RULES AND REGULATIONS

OF THE

Transportation Department

OF THE

A. T. & S. F. R. R.
The C. K. & W. R. R.
L. T. & S. W. Ry.
M. A. & B. Ry.

Taking Effect Jan. 9, 1887.

D. J. CHASE,
Supt. Transportation.

Approved:
C. W. SMITH,
First V. P. and Gen'l Manager.

TOPEKA, KANSAS:
GEO. W. CRANE & CO., PRINTERS.
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GENERAL NOTICE.

It is of the utmost importance that proper rules for the government of the employees of a railroad company should be literally and absolutely enforced, in order to make such rules efficient. If they cannot or ought not to be enforced, they ought not to exist. Officers or employees whose duty it may be to make or enforce rules, however temporary or unimportant they may seem, should keep this clearly in mind. If in the judgment of any one whose duty it is to enforce a rule, such rule cannot or ought not to be enforced, he should at once bring it to the attention of those in authority.

All employees should be required to be polite and considerate in their intercourse with the public. The reputation and prosperity of a company depend greatly upon the promptness with which its business is conducted and the manner in which its patrons are treated by its employees.

GENERAL RULES.

1. The Rules herein set forth apply to and govern all roads operated by the

A. T. & S. F. R. R. Co.
The C. K. & W. R. R. Co.
L. T. & S. W. Ry. Co.
M. A. & B. Ry. Co.

They shall take effect Sunday, Jan. 9, 1887, and supersede all prior rules and instructions, in whatsoever form issued, which are inconsistent therewith.

2. In addition to these rules, the Time-tables will contain special instructions, as the same may be found necessary or desirable. Special instructions, whether in conflict with these rules or not, which may from time to time be given by proper authority, whether upon the Time-tables or by written order, shall be fully observed while in force.

3. The head of each department should keep himself conversant with the rules, supply copies of them to his subordinates, see that they are understood, enforce obedience to them, and report to the proper officer all violations and the action taken thereon.

4. Every employee of this company whose duties are in any way prescribed by these rules must always have a copy of them in his possession when on duty, and must make himself perfectly acquainted with every rule. He must render all the assistance in his power in carrying them out, and immediately report any infringement of them to the head of his department. Safety depends upon the strict observance of every rule.

5. The fact that any one enters, or remains in, the service of the company will be considered as an expression of willingness to obey these rules. He will not be excused for the violation of any of them, though they may not be included among those applicable to his department.

6. If any one is in doubt as to the meaning of any rule or special instruction, application must be made at once to the proper authority

for an explanation. Ignorance cannot be accepted as an excuse for neglect of duty.

7. Employees of every grade will be considered in the line of promotion, their advancement depending upon the faithful discharge of their duties, and their capacity for assuming increased responsibilities.

8. If an employee should be disabled by sickness or other cause, the right to claim compensation will not be recognized. An allowance, if made, will be a gratuity justified by the circumstances of the case, and the employee's previous good conduct.

9. Every employee, while on duty connected with the trains on any division of the road, shall be under the authority, and conform to the orders, of the Superintendent or Trainmaster of that Division.

10. Employees must wear the prescribed badges or uniforms while on duty.

11. Mail-agents, express messengers, parlor and sleeping car conductors and porters, news agents, and persons in charge of individual cars are subject, while on duty, to the rules governing employees of the company.

STANDARD TIME.

12. Observatory Standard Time will be the only recognized standard, and will be transmitted from the Jefferson City Observatory to the Despatcher's office at Topeka.

13. The Standard Time will be telegraphed to all points from Topeka at 4:00 p.m., Central time, daily.

14. Certain clocks will be designated at division points as Standard Clocks.

15. Where station clocks are provided, station agents must see that they show correct time; but trainmen and enginemen must not take time from such clocks unless they are also designated as Standard Clocks.

16. Each conductor and engineman must have a reliable watch which has been examined and certified to on the form attached hereto, by a responsible watchmaker. Conductors and enginemen entering service must file such certificates with the proper designated officer before they are allowed to take charge of trains or engines; and watches must be examined, and certificates renewed, every six months.

(Form of Certificate.)

WATCHMAKER'S CERTIFICATE.

THIS IS TO CERTIFY, That on.....188...
the watch of.....employed as
.....on the.....R...., has been examined and found to be a reliable and accurate timepiece, and in such repair as will, in my judgment, with proper usage, enable it to run within a variation not to exceed thirty seconds per week.

Name of Maker.....
Brand.....
Number of Movement.....
Gold or Silver.....
Open or Hunting Case.....
Stem or Key winding.....
Signed,.....Watchmaker.
Address .....

17. Each conductor and engineman must regulate his watch by the designated Standard

Clock before starting on each trip, and register in the Train Register the time at which he regulated his watch.

18. Conductors and Enginemen whose duties prevent them from having access to a Standard Clock must compare daily with, and regulate their watches by, those of conductors and enginemen who have Standard Time, and have registered their names as above provided.

TIME-TABLES.

19. A Time-table is the general law governing the arriving and leaving time of all regular trains at all stations. Time-tables for running trains will be issued from time to time, as may be necessary. The times given for each train on such Time-tables shall be known as the Schedule of such train.

20. Each Time-table, at the moment it takes effect, supersedes the preceding Time-table, and all special instructions relating thereto; and trains shall be run as directed thereby, subject to the rules of the company. All regular trains on the road running according to the preceding Time-table, shall **unless otherwise directed,** assume the times and rights of trains of corresponding numbers on the new Time-table.

21. Not more than two sets of figures will be shown for any train at any station or siding. Where but one time is shown upon the Time-table for a train at any station, that time shall be regarded as the leaving time. Where two times are shown the earlier (placed in its proper position) will be the time of arrival, and the later the time of departure.

22. Regular meeting or passing points will be shown on the Time-tables by printing the time in **full-faced type.**

In case a train meets or passes two or more trains at one point, the schedule of such train will show, in full-faced type only its earliest and latest meeting or passing times.

In all cases trains are required to clear and follow as per Rules 87 to 92, inclusive.

