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THE INSTITUTE OF ACCOUNTS

98 FIFTH AVENUE,

OCTOBER, 1893

NEW YORK

ANNOUNCEMENTS.

The lecture for October will be delivered by Mr. Thomas S. Whitbeck, C. A., Vice-President of the Institute, on Thursday evening, October 26th. Subject, "Wealth, and its Unequal Distribution."

The regular meetings of the Institute, for debate, are held in the Lecture Room of the Institute, on the 15th of each month, with the following exceptions: When the 15th falls on Saturday the meeting is held on the 14th; when it falls on Sunday the meeting is held on the 16th.

The November meeting will be held on Wednesday evening the 15th. Subject for debate, "The Ledger," illustrated by diagrams.

A lecture is given monthly, as per special announcement, on some business or financial subject of interest to accountants and business men generally.

The meetings of the Institute are open to the public.

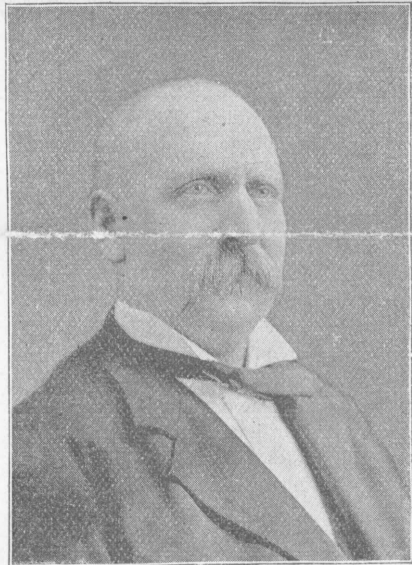
PERSONNEL OF THE INSTITUTE.

EDWARD C. COCKEY, the first president of the Institute of Accounts, was born in Baltimore, Md., September 22d, 1832. Six generations behind him was William Cockey, who came from England in 1679 and settled in Anne Arrundel County, Md. Edward, great-grandfather of the present Edward C., was a colonel in the Revolutionary war. He was a merchant and a thorough accountant. There are in possession of his descendants papers, receipts and account-books which show his care and accuracy. Edward C.'s grandfather was also a skilled accountant and his father being a merchant it is fair to assume that the accuracy and neatness shown in his work are an inheritance. As an accountant he is in a sort of "apostolic succession" for several generations.

After a term of service in his father's store he entered the Baltimore Postoffice, where he remained eight years. In 1861 he took charge of the books and accounts of the Ordnance Department of the Army at Fortress Monroe.

The knowledge of his business and fidelity to trusts reposed in him are shown by the fact that he retained his position till September, 1867, when he resigned to enter the service of the Western Union Telegraph Co.

Coming to New York, he took charge of the accounts in the general superintendent's office, where he remained till 1875. On the organization of the Atlantic and Pacific Telegraph Company he entered its service as supply agent. In 1878 he was made auditor, which position he filled till March, 1881, when



EDWARD C. COCKEY.

the A. & P. consolidated with the Western Union. He was then appointed superintendent of supplies of the new company, which position he now occupies.

The administration of Mr. Cockey's office requires great technical knowledge, the best of judgment, a clear head and a high order of executive ability. In his department are kept the accounts of the supplies of every sort and kind used by this great corporation, including the purchase of material and office supplies of every description, varying in amount from a few cents to thousands of dol-

lars, and aggregating millions annually. Everything in the shape of a statement or an account that passes through his hands is a model of neatness, and he finds little use for a subordinate whose work does not show something of this quality.

He is a thorough accountant, a genial gentleman, and carries one of the biggest hearts that beats in a human breast.

PHILOSOPHY IN ACCOUNTING.

A paper read before the Institute of Accounts, Thursday evening, September 28th, by MR. THEO. J. FRIEDLEBEN, C. A.

