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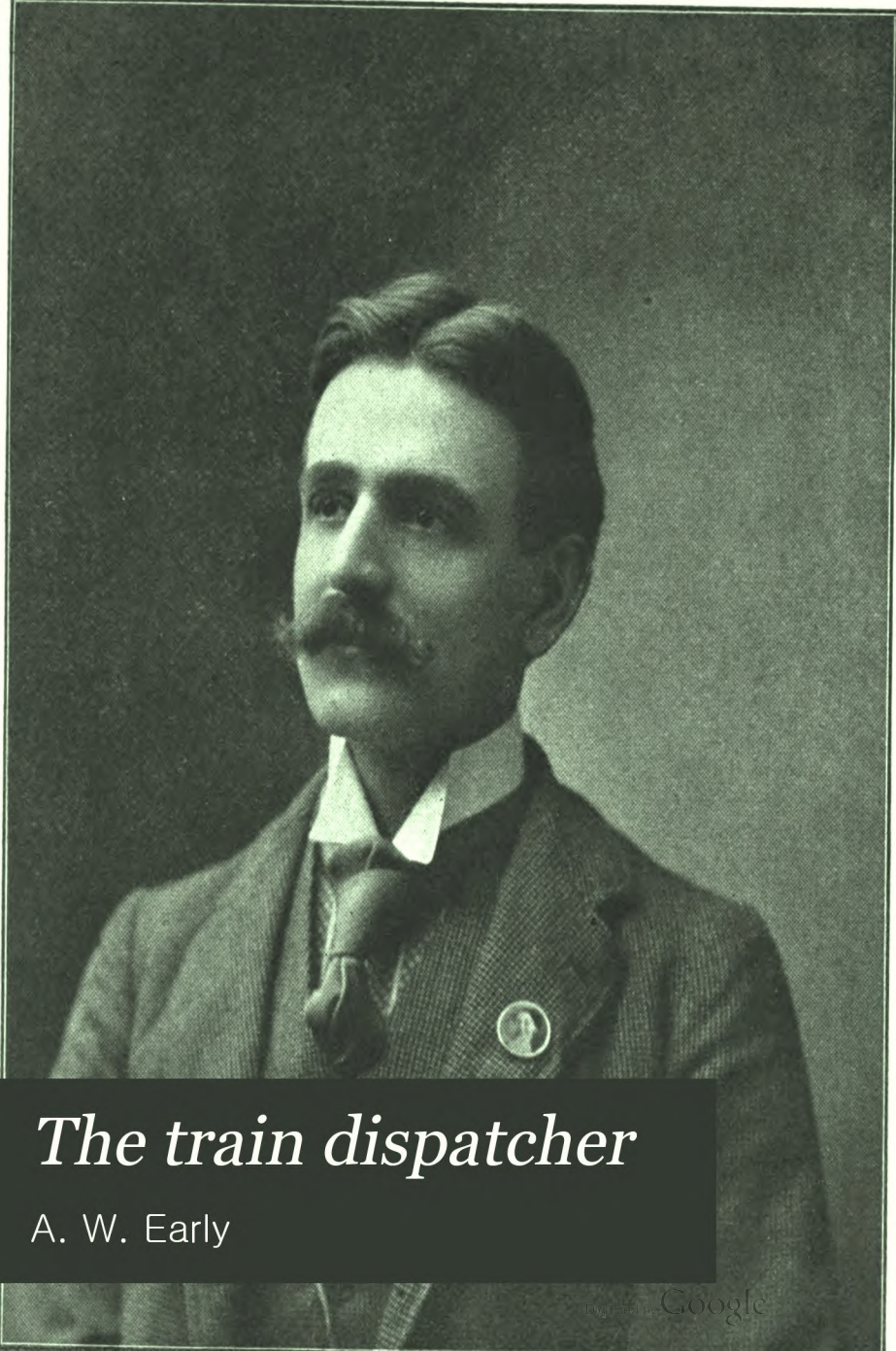
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The train dispatcher

A. W. Early

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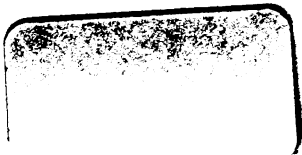
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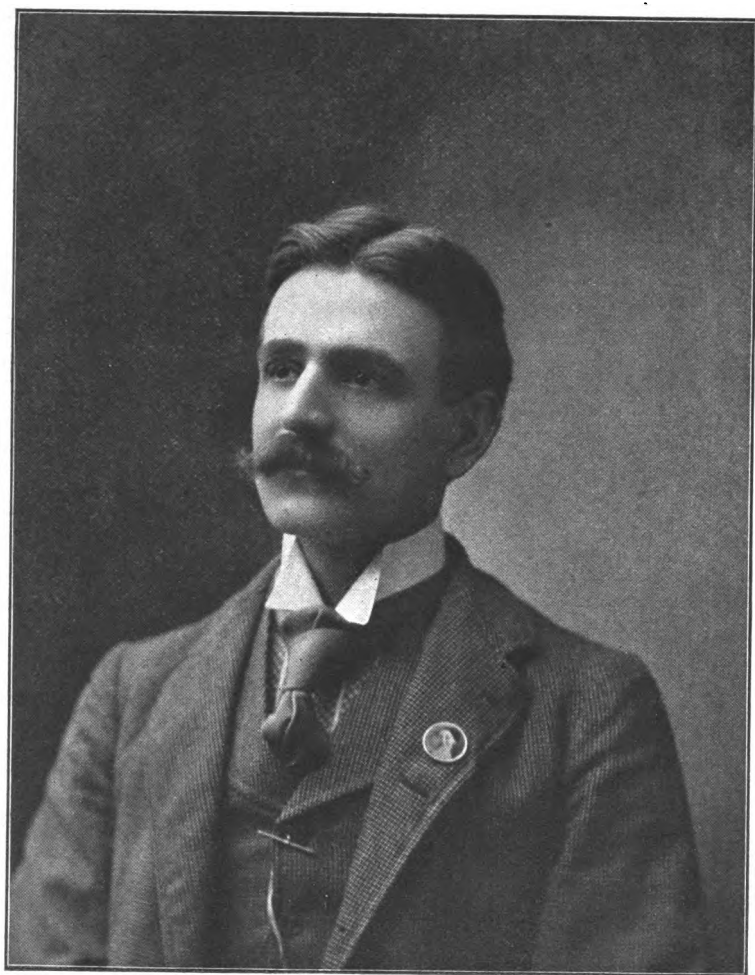
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*Yours Truly,
A. W. Early*

THE TRAIN DISPATCHER

A MANUAL OF
RAILWAY TELEGRAPHY

Aug 1887
BY
W. C. Conroy
A. W. EARLY

DISPATCHER ON I., I. & I. DIVISION OF
L. S. & M. S. RY.

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INTRODUCTION

One of the first thoughts of an operator after mastering telegraphy is to become a dispatcher, but with all this ambition nothing can be attained to accomplish this end without the points to be learned brought before you and carefully and thoroughly explained. The best operator can not achieve much working as an operator on the line, while with the proper information given him "How to handle trains and what he must know to handle successfully" he can fit himself to such a point that when even talking to the chief or working on line his ability will be seen far easier than an operator that has not had this insight. You are able after reading this book and carefully remembering the different points to go to any dispatcher's office and handle trains successfully. Many times a vacancy occurs in the dispatcher's office, and for want of a capable man who knows these different points they are compelled to seek elsewhere. You no doubt feel hurt that they get a foreign man, but what could you say or do were you asked to accept the position?

How far would your experience as an operator lead you in the dispatcher's chair? No farther probably than handling the wire work perfectly. But with this information contained in this book carefully perused you are in line to ask to fill this vacancy, and if necessary to ask the superintendent to examine you and see what you know, and if you have read the book carefully and thoughtfully they will be surprised and none the less pleased to see one of their own operators so well posted. Therefore make this your aim after reading book and you are listening to the traffic handled daily to fit this and that case of order to the circumstances which will accept the order or handling of the trains, and rest assured you will never regret securing yourself with one of "The Train Dispatcher's Text Books." If you have friend and brother operators make it known to them of the help of this book and in this way you will be helping him to get out of the old rut of telegraphing, and you also will be helping me and returning your appreciation of a book that I would have paid ten times its cost when I was an operator on the line to have been able to secure.

A. W. EARLY,
Dispatcher on I. I. and I. Divisions of L. S. and
M. S. Ry.

THE TRAIN DISPATCHER

Learninig telegraphy correctly is not so much in being a fast sender or a fast receiver, one without the other is not perfection. Therefore when you cannot receive as you should, always make it a point to be listening to the business that goes over the wire. If you take only a fair copy then copy off of the main wire whenever the opportunity presents itself. Always listen to train orders when issued and how they are sent, and copy everything that you possibly can from the main line traffic reports.

If it is your sending that is defective sit and send on the lone key if you have not a local set, and learn to send carefully and accurately. Speed will come of itself. Never try to rush yourself in sending, as this only tends to make a poor sender. Learn to make your wrist subtle, and do not grip the key or shake the table off its legs when sending. Live up to these few rules in sending and before you hardly know it you will

be sending as good Morse as any one along the line. Never fail to break if you do not get what is coming. Do not try to fill in, as ten chances to one you will misread the message and perhaps change the whole meaning of the instructions; also in sending a message first always try to have sender read message before sent, and if this is impossible then send it as best you can, just as it looks, and underscore any word or words that you have spelled as it looks. This may save you trouble in some near future time, and most of the blame will be attached to the writer of the message. In copying a train order always write comparatively small, as the dispatcher does not always know what he will say until after he starts. Thus by so doing you will be prepared to copy the long order and not have to break and start over again. Copy plainly and most of all always listen to the order as it is repeated back by your neighbor. You may catch a mistake that even the dispatcher may overlook. This will only make the dispatcher think more of you, besides your next neighbor may be saved his position and the company loss of property, and, the most important of all, loss of life. Do everything attached to your duties correctly as possible, and by so doing you gain the esteem of the dispatcher, chief and all concerned along the line. You must become expert to seek the copyship in the dis-

patcher's office, as an operator has no time to break or recopy message in this office. Your nice copy will also help you when you get in the main office. Typewriters are greatly used, but still a fine copy takes no back seat by any means. By sending correctly you finally achieve rapidity, and with this you can cope with the immense number of messages that are placed before you to be handled. Always be ready to watch the train sheet when the dispatcher steps out. This is only a stepping stone towards the chair you wish to sometime occupy yourself. Become accustomed to the different stations and trains, and this will lead them to see that you are the one they are looking for when the vacancy occurs. Always be obliging when working out on the line. You can't tell but what the very man that you kindly give information to may be some one connected with the handling of the road and a star will be placed to your credit when he again arrives at his headquarters, while on the other hand you readily see what the reverse would tend to do for your advancement. Always be ready to accept any position offered to you, whether temporary or permanent. It may be the very job that will bring your ability to the front so your chief can see it. Never question as to salary, as that is always considered by chief dispatcher before you are even slated to the place.