23. On the employees' Time-table the words "daily," "daily, except Sunday," etc., will be printed at the head and foot in connection with each train, to indicate how it shall be run. The figures given at intermediate stations shall not be taken as indicating that a train will stop unless the rules require it. The following signs placed before the figures indicate:

"s"—regular stop;

"f"—stop on signal to receive or discharge passengers or freight;

"¶"—stop for meals;

"N"—Day and night telegraph station;

"T"—Day telegraph station.

Trains shall be designated by numbers, and their class indicated on the Time-tables.

SIGNAL RULES.

SIGNALS.

24. Conductors, enginemen, firemen, brakemen, station agents, telegraph operators, switchmen, switch-tenders, track foremen, road and bridge watchmen, and all other employees whose duties may require them to give signals must provide themselves with the proper appliances, and keep them in good order and always ready for immediate use.

25. Flags of the proper color must be used by day, and lamps of the proper color by night or whenever from fog or other cause the day signals cannot be clearly seen.

26. Red signifies **danger,** and is a signal to stop.

27. Green signifies **caution** and is a signal to go slowly.

28. White signifies **safety,** and is a signal to go on.

29. Green and white is a signal to be used to stop trains at flag stations for passengers or freight.

30. Blue is a signal to be used by car inspectors.

31. An explosive cap or torpedo, placed on top of the rail, is a signal to be used **in addition** to the regular signals.

The explosion of **one** torpedo is a signal to **stop** immediately; the explosion of **two** torpedoes is a signal to **reduce speed** immediately, and look out for a danger signal.

32. A fusee is an **extra** danger signal, to be lighted and placed on the track at night, in cases of accident or emergency.

A train finding a fusee burning upon the track must come to a stop, and not proceed until it is burned out.

33. A flag or lamp swung across the track, a hat or any object waved violently by any person on the track, signifies danger, and is a signal to stop.

TRAIN SIGNALS.

34. Each train, while running, must display two green flags by day and two green lights by night, one on each side of the rear of the train, as Markers, to indicate the rear of the train. Yard engines will not display markers.

35. Each train running after sunset, or when obscured by fog or other cause, must display the head-light in front, and two or more red lights in the rear. Yard engines must display two green lights instead of red, except when provided with a head-light on both front and rear.

36. Each car on a passenger train while running must be in communication with the engine. In the absence of an equivalent appliance, a bell-cord must be attached to the signal-bell of the engine, passing through or over the entire length of the train, and secured to the rear end of it.

37. Two green flags by day and two green lights by night, displayed in the places provided for that purpose on the front of an engine, denote that the train is followed by another train, running on the same Schedule and entitled to the same **Time-table rights** as the train carrying the signals.

38. Two white flags by day and two white lights by night, displayed in the places provided for that purpose on the front of an engine, denote that the train is an extra. These signals must be displayed by all extra trains, but not by yard engines.

39. When an engine is running backward pulling a train, or without a train, the classification signals as per Rules Nos. 37 and 38 shall be displayed in the places provided for that purpose on the tender. When an engine is pushing cars ahead of it, the classification signals shall be displayed on the front of the leading car which is being pushed.

40. A blue flag by day and a blue light by night, placed on the end of a car, denote that car inspectors are at work under or about the car or train. The car or train thus protected must not be coupled to, or moved, until the blue signal is removed by the car inspectors.

When a car or train standing on a siding is protected by a blue signal, other cars must not be placed in front of it so that the blue signal will be obscured, without first notifying the car inspector, that he may protect himself.

WHISTLE SIGNALS.

41. One **long** blast of the whistle is the signal for approaching stations, railroad crossings and junctions (thus, ——).

42. One **short** blast of the whistle is the signal to apply the brakes—stop (thus, –).

43. Two **long** blasts of the whistle is the signal to throw off the brakes (thus, —— ——).

44. Two **short** blasts of the whistle is an answer to any signal, except "train parted" ("thus– –).

45. Three **long** blasts of the whistle (to be repeated until answered as provided in Rule No. 64) is a signal that the train has parted (thus, —— —— ——).

46. Three **short** blasts of the whistle, when the train is **standing** (to be repeated until answered, as provided in Rule No. 63) is a signal that the train will back (thus, – – –).

47. Four **long** blasts of the the whistle is the signal to call in the flagman (thus, —— —— —— ——).

48. Four **short** blasts of the whistle is the engineman's call for signals from switch-tenders, watchmen, trainmen and others (thus, – – – –).

49. Five **short** blasts of the whistle is a signal to the flagman to go back and protect the rear of the train (thus, – – – – –).

50. One **long** followed by two **short** blasts of the whistle is a signal to be given by trains on single track, when displaying signals for a following train, to call the attention of trains to the signals displayed (thus, —— – –).

51. Two **long,** followed by two **short,** blasts of the whistle is the signal for approaching road crossings at grade (thus, —— —— – –).

52. A succession of **short** blasts of the whistle is an alarm for persons or cattle on the track, and calls the attention of trainmen to danger ahead.

BELL-CORD SIGNALS.

53. One tap of the signal-bell, when the train is **standing,** is the signal to start.

54. Two taps of the signal-bell, when the train is **running,** is the signal to stop at once.

55. Two taps of the signal-bell, when the train is **standing,** is the signal to call in the flagman.

56. Three taps of the signal-bell, when the train is **running,** is the signal to stop at the next station.

57. Three taps of the signal-bell, when the train is **standing,** is the signal to back the train.

58. Four taps of the signal-bell, when the train is **running,** is the signal to reduce speed.

59. When one tap of the signal-bell is heard while a train is **running,** the engineman must immediately ascertain if the train is parted, and, if so, be governed by Rule No. 105.

60. Signals of the same number of sounds shall have the same significance when given by other appliances than bell-cords and signal-bells.

LAMP SIGNALS.

61. A lamp swung across the track is the signal to stop.

62. A lamp raised and lowered vertically is the signal to move ahead.

63. A lamp swung vertically in a circle across the track, when the train is **standing,** is the signal to move back.

64. A lamp swung vertically in a circle at arm's length across the track, when the train is **running,** is the signal that the train has parted.

