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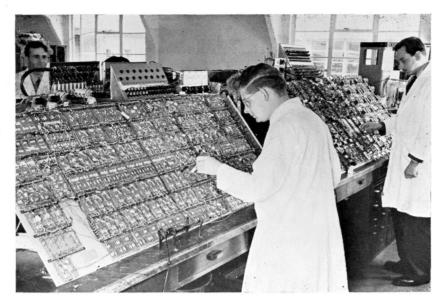
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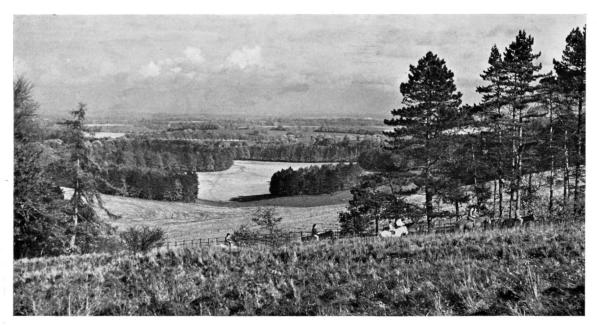
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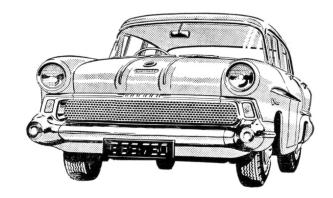


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# **EDITORIAL**

This magazine, as well as providing light features that it hopes will entertain the reader, records the more interesting events in the life of Harwell, so that it is refreshing at times to refer back.

In the fourteenth issue of "Harlequin", for instance, we read from the pen of D. R. Willson that in 1947 the number of official visitors to the site was proving difficult to handle and "Divisions were asked to nominate people to help in looking after them."

What, one many wonder, would have been the reaction of the aborigines of Harwell to the present influx of visitors—now over forty thousand a year? Ten years ago, of course, the population of A.E.R.E. was one sixth its present size, but because it was so difficult to negotiate with its blocked roads, entrenchments and mud barriers, the area of the site much have seemed much larger. What, in contrast would be the reaction of the Harwell visitor of today to the conditions of yesteryear? Then it was that parties had to change into the long gum boots that were the standard protective clothing of that time; and the escorts themselves set forth in both the garb and spirit of the explorer. Things are different now: today there are more roads, more site maps and more visitors—but fewer gum boots.

"Harlequin" has not been able to keep abreast with the varied visitors that have pas-

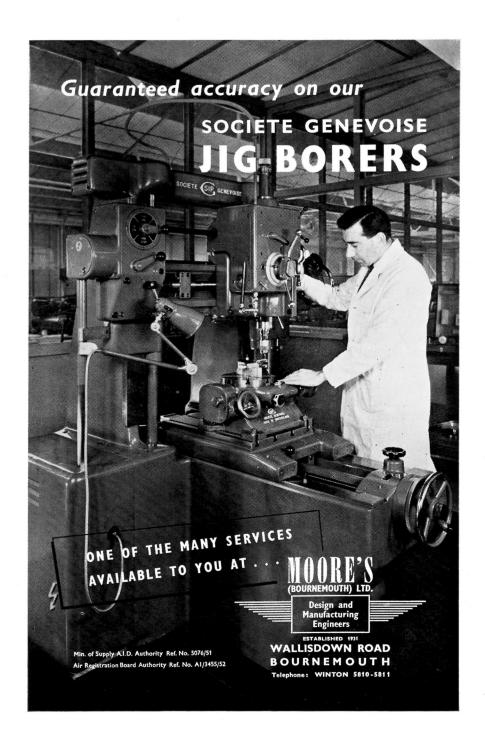
sed through the gates in these ten years. Scientists, engineers and leaders of many lands —four prime ministers so far from this country alone; Bulganin, Kruschev and Malenkov; Royalty and leaders of the free world—their visits mark the passing of the years and our growth from mud and contractors to less mud and more contractors.

Ten years ago building work was in full swing on the conversion of the old R.A.F. blocks into laboratories, and in August 1947, when the Director led "The Rest" against the victorious "Engineers" at cricket, then it was that Gleep "diverged" and the country's first atomic pile was operating; meanwhile the BEPO chimney grew higher, and the Cyclotron pit grew deeper.

Today, the buldozers are at work on the Proton Synchrotron and the Tandem Accelerator and, as new faces come each day to the Establishment, the face of Harwell itself continues to change. With all respects to our short-term visitors, whom we have been pleased to see, the new research projects are bringing the most welcome entrants of all: scientists and engineers who come to stay and who bring their own experience and ideas to add to our own.