LEAVING THE OFFICE WITHOUT PERMISSION,

As you all well know, is not permissible on any road, but many operators do it time and again because they are not particularly censured for so doing. This tends to cause the dispatcher to dislike you, just exactly what you wish to and must avoid. Always ask to go. He will let you go if it seems possible for him to do so, and if he says no do not take the chance to go, as it will only get you in controversy with the chief. It is not particularly bad policy to ask for a vacancy that looks better than your own position, but in asking for it do so in a manner that the chief will look upon you as wishing to better yourself and the company, and you will get the position if it is possibly not already been taken care of beforehand. Do not let this failure interrupt your tending strictly to business, as vacancies come the most often and when you least expect them. And when the time comes and you are called into the dispatcher's office for a trial of your ability, exert every nerve in your body to achieve success in your work, as you will need all of it before you have satisfied the chief

dispatcher. Don't think of failure, as that word is very seldom thought of by a good, ambitious operator who is trying to get to the front.

THE DISPATCHER'S OFFICE WORK.

The first thing after being located in the dispatcher's office is to make friends with everyone you come in contact with. Friendship and success are always found hand and hand. When coming to work always dust off your table and throw paper in the basket, not on the floor. Never lay a message on the table except when sending or timing same. Hang on hook and keep there until operator is raised. It is likely to fall on floor, you get busy and overlook the message until such a time that the instructions are received too late and nothing left but a reprimand from the chief. Always be very careful to give service on a message, "who operator is," "what office" and "time received." Same in sending this will answer many a piece of correspondence that might be hard to prove your veracity if it were not so serviced. Your success in the dispatcher's office depends greatly upon your habits. Do not engage in anything that will tax your mind against your work. Staying out late at night and coming to work sleepy and tired

out before you start. You can't help but be cross and irritable, and you are in no condition to handle the business correctly and with a good feeling towards all around you.

One of the first and most important things to learn in the dispatcher's office is the form of train orders being used. Learn to take note what the dispatcher uses, whether it be time order, meet order or schedule. Adapt yourself to the forms used on the division. Do not deviate, and when questioned by chief say "That is the form used where I learned the business," as this is no excuse for you not knowing the form used where you are now at.

TRAIN SHEET.

Next in line is the train sheet. Become familiar with this plot, as that is the "birthplace of the movement of trains by telegraph." Put the report of trains down carefully and in order. Write your best on sheet, and try to keep neat and clean, as it gets heavy knocks here and there before it is filed away. Keep everything that is information or a help to chief on the sheet. Write up all delays promptly when received, and write "sheet" across the face and file away. If a train

has been exceptionally delayed, write under heading "Remarks" what was cause. This will save the chief asking you why they were delayed.

STARTING EXTRAS.

When starting an extra always put down on sheet, and when called and what engine. This will compel you to look the sheet over for other extras and keep you reminded of any other extras running on the road that must have meeting point with the extra you are starting. When an error is made in writing any time of train or name of trainmen, you should neatly scratch out and re-write. Never write over the error, as this makes a very bad-looking sheet and keeps it from being neat. When having work trains out always place number of engine and a line drawn in station named. Where the limits extend of the work train, this is a good reminder and hard to be overlooked. When filling in the station space, where no report is to be received, always mark with a check mark thus, ("v"), and not with a ditto mark, thus (""), as the latter is incorrect, as you ditto the time at the former or later station, which would be legally wrong. Never make one time appear where there are two spaces. Always write

time twice, as it keeps sheet looking neat and orderly. To draw a line over one space makes it look irregular and as if something had been omitted. Where you have an extra long division to take care of, you often have two and once in awhile three sheets before you. Now when there are extras on the "day before" or "two days before" sheets it is a good protection to draw them up with pencil on the "today's" sheet, thus keeping you reminded of them and avoiding any oversight you might make. When an engine has been taken off of one train and placed on another train mark thus, "+," at left of engine number, and then down in "Remarks" mark "+" and explain where it was sent and why, giving all the information you can, also show from what points engines were run. In marking the sheet when a train is annulled, write the word "annulled" in station spaces, also where the crew's names are placed mark the number where it is to be for an annulled train, the same as if it had run. When you run a train from one station as another number of train, dot the intermediate space line in station space and mark at top of sheet run as No. 90 from station "A" to station "B," and as No. 92 from station "B" to station "D"; or as an extra from station "A to B," and as a regular train from station "B" to terminal. These notations must in no case be omitted. The

sheet is the official and legal proof of the railroad's traffic, and must be kept correctly just as trains run. When you run two or more sections of a train try and keep in rotation on sheet, as they are easier handled and better to check up when placed on sheet in this way. Place to the left of number of train the number of section the train is running, as when you are short of a number of "O. S" reports do not fill in, but get reports from operator. It is a very bad habit to fill in, as you simply guess at time. Besides it teaches operators to be dilatory in reporting train. Always make it your best effort to have sheet well cleared up of "O. S.," as the next relief will have all he can do to keep his own reports filled in. Never leave anything to be done by the next relief that you can do yourself. Such orders as "annulling trains," putting up "slow orders" of different descriptions, and starting trains all on his time, thus avoiding the work. It is a lazy, cowardly trick, as you may cause the fellow to be overworked and rob him of his clear record, his family of a good home and, most of all, the loss of life by some mistake he has made while being stacked up with undone work. Always bear these points in mind, even though you may be tired yourself. Keep working until your relief arrives. Where a train wishes to cut and run for water, try and not allow them to fill

in their schedule. When they go forward with engine always run the engine extra, so they can fill in the schedule spaces. When they have received water and are ready to start again, fill schedule with the train, and not the light engine. Keep sheet well noted as to all delays, as three-fourths of the correspondence is either proven or changed according to train sheet reports and notations. But, above all, keep information on sheet that will be of assistance to your chief, and many unavoidable delays, which were you asked about two or three weeks hence you would have forgotten and could not prove yourself. Never get up from a sheet with here and there an engineer's name shy, or number of cars out of terminal. If they fail to register this information wire conductor at first stop for it. If a conductor fails to leave delay and handle reports at terminal at end of run, wire him immediately, as this information may be needed badly before he will be on the road again, and the general reports also will be delayed waiting for handle reports not on sheet.

LEARNING THE DIVISION.

You should go over the division of which you are going to dispatch trains at least three times, noting the depressions and elevations of the road, consulting here and there with conductor and engineer; also all curves in the road, especially near telegraph offices, and impress it firmly in your mind, as many wrecks have occurred on account of an order put out at a station where the trains were to meet and the superior train, not expecting orders, comes around curve too fast to stop for the opposite train. This is very important point to watch. Next, note the hills that must be climbed by the freight, especially near telegraph office, where, if you stopped a train for orders, he would be compelled to double or at least back up for a run and cause a bad delay. Next to be observed the passing tracks at telegraph and non-telegraph stations. Carefully note just what capacity is of each, and location of same from telegraph office, as this will come in hand sometimes when you have cleared a train and afterwards wish to put out orders. Also a very important fact to note is where the telegraph station is beyond east or west end of passing track. No orders could be

put out here for a train to sign that restricted their rights. Meet all the operators along the line pleasantly and explain that you are booked to dispatch trains on the division, and that it is necessary to have their full co-operation in order to make a success. Try and make a trip on one or two of the fast freights, and note where he receives his orders, and perhaps you may be able to better this run when you are in the chair. Make at least a round trip with the local freight, as this will teach you the locations of tracks in yards, which information will come very handy in case of a wreck and the main track is blockaded, and you can at once figure out what track can be used to get your traffic through on. Note the bridges carefully, the watering and coaling stations, where situated from telegraph stations, and as you ride over division note the different crossings with other roads, the "Y" and positions of same. You may be asked by some foreign road to detour their trains and you will be able to say where you can receive them and deliver. This weighty subject is generally handled by chief or superintendent, but there are times when they can not be reached to get the information. The elevation, if any, in a passing track must also be considered, as you may save time to all concerned to put the

superior class on the side track, as otherwise the inferior freight may stall heading in and cause a bad delay to both. Watch for blind sidings closely as one may save a bad "stand off" in meeting two of your passenger trains or for a rush freight and passenger; at least you will wish you had when the chief scans the sheet and asks you why a certain train was not given this or that meeting point in preference to one you give. All these little mistakes can be easily avoided if, when you are learning the division, you learn it right. The company is not giving you this special permit to ride on engine and bother engineer with questions or sit in caboose and chat with the brakemen, but it is to learn their roadbed thoroughly, so traffic will be handled in a masterly way when you are in the chair. As you ride along note where fast and slow time is being made, and with what tonnage. This when remembered will serve to help you figure out close waits and meeting points with other trains. Note where the big capacity side tracks are, as you may want to hold several trains back on account of a blockade or wish to meet two or more trains at one station or pass a passenger train by two or more freights. Too much can not be said concerning the learning of the division, as this is the stronghold of many first-class dispatchers and just why they make

such a success of their work, and that is why everything has been brought out point at a time.

LEARNING CAPACITY OF CONDUCTOR AND ENGINEER AND ENGINE.

This is a very important point to learn, and one that must be watched more close than any other movement point concerned in handling trains. You find conductors that can pick up cars and set out cars in half the time of others, and you find engineers that can make the trip in hours less time than others, while you find engineers that, when having been delayed, they are no good from that point on through the rest of the run, while others will not only make up the delay, but will go in on time if the engine will take them there. Therefore you must be careful how you handle the sensitive fellow, or he will give some of your trains a bad delay. Try and keep them all in good spirits. If you delay a fellow, tell him why, as this may help matters. Now with conductors, they are all a pretty good set of fellows and ready to do their part of the hustling if given a chance. The ability and hustling must be considered strongly when handling a fast freight against passenger train or a slow freight against a supe-

rior class freight. Next in line to consider is the capacity of an engine and tonnage allotted to be handled over division. Some engines of the same class are better than others, and some of the same class make faster time even when in the hands of the slow engineer. Therefore, you may have a slow engineer and a fast engine, or a fast engineer and a slow engine. This will keep you guessing until he has gone forty or fifty miles and shown what is in her. Never for once lose patience with an engineer or conductor. There may be all kinds of handicaps for them to overcome that you know nothing of. Simply send a message: "What is cause of delay?" or "What is cause of slow time?" as a reprimand under the superintendent or chief's signature may get the whole crew angry, and they will take their time from then on. Ascertain the cause of delay and rectify it if possible, and do the best you can under the circumstances. If you have delayed some train badly by this train's delay do not let this irritate you, as your work may be only started and you can not get any kind of service by reprimanding this and that conductor or operator. Just make the best of it. After the delayed train gets started again keep after them and try and crowd them as far as possible for the superior class trains, and just as long as you keep engineer and conductor thinking you are doing

your best they will do their best, and when you loose patience with them they are ready to drag, and your work will be a hard task instead of a pleasureable one.

COMBINATIONS.