65. A flag, or the hand, moved, in any of the

directions given above, will indicate the same signal as given by a lamp.

FIXED SIGNALS.

66. Fixed signals are placed at junctions, railroad crossings, stations and other points that require special protection. Special instructions will be issued indicating their position and use.

RULES GOVERNING THE USE OF SIGNALS.

67. A signal imperfectly displayed, or the absence of a signal at a place where a signal is usually shown, must be regarded as a danger signal, and the fact reported to the Trainmaster.

68. The unnecessary use of the whistle is prohibited; when shifting at stations and in yards the engine-bell should be rung, and the whistle used only when required by law, or when absolutely necessary to prevent accident.

69. The whistle must not be sounded while passing a passenger train, except in cases of emergency or danger, or when required by the rules.

70. When a danger signal (except a fixed signal) is displayed to stop a train, it must be acknowledged as provided in Rule No. 44.

71. The engine-bell must be rung before starting a train, and when running through tunnels and streets of towns or cities.

72. The engine-bell must be rung for a quarter of a mile before reaching every road crossing at grade, and until it is passed; and the whistle must be sounded at all whistling-posts.

73. When two or more engines are coupled to the head of a train, the leading engine only shall display the signals as provided in Rules Nos. 37, 38 and 39.

74. One flag or light displayed as a classification signal will be regarded the same as if two were displayed; but conductors and enginemen will be held responsible for the proper display of all train signals.

75. When a train is being pushed by an engine (except when shifting and making up trains in yards) a white light must be displayed on the front of the leading car at night, or when the train is obscured by fog or other cause. (See Rule No. 39).

76. When a train turns out to meet or pass another train the red lights must be removed and green displayed as soon as the track is clear; but the red must again be displayed before returning to its own track.

Head-lights on engines when on side tracks or at the end of double tracks, waiting for trains, must be covered as soon as the track is clear and the train has stopped.

77. The combined green and white signal is to be used to stop a train only at the flag stations designated by the schedule of that train. When it is necessary to stop a train at a point that is not a flag station for that train, a red signal must be used.

78. White signals must be used by watchmen at public road and street crossings to prevent persons and teams from crossing when

trains are approaching. Danger signals must be used only when necessary to stop trains.

79. Torpedoes must not be placed near stations or road crossings, where persons are liable to be injured by them.

80. All signals must be used strictly in accordance with the rules, and trainmen and enginemen must keep a constant lookout for signals.

TRAIN RULES.

CLASSIFICATION OF TRAINS.

81. All trains shall be designated as regular or extra. Regular trains are those represented on the Time-table, and may consist of one or more sections. All sections of a train, except the last, must display signals as provided in Rule No. 37. Extra trains are those not represented on the Time-table. An engine without cars, in service on the road, shall be considered a train.

82. All regular trains shall be classified on the Time-table with regard to their priority of right to the track; trains of the first-class being superior to those of the second and all succeeding classes, and trains of the second-class being superior to those of the third and all succeeding classes; and so on indefinitely. The terms passenger, freight or mixed are descriptive and do not refer to class.

83. Extra trains may be distinguished as:
Passenger, or Special extra;
Freight Extra;
Work Train Extra.

84. All extra trains are of inferior class to all regular trains of whatever class.

MOVEMENT OF TRAINS.

85. **A train of inferior class must in all cases keep out of the way of a train of superior class.**

86. On single track, all **Eastbound trains have the absolute right of track over all Westbound trains of the same class.**

87. When trains of the same class meet on single track, the train not having right of track must take the siding and be clear of the main track before the leaving time of the opposing train; but such train must not pass the switch to back in on a siding, until after the arrival of the opposing train, unless otherwise directed by special instructions. When necessary to back in on the siding, before passing the switch, a flagman must be sent out in the direction of the opposing train as per Rule No. 101.

88. When a train of inferior class meets a train of superior class on single track, the train of inferior class must take the siding and clear the train of superior class **five** minutes. A train of inferior class must keep **ten** minutes off the time of a train of superior class following it.

89. A train must not leave a station to follow a passenger train until **five** minutes after the departure of such passenger train.

90. Passenger trains running in the same direction must keep not less than **ten** minutes apart.

91. Freight trains following each other must keep not less than **ten** minutes apart (except in closing up at stations or at meeting and passing points).

92. No train must leave a station expecting to meet or to be passed at the next station by a train having the right of track, unless it has full time to make the meeting or passing point, and clear the track by the time required by Rules Nos. 87 and 88.

93. A train not having right of track must be entirely clear of the main track by the time it is required by rule to clear an opposing train or a train running in the same direction; failing to do so, it must be immediately protected, as provided in Rule No. 101.

94. Except at meeting or passing points as provided in Rules Nos. 87 to 93, inclusive, no train must arrive at a station in advance of its schedule arriving time, when shown.

No train must leave a station in advance of its schedule leaving time.

95. All trains must **stop** at schedule meeting or passing points on single track, if the train to be met or passed is of the same class, unless the switches are plainly seen to be right, and the track clear. The point at which a train should stop is the switch used by the train to be met or passed in going on the siding.

When the expected train of the same class is not found at the schedule meeting or passing point, the train having right of track must approach all sidings prepared to stop, until the expected train is met or passed.

96. All trains must stop before crossing other railroads at grade, and all trains must approach the end of double track, junctions, joint tracks, and drawbridges, prepared to stop, and must not proceed until the switches or signals are seen to be right, or the track is plainly seen to be clear.

97. No train must leave a junction, a terminal, or other starting point, or pass from double to single track, until it is ascertained that all trains due, which have the right of track against it, have arrived.

98. When a passenger train is detained at and of its usual stops more than **three** minutes, the flagman must go back with danger signals and protect his train, as provided in Rule No. 101, unless in the mean time he is recalled by signal from the engineman or by an order from the conductor; but if it stops at any unusual point, the flagman must immediately go back far enough to be seen from a train moving in the same direction when it is at least half a mile from the rear of his own train, and if the stop is over **three** minutes he must be governed by Rule No. 101.

When it is necessary to protect the front of the train, the same precautions must be observed by the fireman. If the fireman is unable to leave the engine, the front brakeman must be sent in his place.

