

TONIE

THE QUARTERLY MAGAZINE OF
AUTOMATIC TELEPHONE & ELECTRIC CO LTD

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Contents

Destination I	Bangkok		 This p	age
Busy lines			 • • •	3
Band call			 	4
I saw a 'lost	world'		 	6
The long, lon	g years		 	8
Danger—busi	hfires on r	way	 	10
London in the	e rain	• • •	 	12
Portraits of a	ın industr	y	 	14
Now it can b	e told		 	16
Overnight to	Scotland		 • • •	18
We'd like you	u to meet	• • •	 •••	20
The family to	radition		 	22
Secrecy for F	His Majes	ty	 	23
Ball in—bati	ter up		 	24
What will it	look like :		 	26
Sports day in	n pictures		 	28

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A shrine guardian at a Bangkok temple

Destination: Bangkok

Trunk telephone and telegraph network for Thai State Railways



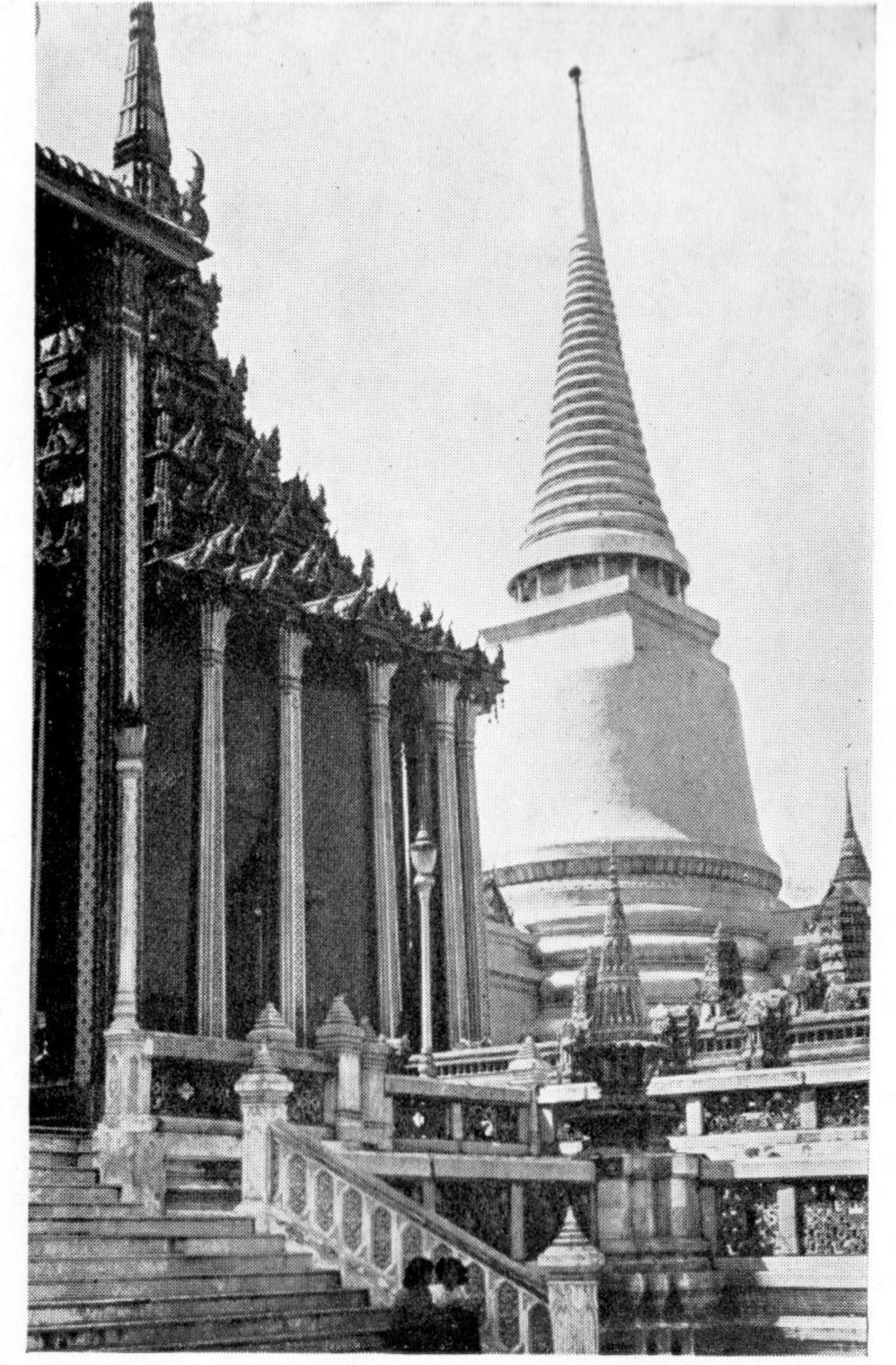
Thailand's many beautiful temples are big attractions for visitors. Above is a shrine in the grounds of the Porcelain Pagoda, Bangkok

It used to be known as Siam. A huge, densely forested and vastly intriguing area, Thailand is one of the most important sovereign independent States in South-Eastern Asia. It is a progressive country, constantly developing commercially and socially, and no major foreign power can afford to overlook it. So, naturally, the Company are pleased to have won, against strong international competition, three important contracts for the supply and installation of Thailand's first long-distance telecommunications network.

Part of the cost of the order, which has been placed by the Royal Thai State Railways, will be met by American aid, thus bringing more valuable dollars to Great Britain.

The project calls for the provision of an extensive trunk telephone and telegraph system linking the State railways' Bangkok headquarters with eleven provincial traffic control centres throughout the country. These centres are distributed over the railways' northern line to the northern capital of Chiengmai; the southern line running into Malaya, and the north-eastern line into the neighbouring kingdom of Laos. Two new trunk telephone lines are being built over all sections of the network, which when completed will have a total route length of 2,500 kms. (1,560 miles).

As this will be the first modern communications equipment ever installed in Thailand, arrangements have been made for Thai maintenance engineers to be trained at A.T. & E.'s Liverpool factory. A party of Thai communications experts, led by Nai Swai Habanananda, Chief Signals and Telecommunications Engineer, Royal Thai Railways, arrived in this country recently and visited



A corner of the courty ard in Bangkok's Temple of the Emerald Buddha

Strowger House. An engineer from A.T. & E. will supervise installation work in Thailand, which is to be carried out by members of the railways' staff.

Each traffic control centre on the railway network will have both telephone and teleprinter switchboards, with direct connections to Bangkok and adjacent centres. In addition, ten other stations are being provided with trunk telephone connections.

The Thai railways are playing an ever-increasing part in the rapid development of the country, the chief products of which are rice, rubber, tin and teak (there are few manufacturing industries). The world-renowned Siam-Burma Railways, built with allied prisoner-of-war labour by the Japanese during the war, was purchased from its starting point at Ban Pong to the Burmese border by the Thai Government and is now part of the extensive system which we are helping to link.

Mr. G. J. Sard, Regional Sales Manager, Export



Nai Swai Habanananda signs the visitors' book at Strowger House. He visits Liverpool next month.

Department, Strowger House, London, was the man the Company sent out to Thailand and he was mainly responsible for on-the-spot negotiations.

Mr. Sard has been to Bangkok on four occasions since 1952. He has also made business trips on our behalf to Indo-China, Malaya, Singapore, Hong Kong, the Philippines and many other places.

He was impressed on each visit by Bangkok's internationally important airport, with its services to Europe, America, India, Pakistan and Japan, and he agrees that the capital itself is one of the most romantic and colourful cities in the East. With a population of well over a million, Bangkok has many splendidly constructed buildings, docks, roads and gardens. Magnificent temples are also to be found and Mr. Sard recalls that one of the most attractive examples is the Temple of the Emerald Buddha, where an imposing statue of Buddha is always richly robed, according to the season.

Thailand has more than sixteen million Buddhists, over half-a-million Moslems and some seventy thousand Christians. The people are highly educated and primary schools are both compulsory and free. Secondary education in Government schools is also free and there are five universities.

We look forward to having the party of engineers at Strowger Works and we are sure that the knowledge they gain here will further assist in the rapid development of their own country.

BUSY

LINES

SOME OF OUR RECENT ORDERS

Automatic telephone equipment to be built by A.T. & E., largely at Strowger Works, is expected to meet demands in the "City" area of Johannesburg, South Africa, for at least 20 years. Value of initial equipment for this new exchange will be approximately £550,000.

With the placing of an order for 12 new sets of Electro-matic vehicle-actuated traffic signals, Glasgow is close to becoming the first authority in the United Kingdom to have purchased 100 installations from A.T. & E.

An order has been received at Strowger Works for a 100/200 line P.A.B.X. to serve the offices of Associated Libraries, London. This P.A.B.X. will serve a number of theatre booking offices with lines to 50 theatres.

In Canada, an automatic exchange supplied by our Company replaced a magneto exchange at St. Raymond, in the province of Quebec. Anderson exchange, St. John's, Newfoundland, has ordered a 1,000-line extension.



The ingeniously-built floral telephone at the Bermuda pageant

One of the largest industrial organisations in this country, Imperial Chemical Industries, Billingham Division, is being equipped with our 1,500/2,000 P.A.B.X. No. 3. Tie lines and satellite exchanges will link the various works.

One of our customers, Bermuda Telephone Company, took first prize in this year's Bermuda Floral Pageant with an impressive float in the shape of an automatic telephone.

An order for artificial traffic equipment has been received from Portugal. This is designed to make calls as a subscriber, and, from these, to sample the quality of service provided to the subscriber. It can, when necessary, be arranged to stop on faulty circuits. Trinidad has also ordered this equipment.

Maintenance vehicles of North Western Gas Board's South Lancashire group based at St. Helens are now equipped with A.T. & E.'s very high frequency radio telephones. This follows successful installations in Manchester, Liverpool and Wirral areas.

After many months of trials, the United States Air Force has ordered \$62,000 (£22,000) worth of Telegraph Distortion Measuring Sets and Regenerative Repeaters.

A 12-channel open wire carrier telephone system is operating between York and Leeds for British Railways after a rapid installation job. Terminal equipment left Strowger Works one Thursday and was fully operational the following Monday.



A radio telephone installed in one of the Gas Board's vehicles



The band goes marching by. The ambassadors in maroon and gold lead a parade at a Liverpool fete

Band Call

but then Charlie Swann is a big man. After all, the Army don't have striplings as regimental quartermaster sergeants and that was Charlie's rank after 21 years in khaki. Ex-R.Q.M.S. Swann—that's him on our front cover—joined the Company when he left the Forces in 1947, and it wasn't long before he was back again in uniform, the maroon, gold and blue uniform of A.T.M. Works Band.

During his soldiering, Charlie gained considerable experience of martial music and he played the euphonium in places as far apart as Ireland and Italy and Chelsea and Canada. When he came back to work in the Photographic and Printing Department, his chief, Mr. George Gardner, was delighted. This is not surprising as Mr. Gardner is chairman, ex-conductor and a founder member of our works band.

You will find some 30 other enthusiastic parttime musicians like Messrs. Gardner and Swann if you look in at the works cinema any Tuesday or Friday evening about 8 o'clock. That is when the band hold their practice sessions for the concerts, garden fêtes, sports meetings, galas and contests that fill their engagement diary.

The outdoor music season is now coming to an end, of course, but these evening rehearsals go on 50 weeks a year under the direction of slimly-built conductor Norman Jones, a joiner by trade. Painstakingly practising one note—sometimes for half-an-hour or more—you will find telephone inspectors, clerks, maintenance men, engineers, apprentices and many more of your colleagues. Some of the instrumentalists, such as Charlie Yates, Department 67, have almost half-a-century of banding behind them; others, like the conductor's youngest son, Stanley (another son, Norman, of Department 850, plays the cornet) are comparative newcomers.

The reasons for these intensive rehearsals are simple. When the band compete out of town or play in one of the many Merseyside parks—in their spare time of course—they are acting as ambassadors of the Company, and, being true artists and musicians, they realise there is no easy path to perfection and long practice sessions are essential.

A.T.M. Works Band was started 15 years ago

following an idea put forward by Mr. J. D. Crook, Employment Officer, to the late Mr. F. C. Burstall, Deputy Managing Director, and other members of the management. Mr. Crook became organising secretary and he has held that position ever since.

In those early days, practices were often held between spells of war-time fire-watching and A.R.P. duties, and members had to provide their own instruments. The Company weighed in with a cash grant, however, and uniforms, scores and brass were obtained. Today, our bandsmen wear modern, individually-tailored uniforms, their musical library contains more than 1,000 different items ranging from military marches to "The Teddy Bears' Picnic," and the value of their equipment is more than £2,000. Their Christmas carol concerts in the canteens, their appearances at sports days and their many engagements throughout Merseyside and Lancashire have won them a sound reputation.

Band officials are, however, always on the look out for keen young musicians—men or women. Women? Yes, A.T. & E. have had only one woman player—about five years ago—but there is no reason why ladies should not join in the music-making, too—as long as they're enthusiastic. And we can give you a good example of the kind of enthusiasm to be found in the band. . . .

Arthur Sadler, a chargehand who plays the "E" flat bass, travelled all the way down to the

Royal Albert Hall in London just to hear 19 brass bands play the same test piece over and over again in a championship final. Arthur, who started his band career with the Bluecoat School some 40 years ago, grinned when he told us this and asked: "Doesn't make sense, does it?" Not to everybody, perhaps, but certainly to men like Bill Lorenz, Rack Inspection; Dennis Redmond, Department 41; Jack McCrosson, Department 27; Bill Harrison, Plant Department; Fred Coffey, Department 388; and all our other musicians and officials who are maintaining the traditions of that typically British institution, the brass band.

Brass band music is, perhaps, the true music of the working man. It was born with the Industrial Revolution and it has taken a firm place in the social history of the nation. It emerged more than a century ago to bring colour, comradeship and purpose to the lives of many in cotton towns, mining villages, shipyards and steel communities and other bustling centres. The names of nearly all our famous bands disclose their industrial origin. Most of them include such words as 'Works', 'Workmen's' or 'Colliery.'

Even now, after the toll of two world wars, brass bands remain the nation's biggest body of non-professional music makers, with more than 100,000 players handling equipment worth six million pounds. Our Company is proud to be associated with such a movement.



Conductor Norman Jones at a practice session with three trumpeters



It's hot work at this church social and a break for a drink is appreciated



Venezuela's telephone administration have offices in the right-hand tower of the above buildings in Caracas. Not all of Venezuela is so up to date

I saw a 'Lost World'

BY JAMES F. DANIELS

In previous issues of "Tone" we have referred to Venezuela, one of A.T. & E.'s oldest and most colourful customers in the South American continent. Mr. James F. Daniels, of Department 678, Engineering Inspection, who recently returned to Strowger Works after spending more than five years as training supervisor, internal plant, with the National Venezuelan Telephone Company, read our magazine while serving in Caracas and was prompted to contribute the following article. His story captures, we feel, something of the romance and adventure to be found in this fascinating country, destination of a great deal of equipment made in our Liverpool factories.

Killer tribesmen using poisoned darts, devil fish that will tear man or beast to ribbons in a matter of seconds, and a lost colony on a mountain top in the Northern Andes. Venezuela has them all. Take my word for it, there's no lack of excitement in this land of strange contrasts! It's only a short trip from sleek, modern cities to the hectic battle for existence in the wilderness.

