Sept. 12, 1933. M. J. WILDE 1,926,131

BUMPER

Filed April 25, 1931

Fig. 1.

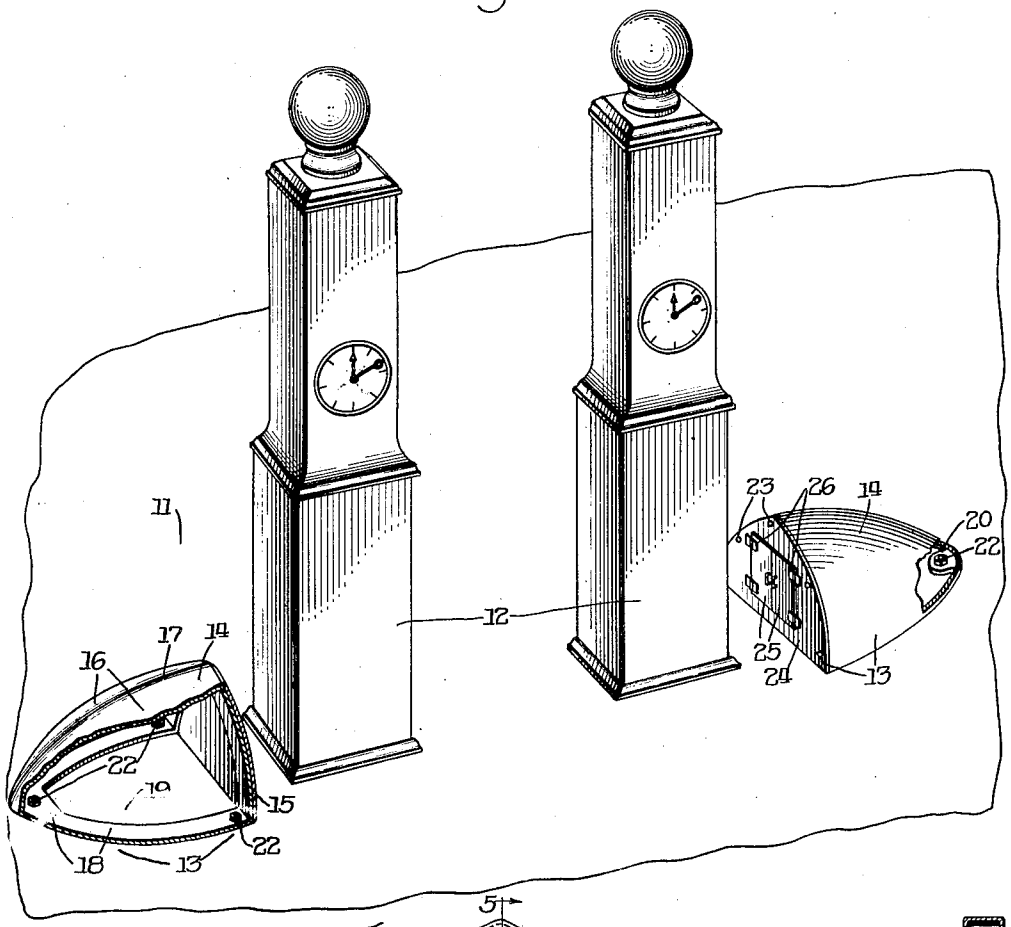


Fig. 2

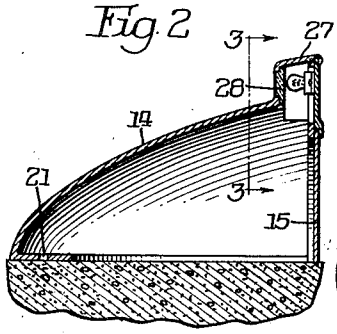


Fig. 4

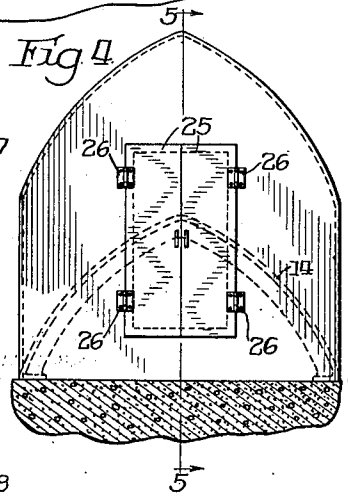


Fig. 5.

