

(For the use and information  
of employes only)

# Rules . . . .

for the

## Automatic and Track Control System of Train Signalling . . . . .

### On Single Lines of Railway

and

Remote Control of Points  
and Signals at Unattended  
Crossing Stations . . . . .

Under the Direction of a Train Controller.

**RULES FOR THE AUTOMATIC AND TRACK CONTROL SYSTEM  
OF TRAIN SIGNALLING ON SINGLE LINES OF RAILWAY, AND  
REMOTE CONTROL OF POINTS AND SIGNALS AT UNATTENDED  
CROSSING STATIONS.**

**Under the Direction of a Train Controller.**

*These Instructions are only effective when and where specially authorised by the  
General Superintendent of Transportation.*

Every employe who the Head of the Branch considers should be acquainted with the Rules contained herein, must be supplied by his Superior Officer with, and have with him when on duty, and produce when required, a copy of this pamphlet. Every employe supplied with the pamphlet must make himself thoroughly acquainted with, and will be held responsible for compliance with the whole of the Rules contained herein.

This system of Train Signalling does not in any way dispense with the use of Hand or Detonating Signals, whenever or wherever such Signals may be requisite to protect obstructions on the Line. The Rules and Regulations contained in the Book of Rules and Regulations, the Instructions contained in the General Appendix, and any other printed or written Notice that do not conflict with the instructions contained herein are effective so far as they apply to this system of Signalling.

*By Order of the Victorian Railways Commissioners*

Melbourne, July 23, 1931.

**RULES FOR THE AUTOMATIC AND TRACK CONTROL SYSTEM  
OF TRAIN SIGNALLING ON SINGLE LINES OF RAILWAY AND  
REMOTE CONTROL OF POINTS AND SIGNALS AT UNATTENDED  
CROSSING STATIONS.**

*Under the Direction of a Train Controller.*

**DEFINITIONS—**

1. In addition to those specified in Regulation 1, of the Book of Rules and Regulations, the following definitions will be applicable in these Rules:—

(a) " **Single Line Section** " shall mean the entire section of the track extending between adjoining Crossing Stations.

(b) " **Track Section** " shall mean any division of the Single Line Section, the entrance to which is governed by a Fixed Signal.

(c) **Attended Crossing Station** shall mean a Crossing Station at which ordinarily, a Station-master or Signalman is in attendance.

(d) **Unattended Crossing Station** shall mean any Station or Loop used for crossing or side-tracking trains at which the Points and Signals are Remotely Controlled from a Station or Signal Box at the opposite end of the Section. When a train arrives, the Guard, unless otherwise arranged, shall be in charge of the Station until the departure of his train; when two trains are at the Station, the Guard of the train which arrives first shall be in charge.

(e) " **Train Controller** " shall mean the " Train Despatcher " or other officer directing movements of trains under the " Train Control System. "

(f) " **Remote Control** " shall mean the operation and control of Points and Signals at a distance from a Control Station or Signal-box by means of Electric Circuits and Motors.

(g) " **Control Station** " shall mean the Station or Signal-box from which the Points and Signals at the Unattended Station are controlled.

2. On Lines worked under this System, a Single Line Section may be divided into two or more Track Sections; the entrance of a train into each Track Section is controlled by a Fixed Signal. Train Staffs, Electric Staffs or Tablets or Train Crossing Orders are not used.

**OBJECT OF THE SYSTEM.**

3. (a) The object of this System of Train Signalling is:—
- (i) **When Two or More Trains are to proceed in the Same Direction.**—To prevent more than one train being in a Track Section at the same time; and
  - (ii) **When Trains are to Travel in Opposite Directions on the Single Line.**—To prevent more than one train being on the Single Line Section between two Crossing Stations at the same time.
  - (iii) Subject to (i) and (ii) hereof, for a Train Controller to arrange the precedence of trains.
- (b) The foregoing principles are maintained as follows:—
- (i) **In the Case of Trains Proceeding in the Same Direction.**  
—By the Fixed Signals being electrically secured at the Stop position unless the Track Section ahead of the Signal is clear; and



- (ii) **When Trains are to Proceed in Opposite Directions.**—By the Signals being electrically controlled by the track and the position of the Departure Signal at the opposite end of the Section, so that it is not possible for the Signals controlling the entrance to the Single Line Section at opposite ends to simultaneously exhibit a Signal to Proceed.

- (iii) By the movements of trains through the Sections being conducted under the Train Control System.

#### FIXED SIGNALS.

4. (a) The Arrival Signals at Unattended Crossing Stations and the Departure Signals controlling the entrance of trains to the Single Line Sections at Attended and Unattended Crossing Stations are Three-position Home Signals.

(b) The Arrival Signals at Attended Crossing Stations may be either Two or Three-position Signals, and are described in the Signalling Diagram issued for each locality.

(c) The intermediate Signals between Crossing Stations are Three-position Automatic Signals.

(d) In addition to the ordinary control of Fixed Signals referred to in Rule 3, any of the conditions shown hereunder will at once replace an Electrically Controlled Fixed Signal to Danger and secure the Signal in that position :—

- (i) Any metallic or other conducting substance so placed as to form a connection between the rails.
- (ii) A broken or displaced rail, or broken line wires.
- (iii) Any wire bond becoming detached or broken.
- (iv) Point at Intermediate Sidings not being set properly for the Main Line.
- (v) Selector lever of Points Machine at Unattended Crossing Stations not being in the Motor Operating position.

(e) If any defect hindering, or likely to hinder, the proper working of the Signals is noticed by any employe, he must at once communicate with the nearest Station-master, in order that the defect may be remedied without delay.

(f) The normal position of the Fixed Signals, that is, when the Sections are unoccupied, is as shown hereunder :—

Class of Signals.	Normal Indication.
(i) <b>Automatic Signals.</b> —At intermediate places between Crossing Stations ... ..	“Warning” or “Proceed” depending upon aspect displayed by Signal ahead
(ii) <b>Home Signals</b> , sometimes referred to as “Departure Signals” ... ..	“STOP”
(iii) <b>Home Signals.</b> —At the entrance to Crossing Stations; these Signals are sometimes referred to as “Arrival Signals” ... ..	“STOP”

(g) The Indications which may be displayed on Signals at Unattended Crossing Stations are :—

Signals.	Indications.
Arrival ... ..	(i) When the points at each end are set for the Straight Road and the Track Section is clear—Normal Speed, Warning or Clear, depending upon the Indication displayed on the Signal next in advance. (ii) When the Points ahead of the Signal are set for the Straight Road, and those at the opposite end for the Loop, and the Track Section is clear—Low Speed. (iii) When the Points ahead of the Signal are set for the Loop and the Track Section is clear—Low Speed.
Departure ... ..	The Departure Signals from the Straight Road display a clear Normal Speed or Normal Speed Warning Indication, and from the Loop, the Clear Medium Speed or Medium Speed Warning Indication, in each case depending upon the Indication displayed at the Signal next in advance.

NOTE.—An apparatus (the Releasing Switch) is provided adjacent to the respective Arrival Signal by means of which the Low Speed Indication can be displayed when either Running Road is occupied, and it is necessary to admit another train into the occupied Road, or, when, due to failure of the Track Circuit, the Arrival Signal does not clear when operated; see Rule 14 for method of operating.

5. **Home Signals.**—(a) Home (Departure) Signals, at Attended Stations, are situated a short distance ahead of the Station, and at Unattended Stations clear of the fouling point. In each case they control the entrance of trains to the Single Line. No train must pass these Home Signals at the “Danger” or “Stop” positions except as shown in Sections (i) to (iv) hereof :—

EXCEPTIONS :—

- (i) Where the traffic is being conducted by Pilot-working and the Driver is authorised by the Pilotman to pass the Signal. See Rules 24 and 27a.
- (ii) When, in accordance with Rules 27 and 27a, it is necessary for a Relief Engine or train to enter the Section for the purpose of rendering assistance to an Engine disabled on the Single Line.
- (iii) When, in accordance with Rule 25, an Engine is required to return from a Crossing Station for a portion of a train left on the Single Line.
- (iv) When, in accordance with Rules 22 and 22a, a Caution Order has been issued to pass the Signal.

(b) Home (Arrival) Signals at Unattended Stations which are situated a short distance on the approach side of the Facing Points they protect, control the entrance to the Station. No train must pass these Signals at the “Danger”

or "Stop" position except on instruction from the Train Controller, who, before authorising the Guard or Driver to pass the Signal, must have a thorough understanding with the Signaller in charge of the Control Station, and when it has been definitely decided that the Signal cannot be operated for the movement, and that the Control lever for such Arrival Signal is in the proper position on the Control Panel and no train is entering the Station at the opposite end, and the Opposing Arrival Signal is at "Danger," and the operation of the Releasing Switch will not display the Low Speed Signal, the Train Controller will then instruct the Guard or Driver to unlock the Selector lever from the Dual Control Point Machine and throw it to the "Hand Operating" position and lock it in that position. The Guard or Driver may then be instructed, providing the Points are set for the required Road—No. 1 or the Loop—to pass the Signal at the "Stop" position. See clause (d), Rule 18.

The following message must be repeated by the Train Controller, and the telephone instructions received must be written down by the Guard or Driver concerned:—

"The Arrival Signal, Post No. .... at Unattended Crossing Station, having failed, I authorise you to pass it at the 'Stop' position after assuring yourself that the Points are properly set for the Road on which you are to enter, and that the Selector lever is locked in the 'Hand Operating' position, and that the Hand Throw lever is locked in the required position. You must proceed cautiously (prepared to stop short of any obstruction) to the next Fixed Signal, then in accordance with the Indication shown thereon."

(Name) ..... Train Controller.

6. **Automatic Signals.**—Automatic Signals may be erected at Locations intermediate between Crossing Stations, and, except as shown hereunder, these Signals may be passed at the "Danger" or "Stop" positions as laid down in Regulation 74.

