

before he realizes that he should have had the signal "clear," and so have avoided the unnecessary loss of time and expense in fuel, to say nothing of the energy that the crew are liable to expend in "hot air." I am not forgetting that if the engineer is having trouble with his engine, or the conductor has work to perform along the line, that they should do all in their power to keep the dispatcher and agents thoroughly posted as to their movements, so that other trains may not be unnecessarily delayed. Not only this, but many other small delays could be avoided, which, in the aggregate, mean a great deal, both as regards cost to the company and delaying delivery of freight to consignee contrary to contract. Enginemens, trainmen, yard crews, call-boys, checkers, agents, pumps, and, in fact, every man in any way connected with the transportation department, can all assist in keeping down the cost of transportation by doing their part, no matter how small or insignificant it may appear. You may ask in what way the call-boy could assist in reducing the cost of transportation. I might answer by asking a question in return. Did you ever suddenly find yourself in the midst of busy hours minus a call-boy? His position may seem of little importance, being merely to notify men of the hour at which they are required for duty, but if the caller neglects his duty and fails to call a number of men who are required for important fast trains, and his neglect is not discovered until the time arrives for the departure of the trains, then you learn that all these important trains have been seriously delayed—possibly the train crew waiting for the engine or the enginemens waiting for the trainmen—all owing to the failure of the call boy. Then you begin to realize that the team is being weakened because the boy "fell down" in his duty. The call boy may be likened to the lad who blows the organ in church. You all know the old saying, "If the boy sleeps, the music stops." There is not a false move made, but what adds to the cost of transportation. It is therefore necessary for every member in this great game of transportation to be ever on the alert, ready to do his part at the critical moment. The failure of one player to do his part is liable to cause loss, to recover from which it may cost a great deal in time and money.

There is another important feature in connection with the prompt movement of traffic that is probably not kept before us with sufficient force to enable us to get all the good out of it that is possible. I refer to the handling of our local way freight trains. These trains are becoming more numerous and the work increasing as our country progresses. The one important feature in this connection is to have the freight for local delivery properly loaded at the shipping points. It therefore becomes necessary for the freight handlers to join our team, and their aid is necessary if we are to look for success. I have seen cases where the train crew have been called upon to unload a good half car of freight to get out a small shipment for a way station, all because the freight is not properly loaded at the shipping point. This results in loss of time, disappointment to consignees, dissatisfaction to shippers, and in some cases damage to freight, besides a general "black-eye" to the system handling the freight. Compare this with a good system of loading freight for local delivery, where it is loaded in station order, carefully packed and properly trimmed, which ensures prompt delivery when unloaded by the train crew; the damage to freight, the consignees are satisfied, shippers inclined to give you extra freight because it has been handled so well before; overtime of train and engine crews is cut out, with less fuel con-

sumption and low cost of handling. I might say just here that the shippers themselves could encourage this team work a great deal by shipping their goods in strong packages, fully and properly addressed. This all helps to reduce delays at terminals and expedite shipments en route, thereby resulting in economy both to the consignee and the company by preventing freight going astray or becoming damaged on account of frail packages. Another good feature in this connection is the early closing of freight houses to permit of the forwarding of all freight the same day it is received, thus enabling the fast freights to be dispatched on time.

Another important member of this team is the stores department. This may be termed the "handy department," since, when everything else fails, we are apt to say, "requisitions have been placed" and we are probably too much inclined to let the matter rest there. The part which this department plays is one that has great significance, and the difference in handling transportation is very apparent on a section that is fortunate enough to have a good live storekeeper, with a thorough knowledge of the requirements in the way of stock for the different seasons on

ferre with successful transportation; at times its officials have even to defend themselves against complaints which are really due to weather conditions, and they are good natured enough to try and have the weather altered to suit. The fuel department should be credited with trying to do its best to obviate cause for complaints, but we should benefit by the experience of expert fuel men, who should investigate, and if fuel has been supplied to the company that does not meet requirements, the cause of complaint should be ascertained, so that the next order placed will ensure a betterment of quality. In other words, while the motive power department must realize that the fuel on the dump is what it has to use and make a success of, on the other hand, when difficulty is being experienced with it, and investigation shows there is just cause for complaint, the fuel department should in turn, as above stated, take steps necessary for an improved quality in the next order placed.

