

We have what others have not—

A machine operated by keys alone—combining

Enforced Accuracy
Absolute Key Control
Perfect Duplex Key-Action
Uniform Light Vertical Stroke
Easy Touch—Cushioned Key Tops
Duodecimal Keyboard
Noiseless Operation
Dust-Proof Steel Case

Durable Reliable Adaptable Practical

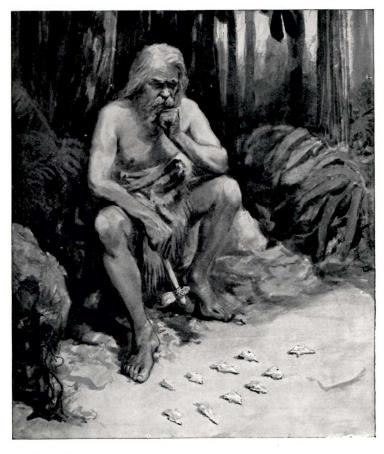
Qualities proven by twenty-eight years' service

All the really desirable features No useless time-consuming attachments

THE COMPTOMETER ADDING MACHINE

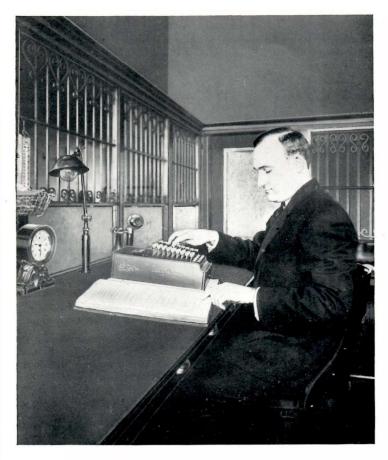
Read—Important

				Page
The Comptometer an all-round machine—in a class	by	itsel	f	7
Speed and Results		-	-	7
	-	-	-	8
Prevents costly errors	-	*	-	9
How to Add and Multiply on the Comptometer -	-	-	-	9
Decimal and Fraction Comptometers	-	-	-	10
Division and Subtraction	-	-	-	11
The Comptometer v. Other Calculating Machines	-		-	11
Fractions			-	13
Enforced Accuracy	-	-	-	13
The Practical Value of the "Controlled-Key" -	-	-	-	14
What the "Controlled-Key" Comptometer Is -	-	-	-	14
The New Cushioned Keys and Interference Guar	ds	•	-	14
Advantages		-	-	15
Durability	-		-	15
Guarantee	-		-	15
Construction, Inspection and Tests	-	•	-	16
Requires no special system	-	-	-	16
Not a Printing Machine	-		-	16
Practical for all kinds of Figuring	-	-	-	17
Summary of Advantages	-	-	-	18
How, where, and by whom used	-		-	19
What users say	-		-	22
Users (see supplement)	-	-	-	-



THE STONE AGE
A Beginning

THE COMPTOMETER ADDING MACHINE



THE COMPTOMETER AGE
Highest Development

Controlled-Key Duplex Comptometer

New Noiseless Model E

Light Duplex Key Action



British Currency Model or Duodecimal Machine

NETT PRICE LIST

Eight columns.....£52 10s. od. Highest Answer is £99,999 19s. 11\(\frac{3}{4} \)d. Ten columns.....£63 0s. od. Highest Answer is £99,999,999 19s. 11\(\frac{3}{4} \)d. Twelve columns...£73 10s. od. Highest Answer is £999,999,999 19s. 11\(\frac{3}{4} \)d.

Note.—The Comptometer is supplied with or without farthings column as desired. When without, an additional pounds column is supplied.

THE COMPTOMETER ADDING MACHINE

An All-round Machine

As an all-round machine, the Comptometer stands alone—in a class by itself. It does with absolute accuracy

It is the only machine which successfully meets all these requirements.

railway

Speed and Results

Because a simple key-stroke does it all, the Comptometer saves 60% of time on addition; 60 to 80% on multiplication and division—according to the nature of the work.

Moreover it insures accuracy, without the nervous and mental strain of the old way. The speed and accuracy of the Comptometer is beyond the most extravagant expectation of anyone unacquainted with it.

Take, for instance, an example like this: 2364×5264 —you get the answer in less time than it takes to write the numbers down.

Compare the time it would take to do all the following examples in any other way, with that required by the Comptometer, as given:

 $6,327\times6,457=40,853,439.$ Time with Comptometer, 5 seconds. $263\times879\times138=31,902,426.$ Time with Comptometer, 9 seconds.

$51\frac{1}{2}$ hours @ $9\frac{1}{4}$ d. per hour = £1 19s. $8\frac{1}{2}$ d. Time, 2 seconds.

Drapery:—	
$79\frac{7}{8}$ yds. @ $2/9\frac{5}{8}$ per yd. = £11 3s. 10d.)
$23\frac{1}{4}$ doz. @ $4/4\frac{1}{2}$ per doz. = £5 1s. $8\frac{3}{4}$ d.	Time, 20 secs.
216 yds. @ $2/3$ per yd., less $5\% = £23$ 1s. $8\frac{1}{2}$ d.)
14 gross 7 doz and 4 @ $13/6$ gross = £9 17s, 3d.	Time, 3 secs.

Tonnage:— 15 tons 6 cwts. 1 qr. 19 lbs. @ $55/4\frac{1}{2}$ ton = £42 8s. 5d. Time, 2 secs.

warenousemen	:	
	29/32d. = £15 17s. 5d 3-13/16d. = £118 2s. 6	

Textile :-

Spinners' Wages.—616 @ 108d.% = £2 15s. 5'28d. Time, 2 secs. Weavers' Wages.—3 @ 2s. $11\frac{1}{2}$ d., 2 @ 2s. $2\frac{3}{4}$ d., 4 @ 1s. $11\frac{1}{2}$ d., 2 @ 1s. $7\frac{1}{2}$ d. = £1 4s. 5d. Time, 5 secs. 4 @ $24\frac{1}{6}$ d., 3 @ $31\frac{7}{6}$ d., 7 @ $16\frac{1}{2}$ d., 2 @ $25\frac{5}{6}$ d. =

£1 9s. 10\factor{1}{3}d. Time, 6 secs.

LENGTH NOTES.— $17/60\frac{1}{2}$, 6/61, $62\frac{1}{2}$, 13/63, $21/64\frac{1}{2} = 58$ pieces, $3630\frac{1}{2}$ yds. @ $3\frac{5}{8}$ d. = £54 16s. $8\frac{1}{2}$ d. Time, 10 secs.

