover in place thereon;

Fig. 4 is a section taken on line 4—4, Fig. 2; and

Fig. 5 is a side elevation of the sign with a portion thereof broken away to better show the construction.

The same reference characters will be used to designate the same parts throughout the several views.

Numeral 1 designates the surface of the ground or the pavement where the air hose is located. At the proper point a circular vertical hole is sunk into the ground. This hole is approximately six inches in diameter and of a depth substantially equal to one-half of the length of the hose that is to be used in connection herewith, and may be considered to be about ten feet in depth. Embedded in the ground or the pavement with its upper edge substantially flush with the surface, is a cast-iron ring 2 which is preferably circular and has a "pocket" 3 on one side thereof. The inner surface is rabbeted along its upper edge, as indicated by numeral 4, to form a ledge upon which the cover 5 may rest. The cover is circular and has a rectangular part 6 secured to one side thereof and is of such size that it will fit snugly in the top of the ring 2 in the manner shown in Figs. 2 and 3. Two lugs 7 project downwardly from the lower surface of the cover and each has an opening that aligns with a similar opening in the side of the ring 2. A cotter pin may be inserted through these openings and serve to hold the cover in place. A tube 8 of galvanized sheet metal is inserted in

the ring and extends downwardly to the bottom of the hole and forms a casing or lining therefor. The air pipe 9 which connects with the compressed air supply, extends through the wall of the pocket 3 and projects a short distance thereinto. The air hose 10 is connected at one end to the end of the pipe 9 and the other end extends through a hole 11 in the cover. The hose extends around a pulley 12 which is provided with guides 13 arranged in the form of a T. A weight 14 is secured to the lower end of the bottom guard. The action of the pulley 12 and weight 14 is such that it tends to maintain the parts in the relationship shown in Fig. 2. Surrounding the hole 11 are four lugs 15 which are provided with transverse openings 16 and 17. Rotatably mounted between each two adjacent lugs are pulleys 18. Pins 19 extend through holes 16 and through one set of rollers 18 and pins 20 extend through holes 17 but are of such length that they reach only between the pins 19 and are held in place by them. The hose 10 projects through hole 11 in the manner shown in Fig. 2 and when its outer end is grasped and pulled the hose will rest upon one or more rollers 18, regardless of the position in which it is pulled. A ring 20 (Fig. 2) is clamped onto the hose and limits its entrance into the casing. The end of the hose is provided with the ordinary valve 21. The weight 14 should be as light as possible, but should be heavy enough to pull the hose into the casing, even if it is dropped full length on the ground. An electric conduit 22 passes through one side of ring 2 in the manner shown in Figs. 1 and 3 and serves as a means for introducing the electric wire 23. The cover has a hole about at its center and a pipe 24 threaded thereinto. To the top of this pipe a hollow drum or canteen-shaped sign 25 is rotatably connected. This sign is made of metal and has stenciled in its sides the words "Free air". The upper cylindrical connecting portion 26 is made of metal and the corresponding lower portion 27 is made of wire screen, so that the light from the lamp 28 may shine down upon the ground and illuminate the device. The sign has a bracket 29 which is perforated and rotatably mounted on pipe 24 between nuts 30 and 31.

For the purpose of preventing the weight 14 and pulley 12 from rotating and thereby twisting the hose, I have formed the weight with a notch 32 in its edge and have secured to the inner surface of the casing 8 an angle iron 33, one flange of which cooperates with the notch 32.

Although I have described my invention in connection with an air hose, it is evident that the same arrangement can be used for a water hose and a separate device may be installed to accommodate a water hose for filling radiators. This arrangement can be conveniently employed for protecting the sprinkling hose on lawns and in gardens and can, in fact, be used wherever a flexible hose is employed.

From the above it will appear that I have produced a simple and efficient device for protecting an air hose. This device has no springs and no moving parts, except the rollers 18 and pulley 12, and can be cheaply and quickly installed by merely digging a hole in the ground with a suitable earth auger and placing the device therein. Where the surface is concreted, as is usually the case, the concrete is brought up to the sides of the ring.

Having now described my invention, what I claim as new is:

An air hose protector comprising a ringlike member of metal having an outwardly projecting pocket in one side thereof, a rabbet along the upper inner edge of said ring and pocket, the wall portion of said pocket having an opening adapted to receive an air pipe, a cover adapted to fit said member and to rest in said rabbeted portion, a casing secured at its upper end to said ringlike member, diametrically opposed guides secured to the inside of said casing, a weight operatively related to said guides, said weight having a diameter substantially the same as the inner diameter of the casing and ringlike member and a pulley secured to the upper surface of said weight.

In testimony whereof I affix my signature.

HAROLD G. DAVIS.