99. When a freight train is detained at any of its usual stops more than **three** minutes, where the rear of the train can be plainly seen from a train moving in the same direction at a

distance of at least **fifteen** telegraph poles, the flagman must go back with danger signals not less than **twenty** telegraph poles, and as much further as may be necessary to protect his train; unless in the meantime he is recalled by signal from the engineman or by an order from the conductor, but if the rear of his train cannot be plainly seen at a distance of at least **fifteen** telegraph poles, or if it stops at any point that is not its usual stopping place, the flagman must go back not less than **twenty** telegraph poles, and if his train should be detained until within **ten** minutes of the time of a passenger train moving in the same direction, he must be governed by Rule No. 101.

When it is necessary to protect the front of the train, the same precautions must be observed by the fireman. If the fireman is unable to leave the engine, the front brakeman must be sent in his place.

100. When it is necessary for the flagman to go back to protect the rear of his train, the next brakeman must immediately take the flagman's position on the train, and remain there until relieved by the flagman; and on passenger trains the baggage master must take the place of the front brakeman whenever necessary.

101. When a train is stopped by an accident or obstruction, the flagman must immediately go back with danger signals to stop any train moving in the same direction. At a point **fifteen** telegraph poles from the rear of his train he must place **one** torpedo on the rail; he must then continue to go back at least **twenty**

telegraph poles from the rear of his train and place **two** torpedoes on the rail, ten yards apart (one rail length), when he may return to a point **fifteen** telegraph poles from the rear of his train, and he must remain there until recalled by the whistle of his engine; but if a passenger train is due within **ten** minutes, he must remain until it arrives. When he comes in, he will remove the torpedo nearest to the train, but the **two** torpedoes must be left on the rail as a caution signal to any following train.

If the accident or obstruction occurs upon single track, and it becomes necessary to protect the front of the train, or if any other track is obstructed, the fireman must go forward and use the same precautions. If the fireman is unable to leave the engine the front brakeman must be sent in his place.

102. Freight trains having work to do on any other track may cross over if no passenger train is due, provided no approaching freight train is in sight; and also provided that a flagman has been sent with danger signals, as provided in Rule No. 101, not less than **twenty** telegraph poles in the direction of the expected train.

103. When a freight train on double track turns out on to the opposite track to allow a passenger train running in the same direction to pass, and, while waiting, a passenger train from the opposite direction arrives, the freight train may cross back and allow it to pass, provided the other passenger train is not in sight; and also provided that a flagman has been sent

with danger signals, as provided in Rule No. 101, not less than **twenty** telegraph poles in the direction of the expected train.

104. When it is necessary for a freight train on double track to turn out to the opposite track to allow a passenger train running in the same direction to pass, and a passenger train running in the opposite direction is due, a flagman must be sent back with danger signals, as provided in Rule No. 101, not less than **twenty** telegraph poles in the direction of the following train, and the freight train must not cross over until one of the passenger trains arrives. Should the following passenger train arrive first, a flagman must be sent forward on the opposite track with danger signals, as provided in Rule No. 101, not less than **twenty** telegraph poles in the direction of the over due passenger train before crossing over. Great caution must be used, and good judgment is required to prevent detention to either passenger train. The preference should always be given to the passenger train of superior class.

105. If a train should part while in motion, trainmen must use great care to prevent the detached parts from coming into collision. Enginemen must give the signal as provided in Rule No. 45, and keep the front part of the train in motion until the detached portion is stopped.

The front portion will have the right to go back, regardless of all trains, to recover the detached portion, first sending a flagman with danger signal **twenty** telegraph poles in the

direction in which the train is to be backed, and running with great caution, at a speed not exceeding four miles per hour. On single track all the precautions required by the Rules must also be taken to protect the train against opposing trains. **The detached portion must not be moved or passed around until the front portion comes back.** This Rule applies to trains of every class.

An exception will only be made to the above when it is known that the detached portion has been stopped, and when the whole occurrence is in plain view, no curves or other obstructions intervening, so that signals can be seen from both portions of the train. In that event the conductor and engineman may arrange for the re-coupling, using the greatest caution.

106. When a train is being pushed by an engine (except when shifting and making up trains in yards) a flagman must be stationed in a conspicuous position on the front of the leading car, so as to perceive the first sign of danger and immediately signal the engineman.

107. A train starting from a station, or leaving a junction, when a train of the same class running in the same direction is overdue, will proceed on its own time and rights, and the overdue train will run as provided in Rule 90 or 91.

108. A train which is delayed, and falls back on the time of another train of the same class, does not lose its rights.

109. Regular trains twelve hours or more behind their schedule time lose all their rights.

110. A train of an inferior class overtaking a train of a superior class disabled at a non-telegraph station, will run ahead of the disabled train to the first telegraph station, where the fact must be reported by wire to the Trainmaster.

111. All messages or orders respecting the movement of trains or the condition of track or bridges must be in writing.

112. A train must not display signals for a following train without an order from the Trainmaster.

113. When signals displayed for a following train are taken down at any point, Dispatcher must, until the signaled train arrives, see that opposing trains affected thereby which do not stop at that point are notified that signals were carried, and in case there is no train register at that point, **all** opposing trains affected must be notified.

If signals are taken down at a point where there is no operator or other provision for the purpose, a flagman must be left to notify opposing trains, until the signaled train arrives.

114. Work trains will be run as extras under special orders, and will be assigned working limits.

115. Great care must be exercised by the trainmen of a train approaching a station where any train is receiving or discharging passengers.

116. Enginemen must observe trains on the opposite track, and if they are running too closely together call attention to the fact.

117. No person will be permitted to ride on an engine except the engineman, fireman and other designated employees, in the discharge of their duties, without a written order from the proper authority.

118. Conductors will be held responsible for the proper adjustment of the switches used by them and their trainmen, except where switch-tenders are stationed.

Whoever opens a switch shall remain at it until it is closed, unless relieved by some other competent employee.

When there is more than one train to use a switch it must not be left open unless one of the trainmen of the following train is at the switch and takes charge of it.

