

COST PRICES.

We have often urged upon our manufacturers and merchants the need of a close analysis of expenses, when making up the cost of their goods. And not long since, in an article upon Agricultural Machinery, we urged greater caution in fixing selling prices, which are not always sure of returning the ratio profit which makers imagine. We find in the *Book-Keeper* a very interesting paper upon the subject of cost prices, by Mr. James Howard, of Bedford, England, president of the Agricultural Engineer's Association, and consider it well worth the careful attention of every Canadian manufacturer:—

"If a history were written of the rise and progress of our most successful mercantile establishments," says Mr. Howard, "it would doubtless be recorded, as a prominent feature in each case that a careful system of account-keeping had been adopted. Indeed, it may be said that without efficient book-keeping the success of any commercial enterprise is insecure, and instances are not wanting where apparently thriving concerns have been made shipwreck by violating the first principle of commercial economy. In a manufacturing business, by far the most important point in account-keeping is that of ascertaining the exact cost of articles when ready for delivery to the customer. To arrive at this may at first sight appear a very easy matter, but in order to obtain even approximate accuracy several conditions must be fulfilled. In the first place, every useful system of cost prices is dependent upon the correctness of the general accounts of the concern—an obvious fact when it is remembered that the measure of business success is simply the difference between the total payments for materials, wages, and establishment charges, and the net amount received in payment of sales.

Referring for a moment to the question of selling prices, is it not unusual to see agricultural machines offered at prices which evidently have been fixed at random. In some such cases the practiced eye can see at a glance that after the usual trade allowances have been deducted from the nominal selling prices, very little profit, if any, is left for the maker. Again, if the lists of the different manufacturers be taken for certain articles, it is singular to notice how nearly the figures agree. This seems to show that the practice of fixing prices by the list of others is not uncommon, those of the foremost houses being generally taken as the standard. Firms which adopt this practice would appear to say to themselves, 'It pays so-and-so to sell at such and such a price, and so it will us.' It may be true that the price of one firm must conform to some extent to the price of other firms; but it is none the less true that there is insecurity in simply following the lead of others without investigation. I have known even first-class houses which have not troubled themselves to go into the cost of certain articles which they manufacture. Again, it does not always follow that because a given article can be produced at a certain establishment and sold at a given price with a profit, at another establishment the same thing can be done; the mode of manufacture, the extent of the demand, the facilities and cost of transit, and the general policy adopted in the conduct of the business may vary so much as to make the result in one instance a fair profit, and in another an actual loss.

"A popular impression prevails that small makers can afford to sell goods at lower prices than large manufacturers, the idea being that the expense of the former are proportionately less. Apart from the fact that the expenses of the small maker are, as a rule, relatively higher than his larger rival, there are other considerations."

Any plan of arriving at prime costs, says the writer quoted, to be of reliable value must of necessity take note of every element of expense, both in production and sale. To arrive at these elements, it is absolutely necessary that the general cash-book should contain a detailed account of all payments, and that every item should be posted under the heading to which it belongs. For instance, payments in respect of any one of the following matters should be carried to separate accounts:—

MATERIALS, WAGES, FOREMEN'S SALARIES, CLERKS' SALARIES, TRAVELLING AND PUBLIC EXPENSES, EXPENSES OF FORWARDING DEPARTMENT, RENT, RATES, & TAXES, PLANT, REPAIRS OF FACTORY, PATENTS, & ROYALTIES, HORSES & VEHICLES, FUEL & GAS, ADVERTISING, LEGAL EXPENSES, PRINTING, STATIONERY, STAMPS & POSTAGE.

Furthermore, accounts should be kept of the loss upon returned goods or exchanges, cost of experiments, banking expenses, bad debts. "From an analysis of these items of expenditure say for three years, a tolerably safe guide as to the percentage upon the returns of the business is obtained." These several items may be grouped under three heads; the first includes the purchase of raw materials and all articles used in the manufacture; the second deals with the articles produced and the cost prices of the same; and the last relates to the costs and charges incidental to the sale of the goods manufactured.

"The establishment-charges in the case of my own firm are calculated upon the average cost per cent on the returns of three years, and the charge of the carriage of goods is estimated at the average cost per ton of sending to the several points of delivery. In respect of the cost of melting pig iron and delivering the same to the moulders for casting, the practice of my firm is periodically to adopt a test-weigh for a fortnight; the whole of the materials and the produce of clean castings, runners, wasters, etc., being weighed. The labor for moulding is charged in the cost price in the same way as for other departments. The same experiments are also utilized to show the total cost per ton of the finished castings produced in the period.

