Signal Cabins in the Hornby Series

By "Tommy Dodd"

ONE of the most familiar features that we see along the lineside during a railway journey is the unbroken chain of signal cabins. These cabins play a very important part in the elaborate system that the railways have developed in order to ensure the safety of passengers. A visit to a signal cabin is full of interest. The completeness of the safety system, and the quiet efficiency with which the man in charge carries out the successive operations involved, leaves an impression on the mind that is not easily lost.

In the early days of railways, signals and points were operated by men stationed alongside them. Sometimes several signals and points were under the control of one man, and he had to walk to each of them as required. These "policemen," as they were often called, were provided with shelter in the form of huts, and in these huts the present-day signal cabin may be said to have had its origin. As the amount of traffic increased it became more and more difficult for one man to control a set of signals and points by walking from one to another, and a great step forward was made when a system was developed by which several signals and points could be controlled from one central position. An apparatus for this purpose, introduced by Sir C. H. Gregory, was demonstrated in 1843 at the Bricklayers' Arms Junction on the old Croydon Railway, and its immediate success led to its adoption, with various modifications, by all British railways.

A wayside station on a Hornby layout with a Pullman express train passing through. A No. 2 Special Cabin is appropriately placed at the platform end.

Signal cabins vary greatly in size and type, according to the work they have to perform. At important stations and junctions there are large cabins where power operation is installed and several hundred levers are controlled; while at the other extreme are the wayside cabins, simply built, and housing perhaps a bare dozen levers. Various methods of construction are employed. Some cabins are built entirely of timber, more or less ornamental in style; while others consist of a brick lower portion in which the locking gear is installed, with a timber upper part above the floor, where the lever frame is situated. A noticeable feature of signal cabins is the large proportion of window space, for a good view of the operations carried out under his care is essential to the signalman.

The upper part of the cabin is reached from the ground by a flight of stairs, and sometimes, as an extension to the "landing" at the top, a gallery is run along the sides of the cabin in front of the windows. This gallery is particularly useful where the manual exchange of staffs for single-line working is carried out. It also enables the signalman to be in closer contact with any special shunting movements that may be necessary, as he can give warnings or instructions better from the gallery than through the windows of the cabin.

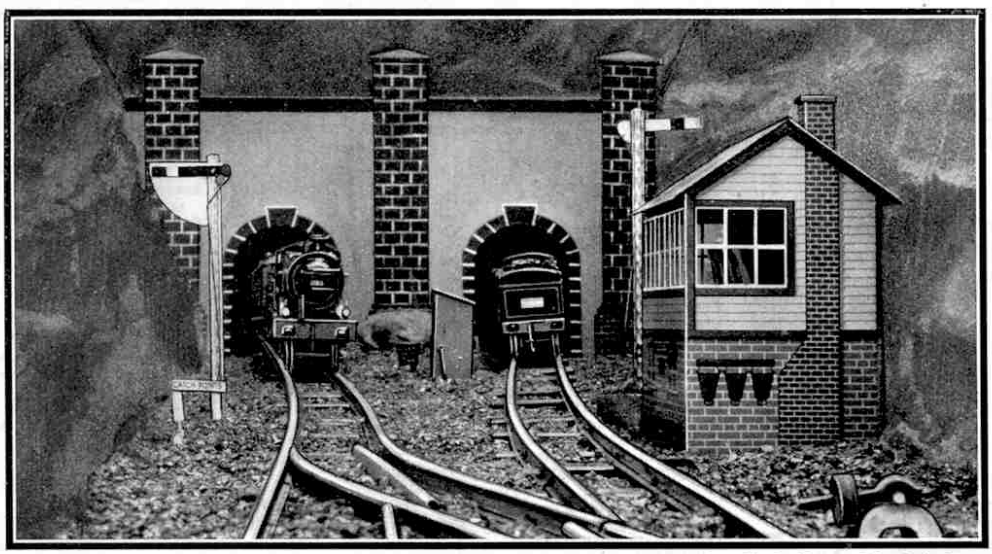
Chimneys of various patterns are provided for the cabin stove, a store of fuel for which is always found at the bottom of the stairway, either in a bin made of old sleepers or in one built of brick.

In addition to the normal cabins built on the ground at the side of the line, or placed on station platforms, there are many that have unusual situations. In the neighbourhood of towns, where the railway often runs between retaining walls, there may not be any space for a cabin alongside the line. In such cases the cabin may be built into the wall, and reached by a stairway running through the locking chamber. Another scheme that is frequently employed is to have the cabin spanning the tracks and supported on girders. A good example of this type of cabin is found at Waterloo Station on the Southern Railway, and there are many more in various parts of the country. Other curiously placed cabins are those on the various London underground railways, and in contrast to these subterranean chambers are cabins situated at quite high altitudes, especially in Scotland. One may be many feet below the London streets; the other, such as Beattock Summit cabin on the L.M.S.R., 1,000 ft. or so above sea level.

