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G. N. HARDEN

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AUTOMOBILE DOOR HANDLE

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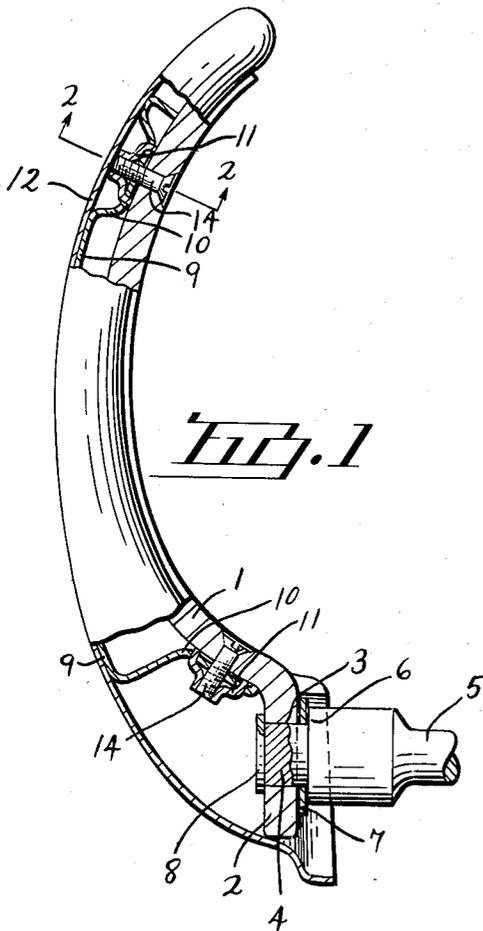


Fig. 1

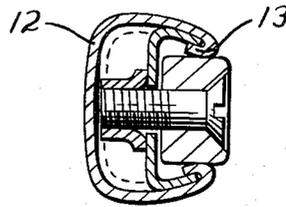


Fig. 2

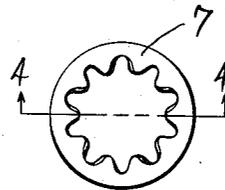


Fig. 3



Fig. 4

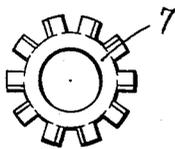


Fig. 5



Fig. 6

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AUTOMOBILE DOOR HANDLE

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Application February 2, 1942, Serial No. 429,249

1 Claim. (Cl. 292—349)

This invention relates to door handles.

It is the object of the invention to provide a simple means to permit the door handle to break its connection with the spindle when the handle is forced. Handles are often forced by unauthorized persons trying to get into the car by means of a piece of pipe telescoped over the end of the handle. With a lock which uses a blocking type of dog, this will usually break the mechanism and entry into the car can be had. With the semi-free-wheeling type of handle, the marauder cannot get into the car if he forces the handle, but nevertheless, he may break the lock and make it impossible for the owner of the car to get in. It would also require replacement of the broken lock.

Breakable connections have already been proposed to forestall the marauder. Shear pins or easily severable cast or molded connections of the handle to the spindle have been proposed, but these are relatively more expensive than the simple arrangement which I have designed.

Furthermore, this breakable connection is particularly adapted to a stamped metal type of handle which is particularly desirable at this time when it is difficult to obtain the metals necessary for a die cast handle.

In the drawing

Fig. 1 is an elevation of the handle with some of the portions broken away.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a plan view of the slip clutch type of washer.

Fig. 4 is a section on the line 4—4 of Fig. 3.

Fig. 5 is an elevation of a modified form of washer.

Fig. 6 is an edge view of the same.

1 designates a piece of heavy bar stock which forms the core of the handle stem. This is given an arc shaped curve to conform to the design of the handle, and the end of the bar stock is flattened as at 2 and provided with a perforation 3 to fit over the reduced end portion 4 of the spindle 5. Shoulder 6 is provided between the enlarged portion of the spindle and the reduced portion 4 of the spindle.

Between the flattened portion 2 of the bar and this shoulder 6 is inserted lock washer 7. This is a washer with internal teeth, as shown in Figs. 3 and 4, or external teeth, as shown in Figs. 5 and 6. These teeth are preferably inclined alternately in

opposite directions. The handle stem is riveted to the end of the spindle with the toothed washer intervening between the handle stem and the shoulder 6 of the spindle. The head 8 of the rivet is forced down securely so as to cause the deformable teeth of the washer to be deformed and flattened out. The washer with the teeth is made of spring steel and is a common type of lock washer which is now on the market for locking a nut on a bolt. The riveting is sufficiently tight so that under ordinary usage of the door handle the washer will never slip, but the riveting is not sufficiently tight so that the washer will hold when the handle is forced, as by applying a pipe to the handle stem. When forced the washer teeth will slide over the face of the shoulder or the face of the flattened portion of the handle stem. The marauder will then be unable to either force his way into the car or break the mechanism. However, when the owner of the car unlocks the car, he will have no difficulty in again utilizing the handle in the normal way.

After the handle stem has been riveted to the handle spindle, the outer shell of the handle may be applied to the stem. This outer shell is a unit made up of four members. A spacer strip 9 has depressions 10, one near each end of the spacer, and into these depressions are riveted the sheet metal nuts 11. Over the outside of the spacer strip is a sheet metal scalp 12. This scalp can be chrome or nickel plated or if these metals are unobtainable it may be lacquered. This scalp is fastened to the spacer strip by turning over the inside edges 13 of the scalp. The outer shell unit may then be removably fastened to the stem or core of the handle by means of screws 14, the ends of which are slightly countersunk below the inner surface of the core member.

What I claim is:

A door handle having in combination a spindle provided with a reduced end forming a shoulder, a handle stem riveted on the reduced end of the spindle and a deformable washer secured between the stem and the shoulder and put under stress when the stem is secured to the reduced portion of the spindle so as to form a slip clutch connection between the handle stem and the spindle, adapted to yield only when abnormal stress is placed upon the handle to force the handle.

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