

TF
556
46

UC-NRLF



\$B 79 308

LIBRARY
OF THE
UNIVERSITY OF CALIFORNIA.

Class

GENERAL

Wildman

HOW TO BE A FIRST CLASS
TRAINMASTER

THREE PRIZE ARTICLES AND
SELECTIONS FROM FIFTEEN
COMPETITORS' ARTICLES ON
THE EMPLOYMENT, INSTRU-
TION AND DISCIPLINE OF MEN
AND THE OTHER DUTIES OF A
FIRST CLASS TRAINMASTER

PRICE 50 CENTS : \$4.00 PER DOZEN

1909

PUBLISHED AND FOR SALE BY
THE RAILROAD AGE GAZETTE
83 FULTON STREET, NEW YORK

TF556
H6

GENERAL

MCC

On May 7, 1909, the *Railroad Age Gazette* offered a premium of \$75 for the best article, and a second prize of \$50 for the second best article written by a trainmaster of at least one year's experience in that position within the past three years. In this competition there were contestants from 25 different railways. The final selection was left to Mr. Besler, vice-president and general manager of the Central Railroad of New Jersey, and Mr. Harahan, assistant to the president of the Erie Railroad. It would not be easy to find railway officers more capable.

They cordially agreed in awarding the first prize to C. B. Wildman, trainmaster of the St. Louis, Iron Mountain & Southern, at Van Buren, Ark. They disagreed, however, as to the contestant entitled to second place. The cause of this disagreement is in itself interesting. One of the articles is a scholarly statement of the general principles and rules applicable to the trainmaster's duties. The other is a highly interesting statement of the difficulties met and overcome in the writer's own experience. When these doctors so disagreed it seemed to be the editor's plain duty to recognize the value of both Mr. Harahan's and Mr. Besler's judgment by paying an additional second premium, making no distinction in the rating of the two papers. The trainmaster's duties involved so many subjects that no one of the papers has dealt with all of them, and a composite chapter is made of the good points discussed by the other contestants.

It is generally true that the man with a capacity for being the head of any department, with power of growing and earning promotion can make a clearly understandable statement both of the scope and of the details of his job. Reading these papers also gives one a greater respect for the trainmaster, the man of many functions; the eye of the superintendent, as he is sometimes called.

Taken altogether these chapters seem to be a practical handbook on the art of *Instruction and Discipline*.



HOW TO BE A FIRST-CLASS TRAINMASTER.

FIRST PRIZE ARTICLE.

BY C. B. WILDMAN,

Trainmaster of the St. Louis, Iron Mountain & Southern, Van Buren, Ark.*

I believe the first duty of a trainmaster to be that of loyalty to his superior officers and to the company which employs him, for without such loyalty he cannot be successful. No matter how well qualified he may be for the position, regardless of his ability as a practical railway man, if in his heart there is not a feeling of absolute loyalty toward his company and his superior officers, he is short a valuable asset, that may eventually prove his downfall. With loyalty must be included truthfulness, not only from a moral standpoint, but from the fact that truth begets confidence, and once the trainmaster has lost or shaken the confidence of his employer, he is to be congratulated if he ever regains it.

As the superintendent is the head of the division, so the trainmaster is his right-hand man, often representing him. As such he should be careful of his personal appearance, bearing in mind that as the representative of the superintendent he would come in contact with the public in such a way that a good personal appearance might, and in all probability would, often result advantageously to the company. He should endeavor so far as possible to closely acquaint himself with the superintendent's ideas and methods of doing business, and as far as practicable conform to those methods.

The trainmaster should keep in close touch with affairs on his territory and should be careful to communicate to the superintendent all information that might prove to be of advantage or interest to him. In other words, he should keep the superintendent thoroughly posted on the *little things* as well as the more important matters, as it is often the minor things that develop into the important ones. This can usually be accomplished by the trainmaster having access to the superintendent's office; but in case the superintendent is not easy to approach, or the trainmaster does not feel at liberty to speak freely and unreservedly, good results may be obtained by writing the superintendent a weekly letter, setting forth

*Mr. Wildman was born in Illinois and has been in the railway service 26 years. He was night operator when he was 14 years old. He served as agent and operator on the Alton and on two other roads in Illinois, and as operator and despatcher on the Santa Fe, the Northern Pacific, the Missouri, Kansas & Texas, the Chicago & Alton, and the Missouri Pacific. For the last four years he has been trainmaster on the Missouri Pacific or its controlled lines, and is now trainmaster at Van Buren, Ark.

2 HOW TO BE A FIRST-CLASS TRAINMASTER.

in a brief, concise manner the week's happenings. This should be a newsy letter, but care should be taken to make it as brief as consistent with the disclosures he has to make.

Next in importance is the handling of men. A trainmaster may have every other qualification necessary to his success, but if he lack tact or the ability to properly handle men, he is more or less of a failure. He must be able to inspire the confidence of his men and create among them the feeling of fidelity to the division officers and to the company's interests. On such a feeling depends the successful operation of his particular division. No division can make a creditable showing except by the combined efforts of the officials and the men.

The employing of men should have the trainmaster's personal attention. Care should be taken to employ only men of good habits and character, and of sufficient ability to fill the requirements of the position for which they are selected. He should personally inspect all applications for employment, satisfy himself that the applicant is of legal age, and cause such investigation to be made of his past record as will effectually establish his right to be employed or rejected. He should be kind and considerate, courteous and obliging, but always fair and firm, ever bearing in mind the differences in the mental and physical capacity of different men. He should always try to grant to a worthy employee any reasonable request if within his power to do so. He should study the character and the habits of his men and seek to become reasonably familiar with their manner of spending their time when not engaged in the service of the company. It does no harm for a trainmaster to occasionally inquire after the welfare of the employee's family. If it becomes necessary to reprimand an employee it should be done in a quiet, gentlemanly manner, and not in the presence of bystanders.

Here enters the question of enforcing the company's rules and the duty of the trainmaster in this respect. The rules of the railway company are largely for the guidance of the employees toward safe operation. These rules are carefully drafted by the management after a great deal of thought and consideration, each rule covering its own particular point. The trainmaster should carefully impress upon the minds of the employees the extreme importance of a strict observance of all rules. More than ordinary attention should be given to those rules which directly affect the safety of the public, the employees, and the company's property, but the violation of any rule, of whatever significance, should never pass unnoticed by the trainmaster. In other words, he should never turn his back or "wink" at a violation of a rule, no matter how insignificant its violation might seem to be. It is by far the better plan to use every precaution to prevent the violation of any rule rather than to suffer the less important rules

to be violated indiscriminately, until an accident occurs, when some drastic action must be taken with the unfortunate employee, of whom an example must be made. One of the best methods of bringing and keeping the rules before the employee is to hold monthly or semi-monthly class meetings for the discussion of rules. It is an easy matter to convince the men that these meetings are not for the purpose of criticizing their actions or opinions, but to bring about a clearer understanding of the rules and to impress upon them the importance of strict compliance with the same. It is the writer's experience that employees will speak freely and many good points will be brought out for the betterment of the service.

As a railway derives its principal revenue from the tonnage it hauls, it is of course incumbent upon the trainmaster to see that its tonnage or revenue is protected. He should carefully impress upon station agents and managers of industries the importance of loading cars to their capacity, and by frequent personal inspection satisfy himself that this is being done. With this result obtained, it is essential that each train have its full tonnage over the division. With the cars properly loaded and the train given its tonnage according to the capacity of the engine, there is little to be desired except a reasonably quick movement of the train over the division. In this connection the trainmaster should know, by making tonnage tests on the road, that each engine is being loaded to its capacity, and there should be no failure to handle the maximum tonnage at least one way over the district. He should never lose sight of the fact that heavy tonnage with the least possible mileage is necessary to successful operation. He should impress this feature upon the chief despatcher and the despatchers, and by frequent personal observation satisfy himself that the maximum tonnage is being handled. X

The trainmaster should also keep in close touch with the engine mileage, that is the mileage of each engine, to see that a good average is made and the full use of each engine assured.

I believe it is as much the duty of the trainmaster as it is that of the superintendent to know at all times the number of net tons per train, as well as of the net tons per train mile, that is being handled over his territory. This information can be obtained either by estimating from operating sheets of previous periods, or by actual figures compiled from the wheel reports. Conductors may be requested to forward copy of wheel report to trainmaster's office, and from this report it is easy to arrive at the actual net tons per train and per train mile. With this information it is comparatively easy to arrive at a close estimate of the cost of operation, so that one does not need to wait for the operating sheet to know what kind of a showing the division has made. Here it may be well to

4 HOW TO BE A FIRST-CLASS TRAINMASTER.

mention a few of the advantages of being furnished with a copy of conductor's wheel report. These reports are especially valuable in tracing the movement of cars, obtaining seal records, etc., and reference to them will often avoid correspondence with conductors, thereby saving time. It also frequently occurs that the car accountant is short wheel reports from conductors for which he will wire the superintendent. Instead of consuming three or four days or a week, and perhaps burdening the wires with a number of telegrams, a copy can be made and forwarded by the trainmaster's clerk. If at first conductors object to making a carbon copy of this report, their objections will be quickly withdrawn when they see the advantages or reduced correspondence about wheel reports.

Among the various duties of the trainmaster, I believe none should stand out more clearly or receive closer attention than that of checking and watching overtime and constructive mileage. Constructive mileage, which to a degree is necessary, will increase to an alarming extent if it is not constantly checked. The trainmaster should satisfy himself as to the exact figure of his necessary or arbitrary constructive mileage and never let it go beyond that figure without knowing the cause of the increase. Dead-heading, which is a form of constructive time, should receive his particular attention. Too much stress cannot be laid upon the importance of watching and of checking overtime. Occasions may arise when overtime is found to be an extremely good investment, that is, for instance, when by paying a certain amount of overtime the company may obtain the equivalent of its value or perhaps avoid paying a greater amount, in mileage. On the other hand, unnecessary overtime means a waste of the company's money. It is so easy to pass beyond the dividing line between desirable and unnecessary overtime, that the constant and unflagging efforts of the trainmaster are required to prevent a leakage that may prove a burden to his company and result disastrously to himself. The writer has a statement prepared and left on his desk every morning of each hour's overtime made the previous day, and spends a few moments figuring the cost per mile and investigating such delays as may appear unnecessary. An accurate account or record is kept of the overtime for each day for comparison purposes. In this manner the trainmaster may know at all times just what his overtime is costing. This information is of such value to him that too much cannot be said of its benefits.

The distribution of cars is another important feature connected with the duties of the trainmaster. This is particularly true on territory where coal mines or large industries are located. The available empty cars must be properly prorated and distributed. Shippers should be urged to load cars with as little delay as possible, and it devolves upon the train-

master to provide for the movement of such loaded cars promptly.

The trainmaster in passing over the road should make careful note of all foreign cars and take such steps as may be necessary to insure their prompt movement toward home, either loaded or empty, as conditions may warrant.

Especially important is the prompt release of cars under load. The trainmaster should urge upon station agents this particular feature and if necessary visit consignees in an effort to effect the prompt release of such cars. This is of more than ordinary importance during a temporary shortage of equipment or when the load is in a foreign car on which per diem is accruing. The release of cars under load with company material should receive his constant attention. He should personally and frequently check large yards, coal mines and other obscure places, to see that empty cars are not lost sight of or loads unnecessarily delayed. Unbilled loads should be given special attention.

Not the least important of the trainmaster's duties is that of the economical equipment of cabooses. Here is the source of one of the common leakages on some of our most important railways. From personal experience it is known that by careful and constant attention the cost of such supplies can be greatly reduced and a large saving made for the company. In two years the cost of cooosue supplies on one division was reduced from three mills to less than one mill per train mile. Train crews should be taught to carefully preserve all scrap or second-hand material with a view of exchanging it for new. Arrangements can be made for a credit to be allowed for second-hand material turned in and in that way effect a noticeable reduction in the cost of supplies. This practice also contributes to the keeping of such material cleaned up from along the track, which in itself is an advantage.

Another source of loss to a railway company is found in the manner of taking coal on engines from coal chutes. This loss is caused by enginemen calling for more coal than is needed and in some instances when none at all is required. As a result, the tender being unable to accommodate the amount of coal called for, some of it falls to the ground, and while this waste coal may later on be picked up and used, it has incurred an additional expense by reason of its being handled twice. It is a duty of the trainmaster to take such action as may be necessary to improve such a condition.

The trainmaster should frequently pass over his territory and personally visit station agents and should urge upon them the necessity of familiarizing themselves with the rules of the company and conforming to them. Agents should be required to keep their stations and surrounding grounds clean and when necessary keep the station properly heated and lighted. They

6 HOW TO BE A FIRST-CLASS TRAINMASTER.

should be reminded that the company requires them to be courteous and obliging in their intercourse with the public.

The trainmaster should check freight rooms frequently with a view of locating "astray" freight and to satisfy himself that there is no unclaimed perishable freight on hand. He should also insist upon agents keeping oil, oil cans, lamps, lanterns and other inflammables isolated so far as practicable, and that they allow no waste paper, rags, or other trash of an inflammable character to accumulate. This is a necessary precaution against fire. He should see that agents thoroughly understand the proper manner of handling explosives.

The trainmaster should familiarize himself with the methods employed by agents in checking and loading freight and in a general way with their system of reports.

The trainmaster should ride local freight trains frequently, instructing conductors as to the proper manner of handling freight, sealing cars, keeping seal records, and reporting "over," "short," or "damaged" freight. He should know that no unnecessary time is consumed in switching at stations and that all local work is properly performed.

The question of handling of time and perishable freight is also one that requires its share of the trainmaster's attention. The prompt switching into proper trains and forwarding of such freight to its destination is important; he should see that fast freight schedules are maintained when practicable; and in the event of any time or perishable freight being set out en route by reason of the car being in bad order or from other causes, that it is again forwarded at the first opportunity.

When the main track is obstructed or traffic interrupted by derailments, high water, wash-outs, burned bridges or other causes, the trainmaster should go to that point as quickly as possible and (in the absence of the superintendent) take full charge of opening the track. He should determine as soon as practicable the exact cause of the accident and advise his superior officers of the true conditions, giving full particulars as to the extent of damage to track, equipment, freight, etc., together with his estimate of the time required to open the track for traffic. He should see that there is no unnecessary loss of time in clearing or opening the track, and that the movement of traffic is resumed at the earliest possible moment. He should take steps to insure the protection of the company's property as well as that of any freight that may be involved. In the event of an injury to employees or passengers they should, of course, be given first consideration and it would devolve upon the trainmaster to see that everything possible was done to add to their comfort. Once the track is clear and the movement of traffic resumed, every attention should be given to the prompt clearing away of all debris, so that

the track and right-of-way may at once assume its normal appearance.

The trainmaster should promptly and thoroughly investigate the cause of each accident, locate the responsibility if possible, and apply or recommend such discipline as may seem necessary.