A combination when spoken of in the dispatcher's office means where there are two or more trains affected by the delay of another train. For instance you have No. 70 meeting No. 69 at one station and No. 69 to meet No. 72 at another station. Hence if No. 70 is late on the order will delay No. 69 and No. 69 will likewise delay No. 72. Thus the importance of keeping in close touch with the reports of trains by each station keep up on "O. S." reports as you go along, and you will never have them only here and there for your relief. In putting out orders always work ahead of your trains. Don't think of allowing conductors to come in and ask for help on any train. Get the order out in advance and then get operator after conductor to sign. In this way you save delay after delay, which foots up when added at the end of the run. Perhaps the five minutes you save him getting orders will give him time to make the place for the superior class train.

Also in working this way you even up the capacity of conductors more or less, as a good conductor generally knows about how long certain work will take him, while a poor one does not and can not say until work is finished, and were you to wait until he reports ready big chances to move would have all disappeared. When you have an engineer that you see is not making time and the freight is rush, if too heavily loaded get message from conductor to this effect, and instruct them to reduce, as it is better to land thirty-five cars in good shape than forty-five in poor shape. Have next train move the set out and attach all messages together for final settlement with the chief dispatcher. Never allow a conductor or engineer to tell you what to do, as this leads them to loose confidence in your handling them promptly, and you loose your effectiveness with the train men in general when this is the case. Always be ready to accept any information any trainman wishes to give and thank him for it. It is these kind of co-operations that net the greatest gains. Give conductors and engineers to understand that it is only through their most diligent help that you expect to be able to handle the traffic successfully.

It is very unpleasant for a crew to start out and feel that the dispatcher will not give them good service, and on the other hand it is still more

unpleasant for the dispatcher to feel that the crew will not rush matters through. Therefore cooperation is the sole point of success in handling trains successfully. It is very good policy to meet trainmen in your daily rounds, and if you remember of any particular delay that you gave him on some run try and impress it on his mind that it was on account of some other train being unexpectedly delayed, if this be the case. Talk matters over with them; treat the conductors and engineers as gentlemen and rest assured they will do the same towards you. Never think of mentioning the poor work of this or that trainman to another in conversation, as you are taking big chances in doing this. Far better to mention it before him personally and let him argue his side of the question, which may change your idea of the matter entirely. Never ask too much of your conductors and engineers, as they can only go so fast and no faster, and if time order is not made always try to feel that they did their best, and many times afterwards on the same trip they will redeem themselves on other orders. Play no favorites whatever, nor think better of one than another while they are at work. Bear this in mind most of all.

LEARNING THE OPERATORS.

This is one of the most imperative points of success in moving trains speedily, safely and successfully, the disposition of the telegraph operator, the ability used, why you must consider these merits or defects to get through with success.

One operator can be treated friendly with good results, while another must be kept within the bounds of all the rules or he will take advantage of your generosity and kindness. Another will ask to go out for a few minutes when you are the busiest and stay so long that you are handicapped without his being there. Great care must be given in allowing operators to be out, as you may seriously delay some train by so doing. On the other hand, let the operator go if you can, but in no instance allow friendship or favoritism to creep in upon your judgment in so doing. In sending a train order to the operator do not rush operator, as he may make a mistake or be compelled to rewrite, and this will cause a delay to train, and conductor will put in a delay getting orders, which is a bad happening and hard to answer to the chief. Where you have two or more good operators copying at once there is no harm in sending

fast, as you are then making experts of them, which will lighten your work much more at later times. Be patient with the slow operator; never scold him for making a mistake, as it generally happens when you are hurrying him, and if you reprimand do it in a careful manner and with the betterment of the service in mind and not because you yourself are angry. Always most of all be friendly with the operators and try to impress upon their minds the impossibility of being a successful dispatcher without their help and energy.

HOW ORDERS ARE PUT OUT.

First of all get a good line-up of your trains that you wish to meet, and then call operator and tell him to copy. See that he understands what train it is for. If any fast trains near this office say for what train when you tell him to copy or his semaphore may be made red and the wrong train stopped, causing a bad delay. If for a train that is at the station be sure operator has not cleared train before taking order, and if train has been cleared he must get conductor before taking the order. Where help is being given to a train and a "19" order is given then of course the operator can take order and hand to the train

that is being helped. Never try to talk an operator into taking a train order for a train when it has pulled down by the semaphore, as they may take the chance and the train will leave and then your successful train dispatching will come to an end suddenly. Thus you see why this is a danger to be avoided. Another point to be considered where a train is past due at a night office use the utmost care in finding out if operator has been asleep, for this very train may have passed him and he still say not there yet. While the operator is mostly to blame a dispatcher is greatly censured if an accident happens by the operator copying an order for a train that is already gone by. It is far better for some approaching train to be delayed than take undue chances to move it. Where you are very busy and liable to overlook helping a train advise operator to tell you when coming, thus giving you time to get order out. Another help is where train is doing work at station; find out by operator how soon will be ready, and then put out order on his figures. Another point to consider: If a train moving does work at each station find out ahead of them what kind of work it is and perhaps by skipping a little here and there that can be done by following train or trains without damage to the company's interest, and the train helped in this way may be

able to be kept moving and make the terminal before the overtime limit is reached.

In putting out an order make it short as possible, plain and without anything in it that could be in the least misconstrued in any other way or manner whatever. There are no two ways to a train order. It is the one and only way—the correct way. Never try to crowd too much on one order; if much to order make two orders or three if necessary. All orders must be repeated back by each operator and order carefully underscored word by word, as repeated, the operator receiving it to the superior class train to repeat first or at least O. K. same. Where an inferior train is getting orders helping it against three or four superior class trains, it is allowable and safe for the operators receiving order to superior class to give “Order number,” “Who to” and “What operator?” thus saving a little delay to the opposing train waiting for the order. Great care must be taken that no order is delivered to a train before repeated and “O. K.” given. Where an operator recopies an order it must be again repeated back to the dispatcher. Where there is no night office and agent is the operator, and you see you need him after hours for an order, ask him kindly to come back after supper for train orders. By so doing you save the train the delay

of hunting up operator after getting to this station, and most likely by the time operator has been secured all the help that could have been given has disappeared and train gets badly delayed on this account.

The running of extra trains over division without a schedule is to be avoided as much as possible. Always try to make them sections of other trains, as there is less liability of an accident or collision. But when you start an extra, give it a meeting point with all extras coming in opposite direction. None know of the other's presence on the road until this order notifies them of the fact. To overlook doing this in just one instance lays the path wide open for a collision, and loss of life and property. If you have a work train working between certain limits, you must have the extra protect against work train between these limits. Where you can do it, always have the work train do the protecting against extras, as they are better prepared to do so and with less delay to the traffic. Never think of putting out or starting an extra without first checking your opposite side of sheet for extras and look at transfer and see if any work trains are on the division that extra shall and must protect against. This running extras carefully and without an accident is the hard matter of handling trains, and carefulness in the

points mentioned will keep from making the fatal mistake. In starting a work extra, give them orders to protect again all extras on road, and if you know of two or more that will leave terminals sooner or later, have him protect against these also. Both sides of sheet must be checked for extras, so the proper protection can be given. Always limit the time on a work train from a certain time in morning until a certain time at night, and make limits just as small as it is practical to be made. Where you have two work trains within the same limits, and one is working at a certain point and not to move, have this one protect against the other; but where both are liable to move over limits, have them protect against each other. When a work train wishes orders extended in time or limit, be very careful that extras already instructed to protect against him are so notified of the extended time or limit. Work trains must be given all the help possible on all regular trains, as there are generally a big gang of workmen with them, and a delay of thirty minutes for this and that train during the day is very expensive to the company, and also delays the work that is being done. A train holding a work order can get an order to run extra to certain point and return and its working orders are still in effect and good to be used. This little point must be watched, as

you might give an extra orders after work train leaves limits, and work train returning to its limits about the same time that the extra came in limits, would cause the lap again. That is the cause of all troubles, and a terrible bad mistake to be made. Therefore, the best policy to work on is always annul the work order as soon as the work train leaves limits, thus avoiding any chance of trouble with these limits. Sometimes you may add that work extra shall protect against all trains, but extras must be notified that run through these limits to this effect, so they will be keeping a look-out for the work train's flagman and be able to reduce speed when necessary. The ability of conductor of a work train is to be considered, as some can work for half a day without help on trains, while others do not care to protect and will be asking for help on every train. Fix them without delay, as the work is very expensive, saying the least, and to delay it eats up the income of the company you are trying to make successful.

PUTTING SIGNALS ON TRAINS.

Putting signals on trains: the advantage and disadvantage. Always try and keep your trains on regular schedule of time table. Never start an extra where it can be run as a section of a regular

train. Try and keep trains starting on schedules that do not make them over eight hours late, and when this late put them on as a section of the next freight out. Be very careful, also, in using signals, and that you help the inferior train before they get out of reach, and when a train is out of reach, send help by the first section against the other sections, or if the second section is putting up signals, send help with them for third section, and so on. When you have an inferior train delayed at a station for some other train of the same class, and the train delayed is going to be overtaken by a superior class train, put signals on superior class, and this will keep the inferior class train moving. Then when the train arrives at this station give him an order that this certain train has arrived at this place, so they can fulfill their orders and proceed. Where a light engine or engine and caboose are being run over division, due to leave about the same time as a schedule passenger train, put signals on the freight and run them as first section of passenger, *but never as second section*. It is sometimes permissible to give a conductor of a freight, where tied up by some "meet order," to put flagman on passenger to a certain point. This is very poor policy, however, and should not be done except in extreme cases, the danger being that the flagman may ride

by the opposing freight, thus allowing it to proceed, while the train that sent flagman will expect the flagman sent to hold train. Train orders are to be used to move trains. Therefore, the instructions regarding putting flagman on passenger trains should be very limited, and avoided if it is possible at all to do so. When you have two or more sections of a train running on division, and the second section is making better time than the first, you must allow second section to pass first section, changing signals accordingly. This depends on the class of freight each train has, and if both make the same connections at terminal, there would be no saving in passing them on your division. When you wish to annul or turn one section of this train, issues orders that engine 100, or whatever number of engine is so annulled, as third No. 54 from a certain point, and following sections change signals accordingly. If it be the last section, notify the section proceeding it to take down signals at this point named where the train turns. Always be sure that operators note signals on trains, and it would be well to ask if they noticed signals, as it has happened that the engine crew had failed to put up signals, and this leaves the road open to a collision. Where you have created two or more sections of a passenger train, and they are running close together, have operators

keep at least ten minutes apart, and where the block system is used hold one section until the preceding section is clear of block. Never think of issuing a caution or permissible card to one passenger train on another in block, whether they be sections of one another or not. When one section of a train has been past due for a long time at a station, always notify the following section to keep a lookout, as you may avert an accident by so doing. It is true the train in trouble should be protecting at the same time many trains have forgotten to flag, and a rear end collision was the end of not doing so. When giving an order for one section of a train to wait or meet some train, always give it to the following sections. Most of all, never put a slow freight on a fast schedule, nor a fast run on a slow schedule, as it will only make you more work and cause serious delay to fast freights and trains running in the opposite direction being tied up by the fast schedule on which the slow freight is running.

