

# Supplement to Government Gazette

OF

## WESTERN AUSTRALIA.

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[1922.]

### Western Australian Government Railways.

## RULES AND REGULATIONS.

THE Commissioner of Railways of Western Australia, in pursuance of the powers conferred upon him by "The Government Railways Act, 1904," does hereby make the following By-law, to come into operation on the 1st day of March, 1922, and all previous By-laws, Rules, and Regulations conflicting therewith are hereby repealed.

#### BY-LAW No. 54.

The Rules and Regulations for the guidance of all persons employed on or about the Government Railways of Western Australia shall be those set forth in the Schedule hereto.

H. POPE,  
Commissioner of Railways.

Approved by His Excellency the Governor in Executive Council on the 15th day of February, 1922.

BERNARD PARKER,  
Clerk of the Council.

#### Schedule.

#### GENERAL RULES.

1. In these Rules and Regulations, unless there be something in the subject or context repugnant to such construction,—

- (a) "Employee" shall mean any person employed by the Commissioner who has been supplied with a copy of these Rules and Regulations, whether employed in a permanent capacity or as a supernumerary.
- (b) "Station-master" shall mean the Station-master, or person in charge of the Station, Goods Shed, Siding, or other place for the time being.
- (c) "Train" includes "Light Engine," *i.e.*, an engine without a train.

- (d) "Goods Train" shall be understood to include all trains except Passenger and Mixed trains.
- (e) "Signalman" shall mean any employee in charge of the working of signals, or Stations.
- (f) "Signal-box" shall mean the place where Signal levers are fixed.
- (g) "Train-examiner" shall mean the employee appointed to examine all classes of vehicles on a train, except locomotives.

2. All persons employed by the Commissioner must devote themselves exclusively to his service, and conform to all the Rules and Regulations of the Commissioner; they must reside at whatever place may be appointed, attend at such hours as may be required, and pay prompt obedience to all persons placed in authority over them.

3. The name and address of every employee must be registered at the Station or Depot to which he is attached, or at which he is paid, so that, if required in cases of emergency, the employee may be readily found. Any change of address must be at once notified, in order that the record may be kept perfect.

4. No employee is allowed to absent himself from duty, to alter his appointed hours of attendance, or to exchange duty with any other employee, without the special permission of his superior officer. In case of illness or accident he must immediately report the circumstance to his superior officer. If prevented by illness from attending his duty, he must promptly furnish a medical certificate from a qualified medical man, or such other evidence as the Head of his Branch may consider satisfactory.

5. Every employee receiving uniform must, when on duty, appear in it clean and neat, with the number and badge perfect; and if any article provided by the Commissioner be damaged by improper use, it must be made good by the employee using it,

6. Employees must be prompt, civil, and obliging. They must afford every proper facility for the business to be performed; be careful to give correct information, and, when asked, give their names or numbers without hesitation. Employees shall not use improper language, or enter into an altercation with the public or their fellow employees whatever provocation may be given.

7. The safety of the Public shall be the first and most important duty of every employee.

8. (a) Every employee—except casual men employed on special or additional work—must be supplied by his superior officer with, and have with him when on duty, and produce when required, a copy of these Rules and Regulations.

(b) Except as shown below, every employee must also be supplied with, and have with him when on duty, a copy of the current Working Time-table Book, or section of the book, the Appendix thereto, and any Signalling, Permanent-way, or Special Train Notices; a copy of each must also be kept in the Station-master's office.

*EXCEPTIONS.—Offices, Stations, Signal-boxes, Workshops, Running Sheds, Permanent-way Gangs, etc., where two or more men are employed.—In such cases copies must be exhibited where they can be seen, or must be accessible for reference by the Staff. The person in charge will be held responsible for this to be done.*

(c) Locomotive Officers or Foremen and Station-masters are respectively responsible for a copy of every printed and written Notice of Signal and other alterations being supplied, as soon as possible after receipt, to each Engine-driver, Fireman who has been passed to act as Engine-driver, and Guard working over the Line affected by the Notice, and for his signature for the same being taken in a book, provided for the purpose, which must be available for reference when required.

(d) Engine-drivers and Guards must obtain and carry with them when on duty all necessary Notices as to the signalling and general working of the Line.

9. If any employee of the Commissioner lose his copy of the Rules and Regulations, Time-table, Appendix, or other document of which the Rules require that he should be in possession, he must immediately obtain another copy from his superior officer.

10. (a) Every employee must assist in carrying out the Rules and Regulations, and immediately report to his superior officer any infringement thereof, or any occurrence which may come under his notice affecting the safe and proper working of the traffic.

(b) In any case where an employee does not understand his duty, or is in doubt as to his duty, he must immediately apply to his immediate superior for instructions.

11. Employees holding situations of trust may be required to find security for their fidelity of such kind and in such a manner as the Commissioner may determine.

12. (a) If any employee in charge shall consider at any time that any employee under his direction or supervision is under the influence of intoxicants, or from any other cause is unfit to perform his duties, he shall suspend him from duty and immediately report the matter to the Head of the Branch through his immediate superior.

(b) No employee while on duty is allowed to enter any place for the purpose of obtaining intoxicating liquor except by permission of a Superior Officer or Station-master. Employees on duty must not accept intoxicating liquor from any person.

13. No gratuity is allowed to be taken from passengers, or other persons, by any employee.

14. No employee shall trade, either directly or indirectly, for himself or others.

15. The attention of all employees is directed to the fact that if any person is drunk, or behaves in a violent or offensive manner to the annoyance of others on the railway, or at any station, or platform thereof, or in any carriage thereon it is lawful (see Section 49 of the Government Railways Act, 1904) for any officer or servant of the Department, without warrant or other authority, to arrest and detain the person so offending until handed over to the Police. The power conferred in this manner should be exercised whenever necessary.

16. (a) When any case of urgent sickness or accident occurs, and a motor ambulance trolley, or a special train is asked for by—

- (i) a Medical Practitioner; or
- (ii) a Magistrate; or
- (iii) a Justice of the Peace; or
- (iv) the Police;

the nearest competent officer of the Department must arrange in the most speedy manner possible to supply the assistance required, and must at the same time place facility of communication by railway telephone or otherwise at their disposal.

(b) A careful record of costs must be kept and an account in duplicate promptly rendered through the Chief Accountant to the Commissioner of Public Health, and copies of such account forwarded to the Chief Traffic Manager and the Auditor of Receipts. A full report must also be sent to the Chief Traffic Manager in each case.

(c) In these cases the saving of the patient's life is before all other considerations, and the staff must bear in mind the principle that it is almost criminal to lose a life when any effort which the Department could make would save it.

17. (a) The Commissioner may at any time, without notice, dismiss, or his officers may suspend from duty, any employee for intoxication, disobedience of orders, negligence, or misconduct, or for being absent from duty without leave, and no wages or salary from the date of his suspension can be claimed from the Commissioner by any employee after his dismissal, or during the period of his suspension from duty, or during his absence from duty from any cause.

(b) The Commissioner or his officers may impose fines not exceeding Five pounds in respect of disobedience to orders, neglect of duty, or any other offence, and deduct such sums from the wages or salaries of employees.

(c) i. Should any employee think himself aggrieved at any time, he may appeal to the Head of his Branch, and finally to the Commissioner, but in such case the appeal must be sent through the Head of his Branch.

ii. Any employee who has been continuously employed for one year, and who has been fined, or re-

duced to a lower class or grade, or dismissed, may appeal to the Appeal Board in the manner laid down in the Appeal Board Regulations.

18. A period of two years—void of recorded offence—will be taken as obliterating previous detrimental records from the personal history cards of employees; excepting that in any particular case where it may be so deemed necessary, the Commissioner may direct that the record of any offence shall remain. Record of cases heard before the Appeal Board will not be obliterated.

19. When an employee leaves the Service he must immediately deliver up his uniform and all other articles belonging to the Commissioner. Any money that may be due for wages to any employee leaving the Service will not be paid until the Clothing, Book of Rules, Lamps, Flags, Tools, Detonators, and all other articles the property of the Commissioner which may have been supplied to him, shall have been delivered up or satisfactorily accounted for in accordance with these Rules. If not delivered up, or if any article be missing, or be damaged by improper use, the cost of such article, or of the repair of such damage, shall be a debt due from the employee to the Commissioner, and may be deducted from any pay then due, or, if such pay be found insufficient to meet the claim, will become a debt recoverable at law.

20. Every employee shall be held responsible for the careful use and preservation of all articles belonging to the Commissioner in their custody or care, and no employee will be allowed to convert to his own use any such articles.

21. The Commissioner may deduct from the salary or pay of any employee, who is a tenant of any premises vested in the Commissioner, any sums that may be due by him for rent in respect of such premises.

22. No person must be allowed to travel on the Railways unless provided with a proper ticket or free pass; and no employee must be allowed, unless in the execution of his duty, to ride on the Engine, or in the Brake-van, or in any vehicle in which mails, luggage, or parcels are conveyed, without written or printed permission from a properly authorised officer.

23. Unauthorised employees must not take charge of luggage or other articles left at the Station for the convenience of passengers. All such luggage or articles must be deposited in the proper office in the regular manner.

24. All unclaimed or lost luggage, money, or other property found in any carriage or vehicle, or upon any station premises, or upon the line, or any other part of a Government Railway, must be immediately delivered to the Station-master at or nearest to the place where such luggage, money, or other property was found.

In no case shall any employee have any claim to any such property or the proceeds thereof, but as between the Commissioner and any employee finding any such property the same shall be deemed to belong to the Commissioner. This applies to all employees whether on duty or not.

Money, which includes Australian notes, bank notes, bank drafts, cheques and other orders, warrants, authorities or requests for payment of money, shall, if not claimed by the owner within four months of the date of finding, be paid to the credit of the Railway Insurance Fund.

25. (a) Every employee shall exercise proper care in going between vehicles for the purpose of coupling or uncoupling them, and in the performance of any other duty which necessarily exposes such employee to danger or risk of personal injury.

(b) No employee, except in a case of extreme emergency, shall jump upon the steps or footboards of trains entering Stations.

(c) Every employee must prevent, as far as possible, reckless exposure to danger on the part of any other employee.

26. (a) No person, other than an employee in the execution of his duty, must be allowed to be or walk upon the Railways, unless provided with written or printed permission to do so, signed by a properly authorised officer.

(b) Unless instructions are issued to the contrary, any person trespassing must be requested to leave the premises, and, on complying, must be warned not to go or pass thereon again. If such person refuse to quit, he must be requested to give his name and address, which must be handed to the nearest Station-master or other superior officer, with a report of the circumstances. In the event of the offender refusing his name and address, he must be detained and given in charge of the Police.

27. Employees must not walk upon the Line, except when it is necessary for them to do so in the execution of their duty.

28. No employee shall undertake any legal proceedings on behalf of the Commissioner, or on behalf of any other employee, nor shall show or produce any document or book or instruction or copy thereof to any person not connected with the Department, nor shall directly or indirectly make any communication to any person not officially entitled thereto upon any matter affecting the Department or the business or employees thereof, or relating to the Railway Service or his own official position, or acts upon any political question or subject whatsoever, without having first obtained authority or instructions from the Head of the Branch or from the Commissioner.

29. Every officer is responsible for each person under his control keeping the proper records, books, and accounts applicable to his duties. Any employee failing to report an irregularity which may come to his knowledge will incur the same responsibility as if he were the person in fault.

30. Employees must not address communications in connection with their public duties or positions in the Railway Service other than through their immediate superior officers, or use or obtain outside influence, either directly or indirectly, to represent their requirements.

31. Employees under 21 years of age must not be engaged in any of the following positions: Inspectors, Engine-drivers, Guards, Signalmen, Fog-signalmen, Foremen, Gangers, Flagmen, Signal-fitters, Train-examiners, Linemen, and Pilotmen.

32. Any employee who has cause to complain of or make a report against any other employee shall make the complaint through his immediate superior to the Head of his Branch within seven days of the occurrence.

33. (a) In any case in which one employee is appointed to relieve another, the person about to be relieved shall not, under any pretext, leave duty until the employee appointed to relieve him arrives.

(b) On the change of duty between employees all circumstances which may have occurred out of the ordinary course of working must be communicated to the employee coming on duty, before he takes charge, and his special attention must be drawn to the position of the trains, especially if there be any overdue.

(c) No person employed in any capacity shall give up charge to any other person whose duty it may be to relieve him unless the person being relieved shall be satisfied of the sobriety of the person whose duty it may be to relieve him.

34. Employees are strictly forbidden to borrow money from or to place themselves under any pecuniary obligation to other employees.

35. Employees when on duty or in uniform must not smoke on Railway premises, unless in such places or at such times as smoking is allowed.

36. Any employee attending in his official capacity under a subpoena or order to give evidence, or to produce papers in any court, shall attend such court in performance of and as part of his official duty. He must as early as possible after the receipt of such subpoena acquaint his superior officer with the fact, and obtain his permission for absentsing himself. He shall remit or cause to be remitted to the Head of the Branch or other employee authorised to receive such, all fees received by him for the performance of such duty, together with a statement of account and vouchers of the necessary expenses (if any) incurred by him in the performance of such duty.

37. In the event of any employee finding himself in the position where the use of force or violence is necessary and incumbent upon him in the proper execution of his duty, he should bear in mind that the use of force or violence should only be resorted to when all other means of persuasion are futile. Only that degree of force or violence should even then be used which may be necessary for the execution of the duty in hand.

38. As a general rule, great caution should be observed in detaining or giving any person, more particularly a passenger, into custody; and as the detention or custody is only for the purpose of insuring appearance to answer any charge that may be preferred, no one should be detained whose name and residence are known either to the Station-master or other officer, or to any respectable person with whom such officer may be acquainted, or who may give an address and produce sufficient evidence that it is genuine.

39. If, after being warned to desist, it becomes necessary to remove any passenger from a carriage for smoking, or other cause where the foundation of the charge appears to be doubtful, he should be first requested to leave; and if he refuse, care should be taken not to use unnecessary force in removing him, and it is desirable that the Guard or other employee, on warning him to desist, should first state to him that he is liable, if he persist in smoking or otherwise offending, to incur a penalty, and to be removed.

40. Before any person is removed from a carriage, the Station-master or other employee who orders his removal is required, carefully, to ascertain the cause and nature of the complaint against him; and he is also to take the names, addresses, and occupations of the parties complaining, so as to prevent any unfounded charge from being brought against any passenger.

41. At every Station at which the aid of police can be obtained, it is desirable to call in a police constable to take any charge which it may be necessary to prefer.

42. In all cases where there has been any violation of the Government Railways Act, or of the By-laws of the Commissioner, it is desirable that the names and addresses of two or more persons present on the occasion be obtained, and reported with the name and address of the offending person.

43. (a) Whenever any person is detained, or taken into custody, a telegraph or telephone message, stating his name, address and occupation, and the nature of the charge, is to be forwarded to the Head of the Branch instantly, and a written report is also to be sent by the next train, stating, with the particulars of the case, when and where the charge is to be heard.

(b) Anyone taken into custody should be taken before a Magistrate as soon as practicable.

44. (a) The Chief Traffic Manager may at his discretion, suspend any of the Rules relating to the safe working of trains, either generally or over specified sections of the Railways, and for such time as he may deem advisable: provided that in all such cases he shall report to the Commissioner his reasons for so doing.

(b) The Chief Traffic Manager may for such periods or in respect of such special occasions as he may deem fit delegate to any District Traffic Superintendent authority to suspend Rules as conferred upon himself by clause (a). In all cases where the District Traffic Superintendents use such authority they must immediately report to the Chief Traffic Manager, who will report to the Commissioner.

### UNIFORM TIME TO BE KEPT AT ALL STATIONS AND BY GUARDS AND ENGINE-DRIVERS.

45. (a) Standard time will be sent to all Railway Telegraph or Telephone Stations daily at a specified hour by telegraph or telephone, in accordance with the special instructions on the subject.

(b) Station-masters and Signalmen will be held responsible for keeping their Clocks properly regulated, and must, if necessary, at once report any defects in their working.

(c) To insure uniform time being kept at all the Stations on the Line to which time is not telegraphed or telephoned, the following instructions must be strictly observed:—

(i) Each Guard and Engine-driver must, before starting on his journey, satisfy himself that his Watch is correct with the Clock at the Station from which he starts (if a Telegraph or Telephone Station), and must again compare it, and regulate it, if necessary, by the Clock at the Telegraph or Telephone Station where his journey ends before commencing his return journey.

- (ii) The Guard in charge of the first Passenger or Mixed train stopping at all Stations on the portion of the Line over which it runs must, on his arrival at each Station, not a Telegraph or Telephone Station, give the Station-master the precise time, and, in the event of the time given by the Guard differing from that of the Station Clock, the latter must be altered to agree, and regulated accordingly.

## SIGNALS.

### FIXED SIGNALS.

46. Fixed Signals consist of Distant, Home, Starting, Advanced Starting, Siding, Calling-on, Shunting, and Disc Signals.

47. The normal position of Fixed Signals is Danger, except where otherwise provided.

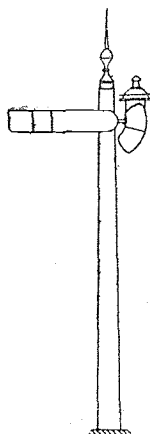
RED is a signal of "DANGER."

GREEN is a signal of "ALL RIGHT."

48. (a) Semaphore Signals are constructed with arms for Day Signals and lamps for Night Signals.

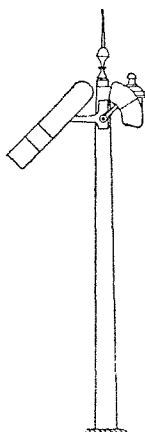
(b) The Signal by day is made by the arm on left-hand side of the post, as seen by the Driver of an approaching engine.

49. The Semaphore Danger Signal is shown, in the day-time, by the arm being in the horizontal position, thus:—



and by the exhibition of a Red Light by night.

50. The Semaphore All Right Signal is shown, in the day time, by the arm being lowered, thus:

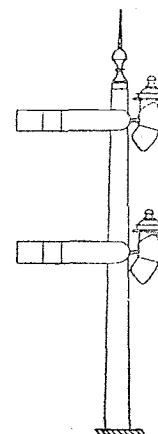


and by the exhibition of a Green Light by night.

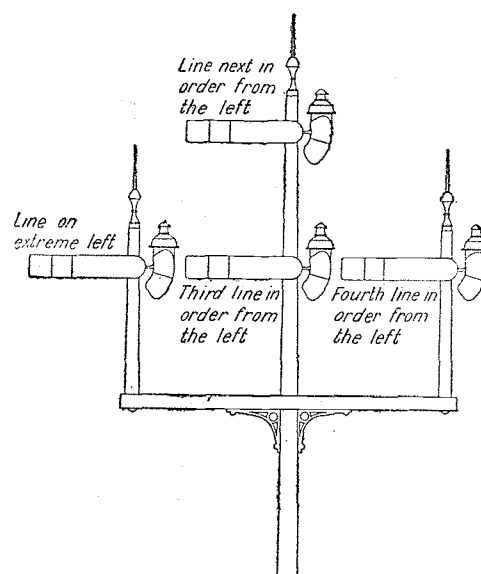
51. (a) Except as shown in Rule 52, where more arms than one are fixed on the same side of a post, they apply as follow, viz.:—

The first or top arm, to the line on the left;

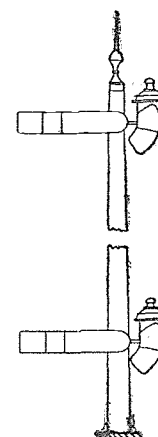
The second arm, to the line next in order from the left; and so on as per diagram.



(b) Where Bracket Semaphores are erected the arms apply as per diagram hereunder:



52. Where a Signal cannot readily be seen owing to intervening obstructions, a duplicate arm is erected below such Signal, as per diagram:—



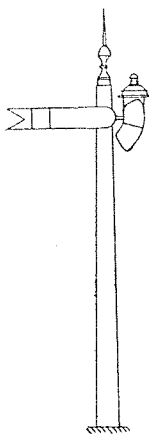
The higher or lower or both arms, as the case may be, to be read as one Signal.

53. (a) The Disc Danger Signal is shown in the daytime by a Red disc, and at night by a Red light.

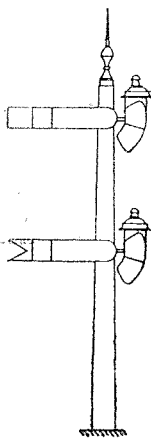
(b) The Disc All-Right Signal is shown in the daytime by the Red Disc being turned off, and at night by a Green light.

## DISTANT SIGNALS.

54. (a) Distant Signals are fixed at some distance from the point at which the Home Signal is placed, and the arms are fish-tailed, thus:—



(b) Where it is found necessary to place the Distant Signal arm worked from a Signal-box in advance on the post of the Home, Starting, or Advanced Starting Signal applicable to the same Line, of the Box in the rear, the Distant Signal will be the lower, and the Home, Starting, or Advanced Starting the upper arm of that post.



55. Distant Signals must be placed at Danger immediately they are passed by a train, and also whenever any obstruction or danger exists upon the Line they are intended to protect.

56. (a) When an Engine-driver finds a Distant Signal at Danger, he must immediately reduce the speed of his train so as to be able, in case of need, to stop at such Signal; but if he see that the way in front of him is clear, he must proceed cautiously within the Distant Signal, having such control of his train as to be able to stop it short of any obstruction that may exist between such Signal and the Home Signal, and must bring his train to a stand as near the Home Signal as the circumstances of the case will allow.

(b) Engine-drivers must approach cautiously any Siding, Station, or Junction where the view of the line is obstructed from any cause; and if, after having passed the Distant Signal at Danger the Home Signal is observed to be lowered, the speed of the train must not be increased unless it is seen that the Line is clear, as the Home Signal may have been lowered for a previous train or engine that had been brought to a stand between the Distant and Home Signals.

57. Where the Distant Signal worked from one Box is fixed near to another Box, the Signalman on duty at the Box near to which the Signal is fixed will be held responsible for seeing that the Signal is working properly, and that the light of such Signal is showing plainly when necessary. This will not, however, relieve the Signalman from whose Box the Distant Signal is worked from satisfying himself that the Signal is working correctly.

## HOME SIGNALS.

58. Home Signals are fixed at Stations, Junctions, Sidings, and Signal-boxes, and, as a rule, are so placed as to indicate by their positions the Lines to which they apply.

59. (a) No train must pass a Home Signal at Danger, or foul the Crossings or Points to which it applies, except as prescribed in Rules 60, 76, 96, and 260, or where a Calling-on Signal is in use.

(b) When a train has been stopped or brought nearly to a stand at a Home Signal, and it is necessary to bring it within the Home Signal before the Section ahead is clear, the Signalman must, where a Starting Signal is provided, and that Signal is at Danger, lower the Home Signal for the train to draw ahead.

60. At Stations on Single Lines where Home Signals only for the Main Line are provided, an approaching train requiring to be turned into a Siding, passing or crossing Loop, must be stopped or brought nearly to a stand at the Home Signal, and the Engine-driver must, upon the necessary Hand Signal being exhibited by the Signalman, draw cautiously past the Home Signal at Danger into the Siding, passing, or crossing Loop. The Hand Signal for the purpose of signalling to the Engine-driver must only be given from the Facing Points by a Green Light or Green Flag, held steadily in the hand, but such Hand Signal must not be exhibited until the Facing Points leading into the Siding, passing, or crossing Loop are securely fastened or held for the passage of such train as directed in clause (c) of Rule 82.

61. (a) When the Starting Signal is at Danger, the Home Signal must not be lowered for an approaching train until the train is close to the Home Signal, and has been brought quite, or nearly, to a stand at it. In foggy weather, or when from any other cause a distinct view of the Signal cannot be obtained, the Engine-driver must, when practicable, be verbally informed that he is only to draw forward towards the Starting Signal.

(b) The Engine-driver of any train which has been thus stopped, or brought nearly to a stand at a Home Signal, must, after that Signal has been lowered, go slowly forward towards the Starting Signal, but must only proceed as far as is necessary to leave the last vehicle well clear of the Points and Crossings, and within sight of the Signalman. The Starting Signal must not be passed until it is lowered, except as provided in Rule 65.

(c) If the Signal-box is between the Home and Starting Signals the Engine-driver must be prepared to stop at the Box if necessary.

(d) When trains are allowed to go forward under the "Section Clear but Station or Junction Blocked" Signal (Block Telegraph Regulation 6), the Signalman must, if the train has not already passed the Home Signal towards the Starting or Advanced Starting Signal, bring the train to a stand at the Home Signal, and verbally instruct the Engine-driver that the Section is clear to the Home Signal at the Block Signal-box in advance, but that the Station or Junction ahead is blocked. A Green Flag by day and a Green Light by night, held steadily in the hand, must, at the same time, be exhibited to the Engine-driver, and the necessary Fixed Signals lowered to give permission for the train to proceed.

(e) Where the Home Signal is at such a distance from the Signal-box that it is not possible for the Signalman to communicate verbally with the Driver when the engine is standing at the Home Signal, and there is no Calling-on Signal, the Signalman must, after bringing the train to a stand at the Home Signal, lower it to allow the Engine-driver to draw to his Box, and must stop the train at the Box by exhibiting a Red Flag by day and a Red Light by night. The Engine-driver must then be verbally instructed that the Section is clear to the Home Signal at the Block Signal-box in advance, but that the Station or Junction ahead is blocked; after which a Green Flag by day and a Green Light by night, held steadily in the hand, must be exhibited to the Engine-driver, and the necessary Fixed Signals lowered to give permission for the train to proceed.

(f) If the train is assisted by an engine in the rear, a Green Flag by day and a Green Light by night, held steadily in the hand, must also be exhibited to the Driver of the engine in the rear of the train.

62. (a) At places where Starting Signals are not provided, when a train has been stopped at the Home Signal, and it is necessary to draw it within such Signal before the Section ahead is clear, the Signalman must lower the Home Signal after verbally instructing the Engine-driver to bring his train under the protection of the Home Signal.

(b) Where the Home Signal is at such a distance from the Signal-box that it is not possible for the Signalman to communicate verbally with the Driver when the engine is standing at the Home Signal, and there is no Calling-on Signal, the Signalman must, after bringing the train to a stand at the Home Signal, lower it to allow the Engine-driver to draw to his Box, and must stop the train at the Box by exhibiting a Red Flag by day and a Red Light by night, and then, by verbal instructions, give the Engine-driver clearly to understand the state of the Line ahead.

(c) Engine-drivers must not go forward until they clearly understand the verbal communication which the Signalman has made to them as to the state of the Line ahead, and then only with their engines under the needful control to insure safety.

(d) When the Line is clear the Signal for the train to proceed must be given by the Signalman showing the Engine-driver a Green Flag by day and a Green Light by night, held steadily in the hand.

63. Whenever the Distant Signal is at Danger the Danger Signal must also be exhibited at the Home Signal, except when a train has passed the Distant Signal at Danger, in which case the Home Signal only must be lowered to allow the train to pass.

#### CALLING-ON SIGNALS.

64. (a) Where short arms are fixed upon the Home Signal Posts as Calling-on Signals, they are placed below the Home Signal. When a Calling-on Signal is lowered, the Engine-driver must draw forward past the post of the Signal on which the Calling-on Signal is fixed, as far as the Line is clear. If, after lowering the Calling-on Signal, the Signalman wishes to communicate with the Engine-driver, and the Signal-box is ahead of the Calling-on

Signal, he must show a Hand Danger Signal from the Box to stop him. At night, when the arm is at Danger, the light is obscured, but when the arm is lowered, the Green All Right Signal is visible.

(b) Unless instructions are issued to the contrary, the Calling-on Signal must not be lowered until the train has been brought to a stand at the Home Signal.

#### STARTING AND ADVANCED STARTING SIGNALS.

65. Starting Signals (where Advanced Starting Signals are not provided) and Advanced Starting Signals control the entrance of trains into the Section ahead, and must not be passed when at Danger, except as under:—

(a) *Where there are Shunting Signals. See Rule 67.*

(b) *When Signal is defective. See Rule 96.*

(c) *Single Line working during Obstruction. See Rule 260.*

(d) *On Double Lines where the Points of Sidings or Cross-over roads are so near to a starting Signal or Advanced Starting Signal as to render it necessary for the Signal to be passed for Station work, and a Shunting Signal is not provided, Engine-drivers may, for the purpose of performing such operations, pass the Starting Signal or Advanced Starting Signal when at Danger, upon being directed to do so by the Signalman, either verbally or by a Green Hand Signal, which must be held steadily in the hand; but they must not proceed on their journey until the Starting or Advanced Starting Signal has been lowered.*

(e) *Starting Signals on Single Lines are fixed clear of the fouling point, and must not be passed when at Danger except as provided in Rules 67 and 96. The permissive functions of these Signals are as under:—*

(i) *If the Driver has the necessary authority under the Regulations for working Single Lines, or is in possession of a written order authorising him to run out for Station work on the Single Line beyond the Home Signal, the Starting Signal when lowered indicates that the engine may enter the Section in advance.*

(ii) *If the Driver has not the authority specified in Subclause (i), the Starting Signal when lowered is an indication that the engine may run out for Station work on the Single Line, but not outside the Home Signal.*

66. (a) Where Advanced Starting Signals are provided, the Starting Signal must not be passed at Danger, but when the Line is clear between the Starting and Advanced Starting Signals, and the Advanced Starting Signal is at Danger, the Signalman must, when necessary, after the train has been brought nearly to a stand, lower the Starting Signal to allow such train to proceed towards the Advanced Starting Signal.

(b) When a train has gone forward into the Section in advance, the Starting or Advanced Starting Signal which controls the entrance of trains into such section must be put to, and kept at Danger, until it is again necessary to lower it for a following train to pass, in accordance with

the prescribed Rules and Regulations. So long as the Starting Signal is at Danger, the Home and Distant Signals must also be kept at Danger, until a following train is close to the Home Signal and has been brought quite or nearly to a stand at it, when that Signal may be lowered, so as to admit of the train stopping at the platform, the Starting Signal, or the Advanced Starting Signal, as the case may be.

(c.) Except where instructions are issued to the contrary, when a train has passed the Signal-box, and is brought to a stand at the Starting or Advanced Starting Signal, the Engine-driver must understand that the lowering of the Starting Signal (where such Signal controls the entrance of the train into the Section ahead) or Advanced Starting Signal, is an indication that the Line is only clear to the Home Signal at the Block Signal-box in advance, and that he must regulate the speed of his train in the same way as if he had been verbally instructed to proceed under the "Section Clear but Station or Junction Blocked" Signal.

(d.) In foggy weather, or when from any other cause a distinct view of the trains cannot be obtained, trains waiting "Line Clear" must, as far as practicable, be kept within the sight of the Signaller, and, unless special instructions are issued to the contrary, no train must be drawn past the Starting Signal towards the Advanced Starting Signal, except for Station work.

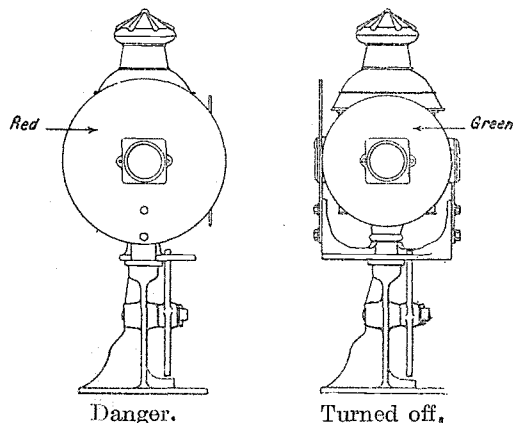
(e) During foggy weather, or when from any other cause a good and distant view of the Signals cannot be obtained, the "Section Clear but Station or Junction Blocked" Signal must not be used.

#### SHUNTING SIGNALS.

67. Where Shunting Signals are provided upon the Starting or Advanced Starting Signal posts, the turning off or lowering of the Shunting Signal authorises an Engine-driver to pass the Starting or Advanced Starting Signal when at Danger, for Station work only, but no train must go forward on its journey until the Starting or Advanced Starting Signal is lowered.

#### DISC SIGNALS.

68. Disc Signals are used to regulate the passage of trains between Sidings and Running Lines, or between one Running Line and another, or for shunting operations, and are of the design shown below.



#### SIDING SIGNALS.

69. (a.) When the exit from, or entrance to, Sidings is controlled by Disc or Semaphore Signals, no attempt must be made to take a train to or from such Sidings until the Signal is turned off or lowered (except as provided in Rule 96), nor, if practicable, must an Engine-driver, whilst waiting for such Signal to be turned off or lowered, allow his engine to stand foul of any other Line.

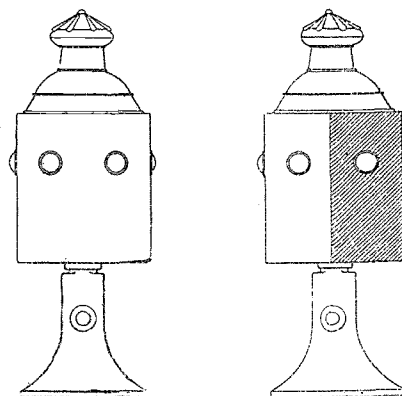
(b.) When a Signal applies to more than one Siding, and more than one engine is in the Siding at the same time, no Engine-driver must move towards the Signal until he has been instructed to do so by the Foreman Shunter or other person in charge.

#### POINT INDICATORS.

70. (a.) Point indicators are connected to and worked with the Points to which they apply; they are for the purpose of indicating the way the Points are set. Where a fixed signal is not provided to govern the movement an engine-driver must, before proceeding through such Points, receive a Signal, either verbal or by hand, from the Guard, Shunter, or Signaller, to show that the Points have been set for his particular Train or Engine.

(b) Point Indicators fixed on Catch Points are of the design shown on page 27 (except as provided for in Clause (d)) and exhibit a Red Target by day when the Points are in their normal position, and a Green Target when the Points are reversed; two Red and two Green Lights being similarly exhibited at night.

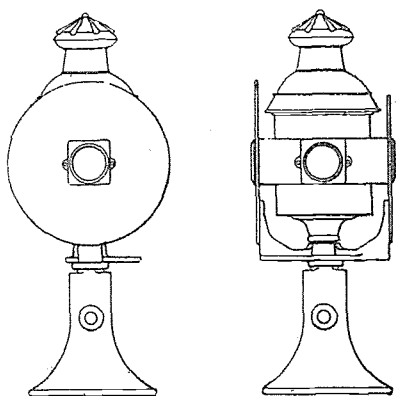
(c) Point Indicators fixed on all other Points are of the design shown below (except as provided for in Clause (d)). Two colours are exhibited on the Target by day, Red and Green; a Red and Green light being similarly exhibited at night. Green is exhibited on the side the road is set for.



Catch Point Indicator, Ordinary Point Indicator,  
Clause (b). Clause (c).

(d) Point indicators of the design shown below exhibit one colour by day and by night.

- i. The indicator fixed to Catch and Safety Points exhibits Red when the points are in their normal position, and Green when the points are reversed.
- ii. The indicator fixed to other points exhibits Green when the points are in their normal position and Red when the points are reversed.



*Note.*—This design is being gradually replaced by those shown in Clauses (b) and (c).

#### BACK LIGHTS OF FIXED SIGNALS.

71. The Back Lights of Fixed Signals show a White Light to the Signalman when at Danger, and no Light when at All Right.

#### HAND SIGNALS.

72. (a) These Signals will be made with Flags by day, and with Lamps by night and in foggy weather. A Red Light or a Red Flag is a signal of "Danger—Stop"; in the absence of a Red Light, any light waved violently denotes Danger.

(b) The purposes for which a White or a Green Hand Signal is used are as follow:—

1. Move forward in shunting. Rule 74. White Light, waved slowly up and down.
2. Move back in shunting. Rule 74. White Light, waved slowly from side to side across body.
3. Move forward slowly, in shunting. Rule 74. Green Light, waved slowly up and down.
4. Move back slowly, in shunting. Rule 74. Green Light, waved slowly from side to side across body.
5. Guard's signal to Engine-driver to start, and to indicate that Guard or Shunter has rejoined train. Rules 77 and 196. Green Light, or Green Flag (where used), held steadily above the head by Guard.
6. To indicate by night to Engine-driver of train after starting that his train is complete. Rule 196. Green Light, waved slowly from side to side by Guard from his van.
7. To give an All Right Signal to Engine-driver where there is no Starting Signal. Rule 62. Green Light or Flag held steadily in the hand by Signalman.
8. To authorise Engine-driver to pass Starting Signal at Danger, for Station work. Rule 65. Green Light or Flag held steadily in the hand by Signalman.
9. To indicate to Engine-Driver in foggy weather that the signal is All Right. Rules 104 and 169. Green Light or Flag held steadily in the hand by Fog-signalman.
10. To reduce the speed for Permanent Way Operations. Rules 99, 181, 273, and 282. Green Light or Flag waved slowly from side to side by Repairer.

11. To reduce speed when passing Level Crossings. Rules 141 and 181. Green Light or Flag waved slowly from side to side by Gatekeeper.

12. To give an All Right Signal to Engine-driver when a Fixed Signal is disconnected or out of order. Rule 96. Green Light or Flag held steadily by Hand-signalman at the signal.

13. To indicate to Engine-driver that Section is clear but Station or Junction is Blocked. Rule 61. Green Light or Flag held steadily by Signalman after bringing train to a stand and giving verbal warning.

14. To indicate to Engine-driver of Goods train timed to stop at a Station that there is nothing to pick up, and that, if he has nothing to put off, he may run through. Rule 198. Green Light or Flag waved slowly up and down.

15. To indicate that Catch Points are in the right position for train to pass in facing direction. Rule 264. Green Light or Flag held steadily in the hand by man at Points.

16. To caution Engine-driver entering Terminal Station, or a Station worked under special instructions, if line is not clear. Rule 110. Green Light or Flag held steadily in the hand by Signalman after bringing train to a stand and giving verbal warning.

17. To give signal to Engine-driver to pass Home Signal at Danger. Rule 60. Green Light or Flag held steadily in the hand.

18. To indicate to Signalman when Points may be moved for shunting purposes. Rule 84. Green Light held steadily in the hand.

19. To indicate to Engine-driver that train is divided. Rule 248. Green light or Flag moved in a vertical circle by Signalman.

*The vertical motion referred to in Subclause 19 is as illustrated thus:—*



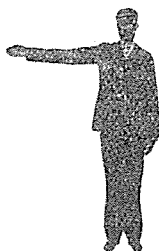
73. *In the absence of Flags—*  
(a) Both arms raised above the head denote "Danger—Stop!" thus:—



(b) One arm raised above the head denotes "Caution," go slowly, thus:—



(c) One arm held in a horizontal position denotes "All Right," thus:—



(d) The Hand Signal specified hereunder must be used during shunting operations.

- |  |  |
|--|--|
| (i) To move forward, <i>i.e.</i> , go away from the person giving the signal.          | The arm waved outwardly from the body.   |
| (ii) To move forward, slowly, <i>i.e.</i> , go away from the person giving the signal. | The arm waved outwardly from the body, and holding the other arm in the caution position.  |
| (iii) To move backward, <i>i.e.</i> , come towards the person giving the signal.       | The arm waved inwardly across the body.  |
| (iv) To move backward slowly, <i>i.e.</i> , come towards the person giving the signal. | The arm waved inwardly across the body, and holding the other arm in the caution position. |
| (v) To hit up.   | One or both arms moved quickly at the sides of the body.                                   |
| (vi) To uncouple.  | Both arms raised above the head, forming an arch, and then separated.                      |

74. (a) In shunting operations by night, or when necessary in foggy weather, a White Light waved slowly up and down means "Move forward," *i.e.*, go away from the person giving the Signal. A White Light waved slowly from side to side across the body means "Move back," *i.e.*, come towards the person giving the Signal.

(b) A Green Light used instead of a White Light, as above, means "Move forward slowly," or "Move back slowly."

75. Hand Lamps and Flags, when used as Signals, except where they are employed for the purpose of marking the actual point of obstruction, must always be held in the hand, and not placed upon, or stuck into, the ground, or fixed elsewhere.

## SIGNALLING IN CONNECTION WITH TRAINS SHUNTING OR RUNNING IN WRONG DIRECTION.

76. Distant, Home, Starting and Advanced Starting Signals apply only to trains travelling in the proper direction on the Running Lines, and must not be used for any other purpose, except as provided in Rule 260. Trains moving in the wrong direction on any Running Line must be signalled by Hand Lamp or Flag. Trains shunting from one Running Line to another, or shunting into, or out of, Sidings connected with Running Lines, must, unless Fixed Signals are provided for the purpose of signalling such operations, be signalled either verbally, or by Hand Lamp or Flag, as occasion may require: it being necessary, in such cases, that the Fixed Signals should be kept at Danger for the protection of the trains so employed.

## DETENTION AT HOME OR STARTING SIGNALS.

77. (a) When a detention occurs at a Home, Starting, or Advanced Starting Signal, the Engine-driver must immediately sound the engine whistle, and (except where instructions are issued to the contrary) the Signaller must, if he cannot allow the train to go forward at once, show a Red Hand Signal. If the Red Hand Signal is not given, the Guard, Shunter, or Fireman must at once, as well as in all cases of excessive detention, even if such Hand Signal has been given, go to the Signal-box and remind the Signaller of the position of the train. In foggy weather, or when from any other cause there is not a clear view between the Signal-box and the train, the Guard, Shunter, or Fireman must (except where instructions are issued to the contrary), immediately upon the train coming to a stand, proceed to the Signal-box.

(b) When a train or vehicles have passed a Home Signal, and are waiting to be crossed to another Line, or to be let into a Siding, or have been shunted on to the opposite Running Line, or placed on either a Main or Branch Line at a Junction, or when a train or vehicles have been shunted from a Siding on to a Running Line, and are waiting to be crossed to another Line, the Guard, Shunter, or Fireman must, when the train or vehicle comes to a stand, proceed immediately to the Signal-box, and remind the Signaller of the position of the train or vehicles, and, except as provided in Clause (h) hereof, remain in the Box until the Signaller can give permission for them to proceed, or to be shunted clear of the Running Lines.

(c) The duty of going to the Signaller must be performed as under:—

- (i.) In the case of a light engine, or of a Passenger train with only one Guard—by the Fireman; the Guard in the latter case remaining in charge of the train.
- (ii.) In the case of a Goods train, with only one Guard—

When stopped at a Home Signal, by the Fireman;

When stopped at a Starting or Advanced Starting Signal, by the Guard;

When waiting to be crossed on to another Line, or to be let into a Siding, by the Guard;

When crossed to the opposite Line, by the Fireman;

When drawn ahead on to a Main or Branch Line at a Junction, by the Guard;

When backed on to a Main or Branch Line at a Junction, by the Fireman.

(iii.) In the case of a train with two or more Guards, by the Guard whose van is nearest to the Engine; if there is only one van on the train, by the Under-Guard.

(iv.) In the case of there being a Guard as well as a Shunter with the train or vehicles, then the Shunter must go to the Signal-box.

(v.) In the case of a train or vehicles in charge only of a Shunter, the Shunter must go to the Signal-box.

(d.) The Guard in charge of the train must satisfy himself that the man whose duty it is to do so has gone to the Signal-box; and the Guard or Shunter, as the case may be, will be held responsible for seeing that the train or vehicles are properly secured.

(e.) When a train or vehicles have been shunted from one Running Line to another, the Guard or Shunter, as the case may be, must, before going to the Signal-box, satisfy himself that the line from which the train or vehicles have been shunted is clear.

(f.) Sufficient time must be allowed for the Guard, Shunter, or Fireman to rejoin the train before the Signal is lowered, and the Engine-driver must not, when the Signal is lowered, go forward until he has received a Hand Signal from the Guard or Shunter to intimate that he has rejoined the train. By day the Hand Signal will be the All Right Signal, in accordance with Rule 73, or (where used) by the exhibition of a Green Flag, and by night a Green Light held steadily above the head.

(g.) The man who goes to the Signal-box as a reminder to the Signalman must satisfy himself by personal inquiry that the Signalman is aware of the obstruction, and has protected the train.

(h.) Where mechanical or other appliances are provided to serve as a reminder to the Signalman that certain signals must not be lowered or turned off, he must make prompt use of such appliances, and the Guard, Shunter, or Fireman, who has gone into the Signal-box in accordance with Clauses (a) and (b), must, after satisfying himself that this has been done, return to his train. In addition, where the Regulations require it, the Signalman must "Block back" to the Signal-box or boxes affected by the obstruction before allowing the line to be obstructed.

#### WORKING OF POINTS AND SIGNALS.

78. (a) All Points, Signals, Interlocking, and other apparatus must be kept in perfect working order and promptly returned to their normal position after use. The Signalman must immediately report to the Station-master under whose supervision he acts, and to the person in charge of repairs, any case in which the Points, Signals, Interlocking, or other arrangements are out of repair; and the Station-master must, where necessary, telegraph the circumstances to the proper authorities.

(b.) Any irregular working, or failure to work properly, of any Signal must be reported by the person observing the irregularity to his superior officer.

79. When, from the passage of a train or other cause, any Point, Crossing, or Cheek Rail is damaged or strained, or the rails themselves are split or strained, the circumstances must immediately be reported to the Station-master, Signalman, Inspector of Permanent-way, Ganger, or other person in charge of repairs, and all trains must be stopped, or allowed to pass over slowly, as may be necessary, until the damage is repaired. The Permanent-way Inspector or man in charge must certify that the road is in order.

80. The Signalman must frequently examine and try his fixed Signals to see that they work well, are kept clean, and show properly. It is not sufficient merely to move the lever, but the Signalman must, at the same time, watch the Signal, so as to see that it obeys the lever and goes fully to Danger or to All Right. After sunset the back lights of Fixed Signals must be carefully watched to see that the Signals work properly. Where a Fixed Signal is out of the Signalman's sight, and its working is indicated by a Repeater, he must satisfy himself by observation of the Repeater that the Fixed Signal is working properly. He must take care that the Signal wires are kept properly adjusted.

81. (a) No train or vehicle must be allowed to foul any Running Line without the permission of the Signalman.

(b) The line must not be obstructed or occupied until the Signals applicable to the Line or Lines about to be obstructed have first been placed at Danger.

(c) Should any impediment or obstruction exist upon the Line within the sight or knowledge of the Signalman, he must place or keep the necessary Fixed Signals at Danger, and prevent any train passing in that direction, until such impediment or obstruction has been removed, and the Line made perfectly clear and safe.

82. (a) When a train is approaching Facing Points, the Signalman must see that the lever which governs them is close home to the frame, and that the catch is firmly down in the notch, and remains so until the whole of the train has passed. He must also, from observation, when practicable, assure himself that the Points have obeyed the lever and are in the proper position.

(b) All points must be frequently tested by the Signalman, so that he may satisfy himself they work well, and that no part is damaged.

(c) All Facing Points, not worked from a Locking-frame, which lead to or from a Running Line, must be securely fastened or held for the passage of each train, except where it may be necessary to issue instructions to the contrary.

83. When a Signal other than a Distant Signal has been lowered for the passing of a train, it must not (except in case of accident or obstruction, or as provided for in Rule 86) be again placed at Danger until the last vehicle of the train has passed it, or the train has been brought to a stand; nor, in the case of any signal governing the Facing Points (except where mechanical or other appliances are provided which permit of the Signal being placed at

Danger without releasing the security of the interlocking), until the last vehicle of the train has passed it, and is clear of the Facing Points.

84. (a) Signalmen must exercise great care in shunting carriages and other vehicles. They must not move the Points until they have obtained a Signal from the Guard or Shunter, or from the Engine-driver or Fireman in the case of a light engine, that the last vehicle or the light engine, as the case may be, is clear of the Points. At night the Signal to be a Green Light held steadily in the hand.

(b) After shunting operations of any description, the Signalman must see, or have intimation from the Guard (or if a Shunter has been employed, then from him), that the carriages or other vehicles have been left secure in the Sidings, and that the Running Lines are clear before lowering the Signals to allow any train to pass. In the case of a light engine, the Fireman will be held responsible for so advising the Signalman.

(c) When it is necessary to shunt vehicles on any Running Line, the Guard or Shunter must satisfy himself that in the shunting operations none of the vehicles have become detached and are left upon any Running Line.

85. Where Catch Points are worked from Signal-boxes, Signalmen must, in order to prevent any vehicle running back on the Line in which the Catch Points are provided, keep the Points open for the runaway end, except when required to be closed for trains to pass over them on the Running Line. Should it be necessary to move a train in the wrong direction on the Line provided with Catch Points (whether worked from a Signal-box or not), care must be taken that the Points are right for the direction in which the train is moving.

86. If when two or more trains approach a Junction at the same time, or at nearly the same time, the Signalman should have lowered or turned off the Signals for a train which should have been kept back for the passage of another, he must not attempt to alter the order of the trains by reversing the Signals, but must place at Danger all the Signals applicable to the trains affected, and so keep them until all the trains have been brought to a stand, when precedence can be given to the proper train.

87. (a) No unauthorised person must be allowed to interfere with the working of the Signals or Points, or the Electrical Instruments or Bells.

(b) No person must move any Points which lead to a Running Line, or from one Running Line to another, without the permission of the Signalman in charge.

88. (a) Each Signalman must keep his Signal-box strictly private, and not allow any other persons than the authorised employees of the Commissioner to enter it.

(b) Signal-boxes and the instruments and other appliances therein must be kept in proper order and perfectly clean.

89. (a) The Signal Lamps must be lighted as soon as it commences to be dusk and in foggy weather, unless otherwise ordered by the Chief Traffic Manager.

(b.) When it is necessary for one Signal on a post to be lighted, all other Signals on the same post

applying in the same direction must be lighted, except when otherwise ordered by the Chief Traffic Manager.

90. When it is necessary for a Signalman to leave his Signal-box while on duty, for any purpose whatever, he must, before proceeding to do so (where practicable) inform the Signalman on each side of him of the probable duration of his absence, and place all his Signals at Danger.

91. At every Station where there is no appointed Signalman, the Station-master, or a Porter (who holds a certificate of fitness for the duty) appointed by him, must attend to the working of the Signals, and be responsible for the correctness of the same.

92. Every Signalman, before taking charge of a Signal-box, must satisfy himself that all the Electrical Instruments, Signals, Points, etc., are in good working order, and, when relieving another Signalman, must ascertain from him whether there are any special circumstances requiring attention; whether the trains which are due to pass have done so, and if not, what are the exceptions; and what trains, if any, are in the Section on either side of his Signal-box, or are signalled. He must also ascertain whether there is any other matter, the knowledge of which is necessary to enable him to properly discharge his duty. The Signalman relieved must give full information on these points before leaving duty, so that the duties of the box may be conducted in an efficient manner, and any inconvenience arising from the change of men avoided. Each signalman must enter in the Train Register Book the time of his arrival on duty and the time of his leaving, and place his signature thereto. Signalmen must change duty only at the appointed hours.

#### FIXING, REMOVING, OR REPAIRING SIGNALS, OR APPARATUS FOR WORKING POINTS AND SIGNALS.

93. Before the erection or removal of Signals, or the prosecution of other work in connection with Points or Signals which may interfere with the safe working of the Line, the Signal employee who has charge of the work must, unless the work has been previously arranged for between the Way and Works and the Traffic Branch, and the necessary notice issued by the Chief Traffic Manager, communicate with the District Superintendent, Traffic Inspector, or Station-master, as the case may be, who will make any special arrangements that may be necessary in connection with the working of the traffic during the time such alterations or repairs are being effected. Where there is no Station-master or Signalman, and no special arrangements have been made with the Traffic Branch, the Signal employee must provide for the safety of the Line in accordance with Rule 279.

94. (a) When the work involves the disarrangement of the Interlocking apparatus, or the disconnection of Signals, Points, Facing Point Bars or Locks, Fouling Bars, Detectors, Bridge Bolts, Turntable Bolts, or Level Crossing Gates, the Signal employee must, before the work is commenced, give to the Signalman an exact description of the nature of the work, and the Signalman must enter in the Train

Register Book the words "Locking disarranged," with the numbers of the levers which will be interfered with; both he and the Signal employee must sign their names, and the time must be recorded.

(b.) When the work involves the disarrangement of the Interlocking, or when it is necessary to disconnect a Facing Point, Facing Point Bar or Lock, Bridge Bolt, or Turntable Bolt, the Signal employee must, before the work is commenced, disconnect and fix at Danger the Distant Signals applicable to the Lines affected.

(c.) A Hand-signalman to work under the instructions of the Signalman must be provided, and act in accordance with Rule 96.

(d.) Before interfering with the Locking connections, the Signal employee must satisfy himself that the Hand-signalman is at his post.

(e.) During the time the Points are disconnected, the Signalman must, on each occasion when he requires to pass a train over the Points, communicate with the Hand-signalman and receive his assurance that all Points are in their proper position and secured.

(f.) In cases where, owing to a number of Points being disconnected from the Signal-box, it may be necessary to place a man at each pair of Points, or to attend to a number of Points, these men must receive their instructions from the Signalman as to the duties they have to perform. When a train is required to be sent over Points which are being attended to by the men assisting the Hand-signalman, the Hand-signalman must so inform such men, and take care that they properly secure the Points for the Line on which the train is to pass, and the Points must not again be altered in position until the Hand-signalman has advised them that the operation is completed. When this has been done, the men will be at liberty to move the Points as may be required to suit the convenience of the Signal employees working at them, it being understood that no train will be sent over them, without previous intimation being given in each case by the Hand-signalman.

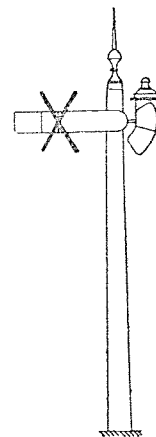
(g.) When carrying out repairs to Level Crossing Gates, involving the disconnection of the Interlocking the Signal employee must disconnect and fix at Danger the Distant Signals, and a Hand-signalman must be provided to attend to the working of the gates and the protection of the crossing.

(h.) When the work is completed, the Signalman after receiving an assurance from the Signal employee that all is right, must test the Locking, and, if found to be all right, then in the Train Register Book the words "Locking restored," and both he and the Signal employee must sign their names under the words, a note of the time being also inserted. If the Permanent way has been damaged, the Points or Signals must not be brought into use until the Permanent-way Inspector or his representative certifies that the road is in order.

(i.) When any Fixed Signal is out of order, or is disconnected for repair or otherwise, or when any points are disconnected and the Interlocking of the Point and Signal levers is all right, the Signalman must, to enable him to obtain the security of the Interlocking, use the lever applicable to such Signal or Points as if the Signal or Points were in work, and the Signal and Counterbalance weight must, when necessary, be disconnected by the Signal employee from the lever to admit of this being done.

(j.) When the Interlocking of any Signal or Point is being repaired, altered, or cleaned by the Signal employee, the Signal employee must not, except for testing purposes, and then only with the permission of the Signalman, move any lever, but must ask the Signalman to move it for him; nor must the Signalman move any lever connected with any point or Signal at which the Signal employee is at work without first obtaining his permission.

95. (a.) No new Signal must be brought into use, nor any alteration made in the position or use of an existing Signal, without the authority of the Chief Traffic Manager.



(b.) Signals not in use are distinguished by two pieces of wood fixed over each other in the form of a cross, as shown in the margin, thus:—

#### DEFECTIVE SIGNALS, POINTS, ETC.

96. (a.) When a Home, Starting, or Advanced Starting Signal, or Siding Signal, applicable to a Siding not protected by Safety Points becomes defective, or is not working efficiently, a competent person must be placed at such Signal with Hand Signals and Detonators, and act under the instructions of the Signalman. The Distant Signals applicable to the Lines affected must be kept at Danger, and disconnected from the levers by which they are worked, and must remain in that position until the defect has been made good, and all is again in working order. If the defective Signal can be placed at Danger, it must be kept at Danger until again in working order.