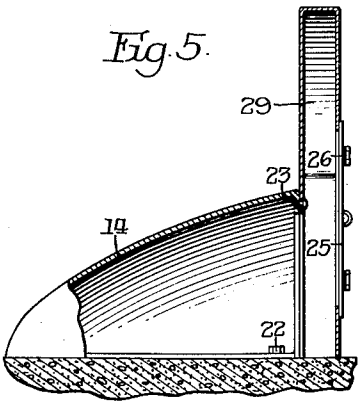
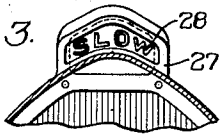


Fig. 3.



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BUMPER

Mack J. Wilde, Chicago, Ill.

Application April 25, 1931. Serial No. 532,779

8 Claims. (Cl. 94—1)

This invention relates to a device for the protection of dispensing equipment used to supply fuels to motor vehicles and for other purposes. It further relates to the combination of such a protective device with a sign or sign-holder. In still another form it may relate to the combination of such a protective device with a cabinet or case for the storage of small implements.

The advent of motor vehicles using liquid fuels has led to the introduction of the familiar type of service station for the dispensing of such fuels and particularly gasoline. These fuels are customarily supplied to the motor vehicle from upright dispensing pumps of various types. For purposes of convenience and efficiency it is customary that a service station having two or more such pumps be arranged with the pumps in alignment so that motor vehicles may be driven along side the line of pumps and be supplied from the one from which the desired fuel is dispensed. In order to guide the motor vehicles and to protect the dispensing equipment from collision, it is sometimes customary to place these pumps upon a slightly elevated platform, usually a concrete slab. This platform may, however, be dispensed with.

It is further customary, and in fact almost absolutely necessary, that the ends of the line of pumps be protected by the use of a bumper or nose which serves to guard against collision and further to guide the incoming motor vehicles into proximity with the line of pumps.

It has been generally customary that these protective devices be made in the form of rounded concrete noses. In manufacturing or installing such a concrete or cementitious nose or bumper it is necessary that the foundation therefor be extended to a considerable depth into the ground below the driveway and preferably to a point below the frost line. It is further necessary in order to obtain the desired smooth, rounded surface, that great care and skill be utilized in the manufacture of the bumper. These factors tend to increase the cost to a rather high figure. A further disadvantage of the usual type of concrete bumper is that when the station is remodeled, moved, or abandoned, there is not only no possibility of salvaging the bumpers, but on the other hand a considerable amount of labor and nuisance is involved in breaking up and removing the concrete structure and in repairing the driveway.

The object of the present invention is to provide an inexpensive and serviceable substitute for the usual concrete bumper structure. A further object of the present invention is to provide a bumper of the class described which may readily be moved, or removed without damage to the driveway or to itself. A further object of the invention is to provide a bumper which can readily be installed by a workman possessing only ordinary skill.

A still further object of the present invention is to provide a means in connection with a bumper of the class described, whereby said bumper may be combined with a sign for use as a warning or advertising device.

Still another object of this invention is to provide, in connection with such a bumper, a cabinet or chest in which it is possible to store pliers, gages, flashlights and similar implements which the attendant needs to have in a safe and convenient place contiguous to the dispensing pumps.

Further objects of this invention will be made clear in connection with the description and discussion of the accompanying drawing which includes:

Figure 1, a general view of a service station driveway showing a line of pumps in connection with bumpers according to the present invention;

Figure 2, a bumper in combination with a sign-holder;

Figure 3, view, partly in section, along the line 3—3 of Figure 2;

Figure 4, rear view of a bumper in combination with a cabinet; and

Figure 5, sectional view along the line 5—5 of Figure 4.