THE CALLING OF CREWS WHEN UNDER THE DISPATCHER'S SUPERVISION.

Always find out from the engine department if an engine can be provided. Ask what class and if suitable for the train to be run. Next ascertain from yard master when train will be ready to move. Set the time for train to leave so there will be neither delay for engine or crew. Also note when your incoming passenger and freights will arrive, and see that your called train does not get a bad delay right at your own yard waiting for some train to arrive. On the other hand, if crew can be called to get out of yard for the incoming trains, this should be so arranged. Where the train to be called is a superior class, always get crew and engine ready in advance of time to go, so there will be no delay experienced. Also where there are inferior class freights coming in, they should be held up by orders so not to interfere with the rush train. Great care and judgment must be used in the naming time when crew should be started, as thirty per cent of the delay on most all divisions is on the trains getting out as called. When the mechanical department fails to get engine ready, always provide yourself with

cause of delay, and when any of train crew cause delay, see that it is properly put before the train master's notice. Keep in close touch with the yard master, and if an unexpected delay is to occur, get after your incoming trains and give them the advantage of this delay. Where everything is well organized you should be able to figure your orders on the time train is called to leave, but where this is not the case it will be necessary for you to watch the engine department, the yard crews and the train men, or a delay will occur and inferior class trains will suffer for not receiving the proper assistance, and you will find a hard question to answer unless you are prepared to state why the delay occurred and that you could not ascertain a close figure from this or that department. Where train and engine crews are called to be ready for some incoming train, get close figures for this kind of calling and get call just as close as possible; this in order to keep out of the hands of overtime limits. Where an engine is being ordered for a train out on road where some engine has given up train, notify engine department what class you must have and as soon as possible, so crew can be notified that it is a "hurry up call." Never have a crew called unless you are provided thoroughly with all the necessary information to call correctly. When a crew is

called to go out and they want rest, call the next crew following. All crews should notify your department. They must rest when arriving on a trip so you will not lose time in calling them, which would not be done had you been correctly notified. Always be very careful with instructions left by chief concerning the starting of trains and use every effort to see that his instructions are carried out to the letter, and in case some train leaves late, be prepared to say why late out and who was at fault, and see that the chief cannot censure you in the delay of train. If you do all that can be done it will not be possible to hold you for the delay, no matter how bad the delay or the class of freight delayed. When a train crew and engine crew and engine are ordered, and an accident happens to keep this called train from leaving for three or more hours, release crew at once, either for a certain figure or until called again. This is far better and cheaper for the company than to do otherwise. Always be prepared to say why done and you need never fear but what the chief will stand by you in every instance, and do it with the greatest pleasure. You are doing his work in his absence, and the better you do it the more he will think of your ability.

WHEN A WRECK OCCURS

On your hours, the first point to ascertain is, will they need a wrecker, and is anyone injured? On receipt of answer asking for wrecker and list of injured, put out call for wreck crew, and also in meantime notify train master, chief dispatcher and superintendent of your division. Get after road department, so they can be getting their men in shape to go to take care of wreck, and next in line be getting ready to run the wrecker. See that orders are so framed that the wreck train will get a good run and no delays. Find out what is needed at the wreck and what equipment is disabled, which way they wish derrick crane on wrecker headed, and get all the information ready so the officers can be prepared to act quickly on their arrival at office. See that company surgeon is called to go with wrecker and that every possible thing is arranged that can be arranged on the information you have at hand. If the blocked main line looks as if it would be eight or more hours before cleared, begin to figure what class traffic is going to be delayed and if it can stand this delay. If a passenger train and mail carrier, hold train back so in case a detour is or-

dered it will be within the vicinity of the detouring terminal. Another important fact to be watched is to keep your freight traffic from blockading the line, and see that they are distributed along at different passing blocks, and when these points have been lived up to you have done all that could be reasonably asked of any dispatcher, and if there is a delay it will not rest on your shoulders. After the track where wreck occurred is temporarily repaired, put your "Slow" orders accordingly. See that all trains moving receive a copy. Where a passenger train is in the wreck, and it is necessary to transfer passengers, try and be able to tell superintendent just where passenger equipment can be secured to be sent to the delayed passenger train for transfer. By so doing you may save a delay to handling of passengers at wreck.

WHEN A BROKEN RAIL REPORTED,

At once notify operator to call section foreman, and repair at once. Notify all trains that a broken rail is at a certain point and not to proceed until track is inspected, and if found safe to proceed slowly and carefully over the disabled point.

WHEN A BROKEN SWITCH REPORTED,

At once notify section foreman of the broken switch and to repair at once. Notify all trains of the broken switch and to arrange accordingly, and as soon as message received that switch has been repaired annul the order up concerning same.

**WHEN A CAR REPORTED ON A PASSING
TRACK,**

First notify agent to see if brakes are firmly set, and put up bulletin notifying all trains of the car being on passing track. Annul as soon as car has been taken off.

**WHEN BRIDGES ARE REPORTED
UNSAFE OR DEFECTIVE,**

At once notify all trains by "Train Order" to stop and examine bridge before proceeding and not to exceed a certain limit of speed over same. Get after the bridge department and see that they are started promptly to remedy the defect.

WHERE A BRIDGE HAS BURNED OR
BEEN WASHED OUT,

At once notify all trains of the trouble and call superintendent at once, so arrangements can be made for detouring your rush freight and the transfer of passengers and mail traffic. This is a very serious happening and one that no delay can be experienced in handling your important traffic promptly.

WHERE AN INTERLOCK, SEMAPHORE OR
DERAIL IS DEFECTIVE OR BROKEN,

At once call the section foreman out to repair, and notify all trains to be governed by signals from the tower man and for what reason. This should be covered by "train order."

WHEN WATER IS RUNNING SHORT AT
ONE WATER STATION,

Notify all trains to take as little water as possible at this point and to provide themselves so this can be accomplished. Get after the pump department; advise them what is cause of shortage, so they can go prepared to remedy the trouble.

WHEN AN ENGINE HAS TO RUN FOR
WATER,

See that they are handled promptly and that inferior trains get the advantage of the delay of this run on this account. Make good notations in "Remarks" on sheet so chief can readily see what was done and why.

WHEN ENGINES RUN OUT OF WATER AT
CROSSING WITH SOME OTHER
ROAD,

Wire the superintendent of this foreign road that you want one of your engines to take one tank of water at their tank, and when answer received, so notify the conductor. This is far cheaper than running to your own tank, even if engine could do so.

WHEN YOU ARE NOTIFIED BY CONDUCTOR
THAT THEY ARE RUNNING
SHORT OF COAL,

Reduce the train and reduce their work so the next coaling station can be reached. If it is work that must be done at a competitive point, run engine light to your next coaling station, otherwise

save the expense of the extra mileage and try to get train into terminal with the shortage of coal.

TONNAGE.

Each division of a road has a tonnage rate, giving the tonnage to be handled by each engine and over the different grades and under weather conditions. When ordering a train consider all these points and don't overload the train or underload, as this only makes trouble for your chief and yourself, besides your company will lose either way, on shortage of tonnage, and also when train is overloaded. Keep thoroughly posted as to the weather conditions and you can readily instruct what tonnage to handle. You can sometimes leave it to the judgment of conductor what to fill up to, but it is far better to figure your own tonnage and not rest with the conductor, as many will take advantage of this and cause you trouble.

WHERE TIME IS MADE BY PUTTING A SUPERIOR CLASS TRAIN ON SID- ING FOR OTHER TRAINS.

This is one of the hardest matters of train dispatching. Where you have a heavy fast freight and can make a close meeting or time order with

passenger train, order passenger to side track for freight, as passenger can make up the time, and you save the freight fifteen or twenty minutes' delay. Another point: Where you have a light rush freight meeting one or more heavy dead freights, always put the rush freight on side track, as they would experience worse delay to wait for the dead freight to get into clear, and perhaps avoid a saw by keeping the heavy freight out of passing track. Avoid giving inferior class freight *meet* orders on fast freights. Give them time orders, and if they have a delay and cannot make the point named in order, the superior and rush freights do not experience much delay. Always figure on where the superior class can make for passenger trains, and if you see they will be held fifteen or twenty minutes for this passenger, use this time in helping dead freights, as the rush freight will get just as far over road when you do this. Avoid giving an inferior class close orders on fast freights, as time freights must not be delayed. Another point to consider when handling rush freights or fast passenger trains in the face of a number of long and heavy freights, do not let your inferior freights congregate. Hold them back. A delay of two hours to a dead freight is far better for the company's interests than a congregation of freights of this class. Where an important mail or fast freight

is delayed even fifteen minutes, there are many roads that will hardly accept any excuse for a delay of this kind, and therefore you must work towards this end. Never try to coax a heavy freight out of a big siding ahead of a passenger or fast freight, as a delay of ten minutes to fast freight is far worse than an hour to slow freight. When you see a delay to a passenger train is sure to happen, see that your other trains get the benefit of this delay. After your passenger is delayed, see that no more delay is incurred by them if possible, so they may be able to make mail connections on time. Where passenger is late, and has passengers for some particular connections, at once wire that superintendent when your train will arrive and request to please hold, which they will often do when they have a definite figure to work upon. On the other hand, when you receive a like message to hold, if impossible to get superintendent or chief, use your judgment, and always try and hold, to keep the good will of the traveling public, as you are protecting the interests of the company greatly by so doing. Where a passenger train is being seriously delayed by a hot box or engine running hot, keep in close touch with them on train sheet and give all the delay to your trains coming in opposite direction. Be very careful in running a passenger train late, and if you see

order is holding them, then take order down, but do not hesitate to put more time out if passenger is losing time so it is possible for freight trains to move. Be careful in taking down orders on passenger trains and see that all freights have the same order annulled to them. Never put out an order helping a freight on a passenger without giving copy of order to passenger. It does not seem possible that dispatchers would do this, but they have many times, and accidents have come by the indiscretion. There are no railroad companies, no difference how anxious they wish their traffic hurried, that wish you to take the least chance in moving trains. Therefore they will show you no sympathy if an accident is caused by any chance order you may have placed. On the other hand, they will do most anything for a dispatcher they know is safe, and you must work to secure this opinion from your employer. In giving inferior class trains help on the time of superior class, make waits always at two or more stations, so if he fails to make one point he can make the other. Always try to give them help on everything coming in one order so he can figure on where he can get for other trains. Otherwise he may get into clear for the first superior class train and ten or fifteen minutes elapse before you can get him started, while, had he had this other help, he would

be out and gone and this serious delay avoided. In case your fast freights are being delayed, don't wait until they again move, but go right ahead and help the inferior class trains on this delay. You may wait and the trains you may wish to help will head in and before you can help them the time will be all gone. In meeting passenger trains always consider if either has a mail connection or an important passenger connection to make, consider which can stand the delay the most and frame your order under this consideration. If one is very late and the other on time, always keep the on-time train going. Also, when there is a possibility of the late passenger going in on time, give the best of it with everybody, and chances are he will go in very near on time. Let this be your aim, to keep trains on time, and help those late to reach terminals on time. By mail trains missing mail connections is a mail failure, and is expensive to the company, and you must diligently work to avoid this additional expense to your company.