119. Accidents, detention of trains, failure in the supply of water or fuel, or defects in the track or bridges, must be promptly reported by telegraph to the Superintendent and Train-master.

120. No train shall leave a station without a signal from its conductor.

121. Conductors and enginemen will be held equally responsible for the violation of any of the rules governing the safety of their trains, **and they must take every precaution for the protection of their trains, even if not provided for by the rules.**

122. **In all cases of doubt or uncertainty, take the safe course, and run no risks.**

MOVEMENT OF TRAINS BY TELEGRAPH.

123. When vane of Semaphore Signal at telegraph offices is at right angle with track by day, or a red light is shown at night, trains will stop and not proceed until vane is swung parallel with track or a white light is shown.

The red signal must be kept displayed at all times except when trains are approaching for which no orders have been received, in which case the operator will swing the vane parallel with track by day and display a white light at night long enough for such train to pass and then immediately replace the danger signal.

124. Train Masters, and Dispatchers under their direction, are the only persons authorized to give orders for the movement of trains by telegraph, and this authority is limited to their respective divisions. All orders will be given in the name of the Train Master.

125. The Train Dispatcher's office call will be D. S., which must be used only in asking for or responding to orders. The operator using the signal D. S. will be entitled to circuit at any moment, excepting against the signals 9, 19, 28, 97 and 98.

126. All orders will be numbered consecutively, beginning with No. 1 on the first day of

each month, and will be addressed to the Conductor and Engineman, and written by the receiving Operator upon manifold papers so arranged that three or more impressions shall be taken at one writing.

The Conductor addressed shall read the order, and if understood, shall sign it.

The order will then be repeated to the Dispatcher, beginning: Order "No. ———, I, 13," then giving the order exactly as sent, following with Conductor's signature.

If correctly repeated, Dispatcher will reply, —"Order No. ——— O. K.,"—giving exact time and signing his initials, all of which must be endorsed on each copy of the order.

Two copies of the order will then be given to the Conductor, who will retain one copy and personally give the other to his Engineman, reading it aloud to him and making sure that their understanding is the same. One copy of the order will be kept by the Operator. In case there is more than one engine on the train, each Engineman must have a copy.

Should an order be repeated to the Dispatcher before securing the Conductor's signature, the Dispatcher will, if correctly repeated, reply "Correct," **but no order becomes valid until the Dispatcher has given his "O. K." the exact time, and his initials.**

Should the line from any cause fail to work before the Operator has secured the "O. K." from the Dispatcher, he must not deliver such order.

In the sending of orders no erasures, alterations, or interlineations shall be made and no abbreviations shall be used excepting "C. and

E." for Conductor and Engineman, the figures "12" "How do you understand?" and "13" "I understand." All numbers must be written fully in words with the numbers following the words, as, Train "Seventeen, (17)." Should it be necessary to make **any change** in first copy, the entire order must be repeated by Dispatcher and new copy made by Operator.

127. Operators must not trust the delivery of Train Orders to other persons, but must deliver them in person to the Conductor.

128. Orders are to be used only by the trains or sections to which they are addressed, and against such trains **only** as are expressly named therein, all other trains being run against strictly as per time table.

129. After an Operator has received an order and it has been repeated to the Dispatcher and his "O. K." given, such order must only be filed by a regular order from the Dispatcher to Operator making it void, Operator's "13" given, and Dispatcher's "O. K." received.

130. In giving an order for two trains to meet at a station, the Train Dispatcher must send the order to both trains before arriving there. In case the telegraph line is not in working order, or the Dispatcher is unable to reach one of the trains, the meeting arrangement may be made by sending the order to the meeting point for the train that cannot be reached, but the other train must receive the order before arriving there. In giving an order against a train having the right to the road, Dispatcher must first get "13" of Con-

ductor of such train. In giving an order to a work-train to work under signals against any train, the Dispatcher must send the order to all trains affected before permitting them to run upon the limits of the work-train.

131. Orders for the movement of trains will be given in the forms prescribed below, from which there shall be no variation except in giving notices of obstruction to tracks, etc., that cannot be expressed in said forms, in which case such orders may be sent as will best cover the case.

132. An order to wait for order: Train —— Conductor —— Do not leave —— until this order is recalled.

133. An order giving one train the right to the road against another train to a certain point until a certain time: "Train —— Conductor —— has until —— to make —— against Train —— Conductor ——." Upon this form of order the first named train may run to the station named, not ahead of its own Schedule time, but must clear the main track, as required by Rules 87 and 88.

Should it fail to reach the station named within the time allowed it will run as per time table.

134. A regardless order: "Train —— Conductor —— will run to —— regardless of Train —— Conductor ——." Upon this order the train first named will run to the station named precisely as if the train last named did not exist, **but not ahead of its own schedule time,** and from said station it will run as per schedule, unless otherwise ordered.

The train last named in the order will use its own schedule rights up to the station named and there take siding, as the train first named has the right to main track at said station. This order does not prevent the train last named in the order from running to any other station beyond the one named therein, **provided,** it can make such station, and take siding, five minutes before the train first named in the order is due to leave there per time table.

135. An order making a definite meeting point: "Train —— Conductor —— and Train —— Conductor —— will meet at ——." Upon this order the train arriving first at the point designated must wait until the other train arrives, unless an another order is sent changing the meeting point.

136. Order to run wild: "Extra or special —— Conductor —— will run wild from —— to ——." Upon this form of order the train named will carry white Signals as required by Rule 38 and run to the station named, clearing the time of all schedule and signaled trains as provided in Rules 87 to 93 inclusive.

137. An order giving a schedule train the right to run ahead of time from one station to another: "Train —— Conductor —— may run from —— to —— ahead of time." Upon this form of order the train named therein will leave first named station and run to the last named station ahead of schedule time, keeping out of the way of all regular and signaled trains.

138. An order to run ahead of another train: Train —— Conductor —— will run ahead of train —— Conductor —— until overtaken.

This order simply permits the first named train to run ahead of the second named train as stated in the order, not ahead of its own schedule time, but does not confer any of the rights of the second named train.