"Oil company camp attacked by Indians. One man killed by blow-pipe raiders." This is not from a novel. It is a fairly regular report in *The Caracas Journal*. Oilmen, geologists and surveyors venturing into, say, the Motilone country, have to mount sentries and keep fires burning during the night against these ambuscades.

Attempts have been made to civilise the wild tribesmen by dropping gifts into the jungle from aircraft, but anyone who tries to shake hands with one of the recipients is asking for an arrow between the shoulder blades. Native darts and other weapons, by the way, are tipped with curare, the deadly poison so dear to thriller writers. Occasionally one of these wild tribesmen is captured. But the fellow soon escapes—in a coffin! He starves himself to death.

As in most tropical countries, the natural hazards are frequently worse than the human

ones, however. In Venezuela there is a delightful river inhabitant known as the caribe fish (piranas). The size of a herring and nearly all head, the caribe has rows of pyramid-shaped teeth which give it the bite of a bull-dog. The smallest drop of blood in a caribe-infested river acts like a lunch whistle and thousands of the demons are on the spot in a twinkling—snapping, tearing and flapping for the flesh of any living creature in the vicinity.

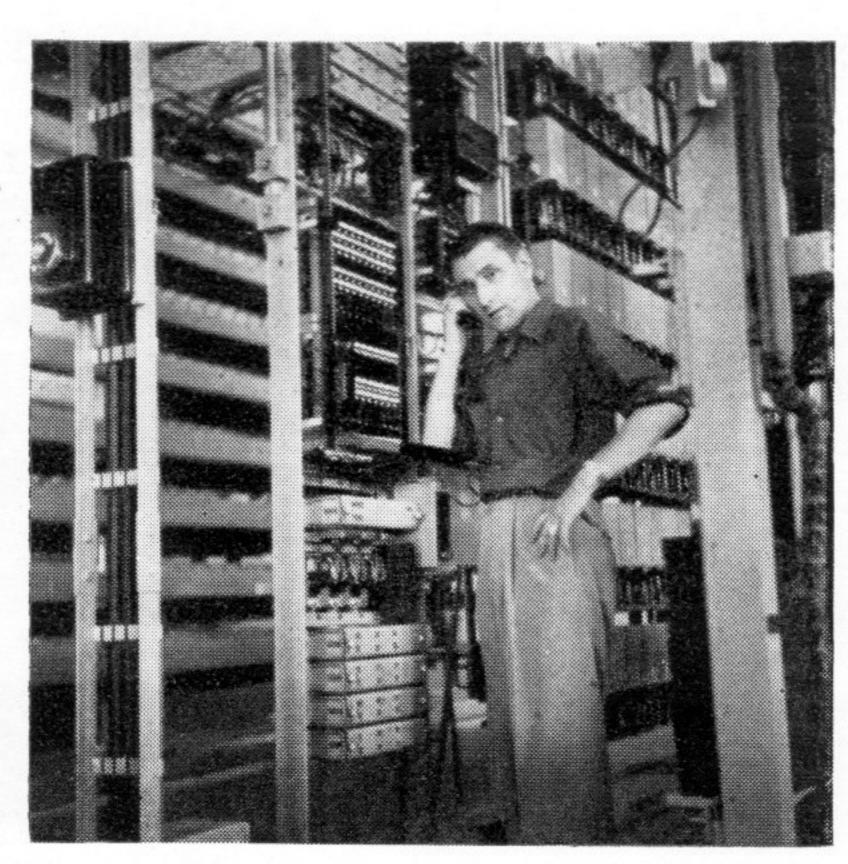
An animal entering the water with a slight cut on a leg would be stripped down to a glistening skeleton in a matter of minutes.

When cattle are about to ford a river, one unfortunate beast is sent into the current a little way downstream. While the caribe are eating this animal alive, the herd are hastened across elsewhere in comparative safety.

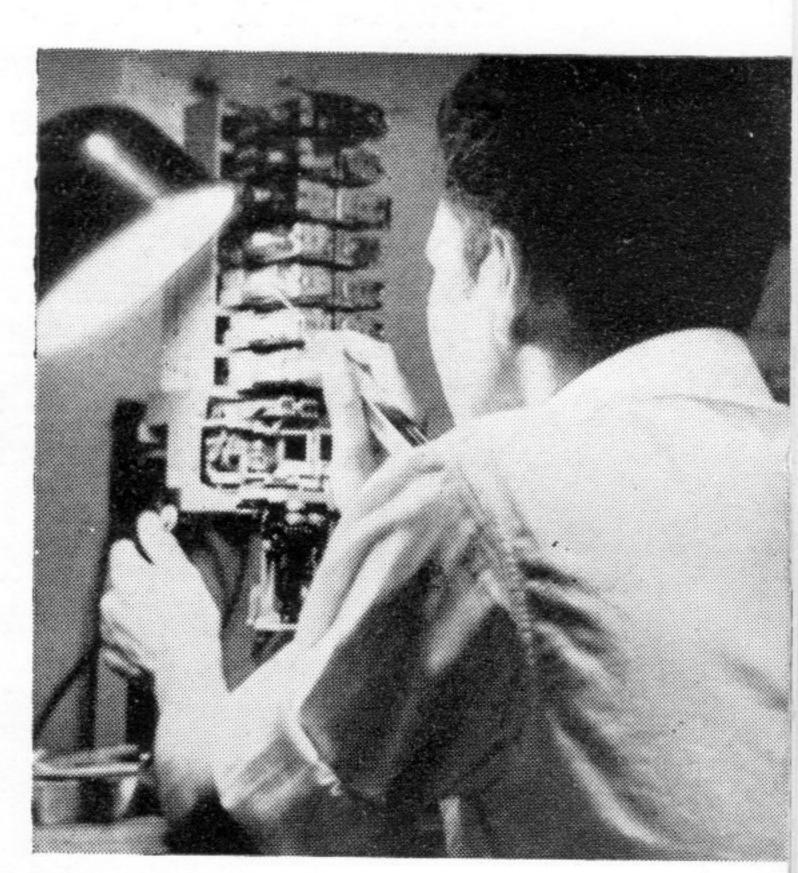
Ever heard of El Tovar, by the way? Few people outside Venezuela know of it, but I was fortunate enough to go there. El Tovar is like something out of Arthur Conan Doyle's "Lost World." It is a colony perched 6,000 feet up on a mountainside away from the Maracay road. It is a Black Forest village surrounded by lush vegetation in a country where most other buildings have strong Spanish origins. Back in 1842, a number of Germans from the Black Forest area were persuaded to enter Venezuela on the promise of free land. They got the land—the mountain top—but they were forced to stay up there by the soldiery. Their descendants are still there, living in a miniature German village, still speaking German, eking out a frugal existence and almost isolated from the remainder of this exciting land.



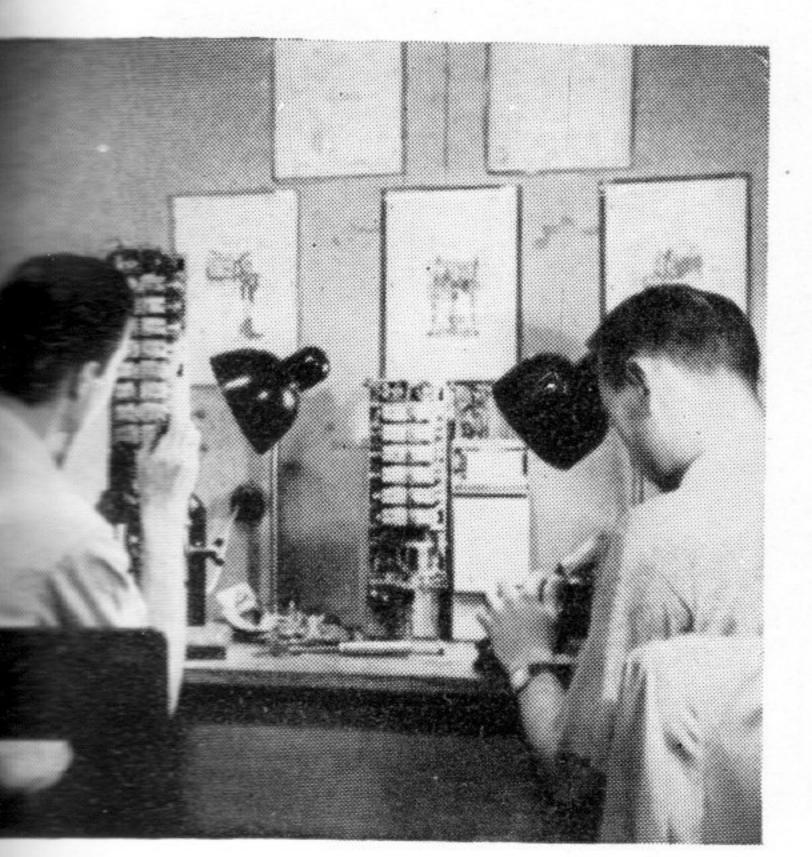
Author Daniels samples a drink from a coconut



Part of the modern exchange built at Valencia



A student learns to adjust one of our 32A selectors



A.T. & E. personnel also instruct in switch adjustment



An exterior view of part of the Valencia exchange



A. T. & E. installer Fred Boote goes shopping—for onions!

THE LONG, LONG YEARS

Men with over half a century of service

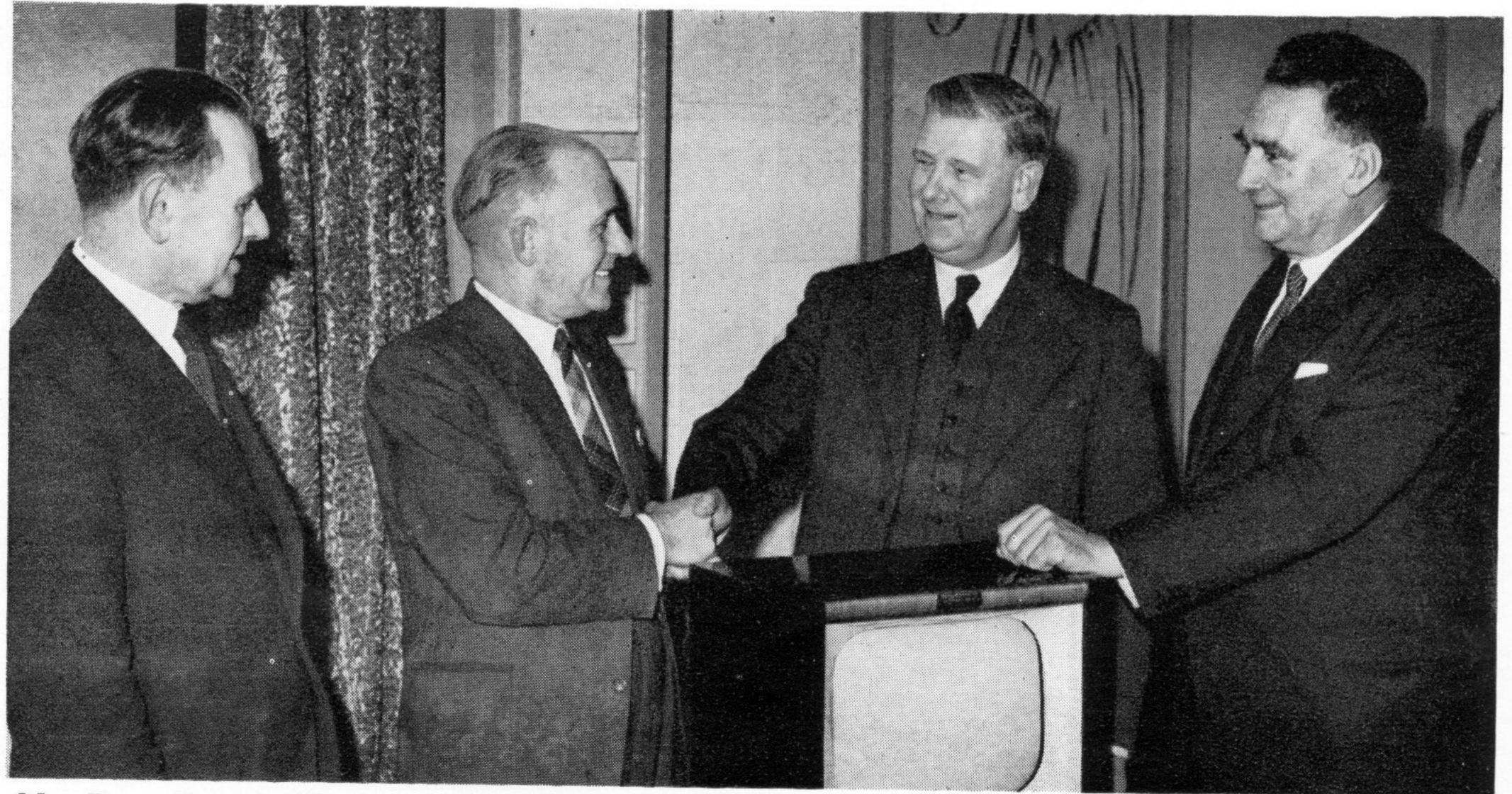
Fifty years with one company. At first glance, five simple, cold, little words with meagre impact. But pause for a moment and think of the lifetime of feeling behind that short phrase . . . the fears, the hopes, the heartaches, the chuckles, the grey failures and the golden successes. Examine your own career. Perhaps you're fifty-odd yourself? Think of the bewildering host of events that have crowded into your own working life. Perhaps you're in your teens, twenties or thirties? Then think of the patterns the working years will weave in your own future. Fifty years? Yes, it's a long, a very long time—especially with one company.

