

VOLUME XI NUMBER 1 SPRING 1959

NEWS AND VIEWS OF
CONTROL SYSTEMS LTD

CONTROL SYSTEMS LTD

INCORPORATING

AUTOMATICKET LIMITED

BELL PUNCH CO LTD (*founded 1878*)

BELL PUNCH EXPORT CO LTD

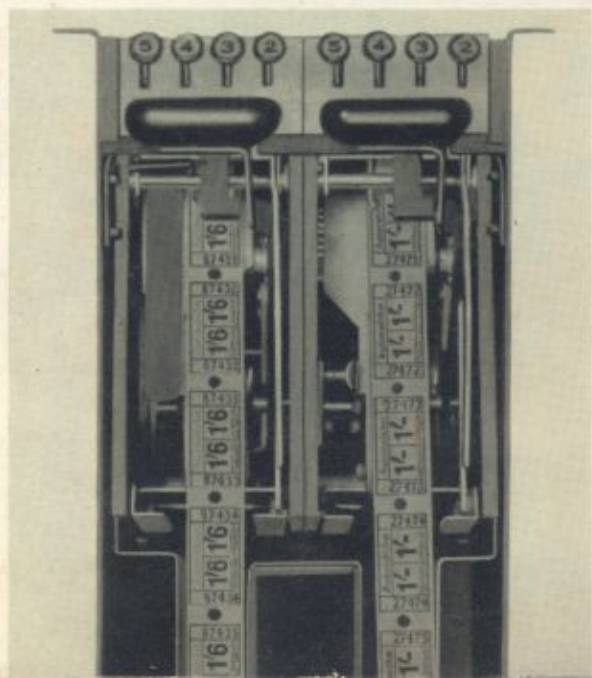
BELL PUNCH (N.Z.) LTD

BELL PUNCH TAXIMETERS LTD

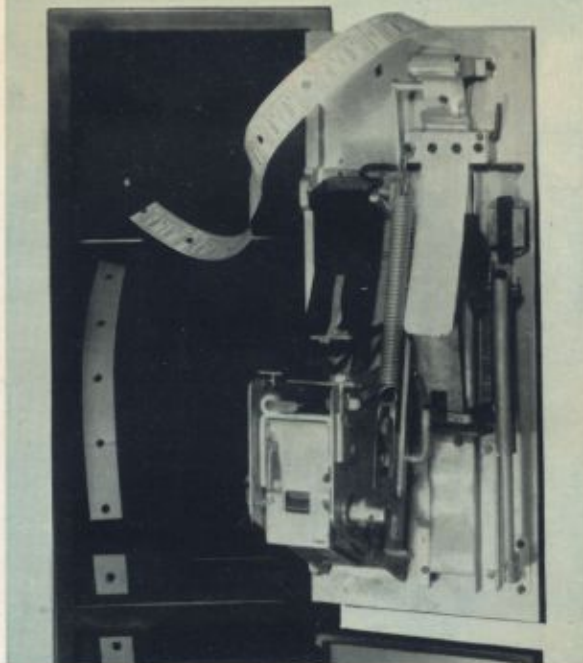
CONTROL SYSTEMS INC.

ISAAC WARWICK & CO LTD

SUMLOCK LTD



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ARTICLE

It is no less than ten years ago that *News and Views* saw the light of day for the first time—the Christmas edition of 1948 was the inaugural issue sent out to our Distributors overseas and our staff at home.

Turning quickly through the 564 pages of the 20 issues prior to the present one, these were among the many memories of Bell Punch history that were recalled.

1948 Minister to the Board of Trade—**ISSUES** Mr. Harold Wilson—has the Sumlock demonstrated at the British Exhibition in Copenhagen. The Ultimate is introduced to Glasgow.

1949 The late and revered Mr. H. **ISSUES** Drummond Black advises us that "... no industrial concern can stand still and be content to rest upon past achievement, that the only alternative to progress is a gradual or rapid sliding backwards".

The first overseas Distributors' Conference was held in London.

Plus Computing Machines was incorporated in New York.

1950 Mr. Warren, an employee of 50 **ISSUES** years' service writes the introduction.

Procento N.V.—Dutch Sumlock and Plus Distributors—celebrates its 15th anniversary.

Year's production of yard tapes would go two and a half times round the world.

TEN YEARS THIS

1951 The second overseas distributors **ISSUES** meeting in London.

1952 Mr. H. Drummond Black becomes **ISSUES** the Company's first President.

Mr. J. H. Condry and Mr. W. B. S. Sheldon are appointed Managing Directors.

1953 Special issue of *News and Views* to **ISSUES** mark the occasion of the Coronation of Her Majesty Queen Elizabeth II.

1954 H.R.H. Duke of Gloucester is **ISSUES** interested in Sumlock at the London Business Efficiency Exhibition, as is Sir Gladwyn Jebb, British Ambassador to France at the Foire de Paris.

The Duolectric, Unilectric and Model 'P' Major—otherwise the Autobill—are all featured for the first time.

1955 The Portsmouth Factory makes its **ISSUES** debut.

H.R.H. Prince Philip becomes Duolectric minded at the B.E.E.

1956 The High Commissioner of New **ISSUES** Zealand goes to the Factory and Her Majesty the Queen of Denmark visits the Sumlock Stand at the British Fair in Copenhagen.

1957 Paris Métro is equipped with the **ISSUES** Bell Punch S.P. Machines for ticket issue and cash control.

Mr. C. Webb retires after many years as Chief Designer.



EDITION

1958 The new styled Plus emerges.

ISSUES Sumlock France and Sumlock Italiana are both formed as subsidiaries in the Control Systems Group. Conference for Sumlock overseas Distributors took place in London. Merger with Lamson Industries Ltd. took place.

These short recollections hardly do justice to their subjects, and other important events have not even received mention, but to use the cliché—"a lot of water may be said to have run under the Bell Punch bridge" in these ten years.

Mr. Michael Moore, then Chairman of the Company—and fortunately still our valued friend and adviser—wrote on page number one of the first *News and Views*.

"... the intention underlying its production is to afford a medium through which those engaged in the different sections of the organisation can keep in touch with the activities of their colleagues in other sections: a medium also which will help our Agents and Distributors in many lands to realise the extent of the organisation whose products they are handling and to feel that they are an integral and important part of the 'Family'."

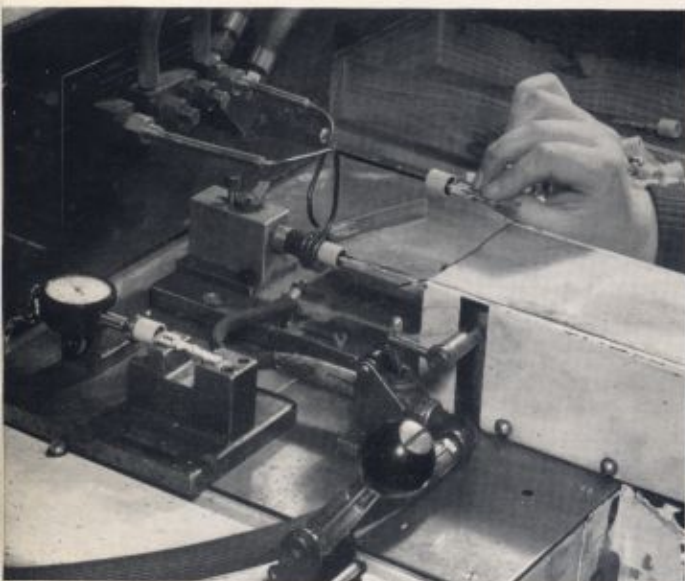
Every endeavour has been made to carry out the intention and object of *News and Views* so succinctly defined by Mr. Moore. In the process the form and contents have both been subjected to change, but from

comments received—sometimes pleasantly impatient when an issue is not out quite on its due date—it is believed that the character of the present series which commenced in February 1954 most nearly serves the purpose intended.

As compiler, subscriber, and to a great degree part author, perhaps the Editor for the whole of these ten years may be permitted a personal appeal for more material. Bell Punch, or more properly, as you will see from the new title on this issue of *News and Views*, Control Systems is now truly an international organisation—its products are being sold and used throughout the world all day and every day—new users are being found for those products—new applications, novel installations—new selling techniques—new difficulties and their solutions—new advertising schemes—new training methods—in fact a continuous and everlasting supply of experience and information which could be of invaluable interest and to the benefit and progress of others in the organisation. Though there are official channels for the discussion in detail of all this wealth of experience and information in general terms it is just the grist which the mill of *News and Views* requires. Please bear this in mind; your tangible help will be more than appreciated—for the next ten years—and more!



The DUOLETRIC — All concerned with its sale are well versed in to see the birth of one of these machines at Uxbridge. What



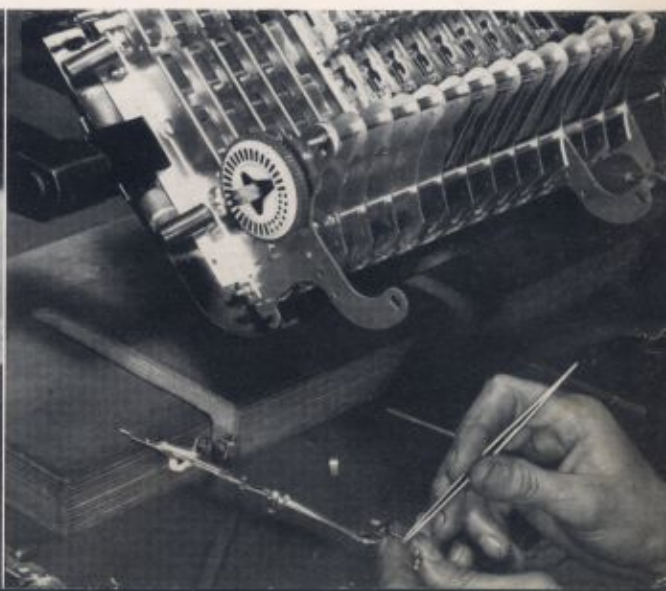
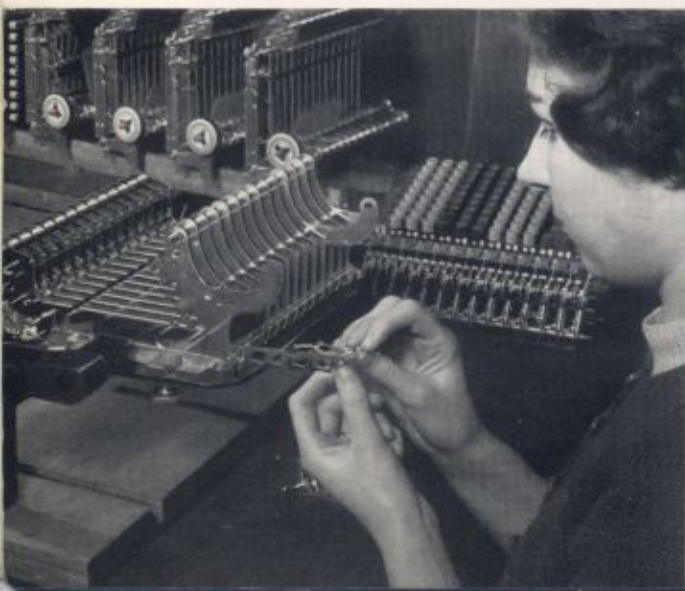
Our first picture shows the key stem being married to the key top; this is done by means of a high frequency induction heater which heats and slightly melts a slot inside the key top into which the key stem is mechanically pushed; on solidifying, the plastic key top is firmly attached to the stem. To ensure that every key unit is perfect, a 100% inspection is carried out.