**EXCEPTIONS—**

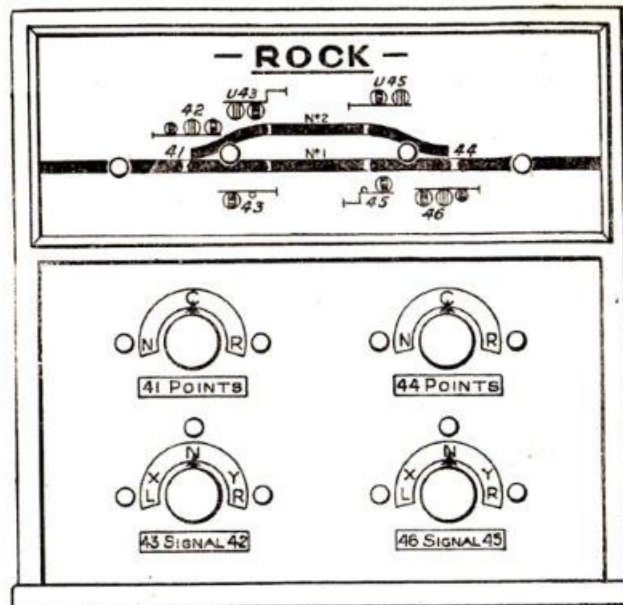
- (a) (i) Where there is an intermediate Goods Siding with Points secured by an Electric Switch Lock in the Track Section ahead of an Automatic Signal which has been passed at the "Stop" position, Drivers, in addition to complying with Regulation 74, must, before passing over the Points at the Siding, examine them and see that they are in the Normal position for the train to pass. (See Rule 15.)
- (ii) In the event of the Points being in the Reserve position, the Driver must arrange for them to be placed in the Normal position and immediately report the matter to the Train Controller by the telephone provided at the Siding.

**DESCRIPTION OF THE REMOTE CONTROL SYSTEM AND APPARATUS.**

7. The Points at each end of the Unattended Crossing Stations are operated by Dual Control Switch Machines, by means of which the Points are normally Motor-operated from the Control Apparatus at the Control Station, and, when necessary under emergency, by the Train Crews on Hand Points.

8. **Control Apparatus at Control Stations.**—(a) The Control Apparatus consists of a Control Panel, above which is a Track Diagram showing the Points and Signals at the Unattended Crossing Station. The Panel has four Control levers two of which control the Signals and the other two the Points. Each Control lever consists of a Knob, which is operated by turning it to the various Control positions, as indicated by the Pointer.

**ILLUSTRATION.**



(b) **Point Control Levers.**—The Indicating letters "N" and "R" on the Control Panel correspond to the Normal and Reverse positions of the Points; "C" is the central or de-energised position.

(c) **Signal Control Levers.**—The Signal Control Levers have three main operating positions, i.e., "N," "L" and "R," and two auxiliary positions, "X" and "Y." See description below.

Position of Signal Control Lever—	Description.
N	Signal will be at "Stop."
R or L	Signal will display a "Warning" or "Proceed" indication if the track Section ahead is clear, and after the passage of a train, will again automatically show "Warning" when the train has cleared the Track Section controlling it.
X or Y	Signal will display a "Warning" or "Proceed" indication if the Track Section ahead is clear, but after the passage of a train, it will remain at "Stop" until the Control lever has been replek'd to the "N" position and again operated.



(d) **Indicating Lamps on the Control Panel.**—On the Point Control lever, a Yellow light at the "N" position indicates that the Points are in the full Normal position, and a Green light at the "R" position indicates that the Points are fully reverse.

On the Signal Control lever, a Red light at the "N" position indicates that all Signals which the lever controls are at "Stop" and a Green light at the "L" or "R" position indicates that the respective Signal is at "Proceed."

The indications on the Track Diagram show the presence of a train on either fouling Track Circuit or on either Single Line Section approaching the Unattended Crossing Station. When the Fouling Tracks are clear, a White light appears. When the Controlling lever for the Departure Signal has been operated for a train to enter the Single Line Section approaching an Unattended Crossing Station, a Red light will be displayed for the Approach Section and remain displayed until the Single Line Section is again clear.

(e) **Indicating Bell.**—A single stroke Indicating Bell operates in conjunction with the Control Panel, and will function, (i) when a Red Approach Light is displayed, (ii) when a train enters the fouling Track Section, (iii) when a train clears the fouling Track Section, provided the Signal Control lever is not at the "X" or "Y" position.

9. (a) **Crossing Trains, Unattended Crossing Stations.**—When trains are to cross, the Signaller should, before operating either Arrival Signal lever, set the Points for the train that is required to enter the Loop, after which both Arrival Signal levers may be operated, and each Signal will display the Low Speed Indication—one for the Straight Road and one for the Loop. As each fouling track is cleared by the arriving train, the Points can be reversed, and the opposing train signalled out.

(b) When an Arrival Signal is displayed for a train to enter the Straight Road, and the Points at both ends are in the Normal position, and the train has entered on the Track Circuit immediately approaching such Arrival Signal, the Points at the far end of the Loop will be Approach Locked in their Normal position until such time as the train arriving in No. 1 has passed the Arrival Signal and an interval of 1½ minutes has elapsed to allow the train to come to rest at the Departure Signal; the Points may then be operated and the Low Speed Indication displayed for the opposing train to enter the Loop.

Note.—To obviate this delay and permit of a running cross on Low Speed Signals, the Points should be set for the train that is required to enter the Loop before the Signal lever is operated for the opposing train to enter on No. 1 Road.

(c) When the Low Speed Indication is displayed, whether it be by means of the Releasing Switch at the Signal or by the operation of the Control lever from the Control Station, the Driver must, after receiving the Signal, act in accordance with clause (d), Regulation 59.

Note.—The Low Speed Signals may be exhibited before a train has come to a stand at the Home (Arrival) Signal and the last paragraph of clause (d) of Regulation 59, will not apply to these Signals.

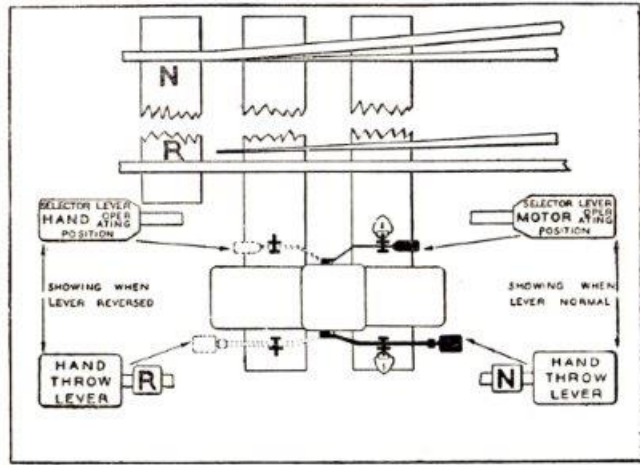
10. **Approach Locking of Points.**—When the Signal lever is operated to either the "L" or "R" position and no train is on the Track Section approach Locking the Signal, the Signaller may, if necessary, restore the Signal lever to the "N" or Normal position, when the Points ahead of the Signal will be free to be operated. If, however, after having displayed a Signal to proceed, a train has entered on the Track Section approach Locking the Signal, and it becomes necessary to stop the train at the Signal, the Signal lever can be put back to the "N" position, when the Signal will immediately

go to "Stop" but the Points protected by the Signal cannot be moved until the Selector lever at the Points is operated from the "Motor Operating Position" to the "Hand Operating Position" and after an interval of five seconds has elapsed, restored to its former position. See clause (b), Rule 13.

11. **Points Failing to Operate.**—When the Points Control lever is operated to the "N" or "R" position and the Indicating Light does not appear to indicate that the Points have properly functioned, an intermittent ringing of the Bell accompanied by a simultaneous "blinking" of the Fouling Track Indication Light will be observed. The Signaller should then make five attempts to operate the Points, and if the Points still fail to respond, the lever must be placed to the Central (C) or "De-energised" position; if, however, the Points will not function for the Normal (No. 1 Road) position, but operate correctly for the Loop, or *vice versa*, trains must be worked through on the available Road, and the crossing of trains at the Loop suspended until the defect is attended to by the Electrical Fitter.

12. **Dual Control Point Machine.**—(i) The Dual Control Point Machine is contained in a Metal Box located on the sleepers adjacent to the Points. Each machine has two levers, one on each side. The levers normally rest on Stops to which they are secured by standard VR/G padlocks. Similar Stops are provided for the levers when they are in the Reverse position.

ILLUSTRATION.



(ii) The levers are known as "Selector" and "Hand Throw" lever respectively. The former is the smaller lever of the two, and after placing it from the Motor Operating Position to the Hand Operating Position, the Points can be worked by hand. The Selector lever is, in each instance, located nearest the track. Its function is to determine whether the Points are connected so that they may be operated by Motor or by hand. In the Normal position, the lettering "Selector Lever Motor Operating Position" appears on the upper



side, indicating that the lever is in position for Motor operation. When unlocked and thrown to Reverse position, the lettering "Selector Lever Hand Operating Position" appears on the upper side, indicating that the Points are in position for hand operation. The Hand Throw lever is the longer lever of the two, and is located on the side of the machine farthest from the track. With this lever the Points may be operated as Ordinary Hand Points providing the Selector lever has first been operated to its Reverse position. The words "Hand Throw Lever N" appear when it is in the Normal position, and the words "Hand Throw Lever R" are shown when at Reverse. So that Train Crews can readily observe the position of the Points, large metal letters are fixed on the sleeper at the toe of each blade—the letter "N" being against the blade which is closed when the Points are Normal, and the letter "R" against the blade which is closed when the Points are Reverse. When in the Normal position, the Points are set for the Straight Road (No. 1) and when Reverse, they are set for the Loop (No. 2). Immediately the Selector lever is moved from the Motor position to the Hand position, the Signals Controlling Facing and Trailing movements over the Points are held in the "Stop" position, and the Signal and Point Control levers on the Control Panel are rendered inoperative.

**13. Operation of Points by Train Crews.**—(a) When it is necessary for the Points to be operated by Hand, the Train Controller must have a thorough understanding with the Guard or Driver concerned as to the Road (No. 1 or the Loop) for which the Points are to be set. On examination, the Points will be found in one of the following positions:—(a) Normal, (b) Reverse, (c) Some intermediate position.