We welcome all newcomers to Harwell.





# HEAVY

# T. G. PICKAVANCE

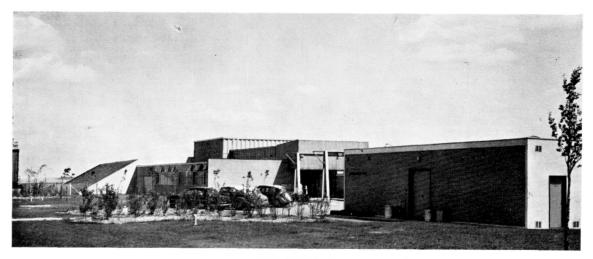
# **MACHINES**

THE beams of particles produced by high energy accelerators are used in experiments in attempts to gain a better understanding of the forces which hold together the particles in atomic nuclei. Although this work has progressed dramatically, a complete understanding of nuclear forces is a long way off, because new and perplexing phenomena are continually being discovered and have to be investigated in detail. The discoveries have often been made in studies of cosmic rays, but for detailed investigation the more intense and controllable beams produced by accelerators are essential.

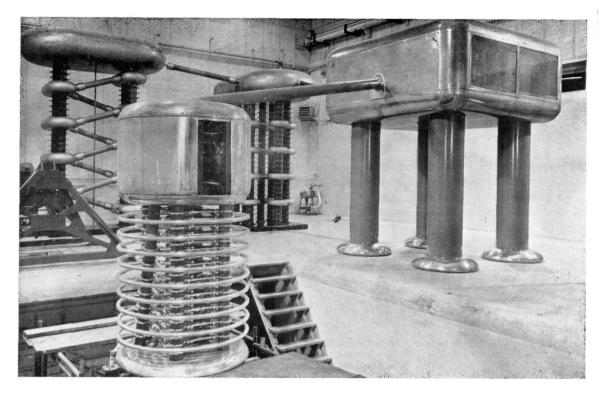
Naturally, A.E.R.E. is interested in this field; moreover, we have the resources necessary to produce modern accelerators. Our 110-inch synchrocyclotron, run by B. Rose and G. H. Stafford, was the first high-energy machine to be completed in this country, and has been used for research since 1949; this, and three larger machines in university laboratories, still have years of useful life. However, there are now no British accelerators in the "front line" of this field; bigger and better accelerators are required. This was foreseen, and Britain has contributed to C.E.R.N., the European laboratory run jointly in Geneva by 12 nations, Harwell staff, notably the late F. K. Goward, J. B. Adams and M. G. N. Hine, joined C.E.R.N. and others helped as consultants. J. B. Adams now directs a group which is building a 25,000 million volt proton accelerator. It was decided in 1954 that A.E.R.E. should also initiate a new programme of its own. Theoretical physicists under W. Walkinshaw, a Malvern group under L. B. Mullett with long experi-

ence of linear accelerators, and the author joined forces in a new group. We were joined by others with experience of building and using accelerators in the earlier programmes, and later by many more who were new to the field.

This group is now housed in Building 412, well away from the main part of the Establishment because modern accelerators require a lot of space, and "outside the wire" because the work is unclassified. The present population is about 80, and this will grow as plans for future accelerator construction mature. We have become largely a self-contained community with a common aim, but like all other research groups at Harwell we depend for our existence on common services such as workshops, library, maintenance, transport, buying, stores, contracts, etc., and on contacts with our colleagues in other research groups. Individually, we belong to General Physics, Theoretical Physics, Engineering Services, and General Administration Divisions. Our professional problems cover a



**BUILDING 412** 



The 500,000 volt Injection Equipment of the Protor Linear Accelerator.

wide-range, and we have organized ourselves into a number of groups:

Theory (W. Walkinshaw). Research on the motion of accelerated particles in complicated electric and magnetic fields, to establish design data for new kinds of accelerators. This has to be backed by strong facilities for computation. The Establishment computing service run by Dr. Howlett is used, with the help of electronic computers at Manchester University and the National Physical Laboratory.

Magnets (J. J. Wilkins). Research on magnets for bending the paths of the accelerated particles into closed orbits of the correct shape, and focussing the particles, to line up with the theoretical work. Techniques for accurate magnetic measurements.

Radiofrequency (P. D. Dunn). Research on accelerating systems, which increase the velocity of the particles as they travel in their closed orbits around the magnet, using high voltages derived from high power radio equipment. Control of these systems in a manner required by the theory.