It is a very good plan for a trainmaster to know just what the lost tonnage on account of engine failures is costing. This can be quickly figured by taking the total amount of tonnage lost, from which he can estimate the number of trains it would take to move that amount of tonnage, multiply the number of trains by the number of miles they would have to make (usually one freight district) which will give the train miles, this multiplied by the average transportation cost per mile, will give a close estimate in dollars and cents of what the engine failures cost the company. Engine failures should be investigated as to their cause, delay to trains, effect on tonnage, etc.

Passenger service should occupy not a little of the trainmaster's time and thought. He should bear in mind the daily intercourse between the passenger train employee and the traveling public and with that in view endeavor to select for his passenger train employees such men as seem best fitted for that service. The value of neatness and personal appearance should be impressed upon them and they should be shown the advantages the company will enjoy through their courteous manner and gentlemanly conduct.

Close attention should be given passenger coaches to see that they are clean, well ventilated and comfortable. Particularly should the trainmaster insist upon the strict observance of the rules by passenger train employees, for upon this largely depends the safety of the traveling public as well as the protection of company property. The attention of enginemen should be called to any rough handling of the train in stopping or starting and if necessary to the observance of speed restrictions through city limits. Special attention should be given to the importance of maintaining the schedules of passenger trains. Trainmen and enginemen as well as station agents should be instructed to take advantage of every move that would facilitate the handling of passengers, baggage and express, so that the delays incidental to the handling of such business could be reduced to the minimum.

On many railways there is at all times scattered along the track more or less scrap material. This feature should be watched closely by the trainmaster, and all concerned should be urged to use every effort to keep such material cleaned up or neatly piled at stations.

Bad order cars are a constant source of annoyance to the trainmaster. This is especially true of bad order cars under

8 HOW TO BE A FIRST-CLASS TRAINMASTER.

load. He should personally keep in touch with the bad order situation, see that all such cars under load are promptly repaired or the contents transferred, and keep the line clear of such cars, having the empty cars moved into regular repair points.

It is seldom a trainmaster's territory can show the best results year after year. Often adverse conditions will arise that may preclude the possibility of making the usual good showing. This may be caused by an unusual number of engine failures or by the power being in poor condition so that it can not handle its full rating; perhaps a few washouts or a greater number of derailments than usual may have contributed to a congestion of loads. There may have been a large number of empty cars for movement from which no revenue tonnage was derived. These are conditions that any up-to-date trainmaster will strain a point to keep in touch with. He will in all probability keep some kind of a log book or memorandum to which he can easily and quickly refer, because the above-mentioned feature will bring about conditions that must sooner or later be explained, and if he has forgotten or has no log book he is put at a disadvantage. I believe a good record of the adverse operating conditions is as essential as some of the important records over which more time is spent.

Immediately preceding and during the periods of light business it is customary to reduce expenses so far as existing conditions will permit. While this feature is usually handled by the superintendent, it is in my opinion good form and excellent training for the trainmaster to assist him to the best of his ability. He should scrutinize the pay rolls often and carefully, inquiring into conditions at points where there is a possibility of reducing expense. The superintendent is usually glad to receive a suggestion that will enable him to accomplish this result.

The foregoing remarks, in my opinion, contain the most vital or important points involved in the duties of the trainmaster. These, added to the innumerable minor duties which are constantly claiming his attention, are calculated to make his life a busy one. He should be on the constant lookout for violations of rules, be quick to observe anything that might be out of line, and endeavor to conduct the business of the company with as much satisfaction to himself as if the property belonged to him. He must be prepared to devote his entire time to his company when necessary.

The conscientious trainmaster will at all times show a willingness to do all he can, and a desire to please his employers. With this in mind the knowledge of his duties will remain with him constantly, and notwithstanding any slight error in judgment he may from time to time exhibit, he will, I believe, have done his best to perform his full duty.

THE IDEAL TRAINMASTER.

SECOND PRIZE ARTICLE.

BY J. J. PRUETT,

Trainmaster, Vandalia Railroad; St. Louis Division, Terre Haute, Ind.*

To be a first-class trainmaster one must put aside all thought of personal gain or advancement and enter into the work with only the thought in mind to increase the efficiency of his department. To attain this high position, three important and primary qualifications are necessary.

First—The man must be a student; the line of thought to embrace human nature, physical condition of the railway, composition and character of the other staff officers, and last, but not least, his own faults; and he must be manly enough to admit and correct such faults when once they are discovered.

Second—He must be an organizer; competent to manage men. In employing men he should select and educate them, bearing in mind the one principle, that these men whom he selects will have charge of the future transportation affairs of the American railways. The superintendent will expect the trainmaster to be a man who can assist him in harmonizing the different departments; uniting them as an agreeable body to move traffic in a manner satisfactory to the public and to the company.

Third—He must be an honorable man, and an example to the men of loyalty, honesty and integrity, and in so being, he will command their respect. In imposing discipline he must be a man to appreciate the principles of the Golden Rule.

Having outlined, in a general way, the character and principles of the man necessary to the position, we will presume such a one has been selected and he is given the opportunity to develop his natural abilities.

First—His student ability will be brought into requisition,

*Mr. Pruett's railway service has been wholly on the Vandalia Railroad; baggage master (four years), fireman, shop clerk, telegrapher (five years), yard clerk, yard master, assistant trainmaster and trainmaster. He began 23 years ago, and he has been a trainmaster for four years.

10 HOW TO BE A FIRST-CLASS TRAINMASTER.

and if he is not of studious habits he may as well retire from the race at once. A careful study and analysis must be made of the personnel of his own department that he may become familiar with the character and habits of the men. Too much importance cannot be attached to this particular feature as the information is necessary to satisfactorily handle the men in a way to bring about best results.

Next in order is the nature of the traffic to be handled: The amount of passenger service to contend with, the proportion of freight to passenger earnings, and to what extent one can be sacrificed to the other. Power and equipment must be analyzed; its condition, location and size carefully noted; engines properly distributed to insure prompt movement of trains and at the same time a sufficient number turned in to the mechanical department to insure keeping a maximum amount of the power in good working condition. Trainmasters too often overlook the mechanical department in the distribution of the power, and feel that if they can keep the engine away from the shop, they are gaining a point at the expense of that department. They, however, are awakened to this error, too late, as the condition of the power has got beyond control. Treat the mechanical department fairly, and you will be the benefited officer. Do not blame them for bad power when you alone are responsible.

The car supply must receive careful attention. The traffic department should be consulted as to its requirements, and a most systematic method of distribution effected. The prompt delivery of the empty to a shipper is one very important factor in soliciting business.

The profile of the railway must be given careful study. The trainmaster, as well as the division engineer, must familiarize himself with the physical characteristics of the division, and must assist the division engineer in maintaining an efficiency equal to the traffic handled. This is to be accomplished by educating the transportation employees to observe, and report promptly, if irregular, condition of track or signals, and all other appliances affecting train movements; such reports to be transmitted to the division engineer by the trainmaster in a manner that will not become irritating to him.

The details mentioned above are the stock in trade of a trainmaster and with them he must make or break his reputation. After they are mastered he should not conclude that his duties are at an end, but should take up the higher subjects of transportation; one of which "speed and tonnage" should be harmonized. This feature depends entirely upon revenue conditions. No set rule can bring about the desired result. The auditor's report of earnings and expenses must be analyzed; competition and the nature of traffic considered;

after this your carefully prepared recommendation for equalizing the two, submitted to the superintendent for approval, bearing in mind earnings and expenses vs. competition, which are the prime factors he will consider.

While these elementary studies have been occupying the attention of the young student trainmaster, traffic has been moving in its accustomed groove, and, in his opinion perhaps, in a satisfactory manner until one day he is awakened from his dream by receiving his first criticism from the superintendent in the form of a letter to the effect that the "overtime is abnormally high." Why? * * * "I notice that during the past month passenger train movement was delayed by—engine failures, block lights and switch lights not burning; also, a very decided increase in petty accidents. Please investigate and advise."

With these criticisms in mind the trainmaster begins to investigate the causes. These investigations will open up an avenue for application of his second qualification—generalship. By reason of his ambition, energy and meager experience in the position, he has consoled himself with the idea that he is doing as well as his predecessor; but this first blow dispels the illusion and he discovers the thing he at least expected; finds petty jealousies existing between the yards and the car department; between the mechanical and transportation departments; between the train and engine men, and between the dispatchers, operators and road men. He cannot afford to make public his findings, as they are his own battles. No doubt, the superintendent is fully aware of the conditions, and, knowing they exist, appointed this particular man to assist him in eradicating the evils and is watching the result of his appointment.

The remedy is with the trainmaster, and the obtaining of the result which the superintendent anticipated will thoroughly test his ability as an organizer, and in addition, he will need be, to a certain extent, a lawyer, an entertainer, a teacher and an orator. As such, he must secure the cooperation of the heads of the different departments, and this joining of forces must be accomplished with diplomacy and without unnecessarily intruding his own personality; else they will conclude he is assuming the authority of his superiors.

As a lawyer and an entertainer, he must be familiar with laws affecting the operation of trains on his division and his office door must always be open to admit the visiting officer, employee or shipper; listen and reply to their grievances and entertain them in a manner satisfactory to them and the company.

As a teacher and orator, the employees of the transporta-

tion department must be brought together in classes at regular intervals; the book of rules rehearsed, and the men given an opportunity to express their opinions freely. In these discussions the trainmaster must see that no employee expressing an opinion is embarrassed by remarks of others. In explaining a rule, it must be done in an entertaining manner, void of all ridicule and sarcasm, for here is where the younger employee is receiving his education and will begin his development, taking pattern after your address.

In these classes for instruction and exchange of ideas is where harmony among those in the rank and file must be promoted; when brought into closer contact with the technical operations of the railway they become more familiar with the duties and responsibilities of each other's positions and their differences are easily adjusted.

No trainmaster can afford to neglect nor delegate to others, this, his paramount duty and obligation to the men. It is his one grand opportunity to meet with them, encourage them in their work, promote harmony and elevate their position, socially as well as mentally.

The terminals should not be neglected in this work of education and advancement as it is in the terminals the seeds of dissension are sown most thickly.

The terminal proposition of to-day is an all absorbing topic among transportation officials, and a "first class trainmaster" must be a man who can handle it. Road movements are easy when compared with terminal management. If your terminals are well organized with well selected men at the head, trains will leave on time, and a consequent road efficiency result; therefore, guard well your terminals; select carefully the men to operate them and by monthly comparisons of performance sheets, keep them on their mettle.

After these different subjects have been mastered and everything is working in harmony; and the trainmaster has seen the over-time reduced from alarming proportions to one-tenth of 1 per cent. of the total freight train rolls, and his passenger train movement assumes a 97 per cent. efficiency, he can begin to feel that the student hours have been well spent and can afford to branch out into higher researches. Results of his stewardship are to be analyzed, cost in obtaining the above results must be reckoned with, organizations must be strengthened, road supervision tightened. Why? Because you will find that when train movement is at its best, we are in the most danger of accidents; the men, over-confident, easily drift into careless practices. Then, and at such times are the opportunities for opening these schools of instruction and talking with the men, pointing out the dangers and promoting the feeling of good fellowship which should exist between the

trainmaster and the subordinates; but such feeling should not be carried to a point of familiarity.

My advice to the young man accepting the position of trainmaster is to hold fast to the third qualification—

BE AN HONORABLE MAN.

Exemplify the precepts of the Golden Rule and men will cling to you and be inspired to loyal and faithful service. Do not overburden them with petty rules and conditions; study their position, making their troubles your own, and relieve them of as many as you can. Write as few letters to them as possible, and then never put irritating language into a letter, as they will read it too often, and the sore spot will become more acute at each reading. Better call them into the office and say to them personally the unpleasant things when such are necessary. Uphold the conductor's authority. Do not deprive him of his dignity by reprimanding his brakeman in the presence of the conductor. He is responsible to you for the men on the train and should be made to feel this responsibility.

In making rules and issuing instructions, give them careful thought beforehand. If a rule is an old one and is being violated, attention should be called to it, but do not reissue the old rule. If, after attention is called to the infraction the violations continue, do not criticize in a general letter to "All Concerned," but locate the guilty offender and apply discipline as the case may warrant. The other men will appreciate the fact of your having observed their compliance with your instructions. Do not be the first one to break your own rules and instructions; it will only be license for others to do so.

In imposing discipline, study well each case; better that a dozen guilty ones escape punishment than impose discipline upon one innocent employee. Remember the trainmaster has a responsibility not only for the disposition and happiness of the employees themselves, but for their families as well, and bear in mind that the discipline you impose, if not just, will react upon the company from the home of the employee, where the children will hear of your injustice to the father, and the young mind will grow up from that household to enter the service with the seeds of insubordination already sown; all in consequence of your hasty actions.

Do not condemn your men too freely to your superior, for it is through you the superintendent must see and know them; you are to be their support and defense. Without this support they are like a cork drifting, and the tide will carry them into vicious company. Weed out objectionable characters early, but be sure you do not up-root some valuable material



14 HOW TO BE A FIRST-CLASS TRAINMASTER.

in doing so. Above all, avoid favoritism, for in the pit of favor innumerable trainmasters have fallen.

In conclusion let me again say, as I did in the beginning, that a trainmaster loyal to his calling, to his superintendent and to his company, has no time to think of himself or of his future; he is lost in his profession and must trust such things to his superiors. If his ability has not found him out and he is forgotten, he can still say he has been one of the happiest and busiest of his superintendent's staff.

THE TRAINMASTER'S DANGERS.

(SECOND PRIZE ARTICLE.*)

BY F. L. RODMAN,

Trainmaster, Atlantic Coast Line, Savannah, Ga.†

The trainmaster's success depends on many things: the volume of business, the facilities and his own practical knowledge of the work before him, as well as his good judgment of the loyalty of his lieutenants and their forces. Ability to hold a position does not signify success.

As you take up the lines laid down by your predecessor, study well his methods, that you may profit by his successes as well as by his mistakes. Ordinarily the trainmaster, in his maiden effort, has had no practical experience, making immediate success impossible. He must, therefore, in his newness to the position, keep before him the fact that every man is taking his measure; that in the sanctum sanctorum of the "sand house" the "boys" are laying for every move he makes; are waiting for his "mistakes." They are discussing his ideas of discipline and classing them as broad or narrow. While it is well to avoid "rubbing the fur the wrong way," show your hand early. Let it be known that you have no friends to reward or enemies to punish. Then seek by all honest means to establish yourself with the men—never have a following—and you have started right with the working forces.

Be forceful and determined, but be right. Under all circumstances practice a Taft smile and show the boys:

" 'Tis an easy way to be pleasant and gay
When the work moves along like a song;
But the man that's worth while, is the man who can smile,
When everything goes dead wrong."

*Second prizes were awarded both to this paper and to one by J. J. Pruett.