How does a man feel after putting in this half-century of service with an organisation? What are his emotions as he comes face to face with that very real experience in life—retirement? Is he glad, sorry, excited or disappointed? There are, of course, no set answers to these questions. Too many individual considerations are involved—

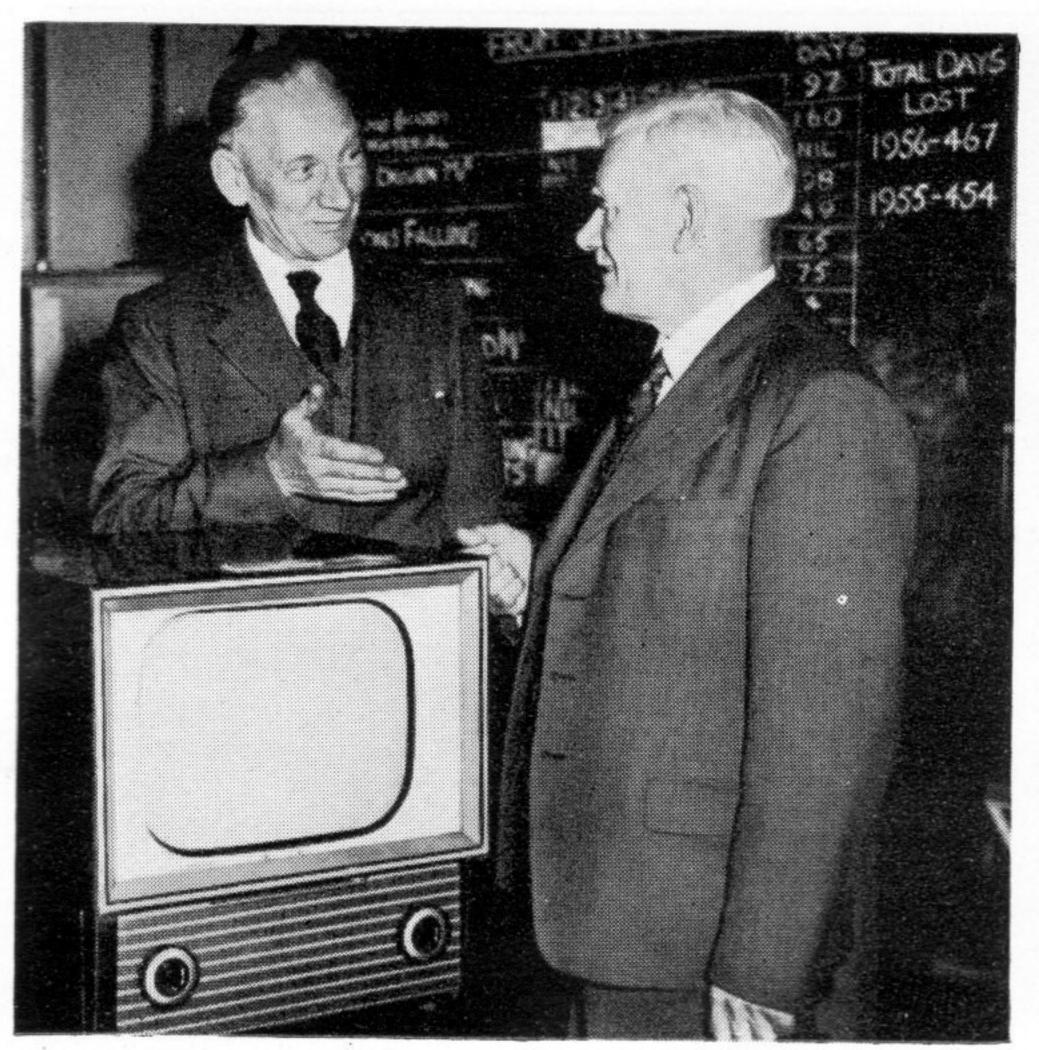
considerations such as health, security, home ties, abilities and even hobbies. These are the intensely personal things that influence any man when he figures out what he is going to do with the hours of the days when they all belong to him.

We suggest, however, that there are at least two emotions in the heart of a man as he listens to the farewells of his colleagues—surprise and sorrow. Surprise to find how quickly the years have flown, and sorrow at leaving his friends and colleagues.

When they received inscribed television sets recently to mark completion of 50 years with the Company, two A.T. & E. employees who are still serving, Mr. Joseph E. Webster, Model Shop, and Mr. R. Herbert Roberts, Department 412, both confessed that they shared these emotions. "It seems like only yesterday..." was an opening they both used and obviously meant. And both men emphasised that their most rewarding



Mr. Dave Barnes, Tools and Methods, is one of the Company's fifty-year veterans. He is seen here receiving a presentation from Mr. J. A. Mason, Director. Also in the picture are Mr. C. E. Beale and Mr. W. S. Vick



Two more fifty-year men, Mr. Joe Webster and Mr. "Herbie" Roberts

experiences over the years had been the constant co-operation of their colleagues and deep friendships that they had formed. What better tribute could men pay to their fellow workers and friends?

Mr. Webster and Mr. Roberts joined the Company in 1906 when it was known locally as "The Wire Works." Between them they have a century of experience in many of the complex branches of our industry.

Two other 50-year veterans still at Strowger Works are Mr. David William Barnes, Tools and Methods, and Mr. Frederick Wallis, Department 56, Assembly. Mr. Wallis is our longest-serving employee. He joined the organisation in August, 1904, as a 14-year-old shop lad (Joe Webster succeeded him in this job about a year later) and Fred then served his time as a scientific instrument maker. Like Herbie Roberts, Dave Barnes started in the old Telegraph Shop and later became a rate-fixer in Tools and Methods. He, too, has seen the organisation grow from a mere handful of people to the large industrial community it is today. So have men like Mr. J. S. Deiner, Department 601 (50 years); Mr. George Steel, Investigation, Department 454, Mr. Fred Hughes, Inward Goods (both 48 years' service), and Mr. C. H. (Bert) Brizell, who, on his recent retirement after 45 years' service, was presented with a bureaubookcase and tea-set.

What of the other men, now retired, who have given all their working lives to A.T. & E.? Men



Mr. Bert Brizell receives gifts to mark completion of 45 years' service

like William J. Dixon (55 years' service) and his cousin, T. R. Dixon (54 years), W. Abbott (53 years), R. E. Boyd (50 years), G. P. Barry (50 years), and William Bibby (50 years). And let us not forget the number of women employees, some still serving, who have been with the Company for very many years. Other veterans, like the Hinde brothers (57 years' service apiece), J. Newark (55 years) and H. Bonsall (51 years) have, we regret, died in retirement. The list of people who have contributed so much in years and skill to our organisation is certainly impressive.

Most of these long-serving employees have at least one close relative now working at Edge Lane or at one of our other premises. Take Joe Webster, for instance. His brother and sister, Mr. Jack Webster (Production Office) and Miss Constance Webster (General Office) have a combined service of more than 70 years, while another sister, Mrs. Margaret Temple, had 36 years, and a total of 45 years is shared by two nieces and a nephew. His wife also used to work for us, but her service, according to Mr. Webster, is "a mere ten years."

This family tradition is, of course, important and encouraging from a goodwill point of view. If a man recommends his organisation to a relative or friend, then he himself is presumably happy in his work. And if that employee has had 50 years' service with his company, he might well have spent, in general, fifty *happy* years. We certainly hope so.



The battle is on. Australian farmers fight to save their property

Photo: Sydney Morning Herald

DANGER-

Bushfires on way!

As the wind-driven bushfire came menacingly close to his fence, the tough Australian farmer picked up his telephone and dialled the local fire control officer. He was worried—his crops started at the fence-line and his whole farm, many thousands of acres, could be burnt out in half-anhour. But in a matter of minutes, the local bushfire brigade had arrived and the blaze was under control.

"It was another triumph for automatic telephone exchanges," reported the Perth, Western Australia, newspaper Countryman. "Reckon these automatic 'phones are worth their weight in gold," was the farmer's own comment. Said one of the firefighters: "Before we had automatic exchanges we dreaded the week-ends. Now, with unlimited exchange hours, we can really organise our resources." All of which can be taken as sincere compliments to the work of our men and women at Strowger Works who help to build this equipment, the rural automatic exchange.

A.T. & E. has been building R.A.X.s—to give them their code names—at Edge Lane for a 10

number of years. Our equipment is made to Australian Post Office standards and, in conjunction with a number of other British organisations, we now have users in Tasmania, Queensland, West and South Australia, Victoria and New South Wales. The latter state is probably our biggest customer.

In most areas where automatic exchanges are in service, the Postmaster General has provided multi-coin boxes. Trunk and local calls can be made and telegrams sent from these boxes. Western Australia was the first to experiment with automatic exchanges and there are now more than five hundred throughout the continent. Western Australia alone has installed R.A.X.s in nearly one hundred centres.

Each exchange provides 24-hour service, ensures privacy for subscribers and operates with the minimum amount of maintenance. By using special dialling codes, a telephonist can check on the functioning of equipment and report to the technicians in a few seconds. In addition, spot checks are also carried out. All the equipment

is suitably finished to meet climatic conditions encountered anywhere in the Commonwealth.

The hot, dry expanses of Australia are constantly ravaged by fires. In fact, some of the biggest blazes in the world have broken out in this nation's huge, rolling territories. Bushfire damage costs farmers millions of pounds annually. Once these fires gain a hold, they sweep along faster than a man can gallop on a horse and every second is vital in the race to contain the flames and save homesteads, crops and livestock.

It is obvious, therefore, that rapid communications are essential and this is where the speed and reliability of R.A.X. equipment has proved so valuable. We take pride in the fact that our apparatus is helping to save life, land and other property in Australia, in addition to performing its normal task—assisting in the development of the commercial and social life of the country.

In Cyprus, too, Company equipment will soon be aiding the fire-fighters. Following recent forest blazes which devastated large areas in the terrorist-ridden island and resulted in great loss of life, A.T. & E. (Bridgnorth) Ltd., have received an order from the Forestry Department out there to manufacture and install a comprehensive V.H.F. network.

The network will link the department's major control centres throughout the island ensuring that, in future, fire outbreaks are reported with the least possible delay. Radio-equipped vehicles capable of contacting control centres in any part of the island and walkie-talkie sets will be used in addition to point-to-point links in the department's all-out drive on this menace which the terrorists have been exploiting as a weapon against security forces.

The point-to-point links being employed are the well-tried A.T. & E. frequency-modulated R.L. type. In addition, three Country Sets work into our new A.S.A.C. (Automatic Selection of Any Channel) system in the Stravos, Smyes and Pano Panayia areas, where the outbreaks have been most severe.

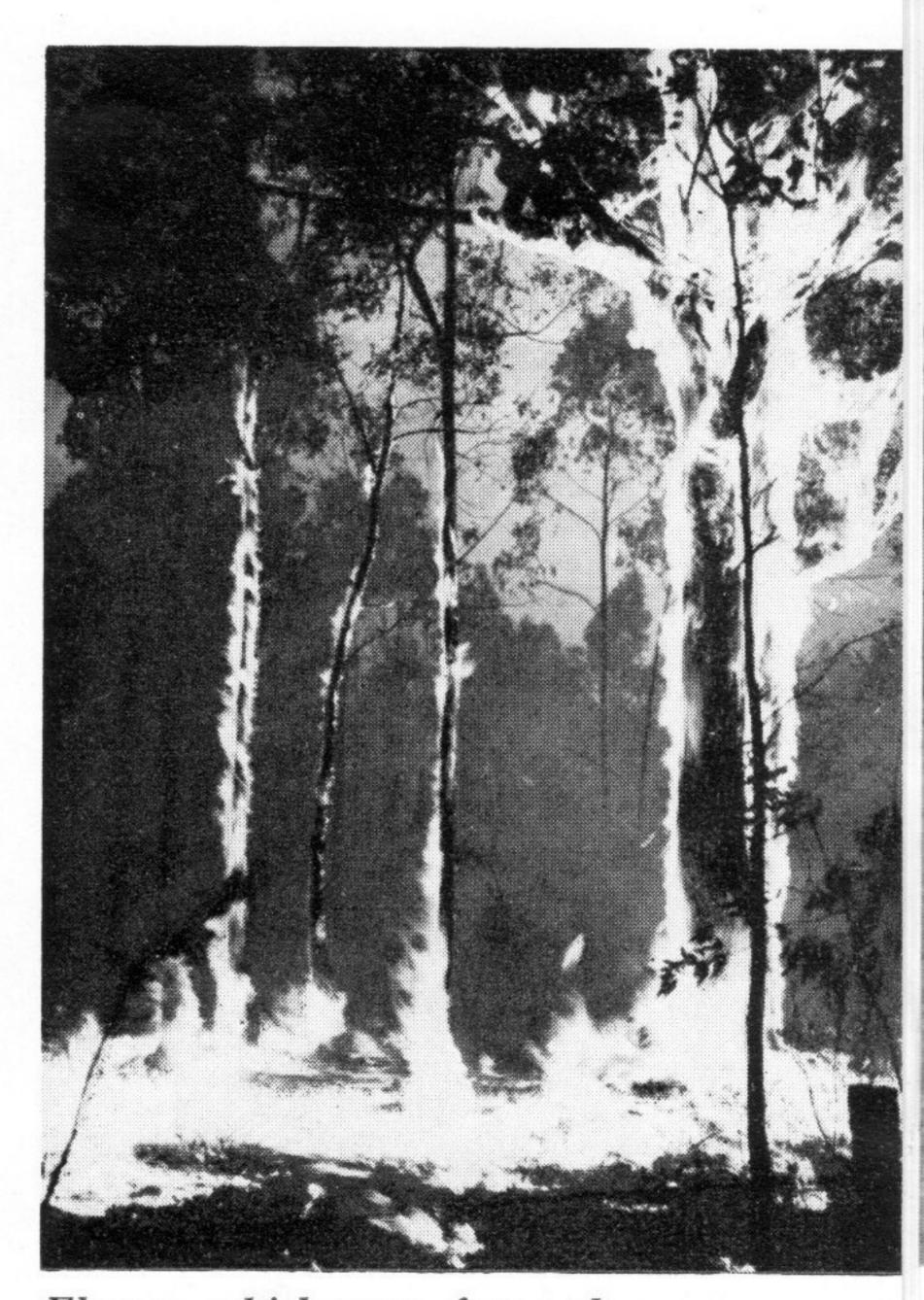
Cyprus authorities have asked that the order be given the greatest priority and it is hoped the new network will be operating very soon.

The placing of this order by the Forestry Department follows successful completion of a comprehensive network (for the Cyprus police) which is proving an effective weapon in the struggle to restore law and order in the island.



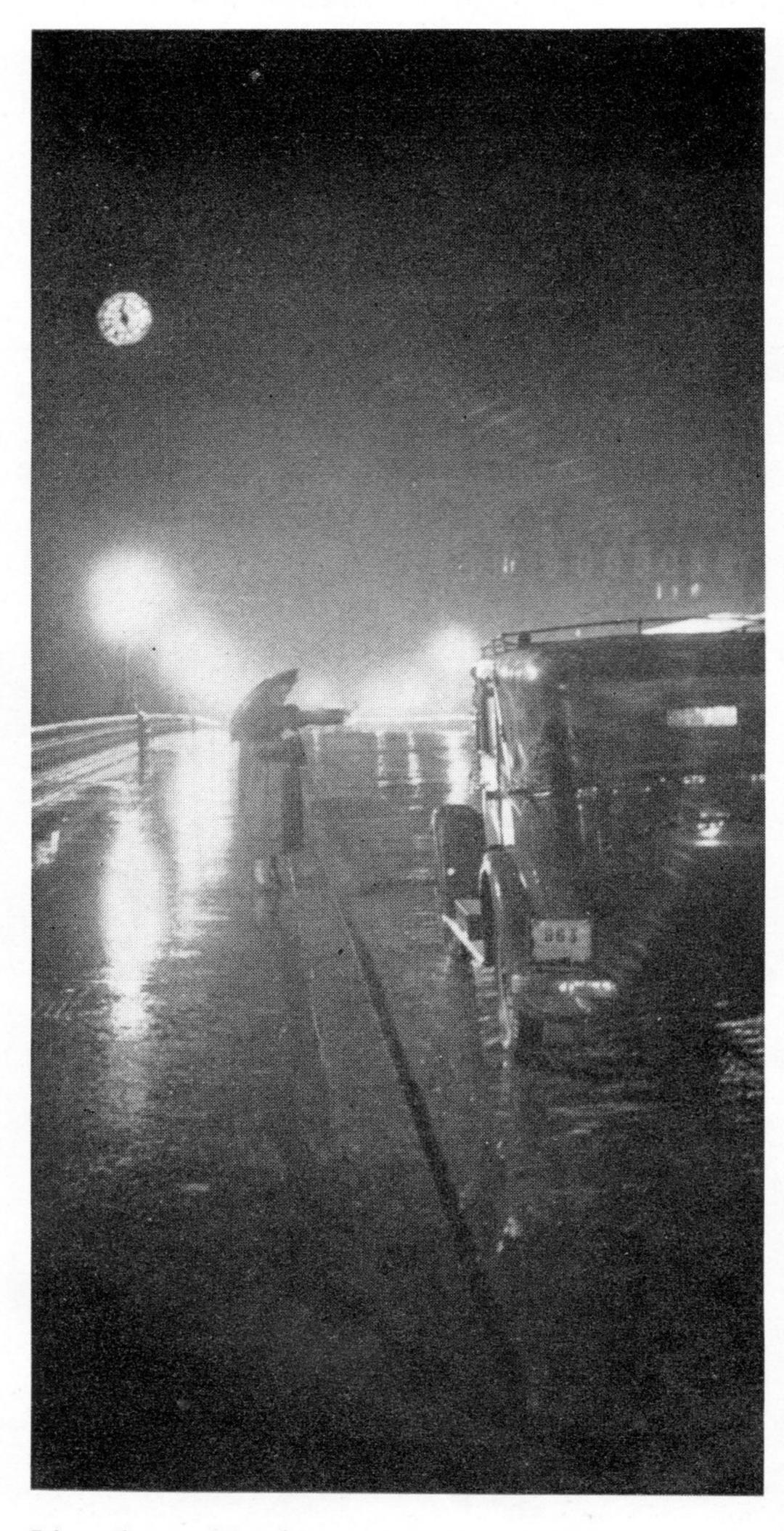
An Australian homesteader hurries out with water to meet the fringe of an oncoming bushfire.