Wool.—24 packs 3 tods 8 lbs. @ 11_8^3 d. per lb. = £277 12s. 10_4^3 d. Time, 5 secs.

Timber :-

11 stds. 2 qrs. 15-5/12 deals @ £9 5s, 0d, std. = £107 11s. 3d. Time, 4 secs.

231 pcs. $3\frac{1}{4} \times 2\frac{1}{2} \times 21$ ft. = 1.659 stds. Time, 11 secs.

Exchange :-

£269 2s. 3d. @ $25^{\circ}25\frac{1}{2} = 6796^{\circ}44$ F. Time, 5 secs. \$1223 25 @ $4^{\circ}86\frac{3}{4} = £251$ 6s. 2d. Time, 3 secs.

Shipping :-

443 ft. 4 in. @ 36/3 per 40 cu. ft. +10% = £22 1s. 11d. Time, 5 secs.

Percentage :-

£1263 2s. 0d. @ 3/9% = £2 7s. 4½d. Time, 2 secs. £331 6s. 6d. less 5% and 10% = £283 5s. 8d. Time, 3 secs.

1912 1913

£477 £513 per cent., inc., or dec. = 7.55% inc. Time, 6 secs. £7434 £6323 ,, , = 14.94% dec. Time, 9 secs.

Interest :-

£644 11s. 2d. @ $3\frac{3}{4}\%$ for 277 days = £18 6s. 10d. Time, 9 secs.

Insurance:

£3254 @ £1 17s. 6d.% less $2\frac{1}{2}\% = £59$ 9s. 9d. Time, 6 secs. £12033 @ 4/3% for 42 days unearned premium = £2 18s. 10d. Time, 5 secs.

\$456.35 @ $\frac{5}{8}\% + 10\% - 5\frac{1}{2}\% + 12\frac{1}{2}\%$ at exchange rate of $4.85\frac{1}{2} = 13s$. 9d. Time, 20 secs.

Engineering :-

Steel plate, 8' $7\frac{3}{2}$ " \times 9' $9\frac{3}{4}$ " @ 15'17 lbs. per sq. ft. @ 8-7/16d. per lb. = $4.5 \cdot 2s$. $8\frac{3}{4}$ d. Time, 23 secs.

It is a wide margin in favour of the Comptometer every time. Incredible as it may seem, these records can be equalled on practical every-day work, and we are glad to demonstrate it to any one who will request us to call.

This means that a series of calculations involving five hours of brain-wearying labour can be disposed of with a Comptometer in an hour or less; or columns of figures that would take a clerk five hours to add, can be summed up on the Comptometer in two hours—and best of all, there is the satisfaction of accuracy.

Insures Accuracy

As to the accuracy secured by regular use of the Comptometer, take the experience of a well-known department store. Owing to errors when figured mentally, the audit-room footings of ten to fifteen of the twenty-eight departments in this store failed each day to balance with cash. Since Comptometers have been put upon this work, there has seldom been a single day in a month when all footings—first time casted—did not balance with cash in every one of the departments; and be-

Prevents Costly Errors

sides eliminating errors, the work is now done in half the time.

This is only one of many similar cases.

It is a common occurrence for our salesmen, when asked to demonstrate the Comptometer by figuring over a few old invoices for some house, to find that one or more of these invoices have gone out with errors. They had all been carefully checked, of course—mentally—but the mistakes slipped through just the same. It simply shows that the Comptometer does not slip a cog as the mind frequently does.

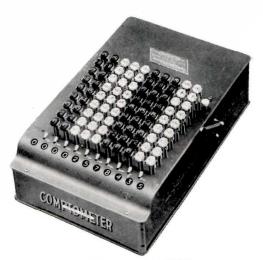
How to Add

The Comptometer keyboard is extremely simple. In the duodecimal Comptometer with farthings, the first column on the right is for farthings 1 to 3, in the second column are pence from 1 to 11, in the third column are units of shillings from 1 to 9, in the fourth column are tens of shillings, in the fifth column are units of pounds from 1 to 9, in the sixth column are tens of pounds from 1 to 9, and so on across the keyboard.

Addition is performed by merely depressing the keys corresponding to the numbers to be added. To add, say, £18 15s. 10d. strike the 1 key in the sixth column, the 8 key in the fifth column, the 1 key in the fourth column, the 5 key in the third column and the 10 key in the second column—when the amount appears on the register.

How to Multiply

To multiply, take one number on the keys and count the strokes as indicated by the digits of the other number. For example, to multiply 578 by 463: since the duplex feature permits the striking of any number of keys at the same time, place the fingers on 578 and strike three times; move one column to the left and strike six times; moving once more to the left strike four times—when you have the answer, 267,614, in the register.



DECIMAL MACHINE



FRACTION MACHINE

First column at right for adding fractions in eighths.

A very little use of the machine gives amazing speed on multiplication.

If there be a decimal point in either of the factors, simply point them off the same as you would when figuring with pencil and paper.

On the Duodecimal Comptometer, amounts in British Currency can also be quickly, easily and accurately multiplied by either whole numbers or decimals. The pounds columns in such a machine are naturally the same as the decimal columns on a machine which is wholly arranged for decimals and so the pounds columns can be used for adding or figuring anything in decimals. In this way all computations in decimals and duodecimals can be done on one and the same machine.

Division and Subtraction

Each key bears on its top a small figure which indicates the power of that key for subtracting and dividing. These operations are the converse of adding and multiplying. Discounts are also figured with reference to the small figures on the key tops.

The lever on the side is used only to cancel or set the machine at naught, preparatory to beginning a new addition or calculation.

The Comptometer v. Other Calculating Machines

After a demonstration of the Comptometer's speed, one is quickly convinced that the other calculating machines are impractical for adding.

Attention is next called to the different methods employed for multiplication and division. On other machines, it is first necessary to set up the figures on dials and registers, when great care must be exercised to see that the figures are properly transcribed from the work to the machine; next a crank must be turned the number of times indicated by the different digits—with one hand—and—with the other hand, the answer register is shifted from left to right, from units place to tens, etc., until the operation is completed.

With the Comptometer, there is no preparatory work, such as setting up of figures, no crank to turn, and no register to

PAGE ELEVEN

shift: you merely place your fingers on the keys wanted and

press them the number of times indicated by the different digits—completing the work with one operation.