(i) If the Guard or Driver has been instructed by the Train Controller to operate the Points, account failure of Apparatus, the Selector lever must be unlocked and operated to the Hand position and locked in that position. It will depend then upon the Road the train is to enter as to whether the Hand Throw lever is to be unlocked. If the Points are normal and the train is to proceed through No. 1 Road, the Hand Throw lever is to be left locked in the Normal position. If the movement is to take place *via* the Loop and the Points are Normal, the Hand Throw lever must be unlocked and the Points thrown to Reverse and the Hand Throw lever locked in that position, providing, of course, that the Selector lever has first been operated as previously described.

(ii) If, on examination, the Points are Reverse and the Selector and Hand Throw levers are in the Motor Operating and Normal position respectively, the Hand Throw lever must be first unlocked and thrown to the Reverse position, thus making the position of the lever correspond with the position of the Points. The Selector lever should then be unlocked and thrown to the Hand Operating position, after which the Points can be Hand operated.

(iii) If, on examination of the Points, it is found that they have not fully assumed their Normal or Reverse position and the Train Controller has directed that the Points are to be Hand operated, it will not be possible to fully reverse the Selector lever. In such a case both levers must be unlocked and the Selector lever

operated firmly as far as possible towards the Hand Operating position. The lever will then be definitely checked when slightly past the midway position. Retaining slight pressure upon the Selector lever, the Hand Throw lever should be lifted towards the Reverse position. Slight resistance will be felt, but when a position is reached at which the Hand Throw lever moves freely for a short distance, the Selector lever can be fully reversed, after which the Points can be Hand Operated. Should the Points appear to be in their full Normal or Reverse position, and when operating the Selector lever, it cannot be fully operated, the same procedure must be adopted as when the Points are partly open.

When the Points have been Hand operated, as set out in the preceding paragraph, it will not be possible to restore the Selector lever to the Motor Operating position, in which case the Points, after the train movement has been performed, must be placed to Normal, the Hand Throw lever locked Normal and the Selector lever locked Reverse (Hand Operating Position) and prior to departing, the Train Controller must be advised.

(iv) Except as shown in Section (iii) hereof, the Guard must, when the Points have been hand operated, arrange for the train to be stopped when it has cleared the Points so that the Hand Throw lever and Selector lever can be locked in their Normal (Motor Operating) position. In the case of a light Engine the Driver must arrange for the Points to be restored and locked.

(b) If the Selector lever is to be operated for the purpose of releasing the Approach locking (see Rule 10), the Guard or Driver will be instructed by the Train Controller to unlock the Selector lever from the Motor Operating position, and throw same to the Hand Operating position; lever to be left in that position for five seconds and then restored to the Motor Operating position and locked. If, after the lapse of a short interval, the Signal Indication does not appear, the Guard or Driver must again communicate with the Train Controller. See clause (d), Rule 18.

**14. Releasing Switch.**—The Releasing Switch is contained in a Box adjacent to the Arrival Signal. It consists of a Push Button which, when pressed firmly home, and held in that position for a couple of seconds, will cause the Low Speed Indication to appear on the Arrival Signal. The cover of the Box is secured by a standard V.R./G. padlock, and the mode of operation is as follows:—

(i) Unlock the Switch Box and press the Push Button firmly home and hold it in that position for a couple of seconds, after which the Arrival Signal should display the Low Speed Indication.

(ii) When the front of the train has proceeded past the Arrival Signal, the Box must be closed and locked.

*It is important that the Door of the Box be closed after the train has passed the Signal, as when the door is open, the opposing Arrival Signal cannot be operated from the Control Station.*

**15. Electric Switch Locks on Points at Intermediate Sidings.**—

(a) The Points leading to Intermediate Goods Sidings are rodded to Catch Points in the Siding, worked by a lever in a frame, and secured by an Electric Switch Lock. The Switch Lock is so constructed that, except as set out in clause (c) hereof, while the Track Section in which it is situated is occupied by a train or engine, the Switch is locked.



(b) The Switch Lock is contained in a Box situated near the Facing Points, the door of the Box is secured by a *Standard (V.R./G.) padlock*; inside the Box is a "Finger Trigger" (see "A," Fig. 2), and a "Releasing Handle" (B, Fig. 2).

**Train Requiring to Work at a Switch Locked Siding.**—(c) When a train requires to work a Switch Locked Siding, the engine or some portion of the train must be stopped clear of, but within 60 feet in advance of, the Facing Points, in order to effect a release.

**EXAMPLE:**—

- (i) A train in the trailing direction having to put off or pick up vehicles in the Siding must stop with engine opposite the Catch Points in Siding, engine and vehicles detached and run ahead; stopping with rear vehicle not more than 60 feet ahead of Points.
- (ii) If the whole of the train is to enter Siding, train must be stopped with rear vehicle not more than 60 feet ahead of Points.
- (iii) If engine or train require to enter Siding in a Facing direction, engine to be stopped within 60 feet of Points.

(d) When the engine or portion of train has stopped as instructed above, the Guard or Fireman must open the door of the Switch box (see Fig. 1), take hold of the finger trigger with the left hand, drawing it outwards, and holding it out until the Semaphore Indicator (see "C," Fig. 2) assumes the "Clear" position; with the trigger still held out, the Releasing Handle ("B," of Fig. 2) must then be moved from right to left. The Points can then be operated from the lever.

(e) If the whole of the train is to enter the Siding, the Guard or Fireman must, when it has cleared the Catch Points, immediately restore the Points to normal, move the Releasing Handle in Switch-box to its normal position on the right, and close and lock the Switch-box door.

**SPECIAL NOTE.**—When a portion of a train is standing on the main line while a Switched Locked Siding is being worked, the Points must not be placed to normal, but must remain set for the Siding until the engine has returned to the main line, otherwise the Switch will become locked until a vehicle is again placed on the Releasing Rail within 60 feet ahead of the Points.

(f) When a train or engine which has been completely side tracked to a Switch Locked Siding clear of the Main Line is ready to proceed, the Guard, or Fireman must receive permission to enter upon the Main Line from the Train Controller by means of the telephone provided. When permission has been obtained, the Guard or Fireman must proceed to the Switch-box open the door, and observe the Semaphore Indicator. If the Indicator show "Clear," he must then act as laid down in sub-clause (d) hereof, except that he must not operate the Finger Trigger, and when the train or engine is quite clear of the Points in the Main Line, the Points must be restored to Normal, and the Switch-box door closed and locked, as set out in sub-clause (e).

(g) In the event of a Guard or Fireman, after receiving permission from the Train Controller to depart from a Switch Locked Siding, finding the Semaphore Indicator showing "Stop," i.e., Arm horizontal, he must not attempt to manipulate the mechanism, but must communicate with the Train Controller.

(h) It is most important that, after the work has been completed and the whole of the train has entered the Siding or has returned to the Main Line, the Points be returned to normal, and the Switch-box door closed and locked, otherwise the Signals applying to the Section will be held at the "Stop" position.

(i) Point Indicators are attached to and work with, the Facing Points at Electric Switch Locked Sidings.

*Illustration of Electric Switch Lock Box.*



Fig. 1.

*Switch Lock Box Closed.*

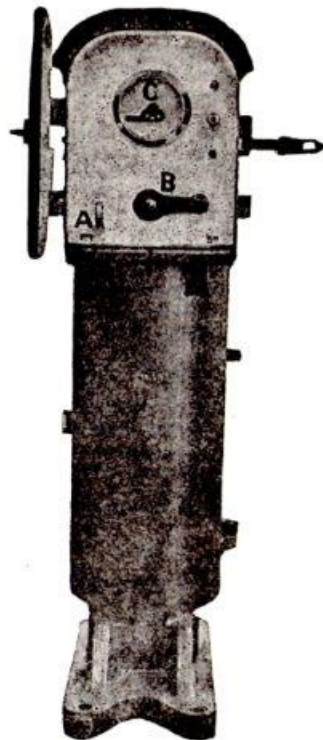


Fig. 2—Switch Lock Box Open.

- A. Finger Trigger.
- B. Releasing Handle.
- C. Semaphore Indicator.

**16. Telephone and Telephone Cabins.**—(a) Telephones of the Selector type connected to the District Train Control Office are provided at Unattended Crossing Stations and at Switch Locked Intermediate Sidings. These telephones are housed in small telephone cabins opposite the fouling points at each end of Unattended Crossing Stations, and at Intermediate Sidings. The Telephone Cabins are equipped with—

- (i) An Instrument Board, on which is fixed the telephone and Lighting Switch.
- (ii) A combined desk and cabinet for writing, etc.



- (iv) At Unattended Crossing Stations a Caution Order Book and a Train Order Book, for use as described in Rules 22a and 27 and a supply of type written forms for use in case of failure of an Arrival Signal. See clause (b), Rule 5.

The Cabins are illuminated by Electric Light during darkness, and the doors are secured by standard padlocks.

Employes must take care to switch off the Light, and close and lock the door after use.

(b) To call the Train Controller, lift the receiver off the hook and listen. If the Line be disengaged, depress the Foot Pedal on Foot Switch, and speak as follow:—Call the name of the Station or Siding, then wait until the Train Controller says "Speak 'So and So'" (Station or Siding). When the communication is finished, the Train Controller will say "Finished 'So and So'" (Station or Siding); the receiver must then be replaced on the hook.

(c) The Pedal on Foot Switch must be depressed whilst speaking, otherwise the Train Controller will not receive the communication. When train Controller is speaking, keep foot off Pedal.

(d) Should the Guard or Driver or Fireman of a train standing at an Unattended Station, or at an Intermediate Siding, hear the telephone ring he must immediately attend and speak to the Train Controller.

(e) Each Control Telephone bears a plate lettered "Train Controller," and a card of instruction is pasted in the cabin.

(f) Telephones connected to the Signal-box from which the Signal is worked are provided near Departure Signals at Attended Stations. These telephones must be used in accordance with the instructions under "Detention at Home or Starting Signals" contained in the General Appendix.

#### WORKING OF FIXED SIGNALS.

**17. Attended Crossing Stations.**—(a) At an Attended Crossing Station the Departure Signal is controlled by the Track and also by the opposing Departure Signal at the next Crossing Station—that is, the Down Departure Signal at one Station is electrically controlled with the Up Departure Signal of the next Crossing Station on the Down side, so that it is impossible for both of these Signals to be showing a Proceed indication at the same time. The Signal is worked by a lever in the Signal-box.

