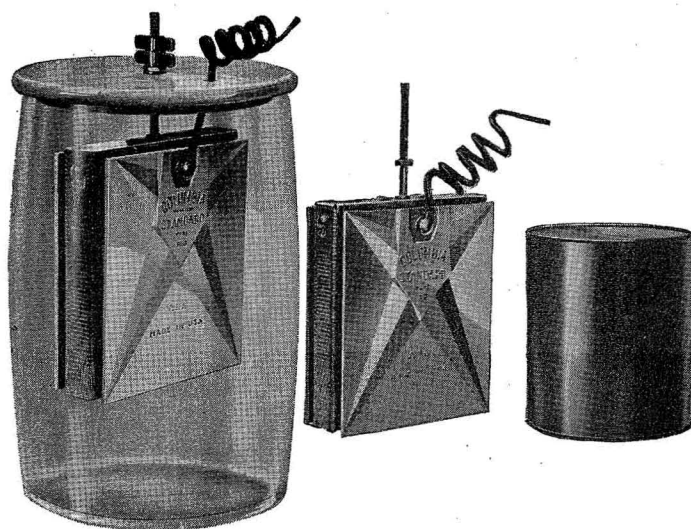


# New Devices

## New Type Primary Cell

The National Carbon Company has recently placed on the market a caustic soda primary cell of the standard voltage type. The mechanical construction of the new cell is similar to that of the Columbia high voltage type which is being manufactured by this company, and uses the same self-oiling feature, the same type of zinc plate



Complete Cell and Elements

construction and unit suspension. The new cell is strictly of the Leland type, the high voltage feature not being incorporated. Its normal voltage, therefore, is similar at all rates of discharge to other types of caustic soda cells of the Leland construction. It is recommended for signal motor operation, lighting circuits and for all uses where constant potential is desired.

## Improvements in the Eymon Continuous Rail Crossing

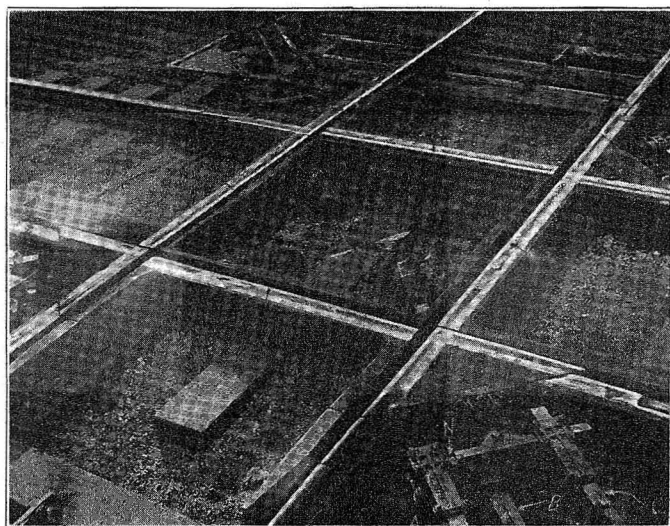
Improvements in the method of operating and locking the movable blocks in the Eymon continuous crossing have added materially to the ease of connecting it with interlocking facilities and to the safety of its operation. The principal feature of this crossing is four triangular blocks of steel, designed to fit into the exterior angles of the four corners of the crossing and arranged to slide in a direction perpendicular to a line bisecting the angle of a corner, so that either one or the other flangeway is closed. Thus a continuous rail may be provided for either track at will.

The new system of operation and locking of the movable blocks is accomplished by the "lock and block" move-

ment, shown in the photograph. This apparatus has been designed particularly for this crossing and yet employs the principle of locking familiar to interlocking men. The lock of this movement locks normal in one position and reverse in the other position, and is unlocked or neutral on the center. The quadrant of the locking lever in the interlocking machine is "notched" on the center to hold the lever in the unlocked position, while throwing the lever used for shifting the movable blocks.

Referring to the photograph, it will be seen that the movable block "F" is held in its position by the locking rod "C," which fits in bar "D" attached to the movable block. When changing the line-up for traffic on the other road, the first movement is to withdraw the locking rod "C" and by switching the operating rod "B" away from the reader the block "F" is moved in the direction of the arrow by means of lugs on the bottom, which fit over an offset on the rod "B," which extends on through to the bearing "E." It will be seen that as the block "F" moves over the locking bar "D" is carried along to such a position that it is now possible to push the rod "A" into the notch "N."

By means of this apparatus it is possible to operate the entire crossing with one lever in the interlocking machine, the locks being connected to the pipe lines for the derails. However, it should be understood that if the levers are available in the interlocking machine there would



Photograph of a Crossing in Service

be no objection to using one lever to operate and another lever to lock each crossing, which is a question to be decided by the signal engineers of the individual roads. This crossing is manufactured by the Eymon Crossing Company, Marion, O.