OVERTIME.

East division has a schedule with the trainmen and engineers, firemen and brakemen, and in this schedule a certain number of hours are allowed to make the run over division. If

this time is overstretched by a train being delayed, then the overtime begins. Therefore it is to the company's most financial interest that you keep trains making the run in the prescribed time. To do this, trains that are already late out of terminals must be given preference wherever it can be done. When you have two trains running in opposite directions, and both are ready, give the train that is the most likely to get overtime the best of the order. Make this your aim throughout the hours you work, and then when the trip of this train that drew overtime is looked up they will not be able to find any delays that were not unavoidable against you, and someone else will have to answer for the overtime. Where a train gets out of the terminal late, try and cut its work down here and there and let the next train do it. While he may have been instructed to do this work, the fact that he is late and liable to draw overtime will be good excuse for lifting some of the work from him. When a train is dragging along and not making ten miles per hour, and you see it is being held by too much tonnage, reduce them and keep them making time. If a heavy train is delaying another, get the delayed train past them, and never allow any one train to cause two trains to drag any farther than to the next passing track after you have dis-

covered the state of affairs. When a train does arrive, having made one or more hours of overtime, see that you get a good, reasonable answer for any delays you might have given them. If on account of engine not steaming, see that this is properly noted on the sheet. If on account of an engine failure or wreck, see that the proper messages and delays are on hand to verify your sheet. Get all the information concerning where engine failed or where train doubled a hill or met some train and was exceptionally delayed. If the weather gets extremely cold while some heavy train is en-route on division, see that they are properly reduced according to weather reductions allowed on tonnage rating, and be very careful in this reduction, as to stop and set out causes big delay, and for a train to double after reducing shows some one has figured wrongly. When an engine is compelled to give up a train on division, at once get a message from conductor and engineer and ascertain what is cause. See that message says they want another engine, and at once notify the engine department as to this failure, order another engine, and see that there is no delay in handling back to the delayed train. Also get disposition of the engine that failed and where they wish it to be sent. Never allow an engineer to disconnect an engine without first consulting the master me-

chanic. Where the failure of an engine takes place on a fast freight, take the nearest engine off of any freight. Always try to get one headed in the same direction as the train that has the failure in moving and then order one for the train that you take the engine from. It may be that the engine that could not handle the fast freight as it should may be all right for the slow freight, and then you won't need to order one from the terminal, thus saving a big delay.

**WHEN AN ENGINE FAILURE ON A PAS-
SENGER TRAIN THE MOST SERIOUS
OF ALL, AND MUST BE HAN-
DLED WITH THE LEAST
DELAY.**

Great judgment must be used also in getting an engine, especially in cold weather, as most all equipment has steam heating in coaches, and engines must be equipped to furnish this. Therefore, in getting an engine to take passenger forward you must get one with steam heat connections. Always try and get an engine as near the delayed train as possible and one that can make good time. After taking passenger have nothing to do regarding the changing off of crews on each

other's engine. Leave this to the mechanical department. When an engine on a passenger train begins to lose time as it nears terminal, and this engine is supposed to go on through, at once order an engine to be on hand to relieve them on their arrival at the terminal. It may be that the engine that was losing time will come into terminal steaming well, and if this be the case your relief engine will not be needed, but you have done what you should to protect the run and nothing will be said whatever to you concerning it. Let your rule be when an engine failure occurs to get train moving again as soon as possible.

THE HANDLING OF FAST TRAFFIC OVER DIVISIONS

Is very important and you are of course most likely to be reprimanded on failure in this class of freight more than any other, and you must provide yourself so this cannot be done. In the starting of a fast freight over division see that all orders that can be given to them at starting are placed with them and do not think of stopping them anywhere for more orders unless they can save time by the

stop and the change of orders. Make it a point to help this class train only at water stations or where they stop to register, and always have order ready. Never delay one of these trains for orders unless it is a like important train going in opposite direction, and even then orders should be ready, whatever they should be. Also put out as few orders as possible to this class freight. Make it a point to keep this fellow going fast, and the sooner he is off of your division the better. Consider very carefully where you get him for a passenger train, and if a delay is going to be experienced, see that this extra delay is given to the inferior class train's order. You must keep all moving if it can be done. Also where trains are running ahead of the fast freight, keep them moving, but when the fast freight becomes near, see that these freights are promptly gotten into clear and stay there until passed. This must be watched very close, as a local freight may delay this train badly. Some roads protect you in this with their time card, but others let it rest with conductors to keep out of way of superior class freights.

WHEN THERE IS A CAR RUNNING HOT

In one of these trains, have it set out immediately and picked up by the following train, if possible. If car broken down, find out what is needed to repair same and notify proper office of the car and necessary repairs to be put on it and the nature of the loading and where car is at. Use your best judgment in allowing cars to be set out and be careful to see that car is picked up promptly by the next suitable train after repaired.

THE CONSIST OR DESTINATION REPORT OF A TRAIN

Is a very important help to the dispatcher, as by carefully posting yourself on this matter you see where he will stop to set out cars, and also see how much lighter he will be and much better time to be expected by the setting out. Besides, where important cars are in train, see that the proper connection officials are notified and that correct time of this train is given to them, and if train does not make as fast time as figured, see that connections are promptly notified, as they may be able to let their train that is waiting go and have their next

train get the cars. The same to apply to you when you are holding certain cars reported. Keep after connections, and you may be able to let one train go and have the next train get cars that are to be delivered. Also when cars are picked up along line, keep well informed what train has, as there are many reasons why you should most of all, in order to estimate their speed.

WHERE STOCK IS BEING LOADED FOR A TRAIN,

See that agent is given a figure on this freight so arrangements can be made for this stock to be loaded before train. Keep well in touch with agent regarding loading, and perhaps if stock is not loaded when one train arrives you can have the next train pick it up and save serious delay. See that you get time when stock was loaded and if anyone in charge, and let this information be given when connections are notified. Be very careful in receiving and handling stock from connections, as the time limit may be up before they reach the end of destination. You must see that yard master immediately places cars of this class to be unloaded at once. Never take any chances in handling stock that has

been loaded for twenty-eight hours or more, as you will only get your company into litigation with the state for not obeying the law and cause a big fine to be imposed, and it will be a hard matter for you to keep from getting some of the blame of the trouble.

**MANY TIMES TRAFFIC IS BADLY DE-
LAYED BY THE WIRES GOING
OPEN,**

And when this occurs you must at once get after the trouble, and if some operator has left his key open, and you corner him in it, scold him and try to impress him what a bad delay he has caused by this key being open. No doubt the operator is just as sorry as you are that it happened and will be very careful that it does not happen again, but where it is a broken wire or grounded by other wires, try and get your train wire clear, and if this is impossible, get some good operator down line to relay your orders and get report of trains for you, and after this trouble is straightened out don't forget to give the chief a good strong talk about the operator that helped you out. Maybe the chief may not have the best opinion of this fellow, and this will help to change

it. All orders that are out when wire goes down act as hold orders and no train can proceed where a restriction order is up. Another very important point to consider is where you have a very late train on division or just starting on a late schedule, be sure you give trains coming in opposite direction a "rough" help order on this train, as this will be needed badly in case the wire goes down, and you will be very glad that you helped these trains early in the day when it is impossible to reach them, as it may be if all wires get mixed up. If the trouble proves to be otherwise than open in some telegraph office, see that lineman is promptly notified and given a good idea where trouble seems to be and get him out on the first train to repair the trouble. If it be at night or towards evening, and you have it temporarily repaired, send lineman out early in morning, as wire trouble is hard and impossible to find at night. Never allow any students to be fooling with your wire, as they may finish and then leave without closing the key. They should be told by the operator on duty the importance of not bothering the dispatcher's wire and not allowed to be practicing on this important wire. You all had to learn, though, and give the student all the chance possible to catch onto the business as long as he is permitted to be in the business. Always see that

operators carefully look over switchboard when wire trouble arises and to look over table and to all wire fastenings, as it may be found in their office and defect repaired quickly.

WHEN ASKED AS TO THE MOVEMENT
OF A FOREIGN CAR OVER DI-
VISION BY AN AGENT,

Never take any chances or advise no one unless you know exactly. Every division has a man to look after cars and routes, and hold up on cars are changed often, and you might advise wrongly and cause a big run of car that would be out of way and expensive to your company. Advise agents to take up matter with car distributor and that you cannot advise him as to the car's distribution.

Oftentimes conductors will ask if they can do this or that of you, and they have their instructions what to do and are trying to overrun some work. Always ask if they have any instructions as to the work, and if he says yes, then tell him to do as instructed. You might go ahead and instruct him what to do and be strictly against what the chief had given him.

WHEN STOCK OR FRUIT HAS ARRIVED TOO LATE TO CATCH THE FAST FREIGHTS

It is sometimes allowable to move on passenger train. Now, you must always see that cars are properly equipped with air and all couplings are standard, and car must be handled next to engine, or always ahead of coaches. Never allow a car to be handled on the rear of the train under any circumstances. This is an ironclad rule and must be lived up to strictly to the letter. If it is possible, try and get this stock or rush freight on freight train. Always instruct passenger handling stock to not to make up time and to keep close watch on car. Use every effort to diminish the possibility of an accident happening to the car and train. If these cars run hot, set out immediately. Do not allow any delay to your passenger service for the handling of such traffic.

ALLOWING PASSENGERS TO RIDE ON FREIGHTS.

Where you are asked to allow passengers to ride on freight train be very careful what you answer, as the rules allowing passengers to ride on

freights are very strict and must be lived up to, as you are taking chances allowing a passenger to ride with a freight, as cabooses generally used are no places for people to ride carefully, and a man is just as liable to be standing on his head as on his feet, especially one that does not know when to expect a shock caused by air being used quickly. The best policy to pursue is to say you have no authority to allow them to ride, and this will cover the whole case.

WHERE A TRAIN RECEIVES A HELPER

Out of a station on account of some exceptional grade, always see that helper has return order and help on all following trains, so it can get back to do its station work and work that must not be delayed. Much care must be used in handling helpers and they must be properly noted on sheet so it is impossible to overlook them. Always make notation on sheet what train they helped, so all reports made off of sheet will be made correctly. Avoid using helper on trains that have not sufficient tonnage, as it is a total loss to company to put extra power on a train when not needed. Where it is necessary to place two engines on one train to handle over

division, always see that they are properly uncoupled when going over some bridge that is not O. K., and if this is to be avoided, haul one engine placed five or six carlengths from the other engine, so their total weight will not be all in one place upon the bridge. When giving this train orders always provide for an extra copy for the extra engineer, and if train can cut out one engine down the line and make time from this point, have no hesitancy in cutting it out and return it to the terminal. These matters are generally all fixed up for you, but it is well to be posted, as this might come up when you could not reach anyone to advise you properly.