The complete keys are attached to a frame plate and a return spring which is on the key stem is latched to the frame. Each key stem is specially lubricated and the action of the return spring is checked . . .

. . . and then fits them into the body of the machine.

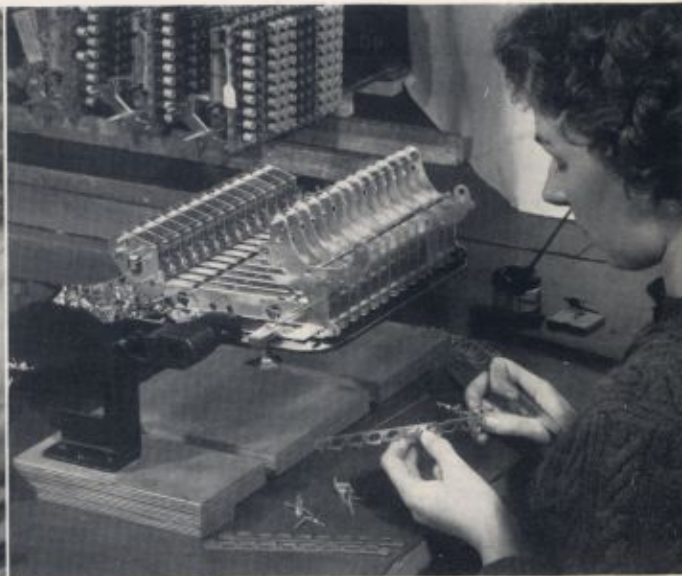
Passing along the assembly line the next operator checks the selector bar and quadrant assembly and then inserts each one into the machine.



its attributes, but we may not all have been fortunate enough follows may help to give a pictorial thumbnail sketch.



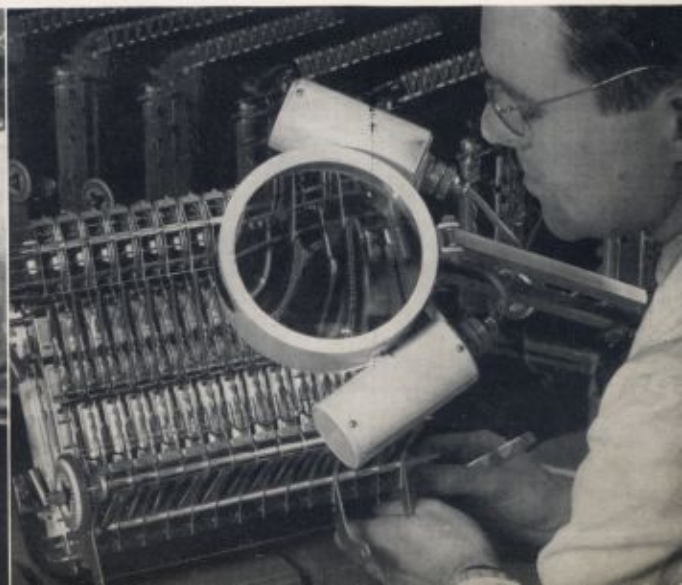
... before each line of keys are built up to make the full keyboard.



Placed on an assembly cradle with the keys facing down and the drive shaft and accumulative mechanism added, the operator lubricates the assembly bar and drag pawls, checks for free movement . . .

As an initial test to prove correct assembly the machines are placed on one of five mechanical exercisers which, operating on a time switch, are run for 1½ hours, each line of keys being depressed rapidly in rotation.

Following satisfactory results from the exercisers, an expert operator takes over and checks the machine minutely, ensures that all parts are working correctly and makes any necessary adjustments.





The machine again passes up the line and the zeroising mechanism is added. Put onto a slave base which includes a motor, the machine is then finger tested by these operators, through a series of set operations, both for accuracy and touch and necessary adjustments are made.



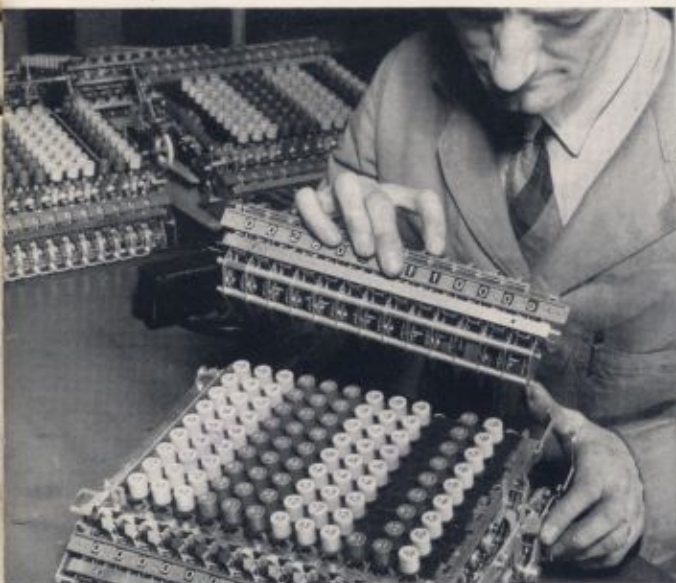
Up to now the story of assembly would be almost the same for any SUMLOCK Calculator, but hereafter the rear register is added which gives the Duolectric its distinguishing feature.

The rear register is being assembled. It is then mechanically exercised, inspected . . .

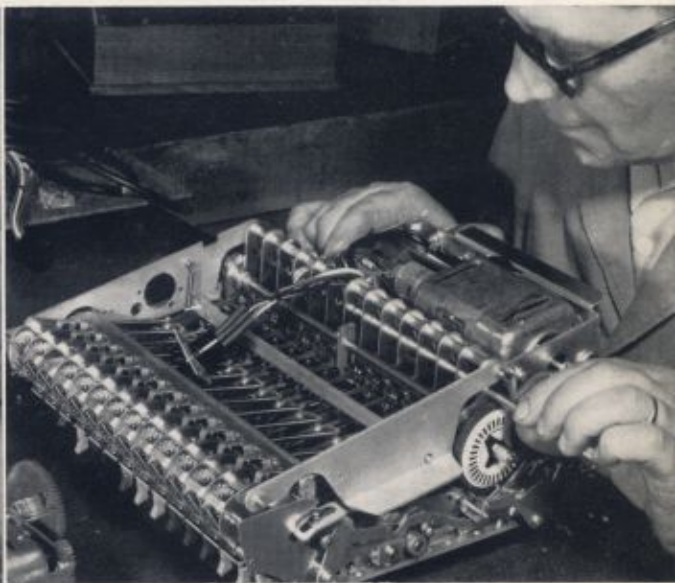
. . . and the completed mechanism is fitted to its base unit.

The mechanism is ready and only needs its casework to give it that appearance which is so familiar to all. After the case has been fitted, an electric impulse of 1,000 volts is passed through the motor, to check the insulation to ensure safety from electric shocks.





... and afterwards assembled into the machine; the machine is then finger tested again.

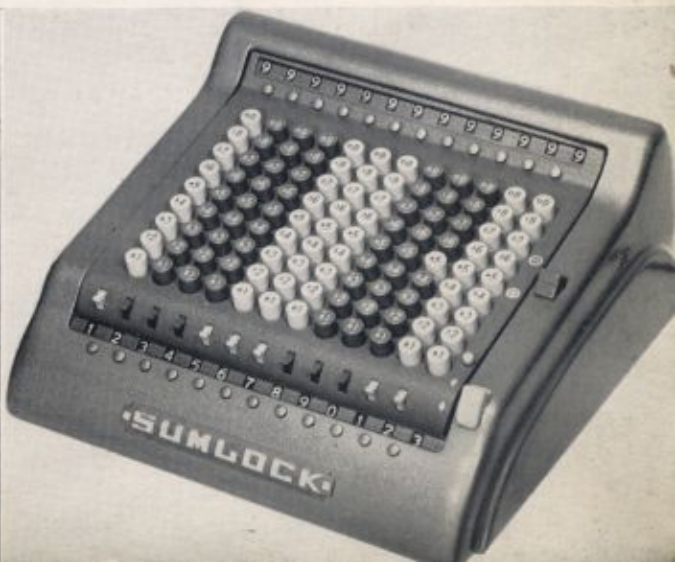


The Motor assembly unit is then added . . .

It only remains for the Duolectric to be put through its paces by this team of expert operators in the Test Room, before it is ready for despatch and for eventual delivery to the user.

SUMLOCK is DUOLECTRIC —

DUOLECTRIC is SUMLOCK.



ARTICLE

Few readers may realise that the modern taximeter is not a new idea dreamed up to bleed the public of their pennies in this modern space age, but the latest in a long line of meters stretching back to the days of the hansom cab. The following history covers only those meters produced or hired by Bell Punch Taximeters Ltd., or its forebear companies, in the United Kingdom, and more particularly in London.

It was in 1908 that the first taximeters—the Aron, Bruhn and Kosmos—appeared on the streets of Edwardian London, installed in the horse-drawn hansom cabs. The fare in those long-lost carefree days was but 2d. per quarter mile.

The change from horse-drawn cabs to the noisier motor taxicabs was gradual, but by 1920 the Panhard and Ford had made their mark, and the same Aron, Bruhn and Kosmos meters were now finding themselves installed alongside gleaming brass fittings and oil lamps. In 1922 there was a catastrophic increase in cab fares from 8d. to 1s. od. per mile, to be followed

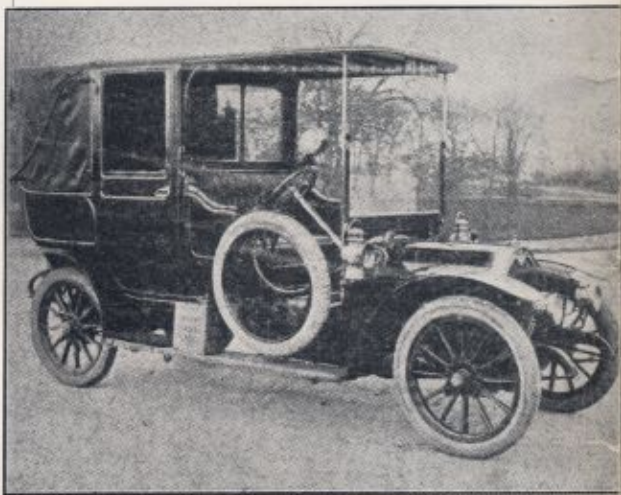
One of the first Hansom cabs fitted with a taximeter.