"The foregoing remarks on cost prices would be very incomplete if I were not to touch upon a point in connection with the subject which does not always receive the attention due to its importance. I refer to the question of stock, viz., raw materials, stores and manufactured articles. It cannot be too prominently kept in mind that to its original cost five or ten per cent. is added to stock by keeping it the year round. Hence, it may be taken for granted that profuse buying of materials and over-production of manufactured articles are prolific sources of loss and waste; but, on the other hand, a sufficient stock for the requirements of current business is absolutely necessary, in order to prevent delay in the execution of orders and to make a business run smoothly. In the endeavor to overcome the difficulties of this question and strike the happy mean, it has long been the practice of my firm to keep accurate accounts of the stock in hand of finished implements and all parts thereof, which are corrected to the first of each month. From the data thus obtained the stock is equalized and a safeguard provided against the evils referred to."

There are many points in this address which Canadian manufacturers may ponder with advantage. It will be seen from the exhaustive survey which Mr. Howard makes, that the discovery of the cost of an article made, involves a great number and variety of considerations. And as no manufacturer in this country any more than in the old land, can ignore the many sources of leakage and loss, and yet arrive at an accurate estimate of prime cost. Too many among us, we fear, are governed in fixing their selling price by what their neighbor charges, instead of laboriously calculating the cost, each for himself.—*Monetary Times*.

Room for the "Lumberman."

THE CANADA LUMBERMAN is the name of an excellent sixteen page paper, devoted to the interests of the lumber and timber industries of the Dominion. It is full of valuable information and interesting reading for those interested in lumbering operations, as well as others. We believe there is room for such a paper in Canada, and it should receive the support of every person interested in the trade. It is printed by Toker & Co., publishers of the *Peterborough Review*. The subscription price is two dollars a year, which is very cheap.—*Sherbrooke Gazette*.

HAUARD'S FACTORIAL BALSA is composed of the most alling balsams and gums. The balsams, which enter into its composition, were used by the natives when America was first discovered, and are combined with other vegetable tonics, so blended together, that it is a specific for all affections of the throat and lungs. Thousands of bottles are used annually, and is considered one of the standard preparations of the day.

THE ART OF WOOD WEAVING.

The manufacturing district of the Austrian empire lies in the north of Bohemia, where miniature Birmingham and Manchester are congregated together by the dozen, and hundreds of thousands of "hands" are actively and ceaselessly employed. For miles the high road is bounded by houses, chiefly one-storied wooden buildings with roofs of thatch or shingle, where the rattle of looms may be heard without intermission from early dawn till late at night. In some of the towns numberless chimneys pour forth volumes of black smoke by day, while by night the windows of the large factories glow with light as if there were a general illumination. One of the busiest of these little towns and villages is Ehrenberg, which lies close to the Saxon frontier, and is distinguished from the rest by a peculiar industry, which appears to be carried on in only two other places besides. The peculiar industry for which Old Ehrenberg is distinguished is wood weaving, *sparterie* work, as it is called, which was introduced something more than a century ago by a carpenter named Anton Menzel. The threads used for weaving are no thicker than writing paper, and vary in width from the fifth to the twenty-fifth part of an inch. The aspen is the only tree whose wood is sufficiently tough and pliable to supply these threads in the required lengths. The aspen was formerly indigenous in Bohemia, but has now almost entirely disappeared, or at all events does not exist in sufficient quantities to supply the demand in any degree. Consequently the raw material for the *sparterie* work has to be brought from Russian Poland, which is both a laborious and expensive process. The wood merchants go to Poland twice every year, in the early spring and in the autumn, the only times at which the wood can be cut with advantage, as none can be used at once but that in which the sap has not yet risen, or from which it has departed. Wood cut during the summer has to lie in water for a year, otherwise it is red and useless. It must be quite free from knots, as the smallest defect or irregularity, such as an ordinary person would hardly notice, makes the fibres quite unfit for weaving purposes. Arrived in Ehrenberg, the wood is planed and divided into pieces nearly 2½ inches wide. When they have been made perfectly smooth they are divided again by an instrument resembling a plane, but furnished with a number of fine knifeblades, which mark the wood at regular distances according as the strips are to be 1.25 or 1.5 of an inch in width. This process requires the utmost dexterity and nicety, as it is absolutely essential that the divider should exactly follow the direction of the fibre; and for this reason among others it must always be done by hand. The divider makes incisions 1.5 of an inch deep; the wood is then carefully planed, and comes off in this paper like stripes, some of which are not wider than a stout thread. They are gathered up as they fall by women, who examine them and pick out any defective pieces; and, in spite of all care taken in the selection and manipulation of the wood, there is a good deal of waste in the process. The threads or fibres, being now ready, must be tied in couples at one end before they can be woven. This is done by children, and in Ehrenberg little creatures of four years old and upwards are employed at it, and earn fourpence a day. The weaving is done chiefly by women, and in looms which differ considerably from those in ordinary use, the fibre being, as before mentioned, not more than from 39 to 50 inches in length. The longer fibres form the warp, the shorter (28 to 32 inches) the woof, which is passed in and out by means of a little instrument with an eye like a needle. Until within the last few years this concluded the whole process—the "foundations," as they are called, were complete, and nothing more was done, except that a few hats and caps were made of them; but these were of the very simplest description, and anything but becoming. Moreover, they were glued together, which made them very unpleasant to wear in hot or wet weather, and accordingly they fetched but fifteen pence or 2s. and 4d. per dozen, and were worn only by the very lowest classes. Within the last few years, however, a great change for the better has taken place, thanks probably in part to the interest shown by the Government