Photos: Herald-Sun, Melbourne



Flames, which move faster than a man can gallop on a horse, engulf trees

London in the rain



It's after midnight—and still raining—as a lone figure hails a taxi on London's Westminster Bridge Photo: Picture Post Library

tr's 6.45 on a grey, rainflecked, shivery Saturday morning. Two rather worried men, holding typewritten notes, are moving purposefully along number eight platform at Liverpool's Lime Street Station. They are looking for 30 gallons of tea, more than 200 boxes of chocolates, 21,000 cigarettes, children's surprise parcels, an express train and 229 people about to begin a day trip to London.

Shortly after 7.30, Harry Kiveal (Stopgate Lane) and Jack Hitchcock (Department 48, Strowger Works) are happier organisers. Their colleagues and friends are safely installed in a British Railways special, packed lunches have been issued, free chocolates and cigarettes have been distributed, tea is on the way and the five coaches are reeling off the 194 miles to the capital.

The outing, run by the Stores Social Club, is one of the many popular events run for A.T. & E. people during the summer months. It is always a success—because the organisers leave nothing to chance. The careful planning has to be tasted to be believed. You can get rid of that works bun-fight idea straight away! Transport, catering, itinerary, free insurance, timing, entertainment and atmosphere put this trip right in the top bracket. The weather is the only uncertain item, but the organisers invariably plan their programme for a wet day, then, if it turns out dry, it's an added surprise. There's going to be no weather bonus, this year, however. . . .

It's raining as the express chatters past Strowger Works, it's raining at Runcorn, Crewe and Rugby... and it's still raining as the special sighs through Watford into Euston, where a fleet of radio-equipped coaches are waiting to take the excursionists to a hot lunch in Oxford Street. After lunch—a sit-down knife-and-fork-do, of course—it's back to the coaches for a rubbernecking tour of the capital, with special guides to remind everybody that they should have paid more attention to their history and geography lessons.

Tower Bridge, the Monument, Whitehall, Selfridges, Buckingham Palace, the Embankment, Strowger House, Festival Hall and many other places were inspected—for the first time by many—through the weeping windows of the buses. Then, past the puddles of Westminster and the Pool of London, to the Houses of Parliament and a conducted tour of both Lords and Commons ("On this side, lydies and gentlemen, are the places

occupied by the Secretary of Styte and the President of the Board of Tryde . . . ").

After Parliament, across to the Abbey to hear visiting Americans asking each other: "Ain't this the cutest li'l ol' church you've ever seen?" Proprietary indifference and British reserve keep the A.T. & E. contingent silent.

It's still raining as the coaches return to Oxford Street for tea and then there's an evening tour to Windsor, via London Airport. Back to London for supper, sightseeing amid the bright lights and, finally, to Euston once more for the four-hour trip to Liverpool and special buses to take the people home.

It is now almost 24 hours since the trip started. Eyes are heavy with sleep, chins are blue with



They weren't changing the guard at the Palace when these girls strolled by



Apart from this young visitor, the pigeons had Trafalgar Square to themselves

5 a.m. shadow and feet are aching after wet pavements. Father drags slowly on that last cigarette (he's smoked far too much, of course)... Mother shakes biscuit crumbs from the pleats of her best skirt (she should never have worn it on a day like this)... and the children scowl sleepily (they're really past caring) as Mummy and Daddy take charge of the jealously hoarded souvenirs of Windsor Castle.

Yes, it's a tired crocodile of trippers that slinks from the station. Tired? Man, these folk are jiggered! But they're happy all right and they wouldn't have missed this at any price. Did they enjoy it? Well, they're already booked for next year, what better answer is there?



Some of the A.T. & E. party waiting for their conducted tour of Westminster Abbey



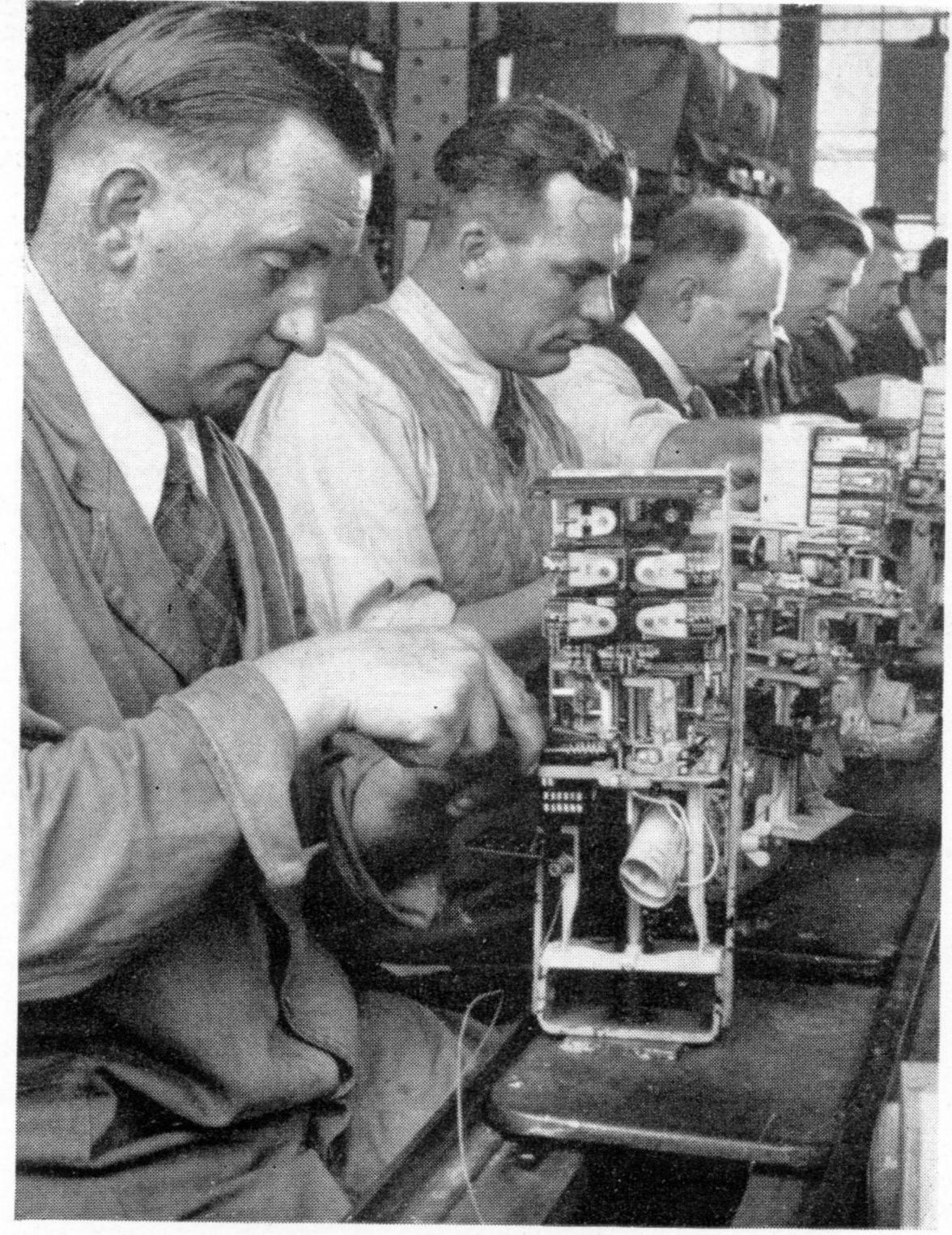
Homeward bound. Two tired trippers snatch some sleep in a compartment packed with souvenirs

Number three in a series

Portraits of an Industry

Folk who work in the telecommunications industry, statisticians tell us, have higher I.Qs. (Intelligence Quotients) than people in most other jobs. Why? Because the complex, delicate and varied equipment produced in factories like ours demands nimble minds in addition to nimble fingers.

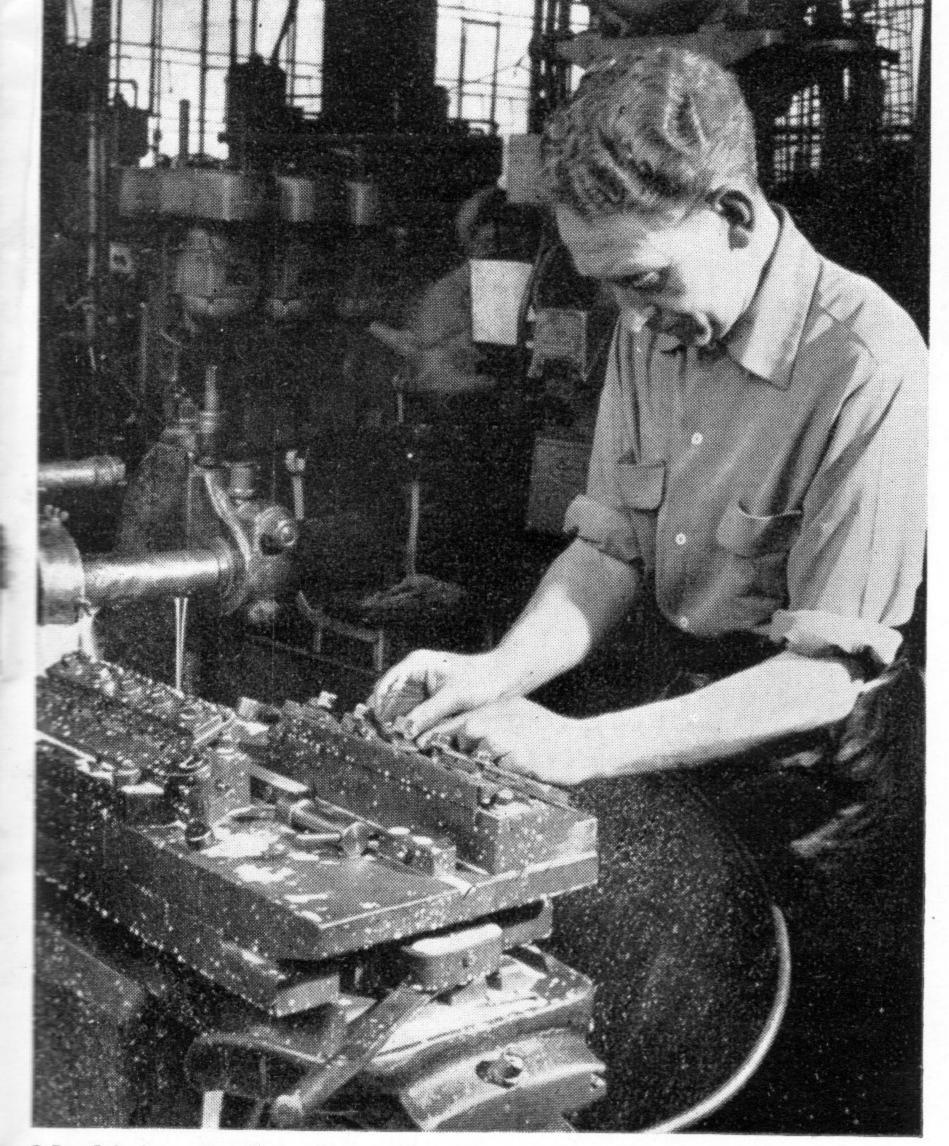
The pictures opposite show further typical scenes in various departments of A.T. & E. In each case, the job depicted obviously calls for plenty of thought on the part of the employee, plus, a very large degree of dexterity. In many other outside spheres, production involves comparatively little mental initiative on the part of the worker, but in every aspect of our own industry the exercise of the mind is vital. We sell not only equipment—but skill, technique and service,