50 YEARS OF TAXIMETERS

by the first and only reduction ever, to 9d. in 1926. In 1927 a further tariff change was ordered which lasted for the next six years: 6d. for the first $\frac{2}{3}$ ds of a mile, 3d. for every subsequent $\frac{1}{3}$ rd of a mile and 4s. od. per hour waiting time.

It was during this period of tariff alterations that three new meters made their appearance—the Premier in 1922,



The taxi-cab in Ireland. This is a smart example of the Minerva cars with Bruhn taximeter, as run by Messrs. Thompson's in Dublin.

Reproduction from "The Chauffeur", October 1913.

the Excelsior in 1925 and the Waddington in 1928.

These were the days of the industrial depression. Bell Punch Taximeters, in an endeavour to help customers over a difficult period, not only carried out the 1927 tariff change free of charge, but in

AND FARES IN LONDON

1931 reduced taximeter hire rentals.

Before the arrival of illuminated fare dials and flags on taximeters, the Metropolitan Police Regulations stipulated that an alarm bell be fitted to all meters as an indication to the passenger that the flag was being properly operated by the cabby. Though it was in 1931 that the order was given for all new taximeters to incorporate some form of lighting both for fare dial and flag, it was not until 1951 that the necessity for the old alarm bell was discontinued.

For nearly thirty years following their advent, meters in service had been modified and redesigned to suit the changing types of vehicle upon which they had to be installed and to comply with the London Regulations including tariff alterations; however, these modifications did not include any major change in the appearance or operation of the meter. With the need for a new approach to the design and appearance of a meter it was in 1930 and 1935 respectively, that Bell Punch introduced the Magnet and Model 'L' for London taxicabs. The Model 'L' was the first Bell Punch meter to incorporate an illuminated fare dial and flag. Both of these meters have been further modified and are now still proudly in use on the London roads with unexcelled illumination of both fare and flag.



"What's up! Clock wrong again? Serve you right; why don't you get a BRUHN?"

"Always the Best, and as Cheap as any other."

WE PREFER YOU TO CALL, BUT IF YOU CAN'T—WRITE.

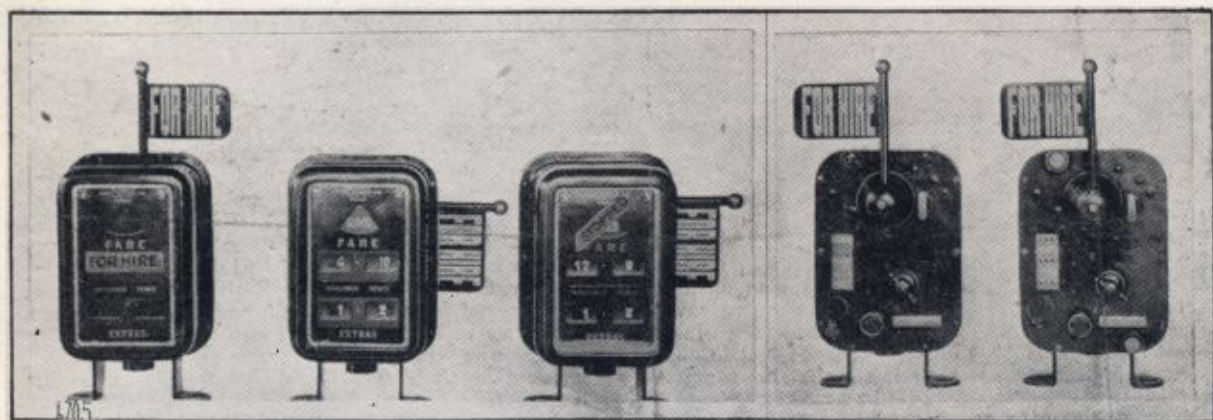
BRUHN'S TAXAMETER, LTD., 345, Gray's Inn Road, London, W.C.

Phone: 800 North. Grams: "Motorbax, Kitecross, London."

Advertisement for Bruhn Meter—November 1912.



The Premier Meter—introduced in 1922.



The latest thing in taximeters. The new Bruhn instrument embodies many improvements.

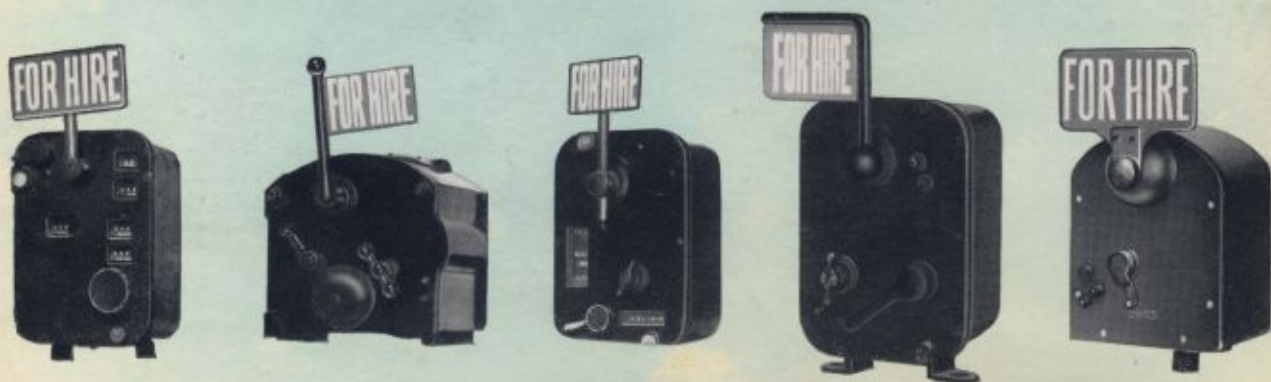
The Bruhn Meter—reproduced from the "Commercial Motor" January 1910.

In the early post war years the need for a smaller type of meter especially for use in provincial areas was becoming increasingly evident; with the war intervening, no new meter had been introduced to London for approximately fifteen years. Bell Punch therefore decided to develop a meter based fundamentally on the proven mechanical principles of our other units, but incorporating many revolutionary factors in overall design. The most important of these was the replacement of the conventional flag by an illuminated "For Hire" sign, clearly indicating in

illuminated letters "For Hire", "Hired" or "Stopped", in accordance with the state of operation of the meter, controlled by knob action in the absence of a flag. Such was the change in meter conception that Metropolitan Police Regulations had to be completely overhauled to permit the use in London of a meter with the sign in lieu of a flag.

Thus emerged the Bell Punch 'GB' Meter which, having passed the examinations of the Commissioner of Metropolitan Police and the National Physical Laboratory, has recently been put into service in London.

An array of Bell Punch meters from 1910 to the present day.



And what of fares since we last mentioned them for 1927? In 1933 the tariff was increased from 6d. to 9d. for the first $\frac{1}{3}$ rd of a mile, with 3d. for every subsequent $\frac{1}{3}$ rd mile and 4s. od. per hour waiting time



The 'GB' as it looks fitted to the very latest London four door 'cab now plying for hire by the London General Cab Company.



A 1910 Panhard Taxicab which travelled the London roads for seventeen years, complete with an original Round Bruhn Meter. The 'cab is in the museum of the London General Cab Company—the largest taxicab fleet owners in London—and at the wheel is Mr. W. Lansing Rothschild, President of the Yellow Cab Co. of San Francisco and Los Angeles, who recently made a visit to London.

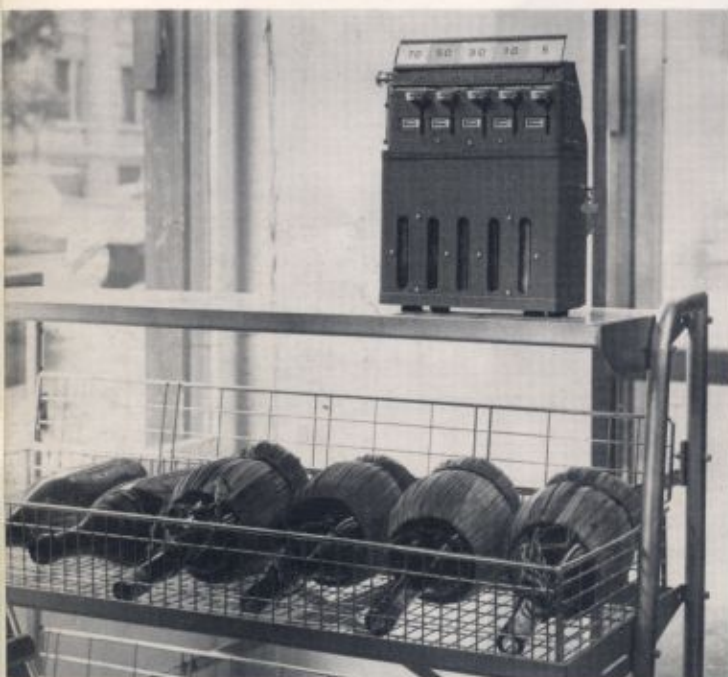
remaining unaltered. This scale of charges remained in force until 1951 when there was a considerable advance to 1s. 3d. per $\frac{1}{3}$ th mile and 6s. od. per hour waiting time. At the commencement of 1959 a further 6d. was added to the initial fare; though it now costs a minimum of 1s. 9d. to hire a taxicab in London, the fare is among the cheapest in the United Kingdom. It is to record this latest tariff that Uxbridge is now producing 'GB' Meters for London.



ARTICLE

Perhaps not a space ship nor a moon rocket, but many other "modern" inventions, such as the submarine and steam engine, were projected centuries ago by the outstanding genius of the artist and scientist, Leonardo da Vinci. The qualities of imagination and invention are no less strong in the Italians of today and an indication of this (though in a more modest way!) is given by an account recently received of Ultimatic installations in Northern Italy.

This arrived a few weeks ago from the Milan Head Office of our Ticket Issuing Machine Distributors, Automat S.r.l., and we cannot do better than quote from their actual letter.



The Ultimatic provides vouchers 5, 10, 30, 50 and 70 lire in value, dependent upon the size and number of bottles returned.

Eye catching display near to the Ultimatics brings sales from the empty bottle money.