†Mr. Rodman was born at Dwight, Ill., and began railway work at the age of 15, as water boy. In the 27 years since this beginning he has been foreman of construction, fireman, hostler, telegrapher, yard foreman, yardmaster, assistant trainmaster and trainmaster. He has worked on the Illinois Central, the Baltimore & Ohio, the Missouri Pacific, the Great Northern, the Southern, the Cincinnati, Hamilton & Dayton, and the Southern Pacific; and, lastly, on the Atlantic Coast Line, where he now is. He has been on the A. C. L. two years. In his letter he says that in every case he has resigned his job voluntarily, either because of a prospect of improving himself, or because he did not wish to carry out the policy of his superior.

16 HOW TO BE A FIRST-CLASS TRAINMASTER.

The trainmaster must have an attentive ear, a still tongue and a cool head. If he have not the latter let him resort to the means used by a trainmaster of the Alton some years ago, who, when confronted with a rush of business, applied a wet sponge to the back of his head, and waded in. When things went wrong it was a common remark that "the old man had left off his sponge."

With all regard for the various brotherhoods, I believe it better that the trainmaster be free of all affiliation with any order, but friendly to all.

The successful trainmaster must of necessity have a thorough knowledge of his superiors. He must know what they look upon as good results. If he differ in opinion, he should express himself frankly, but certainly offer no opposition to the execution of the instructions.

TERMINALS.

Here is where many a man has found his Waterloo. Recent years have brought about almost the full elimination of the trainmaster from the large terminals because, usually, of his unpractical instructions and untimely interference. A capable yard force at every terminal, or intermediate yard, is of the greatest necessity for his success. Block your yard and you block the line. The yardmaster must be all the name implies. His position is the most difficult and trying of all. He should employ his own men, and have a voice as to yard power needed and its distribution. He should recommend all yard discipline. In short, he should be turned loose with a free hand.

The local agent should have no voice in the yard policy whatever. To permit such a course means expense and confusion. Wherever I have seen the plan tried it has proved wholly unsatisfactory and impracticable.

A terminal of any consequence should switch all cars on the card system. The conductor, on arrival, delivers his bills to the clerk, who examines each one closely for its regularity and makes a card accordingly. By this method the cars are switched to proper positions and cannot be lost sight of. If a car gets out of place it is quickly detected. A good yardmaster, notwithstanding his tracks are classified for the outgoing and the incoming, for connections and industries, for the house and team tracks, and so on, goes over his yard once a day at least. He notes perhaps that several parts of trains are left from yesterday; that the "hold" tracks have not been pulled. He sees the print of some derailed cars. By a glance he catches all oversights and cases of neglect. The trainmaster must pursue the same methods at such times as opportunity permits or conditions demand. He is then in command of the situation.

It is always good policy to consider the counsel of those who know more than yourself. I am reminded of my early days as general yard master for the Alton at Chicago. In those days C. H. Chappell, now deceased, was general manager. Mr. Chappell's hobby was terminals. He made me many an unexpected visit, and as I later discovered, came not only inspecting, but to instruct, as well as to draw out all there was in a man. His practical knowledge seemed to direct him unerringly to every weak spot, and within a few hours my attention would be called to rank irregularities he had observed, of which I was totally ignorant. I soon saw that he, general manager, knew more of my terminals than I, the general yard master, did. However, I was glad to take his advice. He could analyze men and conditions as no other man could, and spur one on to better things. It is with pride that I say I owe my early training to Charles H. Chappell.

The office trainmaster is bound to be incompetent. He can have no knowledge of the actual conditions, and in times of distress gets blocked. He fancies his "desk" is about all there is to it. Stale way bills can be and are hid out. But neither old cars, nor bad conditions can be covered up.

Establish classification in the make-up of your trains; the policy of building to the next terminal only, invites congestion. Inbound trains should be promptly broken up, and the forward movement made up. Put it up to the motive power department. Be in position to accept all engines when offered. Do not criticize what appear to you to be poor results. You see the effect; make a still hunt for the cause.

The over-anxious trainmaster, in his desire to do something, resorts to imperative orders, which may prove disastrous, or ridiculous. To illustrate: A few years ago while I was employed as general yardmaster at a large terminal in a northern city, a passenger conductor was made trainmaster. Times were distressing; a bitter winter and rushing business. On assuming the position, "Uncle Henry," as he was known, instructed me as follows: "Take off two engines immediately. I've just learned that on this date one year ago you were working but twelve engines. Understand, I am here to take care of the company's money." He was not aware of the increase in business over the previous year, nor that a comparative statement showed a handsome decrease in cost of cars handled. I "saw it coming" and we parted. The block came, the embargo followed and "Uncle Henry" returned to his guardianship of the "company's money!"

A terminal of any consequence should keep a "camp" record. The bills should be classified numerically so as to be obtainable at the first touch, and hands off to all outsiders.

Stub tracks are a nuisance. Bumping posts do not do the business. Best of all is a continuation of the track under-

18 HOW TO BE A FIRST-CLASS TRAINMASTER.

ground for about one rail length and three feet deep at the end. Do not permit the use of banks of earth and wood as back stops. It is destruction to the cars and endless trouble for the trainmaster.

BAD ORDER CARS.

Here is a serious problem; one that causes more claims, complaints and congestion than the shortage of power. Bad orders are principally the results of carelessness, and the automatic coupler. It does not matter how hard a car hits, it couples. In the days of the link and pin, the field switchman governed the speed. His life was at stake, for the coupling had to be made as the cars came to him. Shifting lumber in box cars was almost unknown. The cure of rough handling is as yet an unsolved problem. It should be given close watching and cannot be handled too severely.

The repair tracks should be classified, particularly at shop yards. Heavy repair cars together, light repairs, wheel cars and loads separated. Give them the best of switching service. Keep regular men on the job. Bad order transfer cars will also give much trouble if not closely watched. See that they are assembled and placed at such prescribed hours as best suits those interested.

All trains should be inspected on arrival at and before leaving a terminal.

EMPLOYMENT AND ASSIGNMENT.

Never delegate the employment of men to others. You will have a deeper feeling of responsibility and pride in men of your own choosing. It is easier to employ a man than to dismiss him. Therefore, too much care cannot be exercised. If occasionally you may err in your selection, you can wait. The undesirable man weeds himself out.

I do not favor the form of application for employment as used by most roads. The reference portion is a nuisance and affords opportunity for deception. Let every man stand on his merits. If he is an impostor, he "fixes" his references, or refers you to roads that do not give them. If physically out of the running he gets a "substitute." Some assume the names of dead men, and others live ones whose records are clear. At best, the system burdens your office with an endless and worthless correspondence.

The home boys are always preferable. Yard clerks make good candidates for positions as switchmen, and later the most valuable of foremen. Operators make good flagmen. Callers, too, make good men. The "boomer" is never desirable. He is always going to reform. But watch his first or second pay-day—he fails to respond for duty and has tackled his old enemy, John Barleycorn, with renewed vigor. Employ him and you are always short of men and your forces demoralized.

Promote from the ranks when possible. You know your man. Be careful in your assignment of men. Avoid switching them about. Remember that in all your passenger assignments you are providing for the protection and comforts of the traveling public.

A passenger flagman or brakeman should be neat, but not talkative. Conductors should be of good appearance. You want baggage masters of fair education, at least. When competent they can save you many claims and annoyances. Keep your noisy men in freight service. They are valuable at the "sand house" conferences. A brakeman never makes a switchman. You can tell him the minute he "hits the foot board." A switchman will not make a brakeman, and is not reliable as a flagman. He was educated to be watched for, not for watching out.

A conductor, as a rule, makes a poor yard master. His customs are fixed. He is forever checking up trains and playing with the bills. He was educated to take orders, not to give them. Never spoil a good conductor to make a poor yardmaster. Make your yardmasters from the yardmen and your conductors from the trainmen.

A road engineer never makes a switch engineer. Keep him out of your yards. He cannot switch cars. He doesn't like the job, anyhow. You want the man who knows the ways of the switchman and knows his peculiarity and variety of signals; who is not afraid of unjointing his neck on the boilerhead, and who oils up at meal hours only. Be liberal with your engineers and allow something for your expectations.

ROAD CONDITIONS.

Exercise judgment in your selection of local freight conductors. They must be first-class and permanent on the job. They should have some switching experience, or else educated in local service. Pick men who like a local run, men who will be popular with the local shipper, the local agent and the despatchers. Allow them as much latitude as possible and, if you can do so, allow them to select their own brakemen from the ranks. Nothing gives more annoyance than a poor local crew. Have your conductors understand they are in charge of their train from the pilot to the caboose, and so hold them. Any man can carry bills from one terminal to another. You want men who are equal to any emergency—who know what to do and how to do it. Don't criticize the local conductor if his judgment does not conform to your ideas.

Require clean cabooses and keep them in good repair—supplied with everything needed in any emergency. School your conductors in accuracy of records and thus have something to be depended on when needed. Issue all train books

yourself and require the old ones turned in for your personal inspection before issuing new ones.

Do not permit the handling of cars over your district without proper billing. I do not favor the card way bill. I am firm in the belief that all billing should accompany the cars, both on the line and to and from connections. Irregularities in billing, necessitating the holding of cars, must be handled aggressively.

The trainmaster must know the car capacity of all industries on his district, their daily output and the service rendered. Have a personal acquaintance with the local shipper. The local agents should give you but little concern from a transportation standpoint. The loading of cars at large terminals should be in station order. All freight put into local cars should be tagged or marked, showing shipper, consignee, destination and contents. The agents at small stations should check all shipments from the billing as unloaded by the crew, noting condition.

A personal inspection of the warehouses and station and premises should be made at unexpected times, giving the public portion of it the same attention as would a railway commissioner. See that no car service [demurrage] is overlooked; also have an eye on the per-diem.

The trainmaster should police his district at such points as conditions determine. When on freight trains I believe the rear end better than the head end for general observation. Here is a field requiring an all seeing eye—noting everything irregular.

The "surprise check" is a much discussed question, and has its pros and cons. On the whole, I support it. It makes more watchful men and it brings to your attention many irregularities which cannot be caught up with in any other way.

FELLOW OFFICERS.

The master mechanic must be your friend. He wants but little and has much to give. On him depends your switching and train power. At terminals allow no blocking of engines unnecessarily. Use every effort for the quick despatch of engines to and from the shops. Don't overload your power when it is scarce. Rely on the engineer and the master mechanic. It is not what an engine should do, but what it will do when needed the most.

The chief despatcher is your chief lieutenant on the inside, and the trick despatchers are a part of your family. Establish good feeling between them and your train forces. Do not permit of intolerant messages to the men; such bring no good results, but weaken and discourage. If any reprimands are necessary give them yourself and at the proper time and

place. Educate your conductors to keep the despatchers posted and to give them reliable figures.

RULES AND DISCIPLINE.

I believe conductors and engineers should stand 100 per cent on examinations relating to safety. Class meetings for the study and discussion of the rules should be held as often as possible or necessary. Insist upon the attendance of all transportation employees. Do not permit the discussion of "catch" or irregular orders. Adhere to the rules, and you can decide the question correctly and intelligently. Discuss with each man his particular duties, and inspire him to their faithful discharge.

In matters of discipline, the best of judgment should be exercised. You dare not be too easy, and you must not be too severe. Discipline is to make better and more careful men. It is to impress principles on the inexperienced and the careless. You diagnose your case as does the doctor. What is good medicine for one may not be good for another. There may be extenuating circumstances with the man or position. I believe in actual suspension, but to apply but very little of it. "Fatherly" talks bring out better men and better results. When the man leaves you he is some wiser, some better. If this procedure has not the desired effect then the fault is in the man, and you become a surgeon instead of a doctor.

The "Brown system" is too much like a patent remedy—good for all, and all ailments alike. Its one redeeming feature is that it never distresses a man nor his family by actual suspensions.

Never parley with the "drunk." This reminds me of Superintendent G—— at Little Rock on the "Mountain." He was troubled with one of these "periodical fellows," and decided to dismiss him at the very next offense, and wrote him as follows:

Mr. John W——n, Foreman.

Dear Sir:—You have one more drunk coming, but mind you that's all.

Yours truly,

F. J. G——n, Superintendent.

John W. got drunk when the spell came on, and Mr. G. "fired" him. The point was raised: Did he have permission to get drunk? The General Superintendent decided that he had, and ordered his reinstatement, and no more permits to get drunk to be given.

GENERAL.

The trainmaster is the key to the operating department of his jurisdiction. The higher officers expect results and not excuses; they want the work well done and full value for the money expended. He should, therefore, have a working

knowledge of every department. If he come into the position inexperienced, then he must rely upon his observations and good judgment and apply himself arduously. As he goes along opportunities will present themselves, enabling him to correct defects and improve methods. The earnest and painstaking trainmaster will master every detail, and thus will secure the loyalty of his men, and they, in return, will ask only a "square deal."

A TRAINMASTER'S VIEWPOINT.

BY FRED. C. LETTS.

Trainmaster Union Pacific R.R., Laramie, Wyo.*

I am neither misanthropic nor a pessimist, though there may appear a taint of both in this word picture of a two years' experience as a trainmaster on a heavy trunk line. On the contrary, my disposition is rather buoyant, and I am inclined to look on the bright side of all things. Perhaps a few years more and I myself may look at many of the deductions made as false or without sufficient foundation in fact. I am not intending to write about what a trainmaster ought to do; this I leave to others who can better draw the high ideal. I shall endeavor to depict that which his environment compels him to do, and incidentally hint at that which the public, the shareholder and the management ought to do to strengthen his hands and enable him to become a more efficient officer.

It appears to me now that the position of the trainmaster is vortical in railway activity. As those connected with the various branches of the service go round he gets from each a twist of greater or less severity. The traffic department naturally complain of the service; they say nothing is left to offer the shipper in solicitation. The passenger department oppose stopping through trains for local business, while the importunities of the rural population, to the contrary, backed up by railroad commissions, are almost invincible. In the judgment of the government post office department and others we do not give mail clerks and express messengers time enough at stations, but in the opinion of the superintendent of transportation too much. The management want more tonnage—the train and enginemen, and everybody else, including the public, less. The mechanical department say if we would cut the time at terminals and stations the power would make a better showing. The claim department insist that more time should be taken to obtain a dependable seal record and check of freight unloaded at way stations. The federal agents insist on a very thorough inspection of safety appliances and air, and, as a grand finale, our competitors, it is alleged, make a much more creditable showing in all these particulars, and we are regaled with the figures which seem to prove it, although

*Mr. Letts was brought up in Illinois and has served as freight brakeman, freight conductor, passenger conductor and trainmaster, holding the last-named position on the Union Pacific for the last two years.

we suspect the high mark of the other fellow is the only part of his record that is used.