**Injector** (L. C. W. Hobbis). Development of "small" accelerators which inject an intense beam of particles into the main accelerator.

Linear accelerators (B. G. Loach). Design of accelerator in which no magnet is used, but very special forms of radio frequency equipment have to be used to provide the accelerating voltage along a straight path.

Long-term research (J. D. Lawson). Work on "table-top" electron accelerators which are working models of possible future machines using new methods, and on mechanical models in which, for example, the motion of particles can be predicted by the motion of a special kind of pendulum.

Engineering (J. B. Marsh). Turning the ideas of the physicists into "hardware". The equipment is produced, under combined supervision by engineers and physicists, in a variety of ways. Experimental, or small but very specialised apparatus, is produced in the Building 412 workshop. Larger items, or equipment to a finalised design, are made in the main Hangar 9 Workshop, or by small firms with the coperation of D. Mettrick's Outside Manufacturing Group. Heavy equipment is provided by larger industrial firms on contract or by direct purchase.

All this work has to be carefully co-ordinated. An accelerator contains many complete and complicated pieces of mechanical and electrical equipment, but has to be operated as a coherent whole for some thousands of hours between routine overhauls. The specification outlined by the theoretical physicists has to be maintained in each separate unit, within close tolerances which must be calculated. The theorists must understand the problems to be faced in the laboratory and the workshop, and the experimentalists must understand the theory. The engineers must be patient with the physicists, and must understand their peculiar requirements. Thus all members of the project have to work together, and the organisation into groups is loose and flexible.

At present a 50 million volt proton linear accelerator is being constructed. An injector provides an initial proton beam with an energy of 500,000 volts, and is typical of the jobs which are apt to arise. A suitable high-voltage rectifier was commercially available, and was brought from Messrs. Philips of Eindhoven, but the rest of the equipment had to be specially designed. A team of physicists developed an ion source, to produce the protons, and apparatus to go with it, in an experimental programme lasting for several months. The engineering group produced an overall design suitable for manufacture, and a firm was appointed to make complete drawings from this design. Parts were made by several other firms, by the Hangar 9 workshop, by the glassblowers, and by the local workshop in Building 412. Some special parts were made in the laboratory by the physicists. The engineers co-ordinated the manufacture and assembly in collaboration with the physicists, who then took over the machine for tests and commission-

The injector is a "Cockcroft-Walton generator", and is the same in principle as the original accelerator built by Sir John Cockcroft and E. T. S. Walton in the Cavendish Laboratory over 25 years ago. It fills a large hall but some of the component parts are themselves Cockcroft-Walton units which we developed; these are about two feet high, and produce 120,000 volts.

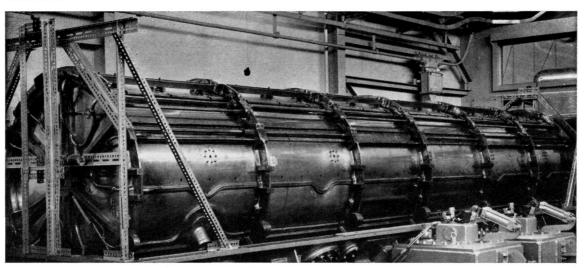
The linear accelerator proper is being manufactured by Metropolitan-Vickers. It is in three sections, and the first (10 million volts) was made to drawings produced in the A.E.R.E. Design Office under the supervision of the engineering group.

Designs have been developed for extending the linear accelerator to much greater lengths, if this should become desirable. Unfortunately the characteristics of proton linear accelerators change along the length, so that each section represents a new design problem. However, new sections can be added at any time; this is a unique advantage of linear accelerators.

The linear accelerator has to be powered by highpower transmitting valves of a special type which cannot be obtained commercially. Suitable valves are being developed for us by the valve group, originally under J. Dain and later M. Snowden. It was while testing one of these valves that Graham Hawkins met with the accident which caused his death; this tragedy underlines the danger which can arise, even to those who are highly skilled and experienced, in experiments with high voltages.

About two-thirds of our effort is now devoted to the design of a much larger accelerator, a proton synchrotron for an energy of 6 or 7 thousand million volts. This is only a quarter of the energy of the machine under construction in Geneva, but the number of protons accelerated should be at least 100 times as great. Similarly, the linear accelerator will produce about 100 times the intensity of our new design. Each machine could perform experiments which would be impossible with the others. This new design calls for a ring-shaped magnet, 120 feet in diameter and weighing over 6,000 tons. The magnet will have to be levelled to a high degree of accuracy, on very stable foundations, and will be surrounded by nearly 70 feet of earth for radiation shielding.