Character and ability are the great requirements for the accountant's business. Ability of course, as in any other business; but character to a much higher degree, for method as well as confidence are based upon it. What good would all his knowledge and experience do the accountant, if not enlivened by moral strength and principle? To create a method requires ability, but to maintain it needs will-power and self-denial of no inferior order. The accountant's position being one of trust, his honesty is supposed to be beyond doubt. Reliability certainly expresses all of his qualities, as it is his task to exhibit the financial relations between interested parties. His responsibility to be correct is a load upon his shoulders and requires undaunted and unceasing devotion on his part. Thus the man of accounts appears to our mind as a person of integrity and an important factor in the exchange of values.

The question of property has moved the world from its earliest stages. Plain beginnings have developed into the complicated forms of the age, acquired by title, or self-accumulated, guarded or restricted by law, defined and influenced by many causes. The organization and winding up, the transfer and control of properties, represent a vast interest in the business community. From the owner down to his lowest help a chain is formed of numerous links, whose joint or several actions in the end are financial obligations against the property, expressed by a specific amount. The revenues, likewise, of the property represent a fixed value. Turning our gaze from the limited scope of individual ownerships, we notice the extension of old and the formation of new territories constantly

progressing, which indicate the gain by enterprise and knowledge, by perseverance and ingenuity in the trades, in agriculture, commerce and manufacture. We see the world of business move in all its parts. The farmer tills the soil to harvest food for the man who moves his grain, or builds his house, or makes his coat, and this exchange, continued through all classes of the community, is expressed in the commerce of states and nations. The countries of the earth try to equalize the difference in the product of their soil and climate, and whosoever wants to obtain the privilege of a living must, in some shape or form, contribute to the markets of the world, which in reality means to provide for the necessities of others. Now all of the aforesaid transactions are recorded on the accountant's books, and from them posterity can get a representative idea of his time, and although unintentional, his records are historical in character. And still, the monotonous routine of the day makes his work appear to himself as drudgery, when the stamp of progress should carry him to the very height of his position. Not a cargo of goods is received, shipped or distributed, nor a single dollar paid for wages, unless entries of it are made on his books. Not a mill or road of transportation is operated, nor a commercial house managed, unless his figures approve of all the details transacted.

So we conclude that accounting is power and the very soul of all enterprise. Before the eternal truth of numbers misconceptions and delusive hopes must vanish. Accounts will signal disaster and show the cause of the approaching danger. They will prove in time that which is not ably managed or not righteously intended. But they will also shape a management, prepare improvements and lead to increased competitive strength. We see the proof of the relation between debtors and creditors, as laid out in the principles of double entry, grow to a factor of enormous magnitude. Let us, for instance, consider the case of a manufactory. The interest on the invested capital, the maintenance of the plant and machinery, the caretaking and preparation of the raw material, the transformation of the same by way of process, the distribution, transportation and delivery of the finished article, represent the total cost of production.

When operations were started, they were based on certain calculations, and success will only be secured in case they are realized. The difficulty therefore facing the accountant is to trace and locate discrepancies, if any, or to find the reason why operation and calculations do not always agree, in case their harmony is once established. But if results are in favor of the operation, why not reduce the selling prices and hereby secure a wider application of the goods through an extended market? The question is not so much the result itself, as the means of proving it step by step through a self-speaking and infallible system of accounts.

The success of a mercantile house depends upon the realization on its stock in trade. Business here means to have the goods and sell them. This sounds quite simple, but transferred into real life, it is a science. How highly do we speak of great lawyers, physicians, ministers and inventors, but apparently we have nothing to say in favor of the successful merchant; yet we understand, as we move in practical business life, the difficulty of building up a large business. The opportunity to apply a highly developed talent is not always offered. After the goods are bought rightly and successfully placed, the great question arises, will they be paid for as per contract, will payment be delayed, or not made at all? Will there be losses sufficient to wipe out a season's profit? Have we sold to responsible parties, able to meet their obligations?

To sell or not to sell, that is the question:—
 Whether it is better to sell the goods,
 And take the risk of doubtful payment,
 Or to make sure of what is in possession;
 And, by declining, hold them.
 To sell,—to ship,—perchance to lose;—
 Aye, there's the rub!
 For when the goods are gone,
 What charms can win them back
 From slippery debtors?
 Will bills be paid when due?
 Or will the time stretch out till crack of
 doom?
 What of assignments, what of relatives,
 What of aunts, uncles and mothers-in-law,
 With claims for borrowed money?
 What of exemptions, bills of sale, and the
 compromise
 That coolly offers a trifling per cent?
 And of lawyer's fees
 That eat up even this poor pittance?
 Yet sell we must,
 And some we 'll trust.