The Comptometer possesses absolute controls for checking, not only the accuracy of its own calculations, but also the



Sets Right Up Close to the Work.

accuracy of the operator in manipulating it. Other calculating machines have various devices for controlling the accuracy of the operator, but as they require the inspection of too many registers, the operator soon dispenses with them; and if they were wholly reliable and used with ease, they would only check the accuracy of the manipulator and not the accuracy of the calculating mechanism.

Fractions

Multiplications of fractions of any denomination are easily made on the Comptometer. For adding fractions such as quarters, eighths, sixths or twelfths we make special Comptometers, having one column of keys for fractions of the denomination desired. We also make a special wages machine for adding hours and minutes down to intervals of five minutes.

The Comptometer is fully adapted to all kinds of mercantile, manufacturing, insurance or railway accounting work. This is shown by the fact that the most progressive concerns, both large and small, in almost every line of business, have not only purchased Comptometers but keep on sending in repeat orders (see supplement). Evidently they find the Comptometer a paying investment—just as you would.

Not a Machine for Sleepy Clerks

Being a machine capable of rapid work, it is not the machine at all for a sleepy clerk with no higher ambition than to merely put in time; but, in the hands of a wide-awake operator, it is different. For speed and accuracy, such a combination cannot be beaten-because the Comptometer being wholly key operated, is twice as rapid as any other machine.

Not Cheaper, But Better

Not how cheap, but how good—has been the constant aim in Comptometer construction from the beginning-built not for show, but service. That is why it is so durable, reliable, dependable.

"Enforced Accuracy."

In our new model "E" "Controlled-Key" Duplex Comptemeter are realised all of the improvements born of 28 years' experience in the building of the machine and perfecting it to meet the requirements of all lines of business.

The "Controlled-Key" is the sentinel, absolutely REFUSING TO ALLOW any mis-operation.

PAGE THIRTEEN

The Practical Value of the "Controlled-Key"

It enforces accuracy—by enforcing Original Accuracy, it eliminates errors and prevents unnecessary waste of time. It is so thoroughly guarded against the admission of errors that Dependable Results are Obtained the First Hour the inexperienced clerk uses the "Controlled-Key" Comptometer.

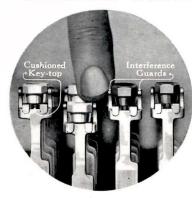
What the "Controlled-Key" Comptometer Is

It is a DIRECT-ACTING, Key-Driven Adding Machine—a DIRECT-ACTING, Key-Driven Calculating Machine—of an unapproached light and "velvety" key action. It absolutely refuses to receive an error by partial adding from any key in any column. It positively locks against imperfect operation. The mis-operated column, however, is left open to receive the completed key stroke which corrects the error.

All odd keys are concave—all even ones, smooth; so that from a sense of touch alone the operator is instantly aware of it, should a wrong key at rare intervals be struck.

The New Cushioned Keys and Interference Guards

The new feature of Cushioned Key construction increases the ease and speed of operation.



Interference guards protect any key against accidental adding with another key.

Advantages

The Comptometer is small, light, strong, compact and neatly finished; measures 5 inches to top of keys and weighs only 15 pounds; can be placed on an open book or next to work where most convenient. No expense for paper or ribbon; no carriage to attend to; no extra buttons, lever or keys to manipulate and no operating lever to pull—you merely press the adding keys and read the answer.

The Comptometer requires less than one-quarter the physical power necessary to operate other adding machines. Do not forget that it is not simply a one-purpose machine. It adds—nearly twice as fast as any other machine; but, on multiplication and division, it is still faster. Just the thing for invoice extensions, large and small; checking wages sheets and cost-keeping accounts, and the large computations in railway accounting—all done surely, quickly, without mental strain. It is the only machine that will do all your figuring, and is, withal, simple and easy to learn.

On the Comptometer, at least twice as much work can be turned out in a given length of time as on any other calculating machine or any other adding machine, and on much work it is four to five times as fast.

Durability

The Comptometer has an unequalled record for durability. In many Government, railway, manufacturing and mercantile offices, it is operated eight to ten hours a day at five times the governor-limited speed of other adding machines—but it stands up to the work, because it is built to work that way.

Guarantee

We furnish a written guarantee with all Comptometers—a guarantee covering everything except wilful negligence and loss by fire.

Construction, Inspection and Test

At every step of the Comptometer's construction, the greatest possible care is exercised. The extreme precision required for many of its parts is only secured by use of machine tools of our own special design and manufacture.

At each successive step of manufacture, frequent inspections and tests are made by skilful inspectors. After completion each machine is reinspected; it is then operated continuously for a whole day in a special testing machine. Finally, before shipment, it is hand-tested by three different expert testers. Such pains-taking care from first to last would be needless if Comptometers were built merely to sell—but they are not. They are built for the highest possible degree of efficiency and service.

The Old Way Too Slow

A few houses still cling to the old way of mental figuring—but they are growing fewer every year. They find it too slow—too expensive. They cannot afford it—when they can add up ledger, cash book, sales account and trial balance columns, or multiply extensions on invoices, wages sheets and stock sheets with a Comptometer in less than half the time.

Requires No Special System

The Comptometer is not a machine for which a special system must be installed. It fits into any system of book-keeping or accounting. A poor one it betters; a good one it makes ideal. You can use a Comptometer, therefore, without installing an elaborate system or changing established methods.

Not a Printing Machine

The Comptometer does not print a list of the figures added. That is a function which cannot be performed by any machine save at the expense of speed. Whether the production of a printed list compensates for the slower operation, naturally depends upon the practical use that can be made of the list. It is obvious enough that these printed amounts unaccompanied by identifying information are rarely of any real value as records in general commercial accounting.

But, it may be urged that the printed list is helpful in checking against the original column added. On its face the

idea seems attractive; but does it insure accuracy? Hardly—for you know how easy it is to overlook errors of transposition—to check, for instance, say 6792 for 6729.

If 100 items be added on a printing machine, there are 100 amounts to check to verify the correctness of the total—with the Comptometer there is only one amount to check, which is always the total.

Whether done mentally or with a machine, the dependable way—the only sure way—is to re-add. You can re-add on the Comptometer easier and in less time than it would take to carefully check back from a list.

Practical for All Kinds of Figuring

Another advantage which, as a non-listing machine, the Comptometer enjoys, is that of being thoroughly practical for multiplication, division and subtraction—in a word, adaptable to any and every kind of figure work in every department of accounting.

Something to Remember

Please bear in mind that the Comptometer is a simple, compact, convenient machine, easily operated—nothing to do but press the keys—no operating lever to pull; that it is a pioneer—a pathfinder—a decade ahead of all machines for handling figures. If you are using a Comptometer you realise this; if not, let us prove it to you by a practical demonstration of the machine.

