

taining to construction and operation, and by so doing, not only will he be able to keep his records and accounts in much better form, but in reasoning out matters with them, this knowledge will prove of inestimable value to all parties interested. The chief accountant should be in close touch with the manager at all times. He should make his monthly reports in such detail and in such form that will enable the management to make regular comparisons, not only with other companies similarly situated, but which will enable comparison and checking the cost of operation from time to time in all departments of the company. It must be borne in mind that every manager is not a trained accountant; it therefore becomes the duty of the accountant to see that his reports are such as to be clearly understood. A good practice is to accompany said reports with an explanatory letter setting forth the reasons for increases and decreases where they occur, that will enable the manager to look into excesses. I am of the opinion that the untiring efforts of many conscientious accountants in supplying great detail are not appreciated, or that the information is not made use of to the extent that it should be. The accountant is not called upon for information as to practical mechanical construction, etc., but is looked to for full detail as to cost of everything, such as power station, steam and electrical equipment of same, car houses, tracks, overhead feeder and trolley lines, cars, trucks, motors, tools and machinery, etc., and the cost of operation in all its various divisions, such as transportation, power expenses, maintenance of equipment and miscellaneous expenses. To properly answer all inquiries, requires that the accountant classify all labor and material under a large number of headings to enable him to keep the information. The 37 operating accounts recommended by the Street Railway Accountants' Association, have been sub-divided into about 150 or 160. To some it may seem a great task and a waste of labor, but with a proper system, no difficulty should be experienced and the labor involved would be slight compared with the value of the results. A system can be adapted to every company, large or small, city or suburban, that will place the accounting department in a position to give all information required.

SHOP ORDER.—The introduction of shop order numbers can be so easily arranged to any class of work that it will be found of great advantage. Many times the department is asked the cost of certain repairs or renewals, but on account of the work having been done by the same men who attended to the general repairs, and the work being of a similar nature, the charges very often are mixed so that it is impossible to tell the exact cost of the work; hence, an estimate is all that can be obtained, whereas, if a number is placed on a certain piece of work and instructions given that all material and labor must be charged to said number, no matter how many different numbers are in force, you can always turn to the different numbers and find the exact cost of labor and every item of material used in connection with the work. It may only be the painting of five cars, the rebonding of a certain portion of track, the renewal of a section of the overhead trolley, etc., all of which would come under general repairs, the satisfaction would be in knowing the exact cost of the particular work, where if done under general repairs, the cars would be painted and charged along with all other car repairs, the track with general track repairs, and the overhead trolley with general overhead repairs. Everything can be charged to the order numbers until work is completed and carried in a general ledger account or distributed monthly as desired. Too much stress cannot be laid upon the necessity for keeping in great detail, labor and material separately, of everything that enters into the cost of construction and operation of a street railway, as sooner or later

you will be called upon for information that can only be supplied by the introduction of some such system.

MATERIAL AND SUPPLIES.—In the purchase of material and supplies, lack of system may frequently mean loss of money in duplicate charges and payments or differences in price. In our company no material is ordered by the purchasing agent until a requisition is made out in duplicate and is approved for purchase by the manager, when the original is returned to the purchasing department and the duplicate is forwarded to the accounting department. When the material requisitioned is ordered, a duplicate of the order for the material showing from whom same was ordered, is forwarded to the accounting department. The stores are required to report daily all material and supplies received, and when the invoices come to hand, the purchasing agent certifies the prices correct. The order of purchasing summarized is as follows:—1. Manager's approval for purchase. 2. Orders placed for supplies. 3. Receipt of material by stores department. 4. Prices of goods certified correct. I might say the system in vogue in this company's stores is the lot number system, which is working very satisfactorily. All the labor that is required of the store department when issuing material and supplies to the different departments is to enter the lot number in the proper column, on the various orders, the value and class of material being in possession of the accounting department. The forms used by the several departments for ordering material from stores are filled out by each and are so arranged that by using a carbon the same is duplicated, thus saving considerable writing, the original being forwarded daily by stores to the accounting department when the price of the material is entered and the charges made to the proper accounts.

EARNINGS.—Car earnings should be so reported to the manager as to enable him to see the comparison of one route or line with another, that he may be enabled to operate the system with the smallest number of cars consistent with good service. For instance, if on one line the records are continuously showing earnings of 32c. per mile, while on another line they are 16c., there must be some reason for the difference. It will enable him to look into the matter when his attention is called to it.