RUSHING LIGHT TRAINS OVER DIVISION.

Always try to handle light engines and engines and caboose with great dispatch. Give them all the help you can and then watch them fly over the division. Many times you are compelled to even up power and crews, and it is of the utmost importance that you hurry these light runs through, as the sooner they arrive the sooner the traffic will be moving. Never allow a light to drag behind a freight, but pass them at

the first desirable place. There may be a delay occur, but a worse one will happen if you hold the light train back instead of passing other trains. Where business is unevenly distributed you have many light trains. and to handle quickly should be your aim.

THE HANDLING OF TRAINS ON A SPECIAL SCHEDULE.

First of all when placing a schedule see that every train in both directions has been given a copy, and if train not yet arrived at station where schedule is being put up, put out orders to operator to hold the schedule train unless the train arrives. He then gives the signature of train and the hold up order can be taken down. There are many considerations and conditions to look at and figure on. First, at what speed does the schedule train wish to run? Second, how late is the train to be run special? and third, at what time must they reach the connection at end of run? Usually the traffic handled has a certain number of hours to go over system and you will be informed that they are so many hours late. You must then run them on a fast schedule and do your part towards making up some of the time lost by the other di-

vision. Always in figuring a schedule figure where they will be held up for a passenger train and lengthen out the schedule here. Make it fast where the track and roadbed is fast and slow where your track is slow. If the train reaches you sooner than you expected, or before they advised you, run the train extra, if possible, until you can get up another schedule further down the line. On the other hand, if they are received thirty minutes or more late, then run them thirty minutes late on your schedule, giving it to all trains that need the help. Be very careful in how late you run him, as they may make up time, and your order will keep him from doing still better on your division. There are a number of different classes of traffic that are run special, and these points should also be considered. If you find your schedule is too slow for the train using it, at once take down and put out a faster one, being very careful that you do not overlook some opposing train when you do this. If the schedule is too fast, you can easily run them so many minutes late to help the opposing trains. Be very careful of your schedule train. See that all yards are properly notified so no cars will be on main line to delay this train. Also be very careful with the figures you give the connections when they will arrive and how they

are running. If some trouble with equipment, always put the next division on to this so they can be looking out for this delay on their division. Always protect a schedule train as you would any other fast freight in case of a failure of engine or equipment. Keep information well up on train sheet of any delays of this train, and most of all endeavor to make up time on their schedule and land them in better shape than you received them. If it be a very important run, sometimes it is well to pick out a certain conductor and engineer and engine to handle same. Be very careful to see that the engine ordered will do the business, and do not hesitate to remind engine department that you do not believe engine "so and so" will make a good run, and caution mechanical department of the fact. If one or more cars need some repairing, see that car repairers are on hand, wherever it may be, to fix cars as quickly as possible. Never let a whole train be delayed by one car. Set it out and land the bulk of the rush freight on time, or within the time allotted to go over the division. Make special provision to handle the delayed car or cars and keep them as close to the special as possible, so they may again overtake train before it reaches destination. Where there are a certain number of special cars of freight being hurried to reach some export dock, it sometimes is just

as well to hold all of the cars until one is repaired; as the boat does not leave until the full shipment has been loaded. Where you have one schedule out and you wish to place another, always be sure to state which has the right of way. This mistake has been made several times and serious accidents happened. It is well to have all passenger trains notified of schedule and a copy given to them, so they may be expecting them at the station where schedule corresponds with their time card time; the same to apply where they are following a special schedule train. Be very careful when putting out schedule and see that operators repeat correctly, as a small mistake in the time at just one station may cause a serious accident or delay. Send a schedule slow and carefully and try and get all concerned to copy it at the same time, as your time is limited, and it can be put out to ten operators as well as five. If one certain operator keeps breaking you in sending, try and locate him, as he may cause some of the operators to copy incorrectly and cause more delay in re-sending the order. Never allow yourself to be agitated when handling this kind of orders, as you will find the cooler you remain the faster and better you can work. You will find this one particular kind of order taxing your nerves more than any other, therefore you have been timely advised what to

expect and try to avert when handling this matter.

ANNULLING OF TRAINS.

Trains that are not to be run on the daily time card are annulled between the terminals, and all trains should be advised to this effect. The order should be put out at each registering point so every one will be properly advised. Sometimes a train is annulled between two or more stations so it can make faster time than its schedule allows, and sometimes a train is annulled and run extra so it can reach the terminal earlier than schedule allows. Never annul a train on schedule when you can fill schedule by some train, as it saves considerable work and checking up of inferior class trains. When two or more trains are to be annulled, get both or more annulments on one order, thus saving some little time when a train is getting orders at a terminal. Always be careful and get these annulments to all work trains, as you may save a delay to them by so notifying them.

When a train has arrived at a station and cannot leave before it is twelve hours late, account of being delayed, then you must run them extra, as the schedule they had is dead

and they must have more running orders before they can run. You should watch this matter very closely, as some train that is very late may lose its rights at a non-telegraph station or where there is no night office, and there will be a big delay, calling operators, and still worse if no operator, and they will either have to wait for some train to overtake them or flag to the first telegraph station beyond. Too much care cannot be used in avoiding this delay. The proper move to make is to annul the train and run extra after they are over eight hours late and take no chances of their keeping on this schedule.

**WHEN YOU HAVE A TRAIN RUNNING SO
MANY HOURS OR MINUTES LATE
ON AN ORDER,**

And this order is holding them, first annul the order to all trains holding it and then annul to the train that is being delayed and put up another order that will not hold train.

**WHERE YOU HAVE AN ORDER TO A
TRAIN FOR IT TO WAIT FOR
A CERTAIN TRAIN,**

And you see the wait will delay the train, put out an order annulling this order and give

the trains concerned an order to meet. These particular points will not be discovered until too late if you do not keep in close touch with operators and get prompt report of trains as they pass offices.

TOO MUCH CAREFULNESS CANNOT BE USED IN PUTTING OUT ORDERS.

You should not allow any discussion to go on in your office, and the dispatcher's office should be kept quiet and no disturbance of any kind should be allowed that would in anyway distract your whole attention from your work. If anyone wishes to speak to you on personal matters, advise them when you can see them on off hours. You cannot give the company good service and keep in close touch with trains when you do any other way than here stated. If you are ordered to do something by the chief, always make a note of it, and do not tax your mind with a single point outside of your handling your trains.

WHEN AN OPERATOR IS REPEATING AN ORDER

Do not fail to watch closely, and if the least idea that it was not repeated correctly, break at once and see that he gets it right. If an operator

mixes up an order, send it over to him slow and carefully and never rush them. Time will be saved to take it slow and easy.

SENDING HELP TO A TRAIN.

Where a train has been delayed unexpectedly, and is at a non-telegraph station, you may send them orders by the following train or the first train that will pass them. This will serve to get the train to a telegraph station, where you can help them more substantially against other trains. Always be sure to note on train sheet why this train was delayed and what orders they had when they got tied up. No orders restricting the rights of a train must be sent to a train in care of another train unless you wait until the carrier reaches the next telegraph station after passing the train and gives you the signature of the train the order was delivered to.

ANNULLING ORDERS.

When a train has an order on a superior class train and makes order, and is in the clear at the point where order allowed them to come, you can take down order to superior class

train. There, however, is risk in this, especially at night, when operator cannot clearly see that they are clear. The safest plan is for operator to get conductor and ask him if his train is clear, and after receiving this information you are at liberty to take down the order. By doing this you save an unnecessary delay to the superior class train getting orders. Care should be taken, also, where two trains have an order to meet at a certain point and you shift one train a station farther, putting order out farther down line than where first order was placed, and when train is in clear you take the "instead of" order down. You see this would still leave the old order in effect and would hold the train for this other train. Therefore, use great care in taking down orders of this kind.

WHEN A TRAIN IS SIGNING A NUMBER OF ORDERS

At a certain point on the road, be very careful and sure that they get all the orders, as one missed may cause a bad accident or cause a bad delay to this train. Never try to hurry matters with operator when trains are signing up nor ask him to copy orders for other trains until he has finished delivering orders for the first train. You

may get him tangled up and excited and some order will be missed that should have been delivered.

COMBINING ORDERS.

Where you have two trains ready to leave a terminal at same time you can combine their orders and save time to all concerned. It is also an advantage for the second train to know what the first train has, as he is then able to know where to be looking out for a stop of the first train.

SAWING TRAINS BY.

When you see that two or more trains are going to saw by and delay a superior class train, you use good judgment in letting another train come to this point and saw with the rest, as four can get by as quick as three.

MEETING TRAINS AT BLIND SIDINGS.

When you are contemplating meeting two trains at a blind siding, see that you are properly informed as to what is at this small spur, and if the passenger train has any extra cars, they may be compelled to back one or the other up to a

siding where they can pass if they arrive at spur and find it full of cars. This causes a bad delay to both trains, and you will be for hours trying to get them moving in good shape again. As every time you delay your passenger or superior class trains you hold all of your inferior class just that many minutes more, it is far better if you do not know what is at a station of this kind to avoid making the meeting point, and if one or the other is delayed by so doing, keep a notation on sheet as to why you did not make the meet at this point.

OPERATOR'S FAILURE.

When an operator fails to deliver an order you must try at once to catch the one or the other train, and see that trains are held until orders agree. Report this to chief dispatcher by letter, just as circumstances were, what you did to avert a collision, and the ability of the operator and what ability he has. Don't make any report of any other trouble with this operator. Let one case be settled at a time. If you had trouble before, you should have reported it when it occurred. Don't save up troubles of this kind. Settle as they come.

WHEN NECESSARY TO KEEP AN OPER-
ATOR ON HAND AFTER WORK-
ING HOURS,

Where there is no night operator, be very careful that you allow him to go as soon as it is possible, as the agents are worked hard all day, and to keep them up at night is an extra hardship. Try to avoid this as much as possible. On Sundays when traffic is generally very light, allow operators to go for a few hours and state to them when to be back. These little favors only bring you into closer relationship with operators and cause them to think well of you.

It is not always necessary to write up an operator to the chief. Try and settle small matters with them, as misunderstandings often happen that may be brought to light by talking a question over with the operator.

ADVICES GIVEN OUT BY DISPATCHERS.

Be very careful in advising trainmen when they will get out. Always leave a good margin between your figure and when they will go, as you may release some brakeman, fireman, engineer or conductor and cause a delay to some expected

“hurry up call.” Always be civil in your answers as to this matter, as you have all to lose and nothing to gain by incurring the ill will of any of these men.

TRAINMAN'S FAILURE.

Where a train runs by its meeting point and is discovered doing so at once protect by holding the other train, and see that the matter is properly reported to the trainmaster and chief, as this is a serious offense, and a mistake of this kind must be thoroughly investigated.

EXCEPTIONAL DELAYS.

When a train has had a derailment or is being held by some connections always keep in close touch with conductor so this train can be reached when help is wanted by other train against the delayed train. Always try and get a close figure when train should move and put out all the help you can, and if delayed still more at once give the delayed time to the other trains.