(b.) Should the Interlocking of a lever frame or any Facing Point, Bolt, or Bar be out of order, one competent man or more, as may be necessary, provided with Hand Signals and Detonators, must be appointed to act under the instructions of the Signalman in charge of the Signal-box, and the Distant Signals applicable to the Lines affected must be kept at Danger and disconnected from the levers as above directed.

(c.) The Hand-signalman must ascertain from the Signalman in charge of the Signal-box what train he is to bring forward, and, if the train which is to be brought forward is approaching Facing Points, he must, before signalling it forward, inform the Signalman in charge of the Signal-box the position of such Points, and satisfy himself that they are set and secured in position for the Line on which the Signalman in the Signal-box intends the train should run.

(d.) If the train which is to be brought forward is approaching Trailing Points, the Hand-signalman must satisfy himself that the points are in the proper position for the train to pass.

(e.) The Hand-signalman must, when signalling a train forward, stand near to the Signal for which he is acting, in order that his Signal may not be mis-

taken by an Engine-driver on any other Line, and should it be necessary to stop, or reduce the speed of an approaching train, the Hand-signalman must exhibit a Red Hand Signal to the Engine-driver until the train has been stopped or the speed sufficiently reduced, and then, if permission can be given for the train to proceed, he must exhibit a Green All Right Signal, held steadily in the hand.

(f.) Hand-signalmen must work under the instructions of the Signalman only, who must take care that they are properly instructed as to their duties, and understand what they have to do.

(g.) Where practicable, the Station-master must select proper men from his own staff for the purpose; but where this cannot be done he must apply to the Inspector of Permanent-way for the district or to the nearest Ganger for Repairers competent to act as Flagmen.

(h.) When the Interlocking at a junction is out of order, the Facing Points must, except when required to be otherwise placed for the passage of trains, be so set that no train can cross the path of another train.

(i.) When a Distant Signal becomes defective so that it cannot be placed at Danger, a competent person must be stationed just outside it with Hand Signals and Detonators, and there repeat the Signals exhibited at the Home Signal, provided the Line is clear between the Home and Distant Signals. When such person is out of sight of the Home Signal, one man or more must be stationed between that and the defective Signal, for the purpose of repeating by Hand Signals to the man stationed at the Distant Signal the Signals exhibited at the Home Signal.

(j.) When a tunnel intervenes, or in foggy weather, or when from any other cause a distant view of the Signal cannot be obtained, the man at the Distant Signal must exhibit a Hand Danger Signal as required, and keep two detonators, ten yards apart, on one rail of the Line to which the Signal applies, until the Signal has been repaired and is again in working order.

(k.) If the defective Distant Signal can be kept at Danger, it must be so kept until again in working order, and a Hand-Signalman need not be appointed.

(l.) The Signalman at the Box in the rear must, when practicable, be advised if the Distant or Home Signal cannot be placed at Danger, and he must stop all trains proceeding in the direction of the defective Signal, and advise the Engine-drivers of the circumstances.

(m.) When any Fixed Signal is out of order, but the interlocking of the Point and Signal levers is in proper order, the Signalman must, to enable him to obtain the security of the Interlocking, use the lever applicable to such Signal as if the Signal were in work, and the Counter-balance weight must, when necessary, be disconnected by the Signal employee from the lever to admit of this being done.

97. The absence of a Signal at a place where a Signal is ordinarily shown, or a Signal imperfectly exhibited, or the exhibition of a White Light at a place where a Red or a Green Light ought to be seen, or the exhibition of two All Right Signals, at a place where two or more Lines diverge or converge, where only one All Right Signal should be shown, must be considered a Danger Signal, and treated accordingly, and the fact reported to the Signalman or Station-master.

## DETONATING SIGNALS.

98. (a.) Engine-drivers, Guards, Signalmen, Gate-keepers, Gangers of Repairers, and Fog-signalmen must be provided with Detonators, which they must always have ready for use when on duty; and every person in charge of a Station must keep a supply of these Signals in a suitable place, known by, and easy of access at all times to, every person connected with the Station.

(b.) All the persons above-named will be held responsible for keeping up the proper supply of Detonators.

99. (a.) Detonating Signals must be used for the purpose of attracting the attention of Engine-drivers. They must be placed as nearly as possible in the centre of the rail, and the clasps bent round the upper flange of the rail to prevent them from falling off.

(b.) When an engine explodes a Detonator in clear weather, the Engine-driver must immediately reduce speed, and bring his train under such complete control as to enable him to stop at once if required, and then proceed cautiously to the place of obstruction, or until he receive a further signal for his guidance.

(c.) When an Engine explodes a Detonator in foggy weather, the Engine-driver must immediately reduce speed, and bring his train under complete control so as to be prepared to obey any Signal that may be exhibited. If he receive a Red or Danger Hand Signal, he must at once bring his train to a stand, and then proceed cautiously to the point the Hand Signal is intended to protect, or until he receive a Signal to proceed, unless he be satisfied that the Hand Signal is exhibited for the purpose of repeating a Distant Signal at Danger, in which case he must, after having reduced speed, proceed cautiously towards the Home Signal. If he receive a Green Hand Signal waved slowly from side to side he must reduce the speed of his train to ten miles an hour, or such other speed as may be prescribed, over the portion of the Line protected by such Green Signal.

(d.) When used to repeat Fixed Signals and call attention to the fact of their being at Danger, the Detonators must be observed in the same way that such Fixed Signals would be observed if clearly seen to be at danger.

100. (a.) Detonators must be carefully handled as they are liable to explode if roughly treated. They must be kept in dry places.

(b.) Unless instructions are issued to the contrary, every man's stock of Detonators must be tested at intervals of not more than six months, to insure that they are in good condition.

(c.) Detonators must be issued in the order in which they are received from the Stores Branch; those which have been the longest on hand being always used first, to avoid an accumulation of old stock.

(d.) Should any Detonator fail to explode when a train passes over it, the circumstance must be promptly reported to the Chief Traffic Manager, and the defective Detonator forwarded to him for examination.

**SIGNALLING IN FOGGY WEATHER.**

101. (a) In foggy weather, when the fixed Signals cannot be clearly seen at a distance of not less than 400 yards, it is the duty of the Station-master or other appointed person to take care that Fog-Signalmen are employed at all the places where their services are required, and where Repairers are employed for the purpose, to arrange beforehand with the Inspector of Permanent-way the Repairers who are to act as Fog-signalmen at the various Posts. The Foreman-ganger or Leading-repairer must not be assigned a fixed Post, but must be left free to examine his road, as directed by Rule 289. He may, however, when no other competent man is available, be employed to call the Fog-signalmen, to visit them at their Posts, and distribute Detonators and refreshments in accordance with Rules 106 and 107.

(b) A list of the names and addresses of the Fog-signalmen, showing the Post to which each man is appointed, must be kept exhibited in a conspicuous position in the Station-master's office and Signal-box.

(c) Absence, owing to sickness or other cause, of any man in the Permanent-way Branch appointed to a Fog-signalman's Post to be immediately reported by the Inspector of Permanent-way or Ganger to the Station-master or other responsible person, who must at once correct the list of Fog-signalmen.

102. When a fog occurs during the day, between 6 a.m. and 8 p.m., the men appointed to act as Fog-signalmen must at once report themselves to the Station-master, and take his instructions. Those who have to do duty at Junctions or intermediate Signal-boxes away from a Station must report themselves to the Signalmen on duty at the respective boxes.

103. (a) When it is necessary to employ Fog-signalmen during the night, between 8 p.m. and 6 a.m., the Station-master must arrange to have the men called, and sent to their respective Posts. If the Fog-signalmen become aware from their own observation, or from information given to them, that their services are required during the night, or at any other time when off duty, they must at once report themselves to the Station-master, or to the Signalman at any Junction or intermediate Signal-box away from a Station, without waiting to be called; but this will not relieve the Station-master or Signalman from the responsibility of sending for the Fog-signalmen when necessary. If the Fog-signalman, on his way to the Signal-box to report himself for fog-signalming duty, has to pass the Signal to which he is appointed, he must, when practicable, if that signal is at danger, place two Detonators, ten yards apart, on one rail of the Line for which he is fog-signalming, and then proceed to the Signal-box, getting back to his post as promptly as possible.

(b) When the fog has sufficiently cleared away, each Fog-signalman must place two Detonators, ten yards apart, on one rail of the Line for which he is fog-signalming, and then go to the Signalman at the Box in connection with which he is employed, and take his instructions as to whether his services are any longer required for fog-signalming duties. If on arrival at the Signal-box the Fog-signalman is informed that his services are no longer required, he must return to his Post and remove the Detonators from the rails if they have not been exploded.

104. (a) Each Fog-signalman must, before proceeding to his Post, be supplied with not less than twenty-four Detonators, a Hand Signal Lamp, trimmed and lighted, and a Red and a Green Flag. If fog-signalming for a Distant Signal he must place himself outside the Signal in connection with which he works, and as far from it as is consistent with his keeping it well in sight. Whenever a train has passed him in the direction of the Signal-box from which the Signal is worked, and so long as the Signal exhibits the danger Signal, he must place and keep two Detonators fixed, ten yards apart, on one rail of the Line for which the Signal is at Danger, and, unless instructions are issued to the contrary, exhibit a Red Hand Signal to the Engine-driver and Guard of an approaching train. When the Signal is lowered he must remove the Detonators from the rail and exhibit to the Engine-driver and Guard a Green Hand Signal, which must be held steadily in the hand. If he become aware of any obstruction on the Line in the immediate neighbourhood of the Signal for which he is signalming, either from a train not having gone forward, or from any other cause, he must leave the Detonators on the rail and go back along the Line, showing a Red Hand Signal, a sufficient distance to protect such obstruction, and must there place on one rail of the Line for which he is fog-signalming, three Detonators, ten yards apart, and return to within sight of the Distant Signal. When he is satisfied that the obstruction has been removed, he must take up the more distant Detonators, and return to his Post.

(b) The Fog-signalman must see that the Distant Signal which has been lowered for a train to pass is placed at Danger after the passing of such train. If, after a reasonable time has elapsed, the Signal is not placed at Danger, the Fog-signalman must go back to protect the train as above directed. The next following train must be stopped, and the Engine-driver instructed to proceed cautiously, and to inform the Signalman at the Box in advance of the circumstances. The same precautions must be taken in the event of a Distant Signal Light going out, and the Fog-signalman not being able to relight it.

(c) When there is a Distant Signal Arm on a Home, Starting, or Advanced Starting Signal post, it will not be necessary to put down more than two Detonators, although both Signals are at Danger, but the Fog-signalman must not take up the Detonators unless both Signals are lowered. Should the Home, Starting, or Advanced Starting Signal be lowered, and the Distant Signal remain at Danger, the Fog-signalman must continue to exhibit his Red Hand Signal, and if the fog is so dense that the Engine-driver cannot see the Distant Signal, the Fog-signalman must verbally caution him by using the words, "Home Signal Off—Distant On," "Starting Signal Off—Distant On," or "Advanced Starting Signal Off—Distant On," as the case may be.

(d) When a Fog-signalman is employed in connection with the Home, Starting, or Advanced Starting Signals, he must place two Detonators, ten yards apart, on one rail of the Line for which the Signal is at Danger, exhibit a Red Hand Signal to the Engine-driver of an approaching train, and carry out any instructions he may receive from the Signalman on duty.

(e) The Fog-signalman must see that the Home, Starting, or Advanced Starting Signal, which has been lowered for a train to pass, is placed at Danger after the passing of such train; if, however, the Signal is not placed at Danger, the Fog-signalman must, in addition to putting down two Detonators, at once communicate with the Signalman.

(f) After having fixed the Detonators on the rails the Fog-signalman must place himself between the Detonators and the Fixed Signal or obstruction for which he is signalling, and so exhibit the Hand Signals that they may be seen by the Driver after the engine has exploded the Detonators.

(g) Fog-signalmen must stand in the best position (having regard to their own safety) for effectively giving the Hand Signals to the Engine-Driver and Guard.

(h) When the Fixed Signal for which he is fog-signalman cannot be seen by the Fog-signalman, he must, unless he can satisfy himself to the contrary, assume that it is at Danger.

(i) In cases of accident, failure, or obstruction, Guards and Engine-drivers must act strictly in accordance with the prescribed Rules and Regulations, and must not depend upon Fog-signalmen for the protection of their trains.

105. (a) A sufficient supply of Detonators, Hand Lamps, and Flags for the use of the Fog-signalmen must be kept at the Stations and in the Signal-boxes in connection with which the men are employed. If the number of Detonators first supplied to the men is likely to become soon exhausted they must communicate with the nearest Station or Signal-box, and obtain a further supply.

(b) Should the Fog-signalman have to leave his post for this purpose, he must leave two Detonators on the rail.

106. (a) Station-masters (when the Traffic Staff is employed), or Inspectors of Permanent-way or Gangers (when Repairers are employed), must arrange for Relief-men should it be necessary.

(b) Arrangements must be made by the Station-masters for furnishing the Fog-signalmen with needful refreshments. No intoxicating liquor must be supplied to Fog-signalmen when on duty.

107. The Station-master must satisfy himself that the Fog-signalmen have duly proceeded to their respective Posts, when it is necessary for them to do so; and, where the Fog-signalmen are numerous, a competent man must be appointed to visit them at their Posts, and see that they are properly performing their duties, and are supplied with the necessary Signals, furnishing them with a further supply of Detonators if required.

108. At all Signal-boxes where no Fog-signalmen are appointed, or where such men are appointed but have not arrived, the Signalman when he requires to stop an approaching train, in addition to keeping his Signals at Danger, must, when practicable, place two Detonators on the Line to which the Signals apply, sufficiently apart to give two distinct and separate reports.

109. During the prevalence of severe frosts or falls of snow, the Signals and Points must be frequently worked by the Signalmen when the Sections are clear, and no train has been signalled, in order to prevent the frost or snow impeding their free

working. Fog-signalmen also must see that nothing interferes with the true working of the Arms or Disc, and Lamps of the Signals for which they are fog-signalman; that the Lamp-glasses and spectacles are kept clear from snow, and that the wires work freely over the pulleys. Fog-signalmen must at once report to the Signalman any defect in the Signals or impediment to their proper working. If no Fog-signalman is employed, the Ganger of the Permanent-way must provide for this duty being performed while the snow or frost, or its effect, continues.

## STATION YARD WORKING.

110. (a) Where the traffic at any Station is worked under special instructions, the Signalman, before lowering the Signals for a train to enter the Station, must satisfy himself that the special instructions have been complied with, and that the Line is clear to the point the train has to run to; but, if he be in doubt, or if there be another train at the place to which the train has to run, he must stop the train, and, except where Calling-on Signals are used, caution the Engine-driver, both verbally and by Green Hand Signal, held steadily in the hand, before he allows it to enter the Station.

(b) Where the Home Signal is at such a distance from the Signal-box that it is not possible for the Signalman to communicate verbally with the Driver when the engine is standing at the Home Signal, the Signalman must, after bringing the train to a stand at the Home Signal, lower it to allow the Engine-driver to draw to his Box, and must stop the train at his Box by exhibiting a Red Flag by day and a Red Light by night. The Engine-driver must then be verbally instructed to proceed cautiously to the rear of the previous train (or other obstruction), and a Green Flag by day and a Green Light by night, held steadily in the hand, must be exhibited by the Signalman to the Engine-driver.

(c) Where Calling-on Signals are provided, it will not be necessary to stop the train at the Signal-box, but it must, unless instructions are issued to the contrary, be brought to a stand at the Home Signal before the Calling-on Signal is lowered to allow the train to proceed as far as the Line is clear.

111. At places where a train is allowed to proceed towards the rear of another train, and it is necessary, after the first train has been started, that it should be again stopped, care must be taken not to stop the Engine-driver of the first train until the Engine-driver of the second train has been advised of what is about to be done.

112. (a) When a Signal is lowered or turned off to allow a train to run upon a Line in a Station or upon a Siding, or to leave a Station or Siding, and a second train is following, the Engine-driver of the second train must follow at such a distance as will enable him to avoid colliding with the first train in the event of its being stopped, and he must bring his train to a stand at the Signal, and not pass it until it has been replaced at Danger, and again lowered or turned off.

(b) When a Signal is lowered or turned off to allow a second train to leave the Station or Siding to run towards a train ahead of such Signal, the Engine-driver of the second train must proceed at such a speed as to be able to stop before reaching the train ahead of the Signal.

## CONTROL AND WORKING OF STATIONS.

113. (a) Every Station-master is answerable for the security and protection of the office and buildings, and of the property of the Department at his Station. He is also responsible for the faithful and efficient discharge of the duties devolving upon all employees under his charge, either permanently or temporarily employed at the Station or within its limits, and such employees are subject to his authority and directions in the working of the Line. He is also responsible for the general working of the Station being carried out in strict accordance with the Rules and Regulations, and must, as far as practicable, give personal attention to the shunting of trains, and all other operations which in any way affect the safety of the Line.

(b) No Station-master must be absent without leave from the District Traffic Superintendent, except from illness, in which case he must immediately inform the District Traffic Superintendent, and take care that some competent person is entrusted with his duties.

(c) He must control the public Level crossing Gates or Signals assigned to him, subject to such Regulations as may from time to time be issued. It will be his duty to supervise such Gates or Signals as if they were part of his Station.

(d) He must also see that every employee under him connected with the working of the Line is in possession of a copy of these Rules and Regulations, and that the Working Time-tables, Appendices, and other Notices having reference to the working of the Line are properly distributed.

(e) He must see that all the gates of the Station are locked at night, except those required to be open.

114. The Station-master must daily inspect the Station, and see that the rooms, offices, closets, urinals, and platforms are kept neat and clean. He must also take care that Station name-plates or boards and waiting-room or other indicators are kept in a clean and satisfactory condition.

115. (a) The Station-master must see that all orders and instructions are duly entered and executed, and that all books and returns are regularly written up and neatly kept.

(b) He must also see that copies of the Notices, such as lists of Tolls, Fares, Charges, By-laws and Penalties are fixed in a conspicuous place at the Station and offices, and employees responsible must always be prepared to prove that such Notices are properly exhibited.

116. For the purpose of indicating the running of Special trains, the Station-master must exhibit the proper notice on the morning of the day the Special is to arrive at or to pass his Station, or so soon after as he shall be advised. When such Special train passes, the notice relative to it must be removed; and if the Station-master shall have no other advice of a Special train than by a Signal attached to a preceding train, he shall exhibit the notice from the time the preceding train arrives at or passes until the Special train arrives at or passes his Station. Where Boards are provided, the Special train notice must be exhibited thereon.

117. The Station-master must report, without delay, to his superior officer neglect of duty on the part of any employee under his charge; and forward to him particulars of any complaint made by the public.

118. (a.) The Station-master must satisfy himself that the Signalmen at his Station or under his control perform their duties in a proper manner, at night as well as by day; and, in order to maintain a proper supervision over the men in this respect, he must frequently visit the Signal-boxes.

(b) At Signal-boxes which are switched out or closed during certain periods of the day or night, the Signalman must not leave duty before the appointed time, nor until the "Train Arrival" Signal has been received from the Box in advance for the last train he has to Signal.

119. (a.) The Station-master must see that all fixed Scotch Blocks at his Station are kept securely locked across the rails when not otherwise required, also that all Catch Points are always properly set and locked to secure safety; and that all vehicles are placed within such Scotch Blocks or Catch Points.

(b.) Every vehicle when standing in a Siding must be properly secured, to prevent it from moving and fouling other lines.

(c) At places situate on inclines and at Stations where Sprags or Hand Scotchies are required, the Station-master or person responsible must always keep a supply of Spraggs or Hand Scotchies in the most convenient place ready for immediate use.

120. (a.) The greatest care must be exercised in the cleaning, trimming, and lighting of Signal Lamps, and Station-masters and others who work Signals, at or apart from Stations, or who have Signals under their care, must frequently inspect the Fixed Signal Lamps, and satisfy themselves that they are in good order, and that the glasses, spectacles, and reflectors are well cleaned. The result of each inspection must be shown in the Train Register Book.

(b.) Station-masters must see that the Carriage Roof Lamps are kept clean, and properly burning when required.

(c.) Platform Lamps must be kept clean, and the Oil Burners taken to the Lamp-room every morning, cleaned and trimmed, and not replaced until required.

121. The Station-master must take care that immediately on the stopping of a Passenger or Mixed train, the name of the Station is called out along the train in a distinct and audible manner, and prompt attention must be given to any indication shown by passengers of their desire to alight.

122. (a.) Care should be taken that the doors of all carriages and other vehicles are fastened before the train leaves the Station, and no door must be opened to allow a passenger to alight from or enter a train before it has come to a stand, or after it has started.

(b.) Passengers showing signs of their intention to alight while a train is in motion must be requested to keep their seats till the train is brought to a stand.

123. Platform barrows not in use must be kept back close to the building or to the wall or fence at the back of the platform, and, when necessary, secured to prevent them from moving.

124. (a.) Each train after finishing its journey, and all vehicles shunted off at Stations as "empties," must be carefully searched, and any articles which may be found therein taken to the Station-master for instruction as to disposal.

(b.) The windows of all empty compartments must be closed, not only while the carriages are standing at Stations and Sidings, but also when the trains are running, immediately upon the compartment becoming vacant. The ventilators must be kept open.

125. No passenger train must be stopped at a Station where it is not timed to call, for the purpose of taking up or setting down passengers, without the special authority of the Chief Traffic Manager.

126. In the case of a Passenger train booked to stop when required, the necessary Fixed Signals must, when the stop has to be made, be exhibited against it, and a competent man appointed by the Station-master must exhibit a Red Flag or Red Light to intimate to the Engine-driver that his train is required to stop. Such Red Flag or Red Light need not, however, be exhibited where a Fixed Signal is in such a position that it will stop the train where required.

127. (a.) Where train-examiners are kept, the Station-master must, before starting a train, except where special instructions exist to the contrary, satisfy himself that the examination of it has been completed, and that, so far as the Train-examiner is concerned, the train is all right and safe to proceed.

(b.) Where Train-examiners are not kept, steps must be taken by the Station-master to remedy any defect which might interfere with the safe running of the vehicles, or to remove the defective vehicles from the train, or otherwise, as may be found necessary.

(c.) The Station-master must take care that the Brake-testing, Gas-charging, Electric, and other Communication testing at Stations where such duties are performed, have been completed.

128. (a.) Train-examiners must, before going under vehicles, take the necessary steps to prevent the vehicles from being moved whilst the examination or other work is being performed.

(b.) In the event of a Train-examiner finding it necessary to put a "Not-to-go" label on a vehicle in a train which is marshalled and ready for starting, he must immediately advise the Guard or Shunter what has been done.

129. (a.) Whenever a Crane is in use whereby the jib or any other portion of it obstructs or fouls any Line in use for traffic purposes, or whenever, by any possibility, during the loading or unloading of Timber, Angle Iron, or other articles of great length, any Running Line may be fouled, it is incumbent on the person in charge of the loading or unloading to obtain the sanction of both the Station-master and Signaller in charge of the safety of the Line, and to see that the proper signals are exhibited until the operation is completed.

(b.) If the Crane has to be used at a siding not protected by Fixed Signals, a Flagman must, when necessary, be provided to protect the operation, in accordance with Rule 280.

(c.) The Crane must be kept locked or otherwise secured except when actually in use.

(d.) After dusk, or in foggy weather, or when from any other cause a good and distant view of the Signals cannot be obtained, except where specially authorised, Timber or other articles of great length must not be allowed to be loaded or unloaded if any Running Line is liable to be fouled by the operation.

(e.) Timber Loaders working at a Station or Siding will be under the control of the Station-master, who must, whilst they are so employed, exercise the same supervision over them as over his own Staff.

130. When a horse is used on the Railway, a man must, on the approach, and during the passing, of any train, have hold of its head, whether the horse be drawing vehicles or not.

131. (a.) No engine in steam, the property of a private owner, must, under any circumstances, be allowed to enter upon a Running Line, except by special permission of the Chief Traffic Manager.

(b.) Before any private engine or Contractor's truck is accepted for conveyance on its own wheels, it must be examined by an officer of the Locomotive Branch, and the train by which it is to travel must be specially arranged. Foremen, Guards, and others concerned must satisfy themselves that this has been done before allowing the engine or truck to travel.

132. (a.) Guards, Shunters, and others concerned must, before vehicles are moved in or shunted into a Siding used for loading or unloading traffic, or for repairing vehicles, or in a Goods Shed or other Building where other vehicles are standing, when such vehicles are likely to be moved by such shunting operations, warn any employee or other persons who may be engaged in, about, or between the vehicles. They must also direct any person who may be loading or unloading not to remain in or near to vehicles which are likely to be moved by shunting operations, and must satisfy themselves that no cart or other road vehicle is foul of any of the lines on which shunting operations are about to be performed.

(b.) Care must be taken to see that Goods Shed doors are open, and all is clear before commencing shunting operations in the Shed Lines, and that all truck doors are properly secured by the fastenings provided for the purpose, before being taken into, or drawn out of, the Shed, or before being moved in or shunted into any Siding.

133. (a.) Double shunting is strictly prohibited, except when done by engines specially used for the purpose of shunting, attended by experienced shunters.

(b.) Loose shunting of vehicles against loaded Passengers trains or of vehicles containing passengers is strictly prohibited.

(c.) When vehicles are required to be placed on a Mixed Train, one truck or more must be placed at a safe distance from the front portion of the Train, and securely braked; other vehicles may then be loose shunted on to the vehicle or vehicles so braked.

(d.) Loose shunting of vehicles containing explosives is strictly prohibited; neither must any vehicle be loose shunted against vehicles containing explosives.

(e.) When any vehicle has to be shunted into a Siding, the Guard or Shunter must ascertain the position of the vehicles in the Siding before commencing to set back, and the Guard or Shunter must signal the Engine-driver so as to prevent the train striking the vehicles in the Siding, or the buffer-stops, with too much force.

134. At Terminal Stations and other places where there are Dead-end Lines, after sunset and in foggy weather, a Red Light must be placed on the buffer-stops of arrival Lines, so as to be plainly visible to the Engine-driver of an incoming train. In the event of there being any vehicle near the buffer-stops, a Red Light must be shown on such vehicle.

135. When an accident, or obstruction of any kind, occurs on any part of the line, it must be immediately reported by telegraph or telephone, or by the most expeditious means, to the next Station or Signal-box on each side of the place where the accident or obstruction has occurred, so that notice may be given to the Engine-drivers and Guards of approaching trains, to the Heads of Branches and All District Officers connected with the working of the line, to the Locomotive Depot where the Breakdown Vans for the District are kept, to the Traffic and Locomotive Inspectors, to the Inspector of Permanent Way, and, where necessary to the Signal and Telegraph Inspectors. It must also be reported by telegraph or telephone to those Stations where the starting of other trains is liable to be effected by the delay caused by the obstruction.

136. Station-masters at Watering Stations must take care that the Water Cranes are left by the Engine-drivers properly secured, and clear of the Running Lines.

137. Should a casualty occur to any person, the names and addresses of two or more witnesses are, if possible, to be procured for after reference if required.

### WORKING OF LEVEL CROSSINGS.

138. (a) The Lamps on Level Crossing Gates must, when lighted, show a Red Light in each direction along the Line when the Gates are closed across it. The Lamps must be lighted as soon as it commences to be dusk, and in foggy weather.

(b) The Lamps must be extinguished in accordance with the following instructions:—At Level Crossings when a person is on duty during the night or where a Station-master or Gatekeeper is resident on the spot, and trains are running, the Lamps must not be put out until daylight. At Crossings where no person is on duty during the night, nor any Station-master or Gatekeeper is resident on the spot, or when the Line is closed during the night, the Lamps must, unless instructions are issued to the contrary, be put out before the person last on duty leaves.

(c) When the Lamps are extinguished during the night they must, if necessary, be re-lighted for the passage of any train that may be run before daylight in the morning.

139. When Hand Gates are controlled from a Signal-box, the Signaller on duty must apply the controlling arrangement whenever it is necessary to prevent persons from crossing the Line.

140. Unless special authority be given to the contrary, the Gates must always be kept shut across the Roadway, except when required to be open to allow the Line to be crossed.

141. (a) When it is necessary for the Line to be crossed at a place which is not a Block Signal-

box, the Gatekeeper must, before opening the Gates, satisfy himself that no train is near; he must then place his Fixed Signals (where provided) at Danger to stop all coming trains, and such Signals must remain at Danger until the line is clear, when he must close the gates across the roadway and then lower the Signals.

(b) If there be any reason to make a reduced speed desirable, a Green Hand Signal waved slowly from side to side must be exhibited.

142. Traction or other heavy engines, heavy loads of timber, etc., or droves of animals, must not be allowed to cross the Line when any train can be seen, or is known to be approaching in either direction.

143. Except Interlocked Gates, the Gate towards which animals or vehicles are approaching must not be opened until the opposite Gate has been first opened, so as to allow such animals or vehicles to cross over without stopping upon the Line.

144. No Hand Signal must be given by the Gatekeeper to the Engine-driver of an approaching train if the Line is clear. He must take particular notice of each train as it approaches and passes, and if he see anything wrong he must show a Danger Signal to the Engine-driver and Guard, and, if necessary, exhibit his Danger Signal and place three Detonators on the rail against any following train or any train coming in the opposite direction.

145. At a Level Crossing, which is not a Block Signal-box, the Fixed Signals must only be used for the protection of the Crossing, or as prescribed in Rules 81, 141 and 144.

146. At Level Crossings, where Fixed Signals are provided, the Gatekeeper or person in charge must test their working both by day and by night. Gatekeepers and others in charge of Gates, Signals, or Points must give notice to the Inspector of Permanent-way, Ganger, or other person in charge of repairs, immediately any repairs are required thereto; if any part becomes defective or broken, or should any Gate not close properly and fasten itself on the instant of its being shut, they must immediately request the nearest Repairer to have the same put right, and the matter must be reported to the nearest Station-master.

147. Gatekeepers who are not in raised Boxes must, when signalling, stand in such a position as to be readily seen by the Engine-driver and Guard of an approaching train.

148. In the event of the Railway being from any cause obstructed, and if only one Line is obstructed, the Gatekeeper is to take steps to stop a train approaching on that line, and must remain at a proper distance from the point of obstruction until the Line is clear, or until some competent person arrives to take charge of the Signal. If both Lines are obstructed, the Gatekeeper must remain at the point of obstruction to give warning of Danger both ways, until some experienced person is found who can be sent in one direction to give the Signal of Danger while the Gatekeeper goes in the other direction for the same purpose.

149. Gatekeepers in charge of Level Crossings at or near a Station must be particularly watchful when the Running Line is occupied by the stoppage of a train, the shunting of vehicles, or is otherwise obstructed, and must exhibit the Danger Signal to

stop any train which may arrive on the Line which is obstructed. Gatekeepers so situated must attend to such special instructions as may be issued by the Station-master, and act under his orders for the security of the traffic. They must be ready in an emergency in the performance of such duties to leave the crossing, first locking the Gates during their temporary absence.

### TRAIN SIGNALS.

150. For the information of Station-masters, Signalmen, and others, each engine must carry the prescribed Head Lamps or Discs and Destination Boards where provided.

151. (a) Every train travelling on the Line must have a White Disc attached to the rear of the last vehicle by day and a Red Tail Light by night and during foggy weather, except when assisted by an engine in the rear, when that engine must carry the Disc or Tail Light. The presence of the Disc or Red Tail Light in the rear of each passing train will furnish evidence to every Signalman along the Line that no portion of the train has become detached.

(b) Engines when on any Running Line without a train must carry a White Disc in the rear by day and a Red Tail Light by night.

(c) When two or more engines run coupled without a train, the last engine must carry a Disc or Red Tail Light in the rear.

(d) Engines drawing trains must not carry Disc or Red Tail Lights in the rear.

152. (a) After sunset, and in foggy weather, every engine must carry the necessary Head Lights, and, when running alone, a Red Tail Light also; and, except where instructions are issued to the contrary, every train, while on any Running Line, must carry a Red Tail Light on the rear of the last vehicle, and one Side Light showing a Red Light to the rear and a White Light to the front.

(b) The Guard, if there be only one, or the Rear Guard if there be more than one, must see that the Tail and Side Lamps are kept properly burning, when necessary.

153. Shunting engines employed exclusively in Station Yards and Sidings must, after sunset or in foggy weather, carry both Head and Tail Lamps showing a Red Light, or such other lights as may be prescribed.

154. (a) A Red Disc or a Red Flag by day, or an additional Red Tail Light by night carried on the rear of the last vehicle of a train or on an engine, indicates that a special train is to follow.

(b) On Single Lines a White Disc with Black Cross (in addition to the ordinary White Disc) by day or a White Tail Light by night, in addition to the Red Tail Light at the rear of the last vehicle, denotes that a Special Train is due to run in the opposite direction over the same Line, before the next Ordinary or Special train.

(c) When printed notice has been given for the running of a special train, the Train Signal notifying the running of such train need not be carried by the preceding train.

(d) A printed or written notice of Special trains must be given when practicable, but when such trains

have to run at short notice, and the issue of a printed or written advice is impracticable, the train must be telegraphed or telephoned from the starting point to the necessary Stations in advance. The staff must at all times be prepared for extra trains.

(e) The Station-master at the starting point of a Special train, of the running of which no previous printed or written notice has been given, must, when practicable (except where special instructions exist to the contrary), take care that the additional Tail Signal is affixed on the rear of the last vehicle of the preceding train, and he must inform the Guard in charge of it of the description and destination of the Special train. The Guard of the train preceding the Special train must inform the person in charge of each Station at which he stops of the description and destination of the train that is following, and take care that the additional Tail Signal is removed from his own train when no longer wanted.

### WORKING OF TRAINS.

155. The Engine-driver must satisfy himself that his engine is in proper working order.

156. The Engine-driver must have with him a Watch, and on his engine or tender a complete set of Lamps, a box of not less than 12 Detonators, two Red Flags, a Fire-bucket, and such tools or other articles as may be ordered by the Head of his Branch.

157. Except where otherwise provided, no engine must be allowed to be in motion on any Running Line unless both the Engine-driver and Fireman are upon it.

158. (a) Before moving an engine under any circumstances, the Engine-driver must sound his whistle to give notice.

(b) Drivers of Ballast trains whilst men are in the trucks must sound the Engine-whistle before reducing speed preparatory to stopping.

(c) The continued sound of the whistle will signify the want of assistance. Engine-driver must not whistle unnecessarily, especially when attached to or near a passenger train.

159. (a) Should an Engine-driver or Fireman become incapacitated whilst on duty, the Driver or Fireman must take the train to the nearest Station in advance, and there consult with the District Locomotive Superintendent or other Locomotive Officer, or, in his absence, with the Station-master, as to the condition of the Driver or Fireman and the working of the train during the remainder of the journey.

(b) If the Engine-driver or Fireman become incapacitated before leaving a Station, the train must not be allowed to depart without the authority of the Station-master, whose attention must be directed to the condition of the employee concerned.

160. Whenever an Engine-driver is required by an Authorised Officer to do anything which may appear to be in excess of the Driver's duty, he must carry out such instructions, and report the fact to his immediate superior officer.

161. (a) The Driver and Fireman when on duty must not leave their engine unless it is absolutely necessary for them to do so, and, under no circumstances, except as directed in the Rules, without a man being left in charge of it, or the engine is in a Siding and out of gear, with the Hand-brake hard on.

(b) The Fireman must in all instances be under the directions of the Engine-driver, and must promptly obey his instructions. The Driver will also be responsible that the Fireman performs his duties properly.

162. The Engine-driver and Fireman, before commencing their day's work, and also before running additional trips, must, when practicable, ascertain from the Notices posted for their guidance if there be anything requiring their special attention on those parts of the Line over which they have to travel. They must also examine all Special Train Notices at Changing Stations or Depôts that they may remain at for a time, and, when practicable, before going off duty, ascertain the time at which they are again required to be on duty.

163. The Engine-driver and Fireman must take care that the coal on the tender is not stacked too high, and that it and the boxes, fire-irons, and tools which are carried on the tender are so placed that they will not fall off when the engine is in motion.

164. If an Engine-driver is not acquainted with any portion of the Line over which he has to run, he must obtain the services of a Pilot-driver.

165. After the Station work is completed, Engine-drivers must not move their trains forward towards the Starting Signal before it is lowered, except when they are specially ordered to do so by the Station-master.

166. No train must enter upon, set back from, or cross any Running Line without the permission of the person in charge of the Points and Signals, nor then until the proper Signals are exhibited for the protection of the operation.

167. The Engine-driver must, before starting, see that the proper Engine Destination Boards (where provided), Discs, and Lamps are exhibited, and are in good order, and that the Lamps are lighted and kept burning when necessary.

168. The Engine-driver and Fireman must carefully observe all Signals, and when from fog or from any other cause the Fixed Signals are not visible as soon as usual, the speed must be reduced, and every possible precaution used, especially in approaching Stations and Junctions, so that they may be able to stop the train short of any obstruction should the Signals be against them.

169. In foggy weather, the Engine-driver must travel cautiously, keeping a sharp look-out for the Fog-signalman, who will, if the Signals are off, show him a Green Hand Signal held steadily in the hand. When the fog is so dense that the Fixed Signals cannot be seen by the Engine-driver on approaching or passing them, he must, unless he sees the Fog-signalman's Green Hand Signal, assume that the Fixed Signal is at Danger, and act in accordance with Rule 97.

170. (a) The Engine-driver must regulate the running of his engine as accurately as practicable, according to the Time-table, so as to avoid extreme speed, or loss of time.

(b) Special trains, not timed, must be run as nearly as practicable at the same rate of speed as corresponding trains shown in the Working Time-table, and the speed of Special Trains must not exceed that of such corresponding trains unless under specific instructions.

171. The Engine-driver and Fireman must pay immediate attention to and obey all Signals, whether the cause of the Signal being shown is known to them or not. The Engine-driver must not, however, trust entirely to Signals, but must be vigilant and cautious. He must also promptly obey the instructions of the Station-masters.

172. (a) The Engine-driver must keep a good look-out all the time the engine is in motion, and the Fireman must also do so, when he is not necessarily otherwise engaged.

(b) As far as practicable, the Engine-driver must have his Fireman disengaged when approaching or passing a Signal-box, so that he also may keep a good look-out for Signals.

(c) When approaching a Junction the Engine-driver must give the required notice by whistle if the Signals are at Danger; if the proper Signals are lowered for him to proceed, he need not give the Junction whistles.

173. (a) Engine-drivers of trains, when running through Junctions to or from Lines diverging from the straight road, must so reduce their speed as to ensure a steady passage for the whole train through the Junction Points and Crossings.

(b) Where special rates of speed to be observed in running over certain Junctions and other portions of the Line are fixed, they will be found in the Notices or Appendices.

174. (a) When one or more engines are employed to assist a train in the rear, they must not, unless authorised by the Chief Traffic Manager, leave the train except at a Block, Staff, or Tablet Station where there is a Signaller on duty.

(b) When a train is assisted by an engine in the rear, the Guard must remove his Tail Disc or Light, and when the assisting engine leaves the train the Tail Disc or Light must, when practicable, be replaced within view of the Signaller, to remind him that an assisting engine is following, and in order to prevent the train being signalled to the Box in advance as having passed without a Tail Disc or Light. Should the assisting engine, from any unauthorised cause, leave the train between two Block, Staff, or Tablet Stations, and the train proceed without it, the Guard must take care not to replace the Tail Disc or Light until the train has passed out of sight of the Signaller at the next Block, Staff, or Tablet Station, and he must use every endeavour to intimate to the Signaller at such Block, Staff, or Tablet Station that the assisting engine had been left on the Line.

(c) When the Driver of the engine in front has received the Guard's signal to start, and he has satisfied himself that the necessary Fixed Signal has been lowered, he must call the attention of the Driver in the rear of the train by giving two whistles, which must be acknowledged by repetition from the rear engine, and until these whistles have been given and acknowledged, neither the train engine nor the assisting engine must move forward.

(d) When two or more engines are employed to draw a train, they must not be uncoupled except at a Block, Staff, or Tablet Station where there is a Signaller on duty, nor then until the engines have been brought to a stand.

(e) When two or more light engines have to pass at the same time through a Block, Staff, or Tablet Section, they must be coupled together before en-

tering such Section. The Continuous Brake-pipes, where provided, must also be coupled, and the engines must not be uncoupled except at a Block, Staff, or Tablet Station where there is a Signaller on duty.

(f) When it may be necessary to detach one engine from another on any Running Line, the Driver of each engine requiring to be detached must, unless instructions are issued to the contrary, before uncoupling, verbally communicate with the Signaller and make him clearly understand what is about to be done, and in what direction the uncoupled engine or engines are required to proceed.

*Exception—When a Passenger Train worked by two engines is brought to a stand at a Station, and one has to be detached during the time the train is at the platform, it will not be necessary, before uncoupling the engine, for the Engine-driver to communicate with the Signaller, but after the engine has been uncoupled the Driver must, if the engine has to run to a Signal-box in advance before being placed clear of the Running Lines, or otherwise disposed of, at once inform the Signaller there what has been done.*

175. (a) To facilitate the working of traffic, two Goods or Mineral Trains may, in clear weather, and where specially authorised by the Chief Traffic Manager, be coupled together, the engine of the second train being attached to the Brake-van of the first train, and the two trains worked forward as one train.

(b) At places where such special authority is given, the Signaller must decide as to the coupling of trains together, and before the engine of the second train is attached to the Brake-van of the first train, the Guard of the first train must satisfy himself that the Driver of his own train is aware of what is about to be done.

(c) When the Engine-driver in front has received his Guard's signal to start, and he has satisfied himself that the necessary Fixed Signal has been lowered, he must call the attention of the Driver of the second train by giving two whistles, which must be acknowledged by repetition from the rear engine, and until such whistles have been given and acknowledged neither engine must move forward, and the Guard of the first train must not give the Signal to start until he has exchanged Signals with the Guard and Driver of the second train.

(d) The Tail Signal and Side lamps at the rear of the first train must be removed as soon as the trains are coupled together, and must not be replaced until the trains are again divided, which must not be done until the coupled trains have been brought to a stand at a Block, Staff, or Tablet Station, when the engine of the second train must be uncoupled from the Brake-van of the first train by the Head Guard of the first train, and the Tail Signal and Side lamps must be replaced by him in their proper positions.

(e) When trains are coupled together they must be signalled specially as may be arranged, and the Signaller, after receiving such special Signal, must not give the "Train Arrival" Signal to the Signal-box in the rear until both trains have passed out of the Section.

(f) Coupled trains must not be sent to any Station or Siding unless it is known that they can be dealt with there.

(g) The Guard of each train must ride in the Brake-van at the rear of his own train.

(h) On Lines where the Block Telegraph System is not in operation, when a train is standing outside the Home Signal and a following train arrives behind it, the Guard in charge of the first train must confer with the Driver of the second train, and if both trains are going in the same direction, and they can be coupled for a part or the whole of the journey, the Guard of the first train must take the instructions of the Signaller on duty as to whether the trains should be coupled or not. (*See note to Rule 244.*)

(i) On falling gradients, Guards of the coupled trains must apply the Hand-brakes in sufficient time to keep the couplings tight when the trains commence to ascend the next rising gradient.

(j) When either of the Drivers of the coupled trains finds it necessary to stop, he must sound his whistle as a signal to the other Driver to shut off steam and apply his brake.

(k) In foggy weather trains must not be coupled together, but must be worked separately.

176. (a) When two engines are employed drawing a train, the Engine-driver and Fireman of the leading engine are responsible for the observance of Signals, and the working of the Continuous Brake; the Engine-driver of the second engine must watch for and take his Signal from the Engine-driver of the leading engine, but the Engine-driver of the second engine is not relieved from the due observance of all Signals regulating the safe working of the Line, and in case of need he must apply the Continuous Brake.

(b) Engine-drivers must exercise special care in starting or stopping a train drawn by two engines to prevent the breaking of couplings.

177. (a) The Engine-driver must start and stop his train carefully and without a jerk, and pass along the proper Line, which, in the case of an ordinary double Line, is the left-hand side of the Permanent-way, in the direction in which the engine is travelling.

(b) In stopping his train, he must pay particular attention to the state of the weather and the condition of the rails, as well as to the length and weight of the train, and these circumstances must have due consideration in determining when to shut off the steam and to apply the Brake.

178. (a) The Engine-driver must carefully approach all Stations at which his train is required to stop, and must not stop short of, or over-run the platform; he must also exercise care in passing Stations where he is not required to stop.

(b) Should a Passenger or Mixed train in stopping at a Station over-run, or stop short of, the platform, the Engine-driver must not move the train back or draw it forward until he receives instructions from the Guard in charge to do so. Station-masters, Guards, and others must at once take steps to prevent passengers leaving the carriages that are not at the platform; and as soon as the Guard in charge has satisfied himself that all doors are closed, and that no passengers are entering or leaving the train, he must instruct the Engine-driver to put back or draw up to the platform as may be required. The Engine-driver must sound his whistle before moving his train.

(c) In the event of the whole of the train running past the platform, the Guard must not give instructions to the Driver to set the train back without the authority of the Signaller.

(d.) Should a Goods train over-run a Station at which it is intended to stop, the Guard must not give instructions to the Driver to set the train back without first obtaining the authority of the Signaller.

(e) Should a Passenger or Mixed train be stopped by Signals at a Station platform where it is not booked to stop, the Engine-driver must not, on the Signal being lowered, proceed without receiving an All Right Signal from the Guard.

(f.) Engine-drivers must satisfy themselves when a Signal is lowered that it refers to the line they are on, and to that on which they are to proceed.

179. (a.) An Engine-driver while approaching or passing a Station must sound the engine whistle should a train be approaching, stopping, or leaving, or should shunting operations be going on on the opposite line. The whistle must also be sounded to caution workmen on or near the Line on which a train is running, and on entering a tunnel to warn all men at work inside, and must be repeated occasionally when passing through long tunnels, and when entering and passing through deep cuttings situated on curves.

(b.) The Engine-driver and his Fireman must not throw out hot water, fire, or cinders whilst standing at or passing over Points, Bridges, Viaducts, Level Crossings, or through Tunnels.

(c.) The Engine-driver must abstain from using sand when passing over Points.

180. Should an Engine-driver observe a train or engine at a stand, on the opposite Line to that on which he is travelling, partially obscured by steam or smoke, he must sound his whistle, and approach it very cautiously so as to be able to stop if necessary.

181. A Green Flag or a Green Light waved slowly from side to side by Gate-keepers or Repairers indicates that trains must reduce speed to 10 miles an hour, or such other speed as may be prescribed, over the portion of Line protected by such Green Signal.

182. When an Engine-driver brings his engine to a stand in obedience to Signals, he must, if practicable, take care that the engine does not stand foul of the Points or Crossings of any other Running Line.

183. (a.) Unless instructions are issued to the contrary, or in the event of an obstruction being in front, no train must be brought to a stand where there are weighted Catch Points in a Running Line until the last vehicle has passed over such Catch Points.

(b.) If a train is brought to a stand on or near Catch Points, the Engine-driver must not move his train until he has satisfied himself that the Points are in the proper position, and that all is right for the train to be moved.

184. Engine-drivers and Firemen, after taking water from Tanks or Water Columns, must leave the Hose, Trough, or Water Crane clear of the Lines and properly secured.

185. Engine-drivers and Firemen must so arrange their fires as to avoid any unnecessary emission of smoke or steam from their engines whilst standing at or passing Stations.

186. (a.) The Engine-driver must promptly afford such assistance with his engine as may be re-

quired for the formation, arrangement, and dispatch of his train.

(b.) The movements of the train are under the direction of the Guard, to whose instructions as to the stopping, starting, and general working of the train the Engine-driver must pay implicit attention.

(c.) When there are two Guards with a train, the Under Guard must obey the orders of the Head Guard, who must inform the Driver of the second Guard being with the train.

(d.) Every Guard must be in attendance at the Station from which he is to start at such time as may be specially fixed before the time appointed for the departure of his train.

187. Every Guard, before starting with his train, must examine the Notices to see whether there is anything requiring his special attention on those parts of the Line over which he has to work. He must also examine all Special train or other Notices at changing Stations or Depôts that he may remain at for a time, and, when practicable, before going off duty, ascertain the time at which he is again required to be on duty.

188. Every Guard must have with him a Watch, Whistle, and Carriage Key, and take in his van a Red and a Green Flag, a box of Detonators (not less than twelve), a Hand Signal Lamp, which must be lighted when necessary, a Disc, and such other articles or Flags as may be ordered.

189. (a.) The Guard in charge of a Passenger train must satisfy himself, before starting, that there are the prescribed number of Brakes, that the vehicles are properly coupled and labelled, that the train is provided with the necessary Discs, and Tail, Side, and Roof Lamps, and that the Continuous Brake is in working order.

(b.) Should a vehicle be attached to, or detached from, the rear of a train at an intermediate Station, the Guard, if there be only one, or the Rear Guard, if there be more than one, must see that the Disc, Tail and Side Lamps are removed to their proper places on the train.

(c.) The Head Guard must see that the Continuous Brake, Passenger Communications, and other Couplings between the vehicles are properly adjusted after shunting is performed, and before again starting his train.

(d.) Should there be a Sand-box in his Brake-van, the Guard must see that it is fully supplied with dry sand, and that the delivery pipe is clear and ready for immediate use. When the weather is damp and the rails slippery, he must freely use his sand when his Brake is being applied.

190. Guards must see that the doors of the carriages and other vehicles are properly closed and fastened, and, in case of any unusual stoppage, must request the passengers to keep their seats, except when necessary to alight.

191. Guards must assist the Staff at Stations, in preventing passengers travelling in a superior class, or leaving a train for the purpose of re-booking by the same train to evade payment of the proper fare; and they must also assist the Staff generally in detecting fraudulent travelling.

192. Guards are to make a note of any Carriages in a dirty or defective condition, or with torn lining, broken windows, deficiency of or defective Roof, Side or Tail Lamps; and no statement of such defect existing before the starting of the train will be accepted, unless they shall have called the attention of the Station-master thereto. Guards will also be

held responsible for all defects of the kind found on arrival of the train, and not reported.

193. When trains are within Station limits, Guards are under the orders of the Station-master.

194. Guards and other employees are forbidden to carry packages of any description, either for themselves, their friends, or the public, without proper authority in writing for the free transit thereof, or unless such package be properly entered on a Waybill. Guards of Passenger and Mixed trains must compare the parcels with the Waybills, and note on the latter any defect or discrepancy. All Waybills must be legibly signed by the Guards.

195. (a.) Guards of Passenger and Mixed trains must, after the safe working of the train, give their next attention to the luggage, parcels, despatches, and other packages entrusted to them. Parcels which have to be put out must be given by the Guard to the Porter appointed to receive them, who must sign in the Guard's book for the value parcels delivered to him. The Guard must, in like manner, sign in the Porter's book for the value parcels transferred to his care.

(b.) On the arrival of the train at a terminus, the Guards must not leave until they have delivered over all luggage and parcels, together with the waybills relating thereto, to the persons appointed to take charge of them, and care must be taken not to allow any unauthorised person to enter a brake-van or luggage compartment; should any article be missing, the Guards must immediately report the case to the Station-master.

196. (a.) No Passenger or Mixed train must be started before the time stated in the Time-table.

(b.) The Signal for starting a Passenger or Mixed train must be given by the Guard showing a Hand Signal, and, when necessary, blowing his whistle, after obtaining an intimation from the Station-master that all is right for the train to proceed. If a Flag is used in the daytime as the signal to start, it must be a Green one; at night, when a Lamp is used as the Signal, it must show a Green Light, and be held steadily above the head.

(c.) When there are two or more Guards, the Signal to the Engine-driver to start must be given by the Guard nearest the engine after he has exchanged Signals with the Guard or Guards in the rear, who must first have received intimation from the Station-master that all is right for the train to proceed.

(d.) The intimation from the Station-master that all is right for the train to proceed must be a Hand Signal by day, and when the signal is given by a Hand Lamp it must be a White Light held steadily above the head.

(e.) When a Passenger or Mixed train is stopped by an accident or from any other exceptional cause, the Engine-driver must not again start until he has exchanged Hand Signals with the Guard, or in the case of more than one Guard, not until he has received a Signal from the Guard nearest the engine, who must first exchange Hand Signals with the Guard in the rear.

(f.) Unless instructions are issued to the contrary, at the commencement of the journey, or when re-starting from a Station or Siding, or after being stopped from any exceptional cause, the Engine-driver of a Passenger or Mixed train must, as soon as practicable after the train has started, satisfy himself that his Fireman has exchanged Hand Sig-

nals with the Guard in the rear. A short whistle will, if necessary, gain the attention of the Guard for this purpose.

(g.) Goods trains may be run before the times specified in the Time-table provided the Line on which they have to run, and the Stations and Sidings at which they are booked to stop will be open and ready for traffic purposes by the time they arrive, and that the next Station or Shunting Siding can be reached without causing delay to other trains of more importance.

(h.) The Signal for starting a Goods train must, by day, be given by the Guard holding one arm in a horizontal position, and at night by a Hand Lamp showing a Green Light, held steadily above the head. When there are two or more Guards the Signal to the Engine-driver to start must be given by the Guard nearest the engine, after he has exchanged Signals with the Guard or Guards in the rear.

(i.) The intimation from the Station-master that all is right for the train to proceed must be a Hand Signal by day, and when the Signal is given by a Hand Lamp it must be a White Light held steadily above the head.

(j.) When a Goods Train is stopped by an accident, or from any other exceptional cause, the Engine-driver must not again start until he has exchanged Hand Signals with the Guard, or in the case of more than one Guard, not until he has received a Signal from the Guard nearest the engine, who must first exchange Hand Signals with the Guard in the rear.

(k.) At the commencement of the journey, or when re-starting from a Station, Goods Yard, Water Tank, Siding, Signal, or other place, or after being stopped from any exceptional cause, the Engine-driver must, as soon as practicable after the train has started, satisfy himself that his Fireman has exchanged Hand Signals with the Guard in the rear, so that the Enginemen may be sure that they have the Guard and the whole of the train with them. A short whistle will, if necessary, gain the attention of the Guard for the purpose.

197. (a.) When a train is about to leave a Station, Siding, or Platform, the Signal to start given by the Guard merely indicates that the Station duty is completed, and, before starting the train, the Engine-driver must satisfy himself that the Line ahead is clear, either by observation or by obtaining the exhibition of the necessary Signal. When starting, the Fireman must look back to see that the whole of the train is following in a safe and proper manner, and to receive any Signal from the Station-master or Guard that may be necessary.

(b.) The Engine-driver and Fireman must frequently during the journey, especially when passing a Station or Signal-box, look back and see that the whole of the train is following in a safe and proper manner.

198. Goods trains must stop at the places specified in the Time-table, unless, on approaching a Station or Siding, the Fixed Signals are lowered for the train to proceed, and a Green Hand Signal, waved slowly up and down, is given to indicate that it is not necessary for the train to stop. The Green Hand Signal must also be given by the Guard to the Engine-driver, and when this is done the train may run past the Station or Siding without stopping, unless there are trucks or goods to leave. When the Engine-driver will have instructions from the Guard to stop. In the case of a train timed to stop at a Station or Siding when required, the Engine-driver

of such train must stop at the Station or Siding, unless he receive a Green Hand Signal from the Guard waved slowly up and down, to proceed without stopping.