We seek the just,
 For wealth and lust.
 By some we 're cust,
 And stocks will rust;
 But we 'll skip the wust,
 Or we 'd surely bust.

A prompt and effective system of accounting is required to exclude fraud and excess of stock from merchandise account, and a careful credit system in connection with a closely collected ledger, to reduce possible losses to a minimum. Whatever line of business we analyse, we find its success always based upon its system of accounting. But there is a vast difference between keeping accounts and laying an accounting, the latter requiring the most intimate knowledge of all the details of the business for which the accounting is done. As the community at large can only prosper when its business houses do, it follows that a true and prompt accounting influences the happiness of the people. Failures and commercial disturbances hurt the innocent, and may be averted at least as far as the accountant and his work is responsible. Progress in accounting is identified with the development of a people and the advancing standard of its education. Old and established are the general principles, but new will always be their application by a fertile mind, a zealous disposition and a noble character. May the accountant's watchwords forever be: "Knowledge, experience, integrity."*

TREATMENT OF THE CASH ACCOUNT.

Was the subject for discussion at the regular meeting of the Institute, on the evening of September 15th. The discussion was in part as follows, opened by

MR. JAUDON.—We are all familiar with the old form of the Cash Book. The one I first became acquainted with, over forty years ago, was a simple book, journal ruled in stationer's parlance, commencing with the balance on the debtor side, and each entry of the various accounts on separate lines on either side, and ending with the balance for the month on the credit side. This necessitated journalizing in the old-fashioned manner, unless one would post each entry separately. Afterwards came in the Columnar Cash Book, and journalizing was relegated to a back seat.

To-night I purpose showing you two forms of Cash Book, or rather two methods of keeping the Cash Account. The one of which I will speak first is that in use in the bakery of

* Motto on the seal of the Institute of Accounts.

the Vandervere & Holmes Biscuit Co., of which I was Secretary. At first I used a simple old-fashioned Cash Book, the methods of doing business permitting this; but when the system was changed, and instead of selling our crackers to the drivers individually and having a settlement with them daily, they were sold to grocers direct and delivered by the drivers on the company's wagons, a new system of keeping the Cash Account became necessary, if the posting Cash Book was not to be overloaded on the debit side. A book was gotten up as a sort of Cash Blotter. [MR. JAUDON exhibited several diagrams, which he had drawn on large sheets.]

In this rough Blotter were entered separately the receipts from each driver of delivery wagons, and collections made by each salesman, also wholesale and retail sales under their respective heads, whether City, Brooklyn or Jersey City, Sundries, &c. To avoid cumbering the main Cash Book, a sub-Cash Book was kept, in which was entered the cash received on personal account, domestic and foreign, there being something over 1000 open accounts in this country and the West Indies. These entries were posted to the Dealers' Ledger in detail, while the gross sum went into the main Cash Book, when the debit side of the book was about as follows:

City.
Brooklyn.
Jersey City.
Sundries.
Retail.
Credit Sales.
West Indies.

Each of these accounts had a separate column in the Cash Book, and an account in the General Ledger, to which was credited at the end of the month the amount collected.

To the debtor side of these various accounts was posted the net sales for the month, which consisted of the sales, less the returns and package allowances, &c. The balances of the accounts in the General Ledger then showed the amount outstanding on the various accounts.

The net sales also come from the same Daily Blotter as did the cash. On this book was entered the entire business of the bakery—the sales of each department, the returns and allowances, credit sales, old bills collected, &c. The entire books for the sales and delivery system were proved daily, which could not be the case were there an error.

By way of digression, and to show you the idea of book-keeping possessed by some people, I would state that some years after I left the bakery I dropped in one day and found that my successor still kept up my system, but did not think it necessary to run it to a proof!