The Test of Experience

Extract from London County Council Minutes, July, 1911.

"Our attention has recently been drawn to the advantages of . . . 'The Comptometer,' and, as an experiment, one has been in use at the Stores for a month on trial, free of charge . . . The machine has been very useful, and it would be economical to have one, at least, permanently. There is, moreover, the advantage that more reliable results are secured, and that assistants are relieved of tedious calculating work." . . .

Summary of Comptometer Advantages

The Comptometer enables you

- -To make all additions in half the time.
- —To multiply five to seven times as fast as with a pencil.
- -To divide four to five times as fast as in the old way.
- —To prevent errors slipping through.
- -To get your work out on time.
- -To insure accuracy.
- —To eliminate all nervous and mental strain incident to figuring the old way—no more figuring headaches.
- —To facilitate office routine.
- —To turn over to the junior clerks work now done by more experienced men. Let your experienced men handle business problems—not machine work.
- —To rob figuring of its drudgery.

The machine

- -Which compels correct operation.
- —Which adds and calculates by a short, light, quick, vertical key-stroke, and nothing else.
- —Which is practical for all multiplications, divisions and subtractions.
- Which has won all prizes for speed and accuracy on addition and multiplication, in all tests open to all machines.
- —Which is in general use on all additions, all multiplications, all divisions found in book-keeping, auditing, cost-keeping, wages, invoicing and other figuring in accounting departments of practically all lines of business—and has proved successful in every place.
- —For which it is unnecessary to install a special system in order to make a place for it.

THE COMPTOMETER ADDING MACHINE.

Some of the Comptometer's Varied Uses

Retail Stores :-

Adding cash and charge sales invoices, balancing cashiers, adding trial balances, paying-in-slips, checking bought invoices, extending invoices and stock-sheets, figuring percentages and discounts.



Adding Sales Invoices, Time Slips—Scattered Items.

Iron and Steel Working Plants :-

Adding weights, extending invoices and stock-sheets, figuring strains and weight of material, wages sheets, time or piece work, cost accounting, percentage problems, all statistical work, footing trial balances, ledger accounts and balances.

Insurance Companies:

All additions, extending bordereaux, working out premiums and claims, percentages, trial balances, foreign exchange, statistical and actuarial work, debit and credit notes, discounts, slip reducing, averaging rates, ratios, additions of amounts at risk, claims adjusting, totalling cards for discriminating purposes, etc., etc.

PAGE NINETEEN

Railways :-

Locomotive Department :-

Figuring engine time per wagon handled at shunting depots, moneying out cost notes, footing and cross-casting statistical records, totalling workmen's time sheets and material used notes, figuring coal consumed per mile and oil per 100 miles.

Stores :-

Extending delivery note values, checking invoices, and miscellaneous



Extending and Discounting Invoices.

Audit :-

Totaling revenue returns, extending outward and checking inward freight invoices, checking wages accounts.

Goods Office :-

Extending and checking invoices, adding abstracts, ledgers, tonnage, etc.

PAGE TWENTY

THE COMPTOMETER ADDING MACHINE

Railways :-

Statistical :-

Aggregating station returns, figuring average wagon and train loads, ton miles, expenses per mile, receipts per mile, pro-rating percentages of receipts and expenses, ascertaining totals of carriage miles, etc.

Wholesale Houses :-

Totaling cash and credit sales, trial balances, monthly statements, paying-in slips, orders; extending and checking outgoing and incoming invoices; adding traveller's sales and figuring profits and percentages; extending and totaling wages sheets, footing ledger and other book accounts.

Textile :-

Adding f s. d., lbs. & ozs., extending and checking warp notes, length notes, outgoing and incoming invoices, weaving prices, spinners' and weavers' wages, cloth costing and other statistics.

Manufacturers::-

Totaling of statements, paying - in slips, trial balances and ledger columns, sales reports, cash sheet, check book counterfoils, weights and goods invoices; extensions of outgoing invoices, checking extensions and discounts on invoices received; extension and addition of wages sheets and stock sheets; invaluable on multiplication and division work in cost accounting

Laundries :-

Adding laundry slips and extending larger invoices; adding carmen's reports, figuring commissions, extending and adding wages sheets and footing ledger and trial balances.

Markets, Groceries and Confectioners:

Checking purchase invoices, adding sales invoices without listing; adding book and trial balances, extending and totaling stock sheets.

Leather Houses and Shoe Factories: -

Adding skin measurements in feet and fractions, as they are called, and marking the total on the last skin of each bundle; all office work, including additions of all book accounts, paying-in slips, sales sheets, trial balances, extensions of stock sheets, invoices, wages sheets and figuring percentages.

Mines and Engineering :-

Adding ore weights, figuring wages sheets, extending and checking invoices; all additions, multiplications and divisions necessary in engineering calculations.

In short, the Comptometer is adapted to any kind of figuring in any line of business.

PAGE TWENTY-ONE

HILL COMPTONIOTEN VIDEON

What Users Say

Harrod's, Ltd., Brompton Road, London, say :-

They find it useful in many ways. This firm has purchased 16 Comptometers.

Otto Monsted, Ltd., Margarine Manufacturers, Southall, near London, say:-

"We have found the Comptometer a great saving of clerical labour in computing the values of Stock Sheets, Invoices, Proportional Values, etc."

Hans Renold, Ltd., Manchester, say:-

"We are now using four of these machines, having purchased the first about 9 years ago. Our regular work consists of addition, multiplication, and division, a great deal of which is in the figuring of percentages, for which we find the Comptometer very efficient."

Albion Motor Car Co., Ltd., Scotstoun, Glasgow, say

"It is now some eighteen months since we ordered our first Comptometer, and up to the present moment, it has given us every satisfaction, both as regards its capacity for work and its immunity from break down. Both our machines are used in our Costing Department, and have proved an economical investment, saving considerable clerical labour in taking out costs and enabling various manufacturing records to be kept right up-to-date, with the minimum of labour, which is extremely important."

B. & S. Massey, Ltd., Openshaw, Manchester, say:

"In 1898 we purchased from your Chicago Office two Comptometers (Boxwood models) these being we believe almost the first ones imported into England.

They were in constant use until early this year when we replaced them by two of your latest models, bringing our number in use to 3.

We have found the machines reliable, and a great asset in our Cost-keeping Dept."