All this exercises my judgment. If I think I am right about any of these propositions it is so decided, so far as my authority goes. Some of my co-ordinates say I am obstinate, but I figure that if I am, to succeed, it must be solely on my own judgment. If that is good, I am all right; if bad, the sooner I find it out the better for both the company and myself.

This part of the work is the lure of the rail; its fascinations are irresistible. There are developed every hour new and interesting problems. The older officials tell me that I shall soon find it in the files; that it all comes around in cycles, and that there is nothing new, even in railroading.

Shortly after my promotion I resigned from the order of railway conductors, as I made up my mind at once that I could not ride two horses. This was done with some reluctance, and I also felt the loss of my "rights," upon which I had banked so much—a sort of accumulated stock in trade from which I could hardly have been jarred loose by any ordinary upheaval of official wrath or financial company misfortune. I was fortified by seniority and a membership in the O. R. C.—stock at this time worth more than 100 per cent., as there was a new run going on which would have given me an opportunity to move to Terre Haute—something my wife and I had speculated on frequently.

I began to realize, after one or two accidents had occurred, that I was now responsible for all the trains instead of one, and that such occurrences were looked upon by the management as entirely unnecessary and *always* avoidable; and further, that under the rules in effect every one concerned was at fault, and it was up to me to lay about in a wild sort of way in the application of the whip of discipline.

I, as well as nearly all of the other trainmen, had conceived the idea, from my train experience, that the discipline as usually administered was unfair. I also had read a great deal about the American railroads comparing unfavorably with the European roads in casualties.

My father had been an engine driver in Scotland. I had, before his demise, absorbed something of the foreign practice, both orally and from copies of the rules he had brought with him from the old country. I thus became imbued with the idea that our American fault was more in the "divided responsibility," which had a strong tendency to influence the train and enginemen to take chances. They could figure that in case of trouble, the organization, the divided responsibility, the political and social influences and personal persuasion would in some way carry them through; and it was a fact that one or the other, with very few exceptions, did actually accomplish what was expected in this direction.

"Chip" Smith, one of the best freight conductors on the division, coming north with the stock pick-up, was hit in the Stoneville yard by a following freight not under control in yard limits. I discharged the engineer and took no action with the conductor. The testimony indicated clearly that Smith's crew was chaining up a car, which required their combined effort. They had finished and were just starting when the following train, taking it for granted that Smith's train must be further ahead, came into the yard too fast and was unable to stop before striking the way car. Smith dropped off and swung his hand lantern, but, of course, this could not be seen as far as the tail lights. The engineer acknowledged his responsibility, but said it was a "trap"; if he had been flagged he would have stopped in plenty of time; air was working good, but had not expected to find them still in the yard at Stoneville.

My attention was called, before the papers were filed, to Rule 106, "Take the safe side," etc., and a few others by which I ought to have held Smith and the rear brakeman, who, by the way, had his arm wrenched trying to get the car chain around the center pin, and was in the hospital. I had sent him out some flowers, which promised to further embarrass me in case I was compelled to discharge him when he reported for duty.

My explanation to the superintendent was that a crew could not do switching in yards and keep a flagman out in both directions; that crews did not do so in practice, and were only expected to do so when an accident occurred, which was unfair. Evidently this went in one ear and out the other. After I had made a lengthy argument on the equities of discipline, he said: "Young man, when you get some more experience you will learn that it is easier to hold 'em all."

I soon got into another rest-breaking complication. Still in pursuit of the old country theory of preventing accidents before they happen, I found it necessary to discharge engineer Smithers for insubordination. For an ulterior reason he refused to take an engine out, on the pretext that it was not in a safe condition. I knew something about the machine, and after satisfying myself personally that the crown sheet was all right gave him another opportunity to go. He was stubborn and made his refusal more emphatic than at first. Another man was called, who, informed of all the circumstances, took the engine to its home terminal where a careful examination was made by experts, who pronounced the boiler in a safe condition. There were a number of staybolts leaking, but nothing serious. We discharged Smithers. The superintendent was with me this time, as he had some inside knowledge of bad habits on part of the engineer. He had warned him once or twice to discontinue the frequenting of saloons,

with the effect only of making him a little more cautious.

The local committee took the case up. I refused to reinstate the engineer. The general superintendent was appealed to after the superintendent had refused to reverse me, who sustained our decision. The officers of the brotherhood then took the case to the general manager. It seemed Smithers was quite a prominent member of the organization, and while the men all knew he was addicted to the liquor habit, he forced them by his influence and will power to fight his case to the highest court. It is not ended yet. It has been a fearful mess. I wonder, when I read the motto, "Friendship and Sobriety," what they are really intended to represent.

I get along with switchmen as well, perhaps, as other trainmasters do, but they have certainly put some gray hairs in my head. I discharged Bill Burke for leaving his engine on the "spot" and visiting a saloon during working hours. This, after a warning not to do this particular thing again. I always make it a practice to speak to the men about any minor infractions of the rules, and never administer discipline for violations of this character until they have had a definite understanding with me as to what is required of them. I warned Burke twice, and told him the second time plainly that I would discharge him if he was caught in a saloon again.

The committee were in early the next morning. We went over the case in detail; they intimated that the officials drank when they wanted to; that "Skinny" Roberts, another switchman, had been in jail for getting drunk and *he* had not been discharged (the legal department had notified us he was an important witness in a personal injury case); Burke had been recently the local chairman, and the committee were satisfied there was something personal in the matter, and so on; and unless I reinstated him before 9 o'clock the next morning they would walk out.

I went in to a conference with the superintendent as soon as they departed from the office. It seems Bill had got the Congressman from that district to go up and "make a talk" for him. We had some important matters before Congress, and it would not do to antagonize the home contingent. While we were trying to find some way out of the predicament the parish priest was announced and the superintendent asked me to remain during the interval, divining that it had something to do with the Burke case.

The reverend gentlemen was really sincere. Mrs. Burke had begged him to intervene; she had taken in washing to clothe the children and keep them in school; her husband gave them, out of each month's wages, only enough to pay the rent and a part of the grocery bills. Since he had been discharged Burke had been morose and disagreeable, taunting the family concerning their religion, and telling the wife if the priest did

not do something for him quickly he would move them all to Mexico or Alaska; in fact, had commenced selling some of the household goods, ostensibly for this purpose, but quite likely to obtain whisky. The girls were bright and quick, as were the boys, and Father Parde was quite sure if the family could be kept together for a year or two longer they would be able to support themselves.

Burke, of course, promised him to let liquor alone, and while the priest did not have much confidence in his keeping such promise he would consider it a personal favor if we would overlook the offense this time.

Well, Bill went back on his engine, and all the crews were working at 9 a.m., much to the relief of the traffic department, who stood to lose some competitive business they had just secured.

A few weeks after this one of the switch engines struck a street car, causing a fatality, and the coroner's jury brought in a verdict censuring the officials, as it was indirectly testified to that there was only one ground man on the engine. The accident occurred near the brewery. I was glad it was not Burke's engine.

As these events, with their kaleidoscopic combinations, presented themselves to my experience, I began to wonder less why the American railways had more accidents than those of other countries. It came back to me repeatedly that which my father had told me of the impatience of the British public with mistakes, and how careful he had been to always drive his engine with absolute control, as against avoidable accidents. He had finally met with misadventure, the solution of which required the combined mental efforts of the "guinea pigs," as the managing directors are called (for the reason, as he explained, that they received a guinea for each meeting, which, in the opinion of the thrifty Scot, were a bit too frequent). He lost his position and migrated to America, where, fortunately, as a machinist he was able to secure employment. He never drank, smoked or indulged in any habits that affected his mental alertness, nor did he grieve over his dismissal as much, perhaps, as would have been the case had it occurred later in his experience. I had often heard him say, as he examined the work reports in the roundhouse, or observed some of the shortcomings of our engineers: "Aye, well, lad, dinna ye ape them, the' 'ill mind the rolls bitter wen the countrey ages a wee bit." * * *

We have departmental organization, so that I am busy accumulating information for the superintendent as to the weakness of the power, which, I understand, he uses to combat the mechanical superintendent, who attributes the engine failures to sidetrack delays. These are generally furnished him by the road foreman of engines, who reports to him

direct. We are able in this way to shift a great deal of our responsibilities back and forth. Sometimes we get friendly and put it on to the coal in the winter and on to the maintenance of way department in the summer, when they are doing much new work. The engineering department is in charge of the track, so that the superintendent quite readily accepts the latter explanation, but at the top, I gather from occasional rumblings, it creates friction. If it would give us smoother track this would be immaterial, but it doesn't.

I have gained experience in the last year. The first year required a little more effort than usual on the part of those I am supposed to supervise in bringing *me* to the proper state of discipline. I know the chairmen of all the committees, their strong and weak points. I am more crafty in getting together my cases calling for discipline. The longer I study the standard code the more I become impressed with its ingenuity. It is like the Koran, in that I can find something between its mystic covers that will convict anyone subject to its government, of any offense, if I can prove he was in that vicinity when the incident occurred. Likewise the chairman of the accused man's committee, by the same token will show that I am wrong; he will nail this down by precedents, or prove that I myself saw a violation of the rule and took no action, which naturally led the men to understand that it was a sort of dead one.

In this way we go around watching each other for an opening, in a sort of sparring match, figuratively speaking—careful, both of us, to keep within our rights, for fear of reversal. The men applaud or criticize their champion as his work seems to merit. He dislikes to lose a case as much as I. He has an advantage, being on the defensive, and I am often compelled to overlook infractions of good practice, if not of rules, on account of not sufficient evidence to make my case impregnable. As the chairmen are all paid a salary they are, of course, expected to overlook nothing of interest to their clients.

Instead of an irresistible impulse to obey and do the right, there is a marked and growing tendency among the men to take up all the slack and to obtain as much as possible in return for the special assessments and heavy dues. In fact, a great many men could not be held in the brotherhoods except for the understanding that the money thus expended is an assurance against discipline.

Being on a transcontinental line, I have some good opportunities to talk with railway officials passing over our line. I am always much interested in those from foreign countries. From them I learn that the inherent disposition to obey is of great assistance in managing their properties, as well as their ability, on all occasions to command expert substitutes. * * *

Coming so recently from the ranks I am quite familiar with the caboose stove talk, and that of the lodge room, the round-house and the switch shanty. Do not railway officials know that 90 per cent. of the intellectual effort of those who have to do with the operation of the trains and engines is along the lines of "shoving it off on the other fellow?" The train despatcher and the train and enginemen occupy the same relative positions as those of the cat and the dog in the animal world! I am kept fairly busy lubricating the friction. The telephone despatching has taken some of the burden off my shoulders in this respect. Now, when Jones wants to run the stock cars at Van Dike the despatcher calls him to the 'phone and in a conciliatory tone of voice (which could not have been transmitted by Morse) informs him that no partiality is intended; unless the cars can be got to Kokomo by 4 p.m., he explains, the G. T. Q. will get the shipment; engine No. 56, following is on one side, and when No. 58 ahead passed, the order had not been placed. The apology is generally accepted, and the cars are picked up without knocking in a drawhead.

There is another thing about the telephone that pleases me. I carry a pocket receiver and plug in at any of the stations, where I can listen to the train orders and other business pertaining to the movement of traffic, often picking up information of value, and thereby acquiring a closer insight into what is going on. This makes up for my deficiency in telegraphy, which I had previously felt keenly.

I am going to make some despatchers out of conductors. I have one or two carrying the receivers now to ascertain if they are likely to develop the train-moving knack. They ought to be a valuable acquisition to the office. From them telegraphers can absorb practical information as to the things usually out of their mental horizon.

If I can now discover a way of curing the misconstruction of rules and bulletins, lessen the side-stepping and acrobatic mentality by which they are twisted into diametrically opposite viewpoints, depending upon whose ox is gored, I shall feel that I am making progress.

The disposition of the men to obey is regulated to a great extent by the law of supply and demand. Jobs are just now hard to get, and my time is less taken up with the discipline—the most important, complex, perplexing, unsatisfactory and disagreeable duty I have to perform.

I find the despatchers hard-working, loyal and ambitious. There is an inclination on their part to push things along by verbal instructions or messages, which I find must be absolutely restricted to the "19" or "31" orders, so that there shall be no loophole in case of accident.

The 16-hour law bothers everyone. This, with the 28-hour law, the safety appliance act, the quarantine law, the full crew

law, and a dozen or so others, keep the despatchers in a fret, and all of us busy explaining. There are 243 laws, state, municipal and federal, that have to do with my duties directly and indirectly, to say nothing of the laws of the organizations, some of which have assumed the proportions of "Compiled Statutes." I bump into I. C. C. inspectors, dodge those of the Agricultural department, and am interviewed by representatives of the Department of Justice. Men representing the state railway commissions are becoming more common, and the pure food inspectors, marshals, sheriffs and smaller fry are everywhere aroused to the necessity of regulating the railways. We make numerous and prodigious reports to nearly all of them, and then are called upon to explain this, that or the other, which, to the layman, appears incongruous; but, after painstaking effort to show that the incident was unavoidable, our explanation is generally accepted.

A considerable part of my time is employed in obtaining evidence to defend the company from prospective judicial harassments, the most of which never materialize. It takes too much expert and valuable time from supervision and amounts to little, from a corrective standpoint.

If I keep out of jail and my home is not absorbed in a fine some unlucky day, I am going to Russia for a month or two next year, where I can fill my lungs with some comparatively free air.

If I were asked to deduct from my experience the best practice, and that which would enable a trainmaster to render through those with whom he is directly connected, the highest grade of efficiency, I would unhesitatingly say: "Eliminate from the standard code rules those that are ambiguous or manifestly placed there solely to enable the railway to shift its responsibilities." In administering discipline, first and above all, apply the Golden Rule. The man at fault should be diligently and intelligently sought out and his responsibility definitely and irrevocably fixed, confining it, ordinarily, to one individual and seldom to more than one crew. Hold the conductor for the acts of his brakemen and the engineer for the fireman, but give them the necessary authority to enforce obedience. Gently but firmly push back all sympathetic, social, political or religious interference. Let the officials who employ the men apply the discipline and then refrain from criticism or reversals. They may make mistakes, but not nearly so many as will be made by those further removed from the cause and effect. * * * Abolish un-American principles, relegating the spies to barbarism and despotic forms of government. Cultivate a high sense of honor in both officials and men. This is priceless, but has been partially destroyed by nagging and unwarranted interference.



THE TRAINMASTER'S FUNCTIONS.

