



Grated-metal platforms, supported by angle irons, at instrument case on the ground

tions are available in 12 and 24-in. widths, with lengths up to 6 ft. Common sizes of angle iron can be easily adapted for use in a support for these platform sections. In practice, the angle iron is fastened to the foundation, extending out far enough on each side of the foundation to act as a support for the platform, which can be fastened to the support angle iron with hook bolts or clamps. Anchor bolts are usually cast into the foundation, if concrete is used, with the proper location and spacing to make the platform level and to locate it at the proper height with respect to the instrument case.

Where channel iron has been used to adapt existing foundations to a different type of housing, special fabrication of the angle iron to provide a channel section under the instrument case must be used, or else channel iron substituted for the angle iron. This is necessary to permit the required adjustment of bolt spacing between the existing foundation and the required spacing for the type housing to be installed. The same type of channel iron and cross-angle or channel-iron construction can be used where an elevated mounting is required to protect against flood conditions. In this case, standard signal masts can be used to provide the necessary elevation, with the channel irons bolted to the masts at the proper height. However, where elevated mountings are necessary, the additional precaution of providing a hand railing should be taken to prevent a man from accidentally stepping off the platform.

Platforms should be 24 in. wide on the instrument side of the case, while 12-in. width sections can be used on the opposite side, except in the case of elevated mountings, where hinged doors are provided

on both sides to the instrument cases. Hand rails must be located so that doors can be opened, and the width of the door will determine the width of the platform. The same metal grating sections can be used to provide a landing for metal instrument houses by providing an angle-iron bed to support the grating sections.

Further Comment on C. & O. Practice

By E. T. GARRISON
Supervisor of Signals
Chesapeake & Ohio, Richmond, Va.

PLATFORMS are installed at the front and rear of our signal instrument cases, which enables easy access, as well as retaining a level footing, regardless of the contour of the ground and, in many cases, saves cribbing. We have eliminated the use of wood platforms, which eliminated all snow and ice hazards, as well as saving a considerable amount on platform renewals, due to rotting out.

The platform that we have practically adopted as a standard item

is a non-slip running board—known as galvanized grating—which can be obtained electrically welded or mechanically assembled, with the top edges serrated. This grating is furnished in standard widths, lengths and grating openings, and can be obtained from various manufacturers, such as the Blaw-Knox Division of the Blaw-Knox Company, Pittsburgh, Pa. The gratings can be furnished in suitable lengths for either single or double locations, and are easily attached by fastening angle irons to bolts set in the side of the concrete foundations. The angle irons extend from the desired width of the platform in the front to the desired width of the platform in the rear, and the grating is easily fastened to the angle iron bearing pieces by means of galvanized hook bolts.

Portable Steps Used

By B. E. ARIAS
Superintendent of Electricity & Telegraph
National Railways of Mexico
Mexico D.F., Mexico

WE do not install platforms at the front or rear of signal cases, the top of the case foundations being 6 in. above the rail head. However, our maintainers carry on their motor cars a Pullman-type portable step, which enables easy access to apparatus in the cases.

Per A.A.R. Manual

By F. W. CONSTABLE
Signal Supervisor
New York Central System
Weehawken, N. J.

OUR equipment is the same as shown in A.A.R. Signal Section Manual No. 3, Drawings 1363A, 1364D, 1365D, etc.

TEMPORARY CHANGE OF SIGNAL CONTROLS

"Where 'slow' orders are in effect on account of track or bridge repairs, is it the practice on your road to temporarily change the controls of wayside signals to 'remind' enginemen of the slow orders?"

Not General Practice

By A. M. CRAWFORD
Superintendent Telegraph & Signals
Pennsylvania, Pittsburgh, Pa.

IT is not the general practice on the Pennsylvania to "remind" enginemen of slow orders by chang-

ing the controls of wayside signals, because the location of the wayside signals may not fit the location of the track or bridge repairs necessitating the slow order, and the signal indications provided do not generally convey the information required. This information may be

conveyed to the engineman by a yellow flag or light, located at proper distance in advance of the restricted track, to permit proper speed reduction; the end of the restricted track may be indicated by a green flag or light.

In Some Major Track-Raising Operations

By J. F. YERGER

Chief Engineer—Signals & Communications
Lehigh Valley, Bethlehem, Pa.