Copland & Lye, Glasgow, say:-

"We have used the "Comptometer" Calculating Machine for a considerable period, and we are highly satisfied with it. It is easily learnt, easily worked, strong, takes up little space, and makes no mistakes. We have found it of great advantage in the section of our work connected with the Sales Slips. It is useful also for additions of all kinds and for checking stock-sheets and invoices. It is the cleverest machine of the kind we have seen. We have two in constant use."

R. Wylie Hill & Co., Ltd., Glasgow, say:

"Having had the Comptometer now in use for over a year, we have pleasure in stating that we have found it quite satisfactory. We use it chiefly for adding our cash sales slips, and with its aid we find this work is much more accurately and expeditiously done than was possible before the introduction of your Machine."

THE COMPTOMETER TO ADDING MACHINE

S. & J. Watts & Co., Manchester, say :-

"We have had in use one of your Comptometers for the last 18 months; we find it to be a very useful machine, saves both time and labour besides being assured of its accuracy. It is in continuous daily use, as we have a tremendous amount of invoices require checking, and we should not care to be without one now."

Simpson & Godlee, Limited, Manchester, say :-

"We are pleased to tell you that we like your calculating machine, and the way your firm conducts its business."

Bertrams, Limited, Edinburgh, say :-

"We have pleasure in stating that the twelve column Comptometer which we purchased from you at the end of 1912 has given us unvarying satisfaction.

We have employed it principally in connection with our costing department, the ascertaining of the value of stores, timber, wrot. iron, etc., used; the pricing of time; the totalling of costs; day book work; checking of invoices received; the valuing of wages, etc.; and we have found it to be a valuable adjunct in connection with the checking of this class of work."

Know Mill Printing Co., Ltd., Manchester, say:

"The Comptometer we bought from you has enabled us to increase the number of invoices sent out, without a corresponding increase of effort.

The variety of calculations that can be worked out upon it, has made it extremely useful to us, and we have in no way regretted our purchase."

Barclay, Curle & Co., Ltd., Glasgow, say :-

"We have pleasure in stating that we have found the Comptometer supplied by you to be of the utmost service to us; it is principally employed in checking our various books, but although used in this way only by us, could be used effectively in all sorts of calculations."

The Scottish Co-Operative Wholesale Society, Ltd., Glasgow, say :-

"We are pleased to inform you that the Comptometers we purchased from you are giving us satisfaction. They are used for Adding, Invoice Extending and Checking, and Exchange of Foreign into Sterling Currency."

Brown Brothers, Ltd., London, say :-

"You will be interested to know that the Comptometer Machine which we have had in constant use for about twelve months on adding and practically every class of calculation work, is giving us entire satisfaction. We find it effects a very great saving in time and labour, and also ensures absolute accuracy."

The British Electric Transformer Co., Ltd., Hayes, say:

"We have pleasure in stating that we have now used one of your Comptometers for about eighteen months, and it has proved a most valuable addition to our office equipment. Besides being a great timesaver in working out our various extensions, we have found it thoroughly reliable in its various operations.

The British Thomson-Houston Company, Ltd., Rugby, say :-

"We have now used your Machine for quite a while, and are highly satisfied with it, as it saves time to an extent almost inconceivable, until one has thoroughly tried it, and is infallibly correct."

Esslemont & Mackintosh, Aberdeen, say:

"We have much pleasure in stating that we have found the Comptometer which you supplied to us some time ago most useful and satisfactory, in every respect. In fact, we wonder now how we got along without it.'

Hope Brothers, Ltd., London, say:-

"We have pleasure in informing you that the Comptometer which we have had in use in our Counting House for the past year has given us complete satisfaction, and we have found same to be a considerable saver both in labor and time in our dissection department and also in checking the extensions of invoices."

Sargood Bros., London, say :-

"We have pleasure in stating that the 12 column Comptometer Calculating Machine, which we purchased from you six months ago, has given us complete satisfaction.

Marshall & Snelgrove, Ltd., London, say:-

"We have pleasure in stating that the "Comptometer" we purchased from you in 1910 has been of great service to us. We use it for checking invoices (both sterling and foreign), also for additions, and checking castings.

We may also say that up to the present time, the machine has cost us nothing for repairs, nor has it made, to our knowledge, a single error in calculation."

Maypole Dairy Company, Limited, London, say :-

"We are pleased to be able to state that the Comptometer machine which we have now had in actual use in our office for some time, has proved itself thoroughly satisfactory in every way for the work we require of it. This consists chiefly of cash adding work, checking accounts and so on, and we find that with your machine we are able to get through this work much more quickly and economically than under the old method."

Wallis & Linnell, Kettering, say :-

"We have been using your Comptometers for 11 years with very decided success. During this time, we have examined several other types of calculating machines, but have found nothing so good for the variety of work to be done in costing, statistical, and checking departments.

From the first, they have made considerable saving in the office work, the staff being able to deal with double the work, and the new type machine we are now using has made a still further saving."

A Few Users of Comptometers

(Many have several machines).

Drapers, Outfitters, Department Stores, and Multiple Shops:-

Harrod's, Ltd., London. Marshall & Snelgrove, Ltd., London. Waring & Gillow, Ltd., London. The Home & Colonial Stores, Ltd., London. Finnigans, Ltd., Manchester. Johnson Bros. (Dyers) Ltd., Liverpool Selfridge & Co., Ltd., London. A. W. Gamage, Ltd., London. Hope Bros., Ltd., London. Bourne & Hollingsworth, London. Ino. Barker & Co., Ltd., London. Frank Bentall, Kingston-on-Thames. Maypole Dairy Co., Ltd., London. T. Eaton & Co., Ltd., London, Manchester, Paris, Toronto and Winnipeg. H. C. Russell, London. Fredk. Gorringe, Ltd., London. Esselmont & Macintosh, Aberdeen. Copland & Lve, Glasgow. Boots Pure Drug Co., Ltd., Nottingham. Spiers & Pond, London. J. Lyons & Co., Ltd., London and Liverpool. Army & Navy Co-operative Society,

W. Straker, Ltd., London. Debenhams, Ltd., London. R. Wylie Hill & Co., Ltd., Glasgow. Chas. Jenner & Co., Edinburgh. Lilley & Skinner, Ltd., London. Bainbridge & Company, Ltd., Newcastle-on-Tyne. I. R. Blair & Son, Edinburgh. Brighton & Hove Supply Association, Ltd., Brighton. Lawsons, Limited, Glasgow. Isaac Benzie, Aberdeen. Hampton & Sons, London. James Beattie, Wolverhampton. R. Beynon, Newbury. Robb Brothers, Ltd., Birkenhead. Charles Richards, Ltd. (Rackham & Co. & Bee Hive Works), Birmingham. John Heywood, Ltd., Manchester. Patrick Thomson, Ltd., Edinburgh. Switzer & Co., Ltd., Dublin. Stuart, Sons & Co., London.