This composite chapter consists of paragraphs selected from the writings of Messrs.—

John T. Finerty,	Assistant Trainmaster,	Del., Lack. & West.
S. A. Covington,		Col. & So. Ry.
W. E. Burk,	Trainmaster,	Vandalia Line.
J. F. Russ,	Trainmaster,	Missouri Pacific.
W. C. Morse,	Superintendent,	Missouri Pacific.
F. C. Syze,	S. I. Rapid Transit and	Balt. & O. R.R.
W. H. Simms,	Vice-President,	Phila. & Western.
W. B. Gormley,	Trainmaster,	Pennsylvania.
W. F. Thiehoff,	Superintendent,	Chic., Bur. & Qy.
F. B. Turner,	Master of Trains,	Louisville & Nash.
F. E. Bolte,	Passenger Trainmaster,	St. L. Ter. R. R. Assoc.
C. K. Miller,	Trainmaster,	Cin., N. Or. & Tex. Pac.
V. R. C. King,	Trainmaster,	Atlantic Coast Line.
V. V. Boatner,	Trainmaster,	Yazoo & Miss. Val. R.R.
W. M. Wardrop,	Trainmaster,	Penna. Lines West.

PERSONAL QUALIFICATIONS.

An eminent railway officer once said that two positions most difficult to fill are those of track foreman and trainmaster. To become a good trainmaster one requires lusty health, a fair education, perseverance, patience, keen intuitions and an abundance of moral courage. He must be temperate, love work, possess a high sense of justice and a penetrating knowledge of human nature. He must have robust common sense, be imbued with high ideals and actuated by sound convictions. To every man is given an opportunity to do something worth while, but the life of a trainmaster abounds in such opportunities.

Health is the first requisite, for he must exercise intense effort and prolonged, persevering application, must bear frequent interruptions, changes and disarrangements of his plans; must be prompt and fertile in resources and expedients to meet sudden demands; must calmly bear with irritating subordinates and superiors; must be able to lose sleep and have ability to keep a-going for long periods. He must possess in a

high degree the genius of adaptability in order to meet every possible emergency. Furthermore, he must have the courage to exercise all his authority, and he must not only know, but he must know that he knows. Doubt and vacillation can have no part in the personality of a successful trainmaster. He is the man of trained intelligence who plans the work, but he must also find the men and qualify the men to do the work. Ill-health breeds bias and prejudices and it prevents one from judging men, their motives and actions dispassionately and fairly; consequently, one in ill-health is not qualified to form proper conclusions as to the worth and qualities of men in employing them, nor can he have the balanced temperament that is essential to fair and impartial decisions in investigating cases and imposing discipline upon employees.

The writer was assistant to a trainmaster who suffered from attacks of gout, when he would be absent from one to four weeks at a time. On his return, while the demons were chasing each other through his system, he would pass upon the accumulated cases of discipline and at times would impose thirty suspensions in thirty minutes. It was impossible for him to acquaint himself with the conditions and relations of each case, therefore he was unconsciously unjust to the men involved, for without knowledge justice is impossible.

An ideal trainmaster is a man who has served several years as train despatcher and chief despatcher, as those duties carry certain qualifications and experience in the operating department not easily gained in any other manner. His being a telegrapher will be of great assistance to him when out on the road, as he can get much quicker action than any man who has to do his talking through an operator.

He should be old enough to have mature judgment, not easily influenced by stories the men on the road will tell him about the despatchers' office, and at the same time be able to pick out any good suggestions that may be made to him by the men.

He must be able to discern the probability of truth made by persons on trial, or interested in investigations, as at times the parties greatly interested will not always state the facts.

If a man [of the right character] has had eight or ten years' experience in the transportation department, and this before reaching the age of thirty, and if he assumes the responsibilities of the office by the time he is thirty-five, we have the basic material for the making of a first-class trainmaster.

He should get an early start, for the reason that there is much to learn which can be gained only by practical experience. He must also have earnestly aspired to the position, which is an indication of the necessary ambition. You cannot make a first-class trainmaster; he must make himself.

His knowledge of the rules and regulations should be beyond

question. The more thorough his knowledge of the fundamental principles of train operation the greater will be the respect in which he will be held by his subordinates, for men in the ranks quickly detect their superiors' weak points, and not a few hasten to take advantage of them at every opportunity.

If the chief train despatcher be chosen for the position of trainmaster, he should spend his days and nights on the line in the thickest of the train work, rub shoulder to shoulder with the tried men in the ranks and keep an open mind for the hints such men give by their actions and methods of working, until he has mastered the details of field work.

Since a large percentage of trainmasters become superintendents, and thence are frequently promoted to still higher positions, the educational qualification, whether self-obtained or otherwise, is an essential which must be taken into consideration. The ever-increasing tendency of railway work to a more scientific standard demands this. I know several men whose experience I envy, but who have never risen above a certain grade because of their lack of a good general education. The young men who are occupying positions from which trainmasters are chosen should strive to their utmost to educate themselves on as broad lines as possible.

A man promoted from the despatching department should have some experience in train service, as it will save him from learning this after being made trainmaster. A man not experienced in train service is not in a position to at all times render fair discipline, for no matter how fair-minded he may be his lack of knowledge in this direction may cause him to give a decision which would not be considered fair to an experienced trainman.

While it may not be regarded as actually essential it is certainly of considerable practical advantage if he is able to determine, from personal knowledge, when a locomotive is being efficiently fired or handled.

He should be familiar with at least the simpler rules and practices pertaining to maintenance of way and structures, and should have some knowledge of accounting to enable him to assemble and move traffic economically. He need not necessarily have special training in either of the three branches or departments last named, but can pick up a fair working knowledge of them, if he has interest enough, and if he maintains friendly intercourse with men in charge of those departments.

The individual who is ambitious to succeed should not tie down to one branch of the service, but should be alert and watchful of all things in whatever department in order to fit himself for emergencies and overcome obstacles.

He should never lose sight of the need of thoroughly equipping himself for any emergency, and should be ready at a moment's notice to represent his company at any meeting

wherein the transportation department is interested. The proceedings of the various associations of railway officers, their rulings and disposition of cases brought before them should be well known to him. The conditions of interchange at the various junction points, per diem, and, in fact, every item pertaining to the increased revenue accruing from the prompt movement of cars should be thoroughly understood.

A trainmaster with the bulletin habit is always productive of dissatisfaction in the train service, and particularly if he feels it necessary to reissue instructions periodically. An order once issued remains in effect until its purposes have been accomplished or it has been recalled; and to repeat it advertises the failure on the part of those whom it affects to observe its provisions and a lack of proper supervision on the part of the official charged with enforcing it.

OFFICE WORK.

Usually when a practical man is first promoted to the position of trainmaster he finds it rather difficult to write his views and ideas. He is able to tell you all about it, but to express it in writing is hard on him, and truthfully so, for his former occupation was not devoted much to writing. This is the obstacle he should try to overcome before embarrassing circumstances arise.

I remember the first report I dictated, or rather tried to dictate. I signed my name under the title "trainmaster," instead of between it, and "yours truly." I really thought it was all right. Describing the details of my work on paper was my most difficult duty, but I grasped every correction in my sentences until it became easier for me. A man so situated should observe closely the language of his superiors, read during his spare time and study the reports of others who have had better opportunities. Some day he is liable to be delegated to represent the superintendent at a meeting or conference, and he should be able to represent him well. This is one of the most important elements that make him first class.

A first-class trainmaster should keep his office in his hat if he is anxious to produce the results expected of him. In other words, he should be continually out nosing around, figuring on changes that will effect improvement and getting them in substantial form for consideration at the next change of timetable. The management is always looking for increased service with less expense. A trainmaster who thinks he can familiarize himself with the many complex details of an up-to-date railway by transacting his business from the office makes a serious mistake.

He should have access to all reports sent to the superintendent pertaining to the movement of trains, so that he will be in touch with what is going on and in position to apply the proper remedy without having the superintendent bring the matter to

his attention, which, at times, to say the least, is embarrassing.

See that your clerk is a capable man, and under no circumstances allow your correspondence to be neglected. Requests for replies to telegrams and letters are embarrassing to you and may be to your superior, as he may be waiting upon information from you before he can advise his superior.

Take a good railway paper and study it. Inform yourself thoroughly, bearing in mind that promotions come to those who are qualified. Be loyal to your superior. His success is your success.

EMPLOYING NEW MEN.

Few realize the splendid opportunity open to them in the employment of men. The pressing need of the moment often serves as the excuse for admitting undesirable men to the division. Then follows not only an increase in car damage and property loss, but also a general disaffection. With the general recognition by the railway companies of the employees' organizations and the right of their committees to have a hearing, it becomes hard to get rid of unworthy and incompetent employees. In admitting men to the service temporary inconveniences in order to make a discriminating choice is therefore better than immediate relief at a heavy later expense.

It is imperative on the trainmaster to select clean, wholesome, well-disposed men, who are fit to associate with decent men. While a passenger conductor the writer was stirred with a sense of shame and indignation because of a few common, drunken, vulgar counterfeits of men who held equal rank in the service. The appointment of such men as passenger conductors was an insult to every self-respecting man in the service and a disgrace to the company who employed them. The writer was once given a man as passenger flagman who had been discharged from the U. S. Army, afflicted with chronic asthma, but as he was a brother of a train despatcher, the trainmaster employed him as a passenger brakeman and afterward made him flagman. The poor fellow was about as fit to run as he was to fly, and he was absolutely unfit to be trusted with the protection of a train in a snowstorm. The sympathies of the trainmaster were commendable, but they should not have overruled his judgment and inflicted upon the service a man who was incompetent.

All employees who are hired and examined by your department should be examined by you personally, and this should never be left to your clerk.

The employment of trainmen should be done by the trainmaster personally and not left to a clerk, except when there is a regular employment bureau.

He will do well to work on the principle that he is employing conductors and engineers, as each brakeman or fireman employed should be eligible for promotion. The best results will

be got from men who live on the line of road, and it is best, as a general rule, to employ inexperienced men and train them. The following order in employment of brakemen will hold good:

1. Men who have had some experience as a car repairer or inspector. Such men will have a knowledge of equipment and will be more careful than a man with no knowledge of the dangers from this source.

2. The brakeman or conductor from small roads in the same locality. Such a man moving from a small to a larger road will feel that he has something to learn and will go at it with enthusiasm.

3. Section men of sufficient education who have been found to be honest.

4. Station helpers, freight checkers or handlers. Such men will be especially adapted for local freight service.

5. Men of character off adjoining farms who have sufficient education.

6. Any other, in preference to the experienced "rounder," who will start some kind of trouble before he gets settled.

All men employed should have a fair education and be able to write a legible hand, as a great deal depends on being able to make legible records. Men of families are, of course, preferable.

RELATIONS TO SUPERIORS.

Be loyal to superior officers. Confer with them on all matters of importance and profit by their suggestions and experience. I once knew a trainmaster who made a dismal failure and disorganized a division by suggesting to employees in his department who had been disciplined that the old man had decided to do so-and-so, but in his opinion it was too severe. He not only lost the respect of the trainmen, but created endless dissatisfaction among them and was finally reduced.

Never pass papers to the superintendent with the words "please note" or "herewith report of so-and-so," or "I attach result of investigation of accident to so-and-so," without explaining in detail just what was brought out by the investigation and summing up the evidence as a lawyer would present his case to a jury.

Never fail to ask the superintendent for what is needed to properly handle the division in the way of additional help or facilities, and be just as ready to reduce the forces when it can be done.

It is the practice on many roads to require trainmasters to ride all special passenger trains, trains carrying officers' cars and trains hauling important freight, etc., and the writer has known of instances where a trainmaster had instructions to ride more than one train at the same time. The efficient trainmaster does not need, and should not be given, positive

instructions as to his movements, but should be kept posted regarding important movements and allowed to control his own plans. He will have sufficient judgment to do the proper thing.

A good chief despatcher is the most important official a superintendent can have, and he can make and save more money than any other subordinate official in the service.

He should work in closest harmony with the trainmaster, as the success of one depends greatly on the other. He should be equal in authority with the trainmaster, although he is the most important necessity of the two. Chief despatchers should go over the road frequently and inspect and supervise station and telegraph service, and should have sufficient force to allow this without crippling the service.

The trainmaster must be a defender of his superior officers and their policies; he must, for instance, know how to assuage the injured feelings of the station agent, as well as patrons, who can see no good reason for the further postponement of the proposed new station building to take the place of the present "buzzard roost." He must get in behind the round-house force at the point, for instance, where only the canopy of heaven serves for a roof, and, instead of joining the chorus of knockers, endeavor to convince them that there are good reasons, and give them the reason, if possible, why such conditions are not remedied. He must always be alert to allay, if possible, the friction between employees or departments, keep after the knockers, point out to them the futility of knocking, how it impairs the service and how infinitely more it impairs the knocker.

He should be so thoroughly familiar with every portion of his division that he can say off-hand whether or not a new idea is worth trying out. It is the man who studies conditions and tries to adopt or change practices that will effect economy for the company and reflect credit on his superiors that is valued.

He should keep in pretty close touch with the maintenance of way department, and heartily co-operate with it in all changes that affect the handling of traffic.

While you are essentially a transportation officer, yet you should familiarize yourself with the workings of your allied departments—the mechanical and maintenance of way—keeping your eyes and ears open for pointers that will be of great benefit to you in the future—perhaps in a few days. Whenever you see conditions in other departments that should be corrected, do not hesitate to call the attention of the division heads to them, and, if of importance, the attention of your superior also. Disasters have been known to be averted in this manner. Work closely and in harmony with other departments, as friction between heads of departments never resulted in good for any company.

RELATIONS TO SUBORDINATES.

Invite suggestions and weigh each one carefully. Do not have "Private" stenciled on your door in "box car letters."

I remember quite well, when I had only been trainmaster a short time, a conductor came to the office with a letter that I had written censuring him for an error in judgment, and said: "You can certainly write the most sarcastic letters of any official I ever worked under." I asked him to sit down and we would read the letter and discuss it. We did so, I explaining my views and intentions when writing the letter, and he his interpretation of the meaning. It so happened that he received the letter after making a hard trip on short rest and when he had been without a square meal for twelve hours. He felt that he had a grievance anyway, and the criticism was the finishing blow. I asked him to take the letter home with him and get a good rest and have his wife cook him a good meal and then sit down and read the letter while he smoked. The result was he came back next day and said: "Well, that letter wasn't so bad to take on a full stomach." However, the incident put me on my guard and taught me to thereafter use such language in a letter as would explain to the offender his violation and suggest a remedy without offending the most sensitive.

Another thing I found a necessity. Never criticize an employee in the presence of another. If anything goes wrong suggest some remedy to the individual at the time and then ask him to come to the office and go over the matter thoroughly. Listen to his explanations and weigh them carefully, deciding the case after considering conditions and circumstances and administer discipline necessary without humiliating the employee before any other employee. Especially does this refer to passenger employees, for two reasons: One, the traveling public should never be allowed to overhear discussions of failures to properly perform, and the other, passenger employees should give their entire attention to the handling of their train and administering to the needs and comforts of passengers on the train. Many a man has sacrificed his position to retain his self-respect as he saw it from looking at one side only.

