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INTERCOLONIAL RAILWAY ROUNDHOUSE PRACTICE.

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Every organization of importance is operated on a systematic basis, each of the many systems in use being the outcome of years of experience in the devising of ways and means of handling the routine work to the best advantage. At the same time, these systems are usually of sufficient flexibility to be capable of meeting all or any of the numerous exigencies that arise in the daily practice of any art. Railways in particular have developed systematic business methods, probably to a greater degree than have the majority of business organizations that are more or less centralized. The outlying character of railway systems makes this possible.

As a unit, the railway organization comprises a systematic arrangement of branches that work harmoniously as a whole. Segregated, these branches contain minor sections, or wheels within wheels, so to speak, each in itself an organized unity. In the mechanical department of a large railway system there are numerous minor branches, one of the most important of which is that pertaining to the roundhouse, for it is upon this pivot that the whole operation of the system centres. It is here that the care and attention necessary to preserving the motive power in good order, is taken; in other words, it is the focal point of actual movement on the railway lines.

As an example of railway system as applied to roundhouse practice, the Intercolonial Ry. roundhouse at Moncton, N.B., has been selected as a good sample of what is being done by the Government system. This particular roundhouse was not selected because of its being the best on that line, for such is not the case, but because of the fact that it is the centre of the system, and handles more locomotives than any other point. These considerations in themselves, however, are immaterial, as the same routine system applies to all the roundhouses from Montreal to Halifax, St. John and Sydney. The Moncton roundhouse is in charge of C. White, Day Roundhouse Foreman, to whom the writer is indebted for the material contained in this article.

The locomotive, on the completion of the run, after being disconnected from its train, is taken by the engineer to the ashpit to have the fires drawn. Here, the engineer releases his charge, turning it over to the roundhouse hostler for further care between that point and the roundhouse. The hostler, with the ashpit men, cleans the ashpan, draws the fire and coals the tender.

The coaling station and ash combined at the Moncton roundhouse, and are of such a unique design that the arrangement will be briefly described, although it is foreign to the subject under treatment. The arrangement consists essentially of an elevated

coal bin structure with a ground space about 20 ft. wide between the tracks. On each side of this coal tower there are two tracks, the inner one of each having an ashpit. Outside these double tracks are enclosed supports carrying a superstructure attached to the coal bin. Each of these outside supports carries an ash bin. Passing under the coal bin and four tracks, and running up through one of the outside enclosed supports, across the top of the superstructure and down the other outside support, there is a slowly moving chain of coal buckets, driven by a small engine in the tower. The ashes dropped from the locomotive ashpan into the

drawn and re-coaled, is run into the roundhouse by the hostler. Sufficient steam is left in the boiler for this purpose. The turner at the roundhouse table sets the table for the track decided upon, and, having had the hostler run it in, proceeds to a board where the section in which the locomotive has been placed is noted. This board is divided into three sections corresponding to the roundhouse sections, and under the required one the locomotive number is placed.

Meanwhile, the engineer, after leaving his locomotive on the ashpit, proceeds to the office, where an engineer's report book is kept. The engineer is responsible for all the paraphernalia and parts of the locomotive above the running board, and if any defects are noticed at any point it is his duty to make a report covering his observations in the report book. As illustrative of this, and the method followed, an example has been selected from the report book. This book has several columns covering the two opened pages.

The first three columns contain the date, locomotive number, and engineer's report, calling for repairs or examination, followed by h.s. signature. Thus:

"Oct. 19. 276. Pack air end of pump; examine left tender feed hose, as it doesn't appear to be getting sufficient water; grind left boiler check; make sand to work on right side; and blow out tubes.

"T. W. McBeath."

This report, as left by the engineer, is looked up by the machine foreman, who details the necessary mechanics to attend to this work. The next column is therefore left for the report of these workmen on the completion of their respective tasks. As for example:

"Air end of pump packed, Oct. 19.

"Millish and Anderson."

"Tender feed examined, Oct. 19.

"Hines and Parkinson."

"Sand box and traps cleaned, Oct. 19.

"Anderson and Millish."

While the repair work on the faults discovered by the engineer is being performed, the roundhouse inspector sets to work to thoroughly overhaul the locomotive for any detectable flaws. The engineer being responsible for all above running board, the inspector only examines the part below, going thoroughly over the wheel and outside parts, and finally working underneath to the running gear. Any defects are noted in the next column of the book, as, for example:

"Oct. 19. 276. Tighten left beading and trailing wedge bolts; overhaul and level grates; tighten tail-casting bolts in tender.

"J. McClintock."

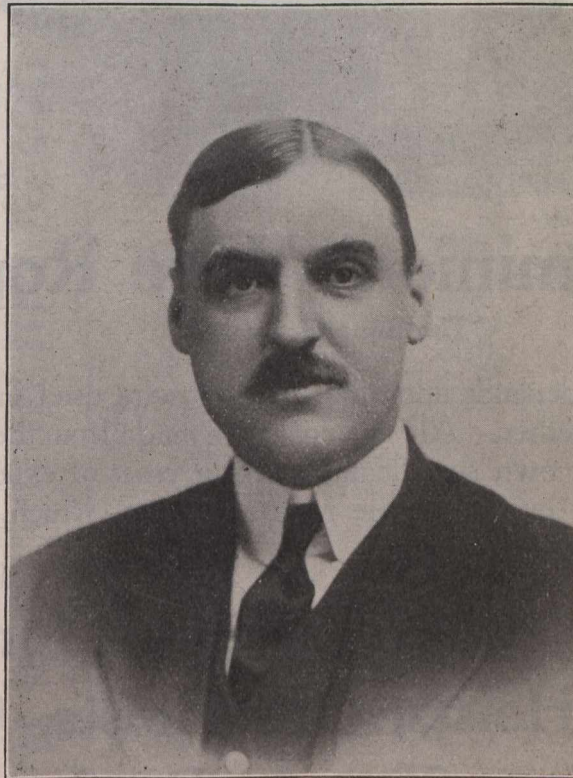
Following this there is a column for the reports of the mechanics set to do these tasks, different pairs being assigned to the locomotive and tender to specialize their duties:

"Work done, Oct. 19.

"McKenzie and Fram."

"Work done on tender, Oct. 19.

"Hines and Parkinson."



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pit may be further dropped into the chain bucket tunnel and carried up into the ash bin by the travel of the buckets. The ash bin may be unloaded by a gate in its bottom. Coal is unloaded from drop-bottom cars into the same tunnel through openings under the outer of the two outside tracks. Of course, these operations do not occur at the same time. The coal, being raised in a like manner to the ashes into its bin, is drawn again from a chute on to the tender. The bucket mouth of the chute holds just one ton, by which the quantity of coal drawn off is roughly measured.

The locomotive with ashes and fire