IDEAS FOR EMPTIES

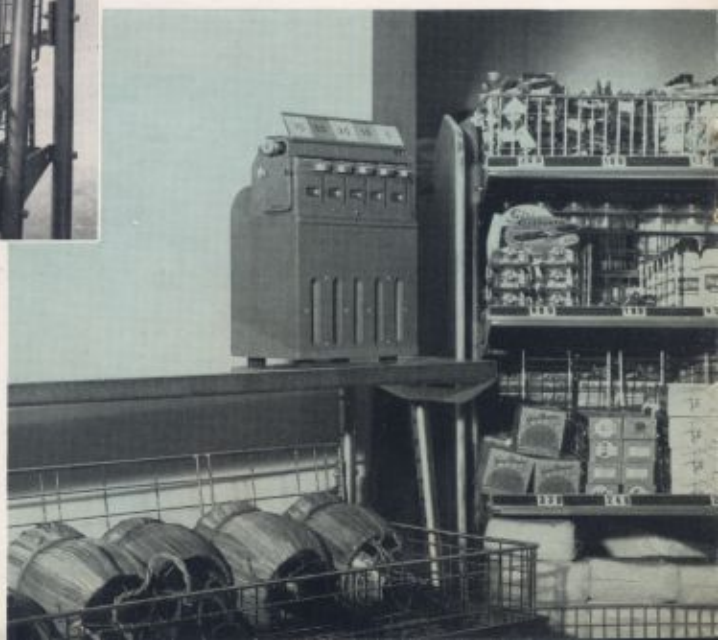
"The opening in Italy of several super-markets (Standa—S.E.S.—C.C.C.R—Cooperativa Genovese) has led us to take into consideration the application of ticket issuing machines to returned containers (bottles, flasks, etc.).

"At the store an assistant checks the size and type of the bottle returned and issues from his Ultimatic a ticket corresponding to its value. This is done immediately at the entrance so that the customer is relieved of the weight and encumbrance of the empties.

"The customer after selecting the goods required goes to the cashier's desk and pays, using the tickets as money. The results obtained in this way are:—

- Speed of service.
- Numerical statistics for each quality of empties.
- Check of cash result against total value of returned empties.
- Increase of sales due to the fact that the goods exhibited draw the attention of the customer, who has come only to return the empties, on the way from the entrance to the cashier's desk."

The machines Automat has sold for empty bottle control include 2 and 5-unit Ultimates, as well as the Ultimatic. Can Bell Punch Distributors put this example of Italian inventiveness to good use elsewhere?



ARTICLE

As many readers may have read or heard, in the early hours of Tuesday 6th January 1959 the Bell Punch offices at 39 St. James's Street were damaged by fire. Whilst the cause is by no means certain it appears that a short circuit developed at the bottom of the lift-shaft at the front entrance, and from there the flames travelled up the main stairs, severely damaged the top floor, and then started to come downwards floor by floor.

Our offices are situated on the 6th floor, part of the 5th floor and the 3rd floor. Those on the 6th floor suffered the most damage, with some doors and windows charred, paintwork blistered and the plaster having fallen from the ceilings; on the 5th floor the damage was a little less, and fortunately on the 3rd floor where are kept all the Company books and accounts, only the entrance and the telephone exchange were affected to any degree. One of the worst troubles has been the thick black smoky deposit which settled on everything and made the handling of furniture, documents and papers a most difficult and exceedingly dirty operation.

Re-organisation was speedily put in hand, and since the 5th and 6th floors were quite uninhabitable most of the Bell Punch Export Company staff moved for the first four days to Mr. B. C. Bell's home and others to Mrs. Nordanholt's flat; the remainder with the Records department and "Fire Headquarters", numbering altogether some 17 persons moved for the same period into the Board Room on the 3rd floor, which, even in moments of the direst stress at Directors Meetings, had probably never before encountered and suffered such a babel of activity and noise!

IN CASE OF FIRE DIAL 999

Later the Export Company moved into a large office, only two floors below Sumlock Ltd., on the other side of Piccadilly, which was very kindly put at our disposal by Sir Graham Cunningham, Chairman of Triplex Holdings Ltd. Other occupants of the 5th and 6th floors have been found temporary accommodation on the 4th floor at St. James's Street which was thoughtfully and farsightedly vacated by an outgoing tenant only a week or two before the fire.

Since all electric power had failed, paraffin lamps and stoves were rushed from the factory at Uxbridge, invaluable Primus stoves were produced for coffee and tea making, and the task of cleaning such offices as could quickly be made habitable was undertaken through the nights. Telephone engineers were quickly on hand to provide a basic service within forty-eight hours and within two weeks a new switch-

Just inside the 6th floor entrance.





The 5th floor doors were badly burned.

Main street entrance—39 St. James's St.



An unusual view from inside Mr. Sheldon's office on the 6th floor.

board had been installed and full facilities restored.

As the building will have to be completely rewired for electricity and a great deal of redecoration is needed, quite apart from the necessity to rebuild the entrance and main staircase, as well as install a new and larger lift, it can readily be imagined that it will be many months before the building is in a state of complete "status quo". However, the inhabitants of the 5th and 6th floors are looking forward to their return to newly-decorated accommodation probably about June; they will be thankful to get ensconced there again, even if it does mean walking all the way up and down

those stairs for a month or two, before the lift is working again. Prospective visitors may care to re-read the preceding two or three lines!

As can well be imagined a very great deal of inconvenience was caused and everyone worked, and indeed are continuing to work, under exceedingly trying conditions. It is at times of crisis that we British are said to rise to the occasion and certainly this was more than true in this instance. The work and devotion to duty of all members of the staff affected, cannot be too highly praised and certainly it was this attitude and spirit of co-operation which enabled some organisation to emerge from chaos in a remarkably short space of time.



Moving a much needed desk from the 5th floor.



Sixth floor corridor.



Third floor entrance sealed off from the main staircase.

ARTICLE

25 YEARS OF

A/S Dansk Formulartryk of Copenhagen, Denmark, was one of the first of many overseas Distributors appointed by Bell Punch—appointed is perhaps not quite the right word; Mr. de Waal, (of whom more anon since the story of Dansk Formulartryk is very largely the story of Paul de Waal himself), issued an ultimatum that he (and no one else) would have the Sumlock Agency, or else...! He got it, and we have never since had any reason to regret it—very much the reverse!

A/S Dansk Formulartryk was established

on the 1st March 1934, and therefore on the 1st March, 1959, it celebrated its 25th anniversary.

Mr. de Waal, who is a founder member of the Company and Chairman of the Board, has been Managing Director of the Company from the beginning and he will, therefore, to use his own words “be celebrating his own personal silver jubilee on the same date”—and when the Vikings say “celebrate” they really mean celebrate!

From modest beginnings, the Company developed rapidly. So much so that in 1936, only two years after the Company



The Wivex Restaurant with the guests seated just starting the celebration banquet.

A C H I E V E M E N T

was established, it was obliged to move to much larger premises, (to the address, in fact, where the Head Office is now situated). These were some three times larger than the original offices, and even so did not prove to be sufficient. Additional space was taken for more sales offices and showrooms, while the Shipping, Accounting, Purchasing, Advertising, and Service Departments had to be located in other premises in Copenhagen.

Starting activities with business forms and systems, autographic registers and typewriter attachments, the range of

products handled was extended, first by Visible Filing systems in 1943 and Sumlock and Plus in 1948, followed by Summary Board forms and Keysort cards in 1946. In the last four years have been added Duplicators and a comprehensive range of Automatic Data Processing machines.

In short, Dansk Formulartryk now handles all the equipment needed in the office systems field. Such a wide range of specialised equipment requires equally specialised salesmen and selling methods. This has been effected as one would expect

Right: The Tivoli Guard play a fanfare to announce the beginning of the dinner.



Left: An ice tableau, with fireworks, in Danish customary manner heralds the serving of the final dish of the dinner.



Mr. B. C. Bell and Mr. Paul de Waal at the buffet lunch on the day of the celebration dinner.

After making one of the most hilarious speeches of the evening, Mr. W. Harris, Manager of SUMLOCK A/S, presents to Mrs. de Waal a spray of orchids and conveys to her the staff's congratulations.



in a Company as highly and efficiently organised as Dansk Formulartryk.

With the exception of Egry, the Business Forms Division which is still a part of Dansk Formulartryk, Subsidiary Companies with separate sales organisations have been formed to handle the other products:—

Sumlock A/S to sell exclusively Plus and Sumlock;

Regidex A/S for Filing and associated equipment;

Speedex A/S for Duplicators and Data Processing machines;

Kontor-Automation A/S for Integrated Data Processing equipment.

The drive, enthusiasm and care with which any project is carried out by Dansk Formulartryk and its subsidiaries are easily illustrated.

The motto for 1959 is "Jubilér og sælg mér!" (We should hate to have to pronounce it, but it means "Celebrate and sell more!")

On the first day of the jubilee year a Salesmen's Contest was inaugurated which means for those who reach their quota—(there will, we are sure, be many who do, and that will not be because the quotas are low!)—a holiday in Norway at the Company's expense.

As one might expect, the theme of the Contest is space travel, and the slogan for the contestants is "Record sale with Rocket speed".

The jubilee edition of the house magazine *Egry Forretningsorganisation* (published twice a year and with a circulation normally of 30,000!) will be considerably enlarged and printed in no less than seven colours. Furthermore, this particular edition will be sent together with a specially boxed jubilee cigar to every customer of Dansk Formulartryk since 1934. (That is a lot of customers!)

March 1st 1959 was a Sunday. On that day Dansk Formulartryk took over for the celebrations Wivex, one of the biggest, best and best-known restaurants in Copenhagen. All the staff with their partners were present, together with many personal friends of the Company and many overseas business associates. Mr. J. H. Condy, Chairman, and Mr. B. C. Bell, General Manager and Director of Bell Punch Export Company with his wife, were more than delighted to represent the Control Systems Group of Companies.

From small beginnings Dansk Formulartryk has developed into one of the largest and best-known business systems organisations in Denmark, in a relatively short time.

All of you we are sure will join with us, firstly, in congratulating Mr. P. de Waal and Dansk Formulartryk on 25 years of

solid achievement, and, secondly, in wishing them even greater success in the next 25 years.

Mr. de Waal would be the first to acknowledge the contribution made to the success of the Company by his Managers and staff, and it would perhaps be invidious of us to single out any particular person. However, we may perhaps be forgiven if we mention Mr. Werner Harris who has been in charge of Sumlock and Plus sales from the beginning and who is now, of course, running Sumlock A/S. It is difficult to express in words our appreciation for the energy, enthusiasm and drive which Werner Harris has devoted to Sumlock sales in Denmark, even to the extent of endangering his health, although he would never admit it himself.



The gift which employees of Dansk Formulartryk presented to Mr. de Waal.

ARTICLE

Many are the books which have been written on the Tower of London, for its history dates back to 1078 and relics prove prior Roman and pre-Roman occupation of its site. Linked as it has been through the centuries with the Kings and Queens of England, the murders, plots and intrigues which surrounded the Royal Court in the Middle Ages are whispered from every shadowed corner of the Bloody Tower and croaked by the ravens which, by tradition, have always been a part of the Tower of London.

