

CORRESPONDENCE.

[This department is a meeting-place for ideas. If you have any suggestions as to new methods or successful methods, let us hear from you. You may not be accustomed to write for publication, but do not hesitate. It is ideas we want. Your suggestion will help another. Ed.]

DYNAMITE EXPLOSIONS.

Sir,—Having noticed several accounts of the various explosions that have occurred on the line of the G.T.P. east of Winnipeg, and, as the biggest percentage of them seemed to be put down to the carelessness of the workmen, I thought it would be interesting to you and the public in general to get a true statement in regard to these same explosions and to conditions in general as they exist on that part of the road.

The cause of most of the explosions where men have been killed or injured is no doubt due to carelessness, but not altogether. Part of it, and the biggest share of it, may be laid at the door of the contractors, walking bosses and foremen. They let anybody go and handle dynamite. If a man comes into camp and asks for work, and says he can handle powder, he is put to work, providing they need a powder-man. If he is not an experienced man, he not only runs the risk of blowing himself up, but endangers the lives of the men in the cut beneath him. But this is not the only cause of the accidents. The old, experienced powder-men are getting their share of it, too. Some of them have handled dynamite so long that they have grown careless of the danger. There are a hundred ways in which these explosions might occur. Frequently it is the fault of the walking boss, who tries to rush things too much. Sometimes the cause is loading a warm hole that has not been allowed to cool sufficiently after it has been sprung. I have seen them when in a hurry take a steel drill to ram powder down the hole, and some of them will go to any extreme rather than let themselves run out of muck. I have seen a hole loaded ready to fire and for some reason miss, and the foreman would keep the whole gang working in the face of the cut while he extracted the tamping and made preparations to fire again.

There is no regular way of thawing dynamite. Some stand it up against a log in front of a fire; others put it in a can of hot water, and a few have regular thawing cans. There are various other ways, but these are the three principal methods used. There is only one way around this; that is, a rigid inspection by the Government, and for all powder men to be made pass an examination, and when accidents do happen, to have a Government man on the spot to make out a report. If accidents that happen through carelessness or neglect on the part of those in charge of the work, they should be punished for it in the same way any other criminal would, for it is practically nothing else, more nor less, than wholesale murder the way that the work is being carried on now. There is one contract back from Vermilion that is known as the Graveyard, and it is well named, as they have a graveyard right on the work, and they make good use of it, too. I do not say that all the accidents are the fault of the contractors, nor do I say that all the contractors are careless, but, without mentioning names, it is easy enough to pick out those that are. There are a few who are doing everything in their power to avoid accidents, etc., and have pretty good records. All the men on the construction pay one dollar per month for medical fees and doctor, but in some cases they get very little return for their dollar. A year ago this spring I was in camp back from Dryden. A company composed of well-known Ottawa men hold this contract. There was one doctor there for a long stretch of right-of-way. A young Scotchman was hurt, breaking his leg, and men were sent out to find the doctor.

At the end of three and a half days he showed up. It was not the doctor's fault; he did the best he could. Still, that is what the laborers are paying their dollar per month for. It would have been the same if there had been a big accident and a dozen men, all broken and smashed up, would have lain in agony for three or four days till they could get a doctor. It would not have been so bad had the roads been in shape that a team could have been sent out to town with them, but the roads were so bad that it was all a man could do to get through them. This is only one instance, and there are lots of them to be found to-day.

Now, as to the working conditions on the road. A laborer receives 15 to 17½ cents per hour. Of course, wages are low this winter, but that did not excuse the contractors from putting on an enormous price on everything they sold to the workmen. Boots of the commonest, roughest, cheapest kind, that could be bought anywhere for from \$1.50 to \$2.25, were charged up to the men at \$4.50, and everything else accordingly. Board is charged at the rate of 65 cents per day, which is reasonable. I have worked on various parts of this section of the G.T.P., and these conditions existed in a great many of the camps I was in.

V. A. Robertson.

Pipestone, Man.

LEVEL ADJUSTMENT.

Sir,—Recently when running check-levels going north I found that my elevations continued to increase at the rate of about one-tenth of a foot per mile. I checked, and still found the elevations rising.

The adjustment of my instrument, a 14-inch Dumpy, is as nearly perfect as possible. I took 500-foot sights, which did not vary more than five feet either way, and was very careful to have the rodman swing the rod at every turn. Can you account for this?

Yours truly,

Sag.

May 8th, 1908.

REFORESTATION AND RUNOFF.

Sir,—Professor Fernow is a long-standing authority on forestry and related subjects, and his various reports and papers form a large part of the literature in this field of inquiry. I have read his letter on "River Regulation on the Grand River" in your issue of the 1st inst. with great interest.

Literature on the subject of rainfall, runoff, conservation and river flow is voluminous. The transactions of the American Society of Civil Engineers have, perhaps, the largest part of it that is of practical value. There is also much on record in the bulletins of the Forestry Division, United States Department of Agriculture (much that we owe to Professor Fernow), and of the United States Geological Survey. With all inquiry there are still phases of the subject on which there is diversity of opinion and doubt. Among American investigators may be cited Rafter—whose paper, "Relation of Rainfall to Runoff," United States Geological Survey, Water Supply and Irrigation Paper No. 80, may be called a classic—Vermuele, King, and others. Most of them hold that there is greater percolation of ground water in forested areas. In the Grand River basin the disappearance of springs has been directly attendant on deforestation, though extensive under drainage has no doubt had some effect. The head drainage areas of most of the large European rivers differ greatly in declivity, and in climatic, geological, and general surface conditions from that of the Grand River, which is comparatively a very small stream. As Professor Fernow well says, it is largely a question of local conditions. That in the Grand River basin forestation is favorable to water conservation and continuity