We are also studying possible future machines of The accelerator business shows no several kinds. signs of slackening its pace; on the contrary, enormous efforts are being made throughout the world, especially in the United States and in the Soviet Union. Unfortunately all the simple machines were made long ago, and the present demands of nuclear physics, in terms of accelerating voltages and beam intensities, are exceedingly difficult to realise at acceptable cost. Major research, engineering and manufacturing facilities are required. The machines have to be built very accurately, to a design which has to be worked out in fine detail; the particles travel many thousands of miles in their orbits around the magnet of a large machine, and quite small errors in manufacture, or misconceptions in design, would cause their total loss. Moreover, at least four years are required



First section of the 50 million volt Proton Linear Accelerator shown under construction..

for construction after the overall design has been established by theoretical and experimental work. The finished machine is used for research in a field which is developing rapidly. The problem is, therefore, to make a machine sufficiently new to be useful, planning some years ahead, without risking failure. The only alternative to a degree of calculated risk is to build an obsolete machine.

The universities are vitally interested in fundamental

studies in high energy physics, but the scale of effort required to construct and operate the accelerators now needed is beyond their resources. Co-operation is therefore called for, and the future large accelerators will be built for co-operative use. The 7,000 million volt accelerator will be the first major equipment of the new National Institute in Nuclear Science, and although it will be constructed near Building 412 at Harwell it will be used on a national basis.



The Director cuts the first turf on the site for the large proton synchrotron.

By travelling millions of times round the large circular accelerating race track of this machine batches of ionised hydrogen atoms will surf-ride to energies of several thousand million electron volts. The high energy protons so produced will be used to bombard atomic nuclei.

This machine, to be built on the airfield, will be the centre of the first research station of the National Institute for Nuclear Research—through which the Authority and the Universities will collaborate in finding out more about the atomic nucleus.

# AN ARTICLE FOR "HARLEQUIN"

# **HOMOLKA**

THOUGHT I would write something for "Harlequin". The idea was prompted essentially by the almost heart-rending request for articles by the Editor in an old copy. But I must confess that there was also an element of self-esteem in it. The fact that I had never appeared in print before was due to circumstances rather than any lack of potential literary talent.

Anyway, after some serious thought, I broached the subject to old "Mac" who has had two letters published in a local newspaper. Over a pint of bitter in the Social Club I confessed that the nucleus of a first-rate lengthy article was wandering about my head, but I was a bit hazy about the actual presentation.

The literary giant smiled knowingly, knocked back his beer, wiped his mouth and started.

For two hours I listened enthralled to the pros and cons of good authormanship. "Anybody can write an article", he reiterated, "if—and this is the crux of the matter— the right words fit into the right places. You get my meaning? The actual subject is not all that important. It is the method, the presentation, in a word my boy—style. That is the key".

He drained his fourth glass and lowered his voice. "I'll lend you a little book I picked up. Helped me no end when I first started. Of course it merely repeats more or less what I've been telling you. But you'll find it a useful reminder".

"Mac" brought me the book that night. It had a bizarre red and yellow cover and was called "Cash for Trash". The first sentence was encouraging: "What you write about does not matter a damn, provided it is clean. There are only three requirements for a best seller—Style, Style and Style".

Fortified by this precious advice, next day I bought a ream of foolscap, some typewriter oil, three ounces of tobacco and got down to it

In my mind's eye I could already see the whole finished article—Introduction, Development, Climax, Finish—it was all there, complete with a long passage on the philosophical aspects of nuclear energy. It would be a bit like "Why Split Atoms" only more polished and pithy. It would make people think.

I roused myself from the reverie and started to put it all into words.

I liked the first sentence: "Whither are Harwell's brains leading us?"

It was arresting. (Chapter two of "Cash for Trash" stresses that openings must be arresting).

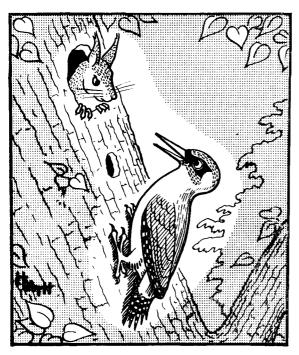
I studied it and read it over for about five minutes. It was good. Yes. But somehow I had a feeling that it could be even better.

"Nellie", I yelled upstairs.

My wife came rushing down, missing the last two steps.

I read out the first sentence to her, let the impact of it sink in and then sat back to await her opinion.

Nellie stuck her tongue into her cheek, pulled down one eye with her finger and screwed up her face. After two minutes she gave her judgement.