Of the many castellated Towers, the White Tower is the oldest, having been built by William the Conqueror in 1078, with walls ranging from 11 ft. to 15 ft. thick. From being the home of the Royal Family in mediaeval times, it now houses a permanent exhibition which illustrates the history of European arms and armour from the Middle Ages up to 1914. Here

THE TOWER OF

is a suit of armour made for Henry VIII at his Greenwich workshops in 1515, and like apparel of many other Kings of England and other European countries; a flint-lock gun made in 1646 and a large variety of pistols, swords and rapiers.



Another view of the Bloody Tower



The old Norman building and Bloody Tower

L O N D O N

The fabulous Crown Jewels are to be found in the Wakefield Tower, a circular building famous as a stronghold. Surrounded by an octagonal steel and glass cage, and under the watchful eye of two Yeoman Warders, a curator and a sentry, visitors can see the Coronation Regalia—the St. Edward's Crown, sceptres, including one containing the largest cut diamond in the world, orbs, swords and other priceless pieces of the panoply of State.

In such atmosphere as this, and for the eye to be able to behold the surroundings and possessions of royalty throughout the ages, even to the Crown of State which is still worn by our Sovereign, Queen Elizabeth, the imagination can run riot—indeed it may truly be said to boggle.



General view of the Tower from the River Thames.

But wait—let us be a little practical. How do we gain access to the White Tower and the Wakefield Tower? In fact, how do the multitudes of all nationalities who visit the Tower of London each year, get inside to see the wonders that are there in store for them? Once again it is by the courtesy and control of a Bell Punch product—in fact a two-way Model ‘H’ and two 2-way Model ‘K’ machines stand between you and history.

A selection of Model ‘H’ tickets for the Tower of London.



NEWS

NEW SYDNEY OFFICES OF BELL PUNCH (A/SIA) PTY. LTD.

Having mentioned elsewhere the sorry state of Bell Punch offices in London, it is now our pleasure to show you something of some much more presentable Bell Punch offices on the other side of the world—in fact “down under”. Bell Punch (A/Sia) Pty. Ltd. has recently moved into a brand new office suite, catering for all its activities other than ticket printing, in a very convenient location in central Sydney. We wish you, Bell Punch (A/Sia), the best of good selling from your new surroundings.



The spacious showroom, matched in modernity by the Sunlock and Plus machines it proudly displays.

The new Sunlock Operators' College with Miss Stevens, the Principal, in her office and Miss Dallas, a teacher, standing on the right.



The General Manager's office.

CARRON COMPANY

ARTICLE

This year marks the two-hundredth birthday of Carron Company, the world-renowned firm of Ironfounders and Engineers. This famous and historic Company, whose Works are situated at Carron, near Falkirk in Stirlingshire, has given to the country—and the world—two hundred years of unbroken service. From the furnaces and foundries of Carron came cylinders for James Watt's steam engine, engines for Symington's steamship, guns for Nelson's "Victory" and fireplaces designed by the Adam Brothers. Today, electric fires, colliery haulage gears, ships' winches and windows and baths—all form

days bring new ways and Carron has always been fortunate in having managements alive to the necessity of giving to the public what it wanted, in a quality standard better than others.

The internal organisation of the Company reflects the same progressive purpose and in 1944, Carron completely reorganised and modernised its book-keeping and commercial methods by the introduction of a mechanical punched card accounting system, thus becoming one of the first Companies in central Scotland to install "Hollerith".



part of the wide range of goods which Carron manufacture. The name Carron is seen on firegrates and cookers in hotels, mansion houses and humble dwellings. At sea, the same name is found on cooking equipment in the galleys of ocean-going liners and small fishing smacks. Indeed, the pillar letter box on the corner of your street may well have "Carron Company" inscribed on its base.

What is the secret of this Company's successful longevity? There are many at Carron who will tell you that it is simply the Company's ability to adapt itself to the requirements of each generation. New

To ensure the full loading of the Tabulator and the flow of accounting data to the "Hollerith" Room, a Central Calculating Department was set up. The calculating machines in operation at that time could not be renewed because of wartime import restrictions and it was decided to re-equip with British-made machines. Fourteen Sumlock manual models were purchased and the newly constituted Central Calculating Department commenced active operations. All calculations of all accounting documents from all Departments of the Company are fed through this Department and success-



fully undertaken by these Sumlock machines. In particular, the compilation of the weekly payroll, which is only mechanised at its final stage, is otherwise entirely calculated by Sumlock operators. After the initial entries of hours worked, rates payable, Employees' Holiday Accumulation Fund rates, etc. are entered on the Wages Sheets by the Wages Department, the Sumlock operators complete the sheets in their entirety, by extending the

daily hours worked, calculating the hours worked at Time Worked rates, working out Departmental bonuses earned, extending gross pay earned, and calculating E.H.A.F. due. In addition, using the Sumlock quick method of tax calculation, P.A.Y.E. is entered on the Wages Sheets. The Sheets are at this stage passed to the the "Hollerith" Department where cards are punched and, along with Standard Deduction Cards, run through the Tabula-



tor to complete the payroll. It can be seen that Sumlock plays a very large part in the compilation of the weekly payroll.

The Company's Cost Department which produces monthly Profit and Loss Accounts for all the departments of Carron is in no small measure helped by the Sumlock operators in all phases of its work, from the adding and calculating of stores requisitions, to the spreading and allocating of overheads.

All purchase invoices, before being passed for payment, are checked in the Central Calculating Department and before being sent to customers, the Company Sales Invoices are also routed through this Department to be calculated and extended on Sumlock machines and added for the "Hollerith" control total.

These illustrations are but a few of the intricate and laborious arithmetical calculations and extensions which Sumlock operators make simple, but as if in

acknowledgment of their usefulness together with growing needs, Carron have added to their number and today use twenty six Sumlock machines.

Several years ago, in conjunction with Sumlock Ltd., Carron Company laid down a replacement scheme for their old machines and decided that those manual models which have passed their prime should be replaced by Duolectric models, since they have been found particularly useful in operation. There are now six Duolectrics in use.

In this bicentenary year of Carron Company the Manager, Mr. E. J. Leaver, is engaged on a vast scheme of reconstruction and expansion. He and his helpers acknowledge the part being played by Sumlock Ltd. in furthering the successful outcome of their enterprises.

We are most indebted for the above article to Messrs. Leaver, Brown and Langmuir of the Carron Company, to which we wish continued success on this the occasion of its bi-centenary.

"L O R D ' S "

Whilst we should, no doubt, be hiding our heads in shame at the recent loss of the "Ashes" in Australia, it is, however, in the way of man to look forward on such occasions to the next opportunity of pitting strength and skill against one's powerful adversaries. Inevitably the scene of one such trial will be the Mecca of English cricket, Lord's Cricket Ground in London.

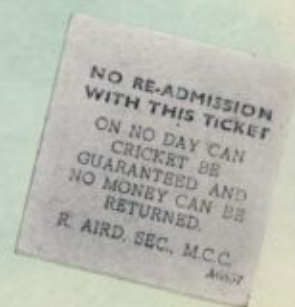
Here the enthusiasts will stream through the entrance gates, some of which are served by Bell Punch 2-way Ultimates, take a Bell Punch ticket and sit in what we hope will be a blistering sun to watch that small green patch of turf—the wicket. Whilst Bell Punch T.I.M.'s serve the

public in many unlikely spots, a few of which have been mentioned in the pages of "News and Views", this is the only instance of their use at a temple for the issuing of tickets to such a profoundly devoted following!



The front of an Ultimate ticket for Lord's.

The other side—and a warning against our famous cricket weather.



ARTICLE

SALES PROMOTI

Bourne and Hollingsworth, proudly independent, provides one of the finest ladies' shopping centres in the West End of London. As can be seen from the photograph, its window frontage is enormous and the ground floor has recently been restyled to offer sales space and presentation second to none. Further alterations are being carried out at present to provide for new and extended departments.

Competition is at its peak in the West End Retail field and large modern stores must keep abreast of new selling ideas and techniques with which to increase sales and bring back satisfied customers. Display, attentive sales assistants, attractive surroundings and the general air of

controlled selling and buying—factors all very self-evident at Bourne and Hollingsworth—are not necessarily the “be all and end all” for increased sales. For instance, what effect does self-service have on sales? Certainly the rapidly expanding network of this type of store in the United Kingdom and other countries, whither it came from its birthplace—U.S.A.—indicates some success. But can this self-service sales method be incorporated within a store which wishes to retain its more conventional sales characteristics at the same time? Bourne and Hollingsworth think it can and has already made the introduction successfully.

Throughout the ground floor in the aisles



*Bourne and Hollingsworth Ltd.
in London's Oxford Street.*

ON COUNTERS

between the general counters, there have been placed "bins" or more officially "Sales Promotion Counters". In each, there is a wide choice of the same kind of article, each costing the same price; for instance, in one "S.P.C." there are silk scarves of every conceivable colour all costing 2s. 11d., in another a tremendous array of costume jewellery again each set being at the same price, gloves in another and so on. The potential customers are free to make their own selection and need have no inhibitions about being led into a purchase by a persuasive assistant; indeed, with the merchandise thus offered and available for handling, it is but a short step from picking up the article to purchasing it.

"This sounds all very well", one can almost hear the expert saying, "but even if this method does induce greater sales, the advantage must be more than lost by the complete lack of cash and stock control" And at this point Automaticket Limited comes into the picture.

The requirement to deal with this question of cash and stock control was a sales register which would issue a receipt, dated



Cosmetic containers on sale at the Sales Promotion Counter next to Perfumery.

and priced, and bearing the departmental coding and the Company's name. This considerably large problem needed a small solution due to the very limited space available on the Sales Promotion Counter; conventional registers were discounted because, apart from size, cost and adaptability were of the utmost importance.

Faced with these factors, Automaticket experimented with all the Bell Punch products at its disposal and one by one, all but the "Ultimate" was eliminated. This in the initial stages, was found to cover all

Ultimates dealing with receipts for 15s. 0d. and 6s. 11d.





Notice how little room this Ultimate occupies on the counter.

the salient points and proved successful in use against various equipment supplied from other sources. After the first order and experience derived from the early installations, there followed a revision of ideas and now the method has been perfected. It involves a one or two way Ultimate for each "counter", fitted neatly to a small lockable wooden cash drawer; the machine is filled with pre-printed Ultimate tickets, serially numbered in the usual way and bearing the name "Bourne and Hollingsworth Limited" and the code lettering to indicate the department concerned. Each double length ticket

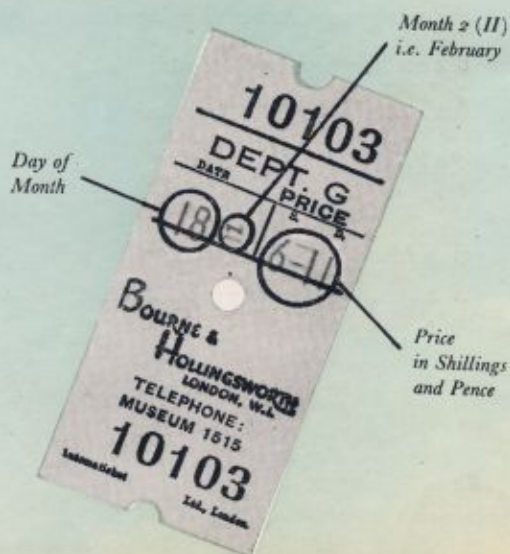
Specimen ticket.

issued is the customer's receipt, and at the time of issue the machine prints thereon the date—day and month—and also the price of the article.