TRACK and bridge repair jobs are generally a daylight operation. Our operating rules require that such work interfering with the safe movement of trains at maximum authorized speed must not be attempted without authority of the superintendent; after such permission is obtained, flag protection must be provided before track is obstructed; in addition, trains approaching the obstruction must be notified by train order or general order.

In instances where major track-raising operations and/or rail laying is to be done, and trains are to be operated against the current of traffic to facilitate such operations, we set up temporary block stations employing block operators and flagmen. In such cases, the automatic signal before approaching the detour point is arranged to display Stop-and-Proceed and, where desirable for operating reasons, such signal is equipped with a black disk on which the letter "G" is cut out, which authorizes a train to pass same at restricted speed (not exceeding 15 m.p.h., prepared to stop short of train, obstruction or switch not properly lined and to look out for broken rail) without stopping, to point of detour, at which point train order authority and a clearance card must be obtained before said train may proceed.

Flag Protection and Slow Boards are Safer

By G. K. THOMAS

Signal Engineer System
Atchison, Topeka & Santa Fe
Topeka, Kan.

IT is not our general practice to temporarily change the controls of wayside signals, when slow orders are placed in effect for track or bridge repairs.

Rather than interfere with the normal functioning of automatic block signals, it is considered safer

to provide flag protection and standard "temporary slow signals" for the protection of such temporary conditions.

On Temporary Detours

By A. S. HAIGH

Signal Engineer
New York Central System
Albany, N. Y.

WE do not temporarily change signal controls in connection with track or bridge repairs. We do, however, change signal indications in connection with temporary detours for grade-crossing elimination work.

Forty-five mile detours are protected with indication, Rule 282A—"Proceed preparing to stop at second signal. Train exceeding limited speed must at once reduce to that speed. Reduction to limited speed must commence before passing signal and be completed before accepting a more favorable indication." Limited speed is defined as 45 m.p.h. Thirty-mile detours are protected with Rule 285—"Proceed preparing to stop at next signal. Train exceeding medium speed must at once reduce to that speed. Reduction to medium speed must commence before passing signal and be completed before accepting a more favorable indication." Medium speed is defined as 30 m.p.h.

We have also used as an approach to certain curves, where the territorial speed was greatly in excess of the safe speed, Rule 281A—"Proceed approaching second sig-

nal at medium speed"—on the two approach signals before entering the curve.

LINE WIRE REMOVAL

"What method have you found to be the quickest and most efficient in removing old telegraph, telephone or signal wire from open pole lines—manually or by mechanized means? Please state your reasons."

Manually

By E. T. GARRISON

Supervisor of Signals
Chesapeake & Ohio, Richmond, Va.

WE have found that removing old line wire from the pole line was best accomplished manually, i.e., with a take-up reel after the wire had been cut loose from the pole line.

There is scarcely any place for any distance that we could successfully use automobiles or trucks parallel to the pole line for this purpose, and the use of mechanized equipment on the railroad track is not only a hazardous operation, but the work would be considerably slowed up, due to the interference of trains. We can usually pick a location that is accessible to motor cars and trucks, so that when the wire is removed without interference from trains or otherwise, it can be immediately loaded on the motor cars or trucks and hauled to a central destination to await final disposition.

GENERAL TELEGRAPH OFFICES

"In planning a new centrally-located general telegraph office, would you arrange it for reception of incoming messages on tapes to be retransmitted to all offices addressed, or install a switchboard to connect through, so that messages could be sent through directly to all offices of destination? Please give your reasons in either case."

Utilizes Switchboards

By W. R. TRIEM

General Superintendent of Telegraph
Pennsylvania, Philadelphia, Pa.

THE Pennsylvania follows the general plan of providing printing telegraph switchboard service similar in principle to the TWX system. Switchboards are located in 10 strategically-located offices connected with each other, and serving about 360 printing telegraph machines as subscribers in 221 offices scattered over the railroad. Under this plan,

the bulk of the message traffic is handled directly from the originating office to the receiving office without messenger service, copying and sending of the message at the originating offices, the relaying at intermediate offices, and the receiving, copying and messenger service at the terminating office, otherwise required.

Reperforators in the various offices supplement the switchboards, and plans are in progress to utilize tape in so-called tape storage units to avoid delays to sending offices