

# GREAT WESTERN RAILWAY.

NOTICE No. E.  
1222.

(For the use of Company's Servants only.)

---

## New Signal Box at Winchester.

---

NOTE I—THE POINTS AND SIGNALS WILL BE WORKED BY ELECTRIC POWER.

Instructions as to working of signal levers and point slides.

1. The power frame contains 16 miniature four-position signal and route levers numbered 1 to 16, and 6 supplementary three-position point slides numbered 17 to 22.
2. Behind the signal and route levers are four rows of coloured circular disc lights, which, when illuminated, give the following indications:—

O — Red	=	Signal at danger.
O — Green	=	Signal off.
O — Orange	=	Route set.
O — White	=	Point protection track clear.
3. Separate point slide levers numbered 17 to 22 are provided underneath the lever frame for the independent working of the various points in case of emergency. They have two light indications, green above and red below for those points which are automatically restored to the normal position by the reversing of the signal and route levers and green above and orange below for those points (19, 21 and 22) which can be left in either position. In all cases a correct alteration of the position of the points is indicated by a change from green to red or orange, or *vice versa*.

The three positions of the point slides are:—

Normal.  
Neutral.  
Reverse.

4. Short track circuits are provided at the points to prevent their being moved whilst vehicles are standing upon or passing over them.
5. The signals and discs governing the various routes cannot be lowered unless the white "track" disc behind the lever for the route required is illuminated to indicate that the point protection track or tracks concerned are clear.
6. In pulling the signal and route levers, the movement from the first or normal to the second or "route" notch sets any points governed by the signal in the correct position for the passage of a train, and the illumination of the orange coloured disc is an indication that the route has been properly set.

7. The movement of the lever right over from the second to the fourth position will lower the signal, which will be indicated to the signalman by the illumination of the green disc and the extinguishing of the light in the red disc.
8. While the train is passing over any points operated by the signal and route lever the light in the white disc will be extinguished, and after the passage of the train the replacement of the lever from notch four to notch three will place the signal or disc to "danger," the green light will disappear, and the red disc again become illuminated. As soon as the white disc is again illuminated, which indicates that the train has passed clear of the point protection tracks, the lever may be restored to its normal position, which will, in the case of points which always stand normal, automatically re-set the points to that position.
9. Fuses are provided in connection with each ordinary lever in the frame and numbered correspondingly, and should any difficulty arise the first thing to be done is to examine the fuse, and if the wire is found to be blown the Signalman should at once proceed to replace it by another fuse of the same colour.
10. If the fuse is found to be intact, but it is impossible to move the signal and route lever beyond the second notch and the route consequently cannot be established, after putting the signal lever back, the king lever must then be pulled right over, which will release the point slides. These may then be manipulated to set the desired route. The king lever must then be restored to its normal position and another effort made to pull the signal lever. If, however, it is still locked, it will be necessary for the lineman to be sent for, and a flagman provided for the defective signal until the fault is rectified.

While the failure exists the king lever must again be pulled right over, and the point slides worked as necessary for train movements, the king lever being restored to its normal position after every operation of the points for the passage of trains. When working under these conditions the Signalman must be particularly careful to see that all the points over which an approaching train has to pass are set correctly for its passage.

When ordinary working is in operation the point slides must be in their neutral position; but in cases of emergency, when the king lever has been operated in order to release the point slides for independent working, the king lever can only be restored to its normal position after the point slides concerned have been replaced in the neutral position.

11. In case of ascertained failure of the track or signal circuit to release the back lock, and consequent inability to restore a signal lever to its normal position, after satisfying himself that the signal or disc concerned has gone to "danger" and that the route affected is actually clear, the king lever must be *pushed forward*, which should release the back locked lever, enabling it to be restored to its normal position. The king lever must then be replaced in its normal position in order that ordinary working may be resumed.
12. Every occasion on which the king lever is thus pushed forward will be automatically registered on a recording instrument.
13. The king lever (No. 9) in the frame must only be used in case of failure of a lever to establish the route or failure of the track or signal circuit to release the back locks.
14. An entry must be made in the train register book in each case of failure, stating the circumstances, and the Lineman must be advised.

15. The red lights provided over the point slides working points, which must stand always normal, should not be seen at any other time than when the points have been reversed for a train to pass.
16. If any failure to obtain the proper light over the point slide occurs, the Signalman should operate the king lever and work the point slide to see whether the points still work properly. If it is found that they do not, the necessary steps must be taken to trace the cause, and, if necessary, the points must be worked and clipped by hand in accordance with the standard rules until the Lineman repairs the defect.

If both lights over the point slide should disappear, the Signalman must test the working of the points by moving a signal and route lever, and if the points are found to be working properly the defect will be due to a lamp failure, and the Lineman must be asked to replace the defective lamp.
17. In all cases of light indication failures clearly traceable to a defective lamp, ordinary working may be continued during the interval until the faulty lamp is replaced.
18. The signal and route levers must be operated for all movements except the following, in which cases hand signals must be given the driver, the Signalman being advised beforehand of what is to be done :—

“ When a train from Shawford Junction is stopped on the Up Line outside the Home Signal for the purpose of picking up traffic from the Passenger Siding, after the vehicles have been attached and have been brought out, a hand signal must be given to the Engineman for the engine and vehicles to set back ‘ Main Line ’ on to the train.

“ When a train has been admitted into the Up Platform Line and it is necessary for it to be set back on the Up Line for the purpose of picking up or detaching traffic from or to the Passenger Siding, a hand signal must be given to the driver to set back when ready.”
19. When coming on duty the Signalman must close main switches Nos. 1 and 2 in the switchboard cupboard and open them before leaving duty, but no other switches must be operated by him. At other times when there is little traffic switches 1 and 2 should be opened to cut off the current during long intervals between trains, so as to avoid unnecessary expenditure of power, but before doing this all levers should be placed in their normal position.
20. The electric power for working the points and signals is obtained from storage batteries placed in the under portion of the signal box.
21. See diagram attached.

F. R. POTTER,

*Divisional Superintendent.*

PADDINGTON STATION,

March, 1922.