TICKET DESTROYING.—The question of destruction of tickets is one that is being inquired about at the present time. The general custom I find has been to burn either in a large stove or furnace or at the boiler-room in the power stations. It has been admitted by many, that this system has not been satisfactory, and while there are ticket destroying machines, the experience of this company with one, some years ago, was that you could only feed the machine a few at a time or it would choke; this you will see gave the clerk having in charge the destruction of the tickets an opportunity to appropriate some of them if so inclined. Some six or seven years ago, I had our engineer construct in the basement of our office building, a small furnace, a simple square brick enclosure with a large iron door in front. In this enclosure was placed a cylinder made of extra heavy mesh; the cylinder is constructed so as to allow a portion to open, being hinged at the back and having a fastener at the front; the cylinder revolves on a short axle in one end with a longer one at the other, the long one being extended through the end of the furnace wall, to the end of which is attached a handle by which the cylinder can be turned as often as required. Under the cylinder is a gas pipe running the full length, with holes to allow the gas to ignite when wanted. The ticket counters, when through counting, place their tickets in small bags which are immediately handed the cashier, who encloses them in 50 lb. flour sacks, seals the same and places them in his vault until it is convenient for him to take them to the cylinder.

He is accompanied by one of the clerks, when the large bags of tickets are placed in the cylinder which is immediately locked, then the outer door to the furnace is also locked with spring locks, the keys of which do not leave the hands of the cashier, then the gas is turned on and match applied. The gas is left burning only long enough (about five minutes) to allow the tickets to ignite. The tickets will not burn through without being turned over by the rapid revolving of the cylinder, which can be done occasionally by the office boy turning the handle above referred to; they are allowed to remain in the cylinder until next day, when the cylinder will be cooled off to allow the next batch of tickets to be placed in. In the cylinder is placed a bar of iron so that when the cylinder is being revolved, the bar bangs and dislodges the tickets so that they burn more freely. This bar also breaks the charred tickets when cooled off, sufficient to allow the refuse material to fall through the mesh when the cylinder is turned each day before placing therein a fresh bag of tickets. Thus you will see no person (other than your trusted cashier) can possibly come in contact with the tickets.

I regret very much that time will not permit my dealing with other points that might be touched upon, but will again strongly advise the careful perusal of the reports and many suggestions laid down by the Street Railway Accountants' Association of America, which I am sure will prove of profit to all who will do so.

J. W. Crosby said that in Halifax they used to burn the tickets in the boiler furnaces, but some slightly charred tickets came back as fares and they now use a chopping machine which cuts the tickets into three parts, after which they are burned. J. Hopper said the St. John Ry. followed the plan recommended by the Street Ry. Accountants' Association. C. E. A. Carr approved of Mr. Smith's suggestion for the closest connection between the manager and the accountant. The destruction of tickets was a much more important matter on Canadian than U. S. lines. In the U. S. cash fares predominated, in Canada it was the reverse. In London the ticket fares amounted to 78% of the total. They had some charred tickets tendered a few years ago, but they were still burning them at the power house. They were, however, considering the installation of a machine to work the tickets into a pulp, under the charge of the cashier. J. C. Rothery emphasized the necessity for close communication between the manager and accounting department. On the Niagara Falls Park and River Ry., 95% of the passengers used tickets. The tickets were burned weekly, under his personal supervision, and in 12 years' experience he had not known of any charred ones having been tendered. He thought the idea of macerating tickets a good one. W. Z. Earle said that in St. John, N.B., they burned the tickets in a furnace, closing the damper for a few minutes and raking the heap over. D. McDonald, in moving a vote of thanks to Mr. Smith for his paper, endorsed the remarks in connection with the importance of close connection between the manager and the accounting branch. The accountants' department was the barometer of the general conditions of the business. He advocated that managers should be supplied with daily approximate statements of earnings, expenses, etc., so as to guard against surprises. President Ross warmly commended the paper, although he did not quite agree with its suggestions in regard to lot numbers, to which he thought some objections might be urged. In regard to ticket destroying, some one must be trusted, and he thought the boiler furnaces at the power house as good a place as any if proper precautions were taken. He referred to the establishment of the Street Ry. Accountants' Association at Cleveland in 1897, when he and Mr. Smith