Part of a group engaged on wiring 32A selectors at Strowger Works

Precision is the keynote again as this girl adjusts uniselector wipers

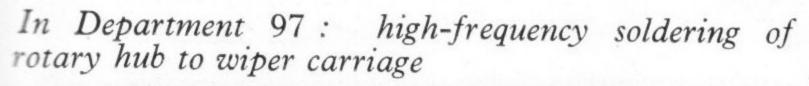




Machining knife edges of relay yokes, one of the jobs in Department 31

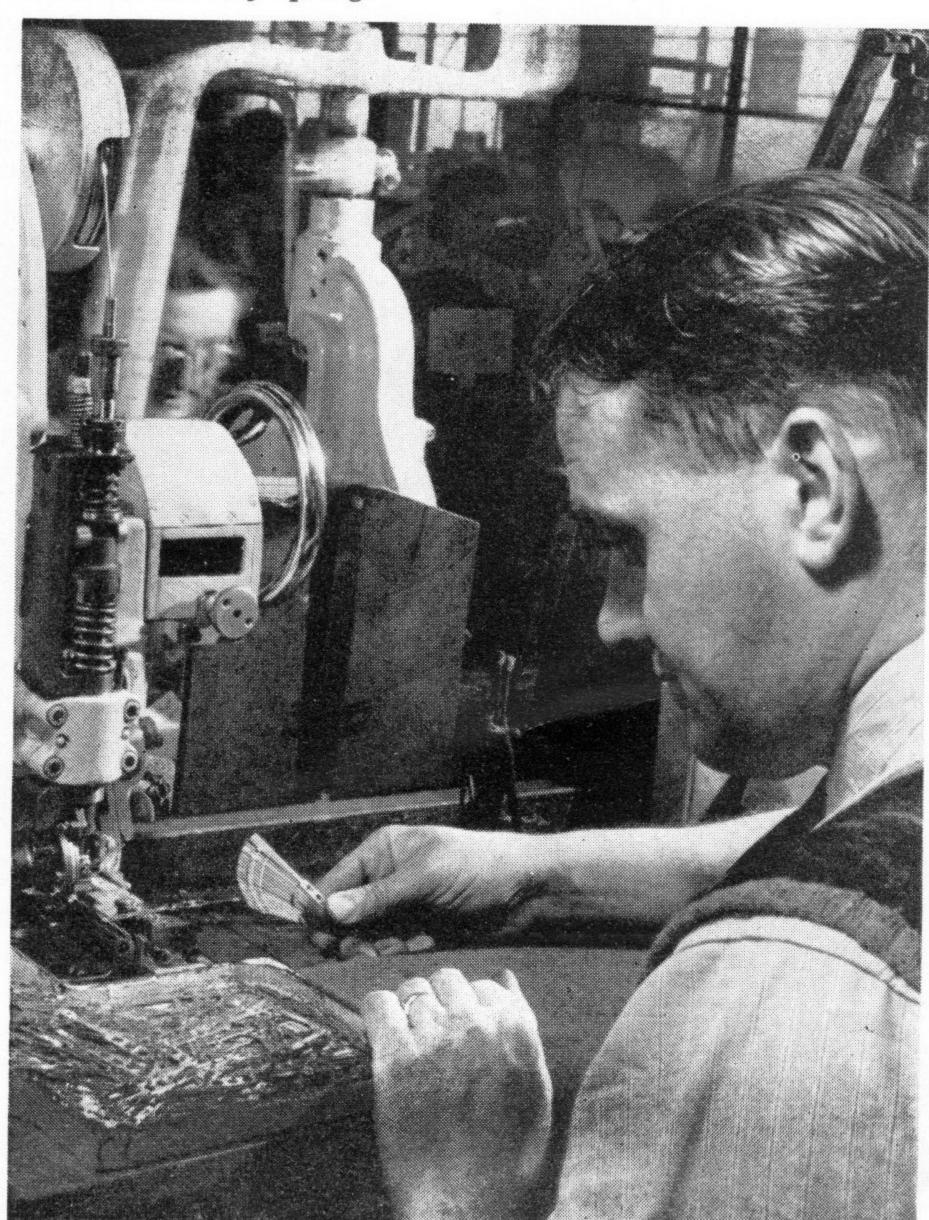


Winding toroidal coils for filters, using machines designed by A.T. & E.





In Department 32, an employee is welding platinum contacts to relay springs



NOW IT CAN BE TOLD ...

THE LUFTWAFFE HAD US IN THEIR SIGHTS

The British advance intelligence party were just in time. The retreating Nazi forces in the city of Lübeck had had no chance to destroy their secret documents. Captured intact were masses of confidential orders, records—and the Luftwaffe's hush-hush plans for attacking many British towns.

A Liverpool man, familiar with the A.T. & E. organisation, was examining the methodical German airmen's file on Merseyside. He turned over a page and there, to his great surprise, was a detailed map of the Liverpool area headed: 'Works for electrical communications equipment: Automatic Telephone & Electric Co Ltd'. The exact location of the factory was displayed and map references had been worked out. This was one of the very maps to be used by enemy aviators in attacks on Strowger Works.

Obviously, the German Third Reich were well aware of the reputation we had been building up in

the nineteen-twenties and early nineteen-thirties. They knew that any organisation capable of supplying nearly every part of the globe with complex telecommunications equipment and other intricate electrical apparatus could play an important part in the British war effort. They determined to knock us out. They tried, but they failed.

Back in the balmy days before Munich, Strowger Works was on the crest of a wave of industrial achievement. At home and abroad, orders were rolling in, and our organisation had become one of the biggest employers of labour on Merseyside.

When Britain declared war, this demand for labour continued, but with many male employees in the Services, it was the women who helped so much at Edge Lane in the production of the distant reading compass and the automatic pilot for aircraft, sounding devices for submarines, bomb release mechanisms, gun parts, radio trans-receivers



Flashback to 1941. The crater left by the bomb which fell on Bennett's Gardens. Strowger Works had many close escapes during the Merseyside blitzes



Remember the L.D.V? This was part of the Company unit back in 1940. Wooden rifles were used for drill purposes

and aircraft wiring, in addition to many of our usual peace-time products. Under the main control of the Ministry of Aircraft Production, the factory went to war, working day and night.

Thousands upon thousands of yards of material were used to black out our premises, photo-identity cards were issued, hundreds of shelters provided, decontamination centres set up, roof spotters appointed, emergency clothing provided and a relief hospital established. The factory's own L.D.V. (later named the Home Guard) was formed, the A.F.S., A.R.P., and St. John men swung into action and fire-watchers were appointed from every department. Men—and women—worked long and hard at desks and benches and then went out and trained with colleagues in a variety of uniforms.

How many employees, we wonder, recall the wail of the siren over the internal broadcasting system? It used to take only ten minutes to move more than ten thousand people safely to the shelters. Sometimes the night shift had to take cover as often as eleven or twelve times in seven or eight hours. Eventually, however, everybody took air raids for granted.

The Germans might have had the maps, but they never had the luck. A parachute mine dropped into the large field adjoining the factory, shattering windows, tearing off doors and damaging roofs, but —miraculously—no one was seriously hurt. An oil bomb and incendiaries destroyed the old works



Later in the war. More business-like now and re-named Home Guard, the unit carry out an excercise

garage, a high-explosive bomb pasted Bennett's Gardens and numerous fire-bombs were also tackled. Throughout the war, the factory experienced literally thousands of alerts, hundreds of raids and escaped with only very slight damage and no serious casualties.

Remember, too, those war-time appeals that were always cheerfully met? Appeals such as Aid to Russia, Air Raid Distress Fund, Books for Sailors, Prisoners of War Fund and many others? Remember the relays of the King's speeches, pep talks from Ministry lecturers, cheers when the Bismarck was sunk, ENSA concerts in the canteens and all those other events that helped to make factory history?

Did you know, by the way, that we had two special quick-firing guns supplied for the factory; that we kept masses of tarpaulin to re-roof blitzed premises in our vicinity; that Strowger Works was the local headquarters of the industrial anti-invasion scheme under the Emergency Service Order and that distant reading compasses which we made helped dam-buster Guy Gibson to cripple the Ruhr?

Older servants of the Company have many such memories of those fateful years. They are the people who will give you the funny anecdotes, the tragedies, the stories of gallantry and service, the names of those who fought and died and all the rich, local, human colour in the general Company picture we have attempted to trace. (*To be continued*)

Overnight to Scotland

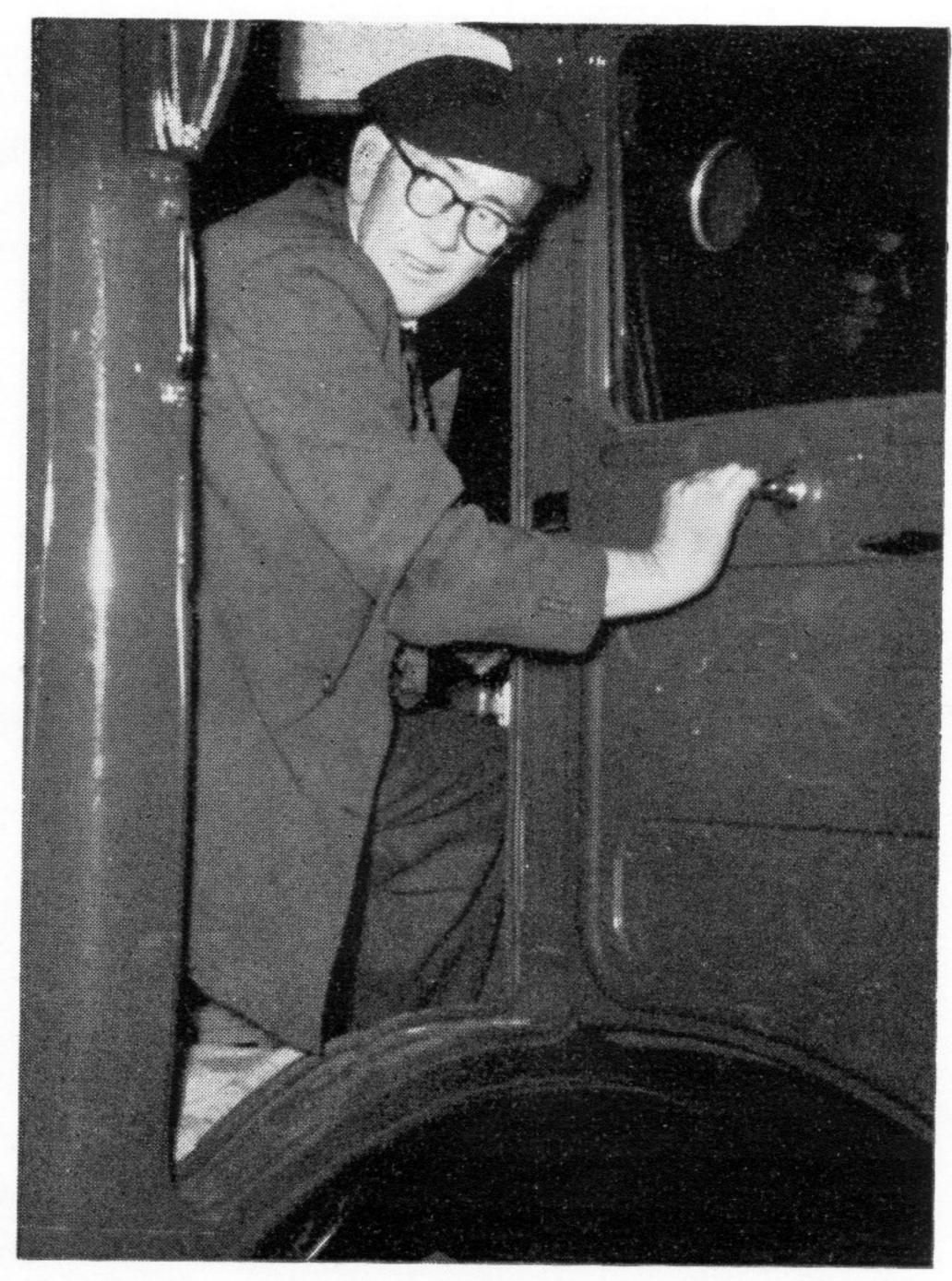
The green and gold lorry looked enormous. So when driver Tom Crawley demonstrated its ease of handling by casually flicking the 30-ft. articulated giant safely through a Strowger Works driveway into Brompton Road, his passenger relaxed considerably. And it pays to be relaxed when you're facing a long, overnight haul over the evils of Shap into Scotland.

The eight-wheeled, eight-geared diesel—newest and biggest truck in Transport Department's fleet and specially designed to transport Racks without packing cases—was loaded with Liverpool-built equipment for a telephone exchange nearing completion in Castle Douglas, Kirkcudbrightshire. The trip is one of the longest and toughest tackled by A.T. & E. drivers—nearly two hundred miles of vicious bends, slow climbs, hair-raising hairpins, and tight-lipped descents.

The night shift was just coming on duty as Tom Crawley let in the clutch and headed north for the third time that week. With a skill of long practice, he was soon free from sprawling Merseyside.

Outside Ormskirk, the rain-clouds, tired of threats, turned to action. For mile after mile, the wipers sliced away monotonously at the water on the windscreen and it was a relief to pull in off the black ribbon of road into Dirty Dick's, an all-night transport café.

Dirty Dick's is typical of the hundreds of snackeries haunted by the night riders. Most of you would call them rough and ready, but the food and tea is hot, wholesome, plentiful and cheap. The clientele is peppered with colourful characters and the conversation is piquant to say the least. The talkers vary—tough trunkers from Glasgow, wise-cracking Cockneys, dry Yorkshire types and many others. But the talk itself is always the same—the road. The road is the job, the enemy and the friend.



Ready to start rolling. Tom Crawley prepares for the long night haul over the border

"Believe me, you'd go a long way to find a finer bunch," said Tom, and he should know after more than twenty years behind the wheel. "They're certainly the safest men on wheels," he added as an afterthought; and to prove his point, he drew attention to many little examples of courtesy and consideration shown by other drivers as the journey continued.

"Notice the way we signal each other with our lights?" he asked. "Nobody ever tells you the code, you just seem to pick it up over the years." And, as he was talking, Tom signalled, slowed to a halt, and switched off his headlamps as an approaching trucker flashed that he was climbing a gradient and would be grateful for right-of-way.

After Garstang, Lancaster and Kendal, the maximum permitted speed of the big diesel dropped in company with the gears for the long crawl up Shap, otherwise known as Heartbreak Hill. Shap was in fretful mood that Friday night—raw, rain-torn and black-browed, but the heavy trailer made light of the bends and the climb was tackled successfully in second gear. Other drivers

were not so lucky. Broken machinery was spotted several times on the long, snaky drag.

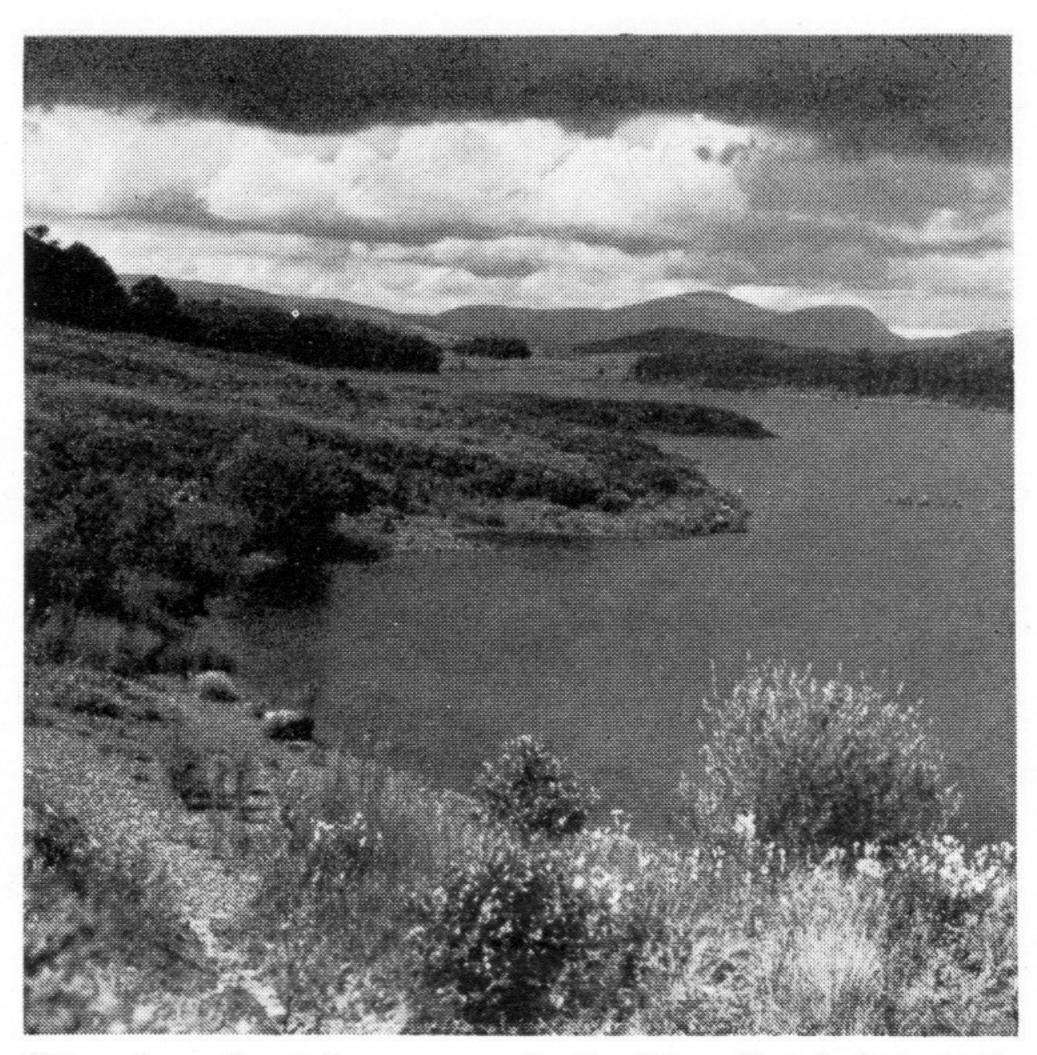
The engine was rested outside Shap's famous Jungle Café—all these transport halts have colourful legends—and it was then on again, through Penrith and Carlisle. Occasional halts to flex cramped muscles and close tired eyes and take on tea, then a welcome glimpse of dawn in the town of Annan. With sunlight, sharp air and finely rolling countryside, the remainder of the trip, via Dumfries, was not so bad. About eleven hours after leaving Edge Lane, Tom Crawley, red-eyed and rough-chinned, drove into Castle Douglas.