139. An order giving one train the right to use part of the time of another train: "Train —— Conductor —— may use —— minutes of the time of train —— Conductor —— to run from —— to ——." This order simply permits the first-named train to use the time of the second-named train as specified in the order, not ahead of its own schedule time, but does not confer any of the rights of the second-named train.

140. An order for a train to carry green signals: "—— section train —— Conductor —— will carry green signals for —— section, Conductor —— from —— to ——."

141. An order for a train sent in care of another train: "Train —— Conductor —— at —— Station, care of Train —— Conductor —— at —— Station." In this case the Conductor of the second-named train will sign his name to the order for Conductor of the first-named train, and will be responsible for its safe delivery, and must take receipt therefor.

142. Abandonment of trains: Train —— due to leave —— on —— is abandoned between —— and ——.

The day of the week as well as the date the train referred to is to leave the station named must be given.

143. An order for a work-train to work wild: "Work-train, Conductor —— will work wild to-day between —— and ——." Upon this order the train named may work between the points designated, keeping at least ten minutes out of the way of all schedule and signaled trains. When occupying an obscure place where work-train cannot be plainly seen by approaching trains, flagman must be kept out.

144. An order for a work-train to work under signals against certain trains: "Work-train, Conductor —— will work wild to-day, or until —— against —— and under signals against —— until they arrive." Under this order the work-train must keep at least ten minutes out of the way of the first-named trains, but by keeping flagmen out may work until the arrival of the last named trains.

145. The daily orders given work and construction trains will, unless some stated time be mentioned, be considered as good from 6 A. M. until 7 P. M. of the day of issue only; but if a subsequent order to go to other parts of the road is received, the original order expires and must not be used again.

146. Main line trains must procure release ticket (blank No. 902) from Dispatcher at Topeka before leaving in any direction, at Nickerson and Emporia before leaving westward, Las Vegas and San Marcial before leaving in either direction, and at La Junta before leaving in any direction. Branch trains must procure release tickets at Newton before leaving westward.

SPECIAL INSTRUCTIONS.

147. Conductors must be at their trains at terminal stations thirty minutes in advance of their leaving time.

148. Immediately before starting out on their runs, Conductors must go in person to the telegraph office and ask whether there are any orders for their trains.

149. Conductors will register their trains at registering stations. Registering stations are shown on time-table in **full faced type.**

At registering stations where train does not stop, per table, a telegraph train report, form 903, must be filled up and left.

Conductors of freight and accommodation trains will fill up telegraph train reports, form 903, and leave them at all stations except registering stations.

Operators will send these reports by wire, promptly to the despatchers office. Operators will report by wire to the despatchers office the time of arrival and departure of all passenger trains.

150. Engine signal bell must be rung from rear platform of rear car before leaving each division point, and each station where any change is made in train. Bell cord must not be disconnected until train has come to a full stop.

151. Potter bumper draw-heads must be connected with the two outside links or one center link, but the outside links must not be used to couple with a single draw-head.

151. Shortly before reaching a station at which the train stops, the Conductor or Brakeman will pass through each coach, except the sleeping cars, and announce twice, distinctly, with closed doors, the name of the station they are approaching.

153. Conductors of trains carrying Live Stock are required to consult the wishes of the Stockmen in matters pertaining to the care and comfort of the same. Especial attention must be given to stock unaccompanied by Drovers. In warm weather trainmen will water hogs as often as may be necessary, without being requested to do so. Conductors must see to this personally.

154. Conductors will comply with instructions of Agents in placing cars and in doing other station work. If necessary to disturb cars for loading or unloading, they must be replaced in same position as found. In case Agents' orders are unreasonable, the fact must be reported to Trainmaster. It is the duty of Agents to report violations of this rule, and all cases where Conductors refuse cars that are ready to go.

155. Conductors and Switchmen must open their trains to clear all public crossings while standing at stations, and must in no case block a public crossing longer than five (5) minutes.

156. Conductors will see that the words "Bad Order" are written with chalk on both sides of disabled cars left at stations, and defective part marked with a cross.

157. All conductors of work and construction trains, when they lay up for the night, must notify the Trainmaster by wire, and give notice of where they intend working and their probable movements during the following day.

158. Conductors of Freight Trains must not take loaded cars or freight without the Way-Bills, or take Way-Bills without the freight or cars.

159. Conductors of Freight Trains not equipped with automatic brake must see that Brake men govern the rate of speed of their trains while descending a grade. The brakes should never be applied so as to slip the wheels, and in descending heavy grades, Brakemen should see that the brakes are not kept on so long as to heat the wheels. To avoid this, the brakes should be frequently changed from one car to another. Cars left at stations must in all cases have brakes set.

160. Conductors must prevent passengers endangering themselves by imprudent exposure. In the event of any passenger being disorderly, to the annoyance of others, he must use all gentle means to stop the nuisance, failing which, he must, for the safety and convenience of all, exercise his authority, and keep him in a separate place until he arrives at the next station, where the passenger must be left. Passengers must never be ejected from the cars for any cause, except at a Station. Use no unnecessary force.

MISCELLANEOUS.

161. At the Pueblo crossing of the D. & R. G. R. R. trains will not proceed until the fireman is sent forward to crossing with flag, and signal is given by him that the track is clear.

162. In addition to the usual stop at North Topeka, trains and engines going south will send firemen ahead with flag, and must know that the Union Pacific track is clear before crossing. Yard engines will also be governed by this rule.

163. The speed of trains must not exceed six (6) miles per hour while running through the corporate limits at Atchison, Topeka, Carbondale, Osage City, Emporia, Eldorado, Newton, Hutchinson and Wichita, and the engine bell must be rung constantly until without the limits.

164. Trains 101 and 105 will be made up at 8 A. M., 115 at 3 P. M., and 103 at 9 P. M., and back down to Union Depot; approaching Topeka from Kansas City Junction to depot, will reduce speed to four (4) miles per hour.

165. Between Kansas City and Argentine all trains will use **south main track** in both directions. The **north main track,** designated as **transfer track,** can only be used by special order from Train Master, and such order must distinctly state that **north main track** is to be used.

SECTIONMEN AND BRIDGEMEN.