Referring now to the drawing: On a driveway 11, preferably of concrete, but alternatively of asphalt or any other paving material, are located a plurality of linearly disposed dispensing pumps 12 preferably so located that motor vehicles may be driven on either side thereof. At either end of this line of pumps are located bumpers 13 which serve to act as guards and as guides to incoming motor vehicles. These bumpers are preferably located in substantial alignment with the dispensing pumps 12. Altho in the drawing, Figure 1, the pumps are placed directly on the driveway, it is to be understood that a rectangular concrete slab or other platform may be superimposed upon the driveway between the bumpers and that the pumps may be located on this platform. It is also to be understood that should it be so desired, this slab or platform may be extended under the bumpers. In this case the ends of the slab or platform would be shaped as are the ends of the bumpers. In general, however, if a

platform is used at all, it is desirable to use only a rectangular slab and to place the bumpers directly upon the driveway, except in the case of unpaved driveways.

Referring now to the bumper 13 itself, this is composed of a hollow structure preferably made of cast iron, but alternatively made of other cast metal, wrought metal or similar structure. In its simplest form it is composed of a main portion 14 and a rear plate 15, altho it is to be understood that this rear plate may be omitted, thereby leaving the rear portion of the bumper open or partially open. The main part of the bumper may be made in various shapes adapted to guide the wheels of a motor vehicle. In the preferred embodiment it is composed of two curved portions 16, preferably of substantially parabolic section both vertically and longitudinally, and meeting to form a central ridge 17, so designed that the wheels of an oncoming motor vehicle would be deflected to one side or the other without damage. The bottom of this main portion 14 comprises an inwardly turned flange 18, which is adapted to rest upon the driveway 11 and to serve as a means for attachment to the driveway. This allows attachment on the inside and avoids outward projections which would be cumbersome and possibly dangerous. For reasons of convenience and economy the central portion 19 of the bottom is preferably left open, altho it is to be understood that the bottom may consist of a complete flat structure. It is also obvious that the bottom structure may alternatively consist solely of attachment lugs as shown at 20. Attachment to the driveway is accomplished by means of holes 21 in the flange 18 or lugs 20. These holes 21 are preferably three in number and disposed as shown, but it is obvious that any other convenient number and disposition may be used. In installing the bumper, holes are drilled or otherwise made in the driveway and bolts 22 are passed through the holes 21 in the bumper and into the corresponding holes in the driveway 11. In the preferred embodiment the holes are drilled, in the case of a concrete driveway, by means of the familiar "star drill" and the bolts 22 are of the well known expansion bolt type. It is obvious, however, that other fastening means, such as tap screws fitting into threaded metallic inserts in the driveway, may be used. The attachment of the bumper to the driveway is, of course, accomplished by working through the back of the bumper and after installation the rear closure plate 15 may be affixed if desired. If it is desired to move or remove the bumper the plate may be removed and the bolts unscrewed or, if necessary, the bolt heads may be chiseled off. The plate 15 or 24 may be attached to the main bumper structure 14 in any desired manner, preferably by means of tap screws 23. This plate may be a solid structure as shown at 15, but it will often be desirable to use a form 24 in which the interior of the bumper is made available by means of one or more doors 25. In the preferred form two of these doors are used in order that the pumps 12 may be placed in close proximity to the bumpers 13 without interfering with the use of the doors 25. These doors may be of any desired type, but preferably they are attached to the plate 24 by means of spring hinges 26. Locking devices for the doors 25 may be provided if desired.

The use of the interior of the bumper as a cabinet provides a convenient storage place for tools, etc. near the point where they are to be used. Since space is generally at a premium in the vicinity of the pumps and since all unnecessary structures must be avoided in order to give ready access to the pumps, this arrangement has great advantages.

In the form in which doors are used, the rear portion 24 of the bumper may be cast integral with the main portion 14 and attachment to the pavement may be accomplished thru the doors.

A novel form of this invention is shown in Figures 2 and 3, in which the main portion 14 and back plate 15 are extended upwards to form a holder 27 for a sign panel 28 which may be used as a warning or as an advertising device. It is obvious that this sign may be of any known type, but it is preferred that it be of the electrically illuminated type and preferably that it be so constructed that the sign panel 28 may be removed and replaced with a similar one. Means for inserting and removing the sign panel 28 and detailed means for illumination thereof are not shown, since these would be obvious to anyone skilled in the art. It is readily apparent that the use of a sign structure of this sort in connection with the usual type of concrete bumper would be difficult or impossible. Other types of sign structure may also be used.