Much of this seems foreign to the Cash Account, but I wanted to show you how it was made an integral part of the business,

and so interwoven with it as to be the proving factor. Of course there were other items which I have not mentioned, as notes, loans, &c. The credit side had columns for pay roll, merchandise, expense, stable, &c.

An extension of this form of Cash Book is what I call "The columnar system run mad!" It contains a number of columns—fifteen or more on each side, in which the whole of a business could be entered. This book could be made a Ledger by continuing the column additions throughout the year, or till the time of closing. The business must needs be a cash one, and I only mention it as an extreme case of the development of the columnar system, of which I am a thorough advocate.

MR. WHITBECK.—As has been clearly demonstrated, the function of the Cash Book and the different methods of keeping it is more a matter of circumstance and convenience than of uniformity or skill. The ordinary records of cash receipts and disbursements formerly proved sufficient and were generally uniform. It has come to pass, however, that the keeping of the cash, along with other parts of the Accountant's work, has demanded a change, until now, with the variety of forms, it is the rule rather than the exception that scarcely any two book-keepers adopt exactly the same method.

Not only have changed methods of business caused the changes in book-keeping, but the better education of the book-keeper in the realm of higher accounting has led him to discover and invent improvements. The system of employing cashiers who control the cash record exclusively has also done something to introduce improved methods. To some these modern methods may seem complicated and laborious; to others valueless, hence useless; but a careful examination must convince any practical mind of their value, in the subdivision of labor, accuracy and safeguards against speculation.

MR. JAUDON has shown you what he accomplishes by his methods; I will try to show you, with the aid of diagrams, what I do with mine, that is, with the system my house has adopted because they are familiar with it, and because it meets the demands of their business. I do not say it is perfect; indeed, I would make some changes but that my principals have become accustomed to it and prefer to have it remain as it is.

[MR. WHITBECK then illustrated his form of Cash Book, showing how the book-keeper had a check on the cashier, and the Firm a check on the book-keeper.]

Any member of the Institute knowing of a vacancy for a good book-keeper, will confer a favor by communicating with the Secretary. Two members have recently lost their positions, their firms going out of business.

CLASSIFICATION OF ITEMS IN COST ACCOUNTS.

A paper read before the Institute of Accounts on Monday evening, October 16th, by FRED'K W. CHILD, F. I. A.

Few, if any, of the great manufacturing establishments which we see about us are of sudden growth. They have not sprung into being without a struggle, and have not matured to their present state of perfection without many years of anxious and earnest work.

The men who started the great workshops of this country were men of exceptional energy and skill, or they could never have made headway against the many disadvantages under which they labored.

It has come within the range of my duties to bring, to a fair degree of perfection, the cost accounts in two of the largest factories in this vicinity, and I propose to give you a brief sketch of their early history, as their beginning, doubtless, has its parallel in many another industry in this country.

The first is the Novelty Iron Works. This establishment was equipped with heavy machinery, suitable for building the largest ocean steamships, and for many years constructed and put in place all of the engines for the Pacific Mail Company's steamers. Their shops covered an area of nearly two city blocks, and they employed about 2,000 men during the war of the rebellion in building steamers for the U. S. government.

Who would have been able to predict, away back in the early forties, when this enterprise was started, what an important part it would be called upon to perform in the upbuilding of steam engineering in this country!

Horatio Allen was its founder, and was possessed of the notion that he could introduce some improvements in the methods of building steamers, so he made the plans for a little steamer and had one constructed for him from these plans, and named it "The Novelty"; but he found it so difficult and expensive to conduct his experiments in shops not controlled by himself, that he put up a small shop, not much of an affair either, at the foot of East 12th Street, which for a long time was known as the "Novelty's Repair Shop," having reference to the little steamer, and afterwards as the "Novelty Shop," and later still as the "Novelty Iron Works."