199. (a) The carriages and trucks on all trains must be properly coupled by the side chains and continuous brake (where provided), as well as the centre coupling, and in all cases the bridle must be placed over the chopper. When side chains are not in use they must be properly hooked up.

(b) Station-masters at intermediate Stations must, as far as practicable, observe the state of the couplings (including Continuous Brake, all electrical and other couplings) on the arrival of the trains, and cause any that require it to be adjusted.

200. (a) Station-masters and Signalmen must ascertain how the ordinary and special trains in their respective districts are running.

(b) Passenger trains must, as a rule, take precedence of all other trains.

(c) Goods trains must be shunted out of the way of Passenger trains; and Mineral, Slow Goods, and Ballast trains must also be shunted out of the way of Fast Goods and Live Stock trains at Block, Staff, or Tablet Stations in sufficient time to prevent the Passenger train, Fast Goods, or Live Stock train respectively being delayed by the Signals either at the Station where the train is being shunted or at the Station in the rear.

(d) Wherever there is sufficient Siding accommodation to contain the train it must not be shunted from one Running Line to another, but always from the Running Line into the Siding.

(e) Except where instructions are issued to the contrary, Sidings and Roads used for the Passing or Crossing of trains must always be kept in readiness for the immediate and safe entrance of any train that may have to be passed or crossed by another train.

201. When the last vehicle of a train does not pass the Signal-box before it has been shunted into a Siding, or when a train has been brought to a stand within the Home Signal, and it is necessary to give the "Train Arrival" Signal before the train passes the Signal-box, the Signaller must, before giving such Signal, ascertain from the Guard or Shunter in charge of the train that the whole of the train, with Tail Disc or Light attached, has arrived, and the Guard or Shunter will be held responsible for giving this information to the Signaller; the Fireman being similarly responsible in the case of a light engine.

202. (a) The Guard must always ride in the Rear Brake-van, and where there are two Guards the Head Guard must ride in the Rear Van, unless instructions are issued to the contrary, and the Second Guard as directed.

(b) He must, as far as practicable, keep a good look-out, and should he see any reason to apprehend danger, he must use his best endeavours to give notice thereof to the Engine-driver.

(c) Should a Guard wish to attract the attention of the Engine-driver, he must, if the train is fitted with the Continuous Brake, in case of emergency, apply it in order to stop the train. If the train is not fitted with the Continuous Brake, he must apply his Hand-brake sharply, and release it suddenly. This operation repeated several times is almost certain, from the check it occasions, to attract the notice of the Engine-driver, to whom the necessary Danger Signal must be exhibited.

(d) In the case of trains not fitted with the Continuous Brake, the Guard must always apply his Brake as soon as he becomes aware the Engine-driver is applying his. When, however, an Engine-driver requires the special assistance of the Guard's brake, he must give two or more short sharp whistles, or sound the brake whistle (when a special whistle is supplied for that purpose), and the Guard or Guards must immediately apply the Brakes.

203. In travelling down steep inclines, Guards of Mixed and Goods trains must, where necessary, fasten down a sufficient number of vehicle Hand-brakes before descending the incline, care being taken not to skid the wheels. Guards must apply their Brakes when a train is approaching, at too great a speed, a station at which it is timed to stop.

204. Except as shown below, no engine must push a train upon any Running Line, but must draw it.

- (a)
  - (i) When within Station limits.
  - (ii) Where specially authorised by the Chief Traffic Manager.
  - (iii) Where authorised by the Chief Engineer, Way and Works Inspecting Officer.
- (b) Under special regulations when assisting up inclines.
- (c) When a train or a portion of a train is left upon any Running Line, and the engine returns for it upon the proper Line and crosses behind it, as shown in Rule 249.
- (d) When a train has to return on the wrong Line to the Signal-box in the rear, as shown in Rule 250.
- (e) In the case of an engine being disabled, a following engine may push the train slowly to the next Siding or Cross-over road—(see Block Telegraph Regulation 17)—where the pushing engine must, if practicable, go in front;
- (f) When the Line is blocked and trains are being worked to the point of obstruction on one or both sides;
- (g) Ballast trains.—In case of the Line being obstructed and it is necessary for the purpose of clearing the Line to push the train between any Block, Staff, or Tablet Stations, and authority cannot be promptly obtained;
- (h) When required to assist in starting a train from a station;
- (i) In the case of Clause (g); where heavy grades are concerned this clause is not to be brought into force without special permission from the Chief Traffic Manager, except in cases of extreme emergency. Engines propelling vehicles as provided in Sub-section (ii) of Clause (a), and Clauses (c), (d), (e), (f), and (g), the Station-master at the Station from which arrangements are made to propel the train, also the Guard and Engine-driver of the train which is being propelled, must satisfy themselves that efficient precautions are taken to prevent vehicles breaking away when descending gradients. The Guard must ride in the leading vehicle, giving the Driver such hand signals

as may be necessary, and the Driver must keep a sharp look-out ahead so as to be prepared to act on any Signal given by the Guard; he must also sound his whistle freely when entering cuttings, where his view of the Line ahead is obstructed, and when approaching level crossings to warn employees and others of the approaching train.

205. In propelling empty trains, carriages, or vehicles of any kind out of a Terminal Station or other place on to a Running Line, the engine must not be uncoupled, but go back with the train or carriages, which must be brought to a stand before the engine is detached. Drivers must see that the Guard or Shunter is in attendance before moving a train or carriages to shunt.

206. (a.) When any vehicle has been detached from a Passenger train, the Guard must, unless some of the Station staff are present to take charge of it, see that the vehicle is properly secured so as to prevent it moving. If the engine be detached to put off or take on vehicles, or for any other purpose, the Guards must keep their Hand-brakes on to prevent the train moving during the time the engine is away from it.

(b.) The Continuous Brake must not be relied upon to secure any vehicle after it has been detached from the engine and brake-van.

207. (a.) When a train has been brought to a stand on a Running Line, and it is necessary for the engine to be detached from the train, the Guard must, before the engine is uncoupled, satisfy himself that the van-brakes have been put on securely; and where the Line is not level apply a sufficient number of vehicle brakes, and place one or more sprags in the wheels of the vehicles next the rear brake in the case of an ascending gradient, and of the foremost vehicles in the case of a descending gradient, to prevent the possibility of the train or vehicles moving away. The number of sprags must be regulated by the steepness of the gradient, the number of vehicles, their loads, and the state of the weather and rails. Where the Continuous Brake is in operation it must also be applied to that portion of the train left standing on the Running Line.

(b.) The Engine or any portion of a Mixed or Goods train must not be uncoupled for shunting or other purposes at roadside Stations or Sidings until the Guard has secured the train and given the necessary Signal.

208. (a.) When a train is shunted into a Siding after sunset, or in foggy weather, for another train to pass, the Tail and Side Lamps must be removed or so disposed of as not to exhibit the Red Lights to a following train.

(b.) When a train has to be shunted from one Running Line to another to allow a following train to pass, such train must be set well within the Home Signal, so as to be efficiently protected by it from any train approaching from the opposite direction.

(c.) Before any train is shunted from one Running Line to another after sunset, or in foggy weather, the Engine-driver must exhibit a Red Head Light in front of the engine (or tender if running tender first), so as to face a train coming from the opposite direction, and remove all other Head Lights which his engine may be carrying. The Red Light must be kept exhibited until the whole of the shunted train has again been placed on its proper Running Line.

(d.) Immediately a train has been shunted from one Running Line to another, the Guard (in the case of a train) must remove the Tail Light and reverse or obscure the Side Light, and the Engine-driver (in the case of a light engine) must remove the Tail Light.

(e.) Before the train recrosses to its proper Running Line, the Guard (in the case of a train) must replace the Tail and Side Lights, and the Engine-driver (in the case of a light engine) must replace the Tail Light.

(f.) Should it be necessary for the engine to be detached and leave its train standing on the wrong Line, the Guard in charge must place a Red Light on the front vehicle of the train so left, and the Engine-driver will be held responsible for seeing that this is done before removing his engine from the train.

(g.) Should the engine have to remove a portion of the train, the Guard in charge must see that a Red Light, as above, is left exhibited on the front vehicle of the rear portion before the front portion is removed.

(h.) In the case of a train or vehicles having to be shunted from a Siding on to a Running Line, or from one Running Line to another Running Line, and having to stand there, the Shunter or other person in charge must, after sunset, or in foggy weather, take care that a Red Light is placed on the end of the train or vehicles so as to face any train that may be approaching on the same Line.

(i.) On Single Lines, after sunset, or in foggy weather, when a train is standing on a Running Line waiting for a following train to pass, and such train is clear of the fouling points, the Guard must reverse the Side Light, and if it is not nearest the clear Running Line, place it there so as to show a White Light to the Driver of the approaching train.

(j.) If a train is standing on a Running Line waiting to cross a train approaching from the opposite direction, and such train is clear of the fouling points, the Engine-driver must place a White Light on the buffer of his engine (or tender, if running tender first) nearest the clear Running Line, and a Red Light on the buffer farthest from the clear Line.

209. During Shunting operations an Engine-driver must not move his train, although the Fixed Signal may be lowered, until he has received a Hand Signal to do so from the Guard, Shunter, or other person in charge.

210. (a.) Except where instructions are issued to the contrary, trucks must not be shunted into Sidings, nor to other trucks upon Running Lines, without remaining attached to the engine, unless the trucks are attended by a competent person prepared to put down the Hand-brakes, and to apply sprags (where sprags are provided), so as to prevent their coming into violent contact with other trucks or vehicles, or fouling other Lines, or running away when the Line is on a falling gradient.

(b.) Trucks must not be moved unless the doors are properly closed and fastened.

(c.) Trucks left standing in Sidings must be clear of the fouling points of any adjoining Sidings or Lines, and properly secured to admit of shunting operations being carried on without risk of injury to the staff engaged in conducting them.

(d.) When trucks have to be shunted into incline Sidings, the trucks to be moved at one shunt must be limited to such a number as the engine can push without going at a violent or excessive speed.

(e.) When shunting trucks at Stations or other places situate on inclines, care must be taken that, in addition to screwing the Van-brakes tightly down, a sufficient number of Truck-brakes are fastened down, and sprags or hand-scothes used when necessary, to prevent the possibility of the train or any of the vehicles running down the incline. Vehicles detached from the train must not be left till they are properly secured.

211. (a.) Guards and Shunters performing shunting operations at Sidings must take care that the vehicles are left clear of any Running Line and within the Safety Points and Scotch Blocks; that the Points close properly, and that the Scotch Blocks are replaced and secured across the rails after the operation is completed. Guards and Shunters are held responsible for seeing that the trains are clear of the Points, and that the Points are in proper position before a signal is given to the Engine-drivers to move, and they must render the Signaller every assistance they can in the shunting operations.

(b.) In the case of a light engine unaccompanied by a Guard or Shunter, the Driver must satisfy himself that the Points are in the proper position.

212. (a.) When vehicles are detached from a train and left on any Running Line prior to being shunted into Sidings, or when it is necessary for a train or any vehicle to be placed outside a Home Signal, the Signaller's permission must first be obtained in order that he may keep the Signals at Danger for the protection of the Line, and take the authorised steps for securing safety in one or both directions as may be required. At night or in foggy weather, in addition, a Red Light must be shown at the rear of the vehicles, or, where necessary, at both front and rear until they are safely placed in the Sidings. When vehicles have been detached, care must be taken that they are properly secured so as to prevent their moving.

(b.) It is the duty of the Shunter or person in charge of the shunting to see that the proper Red Light is shown at the rear, or where necessary, at both front and rear of vehicles standing on any Running Line, or on vehicles detached from trains, and Station-masters must take care that this is clearly understood by the men concerned. The Signaller must also keep a good lookout upon the arrival of trains, and if he see any vehicles have become detached and are left on any Running Line, he must take the necessary steps to protect them.

(c.) Unless special permission is given, no train or vehicle must be placed outside a Home Signal where the Line is on a falling gradient towards the Signal-box in the rear.

213. (a.) Vehicles must, when practicable, be attached to or detached from Passenger trains without the trains being moved.

(b.) Before any vehicle containing passengers is shunted over Points, care must be taken to ascertain that the Points are securely set for the Line on which the vehicle is required to run, and that the Line is clear and properly protected.

(c.) When vehicles are being moved by an engine for the purpose of being attached to a Passenger train, the Continuous Brake-pipes, where provided, must be connected, so that the Brake may be available during the operation.

214. (a.) Before removing any Travelling Crane the person in charge of it must see that the jib is properly lowered and secured, and so fixed that it will pass under the gauge, and that the balance-box

is properly secured. When the Crane has to be conveyed by train, it must, when practicable, be so placed that the jib points towards the rear of the train.

(b.) Travelling Cranes must, when practicable, be forwarded only by slow goods trains. The Station-master, and the Head Guard of the train, must, before a Crane is attached to the train, take care that all the fastenings supplied for securing the jib and balance-box, and, where provided, the side-stays of the truck, are in good condition and secured in their proper position, and that the necessary safety trucks are provided. The Engine-driver must, before starting, be informed by the Head Guard that the Crane is being forwarded by the train, and at each stopping place on the journey the Guard must satisfy himself that the fastenings are secure. Train-examiners must also inspect the fastenings in addition to the usual examination of the wheels, etc. If any defect exist in any of the fastenings, the Crane must not be attached to a train, and, if travelling, it must be detached for the fastenings to be made good.

215. Foremen, Guards, and Shunters must take care that no timber-truck, boiler-truck, or other vehicle provided with chains on other appliances is allowed to leave a Station or Siding without the chains and appliances being first carefully examined and made perfectly secure and safe, and Guards will be held responsible for seeing that they remain so during the journey.

216. (a.) Long pieces of Iron, Rails, Piles, Telegraph Poles, or other long Timber, must not be despatched from Stations or Sidings, unless the load is bound together by suitable lashings, and properly secured to the trucks with ropes or chains.

(b.) Guards and Shunters must carefully examine loads of this description at places where the train may stop, to see whether they have shifted or require adjustment, and if so, the trucks must not be taken on until the loads have been made secure.

(c.) Special care must be exercised with loads of exceptional character as regards dimensions or weight, especially when sent from Private Sidings, to see that the loading is secure and within the prescribed dimensions. The Locomotive, Way and Works and Traffic Branches must be consulted when necessary, and the loads inspected by an experienced person before being despatched.

(d.) Trucks loaded with Engines, Boilers, Long Timber, Steam Ploughs, Rails, exceptionally heavy or lengthy material, Boiler or Oil Tank Trucks, whether empty or loaded, must not be conveyed by Passenger trains, unless authorised by the Chief Traffic Manager, neither must they be conveyed by Mixed trains when Goods trains are available.

217. (a.) Should an Engine-driver or Guard observe any irregularity in the working of Signals, or see any cattle or other obstruction on the Line, or any defect in the Signals, Works, Permanent-way, or Telegraph, he must report the same at the first Station at which the train stops, but if the circumstances be of a serious character he must stop the train at the first Signal-box, and give information.

(b.) The Engine-driver must, if necessary, also stop before reaching the Signal-box, to give information to repairers or other employees.

(c.) The Engine-driver must also, if he see cattle on the Line, or observe anything wrong on the Line opposite to that on which his train is running, sound his whistle and exhibit a Danger Signal to any

train he may meet; he must also, when practicable, place Detonators on the opposite Line of rails.

(d.) At the end of his journey, the Engine-driver must report the circumstance in writing to his Foreman, or other employee in charge, and the Guard must also report the case.

(e.) Before booking off duty, the Driver must enter in a Book or Books provided for the purpose any repairs to his engine and tender that may be required, and must also record any circumstance it might be necessary to bring under notice.

218. (a.) Engine-drivers seeing fire by the side of the Line, or on any adjoining land, must Signal the fact to the nearest Repairers by giving one short, one long, and one short whistle, and make a special written report on arrival at their destination.

(b) Guards seeing fire by the side of the Line must endeavour to attract the attention of the Repairers to the fact, and make a special written report on arrival at their destination.

219. When an unusual circumstance of any kind has occurred on the journey, the Guard must make out a special report of the same before leaving duty, and deliver to the Station-master, to be forwarded to the District Traffic Superintendent.

220. (a) When a Guard is riding in a train other than that he is appointed to work, he must render any assistance necessary in the working of the train by which he travels, and obey any instructions received from the Guard in charge of such train; and when there is on the train a Brake-van in which no Guard is riding, he must ride in such van, and act as Under Guard.

(b) Guards on duty when waiting at Stations must assist with luggage, parcels, etc., to facilitate the despatch of trains.

221. Should complaint be made of the running of any carriage, the Guard must inform the Station-master, Engine-driver, or first Train-examiner, and make a special report, giving the number and class of carriage; but if the Guard has reason to apprehend danger from such carriage before it can be inspected, he must have it detached from the train.

222. Unless otherwise ordered, Passenger carriages attached to Goods trains must be placed next the rear Brake-van.

223. Under no circumstances must a truck without buffer springs be attached to a Passenger or Mixed train. This does not apply to ordinary trucks with buffer springs which have been damaged and for which permission has been given to attach to the rear of a train.

224. When ladies are travelling alone, the Guards are to pay every attention to their comfort; and, in placing them in the train, they must, if requested, endeavour to select a compartment for them (according to the class of their tickets) in which other ladies are travelling. If ladies wish to change compartments during the journey, the Guards must enable them to do so.

225. As far as possible the Guard must not allow any passenger to be conveyed by the train unless properly booked; and if he have reason to suppose that any passenger is without a ticket, or is not in the proper compartment, he must request the passenger to show his ticket, reporting to the Station-master any irregularity he may detect. When a passenger is desirous of changing from an inferior to a superior class, the Guard must have this arranged by the Station-master.

226. The Racks in the carriages are provided for light articles only, and should not be used for boxes, portmanteaux, and other heavy articles of luggage, which must, if possible, be placed under the seats of the carriages when passengers desire to have their luggage with them, or otherwise loaded in the Guard's vans, or in the proper luggage compartments of the trains.

227. Newspapers or other parcels must not be thrown from trains as they pass through intermediate Stations, unless specially sanctioned by the Chief Traffic Manager. Where authority has been given for parcels to be thrown off, Guards must, before throwing the parcels from the train, satisfy themselves that the platforms are clear, and Station-masters and others must warn persons who may be about, to keep clear of the train.

228. When a deficiency of room occurs in a train while on the journey, the Guard must request the Station Master to telegraph or telephone to the next Station where carriages are kept, to have one or more in readiness to attach on the arrival of the train reporting the fact. He must also report if he has habitually either an excess or deficiency of room in his train.

229. Smoking in carriages, except in the compartments specially set apart for that purpose, is strictly forbidden, and Guards must take care that the By-law on the subject is enforced. The Guards must report any insufficiency in the number of compartments reserved for smokers, and be careful not to place ladies in the compartments so reserved.

230. Prisoners, under the charge of police, and persons afflicted with insanity, or an infectious disease, must not be placed with other passengers, but in a separate enclosed compartment.

231. In the event of any passenger being drunk or disorderly, to the annoyance of others, the Guard is to use all gentle means to stop the nuisance; failing which, he must, for the safety and convenience of all, have the offender removed from the train at the first Station. The Guard must obtain the name and address of the offender, and also of one, at least, of the passengers present at the time; he must also take care that the offender's luggage is put out of the train before it proceeds on its journey.

232. (a) Guards, on arrival at a Ticket-collecting Station, must request the passengers to have their tickets ready, and must assist the Ticket-collectors by opening and closing the carriage doors; they must not, however, collect or examine tickets, except at places where there is no one in charge or under special instructions.

(b) Guards must also distinctly call out the names of the Stations at which the trains stop during the journey.

233. Guards will be held responsible for the proper security of Points and Scotch Blocks, and the working of Signals at Stations, Sidings, or Platforms where there is no Signaller or Station Staff on duty, and for securing the vehicles left in the Sidings. On the arrival of a train all necessary signals must be immediately placed at Danger, and must not be lowered until the train is quite ready to proceed on its journey. They will be held responsible for seeing that Sidings on Single Lines at which there are no Fixed Signals are only worked by trains carrying the Electric Train Tablet, Electric Train Staff, or Train Staff, except where otherwise authorised.

234. (a) The guard in charge of a Mixed or Goods train must satisfy himself before starting, and during the journey, that the vehicles composing the train are properly loaded, labelled, marshalled, coupled, and sheeted; that there are the prescribed number of Hand Brakes, that they are in working order, and that his train has the proper Discs, Lamps, and Signals attached to it. He must also carefully examine the loading of any vehicles he may attach on the way, and if any vehicle become unsafe from the shifting or the derangement of the load, he must at once have the load readjusted or the vehicle removed from the train. All irregularities must be reported.

(b) Before leaving Sidings and other places the doors of vehicles must be carefully examined to see that they are properly secured by the fastenings provided for the purpose.

(c) The Guard must not attach any truck which he may think is unsafe to travel.

(d) Guards of Goods trains must not leave their trains until they have handed them over to the Guards who are to relieve them, or to the Yardman or Shunter.

235. Without the special authority of the Chief Traffic Manager or the District Traffic Superintendent no train must be run on any Running Line outside of Station limits without a Brake-van in the rear, and where a train is authorised to run without a Brake-van in the rear (except where otherwise authorised by the Chief Traffic Manager), a man, provided with the necessary Signals, must ride on the last vehicle.

236. When it is necessary for any engine to run round a train between two Signal-boxes for the purpose of removing it from any Running Line, or when a train has to be removed by another engine attached to the rear, the train engine going forward, the Guard or Shunter must inform the Signaller what is about to be done. A Lamp, showing a White Light by night or in foggy weather, must be placed by the Guard or Shunter on the leading end of the vehicles from which the engine has been detached. In the event of vehicles being attached to the end of the train from which the engine has been uncoupled, the lamp must be transferred to the front of the leading vehicle. The lamp must remain on the vehicle until the train has been removed, to furnish evidence to the Signaller, when the train is drawn back, that it is complete.

237. (a) When a vehicle is not fit to travel it must be labelled by the Train-examiner with a Red "Not-to-Go" label, and must not be allowed to travel.

(b) When a vehicle requires repair, but is fit to travel, it must be labelled with a Green label, lettered, "For Repairs," and taken to the place indicated on the label.

(c) No unauthorised employee must remove the label.

(d) After the derailment of any vehicle, it must not be again used until certified by a Train-examiner or other representative of the Locomotive Branch that it is fit to run.

238. (a) When Trucks of Live Stock are attached to a train, the Guard must see that the fastenings of the doors are all secure. On the journey he must

avoid unnecessarily shunting such trucks, and the shunting, when requisite, must be done as gently as possible.

(b) Guards working trains by which Live Stock is conveyed must carefully examine the animals from time to time, as may be necessary, and satisfy themselves that they are travelling safely; if any are found down, or requiring attention, steps must be taken to have them put right as soon as possible, and a report of the circumstances must be made, the numbers of the trucks, and the Sending and Receiving Stations being given.

(c) Loads of Live Stock received from private Lines or from other States must be examined, to see that they are in good condition when exchanged, and, in case of injury or death, the attention of the employees of private Lines, or of other States, must be drawn to the fact at the time.

239. When a Guard receives delivery of Rolling Stock, the property of another Railway or private owner, or Government Rolling Stock arriving off private lines, in a damaged condition, he must draw the attention of the Station-master to the circumstances, so that it may be noted.

240. Guards must not take on trucks loaded with goods liable to be set on fire by sparks or hot cinders, unless such trucks are properly sheeted.

241. Every Guard who has used a van with a stove in it must, before leaving duty, take care that the fire in the stove is entirely extinguished, unless the van has to be sent out again immediately, in which case a small fire may be allowed to remain, all necessary precautions being taken to avoid damage arising therefrom.

242. (a) Should a Ballast train have to discharge or take up materials on any Running Line between two Signal-boxes, the Guard of such train must, before entering the Section, inform the Signaller in charge of the Signal-box of the fact, and of the probable time the work will occupy, so that the Signaller may give any instructions that may be necessary as to the shunting of the Ballast train for other trains.

(b) The Signaller must in each case intimate to the Signaller at the other end of the Section that the train will be stopped in the Section to do work.

243. (a) No Ballast train must be allowed to run over the Line unless in charge of a Guard.

(b) The Guard must be accompanied by a Flagman, when necessary, who must act under his instructions, and who must have been passed as competent by the Traffic Branch.

**NOTE.**—As the Absolute Block System is maintained throughout the West Australian Government Railways, the instructions set forth in Rule 244 must not be introduced without the special authority of the Chief Traffic Manager.

244. Except where instructions are issued to the contrary, where the Line is not worked under the Electric Train Tablet, Electric Train Staff, or Block System, no train must be allowed to follow any other train on the same Line, nor pass a Signal-box where trains are ordinarily signalled, at an interval of less than ten minutes, nor then until the Engine-driver of such train has been furnished on the prescribed form with a "Notice of Train Ahead."

*Form of Notice of Train Ahead referred to  
in Rule 244.*

WESTERN AUSTRALIAN GOVERNMENT  
RAILWAYS.

NOTICE OF TRAIN AHEAD.

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

.....left here at.....  
and has not yet been reported in at.....  
(Signed).....  
Time.....

*(To be used as directed in Rule 244 of the Book of Rules.)*

(Butt of Form.)

WESTERN AUSTRALIAN GOVERNMENT  
RAILWAYS.

NOTICE OF TRAIN AHEAD.

Station.....19

RECEIVED NOTICE That the.....  
.....left here at.....  
and has not yet been reported in at.....  
(Signed).....Driver.  
.....Train.  
Time.....

*(To be used as directed in Rule 244 of the Book of Rules.)*

### TRAINS STOPPED BY ACCIDENT, FAILURE, OR OBSTRUCTION.

245. (a) Except where instructions are issued to the contrary, when a train is stopped by an accident or from any cause (unless it has arrived at or passed the Home Signal), the Guard, if there be only one, or the Rear Guard, if there be more than one, must immediately go back at least 1,200 yards, unless he arrive at a Signal-box within that distance, plainly exhibiting his Hand Danger Signal, to stop any following train, and, in addition to his Hand Signals, he must take Detonators (to be used by day as well as by night), which must be placed upon the Line on which the stoppage has happened, as follows, viz. :—

- 1 Detonator at 400 yards from his train,
- 1 Detonator at 800 yards from his train, and
- 3 Detonators 10 yards apart, not less than 1,200 yards from his train,

and must also continue to exhibit his Hand Danger Signal to stop any coming train.

(b) If the Guard arrive at a Signal-box within or at about 1,200 yards from his train, he must place three Detonators on the Line opposite the Box, and must also instruct the Signaller to keep his Signals at Danger to protect the Line which is obstructed. He must then return to his train or take such other steps as may be necessary to deal with the obstruction.

(c) The Detonators must not be taken up until intimation has been received that the obstruction has been removed, and when the "Is Line Clear" Signal for the next train which has to pass through the Section has been accepted by the Signal-box in advance, the train must be stopped, and the Engine-driver must be advised of the circumstances.

(d) Should the distance of not less than 1,200 yards fall within a Tunnel, or close to the mouth of a Tunnel nearest to the obstruction, or in any other position where, owing to the formation of the Line, or to some other circumstance, the Engine-driver of an approaching train would be unable to obtain a good and distant view of the Hand Danger Signal, then, unless there be a Signal-box between the obstruction and the Tunnel, the Signal must be exhibited and Detonators must be placed on the Line at the end of the Tunnel farthest from the obstruction, or at such a distance over and above the prescribed distance of not less than 1,200 yards as may be necessary to insure the Engine-driver obtaining a good and distant view of such Signal.

(e) Before the Guard in going back enters a Tunnel he must place three Detonators on the Line, 10 yards apart, at the end of the Tunnel nearest to the obstruction.

(f) In order as quickly as possible to secure the safety of the Line as well as to obtain assistance and to regulate the working of the traffic, if the Signal-box in the rear of the obstruction be the nearer, the Guard, after protecting his train by Detonators, as directed above, must go to such Signal-box, and advise the Signaller of the obstruction, but if the Signal-box in advance of the obstruction be the nearer or can be more quickly arrived at, the second Guard, if there be more than one Guard, or the Fireman, if there be not more than one Guard, must immediately go to the Signal-box in advance, and advise the Signaller of the cause of the obstruction.

(g) If the engine be able to run forward, it must be detached, and the Driver must proceed to the Signal-box in advance for the purpose of carrying out the provisions of the previous paragraph, having if required first obtained from the Rear Guard an order to return on the Wrong Line, as provided for in Rule 249.

(h) If the Guard obtain assistance from the rear, he must ride on the engine of the assisting train, and point out to the Engine-driver the position of the disabled train. The assisting train must run at reduced speed, and great caution must be observed by all concerned.

(i) If the engine obtained from the rear has to return on the wrong line, the Guard must, before starting with the assisting engine, first obtain the prescribed "Wrong Line Order," in accordance with Rule 250.

(j) Except as above stated, the Guard must not return to his train until recalled by the Engine-driver sounding the whistle of his engine, and when recalled, he must leave the three most distant Detonators, and return to his train, taking up the other Detonators on his way. Should he be recalled before reaching the prescribed distance, he must then place on the rail three Detonators, ten yards apart, and return to his train, taking up the other Detonators on his way.

(k) If a second train come up before the obstruction has been removed, the Guard of the second train must protect his train as directed above. The Guard of the first train having assured himself that

the Guard of the second train has gone back with the necessary Signals for the protection of the second train, may then rejoin his own train. If other trains come up the same rule must be carried out, the Guard of the last train being the protection for the whole.

(l) Should the stoppage or failure occur to an engine not attached to a train, the Fireman must immediately go back and act in the way prescribed for the Guard.

(m) When there are two or more Lines, and an accident causes more than one to be fouled, the necessary steps must be taken to protect all the lines obstructed.

(n) It will not be necessary to carry out the provisions of this Rule for the protection of trains on Single Lines when the Engine-driver is in possession of the Tablet, Electric Staff, or Train Staff, but the Regulations with regard to Single Line Working must be complied with.

246. (a) Should an accident to a train foul, or be dangerously near to, any Line used by trains running in the opposite direction, in addition to the Guard going back to protect the train in accordance with Rule 245, the Engine-driver of the disabled train must immediately detach his engine, if it be able to run forward, and proceed with it not less than 1,200 yards from the scene of the accident, and there leave his Fireman with Detonators to act as laid down in Rule 245 to protect the opposite Line; the Driver must then go forward with his engine to the nearest Signal-box and inform the Signaller of the obstruction, in order that any train running on the opposite Line may be stopped, until the obstruction has been removed. In the course of the journey from the break-down to the Signal-box, the Engine-driver must stop any train that may be approaching on the opposite Line, by sounding his whistle, or the Brake-whistle, where provided, exhibiting the necessary Hand Signals, and, in addition, showing a Red Head Light at night.

(b) Should the engine be disabled, or should there be any delay in detaching it, the Fireman must at once go forward and place the Detonators on the opposite Line, and also perform the duties of the Engine-driver as prescribed above.

(c) Should an accident happen to an engine, or a train without a Guard, causing the obstruction of both Lines, the Engine-driver must immediately send his Fireman forward to stop trains travelling on the opposite Line, and must himself go back or send some other competent person, so that the obstruction may be protected in both directions.

247. (a) Should an accident to a train, accompanied by only one Guard cause the obstruction of both Lines, and the Engine-driver run forward without being aware of the accident, the Guard must, if he can obtain the services of a competent person, send him forward to protect the opposite Line to that on which the train was running, and himself go back as directed in Rule 245.

(b) In the event of no competent person being at hand, the Guard must first go forward as quickly as possible, exhibiting his Hand Danger Signal, and place Detonators upon the opposite Line to that on which his train was running, as under, viz.:—

- 1 Detonator at 400 yards from the obstruction,
- 1 Detonator at 800 yards from the obstruction,
- and

3 Detonators, 10 yards apart, not less than 1,200 yards from the obstruction,

and then return and protect the rear of his train as prescribed in Rule 245.

(c) Should the Guard in going forward arrive at a Signal-box, he need not go the prescribed distance, but must place three Detonators on the opposite Line at the Box, inform the Signaller of the circumstances, instruct him to keep the necessary Signals at Danger to protect the obstruction, and then return and protect the rear of his train as prescribed in Rule 245.

(d) If the Block System has temporarily failed, the Guard must use his discretion as to which Line he protects first, having regard to all the circumstances, but he must use his best exertions to provide for the protection of both Lines with as little delay as possible.

248. The Engine-driver, on seeing a Green Signal moved in a vertical circle from a Signal-box, must understand that his train is divided, and must exercise great caution by looking out for the second portion, and, unless he has reason to believe the Line is not clear ahead, must not stop the portion attached to his engine until he is satisfied that the rear portion has been stopped, or is running very slowly. He must, however, observe and obey any Signals that may be exhibited against him.

249. (a) When a train or portion of a train, is left on any Running Line from accident or inability of the engine to take the whole forward, or from any other cause, the Engine-driver must not return for it on the same Line, except as ordered in Clauses (f) and (j) of this Rule, but must cross on to, and travel along, the proper Line, and must recross at the nearest point behind the part left, which he must push before him until convenient to go in front again with the engine.

(b) A Tail Disc or Light must not be carried on the engine or last vehicle of the front portion of the train, before reaching the first Signal-box, where the Engine-driver must stop and inform the Signaller of the position of affairs; if the engine, or front portion of the train, has to pass into the next Section, a Tail Disc or Light must then be placed in the rear. The Signaller must not give the "Train Arrival" Signal to the Signal-box in the rear, until he has satisfied himself that the whole of the train has arrived.

(c) After sunset, or in foggy weather, before the front portion is drawn forward a White Light must be exhibited 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 100 yards from the front vehicles of the rear portion, to notify the Engine-driver when returning of the position of the remainder of his train.

(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 the rear portion of the train has been secured, uncouple it, and ride upon the last vehicle of the front portion; the other Guard, after putting on his brake, must go back and protect the rear portion, in accordance with Rule 245.

(e) When there is only one Guard with the train, the Fireman must, after the rear portion of the

train has been secured, uncouple the rear portion 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) If it be found necessary to return to the train or rear portion of the train on the wrong Line, the Engine-driver must, before starting with the front portion, send his Fireman to the Guard to obtain his written authority to the Signalman at the nearest Signal-box in advance where the front portion of the train can be put away, authorising him to allow the engine to return from that point on the wrong Line (*see* Form A at end of Rule), and without this authority the Signalman must not allow the engine to return on the wrong Line to its train. Should there, however, be an intermediate Signal-box, the order held by the Engine-driver must be shown to the Signalman at that Box, and given up to the Signalman at the place where the front portion of the train has been put away. After giving such instructions, the Guard must continue to protect his train in the rear, and prevent a following train from pushing it ahead.

If there is an intermediate Block Signal-box provided with a Cross-over road between the point where the rear portion of the train is left on the Running Line and the Signal-box to which the front portion of the train will have to go to be disposed of, the "Wrong Line" Order must be made out by the Guard to the Signalman at such intermediate Box, and the Driver, after leaving the order with the Signalman there, must proceed to the place where he can dispose of his train, and then return on the proper Line of rails to the intermediate Box, and be there crossed on to the Line on which the rear portion of his train is standing, so that the engine shall not travel on the wrong Line further than is absolutely necessary.

(g) When a train is brought to a stand on any Running Line, owing to the failure of the engine, or from any other cause, and the Guard has gone to the rear to protect it, it may be necessary for the engine coming to the assistance of the train, or for the Breakdown Van train, to travel on the wrong Line from the Signal-box in advance. In such a case the Engine-driver of the disabled train must write out an authority (on Form B where in use, *see* end of Rule) for the Signalman at the Box in advance to allow the Relief engine, or the Breakdown Van train, to travel on the wrong Line to the disabled train. The Fireman of the disabled train must hand the written authority to the Signalman, and accompany the Relief engine or the Breakdown Van train to his train, advising the Engine-driver where and under what circumstances the disabled train is situated, and the Signalman must show the authority to the Driver before allowing the Relief engine or Breakdown Van train to proceed on the wrong Line. The Engine-driver of the disabled train, after giving the order for the Relief engine or the Breakdown Van train to run on the wrong Line, must not allow his train to be moved until the Relief engine or the Breakdown Van train arrives, unless satisfactory arrangements have been previously made to prevent the Relief engine or the Breakdown Van train from coming on the wrong Line, and then, not until his fireman has returned and handed the "Wrong Line" Order back to the Engine-driver.

(h) Should there be any intermediate Signal-box without a Cross-over road, the Fireman, when

going for assistance, must show the written authority (on Form B where in use) to the Signalman at that Box.

(i) The Engine-driver, when running on the wrong Line, must not pass any Signal-box, nor foul the Gates, Points, or Crossings controlled by such Signal-box without first obtaining the permission of the Signalman.

(j) If, after the train has been accidentally divided, both portions have been brought to a stand within sight of each other, and there is not a Signal box near either end of the train, the front portion may be set back to the rear portion, provided the two portions can be recoupled, but before moving, the Engine-driver must send his Fireman to the Guard who is protecting the rear portion for a written authority to set back.

*To be printed on PINK coloured paper.*

(Front of Form A.)

(A supply of these forms must be kept by each Guard.)

To the Signalman at.....Signal-box.

Allow Driver of Engine No.....to return on the wrong Line to the remainder of his train standing on the.....Line at..... I will prevent its being moved until the return of the engine.

Signed.....Guard.

Date.....19..... Time issued.....m.

Catch Points exist at.....

(Back of Form.)

Here appears paragraph (f) of Rule 249.

*To be printed on GREEN coloured paper.*

(Front of Form B.)

(A supply of these forms must be kept by each Engine-driver.)

To the Signalman at.....Signal-box.

Allow a Relief engine or a Break-down Van train to proceed on the wrong Line as authorised by Rule 249 (*see* other side), for my train which is stationary at ..... I will not move my engine in any direction until the arrival of the Relief engine. Tonnage, including disabled engine,.....tons.

Signed.....Driver.

Date.....19..... Time issued.....m.

Catch points exist at.....

(Back of Form.)

Here appears paragraph (g) of Rule 249.

250. If, in case of accident, it is necessary for a train, or portion of a train, to return on the wrong Line to the Signal-box in the rear, the Guard or Fireman must go or send some other competent person to the Signalman there, and obtain his permission in writing for the train, or portion of the train, to run on the wrong Line to his Box; but the Engine-driver must not move in the wrong direction until he has received such written permission (*see* Form C.)

*To be printed on YELLOW coloured paper.*

(Front of Form C.)

(A supply of these forms must be kept in each Signal-box.)

**AUTHORITY FOR ENGINE-DRIVER TO TRAVEL ON THE WRONG LINE IN CASE OF ACCIDENT.**

To Driver of engine No.....working  
.....m. train  
from.....to.....

I authorise you to return with your train on the wrong Line to this Signal-box.

Signature of.....Signalman.  
at.....Signal-box.

Date.....19..... Time issued.....m.

Catch Points exist at.....

*Back of Form.*

Here appears Rule 250.

251. When moving in the wrong direction, as laid down in Rules 249 and 250, the Engine-driver must proceed cautiously, travel at reduced speed, and make frequent use of the engine whistle.

252. Should Catch Points exist, arrangements must be made for securing them as shown in Rule 264, and Engine-drivers, when authorised to travel in the wrong direction, under the circumstances referred to in Rules 249 and 250, must not pass over such Catch Points in the wrong direction, until they have assured themselves that they are held or secured in their proper position for the train to run over them. Signalmen must, before authorising the Engine-drivers to run in the wrong direction, remind them of the existence of the Catch Points.

253. (a.) In the event of any failure of, or accident to, some part of the train, it will generally be found to be desirable to bring the train to a stand as quickly as possible, but whether this course can be taken with safety, and how the stoppage can best be effected, must depend on the nature of the mishap to the train, the weight and speed of the train, the gradients, curves, and other conditions applying to the Line, particularly as regards the position of Points and Crossings. In all cases when the whole of the train remains upon the rails, it must be brought to a stand as quickly as possible.

(b.) If the engine be defective, the sooner the train can be stopped the better. If any of the vehicles be off the rails, the brakes in the rear must be instantly applied, in order that by keeping the couplings tight the disabled vehicles may be kept up and out of the way of the vehicles behind until the force of the latter is exhausted, it being desirable that the front portion of the train should be brought slowly to a stand. The application of the front brakes might result in further damage, and great care must be exercised in their application. In all cases the applications of brakes behind a disabled vehicle, or the application by the Guard of the Continuous Brake at the rear of a train, will be attended with advantage, and Rear Guards of trains fitted with the Continuous Brake must apply the Continuous Brake as well as the Hand Brake.

(c) In the event of the Rear Guard not promptly applying the brakes when the Engine-driver whistles for them, the Engine-driver must, if his train is fitted with the continuous brake, apply the same gradually, and with judgment and care.

(d) Should any part of a train on which the Continuous Brake is not in operation become detached when in motion, care must be taken not to stop the front part of the train before the rear portion has either been stopped or is running slowly, and the rear guard must promptly apply his brake to prevent a collision with the front portion.

(e) In all cases Engine-drivers and Guards must act according to the best of their judgment and ability in the circumstances in which they are placed.

254. Should it be found that a train, vehicle, or engine has broken away, the employee discovering it must immediately take steps to stop all following or approaching trains, and to advise, if possible, the Stations at the rear and in advance of the occurrence.

255. Should any vehicle in a train be on fire, the train must be stopped, and, if not protected by Fixed Signals, the Guard must protect it in compliance with Rule 245. The Under-Guard, or the Fireman if there be no Under-Guard, must, after the rear portion of the train has been secured, detach the vehicles in the rear of those on fire; the burning vehicles must be drawn forward to a distance of fifty yards at least. In all cases Engine-drivers and Guards must act to the best of their judgment and ability in the circumstances in which they are placed.

## WORKING TRAFFIC OF A DOUBLE LINE OVER A SINGLE LINE OF RAILS DURING REPAIRS OR OBSTRUCTION.

256. (a) When it is necessary, during repairs or owing to an obstruction of any kind, to work the traffic in both directions over a Single Line, the following precautions must be adopted:—

(i.) A competent person must be appointed as Pilotman, who must wear, round his left arm above the elbow, a distinctive Badge (*see end of Rule*). Until the regular Badge can be obtained the Pilotman must wear a Red Flag tied round his left arm. No engine must enter upon any portion of the Single Line without the Pilotman being *present* and riding upon the said engine, unless two or more trains are required to follow in the same direction, in which case the Pilotman must order all trains to proceed, and furnish the Driver of each train with a Pilotman's Caution Ticket (*see end of Rule*), 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.

The Pilotman must inform the Engine-driver and Guard or Guards of all trains that Single Line is being worked, and the Points between which it is in operation.

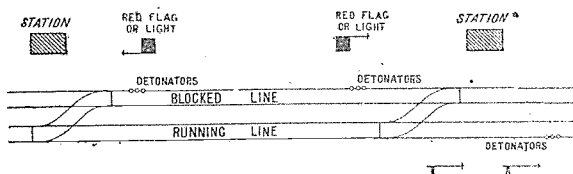
(ii.) The Pilotman must show himself to the Signalman at each Box he passes.

(iii.) The Pilotman's Caution Ticket will apply only to a single journey to the other end of the section, where it must be given up by the Engine-driver to the Station-master, who must cancel the

ticket by writing the word "Cancelled" across the face of it and forward it to the District Traffic Superintendent.

(b) In addition to the foregoing precautions, three Detonators must be placed at both ends of the Line obstructed a short distance from the point where Single Line Working commences, and a Red Flag by day, and a Red Light by night, or in foggy weather, or when from any other cause a distinct view cannot be obtained, must also be placed on the blocked Line near to the Detonators.

The Detonators must be placed on each side of the obstruction, as shown in the diagram below; and except where instructions are issued to the contrary a Hand Signaller must also be placed outside the Distant Signal applicable to the Line upon which Single Line Working is in operation, and he must place three Detonators on the rails for each approaching train.



(c) Before Single Line Working is put in operation, the Signaller at each end of the Single Line must, when practicable, advise the Signaller at the Box in the rear, and the latter must stop each train proceeding in the direction of the Single Line Working, inform the Engine-driver of the circumstances, and instruct him to proceed cautiously, the trains being accepted by the Signaller at each end of the Single Line in accordance with Clause 6 of the Block Telegraph Regulations.

NOTE.—The Distinctive Badge must be a Red Armlet with the word "Pilotman" shown thereon in white letters thus:—



To be printed on BLUE coloured paper.

(Front of Form.)	
WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.	
PILOTMAN'S CAUTION TICKET.	
Ticket No.....	
Train No.....	
To the Guard and Engine-driver.	
You are authorised to proceed from.....	
..... to..... on the*	
..... Line.	
The last train that left here was.....	
at.....	
Signature of Pilotman.....	
Date.....	
* Insert the word "Up" or "Down," as the case may be.	

(Back of Form.)
Here appears sub-clause (iii.) of clause (a) of Rule 256.

257. Single Line Working should be confined to points at which there are Fixed Signals with a Cross-over road, and at all times to the shortest length possible; but in the event of a Cross-over road not protected by Fixed Signals being used for Single Line Working, a competent man, with the necessary Signals, must be placed at least 1,200 yards beyond the Cross-over road to Signal in place of the Distant Signal, and another man (similarly provided) at the points to Signal in place of the Home Signal. Should the distance of 1,200 yards fall within a tunnel, or close to the mouth of a tunnel nearest to the obstruction, or in any other position where, owing to the formation of the Line, or to some other circumstance, the Engine-driver of an approaching train would be unable to obtain a good and distant view of the Signal, then the Signal must be exhibited at the end of the Tunnel farthest from the Cross-over road, or at such a distance over and above the prescribed distance of 1,200 yards as may be necessary to ensure the Engine-driver obtaining a good and distant view of such Signal.

258. (a) If Telegraph or Telephone Communication is available, the Station-masters or other responsible officials at both ends of the obstructed Section must communicate with each other, by Telegraph or Telephone, and agree as to who shall arrange for Pilot-working.

(b) It will generally be found most expeditious for the Station-master or other responsible official in advance of the obstruction to undertake the arrangements, as he will have the proper Running Line clear on which the Pilotman with the Forms can make his first journey. Under no circumstances must a train or trolley be allowed to run over the Single line in the wrong direction until the Pilotman holds upon his Form the signature of the Signaller at each end of the Single Line Section, and also at any intermediate Signal-box.

(c) A sufficient number of the Forms (see page 289 for specimen Form) provided for the purpose of establishing single line working must be filled up and signed by the Station-master or person arranging the single line working. One of these, signed by the Pilotman, he must deliver, in the presence of the Pilotman, to the Signaller in charge of the Cross-over road at which the Single Line Working commences. One, signed by the Signaller, must be handed to the Pilotman, who must also sign it, and the remainder must be handed to the Pilotman. The Pilotman must then proceed to the other end of the section which has to be worked as a Single line. On his way the Pilotman must verbally inform the persons in charge of the Level Crossings, Repairers, and other men at work on the line, that Single Line Working is about to be commenced, and which Line will be used; he must also leave a copy of the Form (signed by himself) with the person in charge of any intermediate Signal-box or Station then open between the points between which Single Line Working is about to be put into operation, and each of such persons must sign the Form held by the Pilotman. On his arrival at the other end of the Single Line Section the Pilotman must deliver a copy (signed by himself) to the Station-master, and another (also signed by himself) to the Signaller on duty, each of whom must also sign the Form held by the Pilotman. Trains may then be allowed to pass to and fro on the Single Line by the permission and under the control of the Pilotman.

(d) 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.

(e) Should any intermediate Signal-box or Station be opened after Single Line Working has been commenced, the Pilotman must, as soon as practicable, advise the person in charge of such Signal-box or Station that Single Line Working is in operation, and obtain his signature on the Form in the usual way. He must also hand to the Signalman or Station-master a copy of the Single Line Working Form.

(f) All telegraph or telephone messages sent or received in connection with the arrangements for working Single Line must be written on the usual message forms, and telephone messages must be repeated back by the receiving Station, copies of the messages being afterwards forwarded to the authorised officer.

259. (a) When Single Line has to be worked the existing Block System must be cancelled and the Telephone Block System maintained on such section. Should the Telephone instruments fail, no train must be allowed to follow another within the ordinary running time of such section, unless the Signalman can satisfy himself that the section is clear. The Signalman must communicate with the Pilotman, and the Pilotman must instruct the Engine-driver to proceed cautiously.

260. (a) The Signalman at each end of the Single Line must know the man appointed as Pilotman, and must keep at Danger the Signals applicable to trains entering upon the Single Line until both Lines are safe, and the ordinary working of the traffic is resumed; but Engine-drivers may pass the Signals at Danger when so instructed by the Pilotman.

(b) The Fixed Signals at intermediate Boxes must be worked for trains passing over the Single Line in both directions. Where the Lock and Block System is in force the Signalman at intermediate Boxes must, when the Fixed Signals cannot be worked, Hand-signal the Engine-driver past the Signal at Danger when the Line is clear for the train to proceed.

(c) The Pilotman must obtain the permission of the Signalman before allowing a train to enter upon the Single Line.

261. (a) When both Lines are blocked, and it becomes necessary to work trains up to the obstruction on both sides for the transfer of passengers, or any other purpose, Single Line Working must be arranged on both sides, between the nearest Crossover road and the obstruction, a Pilotman being appointed to act on each side in accordance with these Rules.

(b) Two competent men, provided with the necessary Hand Signals and Detonators, must be appointed to protect the obstruction, one on each side.

(c) After making the necessary arrangements for the safety of the passengers and trains, it will be the duty of the Guards and Engine-drivers (if no superior officer be present) to arrange for the passengers being forwarded as soon as possible, acting in strict accordance with these Rules.

(d) When one Line is cleared, arrangements must be made for Single Line Working between the Crossover roads on each side of the obstruction. Both Pilotmen must proceed with the first train over the Line which has been cleared, and the person who is appointed Pilotman for that Line must withdraw all the Single Line Forms previously in use (*see* Relief of Pilotman order, page 289, at the same time that he delivers the new Forms.

262. Trains when working over the Single Line must be run cautiously and at reduced speed, and Engine-drivers must make frequent use of the engine-whistle. When passing through a Tunnel, or after sunset or in foggy weather, they must carry a Red Head Light.

263. (a) All Points which become Facing Points to Trains running over the Single Line must either be held by a competent man appointed to the duty, or so secured as to enable the trains to pass safely over them.

(b) A Flag Signalman, if necessary, must be stationed at the Crossover for the purpose of signalling the trains crossing on to the proper Line. He must lock the Points, and after receiving instructions from the Signalman may exhibit a Green Signal to the Engine-driver of the approaching train.

264. (a) Where there are Catch Points, Station-masters, Signalmen, Pilotmen, and others must take care, before Single Line Working is put in operation over such Catch Points, that a man, provided with proper Signals, is placed at them, with special orders to remain there, and to hold them properly closed or see that they are firmly secured for the safe passage of each facing train, until the order for Single Line Working has been withdrawn, and Double Line Working resumed.

(b.) When a train is approaching Catch Points in the facing direction, the man at the Points must, when they are right for the train to pass over them, give the Engine-driver a Green Signal, held steadily in the hand.

(c.) The Pilotman must satisfy himself that the Engine-driver is aware of the position of the Catch Points.

265. Engine-drivers must not when working Single Line, as above, pass any Catch Points in the facing direction until they have assured themselves that they are in the proper position for their trains to run over, and until they have received a signal to do so from the man at the Points.

266. (a.) 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 (*see* Relief of Pilotman order, page 289. The issue of the new Forms must only be done by the person who arranged the Single Line Working, to whom the new Pilotman must afterwards deliver the old Forms.

(b.) After one Pilotman has been relieved by another, the Pilotman who has been relieved must not ride upon any engine until he resumes duty as Pilotman.

(c.) Should the Signalman be changed during the time Single Line 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 of the Signal-box, countersign the Form held by the Pilotman.

267. (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 instructions as set forth in Staff and Ticket Regulation 16 must be carried out, the Pilotman taking the place of the Train Staff. The Guard must protect his train in accordance with Rule 245.

(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 be with the train, and accompanies the Engine with the first portion, the Driver may return without written instructions from the Guard, and the Guard must protect his train from the advance in accordance with Rule 245.

(d.) If the Pilotman be not accompanying the train, the Driver must not return for the rear portion unless he received written instructions from the Guard authorising him to do so, and the Guard must continue to protect his train in the rear, and prevent a following train from pushing it ahead.

(e.) After sunset, or in foggy weather, 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 100 yards from the front vehicles of the rear portion, to notify the Engine-driver when returning of the position of the remainder of his train.

268. (a.) When the Line is clear, and before ordinary working is resumed, the Station-master who instituted Single Line Working must make out and sign the necessary cancellation orders (see below for specimen form) which must be delivered by the Pilotman to every person who received a Single Line Working Form, such Form to be collected and cancelled by the Pilotman writing the word "Cancelled" across the face of it. All Forms which have been issued for the Single Line Working must be sent to the District Traffic Superintendent.

(b.) The Pilotman, when making his last trip under Single Line Working conditions, must notify all employees concerned along the Line that Double Line Working will be resumed.

(c.) The Pilotman must accompany the first train passing over the Line on which the obstruction existed.

(Form referred to in Rule 258.)

#### WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

#### SINGLE LINE WORKING DURING REPAIRS OR OBSTRUCTION.

*This Form must be filled up and used whenever it is temporarily necessary to work the traffic of a Double Line over a Single Line.*

.....Station.

.....19...

To.....

The.....Line being blocked between.....and.....all Traffic will pass between those two places on the.....Line.

.....will act as Pilotman, and no train must be allowed to pass on to the Single Line 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.

Catch Points exist at....., and arrangements have been made for working as directed in Rule 264.

*If no Catch Points exist, erase this clause.*

(Signed)..... Time.

\*Noted by.....at.....

\*Noted by.....at.....

\*Noted by.....at.....

\*Noted by.....at.....

\*Noted by.....at.....

\*Noted by.....at.....

Noted by....., Pilotman.

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

At least Six of these Forms must be kept in a convenient place at each Block Signal-box where there is a Cross-over road, so as to be available at any moment night or day.

Before Single Line Working is commenced, a copy of this Form must be signed by the Signalman and person in charge at each end of the Single Line, and at each intermediate Signal-box or Station, and be kept by the Pilotman, who must see that each of the employees signing the Form retains a copy for himself.

In the event of a Station-master himself acting as Pilotman, he must address and give a copy of the Form to the person he leaves in charge of his Station.

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

(Form referred to in Rule 268, Clause "a.")

#### WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

#### SINGLE LINE WORKING DURING REPAIRS OR OBSTRUCTION.

#### CANCELLATION ORDER.

.....Station,

.....19...

\*To.....at.....

Single Line Working arrangements made by me at .....on.....19....., for the.....line between.....

.....and.....are hereby cancelled, and ordinary working will be resumed. The Pilotman will accompany the first train passing over the Line on which the obstruction existed after cancelling the Single Line Working.

(Signed).....Station-master.

*\* Each Person who received a Single Line Working Form must also be handed a copy of this order.*

NOTE.—The Pilotman, when cancelling Single Line Working, must notify all employees concerned that Ordinary Working will be resumed.

## WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

## RELIEF OF PILOTMAN.

.....Station,  
 .....19.....  
 \*To.....at.....  
 Pilotman.....  
 appointed by me between.....  
 and.....is now  
 being relieved; new forms are being issued, and  
 .....appointed as Pilot-  
 man.  
 (Signed).....Station-master.

