are to be padlocked normally open. Figure 1 shows a 3-phase, 440-volt line and Fig. 2 a single-phase, 440-volt line.

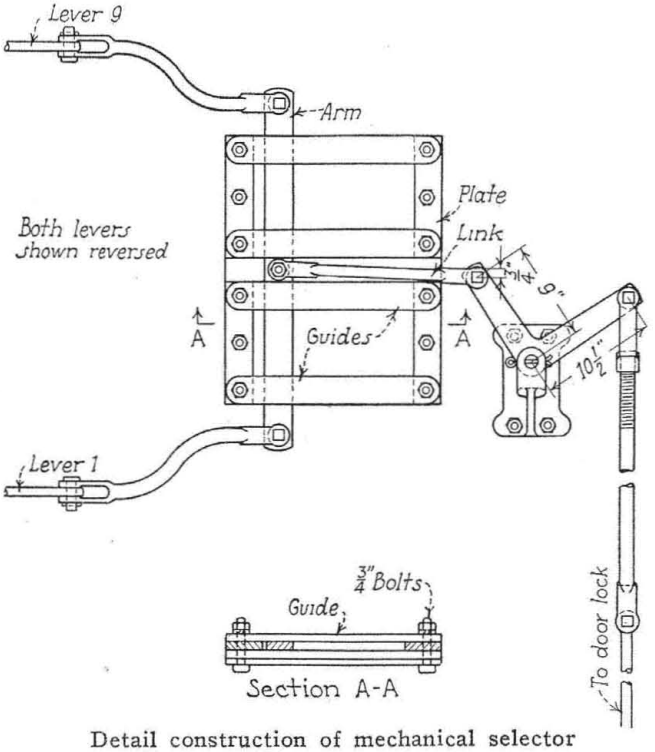
Assume a failure of power at feed *A*, the maintainer would open switches *1* and *3* and padlock them open. A tag should be hung on the switch handle to show that normal operation is interrupted, and that only the man who opened the switches should be allowed to close them. Next, he would close switch *2* so that feed *B* would feed the section *A*, which is without power. Sections *A* and *B* could be fed from feed *B* alternating in 24- or 36-hr. periods until power could be restored on feed *A* which had failed.

Mechanical Selector for Interlocker

By C. A. Williams

Supervisor of Signal Construction, Atlantic Coast Line, Wilmington, N. C.

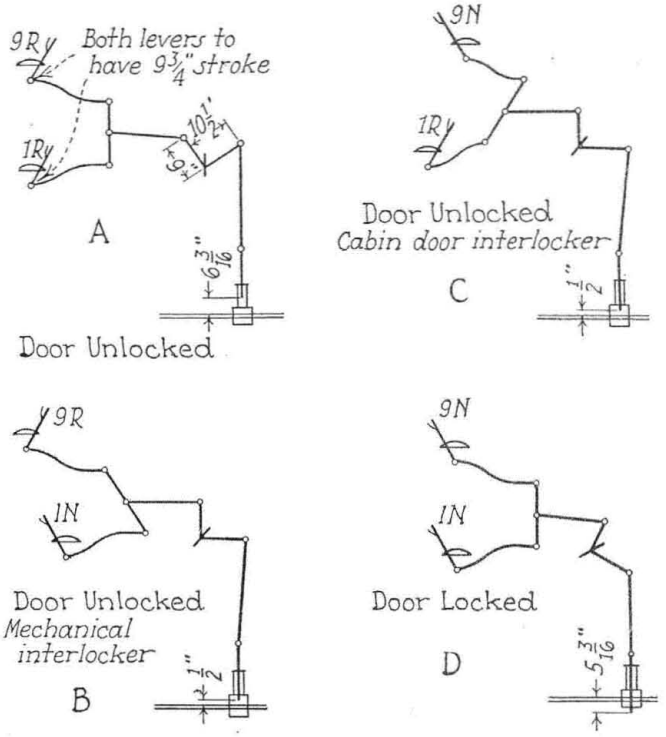
AT one of our cabin-door interlockings recently, it was desired to arrange the operation of the machine so that the tower could be used part of the time as a regular cabin-door interlocking and the rest



Detail construction of mechanical selector

of the time as a standard interlocking, with the door-lock feature inoperative. In order to accomplish this, considerable thought was given to a suitable arrangement, and finally a mechanical selector was devised, as shown in the drawing.

This device utilizes the equalizer principle. Referring to *A* in the drawing; when lever *9* is reversed and lever *1* is reversed, the cabin door is unlocked and the door-lock feature remains inoperative as long as lever *9* remains reversed. This is the condition found when the regular leverman is on duty. As shown at *B* immediately below the first diagram, the restoring of lever *1* to the normal position releases the other levers in the machine, so that the desired operation of the machine can be made. However, when the regular operator goes off duty, he places lever *9* in the normal position, as shown in diagram *C* and locks this lever with a mechanical screw release or otherwise. When he does so, the door-locking feature is restored and he reverses lever *1* so that the door will be unlocked and ready for the first trainman who enters. When the trainman enters the tower, he proceeds in the usual manner, first closing the door and restoring lever *1* to normal, as



Four operating positions of the two master-controlled levers that actuate the mechanical selector and cabin-door lock

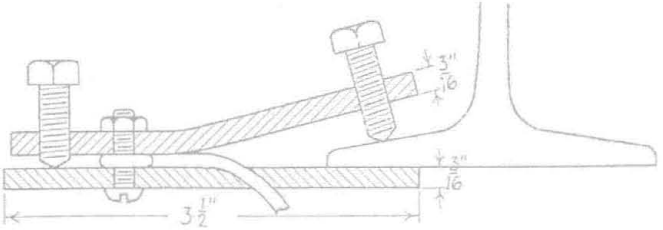
shown in *D*, which locks the door. Under this condition, the machine is released and the desired operation of the machine can be made. However, before he can leave the cabin, he must reverse lever *1*, as shown in sketch *C*. This operation unlocks the door and allows it to be opened.

Emergency Bonding Clamp

By L. Spickler

Signal Maintainer, Missouri Pacific, Jacksonville, Texas

AN emergency rail bond is sometimes necessary when a rail-relaying program is in progress. The clamp type of bond shown in the sketch has proved to be effective in these cases. The bond wire is placed in the small end of the clamp and the set screw at the left end is tightened. The large end of the clamp



Emergency bond wire clamp to be used when rail is renewed

slips over the bottom flange of the rail. A secure contact is made by tightening the second set screw. This clamp is made from a cross-arm brace, sawed, drilled and bent to the proper shape.