Where you have one freight on line making good time and must give it a meeting point with other trains, always give the train that is moving in good shape the best of it in all cases, as chances

are all in your favor in delaying the other trains. While when you even up a meeting point the slow train never does any better and the fast moving train receives a bad delay that should and could have been avoided.

TIME.

Time is received once each day from Washington, D. C. Each and every one is cautioned in regard to disturbing the sending of time. You must see that this is strictly lived up to, not only with the operators, but with yourself. Do not try to crowd in sending an order or receive one while time is being sent. After time has been received each operator from one end of terminal to other says O. K. to it, and you check them on the sheet. If one fails to receive time you must so notify the chief. This time is very important, as the variation of clocks and watches along the line, and a bad report of a train by some operator may cause you to figure wrongly on some train losing time, or by some operator reporting a train to be later than they passed may cause you to hold them up at the next station and change orders, thinking they are making slow time and delay the train they are to meet. Therefore you see why operators should get the time promptly

and daily to keep their clocks and watches running within the time.

FIRES.

When fire is reported of company property or near company property, see that all cars are taken away from danger and that everything is done to avoid the company's property to be damaged. After a fire has occurred and track is damaged see that the proper orders are placed to protect trains in both directions.

RAIN.

When there has been heavy rains along the divisions and liability of high water, put out a general order to all trains to approach all bridges expecting to find them unsafe.

DETOURING PASSENGERS.

Where you see a passenger train is going to be delayed seriously by a wreck, fire or washout, and passengers wish to go via some other road from that point, get in communication with the general ticket agent and try to get the desired transportation fixed up for these passengers; also where

your passenger train is badly delayed by snow storm or any bad obstruction see that everything is done to help passengers to be made comfortable, and, if necessary, arrange for their receiving meals at company's expense.

FREEZING WEATHER.

When fruit or any freezable shipment is reported to reach your division or is already at station see that the first passable train moves car to end of division, and if this is impossible try and have placed where as much protected by cold weather as possible. When several cars of this class of freight are in terminal yard it is sometimes allowable to have them placed in round-house to avoid freezing and cause your company a big damage to pay in case of shipment ruined by freezing.

TELEGRAPH PASSES.

The issuing of telegraphic passes is controlled entirely by the superintendents of the respective divisions, and you should not issue a pass of this kind unless you are protected by a permit, or can show some good reason why you issued the pass. Try and avoid issuing it if you possibly

can, as it serves to establish a bad precedent to others, who, instead of securing a regular pass, they will wait and receive one from you.

EXTRA STOPS OF FAST PASSENGER TRAINS.

When asked by passengers to stop a fast passenger train at some small station or where not scheduled to stop, great care must be used in granting this request and many considerations made. First of all, is train already late? What other train could handle passengers or what other connections could be made on your later train? If in case of sickness or death, and how many wish to get off where train is stopped, and try to get superintendent's sanction on the matter, and be prepared to answer these points when you call him, as he will wish to know them in order to decide to stop train or not.

ASSISTING COMMERCIAL LINES.

When notified by your Western Union or Postal relay point to tell some operator to answer Western Union or Postal operator see that these calls get prompt handling, and keep notation when told to call this office and when the office

finally answered up. This in order if a claim against company you can show you did all you were asked to do to better the service of these companies and thus keep out of any litigation.

INTOXICATED OPERATOR.

When an operator is discovered intoxicated at once try and release that office of all responsibility in handling train orders, and avoid saying anything to him at all, as he is just as liable to leave wire open as closed. When it is possible, secure agent or day operator to finish the work, and inform the chief of the trouble with this operator. Take no chances with a man who is in this condition.

AVOIDING UNNECESSARY STOPS.

When an order is put out at a station for some particular train and there are other trains following, see that he is so notified so they can be either released promptly without stopping or operator given permission to "white" block until passed. You thus save an extra stop and perhaps a bad delay to these other trains.

Always avoid placing an order at one station

that effects two or more trains in opposite directions that are to sign at the same station. This leaves the road open to accident, as operator pulling in red and thus allow the train going in opposite direction to get by the block.

Be very careful when asked to annul some order and particularly see what the order is before annulling same to operator who has asked.

TURNING TRAINS BACK.

When you wish to turn a regular scheduled train, all you need to say is, "Eng. — is annulled from station — as No. —." You may have some extra take up this schedule from this point by giving them this order, viz.: "Eng. — will run as No. — from station —."

When you give a train an order to meet a certain train that has already arrived at the certain point, and turned and gone in other direction, you can add to order, viz.: "No. — has arrived at station —." Thus avoiding an extra stop and more orders to give when train arrives at this point on road. This adding to order cannot be done when the train to turn has not yet arrived at turning point.

RUNNING AHEAD OF OTHER TRAINS.

When you give one train orders to proceed ahead of another train, you must state at what point to allow other train to proceed. If the train that is being run ahead of it getting delayed you can say, "Run ahead until overtaken." The former order should be used when possible to do so, as the latter does not give the engineer on following train the absolute track, as he will expect train to be passed at every side track, and therefore cause delay.

When two trains of same class are being run over division and you see the last train is making better time than the one ahead, give them orders for the faster train to pass at a certain point or where overtaken, the latter order to be used only when you cannot see just exactly where they will be overtaken, and this gives first train a delay in case you have mentioned a particular station and an unexpected delay happens to second train.

NEW TIME CARD.

When new time cards go into effect, train orders are placed at the different terminal points made out in the form of a receipt. You must see that all conductors provide themselves and brakemen

and all engineers and firemen are provided with new time cards before issuing another order to the trains starting from terminals. The greatest care must be used in this matter. You must see that you are made perfectly familiar with the new card and changes that are made or any special rules that are placed on time card. Also great care must be given where trains are on road when new time card takes effect, and see that they are all provided with new cards. If not you must hold trains until overtaken or met by some train that you can send time cards by, and receipted for properly. All trains lose their rights that are on road in transit when new cards take effect, and must be run extra where the new time card overtakes them.

THE STANDARD CLOCKS.

At each terminal there are standard clocks placed for conductors and engineers to compare time. You must be very careful to see that these clocks are in harmony with the master clock in your office. This is a very strong point to keep in touch with.

A TRAIN BROKE IN TWO.

When you are notified by some operator that a train has passed and is broken in two, at once notify next telegraph office to stop the head end, as it may not be discovered by train crew before that time, and you thus save an additional delay. Allow or in no way instruct any train, no matter what class, to move the rear end until you are in touch with the head end, and under no circumstances allow any train to pass this rear end or head end.

IRREGULAR SIGNALS.

When an operator reports a train by with no signals displayed, at once notify the train of the fact and see that the signals are at once properly arranged. Also when an operator reports a train passed that carried signals that it should not carry, act likewise and get them lined up properly. When lined up properly, also see that trains affected by this will be protected and helped.

THE HELPER ENGINE.

When issuing orders for engine to help some train up hill, see that order reads: "Eng. — will help No. — from — to —." Do not say,

“will push,” as this is in strict violation of the laws in several states, and where accident happens to this train where these kind of instructions were used. It is a hard matter for a company to get a fair deal with court where the reason of this is that a train helps. They couple in with engine and can readily see all signals given by conductor, while if a rear end pushing train the chances are they could not be stopped if there was something to happen to the front end of the train, while had they not been there the rear end would have stopped of its own momentum and nothing more serious than a break in two would have occurred.

NO HEADLIGHT BURNING.

When an operator reports the headlight of some engine on some train, see that other trains are so notified, so they can protect themselves in getting into clear at a station. This is sometimes a serious matter and you must see that the proper notice is given to trains in opposite direction.

DANGEROUS WEATHER.

When foggy and misty weather is reported by operator, see that you are very careful in handling your trains. See that your orders are carefully placed and that trains following one another are kept the required distance and time apart. You can not be too careful when the weather is in this condition.

VALUABLE FIGURES.

When bridge foreman along line with a big gang of men and asks for figures on trains, see that you give him good close figures, as the work will be delayed waiting for trains to arrive, and if not when you said the men will be idle and the company losing money on that account. Always try to notify foreman also if some train will arrive later than reported, so they can take advantage of this delay.

REGISTERING TRAINS FOR BRANCH RUNS.

When a train has left the main line and gone out on some branch line and returns, he should be given an order that "all trains due to arrive at

that station have arrived," adding "except Nos. —," in case not all there. This is not necessary where all trains register at this station and junction point.

PLACING SIGNALS.

Where the yardmaster of terminal has authority to put signals on trains, you should impress it upon him the importance of why you should know when he will place them and how many sections he will make, and at what time they will leave, or you will have some train badly delayed by these trains carrying signals. Be very careful that all inferior class in-coming trains are helped on each section and given all the time on their departure that can be given. Where the placing of signals is left in dispatcher's hands it is much more preferable and better to protect your trains, and you are not delayed from your work by being compelled to consult the yardmaster as to what arrangements he is making as to sections of a train.

In all cases of doubt, take the safe side and course. This old rule is probably more valuable to a railroad traffic mover than to any other person, and when you line up to this motto you never will have any trouble whatever in handling of trains.

HOLD ORDER.

When you have placed an order to a train and line fails before OK has been given, the order is not in effect and should be so understood. When an order has been placed for a train and OK given and acknowledged and wire fails, then order acts as a hold order and train can not proceed until order is "completed" or help sent through some other channel canceling the order that has held the train.

When you wish to hold one or a number of trains, have operator copy order, viz: "Hold No. — (or Nos. —) for orders." If you wish to allow one train to proceed, give operator order: "You may allow No. — to proceed." Never think of trusting to the operator's block to do this holding—always use an order and you will then handle the trains as it should be and the only way to handle and protect your company from accident, as the operator may be busy with other work, and while he meant well enough, the train will not be held, and serious complications will be the result, and all you will have to prove your intentions is, "I told him to hold," which will not be worth the space on paper it took to write it. This same point is also to be considered in telling an opera-

tor to tell conductor to do this or that. In all cases send message what you want done, and keep a copy for future reference, then if work is not properly done you have strong proof that you did all you could to have the work done, and the responsibility will rest with operator and conductor, the operator in delivering the message and the conductor in complying with the instructions that were given to him, and they will be the ones to answer the failures to obey orders.

FORM OF ORDERS IN DETAIL.

Form A—Fixing Meeting Point for Opposing Trains.

_____ and _____ will meet at _____

EXAMPLES.

No. 3 and No. 4 will meet at Troy.

No. 3 and 2d No. 4 will meet at Springfield.

No. 5 and Extra 35 East will meet at Ada.

Extra 212 East and Extra 214 West will meet at Hartford.

No. 1 will meet No. 6 at Greenville and meet No. 8 at Harbor City.

Trains receiving this order will, with respect to each other, run to the designated point and, having arrived there, will pass in the manner provided in the rules.

Form B—Authorizing a Train to Run Ahead of
or Pass Another Train Running in the Same
Direction.