"AM I BORING YOU?"

"Mm. I don't know". She chewed her bottom lip. "Seems a bit hackneved to me. Lacks, sort of originality, don't you think?"

That's it, I thought. Originality!

Page eight of "Cash for Trash" gave the admonition: "Avoid hackneyed phrases. Be original".

I beamed on Nellie.

"Quite right, my dear. Just as I suspected". Putting a fresh piece of paper in the typewriter, I got down to it again.

Inspiration came almost immediately: "Harwell's brains, whither are they leading us?"

I read it aloud, liking it better every minute. Nellie was fetched down again. Cocking her head to one side, she beetled her brows and rubbed her nose-an indication of deep thought. When her nose was quite red she summed up.

"Yes. Yes. Quite good. Original, certainly. Catches the eye. Uh huh. But—perhaps just a wee bit, what's the word, sort of clumsy? You don't mind me telling you?"

sounded apologetic

A further single reading convinced me that it was rather clumsy. Otherwise it was really good. But the first sentence of any article (said "Cash for Trash") had to be flawless. Later on a few bad phrases could be slipped in with impunity.

After nine variations of the sentence I stopped using a fresh piece of foolscap each time and concentrated on getting it right before starting afresh. On being fetched down for the tenth time Nellie had decided to stay down and help.

By half past two in the morning we had twenty-one variations of Harwell's brains. Nellie did not like sixteen of them. I disliked the other five.

An impasse seemed at hand when I had a brilliant idea. Nellie should pick the five arrangements she like best and submit them to me to choose the one I prefered. I should do likewise. The two winning sentences would then be amalgamated and used as the final arrangement.

The amalgamation took an hour and a half. As there were still a few hours left before breakfast time, we decided to let it go at that —although I still had a sneaking suspicion that it could have been more perfect.

By the end of the first week I had written three flawless, original and arresting sentences. By this time only the sterling advice given by "Cash for Trash" kept me at it: "Do not be daunted by initial hardships. Concentration is more important than inspiration. great writers have to force themselves to work".

Three weeks later the article was really coming along nicely. After a few setbacks I was getting the hang of it and avoiding the more blatant pitfalls without consulting the book.

It was then that Nellie delivered her ultimatum: "Either you get through more than three sentences a week and go to bed before three in the morning, or I will go and stay with Mother".

This was a blow, especially as I was just about to start the second paragraph.

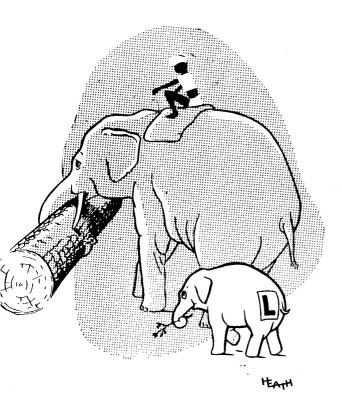
But I stuck to my guns. "Cash for Trash" had prepared me for just such an eventuality:

"You may encounter criticism, scorn, jealousy and lack of understanding. You must determine not to give up, no matter what the cost. Think of the Brontës".

I thought of the Brontës and packed my wife off to her mother. Of course, without her co-operation the pace slowed down a bit and in one week I turned out only two perfect sentences.

Two months after starting I decided to make it a short article. By this time I was a bit hazy about the original plot anyway. Harwell's brains could stay in, but the thousand words dealing with the application of nuclear energy to water-divining would have to go as would the rather long passage on love and Compton Recoil. However, I consoled myself with the thought that my big article would make a nice follow-up for the first shorter one.

One night, while trying to avoid a split infinitive, I realised that even a short article might take a considerable time at the rate I was going. A rough calculation gave nine



months as a fair average, provided the article were short enough. Nellie, I suspected, would never consent to living with her mother for nine months, so, rather reluctantly I faced the fact that even a short article was out—for the time being anyway.

"Cash for Trash" gave no advice on the writing of anecdotes but I supposed the technique to be much the same and this seemed the only solution to the problem. It was rather a comedown, but seemingly Bernard Shaw had started his career by writing snippets and things for magazines, and it would be good practice for the big article I would write shortly.

As the subject did not matter as long as the presentation was interesting, I chose "The Canteen". I did not know much about canteens, but had once known a waitress at a big restaurant. This experience, with some clever abstract padding, should provide quite an interesting little dissertation, I thought.

Ideas started to come fast. It would be a sort of appreciation with not too much technical stuff (most canteen users knew all that anyway), but with a sort of philosophical twist.