*\* Each person who receives a Single Line Working Form must also be handed a copy of this order.*

## PERMANENT WAY AND WORKS.

269. There must be a Foreman, Ganger, or Leading Repairer for each Gang of Repairers or men engaged on the Permanent-way or on other Works affecting the Running Lines, and the District Inspector of Permanent-way or Works must take care that every such Foreman, Ganger, and Leading Man under his control is provided with a copy of the current Working Time-table, the Appendix thereto, where issued, and the Weekly and any other Notices of the Working arrangements, and that each Foreman, Ganger, Leading Repairer and Repairer is provided with a copy of these Rules.

270. Each Foreman, Ganger, or Leading Repairer, and every man engaged on the Permanent-way or Works affecting the Running Lines must constantly have with him, when on duty, a copy of these Rules and Regulations, which he must produce when required. The Foreman, Ganger, or Leading Man in charge must satisfy himself that every man who is employed in his gang understands the Rules and Regulations, so far as they relate to his duties.

271. Inspectors of Permanent-way, Inspectors of Works, and Works Foremen must take care that all Rules and Regulations are observed, and report any departure from them to the Head of the Branch and the District Engineer.

272. Each Inspector and Works Foreman must have a register of the names and places of residence of all the employees under him in his district, so that in case of accident he may be enabled to summon them immediately to assist in any way that may be required. Should any obstruction take place, or other sudden emergency arise, he must immediately collect the number of men required.

273. (a) Each Gang of Repairers or Labourers working on or adjacent to the Running Line must be supplied by the Inspector of Permanent-way for the district with a Permanent-way Gauge, three Red and three Green Flags, three Hand Signal Lamps, and a proper number of Detonators. Each Ganger will be held responsible for having his Signals constantly in proper order and ready for use. The Flags must be used during daylight, the Lamps after sunset and in foggy weather, and the Detonators whenever necessary to attract the attention of Engine-drivers.

(b) The Red Signal indicates danger and must be used only when it is necessary to stop a train. The Green Signal waved slowly from side to side by Repairers indicates that trains must reduce speed to 10 miles an hour, or such other speed as may be prescribed, over the portion of Line protected by such Green Signal.

274. Foremen, Gangers, Repairers, or other workmen must not, except in cases of emergency, or as provided in Rules 278, 279, 280, 282, and 283, avail themselves of the Fixed Signals, but must, in all cases, use their own Signals for their own purposes.

275. A trolley must not in any case be placed on the Line except by the Permanent-way or Works employees, Interlocking employees, or Railway Telegraph and Telephone Line Repairers and with the knowledge of the Foreman or Ganger who will be held responsible for seeing it properly protected, and used for Departmental purposes only; it must not, under any circumstances, be attached to a train, and when not in use must be taken off the rails, placed well clear of the Line and Road approaches, and the wheels secured with chain and padlock.

276. Before leaving or passing any Station or other place where there are Fixed Signals, or fouling any Junction, the Foreman or Ganger in charge of a trolley must advise the Signalman on duty of the destination of the trolley, and of the work it is going to do, and must not proceed until he has obtained the Signalman's permission, and any information respecting the running of trains.

277. When a trolley is used on a Double Line, it must be taken in the same direction as the trains run, and when conveying material must be followed at a distance of not less than 1,200 yards by a man with Hand Danger Signals and Detonators. On a Single Line, when conveying material the trolley must be protected in both directions.

278. (a) When it is necessary for a trolley to go through any of the Tunnels specially enumerated in the Appendix to the Working Time-table as coming within the application of this Rule, it will be signalled on the Block Instruments in accordance with the authorised Code, and the Signalman at the Box in advance will, if the Line be clear to the Home Signal, give permission for the trolley to approach his Box. No train will be allowed to enter the Tunnel on the same Line until the "Train Arrival" Signal has been received from the Signal-box in advance, to indicate that the trolley has left the Tunnel and has passed the next Block Signal-box or been taken off the rails. Should the trolley, after passing through the Tunnel, be removed from the rails before reaching the next Signal-box, the Ganger must go forward and inform the Signalman that the trolley is clear of the Line.

(b) If, however, time would be saved, the Ganger must return to the Signal-box in the rear, and inform the Signalman that the trolley is clear of the Line; the Signalman will then send the "Cancelling" Signal to the Signal-box in advance.

(c) Trolleys passing through all other Tunnels must be protected solely by the Repairers' own Signals.

(d) Where the Line is worked on the Electric Train Tablet or Electric Train Staff System, the Ganger or Leading Man in charge of the trolley must be in possession of the Tablet or Staff. Should the trolley, after passing through the Tunnel, be removed from the rails before reaching the next Tablet or Staff

Station, the Ganger or Leading Man must take the Tablet or Staff to the Signalman at the end of the Section nearest to him (except when the Tablet cannot be restored to the Instrument from which it was obtained, in which case it must be taken to the Tablet Station at the opposite end of the Section), and he must inform the Signalman that the trolley is clear of the Line and hand the Tablet or Staff to him.

279. (a.) Before any trolley conveying material, or truck, or other obstruction is placed upon the Line, or in the event of any Ballast or other Way and Works train being obliged to remain stationary on the Line, or to move so slowly as to be in danger of being overtaken, the Danger Signal must be plainly exhibited, and three Detonators placed upon the Line, 10 yards apart, at a distance of not less than 1,200 yards from the obstruction, in the direction of any coming train (even if no train is expected), by the Foreman or Ganger, or by a competent man appointed by him to do the duty, who must continue to exhibit the Signal and keep the Detonators on the Line until he receives an order from the Foreman or Ganger to withdraw the Signal; such order, however, must not be sent until the obstruction is completely removed.

(b.) If the obstruction occur on a Single Line of Railway, the Foreman or Ganger must arrange for the Danger Signals to be exhibited and three Detonators placed on the Line, 10 yards apart, not less than 1,200 yards in both directions, unless the obstruction is caused by a Ballast train in possession of the Electric Train Tablet, Electric Train Staff, or Train Staff, when it will not be necessary to send out a Flagman to protect it.

(c.) Should the distance of 1,200 yards fall within a Tunnel, or close to the mouth of a Tunnel nearest to the obstruction, or in any other position where, owing to the formation of the Line or to some other circumstance, the Engine-driver of an approaching train would be unable to obtain a good and distant view of the Hand Danger Signal, then the Signal must be exhibited and Detonators must be placed on the Line at the end of the Tunnel farthest from the obstruction, or at such a distance over and above the prescribed distance of 1,200 yards, as may be necessary to ensure the Engine-driver obtaining a good and distant view of such Signal. Should the obstruction occur near the bottom of or on a heavy descending gradient, the Danger Signal must be displayed at the top of the bank, or as far beyond the top as will ensure a distance of at least 1,200 yards between it and the point of danger.

(d.) Before the person in going back enters the Tunnel, he must place three Detonators on the Line, ten yards apart, at the end of the Tunnel nearest to the obstruction.

(e.) If the person appointed to exhibit the necessary Signals and to place the Detonators on the Line should arrive at a Signal-box before he has reached the prescribed distance, he must request the Signalman in charge of it to keep his Signals at Danger to protect the Line about to be obstructed, and it will not be necessary for him to go farther back, but he must remain at the Signal-box, put down three Detonators, and use his Hand Danger Signals; and the Signalman so instructed must not lower his Signals or allow any train to pass his Box in the direction of the obstruction until the Flagman, or Foreman, or Ganger in charge of the work has informed him that the obstruction has been removed, and that the Line is clear and safe for the passage of trains; the object being that the Signalman and

Repairers shall not show contrary Signals to approaching Engine-drivers.

280. (a.) Before a rail is taken out, or relaying operations are commenced, or in case of any slip or failure of the works, or if from any cause the Line is unsafe, a Flagman appointed for the purpose must go back, exhibiting a Danger Signal, and place three Detonators on the Line, ten yards apart, at a distance of not less than 1,200 yards from the obstruction; in the case of a Single Line, or where the slip or failure affects both Up and Down Lines, this must be done in both directions.

(b.) The Flagman in going out to perform the duty must act in accordance with Rule 279.

(c.) Before a rail is taken out the Repairers must have, at the spot, a perfect rail in readiness to replace it.

(d.) Should the gang of Repairers whose duty it is to replace a rail not be sufficiently large to provide the Flagman required, the Ganger must, after providing for the proper protection at one end, proceed in the opposite direction, and obtain the assistance of the nearest gang, exhibiting Danger Signals to any approaching train, as provided in Rules 245 and 279.

281. (a.) In addition to sending out a Flagman the prescribed distance, as directed in Rules 279 and 280, the Foreman or Ganger must also station near to the working party a second Flagman, who must place two Detonators on the rail, ten yards apart, and exhibit a Danger Signal.

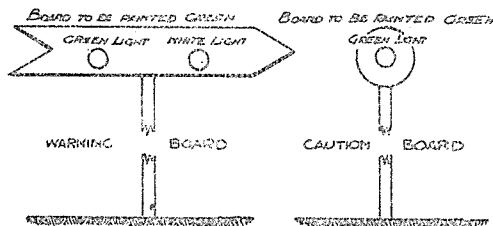
(b.) When the distant Flagman is out of the sight of the Flagman stationed near to the working party, one or more Flagmen, as may be necessary, must be stationed intermediately, for the purpose of repeating to the distant Flagman the Signals exhibited by the home Flagman.

282. (a.) When repairing, lifting, or slewing the Line, or when performing any other operation, or during any other time when it is necessary for a train to travel at reduced speed, the Foreman, Ganger, or Repairer in charge must send a man back at least 800 yards, or as much farther as the circumstances of the case render necessary, who must fix a Detonator on one rail of the Line for which he is signalling, and exhibit a Caution Signal by waving a Green Flag or a Green Light slowly from side to side, so as to be plainly visible to the Engine-driver of an approaching train. On a Single Line, this must be done in both directions.

(b.) If the man in going back should arrive at a Signal-box, or if the work is near to a Signal-box and within the protection of the Home Signal of such Box, he need not proceed beyond the Box, but he must advise the Signalman in charge of it of the necessity for slackening the speed of any train running in the direction of the repairs, and, when the Fixed Signals are lowered, he must himself exhibit the Caution Signal by waving a Green Flag or a Green Light slowly from side to side, so as to be plainly visible to the Engine-driver of the approaching train, but he need not place the Detonator on the rail unless it is necessary to do so to attract the attention of the Engine-driver, as directed in Rule 273.

(c.) In such cases the Signalman must keep his Danger Signals exhibited until the speed of the train has been sufficiently reduced, when he must, if the Block Telegraph or other Rules and Regulations have been complied with, lower his Signals to allow the train to pass.

(d.) Where the necessity for trains to travel at reduced speed continues for a lengthened period, the Chief Engineer Way and Works may dispense with the placing of Detonators on the rails, and also the exhibition of the Hand Caution Signal; and in substitution thereof special Permanent Way "Warning" and "Caution" signals, as per diagram below, must be fixed not less than 800 and 100 yards respectively from the place to be protected, in both directions on a Single Line, and in both directions on a Double Line if both Lines are affected. The "Warning" and "Caution" Signal must be in such a position as to be clearly seen by Engine-drivers. During the night one green and one white light must be placed side by side on the "Warning" Board and a green light on the "Caution" Board, thus—



(e.) Special Permanent Way "Warning" and "Caution" Signals must only be brought into use after due notice has been given in the Weekly Speed or other Notice, as the case may be, indicating the positions of these Signals, and the places to which they refer.

(f.) When re-laying or re-sleepering, or any work entailing the road being broken or rendered unsafe for trains, is being carried out during foggy weather or on sharp curves, etc., where drivers cannot get a good view of the Special Permanent Way signals before passing them, the Special signals must not be relied upon, but hand signals, as provided for in clauses (a) and (b) of this Rule, must be provided in addition to the fixed signals.

(g.) These special signals must never be used in any position where they are liable to conflict with the fixed semaphore signals at stations, junctions, level-crossings, etc.

(h.) In the case of ordinary slackenings the printed directions contained in the Weekly Speed Notice will be held to be sufficient warning to Engine drivers.

283. (a) When it is necessary to obstruct the Line, as described in Rules 279, 280, and 282, between the Up and Down Distant Signals (where Distant Signals are not provided between the Up and Down Home Signals) of any Station, Junction, or intermediate Signal-box, the permission of the Signalman must be first obtained by the Foreman or Ganger and the Fixed Signals applicable to the Line about to be obstructed must not, except as provided in Rule 282, be lowered for a train to pass until the Signalman has been informed by the same Foreman or Ganger, that the Line is again clear and safe for the passage of trains.

(b) Repairers must, in addition, protect their operations in accordance with Rules 279, 280, and 282, or as may be necessary.

284. The times for effecting repairs which involve the stopping of trains must, as far as practicable, be so selected as to interfere as little as possible with the passage of the traffic. Unless absolutely necessary, a rail must not be displaced, nor must any other work be performed by which an obstruction may be caused to the passage of the trains in a fog.

285. Persons in charge of ballast trains must obey the orders of the Station-masters, Traffic Inspectors, and Signalmen, so far as relates to the time of their running on the line.

286. Ballast trains and men employed with such trains, and all extra Gangs must not work on the Running Lines during a fog, except when authorised under special circumstances, and no Ballast train, truck, or trolley must be used, if possible to avoid it, except during daylight, and when the weather is sufficiently clear for a Signal to be distinctly seen at a distance of 800 yards.

287. (a) Any accident to a train or failure of any part of the Works affecting the safety of the Line must be immediately reported by wire to the Chief Engineer Way and Works, the District Engineer, and the Inspector of Permanent Way for the district. The Station-masters on both sides of the point at which the accident or failure has occurred must also be informed, and, in the event of a signal-box intervening between the point of accident or failure and the nearest Station in either direction, the occurrence must be reported to the Signalman on duty.

(b) Any accident resulting in personal injury must be reported by wire to the officers of the Chief Engineer Way and Works, also to the Station-master nearest the accident.

(c) To convey intelligence of or to summon assistance to any accident or failure, a Repairer must be sent as quickly as possible to the next gang in each direction, from which a Repairer must in like manner be sent to the next more distant gang, until information of the accident has by this means reached the nearest Station in each direction, and the necessary assistance has been obtained; the Repairers of each gang proceeding without loss of time to the place at which their services are required.

288. Each Foreman, Ganger, Leading Man, or Repairer, when examining his length of Line, must carry the requisite material to secure loose fastenings, also a Red Flag and six Detonators, and when passing through a Tunnel he must carry a lighted Hand Signal Lamp.

289. (a) Except where otherwise instructed each Foreman, Ganger, Length Runner, Leading Repairer or Repairer must go over his length of Line on foot or by tricycle every morning on week days, and, where trains are run, on Sundays, and tighten up all fastenings that may be loose; and he must examine the Line, Level, and Gauge of the Road, and the state of the Joints, marking, and if necessary, repairing such as are defective.

(b) All Points, Crossings, Hand Locking Gear, and Scotch Blocks must be carefully examined, and, if necessary, adjusted.

(c) Gangers must oil and keep clean the working parts of Points and Signals, unless the duty is otherwise provided for.

(d) They must also take care to maintain proper Scotch Blocks on all Sidings requiring them, and must see that at Level Crossings, ballast, stones, or other obstructions are not allowed to accumulate, so as to interfere with the running of the trains.

(e) They must report to their inspector should they find any hand locking gear or Scotch block not properly secured on any Siding, whether in a Station Yard or elsewhere.

(f) Any obstruction to the proper working of the Signals or Signal wires must be removed, and Broken Signal wires must be temporarily repaired until the regular Signal employee can attend to them.

(g) If any Telegraph or Telephone Pole is in an unsafe state, or any of the Wires are broken, slack, entangled, or touching each other or any building, they must be made safe, and the circumstances reported to the Inspector of Permanent-way. The Foreman, Ganger, or Leading Repairer must also see that all grass, boughs of trees, ballast, and rubbish are removed from the Telegraph, Telephone, and Signal Wires and Point Rods.

290. Each Foreman, Ganger, Leading Repairer, or Flagman must report to the Inspector of Permanent-way every case in which any Signal is disregarded by an Engine-driver.

291. (a) A Special Train to follow is indicated by the preceding train carrying on the rear of the last vehicle a Red Disc or a Red Flag by day, or an additional Red Tail Light by night. On Single Lines a White Disc with Black Cross (in addition to the ordinary White Disc) by day, or a White Tail Light by night, in addition to the Red Tail Light, at the rear of the last vehicle, denotes that a Special train is due to run in the opposite direction over the same Line before the next Ordinary or Special train. As, however, Special trains have frequently to be run without previous notice of any kind it is necessary at all times to be prepared for such extra trains. Repairers are required to look for such Signals.

(b) The additional Tail Signal will not be carried by preceding trains for Special trains of which previous printed notice has been given.

292. In lifting the Permanent-way, no lift must be greater than three inches at once, and then it must be effected in a length of at least twenty yards, in such a manner as not to occasion any sudden change of gradient. When both rails have to be lifted they must be raised equally and at the same time, and the ascent must be made in the direction in which the trains are expected to run, great care being taken, where there is a curve, to preserve the super-elevation of the outer rail.

293. (a) Ballast or other material must not in any case be left higher than rail level inside the wheel gauge, and for a distance of 18 inches on the outside.

(b) The rails must be kept clear of gravel, ballast, or any other material, particularly ashes, which damage iron and steel rails.

294. Blasting must not be allowed on or near the Railways without the authority of the Chief Engineer Way and Works or other authorised officer.

295. Gangers must close and fasten all Occupation Gates they find open, and report the circumstances, in order that the persons who are required to keep such gates closed and fastened may be charged with the penalties.

296. (a) Inspectors in charge of Lines or any works connected with them, or Gangers in charge of lengths, are strictly enjoined to use extreme vigilance as to the safety of the Way and Works during wet weather, thunderstorms, and at times when floods may be expected. Inspectors, Gangers, and if necessary, other employees, must be on duty so long as floods may be expected, and must see every doubtful part of their length before the passing of any train in sufficient time to stop it, if necessary, and this inspection must be continued until all danger from flood or slip is past. When required, special Watchmen and Signalmen must be provided at any spot of which there may be doubt as to the sufficiency of the water-way, or when there is any

reason to believe that special precautions are necessary.

(b) Gangers must report to their Inspectors from time to time the heights of floods on their lengths, marking the levels of same, and at once report any damage to culverts, bridges, etc., for the guidance of the Inspector of Works or Works Foremen.

297. (a) In the event of any fire occurring upon or near the Line, the men employed on the Line must, as soon as they can safely leave the portion of the Line on which they are working take immediate measures for putting the fire out. The circumstances must be reported as provided in Rule 287.

(b) Engine-drivers seeing fire by the side of the Line or on any adjoining land will Signal the fact by giving one short, one long, and one short whistle.

298. (a) Each Foreman or Ganger must keep his portion of the Line clear and safe, and the fences in good repair.

(b) In the event of any sheep, cattle, or other animals getting within the fences, he must immediately remove them, and report the circumstances, with the name of the owner, where it can be ascertained, to the Inspector of Permanent-way, who must forward such report, with his comments, to the Chief Engineer Way and Works.

299. (a) Foremen or Gangers must see that broken chairs, rails, sleepers, or other defective materials are removed from the road with the least possible delay, and that sound materials are substituted.

(b) They must report to the Inspectors of Permanent-way for their district, by telegraph or telephone, when Gates are broken, Semaphores out of order, or any other work that requires immediate attention.

(c) Tools, rails, sleepers, pieces of iron or wood, or other implement or material, must be carefully placed so as to be quite clear of the Line, and not within 4ft. of the rails. Disused materials must be removed from the Line as soon as possible, and where practicable stacked near to the residences of Gangers, Repairers, or Gatekeepers, and not within 6ft. of the nearest rail.

(d) All cases of broken rails must be specially reported to the Inspector of Permanent-way.

(e) Every care must be exercised to see that Guys and Scaffolding are kept a proper clearance from the Line during the erection or repair of Buildings.

300. Each Inspector of Permanent-way is held responsible for the security of rails, chairs, sleepers, and other Permanent-way materials in his district, and for their being kept clear of both Lines, and properly stacked.

301. All tools and implements required for the repair of the Lines must, when not in use, be kept locked up in a building, or in boxes, for the security of which each Foreman or Ganger on his own length of Line is responsible.

302. (a) Each Foreman or Ganger is responsible for collecting any couplings, chains, hooks, pins, iron, or other materials found on the Line, and for having them conveyed to the nearest Station as early as possible.

(b) Old sleepers, timber, and material of all descriptions are not to be sold or disposed of in any way without the authority of the Chief Engineer Way and Works.

303. Luggage, goods, or other articles, not referred to in Rule 302, found on the Line must immediately be taken to the nearest Station-master, and a report made containing the best information that can be obtained respecting the train from which they may have fallen; a special report to be also made to the Inspector of Permanent-way for the district.

304. (a) When a train is approaching, Repairers and other employees at work on the Permanent-way must not remain on any Running Lines, nor between them, if the spaces are less than eleven feet between the inner rails of two lines, but must at once move clear of all Lines, unless they can distinctly see that they are in a position of safety, and in no danger from another train approaching them unobserved; the employees must stop in the positions they have taken up till the train has cleared a sufficient distance to enable them to see that no train is approaching on the other Lines, before they re-cross the rails.

(b) If circumstances compel Platelayers or other employees to remain in the eleven feet space between trains passing on adjoining Lines, they must lie down.

(c) In Tunnels or where the approach of a train cannot be observed or heard in time for the employees to get out of the way, a Flagman or other competent employee must be appointed by the Ganger to give the necessary warning. On Single Lines the working party must be protected in both directions.

(d) The men must also desist from work in cases of fog, when the Foreman, Ganger, or Leading Repairer considers that they would not have sufficient warning of the approach of a train, provided such discontinuance of work does not endanger the safety of the trains.

(e) Where of necessity a Gang of men is working in a fog, the Foreman, Ganger, or Leading Repairer in charge must send out a man in each direction to warn the Gang of the approach of a train, either by shouting or using a loud whistle, and, if the occasion require it, the men sent out must place a Detonator on one rail of the Line on which the train is approaching.

(f) When employees are working singly or in Gangs, on or near Lines in use for traffic, for the purpose of re-laying or repairing the Permanent-way of such Lines, the Foreman, Ganger, or Leading Repairer must, in all cases where any danger is likely to arise, provide one or more employees, as may be necessary, to maintain a good Look-out, and to give warning of any train approaching. The "Look-out" man or men must be expressly instructed to act for such purpose, and must be provided with all appliances necessary to give effect to such "Look-out."

*Note.—Where an authorised apparatus is provided for the purpose of giving warning, it will not be necessary to employ "Look-out" men.*

305. When a Ballast train has to be moved whilst men are in the trucks, the Foreman, Ganger, or Leading Repairer must warn the men, and the Engine-driver must sound his whistle, before the trucks are moved. The Engine-driver must also sound his whistle before reducing the speed preparatory to stopping.

306. (a) Employees working in a Tunnel when trains are approaching in both directions must, if unable to reach any recess in the walls, lie down either in the space between the two Running Lines or between the Line and the side of the Tunnel, until the trains have passed. The width of the space

depends on the construction of the Tunnel, with which every employee must make himself acquainted, in order that he may select the place which affords the greatest safety.

(b) Engine-drivers have instructions that the whistle must be sounded on entering a Tunnel to warn all employees who are working inside, and that it must be repeated occasionally when passing through long Tunnels, and when entering and passing through deep cuttings situated on curves; they also have instructions not to throw out hot water, fire, or cinders whilst passing through a Tunnel, or when passing over Points, Bridges, Level Crossings, and Viaducts. Any omission to comply with these instructions must be reported by the Foreman, Ganger, or Leading Repairer to his Inspector.

307. Should any Repairer perceive the Guard of an approaching train making signals to the Engine-men, he must immediately repeat the Signal, so that the attention of the Engine-driver may be directed to the Guard's van. If any Repairer should perceive any of the doors of the carriages or trucks open, or chains or lashings hanging loose in an approaching train, he must endeavour to direct the attention of the Engine-driver and Guard to the fact by Signal.

308. Except in cases where it is unavoidable, Gangers must see that the Permanent-way and roads in Station-yards which have been opened out during the daytime for the purpose of effecting repairs are filled in, and the ballast levelled off before they leave work at night, so that shunters or others requiring to use the lines after sunset will not be exposed to unnecessary danger. In cases where this cannot be done, Gangers must notify the Traffic employee in charge.

309. On certain Lines instructions will be issued, when necessary, modifying Rules 274, 275, 277, 279, 280, 281, 282, 283, and 304 with reference to sending out Flagmen on these Lines.

310. The Permanent Way Inspector shall walk or tricycle over every length of his section at least once in each month, noting and reporting any defects in the line. He must also travel over it as often as possible either on the engine or in the brake-van.

311. The road is not to be lifted or slewed through tunnels, bridges, or sheds without the use of gauges provided for the purpose, or under special instructions from the District Engineer. All bridges, stations, and other structures are to have the clearance shown on the diagram contained in the Working Appendix.

## APPENDIX I.

### Regulations for the Conveyance by Goods Trains of Explosives and Dangerous Goods.

The following Code of Instructions must be observed by Guards and others with respect to the conveyance of Vehicles containing Explosives and other Dangerous Goods:—

1. While the loading, unloading, or conveyance of Explosives or other Dangerous Goods is going on, each person engaged in such loading, unloading, or conveyance must observe all necessary precautions for the prevention of accident by fire or explosion; must not allow any unauthorised person to have access to such goods; must abstain from smoking or any act whatever which tends to cause fire or explosion and is not reasonably necessary for the loading, unloading, or conveyance, and must prevent any other

person from committing any such act. Further, he must not have upon him any matches.

2. Inflammable Liquids, Oily Rags, Oily Waste, Oily Paper, Oily Canvas, Oily Mill Sweepings, and similar Goods must be loaded in separate trucks (iron-bottomed trucks being used in all cases when available), which must be kept as far away as practicable from others containing goods, and such trucks must not be placed within the Sheds or Warehouses.

3. (a.) In loading or unloading any Explosive, the casks and packages containing the same must, as far as practicable, be passed from hand to hand, and not be rolled upon the platform or ground, and in no case must any such casks or packages be rolled unless clean hides, cloths, or sheets have been previously laid down on the platform or ground over which the same are to be rolled. Casks or packages containing Explosives must not be thrown or dropped, but must be carefully deposited and stowed.

(b.) The loading or unloading of Explosives into or out of any vehicle, when once begun, shall be continued with all due diligence until the same is completed.

4. Powder Vans must in every case be locked when sent loaded with Explosives.

5. On each side of any vehicle containing Explosive matter there must be affixed, in conspicuous characters, by means of a securely attached label or otherwise, the word "Explosive," and on no account must vehicles containing Explosives or other Dangerous Goods be allowed to travel unless it is labelled on each side, in order that the Guard may be aware of the contents.

6. Whenever vehicles containing Explosives, Inflammable Liquids, or other Dangerous Goods have to be forwarded by train, the special attention of the Guard in charge of the train must be called to the vehicles by a duly authorised person, and the Guard will be held responsible for the proper observance of these instructions while the goods are being conveyed on the train, and until they are delivered into the safe custody of the Station staff.

7. The vehicles must be placed as far as practicable from the engine, and no fire must be allowed in the Guard's Brake-van when any vehicles containing such Goods are attached to the train, and not more than five bogie vehicles or equal in four-wheeled vehicles, containing Explosives must be conveyed by any one train at any one time.

8. Vehicles containing Oil or other traffic of an Inflammable nature must not be put on the train near to vehicles containing Powder or other Explosive.

9. Detonators and Fireworks must not be loaded together, nor must either be loaded with other explosives; nor must Acids of any description, or Lucifer Matches, Vestas, or other goods of a dangerous nature be loaded with Explosives.

10. At every Station at which a train stops, the Guard in charge must make a special examination of the trucks containing any description of Explosives or other Dangerous Goods, and must more especially examine the axle-boxes, and, if the axles show the least sign of heating, the truck must be detached, and the attention of the Station-master or Train-examiner specially directed to it. In the event of it being necessary to detach, as unfit to travel, any such vehicle at any point short of its destination, the Guard must advise the Station-master where the vehicle is detached, in order that the necessary precautions may be taken by all concerned in dealing with the defective vehicle.

11. Gunpowder or other Explosives for Branch line Stations, or for any Station not on the direct route to be taken by the Van, must not be sent in small lots requiring transhipment, except they be enclosed in portable magazines, and when Gunpowder or other Explosives requiring transhipment arrive at a Junction, the transhipment must be effected as speedily as possible.

12. Before detaching at the end of the journey, or at Exchange Sidings, vehicles containing any description of Explosives or Dangerous Goods, the Guard in charge of the train must call the special attention of a duly authorised person, and obtain his instructions as to the disposal of the vehicles.

13. Explosives and other Dangerous Goods must not, except where special instructions are given to the contrary, be carried by trains conveying passengers.

14. Loose shunting of vehicles containing Explosives is strictly prohibited, neither must any vehicle be loose shunted against vehicles containing Explosives.

## APPENDIX II.

### General Regulations for working the Vacuum Automatic Brake.

1. DESCRIPTION.—The Vacuum Automatic Brake is continuous throughout the train, vehicles carrying their own Brake apparatus are connected by a branch-pipe to the train-pipe.

2. HOW APPLIED AND TAKEN OFF.—(a.) The Brake is applied by the Engine-driver admitting air into the train-pipe.

(b.) The Brake is taken off by closing the air valve and restoring the vacuum to the same amount as existed before it was applied.

(c.) The Brake must be applied steadily, which can be done by opening the application valve gradually, but in case of emergency the valve must be opened suddenly.

(d.) In case of emergency, the Brake can also be applied by the Guard opening the valve in his van, which must be kept open until the needle of the gauge goes to zero. The Guard must use his discretion as to applying the Brake fully or gradually, as circumstances may require. The application of the Brake on the train also applies the Brake on the engine.

(e.) Should a train become accidentally divided, the Brake-pipes will be disconnected, and the Brake will go on through each portion of the train.

3. STARTING.—(a.) The Brake-pipes between the engine and train and between each vehicle must be properly connected, and the pipe at the rear end must be put carefully on the stop plug.

(b.) When the Brake-pipes have been connected the Engine-driver must create the required vacuum and maintain it throughout the journey.

(c.) When the engine has been attached to the train, or an engine is changed, or an additional engine or any vehicle is attached or detached, the Rear Guard must ascertain whether the Brake is coupled up and in working order throughout the train and between the train and engine. This must be done by opening the Brake-valve in the rear van, when, if there be an inrush of air through the valve, the Brake will be all right; but if no inrush takes place, the Guard must inform the Engine-driver that there is no vacuum in his van, and must see that a proper amount of vacuum is registered in his van before giving the Engine-driver a signal to start.

(d.) The Engine-driver must accept the signal to start given by the Guard, not only as an order to proceed, but as an assurance that the Brake is in proper order, and that the gauge in the rear van indicates the required vacuum, not less than 18 inches on Passenger Train, and 15 inches on Mixed and Goods Trains. He must, before starting, also satisfy himself that the gauge on the engine indicates the required vacuum.

(e) Passenger trains must be composed of all vacuum cylinder vehicles. Some Goods vehicles are fitted with vacuum train pipes only, and some with cylinder apparatus. The proportion of cylinder vehicles on Mixed and Goods trains must not be less than one in four.

(f.) The Head Guard must, before starting, and at places where the engine is changed, or any vehicle is attached or detached, inform the Engine-driver the number of vehicles there are on the train, and in the event of the Brake not being in operation on the whole of them, upon how many it cannot be applied. In each case the Engine-driver must obtain this information from the Guard before he proceeds on his journey.

(g.) The instructions contained in the preceding paragraph do not apply to trains running daily with the formation unaltered and the Brake complete. If, however, the formation is altered or any vehicle is attached or detached, the Guard and Engine-driver must communicate with each other.

(h.) When the engine is attached to the train it is the duty of the appointed person to connect the Brake-pipe on the engine to that on the train, and when the engine is detached it is his duty to place the Brake-pipe of the engine and front vehicle on to the stop plug provided for the purpose.

(i.) Should the Engine-driver not be able to create the required vacuum, he must, after satisfying himself that his engine is all right, at once inform the Guard and Station Staff, so that an examination may be made of the train, and the Brake on any vehicle cut out, or such vehicle detached, or any other steps taken that may be necessary.

(j.) Guards must screw the Hand Brakes clear off before starting, and affix the Brake chain or strap, where provided, to prevent the Hand Brake working on.

4. DURING JOURNEY.—(a.) If during the journey the Guard finds that the gauge in his van shows less than the required vacuum (unless he is satisfied that such is caused by the Engine-driver applying the Brake), he must be prepared to apply his Hand Brake as may be required.

(b.) The Engine-driver and Guard must report any irregularity in connection with the working of the Brake or defect in its action, or other special circumstance, and the Guard must also note the particulars in his journal.

(c.) Where vehicles have to be attached or detached, the vacuum in the train-pipes must be destroyed by opening the application valve on the engine or in the nearest Brake-van.

(d.) If the Engine-driver is unable to work the Vacuum Brake it must be cut off, and the train worked by Hand Brakes only, the speed being so regulated as to enable the Engine-driver to have full control of the train by the Hand Brakes. In all such cases the Guards must be on the alert, and assist in stopping the train with their Hand Brakes.

(e) When two engines are attached to a train both engines must be utilised to maintain the vacuum. The Driver of the leading engine will be held responsible for the working of the Vacuum Brake, but the driver

of the second engine must, in case of need, assist in stopping or reducing the speed of the train by applying the Vacuum or Hand Brake as may be required.

5. STOPPING.—(a) The Vacuum Brake must be used for the ordinary stoppage of the train by the Engine-driver, who must apply it gradually, and not suddenly nor with full force, except in case of emergency.

(b) The large ejector may be used to raise a vacuum rapidly, or when the Brake requires to be taken off quickly.

(c) Steam must not be applied to move the train forward after the Brake has been applied, either slightly or fully, until the Brake has been released throughout the train.

(d) The working of the Vacuum Brake by the Engine-driver will not relieve the Guards from any responsibility. They must as far as practicable keep a good look-out and be prepared to apply the Hand Brake when necessary.

(e) Engine-drivers must satisfy themselves that the Vacuum Brake is in proper working order before starting, and at each Station where the engine is changed or uncoupled, or where any vehicle is attached or detached. It must also be tested before descending steep inclines, and before passing the Distant Signal of any Terminus or other principal Station, or a Crossing Station on a Single Line at which the train has to stop, and the speed of the train must be reduced by it. Engine-drivers must enter such Stations, or a Dead-end Bay at any Station, at such a speed as to enable them to stop the train at the proper place by the application of the ordinary Hand Brake only, and Guards must watch the speed of the trains and assist the Engine-drivers by the use of the Hand Brake when necessary.

(f) Unless the Vacuum Brake is working properly when thus tried, the Engine-driver must whistle for the Guard's Hand Brake, stop the train, and inform the Guard that the Vacuum Brake is out of order, and that the Hand Brake must be relied upon for working the train. Special care must then be taken in approaching Stations at which the train has to stop.

(g) In the case of a train becoming divided, the Guard in the rear van must put his Hand Brake hard on, and secure it with the chain or strap, where provided, before going back to protect his train. He must also take any other measure that may be necessary to prevent the rear portion moving.

6. RELEASING BRAKE.—To release the Brake on any vehicle the cord or wire (the position of which is indicated by a star or the letter "V" on the side of each vehicle) must be pulled, the Brake-pipe at the end of the vehicle or train being first uncoupled or removed from the stop-plug. The cord or wire must always be held by hand until the Brake comes off, and must never be fastened over.

7. VEHICLES PLACED IN SIDINGS.—When vehicles fitted with the Vacuum Brake are placed in Sidings, the Vacuum Brake must be released, and when it is necessary that a Brake should be applied for the purpose of keeping the vehicles from moving, the ordinary Hand Brakes must be used, supplemented by scotches or sprags if necessary.

8. GENERAL.—(a) Vacuum Brake pipes when not in use must not be left loose, but must be properly secured on the stop-plugs provided for the purpose.

(b) To couple the hose-pipes they must be taken one in each hand and lifted sufficiently high to hook the bottom horns of the couplings together first, and

then when lowered the top horns of the couplings will fall in the slots.

(c) To uncouple the hose-pipes they must be lifted straight up, when the horns at the top will come out of the slots, and the couplings will separate.

(d) When connecting or disconnecting Brake-pipes the men must be careful not to have in their hands waste or anything that might be taken into the pipes by the inrush of air.

(e) Care must be taken in uncoupling or coupling Brake-pipes that the washers are not displaced or lost.

(f) Shunters, Porters, and others are cautioned that in passing between vehicles they must not step on the Brake-pipes, or interfere with or damage the couplings.

(g) When vehicles are being moved by an engine for the purpose of being attached to a Passenger train, the Continuous Brake-pipes must be connected so that the Brake may be available during the operation.

(h) Any frozen snow or ice with which the hose-pipe, couplings, or plugs may have become coated must be cleaned off before attempting to couple them so that the india-rubber washers may meet properly and be air-tight.

(i) Guards and others concerned must take care that articles are not placed in Guards' vans in such a position as to be liable to come in contact with the Lever of the Brake apparatus.

(j) When any difficulty occurs in maintaining or working the Vacuum Brake the Train Examiner's attention must at once be directed to same.

### APPENDIX III.

#### Regulations for working the Communication Chain between Passenger, Guard, and Driver by means of the Continuous Brake.

1. The apparatus consists of a Continuous Chain running through Pipes under the roof of each Carriage, with openings opposite each compartment to enable the Chain to be pulled. The Chain is connected to a rod fixed outside across one end of the carriage.

2. The Guard must ascertain if any carriages fitted with the Passenger Communication Gear are on his train, and in the event of there being any, he must inform the Engine-driver, and when there is an Assistant Engine in the rear the Driver of that Engine also.

3. When the Chain is pulled by a Passenger the rod is turned, causing the application of the Brake sufficiently to attract the attention of the Driver and Guard, but not enough to stop the train suddenly. At the same time a Red Disc at one end of, and outside, the carriage is turned from a horizontal to a vertical position, indicating the Carriage in which the Chain has been pulled. The compartment will be indicated by the Signal Chain hanging loose.

4. (a) When the driver observes that the Brake is being applied he must infer that the Communication has been used, and must stop his train with as little delay as possible, having due regard to Rule 253. He must, however, exercise discretion in stopping, it being undesirable to bring the train to a stand on a Bridge, or a Viaduct, on Catch Points, or in a tunnel, or other places of a similar character.

(b) If the Guard should have reason to think the Communication Chain has been pulled, but not

noticed by the Driver, he should take steps to stop the train by the application of the Brake from his Van, bearing in mind the instructions laid down in Clause (a).

5. When the train has been brought to a stand it must be protected, as prescribed in the Rules and Regulations, and when it is not under the protection of Fixed Signals, and there is only one Guard, the Fireman must go back and protect the train, whilst the Guard attends to the requirements of the Passenger who used the Communication.

6. (a) The Guard, Under Guard, or Conductor, as the case may be, must take steps to ascertain why and by whom the Communication has been applied, and should the alarm have been mischievously given or for an insufficient cause, the names and addresses of all Passengers in the compartment must be taken, in order that the offending Passenger may be properly dealt with.

(b) If an Under Guard or a Conductor be on the train, he must take steps to ascertain why and by whom the Communication has been applied, whilst the Guard protects his train, in accordance with the Rules and Regulations.

7. The Guard must report all cases in which the Communication is used on the journey, and any failure in its action.

8. Before re-starting the train the Guard must see that the Red Discs are in the horizontal position.

### APPENDIX IV.

#### Regulations for Working Single Lines of Railway by Train Staff and Ticket.

1. A Train Staff or Train Staff Ticket must be carried with each train, except as provided in Regulations 5, 16, and 28 to 40 of this Appendix, and no train must be permitted to leave any Staff Station with a Train Staff Ticket, unless the Staff for that portion of the Line over which it is to travel is then at the Station.

2. All Points on a Single Line that become Facing Points to trains running in either direction, if not interlocked, must either be padlocked or securely held by hand for the safe passage of trains.

3. (a) The Danger Signal must always be kept exhibited at all the Fixed Signals at Staff Stations and Block Telegraph Signal-boxes (where Block Telegraph Working is in operation) on Single Lines except when it is necessary to lower or turn them off for a train to pass; and, before any Signal is lowered or turned off, care must be taken to ascertain that the Line on which the train is about to run is clear, and properly protected.

(b) At places which are not Staff Stations or Block Telegraph Signal-boxes, the All Right Signal must, unless instructions to the contrary are issued, be kept exhibited at the Fixed Signals (where such Signals are provided) except when required to be placed at Danger.

(c) When trains which have to cross each other are approaching a Staff Station at the same time in opposite directions, the Signals in both directions must be kept at Danger, 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 lowered to allow it to draw forward to the Station or to the Starting Signal, and, after it has come to a stand and the

Signalman has seen that the Line on which the other train will arrive is quite clear, the necessary Signals for that train may then be lowered.

(d) When a train is approaching a Staff Station, and the Staff for the Section in advance is not at that Station, all Fixed Signals applicable to the Line upon which such train has to run must be kept at Danger until the train is close up to the Home Signal and well under control when the Home Signal may, if necessary, be lowered to allow the train to enter the Station.

4. (a) The Single Line outside the Home Signal must not be fouled after permission has been given for a train to approach from the opposite end of the Section.

(b) Permission must not be given for a train to approach from the opposite end of the Section when there is any obstruction upon the Single Line outside the Home Signal.

(c) Except as shown below, and when special instructions are issued to the contrary by the Chief Traffic Manager, a train must not be allowed to foul the Single Line for Station work outside the Home Signal applicable to a train approaching from the opposite end of the Section, unless the Engine-driver is in possession of the Staff for the Section so fouled.

EXCEPTION (i).—If permission has not been given for a train to approach from the opposite end of the Section, the Signalman may, if necessary, allow the Single Line to be fouled, but before doing so he must obtain permission from the Signalman at the opposite end of Section.

When the Single Line is again clear, he must advise the Signalman at the opposite end of Section.

The Single Line may, if necessary for Station work, be fouled at both ends of the same Section at the same time, provided no train is in the Section, and permission has been obtained from the Signalman at the opposite end of the Section.

(ii) If a train is travelling in the Section away from the Station at which shunting operations have to be performed, and it is necessary to foul the Single Line outside the Home Signal, this may be done; but immediately the **Train Arrival** has been received for that train, the Signalman must, if the Single Line is still fouled, advise the Station at the opposite end of the Section, and after the Line is again clear he must send an **Obstruction Removed** message.

If the train in the Section ahead is a Ballast train working in the Section, and is intended to return back to the Station without going to the Station in advance, shunting outside the Home Signal must not be permitted until a man with Hand Signals and Detonators has been sent to protect such shunting.

(d) Unless special permission is given by the Chief Traffic Manager, no train or vehicle must be placed outside a Home Signal where the Line is on a falling gradient towards the Staff Station in the rear, and then only if there is a man in the leading vehicle in a position to prevent a runaway by using the Brakes.

(e) A train or vehicles must not be placed beyond the sight of the Signalman, nor outside the Distant Signal.

(f) When the obstruction has been removed and the Main Line or Lines are again clear, the Signalman at the Staff Station in the rear must be advised.

(g) The Signalmen asking and giving permission to foul the Line outside the Home Signal must make a note of the circumstance in their Train Register Books.

(h) Where there is an Intermediate Station or Siding between two Staff Stations which requires to be worked in such a manner as to necessitate the engine returning with the Staff to the Station from which it was obtained, and there delivering it up, the following instruction must be strictly adhered to:—

The engine requiring to shunt an Intermediate Station or Siding must be signalled and dealt with in the ordinary way as if it were intended to pass through the Section. After the engine has returned from the Station or Siding and delivered up the Staff, the Station in advance must be advised of the circumstances. The times must all be recorded in the Train Register Book at each end. The Station at the other end of the Section must be kept informed on the Speaking Instrument of the circumstances.

NOTE.—An Engine-driver must not, under any circumstances, foul the Single Line outside the Home Signal for Station work unless he is in possession of the Staff or the written authority of the Signalman to do so.

The authority must be collected from the Engine-driver immediately the work is completed or when the Signalman desires to withdraw it; before the authority is withdrawn the whole of the train must be again brought under the protection of the Home Signal. When the authority is withdrawn the word "Cancelled" must at once be written in ink across the face of it. The cancelled authorities must be sent at the close of each month to the District Traffic Superintendent.

5. No train must shunt for another train to pass except at a Train Staff Station, unless special instructions are issued by the Chief Traffic Manager.

6. The Signalman for the time being is the sole person authorised to receive and deliver the Staff or Ticket.

7. When a train is ready to start from a Station and no second train is intended to follow before the Staff will be required for a train in the opposite direction, the Signalman must give the Staff to the Engine-driver, who will then place it in the Train Staff socket, where provided on the engine.

8. (a) If other trains are intended to follow in succession before the Staff can be returned, a Ticket indicating that the Staff is following must be given by the Signalman to the Engine-driver of the first train, the Staff for the Section being shown to him at the same time, and so on with any other train except the last, the Staff itself being given to the Engine-driver of the last train, as directed in the preceding Regulation. The Signalman who hands the Ticket to the Engine-driver must satisfy himself that the train has gone with such Ticket before he allows another train to follow. After the Staff has been sent away no other train must, under any circumstances, leave the Station to follow in the same direction until the Staff for that Section has been returned, except as provided in Regulations 5, and 28 to 40 of this Appendix.

(b) The Signalman must consider it his first duty to deal with the Train Staff or Ticket on arrival of the Train, and at Crossing places must satisfy himself that the train running in the one direction has arrived complete with the Tail Disc or Light on the last vehicle before handing over the Staff or Ticket to the Engine-driver about to travel in the opposite direction.

(c) When trains or engines stop at Staff Stations, or before leaving Termini, Signalmen should, where practicable, see that the Tail Signals are in proper order, so as to avoid as far as possible the trains

being unnecessarily stopped at the Station in advance owing to the absence of the Tail Disc or Light.

9. (a) No train must be permitted to leave a Station until the Engine-driver has received the proper Staff or Ticket for that Section of the Line over which he is about to travel (except as provided in Regulations 5, 16, and 28 to 40 of this Appendix) and he must not take the Staff or Ticket from any other than the Signaller for the time being. After receiving the Staff or Ticket he must not start until the proper Signals have been exhibited, and, when with a train, not until a signal has also been given by the Guard. On arriving at the Station to which the Staff or Ticket extends, such Staff or Ticket must immediately be given up to the Signaller. All Tickets so given up must be at once cancelled by the word "cancelled" being written in ink across the face of them. The cancelled tickets must be sent, at the close of each month, to the District Traffic Superintendent.

(b) The Engine-driver must be careful not to take the Staff or Ticket beyond the Staff Station at which it should be left.

(c) If the Signaller receives a wrong Staff he must return it by the most expeditious means; but a train must not be used for the purpose unless the person returning with the wrong Staff is also in possession of the proper Staff. The circumstances must be promptly reported to the District Traffic Superintendent.

10. When a train is an unusually long time in a Section the Signaller at both ends of the Section must take the necessary action with a view to ascertain the cause, and immediately communicate with the Station-master.

11. Each Staff has engraved or marked on it the name of the Staff Station at each end of the Section to which only it applies. The Staffs, Boxes, and Tickets for the adjoining Sections are painted and printed respectively in different colours.

12. (a) The Tickets must be kept in the proper Ticket-box fastened by an inside spring, the key to open the Box being the Staff for the same section as the Box, so that if the Ticket-box is kept locked, for which the Signaller will be held strictly responsible, access to the Tickets cannot be obtained unless the proper Staff for the Section is then at the Station.

(b) Staff Tickets must be issued in the order of their progressive numbers after being duly signed by the Signaller.

(c) Only one Ticket must be taken from the Staff-box at the same time. The Box must be locked after each Ticket is taken out, and not again opened until it is necessary to obtain another Ticket for a following train.

13. (a) All spare Tickets must be kept under lock and key, and in the care of the Station-master.

(b) The Staff, when at the Station, must not be kept in the Box, but on the brackets outside of it.

14. (a) Should a Train Staff be lost, the Station-masters at both ends of the Section must communicate with each other and make arrangements to work the traffic over the Section to which the Staff belongs by Pilotman; Block Telegraph or Telephone Working, where in operation, being maintained.

If the Telegraph or Telephone communication is available, they must communicate with each other by telegraph or telephone (the communication being written on the proper forms, in the usual way), and agree as to who shall arrange for Pilot-working, and as soon as a definite understanding has been arrived at, the Station-master who undertakes to make the

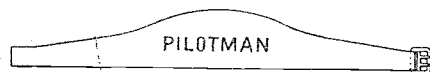
arrangements for working by Pilotman must fill up and sign a sufficient number of the forms (*see* specimen form at end of Regulation) provided for the purpose of establishing working by Pilotman until the Staff has been found, or a Relieving Staff and Boxes have been supplied; one of these forms, signed by the Pilotman, he must deliver, in the presence of the Pilotman, to the Signaller at the Staff Station at his end of the Section. One signed by the Signaller must be handed to the Pilotman, who must also sign it, and the remainder must be handed to the Pilotman. The Pilotman must then proceed as quickly as possible to the other end of the Section, using the best means at his disposal for the purpose—but must not use an engine or any railway vehicle, other than a tricycle or trolley. He must leave a copy of the form, signed by himself, with the person in charge of any intermediate Signal-box or Station then open between the points between which Pilot Working is about to be put into operation, and each of such persons must sign the Form held by the Pilotman. On his arrival at the other end of the Section the Pilotman must deliver one of the forms (signed by himself) to the Station-master, and another (also signed by himself) to the Signaller on duty, each of whom must also sign the form held by the Pilotman. Afterwards trains may be allowed to enter the Section in accordance with the following instructions:—

(i.) The Pilotman must inform the Engine-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, he must furnish the Engine-driver in charge of each train not accompanied by himself, with one of the printed Pilotman's Caution Tickets (*see* page 129 for specimen Ticket), properly filled up and signed, must personally start such trains, and himself accompany the last train. The Tickets granted in these cases will apply only to the single journey to the other end of the Section, where they must be immediately given up to the Signaller, who must at once cancel them by writing the word "Cancelled" across the face of the Ticket, and after ordinary working has been resumed they must be forwarded to the District Traffic Superintendent with a report giving full particulars. In the event of the Telegraph or Telephone Instrument failing, no train must be allowed to follow another within the ordinary running time of the Section (unless the Signaller can satisfy himself that the Section is clear). The Signaller must communicate with the Pilotman, and the Pilotman must instruct the Engine-driver to proceed cautiously.

(ii.) Staff-locked Intermediate Sidings controlled by means of the Staff must only be worked by trains accompanied by the Pilotman (except as provided for in Subsection iii.). The Signal Employee must also accompany the train and open the locks at the Sidings with a "Master Key" by direction of the Pilotman. After the shunting has been completed, the Signal Employee and Pilotman will be held responsible for the points being properly set and secured for the Running Line.

(iii.) At stations where a Special Siding Key is provided (*see* Regulation 24) and such is available the Signal Employee need not accompany the train, and the Intermediate Siding may be worked by trains accompanied by the Pilotman, or travelling on a Pilot Ticket.

(b.) 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. The Regulation Badge is a Red Armet with the word "Pilotman" shown thereon in white letters, thus:—



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.

(c.) 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. (See Relief of Pilotman Order, page 140.) The issue of the new forms must only be done by the person who arranged the Pilot-working, to whom the new Pilotman must afterwards deliver the old forms.

(d.) After one Pilotman has been relieved by another, the Pilotman who has been relieved must not ride upon any engine until he resumes duty as Pilotman.

(e.) 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. He must, before taking charge, countersign the form held by the Pilotman.

(f.) Signallers must not, on any account, lower their Signals to 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. The Pilotman must obtain permission of the Signaller before allowing a train to enter the Section that is being worked by Pilot.

(g.) When the Staff is again found, or a Relieving Staff and Boxes have been supplied, the Pilotman must withdraw the notice for Pilot-working (see Regulation 21) at one end of the Section, then take the found, or new Staff from that end of the Section to the other end of the Section, and after delivering it to the Signaller there, and withdrawing the notice for Pilot-working, the traffic will be again conducted in accordance with these Regulations, and all forms which have been issued for Pilot-working must be collected, cancelled, and sent to the District Traffic Superintendent.

(h.) If the missing Staff be found while Pilot-working is in force it must be handed (or "booked" as a value parcel) to the Station-master who established Pilot-working, who must make arrangements for the ordinary working to be resumed. Should, however, a Relief Staff and Boxes have been supplied and brought into use and the Staff is subsequently found, it must be secured under lock and key, and the District Traffic Superintendent advised by wire, who will make whatever arrangements may be required for withdrawing the Relief Staff and Boxes.

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

(Form referred to in Regulation 14.)

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

TRAIN STAFF AND TICKET SYSTEM.

WORKING OF SINGLE LINES BY PILOTMAN DURING FAILURE OF APPARATUS.

This Form must be filled up and used whenever it is temporarily necessary, owing to the loss of Train Staff to work the Traffic by Pilotman.

.....Station.

.....19.....

To.....

The Train Staff between..... and..... having been lost, all traffic between those two places will be worked by Pilotman, in accordance with Regulation 14 for Train-Signalling on Single Lines of Railway worked on the Train Staff and Ticket System.

..... 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)..... Time.

\*Noted by.....at.....

\*Noted by.....at.....

\*Noted by.....at.....

\*Noted by.....at.....

\*Noted by.....at.....

\*Noted by.....at.....

Noted by..... Pilotman.

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

At least six of these Forms must be kept in a convenient place at each Staff 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 and person in charge at each end of the Section, and be kept by the Pilotman, who must see that each of the employees signing the Form retains a copy for himself.

If there is an intermediate Signal Box, which is not a Staff Station, the Signaller or person in charge must be supplied with a copy of the Form, and his signature obtained on Pilotman's Form.

In the event of a Station-master himself acting as Pilotman, he must address and give the Form to the person he leaves in charge of his Station.

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

*Front of Pilotman's Caution Ticket referred to  
in these Regulations.*

*(To be printed on BLUE coloured paper.)*

(Front of Form.)

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

PILOTMAN'S CAUTION TICKET.

Ticket No.....

Train No.....

To the Guard and Engine-Driver.

You are authorised to proceed from.....

.....to.....

The last train that left here was.....

.....at.....

Signature of Pilotman.....

Date.....

(Back of Form.)

The Pilotman's Caution Ticket will apply only to a single journey to the other end of the Section, where it must be given up by the Engine-driver to the Station-master, who must cancel the ticket by writing the word "Cancelled" across the face of it, and forward it to the District Traffic Superintendent.

15. (a) When any train is assisted by a second engine in the front, and such train has to carry the Staff, the Staff must be carried by the second engine. In cases where the train is to be followed by another train, the second engine must carry the Ticket. When the assistant engine is behind, pushing the train, the assistant engine must carry the Staff, except in cases where the train and assistant engine are travelling over the entire length of the Section and have to be followed by another train, when the assistant engine must carry the Ticket. When the assistant engine is allowed, by the authority of the Chief Traffic Manager, to return to the Station from which it started, without running through the entire Section, it must always carry the Staff, and the train engine a Ticket.

(b) When a train has more than one engine, or when two or more light engines are coupled together, the Staff or Ticket must be shown to each Engine-driver, and delivered to, and carried by, the Driver of the last engine.

(c) When passing Staff Stations at which trains are not required to stop, Drivers must reduce speed so as to permit of their receiving and delivering the Train Staff or Ticket.