There are other departments having a certain influence in connection with transportation, but the ones I have mentioned are the most closely connected and are really a part of the transportation system. I think I am safe in saying that my experience in the transportation department has shown that it is absolutely necessary for the heads of the different departments, so closely associated, to work together for the general good, even to a greater extent than we could look for from the other employees. As a general rule, if the heads of the different departments are not working in harmony, it will be found that the employees of their departments are working at cross-purposes, and that means disorganization and serious increase in cost. On the other hand, we find that where the heads of the different departments are working together with the one end in view—that of obtaining the best possible results—the employees of their department work in the same way, and one department working with the other, helping with every member willing and ready to do his part, and being coached along by his captain, a combination so strong is formed that nothing can stand up against it, and, under these conditions, the lowest possible cost of operation is the result.

Another feature in connection with the effect on transportation in this climate of ours is the necessity of team work to turn out power in the earlier part of the day, thus giving the crews the benefit of the higher temperature during the day to get their trains over the road. Where this combination of team work does not exist, the motive power department will often hold power in that may need repairs during the day, and then flood the operating department with a lot of power between noon and midnight, thus causing extra trains to be on the road during the night at a time when the cost of transportation runs away up owing to severe weather.

There is another point I desire to bring out in connection with this team work that appears to me to be rather detrimental to the successful carrying out of the work of transportation between the different departments, and that is, the excessive amount of correspondence that occasionally drifts in, until one realizes that in many cases it is a useless waste of time and energy. I maintain that more can be accomplished by one visit to the heads of the different departments, or to the different places on the division requiring attention, than by a voluminous correspondence. In many cases, by the time correspondence gets through the different channels, the opportunity for good, with which object it was started, has passed. Many matters connected with transportation need prompt action, and the system of correspondence is too slow in such cases to accomplish any

FROM A RAILWAY CONTRACTOR,
AND RAILWAY ENGINEERING,
MAINTENANCE OF WAY AND
OPERATING OFFICIAL.

T. J. Kennedy, President Superior Construction Co., which is building 43 miles of the Manitoulin and North Shore Railway, and who was for many years, until recently, General Superintendent of the Algoma Central and Hudson Bay Ry., and was formerly in the C.P.R. engineering and maintenance of way departments, writes from Espanola, Ont:—

"Dear Mr. Burrows,—In my opinion The Railway and Marine World is a publication that all Canadian railway men should feel very proud of, from the fact that each issue contains a mass of accurate, useful and interesting information well classified, nicely printed and got up in convenient form.

"I congratulate you upon the great advance that you have made since I first became one of your subscribers some years ago.

"Frankly, I do not consider that we pay enough for what you give us.

"Faithfully yours,
"T. J. KENNEDY."

his section. A great deal more depends upon economical operation in transportation on the stores department than is generally supposed. If the stores department fails to keep up the supply of material principally required for repairs to engines and cars or for train supplies, a very great increase in the cost will be noticeable, from the fact that in many cases, owing to this shortage, material has to be robbed—that is, taken from one engine or car to repair another. This not only causes double work, but involves keeping power and other equipment out of service, oftentimes when badly needed. A better departmental showing may possibly be made in this particular department by keeping stock short, but the transportation department suffers more loss through this lack of material than would probably pay for the shortage ten times over. It is therefore of the utmost importance that the officers of the stores department and those of the other departments keep in close touch as to the stock requirements, and this can only be obtained by their working very closely together.

The fuel department brings up a burning question. It is frequently made the scapegoat for all difficulties that inter-