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# Accounting for the Handling of Scrap Metals\*

By F. A. HAMILTON

The character of the scrap metal business is such that very little interest has been taken in it by the people generally, yet it has been developed to tremendous proportions—in fact the value of the gross business done annually aggregates many hundreds of millions of dollars.

To direct and conduct a scrap metal business might, at first glance, seem to be a simple matter, yet I venture to say that some of the keenest minds in the country to-day are interested to such a degree that they are practically devoting their entire time to carrying on this business.

When we consider the vast number of uses we find for iron and steel products alone, to say nothing of the other numerous metals or combinations of metals, we must agree that the business has become highly important. I should like to state the object of the business and a few of the peculiar accounting situations found in it. Let us consider the matter under the following classifications:

Object of the business aside from that of profit making.

The source of the metal. The purchase and sales contracts.

The matching of one with the other and the accounting procedure incident thereto.

Operating statement showing the result of operation for the period.

Balance-sheet showing the financial position of the company at time of closing the books.

## OBJECT OF THE BUSINESS

The object of the business primarily is, of course, to conduct it in such a manner that it will earn a profit on the investment, but, aside from that, it would appear that the real object is to find certain grades of materials and distribute them to the numerous steel mills, rolling mills, foundries and other concerns for the purpose of reclaiming and converting this material.

It is a well-known fact that certain mills or foundries produce

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or manufacture only a specific product; therefore, their requirements as to raw materials must be met by furnishing certain grades of the various kinds of metals or mixtures in order that as little material as possible be lost in processing. As an instance, I might cite the case of a rolling mill which uses railroad car axles for the purpose of rolling bar iron. This is done with practically no loss of material. Or I might mention the case of a smaller business which purchases certain scrap metals and on refining them obtains Babbitt metal of various grades, white metal used by the printing trade in linotype machines, etc. There are also thousands of other instances where special requirements are supplied by the reclaiming of material in the scrap metal business.

#### PURCHASE AND SALES CONTRACTS

The purchase contracts are made with the idea of matching the sales contracts against them; hence it will be necessary to treat purchase and sales items under one heading so far as the contract accounts only are concerned.

Purchase contracts are entered into with large industrial plants, railroad corporations and others for the purchase of scrap materials to be delivered on order during a period of time and at a specified price. It is necessary, of course, to scrutinize a contract from time to time in order to learn whether or not it is being executed in accordance with the agreement; hence a record is provided on this contract for the recording of deliveries as to dates, tonnage and amounts.

There is also another method used by the company in purchasing material. A municipal plant may be bought outright; or a steam or electric railway may be bought as it stands. The miscellaneous material obtained through dismantling may be applied on sales contracts or shipped into one of the company's yards. It sometimes happens that the deal contemplated is too large for the company to handle alone, in which event the purchase is made on a joint account proposition, one or more other dealers coming in and sharing the expenses before the distribution of the profits is made.

Sales contracts are entered into with steel and rolling mills and many other concerns for the sale of the material, running into orders for hundreds of thousands of tons during a specified time, said material to be delivered with the full understanding

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that the company is to be permitted to originate shipments anywhere in the country provided that the specified classification of material is maintained. A record is also provided on the sales contract showing deliveries to customers or dealers as to dates, tonnage and amounts.

Let us, at this time, consider the accounting procedure in reference to the direct shipments controlled by the purchase and sales contracts. At the time the shipment is made by the consignor, should consignor represent an industrial plant, it may be billed to the customer direct, or if the shipment was forwarded by a dealer and it is deemed advisable not to permit the customer, for various trade reasons, to know who forwarded the material, or to permit the dealer to learn the name of the customer, it may be billed to the company at delivery point, and the waybill may be sent to the office of the company, which in turn reconsigns the car. On the cars billed direct to customers orders are issued to the carriers authorizing delivery.

When shipment is made by the consignor, an invoice should be mailed to the company immediately. The purchase invoice, when received, is at once recorded in a book called the car record, showing the name of consignor, date, car number, contents, weight, etc. The car then being ordered out or delivery authorized, the purchase invoice is handed to the billing department, where a sales invoice is made out in duplicate against the customer for the identical material. When proper office references are noted on the duplicate invoice, which has become the sales book, the entry in the car record is completed by showing to whom the car was sold. The information necessary to be shown on the purchases and sales contracts, as to tonnage received and delivered applying on certain contracts, can at this point be collected.

When it is considered that anywhere from two hundred to four hundred cars may be handled daily and that a great many are rejected owing to overcharge in price or freight, short weight in tonnage or incorrect classification of material, or because perhaps the material is up to specifications but cannot be used by that particular mill, one can readily appreciate the necessity of correctness in handling this accounting feature of the business through the car record.

It must also be understood that many of the materials purchased are of a mixed nature and for a great deal there is

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no ready market. Perhaps the opportunity to sell arises, but the material is so far removed that the freight charges prohibit the sale, as the profit would be consumed by the carrier for the handling. In this event, it is shipped to the nearest yard, the company usually operating some six or eight throughout the country. The same procedure as to entry in the car record as noted above regarding direct shipments is followed.

An important matter should be noted at this time. Many cars are rejected at destination or in transit, and this makes it absolutely necessary to act promptly in order to avoid payment for demurrage, storage and like charges by the carriers and others. This can be accomplished by diverting the cars to some other customer in that vicinity or to one of the company's yards, electing to reduce the price to the original customer by an understanding with the consignor that the purchase price be reduced correspondingly or the entire shipment be thrown back on the hands of the consignor, in which event an adjustment of some kind or other in regard to expenses incurred becomes inevitable.