(b) A White Light Indicator is provided by which the Signalman may know when the Departure Signal is electrically released.

When the Single Line Section is clear and the opposing Departure Signal in advance is at the "Stop" position, or when a train travelling away from the Station is clear of the first Track Section ahead of the Departure Signal, the White Light will be displayed.

When a train travelling away from a Station, is in the first Track Section ahead of the Departure Signal, or when a train is approaching in the opposite direction, or when the opposing Departure Signal at the Station in advance is at the Warning or Clear Proceed position, the White Light will not be displayed.

(c) When a train is ready to proceed on the Single Line and the Indicator shows a White Light, the Signalman must operate the lever working the Departure Signal, which will then go to the "Warning" or "Proceed" position; this operation secures the opposing Departure Signal at the "Stop" position. When the front of the train has entered the Section and passed the Departure

Signal, this Signal will be automatically replaced to the Stop position, and the White Light Indication will disappear. The Signalman must then place the lever working the Departure Signal to its normal position.

(d) If one or more trains be required to follow in succession before a train will arrive from the opposite end of the Single Line, the Signalman must, when the Indicator shows a White Light, again operate the lever working the Departure Signal, and it will then go to the Warning position for the second train, and so on for each following train.

(e) If when the Signalman operates the lever, the Departure Signal should remain at the "Stop" position, the Signalman should observe the Indicator, and if the Indicator displays a White Light, and the full running time of the section has elapsed since the departure of a previous train, he must repeat the operation of the lever, and if, after a reasonable interval, the Signal still fails to go to the Warning or Clear Proceed position, the Signalman must, unless the services of an Electrical Fitter can be readily obtained, arrange to conduct the traffic in accordance with Rules 22 and 24.

(f) When the Track Section ahead is not clear or whenever the Departure Signal is at Stop, the Home Signals must be kept at the "Stop" position for an approaching train until it has been brought almost to a stand when, provided the Line is clear, the Signal may be placed at Proceed to permit the train to draw into the Station Yard, or, if necessary, towards the Departure Signal.

When trains which have to cross each other are approaching an Attended Station at the same time, the Signals in both directions must be kept at the "Stop" position, and when the train which has to be first admitted into the Station has been brought quite or nearly to a stand, the Home Signal applicable to such train may be placed to the Proceed position to allow it to draw forward to the Station, and after it has come to a stand, and the Signalman has seen that the Line on which the other train will arrive is clear, the necessary Signals for that train may be placed to the Proceed position.

**18. Unattended Crossing Stations.**—(a) At an Unattended Crossing Station, the Departure Signals are controlled in a similar manner to those at Attended Crossing Stations, excepting that they are operated from the Control Station.

(b) When trains are approaching an Unattended Crossing Station in opposite directions at the same time, the Automatic Signal in the rear of the Arrival Signal will show a "Warning" Signal. When a driver finds the Warning Indication displayed on the Signal next in the rear of an Arrival Signal he will understand that—

- (i) The Arrival Signal is at the "Stop" position, or
- (ii) His train will enter the Station *via* No. 1 Road or the Loop on a Low Speed Signal. See Rule 9.

(c) When a train has come to a stand on No. 1 or No. 2 Road at an Unattended Crossing Station, and the Departure Signal is at "Danger" and a train from the opposite direction cannot be seen or heard approaching, the Guard of the train or Driver of a Light Engine must communicate with the Train Controller and inform him of the circumstances.

(d) Should a train be detained at an Arrival Home Signal at an Unattended Station, the Driver must give Four Long Whistles to call the Guard to the Engine, when the latter must immediately communicate with the Train Controller and act under his instructions. In the case of a Light Engine, the Driver must communicate with the Train Controller. If a Pilotman be accompanying the train or engine and a man has not been placed in charge of the Unattended Station the Pilotman must act as laid down for the Guard.



(e) The attention of Trainmen is specially directed to clause (i) and (j) of Regulation 205, *re* Crossing Train Signals, i.e., to show a White Light nearest clear Running Line, and Red Light on opposite side of Engine or Van to approaching train during darkness or foggy weather.

19. (a) **Lighting of Signals.**—The Fixed Signals are Lighted Electrically (see clauses (b) and (c) of Regulation 119). Trainmen should keep a good look-out to see that the lights of Up and Down Signals are showing properly, and in the event of any Signal light being dull, or from any cause not showing properly, the circumstances must be brought under the notice of the nearest Station-master.

(b) Should the light of an Automatic Signal be extinguished, it will be the duty of the Guard and Driver to report the matter to the person in charge at the next Station, or to the Train Controller, if a Selector telephone be available.

The absence of Lights in a Fixed Signal must be treated as a Danger or Stop Signal.

See Regulations 74 and 96 and Rules 22 and 22a of this Book.

20. **Train an Unusually Long Time in Section.**—When a train is an unusually long time in the Section, the Signalmen on both sides must confer with a view to ascertaining the cause, and agree as to the action to be taken. If the Telephone has failed, the Signalman in advance of the Train in the Section must take steps to ascertain the cause of the delay, and adopt the necessary measures for the safe conduct of traffic.

21. **Fouling a Section of the Single Line for Station Work.**—Except where Special Instructions are issued to the contrary, no train must be allowed to foul the Single Line Section outside the Home Signal protecting a Terminal or Attended Crossing Station, or outside the Arrival Home Signal at an Unattended Crossing Station, unless the Signal controlling the entrance of trains to the Single Line Section about to be fouled for Station work is at the Warning or Proceed position.

22. **Failure of Signalling Apparatus at an Attended Station. Failure of Indicating Lights only.**—(a) In the event of an Indicating Light failing to light up when a train has passed out of the Section, or the light going out when no train should be on the Section, the Signalman at each end of the Section affected must immediately confer with each other, and when they are satisfied that the Section is clear, but the light in the Indicator has failed, the Electrical Fitter must be immediately informed, and steps taken to have the Indicator put in order.

Trains may be allowed to proceed if the Signals are in order, and can be operated in the proper manner. The Signalman in advance must, however, inform the Signalman at the Signal-box in the rear when each train passes out of the Section, and the time such message is sent and received must be recorded in the Remarks column, opposite the entry for the train referred to, in the Train Register Book at each Signal-box. A remark to the effect that the Indicator Light or Lights, specifying the number and description of the Lever or Levers concerned, failed, and the time must also be inserted across the figure line in Train Register Books, and the same procedure adopted when the Indicator is again put in order.

**Failure of Signal that Controls the Entrance of Trains to the Single Line Section Ahead.**—(b) In the event of the failure of the Signal that controls the entrance of trains to the Single Line Section ahead, the Signalman must at once communicate with the Train Controller and the Train Controller must immediately arrange to confer with the Signalman at each end of the affected Section in order to ascertain beyond doubt that the failure of the Signal to assume a Warning or Clear Proceed position is not caused by a train or vehicle being on the Section.

The following should be noted:—

(i) Whether the Indicating Light above the Controlling levers is displaying a White Light.

(ii) Whether the Train Register Book entries indicate that the last train signalled has cleared the Section.

(iii) Whether the opposing Departure Signal to the one that has failed will assume a Proceed position. After the lever controlling this Signal is again placed to the Danger position, the Signal that has failed must be tested.

(iv) Whether either Signalman concerned has placed a train or vehicle outside the Departure Signal for shunting purposes, or whether the last train through the Section has worked at a Switch Locked Siding.

(v) If necessary, the Points and Signals at an Unattended Crossing Station should be tested by the Signalman at the Control Station.

(c) If the Train Controller is quite satisfied that the Signal has failed and that there is no train on the Section affected by the Signal, steps must at once be taken to have the defect remedied, and until this is done, the working of traffic over the Section must be arranged by means of a Pilotman in accordance with Rule 24.

(d) If it be not possible to institute Pilot-working in time to avoid delay to any train, one or more trains may be worked through the Single Line Section where the failure exists, in accordance with the instructions set out hereunder, and Pilot-working must be established as soon as practicable by a train travelling through the Section under a Caution Order.

(e) As soon as it is agreed between the Train Controller and the Signalman at each end of the Single Line Section that a failure exists, and that Pilot-working cannot be arranged in time to avoid delay to a train, and a train (or trains) must be worked through the Single Line Section by Caution Order, the Signalman at each end must be instructed by the Train Controller to withdraw the Pilotman's Key from its Lock and keep it in his possession, until again required, in accordance with the Rules.

(f) The Train Controller will then transmit the following message instructing the Signalman at the Station where the train is waiting to issue a Caution Order referred to in clause (g) hereof, authorising the Driver to pass the Defective Signal at the Stop position:—

SIGNALMAN,

There is no train the Section.....  
to..... You may issue a Caution  
Order for No..... Train to pass the defective Departure  
Signal at the STOP position and proceed to.....

Withdraw Pilotman's Key from defective Signal, and I have also instructed  
Signalman at..... to withdraw.  
Pilotman's Key from Signal No.....

Train Controller.

(g) The Signalman receiving permission from the Train Controller to do so, must immediately fill in and issue a Caution Order to the Driver of the train authorising him to enter the Single Line Section, and pass the Departure Signal at the "Stop" position. The Signalman issuing this Order will be held responsible for seeing that all Points at his Station whether Facing or Trailing, are in the proper position for the train to pass over.



**Automatic and Track Control System of Train Signalling on Single Lines of Railways under the Direction of a Train Controller.**

*Signalman's Caution Order for Driver to pass a Signal controlling the entrance of a train to the Single Line Section, or Track Section ahead in the Instructions referred to as the "Departure Signal."*

No. .... Signal-box.

Date .....

Time .....

The Driver of ..... train from  
to ..... You are authorised to pass Signal No.  
..... at the Stop position, and proceed cautiously into the Section  
..... to ..... (acting in  
accordance with Regulation 74), as far as the Fixed Signals at

† Before passing over the Points, either Facing or Trailing, at  
Switch Locked Siding, stop, examine Points, and report to Train Controller.

Authorised by .....

Train Controller.

Signed .....

Signalman.

† If no Intermediate Siding in Section, delete this clause.

(h) On the departure of the train on a Caution Order, the Signalman despatching, must immediately so inform the Train Controller and the Signalman at the Signal-box next in advance, and on arrival of the train at the Signal-box next in advance, the Signalman there must collect the Caution Order from the Driver and telephone the arrival of the train to the Train Controller, and the Signalman in the rear.

