



New Dump Cars

A new type of dump car, a departure in many respects from previous types, is now in service on the Boston and Maine, several having been purchased in continuance of the policy to use the most efficient work equipment. The Boston and Maine is one of the first roads in the country to adopt this type.

The new cars, built by the Magor Car Corporation, with a capacity of 30 yards compared with only 12 for the old style wooden cars, are dumped by two simple operations, and can be dumped to either side regardless of where the center of gravity of the car is. Dumping of the old cars required four or five operations, and if the load was on one side of the car, it was difficult to tip it, owing to the limited capacity of compressed air used in the process. In addition, the old time wooden cars were expensive to keep in repair, while the modern cars are of steel and of extra heavy type, with maintenance costs accordingly low.

In designing the car, the builders have eliminated entirely all forms of tension and compression locks, and have developed a new principle of construction whereby the body has complete and stable support at all times during transit. With this arrangement it is impossible for the cars to dump prematurely or while in transit. The new Magor cars are designed not alone for construction work and for handling material at terminals, but more particularly to meet the need for a general service car which can be adapted for both construction and maintenance work and which at the same time will be suitable for regular revenue service when not in use in construction or maintenance service.

The principal new feature lies in the operating mechanism of the side doors. The doors are opened and close automatically when the car is dumped by means of control arms of cast steel, one control arm being located opposite each door arm. The whole mechanism is arranged to cause the doors to open gradually and close when the car is dumped and righted. The opposite door is posi-

tively locked automatically during the process of dumping and both doors are locked when the car is righted.

The dumping mechanism is actuated by means of two compressed air-operated pistons in semi-steel cylinders, two cylinders being located on each side of the car. They can be dumped to either side. The special valve mechanism permits the dumping of an entire train, a single car, or any number of cars, irrespective of their location in the train. This is accomplished by setting the valve mechanism on each car to suit, the dumping mechanism being controlled by a valve located in the cab of the locomotive. The dumping mechanism is operated by a three-way valve located near the end sill and can be operated from either side of the car. Different positions of this three-way valve control the dumping to the right or left, and permit dumping each car individually, or collectively from the locomotive.

The car body is of all steel construction having an inside length of 34 feet 6 inches at the top and an inside length of 33 feet 2 inches at the bottom. The inside width of the car body at the top is 9 feet 1½ inches, and 8 feet 3½ inches at the bottom. The inside depth is 2 feet 9 inches.

Mebbe the temperance ladies are right about the cigarette being an instrument of the devil. Hell is vividly symbolized by the costly fires the little cigarette kindleth.—*Boston Traveler*.

The Front Cover

The unusual vista used as the front cover of this issue shows Long Beach in the foreground, Stage Fort Park in the middle distance, and Gloucester, Mass., in the background.