16. (a) In the event of an engine which carries the Staff breaking down between two Stations, the Fireman must take the Staff to the Staff Station in the direction whence assistance can be obtained or is expected, in order that the Staff may be at the Station on arrival of the Relief engine; and the Station-master of the Station to which the Staff is taken will be held responsible for carrying out all special arrangements necessary during the continuance of the obstruction. The Fireman of the disabled engine must not allow the Staff to pass out of his possession until he hands it to the Engine-driver of the Relief engine, and accompanies him to the place where he left his own engine. The Engine-driver of the Relief engine, after removing the disabled en-

gine, or engine and train, clear of the Running Line, must deliver the Staff to the Signalman at either end of the Section.

(b) Should the engine that fails be in possession of a Ticket instead of the Staff, the following instructions will apply:—

(i.) If at the time of failure the train is nearer or within reasonable distance of the Staff Station in the rear, the Driver must send his Fireman with the Ticket to that Station, and the Station-master there must cancel the Ticket and will be held responsible for making all necessary arrangements for relief under these Regulations, transferring the Staff to the other end of the Section if necessary, and the Fireman must accompany the Relief engine to the place where he left his own engine. The Guard must protect the obstruction until relief arrives.

(ii.) If assistance can be more readily obtained from the Station in advance, or the Break-down be nearer to that Station than to the Station in the rear, the Engine-driver must write out an authority (see Form at end of Regulation) to the Signalman at the Station in advance, stating the nature of the failure, the place where it has occurred, and authorising the Signalman to allow a Relief engine to proceed to remove the disabled engine or engine and train. The Fireman of the disabled train must hand the written authority to the Signalman and accompany the Relief engine or the Break-down Van Train to his train, advising the Engine-driver where and under what circumstances the disabled train is situated, and the Signalman must show the authority to the Driver before allowing the Relief engine or Break-down Van Train to proceed to the disabled train.

(iii.) The Fireman, when proceeding for assistance must place Detonators on the Line, as directed in Rule 245 of the Book of Rules and Regulations, and the Guard must similarly protect his train in the opposite direction. Should the stoppage or failure occur to an Engine not attached to a train, the Fireman must at once place Detonators on the line in one direction before he proceeds in the opposite direction for assistance.

(iv.) Should there be no Relief engine at the Station in advance, the Station-master there must confer by Telegraph or Telephone with the Station-master at the Station in the rear, stating the nature of the failure and the place where it has occurred. The Station-master at the Station in the rear must then make the necessary arrangements for sending a Relief engine with the Staff. The Signalman at the rear Station must hand the Staff to the Engine-driver of the Relief engine and an order stating where and under what circumstances the disabled train is situated, the Engine-driver must sign for this order on a copy held by the Signalman. The Driver of the Relief engine must not allow the Staff to pass out of his possession until the disabled engine with the whole of the train is removed clear of the Section. The Engine-driver of the disabled train, after giving the order for the Relief engine or the Break-down Van Train to come to his assistance, must not allow his train to be moved until the Relief engine or the Break-down Van Train arrives, unless satisfactory arrangements have previously been made to prevent the Relief engine or the Break-down Van Train from coming to his assistance from the advance Station, and then not until his Fireman has returned and handed the "Order" back to the Engine-driver.

(To be printed on GREEN coloured paper.)

# TRAIN STAFF AND TICKET SYSTEM.

(Form referred to in Regulation 16.)

A supply of these Forms must be kept by each Engine-driver on Lines where the Train Staff and Ticket System is in force.

To the Signalman at.....

The Engine of the.....m. train, of which I am Driver, and which is travelling on Staff Ticket No....., is disabled in the Section.....and.....

Allow a Relief engine or Break-down Van Train to come to my assistance from the Station in advance, as authorised by Regulation 16 (see other side), for my train which is stationary at..... I will not move my Engine in any direction until the arrival of the Relief engine.

Tonnage, including disabled engine,..... tons.

(Signed).....Driver.

Date.....19... Time issued.....m.

(Back of Form.)

Here appear paragraphs (i.), (ii.), (iii.), and (iv.) of Regulation 16.

17. (a) 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 Engine-driver must not, if he be in possession of a Ticket, return for it except by written instructions from the Guard, as prescribed in Rule 249 of the Book of Rules and Regulations, and the Guard must protect his train in the rear, in accordance with Rule 245 of the Book of Rules and Regulations, and prevent a following train pushing it ahead. If the Engine-driver be in possession of the Staff, he may return to the rear portion of his train without obtaining instructions from the Guard authorising him to do so.

(b.) 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 100 yards from the front vehicles of the rear portion, to notify the Engine-driver when returning of the position of the remainder of his train.

(c.) Should a failure occur to an engine assisting a train in the rear, the Driver of the train engine must send his Fireman to the Driver of the assisting engine, and obtain from him an order in writing authorising the Driver of the train engine to return from the Staff Station in advance for the remainder of the train. The train engine must then proceed to the Staff Station in advance and after disposing of the front portion of the train, the Engine-driver, after informing the Signalman what he is about to do and handing him the written order, must return and remove the rear portion of the train and the disabled engine from the section; but if an intermediate Siding exist where the disabled engine or portion of the train can be disposed of and access cannot be obtained except by means of the Staff or

Special Siding Key, the Driver of the disabled engine must hand the Staff or Ticket with Special Siding Key, to the Driver of the leading engine, together with a written order stating he will not allow the disabled engine to be moved until the leading engine returns, and if his engine is placed in the intermediate siding, not until he is in possession of the Staff or Ticket or is attached to an Engine the Driver of which is in possession of the Staff or Ticket.

On arrival at the Staff Station the order held by the Driver of the leading engine must be delivered to the Signalman.

(d) Should the assisting engine fail and the train proceed, owing to the Driver of the train engine not being aware of the failure of the assisting engine, the Fireman of the assisting engine must act as directed in Regulation 16, and disabled engine must not be moved until the relieving engine has arrived.

(e.) If the train is assisted by a bank engine in the rear, and the train engine become disabled so that it cannot be moved forward, the bank engine must if in possession of the Staff draw the train back to the Staff Station; the Staff must not be delivered up to the Signalman but must be retained by the Driver of the bank engine who will return to the assistance of the disabled train engine, acting in accordance with the provisions of clause (a.)

18. (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 instructions as set forth in Regulation 16 must be carried out, the Pilotman taking the place of the Train Staff. The Guard must protect his train in accordance with the Rules.

(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 be with the train, and accompanies the engine with the first portion, the Driver may return without written instructions from the Guard.

(d.) If the Pilotman be not accompanying the train, the Driver must not return for the rear portion unless he has received written instructions from the Guard authorising him to do so, and the Guard must continue to protect his train in the rear and prevent a following train from pushing it ahead.

(e.) After sunset, or in foggy weather, 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 100 yards from the front vehicles of the rear portion, to notify the Engine-driver when returning of the position of the remainder of his train.

19. (a.) Should an accident or obstruction 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 Staff Station on each side of the point of obstruction. The Staff must be used to work trains between the point of obstruction and the Staff Station on the one side and, on the other side, the traffic must be conducted by a Pilotman.

(b.) Should the obstruction be caused by a disabled train, and the engine is *unable to run forward*, the traffic must be conducted in accordance with the following instructions:—

(i.) The Guard must put the Engine-driver in charge of the point of obstruction, and the Driver must then give the Guard a written order addressed to the Station-master at the Staff Station in advance, stating the point of obstruction and 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 Staff Station in advance, and hand the written order to the Station-master, advising him of what has occurred. The Station-master must then arrange for three or more, as may be necessary, of the printed forms provided for the purpose of establishing working by Pilotman during obstruction (*see* end of Regulation 19 for specimen form) to be filled up; one of these, signed by the Pilotman, he must deliver, in the presence of the Pilotman, to the Signaller in charge of the Staff 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 (and the Station-master must show the written order to the Driver before allowing the Relief train to proceed to the obstruction) to the Engine-driver in charge of the point of obstruction.

(ii) 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. So soon as he is satisfied that the arrangements are understood, trains may be allowed to go on to the Section under the control and by the permission of the Pilotman. The Engine-driver when put in charge at the point of the obstruction must hand the Staff (if the train be travelling on Staff) to the Fireman, and instruct him to take it back to the Staff Station from which it was issued, to work trains between that Station and the point of obstruction until the line is clear. Should the train be travelling on a Ticket the Fireman must take it back to the Staff Station from which it was issued and hand it to the Signaller who must cancel it.

(c) Should, however, the engine of the disabled train *be able to run forward*, and such train is travelling on the Staff, the traffic must be conducted in accordance with the following instructions:—

(i) The Driver must give the Guard a written order addressed to the Station-master at the Staff Station in the rear, stating the point of obstruction, and that he will not allow the disabled train to be moved until the Relief engine arrives. The Driver must place his Fireman (if there be only one Guard) in charge of the point of obstruction, and proceed with

his engine to the Staff Station in advance, and after advising the Station-master at that Station of what has occurred, deliver up the Staff to him and the traffic between that Station and the point of obstruction will be worked by the Staff. The Guard must proceed to the Staff Station in the rear, and hand the written order to the Station-master at that Station advising him of what has occurred. The Station-master must then arrange to establish Pilot-working between his Station and the point of obstruction. If the train be travelling on Ticket, the Guard must, prior to returning to the rear Station, hand the Engine-driver a written order addressed to the Station-master at the Staff Station in advance, stating the point of obstruction, and that he will not allow the disabled train to be moved until the Engine returns. The traffic between the advance Station and the point of obstruction will then be worked by the Pilot, and in the rear by the Staff.

(d) Should the obstruction be caused by a train assisted by an engine in the rear (or two trains coupled), and the leading engine is able to run forward, the traffic must be conducted in accordance with the following instructions:—

(i) The Driver of the leading engine must send his Fireman to the Driver of the rear engine and obtain from him an order in writing authorising the Driver of the leading engine to return from the Staff Station in advance. The Driver of the leading engine must advise the Station-master of what has occurred, and the Station-master must arrange to establish Pilot-working between his station and the point of obstruction. The Driver of the rear engine must then hand the Staff to his Fireman and instruct him to take it back to the Staff Station from which it was issued to work trains between that station and the point of obstruction until the line is clear. If the train be travelling on Ticket the Driver of the rear engine must send his Fireman with the Ticket back to the Station from which it was issued and hand it to the Station-master, who must cancel it. The traffic will then be conducted as described in Subclause (i), Clause (c).

(ii) In the event of the Rear Engine not being disabled, it must (if the train be travelling on Staff) return to the Staff Station in the rear, and the Engine-driver must advise the Station-master of what has occurred, and deliver the Staff to him to work trains between that Station and the point of obstruction until the line is clear. If the train be travelling on ticket, the driver of the Rear Engine must send his Fireman with the Ticket back to the station from which it was issued, and hand it to the Station-master, who must cancel it. The traffic will then be conducted as described in Subclause (i).

(e.) Should the obstruction be caused by a Light Engine, not accompanied by a Guard, the Driver must hand the Staff to his Fireman and instruct him to take it back to the Staff Station from which it was issued, to work trains between that Station and the point of obstruction until the line is clear. The Driver must then give some competent person a written order addressed to the Station-master at the Staff Station in advance, stating the point of obstruction, and that he will not allow the disabled engine to be moved until the Relief Engine or train arrives. The Station-master at the Staff Station in advance, on receipt of such order, must arrange to establish Pilot Working as provided in clause (b.).

If the Engine be travelling on Ticket the Fireman must take it back to the Station from which it was issued and hand it to the Station-master, who must cancel it. The traffic will then be conducted as described in the preceding paragraph.

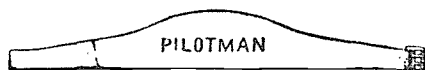
(f.) A conspicuous notice must be affixed on the Staff-box stating obstruction exists at Mileage and Engine-drivers, when proceeding to the point of obstruction with the Staff, must be handed a written order stating the position of the obstruction; the Driver must sign for the order on a copy held by the Signalman.

In all cases the Signalmen at each end of the Section must communicate with each other and arrive at a clear understanding how the obstruction is to be removed.

(g.) The Guard, Fireman, or other competent person, when proceeding to the advance and rear Stations, must place detonators on the rail, as per Rule 245 of the Book of Rules and Regulations. On their return they will be held responsible for the protection of the obstruction until relieved.

(h.) Signalmen 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.

(i.) The Regulation Badge is a Red Armlet with the word Pilotman shown thereon in white letters, thus:—



(j.) Block Telegraph Working, where in operation, must be suspended, and the Single Line on each side of the obstruction must be protected by Hand Signalmen in the usual way.

# WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

## TRAIN STAFF AND TICKET SYSTEM.

### 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 Regulation 19 for Working Single Lines of Railway by Train Staff and Ticket.

.....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 upon the Engine.

Block Telegraph Working, where in operation, must be suspended

This order is to remain in force until withdrawn by the Pilotman presenting my written authority.

(Signed).....

Time.

*Noted by.....at.....	.....
*Noted by.....at.....	.....
*Noted by.....at.....	.....
*Noted by.....at.....	.....
*Noted by.....at.....	.....
*Noted by.....at.....	.....
Noted by.....	Pilotman.

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

At least six of these Forms must be kept in a convenient place at each Train-Staff 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 Staff 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 Engine-driver or other person in charge of the point of obstruction. If there is an intermediate Signal-box which is not a Staff Station, the Signalman or person in charge must be supplied with a copy of the Form, and his signature obtained on Pilotman's Form.

In the event of a Station-master himself acting as Pilotman, he must address and give a copy of the Form to the person he leaves in charge of his Station.

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

On the other side of the obstruction the Line will be worked by the Train Staff, no Tickets being used.

20. (a.) When the Line is again clear, no train must be allowed to pass the point where the obstruction existed without the Staff; the Pilotman must accompany the first train carrying the Staff to the Staff Station to which the train was proceeding at the time of the accident, or back to the Station from which it started. After the Engine-driver has given up the Staff to the Signalman, and the Pilotman has withdrawn his arrangements (see Regulation 21) for Pilot-working, the traffic must again be conducted in accordance with these Regulations.

21. (a.) Before ordinary working is resumed, the Station-master who instituted Pilot-working must make out and sign the necessary Cancellation orders

(see Form below), 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 word "Cancelled" across the face of it. All Forms which have been issued for Pilot-working must be sent to the District Traffic Superintendent.

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

(Form referred to in Regulation 20.)

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.
TRAIN STAFF AND TICKET SYSTEM.
WORKING OF SINGLE LINE BY PIOTMAN DURING OBSTRUCTION OR FAILURE OF APPARATUS.
CANCELLATION ORDER.
.....Station, .....19.....
*To.....
Pilot-working arrangements made by me at..... .....on.....19.....
between..... and..... are hereby cancelled, and ordinary working will be re- sumed. The Pilotman will accompany the first train passing over the Line after cancelling the Pilot-working.
(Signed).....Station-master.
* Each Person who received a Pilot-working Form must also be handed a copy of this order.
NOTE.—The Pilotman, when cancelling Pilot-working, must notify all employees concerned that ordinary working will be resumed.

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.
RELIEF OF PIOTMAN ORDER.
.....Station. .....19
*To.....
Pilotman..... appointed by me between..... and..... is now being relieved; new forms are being issued, and..... appointed as Pilotman.
Signed.....Station-master.
*Each Person who receives a Pilot Form must also be handed a copy of this order.

22. (a.) Should a Signalman become aware that cattle, horses, or other animals are on the line and likely to cause an obstruction, he must at once inform the Signalman at the Box in the rear of the circumstances, on the Telegraph or Telephone, and take the necessary steps to have the Line cleared. Until it has been ascertained that Line is clear, all trains and engines allowed to proceed must be brought to a stand and the Driver verbally informed of the circumstances and instructed to proceed cautiously.

(b.) Should there be a tunnel in the obstructed Section, no train must enter such tunnel until it has been ascertained that it is clear.

(c.) When the Signalman has ascertained that the Line is clear he must advise the Signalman at the opposite end of the Section, and trains may then be allowed to proceed in the ordinary manner.

23. (a.) Except where instructions are issued to the contrary, when a Ballast or Water train has to work on the Line, the Staff must be given to the Engine-driver in charge of it. This will close the Line while the train is at work. The train must proceed afterwards to one of the Staff Stations to open the Line before the ordinary traffic can be resumed. But if a Ballast or Water train is required to run over a Section of Single Line from one Staff Station to the other without stopping to work on the way, it may then travel with Staff or Ticket as required.

(b.) The Guard and Engine-driver of a Ballast or Water train that has to do work on the line must be told, when receiving the Staff, to which end of the Section it is to be taken, and at what time it is to be there, in order to clear the Line for the next train.

(c.) When a Ballast or Water train working in the Section has to return to the Staff Station in the rear, no shunting outside the Home Signal at that end of the Station must be allowed until a man with Hand and Detonating Signals has been sent out to protect such shunting.

(d.) When a Ballast or Water train in possession of the Staff is at work on the Line, it will not be necessary to send out Flagmen to protect it, as directed in Rule 279 of the Book of Rules and Regulations.

24. (a.) Points giving communication between the Sidings and the Running Line controlled by the Train Staff cannot be opened without the Train Staff for that Section of the Line where the Siding is situated, and the Train Staff cannot be removed until the points have been placed in the proper position for trains to pass upon the Running Line, and securely locked so as to prevent vehicles passing from the Sidings on to the Running Line.

(b.) On arriving at a Siding, the Points of which are controlled by the Train Staff, the Engine-driver must hand the Train Staff to the Guard or man in charge of the Siding, to enable him to unlock the Points.

(c.) When the necessary shunting has been completed, and the Points have been placed in the proper position for trains to pass upon the Running Line, the Guard or man in charge of the Siding must return the Train Staff to the Engine-driver, and the latter must not proceed on his journey until he has obtained possession of it.

(d.) To facilitate the working of traffic at intermediate Sidings which are Staff locked, a special independent Annett's Key is provided at certain Staff Stations to admit of the intermediate Siding being worked by trains travelling on a Staff Ticket.

(e.) When the train is ready to leave, the Signalman must deliver the Annett's Key (except as provided for in Clause (j) to the Engine-driver at the same time as he delivers the Staff Ticket, and the Staff Ticket must be indorsed "Siding Key," as an intimation to the Station in advance that the driver is in possession of Special Annett's Key.

(f.) Points giving communication between the Sidings and the Running Line controlled by an Annett's Key, cannot be opened by train travelling on a Staff Ticket, except by means of the Annett's Key, and the key cannot be removed from the lock until the

points have been placed in the proper position for the train to pass upon the Running Line and securely locked.

(g) On arrival at a Siding, the points of which are controlled by Annett's Key, the Engine-driver must hand the key to the Guard, or man in charge of the Siding, to enable him to unlock the points.

(h) When the necessary shunting has been completed, and the points have been placed in the proper position for train to pass upon the proper running line, the Guard or man in charge of the Siding must return the Annett's Key to the Engine-driver, and the latter must not proceed on his journey until he has obtained possession of it.

(i) On arrival at the opposite end of the section, the Engine-driver must deliver the Annett's Key at the same time as he delivers the Staff Ticket to the Signalman.

(j) When the Annett's Key is being sent from one end of the section to the other end (except when required to gain access to an intermediate siding) it must be booked as a Value Parcel and signed for by the Guard at the receiving Station, and by the Signalman to whom it is delivered.

(k) When the Annett's Key is not in use it must be securely locked up in the Staff Box, and when it is received from a train which has travelled on a *Staff Ticket* it must be secured in the Office Safe until the Train Staff is received, when the Annett's Key must be immediately placed in the Staff Box at that Station.

(l) The movements of the "Annett's Key" must be recorded in the Train Register Books at both ends of Section, and the Signalman at the advance Station must not give permission for a following train to enter the Section unless he has received the Annett's Key, as set forth in Clause (i).

(m) Staff locked sidings should, as far as possible, be only worked by trains carrying the Train Staff, but when the local conditions do not permit of this being done, the sidings may be worked by trains travelling on Staff Ticket, when the instructions contained in Clauses (d), (e), (f), (g), (h), (i), (j), (k), (l), (m), and (n) of this Regulation must be strictly observed.

(n) Guards and others must in all cases, after shunting operations are complete and the Staff or Special Annett's Key has been withdrawn from the staff lock, try the Point Levers to insure that points are securely locked.

25. The Working Time-table, Appendices, or other Notices issued for the guidance of the employees, will contain a list of the Staff Stations, and of the Siding Points controlled by the Train Staff or Key.

*Form of Train Staff Ticket.*

No.....

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

TRAIN STAFF TICKET.

.....Line or Branch.

Train No.....

To the Engine-driver.

You are authorised, after seeing the Train Staff for the Section, to proceed from..... to....., and the Train Staff will follow.

Signature of Signalman.....

Date.....

*(Back of Ticket.)*

This Ticket must be given up by the Engine-driver, immediately on arrival, to the person in charge of the Staff Working at the place to which he is authorised to proceed, to be cancelled and dealt with as directed in Regulation 9.

NOTE.—As the Absolute Block System is maintained throughout the Western Australian Government Railways, the instructions set forth in Regulation 26 must not be introduced without the special authority of the Chief Traffic Manager.

26. Except where instructions are issued to the contrary, no train must be allowed to follow any other train on the same Line at an interval of less than ten minutes, nor then, until the Engine-driver of such train has been furnished, on the prescribed form, with a "Notice of Train Ahead."

*Form of Notice of Train Ahead referred to in Regulation 26.*

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

TRAIN STAFF AND TICKET SYSTEM.

NOTICE OF TRAIN AHEAD.

.....Station,  
.....19 .

.....left here at.....  
and has not yet been reported in at.....

(Signed).....Signalman.

Time.....

*(Butt of Form.)*

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

NOTICE OF TRAIN AHEAD.

.....Station,  
.....19 .

RECEIVED NOTICE, That the.....  
.....left here at.....  
and has not yet been reported in at.....

.....Driver.

.....Train.

Time.....

27. (a) The time at which all messages (in connection with Telephone Block Working) are forwarded and received must be made legibly with a pen in the Train Register Book, and the letter "S" (for Staff) or "T" (for Ticket), as the case may be, must be inserted opposite the entry for the train. The Signalman on duty must place his name immediately under the last entry made by him at the expiration of his hours of duty.

(b) If an incorrect entry be made, a line must be drawn lightly through it, and the correction made above or below it, so that the original entry may be clearly seen.

(c) In the event of failure of the telephone or telegraph and communication is destroyed, no train must be allowed to pass into the section where the failure exists without having been previously brought

to a stand, and the Engine-driver and Guard, or Guards, advised of the circumstances. The Engine-driver must then be instructed to proceed cautiously, in order to be able to stop short of any obstruction there may be on the line. No train must be permitted to follow another train until the ordinary running time of the section has elapsed, unless the Signaller sees that the section ahead is clear and the Engine-driver has been stopped and cautioned as above directed.

28.—LINE CLEAR REPORT.—(a) When the Staff for a Section is at the opposite end to that from which a train is required to be despatched, and there are no means of transferring the Staff in time to avoid serious detention to such train, the Staff and Ticket System may be suspended, and the train worked forward by Line Clear Report, but a Line Clear Report must only be issued when absolutely necessary, and then only on Staff Sections where authorised by the Chief Traffic Manager, and in accordance with the following Regulations:—

(b) The Station-master at the Station requiring to despatch a train by Line Clear Report must communicate by Telegraph, or, where the Telegraph System is not in operation, by Telephone with the Station-master in possession of the Staff, informing him of the circumstances. The Station-masters at the respective Stations must then apply to the District Traffic Superintendent to suspend the Staff and Ticket System (see Forms A and B) and authorise the issue of a Line Clear Report. The District Traffic Superintendent upon receipt of the messages will then, if he consider it expedient, suspend the Staff and Ticket System (see Form C) and authorise the issue of a Line Clear Report for the train.

(Forms of messages referred to in Regulation 28.)

#### FORM "A."

.....19  
From Station-master.....  
To District Traffic Superintendent.....  
No.....Train is \*.....my Station.  
The Staff for the Section.....  
is at.....and there is no train in the  
Section. Please suspend the Staff and Ticket System  
and authorise the issue of a Line Clear Report.  
.....Signature.  
Time.....

\* Here insert the word "approaching" or "at" as the case may be.

#### FORM "B."

.....19  
From Station-master.....  
To District Traffic Superintendent.....  
No.....Train is \*.....Station. There  
is no train in the.....Section,  
and the Staff for that Section is at my Station secured  
under lock and key, and.....  
Station requires the suspension of the Staff and Ticket  
System and the issue of a Line Clear Report.  
.....Signature.  
Time.....

\* Here insert the word "approaching" or "at" as the case may be.

#### FORM "C."

.....19  
From District Traffic Superintendent.....  
To Station-masters.....  
I hereby suspend the Staff and Ticket System for the  
Section.....and authorise  
.....Station to issue a Line Clear  
Report for No.....train to run from .....  
.....to.....  
.....Signature.  
Time.....

29. (a) The Line Clear Report Issue Book contains a Form (see Form D) which must be correctly filled up in numerical order by the Station-master in possession of the Staff, and when completed must be taken out of the book, and the whole of the printed and written matter telegraphed or telephoned to the Station from which the train requires to travel with a Line Clear Report.

(Form "D" referred to in Regulation 29.)

To be printed on WHITE paper.

#### WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

#### LINE CLEAR REPORT No.....

.....19

Issued at.....Station.

No. of Words..... Time.....

To STATION-MASTER.....

The Train Staff for the Section.....  
and.....is in my possession, secured under  
lock and key, and the line is blocked until the arrival of  
No.....for which Train Line is clear from  
.....to.....  
The last.....train that left here was  
No.....at.....with.....  
The District Traffic Superintendent.....has  
authorised the issue of this Line Clear Report.

.....Station-master.

.....Station.

\*Time received.....

\*Time sent.....

Signature of Operator.....

\* This part to be filled in by the Operator.

(b) The Line Clear Report Received Book consists of a Form (see Form E), which must be correctly filled up, and the Line Clear Report written on the Form containing the same printed number as that sent by the Issuing Station. The Line Clear Report authorising an Engine-driver to travel over the Section to which it applies will be countersigned by the Station-master who hands it to him.

Form "E" referred to in Clause (b) of  
Regulation 29.

(To be printed on YELLOW coloured paper.)

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.	
LINE CLEAR REPORT No.....19	
Received at.....	Station.....
No. of Words.....	Time.....
To Station-master.....	
.....	
(Signed).....Station-master.	
.....Station.	
(Countersigned).....Station-master.	
.....Station.	
Time received.....	
Operator.....	
NOTE.—This Report must be collected from the Engine-driver after use, cancelled, and promptly forwarded to the District Traffic Superintendent, together with full particulars of the cause of its being issued.	

(c.) A Line Clear Report must only be issued by the Station-master in possession of the Staff for the Section.

30. A train requiring to travel with a Line Clear Report must be stopped at the Station at which the Line Clear Report is handed to the Engine-driver, to afford him an opportunity of examining it, and a Driver must not accept a Line Clear Report unless it is strictly in accordance with these Regulations, and made out on the authorised Form.

31. Upon the arrival of the train at the Station in advance, the Line Clear Report must be collected from the Driver, and the word "Cancelled" written in ink across it, with a remark as to the time the train arrived; the Form to be then signed and dated by the Station-master, and promptly forwarded to the District Traffic Superintendent, together with full particulars of the cause of its being issued.

32. (a.) Except where instructions are issued to the contrary, every Line Clear Report must be sent by Telegraph and recorded on the tape.

(b.) The messages sent and received by Stations in connection with the issue of a Line Clear Report must be forwarded to the District Traffic Superintendent.

33. When any train is assisted by a second engine in the front, or when two trains are coupled together, or when the train has an engine in the rear, the Line Clear Report must be shown to the Driver of the leading engine, and delivered to and carried by the Driver of the last engine.

34. (a.) When a train which carries a Line Clear Report becomes disabled between two Staff Stations, the Engine-driver must write out an authority to the Station-master at the nearest Station from which assistance can be obtained, stating the nature of the failure, the place where it has occurred, and authorising the Station-master to allow a Relief Engine to proceed to remove the disabled engine or engine and train. The Fireman of the disabled train must hand the written authority to the Station-master, and accompany the Relief Engine or the Break-down Van Train to his train, advising the Engine-driver where and under what circumstances the disabled engine is situated, and the Station-master must show the authority to the Driver before allowing the Relief Engine or Break-down Van Train to proceed to the disabled train. The Driver of the Relief Engine must remove the disabled train to the end of the Section to which it was previously proceeding, and on arrival there the Driver of the dis-

abled train must hand over the Line Clear Report held by him to the Station-master. The Engine-driver of the disabled engine must not move his engine until the Relief Engine arrives.

(b.) The Fireman, when proceeding for assistance, must place Detonators on the Line, as directed in Rule 245 of the Book of Rules and Regulations, and the Guard must similarly protect his train in the opposite direction. Should the stoppage or failure occur to an Engine not attached to a train, the Fireman must at once place Detonators on the Line in one direction before he proceeds in the opposite direction.

(c.) When a train or a portion of a train is left upon the Single Line from accident or inability of the Engine to take the whole forward, the Engine-driver must not, if he be in possession of a Line Clear Report, return for it except by written instructions from the Guard, as prescribed in Rule 249 of the Book of Rules and Regulations, and the Guard must protect his train in the rear, in accordance with Rule 245 of the Book of Rules and Regulations, and prevent a following train pushing it ahead.

(d.) 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 100 yards from the front vehicles of the rear portion, to notify the Engine-driver when returning of the position of the remainder of his train.

35. (a.) Should an accident or obstruction 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 Staff Station on each side of the point of obstruction. The Staff must be used to work trains between the point of obstruction and the Staff Station on the one side, and, on the other side, the traffic must be conducted by a Pilotman.

(b.) Should the obstruction be caused by a disabled train, and the engine is *unable to run forward*, and such train is travelling on a Line Clear Report, the traffic must be conducted in accordance with the following instructions:—

(i) The Guard must put the Engine-driver in charge of the point of obstruction, and the Driver must then give the Guard a written order addressed to the Station-master at the Staff Station in the rear, stating the point of obstruction, and 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 Staff Station in the rear, and hand the order to the Station-master, advising him of what has occurred. The Station-master must then arrange to establish Pilot-working between his Station and the point of obstruction, in accordance with Clause (b), Regulation 19 of this Appendix. The Engine-driver of the disabled train must hand the Line Clear Report to the Fireman, and instruct him to take it to the Staff Station in advance. On arrival there the Fireman must hand the Line Clear Report to the Station-master, advising him of what has occurred; the Station-master must then cancel the Line Clear Report and release the Staff for the purpose of working

trains between his Station and the point of obstruction.

(c) Should, however, the engine of the disabled train be able to run forward, and such train is travelling on a Line Clear Report, the traffic must be conducted in accordance with the following instructions:—

(i) The Driver must give the Guard a written order addressed to the Station-master at the Staff Station in the rear, stating the point of obstruction, and that he will not allow the disabled train to be moved until the Relief Engine arrives. The Driver must place his Fireman (if there be only one Guard) in charge of the point of obstruction, and proceed with his engine to the Staff Station in advance, and, after advising the Station-master at that Station of what has occurred, deliver up the Line Clear Report to him; the Station-master must then cancel the Line Clear Report and release the Staff, and the traffic between that Station and the point of obstruction will be worked by the Staff. The Guard must proceed to the Staff Station in the rear, and hand the written order to the Station-master at that Station, advising him of what has occurred. The Station-master must then arrange to establish Pilot-working between his Station and the point of obstruction in accordance with Clause (b), Regulation 19 of this Appendix.

(d) Should the obstruction be caused by a train assisted by an engine in the rear (or two trains coupled), and the leading engine is able to run forward, and such train is travelling on a Line Clear Report, the traffic must be conducted in accordance with the following instructions:—

(i) The Driver of the leading engine must send his Fireman to the Driver of the rear engine and obtain from him the Line Clear Report. The Driver of the leading engine must then proceed with his engine to the Staff Station in advance and hand the Line Clear Report to the Station-master, advising him of what has occurred, and the Station-master must then cancel the Line Clear Report and release the Staff to work traffic between that Station and the point of obstruction. The Driver of the rear engine must then hand a written order to his Fireman and instruct him to take it back to the Staff Station in the rear; the Fireman must proceed to the Staff Station in the rear, and hand the written order to the Station-master at that Station, advising him of what has occurred. The Station-master must then arrange to establish Pilot-working between his Station and the point of obstruction.

(e) Should the obstruction be caused by a Light Engine not accompanied by a Guard, the Driver must hand the Line Clear Report to his Fireman and instruct him to take it to the Staff Station in advance; the Fireman must proceed to the Staff Station in advance and hand the Line Clear Report to the Station-master, advising him of what has occurred. The Station-master must then cancel the Line Clear Report and release the Staff to work trains between that Station and the point of obstruction until the line is clear. The Driver must then give some com-

petent person a written order addressed to the Station-master at the Staff Station in the rear, stating the point of obstruction, and that he will not allow the disabled Engine to be moved until the Relief Engine or train arrives. The Station-master at the Staff Station in the rear, on receipt of such order, must arrange to establish Pilot Working between his Station and the point of obstruction in accordance with Clause (b), Regulation 19, of this Appendix.

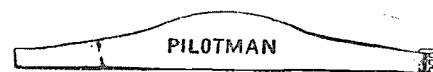
(f) A conspicuous notice must be affixed on the Staff-box stating obstruction exists at Mileage..... and Engine-drivers, when proceeding to the point of obstruction with the Staff, must be handed a written order stating the position of the obstruction; the Driver must sign for the order on a copy held by the Signaller.

In all cases the Station-masters at each end of the Section must communicate with each other and arrive at a clear understanding how the obstruction is to be removed.

(g) The Guard, Fireman, or other competent person of the disabled train, when proceeding to the rear and advance Stations, must place Detonators on the rail, as per Rule 245 of the Book of Rules and Regulations. On their return they will be held responsible for the protection of the obstruction until relieved.

(h) Signalmen 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.

(i) The Regulation Badge is a Red Armlet, with the word Pilotman shown thereon in white letters, thus:—



(j) Block Telegraph Working, where in operation, must be suspended, and the Single Line on each side of the obstruction must be protected by Hand Signalmen in the usual way.

36. Should any circumstances prevent the use of the Line Clear Report, it must be sent by the most expeditious means to the Station-master in possession of the Staff for cancellation; both the Receiving and Issuing Stations must promptly report the circumstance to the District Traffic Superintendent.

**NOTE.**—The Staff and Ticket System must not be resumed until the Station-master who issued the Line Clear Report has received and personally cancelled same.

37. (a) Should a Line Clear Report be lost, the Station-master at both ends of the Section must communicate with each other by Telegraph, or Telephone where the Telegraph is not in operation, and the Station-master in possession of the Staff must not use the Staff for the Section to which the Line Clear Report applies until he has satisfied himself that the train for which the Line Clear Report was issued has arrived complete.

(b) If the Line Clear Report be found, it must be handed to the Station-master at either end of the Section to which it applies, who must immediately on receipt cancel it, and promptly forward it to the District Traffic Superintendent with a report.

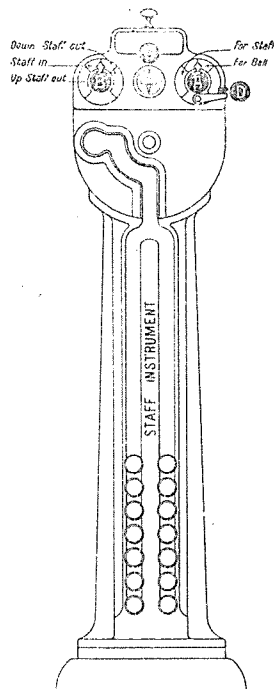
38. The Station-master issuing a Line Clear Report must remain on duty until the train in possession of it arrives at his Station, and he must cancel such report before leaving duty.

39. The number of each Line Clear Report must be recorded in the Train Register Book at the Station at each end of the Section, opposite the entry for the train for which it was issued.

40. The Line Clear Report Issue and Received Books when not in use must be kept secured under lock and key.

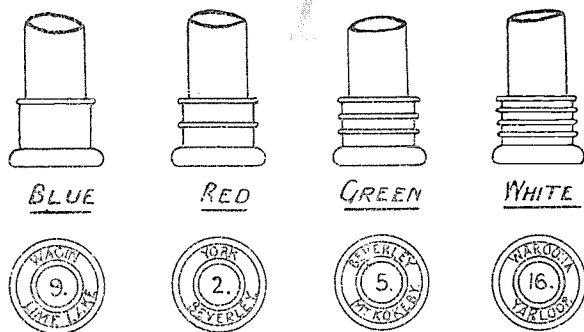
## APPENDIX V.

### DIAGRAM OF LARGE TYPE INSTRUMENT.



Types of Staff heads are of the design shown below:—

### — ELECTRIC STAFFS —



### MINIATURE ELECTRIC STAFF INSTRUMENTS.

All Rules and Regulations appertaining to the working of the Electric Staff System apply conjointly to both types of Instruments, except that there is no Right Hand Indicator A, provided on the miniature type.

### BELL SIGNALS.

See Reg.	Signal.	Beats on Bell.	How to be given.
1.	*Call attention ... ..	1	1
	Is Line Clear for Express Passenger Train, or Breakdown Van Train going to clear the Line, or Light Engine going to assist disabled Train? ...	4	4 consecutively.
	Is Line Clear for Ordinary Passenger or Breakdown Van not going to clear the Line? ... ..	4	3 pause 1.
	Is Line Clear for Fast Goods, Live Stock, or Perishable Train? ...	5	5 consecutively.
3 & 4.	Is Line Clear for Empty Coaching Stock Train? ... ..	5	2 pause 2 pause 1.
	Is Line Clear for through Goods, Mineral, or Ballast Train? ...	5	4 pause 1.
	Is Line Clear for Ordinary Goods or Mineral Train stopping at intermediate Stations? ... ..	3	3 consecutively.
	Is Line Clear for Light Engine, or Light Engines coupled together ... ..	5	2 pause 3.
	Is Line Clear for Engine and Brake Van? ... ..	4	1 pause 3.
3, 4, 10 & 11.	Is Line Clear for Ballast Train requiring to stop in Section, or Motor Car. Or Repairer's Trolley requiring to pass through Tunnel? ... ..	5	1 pause 2 pause 2.
3.	Train Departure ... ..	*2	2 consecutively.
5.	Train Waiting ... ..	7	3 pause 4.
7.	Bank Engine in rear of Train ...	*4	2 pause 2.
8.	Assisting Engine in front, or two Trains coupled ... ..	*6	2 pause 2 pause 2.
12 & 16.	Train Arrival or Obstruction removed	3	2 pause 1.
16.	Obstruction Danger ... ..	6	6 consecutively.
24.	Blocking Back Outside Home Signal...	6	3 pause 3.
18.	Release Staff for Shunting ... ..	7	5 pause 2.
	Shunting completed—Staff replaced ...	7	2 pause 5.
25.	Stop and Examine Train ... ..	7	7 consecutively.
26.	Cancelling "Is Line Clear?" or "Train Departure" Signal ... ..	8	3 pause 5.
27.	Last Train Signalled incorrectly described ... ..	8	5 pause 3.
			9 consecutively
28.	Train passed without Tail Disc or Light	9	TO BOX IN ADVANCE
			4 pause 5 TO BOX IN REAR.
29.	Train Divided ... ..	10	5 pause 5.
30.	Shunt Train for following Train to pass	*11	1 pause 5 pause 5.
31.	Vehicles running away ... ..	12	2 pause 5 pause 5.
19.	Engine of last train broken down in section ... ..	6	2 pause 1 pause 2
			pause 1.
19.	Relief engine to remove breakdown ...	12	4 pause 2 pause 4
			pause 2.
47.	Return Bank Engine ... ..	9	2 pause 3 pause 4.
47.	Bank Engine returned with key ... ..	9	4 pause 1 pause 4.
9.	Cancel Bank Engine in Rear of Train	12	8 pause 2 pause 2.
41.	Speak on Telephone ... ..	*7	4 pause 2 pause 1.
33.	Opening of Signal-box ... ..	15	5 pause 5 pause 5.
33.	Closing of Signal-box ... ..	17	7 pause 5 pause 5.
33.	Staff for Closing Switch ... ..	13	7 pause 5 pause 1.
36.	Testing Instruments and Bells ... ..	16	16 consecutively.
44.	Transference of Staffs by Electrical Employee	16	4 pause 4 pause 4
38.	Testing Controlled Signals ... ..	20	5 pause 5 pause 5
			pause 5.

### Regulations for Train Signalling on Single Lines of Railway worked on the Electric Train Staff Block System.

OBJECT OF ELECTRIC TRAIN STAFF BLOCK SYSTEM.—(a) The object of the system of Electric Train Staff Signalling is to prevent more than one train being between any two Staff Stations at the same time, and when no train is in the Section between two Staff Stations, to admit of a train being started from either end. This is accomplished by every train carrying a Staff, one Staff only being obtainable from the Staff Instruments of the same Section at the same time.

(b) The Signalling of trains on the Electric Train Staff System does not in any way dispense with the use of Fixed, Hand, or Detonating Signals, whenever and wherever such signals may be necessary.

(c) The system under which Electric Train Staff Instruments are to be worked, and the mode of indicating descriptions of approaching trains, are laid down in the following Code of Regulations:—

**ENGINE-DRIVERS NOT TO START WITHOUT STAFF AND PROPER SIGNALS BEING EXHIBITED.**—(a) Except as provided in Regulations 20, 21, and 34, an Engine-driver must not leave a Staff Station without the Staff for that Section of the Line over which he is about to run, or unless it has been shown to him as required by the following paragraph, and by Regulations 7, 8 and 9.

(b) Except where instructions are issued to the contrary, when a train has more than one engine, or when two or more light engines, or two trains, are coupled together, the Staff must be shown to each Engine-driver, and delivered to, and carried by, the Driver of the last engine.

(c) After receiving the Staff, the Engine-driver must not proceed until all the necessary Fixed or other Signals are exhibited at All Right. He must keep the Staff under his own charge (except as explained in Regulations 19, 20, and 42) until he reaches the end of the Section, or has returned to the Station from where it was issued, when he must give it up to the Signaller or other duly authorised person.

(d) Engine-drivers must not take the Staff beyond the Station at which it ought to be left.

(e) Each Staff is numbered and has engraved or marked on it the name of the Staff Station at each end of the Section to which it applies.

(f) Drivers must reduce the speed of their trains when passing a Staff Station at which they are not timed to stop, so as to admit of delivering and receiving the Train Staff. **THE STAFF MUST NOT BE THROWN ON THE GROUND.**

**CUSTODY AND TRANSFERENCE OF STAFF.**—(a) Except as provided in Regulation 44 and when required by a duly authorised electrical employee for testing purposes, the Signaller or other person in charge of the Staff Working for the time being is the *sole person* authorised to take a Staff from, or place it in, the Instrument.

(b) Except where some other person is specially appointed to the duty, the Signaller is the *sole person* authorised to receive a Staff from, and deliver it to, the Engine-driver, who, while it is in his charge, must carry it in the socket or other place provided for the purpose. Under no circumstances, except as provided in Regulations 19, 20, and 28, must a Staff be transferred from one train to another without being passed through the Instrument and dealt with in accordance with these Regulations.

(c) The same Staff must not be used for the next train proceeding over the same section in the opposite direction.

**FIXED SIGNALS.**—(a) The DANGER Signal must always be kept exhibited at all the Fixed Signals at Staff Stations, except when it is necessary to lower or turn them off for a train to pass; and before any signal is lowered or turned off, care must be taken to ascertain that the Line on which the train is about to run is clear, and that these and other Regulations have been duly complied with.

(b) At places which are not Staff Stations the ALL RIGHT Signal must, unless special instructions to the contrary are issued by the Chief Traffic Manager, be kept exhibited at all the Fixed Signals (where such Signals are provided) except when required to be placed at Danger.

(c) Unless special instructions are issued to the contrary by the Chief Traffic Manager, the employee who works the Staff Instruments must also work the Fixed Signals.

**WORKING OF FIXED SIGNALS.**—(a) When trains which have to cross each other are approaching a Staff Station at the same time in opposite directions, the Signals in both directions must be kept at DANGER, 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 lowered to allow it to draw forward to the Station or to the Starting Signal; and after it has come to a stand, and the Signaller has seen that the Line on which the other train will arrive is quite clear, the necessary Signals for that train may also be lowered.

(b) At a Staff Station, if the Staff has not been obtained for the Section in advance for an approaching train, all fixed Signals applicable to the Line upon which such train has to run must be kept at Danger until the train has passed the Distant Signal and is approaching the Home Signal well under control, when the Home Signal may, if necessary, be lowered to allow the train to enter the Station.

(c) Where Starting Signals or Advanced Starting Signals are provided, except in the cases referred to in Regulations 19, 20, 21, and 34 of this Appendix, and Rule 65 of the Book of Rules and Regulations, the Starting Signal or the Advanced Starting Signal must not be lowered until a Staff has been obtained for the Train to proceed to the Staff Station in advance.

**NORMAL POSITION OF INDICATORS.**—(a) When the Staff Instruments are not in use, the Indicators are in the vertical position.

(b.) When the Indicators are in their normal position the Line must be considered closed.

**USE OF INSTRUMENTS AND BELLS.**—(a.) These must be used exclusively for the purposes shown in these Regulations, and only by the Signaller or other person specially appointed for the duty.

(b.) The movements on the Instruments and Bells must be made slowly and distinctly, and the pauses between the sets of beats clearly marked.

1. **CALL ATTENTION.**—Except in the case of Bell Signals marked\* the CALL ATTENTION signal must always be given before any other signal, and must be acknowledged immediately on receipt.

2. **REPETITION AND ACKNOWLEDGMENT OF SIGNALS.**—Except where special instructions are issued to the contrary, all signals must be acknowledged by repeating them, and no signal must be considered as understood until it has been correctly repeated to the Signal-box from which it was received. When the IS LINE CLEAR? signal is not acknowledged, it must be given again at short intervals.

3. (a.) **MODE OF SIGNALLING.**—A, B, and C represent three consecutive Block Signal-boxes, and the process of signalling a train is as follows:—

(i.) Prior to the despatch of a train from "A," the Signaller there, provided he has received the TRAIN ARRIVAL signal for the previous train and permission has not been given for a train to approach in the

opposite direction and the Indicator is in its normal position, must call the attention of "B," and, having obtained it, must give the proper IS LINE CLEAR? signal; if the Line be clear at "B," the Signalman there must acknowledge the signal and give the necessary permission for the train to approach in the following manner:—When pressing down the Key on the last beat in acknowledging the IS LINE CLEAR? signal, "B" must hold it down, and continue holding it down until he sees that the needle has returned to its upright position. The holding down of the Bell Key by "B" will cause the needle in "A's" Instrument, as well as in his own, to be deflected to a slanting position, and on seeing the needle assume that position "A" must turn his right-hand Indicator (where provided) to "For Staff" and take out a Staff, the actual withdrawal of which will replace his right-hand Indicator (where provided) to "For Bell" and cause the Bell in that Instrument to ring once, but this must not be regarded as a signal from the opposite end of the Section. As soon as "A" has taken out a Staff he must turn the left-hand Indicator to "Up Staff Out" or "Down Staff Out," as the case may be, and press it hard down. This will cause the needle to return to its upright position in both signal-boxes, and will indicate to "B" that a Staff has been withdrawn at "A" and the left-hand Indicator there turned. "B" must, on seeing the needle regain the upright position, at once turn his left-hand Indicator to "Up Staff Out" or "Down Staff Out," as the case may be.

- (ii.) The Signalman at "A" may then, if the Line be clear, hand the Staff to the Engine-driver and take off his Signals for the train to leave "A."
- (iii.) On the train leaving "A" the Signalman there must send the TRAIN DEPARTURE signal to "B," and the Signalman at "B" must acknowledge the signal.
- (iv.) "B," provided he has received the TRAIN ARRIVAL signal for the previous train, and permission has not been given for a train to approach in the opposite direction, and the Indicator is in its normal position, must then (except as shown below) call the attention of "C," and, having obtained it, must give the proper IS LINE CLEAR? signal to "C." On receiving permission from "C" for the train to approach, "B" may take off his signals for the train to proceed to "C." On the Arrival of the train at "B" the Signalman there must obtain the Staff from the Driver, and when he is satisfied that the last vehicle of the train has arrived, with Tail Disc or Light attached (as per Regulation 12), he must insert the Staff in his Instrument and call the attention of "A," and, having obtained it, give the Train Arrival signal to "A," and the Signalman at "A" must acknowledge the Signal. Both "A" and "B" must then re-

place their left-hand Indicators to "Staff In," and their Instruments will again be in the normal position.

**NOTE.**—Where a right-hand indicator is provided it must in its normal position point to "For Bell." This is very important, as if the Indicator be left in any other position the batteries will be destroyed and the Instruments deranged.

(b) When authority is granted by the Chief Traffic Manager, a Staff may be obtained in the circumstance specified below by the Signalman at the Staff Station in the rear:—

- (i) In order to minimise delays to trains in the event of the Staff Instrument failing, a Staff may be obtained two hours before the train for which it is required is due, if the working of the traffic will so permit, and it would take that time to establish Pilot-working; a lesser time to be allowed for short sections.

(c) In the case of trains which have to stop more than a few minutes at a Station, the Is Line Clear? Signal must only be sent shortly before the train is ready to start.

(d) The number of each Staff issued and received must be recorded in the Train Register Book.

**4. LINE CLEAR OR GIVING PERMISSION FOR A TRAIN TO APPROACH.**—(a) Unless special instructions are issued to the contrary, the Is Line Clear? signal must be acknowledged, and permission given for a train to approach in accordance with Regulation 3, as under:—

- (i) At a Station which is not a Crossing-place, if the Line be clear for at least a quarter of a mile beyond the Home Signal.
- (ii) At Crossing, Terminal, or Junction Stations, if the Line on which the approaching train has to run be clear to the Home Signal.

(b) After permission has been given for a train to approach, in accordance with Regulation 3, no obstruction of the Line, outside the Home Signal, on which such train requires to run must be allowed, unless the Cancelling signal has been received from the Staff Station in the rear.

(c) If the Line be not clear, or if from any other cause the Signalman be not in a position to give permission for the train to approach when the Signalman in the rear forwards the Is Line Clear? signal, that signal must not be acknowledged until the Signalman to whom the signal has been sent is prepared to receive the train, when he must give permission for it to approach in accordance with the prescribed Regulations.

**5. TRAIN WAITING SIGNAL.**—This signal must be given to the Box in advance under the following conditions:—

- (i) When a train is waiting to proceed and the Train Arrival or Obstruction Removed signal is not received within a reasonable time, or after the Blocking Back signal has been received and acknowledged;
- (ii) When some time elapses after the Is Line Clear? signal is sent, and the acknowledgment of such signal is delayed.

**6. SECTION CLEAR, BUT STATION OR JUNCTION BLOCKED.**

*Double Line Regulations, not applicable to Single Line Working.*

7. BANK ENGINE IN REAR OF TRAIN.—(a) After the Train Departure signal has been given to the Staff Station in advance, and acknowledged by the Signaller there for a train that is assisted by an engine in the rear, the Bank Engine in Rear of Train signal must be given to the Staff Station in advance, to indicate that an engine is assisting the train in the rear. The Bank Engine in Rear of Train signal must be acknowledged, and a note of the signal must at once be made in the Train Register Book at both Staff Stations, and the Train Arrival signal must not be given until the assisting engine has arrived.

(b) An assisting or banking engine must not in any case leave the train it is assisting or banking, except at a Staff Station, unless authorised by the Chief Traffic Manager under special Regulations.

NOTE.—Regulation (7) only applies at places where the use of Bank engines is specially authorised.

8. ASSISTING ENGINE IN FRONT, OR TWO TRAINS COUPLED.—(a) After the Train Departure signal has been given to the Signal-box in advance for a train that is assisted by an engine in the front or two trains coupled, the Assisting Engine in Front, or Two Trains Coupled signal must be given to the Signal-box in advance to indicate that an engine is assisting the train in the front or that two trains are coupled. The Assisting Engine in Front or Two Trains Coupled signal must be acknowledged by being repeated, and a note of the signal must at once be made in the Train Register Book at both Signal-boxes, and the Train Arrival signal must not be given until the train which is assisted by an engine in the front, or the two trains coupled, have arrived complete.

(b) An assisting engine must not in any case leave the train it is assisting, neither must coupled trains be uncoupled, except at a Staff Station.

NOTE.—Regulation (8) only applies at places where the use of Assisting Engines is specially authorised, or when permission has been given for two trains to be coupled in accordance with Rule 175 of the Book of Rules and Regulations.

9. ENGINES COUPLED TOGETHER.—(a) When it may be necessary to detach one engine from another on a Running Line, the Driver of each engine requiring to be detached must, unless instructions are issued to the contrary, before uncoupling, verbally communicate with the Signaller and make him clearly understand what is about to be done, and in what direction the uncoupled engine or engines are required to proceed.

EXCEPTION.—When a Passenger train worked by two engines is brought to a stand at a Station, and one has to be detached during the time the train is at the platform, it will not be necessary, before uncoupling the engine, for the Engine-driver to communicate with the Signaller, but after the engine has been uncoupled the Driver must, if the engine has to run to a Signal-box in advance before being placed clear of the Running Lines or otherwise disposed of, at once inform the Signaller there what has been done.

(b) When two or more engines are coupled together, the first one must be signalled as a Light Engine, the Is Line Clear? signal (2—3) being given and accepted in the ordinary way, and after Departure signal has been given, the other engines must each be signalled by the Code (2—2), the signal for each engine being acknowledged. The Cancel Bank En-

gine in Rear of Train signal (8—2—2) must be used to cancel each engine not going forward attached to the first engine after having been signalled. If it is necessary for all the engines to be cancelled, the Cancelling signal (3—5) must be used. Both Signallers must record the number of engines coupled together.

10. BALLAST TRAIN REQUIRING TO STOP IN SECTION.—(a) When a Ballast train has to stop in a Staff Section for Permanent-way purposes, the Signaller must give the prescribed Is Line Clear? signal, and the Signaller at the Staff Station in advance must, if the Section be clear, give permission for the train to approach. When a Ballast train which has been signalled as a through Ballast train requires to stop in the Section for Permanent-way purposes, and comes to a stand at a Staff Station to enable the Guard to inform the Signaller that his train is going to stop in the Section in advance (see Rule 242 in the Book of Rules and Regulations), the Signaller must restore the Staff to the Instrument and give the Cancelling signal, and when the signal has been acknowledged he must signal the train as a Ballast Train Requiring to Stop in the Section.

(b) The Engine-driver of a Ballast train that has to do work on the Line must be told, when receiving the Staff, to which end of the Section it has to be taken, and at what time it is to be there, in order to clear the Line for the next train.

(c) Should the Guard of the Ballast train require his train to return to the Staff Station in the rear instead of going through to the Staff Station in advance, he must obtain the permission of the Signaller before the train enters the Section. When the train has arrived back complete and the Single Line is again clear, the Signaller must restore the Staff to the Instrument and give the Cancelling signal to the Staff Station in advance.

(d) When a Ballast train has to return to the Staff Station in the rear, no shunting outside the Home Signal at that end of the Station must be allowed until a man with Hand and Detonating Signals has been sent out to protect such shunting.

(e) When a Ballast train in possession of the Staff is at work on the Line, it will not be necessary to send out Flagmen to protect it, as directed in Rule 279 of the Book of Rules and Regulations.