Particulars of messages sent and received must be entered in the Train Register Book at each Signal-box.

Caution Orders must be cancelled by writing the word "cancelled" with Signature, Time and Date on the face of the Order.

(i) The Signalman at the Station where the Signal has failed may permit another train to follow before receiving the Arrival Message for the previous train, provided the Indicating Light shows that the Track Section is clear, or, if the Indicating Light has also failed, after the time ordinarily taken by the previous train to clear the Section, and the Driver has been verbally instructed regarding the time the previous train left; if, however, the same conditions exist, i.e., the Signal is still out of order, the provisions of clause (f), (g), (h) and (l) must be carried out for each train despatched.

(j) Whenever it becomes necessary to authorise the issue of a Caution Order (or Orders), the Train Controller must instruct the Signalman at each end of the affected Section that no train or engine must be permitted to enter

upon the Single Line Section, where the failure exists, without the authority of the Train Controller, and that such authority must be obtained whether the Departure Signal at one end of the Section is in order or not.

(k) Should the Departure Signal at one end of the affected Section be in order it must be worked for trains, but the preceding instructions must be complied with. In such a case it will not be necessary to issue a Caution Order, but the Train Controller must authorise the Signalman to insert the Pilotman's Key in its Lock for the purpose of working the Signal, and also instruct him to remove it again immediately the first portion of the train passes the Signal.

(l) In the event of an Unattended Crossing Station being the next Station in advance of a Departure Signal which has failed, and an opposing train has left the Attended Station on the opposite side, and it is not convenient to work the train through the Section to the attended Station, a Caution Order must not be authorised by the Train Controller until he has got into communication with the Guard of the train (or Driver in the case of a Light Engine) which is approaching the Unattended Station and arranged for the Selector Lever at the Points ahead of the Departure Signal for the affected Section to be locked in the Hand Operating position, thus securing the Departure Signal at the Unattended Station at "Stop." When the train for which the Caution Order was issued has arrived at the Arrival Signal at the Unattended Crossing Station, the Train Controller must be informed when he then will instruct the Guard or Driver to restore and lock the Selector lever in the Motor Operating position.

(m) Cancelled Caution Orders must be forwarded on day of issue, with a full report of the reasons for use, to the Block and Signal Inspector.

**22a. Failure of Signalling Apparatus at an Unattended Crossing Station.—(a) Failure of Departure Signal.**—In the event of the Departure Signal failing to assume the Warning or Clear Proceed position, when it is reasonable for the Train Crew to expect that there is no train in the Section to which it applies, the Guard of the train, or Driver in the case of a Light Engine, must communicate with the Train Controller, and inform him of the circumstances. The number, name, starting point, and destination of the train or engine concerned and the number of the Signal which has failed, must be given to the Train Controller.

(b) The Train Controller must confer with the Signalman at the Control Station, if this has not already been done, and with the Signalman at the Attended Station on the other side of the Unattended Station in order to ascertain beyond doubt that the failure of the Signal to assume the Warning or Clear position is not caused by a train or vehicle being on the Section.

The following should be noted :—

- (i) Whether the Indicating Light on the Control Panel shows that the Points ahead of the Signal are in the correct position for the movement.
- (ii) Whether the Train Register Book entries indicate that the last train signalled has cleared the Section.
- (iii) Whether the opposing Departure Signal to the one that has failed will assume a Proceed position. After the lever controlling the latter Signal is again placed to the Danger position, the Signal that has failed must be tested.
- (iv) Whether either Signalman concerned has placed a train or vehicle outside the Departure Signal for shunting purposes, or whether the last train through the Section has worked at a Switch Locked Siding.



(c) When the Train Controller is satisfied that there is no train in the Section, and that the Departure Signal has failed at the Unattended Crossing Station, he must instruct the Signalman at the Attended Station in advance of the Signal which has failed to withdraw the Pilotman's Key from the Departure Signal applying to the affected Section, and retain it out of the Lock until further instructed.

(d) When the above arrangements have been completed, the Train Controller must then instruct the Guard of the train or Driver, in the case of a Light Engine, to operate the Selector lever at the Points, to the Hand Operating position and the Hand Throw lever to the required position. (See Rule 13 and Sections thereof.) The Train Controller may then fill in a Caution Order Form, and repeat it to the Guard or Driver waiting at the Unattended Crossing Station.

(e) The Guard of the train or Driver of a Light Engine must fill in a copy of the Caution Order as received from the Train Controller in the Caution Order Book provided in the Telephone Cabin, inserting the Controller's name, and signing his own as the Signalman. The train may then proceed to the Station in advance in accordance with the Order received.

(f) The Guard of the train or Driver of a Light Engine will be held responsible for seeing that the Points at the Unattended Crossing Station are in the proper position for the movement, and the Guard, in the case of a train, or the Driver, in the case of a Light Engine, must arrange that after the whole of the train has passed over the Points, they are restored and locked in their normal position to lie for the Main Line, No. 1 Road. (See Section iv of Rule 13.)

(g) Arrangements must be made to obtain the services of a Pilotman, and until the defect is remedied the traffic between the Unattended Crossing Station and the Station at the opposite end of the affected Section must be conducted in accordance with Rule 24.

**23. Failure of Signalling Apparatus and also Failure of Telephone Communication with the Train Controller.**—(a) Should the telephone communication between Stations and the Train Control Office, as well as the Signal controlling the entrance of trains to the Single Line Section, have failed, the Station-master at each end of the affected Section must at once take steps to have the defects remedied, but if this cannot be immediately done, the working of traffic over the Section must be promptly arranged for by means of a Pilotman in accordance with Rule 24.

(b) Should there be an Unattended Crossing Station between two Attended Stations in the Section of Line where the failure exists, and it is not possible to promptly obtain the services of more than one employe, Pilot-working must be arranged for between the two Attended Stations until arrangements can be made to place a competent Employe in charge of the Unattended Crossing Station, and, if necessary, appoint a Pilotman to act between the Unattended Crossing Station and the Attended Station on each side.

(c) In the event of it being necessary for arrangements to be made to place an Employe in charge of an Unattended Crossing Station during failure of Signals and Communication, as set out in clause (a), and Pilot-working has been arranged over the long Section, this working may be cancelled and Pilot-working arranged as shown hereunder:—

(i) Should the failure of the Departure Signal be on one side of the Unattended Crossing Station only, Pilot-working must be

arranged between the Attended Station and the Unattended Crossing Station on that side, and ordinary working by Signals resumed on the other side.

(ii) Should the failure of the Departure Signal be on each side of the Unattended Crossing Station, the traffic must be conducted by Pilotmen between the Unattended Station and the Attended Crossing Station on either side.

(d) In the event of a train having left an Attended Station to cross another train at an Unattended Crossing Station, and prior to the opposing train departing from the Attended Station, a failure of the Departure Signal applying to such train, and also a failure of communication with the Train Controller occurs, Pilot-working must be arranged as in clause (b) or (c) hereof, and the train at the Unattended Crossing Station cleared as set out hereunder—

(i) Should the Departure Signal at the Unattended Station also be out of order, and Pilot-working has been instituted at the Attended Station where the Signal failed and the opposing train waiting, the Pilotman, when proceeding to institute Pilot-working, may order the train at the Unattended Crossing Station to pass the Departure Signal at "Stop" and proceed towards the Station where Pilot-working was instituted.

(ii) In the event of Pilot-working having been instituted from the opposite end of the Section to that at which the Signal failed, and the opposing train is waiting, the Pilotman must not order the train to depart from the Unattended Station until Pilot-working has been completed, but on his first trip with a train in the opposite direction he must, when such train is clear, order the train at the Unattended Station to pass the Departure Signal at Stop, and proceed.

Before authorising the Driver to proceed, the Pilotman must first set and lock the Selector lever in the "Hand Operating" position and set and lock the Points for the movement required; the Station-master instituting Pilot-working to instruct the Pilotman in his duties regarding the Hand Operation of the Points at the Unattended Crossing Station.

(e) Whenever it is necessary to arrange Pilot-working as in the circumstances set out above, the Station-master who initiates Pilot-working must arrange for the Pilotman on his first trip through the Section to test the Telephones at the Unattended Crossing Station, and also the Point Mechanism and Telephones at all Sidings in the Section, and advise the result on his arrival at the Station in advance.

**24. Working by Pilotman during Failure of Signalling Apparatus.**—

(a) In the event of the failure of the Signal that controls the entrance of trains to the Single Line Section ahead, steps must at once be taken to have the defect remedied, but if this cannot be immediately done, the working of the traffic over the Section must be arranged for by means of a Pilotman (see Rules 22, 22a and 23). If the Telegraph or Telephone communication is available, the Station-masters or other responsible officials at both ends of the Section must communicate by Telegraph or Telephone, and make the arrangements for Pilot-working (the communication being written on Telegraph Forms in the usual way). As soon as a definite understanding has been arrived at, the Station-master or other responsible official who undertakes to make the arrangements for working by Pilotman must appoint a competent person to act as



Pilotman, and must fill up three or more, as may be necessary, of the printed Forms (the Form, vide Rule 27, of Appendix VII., pages 427-428, Book of Rules and Regulations, must be used for this purpose the necessary alterations being made with pen and ink; see specimen of altered Form at end of this Rule) for establishing working by Pilotman during the failure of the apparatus; one of these, signed by the Pilotman the Stationmaster must deliver, in the presence of the Pilotman, to the Signalman at the Station at his end of the Section, and the others must be given to the Pilotman. When a Station-master himself acts as Pilotman, he must also address and give a copy of the Form to the person he leaves in charge of his Station.

(b) For each Single Line Section at each Crossing Station a special key called the **Pilotman's Key**, is provided, which when withdrawn from its lock, secures at the Stop position the Signal controlling the entrance of a train into the Section at that end of the Single Line. At attended Stations the lock is placed in a box adjacent to the Signal Control; at Unattended Crossing Stations it is placed in a box near the Points. The Pilotman's Key Box is secured by a Yale Lock. At Attended Stations the Yale Key is in the custody of the Officer-in-Charge, and for Unattended Crossing Stations is kept in a box at the Attended Station at the opposite end of the Section for which it applies, the box being secured by a paper seal, which must be broken to obtain the Yale Key to open the Pilotman's Key Box.