There are three different signal cabins available in the Hornby System, the No. 1, the No. 2 and the "M" Series Cabin. All three are of the station or wayside cabin type, and they are finished to represent one with a brick locking chamber and a timber upper portion with a tiled roof. The No. 2 Cabin is the most important model, and therefore will be considered first. This Cabin is finished by the tin-printing process, which allows a maximum amount of realistic detail to be represented. Thus the brick portion of the Cabin stands out clearly,

and at the front of this lower part there are two imitation windows. At one end a rack with fire buckets is shown, and there is a course of bricks passing up to the roof and representing a chimney. A neat chimney stack and pot are mounted on the roof itself, providing the finishing touch of realism on top.

At the opposite end of the building there is an effective stairway protected by a solid railing, and at the head of the stairs in front of the panelled door is a neat landing. Below this a plain boarded door is shown, leading to the locking chamber. The representation of the wooden part of the Cabin is attractive, with main frames and timbers finished in a dark colour, and the ordinary boarding in a lighter tint. The windows at the front and ends of this Cabin are actually pierced, so that the interior can be seen.



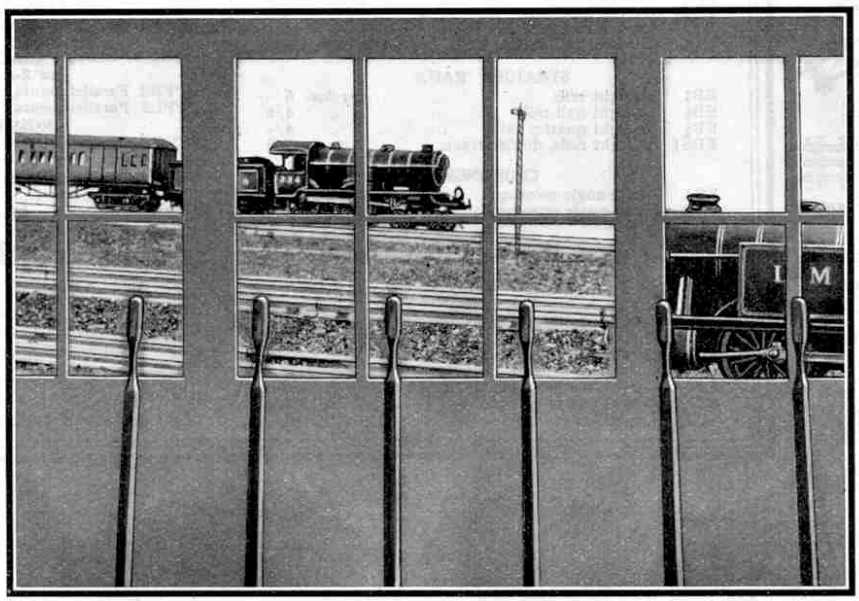
The fine details common to the Hornby Signal Cabins are well shown in this photograph. Single-line working is in force through the tunnel as a " Work Train " is occupying one line. The approaching express is about to cross over to the correct track.

A floor divides the upper and lower portions of the Cabin, and this has a large opening in the centre to accommodate the Lever Frame of the Hornby Control System. To enable the levers to be handled conveniently the back portion of the roof is hinged at the ridge, and may be lifted up, while the upper half of the rear of the Cabin opens downward. There is an opening arranged at the bottom of the front wall of the Cabin to enable the levers to be connected to the bell cranks situated before the frame outside the Cabin. The Lever Frame and bell cranks are mounted on a large base, to which the Cabin also may be attached. Small lugs are formed in front of the Cabin at each end, and a flange extends along the back. These are pierced to take the standard Meccano bolts with which the Cabin may be secured to the base.

The No. 1 Signal Cabin is generally similar in design, but lacks certain refinements that are found in the No. 2 model. It is not fitted to accommodate the lever frame, and therefore no lugs or flanges are provided for screwing it down. The windows are not pierced, but they and the stairway are represented in a very realistic manner in the tin-printing.

The " M " Series Cabin is a splendid little building, specially designed to be in keeping with the generally simple characteristics of the " M " trains and accessories. In order to keep the price low it is made as a " half model," in which the front of the building and the roof is reproduced. It is nevertheless very effective, and the printed details are quite realistic. The characteristic brick and timber construction of the larger Cabins is followed, and the colours are attractive. The signalman and the levers he controls are shown through the windows, and the door and stairway also appear at the end.