166. Section foremen must pass over and examine their sections daily, and ascertain that the track, slopes, cuts and bridges are safe. This should be done in the morning.

167. They must see that no lumber, wood, stone, materials or tools are placed at any time within six feet of the rail.

168. Before a rail or frog is taken out, or any obstruction is caused to the main track, or when any break or obstruction is discovered the danger signal must be sent out in both directions, at least **twenty** telegraph poles from the point of danger, and a competent man must remain and keep it displayed until he is re-called by the foreman, which must not be done until the track is known to be safe.

169. In stormy weather Section Foremen must be out with their men (day or night), with proper signals, and watch those places most liable to wash or be disturbed.

170. It is also the duty of trackmen to put out fires set by engines, and to guard the property of others as well as that of the Railroad Company, exposed to such fires, whether responsibility attaches to the Company or not.

171. Sectionmen will pay particular attention to the telegraph lines. In case the wires are found broken or on the ground, crossed, or in any way obstructed, they must be repaired in a temporary manner **immediately,** and where such repairs are impracticable, notice must be

given to the nearest telegraph office by messenger or the earliest means practicable.

172. At all times when work is going on which renders it necessary for trains to reduce speed, a green flag must be set at side of track at least **twenty** telegraph poles from the spot, on Engineer's side, in each direction, as a caution to approaching trains to run slowly. After severe rains or a thaw, a hand car must be sent over the road before the passage of regular trains.

173. Hand cars or other property belonging to the Company, must not be used except for the business of the Company.

174. Sectionmen must, at all times, hold themselves in readiness to aid the passage of trains, and in case of accident, must obey the orders of the Conductor of the delayed train.

175. Every man at work on the track must bear in mind that in operating the road under telegraph orders a train may pass at any moment.

176. Section Foremen must see that their gangs are always supplied with proper signal flags, lanterns, etc., and that they are thoroughly instructed as to their use.

177. Section Foremen must see that fences on each side of the road and at crossings are in good order and that cattle guards are in repair. A break in a fence should not be overlooked, and when it can not be repaired for want of material the Section Foreman must give the Roadmaster immediate notice of it, stating what material is required. When fences are taken down for any purpose they must be replaced without unnecessary delay.

BAKER HEATERS.

To insure satisfactory results in the use of the heater, the following instructions must be observed:

The heater should be kept half full of coal at all times. The coal should never be allowed to get below top of worm. This will give about fifteen inches of fire.

The inside safety lid should never be opened except to build the fire or put in coal. (Never force the fire by opening inside safety lid.)

To increase the heat, open inside lower damper, and close upper damper.

To reduce the heat, close the lower damper and open the upper damper about two inches, or according to amount of heat required. With both dampers closed the car will not be too warm at any time, and by proper working of the lower and the upper dampers, and watching the indicator, the car can be kept at any temperature desired.

Failure of the heater arises from neglect or mismanagement, generally from allowing fires to run too long without putting in coal, then filling them full and operating the drafts, producing a rapid fire, which instead of warming the car, stops the circulation, and creates gasses, which are liable to explode.

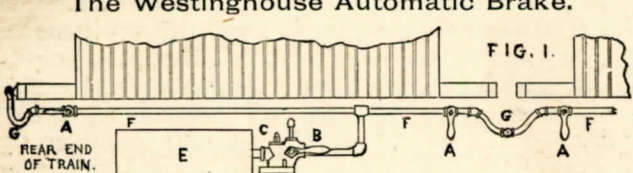
It will be readily understood that with the large amount of piping in the cars, the circulation (which is principally caused by the

weight of the column of water falling from the drum into the pipes, and the difference in the weight of a column of cold and hot water), must be necessarily slow, and that a forced fire will do no good, but will only cause the effect mentioned above.

In filling the heater pipes, be sure that the water contains all the salt it will hold in solution, and that no undissolved salt enters the drum. Open the combination cock on end of drum and pour in water until it runs freely from same. The water should always stand at the height of combination cock, which may be tried by opening the cock, but only when the fire is very low and no pressure on. Pipes should be warm all round before passengers enter the car.

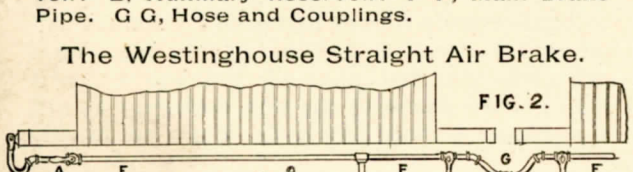
Passenger cars having Baker heaters must be turned so that heater will be in forward end of car, when practicable.

The Westinghouse Automatic Brake.



EXPLANATION.—A A, Stop Cocks in Main Brake Pipe. B, Four-way Cock Handle. C, Triple Valve. D, Release Cock in Auxiliary Reservoir. E, Auxiliary Reservoir. F F, Main Brake Pipe. G G, Hose and Couplings.

The Westinghouse Straight Air Brake.



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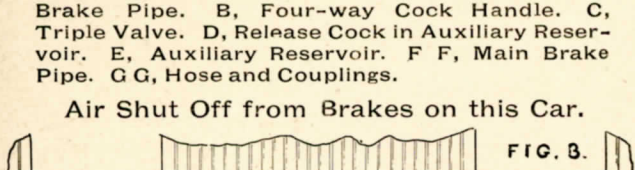
Air Shut Off from Brakes on this Car.



EXPLANATION.—A A, Stop Cocks in Main Brake Pipe. B, Four-way Cock Handle. C, Triple Valve. D, Release Cock in Auxiliary Reservoir E. Auxiliary Reservoir. F F, Main Brake Pipe. G G, Hose and Couplings.

AUTOMATIC AIR BRAKE.

ENGINEMEN.

1. Fill the oil cup on the pipe leading to the steam cylinder, with cylinder oil; open the cock in the bottom half a turn; this will lubricate the steam cylinder. Kerosene oil must not be used for oiling cylinders.

2. Start the pump gradually, to allow the condensed steam to escape.

3. Always have a pressure of 80 pounds in main reservoir before connecting to train. Before connecting keep brake valve at lap to prevent tank brake sticking.