I got down to it.

The first sentence was a gem: "A Canteen is the mainstay of any large establishment".

After some study I decided that, to be really stylish, the subject should not appear as the first word.

A few nights later it really looked polished: "What is the true mainstay of any large establishment? The Canteen".

It was while toying with the idea of having the word "mainstay" as the opening word, that I collapsed with nervous exhaustion and malnutrition.

A few weeks after leaving hospital I met old "Mac" at his local pub, and returned his book. He was rather flattered when I spoke to him in the crowded bar, as my letter to the local newspaper had been published just that morning. A short letter it was, protesting against the situation of a small public building that was being built in the town. But better than nothing perhaps and it gives me the hope that one day I may actually succeed in having published . . "An Article for 'Harlequin'".



LOCAL PERSONALITIES NO. 1 Mr. AIREY NEAVE, D.S.O., O.B.E., M.C., M.P. (Abingdon Division of Berkshire) Joint Parliamentary Secretary, Ministry of Transport and Civil Aviation

MR. AIREY NEAVE, born in 1916, was educated at Eton and Merton College, Oxford. He was called to

the Bar by the Middle Temple.

Wounded and captured at Calais in 1940 when serving with the Royal Artillery, he was taken to a prisoner-of-war camp near Leipzig, escaping in January 1942 to Switzerland and back to the United Kingdom via Gibraltar. From D-day onwards he was in command of several successful operations for the rescue of Allied pilots and soldiers from behind the enemy lines. In 1945 he was in charge of the prosecution of Gustav Krupp and later served the indictment upon Goering and other Nazi criminals in their cells at Nuremberg. As a Lieutenant-Colonel at thirty he was Commissioner for Criminal Organisations of the Nuremberg Tribunal.

His adventures are described in his book "They

have their Exits", published in 1953, and he has also written another book, "Little Cyclone", which tells the story of an escape line from Belgium to Spain.

He has written television plays, and is now engaged on a biography of H. M. Stanley, the explorer.

Before his appointment as a Junior Minister in January 1957 he was an executive of the John Thompson Group, who with Associated Electrical Industries are building the nuclear power station at

Berkeley in Gloucestershire.

At the by-election on 1st July, 1953, brought about by the elevation of the sitting Conservative Member (Sir Ralph Glyn) to the Peerage, Mr. Neave won the seat with the increased majority of 5,860. At the General Election of May 1955 his majority was further increased to 8,634. Mr. Neave was appointed Parliamentary Private Secretary to the Minister of Transport in February 1954 and was Parliamentary Private Secretary to the Secretary of State for the Colonies from August 1954 to August 1956. He was Vice-Chairman of the Parliamentary Committee on Atomic Energy from 1955-1956.

His latest appointment was in January of this year when he was appointed Joint Parliamentary Secretary to the Ministry of Transport and Civil Aviation.



Proposing the toast to the Engineering Division at the Dinner and Dance on 10th May, Mr. Airey Neave said:

"The work of the engineering services at Harwell is extremely important for the future of our national power programme. I know from personal experience how successful is the collaboration between your division and groups in private industry. Your engineering organisation is of an exceptional and complex kind. Whether you are in the design office or in the workshops or in general engineering, I wish you luck in your efforts. The work that you do at Harwell will influence the standard of living of the people of this country for generations."



An impression by T. A. T. King (Eng. Div.) of the GLOSTER JAVELIN in Squadron Service.

#### ROYAL AIR FORCE ASSOCIATION

To The Editor, "Harlequin".

Dear Sir,

May I, through your widely read journal, bring to the notice of those who have served in the Royal Air Force and who live in Abingdon and district that the Abingdon Branch of the Association would welcome new and active members.

Without active members a Branch cannot function properly and the committee requires support in organising activities and in making the branch an active part of the Association.

The Branch meets at the "Old Grapes", High Street, (next the cinema) Abingdon, at 8 p.m. on the Second Thursday of each month.

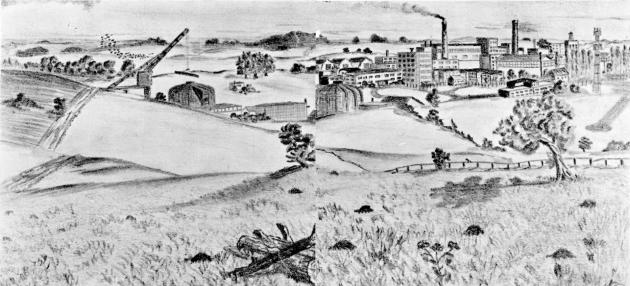
Further information may be obtained from the undersigned on ext. 2448 or from R. Varley, ext. 2144.