In addition to its use in conjunction with " M " trains, the " M " Cabin may also be used on larger layouts in such situations as on a station platform against the retaining wall, or in a cutting between walls where space is limited. Two of these Cabins may be placed together, back to back, in order to form a complete building, and used to represent a small wayside or branch line cabin.

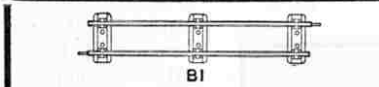


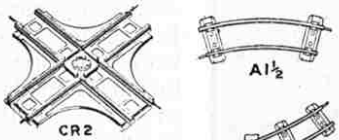
What the signalman sees from his cabin. The Hornby Control System is installed and the levers operating signals and points are plainly visible.

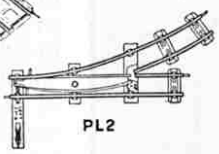
Each station on a layout should have a signal cabin near it, and the position of this should be carefully considered. Where the Hornby Control System is installed, the cabin should be easy of access to the operator, and yet at the same time it should allow the supposed miniature signalman a clear view of the station and yard under his charge. A terminal station may require two cabins to accommodate the necessary levers, and the position of the two will depend a great deal upon circumstances. Where several operators are normally available to work the layout, the cabins may be placed on opposite sides of the station and be called " No. 1 " and " No. 2 " or " East " and " West."

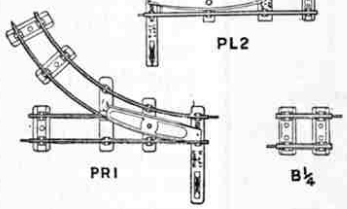
GAUGE O ALTERNATE PEGS

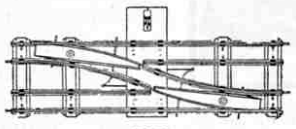
RAILS, POINTS & CROSSINGS

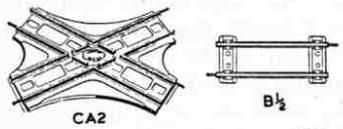


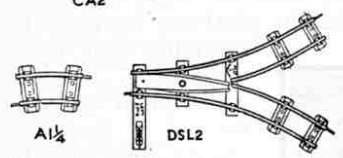


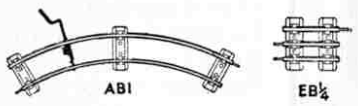


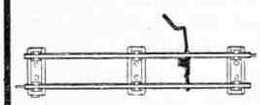


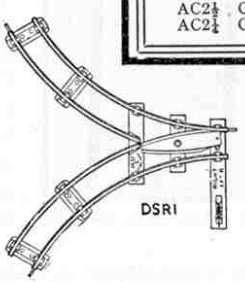


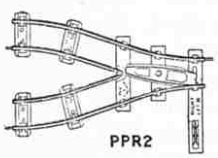


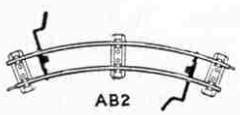


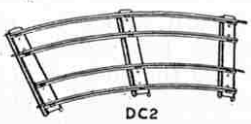


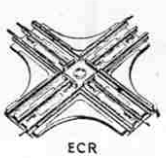


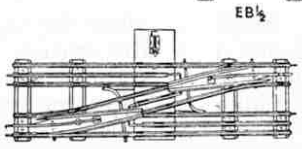


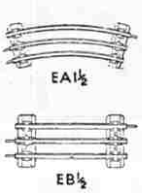


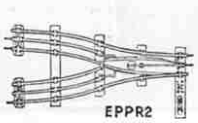


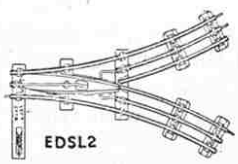


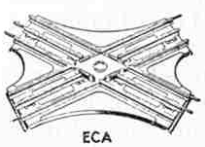


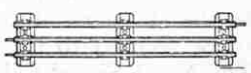












Hornby Rails, Points and Crossings are designed to meet the most exacting requirements of model railway enthusiasts. They make possible an almost endless number of realistic and railway-like layouts. Only the finest materials are used in their manufacture.

Rails for Clockwork and Steam Trains

CURVED RAILS

9-in. radius (For M0 Trains)

M9	Curved rails	doz.	3/–
MB9	Curved brake rails	each	3½d.