11. REPAIRERS' TROLLEYS GOING THROUGH TUNNELS.—(a) When it is necessary for a Repairers' trolley to go through any of the Tunnels specially enumerated in the Appendix to the Working Time Table as coming within the application of this Regulation, the Ganger or Leading Repairer in charge of the trolley must be in possession of the Staff; the trolley must be signalled on the Staff Instruments in accordance with the authorised Code, and the Signaller at the Staff Station in advance must, if the Section be clear, give permission for the trolley to approach. Should the trolley, after passing through the Tunnel, be removed from the rails before reaching the next Staff Station, the Ganger or Leading Repairer must take the Staff to the Signaller at the end of Section nearest to him and he must inform the Signaller that the trolley is clear of the Line, and hand the Staff to him.

(b) If the Ganger returns to the Staff Station in the rear, the Signaller there must, after restoring the Staff to the Instrument, send the Cancelling signal to the Staff Station in advance.

12. TRAIN ARRIVAL.—Trains must be considered out of Section and the Train Arrival signal given to the Signal-box in the rear as under.

- (i) At a Station which is not a Crossing-place, when the last vehicle (with White Disc or Red Tail Light attached) has passed at least a quarter of a mile beyond the Home Signal.
- (ii) At a Crossing, Terminal or Junction Station, when the last vehicle of the train (with White Disc or Red Tail Light attached) has arrived within the Home Signal.

NOTE to (ii).—*When the last vehicle of a train does not pass the Signal-box before it has been shunted into a Siding, or when a Train has been brought to a stand within the Home Signal, and it is necessary to give the Train Arrival signal before the train passes the Signal-box, the Signalman must, before giving such signal, ascertain from the Guard or Shunter in charge of the train that the whole of the train (with White Disc or Red Tail Light attached) has arrived, and the Guard or Shunter will be held responsible for giving this information to the Signalman, the Fireman being similarly responsible in the case of a light engine.*

13. TRAIN AN UNUSUALLY LONG TIME IN SECTION.—When a train is an unusually long time in a Section the Signalman at both ends of the Section must take the necessary action with a view to ascertain the cause and immediately communicate with the Station-master.

14. TRAIN STAFF STATIONS WHICH ARE NOT CROSSING-PLACES.—In the case of a Staff Station which is not a Crossing-place, situated between two Staff Stations, both of which are Crossing-places, the Signalman must not allow a train to approach from the Station on each side of him at the same time.

15. CROSSING TRAINS OUT OF COURSE.—

(a) If one of the trains which have to pass each other at a Crossing-place is late, the train which will arrive first must be sent on to the next Crossing Station in advance if it will be advantageous to do so.

(b) The Signalman or person in charge will be held responsible for deciding whether this shall be done or not, using his discretion according to the circumstances, and the Signalman at the Staff Station in advance must, when practicable, be informed of the course decided upon.

16. OBSTRUCTION DANGER SIGNAL.—(a) Should it be necessary, in consequence of obstruction or other cause, for an approaching train to be stopped at the Staff Station in the rear, the Obstruction Danger Signal must be forwarded to that Station, and the Signalman receiving such signal must immediately exhibit the Danger signal and take the necessary measures to stop the approaching train; he must not allow the train to proceed until he has received from the Staff Station in advance the Obstruction Removed signal, nor until the proper signals have been sent and acknowledged.

(b.) If necessary the Signalman must send the OBSTRUCTION DANGER signal in both directions.

(c.) The Signalman forwarding the OBSTRUCTION DANGER signal must also place or maintain his Signals at DANGER to protect the obstruction.

(d.) Should a Signalman receiving the OBSTRUCTION DANGER signal succeed in stopping a train for which the IS LINE CLEAR? signal has been ac-

cepted by the Signalman at the Staff Station in advance, he must at once restore the Staff to the Instrument, and advise the Signalman at that Station by giving the CANCELLING signal.

(e.) Should a Signalman receiving the OBSTRUCTION DANGER signal not be able to stop the train for which the IS LINE CLEAR? signal has been accepted by the Signalman at the Staff Station in advance, he must at once send the signal TRAIN OR VEHICLES RUNNING AWAY—viz., 12 beats (given thus: 2—5—5)—and the Signalman receiving the latter signal must immediately use all the means at his command to stop the approaching train, afterwards acknowledging the signal.

(f.) When the obstruction has been removed, and the Main Line or Lines are again clear, the OBSTRUCTION REMOVED signal must be given to the Signal-box in the rear.

17. OBSTRUCTION ON LINE.—(a.) Should a Signalman become aware that cattle, horses, or other animals are on the line, and likely to cause an obstruction, he must at once inform the Signalman at the box in the rear of the circumstances, on the telegraph or telephone, and take the necessary steps to have the line cleared. Until it has been ascertained that line is clear, all trains and engines allowed to proceed must be brought to a stand and the Driver verbally informed of the circumstances and instructed to proceed cautiously.

(b) Should there be a Tunnel in the obstructed section, no train must enter such tunnel until it has been ascertained that it is clear.

(c.) When the Signalman has ascertained that the line is clear he must advise the Signalman at the opposite end of the section, and trains may then be allowed to proceed in the ordinary manner.

18. RELEASE STAFF FOR SHUNTING.—

(a.) To obtain a Staff for shunting, the Signalman must send the RELEASE STAFF FOR SHUNTING signal to the next Staff Station, and the Signalman there must, provided he is in a position to accept such signal, acknowledge it, and give permission for a Staff to be withdrawn.

(b.) When it is necessary to work an intermediate Station or Siding between two Staff Stations and the train requires to return to the Station from which the Staff was obtained, the Engine-driver must be told when receiving the Staff at what time he must return in order to clear the line for the next train.

(c.) When the shunting is completed, and the Single Line is again clear, the Staff must be replaced in the Instrument, and the SHUNTING COMPLETED—STAFF REPLACED signal sent to the next Staff Station.

19. SECTION OBSTRUCTED.—(a) In the event of an engine becoming disabled between two Staff Stations, the Engine-driver must send his Fireman to the nearest Staff Station with the Staff, and on arrival there the Fireman must inform the Signalman of the circumstance. The Signalman will then arrange to run a Relief engine from his Station or communicate with the Signalman at the other end of the Section, with the object of obtaining a Relief engine from that end.

(b.) If the Relief engine is supplied from the Station at which the Fireman of the disabled engine has arrived, the Fireman must personally hand the Staff to the Driver of the Relief engine and accompany him to the place where the disabled engine was left. The Signalman, before allowing the Relief engine to leave, must see the Staff in the Driver's pos-

session, and notify the Signaller at the opposite end of the section of the circumstance.

(c.) If the Relief engine be obtained from the opposite end of the Section, the Signaller at the Station at which the Fireman arrived must obtain the Staff from the Fireman, insert it in the Instrument, and give the ENGINE OF LAST TRAIN DISABLED IN SECTION signal (2-1-2-1) to the Signaller at the opposite end, together with full particulars of the circumstances. This must be done in the presence of the Fireman.

(d.) The Signaller who received the ENGINE OF LAST TRAIN DISABLED IN SECTION signal must obtain a Staff for the Relief engine by giving the RELIEF ENGINE TO REMOVE BREAKDOWN signal (4-2-4-2), and the Staff so obtained must be handed to the Driver of the Relief engine, together with a written order stating the position of the disabled engine; the Driver must sign for the order on a copy held by the Signaller. The Staff and the order must be retained until the disabled engine, or engine and train, are removed to the most convenient end of the Section, or are safely secured in an intermediate Siding, and the Section is again clear for traffic.

(e.) The Driver of the Relief engine must exercise extreme care in running to the point of obstruction, and after removing the disabled engine or engine and train to the most convenient end of the Section, must then hand over the Staff to the Signaller or other authorised person, who must, if the disabled train is taken to the Staff Station in advance, place the Staff in the instrument and give the TRAIN ARRIVAL signal; but if the disabled train returns to the Staff Station in the rear, the Signaller there must, after he has assured himself that the Section is clear, replace the Staff in the Instrument, and give the CANCELLING Signal to the Staff Station in advance. The Signallers at both Staff Stations must note the circumstances in their Train Register Books.

(f.) The Fireman when proceeding for assistance must place Detonators on the line as directed in Rule 245 of the Book of Rules and Regulations, and the Guard must similarly protect his train in the opposite direction. Should the stoppage or failure occur to an engine not attached to a train, the Fireman must at once place Detonators on the line in one direction, before he proceeds in the opposite direction for assistance.

(g.) The first train passing over the Section after the Line is again clear must be stopped, and the Engine-driver advised of the circumstances.

20. (a.) Should an accident or obstruction 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 Staff Station on each side of the point of obstruction. The Staff must be used to work trains between the point of obstruction and the Staff Station on the one side, and, on the other side, the traffic must be conducted by a Pilotman.

(b.) Should the obstruction be caused by a disabled train, and the engine is UNABLE TO RUN FORWARD, the traffic must be conducted in accordance with the following instructions:—

(i.) The Guard must put the Engine-driver in charge of the point of obstruction, and the Driver must then give the Guard a written order addressed to the Station-master at the Staff Station in advance stating the point of obstruction and 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 Staff Station in advance, and hand the written order to the Station-master, advising him of what has occurred. The Station-master must then arrange for three or more, as may be necessary, of the printed forms provided for the purpose of establishing working by Pilotman during obstruction (*see* page 322 for specimen form), to be filled up; one of these, signed by the Pilotman, he must deliver, in the presence of the Pilotman, to the Signaller in charge of the Staff 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 (and the Station-master must show the written order to the Driver before allowing the Relief train to proceed to the obstruction) to the Engine-driver in charge of the point of obstruction.

(ii.) 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. So soon as he is satisfied that the arrangements are understood, trains may be allowed to go on to the Section under the control and by the permission of the Pilotman. The Engine-driver, when put in charge of the point of obstruction, must hand the Staff to the Fireman, and instruct him to take it back to the Staff Station from which it was issued, to work trains between that Station and the point of obstruction until the Line is clear.

(c.) Should, however, the engine of the disabled train BE ABLE TO RUN FORWARD the traffic must be conducted in accordance with the following instructions:—

(i.) The Driver must give the Guard a written order addressed to the Station-master at the Staff Station in the rear, stating the point of obstruction, and that he will not allow the disabled train to be moved until the Relief Engine arrives. The Driver must place his Fireman (if there be only one guard) in charge of the point of obstruction, and proceed with his engine to the Staff Station in advance, and, after advising the Station-master at that Station of what has occurred, deliver up the Staff to him, and the traffic between that Station and the point of obstruction will be worked by the Staff. The Guard must proceed to the Staff Station in the rear, and hand the written order to the Station-master at that Station advising him of what has occurred. The Station-master must then arrange to establish Pilot-working between his Station and the point of obstruction. The traffic between the Advance Station and the point of obstruction will be worked by the Staff, and in the rear by Pilot.

(d.) Should the obstruction be caused by a train assisted by an engine in the rear (or two trains coupled), and the leading engine is able to run

forward, the traffic must be conducted in accordance with the following instructions:—

- (i.) The Driver of the leading engine must send his Fireman to the Driver of the rear engine and obtain from him an order in writing authorising the Driver of the leading engine to return from the Staff Station in advance. The driver of the leading engine must advise the Station-master of what has occurred, and the Station-master must arrange to establish Pilot-working between his station and the point of obstruction. The Driver of the rear engine must then hand the Staff to his Fireman and instruct him to take it back to the Staff Station from which it was issued to work trains between that station and the point of obstruction until the line is clear.
  - (ii) In the event of the rear engine not being disabled, it must return to the Staff Station in the rear, and the Engine-driver must advise the Station-master of what has occurred, and deliver the Staff to him to work trains between that station and the point of obstruction until the Line is clear. The traffic will then be conducted as described in sub-clause (i).
  - (e) Should the obstruction be caused by a Light Engine, not accompanied by a Guard, the Driver must hand the Staff to his Fireman and instruct him to take it back to the Staff Station from which it was issued, to work trains between that Station and the point of obstruction until the line is clear. The Driver must then give some competent person a written order addressed to the Station-master at the Staff Station in advance, stating the point of obstruction, and that he will not allow the disabled engine to be moved until the Relief Engine or train arrives. The Station-master at the Staff Station in advance, on receipt of such order, must arrange to establish Pilot Working as provided in clause (b).
  - (f) A conspicuous notice must be affixed to the Staff Instrument stating—INSTRUMENT NOT IN USE; OBSTRUCTION EXISTS AT MILE-AGE , STAFF No. , WORKING TRAFFIC, and Engine-drivers, when proceeding to the point of obstruction with the Staff, must be handed a written Order stating the position of the obstruction; the Driver must sign for the Order on a copy held by the Signalman.
- In all cases the Signalman at each end of the Section must communicate with each other and arrive at a clear understanding how the obstruction is to be removed.
- (g) The Guard, Fireman, or other competent person, when proceeding to the advance and rear Stations, must place Detonators on the rail, as per Rule 245 of the Book of Rules and Regulations. On their return they will be held responsible for the protection of the obstruction until relieved.
  - (h) Signalmen 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.
  - (i) The Regulation Badge is a Red Armlet with the word Pilotman shown thereon in white letters, thus:—



(j) Block Telegraph Working, where in operation, must be suspended, and the Single Line on each side of the obstruction must be protected by Hand Signalmen in the usual way.

(k) When the Line is again clear, no train must be allowed to pass the point where the obstruction existed without the Staff; the Pilotman must accompany the first train carrying the Staff to the Staff Station to which the train was proceeding at the time of the accident, or back to the Station from which it started. After the Engine-driver has given up the Staff to the Signalman, and the Pilotman has withdrawn his arrangements for Pilot-working (see Regulation 45), the traffic must again be conducted in accordance with these Regulations.

(l) In no case of obstruction away from a Staff Station must a Staff be restored to the Instrument at either end of the Section until the Section is clear, except as laid down in Regulations 19 and 28.

21. TRAIN OR PORTION OF TRAIN LEFT ON SINGLE LINE.—(a) 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, and it becomes necessary for the engine to return to the train or rear portion of the train from the Staff Station in advance, the Engine-driver must retain possession of the Staff until the whole of the train is removed from the Section.

(b) After sunset, or in foggy weather, 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 by night, the Under-Guard, or the Fireman, must place two detonators upon the line about 100 yards from the front vehicles of the rear portion to notify the Engine-driver when returning of the position of the remainder of his train.

(c) Should a failure occur to an engine assisting a train in the rear, the Driver of the train engine must send his Fireman to the Driver of the assisting engine, and obtain from him an order in writing authorising the driver of the train engine to return from the Staff Station in advance for the remainder of the train. The train engine must then proceed to the Staff Station in advance, and after disposing of the front portion of the train, the Engine-driver, after informing the Signalman what he is about to do and handing him the written order, must return and remove the rear portion of the train and the disabled engine from the Section; but if an intermediate Siding exist where the disabled engine or a portion of the train can be disposed of, and access cannot be obtained except by means of the Staff, the Driver of the disabled engine must hand the Staff to the Driver of the leading engine, together with a written order stating he will not allow the disabled engine to be moved until the leading engine returns, and if the disabled engine is also placed in the intermediate siding, not until the Driver of the disabled engine is in possession of the Staff or is attached to an engine, the Driver of which is in possession of it. On arrival at the Staff Station the order held by the Driver of the leading engine must be delivered to the Signalman.

(d) Should the assisting engine fail and the train proceed, owing to the Driver of the train engine not being aware of the failure of the assisting engine, the Fireman of the assisting engine must act as directed in Regulation 19, and the disabled engine

must not be moved until the relieving engine has arrived.

(e) If the train is assisted by a bank engine in the rear, and the train engine become disabled so that it cannot be moved forward, the bank engine must draw the train back to the Staff Station, but the Staff must not be delivered up to the Signaller, but must be retained by the Driver of the bank engine, who will return to the assistance of the disabled train engine, acting in accordance with the provisions of Regulation 19.

22. (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 instructions as set forth in Regulation 16 of the Staff and Ticket Regulations must be carried out, the Pilotman taking the place of the Train Staff. The Guard must protect his train in accordance with the Rules.

(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 be with the train, and accompanies the engine with the first portion, the Driver may return without written instructions from the Guard.

(d) If the Pilotman be not accompanying the train, the Driver must not return for the rear portion unless he has received written instructions from the Guard authorising him to do so, and the Guard must continue to protect his train in the rear and prevent a following train from pushing it ahead.

(e) After sunset, or in foggy weather, 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 100 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.

23. BREAK-DOWN VAN TRAINS, AND ENGINE REPLACING, OR ASSISTING DISABLED ENGINE.—(a) To prevent delays, Break-down Van trains, when proceeding to clear the Line, must be signalled as Express Passenger trains.

(b) The same course must be adopted in the case of one engine proceeding to take the place of another that has failed, or of an engine, with or without a train, when sent forward to render assistance in case of failure or accident to preceding trains.

(c) The Engine must carry Express passenger Train Head Signals (where provided).

24. FOULING SINGLE LINE FOR STATION WORK.—(a) The Single Line outside the Home Signal must not be fouled after permission has been given for a train to approach from the opposite end of the Section.

(b) Permission must not be given for a train to approach from the opposite end of the Section when there is any obstruction upon the Single Line outside the Home Signal.

(c) Except as shown below, a train must not be allowed to foul the Single Line for Station work outside the Home Signal applicable to a train approaching from the opposite end of the Section, unless the Engine-driver is in possession of the Staff for the Section so fouled.

#### EXCEPTIONS.

*Subsection (i.)—Not applicable except where specially authorised.*

(i.) If permission has not been given for a train to approach from the opposite end of the Section, the Signaller may, if necessary, allow the Single Line to be fouled, but before doing so he must send the BLOCKING BACK signal, which signal must be acknowledged.

When the Single Line is again clear, he must send the OBSTRUCTION REMOVED signal, which must also be acknowledged.

The Single Line outside the Home Signal may, if necessary for Station Work, be fouled at both ends of the same Section at the same time, provided no train is approaching in the Section, and that the BLOCKING BACK signal has been given to, and acknowledged by, the Signaller at the opposite end of the Section.

When a Signaller gives the BLOCKING BACK signal for the purpose of asking permission to occupy the Line outside the Home Signal, and the Signaller at the Staff Station in the rear is not in a position to give such permission, he must not repeat the BLOCKING BACK signal, or acknowledge it in any way, and until the signal has been acknowledged, the line must not be occupied.

(d.) If a train is travelling in the Section away from the Station at which shunting operations have to be performed, and it is necessary to foul the Single Line outside the Home Signal, this may be done; but immediately the TRAIN ARRIVAL signal has been received for that train, the Signaller must, if the Single Line outside the Home Signal is still fouled, give the BLOCKING BACK signal to the Staff Station at the opposite end of the Section, and after it has been acknowledged apply for a Staff (*see* Regulation 18).

(i.) If the train in the Section ahead is a Ballast train working in the Section, and is intended to return back to the Station without going to the Station in advance, or a train the assisting engine of which is in possession of the Bank Engine Key (*see* Regulation 47), shunting outside the Home Signal must not be permitted until a man with Hand Signals and Detonators has been sent to protect such shunting.

(e) Unless special permission is given by the Chief Traffic Manager, no train or vehicle must be placed outside a Home Signal where the Line is on a falling gradient towards the Staff Station in the rear, and then only if there is a man in the leading vehicle in a position to prevent a runaway by using the Brakes.

(f.) A train or vehicles must not be placed beyond the sight of the Signaller, nor outside the Distant Signal.

(g.) When the obstruction has been removed and the Main Line or Lines are again clear, the OBSTRUCTION REMOVED signal must be given to the Staff Station in the rear.

(h) The Signallers forwarding and receiving the BLOCKING BACK signal must make a note of the circumstance in their Train Register Book.

NOTE.—An Engine-driver must not, except when special instructions are issued to the contrary by the Chief Traffic Manager, foul the Single Line outside the Home Signal for Station work unless he is in possession of the Staff or the written authority of the Signaller to do so.

The authority must be collected from the Engine driver immediately the work is completed or when

the Signaller desires to withdraw it; before the authority is withdrawn, the whole of the train must be again brought under the protection of the Home Signal. When the authority is withdrawn the word "Cancelled" must at once be written in ink across the face of it. The cancelled authorities must be sent at the close of each month to the District Traffic Superintendent.

During foggy weather shunting outside the Home Signal is prohibited, except when the Driver is in possession of the Staff.

25. STOP AND EXAMINE TRAIN.—(a.) If a Signaller observe anything unusual in a train during its passage, such as signals of alarm by a passenger, goods falling off, a vehicle on fire, a hot axle box, or other mishap (except a Tail Disc missing or a Tail Light out, or a Train divided, for arrangements as to which (see Regulations 28 and 29 of this Appendix), he must endeavour to stop the train; should he fail to do so he must give to the Signaller at the Staff Station in advance the STOP AND EXAMINE TRAIN signal, and the Signaller at the Staff Station in advance must acknowledge such signal, and immediately exhibit the DANGER signals to stop the train coming from the Staff Station from which the signal was received. The train, when stopped, must be carefully examined and dealt with as occasion may require.

(b.) Should the Signaller who receives the STOP AND EXAMINE TRAIN signal be unable to ascertain, after examination of the train, why the signal was sent, he must, if the next train is travelling in the opposite direction, inform the Engine-driver of that train of the circumstances, and instruct him to proceed cautiously to the next Staff Station. He must also communicate with the Signaller who forwarded the signal in order that the latter may, if necessary, caution the Engine-driver of the next following train.

(c.) Where practicable, the Signaller must also telegraph or telephone the Staff Station in advance the cause of sending the STOP AND EXAMINE TRAIN signal. Signallers must be careful to notice each train as it passes, to ascertain whether there is any apparent necessity for having it stopped at the next Staff Station for examination.

(d.) Should either Signaller have reason to believe, in the case of a vehicle being off the rails or goods falling from the train, that the Permanent-way has been damaged or fouled, he must not allow any train to proceed in the direction of the obstruction until the line has been examined and he is satisfied that it is safe for the passage of the train.

(e.) The STOP AND EXAMINE TRAIN signal must always be sent in any of the circumstances named, even where in Short Sections it is possible that the train may have passed onward into one or more Sections. The duty of the Signaller receiving the STOP AND EXAMINE TRAIN signal, if he cannot stop the train, is to immediately pass on the same signal to the Signaller in advance, who must at once put up his signals to stop the train, and those for any Parallel Line which might possibly become obstructed.

26. CANCELLING SIGNAL.—Should it be necessary to cancel the IS LINE CLEAR? or TRAIN DEPARTURE signal, the Signaller must restore the Staff to the Instrument and send the CANCELLING signal to the Staff Station in advance, which signal must be acknowledged; an entry must

be made in the Train Register Book recording the fact of the signal having been cancelled. The CANCELLING signal must not be used unless the IS LINE CLEAR? or TRAIN DEPARTURE signal has been acknowledged or accepted, and must only be used in cases where a train has been signalled to the Staff Station in advance, and it is found that such train will not proceed in the usual course.

27. LAST TRAIN SIGNALLED INCORRECTLY DESCRIBED.—For the purpose of correcting an IS LINE CLEAR? signal, should a wrong description of train have been sent forward, the Signaller wishing to alter it must do so by giving 8 strokes on the Bell (5-3), signifying LAST TRAIN SIGNALLED INCORRECTLY DESCRIBED to the Signal-box in advance, which signal must be acknowledged. The correct IS LINE CLEAR? signal must then be forwarded and acknowledged in the ordinary manner. The position of the Indicator must not be interfered with.

28. TRAIN PASSED WITHOUT TAIL DISC OR LIGHT.—(a.) All trains and light engines will carry a White Disc in the rear by day and a Red Tail Light by night, to indicate to the Signaller that no vehicle has become detached on the journey, and Signallers must carefully watch each train as it passes, and satisfy themselves that it is complete before giving the TRAIN ARRIVAL signal to the Staff Station in the rear.

(b.) If a train should pass with the Tail Signal missing or out, the Signaller must send the TRAIN PASSED WITHOUT TAIL DISC OR LIGHT signal to the Staff Station on each side of him, but must not deposit the Staff in the Instrument. The Signaller at the Staff Station in advance must stop the approaching train, and ascertain from the Guard whether his train is complete. If the train is complete, the Signaller must give the TRAIN ARRIVAL signal, and the Signaller at the Staff Station from which the TRAIN PASSED WITHOUT TAIL DISC OR LIGHT signal was sent must then deposit the Staff in the Instrument and give the TRAIN ARRIVAL signal to the Station in the rear. Should the Signaller become aware as the train passes into the Section in advance, or on receipt of information from the Staff Station in advance, that a portion of the train has been left behind, steps must be taken to clear the obstruction, the first available engine at either end of the Staff Section being detached from its train for the purpose of clearing the Line.

(c.) If the engine which is to remove the obstruction starts from that end of the Section where the Staff is out of the Instrument, the Signaller must hand such Staff to the Engine-driver and instruct him to proceed cautiously to the vehicle or vehicles which have become detached, and remove them to the most convenient end of the Section.

(d.) If, however, the relieving engine is to start from the other end of the Section, then the Staff must (after all arrangements are made) be placed in the Instrument, so that one may be withdrawn at the other end of the Section to enable the relieving engine to proceed to the vehicle or vehicles which have become detached, and remove them to the most convenient end of the Section.

(e.) In either case, the Signallers at each end of the Section must communicate with each other and arrive at a clear understanding as to how the obstruction is to be removed.

(f) The engine sent into the Section to clear the obstruction must be dealt with as laid down in Regulation 19.

(g) When trains or engines stop at Staff Stations or before leaving Termini, Signalmen should, where practicable, see that the Tail Signals are in proper order, so as to avoid as far as possible the unnecessary use of the TRAIN PASSED WITHOUT TAIL DISC OR LIGHT signal.

29. TRAIN DIVIDED.—(a) This signal must be sent to the Staff Station in advance in the event of a Signalman observing that a train has become divided, and is running in two or more parts in the same direction. If the train is assisted by a Bank Engine in the rear, or is running on a falling gradient or between short Sections where the stoppage of the first part would risk a collision with the second part, the Signalman receiving such Signal, if the Line on which the divided train is running be clear ahead for it to run upon, and permission has not been given for a train to approach from the opposite direction, must not exhibit the Signals to stop the first portion, but must give the Engine-driver a Green Signal, either by flag or hand lamp as occasion may require, moving the Signal in a vertical circle. The Engine-driver, on seeing the Green Signal moved in a vertical circle, will understand that his train is divided, and must exercise great caution by looking out for the second portion, and unless he has reason to believe the Line is not clear ahead, must not stop the portion attached to his engine until he is satisfied that the rear portion has been stopped, or is running very slowly. He must, however, observe and obey any Signals that may be exhibited against him. If the Line be not clear into the next Section ahead the Signalman must keep the Signals at DANGER against the approaching train. So soon as the first portion of the train has passed, the Signalman sending and receiving the TRAIN DIVIDED signal must take proper measures for dealing with the second portion, and place Detonators on the rails to attract the attention of the Guard, or of the Bank Engine-driver should there be a Bank Engine in the rear.

(b) If the divided train is running on a rising gradient, or where the Line is level, and is not assisted by a Bank Engine in the rear, the Signalman receiving the Signal must exhibit the DANGER signal to stop the train. The first portion of the divided train, when stopped must be shunted into a Siding as expeditiously as circumstances will permit, or otherwise dealt with as may be necessary to prevent the second portion coming into collision with it.

(c.) No train must be allowed to enter the Section until it has been ascertained that the Line on which it is about to run is not obstructed.

(d.) Should a train become divided in starting, and the Engine-driver run forward with the first portion, leaving the rear portion stationary, the STOP AND EXAMINE TRAIN signal must be sent to the Staff Station in advance, and not the TRAIN DIVIDED signal.

30. SHUNT TRAIN FOR FOLLOWING TRAIN TO PASS.—This signal must be used to prevent important trains being delayed by less important trains. When, before the TRAIN ARRIVAL signal has been received from the Staff Station in advance for the last train, the Signalman receives a signal from the Staff Station in the rear for a more important train, the SHUNT signal must be sent to the Staff Station in advance, and the Signalman there, on receiving this signal, must take the

necessary measures to clear the Line so as to prevent delay to the second train. The Signalman forwarding and receiving the SHUNT signal must make a note of it in their Train Register Books.

31. VEHICLES RUNNING AWAY.—(a.) If any vehicle, train, or portion of a train, is running away, the Signalman at the Staff Station towards which the train or portion of the train is running must be advised of the fact by the Signalman at the Staff Station in the rear giving the VEHICLES RUNNING AWAY signal. The Signalman receiving this Signal must stop any train about to proceed on the same Line, and take any other measures that may be necessary, such as turning the runaway train on to another Line or into a Siding, or repeating this signal to the next Staff Station as may be most expedient under the circumstances.

(b.) The first train travelling in either direction must not be allowed to proceed until it has been ascertained that the Line on which it is about to run is not obstructed.

(c.) The Signalman at the Staff Station from which the runaway vehicle or train has started, or any other Signalman whose Station may be passed by the runaway vehicle or train, must immediately give the OBSTRUCTION DANGER signal to the Signalman at the Staff Station towards which the runaway vehicle or train is travelling before giving the VEHICLES RUNNING AWAY signal, as prompt action on the part of both Signalmen may prevent a mishap. Should the Signalman receiving the OBSTRUCTION DANGER signal succeed in stopping the train or engine for which the IS LINE CLEAR? signal has been accepted, he must restore the Staff to the Instrument, and then advise the Signalman in advance by giving the CANCELLING signal.

32. VEHICLES RUNNING AWAY ON RIGHT LINE.—

*Not applicable to Single Line Working.*

33. OPENING AND CLOSING OF BOXES WHERE SWITCHES ARE PROVIDED.

The normal Section is A—C, but when required B will be cut in as a Staff Station, and the Sections will be A—B, B—C.

Duplicate UP and DOWN electric staff instruments are provided at A and C respectively, and two instruments are also provided at B. These four extra instruments are so constructed that the staffs from any of them will not enter the ordinary UP and DOWN instruments at A or C. A switch with a detachable key is provided at A and at C, and when these keys are not in use THEY MUST BE SAFELY LOCKED UP.

When it is necessary to use the keys they must be placed in the switch and turned round as far as they will go, and they cannot then be taken out except by returning the switches to their normal positions. An interlocking staff switchboard for three staffs is provided at B. In its normal position it holds two keyed staffs, one from each of the instruments at B. These staffs cannot be withdrawn until the third staff (which is a keyed staff from one of the ordinary through instruments A—C) is inserted in the centre hole and turned round as far as it will go. This releases the two B staffs and they can then be turned round and withdrawn, which locks up the through staff and switches the line on to B. The two staffs released must at once be replaced in their proper instruments.

**Opening B as a Staff Station.**

The Signalman appointed to open B must report himself to the Signalman at that end of the Section from which the first train is expected to leave prior to the opening of the temporary switch station at B. (*See footnote.*) The Signalman will then advise the Signalman at the other end of the through Section of the circumstances, instructing him to place his key in the switch. The former will then ask for a staff in the usual way, and withdrawing a KEYED STAFF hand same to the Driver in the presence of the Signalman appointed to open the Switch Box. (*See footnote.*) If the train, then, is ready to depart, the Signalman will give the "Train Departure" signal, and when acknowledged will follow same by the "Closing of Signal Box" signal, and on acknowledgment depress his ringing key. If the needle does not deflect he can turn his own switch to "In." The Signalman at the opposite end of the Section on being advised of the circumstances must at once place the key in his switch without, however, turning same. If the line is clear he will allow a staff to be taken out in the ordinary way, and on the receipt of the "Closing of Signal Box" signal, will acknowledge same and at once turn his switch to "In."

The Signalman appointed to open the Switch Box will ride on the engine to B, and on arrival the Engine-driver will deliver the staff to him. (*See footnote.*) The through staff is then to be inserted in the centre hole between the two other staffs and turned round, which releases the two staffs belonging to the B instruments. These two staffs must be withdrawn, inserted in their proper instruments, and the "Opening of Signal Box" signal given on both sides. On acknowledgment of this from both sides the Temporary Staff Station will be opened, and if the train the Signalman came by was a through train a staff for the proper Section can be obtained in the ordinary way, and handed to the Engine-driver to enable him to proceed on his journey.

**Closing B as a Staff Station.**

On the arrival at B of the last train that will use the temporary sections the staff must be deposited in the instrument in the ordinary manner, and the Signalman at B will apply to the stations on either side of him for a staff, by sending the "Staff for Closing Switch" signal (7-5-1). He will place the staffs as he receives them into the switchboard, turning them round. When the second one has been placed in the switchboard and turned he will give the description of train as per code to the station in advance. The station in advance will repeat this, without, however, holding down on last beat. On receipt of acknowledgment B will turn the centre staff and, releasing same, hand it to the Engine-driver. He will then give the "Train Departure" signal, and when this has been acknowledged, the "Closing of Signal Box" signal to both sides. The Signalman at both ends of the Section must, immediately after acknowledging the "Closing of Signal Box" signal, turn the switch to "Out," withdraw and lock up the key. They must then immediately communicate with one another on telegraph or telephone to satisfy themselves that the through connection has been made. On the arrival of the train at the station in advance the staff is to be deposited in the proper instrument, and "Train Arrival" signal given in the usual way.

**Note.—Signalmen Resident at Switch Stations.**

In cases where the Signalman is resident at the Switch Station it will not be necessary for him to report in person at either end of through Section, but he must do so by wire and arrange according to circumstances.

**34. FAILURE OF STAFF APPARATUS.—**

(a) In the event of the failure of the Staff communication between any two Staff Stations, steps must at once be taken to have the difficulty put right, but if this cannot be immediately done, the working of the traffic over the Section must be arranged for by means of a Pilotman. If the Telegraph or Telephone communication is available, the Station-masters at both ends of the Sections must communicate with each other by telegraph or telephone (the communication being written on the proper forms in the usual way), and agree as to who shall arrange for Pilot-working, and as soon as a definite understanding has been arrived at, the Station-master who undertakes to make the arrangements for working by Pilotman must fill up and sign a sufficient number of the forms (*see page 323 for specimen form*) for establishing working by Pilotman during the failure of the apparatus; one of these (signed by the Pilotman) he must deliver, in the presence of the Pilotman, to the Signalman at the Staff Station at his end of the Section. One signed by the Signalman must be handed to the Pilotman who must also sign it, and the remainder must be handed to the Pilotman. The Pilotman must proceed as quickly as possible to the other end of the Section, using the best means at his disposal for the purpose—but must not, unless there is a Staff out of the Instrument and in his possession, or unless one can be withdrawn from the Instrument at his end of Section, use an engine or any railway vehicle, other than a trolley or tricycle. He must leave a copy of the form (signed by himself) with the person in charge of any intermediate Signal-box or Station then open between the points between which Pilot-working is about to be put into operation, and each of such persons must sign the form held by the Pilotman. On his arrival at the other end of the Section the Pilotman must deliver one of the Forms (signed by himself) to the Station-master, and another (also signed by himself) to the Signalman on duty, each of whom must also sign the form held by the Pilotman. Afterwards trains may be allowed to enter the Section in accordance with the following instructions:—

- (i) The Pilotman must inform the Engine-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, he must furnish the Engine-driver in charge of each train not accompanied by himself with one of the printed Pilotman's Caution Tickets (*see page 324 for specimen Ticket*) properly filled up and signed, must personally start such trains, and himself accompany the last train. The Tickets granted in these cases will apply only to the single journey to the other end of the Section, where they must be immediately given up to the Signalman, who must at once cancel them by writing the

word "Cancelled" across the face of the Ticket, and after ordinary working has been resumed, they must be forwarded to the District Traffic Superintendent with a report giving full particulars. In the event of the Telegraph or Telephone Instrument failing, no train must be allowed to follow another within the ordinary running time of the Section (unless the Signaller can satisfy himself that the Section is clear), the Signaller must communicate with the Pilotman, and the Pilotman must instruct the Engine-driver to proceed cautiously.

- (ii.) Staff-locked Intermediate Sidings controlled by means of the Staff must only be worked by trains accompanied by the Pilotman. The Signal Employee must also accompany the train and open the locks at the Sidings with a "master key" by direction of the Pilotman. After the shunting has been completed, the Signal Employee and Pilotman will be held responsible for the points being properly set and secured for the Running Line.

- (iii.) The Pilotman, in the event of there being a Staff out of the Instrument at his end of the Section, or if one can be withdrawn from the Instrument at his end, when the Staff communication fails, must take possession of such Staff, and if there is an engine available, he may use the engine for the purpose of conveying the forms to the Staff Station at the other end of the Section. He must keep the Staff in his possession until the Staff apparatus is again repaired and ready for use; and on arriving at the other end of the Section he must, when delivering the form to the Signaller there, show him the Staff, and also show it to the Engine-driver of every train passing over the Section during the time Pilot-working is in operation.

- (iv.) Should the Telegraph or Telephone, as well as the Staff communication, have failed, and the men at each end of the Section be unable to communicate with each other, the Station-masters at both ends of the Section must arrange for Pilot-working, and the Pilotmen appointed at both ends must proceed along the Railway in order that they may meet, and on doing so they must go together to the Station at which a train is waiting or is expected. The Pilotman who returns to the Station from which he started must obtain the form which had been handed to the Signaller there, and return it and the other forms in his possession to the Station-master who filled them up, and the latter must at once cancel them by writing the word "Cancelled" across them. The other Pilotman must hand one of his forms to the Signaller as directed above, and act as Pilotman.

- (b.) 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. The Regulation Badge is a Red Armlet with the word "Pilotman" shown thereon in white letters, thus:—



NOTE.—If there is not a Staff out of the Instrument at the time a failure occurs 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.

(c.) 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. (See Relief of Pilotman order, page 323.) The issue of the new forms must only be done by the person who arranged the Pilot working, to whom the new Pilotman must afterwards deliver the old forms.

(d.) After one Pilotman has been relieved by another the Pilotman who has been relieved must not ride upon any engine until he resumes duty as Pilotman.

(e.) 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. He must, before taking charge, countersign the form held by the Pilotman.

(f.) When the Staff Apparatus is again repaired and ready for use, the Pilotman must withdraw the notice for Pilot-working (see Regulation 45) at one end of the Section, then take the Staff, if there be one out of the Instrument, from that end of the Section to the other end of the Section, and after delivering it to the Signaller there, and withdrawing the notice for Pilot-working, the traffic will be again conducted in accordance with these Regulations.

(g.) Signallers must not, on any account, lower their Signals to 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. The Pilotman must obtain the permission of the Signaller before allowing a train to enter the Section that is being worked by Pilot.

35. RECORDING TIME WHEN SIGNALS ARE FORWARDED AND RECEIVED.—(a) The time at which all signals are forwarded and received must be made legibly with a pen in the Train Register Book (SPEAK ON TELEPHONE and CALL ATTENTION signals excepted), and the Signaller on duty must place his name immediately under the last entry made by him at the expiration of his hours of duty.

(b) If an incorrect entry be made, a line must be drawn lightly through it, and the correction made above or below it, so that the original entry may be clearly seen.

(c) In recording the time signals are received and forwarded, fractional parts of a minute less than half a minute must not be counted, and the half-minute and fractional parts more than half a minute must be reckoned as a minute, thus:—15¼ minutes must be entered as 15 minutes only, and 15½ minutes as 16 minutes.

36. TESTING INSTRUMENTS AND BELLS.—(a) This signal must be used to ascertain whether the Bells and Instruments are in perfect order, and only when no train has been signalled.

(b) A Staff must also be withdrawn and replaced by the Signalman at each end of the Section.

37. TIME SIGNAL.—(a) Signalmen will be held responsible for keeping their clocks properly regulated, and must, if necessary, at once report any defects in their working.

(b) As soon as practicable after changing duty Signalmen must compare their Clocks with the Clocks in the Signal Boxes on each side, a note of the circumstance to be recorded in the Train Register Books.

38. TESTING CONTROLLED SIGNALS.—Signals which are controlled from another Signal-box must be tested as soon after the Signalmen change duty as the running of the trains will permit. The Signalman in charge of the Controlled Signal, after releasing the lever so far as he is concerned, must give 20 beats on the bell (5-5-5-5) to the Signalman at the Signal-box from which the signal is controlled. This must be repeated, and the Signal lever worked three times slowly. Each Signalman must make an entry in his train Register Book of the transaction. Controlled Signals must not be tested after the IS LINE CLEAR? signal has been received for a train on the Line to which they refer.

39. PARALLEL LINES.—With reference to Regulations 16, 17, 25, 28, 29, and 31, where there are Parallel Running Lines, the necessary steps must be taken to stop or caution the trains running on any Lines that may possibly be obstructed by what has occurred.

40. MIXED TRAINS conveying passengers and goods must be signalled and dealt with as Passenger trains.

41. TELEPHONE SIGNAL.—To call attention when the use of the Telephone is required.

42. CONTROLLING SIDINGS BY MEANS OF THE STAFF.—(a) Points giving communication between the Sidings and the Running Line controlled by the Staff cannot be opened without the Staff for that Section of the Line where the Siding is situated, and the Staff cannot be removed until the Points have been placed in the proper position for trains to pass upon the Running Line, and securely locked so as to prevent vehicles passing from the Sidings on to the Running Line.

(b) On arriving at a Siding, the Points of which are controlled by the Staff, the Engine-driver must hand the Staff to the Guard or man in charge of the Siding to enable the Points to be unlocked. When the necessary shunting has been completed, and the Points have been placed in the proper position for trains to pass upon the Running Line, the Guard or man in charge of the Siding must return the Staff to the Engine-driver, and the latter must not proceed on his journey until he has obtained possession of it. Guards and others must in all cases after shunting operations are complete and the Staff has been withdrawn from the lock, try the point lever to insure that points are securely locked.

43. STAFF DAMAGED OR LOST.—(a) In the event of a Staff being lost Pilot Working must be established in accordance with Regulation 34, and if the Staff be afterwards found, it must be handed to

the Pilotman and retained by him until Pilot-working has been cancelled.

(b) When the Staff cannot be found after diligent search, a certificate to that effect must be given to the Chief Traffic Manager by the District Traffic Superintendent and the representative of the Electrical Engineer. On receipt of the certificate, a circular will be issued giving full particulars of and cancelling the missing Staff. A copy of this circular must be affixed to the Staff Instruments for the Section. The Electrical Engineer will then authorise the Instruments to be put in order, to permit of Staff working being resumed. Should the missing Staff be afterwards found, it must be handed to, and secured under lock and key by the Station-master, and the matter reported to the Chief Traffic Manager, the District Traffic Superintendent and Electrical Engineer.

(c) When from any cause a Staff is broken whilst out of the Instrument, the parts must not be replaced in the Instrument, but Pilot-working must be established, in accordance with Regulation 34, until arrangements are made for the broken Staff to be replaced or repaired, and the Instruments put in working order. The pieces of the broken Staff may be tied together and used (except on a Section where a Bank Engine Key is in use, and such Key is out of the Instrument), to establish Pilot-working if time can thereby be saved.

(d) When a Staff is damaged so that it cannot be repaired at the Station and replaced in the Instrument, the Electrical employee must so inform the Signalman, and, at the same time, fill up the Damaged Staff Form (see Form "A" at end of Regulation). The Signalman or Pilotman (if the latter has been appointed) will then allow the Electrical Employee to place the Instrument in phase by taking out another Staff, after which the Signalman or the Pilotman, as the case may be, will countersign the form, and Pilot-working, if instituted, must then be cancelled, in accordance with Regulation 34.

(e) Before the damaged Staff is taken possession of by the Electrical Employee, he must give the Signalman a receipt for it together with the one taken out for balancing on the proper form (see Form "B" at end of Regulation) stating the numbers and section to which the Staffs belong. When the Staffs have been replaced in the proper Instrument, and the Instrument has been put in phase, the Electrical Employee must collect the receipt and forward it to the Electrical Engineer.

(f) A damaged Staff must, if possible, be inserted in the Instrument, and the traffic worked with the other Staffs till the damaged Staff is repaired, or a new one is provided. A Staff which has been bent should not be straightened by employees engaged in the running of trains (unless it is necessary for the working of the Instrument), but the Electrical Employee's attention must be drawn to its condition, and the matter reported to the District Traffic Superintendent and Electrical Engineer.

(g) All Staff failures must be immediately reported by telegraph or telephone to the Chief Traffic Manager, the Electrical Engineer, the District Traffic Superintendent, the Traffic Inspector, and the Electrical employee for the district.

Form referred to in Clause (d) of Regulation 43.

" A "	DAMAGED STAFF.
.....19 .	
To Signalman.....	
<p>Staff No.....for the Section..... and.....cannot be placed in the In- strument, owing to being damaged, and it is necessary for the Instrument to be put in phase.</p>	
.....Electrical Employee.	
<p>The Instrument has been put in phase in my presence. Staff No.....withdrawn to balance.</p>	
.....Signalman.	
or	
.....Pilotman.	
<p>This Form must be promptly sent to the Electrical Engineer by the Electrical Employee.</p>	

Form referred to in Clause (e) of Regulation 43.

" B "	RECEIPT FOR DAMAGED STAFF.
.....19 .	
To Signalman.....	
<p>Staff No.....for the Section..... .....and.....is damaged ; it has been withdrawn for repairs, and I hereby acknow- ledge receipt of it with Staff No.....for balancing purposes.</p>	
.....Electrical Employee.	
<p>This Form must be retained by the Signalman until Staffs are returned.</p>	

44. BALANCING OF STAFFS.—(a.) On Staff Sections where a greater number of trains are run in one direction than in the other, causing the Staffs to accumulate at one end of the Section, the Staffs must, when necessary, be transferred by the duly appointed Electrical Employee from the Staff Instrument at which the Staffs accumulate to the Instrument at the other end of the Section. Before taking out the Staffs the Electrical Employee must advise the Signalman at the other end of the Section that he is about to do so by sending the prescribed signal. The number of Staffs removed by the Electrical Employee must be recorded by him in the Staff Register provided for the purpose, and the Signalman must sign the entry and insert the time at which the transaction takes place; the Electrical Employee must retain in his possession the whole of the Staffs he has withdrawn until he has placed them in the Instrument at the other end of the Section.

(b.) The Signalman at the Staff Station to which the Staffs are transferred must, after having obtained the Staff from the Engine-driver of the train and placed it in the Instrument, immediately compare the number recorded in the Electrical Employee's Register with the number of Staffs received, and when he has satisfied himself that the number is correct, and that the whole of the Staffs have been deposited in the proper instrument, he must sign the Register, and insert the time at which the transaction takes place.

When a Staff Instrument contains less than six Staffs, unless the Signalman knows that they will be balanced by returning traffic, the Electrical Employee must be advised, so that the necessary transfer of the Staffs may be made.

NOTE.—The number of Electric Train Staffs removed by the Electrical Employee must always be an even number—that is, 2, 4, 6, and so on.

(Form referred to in Regulation 20.)

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.	
ELECTRIC TRAIN STAFF SYSTEM.	
WORKING OF SINGLE LINES BY PILOTMAN DURING OBSTRUCTION.	
<p>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.</p>	
.....Station.	
.....19 .	
To.....	
<p>The Single Line between..... and.....being obstructed, the traffic between.....and the place of obstruction will be worked by Pilotman in accord- ance with Regulation 20 for Train Signalling on Single Lines of Railways worked on the Electric Train Staff Block System.</p>	
<p>.....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 upon the Engine.</p>	
<p>This order is to remain in force until withdrawn by the Pilotman presenting my written authority.</p>	
(Signed).....	
Time.	
*Noted by.....at.....	.....
*Noted by.....at.....	.....
*Noted by.....at.....	.....
*Noted by.....at.....	.....
*Noted by.....at.....	.....
*Noted by.....at.....	.....
Noted by.....	
Pilotman.	
<p>* These Signatures must only be made on the copy held by the Pilotman.</p>	
<p>At least Six of these Forms must be kept in a con- venient place at each Staff Station, so as to be available at any moment night or day.</p>	
<p>A copy of this Form must be delivered to the Signal- man in charge of the Staff Station where Pilot-working commences, the second must be retained by the Pilot- man, and the third must be conveyed by the Pilotman with the relief train to the Engine-driver or other person in charge of the point of obstruction.</p>	
<p>If there is an intermediate Signal-box which is not a Staff Station, the Signalman must be supplied with a copy of the Form, and his signature obtained on Pilot- man's Form.</p>	
<p>In the event of a Station-master himself acting as Pilotman, he must address and give a copy of the Form to the person he leaves in charge of his Station.</p>	
<p>Station-masters receiving this Form will be held re- sponsible that the Inspectors, Foremen, Signalmen, and others concerned at their Station, are immediately made acquainted with the circumstances, and are instructed in their necessary duties.</p>	
<p>On the other side of the obstruction the Line will be worked by the Train Staff, as directed in Regulation 20.</p>	

(Form referred to in Regulation 34.)

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

ELECTRIC TRAIN STAFF SYSTEM.

WORKING OF SINGLE LINES BY PILOTMAN DURING  
FAILURE OF APPARATUS.

*This Form must be filled up and used whenever it is temporarily necessary owing to the Electric Train Staff Apparatus having failed, to work the Traffic by Pilotman.*

.....Station,  
.....19 .

To.....

Electric Train Staff apparatus between.....  
and.....having  
failed, all traffic between those two places will be worked  
by Pilotman in accordance with Regulation 34 for  
Train-Signalling on Single Lines of Railway worked on  
the Electric Train Staff Block System.

.....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).....  
Time.

\*Noted by.....at.....

\*Noted by.....at.....

\*Noted by.....at.....

\*Noted by.....at.....

\*Noted by.....at.....

\*Noted by.....at.....

Noted by.....

Pilotman.

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

At least six of these Forms must be kept in a con-  
venient place at each Staff 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 and person in  
charge at each Staff Station where the Staff apparatus  
has failed, and be kept by the Pilotman, who must see  
that each of the men signing the Form retains a copy  
for himself.

If there is an intermediate Signal-box which is not a  
Staff Station, the Signaller must be supplied with a  
copy of the Form, and his signature obtained on Pilot-  
man's Form.

In the event of a Station-master himself acting as  
Pilotman, he must address and give a copy of the Form  
to the person he leaves in charge of his Station.

Station-masters receiving this Form will be held re-  
sponsible that the Inspectors, Foremen, Signallers, and  
others concerned at their Station are immediately made  
acquainted with the circumstances, and are instructed  
in their necessary duties.

45. CANCELLATION ORDER.—(a.) Before  
ordinary working is resumed, the Station-master who  
instituted Pilot-working must make out and sign the  
necessary Cancellation orders (*see form below*), 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  
word "Cancelled" across the face of it; when this  
is done the traffic will be again conducted in accord-  
ance with these Regulations. All forms which have  
been issued for Pilot-working must be sent to the  
District Traffic Superintendent.

(b.) The Pilotman, when making his last trip un-  
der Pilot-working conditions, must notify all em-  
ployees concerned along the Line that ordinary work-  
ing will be resumed.

The Pilotman must accompany the first train pass-  
ing over the Section after cancelling the Pilot-work-  
ing.

[Form referred to in Regulation 45, Clause (a).]

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

ELECTRIC TRAIN STAFF SYSTEM.

WORKING OF SINGLE LINES BY PILOTMAN DURING  
OBSTRUCTION OR FAILURE OF APPARATUS.

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 will accompany the first train passing  
over the Section after cancelling the Pilot-working.

(Signed).....Station-master.

\* Each Person who received a Pilot Working Form  
must also be handed a copy of this order.

NOTE.—The Pilotman, when cancelling Pilot-working,  
must notify all employees concerned that ordinary  
working will be resumed.

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

RELIEF OF PILOTMAN ORDER.

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

\*To.....

Pilotman .....  
appointed by me between.....  
and.....is now being relieved ;  
new forms are being issued, and.....  
appointed as Pilotman.

Signed....., Station-master.

\* Each Person who receives a Pilot Form must also  
be handed a copy of this order.

Front of Pilotman's Caution Ticket referred to in these Regulations.

(To be printed on BLUE coloured paper.)

(Front of Form.)

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

PILOTMAN'S CAUTION TICKET.

Ticket No.....

Train No.....

To the Guard and Engine-Driver.

You are authorised to proceed from.....

.....to.....

The last train that left here was.....

.....at.....

Signature of Pilotman.....

Date.....

(Back of Form.)

The Pilotman's Caution Ticket will apply only to a single journey to the other end of the Section, where it must be given up by the Engine-driver to the Station-master, who must cancel the ticket by writing the word "Cancelled" across the face of it, and forward it to the District Traffic Superintendent.

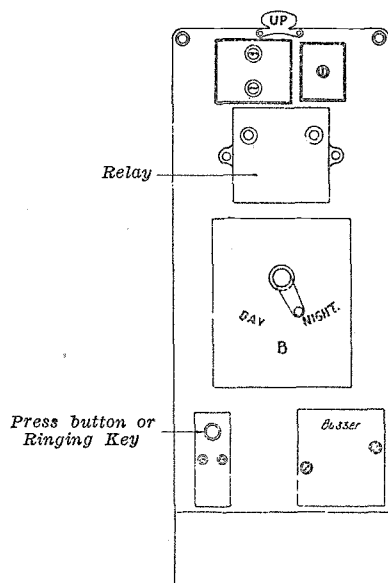
46. SEMI-AUTOMATIC ELECTRIC STAFF SYSTEM.—These systems provide for an officer in charge at an attended station obtaining a staff automatically from an unattended staff station if there is not already a staff out, but do not allow anyone to obtain a staff at the unattended station except under conditions laid down under Electric Staff, Day working. Consequently, unattended electric staff stations can only be worked alternately, viz., one unattended station between two attended stations, though a terminal electric staff station may be unattended.

A. There are two types of semi-automatic systems, viz.:—

- (i.) The Closed circuit Relay type,
- (ii.) The Open circuit type.

Diagram of Semi-Automatic Staff.

Closed Circuit Relay Type.



B. Description of the Closed Circuit Relay type.

The apparatus at the attended stations consists of:—

- (i.) Day and Night Switch "B."
- (ii.) Ringing Key or Press Button.
- (iii.) Relay and Buzzer (or hooter or vibratory bell), as the case may be.
- (iv.) Except when instructions are issued to the contrary, a special indicator is provided marked "IN" "CLOSED" "OUT." When at day working it indicates "CLOSED," and when at night working it indicates whether a staff is "IN" or "OUT," as the case may be.

The apparatus at the unattended station consists of:—

- (i.) Day and night switch "A."
- (ii.) Except where instructions are issued to the contrary, a special indicator is provided marked "IN" "CLOSED" "OUT." The normal position is at "CLOSED."

(c) At the attended station the special indicator where provided, shows the state of the section continuously. No attempt must be made to withdraw a staff, if the indicator needle points to "OUT."

(d) When the station is unattended, the switches at both attended and unattended stations are at "NIGHT." When the station is only attended during certain periods, the signalman when coming on duty will give the "Switch in" Signal, and on receipt of acknowledgment, both signalmen will turn their respective switches to "DAY."

(e) Before the signalman at the partly attended station goes off duty, he will give the switching out signal, and immediately on receipt of acknowledgment, both signalmen will turn their respective switches to "NIGHT." The switching out signal must not be given, neither must the "Day" or "Night" switches be interfered with while the section is occupied.

(f) When the switches at both stations are at "Night," the signalman at the attended station can obtain a staff automatically, if there is not one already out.

(g) At the unattended station, the Guard or other authorised person, before asking for a staff in accordance with Regulation 3, must satisfy himself that the switch is at "Night," the galvanometer needle is vertical, and the special indicator (where provided) is at "CLOSED."

(h) The signalman at the station in advance on receipt of the "IS LINE CLEAR" signal will, if prepared to grant a staff, acknowledge and hold down in accordance with Regulation 3.