With unloading under way, Tom went off to his digs for breakfast and sleep. The same day, after an obligatory eleven hours away from the cab, he returned. Now empty and easier to handle, the diesel began to drone away the miles to Liverpool. Through the dusk once more and into another night, the cats-eyes in the road flickering hypnotically. It was Saturday and, strangely enough, the route was comparatively deserted.

An occasional dead hare picked out by the headlights (no rabbits to be seen these days after the myxomatosis epidemic) . . . fog and bottom gear coming down Shap . . . police patrols on dangerous stretches . . . more transport cafés . . . a new dawn . . . a new day . . . and home again before the city opened its curtains.

To Tom Crawley, with many hundreds of thousands of miles of road behind him, it was just another trip, just another job. Any of his colleagues at Strowger Works, such as Arthur Allen, Ken Crosby, Ted Dyer, or Reg Mavers, would have felt the same way. All members of Transport Department, they are well accustomed to handling similar assignments—helping to get the goods to the customers.

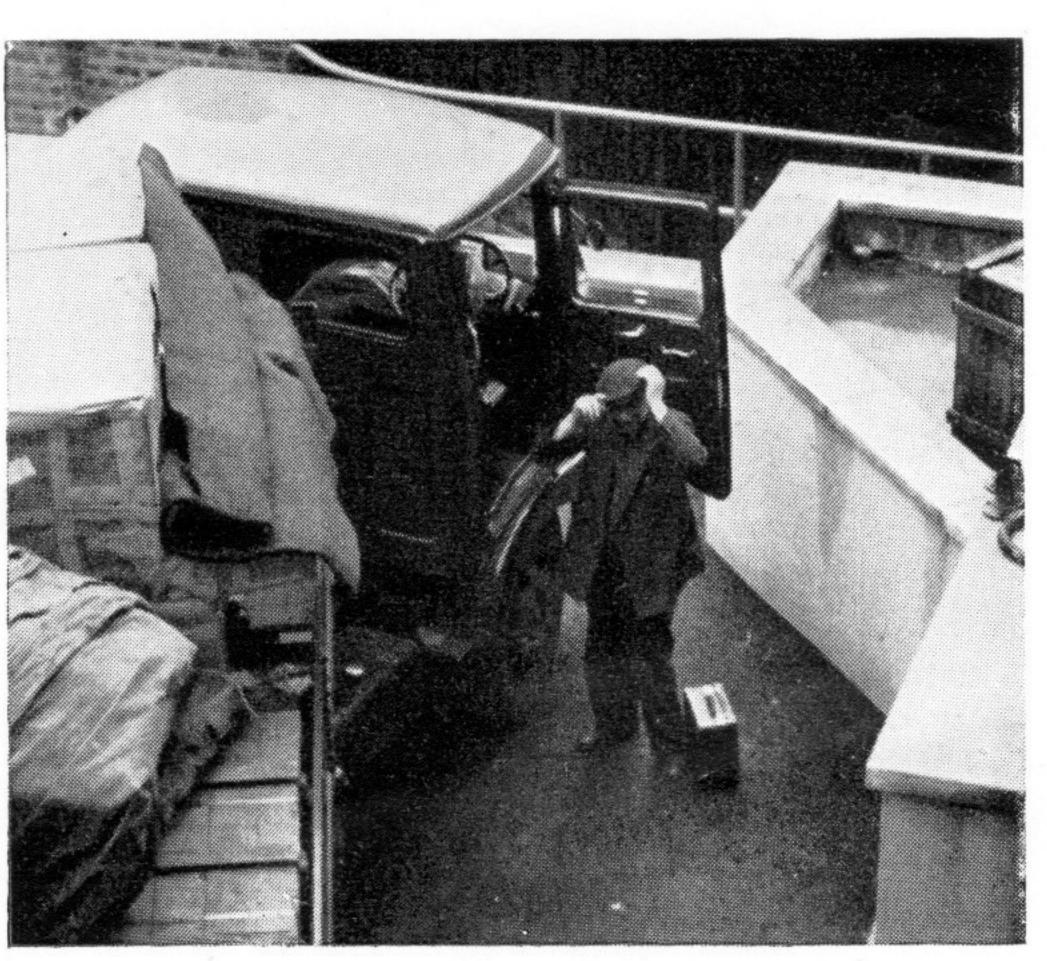
Every year, drivers from Transport and Maintenance Departments, using some sixty vehicles, cover nearly three-quarters-of-a-million miles. Their accident-free record is second to none, and the service they render can never be adequately expressed in figures or words.



Shortly after dawn—and the big diesel is moving past lakes and hills



Into Kirkcudbrightshire, and a lakeside pause on the last lap of the journey



At Castle Douglas the lorry is unloaded and Tom Crawley leaves the cab for his digs

We'd like you to meet...

Mr. P. W. Jones, an instrument maker in the Fitters' Shop, City Factory, who has helped to raise £500 towards the building of the 3rd Wavertree Scout Headquarters by a novel "penny a brick" scheme. Mr. Jones, a Sassenach, is also secretary of Liverpool Scottish Society.

During rehearsal for a TV formation dancing sequence on Victor Silvester's "Come Dancing" programme, **Doris Morton**, records clerk at Speke factory, wore out two pairs of dancing shoes during five weeks' practice. And her television appearance lasted exactly five minutes.

When Mr. Harold Kerr, Operating Division, Strowger Works, visited Austria for the seventh successive year this summer, he had to deal not only with his own and his wife's passports but some 30-odd others as well. It happened on all the other trips, too, because Mr. Kerr, who speaks fluent German, is a spare-time party-leader for a travel agency.

Mr. George Hanson, Packing Shed, Strowger Works, recently switched from breeding tropical fish to growing cacti. Now, his collection is valued at £40.

Sheila Pealing, Publicity Department, goes from office desk to hospital casualty ward once a week. Twenty-one-year-old Sheila, a member of the National Hospital Service Reserve, is on duty from 6 to 10 p.m. at Sefton General Hospital, dealing with emergency cases and general ward duties.

Twenty-five-year-old Winnie Williams, a stores clerk in Department 474, Strowger Works, is an all-round sportswoman, but her favourite "relaxation" is judo. She spends no fewer than three nights a week at judo classes.