When Pilot-working is being established, the Officer or Employee who makes out the Forms must, in the presence of the Pilotman, withdraw the Pilotman's Key, which must be then handed to the Pilotman, who must retain it in his possession until Pilot-working has been cancelled and ordinary working is resumed. If, however, the Departure Signal at the Station where the Pilotman is appointed be in working order and displaying Proceed Indication, an engine or train may be used by the Pilotman to convey the Pilot-working Forms to the opposite end of the Section; and, in such case, the Pilotman's Key must not be removed from its normal position until the engine or train with which the Pilotman is to proceed with the Forms has passed the Signal in the regular way, and the Signal has been replaced to the Stop position in the ordinary course by the train. The Driver, before entering the Section, must be instructed to wait for the Pilotman after passing the Signal.

When the Pilotman arrives at the opposite end of the Section and the Forms have been duly distributed and signed, as laid down in clause (c) hereof, the Station-master must, in the presence of the Pilotman, withdraw the Pilotman's Key that secures at the Stop position the Signal controlling the entrance of trains into the Section on which Pilot-working is established. The Pilotman will then have possession of both Keys, and the Signal at each end of the Single Line Section will be secured at the Stop position. Both Keys must be retained by the Pilotman until Pilot-working has been cancelled and ordinary working is resumed when he must return each Key to the Station-master at its "Home" Station, and the latter will be responsible for seeing that it is restored to its normal position in the Lock, and that, if necessary, arrangements are made for the Electrical Fitter to renew the paper seal.

(c) The Pilotman, when he is in possession of the Pilotman's Key and is satisfied that the Signalman has received the printed Form duly filled up, and that the Signalman understands that no train is to be allowed to enter the Section until he returns, must proceed as quickly as possible along the Line to the other end of the Section, but unless the Signal controlling the entrance to the Section over which Pilot-working is to be established assumes the Warning or Proceed position, or a Caution Order has been issued in accordance with Rule 22, he must not use an engine or any railway vehicle other than a trolley or tricycle.

Should the Pilotman on his first trip travel through the Section by Trolley or Tricycle, arrangements must be made by the Officer or Employee who makes out the Forms, for the Pilotman to test the Point Mechanism at Sidings, which may exist in the Section, and should the Selector Telephone communication be in order, to report the result of such tests to the Train Controller.

On his arrival at the other end of the Section, the Pilotman must deliver a copy of the Form (signed by himself) to the Station-master (who must also sign the Form held by the Pilotman), and another to the Signalman on duty; he must also report the result of the tests made at Sidings; the Signalman at each end of the Section must know the man appointed as Pilotman, and must countersign the Form for Pilot-working held by the Pilotman, the Form held by each Signalman being in like manner countersigned by the Pilotman, and when the Pilotman has received possession of the Pilotman's Key at that end trains may then be allowed to enter the Section in accordance with the following instructions:—

*Sub-clauses (i) to (v) are the usual conditions applicable to Pilot-working under all systems of Signalling on Single Lines.*

- (i) The Pilotman must inform the Driver and Guard in charge of each train of the circumstances, and when practicable accompany every train, but when it is necessary to start two or more trains from one end of the Section under his control before a train has to be started from the other end, the Pilotman must order all trains to proceed, except the last, upon the engine of which he must ride. In the case of an engine assisting in the rear of the last train, the Pilotman must ride on the assisting engine. If a special engine is supplied for the use of the Pilotman, he must, after personally starting the whole of the trains, follow or accompany the last train. When it is necessary for the Pilotman's engine to accompany the last train, it must be attached to the front of that train, but the Pilotman must ride on the train engine. After starting a train which he does not accompany, the Pilotman must not permit another train to enter the Section until after the time usually taken by the preceding train to clear the Track Section has elapsed (in no case with a less interval than five minutes, and in those parts of the Line where a longer interval of time is prescribed, until such interval has expired). When admitting a train into a Section after the interval of time prescribed above, the Driver must be instructed by the Pilotman as to whether his train has been preceded by another train.
- (ii) The Pilotman must wear a distinctive badge, which, until the regular badge can be obtained, must be a Red Flag tied round his left arm, above the elbow. The regular badge is a Red Armband, with the word "PILOTMAN" shown thereon in white letters.

*NOTE.—It will generally be found most expeditious for the Station-master at the opposite end of the Section to that at which the train is waiting, to undertake the arrangement of the Pilot-working, as the Pilotman will then only have to go through the Section in one direction to get the necessary forms signed, namely, in the direction of the Station at which the train is waiting.*



- (iii) Should the Pilotman give up the working to another, fresh Forms must be issued, on which the name of the new Pilotman must be inserted. The fresh Forms must be delivered by the new Pilotman and substituted for the old Forms, and the necessary signatures obtained on the fresh Forms; he must at the same time withdraw the old Forms, and at once cancel them by writing the words "Cancelled," and the time, date and his signature, across the face of them. The issue of the fresh Forms must only be done by the person who arranged the Pilot-working, to whom the new Pilotman must afterwards deliver the old Forms; the fresh Forms must not be issued till the Form and badge have been collected from the Pilotman being relieved.
- (iv) After one Pilotman has been relieved by another, the Pilotman who has been relieved must not ride upon any engine, nor in the Operating Cab or leading Van of an Electric Train, until he resumes duty as a Pilotman.
- (v) Should the Signaller be changed during the time the Pilot-working is in operation, the man coming on duty must be made acquainted, by the man going off duty, with the arrangement in force, and with the person acting as Pilotman, and he must before taking charge, countersign the Form held by the Pilotman.
- (vi) Signalman must not, on any account, allow any train to pass into any Section that is being worked by Pilotman, except under the Pilotman's instructions, and when he is present; they must also keep at the Stop position the Signal applicable to trains entering upon the Pilotman's Section until the ordinary working of the traffic is resumed, but Drivers may pass such Signals when instructed to do so by the Pilotman. The Pilotman must obtain the permission of the Signaller before allowing a train to enter upon the Section.
- (vii) When Pilot-working is in force, the Signal controlling the entrance to the Section must not be tested unless the Pilotman is present.
- (d) In the event of failure of a Departure Signal at an Attended Crossing Station and the Crossing Station in advance is an Unattended Station, the Station-master at the Station where the failure exists must, when instituting Pilot-working arrange for a competent Employe to take charge of the Unattended Crossing Station.
- (e) Should the Telegraph or Telephone as well as the Signal Apparatus, fail, and the men at each end of the Single Line Section be unable to communicate with each other, the instructions contained in clause (b), Rule 27, Appendix VII, Book of Rules and Regulations, must be complied with.
- (f) If the Signalling Apparatus is repaired after the Pilotman with the Pilot-working Forms has left the Station at which he was appointed, and before reaching the opposite end of the Section where the failure occurred, no train must be allowed to pass on to the Section until the Pilotman has arrived and completed the Pilot-working arrangements, which must remain in force until cancelled as provided in clause (g) hereof.
- (g) When the Signalling Apparatus is again repaired and ready for use, and before ordinary working is resumed, the Station-master who instituted

Pilot-working must make out and sign the necessary Cancellation Orders (see Specimen Form at end of this Rule), a copy of which must be delivered by the Pilotman to every person who received a Pilot-working Form, such Form to be collected and cancelled by the Pilotman writing the words "Cancelled," and the time, date, and his signature, across the face of it; when this is done and the Pilotman's Key has been restored to its normal position, the traffic will be again conducted in accordance with these Rules. All Forms which have been issued for Pilot-working, and copies of all Telegrams sent in connection therewith, must be forwarded to the District Superintendent.

The Pilotman, when making his last trip under Pilot-working conditions, must notify all employes concerned along the Line that ordinary working will be resumed.

The following is a specimen of Form altered as referred to in clause (a) of Rule 24 :-

VICTORIAN RAILWAYS.	
Automatic Signalling on Single Lines, under the Direction of a Train Controller.	
WORKING OF SINGLE LINE BY PILOTMAN.	
.....	Station.
.....	19.....
To.....	.....
The Signalling Apparatus for the Section.....	
and.....having failed, all traffic between.....	
those two places will be worked by Pilotman in accordance with number 24 of the Rules for Working Single Lines of Railway by the Automatic System of Train Signalling, under the direction of a Train Controller	
.....will act as Pilotman, and no train is to be allowed to pass on to the Section unless he is present and personally orders the train to start.	
This order is to remain in force until withdrawn by the Pilotman presenting my written authority.	
(Signed).....	
*Noted by.....	.....
Station or Box.....	Time.....
*Noted by.....	.....
Station or Box.....	Time.....
Noted by..... Pilotman.	
* These signatures must only be made on the copy held by the Pilotman.	
At least twelve of these forms must be kept in a convenient place at each Crossing Station so as to be available at any moment night or day.	
Before Pilot-working is commenced, a copy of this Form must be signed by the Signaller in charge of the Crossing Station, at each end of the Section, and be kept by the Pilotman, who must see that each of the men signing the Form retains a copy for himself.	
Station-masters receiving this Form will be held responsible that the Inspectors, Foremen, Signallers, and others concerned at their Stations are immediately made acquainted with the circumstances, and are instructed in their necessary duties.	



The following is a specimen of Form referred to in clause (g) of Rule 24 :—

VICTORIAN RAILWAYS.

Working of Single Lines by Pilotman.

CANCELLATION ORDER.

station

19.

\*To .....  
Pilot-working arrangements made by me at .....  
on .....

19..... for the Line between .....  
and ..... are hereby cancelled  
and ordinary working will be resumed.

The Pilotman's Key is returned herewith.

Signed .....

\* Each person who received a Pilot-working Form must also be handed a copy of this Order.  
Note.—Station-masters receiving this Form must notify the Inspectors, Foremen, Signalmen, and others concerned at their Stations that ordinary working will be resumed.

**25. (a) Train or Portion of a Train Left on Single Line.**—When a train or portion of a train is left upon the Single Line from accident or inability of the engine to take the whole forward, the Driver must not return for the rear portion of his train except by written instructions from the Guard, as prescribed in Regulation 243.