Yours faithfully,

J. A. W. BINNIE,

Group Capt. (Retired), Branch Chairman.

# **THIS** HARWELL







THE ancient Berkshire countryside hereabouts, which has been the scene of so much British history, provides an oddly reassuring back-drop for the United Kingdom's Atomic Energy Research Establishment, a scientific center that, come war or peace, is bound to play a major role in the future of this island. Contemplating the benign, undulating landscape that surrounds the town of Harwell, near which the Establishment is situated, one has the feeling that perhaps the atomic age, for all its present uncertainties, will ultimately take its place—along with the years of the crossbow and the machine gun, the loom and the steam engine—as simply another chapter in a continuing history. A pre-Roman road on a ridge overlooking the Establishment's laboratories contributes to this feeling. So do the chalk downs, scattered about Berkshire, on which the Druids worshipped and the Saxons fought, carving away the turf on a hillside to leave the chalk figure of the Great White Horse — a hundred and twenty feet tall and three hundred and seventy-four feet long — as a memorial of one of their victories. A physicist here, telephoning me in London to invite me out to his home for dinner, wound up his road directions with a matter-of-fact statement that I found cur-

iously stimulating. "My house is just to the right of a tenth-century church, not five minutes from the Establishment," he said. The bucolic scenes near Harwell are singularly impressive—to an American, at least—for their startlingly green and velvety meadows, which have been cultivated since well before 1492, and in approaching the Establishment, with all its activities so firmly dedicated to the future, one passes sombre thatch-roofed cottages that serve as tranquil reminders of a past that had its doubts and falterings too. The Harwell region, where the two principal means of livelihood have long been the training of horses and the growing of cherries, has an abundance of old inns, with courtyards whose cobblestones have been worn smooth by the stamping of countless hoofs. Visiting scientists are put up at these inns, and their sojourns are made pleasant by publicans who are affable without attempting to be characters. These innkeepers are proud of Berkshire's ancient heritage, but they don't make too much of a point of it; they seem to take it for granted that their guests will know that Alfred the Great was born in Berkshire in the ninth century, and that Windsor Castle, at the eastern end of the county, was built by William the Conqueror, two centuries later.

The pressure and stridency that one frequently encounters at American scientific centers are not in evidence at Harwell, as the Establishment itself has generally come to be known in the years since it was set up in January 1946. Their absence may be due in part to the fact that Harwell, unlike comparable communities in the United States, was not built from scratch; instead, it took over a three-hundred-acre tract, complete with solid buildings, paved roads, and playing fields, that had served as a Royal Air Force base before and during the Second World War, and thus from the start the Establishment has had a settled air, which even the rawness of some newer structures, finished or unfinished, does not greatly disturb. While the war was being fought, Wellingtons roared off from here with bombs whose destructive power can hardly be taken seriously by a generation brought up on pictures of the atomic mushroom; Luftwaffe planes often flew overhead and dropped similar bombs; and—as a bronze plaque on a granite pedestal here proclaims—the base was one of the launching sites for the gliders that carried Allied troops to Normandy on D-Day. Shortly after the war, while the atomic center was being built, more than one displaced



. AS SEEN BY THE AMERICAN JOURNALIST

# David Lang

ILLUSTRATED BY DAVID ALLSOP (ENG. DIV.) A.E.R.E.

alumnus of the old base who was still on active duty in the R.A.F. set his plane down here, on the pretext of engine trouble, in order to have a nostalgic look around before the scientists had time to tamper with fondly remembered landmarks.

The gentle but firm concern about appearances that one notices at Harwell extends to neighbouring towns, where many of the Establishment's employees live in housing projects that were designed to blend unobtrusively into their surroundings. Even the most enlightened attempts at this sort of blending are difficult to bring off, however, and the Establishment's presence in Berkshire is being more and more keenly felt. Its convoys of lumbering buses daily transport twenty-five hundred workers from their homes and back again over narrow, winding roads that look considerably more attractive when a few leisurely cyclists constitute their only traffic; its citified physicists strike one as not quite at home when they mingle with horse trainers in the bars of the Crown & Thistle, the Horse & Jockey, and other old inns: and its reactor chimney towers incongruously above pastures and cherry orchards.

Reprinted, by permission, from an article in The New Yorker, Apr. 1956.