Foster Bros., Ltd., Birmingham. F. W. Cook, Ltd., Dudley.

Civil Service Supply Association, Ltd., London. Brighton & Hove Supply Association, Ltd., Brighton.

Co-operative Societies :-

The Stratford Co-operative and Industrial Society, Ltd., Stratford. Kinning Park Co-operative Society, Glasgow. The Darwen Industrial Co-operative Society, Darwen. Toxteth Co-operative Society, Ltd., Liverpool. Birkenhead & District Co-operative

Ltd., London.

Society, Ltd., Birkenhead. Scottish Co-operative Wholesale Society, Glasgow.

United Co-operative Baking Society, Ltd., Glasgow. The Eccles P.I. Co-operative Society, Eccles. The Shettleston Co-operative Society, Ltd., Shettleston. Burslem and District Co-operative Society, Burslem. Vale of Leven Co-operative Society, Ltd., Alexandria. Co-operative Wholesale Society,

Ltd., Manchester. Irish Agricultural Organisation Society, Dublin.

PAGE ONE

Transportation: -

London & North-Western Railway. Lancashire & Yorkshire Railway. London & South-Western Railway. Midland Railway. South-Eastern & Chatham Railway. Great Central Railway. The North-Eastern Railway. North Staffordshire Railway London, Brighton & South Coast Railway. Great North of Scotland Railway. Great North of Ireland Railway. London United Tramways, Ltd. London General Omnibus Co., Ltd. Railway Clearing House, London.

Census Offices, London and Dublin.

Local Government Board, London.

Board of Agriculture & Fisheries,

Board of Agriculture, Edinburgh.

Registrar of Friendly Societies,

The Science Museum, London.

Home Office, London.

London.

London.

The Royal Mint. London.

The Public Trustee, London.

The Great Western Railway.

H.M. Government :-Ordnance Survey Office, Southamp-

Pickfords, Limited, London.

Co., Ltd., London.

Liverpool.

Liverpool.

Newcastle.

Ltd., London.

Haves Wharf, Limited, London.

Thames Steam Tug & Lighterage

Houlder Bros. & Co., Ltd., London.

Elder Dempster & Co., London &

Corporation Tramways, Sheffield.

Corporation Tramways, Glasgow.

Bristol Docks Committee, Bristol.

Newcastle Steamship Company,

Metropolitan Electric Tramways,

Powell, Bacon & Hough Lines, Ltd.,

General Post Office, London. Civil Service Commission, London. The Meteorological Office, London. Congested District Board, Dublin. Port of London Authority, London. Post Office Telephones, Glasgow. Economic Botanist to the Government U.P., Cawnpore. Census of Production, London.

The Clyde Valley Electrical Power

Gas Light & Coke Co., London.

Imperial Continental Gas Associa-

Port of London Authority, London,

The Western Union Telegraph Co.,

Eastern Telegraph Company, Ltd.,

Marconi's Wireless Telegraph Co.,

Company, Glasgow.

tion, London.

Ltd., London.

Birmingham.

London.

Municipal, Public Service, &c. :-

London County Council, London. Metropolitan Water Board, London. Metropolitan Asylums Board, London.

Glasgow Corporation :-Sanitary Chambers, Glasgow. Lighting Dept., Glasgow. City Chamberlain, Glasgow. City Assessor, Glasgow. School Board, Glasgow. Tramways, Glasgow. City Treasurer, Sheffield.

Corporation Tramways, Sheffield. Borough Treasurer, Southampton. Borough Accountant, Brighton. Hackney Town Hall, Hackney. Bristol Docks Committee, Bristol. Dundee Corporation, Dundee. Municipal School of Technology, Manchester.

Edinburgh and Leith Corporations Gas Commissioners, Edinburgh.

City of Birmingham Electric Supply Dept., Birmingham. Borough of Portsmouth Waterworks

The Carnegie Trust, Edinburgh.

City of Birmingham Gas Dept.,

Company, Portsmouth.

The Corporation of Newcastle-on-Tyne, Accts. Department, Newcastle-on-Tyne.

St. Marylebone Electricity Dept., London.

Publishers, Printers, &c. :-

The Times, London. The Daily Mail, London. The Daily Chronicle, London. The Courier, Dundee. Hudson & Kearns, Ltd., London. I. Curwen & Sons, Ltd., London. Hudson, Scott & Sons, Ltd., Carlisle. A. Frost & Sons, Rugby. McCorquodale & Co., Ltd., London. John Dickinson & Co., Ltd., London and Hemel Hempstead.

Lamson Paragon Supply Co., Ltd., London. Lepard & Smiths, London. Wm. Ritchie & Sons, Ltd., Edinburgh. Mardon, Son & Hall, Bristol. I. S. Darwen & Co., London. Wm. Straker, Ltd., London. R. Robinson & Co., Ltd., Newcastle. John Heywood, Ltd., Manchester. M. Mapstone, Ltd., Birmingham.

Manufacturers :-

Wm. Crawford & Sons, Edinburgh. Gramophone Co., Ltd., London. Imperial Tobacco Co., Ltd., London. Spratts Patent, Ltd., London. Wallis & Linnell, Kettering. Kodak, Ltd., Harrow. E. J. & J. Pearson, Ltd., Stourbridge. Thames Paper Co., Ltd., Purfleet. John Dickinson & Co., Ltd., London and Hemel Hempstead. Peek Frean & Co., Ltd., London. Read Bros., Ltd., London. Lewis Berger & Sons, Ltd., London. The Carborundum Company, Ltd., Manchester. Sangers, London. R. J. Reuter, London. Duncan Flockhart & Co., Ltd., Edinburgh. Spong & Co., London. Gerrish, Ames & Simpkins, Ltd., London. Pilkington Bros., Ltd., St. Helens. Alexander, Fergusson & Co., Ltd., Glasgow. Accles & Pollock, Ltd., Birmingham. W. J. Bush & Co., Ltd., Hackney. Buttons, Ltd., Birmingham. Hepburn, Gale & Ross, Ltd., London. Remington Typewriter Co., London. Craven & Speeding Bros., Sunderland. Dunlop Rubber Co., Ltd.,

Christopher Dodson, Ltd., London.

