

is the universal size in use here. The book of drawings made is delivered to the shop foreman, which enables him to set up the machine, order his finished parts and have his men do the detail work required. A duplicate set of blue prints is supplied for the men working on the material. The book is returned to the draughting office when the machine is completed and kept as a record of that machine. Hence it may be used to build a number of similar machines. This system of having the drawings made in small

System of Cost Keeping.

NON-PRODUCTIVE LABOR.

Non-productive labor cost is covered by standing shop orders. Work done under the numbers designated will always show the cost department exactly what expense has been entailed for shop benefit or plant equipment. It covers in fact everything not on a productive order. These are listed under various heads each lot being enumerated under a lot number.

Name of Tool		Tool No.	
Description			
Maker			
Bought from		Date	
Date Set Up	Location	Transferred	
Cost	Extras	Duty	Freight
Settling		Total	
Date			
Depreciation			
Additions			
Value			

FIG. 11—PLANT EQUIPMENT CARD USED BY CANADIAN RAND CO., LTD.

sheets and in book form not only adds to the convenience of handling, but preserves the drawings. Moreover, it does away with the drawing being lost or laid aside and thus leaving out a detail of machine under construction, as has been found to be the case from time to time where separate sheets are used. It also does away with the inconvenience found in the case of large sheets of the drawing becoming shop worn where it is folded. This system has been in use for some time and has been found to give universal satisfaction.

STORE ROOM SYSTEM.

Raw material is received into the store room from the foundry and outside points, being checked off on the copy of the original requisition issued from the office. At the same time, this material is entered on a stock card figure (13). This card gives all information as to material, weight, number, etc., also a minimum and maximum showing when a new supply should be ordered.

The applied column is the distinguishing feature of this system showing as it does the quantity which would be left were all outstanding orders filled. For example, the cut shows 42 parts in stock, but the last two orders, namely 721 and 820 calling for four and two parts, respectively have not been filled, thus the balance in the applied column is 42 less 6 or 36.

In the case of such parts as nuts and bolts, where a dozen or more orders are filled in one day, only one entry is made. Where this system is properly followed there is no liability of any errors creeping in and all information necessary to a store keeper can be obtained at a glance.

An order must be issued for all material taken from the store room for use in the works. This order is made out on a card signed by a foreman and shows for what purpose the goods are to be used.

Daily service cards are turned in by all employees at the end of each day, one order only on a card. The time keeper receives all these cards and they are sorted by clock numbers and checked with time register slips. Six W. A. Wood time registers are employed in the works. The pay roll is then entered from these slips, after which the cards are rated and extended with the amount for the workmen's time. They are then further sorted by shop order numbers and totalled which shows daily the actual amount of wages expended on each shop order. These

the names of the workmen over which is placed a smaller form leaving exposed the names. One of these smaller forms is added for each week. These forms are ruled with columns showing the date, hours and rates, total hours, columns for premiums, deductions for late and insurance. Overtime is entered in red ink and totalled separately. The extra amounts allowed for overtime are charged up to expense of each department.

After the order cards have been rated and sorted under their shop order; they are filed in card-board boxes behind guide cards showing name of piece and operation. As the duplicate copy of the foreman's order card has been sent to the cost department when order was issued, a check is made on the entry of the daily service card. When the work's copy of the foreman's order has been returned it shows that work on this operation has been finished and when the final foreman's order card has been received, the shop order is then completed and ready for checking and totalling.

Material order cards are treated in much the same manner only that the parts are checked off on a part list issued by the draughting department. If two material order cards are received for the same piece it calls for investigation. A defective material or workmanship card is then looked for which would show that one piece had been spoiled or that an error had occurred in issuing material to the wrong shop order. When the shop order is completed it is typewritten on a form showing cost by operation on every piece. This is again entered on a comparative cost card, which shows cost of this part with all previous costs of this piece as formerly manufactured. A daily list of shipments is sent to the cost department, each day on which is entered the flat cost plus the burden ratio, which amount is credited to the production account of each department.

COST OF PRODUCTIVE LABOR.

All orders to the different manufacturing departments are accompanied by foreman's

DAILY SERVICE CARD

SHOP ORDER		SIZE ENGINE OR COMPRESSOR		TYPE	DATE
NO. PIECES IN LOT		NAME OF PIECE			
NO. PIECES WORKED ON		OPERATION			
X	O	HOURS	MIN.	RATE	AMOUNT
CLOCK NO.		TOOL NO.		SIGNED BY	

FIG. 12—DAILY SERVICE CARD USED BY CANADIAN RAND CO., LTD.

amounts are entered on card forms showing the amount charged against each shop order for that date. These cards are totalled at the end of each week and the total must balance with the amount of the pay roll.

The pay roll form used is a loose leaf system composed of two forms, one containing

order cards, which are made out in cost department, and which show shop order no., size of machine, number of pieces, name of piece, operation on piece, drawing no. There are also spaces showing name of workman, clock no., tool no., date issued, date