He must have the knack of teaching the things best suited to the service on the particular railway or division of the railway on which he is employed and have his instructions carried out by employees in his department, teaching them loyalty and interest in their work that they may bring success to the operation and credit to themselves and the officers of their division and system. To do this he must first have the confidence of employees in his ability to teach, and be firm in requiring each individual to give particular attention to the details of the work. If the little things that seem unimpor-

tant to the individual are watched closely and the attention of each employee is called to the violation of rules and instructions promptly and courteously, failures explained at length, suggestions made as to how to avoid a recurrence and the responsibility of each clearly defined, he can in a short time find out the competent, careful and conscientious employee as well as the careless and unscrupulous.

You should know each of your men by name; study them individually so as to know their weak points. Always greet them pleasantly, calling each man by name every time you meet, and whenever an opportunity presents itself (in a friendly conversation, if possible), relate experiences or anecdotes that show up the weakness of others, that will show the person spoken to his own weak points and will set him to thinking, and thus do more good than to attack him direct. Show them the importance of being always vigilant for the welfare of the company; teach them that whatever is to the company's interest is to their interest; to make friends of all of the patrons by impressing upon them how glad we are to get their business. Make them understand that it will not do to violate rules in order to accommodate anyone asking a special favor. In refusing, it should be done in a quiet, gentlemanly manner, explaining why their request cannot be granted. When on the road with trainmen make yourself one of them by helping to do their work whenever an opportunity presents itself. This will show them that you know how and can do the work yourself; will prevent shirking or offering flimsy excuses when their work does not come up to your requirements. When they make a wrong move, let them finish it their own way (if not too far wrong, and then show them how it should have been done. Discuss it freely so as to show that your only object is to get it done in the best and quickest manner.

Keep a watch over enginemen. See that they do their part of the work properly. In a friendly manner call their attention to improper whistle signals, especially as to the abuse of blowing too often and too long. Call attention to the misuse of air-brakes.

Care should be taken to see that all train and enginemen get sufficient rest and plenty to eat. I have fed quite a number of train and enginemen when on long runs, often doing the cooking myself in the caboose while they were doing their station work, and when the next station was reached they worked like new men; and thus (the most important point) you get close to men.

At Christmas time try and show your trainmen some special attention, such as annulling local freights, arranging call of slow freights so as to let as many as possible be at home for dinner. If practicable, make them some inexpensive, useful

present, such as memorandum books or time-table holders.

Labor organizations have come to stay where they are led by intelligent, conservative men, and will abide carefully by all agreements entered into. They are a benefit and not a hindrance and greatly simplify the matter of handling large bodies of men. It is true that all labor organizations do not meet these tests, but the railways are fortunate in having to deal with some of those which do come up to the highest standard of reliability; whose representatives not only speak fully for their constituents, but can also be of inestimable benefit in preventing misunderstandings by disseminating clear, accurate information on their part to the men.

Where the discipline is so thorough that the official dignity of the officers is not lessened by very close and friendly contact with the men, and where the men have well-developed *esprit de corps* and faith in the integrity of their superiors, it is possible to deal with the men through their representatives on subjects tending toward progress and efficiency.

A sore place in a man's heart heals but slowly.

Be very slow about discharging anyone unless for drinking or insubordination (which must never be tolerated), realizing that discharging an employee, especially a man of family, makes him move, breaks up his home temporarily and works a hardship. But when absolutely necessary to discharge a man, help him to get a position on another road.

When a man is careless and not giving desired results, call the man to the office and have a heart-to-heart talk with him, showing that his position depends wholly upon the service rendered, and put it up to him to improve or be dismissed. Such handling will, if the man be the right kind, bring him out. If he is not the right kind of a man, he should be dropped from the service, as no trainmaster can afford to carry any dead material in the machine.

Endeavor to employ young men with good education and good habits, and turn down every young man for a position with the cigarette signs on his fingers.

New men who have had no experience as brakemen should be placed with the best conductor to learn the road and duties of a brakeman, and should be required to remain with him for a sufficient time to get the foundation for the rules of carefulness and safety. They should not be crammed full of long-winded lectures, but allowed to learn from observation and experience. After they have got a start in this way they will then be benefited by short talks from the trainmaster, on a few subjects at a time, and the trainmaster will usually be able at this time to determine whether or not he has the right man.

Make it a rule to observe seniority in promotion where merit and ability are nearly equal. Make it as far as you can worth while for the men to stay, remembering that continual

changes in the personnel are costly, and the valuable men are the stayers. When it does become necessary, on account of greater ability or merit, to put a junior man in a preferred position, take the pains to explain to the senior man why. Come out in the open and be frank and honest with your men. There is no virtue which will win the respect and admiration of men like that.

Always bear in mind that in the ranks are specialists, so to speak, in their different callings, and that a man who is proficient cannot be fooled by one who is not. The trainmaster makes a mistake when he starts off with the idea that because he ought to know more than he does he must make others think so. This is not an uncommon mistake. It is fatal, for he fools no one but himself, and loses the respect of his men. He also loses the chance for acquiring knowledge in which he is deficient.

Loyalty is a reciprocal proposition; you must pay the price for it, not only in wages, but in just treatment. A sort of dogged obedience may be enforced for a time, but that is not loyalty, and without loyalty good service is impossible. You may be able to make a man submit to an injustice, but you can never convince him that it is right to do so. It is just as necessary to sow the right kind of seed for loyalty as it is to plant corn for corn, or cotton for cotton. Men cannot be loyal and discontented at the same time, and they will be discontented while injustices are practised.

See to it that under ordinary conditions the forces are sufficiently recruited to allow a reasonable percentage of extra men, so that requests to be absent from duty may be readily granted when made in the proper manner. Consideration should always be given to all reasonable requests, for experience has proved that where the extra list is not large enough to permit the days off as requested, not a few men will take the chances of reporting "sick" or of resorting to some other subterfuge which has a demoralizing effect. On the other hand, I have known cases where these bad effects have been entirely eradicated when the men learned that there was a sincere effort made to grant all reasonable requests.

Particularly meritorious service by a subordinate should have proper recognition, and where the entire organization acquits itself with more than ordinary credit under adverse conditions, cause the fact to be made known in order that assistants of all ranks may have a share in the general satisfaction.

A trainmaster must be honest throughout, for a man is known by the promises he keeps. Therefore, he must be guarded about making promises or anything that can be construed as a promise. It requires courage sometimes to say "No," but it is better than to delude one with false promises.

Associated with real honesty is courtesy, and real courtesy springs from the heart. The greatest lie and the one most believed is the superficial adage that "Courtesy costs nothing." It costs a great deal. Cheerfulness is essential, helpful, and thrives by diligent cultivation. It is the element most conducive to the best individual and team work, for it lubricates all the relations and activities of life. A grouchy, grumpy, disgruntled trainmaster will have a seething streak of hell running through all the ramifications of a division, for bad dispositions are as infectious and as pestilential as smallpox, and on a railway they are as demoralizing as whisky—ruinous to business and individuals.

Be as ready to defend men against injustice or harsh discipline as he is to enforce observance of rules, because railway men, particularly those who have to deal with the public, are frequently subjected to insult when they cannot defend themselves, and are not infrequently unjustly charged by inconsiderate people with offenses of which they are not guilty.

The trainmaster can do more than probably anyone else to preserve the team play of the organization. Besides being a member of the superintendent's team, he is, of course, captain of his own team—a kind of 'varsity scrub, as it were. His team is made up of assistant trainmasters (if any), yardmasters, trainmen, yardmen and clerks. He must see that they play the game and they will be ever watchful to see how he plays his part on the big team.

RELATIONS TO THE PUBLIC.

In dealing with the public the trainmaster has unlimited possibilities for good or evil. A large portion of the public have a tendency to resist railway instructions. A privilege once extended to the public is almost impossible to withdraw. It is claimed as a right. People are so imbued with the idea that the railways discriminate; that the slightest inadvertent privilege to meet some local condition may cause embarrassment at points far removed. It is therefore, best for any trainmaster to understand the legal aspect of all questions affecting the public before he renders any decision, to the end that his orders may be in accordance with the law. If he follows this course he will save himself many unpleasant situations and the company much hostile criticism. The greater his knowledge of all laws, both federal and state, which concern a common carrier, the greater his efficiency.

The trainmaster has occasion to handle diplomatic matters with the smaller stations and firms, and should therefore enlarge his acquaintance as much as possible along the road. In this way he can frequently render good service to his company. He should be in close touch with the agents and see to it that they place the company in the proper light before the public.

Have very little to say to newspaper reporters, but endeavor

to keep in such close touch with shippers and patrons of the road, so that they will come to the trainmaster with their complaints instead of taking them up with the president.

When out on the road agents and customers with whom you will come in contact, will raise questions which are entirely out of your department—questions with which you are not familiar and cannot satisfactorily answer. See to it that you make a note of these; either find out about them, so that when next in the vicinity you can explain; or else see that someone connected with your road in the proper department makes a personal call and gives the desired information. You can make or lose a friend for your company by attending to or neglecting it.

INSTRUCTION AND DISCIPLINE.

The attainment of a high degree of discipline, although difficult, is practicable if the trainmaster receives proper support from his superiors. To obey, men must understand clearly what is required of them. It therefore follows that close supervision to compel unflinching obedience, and intelligent instruction to enable the men to give this obedience, are alike indispensable. The necessity for supervision is generally recognized and employed, but the use of instruction varies with the intelligence and education of the instructor.

Every irregularity, however small, should be handled, as the mere handling constitutes discipline and is an unconscious, but effective, warning of ever-present supervision. It does not follow, however, that punishment should follow every irregularity, even if the responsibility is clearly proved as the greatest distinction should be drawn between wilful offenses and all other offenses. Wilful offenses should be met with merciless punishment, whereas the handling of others should be governed by the individuality of the man and his previous record. Two recent cases investigated at the same time fairly well illustrate the distinction just drawn. One man, acting as flagman, with nothing against his previous record, who was found asleep by the conductor when the train pulled into a siding, was instantly dismissed, in spite of earnest pleading of overwhelming drowsiness caused by fever which he claimed to have had before leaving the terminal. He had had, however, full rest before being called and could easily have obtained relief if he had asked for it. When he felt drowsy he should have notified the conductor, who could have taken steps to guard against that nightmare of responsible railway men, an open main line switch. For the sake of a very small sum he had placed thousands of dollars of property and human life in jeopardy. The other man, a baggagemaster, with nothing against his previous record, frankly admitted that in some inexplicable manner he had put a piece of baggage off at the wrong station, which only the quickest kind of tracing had

44 HOW TO BE A FIRST-CLASS TRAINMASTER.

been able to locate in order to avoid a heavy claim, and he had no excuses to offer. Firm in the belief that the error was due to one of the freakish twists, to which the best minds are subject, and that punishment would only hurt the pride of an ambitious man, the incident was at once closed, with an admonition to use all possible care to guard against a recurrence.

Collective instruction is almost invariably satisfactory in its results, especially when there is time for general discussion, as it brings out the views of many different minds, and, by enabling the instructor to perceive where the subject is least understood, permits him to apply the remedy at once. In the same way oral examination, although there must be a limit to the number being examined, in proportion to the thoroughness desired in the examination, allows the examiner sufficient knowledge of the proficiency of the men, but still permits him to remedy any deficiency on the spot.

Men who are good teachers, with the knack of making their pupils quickly grasp their meaning, and what is even more important, hold it, are few; but an efficient trainmaster must have it. Before making any attempt at individual or collective instruction the opportunities that the men have had for acquiring information on the subject to be discussed should be taken into consideration, for the trainmaster frequently has taken part in the arguments leading up to the adoption of a particular method of execution, whereas the men have only had the short, terse instructions in their unrelieved directness. The next step should be to realize how little the instructor himself could retain, if he were hearing the subject discussed for the first time, and then estimate the relative ability of the men in retentiveness as compared with his own ability. Although there is considerable difference of opinion as to the relative merits of individual and collective instruction, and, although I have found that, sometimes one, sometimes the other, best serves the purpose, the recent instructions issued on a certain subject by nearly all railways, constituting a formidable mass of information to be quickly digested, made it plain that, on such occasions, large class meetings alone would enable the trainmasters to reach all the men. After careful perusal of the instructions it was very clear that, in the limited time at my disposal, it would be impossible to make the men remember all the details, so I decided to summarize the entire subject in such a way that, if possible, it would be understood sufficiently to enable the men to know where to turn in the printed instructions for all doubtful points, and, by emphasizing the salient features, I tried to ensure their being memorized. If I had not mapped out this plan beforehand, and had attempted, paragraph by paragraph, to explain everything in detail, I should never have finished within the

allotted time, and the men would have forgotten everything I had told them. As it is now, I have a series of well-understood sections to work upon for a more elaborate whole.

The trainmaster who listens to the soothing call of personal popularity, and who weighs any action by the effect it may have on such personal popularity, is building his citadel, discipline, on shaky foundations. In conducting investigations and arriving at a conclusion it is as much to the interest of a railway company to have a trainmaster protect the interests of the men as it is to have its own interests protected. Thereupon follows that indefinable and subtle something called *esprit de corps*.

Lack of system militates more than anything else against a high standard of discipline, for if small details are not taken up, classified and definitely arranged for with a view to a specified method of handling, there can be no thorough instruction of the men who cannot therefore be expected to obey.

In administering discipline, never take hasty action or snap judgment; never place the superintendent in the embarrassing position of being unable to support you. Do not allow technical or catch questions to be brought up, but the practical, every-day duties of a man in the transportation department.

To the end that team work may be developed to the highest degree, work up a good-natured rivalry by means of comparisons; hold frequent staff or class meetings, where you will bring out by discussion the object of the different rules, as well as a clear and uniform interpretation and understanding of them; call on the men to point out any rule or rules in the code which, in their judgment, should be modified or eliminated. Failing in this they necessarily acknowledge the importance of the strict observance of same. This puts the matter right home to them. Review any accident that may have occurred since the last meeting, and point out where the observance of certain rules would have avoided it.

The trainmaster must sometimes arouse his men to have them achieve better results. Some men only need a suggestion; others an appeal to their honor and sense of justice, while with others a good scare is better than good advice. It is possible to be quite right, and at the same time quite disagreeable, and in the main we awaken in others the same attitude of mind that we hold toward them.

INSPECTION.

He should, if possible, cover his division each week on local freight, as this is his best inspection train, stopping at all stations; it gives him the opportunity to properly inspect them.

Make notes of the errors made and put them before all of your men in a circular form, omitting names and places.

Show what the results would have been had each man concerned done his full duty.

Look out for delayed cars, especially at non-agency stations.

Make periodical check of terminal yards and go through the shop yards (if in your charge) to see that light repair cars get their turn.

Make an inspection of cabooses and lockers at least once every three months to check up monthly reports required from conductors.

The trainmaster's movements should be so uncertain that the men will not be surprised to find him at any station, day or night. This fact alone will keep them on the lookout to properly carry out the rules and obey instructions.