in the manufacture, in part to the establishment of an enterprising firm, and in part perhaps to the fact that the Ehrenbergers have at last become alive to their own interests. At present Ehrenberg sends out not only the raw material, but ready made goods—fashionable hats of all kinds, and a variety of fancy articles skilfully concocted out of the wood fabric; ladies' hats of every possible description and the latest fashion such as no one need be ashamed to wear, are made entirely of wood, and sold at astonishingly low prices. Men's hats are to be had of all shapes, from the Panama hat—not a whit inferior to that bought in Paris—to the common hats exported in large quantities in China, and the linings or foundations which give stiffness to the fez of the Turkish soldier. The export trade embraces all Europe, from Spain to Russia, extends beyond the Caucasus to India and China, and maintains active relations with North and South America, as well as Australia. The manufacturers are in direct communication with the four quarters of the world, and their goods are being introduced into Africa by French and English traders.—*Cassell's Family Magazine*.

THE PETCHORA TIMBER-TRADING COMPANY.

From Mr. H. Seeborn's work on "Siberia in Europe," we gather that Alexievka is the shipping port of the above company. It is a group of houses built upon an island in the delta of the great river which empties itself into the Arctic Ocean, nearly opposite Nova Zembla, and where the ships are laden with larch for Cronstadt. The larch is felled in the forests 500 or 600 miles up the river, and roughly squared into logs varying from 2 to 3 ft. in diameter. It is floated down in enormous rafts, the logs being bound together with willows and hazel boughs. These rafts are manned by a large crew, some of whom help to steer them down the current with oars and poles, and others are hired for the season to assist in loading the ships at Alexievka. Many of the men bring their wives with them to cook for the party. Sleeping huts are erected on the rafts, and it becomes to all intents and purposes a little floating village, which is frequently three months in making the voyage down the river. Marriages have been known to take place on these rafts. Occasionally a funeral has to be performed, and sometimes all hands are engaged in helping to keep the raft from running ashore or grounding on a sandbank. Sometimes in stormy weather it is necessary to moor the raft under the lee of an island, or a promontory, to avoid the danger of having it broken up by the violence of the waves. With the greatest care in the world, this will sometimes happen. The Russian has a good deal of the fatal facility to blunder which characterizes the Englishman, and shiploads of stranded logs of larch are strowed on the islands of the delta, and on the shores of the lagoon of this great river.

Woods for Heating.

The *tibbe* has the following:—In Toronto, as elsewhere, the consumers of wood for fuel esteem the hard maple as the most valuable for the purpose. This is an erroneous notion. All the oaks yield more heat than maple does, and so, among the other woods accessible, does yellow birch. Here is a table based of American experiments made several years ago, and showing the value of different kinds of wood for firing. Shell-bark hickory is taken as the standard:—

Shell-bark hickory	100	Hard Maple	59
Pignut hickory	95	White elm	58
White oak	84	Red cedar	54
White ash	77	Wild cherry	53
Boxwood	73	Yellow pine	51
Spruce oak	73	Bitternut	51
Red oak	69	White birch	43
Birch	32	White pine	49
Yellow oak	60		

Carefully Guarded.

THE CANADA LUMBERMAN.—Toker & Co., of Peterborough, have purchased the LUMBERMAN, and it will hereafter be published semi-monthly by them. In the introductory we are told that THE CANADA LUMBERMAN will be purely a trade organ and will be absolutely non-political. If the number before us is a fair specimen of what it will be in the future, we have no hesitation in saying that the interests of the lumbermen of Canada will be carefully guarded by it.—*Lindsay Warder*.