Birmingham.

Allen & Hanburys, Ltd., London. Express Rubber Company, London. Anderson, Anderson & Anderson, Ltd., London. J. Mandelburg & Company, Ltd., Manchester. Betts & Co., Ltd., London. I. B. Brooks & Co., Ltd., Birmingham. Macfarlane Lang & Co., Ltd., Glasgow. Tillie & Henderson, Ltd., Glasgow. James Keiller & Son, Ltd., Dundee. Houghtons, Ltd., London. British Portland Cement Mfrs., Ltd., London. Pinchin Johnson & Co., London. Falk, Stadelmann & Co., Ltd., London. I. & D. Hamilton, Ltd., Glasgow. Joseph Lucas, Ltd., Birmingham. Mardon, Son & Hall, Bristol. J. Montgomerie & Company, Ltd., Glasgow (Bermaline Bread). Alex. Cuthbert & Son, Newton-on-Avr. Fownes, Ltd., London. Hirst Bros. & Co., Ltd., Oldham. Aerators, Ltd., London. British Xylonite Co., Ltd., London. J. Burns, Ltd., London. I. T. Goudie & Co., Ltd., Glasgow. Holzapfels, Ltd., Newcastle-on-Tyne. H. Aston, Ltd., Birmingham. Robt. H. Ingersoll & Bro., London. A. Bird & Sons, Ltd., Birmingham. The United Drug Co., Liverpool.

Manufacturers (continued) :-

Wilkes & Sons), Ltd., Bilston. Burmah Oil Co., Ltd., Glasgow. Pumpherston Oil Co., Ltd., Glasgow. Campbell, Achnach & Co., Glasgow. Wales, Ltd., Birmingham. J. G. Thomson & Co., Ltd., Leith.

The Atlas Bedstead Co. (Stephen

W. P. Lowrie & Co., Ltd., and Jas. Buchanan & Co., Ltd., Glasgow. Irwell & Eastern Rubber Co., Ltd., Manchester. W. & P. Hartley, Ltd., Aintree. Oswald McCardell & Co., Manchester. Arthur & Hinshaw, Glasgow. Brunner, Mond & Co., Ltd., Northwich.

Merchants, Export Shippers, &c.:-

Dalgety & Co., Ltd., London. Millers, Ltd., London Sargood, Sons & Ewen, Ltd., London. J. A. Ewing & Co., London. F. W. Moore & Co., Ltd., London. Robert Reid & Co., Ltd., London. The African Lakes Corporation, Ltd., Glasgow. Gilbert I. McCaul & Co., London. African Association, Ltd., Liverpool. C. M. Lampson & Co., London. John Dickinson & Co., Ltd., London and Hemel Hempstead. A. J. Brown, Brough & Co., London. Hardt & Co., Ltd., Manchester. James Miller, Son & Co., Glasgow.

Drevfus & Co., London. S. D. Bles & Sons, Manchester. Tulloch & Co., London. Andrew Weir & Co., London. Stewart Thompson & Company, Manchester. Geo. P. Harris, Scarfe & Co., Ltd., London. E. Austin & Sons, London. Samuel Yates, Manchester. The Uveco Cereals, Ltd., Liverpool. Mitsui & Co., Ltd., London. S. & T. Trounson, Ltd., Redruth. The Lagos Stores, Ltd., Liverpool. Rosing Bros. & Co., London. Loeber, Ltd., London. Naylor, Benson & Co., Ltd., London.

Timber Merchants, Builders' Merchants, &c. :-

Churchill & Sim. London. W. W. Howard Bros. & Co., London. J. Gardner & Sons, Liverpool. Montague L. Meyer, London. W. & L. Crowe, Ltd., Dublin.

G. & R. Wills & Co., London.

Brooks, Thomas & Co., Ltd., Dublin. P.L.A., Surrey Commercial Docks, London. Williams, Richards & Company, Liverpool. John Byford & Sons, Ltd., London.

Textile, Wholesale Warehousemen, &c. :-

Calico Printers' Association, Ltd., Manchester. The United Turkey Red Co., Ltd., Glasgow and Alexandria. Know Mill Printing Co., Ltd., Manchester. English Velvet & Cord Dvers' Association, Ltd., Manchester. English Sewing Cotton Co., Ltd., Manchester. Brierfield Mills, Ltd., Burnley.

Mather Lane Spinning Co., Ltd., The Bolton Union Spinning Co., Ltd., Bolton. James Nelson, Nelson, Lancs. Edmond Whittaker & Sons, Ltd., Oldham. John Halliday & Sons, Bradford. I. B. Neuerbourg & Co., London. Courtauld's, Ltd., London. James Haydock, Blackburn.

Textile, Wholesale Warehousemen, &c. (continued):-

Wardle & Davenport, Ltd., Leek. Rd. Thomas & Sons, Hebden Bridge. J. & T. M. Greeves, Belfast. The "Old Bleach" Linen Company, Randalstown, Ireland. Bächtold & Co., London. Lloyds' Packing Warehouses, Ltd., Manchester. Jopson, Bardsley & Jopson, Nelson. I. & R. Morley, Ltd., London. Copestake, Crampton & Company, London. J. & C. Boyd & Co., Ltd., London. Simpson & Godlee, Ltd., Manchester. Billigheimer, Howes & Company, London. I. F. & H. Roberts, Ltd., Manchester.

Tootal, Broadhurst, Lee & Co., Ltd , Manchester. S. & J. Watts & Co., Manchester. Burberrys, London. R. Allen & Co., London. Welch, Margetson & Co., Ltd., London. Blackburn & District Weavers' Association, Blackburn. Sélincourt & Sons. London. M. C. Thomson & Company, Ltd., Glasgow. Patrick Thomson, Ltd., Edinburgh. Geo. & R. Dewhurst, Ltd., Manchester. Stuart, Sons & Co., London. George Brettle & Co., London. Barlow & Jones, Ltd., Manchester.

Wholesale Grocers, Provision Merchants, Wholesale Hardware, Ironmongers, &c. :-

Rd. Dickeson & Co., Ltd., London. Henderson & Liddell, London. George Mellis & Son, Ltd., Aberdeen. Armour & Co., Ltd., London. Morris Beef Co., Ltd., London, Danish Bacon Co., London. Otto Monsted, Ltd., Southall. Kearley & Tonge, Ltd., London. Robt. Wilson & Son, Barrhead. Swift Beef Co., London.