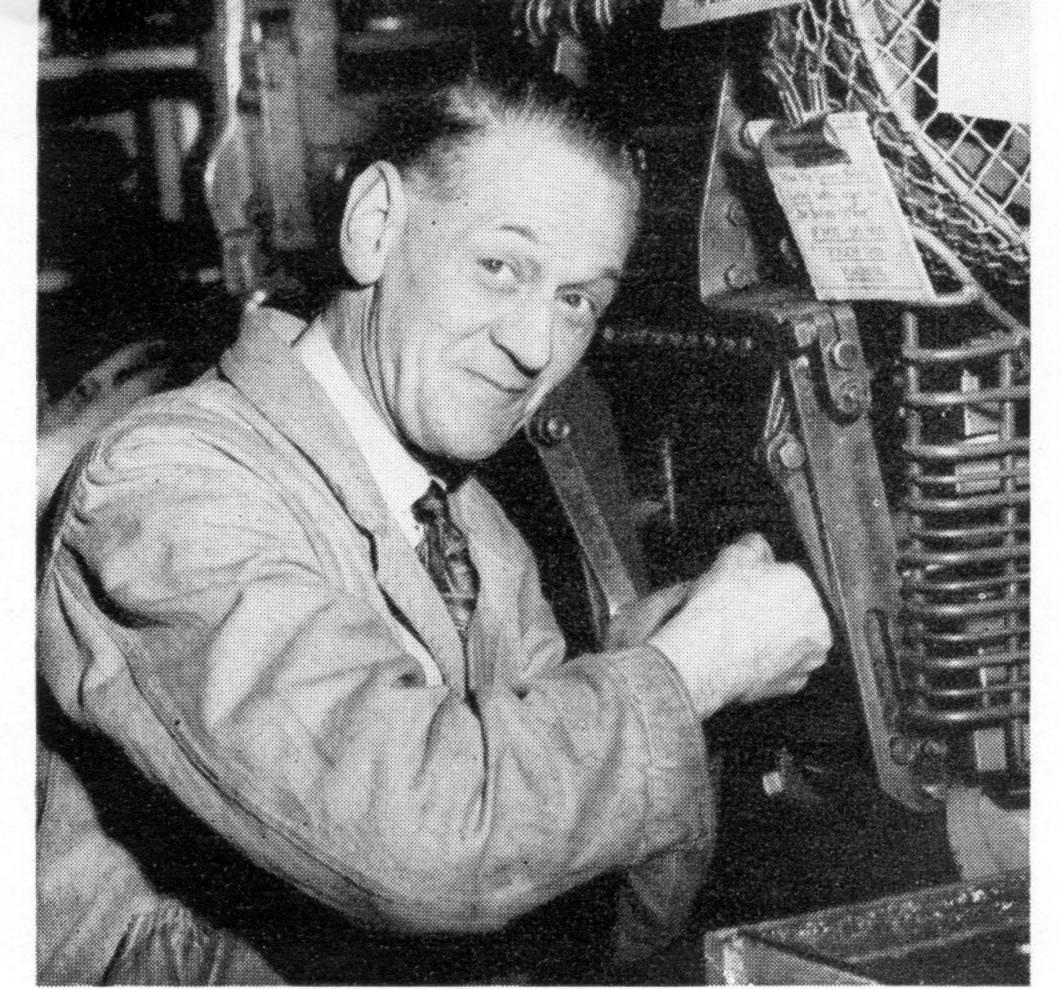
Doris Morton—tough on shoes



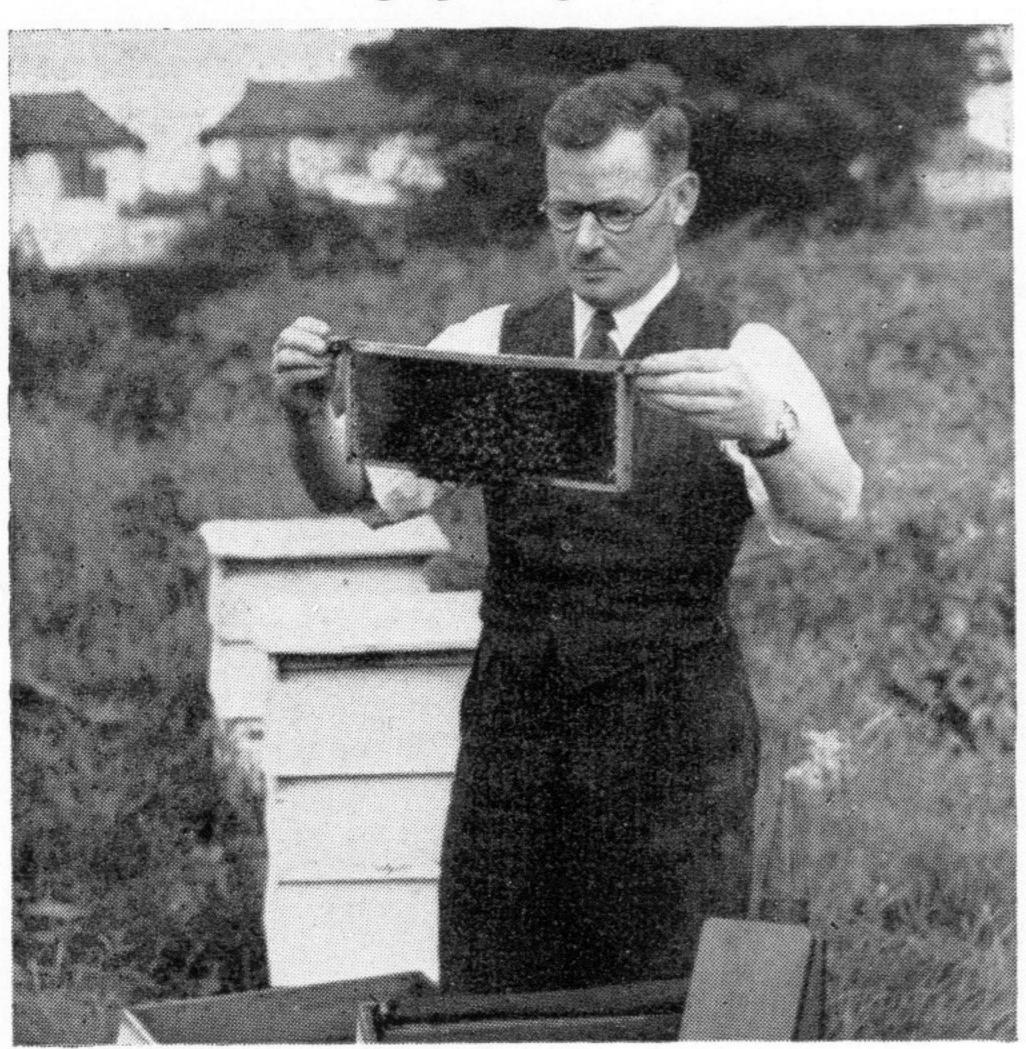
Winnie Williams(Right)—tough at sport



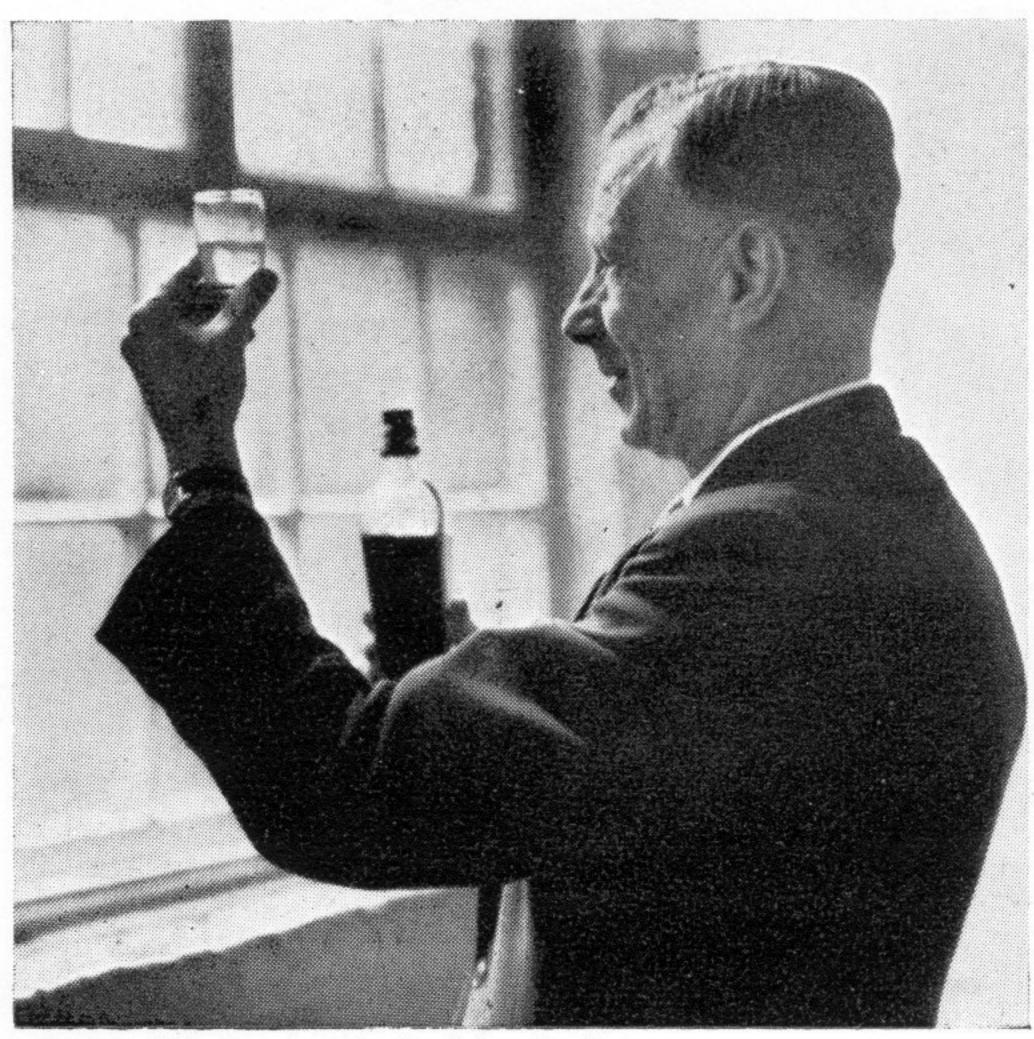
Joan Dunning—girl with a gun



Fred Gerrard—singing chargehand



Frank Scarlett—honey for him



A. E. Major-wine's his choice

The cost-of-living affects even the price of bullets! So says Joan Dunning, Production Office, Strowger Works, a girl who spends weekends rifle-shooting at the famous Altcar Range. Joan was in the team which recently won the Dr. Edith Summerskill Rose Bowl in a countrywide knockout contest.

One of the singers in Liverpool Male Voice Choir appearing at an International Eisteddfod at Llangollen was **Mr. Fred Gerrard**, chargehand toolsetter at Speke factory. Mr. Gerrard, a music-teacher, remembers broadcasting from station 2LO during the earliest days of radio.

Another Speke employee who can lay claim to having broadcast is **Mrs.** "Ronnie" Baldwin, test bridge operator, a member of the Speke Operatic Society. A fine contralto, she has taken part in thousands of concerts during the past 35 years.

People who don't know her history usually guess that Gerda Maske hails from Wales. But Gerda and her friend, Ingeborg Stelter, both aged 25, of Department 13, Strowger Works, come from Germany. When they arrived in Britain seven years ago they trained as nurses in a Welsh hospital—hence Gerda's accent. The girls live in a modern caravan—their first permanent home for many years.

A remote control engineer, Mr. Frank Scarlett, Department 676, City Factory, estimates that during the summer he has no fewer than half-amillion bees in six hives in his garden. Secretary of a local branch of Lancashire Beekeepers' Association, his apiary's seasonal yield is about 144 lbs. of honey.

As a young man, storekeeper **Mr. Jack Jones**, Department 22/34, Strowger Works, used to barter needles, necklaces and silks to natives on the Qua Ibo River in Southern Nigeria in return for palm oil. Now, his stock is telephone rack equipment.

Every week-end, **Mr. A. E. Major** switches from water to wine. During the week, part of his job is to control the supply of water to City Factory but, in his free time, he delights in making unusual wines. He recently provided the wines for his son's wedding.

The Family Tradition

TEN RELATIVES - ALL IN THE ONE FIRM

Charlie Hunt, a 53-year-old instrument tester on rack wiring in Department 24 at Strowger Works, is a man with plenty of relatives—and nearly all of them are working for A.T. & E. If any other family can better the following long list, we'll certainly be surprised. You may go dizzy sorting them all out, but here we go . . .

Charlie's eldest son, Eddie (Department 66, City Factory) recently married Valerie Harlow (Department 25, Strowger Works), which makes Valerie Charlie's daughter-in-law, of course. A fortnight after this wedding, he gained a son-in-law, Bob Burgess (Department O1), who married Charlie's daughter, Margaret, from Department 656. Incidentally, Bob's mother is in the works

canteen. Now another of Charlie's sons, Peter, ex-Department 35/24 (who will return to the Company after R.A.F. service) made the second wedding a double event by taking a bride on the same day as his sister Margaret married Bob.

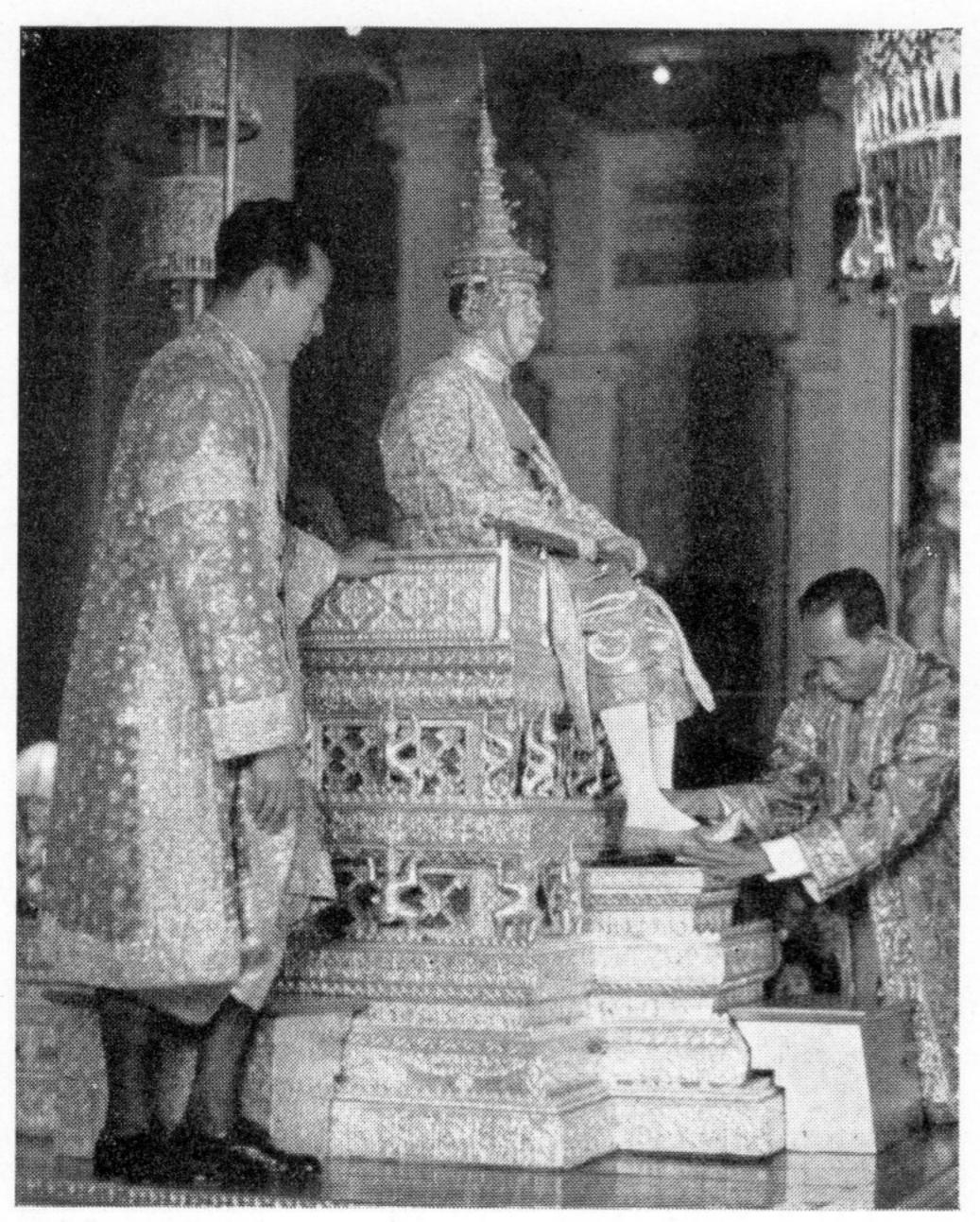
Another of Charlie's sons, Ken (General Office) has a wife, Lilian, who works in Department 474, and Charlie's brother, George, is employed in our Stores, while Bert Rose, a brother-in-law, is an engineer in Department 674. That makes at least ten—we think—close relatives in the Company.

Finally, Charlie's youngest son, Colin, is only eleven, but it is possible that he, too, may some day join A.T. & E.

Can any other family in the A.T. & E. beat this?



Charlie Hunt—that's him on the left—with part of the family at the recent double wedding which took place at St. John's, Knotty Ash, Liverpool



The King pictured at his Coronation



The Royal palace at P.hnom Penh

Secrecy for His Majesty

AN EASTERN PALACE BUYS A.T.&E.

Within a short time, a special telephone, made at Strowger Works, will be in use in an Eastern palace—a palace once described by Sitwell as "silver spires and bells and slanting roofs crowded around a courtyard". The user of the telephone will be a very distinguished customer, His Majesty King Norodom Suramarit of Cambodia.

The King rules a romantic independent country which has Laos and Vietnam as near neighbours. Parts of his kingdom have been disturbed by native and foreign bandits for several years and the country was invaded by small groups of Communist Viet Minh in April, 1954.

In the colourful capital city, Phnom Penh, the visitor gains an impression of East and West and old and new customs. The street traffic is a mêlée of rickety native-built gharris, glittering cars, rickshaws, top-heavy omnibuses drawn by diminutive ponies, and bullock carts, all moving against a background of modern concrete buildings and gardens with velvet lawns and brilliant flower beds.

The King's private museum contains many priceless treasures, including gifts to Cambodia from the Emperor Napoleon III, and a life-size Buddha of pure gold studded with diamonds.

Cambodia has only one mine, an appropriate one for a country of such romance, for it produces sapphires and rubies.

Successive monarchs have laid stress on the need for modern communications. First came roads—and now telephones of the most up-to-date type.

The equipment we have provided for the King is known as the "Secraphone". The frequencies of the speech current change as they pass through it from the subscriber's telephone to the line. This makes the conversation quite unintelligible to anyone listening in, though at the distant end, the "Secraphone" restores the incoming line currents to normal speech frequencies. The equipment has been suitably decorated with the Cambodian royal crest.



Members of the Atoms team, and a ball boy (right), shout encouragement to one of their players on the field

Ball inbatter up?

The Atoms on the diamond

It was quite a surprise. He looked the last man in the world to do such a thing. He was small, thin, meek, bespectacled and bowler-hatted. Naturally, he carried a tightly-rolled umbrella. Suddenly, he leaped to his feet, brandished his brolly and his features took on a mask of rage. A mighty shout rent the summer evening. "Hey, take the bum off, ump!"

That's how baseball can affect you. You go along out of curiosity, get caught up in the excitement of the thing and, before long, you find yourself barracking furiously along with other spectators—and players, too. If you think you're proof against such un-British emotionalism, trot along to "Whitfield" one night when the Atoms are on the diamond and put the old sangfroid to the test.

The Atoms have come a long way since they were started by a group of A.T. & E. enthusiasts five years ago. The first few games they played,

on an ill-kempt, badly sloping field at Childwall, were rather hammy affairs (the team say so themselves). And they felt a shade self-conscious in their ex-P.O.W. denim trousers, old sugar sack shirts and new striped socks. They had only four bats, a couple of balls and their leather catching mitts were designed for *soft*ball. Total strength was about a dozen. Still, it was a beginning.

When the Sports and Social Organisation were satisfied that the enthusiasm was no flash-in-thepan, they rallied around and provided a great deal of equipment for the team. Interest quickened. The devotees, mostly ex-Servicemen who had watched Americans playing in various parts of the world, took a deep breath and joined the old North-West Counties Baseball Association. A proper pitch and nets were established at "Whitfield" and the opposition soon included teams like Burtonwood Bees, English Electric Sabres, Liverpool Robins, Trojans, Caledonians, Cubs and Postal Pirates.

For the first season or two, visitors found it easy to split the Atoms. But the boys from Strowger Works learnt fast and, with the help of coaches Arthur Cookson and Ned James and U.S. players like Tommy Segerson, they began to win matches.