Like a good district attorney he should know the law and have some ability as a cross-examiner, because some men lie; some evade the truth to shield others, but will not lie outright. Some will neither deliberately lie nor evade the truth, but will not tell all they know because they do not realize the essential points or have poor descriptive powers.

Thoroughly familiarize yourself with your assigned territory, covering all of it, including main line, branches and terminals, at least once a week. When on the road, keep your office and the chief dispatcher minutely advised as to your whereabouts, present and future, and if any change in plans, notify headquarters immediately. This is absolutely necessary, as oftentimes it is required that you be located for important business without delay.

It is necessary that bulletins and special instructions be issued, but they should be curtailed as much as possible and gotten up in the most simple and plain language, so that your employees may understand readily and without difference of opinion. Carefully examine your bulletin boards or books when passing over the line, to see that all bulletins are contained therein and that dead ones are removed. Whenever possible approve all bulletins and special instructions before allowing them to be sent out. Some highly important matters, such as placing derailing switches on main line or passing tracks, should not be depended upon for safety by simply posting up a mail bulletin on bulletin boards. A regular "31" train order should be put out and receipts taken from your train and enginemen until such a time as it is fully covered, when the "31" order can be taken down and signatures in your bulletin books depended upon.

ACCIDENTS.

Train and enginemen should be taught thoroughness in making reports. Too many are prone to make a short report of accidents or failures without giving the details. They have a mental photograph of the occurrence, and it seems to them

that the trainmaster should understand just how a collision or derailment happened.

My first experience as a trainmaster was on a division with which I was not familiar. I was called out with the wrecker to where a train had parted and run together, piling up some empty cars. When we arrived I instructed the wrecking foreman to turn the cars over and clear the main track, and he replied: "We don't do that here." I insisted that it be done and reported to the superintendent that the track would be clear at a given time; and then after investigation made a detailed report of the accident and told the despatcher to handle trains to the nearest point on either side of the derailment, which he did. The first train was let over within fifteen minutes of the time that I had named in my report, and I was complimented by the superintendent on the "concise and accurate report" rendered and the method used in clearing a busy main line, and the result gave me confidence that has been of assistance to me ever since.

The trainmaster should be able, from his own knowledge and experience, to form a reasonable opinion and conclusion as to how the accident happened. In serious accidents that seem to call for investigation, get the entire crew or crews interested together, and hold an investigation, having clerk write it up, giving each employee copy of his own statement. Insist that each member of crew interested make a statement; if he knows nothing about the matter, let him say so. He cannot then come back later, when a grievance committee may be handling the case, with any other story.

The manning of the wrecking crew, its proper equipment with portable telephones, telegraph, first aid, etc., and the ability to get it out with absolutely no loss of time, detouring traffic and caring for such as cannot be detoured, indicate the character of a trainmaster's organization. Halting uncertainty at a critical moment costs the confidence of management and employees alike. It is imperative that prompt and vigorous action be taken in emergencies, and upon the trainmaster usually falls the duty of taking the initiative.

STATIONS.

A most important thing to watch is the condition of offices, waiting rooms and warehouses. When these are kept in a neat, cleanly manner everything else is likely to be done properly. See that all placards are removed when soiled. Nevertheless, observation should be made frequently as to the quality of the work. It is often found that an agent gets behind in his work for lack of system, letting his work pile up instead of doing it correctly as it comes along. Show him how time can be saved.

Careful watch should be kept over operators to see that they make proper use of all signals and safety devices. See that

48 HOW TO BE A FIRST-CLASS TRAINMASTER.

they comply with all rules relative to handling of train orders. Night men should be watched to see that they properly and safely care for baggage and mail and not leave them out. Unless absolutely necessary, never make use of a Pullman berth on your own division, nor make a practice of riding altogether in them, but spend a part of your time on different parts of the train.

Note anything that is wrong around the station, window-glass out, door fastenings gone, holes in platform, condition of freight room, office and waiting rooms, and insist upon cleanliness and things being kept in proper order. See that agent or operator is supplied with proper signals, wears his uniform when time to sell tickets or meet passenger train; that trash is not allowed to accumulate back of the depot or out buildings. Keep sharp lookout for foreign cars. If loaded, get after agent to have them released, and at any time when cars are scarce, see that any loaded cars are released promptly. Look after baggage trucks and keep them repaired. Note whether or not switch lights and train order signals are kept clean and burning brightly.

Study very carefully the movement of loads and empties, consulting frequently with your chief despatcher and superior, figuring your train handling accordingly, so that your cost of operation will be upon your mind, as well as the rapid handling of your loads and the prompt placing of your empties for prospective business. The loading on your territory should be studied thoroughly season after season, especially at your larger freight stations, for in doing so and consulting with your various agents you may be able to effect great improvement, diminishing the number of cars loaded, time for handling and, in general, better this important branch of service.

YARDS.

Give special attention to delays caused by hot boxes; drop around in the terminal yards to see what attention they are getting from the "car knockers." I have caught them going down one side of a train and back up the other, not even opening a journal box unless there were some outward indication of heating. When taken to task and the waste was pushed up to journals very few hot boxes would develop for the next 150 miles.

Yardmasters should be schooled to figure out the yard operation, as far as possible, a day in advance, keeping in touch with the chief despatchers and connecting lines as to the outlook for business the following twenty-four hours, which can in most cases be closely estimated. Yard engines and crews are then ordered for the following day in accordance with this estimate. In this manner great saving can, in some cases, be effected in yard engines and like expense, and at the same time it has a tendency to enlarge the views of the yardmaster

and make him capable of rendering more efficient service. Particular attention should be devoted to trains departing promptly at the time set for departure. Each case of failure should be investigated thoroughly and promptly, defects remedied and both train and yard men kept thoroughly alive to this important feature. This matter, as a rule, has considerable bearing on the success of the trip. The despatcher having taken the train at a time when it can best be handled, and its failure to depart at the time set, usually results in further delays at meeting points.

Employ good yardmasters. A train started on time is an inspiration, while one started late is a discouragement. Don't let the call boy be train and yardmaster; he will have all he can do if he gets crews out on time. Make up trains in station order at starting point instead of expecting the next yard to do it. The yard was built for the proper making up of trains, and a train can often be made up properly, if a little care is used, with as little work as otherwise.

Do not make local freights out of the majority of your trains simply to convenience a yard and save them a little work. Such trains will cause an unnecessary delay and you will lose in maximum train haul.

Perfect a strong organization at terminals under your jurisdiction so as to have a good check on the motive power and employees. Where there are several industries requiring more than one engine, the work should be properly distributed to each engine and then watched to see that each engine performs a good day's work, with no overtime.

PASSENGER TRAINS.

Sitting quietly in a modest compartment you will frequently hear travelers telling of the various ways they have of beating a conductor. Put your men on to their methods.

Know that both conductor and flagman are posted on all connections at each end of their run and at junctions; show them the importance of always being polite and attentive to the wants of passengers, and especially women with children. Impress upon the train porter the importance of keeping the coaches clean and of giving special attention to ventilation.

See that road crews furnish in detail reports of all detentions of ten minutes, or more, from time called until engine arrives on pit at end of run.

The writer always felt that a passenger trainman should not chew tobacco, so in employing young men who graded into the passenger train service he decided not to employ any young men who chewed tobacco. He smoked moderately, but not in the office or on the road, and to be consistent with his decision he gave up smoking altogether. After following this method for nine years he left that arm of the service, but dur-

ing that time he had employed several hundred young men, who gave him their word that they did not chew tobacco and would not chew it. That was not sentimentality, nor fanaticism; it was simply an element of common decency applied to a public service.

Passenger and special train service of any character should receive personal attention, as generally such service is watched by your management, and you will be called upon to explain all irregularities. Arrange to ride special trains and regular trains, both freight and passenger, that do not maintain schedule time, to see that the best possible service is rendered.

FREIGHT TRAINS.

Early in my career I was called out of bed one night by the jingle of the 'phone and told by the despatcher "223 is crowding 271," and asked: "Shall I let them pass?" Two-seventy-one was the through merchandise run and 223 a local passenger train. The division was new to me, but in this and similar cases I always decided one way or the other and said "yes" or "no." Sometimes my judgment brought a protest from my superior officers. But that was easy as compared with the nights that the despatcher would say: "Water over the track and washed out between A and B. Shall we detour the mail?" or "it's snowing hard and 790 is doubling into X; engine about out of water (or coal) and stock on the cars about the limit required by law." Then arose the question: "Haven't you a 'dead freighter' that you can put in at V. or W. and use its engine to double head?" Regardless of what went wrong, unless in case of accident, causing loss of life or serious injury, I make it a point to handle the case without disturbing the superintendent during the night. Sometimes when I had decided injudiciously he was kind enough to point out wherein I had failed. At other times the results were satisfactory, and he would say: "Jack, you did good work last night in handling so-and-so." If I discussed any problem with him I made my arguments according to my judgment, but after he had decided on a plan I worked to that end, regardless of my own judgment or opinion.

In keeping an organization in harmony for moving a business on a division nothing has better effect than first-class local freight service. If local business moves properly the through business will in turn move with more ease. For that reason particular attention should be given to way freight trains. The best conductors, flagmen and brakemen should be on these trains. They will not only keep down expense in overtime, but will reduce claims from improper handling. They will also place the road in better light to patrons along the line who have to deal with this class of employees. The men best adapted to handling this business should, in all cases, be

placed on way freight trains, regardless of the rank in service. Nothing takes more petty worry off the trainmaster than first-class local freight service.

One of the greatest helps that a trainmaster can have is good and comfortable caboose cars. These cars should be so constructed that men can board themselves and sleep in their cars, when away from home, and a safe storage track should be provided.

Each crew should have a regular car, and its good condition will do much to keep men in good spirits, and at work regularly, as they will not want to turn their car over to extra men. The best man in any position is the one who has respect for his comforts and health, and a comfortable employee is one who will care for his position and take a personal interest in his work. Such employee will be less susceptible to bad influences, which, in a trainman's life, are numerous.

Run local freights on time and clean up the road each day. A car left over to-day may be buried to-morrow and take twice as much time to handle; besides, it has been delayed.

Do not overload trains; the last 50 tons of any overloaded train will cost you as much as the handling of the balance of train.

Well and congenially organized crews will always give best results, and a crew once well organized should not be disturbed more than is absolutely necessary.

Men should not be allowed to lay off periodically, and those who have this inclination are not the best men, as they show that they are not interested in their work. The best men are always those who are interested.

When necessary, for filling a vacancy in a crew temporarily, an extra man should be used instead of allowing regular men to be chain-ganged. The successful operation of a train depends as much upon the proper and permanent organization of its crew, as the operation of a railway depends upon its official organization.

The following, printed on a mimeograph and distributed among yardmasters and trainmen, is a useful and convenient way of making and maintaining an assignment:

"The following shows assignment of conductors, flagmen and brakemen, caboose cars, as well as seniority of men, for division.

"When necessary to fill vacancies the oldest man, in age of service, should be used, if such vacancy is permanent; if only temporary, the extra man standing first out should be used.

"Caboose cars must be kept with the crew to which assigned, and when cars are disabled, making a change necessary, an extra car must be used.

"Conductors and brakemen should not lay off except in cases of absolute necessity, but when it is necessary to do so they

52 HOW TO BE A FIRST-CLASS TRAINMASTER.

must make proper arrangements in sufficient time to allow the proper filling of their places."

ASSIGNMENT OF MEN.

Passenger Service.

Conductor.	Age.	Flagman.	Age.	Baggagemaster.	Age.
Adams, J. W.....	1	Arnold, C. W.....	2	Smith, A. H.....	3
Jones, E. H.....	2	Jacobs, M. H.....	4	Sellman, C. H.....	2
Sampson, G. W... 3		Jackson, C. N... 1		Johnson, E. M... 4	
Jessup, H. N... 4		Simpson, T. H... 3		Joseph, F. G..... 1	

Extra Passenger.

Moorehead, G. H. 5	Dixon, G. C..... 5	Jacobs, C. H..... 5
Williams, F. T... 6	Wilson, R. T.... 6	Wintergreen, J.W 6

Freight Service.

Ca-boose.	Con-ductor.	Age.	Flagmen.	Age.	Brakemen.	Age.	Assigned to
2002 Messer, C. L.	1	Jones, G.. 3	Wolf, R. M.... 2	No. 51 & 52.			
2001 Marsh, C. B.	2	Jack, T.G.. 1	Wenn, T. J.... 1	No. 51 & 52.			
2004 Max. G. H... 3		Coe, T. L.. 2	Carr, J. C.... 3	No. 53 & 54.			
2003 Moss, G. T.. 4		Bull, Y. G. 6	John, C. D... 7	Chain gang.			
2006 Moore, R. E.. 5		Nort, R.W. 4	Maxey, J. R.. 6	Chain gang.			
2007 Mann, R. W.. 6		Wash, Y.U. 5	Moonney, D.H. 4	Chain gang.			

Extra Freight.

Ca-boose.	Con-ductor.	Age.	Brakemen.	Age.	Brakemen.	Age.	Brakemen.	Age.
2005 Dow, T. H. 7		Dix, D. R.. 7	Dan, T. H.. 8	Mart, T. H. 9				
2008 Ward, G. H. 8		Masy, G... 10	Worth, W.R. 11	Jones, T... 12				
2009 John, G. ... 9								

Issued July 10, 1909.

.....Trainmaster.

Overtime and the regulating of constructive mileage has ever been an important factor in railway economy. A practical trainmaster should be able to indicate the cause of overtime more intelligently than anyone else connected with the company, for he is out on the road most of the time and knows just what a crew is capable of doing, the cause of unnecessary delays and is in the best position to apply a remedy.

A trainmaster is bound to attract attention if he watches closely constructive mileage. There are many roads that pay out large amounts of money every month in wages, for which they receive absolutely no returns. If the trainmaster is on to his job he can reduce the cost of handling trains considerably.

MISCELLANEOUS SUGGESTIONS.

The hardest, best, most valuable training was on small roads, because the small roads are lacking in resources and they develop individual initiative. They are also more closely supervised; the worthless man is quickly eliminated and the good man is soon recognized and appreciated. An experience on local freight on a small road gives a man an excellent training. If we got off the track we got on again; if flues leaked we hunted mills for sawdust or bran or confiscated rice from a local car and pumped it into the boiler; we tackled anything and everything; made double flying switches, coupled without stopping and passed thirty and forty car trains on ten-car sidings. If a confirmed loafer was assigned to a crew he was left at some way station. No laggard or loafer could live with those intrepid, daring, energetic fellows; the atmosphere was too highly surcharged for his comfort. But every

man had a fair deal, and if one was really ill or crippled he was treated with consideration.