Cashing up and checking stock is simple; the number of articles sold is obtained from the daily starting and finishing number of the tickets and cross checked with the Ultimate numerator—this figure is in turn multiplied by the fixed price.

This method of cash and stock control is based on fixed price goods and the Ultimate can be pre-set daily to deal not only with the date, but to cover any price in a range up to 99s. 11d.

Again one of our products has helped in the efficiency and progress of another organisation, and surely there will be many others which will wish to take advantage of the joint ingenuity of Bourne and Hollingsworth and Automaticket.



SUMLOCK LIMITED

NEWS



At the January Board Meeting of Sumlock Limited, to quote the official notice published by the Company Secretary: "... Mr. R. Walter, O.B.E., was appointed Managing Director Sumlock Limited. Mr. Walter will continue as Executive Officer of the Control Systems Limited group of companies.

At the same meeting Mr. P. J. F. Condry and Mr. G. M. Cunningham were elected Directors of Sumlock Limited."

Mr. Walter joined the Group over 12 years ago and has held the appointment of Executive Officer to the Group since 1952. He was previously with Sumlock Limited in an administrative capacity and later became Assistant Joint General Manager of Bell Punch. He was elected to the Boards of Bell Punch Taximeters Ltd. and Sumlock Limited in February and November 1956 respectively.

After three years' apprenticeship with a precision engineering company, followed by a period visiting a number of organisations to gain experience in a diversity of production methods, Mr. Peter Condry started his career with Bell Punch in early 1954 at Uxbridge. First as Assistant to the Machine Shop Superintendent, then as Assistant to the Production Manager, he has now graduated to Assistant to the Factory Manager (Engineering).



Having joined Sumlock Limited as a salesman in Glasgow during the spring of 1945, Mr. Cunningham in early 1947 was appointed Manager of Leeds Branch; at the end of that year he returned to Glasgow as Manager. Three years later he came South to take over management of London Branch, from where he became General Sales Manager of the Company in September 1956.

EXHIBITIONS

Business Efficiency Fair- Sydney-September 1958

A move to change from Sterling to Decimal currency is gaining strong support in Australia and it was this theme which was featured on the stand of Bell Punch (A/Sia) Pty. Ltd. at the Business Efficiency Fair in Sydney, held from the 8th to the 12th of September 1958.

Supported by the Decimal Currency Council, members of the staff on duty at the stand distributed literature on decimal currency and were delighted to find that the stand attracted a tremendous amount of interest. Visitors noticed, as may readers in the accompanying photograph, that the two clocks show different times; many people asked the reason and were then told that where financial transactions were concerned twenty minutes in every hour of calculations could be saved by using the decimal currency system.

A total of 22,500 people from all parts of Australia visited the exhibition and the value of goods on display was estimated at £1,000,000.

EXHIBITIONS

Office Machine Exhibition- Helsinki-October 1958

With the declared policy of selling to the Man at the Top which is the motto of Sumlock salesmen throughout the world, few could better the performance of our distributors Toimistoala Oy in Finland. The accompanying picture shows their stand at the Office Machine Exhibition in Helsinki which was held from the 18th to the 26th of October 1958 where Mr. T. A. Wiherheimo the Finnish Minister of Commerce and Industry is being demonstrated the Sumlock Duolectric by Mr. E. Tuominen a partner of Toimistoala Oy.



ABOVE: The Toimistoala Oy Stand at the Helsinki Office Machine Exhibition.



LEFT: The Bell Punch Stand at the Business Efficiency Exhibition, Sydney.

S.I.C.O.B. Exhibition- Paris-October 1958

Sumlock France was certainly intent upon seeing that Sumlock and Plus were well and truly elevated at the S.I.C.O.B. exhibition in Paris held in October last year, judging by the height of the central display column.

Our photograph, taken just before the exhibition was officially opened, shows from left to right Mr. J. Beaupere (Sales Representative), Mr. Brochard, Mr. J. H. Condry, Mr. J. Sicre (General Manager), Madame Delagarde (Demonstrator) and Mr. P. Mugnier (Senior Sales Representative).



The Motor Show- London-October 1958

After the outstanding success of the venture in 1957, Automaticket Ltd. again exhibited at the Motor Show in 1958 at London's Earls Court. The message of the benefits to be derived from the installation of Autobills was plain for all garage proprietors to see, and the team of sales representatives present on the stand were treated to ten days of rewarding success.

RIGHT: *The Automaticket Ltd.
Stand at the Motor Show,
Earls Court.*



WHO'S WHO

As he will tell you himself, Mr. W. Roberts, Manager of our Paper Mill at Wraysbury, Isaac Warwick & Co. Ltd., and since 1957 one of its directors has, from childhood years in Glamorganshire, South Wales, devoted his working life to the paper-making industry.

After graduating at University College, Cardiff, his first appointment was in the same city working on the chemical control of the manufacture of vegetable parchment and later in another mill of the same organisation at Bury, Lancashire, where he was Chief Chemist, and had general chemical control in the mill. His next step was to Manager in charge of pulp preparation; in this position due to exigencies of war, he had to contrive paper-making fibres from such raw materials as wheat, oat rye straw, wood turnings and shavings, jute, cotton and even anti-gas capes.

With a view to future mill management,

MR. W. ROBERTS

Mr. Roberts decided that he must gain a wider experience and therefore took the post of Chief Chemist at a leading Esparto Mill in North Wales, and worked there for four years on all aspects of paper making.

In 1950 the paths of Bell Punch and Mr. Roberts crossed, for it was then that he took on the Management of our Wraysbury Mill. The change from dealing with the production of esparto papers to that of ticket middles was pretty considerable, but he soon found that the basic requirements of management are common to all mills, irrespective of the type of paper made. Certainly under his management not only has the mill continued to meet the ticket middle needs of Uxbridge, but also there has been developed a considerable outside sale of paper, including that for schools. Mr. Roberts has been responsible for many technical improvements at the mill and under his ægis there has been a general modernisation of its equipment.

We understand from Mr. Roberts that even when not at his own work, much of his time has been spent in pursuits which have a direct connection with the paper industry. Whilst in Bury he taught paper-making at the Bury College of Technology, was Secretary of the Northern Division of the Technical Section of the British Paper and Board Makers Association and in London is a member of the Board of Examination Assessors at the London School of Printing and Graphic Art, and also a member of the Consultative Committee for Science and General Education at the same school.

Between times Mr. Roberts has given a course of lectures to an adult organisation on the subject of "Evolution and Heredity" and produced a play. At home his hobbies, which he shares with his wife and two sons, are bee-keeping and music.



MR. D. E. LYONS

Kingston, Jamaica, saw in 1930 the birth of Mr. D. E. Lyons, who is now Managing Director of Lyons Limited, our Taximeter Distributors in that island.

Following a high school education at Jamaica College, Kingston, he continued his scholastic career in the U.S.A., first in New Hampshire and then in the North Eastern University at Boston, Mass., where he obtained a B.Sc. in Chemical Engineering.

Mr. Lyons' first employment was as Development Technician with a company in Watertown, Mass., studying plastic coated materials and after a short period there, he returned to Jamaica to take charge of Sales—mainly motor vehicles—for Lyons Limited and it was in August 1954 that he was appointed Managing Director.

It was following a buying trip to England of Mr. Lyons in 1953 that Bell Punch and Lyons Limited established their connection, but it was not for a further two years that the Jamaican cabby came under the spell of Mr. Lyons' selling technique and saw the wisdom of installing Bell Punch taximeters. It then came with



a rush, for, from an initial order for six meters on a Friday, the following Tuesday saw orders on his desk for a further thirty meters—orders for further requirements have continued to reach London and generally their urgency has been so great that all but one consignment has had to be flown to Jamaica. It is largely to Mr. Lyons' credit that over 80 per cent of taxicabs in the island have 'GB' taximeters.

Mr. Lyons was married in 1955 and has a daughter and son. His hobbies, which are sports cars, model aeroplanes, water-skiing and golf, reflect his interest in a wide range of engineering problems and sporting activities.

ARTICLE

"Mr. Blampied, Company Secretary"—the person and the appointment have become virtually synonymous within the Bell Punch Group. Indeed, it will only be those having longer than 18 years' service who will recall a time when our Company Secretary was not Mr. Blampied—that is until the end of March when he retired after almost twenty-eight years of association with the Group.

Born in Jersey, he chose a military career and following training at the Royal Military College, Sandhurst, he was commissioned into the Royal West

B. L. BLAMPIED

Kent Regiment. Later he became one of the first officers pioneering in the original Tank Corps, then known as the Heavy Section Machine Gun Corps, with which he saw active service in the first world war.

1920 brought an end to his Army career, when, as Captain Blampied, he was, for medical reasons, put onto the retired list. Those were difficult days for job seeking, the more particularly for an ex-regular soldier whose health was none too good; however, Mr. Blampied obtained a post in a young up and coming industry—the film renting business.

After several years, through his connection in the cinema trade, he heard of a vacancy in Automatic Limited. His application was successful and in June 1931 he was appointed Secretary of that Company. At that time Mr. James Fraser, later to be on the Board of Control Systems Ltd., was Chairman of Automatic, then only partially owned by Bell Punch.

Two years later he became Assistant Secretary of Bell Punch and took over this work at a week's notice when his predecessor in office, Mr. Cyril Foster, now President of General Register Corporation in New York, had to go to that city for twelve months.

From this point Mr. Blampied, in typically modest way, skips through the rest of his career in three stages:



Appointed Secretary of Bell Punch in March 1942.

Elected Director of Control Systems in July, 1946.

Elected Director of Bell Punch in January, 1952.

(He was also at various times elected to the Board of all the Associated Companies.) Though this record is factually correct, the bare relation of it certainly does not do proper merit to his experienced, expert and energetic activities which in his capacity as Company Secretary, have in some way or another had a bearing and influence upon every individual member within the Group, both past and present.

During these eighteen years as Secretary, his has been the guiding hand of the financial fortunes of Bell Punch, and thus contributed materially to the progress and continued expansion of the Group.

Many are his reminiscences, but three things he recalls very clearly:

The anxious night watching the fire at Isaac Warwick in 1938, when an attentive member of the staff kept him supplied with fish and chips in a newspaper.

The days of the bombing in the last world war and the splendid attitude of the staff, male and female, who refused to go to the shelters because "it interferes with my work", and who, in spite of the many difficulties, always somehow

managed to turn up on time each morning.