- (1) _____ will pass _____ at _____
(2) _____ will run ahead of _____ to _____

EXAMPLES.

- (1) No. 3 will pass No. 5 at Hillside.
(2) No. 4 will run ahead of No. 6, Hartford
to Wheeling.

When under this order a train is to pass another both trains will run according to the rule to the designated point and there arrange for the rear train to pass.

Under form (2) the train of inferior class must not proceed beyond the last named in the order, unless it be fulfilled, superseded or annulled; it being understood that the order is not fulfilled until the train of superior class has arrived and passed.

Form C—Authorizing a Train to Have Rights
Against Another Train of Superior Class
From One Point to Another, or Over Entire
Division.

_____ has right of track against _____ from
_____ to _____

EXAMPLES.

- (1) No. 3 has right of track against No. 4
from Greenville to Bradford Junction.

"MODIFIED" EXAMPLE.

(2) No. 3 has right of track against No. 4 from Greenville to Bradford Junction, but will wait at Gettysburg until ten fifteen (10:15) a. m. for No. 4.

Under Rule C, Example (1), the rights have been reserved and No. 4 only dares to proceed to a certain point on the time card for No. 3.

Under Rule C, Example (2), No. 3 can run to Gettysburg for No. 4 provided they can make there by 10:15 a. m. for No. 4.

Form D—Giving All Regular Trains the Right of Track Over a Given Train.

All regular trains have the right of track over
 _____ between _____ and _____

EXAMPLE.

All regular trains have right of track over No. 5, Richmond to Dayton.

This order gives to any regular train of inferior right receiving it the right of track over the train named in the order, and the latter must clear the schedule times of all regular trains the same as if it were an extra.

Form E—Time Orders.

- (1) _____ will run _____ late, _____ to _____
 (2) _____ will wait at _____ until _____ for _____

EXAMPLES.

(1) No. 3 will run 20 mins. late, Jackson to MaComb City.

(2) No. 3 will wait at Canton until ten 10 a. m. for No. 6.

(3A) No. 3 will wait at Gretna until seven thirty (7:30) p. m. for all trains.

Form (1) makes the schedule time of the train named between the points mentioned as much later as the time stated in the order, and any other train receiving the order is required to run with respect to this later time the same as before required to run with respect the regular schedule time. The time in the order should be such as can be easily added to the schedule time.

Under Form (2) the train of superior right must not pass the designated point before the time given unless the other train has arrived. The train of inferior right is requested to run with respect to the time specified the same as before required to run with respect to the regular schedule of the superior right.

Form (3A). Under this form the train of superior right must not pass the designated point until the time is expired, unless order is annulled.

Form F—For Section of Regular Trains.

— will carry signals — to — for —

EXAMPLES.

(1) No. 3 will carry signals Ada to Pekin for Eng. 26.

(2) 2d No. 3 will carry signals Ada to Pekin for Eng. 32.

MODIFIED AS FOLLOWS.

Engs. 20, 26 and 32 will run as 1st, 2d and 3d sections of No. 3, Ada to Pekin.

For annulling a section :

Eng. 26 is annulled as 2d section of No. 1 from Pekin.

If there are other sections following, add :

Following section will change numbers accordingly.

The character of train which signals are carried may be stated. Each section affected by the order must have copies and must arrange signals accordingly.

Form G—For Arranging a Schedule for a Special Train.

(1) Eng. _____ will run as a special (_____ train), leaving _____ on _____ on the following schedule, and will have the right of track over all trains:

Leave _____

Arrive _____

EXAMPLE.

(1) Eng. 99 will run as special (Banana train), leaving New Orleans Junction on Thursday, March 16th, on the following schedule, and will have the right of track over all trains:

Leave New Orleans	10:20 a. m.
Harrisburg	10:45 a. m.
Martinport	11:06 a. m.
Arrive Barnesville	11:30 a. m.

Example (1) may be varied by specifying particular trains over which the special shall or shall not have the right of track and train over which the special train is thus given the right of track must clear it as many minutes as such train is required to clear the schedule time of a first class train.

Form H—Extra Trains.

———— will run extra ———— to ————

EXAMPLE.

(a) Eng. 65 will run Extra, South Bend to North Judson.

A train receiving an order to run extra is not required to guard against opposing extras, unless directed by order to do so, but must keep clear of all regular trains as required by rule.

A "work train" is an extra, for which the above form will be used for a direct run in one direction.

The authority to occupy a specified portion of the track as an extra while working, will be given in the following form:

(b) Eng. 165 will work extra (6 a. m.) until (7 p. m.) (or today) between Oshkosh and Neenah.

The working limits should be as short as practicable; to be changed as the progress of the work may require. The above may be combined thus:

(c) Eng. 165 will run extra South Bend to North Judson and work extra 6 a. m. until 7 p. m. between North Judson and Hillside.

When an order has been given to "work" between designated points no other extra must be authorized to run over that part of track without provision for passing the work train.

When it is anticipated that a work train may be where it cannot be reached for meeting or passing orders, it may be directed to report for orders at a given time and place, or an order may be given that it shall clear the track for (or protect itself after a certain hour against) a designated extra by adding to example (B) the following words:

(A) And will keep clear of (or protect itself against) Extra 312 south, between Karney and Harrison, after 3:30 p. m.

In this case Extra 312 must not pass the northermost station before 3:30 p. m., at which

time the work train must be out of the way, or protecting itself (as the order may require) between those points.

When the movement of an extra train over the working limits cannot be anticipated by these or other orders to the work train, an order must be given to such extra to protect itself against the work train, in the following form:

(E) Extra 312 will protect against work train Extra 68, between North Judson and Hillside.

This may be added to order to run extra.

When this form of order is received the extra must protect itself by sending a flagman ahead not less than twenty telegraph poles, or 3,000 feet, proceeding carefully and maintaining that distance from the flagman until the work train is met or overtaken.

A work train, when met or overtaken by an extra, must allow it to pass without unnecessary detention.

When the conditions are such that it may be considered desirable to require, work trains shall at all times protect themselves while on working limits; this may be done under the following arrangements. To example (B) add the following words:

(F) Protecting itself against all trains.

A train receiving this order must, whether standing or moving, protect itself within the

working limits (and in both directions on single track) against all trains in the manner provided in the prescribed rule.

When an extra receives orders to run over working limits it must be advised that the work train is within the limits by adding to example (A) the words:

(G) Extra 165 is working extra between Knox and Hartford.

A train receiving this order must run expecting to find the work train protecting itself within the limits named.

Form J—Holding Orders.

Hold _____

EXAMPLES.

- (1) Hold No. 4.
- (2) Hold all trains (west).

As an order for which "O. K." has been given and acknowledged by operators as a holding order for the train to which it is addressed, this form will only be used in special cases, to hold trains until orders can be given, as for some other emergency. The reason for holding may be added, as "for orders."

This order is not to be used for holding a train while orders are given to other trains against it, which are not at the same time given to it in

duplicate. It must be respected by conductors and enginemen of trains thereby directed to be held as if addressed to them. Conductors, when informed of the order, must sign for it, and their signatures must be sent and "complete" given.

When a train is so held it must not leave until the order to hold has been annulled or an order given in the form, "_____ may go."

This must be addressed to the person or persons to whom the order to hold was addressed, and must be delivered in the same manner.

Form K.—Annulling a schedule train: _____ of _____ is annulled.

EXAMPLES.

(1) No. 3 of February 16th is annulled.

(2) No 5, due to leave Chicago Saturday, December 15th, is annulled. Adding "from (Hartford)" or "between (Hartford and Hollow Grove)," when appropriate.

This order takes away all of the train annulled and authorizes any train or persons receiving it to use the track as if the train annulled were not on the time table.

If a train is annulled to a point named, its rights beyond that point remain unaffected.

The train dispatcher must direct any operator to omit repeating back an order annulling a train

until he has occasion to deliver it. When a train has been annulled it must not be again restored under its original number by special order.

Form L.—Annuling or superseding an order:

Order No. — is annulled; adding substance of order.

This will be numbered, transmitted and signed for as other orders. If an order which is to be annulled has not been delivered to a train, the annulling order will be addressed to the operator, who will destroy all copies of the order annulled but his own, and write on that, "Annulled by order No. —."

An order superseding another may be given, adding "instead of ———."

EXAMPLE.

No. 2 and No. 3 will meet at Hamilton instead of Martin.

An order that has been annulled or superseded must not be again restored by special order under its original number.

In the address of an order annulling or superseding another order, the train first named must be that to which rights were given by the order annulled or superseded, and when all concerned, it must be sent to the point at which that train is to receive it and the required response first given before the order is sent for other trains.

Modified Form L: That part of order _____ reading No. — will wait at _____ until _____ for No. — is annulled.

EXAMPLE.

That part of order (No. 62) reading No. 4 will wait at Hartford until six ten (6:10) p. m. for No. 56 is annulled.

Under this modified form the trains holding these orders must act as if they had never received the time order clause. However, this does not affect other movements in the order named.

THE TRANSFER.

In making out a transfer to your relief there is only one way, and that is the correct one. First draw a line across all orders transferred to you by the dispatcher you relieved that have been fulfilled or not in effect further. Then take the order book and O. K. all orders you have placed since going to work that have been fulfilled or annulled, and then address transfer to your relief, giving him all orders left on old transfer and orders you now have in effect placed on your trick. In this way you can not possibly leave out an order nor place any orders that are not in effect. If any important message or instructions to be delivered

to some train that will arrive or depart on your relief's track see that his attention is called to them on transfer. If you have any trains ordered to leave on his time see that he is properly advised, so he will be able to protect trains coming in or protect the run going out. If there are cars on any passing track that he should know about see that he knows it. If this or that train is doing fine or making slow time or any train wished to be hurried call his attention to the fact. If there be a new operator at some station inform him, as the circumstances may be that this new operator would accept an order for some train that was out of reach, and the new man not thoroughly posted would get both himself and the dispatcher in trouble. Let nothing whatever beneficial to his handling trains be omitted when you are relieved by him. Be friendly and pleasant when he arrives and never impress upon his mind that business is heavy or that he will have a hard time tonight, or in any way make him feel uneasy. He will find the "rush" soon enough, while to start him in thinking business is in bad shape you intimidate him and it will be hours before this will wear off. Never advise what you would do in this or that case, as circumstances may change the whole affair by the time it transpires and your advice will be wrong and both of you censured.

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FINAL.

Take up each point and carefully read and consider. Have some one ask you questions on this or that subject, and if you can not answer correctly and to the point consult book until you have this information soundly imbedded in your mind. Make a train sheet in your long hours at night and try to keep up on the "O. S." of trains. Teach yourself to make nice figures, and try to keep up with every point as the dispatcher handles the traffic which you hear ticking over the wire. Don't read this or that for a defect, as the book was written after careful consideration of each and every point. Most of all let not your ambition falter. Keep on forward and the opportunity will come when this book will be worth its weight in gold to you, and instead of an operator you will be handling the traffic yourself and giving good service to the company which you are interested in, helping and giving your valued service towards the perfect handling of the traffic.

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