The other concern to which I have referred was that of Henry R. Worthington. I was with this company for 23 years, and witnessed and had part in much of its marvelous growth, until at present it has the largest business of any pump concern, reaching to almost every part of the world. Its shops cover an area of more than two Brooklyn blocks, besides having one of the largest foundries in the country at Elizabethport, N. J. And how did this originate? Away back in the forties, Henry R. Worthington became convinced that steam canal boats could be used to excellent advantage on the canals of this country, and he invented a steam canal boat as far back as 1844, that even at this late day has not been greatly improved upon. Finding it very inconvenient to run his engine every time he wanted to get water into the boiler, he contrived for his use a means of feeding the boiler when the engine was at rest, and at the earnest solicitation of friends had the machine patented, which is now so widely known as a steam pump. There was then sufficient demand for this pump to warrant his manufacturing it on a small scale, but to what colossal dimensions has this business now grown!

I give these illustrations to show the crude way in which these and many other manufacturing establishments have started. The machinery with which they had to work was imperfect, and the methods of accounting were clumsy and unsatisfactory. Their cost accounts were generally the product of the memory of their practical mechanic as to about how much of the different kinds of labor and material a certain piece of work or machine would require, based on what it had been on some similar job, and all they obtained in excess of the amount thus figured, they called profit. But as the shops grew and business increased, it was evident that they did not receive the profit that was shown by this method of calculating.

They were then, without being conscious of it, approaching the condition of the peanut woman who paid 9 cents a quart for her peanuts and sold them for 8, and said the only way she could make anything was by selling a great many of them!

It took me two years to convince the very able partner, who had charge of these matters

at Henry R. Worthington's, that his estimates were based on suppositions, which in many instances were incorrect. But he showed his appreciation of the value of cost accounts, after having seen the results of my work, by enlarging the system, which was designed to show the cost of the finished machines, so as to cover the cost of each individual part of the machine.

It is a common; and, I think, erroneous, idea that cost accounts should be kept in order to make a selling price on the goods manufactured. On the contrary, I think them most serviceable in reducing the cost of manufacture, and have little or no influence on the market price of the goods, which is regulated by competition. They do, however, show to how low a figure the selling price can be reduced to meet competition without subjecting the manufacturer to loss. More than this: they should indicate, if properly kept, the effect of any effort to cheapen the manufacture.

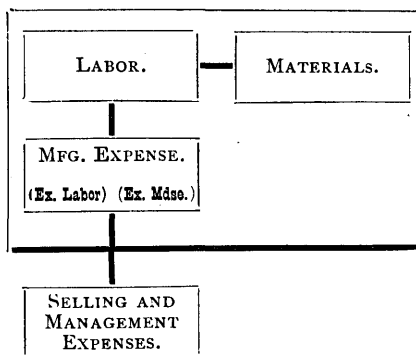
Most establishments are led up to the necessity of keeping cost accounts in a way similar to that which I have described; but the thorough knowledge, which a well-regulated set of cost accounts provides, makes it possible for them to take a further step, which frequently results, not only in a less cost of production, but also in elevating the tone of the shop by use of the piece-work system; and from this grows up what is known as the contract system, which I have not time here to describe. All this, however, is the direct result of the knowledge acquired from the cost accounts, and therefore very careful attention should be paid to the arrangement and keeping of them.

The primary elements of all cost accounts are: Labor, Material and Expense. I do not propose to go into details as to how each of these elements is brought into the cost, as I have already done this on a previous occasion, and the printed copy of that lecture is in the hands of the Secretary, who would, doubtless, be glad to furnish a copy to any member who is sufficiently interested in the subject to apply for one. Having found, then, the cost value of the labor and of the material which have entered directly into the manufacture, we have left only the element of Expense, which requires to be itemized

and classified, and the efficiency of the finished cost will depend, in a great degree, on the disposition of this element. Expense can be properly subdivided under two general heads:—Manufacturing Expense (which may be either manufacturing labor or manufacturing merchandise), and Selling and Management Expense.

For the purpose of keeping before you what I am about to say on this subject, I have drawn a diagram after the manner in which sentences are analyzed in Green's Grammar, which method, by the way, gave me a better idea of the relations of "parts of speech" than any other.

Here, you will observe, is the element of material and here the element of labor, and thereto hangs a tail, which to many establishments have proved a tale of woe and which all efforts must be directed to cur-tail.