(b) If, when returning for the rear portion of his train, the Driver has to pass a Signal-box, the Driver must inform the Signaller of the circumstances and if the Driver be in possession of the written instructions from the Guard he may be allowed to return to the rear portion of his train.

If, however, when returning for the rear portion of his train the Driver arrive at an Unattended Crossing Station, the written instructions received from the Guard will be sufficient authority for the Driver to pass the Stop Signal exhibited at the Signal controlling entrance to the Single Line Section in the rear of that Station. Before passing the Signal, however, the Driver must communicate with the Train Controller and the latter will then instruct the Driver to unlock the Selector lever and operate it to the Hand Operating position and lock it in that position, the Driver may then, providing the Points are locked in the proper position, enter the Section, and when the engine has cleared the Points, the Selector and Hand Throw levers must be restored to the Normal (Motor Operating) position and locked in that position.

(c) The Guard after securing the rear portion of his train must protect it in the rear in accordance with Regulation 239.

(d) When two Guards are employed with the train, the front Guard (or where both Guards ride in the rear, the Under Guard) must, after securing the rear portion of the train, uncouple it, and ride upon the last vehicle of the front portion; the other Guard must go back and protect his train in accordance with Regulation 239.

(e) When there is only one Guard with the train, the Firemen must, after securing the rear portion of the train, uncouple where required, and ride upon the last vehicle of the front portion, and the Guard must take the necessary measures to protect the rear portion.

(f) After sunset, or in foggy weather, before the front portion is drawn forward, a Red Light must be placed on the front vehicle of the rear portion by the man who divides the train. As soon as the first portion has been drawn forward sufficiently far, either by day or night, the Under Guard, or the Fireman must place two Detonators upon the Line about 200 yards from the front vehicle of the rear portion, to notify the Engine-driver when returning of the position of the remainder of his train.

26. (a) Should a train accompanied by the Pilotman become disabled, he must make the best arrangements for procuring assistance without delay.

(b) In the event of a train Unaccompanied by the Pilotman becoming disabled, the Guard must protect his train as directed in Regulation 239, and communicate with the Pilotman as soon as possible.

(c) When a portion of a train is left upon a Section of the Line worked by Pilotman, from inability of the engine to take the whole forward, and the Pilotman is with the train, and accompanies the Driver with the first portion, the Driver (accompanied by the Pilotman) may return for the rear portion of his train without holding written instructions from the Guard; if, however, the Pilotman be not accompanying the train, the Driver must not return for the rear portion unless he holds written instructions from the Guard authorising him to do so. In either case the Guard, after securing the rear portion, must protect his train in the rear as directed in Regulation 239.

If, when returning for the rear portion of the train, the Driver (accompanied by the Pilotman) arrive at an Unattended Crossing Station, the Pilotman may, after communicating with the Train Controller, authorise the Driver to pass the Stop Signal exhibited at the Signal controlling entrance to the Single Line Section in the rear of that Station, but before doing so the Pilotman must unlock the Selector lever at the Points and place it to the Hand Operating position and lock it in that position, and, providing the Points are locked in the required position, he may then authorise the Driver to pass the Signal; when the engine has cleared the Points both levers must be locked in the Normal (Motor Operating) position.

**27. Section Obstructed by Accident or by Disabled Train**—(a) If a train should become disabled between two Crossing Stations, the Driver must hand to his Fireman a written order, addressed to the Station-master at the nearest Station (see clause (d) hereof), stating the nature of the failure, the place where it has occurred, that he will not move his train until Relief arrives, and authorising the Station-master to allow a relief engine to proceed to remove the disabled train. The Station-master, on receiving the Written Order, must, if a Relief engine be available from his Station, endorse the Order, arrange for the despatch of a Relief engine, and return the Order to the Fireman, who must hand it to the Driver of the Relief engine, and accompany him to the place where he left the disabled train. The Driver of the Relief engine, after removing the whole of the disabled train to the end of the Section to which it was previously proceeding, or back to the Station in the rear, must deal with the Written Order as laid down in clause (e).

(i) A train or engine must never be drawn or pushed back to the Station in the Rear unless the Driver has received written permission in accordance with clause (f) hereof, or clause (b) of Rule 27a.

(ii) In the event of no Relief being available from the Attended Station at which the Fireman has arrived with the Driver's Written Order, the Station-master must immediately confer with the Train Controller, as laid down for the Fireman in clause (d) hereof, and Relief may be obtained from the opposite side of the disabled train, in accordance with the provisions set out in sub-clause (i) to (v) of clause (d).



(b) The Fireman, when proceeding to the nearest Station for assistance, must place the Detonators on the Line as directed in Regulation 239, and the Guard must in every case protect his train in the opposite direction, in accordance with Regulation 239. Should the stoppage or failure occur to an engine not attached to a train, the Fireman, when proceeding for relief, must place Detonators on the Line, as per Regulation 239, for the protection of the disabled engine, and the Driver, after securing his engine, must promptly protect in the opposite direction in a similar manner, and then return to his engine.

(c) The Driver of the disabled engine or train must not allow his engine or train to be moved until the Relief engine or train arrives, unless satisfactory arrangements have been made to prevent the Relief engine or train from coming to his assistance, and the man to whom the Order was given has returned and handed the Order back to the Driver.

(d) If, when proceeding with a written Order for a Relief engine, the Fireman arrive at an Unattended Crossing Station, or an Intermediate Siding, and the Selector Telephone is in order, he must communicate from there with the Train Controller, inform him of the circumstances, and repeat the particulars shown by the Driver on his written Order. The Train Controller must write out a copy of the Driver's Order as received, obtain the name of the Fireman, repeat the copy of the Order back to the Fireman, in order to become assured of its correctness, and the Fireman must be instructed to remain at the telephone for further instructions. The Train Controller must then communicate with the Station-masters at the Attended Stations on each side of the disabled train, and arrange for a Relief engine from the most convenient Station on one side, in accordance with the following instructions:—

- (i) If the Relief engine is to proceed from an Attended Station, the Train Controller must, provided there is no other train between that Station and the disabled train, forward a Train Order to the Station-master for issue to the Driver of the Relief engine, stating the circumstances, the location of the disabled train, and authorising the Driver of the Relief engine to proceed to its assistance.
- (ii) If the Relief engine is to proceed from an Unattended Station at which the Fireman has arrived with the Driver's written Order, the Fireman must be instructed to remain at such Station and on arrival of the Relief engine, hand the Order to the Driver of the Relief engine and accompany him to the disabled train. In such a case, should the Relief engine be despatched from an Attended Station in the rear of the Unattended Station and the disabled train is on the opposite side of such Unattended Station, the Driver, prior to the Fixed Signals being exhibited, must be stopped, informed of the circumstances, and instructed to stop at the Unattended Station for the Fireman. Prior to the Relief engine departing from the Unattended Station, the Fireman must be instructed by the Train Controller to operate the Selector lever to the Hand Operating position, and lock it in that position, and see that the Points are correctly set and locked for the movement. The Driver of the Relief engine, after receiving the written Order from the Fireman and his assurance that the Points are correctly set for him to proceed, may pass the Departure Signal at the Stop position, and when the Relief engine has cleared the Points (and provided the disabled train is not to return to the Unattended Station) the Selector and Hand Throw levers must be locked in the Normal (Motor Operating) position.

- (iii) If the Relief engine is to proceed from an Unattended Station, and the Fireman is not at such Station, the Driver of the Relief engine must, provided there is no other train or engine between the Station and the disabled train, be given a Train Order by telephone from the Train Controller in the form prescribed in sub-clause (i) hereof.

The Driver of the Relief engine must write out the Order in duplicate in the Train Order Book, provided in the Telephone Cabin, at the Unattended Station, and repeat it back as received. The Train Controller must underline the Order as it is being repeated back to him by the Driver.

One copy of the Order must be left in the book and the other retained by the Driver until fulfilled. Prior to departing the Driver must be instructed by the Train Controller to place the Selector lever in the Hand Operating position, and lock it in that position, and see that the Points are correctly set for the movement, and when the engine has cleared the Points (provided the disabled train is not to return to the Unattended Station), the Selector and Hand Throw levers must be locked in the Normal (Motor Operating) position.

In the event of the Fireman being at an Intermediate Siding between the Station from which the Relief engine is to proceed and the disabled train, the Train Order must instruct the Driver of the Relief engine to stop at the Siding for the Fireman, and the Fireman must be instructed to remain at the Siding, put down two detonators, 100 yards from the entrance to the Siding on the side from which the engine is expected, and exhibit a Danger Hand Signal.

On arrival of the Relief engine, the Fireman must hand the Written Order received from the Driver of the disabled train to the Driver of the Relief engine, and accompany him to the disabled train.

- (iv) If the Relief engine is to proceed from a Station on the opposite side of the disabled train to that from which the Fireman has communicated with the Train Controller, the Train Order must instruct the Driver of the Relief engine not to move the disabled train until the Fireman has arrived there with the Written Order issued by the Driver of the disabled train, and the Fireman must be instructed to promptly return to the disabled train and hand the Order to the Driver of the Relief engine.
- (v) Should it be necessary for the Fireman of the disabled train and the Driver of the Relief engine to be in possession of a Standard padlock key to open the door of the Telephone Cabin at an Unattended Crossing Station or Intermediate Siding, this must be arranged for as follows:—(a) By the Fireman of the disabled train obtaining the Guard's Key prior to proceeding with the Driver's written Order for Relief; (b) by the Driver of the Relief engine being handed a Key at the next Attended Station in rear of the Unattended Crossing Station.

(e) Orders for Relief must be retained by the Driver of the Relief engine until they are fulfilled, and must then be cancelled by the Driver writing the word "Cancelled" with time, date and his signature across the face, and forwarded with a report of the circumstances to his Depot Foreman for course.



(f) If the Relief engine is to proceed from a Station in the rear, and it is necessary for the disabled train to return to that Station, the Train Order must state so, and the Line must be kept clear for the return of the train to the Station specified in the Order. If the Station in the rear is an Unattended Crossing Station, the Train Controller must arrange for the Selector lever to be locked in the Hand Operating position, and left in that position until the Relief engine and train has arrived back at the Arrival Signal; in the case where the Station in the rear is an Attended Station, the Train Controller must instruct the Signaller at the Station to withdraw the Pilotman's Key from its lock and keep it in his possession until the disabled train has been cleared from the Section.