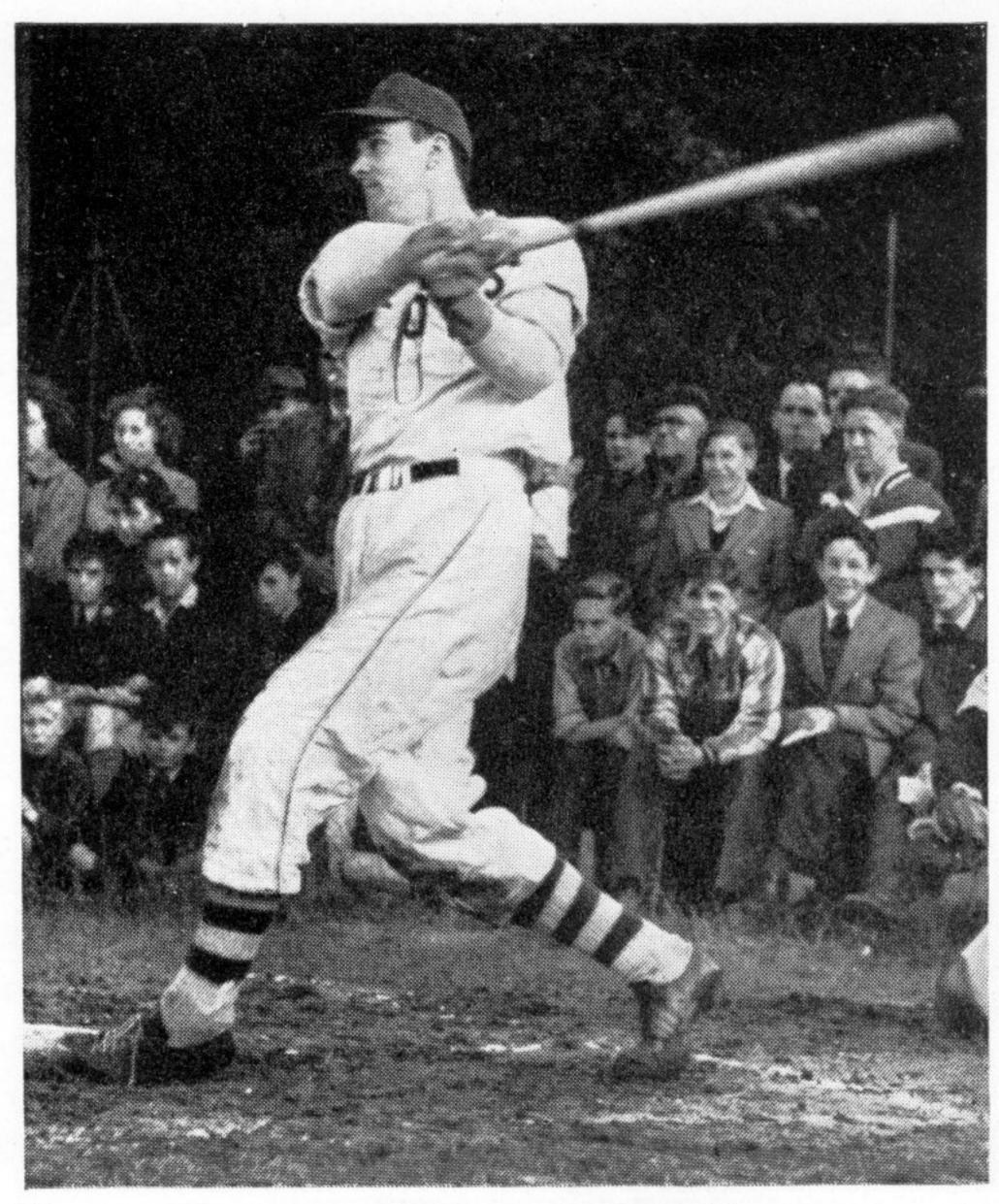
In 1954, and again last year, the Atoms hit form and gates at "Whitfield" became pretty sizable and the play grew sharp. The team

recently fought their way into the final for the British Baseball Association trophy, and the giant cup is now their proudest possession.

Star hitter is probably burly Denny Whitehead (Department O1), who is second in command to captain Harry Holt (Department 75). The record-holding slog is attributed to seventeen-stone, six-foot-two-and-a-half Ken Moonan, an American, who wafted the ball clean out of the field and down upon the Liverpool-Manchester railway line.

Founder members of the Atoms include Len Danify, Frank Fleming (Department 24), George Scott (Department 360), Stan Harvey (City Factory) and the players' first trainer, Arthur Cookson (Department 34). To this nucleus was quickly added player-members such as Bernie Dempsey, Joe Murphy, Abie Jones, Denny Whitehead, Jim Simmons, Jack Wilson and Johnny Keating.

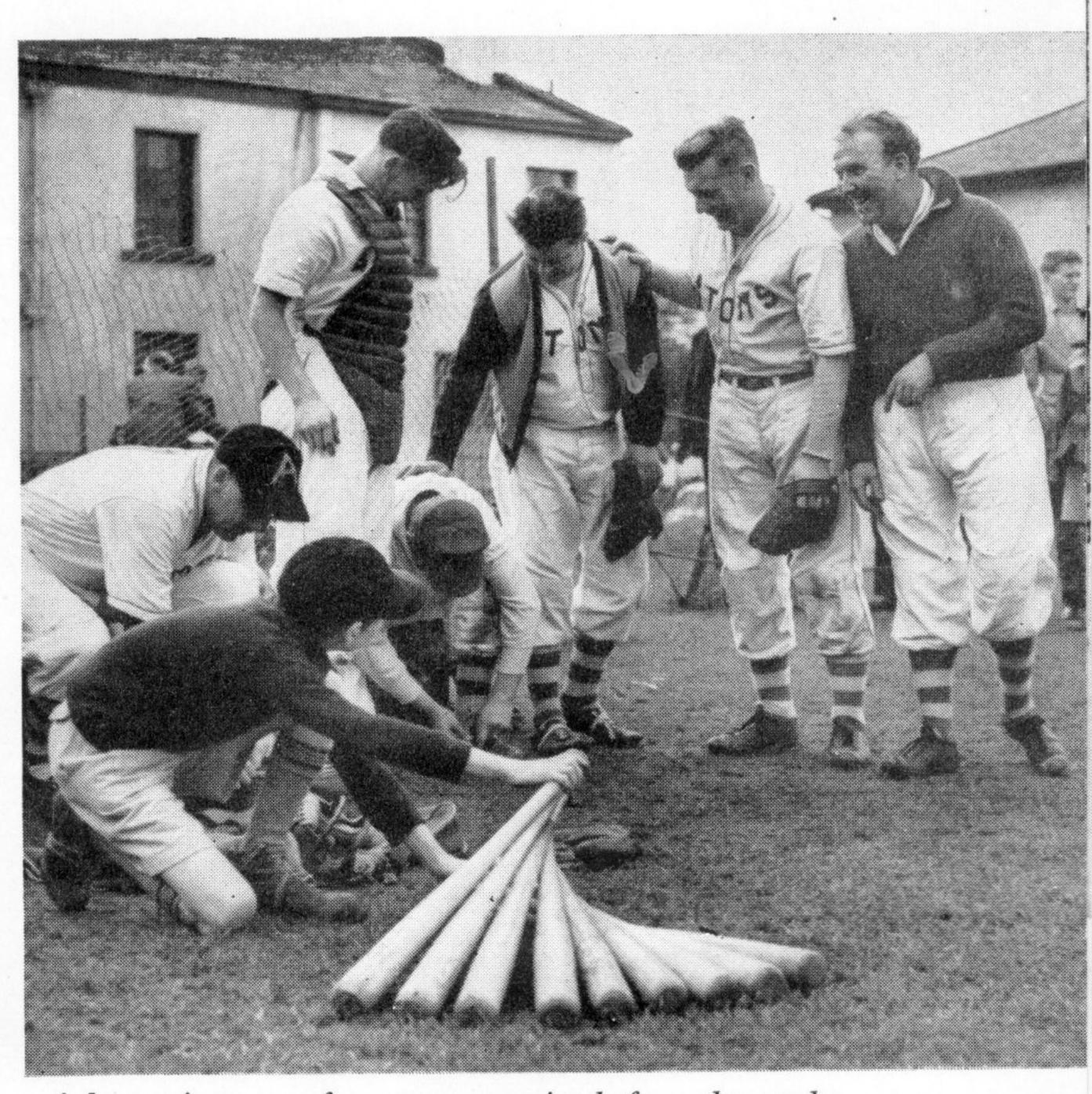
The Atoms field both senior and junior teams and any new recruits are encouraged. Any male aged between seventeen and forty is eligible. It's a strenuous pursuit, but there's plenty of laughs, skill and excitement.



Tommy Segerson, of Burtonwood, hits out for the Atoms in a recent match



The black-coated umpire calls the play from his stand behind the catcher



A last-minute conference on tactics before they take the diamond

What will it look like?

What will your working conditions be like in the future? What plans have A. T. & E. for their factories on Merseyside? What are the reasons for the building activities you see going on at Strowger Works? What will it all look like in the years to come?

To find the answers to some of these questions, we went along to see Mr. R. A. D. Main, Plant Superintendent, and his staff at Edge Lane and we discussed many of the improvements which it is hoped to make to our various premises in Liverpool.

To start with, we were anxious to get a broad, overall impression of the Strowger Works of the future. What shape would it take? Would the design be such that people will be able to find their way around more easily than they do at present? The

Plant Department agreed smilingly that the present $22\frac{1}{2}$ -acre premises are more than a little bewildering to the uninitiated, but they pointed out that if present plans mature this difficulty should be overcome. It is intended that the entire manufacturing unit of the future will form one large, neat, geometric pattern, composed of easily-located rectangles accommodating workshops and offices.

Two long multi-storeyed buildings will run parallel at each end of the present day single-storeyed machine shops, while the existing main office block will receive a matching wing. The old Strowger "village" (housing toolrooms, Methods and Layouts offices and Production office etc), will be demolished to make way for an extension to the new multi-storeyed building that we have already started to build.



Shortly after the new multi-storey building was started. The site is being cleared and foundations are being laid

This new building will eventually be 520 feet long and 50 feet wide and will be one of the best of its kind in Liverpool, giving full facilities to meet our expanding production programme. It is expected that occupation of the first 270 feet will be made during 1957. Before developments can take place within the old area of the factory, it is thought that buildings may have to go up on the "field", adjoining the Edge Hill railway sidings.

Lighting throughout will be to the best modern standards, high-speed lifts will be installed and, another boon, maple block flooring (dust-proof and consequently more hygienic) will be employed in all the assembly shops.

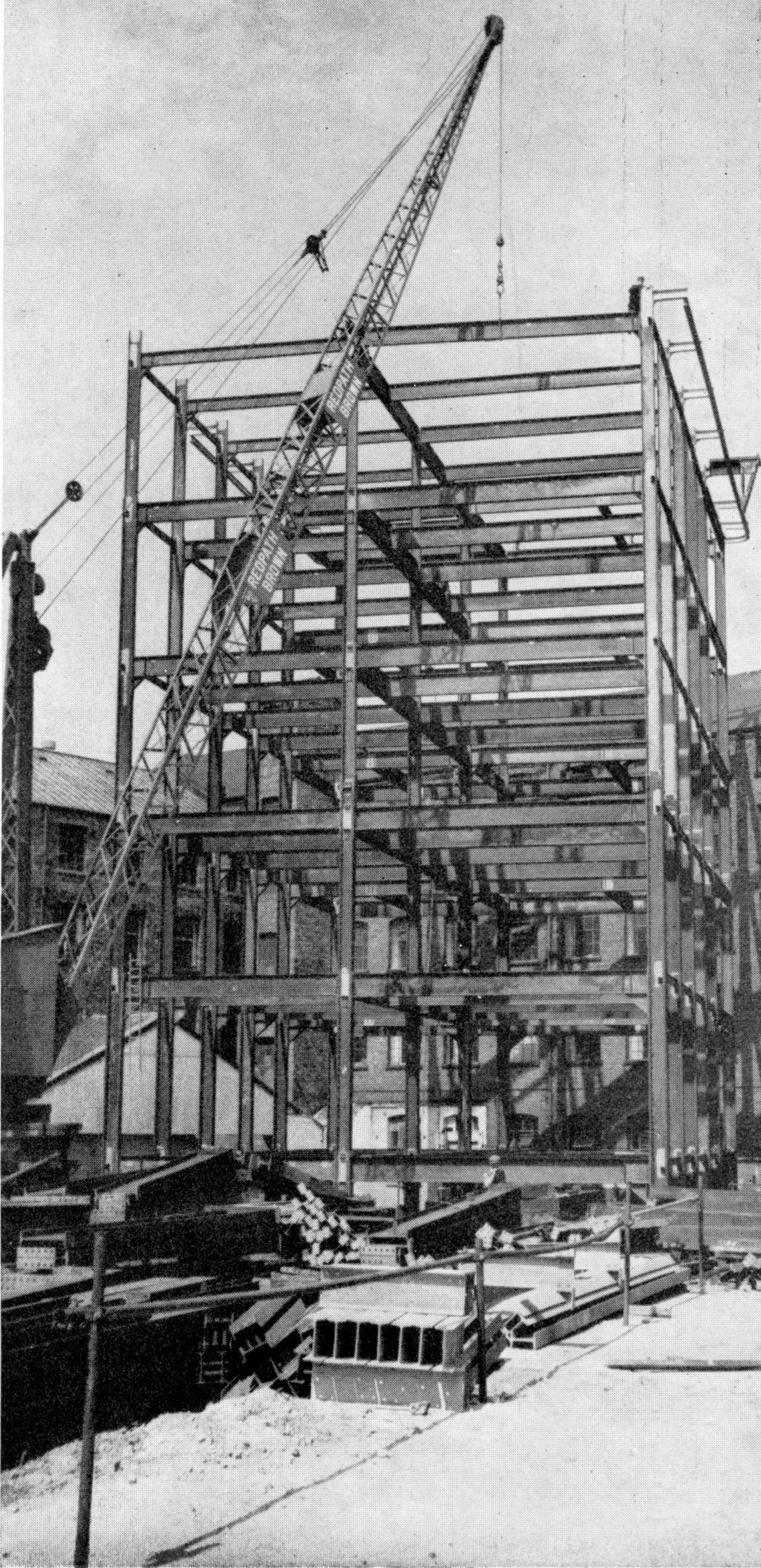
We also asked the Plant Department what was happening at the moment on top of the present single-storey Photographic Department building. Another floor is being added, we were told, and part of it will house the cinema. This will be of the very lastest design, with a sloping floor, tip-up seats for 250 people, up-to-date projection boxes and re-wind rooms. The cinema will be used for Technical Society and Welfare Department lectures, conferences and other house activities. The first stanchion went up only last November and the building is already almost ready for occupation. The present cinema space will be used for manufacturing purposes.

In the past, the interior colour scheme for the factory consisted simply of green and off-white walls with black dividing line and white ceilings, but it is now our policy to make use of brighter modern colour schemes wherever possible with the object of making working conditions more congenial.

Extensions to our factory at Speke have now been completed by our contractors. For months the builders have been busy erecting a large single-storey building for manufacturing purposes with a two-storey portion to be used as a new canteen. Development put in here will mean that we have almost doubled the size of our premises on the Liverpool Corporation Industrial Trading estate.

At Stopgate Lane there is room for a fifty per cent increase in floor space when this is required, and, although there is no space for development at our City Factory in Lord Nelson Street, Liverpool, improvements have been carried out.

How long it will be before all our plans can be put into operation it is impossible at this stage to predict, but it is safe to say that developments are



The big new building starts to take shape. A giant crane hoists girders into position

taking place all the time and the broad aim is to create some of the most up-to-date premises on Merseyside.

GALA DAY? IT WAS



If you had an umbrella, you were lucky—but you were expected to share. Above: man, boy and pony all huddle under one brolly



The seventeenth annual sports and gala day at Whitfield last month was ruined by continuous rain. Fewer than 200 people attended, but these two youngsters found plenty of fun on the swing boats



Track events were seriously affected, of course, although several were staged successfully. These runners were taking part in the 440-yards race

ALMOST A SWIMMING GALA!



With water-logged track and flooded playing field, there were no competitive events for the children. This young lady discovered, however, that there was no shortage of seats



Even if it does rain you'll always find plenty of highspirited juveniles ready to sample the chute—which, this year, became a miniature waterfall



Department 24 slithered away with the tug-of-war event, staged, strangely enough, right in front of an ice-cream stall. Ice cream in that weather!



One of the smallest competitors with one of the biggest prize-winning entries in the fruit, flower and vegetable show. All prizes were presented by Mrs. G. Bennett