At this point a difficult question sometimes arises as to the journal entry which will tell the story truly and correctly. As much material is bought and sold subject to acceptance or rejection on delivery, depending on certain grades or classifications, a great number of cars is rejected. The reason for this in many cases is that the material is not inspected by the company before or after shipment. Should the charges have been made against the customer on the books of the company and the invoice of the creditor be passed for payment, and in many cases paid, it becomes necessary to make a journal entry. Such entries would be formulated as follows:

Sales returns to customer	} at selling price
Creditor to purchases	} at buying price

In addition to items mentioned above, a few others would have to be considered, such as equalizing freight charges based on certain points of delivery, controversies over scale weights and the like, so that it becomes evident that the journal entries should be made with care and good judgment.

There is another important matter attaching to the fulfillment

of the purchase and sales contracts. For many reasons it may become necessary to void the contracts either voluntarily or involuntarily owing to conditions within or without the company's control. Should the purchase contract be partly filled at the time of voidance some equitable agreement, if possible, is reached and settlement made either by payment of cash or otherwise. This settlement may run into large figures as the company would be compelled perhaps to go into the open market and purchase sufficient material to satisfy its sales contract at a much higher purchase price as well as a considerable difference in freight rates. Should the company decide to void a sales contract, for any reason, the company must make the best possible settlement with the customer.

Let us now consider settlements. The business so far as the material purchases are concerned is practically operated on a cash basis through the general books. The material purchase invoices as rendered by the company's creditors are vouched and passed for prompt payment, with the exception of certain interchangeable accounts or in case of dealers from whom the company buys and to whom the company sells. No account is kept of accounts payable in the general books during the year, with the above exception. In other words the operation of the business is not charged in the month in which the purchases are made unless paid for during the same month, but at the close of business for the year or period all unpaid invoices for purchases, expense items and freight charges are properly set up and offset against the revenue accounts.

The above comment refers only to the general office cash settlements. It has been found advantageous to operate in close proximity to the markets. In one case, some six or eight yards were taken over and eight or ten branch offices were opened throughout the territory. The business carried on by the yards and branch offices being done in a great measure for cash, it became necessary to provide funds for the yard and branch managers. Therefore, bank accounts were opened in each city and the yard and branch managers were authorized to draw cash vouchers against the funds, said funds being controlled by the general office. Accordingly, a uniform cash journal form was devised and adopted and each yard or branch manager was instructed to forward the duplicate sheets as fast as the pages were filled, together with purchase

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or expense vouchers. At the close of each month, the canceled bank cheques or vouchers are forwarded, thereby enabling the general office to verify all disbursements for payrolls, expense or purchases. These cash journal sheets sent in by the yards or branches are balanced by the local cashiers or bookkeepers, making it necessary only for the auditor to formulate the closing entries. The records then become original books of entry from which all items are posted to the general ledger as to nominal expense or revenue accounts and to the various customers' ledgers as to those accounts. The control account carried in the general ledger must, of course, correspond with balance shown on the individual yard or branch office account.

In addition to the yards and branch offices, this company operates a subsidiary manufacturing proposition, one plant being located in the east and another in the west. The eastern plant is permitted to collect accounts and bank the funds but is not authorized to draw any cheques against such bank accounts; therefore all expense vouchers are sent to the New York office where the cheques are drawn on a local bank and returned to the eastern plant.

Likewise the New York office advances funds regularly to several other yards or branch offices, in order to take care of payrolls and freight bills which must be handled promptly. When opportunity arises to purchase a large quantity of material by any one of the other branches it is important to transfer funds from one depository to another. As this is done almost daily, it is necessary that the records be so constructed that one account cannot be overdrawn while another is amply provided with funds.

#### OPERATING STATEMENT

The part of the business that I have discussed refers only to the purchase and sale of merchandise and to settlements, the expenses incident thereto being about the same as in other businesses.

All expense items of the same nature are collected from the various yard and branch office cashbooks and posted to the general ledger, with the general ledger items taken from all other records.

As the general office records control, all general accounts such as interest, depreciation of the various plant and equipment accounts and the like are, of course, shown only on the general books. All sales accounts are carried only on the general books and after

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offsetting the purchases against the total for the period and applying inventories and expense items, the operating statement is constructed in the usual manner.

We must consider, however, the joint account transactions which may have been only partly executed at the time of closing the books. It is problematical how much gain or loss will result in the disposition of material on hand and what will be the cost of finishing the dismantling of a large plant or tearing up a railroad. The purchase price and cost of obtaining the material, as to labor and freight charges and all other expense items, are charged to the joint account in the general ledger, while all sales and any other credit items are credited to the same account. Should the material purchased on joint account be partly disposed of at the time of closing the books, there is a certain amount of profit that should be credited to the final profit and loss account of the company, but this may be turned into a large loss on disposing of the balance of the material in the next period; hence it is quite difficult to state the amount as it should be shown before the transaction is finally consummated.

### BALANCE-SHEET

After the books are closed, the balance-sheet is prepared as is customary in any other business or industry.

However, I should like to call attention to one important account found on the balance-sheet, which, in my opinion, is quite difficult to state correctly. I refer to the inventory of material on hand at time of closing the books.

By referring to the method outlined previously as to purchases and sales of material, it can be seen that a great many cars are in transit on which the freight charges may or may not have been paid; a large number may be rejected and may be either in the company's yards or in transit, and there may be a large miscellaneous tonnage of mixed materials scattered over the company's various yards, as well as partly dismantled plants and steam or electric railways, which the company took over outright and for which it paid either in whole or in part.

At this time, the car record becomes valuable, as the unsold items should in a measure verify the yard stock record books and the traffic department's record of cars in transit.

The remaining items usually shown on the balance-sheet have not been considered as I have attempted only to point out the accounting necessities peculiar to this particular business.