Altho in its simplest form the use of the bumper 13 as a tool container would comprise only the use of its normal interior; it may sometimes be desirable to extend the rear portion of the bumper into the form of a cabinet 29, for example as shown in Figure 3. This form may, if desired, be used in conjunction with a sign as described above. It is obvious that this cabinet structure may be of any known form and may be cast or built integral with the bumper, or may be removably affixed to it. Shelves or similar structures may be built inside the cabinet 29 and/or inside the main portion 14 and such shelves may be supported either by the back plate 15 or 24 or by the interior of the bumper 13. These detailed structures are not shown in the drawing since the design of such forms as might be desired would be within the province of any skilled workman.

It will be seen from the foregoing, that this invention has provided a new and novel, inexpensive and salvagable substitute for the usual concrete bumper as used in service stations. It has furthermore provided means whereby such a bumper may be also utilized as a means of warning or advertising. It has still further provided means whereby such a bumper may be used also as a cabinet or chest which will be located at a point convenient to the station attendant.

I have described my invention in connection with bumpers for service station islands, but it will be readily comprehended that similar structures may be used as guides for greasing racks or as noses for any type of safety island, and I do not wish to be restricted to those specific embodiments which have been particularly shown, but desire to set forth in the appended claims, that which I regard as my invention.

I claim:

1. A removable, cast iron bumper adapted to deflect the wheels of oncoming motor vehicles and to protect equipment used in fueling such vehicles from collision, comprising a hollow nose-shaped structure, inwardly disposed, horizontally extended means for supporting said nose on a pavement, said horizontally extended means having apertures for the insertion of attachment

means, and a rear opening through which said attachment means can be inserted and affixed.

2. A removable, cast iron bumper adapted to deflect the wheels of oncoming motor vehicles and to protect equipment used in fueling such vehicles from collision, comprising a hollow nose-shaped structure, inwardly disposed, horizontally extended means for supporting said nose on a pavement, said horizontally extended means having apertures for the insertion of attachment means, a rear opening through which said attachment means can be inserted and affixed, and a closure for said rear opening.

3. A removable, hollow, rounded cast iron bumper for protecting equipment used in the fueling of motor vehicles, said bumper having internally disposed means for attachment to a pavement and a rear plate provided with means for making the interior of said bumper accessible as a storage place.

4. A removable, hollow, rounded cast iron bumper for protecting equipment used in the fueling of motor vehicles, said bumper having internally disposed means for attachment to a pavement and a removable rear plate provided with means for making the interior of said bumper accessible as a storage place.

5. A hollow safety island bumper having internally disposed means for the removable attachment of said bumper to a pavement and a removable rear closure plate provided with means for access to the interior of said bumper.

6. In a hollow safety island bumper, a curved metal plate, a similarly curved plate secured thereto to form a hollow bumper, inwardly disposed means for reinforcing said bumper, said inwardly disposed means having apertures for receiving means to hold the bumper removably in place on a pavement, and a substantially vertical rear plate, said rear plate being provided with doors for access to the interior of said bumper.

7. In combination, a hollow, rounded cast iron bumper for protecting equipment used in the fueling of motor vehicles, said bumper having internally disposed means for removable attachment to a pavement, and a cabinet for the storage of tools, said cabinet being rigidly affixed to the rear of and supported by said bumper, said bumper and cabinet being so arranged that the interior of said bumper forms a portion of the available storage space.

8. In combination, a hollow, nose-shaped, metallic bumper adapted to deflect the wheels of oncoming motor vehicles and to protect equipment used in fueling such vehicles, said bumper having inwardly disposed, horizontally extended metallic supporting means containing apertures for the insertion of means for the removable attachment of said bumper to a concrete pavement, and a shallow metallic cabinet for the storage of tools, said cabinet being rigidly affixed to and firmly supported by said bumper and said cabinet being equipped with means of access to the interior of said cabinet and also to the interior of said bumper.

MACK J. WILDE.