(i) The Guard or other authorised person, on receipt of acknowledgment before withdrawing a staff must observe the special indicator (where provided) to ascertain the condition of the section.

- (i.) When the right hand indicator of the large type column is turned to "For Staff," the special indicator will record the state of the section, the needle pointing to "IN" or "OUT," as the case may be.

- (ii.) When the staff is raised to the drum of the miniature type column, the special indicator will similarly record the state of the section.

Under no circumstances must any attempt be made to withdraw a staff from any column when the special indicator needle points to "OUT."

(j) The buzzer at the attended station rings when a staff is being taken out, when the key at the Unattended Station is pressed, when any fault occurs on the line, and when the Right Hand Indicator of the

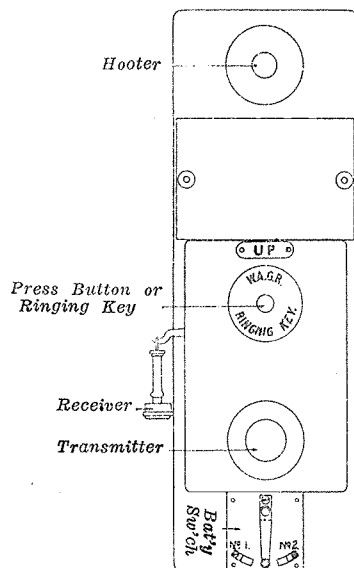
staff instrument at the Unattended Station is turned to "FOR STAFF." Should the buzzer continue to ring at the Attended Station and no cause be ascertainable, the switch must be turned to "DAY," the instrument placarded as "Out of Order," and the electrical employee advised at once.

(k) The Attended Station can call up the Unattended Staff Station when the switches are at "NIGHT" by pressing the special ringing key on backboard, which rings bell at the Unattended Station. Both the ringing key at the Attended Station and the Staff key at the Unattended Station must be pressed slowly.

(l) Should the switch at the Unattended Station be moved to "DAY" when the switch at the Attended Station is at "NIGHT," the buzzer at the Attended Station will ring and continue to do so until the switch is replaced. Should the switch at the Unattended Station be placed at "Night," and the switch at the Attended Station is at "Day," the bells at both stations will give one ring, both the galvanometer needles will be deflected, and the special indicator will go to "CLOSED."

Should the switch at the Attended Station be turned to "Night" when the switch at the Unattended Station is at "Day" the buzzer will ring and continue to do so until the switch at the Attended Station is turned back to "Day," or the switch at the Unattended Station is turned to "Night."

Diagram of Semi-Automatic Staff—Open Circuit.



#### DESCRIPTION OF OPEN CIRCUIT TYPE.

(a) ATTENDED STATIONS.—The apparatus at the Attended Station consists of:—

- (i) A Buzzer Telephone with Ringing Key or Press Button, and Hooter.
- (ii) A special indicator marked "IN" "CLOSED" "OUT." The normal position is at "CLOSED."
- (iii) A switch below the telephone, marked No. 1, No. 2, controlling duplicate telephone batteries.

(b) UNATTENDED STATION.—

- (i) In addition to the above, the apparatus at the Unattended Station consists of a Day and Night switch, fixed in a box which is locked by means of a carriage key.

(c) At the Attended Station, the needle of the special indicator will indicate the state of the Section:—

- (i) When the Right Hand Indicator of the large type column is turned to "FOR STAFF."
- (ii) When the Staff is raised to the drum of the miniature type column.

Under no circumstances must any attempt be made to withdraw a Staff from a column when the Special Indicator needle points to "OUT."

(d) When the station is unattended the switch is normally at "Night." When the station is attended during certain periods, the Signaller when coming on duty will give the "Switch In" signal, and immediately upon receipt of acknowledgment, he will turn his switch to "Day."

(e) Before the Signaller goes off duty at the partly attended station he will give the switching out signal and immediately on receipt of acknowledgment, he will turn his switch to "Night." The "Switching Out" signal must not be given, neither must the "Day" or "Night" switch be interfered with while the section is occupied.

(f) When the switch at the Unattended Station is at "Night" the Signaller at the Attended Station can obtain a Staff automatically, if there is not one already out.

(g) At the Unattended Station, the Guard or other authorised person, before asking for a Staff, must satisfy himself that the switch is at "Night," the galvanometer needle is vertical, and special indicator is at "CLOSED," and then give the "Is Line Clear" signal in accordance with Regulation 3, on telephone press button.

(h) The Signaller at the station in advance on receipt of the "Is Line Clear" signal, will, if prepared to grant Staff, acknowledge and hold down in accordance with Regulation 3. The Guard or other authorised person before taking the Staff, must observe the special indicator to ascertain the condition of the Section.

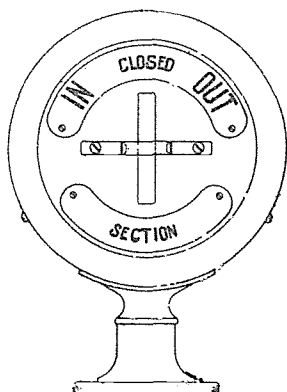
- (i) When the Right Hand Indicator of the large type column is turned to "For Staff," the special indicator will record the state of the Section, the needle pointing to "IN" or "OUT," as the case may be.
- (ii) When the Staff is raised to the drum of the miniature type column, the special indicator will similarly record the state of the Section.

Under no circumstances must any attempt be made to withdraw a Staff from a column when the special indicator needle points to "OUT."

(i) The galvanometer needles in both rear and advance columns are normally vertical and are only deflected when the right hand indicator on the large type column is turned to "For Staff," or when the Staff is raised to the drum of the miniature type column.

(j) Buzzer Telephone.—Should the vibrator fail or the speaking be faint, the switch under the telephone should be moved from 1 to 2, or *vice versa*. If the attention of the station cannot then be gained, the receiver must be taken off the hook, and the attention of the station gained by calling loudly into the transmitter, or blowing a whistle in front of same.

Diagram of Special Indicator.



GENERAL.—(a.) Should the Instrument fail so that a Staff cannot be withdrawn when the switches are at "Night," every effort must be made to raise the Station in advance, and after explaining the circumstances, the instruments must, when switches are provided, be turned to "Day." A Staff may then be asked for, and if obtained, it will under these circumstances be permissible to turn the switch back to "Night."

(b.) Before the Signaller leaves duty he will be held personally responsible for seeing that all Point indicators and Signal lamps are burning brightly, that all scotch blocks are properly secured, and points left in normal position.

(c.) Engine-drivers must approach unattended Staff Stations with special care.

(d.) Engine-drivers must stop at the Home signal, or at the Facing Points, where Semaphore Signals are not provided at the unattended Staff Station. The Guard must proceed to the engine and will, if all is clear, and it can be seen that no other train is approaching the Station from the opposite end, and there is no train at the Station, instruct the Driver to proceed slowly into the Station clear of the next fouling point. When there is an Assistant Guard he must, when practicable, ride on the engine so that the train can be promptly admitted into the Station.

(e.) When trains require to cross at a Staff Station at which there is no person in charge, the Guard of the train which arrives first will be held responsible for the correct working of all points and signals until the departure of his own train, after which the Guard of the other train then at the Station will be responsible.

(f.) In the event of a train having been stopped on a rising gradient at the entrance to a Station and the Guard has gone forward to signal the train, the Engine-driver must not enter the Station until the Guard has returned to his brake-van.

(g.) After the train is well under the protection of the Home Signal, the Guard must place the Electric Staff in the Instrument for the section over which his train has travelled.

(h.) Guards on arrival at a Station where there is no Signaller on duty must enter the time of arrival and departure of their trains in the Train Register Book, also fill in the entries showing the number of each Staff used. The entries must be neatly made and the book left in proper place.

(i.) Under no circumstances are switches to be turned to "Night" during the recognised hours of attendance of the Signaller.

NOTE.—At semi-automatic Staff Stations where the Bank Engine Key is in operation, it must not be worked by the Guard.

### Working of Bank Engines on Staff Sections.

47. (a) To facilitate the working of trains requiring assistance in the rear over steep gradients on Single Lines where the Staff is in operation, and it is not necessary for the Bank Engine to run the entire length of the Staff Section, the Driver of the Train Engine must carry the Staff, and the Driver of the Bank Engine in the rear of the train a "Bank Engine Key" (as described below) to enable him to return to the Station from which it was received.

(b) At Stations where an electric switch-lock is provided, it is attached to the Staff Instrument, and is controlled by a key called the "Bank Engine Key," which, when withdrawn from the switch-lock, disconnects the electric circuit of the Staff Instruments so that no Staff can be obtained nor communication made on the Instruments at either end of the Section until the Bank Engine Key has been returned and the electric switch locked. The Bank Engine Key (which must only be carried by an engine when assisting a train in the rear) is provided with a large ring, on which is engraved "Bank Engine Key," the name of the Station from which the Bank Engine starts, and the mileage to which the Bank Engine is authorised to run before returning.

(c) If a train is assisted in the rear by a Bank Engine and such engine requires to run the entire length of the Section, Regulation 7 of this Appendix must be strictly carried out.

(d) When a train is assisted in the rear by a Bank Engine, and the latter is not required to travel the entire length of the Section, the train which is assisted must be signalled in the usual manner, and the Staff obtained from the Instrument. When this has been done, and the train is ready to start, the Train Departure signal must be given and acknowledged. Immediately after the Departure signal has been given and acknowledged, the Return Bank Engine signal must be given to indicate that the train is assisted by a Bank Engine in the rear, and that such engine will not run the entire length of the Section. This signal must be acknowledged by repeating. The Signaller will, after the Return Bank Engine signal has been acknowledged, remove the Bank Engine Key from the electric switch-lock and take the Key, together with the Staff, to the Driver of the Train Engine, to whom he must deliver the Staff and obtain his acknowledgment on the prescribed form (*see* page 327), and at the same time show him the Bank Engine Key, and verbally inform him that such Key will be handed to the Driver of the Bank Engine. The Bank Engine Key, together with the acknowledgment of the Driver of the Train Engine, must then be handed to the Driver of the Bank Engine, who must intimate to the Driver of the Train Engine that the Bank Engine Key, together with the acknowledgment, is in his possession, by giving three whistles—viz., one long, one short, and one long; and until such intimation is given the Driver of the Train Engine must not proceed on his journey.

(e) On arrival of the Bank Engine at the mileage to which it is authorised to run, the Driver must return at once to the Station from which he received the Bank Engine Key, and hand it to the Signaller, who must at once place it in the electric switch-lock, and give the Bank Engine Returned with Key signal, which signal must be acknowledged by repeating.

(f) The Bank Engine Key must never be used or taken out of the electric switch-lock for any other

purpose than for a Bank Engine assisting a train in the rear, and in accordance with these Regulations.

(g) Should the Bank Engine fail, the Driver must hand the Bank Engine Key to the Fireman, who must take it to the Station from which it was issued and inform the Signalman of the failure and the circumstances; the Signalman will then arrange for a Relief engine to proceed to the disabled engine to bring it in. The Driver of the Relief engine must, before proceeding, be in possession of the Bank Engine Key, which must be handed to him by the Fireman of the disabled engine, and shown to the Signalman, before leaving; the Fireman must also accompany the Relief engine to the place where the disabled engine was left. If, however, it be considered that assistance can be more readily obtained at the Station to which the train assisted by the Bank Engine was travelling, the Driver must give the Fireman the Bank Engine Key and a written order to the Signalman at that Station authorising a Relief engine to come to his assistance. The Signalman, after being informed of the circumstances, and on receipt of the written order, and seeing that the Key is in possession of the Fireman, must arrange for a Relief engine to be sent to the disabled engine to take it to the other end of the Section. The Signalman must show the written order to the Driver before allowing the Relief engine or Break-down Van Train to proceed to the disabled train, the Fireman of the disabled engine must at the same time show the Driver of the Relief engine the Bank Engine Key, and accompany him to the place where the disabled engine was left; on arrival at the disabled engine, the Bank Engine Key must be handed over to the Driver of the Relief engine.

(h) The disabled Bank Engine must always be taken to the Station from which it started, and the Driver of the Relief engine must not deliver the Bank Engine Key to the Signalman until the Line is clear. The Fireman must not allow the Key out of his possession until he hands it over to the Driver of the Relief engine, and the Driver of the Relief engine must not allow it to pass out of his possession until the disabled engine has been removed from the Section. The Fireman must at once place Detonators on the Line in one direction, as directed in Rule 245 of the Book of Rules and Regulations, before he proceeds in the opposite direction.

(i) If a Bank Engine fail when assisting a train, and the Train Engine is unable to take the whole of the train forward, the Driver of the Train Engine must send his Fireman back to the Driver of the Bank Engine and obtain his assurance in writing, and indorsed by the Guard of the train, that the rear portion of the train will not be moved until the Train Engine returns for it. The Bank Engine must then be removed in accordance with instructions in Clauses (g) and (h) hereof.

(j) When the Bank Engine Key is replaced, care must be taken to fully turn it in the lock. The Signalmen who are responsible for issuing the Staff and Bank Engine Key must remain on duty and in close attendance until the Train Arrival signal has been given, and the Bank Engine has returned to the Station from where the Key was obtained.

48. (a) In the event of the Bank Engine Key being lost or damaged, and the Electrical Employee is not in attendance to restore communication, Pilot-working must be instituted and working by Bank Engine Key suspended until communication is restored, as provided in Clauses (b), (c), and (d) hereof.

(b) If the Key be lost, and the Bank Engine has returned, and the Bank Engine Key Form is in possession of the Signalman, the Switch Lock may be cut out by the Electrical Employee, in the presence of the Station-master and the Signalman, all of whom must sign an endorsement on the Bank Engine Key Form stating the circumstances; the Form must be held by the Station-master until the Key is found or another Key provided. A fresh Key can only be provided when authorised by the Chief Traffic Manager.

(c) Should the Key be damaged so that it will not operate the Lock, the Electrical Employee may cut out the Lock if the Key and Form are in possession of the Signalman and so restore communication. If, however, the Key has to be taken away by the Electrical Employee for repairs, this can only be done after the Electrical Employee has given the Station-master a receipt for it, which must be indorsed by the Signalman.

(d) In all cases of loss or damage to the Bank Engine Key, or if it fails to work and Pilot-working has been arranged, communication must not be restored either by cutting out or by means of the Key until Pilot-working has been cancelled, and the Pilotman is present. If the lost Key be found, it must be locked away by the Station-master until the Pilotman is present and the Pilot-working cancelled.

*Form referred to in Clause (d) of Regulation 47.*

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS.

ELECTRIC TRAIN STAFF SYSTEM.

No.....

.....Station,

.....19 .

To the Driver of the Bank Engine assisting.....

.....Train.

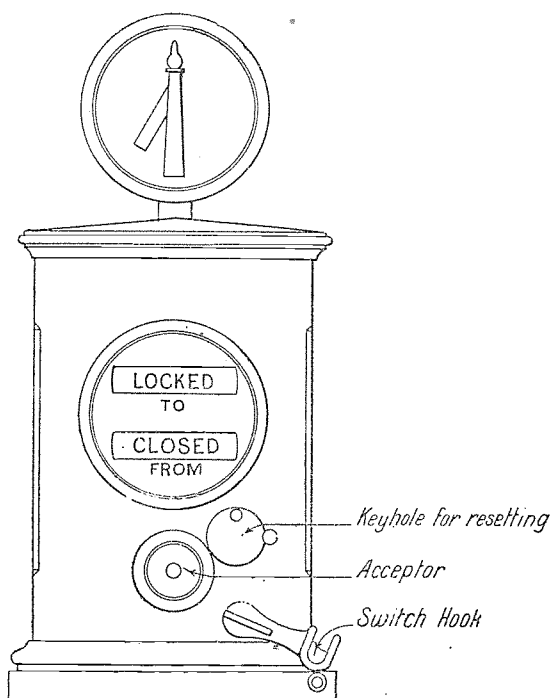
I HAVE received the Electric Staff for.....  
Train to proceed from.....to.....,  
and have seen the "Bank Engine Key" for the Bank  
Engine to assist the train to Mileage.....

.....Driver.

On the return of the Bank Engine, this form must be delivered with the Bank Engine Key to the Signalman at the Station from which it was received.

## APPENDIX VI.

## DIAGRAM OF INSTRUMENT.



DESCRIPTION OF INSTRUMENT.—The Lock and Block Instrument consists of two Dials, an Acceptor, a Switch hook, and a miniature Semaphore Arm. The upper dial contains the Semaphore Arm, which works up and down after the manner of Out-door Signals; the normal position is at "All Right," and when in that position it signifies that the Section in advance is unoccupied. The Lower Dial contains two Indicators. The upper Indicator has two positions, "Locked" and "Free." The normal position is at Locked. The Lower Indicator refers to trains coming towards the Signal-box. It has three positions, "Closed," "Train Accepted," and "Train on Line." The normal position is at "Closed."

A Plunger and Bell or Gong is used for giving signals to the distant Signal-box. Each time the Plunger is pressed the bell or gong at the Distant Signal-box will give one beat.

The Acceptor is used to release the signal lever controlling the entrance into the Section at the rear Station.

The Switch hook has two positions, "Off" and "On," and when turned to "On" the Acceptor adjacent to the Switch hook is secured. The Switch hook also controls the miniature Semaphore Arm at the rear Signal-box, which is raised or lowered as the Switch hook is placed on or taken off the Acceptor. The normal position is "Off."

All Signals between two Signal-boxes are received by the Bell or Gong. The Indicators serve to record the Signals that last passed and thus indicate the state of the Line as to the trains running over it.

Releasing Keys and Buttons are placed in each Signal-box to provide for failure of Instrument and Cancelling.

## CODE OF BELL SIGNALS.

See Reg.	Signal.	Beats on Bell.	How to be given.
1.	*Call attention ... ..	1	1.
	Is Line Clear for Express Passenger Train, or Break-down Van Train going to clear the Line, or Light Engine going to assist disabled Train? ... ..	4	4 consecutively.
	Is Line Clear for Ordinary Passenger or Break-down Van Train not going to clear the Line? ... ..	4	3 pause 1.
3 & 4.	Is Line Clear for Fast Goods, Live Stock, or Perishable Train? ...	5	5 consecutively.
	Is Line Clear for Empty Coaching Stock Train? ... ..	5	2 pause 2 pause 1.
	Is Line Clear for through Goods, Mineral, or Ballast Train? ...	5	4 pause 1.
	Is Line Clear for Ordinary Goods or Mineral Train stopping at intermediate Stations? ... ..	3	3 consecutively.
	Is Line Clear for Light Engine or Light Engines coupled together? ...	5	2 pause 3.
	Is Line Clear for Engine and Brake-van? ... ..	4	1 pause 3.
3, 4, 10, & 11	Is Line Clear for Ballast Train requiring to stop in Section, or Motor Car, or Repairers' Trolley requiring to pass through Tunnel? ... ..	5	1 pause 2 pause 2.
3.	Train Departure ... ..	2*	2 consecutively.
5.	Train Waiting ... ..	7	3 pause 4.
7.	Bank Engine in rear of Train ...	4*	2 pause 2.
8.	Assisting Engine in front, or two Trains coupled ... ..	6*	2 pause 2 pause 2.
6.	Section Clear but Station or Junction blocked ... ..	13*	3 pause 5 pause 5.
12 & 14.	Train Arrival or Obstruction removed ... ..	3	2 pause 1.
14.	Obstruction, Danger ... ..	6	6 consecutively.
16.	Blocking Back ... ..	6	Inside Home Signal—2 pause 4. Outside Home Signal—3 pause 3.
20.	Stop and Examine Train ... ..	7	7 consecutively.
21.	Cancelling "Is Line Clear?" or "Train Departure" Signal ...	8	3 pause 5.
22.	Last Train Signalled incorrectly described ... ..	8	5 pause 3.
23.	Train Passed without Tail Disc or Light ... ..	9	9 consecutively TO BOX IN ADVANCE. 4 pause 5 TO BOX IN REAR.
24.	Train Divided ... ..	10	5 pause 5.
25.	Shunt Train for following Train to pass ... ..	11*	1 pause 5 pause 5.
27.	Vehicles running away on Right Line ... ..	14	4 pause 5 pause 5.
26.	Vehicles running away on Wrong Line ... ..	12	2 pause 5 pause 5.
9.	Cancel Bank Engine in Rear of Train ... ..	12	8 pause 2 pause 2.
37.	Speak on Telephone ... ..	7*	4 pause 2 pause 1.
28.	Opening of Signal-box ... ..	15	5 pause 5 pause 5.
28.	Closing of Signal-box ... ..	17	7 pause 5 pause 5.
32.	Testing Bells ... ..	16	16 consecutively.
34.	Testing Controlled Signals ... ..	20	5 pause 5 pause 5 pause 5.

### Regulations for Train Signalling by Electric Lock and Block System on Double Lines of Railway.

BLOCK SYSTEM.—(a.) The object of this System of Train Signalling is to prevent more than one train being in the Section on the same Line at the same time.

(b.) This is accomplished by a Signaller not being able to lower his Starting Signal (or the Signal controlling the entrance to the Block Section ahead) until that signal has been electrically released by the

Signalman at the Signal-box in advance, who cannot so release the Signal until the preceding train has passed his own Signal controlling the entrance to the Section ahead, and that Signal has been replaced at Danger, nor, where a Rail Contact is provided, until the train has reached it. As this system of working is attained by the interior portions of the Block Instrument being connected with the Signal Levers, Signalmen must work these Levers with great care.

(c.) The Signalman must not handle the Lever controlling the entrance to the Section ahead until "FREE" has been received on the Instrument, neither should he interfere with the Lever after "FREE" has been received, unless he is prepared to lower the Signal.

(d.) The Lever of the Signal controlling the entrance to the Section ahead is, after being pulled off, so back-locked that it cannot be placed right home in the front notch until the train has passed over the Rail Contact ahead of the Signal. Should, however, the necessity arise for a Signalman to place that Signal at *Danger* before the train reaches the Rail Contact, the Lever can be put over sufficiently far to do so without in any way interfering with the locking.

(e.) The Signalling of trains on the Block Telegraph System does not in any way dispense with the use of Fixed, Hand, or Detonating Signals, whenever and wherever such Signals may be necessary.

(f.) The Signal-boxes at which the Block Telegraph Working is in operation are furnished with Instruments to signal for each Line of rails, and the system under which these Instruments are to be worked, and the mode of indicating the description of approaching trains are laid down in the following Code of Regulations supplied to Signalmen or exhibited in the Signal-boxes for the guidance of the persons in charge.

**FIXED SIGNALS.**—(a.) The DANGER signal must be kept exhibited at all the Fixed Signals, except when it is necessary to lower or turn them off for a train to pass; and, before any Signal is lowered or turned off care must be taken to ascertain that the Line is clear, and that the Block Telegraph and other regulations have been duly complied with.

(b.) At Intermediate Stations or Sidings which are not Block Signal-boxes, the position of Fixed Signals will be All Right, except when it is necessary to place them at Danger, in accordance with the Rules and Regulations.

(c.) Unless special instructions are issued to the contrary by the Chief Traffic Manager, the employee who works the Block Instruments must also work the fixed Signals.

**NORMAL POSITION OF BLOCK INDICATORS.**—When the Block Instruments are not in use the Line must be considered *Closed*, the Upper Indicator should show "Locked" and the Lower "Closed," and the miniature Semaphore Arm at All Right. At Signal-boxes where the Lock and Block terminates, the Upper Indicator shows "Free."

**USE OF INSTRUMENTS AND BELLS.**—(a.) These must be used exclusively for the purposes shown in the Block Telegraph Regulations, and must not, under any circumstances, be used for conversing. They must only be used by the Signalman or other person specially appointed for the duty.

(b.) The Acceptor of the Instrument must not be pressed in quickly or in a jerky manner, but firmly and well home, so as to insure perfect electrical action inside the Instrument, and enable the electric current to do its work properly at both ends of the Section; no violence must be used to strain the apparatus.

(c.) The movements on the Bells must be made slowly and distinctly, and the pauses between the sets of beats clearly marked.

1. **CALL ATTENTION.**—Except in the case of Bell Signals marked \* the CALL ATTENTION signal must always be given before any other signal, and must be acknowledged immediately on receipt.

2. **REPETITION AND ACKNOWLEDGMENT OF SIGNALS.**—Except where special instructions are issued to the contrary, all signals must be acknowledged by repeating them, and no signal must be considered as understood until it has been correctly repeated to the Signal-box from which it was received. When the IS LINE CLEAR? signal is not acknowledged it must be given again at short intervals.

3. **MODE OF SIGNALLING BY BLOCK TELEGRAPH.**—A, B, and C represent three consecutive Block Signal-boxes, and the process of Signalling a train is as follows:—

(i.) Prior to the despatch of a train from "A," the Signalman there, provided he has received the TRAIN ARRIVAL signal for the previous train, and the Semaphore Arm of the Block Instrument is in its normal position (except as provided in Regulation 23), must call the attention of "B," and, having obtained it, must give the proper IS LINE CLEAR? signal; if the Line be clear at "B," the Signalman there must press the Acceptor (which will cause the lower indicator of his own instrument to show ("Train Accepted"), unlock the Signal Lever at A, and exhibit the word "Free" on the Upper Indicator of the instrument referring to that Signal lever. The IS LINE CLEAR? signal to be then acknowledged on the Bell.

(ii.) The Signalman at "A" may then, if the Line be clear, take off his Signals for the train to leave "A." The lowering of the Signal controlling the entrance to the Section will move the Upper Indicator of his own instrument from "Free" to "Locked."

(iii.) On the train leaving "A" the Signalman there must send the TRAIN DEPARTURE signal to "B," which must be acknowledged by "B" turning the Switch hook on his Acceptor, thus causing the Lower Indicator of his instrument to show "Train On" and to simultaneously raise the miniature Semaphore Arm at "A" to Danger; he must then acknowledge the TRAIN DEPARTURE signal on the Bell. Immediately the train has passed over Rail Contact at "A" (which will be indicated to the Signalman by the Upper Indicator of his instrument showing "Free"), the Signalman at "A" must replace his starting Signal (or the Signal controlling the entrance to the Section ahead) at Danger, when it will again become locked and his Upper Indicator simultaneously move from "Free" to "Locked," at which indication it will remain until his Signal Lever is again released by the Signalman at "B."

(iv.) "B" must then, provided he has received the TRAIN ARRIVAL signal for the previous train, and the Block Indicator is in its normal position, call the attention

of "C," and, having obtained it, must give the proper IS LINE CLEAR signal to "C." On receiving permission from "C" for the train to approach, "B" may take off his Signals for the train to proceed to "C," and as soon as the train has passed over the Rail Contact at "B," or been shunted clear of the Main Line at "B," the Signaller there must replace his Signals to Danger (which will simultaneously move the Upper Indicator of his own instrument from "Free" to "Locked," and the Lower Indicator from "Train On" to "Closed"), "B" must then, if the train has arrived complete in accordance with Regulation 12, call the attention of "A," and having obtained it, take the Switch hook off his Acceptor (which will lower the Electric Arm in the Signal Box at "A") and give the TRAIN ARRIVAL signal to "A" (except as provided in Regulation 28).

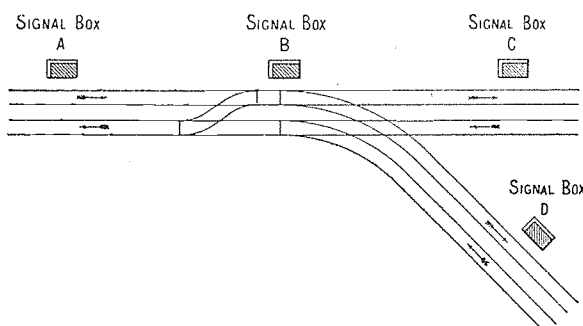
- (v.) Where the Sections are short, the IS LINE CLEAR? signal must be sent forward where necessary to avoid delay to the train, as soon as it has been acknowledged and before the TRAIN DEPARTURE signal has been received.

4. LINE CLEAR, or GIVING PERMISSION FOR A TRAIN TO APPROACH.—(a.) Unless special instructions are given to the contrary, the Line must not be considered clear, nor must a train be allowed to approach from the Signal-box in the rear, in accordance with Regulation 3, until the preceding train has passed at least a quarter of a mile beyond the Home Signal, and over the Rail Contact (where provided), nor until all the Points over which the approaching train has to pass have been placed in their proper position, and the Line is clear for at least a quarter of a mile ahead of the Home Signal.

(b.) After permission has been given for a train to approach, in accordance with Regulation 3, no obstruction of the Line on which such train requires to run must be allowed until the train has been brought to a stand at the Home Signal, or has passed into the Section in advance, or the CANCELLING signal has been received from the Signal-box in the rear.

(c.) If the Line be not clear, or if from any other cause the Signaller be not in a position to give permission for the train to approach when the Signaller in the rear forwards the IS LINE CLEAR? signal, that signal must not be acknowledged until the Signaller to whom the signal has been sent is prepared to receive the train, when he must give permission for it to approach in accordance with the prescribed Regulations.

(d.) AT JUNCTIONS, except where otherwise provided, the approach of trains, which can cross or foul each other, is regulated as shown below:—



(e.) When permission has been given by "B" for a train to approach from "C" no train must be allowed to leave "D" until that from "C" has been brought to a stand at the Home Signal or has passed through the Junction for a distance of a quarter of a mile, or until the TRAIN ARRIVAL signal for the previous train has been received from the next Signal-box ahead if within that distance; nor in such a case must a train be allowed to leave "A" for "D" unless the Junction Facing Points at "B" are set for "C," and the line towards "C" is clear for a distance of a quarter of a mile beyond the Junction Points, or until the TRAIN ARRIVAL signal for the previous train has been received from the next Signal-box ahead if within that distance.

(f.) When permission has been given by "B" for a train to approach from "D," no train must be allowed to leave "C" until that from "D" has been brought to a stand at the Home Signal or has passed through the junction for a distance of a quarter of a mile, or until the TRAIN ARRIVAL signal for the previous train has been received from the next Signal-box ahead if within that distance.

(g.) When permission has been given by "B" for a train to approach from "A" for "D," no train must be allowed to leave "C" until that from "A" has been brought to a stand at the Home Signal or has passed clear of the Junction, or the Junction Facing Points have been set for "C," and the Line towards "C," is clear for a distance of a quarter of a mile beyond the Junction Points, or until the TRAIN ARRIVAL signal for the previous train has been received from the next Signal-box ahead if within that distance.

(h.) When a train has been sent to the Starting Signal, and the rear of the train is well clear of the Junction, permission for a following train to approach may be given by the Signaller to the Signal-box in the rear if the points are set for the following train to pass on to another Line, and that Line is clear.

(i.) At Stations where the rail contact is fixed ahead of the Advance Starting Signal, and a train from the siding or from another line has been permitted to draw up to the Advance Starting Signal to await "Line Clear," permission must not be given to the rear station for a train to approach, even when the line is clear for a quarter of a mile ahead of the Home Signal, until the first-mentioned train has passed over the Rail Contact, if by so doing, the Block Instrument would be released. Neither must a train be permitted to leave a siding or cross over from another line even when the line is clear for a quarter of a mile ahead of the Home Signal, after permission has been given to the rear station for a train to approach, if by so doing, the Rail Contacts would be actuated and the Block Instrument released.

5. TRAIN WAITING SIGNAL.—This Signal must be given to the Signal-box in advance under the following conditions:—

- (i.) When a train is waiting to proceed, and the TRAIN ARRIVAL or OBSTRUCTION REMOVED signal is not received within a reasonable time, or after the BLOCKING BACK signal has been received and acknowledged.
- (ii.) When some time elapses after the IS LINE CLEAR? signal is sent, and the ACKNOWLEDGMENT of such signal is delayed.

# 6. SECTION CLEAR, BUT STATION OR JUNCTION BLOCKED ("Warning Arrangement").

(This Signal must only be used as provided in Regulations 10 and 11 of these Instructions, Rule 256 of the Book of Rules and Regulations, and where it is specially authorised by the Chief Traffic Manager.)

(a.) When the Line is clear to the Home Signal, and it is necessary for a train to be allowed to approach cautiously in consequence of an obstruction existing ahead of the Home Signal, or from any other cause, the IS LINE CLEAR? signal must not be acknowledged in the usual way, but the Block Indicator must be placed to the LINE CLEAR position and the SECTION CLEAR BUT STATION OR JUNCTION BLOCKED signal sent. The Signaller receiving this signal must (if the train has not already passed the Home Signal towards the Starting Signal or the Advanced Starting Signal) bring the train to a STAND at the Home Signal, and verbally instruct the Engine-driver that the Section is clear to the Home Signal at the Block Signal-box in advance, but that the Station or Junction ahead is blocked. A Green Flag by day and a Green Light by night, held steadily in the hand, must at the same time be exhibited to the Engine-driver, and the necessary Fixed Signals lowered to give permission for the train to proceed. The TRAIN DEPARTURE signal must then be given and acknowledged, as set forth in Regulation 3, Clause (iii.).

(b) Where the Home Signal is at such a distance from the Signal-box that it is not possible for the Signaller to communicate verbally with the Driver when the Engine is standing at the Home Signal, and there is no Calling-on Signal, the Signaller must, after bringing the train to a STAND at the Home Signal, lower it to allow the Engine-driver to draw to his Box, and must stop the train at the Box by exhibiting a Red Flag by day and a Red Light by night. The Engine-driver must then be verbally instructed that the Section is clear to the Home Signal at the Block Signal-box in advance, but that the Station or Junction ahead is blocked; after which a Green Flag by day and a Green Light by night, held steadily in the hand, must be exhibited to the Engine-driver, and the necessary Fixed Signals lowered to give permission for the train to proceed.

(c) If the train is assisted by an engine in the rear, a Green Flag by day and a Green Light by night held steadily in the hand must also be exhibited to the Driver of the Engine in the rear of the train.

(d) Except where special instructions are issued to the contrary, when a train has passed the Signal-box and is brought to a stand at the Starting Signal (where such Signal controls the entrance of trains into the Section ahead), or the Advanced Starting Signal, the Engine-driver must understand that the lowering of the Starting Signal or the Advanced Starting Signal is an indication that the Line is only clear to the Home Signal at the Signal-box in advance, and that he must regulate the speed of his train in the same way as if he had been instructed verbally to proceed under the SECTION CLEAR BUT STATION OR JUNCTION BLOCKED signal.

(e) When some time is likely to elapse before the train for which the IS LINE CLEAR? signal has been sent will be ready to enter the section, the SECTION CLEAR BUT STATION OR JUNCTION BLOCKED signal must not be acknowledged; but when the train is ready to enter the Section, and

before it is allowed to do so, the IS LINE CLEAR? signal must be again sent in order to give the Signaller at the Box in advance an opportunity of receiving the train under Regulation 3, if the circumstances are so altered as to admit of his doing so.

(f) During foggy weather, or when from any other cause, a distant view of the signals cannot be obtained, the SECTION CLEAR BUT STATION OR JUNCTION BLOCKED signal must not be used.

NOTE.—Regulation 6 is not applicable where the points are controlled by the Lock and Block Instruments.

# 7. BANK ENGINE IN REAR OF TRAIN.—

(a) After the TRAIN DEPARTURE signal has been given to the Signal-box in advance, and the indicator has been placed to the TRAIN ON LINE position for a train that is assisted by an engine in the rear, the BANK ENGINE IN REAR OF TRAIN signal must be given to the Signal-box in advance, to indicate that an engine is assisting the train in the rear. The BANK ENGINE IN REAR OF TRAIN signal must be acknowledged by being repeated, and a note of the Signal must at once be made in the Train Register Book at both Signal-boxes and the TRAIN ARRIVAL signal must not be given until the assisting engine has arrived.

(b) If from any cause the Bank Engine, after being signalled, does not proceed in the rear of the train, the CANCEL BANK ENGINE IN REAR OF TRAIN signal (8—2—2) must be sent to the Signal-box in advance.

(c) If it is necessary for the train to be cancelled as well as the Bank Engine, the authorised CANCELING signal (3—5) must be given in accordance with Regulation 21, and this will cancel both the train and the Bank Engine.

NOTE.—Regulation 7 only applies at places where the use of Bank Engines is specially authorised.

# 8. ASSISTING ENGINE IN FRONT, OR TWO TRAINS COUPLED.—

(a) After the TRAIN DEPARTURE signal has been given to the Signal-box in advance, and the Indicator has been placed to the Train on Line position for a train that is assisted by an engine in the front, or two trains coupled, the ASSISTING ENGINE IN FRONT, OR TWO TRAINS COUPLED signal must be given to the Signal-box in advance to indicate that an engine is assisting the train in the front or that two trains are coupled. The ASSISTING ENGINE IN FRONT, OR TWO TRAINS COUPLED signal must be acknowledged, and a note of the signal must at once be made in the Train Register Book at both Signal-boxes, and the TRAIN ARRIVAL signal must not be given until the train which is assisted by an engine in front, or the two trains coupled, have arrived complete.

(b) An assisting engine must not in any case leave the train it is assisting, neither must coupled trains be uncoupled, except at a Block Signal-box.

NOTE.—Regulation 8 only applies at places where the use of Assisting Engines is specially authorised or when permission has been given for two trains to be coupled in accordance with Rule 175 of the Book of Rules and Regulations.

# 9. ENGINES COUPLED TOGETHER.—

(a) When it may be necessary to detach one engine from another on any Running Line, the Driver of each engine requiring to be detached must, unless instructions are issued to the contrary, before uncoupling, verbally communicate with the Signaller

and make him clearly understand what is about to be done, and in what direction the uncoupled engine or engines are required to proceed.

**EXCEPTION.**—*When a Passenger Train worked by two engines is brought to a stand at a Station, and one has to be detached during the time the train is at the platform, it will not be necessary, before uncoupling the engine, for the Engine-driver to communicate with the Signaller, but after the engine has been uncoupled the Driver must, if the engine has to run to a Signal-box in advance before being placed clear of the Running Lines or otherwise disposed of, at once inform the Signaller there what has been done.*

(b) When two or more engines are coupled together, the first one must be signalled as a Light Engine, the IS LINE CLEAR? signal (2—3) being given and accepted in the ordinary way, and after TRAIN DEPARTURE signal has been given, the other engine or engines must each be signalled by the Bank Engine Code (2—2), the signal for each engine being acknowledged. The CANCEL BANK ENGINE IN REAR OF TRAIN Signal (8—2—2) must be used to cancel each engine not going forward attached to the first engine after having been signalled. If it is necessary for all the engines to be cancelled, the CANCELLING signal (3—5) must be used. Both Signallers must record the number of engines coupled together.

**10. BALLAST TRAIN REQUIRING TO STOP IN SECTION.**—When a ballast train has to stop in a Block Section for Permanent-way purposes, the Signaller must give the prescribed IS LINE CLEAR? signal, and the Signaller at the Box in advance must, if the line be clear to the Home Signal, give permission for the train to approach his Box, in accordance with Regulation 6. When a ballast train which has been signalled as a through ballast train requires to stop in the Section for Permanent-way purposes, and comes to a stand at a Signal-box to enable the Guard to inform the Signaller that his train is going to stop on the Main Line in the Section in advance [see Rule 242 in the Book of Rules and Regulations], the Signaller must give the CANCELLING signal, and when the signal has been acknowledged, he must signal the train as a BALLAST TRAIN REQUIRING TO STOP IN THE SECTION.

**11. REPAIRERS' TROLRIES GOING THROUGH TUNNELS.**—(a) When it is necessary for a Repairers' Trolley to go through any of the Tunnels specially enumerated in the Appendix to the Working Time Table as coming within the application of this Regulation, it must be signalled on the Block Instruments in accordance with the authorised Code, and the Signaller at the Box in advance must, if the Line be clear to the Home Signal, give permission for the Trolley to approach his Box in accordance with Regulation 6. No train must be allowed to enter the Tunnel on the same line until the TRAIN ARRIVAL signal has been received from the Signal-box in advance, to indicate that the Trolley has left the Tunnel and has passed the next Signal-box, or been taken off the rails. Should the Trolley after passing through the Tunnel be removed from the rails before reaching the next Signal-box, the Ganger must go forward and inform the Signaller that the Trolley is clear of the Line.

(b) If, however, time would be saved, the Ganger must return to the Signal-box in the rear, and inform the Signaller that the Trolley is clear of the Line;

the Signaller must then send the CANCELLING signal to the Signal-box in advance.

(c) Where a Trolley is taken off the rails or is not sufficiently heavy to actuate the Rail Contact, the Signaller must use the means prescribed in Regulation 30 for restoring the apparatus to its normal position.

**12. TRAIN ARRIVAL.**—(a) Trains must not be considered out of Section and the TRAIN ARRIVAL signal must not be given to the Signal-box in the rear until the last vehicle of the train with White Disc or Red Tail Light attached has passed the Signal-box, except as provided in Clause (b) of this Regulation, and has proceeded a quarter of a mile within the Home Signal, or the train has been shunted clear of the Main Line, or where a Rail Contact is provided, until the train has reached the Contact.

(b) When the last vehicle of a train does not PASS the Signal-box before it has been shunted into a Siding, or when a train has been brought to a stand within the Home Signal and it is necessary to give the TRAIN ARRIVAL signal before the train passes the Signal box, the Signaller must, before giving such signal, ascertain from the Guard or Shunter in charge of the train that the whole of the train, with White Disc or Red Tail Light attached, has arrived, and the Guard or Shunter will be held responsible for giving this information to the Signaller; the Fireman being similarly responsible in the case of a light engine.

**13. COURSE TO BE PURSUED WHEN A TRAIN IS AN UNUSUALLY LONG TIME IN A SECTION.**—(a.) Should an unusual time elapse after the TRAIN DEPARTURE signal has been received without the train so signalled coming in sight, the Signaller must, if there is a tunnel in the Section in which the train is running, prevent any train in the opposite direction proceeding on its journey until he has ascertained that the Line on which it has to run is clear; and if there is no Tunnel in the Section, the Signaller must stop the first train proceeding in the opposite direction, and inform the Engine-driver of the circumstance, and, after the necessary signals have been sent and acknowledged, instruct him to proceed with caution.

(b.) Where there are two parallel Lines running in the same direction, should an unusual time elapse between the receipt of the TRAIN DEPARTURE signal from the Box in the rear for a Train on one of the parallel Lines, and the arrival of such Train at the Box in advance, the Signaller at the Box in advance must not acknowledge the IS LINE CLEAR? signal to the Box in the rear for a Train on the adjoining parallel Line until he has advised the Signaller in the rear of the state of affairs. The Signaller in the rear, upon receipt of this information, must stop the Train travelling on the adjoining parallel Line, advise the Driver of the circumstances, and if there is no Tunnel in the onward Section, instruct him to proceed cautiously to the Box in advance. If there is a Tunnel in the onward Section, and the parallel Lines are in the same Tunnel, the Train must be detained until it has been ascertained that the Line on which it is required to run is clear.

(c.) The Signaller at both ends of the Section must take the necessary action with a view to ascertain the cause, and immediately communicate with the Station-master.

**14. OBSTRUCTION DANGER SIGNAL.**—(a.) Should it be necessary, in consequence of obstruction

or other cause, for an approaching train to be stopped at the Signal-box in the rear, the OBSTRUCTION DANGER signal must be forwarded to that Box, and the Signaller there must immediately exhibit the DANGER signal and take the necessary measures to stop the approaching train; he must not allow the train to proceed until he has received from the Signal-box in advance the OBSTRUCTION REMOVED signal nor until the proper Block signals have been sent and acknowledged.

(b.) Should there be reason to suppose that both Lines are fouled the Signaller must send the OBSTRUCTION DANGER signal in both directions, and where there are parallel Running Lines the requisite steps must be taken to stop the trains running on any Line that may possibly be obstructed.

(c.) The Signaller forwarding the OBSTRUCTION DANGER signal must place the Block Indicator for the Line or Lines affected to the DANGER position if not already in that position, and must also place or maintain his outdoor Signals at DANGER, and take any other steps necessary to protect the obstruction.

(d.) Should a Signaller receiving the OBSTRUCTION DANGER signal succeed in stopping a train for which the IS LINE CLEAR? signal has been accepted by the Signaller at the Box in advance, he must at once advise the Signaller at that Box by giving the CANCELLING signal. This signal must be acknowledged, but the Block Indicator must be maintained at the TRAIN ON LINE position until the obstruction has been removed.

(e.) Should a Signaller receiving the OBSTRUCTION DANGER signal not be able to stop the Train for which the IS LINE CLEAR? signal has been accepted by the Signaller at the Signal-box in advance, he must AT ONCE send the signal VEHICLES RUNNING AWAY ON RIGHT LINE—viz., 14 beats (thus: 4—5—5), and the Signaller receiving the latter signal must immediately use all the means at his command to stop the approaching Train, afterwards acknowledging the signal.

(f.) When the obstruction has been removed, and the Main Line or Lines are again clear, the OBSTRUCTION REMOVED signal must be given to the Signal-box in the rear, and the Block Indicator placed in its normal position.

15. OBSTRUCTION ON LINE.—(a.) Should a Signaller become aware that cattle, horses, or other animals are on the line, and likely to cause an obstruction, he must at once inform the Signaller at the box in the rear of the circumstances on the telegraph or telephone, and take the necessary steps to have the line cleared. Until it has been ascertained that line is clear, all trains and engines allowed to proceed must be brought to a stand, and the Driver verbally informed of the circumstances and instructed to proceed cautiously.

(b.) Should there be a tunnel in the obstructed section, no train must enter such tunnel until it has been ascertained that it is clear.

(c.) When the Signaller has ascertained that the line is clear, he must advise the Signaller at the opposite end of the section, and trains may then be allowed to proceed in the ordinary manner.

16. BLOCKING BACK.—(a.) When it is necessary, after the passing of one train and before giving permission for another to leave the Signal-box in the rear, to obstruct the Line inside the Home Signal, by crossing a train or vehicles from one line to another for shunting purposes, or by allowing a train or vehicles

to leave a Loop Line, or Siding, for the Main Line, the BLOCKING BACK signal (2—4) must, unless instructions are issued to the contrary, be given to the Signal-box or Boxes in the rear, and acknowledged by repetition.

(b.) When a Signaller asks permission to occupy the line outside his Home Signal, he must give the BLOCKING BACK signal (3—3) to the Signaller at the Box in the rear, and the latter must, before acknowledging by repetition the BLOCKING BACK signal (3—3), satisfy himself that he can with safety give such permission, and that he has not allowed a train to approach his Signal-box from the Signal-box in the rear, under Regulation 3, unless there is a distance of at least half a mile between his Home Signal applicable to such Train and the Signal-box from which he has received the BLOCKING BACK signal, or, if at a Junction, he has set his Facing Points for another Line, and that Line is clear according to these Regulations.

(c.) The Signaller forwarding the BLOCKING BACK signal must place the Block Indicator for the Line or Lines intended to be occupied at the Danger position.

(d.) If, when a Signaller gives the BLOCKING BACK signal for the purpose of asking permission to occupy the Line, the Signaller at the Box in the rear is not in a position to give such permission, he must not repeat the BLOCKING BACK signal, or acknowledge it in any way, and until the signal has been acknowledged the Line must not be occupied.

(e.) Unless special permission is given by the Chief Traffic Manager, no train or vehicle must be placed outside a Home Signal where the Line is on a falling gradient towards the Signal-box in the rear, and then only if there is a man in the leading vehicle in a position to prevent a runaway by using the Brakes.

(f.) A train or vehicles must not be placed beyond the sight of the Signaller, nor outside the Distant Signal.

(g.) When the obstruction has been removed, and the Main Line or Lines are again clear, the OBSTRUCTION REMOVED signal must be given to the Signal-box in the rear, and the Block Indicator placed in its normal position.

(h.) The Signallers forwarding and receiving the BLOCKING BACK signal must make a note of the circumstance in their Train Register Books.

(i.) During foggy weather, shunting outside the Home signal is prohibited.

17. SECTION OBSTRUCTED BY ACCIDENT OR BY DISABLED TRAIN.—(a.) Should a Signaller receive information from the Fireman or Guard of a Disabled train, or by telephone from the Signaller at the Signal-box in advance, that a second train is required to enter the Section to assist the disabled train, or should it be necessary for the Breakdown van train to enter a Section obstructed by accident or otherwise, the second train or the Breakdown van train, as the case may be, may, after having been brought to a stand, and the Engine-driver informed of the circumstances, be allowed to enter the Section under the following arrangements:—

(b.) The Signaller must inform the Signaller at the Box in advance of the circumstances, and give the TRAIN DEPARTURE signal on the bell to the Signal-box in advance, and, after it has been acknowledged, he must note the circumstances in his Train

Register Book, and then allow the second train to enter the Section. The Signaller at the Box in advance must also note the circumstances in his Train Register Book and must not give the TRAIN ARRIVAL signal until both trains have arrived. The Guard or Fireman of the train requiring assistance must ride on the engine of the second train and point out to the Engine-driver the position of the disabled train. The second train must run at reduced speed, and great caution must be observed by all concerned. When the TRAIN ARRIVAL signal is received from the Signal-box in advance, and permission has been obtained for another train to proceed, such other train must be stopped at the Signal-box in the rear, and the Engine-driver instructed to proceed cautiously through the Section.

(c) If time would be saved by proceeding to the Block Signal-box in advance the Under Guard, if there be more than one Guard, or the Fireman, if there be not more than one Guard, must immediately go to the Box in advance and advise the Signaller there of the obstruction. The Signaller at the Box in advance must notify the Signaller at the Box in the rear of the circumstances, and the latter, on receipt of this information, may allow the Relief train to enter the blocked Section after the Engine-driver has been informed that the Guard of the disabled train is coming back, and has been instructed to keep a good look-out for such Guard. The Guard of the disabled train when picked up must ride on the engine of the Relief train, and accompany it to the rear of the disabled train.

(d) Should the stoppage or failure occur to an engine not attached to a train, the Fireman must not go to the Box in advance, as directed in clause (c), but must immediately proceed to the Box in the rear and act in the way prescribed for the Guard.

(e) If there is a Tunnel in the blocked Section, the Driver of the Relief train must be instructed by the Signaller not to enter such tunnel unless the Guard or Fireman of the disabled train has come back and met the train, or it has been ascertained that the tunnel is clear.

**18. BREAKDOWN VAN TRAINS AND ENGINE REPLACING OR ASSISTING DISABLED ENGINE.**—(a) To prevent delays, Breakdown van trains, when proceeding to clear the Line, must be signalled as Express Passenger trains, the SHUNT TRAIN FOR FOLLOWING TRAIN TO PASS signal being given whenever the Sections in advance are occupied by trains which the Breakdown gang must pass to reach the scene of accident.

(b) The same course must be adopted in the case of one engine proceeding to take the place of another that has failed, or of an engine, with or without a train, when sent forward to render assistance in case of failure or accident to preceding trains.

**19. WHEN SINGLE LINE HAS TO BE WORKED.**—Should any obstruction occur necessitating the working of Single Line by Pilotman, the existing Block system must be cancelled. The description and movements of all trains will be advised by telegraph or telephone, and a second train must not be allowed to enter the Section until intimation has been received that the previous train has arrived. If the telegraph or telephone instruments fail, no train must be allowed to follow another within the ordinary running time of the Section, unless the Signaller can satisfy himself that the Section is clear. (See Rule 259 of Book of Rules and Regulations.)

**20. STOP AND EXAMINE TRAIN.**—(a) If a Signaller observe anything unusual in a train during its passage, such as signals of alarm by a passenger, goods falling off, a vehicle on fire, a hot axle-box, or other mishap (except a train passing a Signal-box with the Tail Disc missing or the Tail Light out, or a train divided, for arrangements as to which see Regulations 23 and 24 of this Appendix), he must endeavour to stop the train; should he fail to do so he must give to the Signaller at the Signal-box in advance the STOP AND EXAMINE TRAIN signal, and must himself exhibit his signals to stop any train coming in the opposite direction; and the Signaller at the Signal-box in advance must acknowledge such signal, and immediately exhibit the Danger Signals to stop any train coming from or going towards the Signal-box from which the Signal was received. The train, when stopped, must be carefully examined, and dealt with as occasion may require; should any train going in the opposite direction have been stopped, it must be allowed to proceed after satisfactory evidence has been obtained that the Line on which it is about to run is not obstructed.

(b) Should the Signaller who receives the STOP AND EXAMINE TRAIN signal be unable to ascertain after examination of the train why the signal was sent, he must inform the Engine-driver of the first train travelling in the opposite direction of the circumstances, and instruct him to proceed cautiously to the next Signal-box.

(c) Where practicable, the Signaller must also telegraph or telephone the Signal-box in advance the cause of sending the STOP AND EXAMINE TRAIN signal. Signallers must be careful to notice each train as it passes, to ascertain whether there is any apparent necessity for having it stopped at the next Signal-box for examination.

(d) Should either Signaller have reason to believe, in the case of a vehicle being off the rails or goods falling from the train, that the Permanent-way has been damaged or fouled, he must not allow any train to proceed in the direction of the obstruction until the Line has been examined and he is satisfied that it is safe for the passage of the train.

(e) THE STOP AND EXAMINE TRAIN signal must always be sent in any of the circumstances named, even where in short sections it is possible that the train may have passed onward into one or more Sections. The duty of the Signaller receiving the STOP AND EXAMINE TRAIN signal, if he cannot stop the train, is to immediately pass on the same signal to the Signaller in advance, who must at once put up his signals to stop the train, and those for any parallel Line which may possibly become obstructed.

**21. CANCELLING SIGNAL.**—Should it be necessary to cancel the IS LINE CLEAR? or TRAIN DEPARTURE signal, the CANCELLING signal must be forwarded, and the Signaller receiving the signal must, after acknowledging it, place or maintain the Block Indicator in its normal position (except under the circumstances named in Clause (d) of Regulation 14 of this Appendix), and an entry must be made in the Train Register Book recording the fact of the signal having been cancelled. The CANCELLING signal must not be used unless the IS LINE CLEAR? or TRAIN DEPARTURE signal has been acknowledged or accepted. This signal

must only be used in cases where a train has been signalled to the Signal-box in advance, and it is found that such train will not proceed in the usual course.

22. LAST TRAIN SIGNALLED INCORRECTLY DESCRIBED.—For the purpose of correcting an IS LINE CLEAR signal, should a wrong description of train have been sent forward, the Signaller wishing to alter it must do so by giving 8 strokes on the Bell (5—3) signifying LAST TRAIN SIGNALLED INCORRECTLY DESCRIBED to the Signal-box in advance, which signal must be acknowledged. The correct IS LINE CLEAR signal must then be forwarded and acknowledged in the ordinary manner. The position of the Block Indicator must not be interfered with.

23. TRAIN PASSED WITHOUT TAIL DISC OR LIGHT.—(a) All trains and light engines will carry a White Disc in the rear by day and a Red Tail Light by night, to indicate to the Signaller that no vehicle has become detached on the journey, and Signallermen must carefully watch each train as it passes, and satisfy themselves that it is complete before giving the TRAIN ARRIVAL signal to the Signal-box in the rear. Should a train pass a Signal-box without the proper Tail signal or the Signaller be unable to satisfy himself whether or not the Tail Disc or Light is on the train, he must immediately exhibit the DANGER signal, and stop the first train going in the opposite direction, informing the Engine-driver what has occurred, and instructing him to proceed cautiously so as to avoid danger in the event of any portion of the train having fouled the Line on which he is running. The Signaller must also send the TRAIN PASSED WITHOUT TAIL DISC OR LIGHT signal (9 consecutive beats) to the Signal-box in advance, and must not give the TRAIN ARRIVAL signal to the Signal-box from which the train without Tail Disc or Light has arrived, but must call the attention of the Signaller there in the usual manner, and on gaining attention must give the TRAIN PASSED WITHOUT TAIL DISC OR LIGHT signal (4—5).

