

Grinding in Throttle Valves at the Grand Trunk Railway Stratford Shops.

In the steam pipe department of the G.T.R. shops at Stratford, Ont., there is in use a rig for grinding in throttle valves, which is both effective and simple in construction, but withal a very cheap rigging to make up.

The throttle valve is held on two projecting strips of bar iron from a bench, by the two supporting lugs, bolting the valve securely into place. The valve is revolved on its double seat by an air motor attached to the upper spindle, emery and oil being introduced between the rubbing surfaces in the usual manner.

The principal feature of the device is an attachment for raising and lowering the valve, with regard to the seat, in the approved manner, in order to gain a smoothly ground in valve. On a plate, shown in the accompanying illustration on the ground below the valve, there is attached a vertical supporting bracket for the guidance of a vertical rod. The lower



Device for Grinding in Throttle Valves.

end of this rod rests on the shorter end of a fulcrumed lever, on the longer end of which the operator presses his foot as shown. The vertical rod is in two sections, telescoping each other. The upper section is a length of pipe fitting loosely over a rod, the pipe having diametral holes at frequent intervals along its length, for the adjustment of the length of the combined rod.

The rod is so adjusted for length that when the foot lever is in a horizontal position, the upper end of the rod, passing through the valve spindle hole in the lower end of the casting, touches the lower surface of the double valve. The operation then is that the operator, as the valve is revolved by the air motor, presses on the foot lever, raising the valve off its seats. This permits a flow of the oil and emery, when the valve is again lowered and the grinding is continued. This operation is repeated as long as necessary.

The lifting attachment is movable into any required position, and is not secured to the floor in position under the valve. This makes the attachment of use in similar positions elsewhere.

The Handling of Sections and Section Foremen.

Following is the report of a committee of the Roadmasters and Maintenance of Way Association of America, presented at the annual meeting at Buffalo, N.Y., recently:—

HOW TO SECURE FOREMEN.—It is agreed that, to secure competent foremen, good wages must be paid and to secure student foremen wages should be paid sufficiently in excess of section laborers to make it attractive to young men with fair education, ambition and ability, to induce them to stay in the track department, rather than work on farms or other places where wages may be higher but steady employment uncertain and the chance for promotion obscure.

Student foremen should be placed with the most progressive section or yard foremen so that they may learn all the latest methods and be taught in the most up to date manner how to acquit themselves when promotion comes to them and they are thrown on their own resources. It goes without saying that section or yard foremen, so designated as teachers of prospective foremen, will endeavor, out of personal pride and with characteristic loyalty to their company, to turn out men who will be a credit to their instructors. These men should be paid 25 cents or more a day, in addition to the pay of a regular track laborer, for a day of 10 hours and they, as well as all foremen, should be paid for overtime over the specified working hours, the same as other employes.

If after working one or two years on a straight section, student foremen are moved into a terminal or yard, they will get experience in switch work, heavy track repairs, and work of this character, and an insight into many phases of track work not encountered on sections, thus making them much more resourceful when the time comes for them to assume control of their own sections. With proper training, as outlined, and with the prospect of inviting wages as a section, yard or extra gang foreman, when the time for promotion comes, the problem of securing competent foremen will to a great extent be solved.

There should be four student foremen on every division of 25 sections and additional ones where the number of sections exceeds this. A yard foreman should receive more wages than a section foreman and it should be considered a promotion for the latter to be placed in charge of a yard. The pay of an extra gang foreman should be larger than that of a yard foreman and men selected to handle extra gangs should be next in line for the position of assistant roadmaster. It should be the settled policy of every railway. All promotions from that of student foremen and extra gang foremen to roadmaster should be held before the wide awake, ambitious man as an inducement for him to work in the maintenance of way department.

A merit system is also recommended, whereby due credit can be given to foremen in every capacity for alacrity, resourcefulness and initiative in cases of emergency, together with a full appreciation of their duties and responsibilities both night and day. The position of foreman in the track department would then be desirable.

LENGTH OF SECTIONS.—Where the equivalent mileage basis of designating length of sections is not used, a section of 4 tracks should be 2 miles long; 3 tracks, 2½ miles; 2 tracks, 3 miles; and 1 track, 5 miles. Equivalent mileage is usually figured on the principal railways at the rate of 1 mile of main track to a mile; 2 miles of main passing siding to a mile; 3 miles of

spur, or commercial track, to a mile; and 15 switches to a mile. In yards, equivalent mileage will regulate the territory which a foreman with a given number of men should have under his jurisdiction.

ORGANIZATION OF SECTION.—Each section should consist of a foreman and one man to each mile of track in summer and one man to two miles of track in winter, when conditions are normal. In severe weather, however, when ice forms and snow storms prevail, a foreman should be allowed to use his judgment in having extra men to keep switches clean and tracks open and to assist wherever necessary in order to keep traffic moving from the physical standpoint of operation in such cases. Each section foreman should have an assistant for every 10 men, the assistant to work the men and prevent them from getting in the way of trains.

The word "section" embraces all main line tracks and main line switches, sidings, freight house tracks, etc., at all way stations and through large yards; yard sections to include all tracks of every description outside of main line switches.

Railway and Allied Associations, Clubs, Etc.

The names of persons given below are those of the secretaries.

CANADIAN CAR SERVICE BUREAU, J. E. Duval, 401 St. Nicholas Building, Montreal.

CANADIAN FREIGHT ASSOCIATION (Eastern Lines), G. C. Ransom, Canadian Express Bldg., Montreal.

CANADIAN FREIGHT ASSOCIATION (Western Lines), W. E. Campbell, 502 Canada Building, Winnipeg.

CANADIAN RAILWAY CLUB, J. Powell, St. Lambert, Que. Meetings at Montreal 2nd Tuesday each month, 8.30 p.m., except June, July and August.

CANADIAN SOCIETY OF CIVIL ENGINEERS, C. H. McLeod, 413 Dorchester St. West, Montreal.

CANADIAN STREET RAILWAY ASSOCIATION, Acton Burrows, 70 Bond Street, Toronto.

CANADIAN TICKET AGENTS' ASSOCIATION, E. de la Hooke, London, Ont.

CENTRAL RAILWAY AND ENGINEERING Club of Canada, C. L. Worth, 409 Union Station, Toronto. Meetings at Toronto 3rd Tuesday each month, except June, July and August.

EASTERN CANADIAN PASSENGER Association, G. H. Webster, 54 Beaver Hall Hill, Montreal.

ENGINEERS' CLUB OF MONTREAL, R. W. H. Smith, 9 Beaver Hall Square, Montreal.

ENGINEERS' CLUB OF TORONTO, R. B. Wolsey, 94 King St. West, Toronto.

NOVA SCOTIA SOCIETY OF ENGINEERS, A. R. McCleave, Halifax, N.S.

QUEBEC TRANSPORTATION CLUB, J. S. Blanchet, Quebec.

WESTERN CANADA RAILWAY CLUB, W. H. Rosevear, 25½ Princess St., Winnipeg. Meetings at Winnipeg 2nd Monday each month, except June, July and August.

Proposed Changes in M.C.B. Rules of Interchange.—The Master Car Builders' Association has recently taken a special letter ballot of members on proposals to abrogate the rules which penalize the delivering line for owners' defects, and to add a direct 10% to the total labor and material charges as shown on the monthly bills. Both of these proposals are recommendations of the arbitration committee, and have been approved by the executive committee.