To the element of material are no appendages. By this I mean to emphasize the fact that, in my judgment, in making up a cost nothing should be added to this element of material, and I would substantiate my view with the following argument: Material does not increase in value until labor and expense are put upon it, and the value increases in proportion to the labor and expense wisely expended upon it. The ore is of no value to manufacture until labor and expense are employed to mine it; and so through every stage of increased value up to those of the most delicate and finely finished instruments. You will also notice that I have here attached the manufacturing expense directly to the element of Labor. By this I mean to indicate that at this point I consider the manufacture

complete. To illustrate: If the total paid for labor, which goes directly into the manufacture, is \$200,000, and the manufacturing expense, made up of exp. labor \$25,000, and exp. mdse. \$15,000, is \$40,000, then to the labor item of each article manufactured must be added 20% to complete the manufacturing

Labor.....	\$200,000.
Material.....	150,000.
Mfg. Expense {	Exp. Labor \$15,000,
	Exp. Mdse. 25,000. 40,000.
Selling and Management Exp.....	39,000. \$429 000.
Manufacturing Expense 20% of Labor.	
Selling and Mng. Exp. 10% of Labor, Mat. and Exp.	

cost and cover this item of expense. There are other reasons why it is advisable to add this percentage directly to the labor item, among which I would mention the following: It often happens that customers will ask the manufacturer to buy for them and send with the goods manufactured certain other goods of a different make, which have a known market value, and to which it is well to add only a nominal amount, to cover cost of handling, etc. If he attempted to add his percentage of manufacturing expense to these, he would soon get himself disliked by his customers. Again, it often occurs that material of some peculiar kind is sent to be used in the construction, and your percentage based on labor and material would be altogether too low under these circumstances. And again, if you are manufacturing any class of machines and wish to make costs with a view to making a price list of the several parts—some of the parts will be principally labor, and others mostly material, and if you add your percentage of expense to the sum of the two, the price list will be distorted out of all just proportions. As I have said, at this point, that is, when you have ascertained the cost of the labor and the cost of the material, and added the proper percentage to the labor items, and to this added the cost of material, the cost of manufacture ceases, and the product passes into the store house at a known value, or is delivered to the party ordering it; and right here I wish to say that a great big line should be drawn to mark the change in the mode of accounting. It should be as if the concern had bought the product from the

factory at cost, and the percentage for the cost of disposing of it should be added to the cost of the finished product. In this last item of expense should appear, if a corporation, the salaries of the officers, clerks, salesmen, etc., at the main office and sales rooms, and the rent, insurance, and in fact all the expenses connected with maintaining such quarters. When this percentage has been added to the cost of the manufactured product, your profit will be the difference between the amount so obtained and the price you have been able to sell it for. In case it is a copartnership, it is not improper to add legal interest on the capital, as representing the salaries of partners.

One word more, and I will give you the opportunity I know you are all longing for, to pull down my cunningly-devised fables, and in your wisdom to rear in their place a structure based on facts.

Let no one suppose for a moment that the methods I have described are the only ones. In fact, there are some kinds of manufacturing where they would not be at all applicable. As one instance of this I would give a stove foundry, where it is desirable to know, first, the cost of the castings; then the cost on the shelves; and, finally, how much put in place in the stove,—a different scale of percentage would have to be used to give these facts. I might mention others, but the underlying principles are the same in every case.

I thank you for your careful attention, and ask your unsparing criticism on my remarks.

MR. McRAE.—In the kinds of business cited it may be comparatively easy to get at the cost, but there are many others in which it is impossible to get at the exact cost—the nearest you can get to it being only an estimate. For example, in the manufacture of certain kinds of ornamental glass, of brass, and of silk. A window may contain a thousand pieces, and it is not possible to tell exactly how much each little piece of the various colors cost. In no way can the exact cost be found. The only way to tell whether your estimate is right is to take account of stock at stated periods, and find what has been made and what has been sold. I don't think any cost accounts are made up correctly. They are only an estimate at best, and far from right.