(b) In such a case the Signaller at the Box in the rear may give the IS LINE CLEAR? signal for a following train, although he has not received the TRAIN ARRIVAL signal.

(c) The Signaller at the Box in advance, on receiving the TRAIN PASSED WITHOUT TAIL DISC OR LIGHT signal, must acknowledge it, and place the Signals at DANGER to stop the approaching train, advising the Guard and Engine-driver of the circumstances. If, where the Sections are short, a Signaller receiving the TRAIN PASSED WITHOUT TAIL DISC OR LIGHT signal of 9 consecutive beats, finds that he cannot stop the train except by bringing it to a sudden stand, he must not place his Signals to Danger, but, as the train is approaching, send the TRAIN DEPARTURE signal to the Signal-box in advance and immediately follow it with the TRAIN PASSED WITHOUT TAIL DISC OR LIGHT signal.

(d) When the Signaller who sent the TRAIN PASSED WITHOUT TAIL DISC OR LIGHT signal (4—5) receives the IS LINE CLEAR? signal for the following train (unless in the meantime he has received intimation from the Signal-box in advance that the train has arrived complete) he must not acknowledge it in the usual way but the Block Indicator must be placed to the LINE CLEAR position, and the TRAIN PASSED WITHOUT TAIL

DISC OR LIGHT signal (4—5) sent. The Signaller in the rear receiving this signal must stop the train and verbally instruct the Engine-driver to proceed cautiously to the next Signal-box in advance, informing him why it is necessary that he should do so, and then give the TRAIN DEPARTURE signal. As soon as the train, the Engine-driver of which has been cautioned, has passed the Signal-box from which the TRAIN PASSED WITHOUT TAIL DISC OR LIGHT signal was sent, the Signaller there must give the TRAIN ARRIVAL signal, in accordance with Regulation 3, and the signalling of the trains must then be resumed in the ordinary manner.

(e) Should, however, the Signaller sending the TRAIN PASSED WITHOUT TAIL DISC OR LIGHT signal receive an intimation from the Signal-box in advance that the train has arrived complete, he must, if he has not in the meantime given permission for a following train to leave the Signal-box in the rear, call the attention of the Signaller at that Box and give the TRAIN ARRIVAL signal.

(f) Should a train without a Tail Signal pass a Signal-box, and there are Catch Points in the rear of such Box, no train must be allowed to enter the Section in either direction until it has been ascertained that both Lines are clear.

(g) When trains or engines stop at a Signal-box, or before leaving Termini, Signallermen should, where practicable, see that the Tail Signals are in proper order so as to avoid, as far as possible, the unnecessary use of the TRAIN PASSED WITHOUT TAIL DISC or Light Signal.

24. TRAIN DIVIDED.—(a) This signal must be sent to the Signal-box in advance in the event of a Signaller observing that a train has become divided, and is running in two or more parts in the same direction. If the train is assisted by a Bank Engine in the rear, or is running on a falling gradient, or between short Sections where the stoppage of the first part would risk a collision with the second part, the Signaller receiving such signal must immediately exhibit the DANGER signal to stop any train going towards the Signal-box from which the Signal was received, but if the Line on which the divided train is running is clear ahead for it to run upon, he must not exhibit the Signals to stop the first portion, but must give the Engine-driver a Green Signal, either by Flag or Hand Lamp, as occasion may require, moving the Signal in a vertical circle. The Engine-driver, on seeing a Green Signal moved in a vertical circle, will understand that his train is divided, and must exercise great caution by looking out for the second portion, and unless he has reason to believe the Line is not clear ahead, must not stop the portion attached to his engine until he is satisfied that the rear portion has been stopped, or is running very slowly. He must, however, observe and obey any Signals that may be exhibited against him. So soon as the first portion of the train has passed, the Signaller sending and receiving the TRAIN DIVIDED signal must take proper measures for dealing with the second portion, and place Detonators on the rails to attract the attention of the Guard, or of the Bank Engine-driver, should there be a Bank Engine in the rear.

(b) If the divided train is running on a rising gradient, or where the line is level, and is not assisted by a Bank Engine in the rear, the Signaller receiving the signal must exhibit the DANGER signal to stop any train coming from or going towards the Signal-box from which the signal was received.

The first portion of the divided train, when stopped, must be shunted into a Siding as expeditiously as circumstances will permit, or otherwise dealt with as may be necessary to prevent the second portion coming into collision with it. The Signalman sending the TRAIN DIVIDED signal must also stop any train travelling in the opposite direction.

(e) Should any train going in the opposite direction have been stopped, it must not be allowed to proceed until it has been ascertained that the Line on which it is about to run is not obstructed.

(d) Should a train become divided in starting, and the Engine-driver run forward with the first portion, leaving the rear portion stationary, the STOP AND EXAMINE TRAIN signal must be sent to the Signal-box in advance, and not the TRAIN DIVIDED signal.

25. SHUNT TRAIN FOR FOLLOWING TRAIN TO PASS.—This signal must be used to prevent important trains being delayed by less important trains. When, before the TRAIN ARRIVAL signal has been received from the Signal-box in advance for the last train, the Signalman receives a signal from the Box in the rear for a more important train, the SHUNT signal must be sent to the Signal-box in advance, and the Signalman there, on receiving this signal, must take the necessary measures to clear the Line so as to prevent delay to the second train. He must use his discretion as to the best means of effecting the object in view, and if he is unable, from any cause, to shunt the train at his Signal-box, or if he thinks it inexpedient to do so, he must allow the train to proceed, and send forward the SHUNT signal to the Signal-box in advance. The Signalmen forwarding and receiving the SHUNT signal must make a note of it in their Train Register Books.

26. VEHICLES RUNNING AWAY ON WRONG LINE.—(a) Should any vehicle or portion of a train be running back in the wrong direction, or should a train be proceeding on the wrong Line, the Signalman must immediately exhibit the Danger signal and call the attention of the Signalman at the next Box towards which the vehicle, train, or portion of the train may be running by giving the VEHICLES RUNNING AWAY ON WRONG LINE signal; he must also stop the first train going in the same direction on the right Line, and after informing the Engine-driver what has occurred, instruct him to proceed cautiously. The Signalman in the rear receiving this Signal must immediately exhibit the Danger Signal to stop any train coming from or going towards the Signal-box from which the signal was received, and take any other measures that may be necessary, such as turning the runaway train or vehicles across to the other Line, or into a siding, as may be most expedient under the circumstances. In the event of a runaway train or vehicles being turned across to the other Line, the VEHICLES RUNNING AWAY ON RIGHT LINE SIGNAL must be passed on to the next Signal-box. Should the Signalman be unable to take such protective measures, he must pass on the VEHICLES RUNNING AWAY ON WRONG LINE signal to the next Signal-box in the rear; he must also place Detonators on the rails to attract the attention of the men in charge of the train or portion of the train.

(b.) Should any train travelling the opposite direction be stopped, it must not be allowed to proceed until it has been ascertained that the Line on which it is about to run is not obstructed.

(c.) The Signalman at the Box from which the runaway train has started, or any other Signalman whose Box may be passed by the runaway train, must immediately give the OBSTRUCTION DANGER signal to the Signalman in the rear before giving the VEHICLES RUNNING AWAY ON WRONG LINE signal, as prompt action on the part of both Signalmen may prevent a mishap. Should the Signalman receiving the OBSTRUCTION DANGER signal succeed in stopping the train or engine for which the IS LINE CLEAR? signal has been accepted, he must at once advise the Signalman in advance by giving the CANCELLING signal.

27. VEHICLES RUNNING AWAY ON RIGHT LINE.—If any train, vehicle, or portion of a train has escaped and is running away in the proper direction on the right Line, or has entered the Section without authority, the Signalman at the Box in advance must be advised of the fact by the Signalman at the Box in the rear giving the VEHICLES RUNNING AWAY ON RIGHT LINE signal. The Signalman forwarding this signal must immediately exhibit the Danger Signal to stop any train coming from or going towards the Signal-box towards which the vehicle or train is running, and the Signalman receiving the signal must also immediately exhibit the Danger Signal to stop any train coming from or going towards the Signal-box from which the signal was received (unless there is a train in Block in the same Section as the runaway vehicle or train and in front thereof, in which case, if the Line be clear, such train may be allowed to pass the signals before they are exhibited to stop the run away train), and he must arrange for the Line on which the vehicle or train is running to be cleared, and, if necessary, send the signal forward, and take such other measures as he may consider most expedient under the circumstances. Should any train travelling in the opposite direction be stopped, it must not be allowed to proceed until satisfactory evidence has been obtained that the Line on which it is about to run is not obstructed.

28. OPENING AND CLOSING OF BOXES WHERE SWITCHES ARE PROVIDED.—(a.) For switching-through purposes, the Electric Lock and Block Instruments are provided with a locking switch for each line, so that the Down and Up Line Instruments can be switched out one at a time; a separate switch being provided for switching out the bells.

(b.) SWITCHING IN.—When a Signalman requires to switch "In" he must turn his bell switch to "In," and send the prescribed signal to the signal box on each side, which must be acknowledged; he will then immediately send forward to the signal-box in advance all bell signals received, and acknowledge same on receipt of acknowledgment, except as provided in Clause (d.), until TRAIN DEPARTURE is sent, which he will not send forward, but after turning the lock switch for that particular line to "In" (thus raising the Semaphore indicator arm of the Instrument in the rear), he will acknowledge the bell signal, and on the arrival of the train at the signal-box deal with it in the ordinary way. The same course will be followed on the other line.

(c.) When a Signalman requires to switch out he must, after accepting the last train that requires to be dealt with in one direction, but prior to it reaching the Rail Contact operating the Point Lock or passing his Signal controlling the Section ahead where a Point Lock Rail Contact is not provided,

turn his Locking Switch to "Out," which will cut his Instrument out of circuit for that Line. He must then inform the Signalman in the rear by telephone that he has switched out on the "Up" or "Down" Line as the case may be, and leave the signals pulled off and the Switch Hook on the Acceptor. The same course must be followed for the other Line, and when this is done the prescribed switching out Signal must be given and acknowledged, and the Bell Switch turned to "Out."

(d.) If, before a Signalman has switched out his bells, he receives a signal for another train, he must pass that signal on to the Signal Box ahead, and acknowledge same on receipt of acknowledgment, unless it be a signal requiring him to stop an approaching train, when he must place his Out-door Signals to DANGER and deal with the matter in accordance with these Regulations. The same course must be followed should a signal be received by a Signalman after he has switched in his bells, but before he has switched in his instruments.

(e.) Care must be exercised in working the fixed signals when switching in to prevent their being placed to DANGER in the face of any train that may be approaching.

(f.) When the Box is switched out the fixed signals must be left at ALL CLEAR, but when an officer is on duty the home and distant signals must be placed to DANGER in the rear of all trains while stopped at the Station, and not again lowered till the train has gone well forward on the journey.

(g.) No Signal Box must be switched out when any failure exists in connection with the Interlocking Apparatus, Instruments, or Bells, nor, in the event of a failure having been rectified, until the last train allowed to enter the Section after having been CAUTIONED has passed through.

(h.) The times of opening and closing to be entered in the Train Register Book.

(i.) Signalmen before opening the Block Telegraph Switch must communicate by speaking instrument, where such is provided, with the Boxes on either side, and ascertain from them the description of any train signalled, or what trains are running in the Section. Should the speaking instrument work with the Block instruments this information must be obtained immediately after the opening switch signal has been acknowledged.

29. FAILURE OF INSTRUMENTS OR BELLS.—(a) Should a Rail Contact not be actuated when a train passes over it, the Signalman must, except when otherwise ordered wait until the TRAIN ARRIVAL signal is received from the Box in advance before he resorts to the means prescribed in Regulation 30 for restoring his apparatus to its normal condition.

If the engine of the train which failed to actuate the Rail Contact became disabled, or if from any other circumstances a serious delay would be caused to a following train, the Signalmen concerned, after communicating with each other and arriving at a clear understanding, may restore the instrument to the normal position by means of the cancelling arrangements and a following train may be accepted under the same conditions as if the previous train had passed without a Tail Disc or Light. The Signalman in the rear receiving the 4—5 signal must stop the train and verbally instruct the Engine-driver to proceed cautiously to the next Signal-box in advance, informing him why it is necessary that he should do so, and then give the "Train Departure" Signal. As soon as the train, the Engine-driver of

which has been cautioned, has passed the Signal-box at which the Rail Contact failed the Signalman then must, if the Rail Contact has been actuated, give the "Train Arrival" signal in accordance with Regulation 3, and the signalling of trains must then be resumed in the ordinary manner.

(b) In the event of any failure of the Instruments or Bells, so that the necessary signals cannot be forwarded and received, no train must be allowed to pass a Signal-box into that Section of the Line where the failure exists, without having been previously brought TO A STAND, and the Engine-driver and Guard or Guards advised of the circumstance. The Engine-driver must then be instructed to proceed cautiously, in order to stop short of any obstruction there may be on the Line. Where there are no Speaking Instruments, or when the Speaking Instruments have failed, the Engine-driver of the first train thus warned must be instructed to stop at the Signal-box in advance, and inform the Signalman there that the Bells or Instruments have failed at the Signal-box in the rear.

(c) No train must be allowed to follow another train until the ordinary running time of the Section has elapsed, unless the signalman sees that the section ahead is clear and the Engine-driver has been stopped and cautioned as above directed. Steps must be immediately taken to have the Telegraphic Apparatus put into working order, and when the failure has been remedied, and the Instruments are again in working order, the Engine-driver of the last train allowed to proceed through the Section cautiously must be supplied with a written notice (*see* specimen form at end of Regulation) to that effect, and instructed to stop at the next Signal-box then open, and hand the notice to the Signalman. The Signalman receiving this notice must give the TRAIN ARRIVAL signal to the Signal-box in the rear, and the signalling must then be resumed in accordance with these regulations.

## BLOCK TELEGRAPH SIGNALLING.

(Regulation 29.)

To Signalman at.....Signal Box.

The Block Telegraph Instruments which have been out of use since.....m. are again in working order and ordinary Block Telegraph Working will now be resumed.

Signed..... Signalman at.....

Time....., 19..

In the event of the Block Instruments failing, in addition to stopping the train before allowing it to enter the Section, the Signalman must, when practicable, send the necessary Signals as messages on the Telegraph or Telephone Instruments (where such exist), and the times they are sent and received recorded in the Train Register Books.

30. RELEASING APPLIANCES.—(a) Special appliances are provided at the Signal Boxes to release various parts of the apparatus should, at any time, there be a failure of the instruments, or rail contacts, or should the train fail to reach the rail contact. Each Signalman as he comes on duty must satisfy himself that the peg of the key-hole cover for the "Train Accepted" key is in its place and screwed up; that the paper seals over the various appliances are intact, and that the "Train Accepted" key is in its place, as he will be held responsible for any irregularities that may be found whilst he is on duty.

(b) **TRAIN ACCEPTED KEY.**—In case it is necessary at any time from any cause to re-set the apparatus after the **TRAIN ACCEPTED** disc has fallen, the small peg holding the key hole cover in position must be unscrewed, and the key inserted and given a complete turn from left to right, and then withdrawn. The peg can then be placed in its hole again but cannot be screwed up except by the Electrical Employee.

(c) In the event of B being unable to free A, owing to failure in the apparatus, A must give the **SPECIAL ATTENTION** signal (4—4—4) to B, and the Signaller there must, if he finds that a further use of his Acceptor is necessary to rectify the failure or error, cancel the indication **TRAIN ACCEPTED** by means of the key. After withdrawing the key he must press the Acceptor in the usual way, and immediately after this fresh attempt to free the Section in the rear he must acknowledge the **SPECIAL ATTENTION** Signal received from A. Should this take effect, the Engine-driver must be verbally cautioned before leaving A, and the circumstances explained to him, so that he may keep a good lookout. Should, however, the Acceptor altogether fail to release the Signal Lever, the instructions as set forth in Rule 96 of the Book of Rules and Regulations and Regulation 29 must be carried out, and continued until such time as the apparatus is again in working order.

(d) Reports as in case of failure must, in every case, be sent at once, and an entry made of each occurrence in the Train Register Book. The key must be kept in a secure place when not in use.

(e) **BACK LOCK CANCELLING BUTTONS.**—These buttons are provided at each Signal-box for the purpose of cancelling the Back Lock. When it is necessary to cancel the Back Lock, the Signaller at the rear station must before sending the Cancel Back Lock signal (4—1—4) see that the signal lever is right over in the "Off" position, and must test the left hand rod connected with the instrument to make sure it is properly locked, raising it up if necessary. It is not possible to cancel if the Lock has partially dropped. The cancelling can only be done by both Signallers in advance and rear Boxes working together. When the Signaller in advance receives the **CANCEL BACK LOCK** signal (4—1—4) he must first of all thoroughly satisfy himself that it is safe to do so, and after acknowledging signal depress button A for that line, holding same down. This will give one stroke on the bell at B, and on the Signaller there depressing button B for that line the back lock will be released and the signal lever can be replaced in the front locked position.

When it is necessary in case of extreme emergency (owing to failure of the back lock cancelling buttons) the tappet may be raised either by a duly authorised Electrical or Interlocking employee or by the Signaller in the presence of some other employee who has passed a Safe Working Examination.

(f) Should the Indicator at any time show *Free* when it should show *Locked* the Signaller must raise the rod connected with the Signal Lever; if, however, the rod fails to hold the Indicator in the *Locked* position, he must treat it as a failure of the apparatus and deal with it in accordance with Regulation 29.

(g.) Each occurrence must be reported immediately as per regulation *re* reporting failures.

(h.) **POINT LOCK RELEASING LEVER.**—This lever is fixed at the back of the instrument, and is marked. **Point Lock Cancelling.** In the event of a train failing to actuate the Rail Contact operating the Point Shelf Lock Switch, or if from any cause the train fails to reach the Rail Contact, the Shelf Locking Switch may be released by breaking the seal at the back of the instrument and lifting the small lever.

31. **RECORDING TIME WHEN SIGNALS ARE FORWARDED AND RECEIVED.**—(a.) The time at which all signals are forwarded and received must be made legibly with a pen in the Train Register Book (**TELEPHONE AND CALL ATTENTION** signal excepted), and the Signaller on duty must place his name immediately under the last entry made by him at the expiration of his hours of duty.

(b.) If an incorrect entry be made, a line must be drawn lightly through it, and the correction made above or below it, so that the original entry may be clearly seen.

(c.) In recording the time signals are received and forwarded, fractional parts of a minute less than half-a-minute must not be counted, and the half-minute and fractional parts more than half-a-minute must be reckoned as a minute, thus: 15¼ minutes must be entered as 15 minutes only, and 15½ minutes as 16 minutes.

32. **TESTING BELLS.**—This signal must be used to ascertain whether the Bells are in perfect order, and only when no train has been signalled.

33. **TIME SIGNAL.**—(a.) Signallers will be held responsible for keeping their Clocks properly regulated, and must, if necessary, at once report any defects in their working.

(b.) As soon as practicable after changing duty, Signallers must compare their clocks with the clocks in the Signal Boxes on each side, a note of the circumstances to be recorded in the Train Register Books.

34. **TESTING CONTROLLED SIGNALS.**—The Signal which controls the entrance into the section ahead must be tested as soon after the Signallers change duty as the running of trains will permit to see whether the Signal Arm will go fully to the Danger position with Back Lock in, *i.e.*, before the train for which the signal has been lowered has reached the Rail contact. The Signaller must make an entry in the Train Register Book of the transaction.

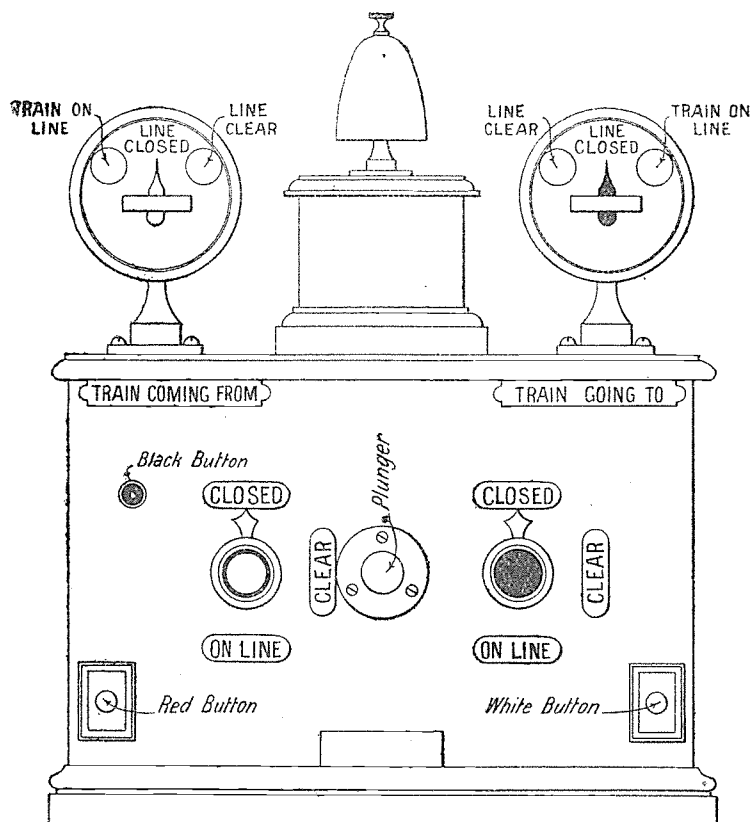
35. **PARALLEL LINES.**—With reference to Regulations 14, 15, 20, 23, 24, 26, and 27, where there are Parallel Running Lines, the necessary steps must be taken to stop or caution the trains running on any Lines that may possibly be obstructed by what has occurred.

36. **MIXED TRAINS** conveying passengers and goods must be signalled and dealt with as Passenger trains.

37. **TELEPHONE SIGNAL.**—To call attention when the use of the Telephone is required.

## APPENDIX VIII.

## DIAGRAM OF INSTRUMENT.



## Description of Instrument.

The Block Instrument consists of two Dials, a Plunger, three Press Buttons, coloured respectively Black, Red, and White; a Red Switch, a Black Switch, a Bell or Gong.

On the left hand dial is a Red Needle referring to trains coming towards the Signal-box. It has three positions, viz.: "Closed," "Clear," and "On Line."

On the right hand dial is a Black Needle referring to trains going from the Signal-box. It has three positions, viz.: "Closed," "Clear," and "On Line."

The normal position of needles is at "Closed."

The Plunger is used for giving signals to the distant Signal-box. Each time the Plunger is pressed the Bell or Gong at the Distant Signal-Box will give one beat.

The Black Press Button is used in conjunction with the red Switch Handle.

The Red and the White Press Buttons are fixed on the instrument to provide for failure of Treadle and Cancelling.

The Switch Handles have three positions "Closed," "Clear," and "On Line."

The normal position of the Switch Handle is at "Closed."

All Signals between the two Signal-boxes are received by the Bell or Gong.

The "Train coming from" (Red) Switch is (free, and is) turned to "Clear," prior to acknowledging the "Is Line Clear" signal; it is then turned to "On Line" prior to acknowledging the "Train Departure" signal, and (where it is then locked) must remain in that position until the train arrives. On arrival of the train, and immediately before giving the "Arrival" signal (and after the train has automatically released the Switch when passing over the Treadle),

the Switch Handle must be turned to "Closed" and Black Button depressed.

The "Train going to" (Black) Switch (is locked, and on release of lock by Advance Signal-box) is turned to "Clear" upon receipt of the "Is Line Clear" acknowledgment; it is then turned to "On Line" upon receipt of the "Train Departure" acknowledgment (where it is again locked).

THE NEEDLES serve to record the signals that have last passed, and thus indicate the state of the line as to the trains running over it. In order to move either of them from one position to another the co-operation of the Signalmen at both ends of the Section is always required (except when the "Is Line Clear" signal has been accepted) in which case the Signalsman in advance can place the Black Needle at the Rear Station, and the Red Needle at his own Station at "On Line."

NOTE.—The Buttons must be used very carefully, pressed well home, and kept depressed during the time required to count three slowly.

THE BELL SIGNALS AND INSTRUCTIONS FOR THE THREE POSITION INSTRUMENTS ARE THE SAME AS FOR THE LOCK AND BLOCK INSTRUMENTS, EXCEPT IN THE FOLLOWING REGULATIONS:—

BLOCK SYSTEM.—Clauses (a), (e), and (f), same instructions as for the Lock and Block Instruments.

Clauses (b), (c), and (d) of the Lock and Block Instructions do not apply to these Instruments.

FIXED SIGNALS.—Same Instructions as for the Lock and Block Instruments.

NORMAL POSITION OF BLOCK INDICATORS.—When the Block Instruments are not in use the Line must be considered Closed, the Indicators showing "Line Closed."

USE OF INSTRUMENTS AND BELLS.—Clauses (a) and (c), same Instructions as for the Lock and Block Instruments.

Clause (b) of the Lock and Block Instructions does not apply to these Instruments.

1. CALL ATTENTION.—Same Instructions as for the Lock and Block Instruments.

2. REPETITION AND ACKNOWLEDGMENT OF SIGNALS.—Same Instructions as for the Lock and Block Instruments.

3. MODE OF SIGNALLING BY BLOCK TELEGRAPH.—"A," "B," and "C" represent three consecutive Block Signal-boxes, and the process of signalling a train is as follows:—

- (i) Prior to the despatch of a train from "A," the Signalsman there, provided he has received the TRAIN ARRIVAL signal for the previous train, and the Block Indicator is in its normal position (except as provided in Regulation 23), must call the attention of "B," and, having obtained it, must give the proper IS LINE CLEAR? signal; if the line be clear at "B," the Signalsman there must turn the Red Switch to "Clear," press the Black Button, and acknowledge the Bell Signal. The Signalsman at "A," on receipt of the acknowledgment, can then turn his Black Switch to "Clear," which puts Needles on both Instruments to "Line Clear."

- (ii) The Signalman at "A" may then, if the Line be clear, take off his Signals for the train to leave "A."
  - (iii) On the train leaving "A" the Signalman there must send the TRAIN DEPARTURE signal to "B," which must be acknowledged by "B" turning the Red Switch to "On Line" (which simultaneously places the Red Needle at "B" and the Black Needle at "A" to "*Train on Line*"). and repeating signal. "A," on receipt of "*Train Departure*" acknowledgment, must turn his Black Switch to "*On Line*." The Black Switch at "A" and the Red at "B" are now locked.
  - (iv.) "B" must then, provided he has received the TRAIN ARRIVAL signal for the previous train, and the Block Indicator is in its normal position, call the attention of "C," and, having obtained it, must give the proper IS LINE CLEAR? signal to "C." On receiving permission from "C" for the train to approach, "B" may take off his Signals for the train to proceed to "C," and as soon as the train has passed over the Treadle at "B" (which automatically releases the Red Switch at that Station), or been shunted Clear of the Main Line at "B," the Signalman there must if the train has arrived complete, in accordance with Regulation 12, call the attention of "A," and, having obtained it, must turn his Red Switch to "*Closed*," press the Black Button, and then give the "*Train Arrival*" signal to "A." The Signalman at "A," upon receipt of the "*Train Arrival*" signal, turns his Black Switch to "*Closed*" (where it is now locked) and acknowledges signal.
  - (v.) Where the Sections are short, the IS LINE CLEAR? signal must be sent forward, where necessary, to avoid delay to the train, as soon as it has been acknowledged and before the TRAIN DEPARTURE signal has been received.
4. LINE CLEAR OR GIVING PERMISSION FOR A TRAIN TO APPROACH.—Same Instructions as for the Lock and Block Instruments.
  5. TRAIN WAITING SIGNAL.—Same Instructions as for the Lock and Block Instruments.
  6. SECTION CLEAR BUT STATION OR JUNCTION BLOCKED ("Warning Arrangement").—Same Instructions as for the Lock and Block Instruments.
  7. BANK ENGINE IN REAR OF TRAIN.—Same Instructions as for the Lock and Block Instruments.
  8. ASSISTING ENGINE IN FRONT, OR TWO TRAINS COUPLED.—Same Instructions as for the Lock and Block Instruments.
  9. ENGINES COUPLED TOGETHER.—Same Instructions as for the Lock and Block Instruments.
  10. BALLAST TRAIN REQUIRING TO STOP IN SECTION.—Same Instructions as for the Lock and Block Instruments.
  11. REPAIRERS' TROLRIES GOING THROUGH TUNNELS.—Same Instructions as for the Lock and Block Instruments.
  12. TRAIN ARRIVAL.—Same Instructions as for the Lock and Block Instruments.
  13. COURSE TO BE PURSUED WHEN A TRAIN IS AN UNUSUALLY LONG TIME IN A SECTION.—Same Instructions as for the Lock and Block Instruments.
  14. OBSTRUCTION DANGER SIGNAL.—Clauses (a.), (b.), (d.), (e.), and (f.) are the same as for the Lock and Block Instruments.  
(c.) The Signalman, before forwarding the OBSTRUCTION DANGER signal must place his Red Switch for the Line or Lines affected to ON LINE if not already in that position, and must also place or maintain his Signals at DANGER, and take any other steps necessary to protect the obstruction. The Signalman receiving the signal must place his Black Switch to ON LINE (if not already in that position) and acknowledge the signal.
  15. OBSTRUCTION ON LINE.—Same Instructions as for the Lock and Block Instruments.
  16. BLOCKING BACK.—Clauses (a.), (b.), (d.), (e.), (f.), (g.), (h.), and (i.) are the same as for the Lock and Block Instruments.  
(c.) The Block Indicator for the Line or Lines intended to be occupied must be placed at the TRAIN ON LINE position.
  17. SECTION OBSTRUCTED BY ACCIDENT OR BY DISABLED TRAIN.—Same Instructions as for the Lock and Block Instruments.
  18. BREAKDOWN VAN TRAINS AND ENGINE REPLACING OR ASSISTING DISABLED ENGINE.—Same Instructions as for the Lock and Block Instruments.
  19. WHEN SINGLE LINE HAS TO BE WORKED.—Same Instructions as for the Lock and Block Instruments.
  20. STOP AND EXAMINE TRAIN.—Same Instructions as for the Lock and Block Instruments.
  21. CANCELLING SIGNAL.—Same Instructions as for the Lock and Block Instruments.
  22. LAST TRAIN SIGNALLED INCORRECTLY DESCRIBED.—Same Instructions as for the Lock and Block Instruments.
  23. TRAIN PASSED WITHOUT TAIL DISC OR LIGHT.—Same Instructions as for the Lock and Block Instruments.
  24. TRAIN DIVIDED.—Same Instructions as for the Lock and Block Instruments.
  25. SHUNT TRAIN FOR FOLLOWING TRAIN TO PASS.—Same Instructions as for the Lock and Block Instruments.
  26. VEHICLES RUNNING AWAY ON WRONG LINE.—Same instructions as for the Lock and Block Instruments.
  27. VEHICLES RUNNING AWAY ON RIGHT LINE.—Same instructions as for the Lock and Block Instruments.
  28. OPENING AND CLOSING OF BOXES WHERE SWITCHES ARE PROVIDED.—(a) At Signal-boxes open during certain hours a switch is provided to enable the Block Instruments on either side to be "put through" when the box is closed.  
(b) Upon taking up duty, the Signalman is to open the switch and give notice to the Box on each side by sending the prescribed signal, which must

be acknowledged. If the Sections are both clear at the time of opening, this is all that need be done. If "Line Clear" has been obtained by the Signal-box on either side of the switch-box, but the train has not entered the Section, the Signalman at the rear Box must advise the switch-box of the circumstances, and the Signalman there must turn his respective Red and Black switches to "*Line Clear*." But if a train or engine is travelling on either line, the Box from which the engine or train is travelling must give the switch-box the "*Train Departure*" signal, and the switch-box Signalman must turn his Red Switch quickly to "*On Line*," acknowledge same, and pass that signal on to the box in advance. On receipt of acknowledgment the switch-box Signalman must turn his Black Switch to "*On Line*." The switch-box must only give the "*Train Arrival*" signal when the train or trains have passed the switch-box, or the "*Train Arrival*" signal has been received from the box in advance; if, however, the train has passed over the treadle, the Red Switch must be released, as set forth in Regulation 30.

(c) When the time for leaving duty arrives, the Signalman at a Switch Box must not switch his apparatus out of circuit until he has the sections on each side clear, and the IS LINE CLEAR Signal has not been accepted in either direction.

(d) It is most important that the Signalman on either side of the switch-box depress the Black Button prior to acknowledging the switching out signal, so as to leave the Black Switches at the Switch-box free in the "*Closed*" position, and the Signalman at the switch-box must not turn his cut out switch to "*Out*" until he is satisfied that both locks have fallen.

Clauses (e), (f), (g), (h), and (i) same Instructions as for the Lock and Block Instruments.

29. FAILURE OF INSTRUMENTS OR BELLS.—Same Instructions as for the Lock and Block Instruments.

30 (a) **RELEASING BUTTONS.**—Special Buttons are provided on each instrument to release the Red Switch should at any time there be a failure of the Instrument, or Rail Contact, or should the train fail to reach the Rail Contact; the releasing can only be done by both the Signalmen in advance and rear Signal-boxes working together.

(b) The Signalman must, if possible, explain matters on the Speaking Instrument, and when the Signalman in advance ("B") has satisfied himself that it is safe for him to do so, he must first place his Red Switch to "*On Line*" (if not already in that position) and send the "*Release Switch*" signal (1-4-1). The Signalman at "A" on receipt of this signal must place his Black Switch to "*On Line*" (if not already in that position) acknowledge the signal and depress his White Button. The Signalman at "B" on receipt of acknowledgment, must depress his Red Button, turn his Red Switch to "*Closed*," and depress the Black Button. The Signalman at "A" upon seeing his Black Needle deflect, must turn his Black Switch to "*Closed*," and the Instruments will then be restored to their normal position.

Clauses (d), (g), same Instructions as for the Lock and Block Instruments.

Clauses (e), (e), (f), (h), and (i), of the Lock and Block Instructions do not apply to these Instruments.

(i) Each Signalman as he comes on duty must satisfy himself that the paper seals (where provided) over the various buttons are intact, as he will be held responsible for any irregularities that may be found in his box whilst on duty.

31. **RECORDING TIME WHEN SIGNALS ARE FORWARDED AND RECEIVED.**—Same Instructions as for the Lock and Block Instruments.

32. **TESTING BELLS.**—Same Instructions as for the Lock and Block Instruments.

33. **TIME SIGNALS.**—Same instructions as for the Lock and Block Instruments.

34. **TESTING CONTROLLED SIGNALS.**—Signals which are controlled from another Signal-box must be tested as soon after the Signalmen change duty as the running of the trains will permit. The Signalman in charge of the Controlled Signal, after releasing the Lever so far as he is concerned, must give 20 strokes on the bell (thus: 5-5-5-5) to the Signalman at the Signal-box from which the Signal is controlled. This must be repeated, and the Signal Lever worked three times slowly. Each Signalman must make an entry in his Train Register Book of the transaction. Controlled Signals must not be tested after the IS LINE CLEAR? signal has been received for a Train on the Line to which they refer.

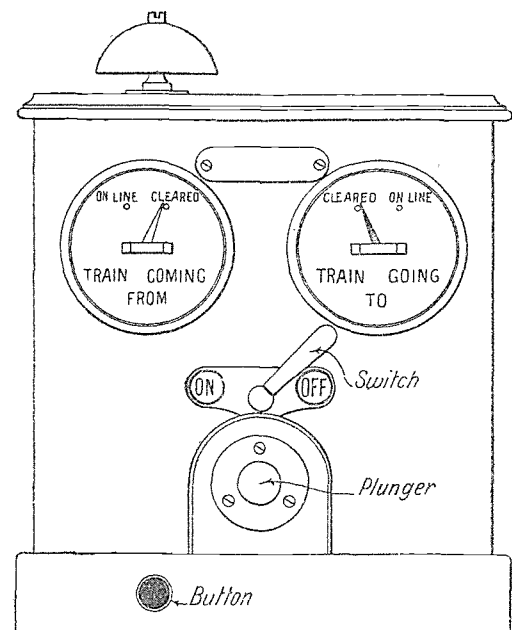
35. **PARALLEL LINES.**—Same Instructions as for the Lock and Block Instruments.

36. **MIXED TRAINS.**—Same Instructions as for the Lock and Block Instruments.

37. **TELEPHONE SIGNAL.**—Same Instructions as for the Lock and Block Instruments.

## APPENDIX VIII.

### DIAGRAM OF INSTRUMENT.



### Description of Instrument.

The Block Instrument consists of two dials, a plunger, a small press button, a switch handle, and a bell or gong.

On the left-hand dial is a Red Needle referring to trains coming towards the Signal-box. It has two positions "*Cleared*" and "*On Line*."

On the right-hand dial is a Black Needle referring to trains going from the Signal-box. It has two positions, "*Cleared*" and "*On Line*."

The normal position of needles is at "*Cleared*."

The plunger is used for giving signals to the distant Signal-box. Each time the plunger is pressed the bell or gong at the distant Signal-box will give one beat.

The small button in base of instrument controls the movements of the black "*Train Going to—*" Needle, and must not be pressed except when it is necessary to place such Indicator to "*On Line*" or to restore it to its normal position in accordance with these Regulations.

The switch handle has two positions, marked respectively "*Off*" and "*On*." The normal position of the switch handle is at "*Off*." It is placed at "*On*" prior to acknowledging TRAIN DEPARTURE, and prior to sending the OBSTRUCTION DANGER and BLOCKING BACK signals and it is placed to "*Off*" prior to giving the TRAIN ARRIVAL OR OBSTRUCTION REMOVED signal.

All signals between two signal-boxes are received by the bell or gong.

The needles serve to record the signals that have last passed, and thus indicate the state of the line as to trains running over it.

THE BELL SIGNALS AND INSTRUCTIONS FOR THE TWO POSITION INSTRUMENTS ARE THE SAME AS FOR THE LOCK AND BLOCK INSTRUMENTS, EXCEPT IN THE FOLLOWING REGULATIONS:—

BLOCK SYSTEM.—Clauses (a), (e), and (f), same Instructions as for the Lock and Block Instruments.

Clauses (b), (c), and (d) of the Lock and Block Instructions do not apply to these Instruments.

FIXED SIGNALS.—Same Instructions as for the Lock and Block Instruments.

NORMAL POSITION OF BLOCK INDICATORS.—When the Block Instruments are not in use the Line must be considered closed, the Indicators showing "*Line Cleared*," which is to be understood to mean that the TRAIN ARRIVAL signal for the preceding train has been given and duly acknowledged.

USE OF INSTRUMENTS AND BELLS.—Clauses (a) and (c) same Instructions as for the Lock and Block Instruments.

Clause (b) of the Lock and Block Instructions does not apply to these Instruments.

1. CALL ATTENTION.—Same Instruction as for the Lock and Block Instruments.

2. REPETITION AND ACKNOWLEDGMENT OF SIGNALS.—Same Instructions as for the Lock and Block Instruments.

3. MODE OF SIGNALLING BY BLOCK TELEGRAPH.—"A," "B," and "C" represent three consecutive Block Signal-boxes, and the process of signalling a train is as follows:—

- (i) Prior to the despatch of a train from "A," the Signaller there, provided he has received the TRAIN ARRIVAL signal for the previous train, and the Block Indicator is in its normal position (except as provided in Regulation 23), must call

the attention of "B," and having obtained it, must give the proper IS LINE CLEAR? signal; if the line be clear at "B," the Signaller there must acknowledge the Bell Signal.

- (ii) The Signaller at "A" may then, if the Line be clear, take off his signals for the train to leave "A."

- (iii) On the train leaving "A" the Signaller there must send the TRAIN DEPARTURE signal to "B," which must be acknowledged by "B," turning the switch handle to "*On*" and acknowledge the Bell signal; "A" on receipt of acknowledgment will press the small button and give one beat on the Plunger to place the Red Needle at "B" and the Black Needle at "A" to "*On Line*."

- (iv) "B" must then, provided he has received the TRAIN ARRIVAL SIGNAL for the previous train, and the Block Indicator is in its normal position, call the attention of "C," and having obtained it must give the proper IS LINE CLEAR? signal to "C." On receiving permission from "C" for the train to approach, "B" may take off his signals for the train to proceed to "C," and as soon as the train has passed "B," or been shunted clear of the Main Line at "B," the Signaller there must, if the train has arrived complete, in accordance with Regulation 12, call the attention of "A," and having obtained it, place his switch handle to "*Off*," and then give the TRAIN ARRIVAL signal to "A." "A" will then acknowledge, at the same time will depress his small button, which will cause his Black, "*Train Going to*" Needle to turn to "*Cleared*" and place the Red Needle at "B" to "*Cleared*" also.

- (v) Where the Sections are short, the IS LINE CLEAR? signal must be sent forward, where necessary, to avoid delay to the train, as soon as it has been acknowledged and before the TRAIN DEPARTURE signal has been received.

4. LINE CLEAR OR GIVING PERMISSION FOR A TRAIN TO APPROACH.—Same Instructions as for the Lock and Block Instruments.

5. TRAIN WAITING SIGNAL.—Same Instructions as for the Lock and Block Instruments.

6. SECTION CLEAR BUT STATION OR JUNCTION BLOCKED ("Warning Arrangement")—Except in regard to the Block Indicators, same Instructions as for the Lock and Block Instruments.

7. BANK ENGINE IN REAR OF TRAIN.—Same Instructions as for the Lock and Block Instruments.

8. ASSISTING ENGINE IN FRONT OR TWO TRAINS COUPLED.—Same Instructions as for the Lock and Block Instruments.

9. ENGINES COUPLED TOGETHER.—Same Instructions as for the Lock and Block Instruments.

10. BALLAST TRAIN REQUIRING TO STOP IN SECTION.—Same Instructions as for the Lock and Block Instruments.

11. REPAIRERS' TROLLEYS GOING THROUGH TUNNELS.—Same Instructions as for the Lock and Block Instruments.

12. TRAIN ARRIVAL.—Same Instructions as for the Lock and Block Instruments.

13. COURSE TO BE PURSUED WHEN A TRAIN IS AN UNUSUALLY LONG TIME IN A SECTION.—Same Instructions as for the Lock and Block Instruments.

14. OBSTRUCTION DANGER SIGNAL.—Same Instructions as for the Lock and Block Instruments.

15. OBSTRUCTION ON LINE.—Same Instruction as for the Lock and Block Instruments.

16. BLOCKING BACK.—Same Instructions as for the Lock and Block Instruments.

17. SECTION OBSTRUCTED BY ACCIDENT OR BY DISABLED TRAIN.—Same Instructions as for the Lock and Block Instruments.

18. BREAKDOWN VAN TRAINS AND ENGINE REPLACING OR ASSISTING DISABLED ENGINE.—Same Instructions as for the Lock and Block Instruments.

19. WHEN SINGLE LINE HAS TO BE WORKED.—Same Instructions as for the Lock and Block Instruments.

20. STOP AND EXAMINE TRAIN.—Same Instructions as for the Lock and Block Instruments.

21. CANCELLING SIGNAL.—Same Instructions as for the Lock and Block Instruments.

22. LAST TRAIN SIGNALLED INCORRECTLY DESCRIBED.—Same Instructions as for the Lock and Block Instruments.

23. TRAIN PASSED WITHOUT TAIL DISC OR LIGHT.—Same Instructions as for the Lock and Block Instruments.

24. TRAIN DIVIDED.—Same Instructions as for the Lock and Block Instruments.

25. SHUNT TRAIN FOR FOLLOWING TRAIN TO PASS.—Same Instructions as for the Lock and Block Instruments.

26. VEHICLES RUNNING AWAY ON WRONG LINE.—Same Instructions as for the Lock and Block Instruments.

27. VEHICLES RUNNING AWAY ON RIGHT LINE.—Same Instructions as for the Lock and Block Instruments.

28. OPENING AND CLOSING OF BOXES WHERE SWITCHES ARE PROVIDED.—(a.) At Signal-boxes open during certain hours a switch is provided to enable the Block Instruments on either side to be "Put Through" when the box is closed.

(b.) Upon taking up duty the Signaller is to open the switch and give notice to the Signal-box on each side by sending the prescribed signal, which must be acknowledged. If the sections are both clear at the time of opening this is all that need be done; but if, on the other hand, a train or engine is travelling on either line, the box from which the engine or train is travelling must give to the switch box the TRAIN DEPARTURE Signal, and the switch box must pass that signal on to the box in advance, who must duly acknowledge the signal.

(c.) The switch box must only give the TRAIN ARRIVAL Signal when the Train or Trains have passed the switch box, or the TRAIN ARRIVAL SIGNAL has been received from the box in advance.

(d.) When the time for leaving duty arrives the Signaller at a switch box must not switch his apparatus out of circuit until he has the sections on each side clear, and the "IS LINE CLEAR" Signal has not been accepted in either direction.

Clauses (e.), (f.), (g.), (h.), and (i.) same instructions as for the Lock and Block Instruments.

29. FAILURE OF INSTRUMENTS OR BELLS.—Clause (a) of the Lock and Block does not apply to Two position Instruments; Clauses (b) and (c) same Instructions as for the Lock and Block Instruments.

30. Not applicable to "Two position Instruments."

31. RECORDING TIME WHEN SIGNALS ARE FORWARDED AND RECEIVED.—Same Instructions as for the Lock and Block Instruments.

32. TESTING BELLS.—Same Instructions as for the Lock and Block Instruments.

33. TIME SIGNAL.—Same Instructions as for the Lock and Block Instruments.

34. TESTING CONTROLLED SIGNALS.—Signals which are controlled from another Signal-box must be tested as soon after the Signaller change duty as the running of the trains will permit. The Signaller in charge of the Controlled Signal after releasing the Lever so far as he is concerned, must give 20 strokes on the bell (thus: 5—5—5—5) to the Signaller at the Signal-box from which the Signal is controlled. This must be repeated, and the Signal Lever worked three times slowly. Each Signaller must make an entry in his Train Register Book of the transaction. Controlled Signals must not be tested after the IS LINE CLEAR? signal has been received for a train on the Line to which they refer.

35. PARALLEL LINES.—Same Instructions as for the Lock and Block Instruments.

36. MIXED TRAINS.—Same Instructions as for the Lock and Block Instruments.

37. TELEPHONE SIGNAL.—Same Instructions as for the Lock and Block Instruments.

## REGULATIONS.

The following Regulations are contained in the General Appendix to the Book of Rules and Working Time-table:—

(a.) Regulations for the use of Tricycles.

(b.) Regulations for using Geared or Sheffield Trolleys and Motors.

## APPENDIX IX.

SUGGESTIONS AND ECONOMIES  
BOARD.

(1) With the object of securing the co-operation of the Staff of the Railway Department in promoting the success of the Department's operations, suggestions are invited on any matters affecting the organisation and conduct of Railway work in all its various branches.

(2) Such suggestions shall be dealt with by a Board, the designation of which shall be the "Suggestions and Economies Board." See Clauses 29 to 47 regarding Constitution, etc., of the Board.

(3) Each suggestion should be submitted in the following form, enclosed in an envelope and addressed to the Secretary, Suggestions and Economies Board, Commissioner of Railways' Office, Perth, and sent to him direct:—

*Western Australian Government Railways.*

## SUGGESTION.

I desire to suggest that.....

.....

Signature.....

Address.....

Date,....., 19 ..

(Note.—Details of the suggestion and any matters relevant thereto should be put as concisely as possible. Write clearly.)

(4) The following subjects are mentioned as indicating the directions in which suggestions might be made:—

(i) *Traffic*—

- (a) Train services and saving of train or engine or shunting mileage.
- (b) Methods of handling goods.
- (c) Transit of traffic.
- (d) Appliances for crossing of trains; signalling; telegraphing.
- (e) Simplification of train working by signals, automatic instruments, etc.
- (f) Improvements in time-tables, rate-books, etc.
- (g) Methods of increasing traffic.

(ii) *Mechanical Engineering*—

- (a) Improved mechanical devices in connection with rolling stock, etc.
- (b) Improvements in workshops plant, etc.

(iii) *Way and Works*—

- (a) Improved methods of maintaining the track to increase economy or safety.
- (b) Lengthening the life of sleepers.
- (c) Improvements in buildings and other accommodation works, etc., and methods of construction.

(iv) *Stores*—

- (a) Improved methods of buying, issuing and charging out material.
- (b) Handling, storage, and maintenance of stocks.
- (c) Dealing with, accounting for, and disposing of surplus and obsolete stock, idle machinery and other plant.

(d) Improvements in store fittings, etc., to facilitate handling.

(v) *General*—

- (a) Methods of advertising.
  - (b) System of timekeeping, paying, etc.
  - (c) System of accounts, methods of bookkeeping, and office practices generally.
  - (d) Sanitary or other arrangements affecting the health and comfort of the staff.
  - (e) Improvements tending to promote increased efficiency and economy in the working of any branch of the Department.
  - (f) Anything applying to the development and prosperity of the Railway Department.
- No suggestion is too trifling to be put forward.

*Rules in regard to Suggestions.*

(5) Each suggestion should be plainly written or typed on a separate foolscap sheet of paper—on one side only. Special care should be taken to ensure that the signature and address are legible.

(6) The form in which they should be written is indicated in clause (3) above.

(7) Each suggestion should be submitted separately, but no limitation is laid down as to the number of suggestions which may be sent in at any one time.

(8) All suggestions should be addressed *direct* to—

The Secretary,  
Suggestions and Economies Board,  
Commissioner of Railways' Office,  
Perth.

(9) Where alterations in forms, books, etc., are suggested, the form number must be quoted in each case, and a sample of the proposed alterations—clearly setting out the proposals in the size suggested—must be submitted, together with a copy of the form or sample page of book in use.

(10) The Commissioner will have the right to make use of all suggestions in any manner he may think fit.

(11) A gratuity or other suitable acknowledgment may be granted by the Commissioner in any case in which a suggestion is recommended by the Board for adoption, irrespective of whether it is eventually put into operation or not.

(12) In cases where merit is shown, the enterprise of the employee may be rewarded, notwithstanding that the suggestion is not adopted.

(13) When a suggestion is made to the Board to put something into use on any part of the Railway system—which is already in use elsewhere on the Western Australian Government Railways—it cannot be accepted by the Board as a new suggestion. In such cases the suggester may be rewarded for drawing attention to the place at which altered working or conditions could be introduced, but will not be entitled to credit for the idea itself.

(14) Lists of awards will be published in the "Railway Gazette" and the "Weekly Notice," and a record made in the official history of each recipient.

(15) If a suggester does not desire his name published, the Secretary of the Board should be so advised.

(16) Any suggestions put forward prior to the formation of the Board and not accepted may be submitted to the Board. In such cases reference should be made to the original suggestion, including the date and branch file number, if available.

(17) Matters submitted to the Board should be confined to the suggestion—without irrelevant remarks.

*Rules in regard to Inventions.*

(18) The foregoing rules in regard to suggestions will also apply in the case of inventions.

(19) All inventions should be sent to the Secretary of the Board with a full description, and be accompanied by sketches or models. Where models are concerned, information should be furnished stating the method and date of despatch.

(20) Every reasonable facility will be afforded in connection with proving the utility of inventions.

(21) No employee shall take out a patent for appliances previously tested or used by the Department without the permission of the Commissioner.

(22) Such permission will be granted on the understanding that the Commissioner reserves to himself the right—if thought desirable in the interests of the Service—to make use of the invention without payment of compensation, royalty, or license fee.

(23) In the event of the invention being subsequently recommended by the Board for adoption, the Commissioner will repay to the employee the fees incidental to obtaining provisional protection or letters patent from the Patent Office.

(24) The invention will be examined with a view to determining its novelty and usefulness, after which the employee will be notified whether adopted or not.

(25) When an invention relating to machinery or any article or appliance likely to be of use in the Department appears to be novel and worth patenting, the Commissioner will be prepared to assist the employee to obtain letters patent, by preparing the specifications and drawings, and by paying the Commonwealth Patent Office fees up to and including the fee payable on the sealing of the patent, but not afterwards; subject to the execution of the free license to the Commissioner to manufacture and use the invention for his own purposes free of any royalties and fees.

(26) An employee will be at liberty to dispose of his invention after having executed the free license referred to in Clause 25.

(27) In the event of the employee dying between the filing of the provisional and the complete specifications for a patent recommended by the Board for adoption, the Commissioner will, at the request of his personal representatives, render assistance towards obtaining letters patent to the extent and on the terms specified in Clause 25.

(28) Any invention or suggestion which the Board considers might be of value to the Australian Railways generally will—if the suggester so desires and after the invention has been protected by patent—be submitted to the corresponding Boards of the other Australian Railways with a view to its adoption, and the suggester will receive any awards which may be granted in respect thereof.

*Constitution of the Suggestions and Economies Board.*

(29) The Board shall consist of three members appointed by the Commissioner, with a Secretary attached to the Commissioner's Office, who shall keep all records, etc.

(30) The functions of the Board shall be to deal with all suggestions and inventions put forward by the Staff, and any other matter as directed by the Commissioner.

(31) The Board shall have power to recommend such awards as it thinks fit.

(32) Awards may be as follows:—

(a) Letter of thanks.

(b) Note of commendation on Official History.

(c) Monetary award, with note of commendation on Official History.

33. The general basis for payment of a monetary award will be as follows:—

Estimated annual saving from adopted suggestion.	Percentage of first annual saving.
£1 to £100	50 per cent.
£100 to £500	25 per cent.
Over £500	10 per cent.

\* It is to be understood that any award exceeding £50 will be subject to the concurrence and approval of the Hon. the Minister for Railways.

(34) The estimate of the saving shall be furnished by the Head of the Branch concerned, and confirmed by the Commissioner, whose decision will be final.

(35) When considered desirable, awards may be paid as follows:—

(a) A preliminary award up to 25 per cent. of the proposed total award, according to the percentages in Clause 33, to be paid when the suggestion is adopted.

(b) The balance of the award to be paid on the ascertained saving after experience of the improvement in actual working for 12 months.

(36) In the case of an adopted suggestion to which the annual basis would not apply, such as a "first and final" saving, the award may be made according to the merit and value of the suggestion.

(37) In cases of exceptional merit, or where a suggestion has entailed special labour or a large amount of original work on the part of the suggester, such as the preparation of plans, models, etc., the Board may make a special recommendation.

(38) Each suggestion shall be addressed to the Secretary of the Board, who will make copies for the three members, omitting the name of the author.

(39) In considering any suggestion, the Board shall have power to consult with or call upon any officer of the Service for assistance, advice, or an expression of opinion in regard to such suggestion.

(40) The Board shall also have power to have plans, sketches, estimates, etc., prepared, and—subject to the approval of the Commissioner—to have a trial made in respect to any suggestion.

(41) Recommendations by the Board regarding the adoption of suggestions shall be made to the Commissioner.

(42) Before finally forwarding a recommendation for the adoption of a suggestion, the Head of the Branch concerned shall be consulted thereon, and his remarks and estimate as per Clause 34 shall accompany the recommendation to the Commissioner.

(43) Unless a suggestion is recommended by the Board, it will not be proceeded with further in regard to adoption.

(44) The Board shall notify each person of the decision arrived at, and shall advise the Chief Accountant regarding awards as per Clause 32.

(45) The Head of the Branch concerned will be advised by the Commissioner.

(46) The Board shall hold a meeting each week or as otherwise arranged.

(47) The Board shall submit to the Commissioner (in July each year) an annual report upon its operations for the preceding financial year.

\* \* \* \* \*