27a. (a) If an accident or obstruction should occur, and the traffic is likely to be stopped for a considerable time, special arrangements must be made for working the trains to and from the Crossing Station on each side of the point of obstruction.

(b) If the accident be caused by a landslip, flood or other cause, preventing a train in the Section from going forward, arrangements may be made for the train to be pushed back to the Station in the rear, but, before this is done, the Guard (or Fireman) must return to the nearest Station in the rear and obtain permission in writing from the Station-master for the train to return to such Station. In the event of the Station being an Unattended Crossing Station, the Guard and Fireman must return to such station, and the Guard must, after receiving instructions from the Train Controller, hand the Fireman a Written Order authorising the Driver to push the train to that Station; the Fireman must then take the Order to the Driver; immediately the Fireman leaves with the Guard's Order, the Guard must so inform the Train Controller, and the latter shall then arrange for the Selector lever to be locked in the Hand Operating position, thus securing the Departure Signal at the Unattended Station at "Stop," and when the train for which the Guard's Order was issued has arrived at the Arrival Signal the Train Controller must be informed, when he will then instruct the Guard to restore and lock the Selector lever in the Motor Operating position. In either case the Driver must not move in the wrong direction until he has received such written permission.

When the train is being pushed back to the Station, the Fireman must, if the Guard be not on the train, carry out the duties specified in the General Appendix under "Pushing Trains on Running Lines" for the Guard.

(c) Should the obstruction be caused by a disabled train, the Guard must put the Driver in charge of the point of obstruction, and the Driver must give the Guard a written Order addressed to the Station-master at the Crossing Station in the rear, stating the point of obstruction, and intimating that he will not allow the disabled engine or train to be moved until the Relief engine or train arrives. The Guard must then proceed to the Crossing Station in the rear and hand the order to the Station-master, advising him fully of what has occurred. The Station-master will then arrange to establish Pilot-working between the point of obstruction and the Crossing Station in the rear. When the Guard has proceeded to the Station in the rear, the Driver of the disabled train must hand his Fireman a Written Order addressed to the Station-master at the Crossing Station in advance, stating the point of obstruction, and intimating that he will not allow the disabled engine or train to be moved until the Relief engine or train arrives. The Fireman must then proceed to the Crossing Station and hand the Order to the Station-master, advising him fully of what has occurred. The Station-master will then arrange to establish Pilot-working, in accordance with clause (h) between the point of obstruction and the nearest Crossing Station in advance.

(d) If, when proceeding with the Written Order for a Relief engine the Guard or Fireman arrive at an Unattended Crossing Station, he must communi-

cate from there by telephone to the Train Controller, and the Train Controller will arrange to receive the Order as laid down in clause (d) of Rule 27, and communicate with the Station-master to whom the Written Order is addressed; he must inform the Station-master of the particulars shown by the Driver on the Written Order, and if the Single Line between these Stations be clear, the Station-master must, on receipt of the particulars, arrange to despatch the Relief engine, informing the Driver of the particulars communicated to him by the Train Controller, and instructing him to stop at the Unattended Station for the Guard or Fireman; the Station-master must arrange to place a man in charge of the Unattended Crossing Station, and appoint a Pilotman to work the traffic between that Station and the obstruction in accordance with clause (h).

After communicating with the Train Controller, the Guard or Fireman must remain at the Unattended Crossing Station until the arrival of the Relief engine. He must then hand the Written Order to the Driver of the Relief engine and accompany him to the place where he left his train. Prior to departing, the Guard or Fireman must be instructed by the Train Controller to place the Selector lever in the Hand Operating position and lock it there, and see that the Points are correctly set and locked for the movement and, after the engine has cleared the Points restore and lock same in Normal (Motor Operating) position.

(e) If, however, on arrival of the Guard or Fireman at the Unattended Crossing Station, a train be waiting or approaching from the opposite direction, the particulars shown on the written order must be communicated by telephone to the Train Controller, and the Train Controller must arrange for the train, which is at or approaching the Unattended Station, to proceed as a Relief train, accompanied by the Fireman or Guard, as laid down in Rule 27. See previous instruction *re* Operation of Selector lever before passing Departure Signal.

The Train Controller must inform the Station-master concerned of the circumstances, and until Pilot-working can be instituted the following working should be arranged:—

(i) When under these circumstances, the Relief train enters from the Station in advance, the Driver must be accompanied by the Fireman of the disabled train, and he must instruct his own Fireman to remain in charge of the Unattended Crossing Station until the arrival of an employe to take charge; before leaving the Unattended Station, the Driver of the Relief engine must obtain a written Order from the man left in charge of the Station, authorising him to return with his train to that Station from the point of obstruction. If under similar circumstances the Relief train enters from the Station in the rear, the Driver of such train must be accompanied by the Guard of the disabled train, and he must instruct his Fireman to remain in charge of the Unattended Station until the arrival of the Station-master; before leaving the Driver must, however, obtain a written Order from the man left in charge of the Unattended Station, authorising him to return to that Station from the point of obstruction.

(ii) After the Relief engine or train has entered the obstructed Section, the man left in charge of the Unattended Crossing Station must communicate with the Train Controller, and the latter must then arrange for the Selector lever to be locked in the Hand Operating position until the Relief engine or train has returned to the Arrival Signal with the Written Order, the Train Controller must then be informed, when he will instruct the man at the Unattended Station to restore and lock the Selector lever in the Motor Operating position.



(f) The Guard and Fireman of the disabled train when proceeding on foot to the rear and advance Stations respectively must place Detonators on the rail in accordance with Regulation 239, and must accompany the Relief train on their respective sides on each trip to and from the obstruction and the Unattended Crossing Station, until the arrival of an employe to take charge and Pilot-working has been instituted, when the Guard and Fireman will become responsible for the protection of the obstruction until relieved; when returning with the Relief train from the obstruction, the train must be stopped, and Detonators must be again placed on the rail by the Guard or Fireman, as the case may be.

(g) A competent employe must, as soon as possible be appointed, and proceed to the Unattended Crossing Station to take charge and institute Pilot-working in accordance with clause (h) hereof.

(h) The respective Station-masters must arrange for three or more as, may be necessary, of the Printed Forms provided for the purpose of establishing working by Pilotman during obstruction (the Form *vide* Rule 16a, pages 410-411 of the Book of Rules and Regulations, must be used for this purpose, the necessary alterations being made with pen and ink, see Specimen of altered Form at end of this Rule) to be filled up; one of these, signed by the Pilotman, he must deliver, in the presence of the Pilotman, to the Signalman in charge of the Station where Pilot-working commences; the second must be retained by the Pilotman, and the third must be conveyed by the Pilotman with the Relief train, the Driver of which must hold the Written Order, to the Driver in charge of the point of obstruction.

Before despatching the Relief engine, the Station-master must, in the presence of the Pilotman, withdraw the Pilotman's Key to secure at the Stop position the Signal that controls the entrance of trains to the Section on which Pilot-working is to be conducted; the Key must be at once handed to the Pilotman, who must retain it in his possession until the Pilot-working arrangements have been withdrawn and ordinary working is to be resumed, when he must return it to the Station-master at its "Home Station," and the latter will be responsible for seeing that it is restored to its normal position in the lock, and that, if necessary, arrangements are made for renewing the paper seal.

(i) On arrival at the point of obstruction, each Pilotman must collect and cancel the Order held by the Driver of the Relief train, attach to it his—the Pilotman's—Form, and complete the arrangements for working by Pilotman.

(j) The pilotman must wear a distinctive badge, which until the regular Badge can be obtained, must be a Red Flag tied round the left arm, above the elbow. So soon as he is satisfied that the arrangements are understood, trains may be allowed to go on to the Single Line under the control and by the permission of the Pilotman.

(k) Should the obstruction be caused by a Light Engine (or by any train worked by two men), a Relief train or engine must first be obtained from one end of the Section by the Fireman (or Guard), as laid down in Rule 27; and, if necessary, arrangements must be made for working the traffic in accordance with this Rule. The Driver must, after securing his engine or train, protect it in the opposite direction to which the Fireman (or Guard) proceeds for relief, and then return to his engine or train.

(l) When the Line is again clear no train must be allowed to pass the point of obstruction unless both Pilotmen are accompanying it. After the Pilotmen have withdrawn their arrangements for Pilot-working, ordinary working may be resumed.

The following is a Specimen Form altered as referred to in sub-clause (h) of Rule 27a:—

VICTORIAN RAILWAYS.

Automatic System of Signalling on Single Lines, under the Direction of a Train Controller.

WORKING OF SINGLE LINE BY PILOTMAN DURING OBSTRUCTION.

(This Form must be filled up and used whenever it is temporarily necessary, owing to obstruction on a Single Line, to work the Traffic by Pilotman.)

..... Station  
..... 19.....

To.....  
.....

The Single Line between.....and

.....being obstructed, the traffic between  
.....and the place of obstruction will be  
worked by Pilotman in accordance with number 27a of the Rules for Train  
Signalling on Single Lines of Railway worked under the Automatic and Track  
Control System of Train Signalling, under the direction of a Train Controller.  
.....will act as Pilotman, and no train is  
to be allowed to pass on to the Section where the obstruction exists **unless  
he is present and rides in the Operating Cab.**

This order is to remain in force until withdrawn by the Pilotman.

Signed.....

\*Noted by.....  
Station or Box..... Time.....

\*Noted by.....  
at place of obstruction. Time.....

Noted by.....  
Pilotman.

\* These Signatures must only be made on the copy held by the Pilotman.

At least twelve of these Forms must be kept in a convenient place at each Crossing Station, so as to be available at any moment night or day.

A copy of this Form must be delivered to the Signalman in charge of the Station where Pilot-working commences, the second must be retained by the Pilotman, and the third must be conveyed by the Pilotman with the Relief train to the Driver or other person in charge of the point of obstruction. If there is an intermediate Station, which is not a Crossing Station, the Signalman or the person in charge must be supplied with a copy of the Form.

Station-masters receiving this Form will be held responsible that the Inspectors, Foremen, Signalmen, and others concerned at their Stations are immediately made acquainted and are instructed in their necessary duties.