MR. HARNEY.—If you know how much labor and material cost, and the contingent expense is determined by an absolutely cor-

rect method, I don't see why cost cannot be accurately and absolutely determined. The gentleman's own argument answers his criticism. If, as in a brass factory, a given amount of material costs a given sum, and the same amount of material in another factory, with a variation in the labor, cost a different sum, I don't see why both establishments can't determine exactly the cost of the finished product. If this were not so the manufacturer could not determine any proper percentage of profit. No more could a merchant who tumbled his goods on the shelf, without knowing the cost, tell what should be his percentage of profit.

Everyone knows that next to a knowledge of the net results of a business, the most important thing is to know the percentage of profit. Suppose a merchant knew that he had made \$50,000 a year, and thinks he can afford to give his customers the advantage of a part of this gain, I don't see how he could tell what allowance to make them, unless he could get at his percentage. He might say, I will sell for \$40,000, giving my customers the rest; but this would be the rule of thumb, which we all here deplore. It seems to me that the figures will not lie, and that the finding of cost is not merely an estimate—a mere theory. It appears to me a trifle less than absurd to insist that this is an estimate, and not a positive, determinate quantity.

MR. LEWIS.—I had several years' experience in the pig-iron business. We had three kinds of ore, limestone and charcoal accounts. We knew exactly what a ton of stone and ore cost, each bushel of charcoal, and the labor. We ran the whole year on what we called "averages"; we knew the daily production and its cost. At the end of the year, when the balance was struck, the difference was slight. We ran a set of books, called "Stock Books," to aid in getting at results.

MR. SPARROW.—I would not have the timidity to assert that a manufacturer could not have any definite idea of cost, for certain kinds of manufacturing business is founded upon that, but it would be very difficult. Take the case of a brewer: It is a part of his business—unfortunately for him—to supply presents for his customers—birthday presents, signs, bevel plate-glass, ice boxes, diamond rings, etc., etc. Before he has become thoroughly established, he engages some supply house to furnish him many of these articles. By and by he hires a carpenter who, in addition to his work around the brewery, makes ice boxes, signs, etc. Lumber is bought. Where does it go? Some of it into the wagon house; some for signs; some for bar room fixtures; some for ice boxes. Now it is practically next to impossible to tell just how much of the time of this brewery carpenter went to the making of bar-room fixtures, and how

much to work around the brewery, repairing buildings, wagons, etc.

In the plate glass manufacturing business, I know it is a fact that men have some sort of idea of cost, based partly on observation and partly on experience. In the making of a mirror, for example, after it is silvered some defect may be found which renders necessary the scraping of it all off and doing the work over again. Then there is the item of spoilage, which must be considered. Now he can tell about what it cost, but not exactly, for so much enters into the contingency.

MR. OTT.—I do not think you can tell with any degree of accuracy what the cost is in the cloak manufacturing business. You can tell the cost of material and manufacturing expense, but there are certain fixed charges which for running the business are as much a part of the cost as the goods are. I refer to rent and salesmen's salaries. Rent costs just as much, whether we sell fifty or a hundred thousand dollars worth of goods. A salesman who works on a salary draws just as much whether he sells much or little. We know exactly what a garment costs in the factory, but the cost of selling is a varying quantity.

MR. MOULL.—In a builder's books that I kept, we knew exactly how many hours work of a man went to every job, however small, and to every contract however large. The glass used in the making of windows referred to, is packed in boxes and sold by the gross; the lead is sold by the foot. Of course an account is kept of a man's wages in putting these materials together, and so you can tell exactly what a window costs.

MR. PACKARD.—I understood you to make a distinction between a single proprietor and a partnership in taking interest on capital. Also, why do you want to ascertain the cost of production unless it is with reference to selling?

MR. CHILD.—I made a distinction between a corporation and a partnership. To your second question: If you know the cost you know exactly how to meet competition; it will show you the low-water mark at which you must stop.

If your cost accounts are made up right, I don't see why you cannot tell what the cost is. When I had conducted business a year I had a year's expenses of labor and material, with a given percentage added for manufacturing expenses. When you have this, you have the cost of manufacture. This percentage must be added to the cost of manufacture, not to material, for that is already a definite sum. One item of cost which should not be overlooked, is interest on capital.

Reference has been made to the profit and selling price. That does not enter into the question at all; it is only the cost that we are discussing this evening.