The great friendship between the late Mr. H. Drummond Black and the late Mr. J. M. Evans, then Chairman of Lamson Industries, which built up that feeling of trust between Lamson and Controls that ultimately made our present merger such a happy and easy affair.

Concerning his retirement Mr. Blampied writes: "I am sorry to be leaving the Group of which I have always been so proud. Retiring, however, is inevitable to us all and each must be guided by his own personal circumstances when deciding on a matter of this kind. For myself the call of the sea and the island of my birth just became too strong. I wish all in the Group the same happiness which has been mine with Controls, and continued success both to the Group and to all who will carry on the good work in the future."

As he says, "Retiring is inevitable" and as inevitably do mixed feelings accompany it. There is no doubt that these feelings are mutual: Mr. Blampied will be very much missed by us all, but at the same time he leaves us with our very best wishes both to his wife and himself for the happiest of retirements in his native Jersey, and with the hope that he will not find the journey too long to come and visit us from time to time.

ARTICLE

P A C K I N G

What chaos there must be in millions of houses throughout the world some nights before Christmas Eve, when the job of packing up presents is eventually tackled, no doubt after as many delays as possible. One room becomes a shambles of string, ribbon, coloured and wrapping papers and the complete complement of household scissors buried beneath this mass and never to hand when required. The string is always too short, the knots, by some peculiar twist of fate, change from perfect reefs to grannies and the paper is always just that bit too small.

How different is this picture from the

orderliness of the Packing Department at Uxbridge, where such a variety of shapes and sizes have to be so "wrapped in cotton-wool" as to withstand the rigours of journeying to the ends of the world.

For each type of machine, special packing techniques are used to ensure that the ugly phrase "damaged in transit" shall seldom, if ever, be stencilled by the carrier on the outer cover of a Bell Punch product.

For instance, each Plus machine is fitted snugly into its cardboard box with specially made corrugated cardboard fittings tailor-made to the machine. In this way it is held rigid and special protection is afforded to those parts, such as the key



Progressive packing stages of an "S.P." machine for the Paris Metro with the casework at the rear and the unit mechanism at the front.

tops and clearance lever, which are most liable to be damaged by careless handling. For Sumlock machines a cocoon is made from wood pulp held together with a rubberised solution and coated inside to stop scratching, or dust which might penetrate the machine; in turn, the cocoon is packed into a cardboard box; wood pulp is used for the cocoon, since it is not completely rigid and allows some movement to take up vibration.

Sumlock electric models have their own particular problems and in order to make certain that their packing is foolproof a drop test based upon Ministry of Supply specifications for the packaging of scientific instruments is carried out before the final design of the packing is approved. The packed Sumlock is dropped eight times from a height of 4 ft. 6 in. on to a concrete floor, so that it lands consecutively on six sides and two corners. The packing is then removed and the machine has to be in perfect working order—if a Duolectric can survive this treatment it should certainly be able to arrive in one piece at the end of its journey.



A partially packed "Tote" control panel.

Printed tickets are despatched to all four corners of the globe from Uxbridge and every day wooden crates, nailed and banded with metal strips, full of tickets can be seen awaiting transport to the docks.

The careful packing of Totalisator equipment is vitally important, not only because the mechanisms are intricate and delicate but also tight delivery dates are scheduled to co-ordinate with an opening day, and if a part were damaged in transit the consequences could be extremely serious. For this equipment shell packing

A load of crated totalisator equipment for North America.

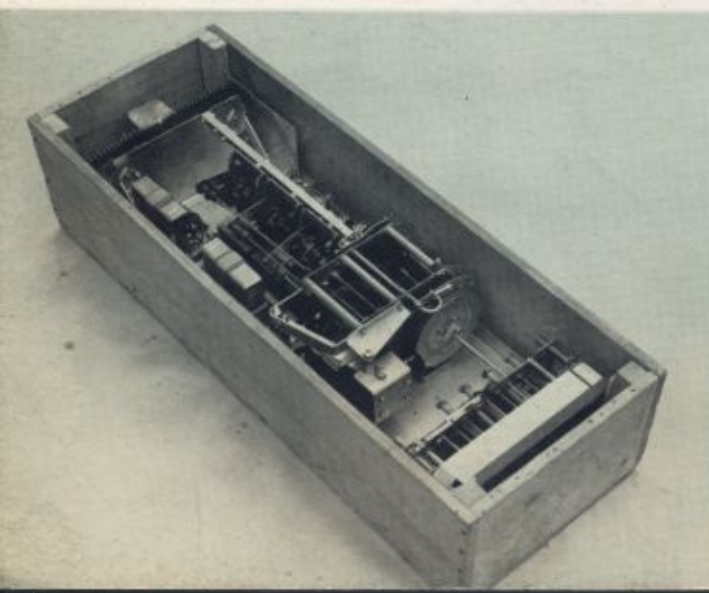




Mr. Eastwood (left) and Mr. Hansford (right) watch the test, which contradicts the instruction stencilled on the crate.

is used, a wooden box being specially constructed to fit the mechanisms with felt covered stays to hold it in position. Special tabs are used for electric motors and any parts subject to excessive vibration or movement are tied down. This box is screwed down, covered with an oiled paper for waterproofing and placed into a larger wooden crate, the gap between the smaller and larger crates being filled with wood wool to act as a shock absorber.

Partly crated miniature indicator tray for the Malmo Totalisator installation.



The Ground Position Indicator must be packed to Ministry of Supply specifications and in this case a cocoon similar to that for the Sumlock is used, but instead of wood pulp it is made of horsehair and a binder to give a more resilient pack.

The packing of a Paris S.P. is something of a headache, owing to its size and weight; the packaging material, including the outer wooden case of the shell pack, weighs no less than 2 cwts. 25 lb. and with the S.P. safely stowed inside it, the gross weight becomes 4 cwts. 1 qtr. 4 lb.

No packing, however, can be too perfect for overseas markets, as Mr. Hansford, Head of this Department, will point out to you, since during transit to any foreign country, the package will be opened by at least one customs official and in many cases by several.

Packing is a skilled art of its own, and those responsible for this most important function at Uxbridge use every care to ensure that the many types of equipment manufactured by the Company, arrive at their destination in sound working order.

N Y L O N

ARTICLE

How many operators of more recently produced Sumlocks realise that part of the machines through which they are earning the money to pay for their nylon stockings are themselves made of this material.

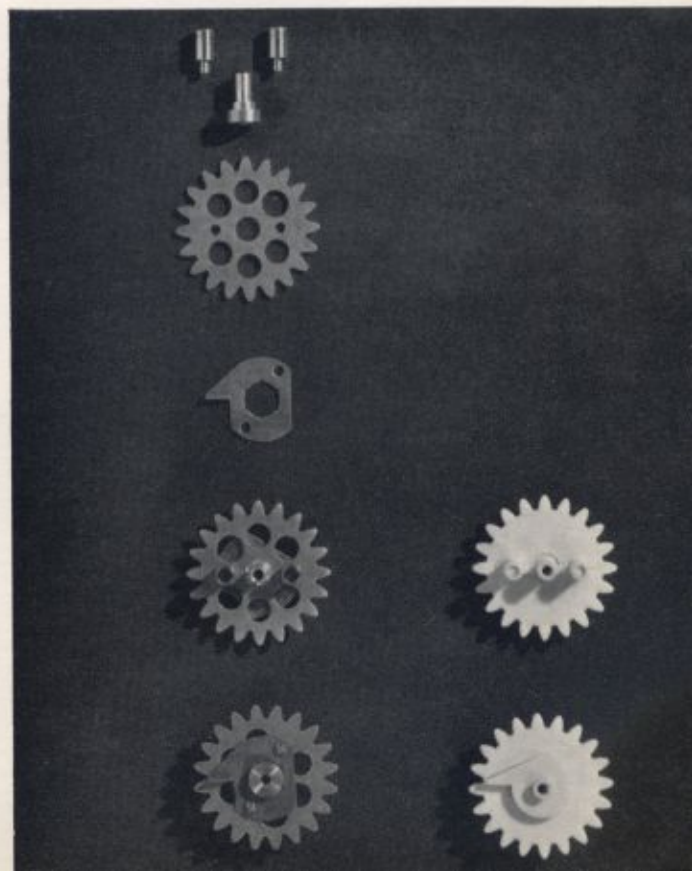
Many uses have been found for nylon: parachutes, ropes for climbing Mount Everest, a multitude of clothing and materials including the much coveted stockings. However, only in recent years has it been possible to mould nylon into shapes that could take the place of parts in mechanisms which had previously to be made in metal. Some of the many advantages of using nylon for piece parts are that it needs no lubrication, its wearing properties are generally speaking much greater than metal, it is only one seventh the weight of steel and in many instances the part is easier and more economical to produce.

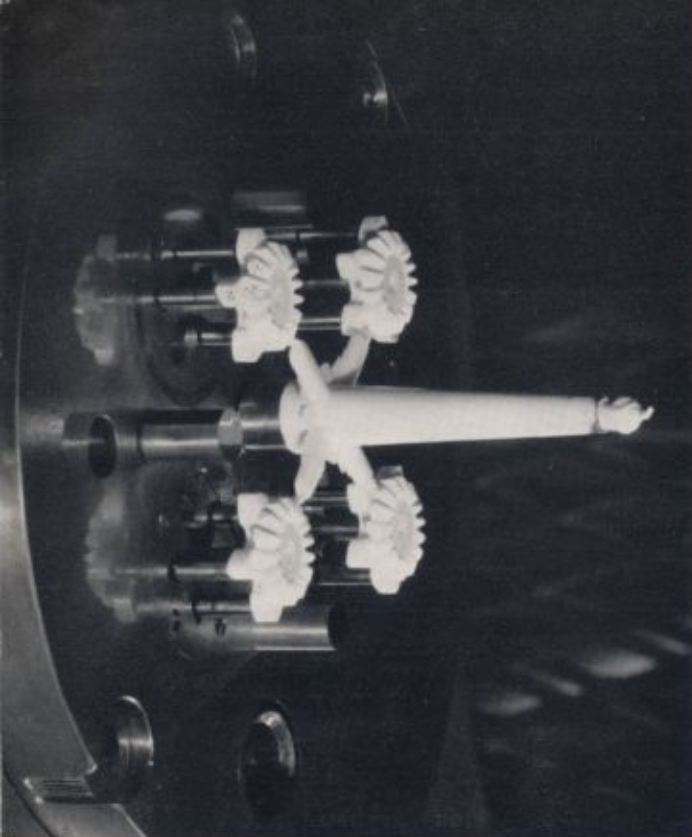
The U.S.A. had been using nylon mouldings for some years, though in Great Britain little interest had been taken in this development, when in 1955 Mr. J. H. Condy visited New York; it was as a result of what he saw there that the first experimental hand nylon moulding machine was introduced to Uxbridge. Whilst the application is considerably different, the principles of nylon moulding are much the same as those used for making a jelly

mould in the kitchen. The raw nylon, which looks rather like uncooked rice, is delivered to the factory in 10 lb. sealed tins to ensure complete dryness, because if it becomes damp it is impossible to obtain a perfect moulding. The contents of these tins after opening are transferred immediately to airtight glass preserving jars, and before use all the raw nylon is put into an oven for four hours.