1-ft. radius

A1	Curved rails	per doz.	4/6
A1½	Curved half rails	„	3/6
A1¼	Curved quarter rails	„	3/–
AB1	Curved brake rails	each	6d.

2-ft. radius

A2	Curved rails	per doz.	4/6
A2½	Curved half rails	„	3/6
A2¼	Curved quarter rails	„	3/–
AB2	Curved brake rails	each	6d.
DC2	Curved rails, double track	½ doz.	7/6

STRAIGHT RAILS

BM	Straight rails (for M0 Trains)	per doz.	2/9
B1	Straight rails	„	4/–
B½	Straight half rails	„	3/–
B¼	Straight quarter rails	„	2/6
BB1	Straight brake rails	each	5d.
BBR1	Straight brake and reverse rails	„	1/6
DS1	Straight rails, double track	½ doz.	6/6

DOUBLE SYMMETRICAL POINTS

For 1-ft. radius curves

DSR1	Double symmetrical points, right-hand	per pair	5/–
DSL1	Double symmetrical points, left-hand		

For 2-ft. radius curves

DSR2	Double symmetrical points, right-hand	per pair	5/–
DSL2	Double symmetrical points, left-hand		

PARALLEL POINTS

PPR2	Parallel points, right-hand	per pair	5/–
PPL2	Parallel points, left-hand		

CROSSINGS

CA1	Acute-angle crossings (for 1-ft. radius tracks)	each	2/–
CA2	Acute-angle crossings (for 2-ft. radius tracks)	„	1/9
CR1	Right-angle crossings (for 1-ft. radius tracks)	„	2/–
CR2	Right-angle crossings (for 2-ft. radius tracks)	„	1/9

CROSSOVER POINTS

COR2	Crossover points, right-hand	per pair	12/–
COL2	Crossover points, left-hand		

POINTS

9-in. radius (For M0 Trains)

MR9	Right-hand points	per pair	3/–
ML9	Left-hand points		

1-ft. radius

PR1	Right-hand points	per pair	4/–
PL1	Left-hand points		

2-ft. radius

PR2	Right-hand points	per pair	4/–
PL2	Left-hand points		
PSR2	Points on solid base, right-hand	per pair	8/6
PSL2	Points on solid base, left-hand		

RCP	Rail connecting plates	½ doz.	2d.

Rails for Electric Trains

CURVED RAILS

1-ft. radius

EA1	Curved rails	per doz.	6/6
EA1½	Curved half rails	„	4/6
EA1¼	Curved quarter rails	„	4/–

2-ft. radius

EA2	Curved rails	per doz.	6/6
EA2½	Curved half rails	„	4/6
EA2¼	Curved quarter rails	„	4/–
EDC2	Curved rails, double track	½ doz.	9/–

STRAIGHT RAILS

EB1	Straight rails	per doz.	6/–
EB½	Straight half rails	„	4/6
EB¼	Straight quarter rails	„	4/–
EDS1	Straight rails, double track	½ doz.	8/6

CROSSINGS

ECA	Acute-angle crossings	each	4/–
ECR	Right-angle crossings	„	4/–

POINTS

For 2-ft. radius curves

EPR2	Right-hand points	per pair	7/6
EPL2	Left-hand points		

DOUBLE SYMMETRICAL POINTS

For 2-ft. radius curves

EDSR2	Double symmetrical points, right-hand	per pair	8/6
EDSL2	Double symmetrical points, left-hand		

PARALLEL POINTS

For 2-ft. radius curves

EPPR2	Parallel points, right-hand	per pair	8/6
EPPL2	Parallel points, left-hand		

CROSSOVER POINTS

ECOR2	Crossover points, right-hand	per pair	24/–
ECOL2	Crossover points, left-hand		
TCPL	Terminal connecting plates (low voltage)	each	1/6

Electrical Points for 1-ft. radius curves are not supplied

Centre Rails for Converting Ordinary Track to Electrical

CURVED CENTRE RAILS

1-ft. radius

AC1	Curved centre rails	per doz.	1/–
AC1½	Curved centre half rails	„	9d.
AC1¼	Curved centre quarter rails	„	6d.

2-ft. radius

AC2	Curved centre rails	„	1/–
AC2½	Curved centre half rails	„	9d.
AC2¼	Curved centre quarter rails	„	6d.

STRAIGHT CENTRE RAILS

BC1	Straight centre rails	per doz.	1/–
BC½	Straight centre half rails	„	9d.
BC¼	Straight centre quarter rails	„	6d.
ICR	Insulators for insulating centre rails	„	3d.
CCR	Clips for fixing centre rails	„	6d.