4. In filling the reservoirs under the cars with air, the handle on the two-way cock must be turned to the left; this takes the air already pumped in the main reservoir, reduces pressure, and causes the pump to work more rapidly, until the gauge again indicates 80 pounds; the handle must then be turned to the right, so that the spring fits in the notch.

5. The brake is applied by turning the handle of the brake valve to right from notch and exhausting from three to twenty pounds of air.

6. Before taking on extra cars carry handle of brake valve at lap to obtain an extra pressure in main reservoir. After coupling again turn handle to left to fill reservoirs. After this is done, it is a good plan to apply the brakes and release them at once. By the lap is meant the position of the handle of brake valve immediately to the right of running notch.

7. In making stops at stations, exhaust small quantities of air at a time; by so doing you reserve the air and bring the train to a stop gradually—releasing the brakes about the last revolution of the driving wheels (as near as you can judge); by so doing you avoid those lurches noticeable in stopping a train with the power brake.

8. Avoid as far as possible applying the brake twice; that is, if on the first application you find you are going to stop too soon, and you let them off to run a little farther; this second application will not be as strong as the first, because the reservoirs have not had sufficient time to fill.

9. If the brakes set from some unknown cause while in motion, put them on and off at once; never draw a car with the brakes set.

10. Run the pump as slow as possible, and keep the required pressure; the safety valve pops at 85 pounds.

11. Never use the brake in switching trains, or when brakemen are expected to brake.

12. Open drain on discharge pipe every day to let out water. Open drain cock on main reservoir and slack nut on bottom of triple valve on tank once every week.

13. Always have on hand an extra hose and coupling.

14. For the automatic brake, the handle of the four-way cock must be turned horizontally, (see Fig. 1, letter **B**); if turned down, will change it to the simple air brake, (see Fig. 2,

letter **B**); if turned midway between these two positions, it will close communication with the brake cylinder and reservoir, and should be so turned when desirable to have the brakes out of use on any particular car, from breaking of rods, etc. This supplies to tenders and cars. (See Fig. 3, letter **B**.)

15. When, from any cause, the automatic brake cannot be used, change to the simple air brake, but never resort to the **hand brake** when either of the others are practicable.

16. Enginemen must report upon arrival at terminal stations, or Round House, any defect in the working of their engine-valve and pump, etc., that it may be repaired at once.

17. The Enginemen should immediately, on feeling the brakes applied, turn the handle of the Engineman's brake valve to top so as to maintain the pressure in the main reservoir, which is all important. He should observe his gauge, and if he sees that all of the air has escaped, he will know that a pipe has burst, or that the Conductor's Valve has been opened and held open. If the pressure is only reduced sufficiently to apply the brakes, and the reduction then ceases, he will know that the Conductor's Valve has been opened long enough to cause the stoppage of the train, and has been closed. In this case he can easily release the brakes in the usual way upon receiving the proper signal from the conductor.

The Engineer should warn the trainmen, when the brakes have been applied in such a manner that they cannot be released from the

engine, by giving a succession of short double whistles.

TRAINMEN.

18. In making up trains, all the couplings must be united, so that the brakes will apply throughout the entire train. The cocks in the brake pipe must all be opened (handles pointing down) except that on the rear of the last car, which must be horizontal, and the coupling hung up in the bracket. (See Fig. 1, letters **A** and **G**.)

19. In detaching engines or cars, the couplings must invariably be parted by hand; the cocks in the brake pipe must always be closed before separating the couplings, to prevent application of the brakes.

20. At stations where it may be necessary to cut the train, to take or leave cars, trainmen must not turn the stop cock or disconnect hose until the brakes have been released by the Engineman.

21. If the brakes are applied when the engine is not attached they can be released by opening the release cock in the end of brake cylinder or if a freight brake by turning handle of triple valve to position shown at **B**, Fig. 3 until the brake is released.

22. The valve for the application of the brakes from the inside of the car should be kept tight, and must always be examined when the car is standing at terminal stations. This valve should only be used in case of emergency.

23. The brakes must be applied while standing at terminal stations, and inspected by the

brakemen, to see that all cars are in working order. Conductors will see that this test is made, and when trains start from points at which no inspectors are located, they must make the test in place of inspectors, as per inspector's rule number 31.

24. If the packing in the couplings freezes so as to leak, thaw them out with a torch.

25. Report to inspectors any car not in working order.

26. Keep the hose coupled together or hung up in the bracket provided for that purpose, when not in use.

INSPECTORS.

27. The adjustment of the brakes should be such that, when applied, the pistons will not travel more than eight or nine inches if passenger or six or seven inches if freight.

28. Great care must be exercised in taking up the slack in connections, to have the levers and pistons pushed back to their proper places, and the slack taken up by the under connections or dead lever.

29. The brake cylinders must be kept free from gum so that they will readily release when air has been discharged. Clean and oil once in three months and mark the date of oiling on cylinder with chalk.

30. In damp weather the triple valve should be drained daily, to let out any water that may have collected. Slack the bottom nut about half a turn, let the water escape, and screw it up again; if there is a petcock, draw through that.

31. The inspectors will examine each car throughout the entire train, when Engineman applies the brakes, to see that the brakes have applied properly, and if all is right, will signal the Engineman, who will release them.

32. Inspectors will be held responsible for trains leaving stations with the air brakes not in perfect working order.

33. Inspectors at all points must keep on hand, ready for immediate use, a supply of all parts that are liable to get out of repair, as well as tools necessary for making repairs.

Enginemen will report promptly to Division Master Mechanic any neglect of inspectors to comply with the above rules.

DAY SIGNALS

STOP.

GO AHEAD.

BACK UP.

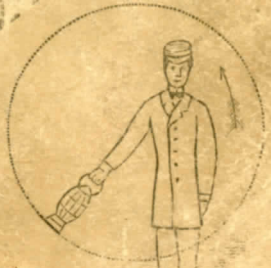
TRAIN HAS PARTED.

NIGHT SIGNALS

STOP.

GO AHEAD.

BACK UP.



TRAIN HAS
— PARTED.