From the oven the compound is tipped into a feed hopper on the machine, the flow from which is adjustable and can be set to give the correct amount of material

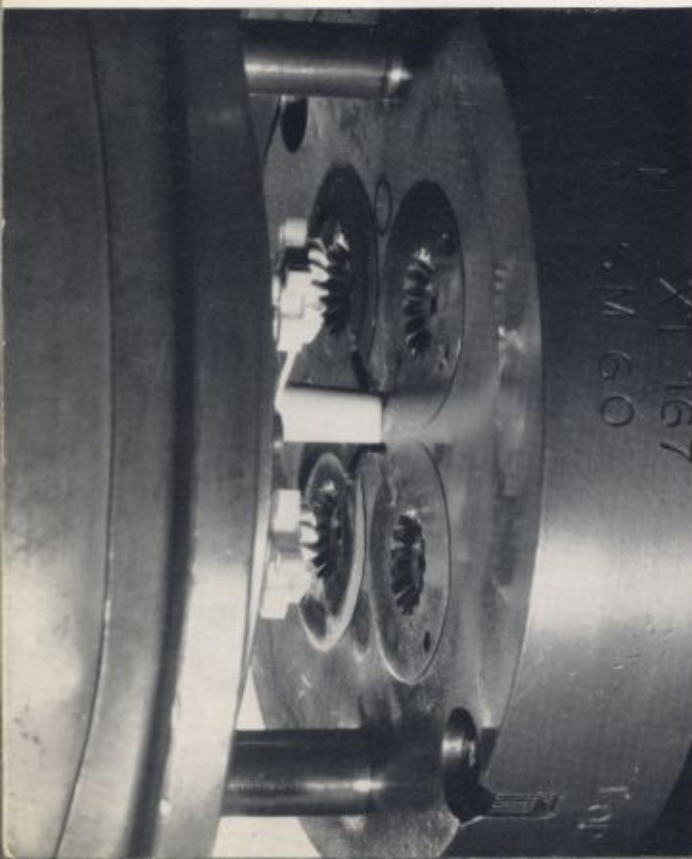
The transfer cam gear in its five separate metal parts to comprise the assembly as originally produced compared with the present one stage nylon moulding.





Four differential wheels for calculators as they begin to emerge from the mould . . .

. . . and only seconds later just before they are finally ejected from it.



for each "shot". It is then heated to a temperature of between 230°C and 240°C whereat it liquifies and after the two halves of the mould have been brought together the nylon is squeezed into it under pressure by a plunger.

Starting with a pilot mould, experiments are carried out to get the right size, shape and consistency and it is only when these are corrected that a mould is made which with one action of the machine will mould more than one part at a time: The degree of shrinkage when the component cools in the mould must be gauged exactly; the mould may not have filled completely due to incorrect pressure, or temperature of material or mould and the component may be difficult to remove. These snags which are commonplace to start with are eliminated one by one, by adjusting the feed nozzles, the gates through which the nylon supply is fed into the mould, and the provision for venting which will allow the air to escape from the mould as the nylon is injected, without the nylon itself following the air and blocking the vents for the next shot. All the initial difficulties which are inherent in nylon moulding were eventually overcome by our factory, but additionally a further problem is that nylon parts can swell because of water absorption from the atmosphere. This was soon met

when after the first eight test moulds had been completed and a sufficient number of nylon components made to be fitted into a calculating machine, it was decided that to be sure that they would work in any part of the world they should be submitted to a severe humidity test. The A.I.D. Laboratories at Harefield kindly put at our disposal a humidity cabinet which would give conditions of 100% humidity at 95°F.

After one day of this test the Sumlock jammed and upon examination, the nylon gears were found to have increased in size, beyond the permitted limits, due to the heavy moisture absorption. This was a serious set-back. However it was found that Imperial Chemical Industries Ltd., the manufacturer of the raw nylon, when faced with this problem had produced a nylon which was less affected by moisture, but which had a different shrinkage factor when moulded. Due to this alteration in shrinkage the moulds had to be remade, the gears remoulded and fitted into the machine, which was returned to the humidity cabinet, with the result that after three days, though the metal parts of the machine had suffered, the nylon gears were in perfect condition.

Many parts are now being produced in nylon for the present range of Sumlock calculators and nylon will play an

increasingly large part in future Bell Punch products. As an illustration of time saved by this method of production, there is one particular gear originally made in metal which consisted of five different items which had to be riveted together to form an assembly. The time taken to make this in metal was a matter of minutes, but in nylon only the same number of seconds, or a twelfth of the time. By using moulded nylon, added life is given to the part and whilst the pieces must be most carefully aligned for metal riveting the precision is automatically given by the mould.

This story gives just another illustration of the efforts made by our Factory to keep ahead of the time, to adopt new ideas, take time for experimenting and in due course produce the article which will give the best service to the benefit of sales staffs and users alike.

The nylon moulding equipment.



NEWS

This Competition closed on the 31st December 1958, the results of a year's efforts by the seventeen competitors being shown on the accompanying chart.

Australia indeed merit the 100% Club Shield and winner's prize of £200; having started the year with the largest Duolectric Quota of any country except the U.S.A., Bell Punch (A/sia) Pty. Ltd. not only reached its Quota, but exceed it by eleven Duolectrics, for which a special bonus of £110 was awarded. We congratulate Bell Punch (A/sia) Pty. Ltd. on this very fine achievement.

Second in order of merit was J. A. Miller & Sons Ltd. of the Irish Republic, with a most creditable win of £50 with £40 in addition for the four machines sold above quota.

100% CLUB COMPETITION 1958

Although not quite reaching its particularly stiff quota, Harris & Jones (Pty.) Ltd. of Johannesburg, South Africa, well deserve the award of 100% Club Membership for steady and increasing sales throughout the year.

France, Denmark and Canada all put up a good show and made valiant efforts in the last quarter to catch up. The U.S.A. were hard hit by the 1958 recession, but also made a magnificent final spurt and Switzerland, Germany and Holland also made tremendous efforts.

Since 1958 was generally not an easy year for the Office Machine business, all competitors are deserving of our thanks for their 1958 efforts, and good wishes for an easier market and better sales during 1959.

RESULTS OF 1958 COMPETITION

DISTRIBUTORS REACHING OR EXCEEDING
QUOTA IN ORDER OF MERIT:—

PRIZEWINNER (£310)

and 100% Club Shield

AUSTRALIA

★

PRIZEWINNER (£90)

and 100% Club Membership

IRISH REPUBLIC

★

100% Club Membership (only)

SOUTH AFRICA

(Johannesburg)

DISTRIBUTORS BELOW QUOTA
IN ORDER OF MERIT:—

FRANCE

U.S.A.

DENMARK

SWITZERLAND

CANADA

GERMANY

HOLLAND

★

OTHER COMPETITORS:—

New Zealand

Belgium

Finland

Nigeria

**South Africa
(Other Areas)**

Manitoba, Canada

Ceylon

COMPETITORS PARTICIPATING

AUSTRALIA

BELGIUM

CANADA

CEYLON

DENMARK

FINLAND

FRANCE

GERMANY

HOLLAND

IRELAND

MANITOBA

NEW ZEALAND

NIGERIA

SOUTH AFRICA

SOUTH AFRICA

SWITZERLAND

U.S.A.

(Johannesburg)

(Other Areas)

SUMLOCK SCHOOL-BELGIUM

NEWS

The first Sumlock School in Belgium was opened on the 1st September 1958 by our Distributors, ETS. UMAC of 4 Quai du Commerce, Brussels. Madame Leslie, the School Principal, has had many years experience in this field with UMAC and, we are sure, will help numbers of young Belgians to happy and successful careers as Sumlock Operators.

Part of the first Sumlock Operators School in Belgium.



MR. G. V. RAMAN

Though in the last few years Mr. G. V. Raman, Managing Director of Blackwoods India Ltd., our Sumlock Distributors in that country, was seriously inconvenienced by continuous ill-health this did not altogether prevent his active participation in the many differing affairs of his Company—this included Lamson interests, as well as Sumlock. As recently as November

1957 we were pleased to see him in London when he appeared in excellent spirits. It was soon after his return to Calcutta that we learnt with deep regret of his sudden relapse from which he never truly recovered—and in August 1958, he died. To Mr. Raman's colleagues on the Board and to his family we extend our sincere sympathy and condolences.

SOME RECENT ADVERTISEMENTS

no hold-up ... at the box office



- A. 1000WATT 500VAC 50/60Hz
- B. 1000WATT 500VAC 50/60Hz
- C. 1000WATT 500VAC 50/60Hz
- D. 1000WATT 500VAC 50/60Hz
- E. 1000WATT 500VAC 50/60Hz



"BURNER", "ACTION", "FLASH BACK" - being a full of burning words, they are the only words that can be used to describe the new Control Systems Ltd. products. They are quick, and they are the only words that can be used to describe the new Control Systems Ltd. products.

And this is precisely the quality of the new Control Systems Ltd. products. They are quick, and they are the only words that can be used to describe the new Control Systems Ltd. products.

So why a disclaimer over the new Control Systems Ltd. products? Because they are the only words that can be used to describe the new Control Systems Ltd. products. They are quick, and they are the only words that can be used to describe the new Control Systems Ltd. products.

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CONTROL SYSTEMS LTD

ONE OF THE LAMBSON INDUSTRIES GROUP
1000 WATTS 500VAC 50/60Hz

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1000 WATTS 500VAC 50/60Hz
1000 WATTS 500VAC 50/60Hz
1000 WATTS 500VAC 50/60Hz
1000 WATTS 500VAC 50/60Hz

after the counting ... the accounting



- A. 1000WATT 500VAC 50/60Hz
- B. 1000WATT 500VAC 50/60Hz
- C. 1000WATT 500VAC 50/60Hz
- D. 1000WATT 500VAC 50/60Hz
- E. 1000WATT 500VAC 50/60Hz

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1000 WATTS 500VAC 50/60Hz
1000 WATTS 500VAC 50/60Hz
1000 WATTS 500VAC 50/60Hz
1000 WATTS 500VAC 50/60Hz

When the shop is closed, and the work is done, and the counting is done, the new Control Systems Ltd. products are the only words that can be used to describe the new Control Systems Ltd. products.

And this is precisely the quality of the new Control Systems Ltd. products. They are quick, and they are the only words that can be used to describe the new Control Systems Ltd. products.

So why a disclaimer over the new Control Systems Ltd. products? Because they are the only words that can be used to describe the new Control Systems Ltd. products.

Control Systems Ltd. products are the only words that can be used to describe the new Control Systems Ltd. products. They are quick, and they are the only words that can be used to describe the new Control Systems Ltd. products.



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