But what a difference from this on the great systems. It was as if a sailing master had been transferred from a sailing ship to a liner, for on the big divisions the traffic, in the main, is from one terminal to another, and the crews simply ride along. To make up a train in a yard was a task; to run a local freight over a road was a feat to most of the men. Energy and initiative were lacking; laggards and incompetents cursed the life of the yardmasters and stifled the energies of capable men. There was little to quicken endeavor, less to stimulate individual initiative, and the prevailing spirit was carping, hypocritical and arrogant. These conditions were due, first, to a lack of deliberate, painstaking care in the selection of men, and second, because there was no method of eliminating incapable employees; consequently, the dull, apathetic, ordinary creature, devoid of concern for the company's welfare, suffered nothing for these deficiencies. As long as he did not wreck a train or commit a heinous crime he could keep step with his fellow-employee, who possessed and exercised all the qualities the former lacked.

Mr. A. is trainmaster of the first division and Mr. M. is trainmaster of the second division on the same system. Mr. M. does not allow his trainmen to unfavorably criticize the despatching. His men make reports of their delays, but do not assume to say that the despatcher could have done better had he known more. It has been kindly but firmly explained to them that they are not competent judges of this particular matter.

Not long ago a trackage arrangement was made by virtue of which thirty or forty first division crews run over the second division track for about fifty miles. This arrangement was not more than well started, when Mr. M's office began to be flooded with reports (many of them under "personal" cover) from conductors and enginemen of the first division—all on the same subject and all to the same effect, viz.: that the despatching could not be worse done if it were undone.

After causing it to be thoroughly understood that second division etiquette would be standard in second division territory, Mr. M., by means of a little quiet investigation, discovered that most unfriendly relations existed between Mr. A. and Mr. J., who is chief despatcher of the first division. All the trainmen and enginemen were well aware of this feeling and sought to gain favor with Mr. A. by furnishing him ammunition with which to fight Mr. J. At first glance this might seem like loyalty of his men to Mr. A., but having been allowed to treat one kind of authority with disrespect they have acquired a very general contempt for any and all authority, and Mr. A. has a division full of insubordination as his reward for not "playing the game."

Railroad Age Gazette

83 Fulton Street, New York.

The Railroad Age Gazette is a consolidation of The Railway Age and the Railroad Gazette. Published every Friday, with about 48 reading pages. It is the largest railroad paper in the world. Its editorial staff is larger than the combined staffs of all other railroad papers in this country. It is exclusively a news and educational publication for railroad officers who want to rise in their profession. Its circulation is from two to ten times greater than the total circulation of any other paper made for railroad officers. We have hundreds of letters similar to the following:

The General Manager of one of the most important systems in this country writes: "Not a little of any man's success in the railroad world is due to his keeping up to date all the time, and I do not know a better method of doing this than by reading such an able paper as the Railroad Age Gazette. In fact I think so much of it that I have made it incumbent on all our officers to read it right along."

The General Manager of the Central Railroad of New Jersey writes us: "There is matter in it which is worth dollars to the railroad company. This letter is only to let you know that we appreciate good work when we see it."

The General Manager of the Chicago, Burlington & Quincy said: "All my railroad education comes from your paper. Since I was a fireman I have learned from it all I know except what I got from actual work."

The Railroad Age Gazette has no rival. It is so large that it includes the best and most profitable information in every department, from the President to the Foreman, for the man who wants to qualify himself for higher duty and position.

It pays to read it. It costs \$5.00 a year (including any daily edition) in the United States and Mexico. Canadian subscription \$6.00 a year. Single copies 15 cents each. Specimen copy free.

SIGNALING.

- SIGNAL DICTIONARY.** Edited by B. B. Adams and Rodney Hitt and published by authority of the Railway Signal Association. The most complete and only authoritative work on the subject. Every kind of approved apparatus in use on the railroads of the United States, for either Interlocking or Block Signaling, is clearly and concisely described, including details of the parts of all the important machines and mechanical structures. There are over 3,000 engravings. A necessity for every operating and engineering officer and a compact and convenient guide in ordering apparatus. Bound in full morocco. Price, \$6.00.
- PERFORMANCE OF AUTOMATIC BLOCK SIGNALS UNDER UNFAVORABLE CONDITIONS.** By H. S. Balliet, Engineer Maintenance of Way, Grand Central Station. A reprint of the valuable and very useful series of articles published in the Railroad Gazette. Pamphlet, 50 cents.

LOCOMOTIVES.

- THE LOCOMOTIVE DICTIONARY.** (Revised 1909.) Published by authority of the American Railway Master Mechanics' Association. It is an illustrated vocabulary of terms with 5,148 illustrations showing general views and detail drawings of all types of modern American and British locomotives. Full morocco binding, 627 pages. Price, \$6.00.
- LOCOMOTIVE OPERATION.** By G. R. Henderson, M.E.; M. Am. Soc. C. E. Second edition, revised. "The best treatise on the subject ever written in any language." Cloth, 536 pages; with 142 illustrations and 5 folding sheets containing 11 plates. Price, \$3.50.
- COST OF LOCOMOTIVE OPERATION.** By George R. Henderson, M.E.; M. Am. Soc. C. E. A critical analysis of the locomotive and its operations, based upon data compiled by one of the foremost mechanical experts in America. Price, \$2.50.
- THE CARE OF LOCOMOTIVE BOILERS.** By Myron E. Wells, B.S., Member International Railway Master Boiler Makers' Association. A Practical Treatise on the Treatment of Locomotive Boilers when in Operation; on Washing Out and Firing Up; with some suggestions as to the Cause and Cure of Leaky Tubes and Riveted Joints. Paper cover, 84 pages. Price, 50 cents.
- CATECHISM OF THE LOCOMOTIVE.** By Mathias N. Forney. It is written in such language as an engineer or fireman can easily understand. Price, \$3.50.
- COMPOUND LOCOMOTIVES.** By Arthur Tannatt Woods. Revised and enlarged by David Leonard Barnes in 1893. Cloth, 344 pages; well illustrated. Special price, \$2.00.

CARS.

- CAR BUILDERS' DICTIONARY.** The 1909 edition has 6,344 illustrations. It is the official work of the Master Car Builders' Association. Contains general views, scale drawings and dimensions of substantially all American and many standard British cars, including their parts, fittings and attachments. Full leather binding. Price, \$6.00.
- REPAIRS OF RAILWAY CAR EQUIPMENT.** With Prices of Labor and Material. By H. M. Perry. Intended as a reference book for railroad officials and others having to do with car repairs. 172 pages. Cloth, \$2.00; flexible leather, \$5.00.

RAILROAD OPERATION.

- HOW TO BE A FIRST CLASS TRAINMASTER.** Three prize articles and selections from fifteen competitors' articles on the employment, instruction and discipline of men and the other duties of a first class trainmaster. Price, 50 cents; \$4.00 per dozen.
- RAILROAD OPERATIONS.** How to know them from a study of the Accounts and Statistics. By J. Shirley Eaton. The object

The price of books should accompany all orders.

- of this book is to enable a railroad officer to get the meaning out of statistics of operation. Price, \$2.00.
- ELEMENTS OF RAILROADING.** By Charles Paine. A series of essays on the different departments of railroad operation. Price, \$1.00.
- LETTERS FROM AN OLD RAILWAY OFFICIAL TO HIS SON, A DIVISION SUPERINTENDENT.** By Charles Delano Hine. These "Letters" contain so much homely common sense, expressed in such an unusually fresh, vivacious and heart-to-heart manner, that they have attracted widespread attention. Cloth, 180 pages. Price, \$1.50.
- RIGHTS OF TRAINS ON SINGLE TRACK.** By H. W. Forman. Rules may change from time to time, but the principles set forth in this book will stand for all time. It contains 1,166 questions and answers, 82 examples of train orders, perfect or otherwise, and innumerable comments on all manner of train despatching problems. 477 pages, leather, gilt edges. Price, \$2.50.
- TRAIN WIRE.** By J. A. Anderson, 1891. A thorough, precise and masterly discussion of the art of train despatching. Mr. Anderson wrote 17 years ago, but his clear setting forth of fundamental principles has never been surpassed. Price, \$1.25.

PERMANENT WAY.

- DEFORMATIONS OF RAILROAD TRACKS AND THE MEANS OF REMEDYING THEM.** By G. Cuénot, Chief Engineer, Bridges and Highways (France) and attached to the Paris-Lyons-Mediterranean Railroad. Translated by W. C. Cushing, Chief Engineer of Maintenance of Way, Pennsylvania Lines West. 50 engravings. Price, \$2.00.
- ROADMASTERS' ASSISTANT,** 1904 edition. A practical manual of reference for those having to do with the permanent way of American railroads. Illustrated with 300 engravings. Price, \$1.50.
- SCALES FOR TURNOUTS.** By E. A. Gieseler. Gives graphically the frog numbers, length of lead and degree of curvature for turnout from 3° to 42° 30'. Stiff cardboard, pocket size. Price, with full directions for use, 25 cents.

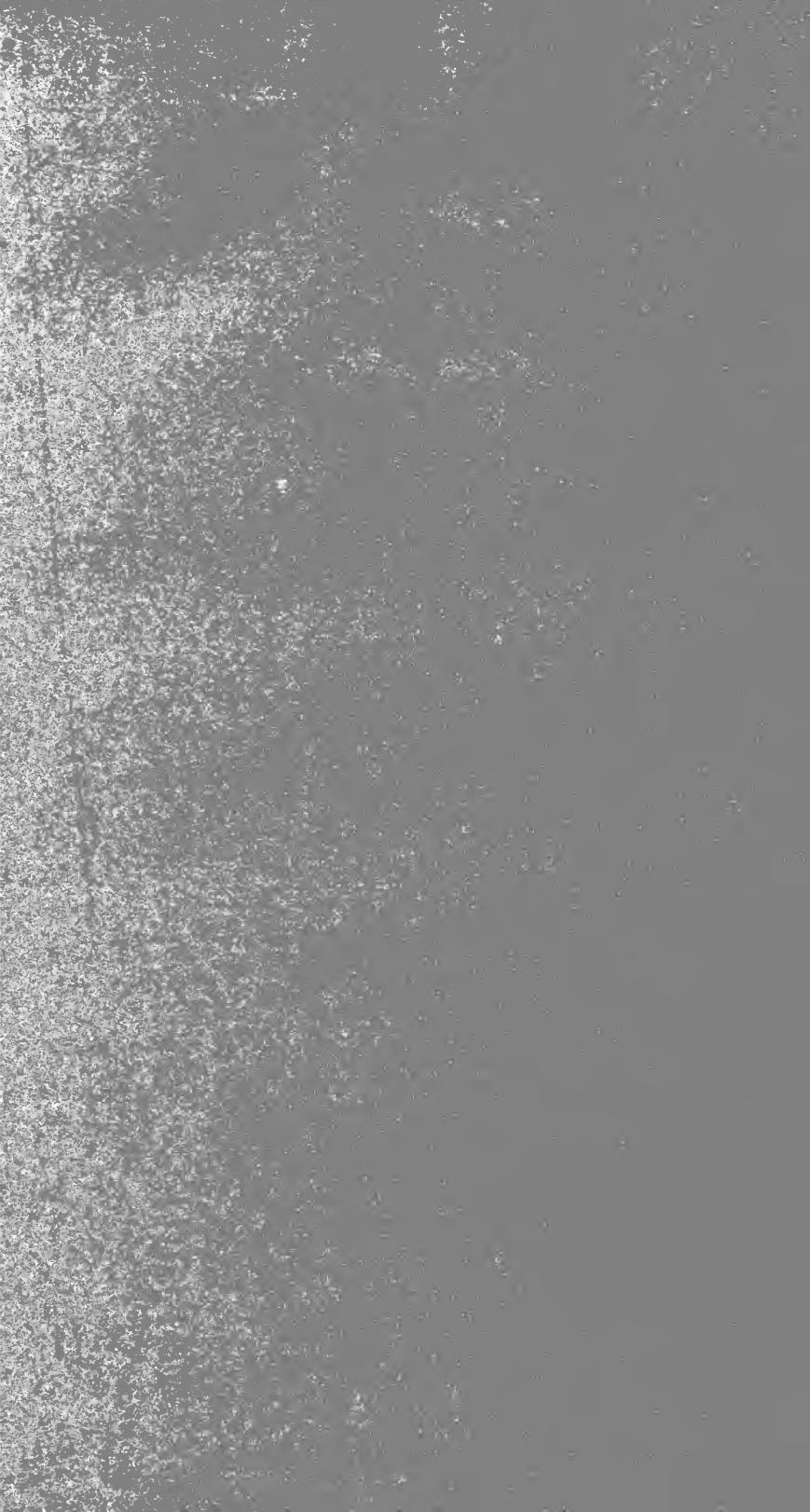
MISCELLANEOUS.

- YARDS AND TERMINALS AND THEIR OPERATION.** By J. A. Droege, Division Supt., N. Y., N. H. & H. R. R. Fully illustrated, showing the layout of types of summit (or "hump") yards, gravity yards, polling yards and tail end switching. Also coaling, sanding, ash-handling and like apparatus, and methods of handling freight at terminals and division points. Price, \$2.50.
- AMERICAN RAILWAY SHOP SYSTEMS.** By Walter G. Berg, Chief Engineer, Lehigh Valley Railroad. A treatise on the layout and construction of railroad shops with analytical study and practical comments. 108 illustrations showing general layout, floor plans, elevations, cross sections and interiors. Price, \$2.00.
- BIOGRAPHICAL DIRECTORY OR RAILWAY OFFICIALS OF AMERICA.** Sixth (1906) edition. 698 pages. Personal sketches of over 5,000 railroad officers, including the biographies of 96 national and State Railway Commissioners. Price, \$3.00.
- INTERSTATE COMMERCE LAW WITH AMENDMENTS TO DECEMBER 1, 1908.** Contains: The full text of the Hepburn Bill; the Interstate Commerce Act with the Hepburn Bill amendments; the Elkins Act; the Safety Appliance Acts; the Sherman Anti-trust Act. Pamphlet. Price, 25 cents.
- THE OCEAN CARRIER.** A History and Analysis of the Service and a Discussion of the Rates of Ocean Transportation. By J. Russell Smith, Ph.D. The reason why sailing ships are profitable on some routes, charter steamers on others, and mail boats on others. A remarkably clear picture of the business of ocean commerce. 322 pages, 33 pictures of characteristic steamships and 5 ocean-route maps. Price, \$1.50.

Address: The Railroad Age Gazette, 83 Fulton St., New York.

The price of books should accompany all orders.





UNIVERSITY OF CALIFORNIA LIBRARY
BERKELEY

**THIS BOOK IS DUE ON THE LAST DATE
STAMPED BELOW**

Books not returned on time are subject to a fine of 50c per volume after the third day overdue, increasing to \$1.00 per volume after the sixth day. Books not in demand may be renewed if application is made before expiration of loan period.

MAY 2 1917

APR 22 1922

NOV 14 1925

MAR 22 1928

28 Apr '46

8 Nov 53 SB

OCT 25 1953

190596

~~TF-55~~

H6

Wildman