Joseph Travers & Sons, Ltd., London. Wilson Möller & Co., Newcastleon-Tyne. Joshua Wilson & Co., Sunderland Brown Bros., Ltd., London. Alex. Massey & Sons, Ltd., Glasgow. John Shaw & Sons, Wolverhampton, Ltd., Wolverhampton. Ino. Moreton & Co., Ltd., Wolverhampton. George Cohen, Son & Co., London, John Gardner, London. Ant. Jurgens' Margarine Works, London.

Insurance :-

Commercial Union Assurance Co.. Ltd., London. North British & Mercantile Insurance Co., Ltd., London. Provident Association of London. Ltd., London. Sun Fire Office, London. Prudential Assurance Co., Ltd., London. Alliance Assurance Co., Ltd., London.

English & Scottish Law Life Association, London.

London & Lancashire Fire Insurance Co., Ltd., Liverpool. Motor Union Insurance Company, Ltd., London. Mutzenbecher, Stahl & Sönksen. London. Sun Life Assur. Society, London. Rational Association Friendly Society, Manchester. Guardian Assurance Co., Ltd., London. Dawson Bros., London.

Insurance (continued) :-

Ocean Accident & Guarantee Corporation, Ltd., London. Pickford, Watson & Hampton,

London. James Hartley, Cooper & Company,

London. Pearl Life Assurance Co., Ltd., London

Willis, Faber & Co., Ltd. (Sea Insurance Co., Ltd.), London.

National Amalgamated Union of Shop Assistants, Warehousemen and Clerks, London.

Health Insurance Committee, Glasgow.

Caledonian Insurance Co., Edinburgh.

Hogg & Heath, London. Robert Lindley, Sons & Davison, London.

Price, Forbes & Co., Ltd. London. J. B. Westray & Co., London.

H. Chaplin & Co., London. H. B. Sedgwick, F. L. H. Collins & Co , Ltd., London.

United Kingdom Temperance General Provident Institution, London.

Engineers and Shipbuilders:

and Glasgow.

Birmingham Metal & Munitions Co., Ltd., Birmingham.

Rio Tinto Co., Ltd., London. Drake & Gorham, Ltd., London.

John Brown & Co., Ltd., Clydebank. India Rubber, Gutta Percha & Telegraph Wks. Co , Ltd., London.

W. & G. DuCros, Ltd , London. Barclay, Curle & Co., Ltd., Glasgow. J. Stone & Co., Ltd., London.

Albion Motor Car Co., Ltd.,

Scotstoun, Glasgow. Guest, Keen & Nettlefolds, Ltd.,

Birmingham Swan, Hunter & Wigham Richardson,

Ltd., Newcastle-on-Tyne. Westinghouse Brake Company, Ltd.,

London.

Electric & Ordnance Accessories Co., Ltd., Birmingham.

Hans Renold, Ltd., Manchester. Western Electric Co., Ltd., North Woolwich.

The Daimler Co., Ltd., Coventry. Sunbeam Motor Car Co., Ltd.,

Wolverhampton. Ruston, Proctor & Co., Ltd., Lincoln.

The General Electric Co., Ltd., Birmingham.

Dugard Bros., Birmingham. T. Anderson, Ltd., Liverpool.

Stewarts & Lloyds, Ltd., Birmingham Burmeister & Wain Oil Engine Co., Ltd., Glasgow.

Mechan & Sons, Ltd., Scotstoun. Bertrams, Ltd., Edinburgh.

Redpath, Brown & Company, Ltd., Manchester.

Alex. Jack & Sons, Ltd., Maybole. Thos. Glover & Co., Ltd., Upper Edmonton.

Harrison & Camm, Ltd, Rotherham Samuel Fox & Co., Ltd., Nr. Sheffield.

British Thomson-Houston Co., Ltd., Rugby, Coventry and London.

Coventry Ordnance Works, Ltd., Coventry.

The Birmingham Small Arms Co., Ltd., Birmingham.

The Wolseley Tool & Motor Car Co., Ltd., Birmingham and London.

Singer Manufacturing Co., Ltd., Clydebank.

R. Hunt & Co., Earl's Colne, Essex. The Patent Shaft & Axletree Co.,

Ltd., Wednesbury. Kynoch Limited, Birmingham Archibald Kenrick & Sons, Limited,

West Bromwich F. Braby & Co., Ltd., Bristol and

Glasgow.

B. & S. Massey, Ltd., Manchester. The British Electric Transformer Co., Ltd., Hayes.

Hurst, Nelson & Co., Motherwell. The Cooper-Stewart Engineering Co., Ltd., London.

Engineers and Shipbuilders (continued):-

E. Showell & Sons, Ltd., B'hm. Aston Chain & Hook Company, Ltd., Birmingham.

Scottish Iron & Steel Co., Glasgow. Argyll's, Ltd., Alexandria.

The L. S. Starrett Co., London. Sir W. G. Armstrong Whitworth &

Co., Ltd., Newcastle-on-Tyne.

W. Canning & Co., Ltd., Birmingham. Joseph Sankey & Sons, Ltd., Bilston. Spear & Jackson, Ltd., Sheffield. Consett Iron Co., Ltd., Consett. Staveley Coal & Iron Co., Ltd., Stavelev.

George Wragge, Ltd., Manchester.

Miscellaneous, &c. :-

London, County & Westminster Bank, Ltd., London.

Banca Commerciale Italiana, London.

Appleby & Wood, Chartered Accountants, Manchester.

Chas. Comins & Co., Chartered Accountants, London. Wilson, Stirling & Co., Chartered

Accountants, Glasgow. I. Dix, Lewis, Cæsar & Co.,

Chartered Accountants, London. Stanley W. Marshall, F.A.A., Chartered Accountant, Herne Bay.

E. E. Sparshott, Chartered Acc'nt, Birmingham.

Investment Registry, Ltd., London. William Turner & Co., Ltd., Sheffield.

Geo. Falconer, Advocate, Aberdeen. Edinburgh Collieries, Limited, Edinburgh.

Merryton Coal Co., Glasgow. Waddell & Son, Glasgow.

International Correspondence Schools, Ltd., London.

Preston Steam Laundry, Preston. Vivian, Younger & Bond, London Societe Generale de Paris, London. Thos. Cook & Sons, London. Richard Cadbury, Worcester.

I. G. Thomson & Co., Ltd., Whisky Blenders, Leith.

Ed. Buckley & Co., Wool Brokers, Liverpool.

Robert Brown, Ltd , Whisky Distillers, Glasgow.

