

Kinks

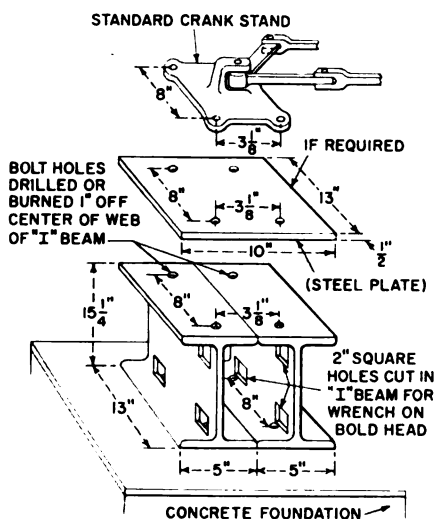


Blows Sand Off Rails

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To prevent loss of shunt because of sand on the rails at the foot of the master retarder, we blow the sand off the rails with air. A $\frac{3}{8}$ -in. pipe is installed along the stock rails at rail height with a $\frac{1}{8}$ -in. hole every 3 in. It is fed from a $1\frac{1}{4}$ -in. reservoir pipe every 6 ft. through a flexible hose connection.

When a car or cut shunts the track circuit at the end of the master retarder, a two-second blast of air is ejected, blowing the sand off the rail head.



Raising Mechanical Plants

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A sturdy job of raising low mechanical plants' pipe lines and lead-outs can be made by obtaining scrap pieces of I-beams. A man with a welding torch

can cut or burn the beams to proper lengths and burn holes for the crank and anchor bolts. Small slots are burned in the web of the beam to permit easy use of a wrench. After the plant is raised, paint with red lead and desired color. The I-beams may easily be plated on top with sections of old crank plates for slightly higher raises. No concreting is required.

Detector Circuit Release

By H. P. Hancock
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The circuit diagram illustrates a method of releasing electric lock on lever 2 after signal No. 2 has been cleared for a train, which enters track section C, leaving a portion of the cars on that circuit while the engine and a few cars are taken to do a certain amount of switching in siding A. The engine then returns to signal 6, which cannot be cleared unless signal lever 2 is returned to the full normal position. By referring to the circuit it will be observed that the integrity of the route, as given by signal 2, is maintained through the electric lock on the lever No. 2. This circuit provides indication, stick and detector locking. It will also be observed that since the circuit for the electric lock on lever 2 is carried through a front contact on the tower indicator 2TK, the lock cannot be released to return the lever to full normal unless some special arrangement is provided if section C is occupied. Since the usual condition provides that the mechanical locking of lever 2 locks lever 6 normal, it is impossible to clear signal 6 until lever 2 has been placed in the full normal position.

In order to provide a means of release so that an engine standing at signal 6 may return and couple with the cars on track section C, a special re-

lease circuit is arranged as follows: With lever 2 in the normal indicating position the time release is operated, which after a predetermined time closes a contact and picks up a stick relay 2TESR, which in turn sticks up through a normal indication contact in the electric lock. The time release is then operated back to the normal position, which completes the circuit through a contact of the release and a front contact of the stick relay 2TESR, that has been picked up, thus bridging the open circuit on the deenergized track indicator 2TK to electric lock on lever 2. The lever can then be placed in the full normal position and signal 6 cleared for the movement of engine to couple with cars standing on track circuit C. Stick relay 2TESR is deenergized or returned to its normal position by the opening of the normal indication contact of the electric lock on lever 2.

Although this detector circuit release scheme is shown with semaphore type signals, this scheme is also adaptable to any other type of signal. The main purpose of this detector circuit release is to make train movements in this interlocking more flexible.

Before this release circuit was added, when cars were to be placed in, or taken out of siding A, track section C would have to be unoccupied. This meant that the main body of the train from which the cars were to be shifted, would have to be left west of signal 2, in order for the engine to get dwarf signal 6 in the proceed position, so that the engine could back up to its train. After this the entire train would have to be located west of signal 2, so that this signal could be placed in the proceed position, in order for the train to proceed east on the main line.

From the foregoing description it is obvious that much time and shifting are saved by the installation of detector circuit releases.