# "Oh Say, Can You Send . . .?"

### J. B. SYKES

THOSE who read 'The Mailéd Lobster' in three issues ago, and nevertheless are still buying 'Harlequin', may care to have some account of a blue biennial, also blooming in July: the U.S. Official Postal Guide, of which the 700-odd pages of Part I deal with the Domestic Postal Service. (The International Service is dealt with in a handy loose-leaf affair whose pages can be replaced at will in accordance with the frequent changes in the regulations.)

The title page exhibits the seal of the U.S. Post Office Department, which depicts a rider on horseback; this, in the opinion of many, is an accurate reflection of the state of progress in the Department. After five pages listing the Department officials and another five indicating what kind of complaints should be addressed to each, we plunge into the mysteries of first, second, third and fourth class matter. A puzzling pronunciamento that honeybees are liable to freeze, and so may not be sent by air mail, while queen bees (which one would have supposed to be a subclass of honeybees) are all right, is followed by a description of permissible postcards strongly reminiscent of the good old GPO: "in quality and weight substantially like the Government postal card, not exceeding in size approximately 3 9/16 by 5 9/16 inches" (how do they arrive at such figures?) "nor less than  $2\frac{3}{4}$  by 4 inches . . . of a thickness not less than 0.0085 or more than 0.0095 of an inch." Secondclass matter includes newspapers and periodicals if, among other things, "regularly issued at stated in-tervals from a known office of publication, as frequently as four times a year"; third-class matter embraces mailable matter not embraced in the first and second classes, when sent in packages weighing up to and including 8 ounces"; fourth-class matter consists of honest-to-goodness parcels, and occupies several pages with its plant quarantines concerning black stem rust, gypsy moth, brown-tail moth, Japanese beetle, pink bollworm, white-pine blister rust,

Mexican fruit fly, white-fringed beetle, peach mosaic, phony peach, and sweet-potato weevil.

Having got this straight in our minds, we plunge into a heavy chapter on "Mailability and Packaging". Starting with unmailable matter, such as "all solicitations for the procurement of divorces in foreign countries" and about three hundred chemicals from acetal to zinc phosphide, we proceed to "matter acceptable under defined conditions", telling you what to do with jelly, snuff, eggs for hatching, mercury, lightweight sharp-edged knives, and "harmless live creatures" (such as baby alligators not exceeding 20 inches in length, bloodworms, hellgrammites and horned toads); then "General Packing Regulations" put one right in case one should be posting any cigars, umbrellas or popcorn (which 'is not an approved absorbent material'). On we go through Payment, Addressing, Preparation, Reposting, Delivery, Undeliverable Matter" (with a pathetic note about "shipments of live day-old chicks that are delayed beyond the 60-hour limit by washouts, snow blockades, wrecks and the like"), Loss or Mistreatment of Mail, Rewards for the arrest of mail robbers, etc., (you can get \$2000 if you catch someone deliberately mailing a bomb), Registered Mail, Insurance, Hours of Opening, Money Orders, Savings, Publications, Other Services, and Damage to Person or Property.

A table shows that there are some 40,000 post offices in the United States and territories; Pennsylvania has the most, and next, strangely enough, comes Kentucky. The 40,000 are then listed by states, from Abanda, Alabama, to Yoder, Wyoming; alphabetically from Aaron, Kentucky, to Zylks, Louisiana; and by counties. And there we are. As postmasters rack their brains in Post, Oregon; Letter Gap, West Virginia; Register, Georgia; and Stamps, Arkansas, let me record one tit-bit from Part II: Great Britain, of all places, does not permit the importation of "advertisements of fortune tellers".



Cleveland—Symphony Hall & University Buildings



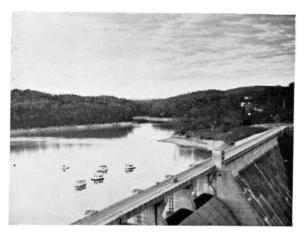
Hostel-Deep River

# AMERICAN ODYSSEY

LYING westward, the night seems never ending. At Goose Bay a blizzard is raging as the plane taxies over a thick white carpet on the runway. In the reception room there is hot coffee, and tea which is made in the local fashion, a dark oily liquid which the Englishman carefully avoids. The stop is a short one, and as the plane approaches Montreal the dawn overtakes it. At the new international airport the few customs officers on duty are trying to deal with the simultaneous and apparently unexpected arrival of three aircraft, and in the long delay which ensues I have time to study the numerous notices in the reception hall which describe the plans being put into operation to improve the facilities at the airport.

Montreal is the gateway to North America, and both Canada and the United States have Immigration Officers in attendance, together with a staff of interpreters who, between them, can tackle most European languages. Eventually the formalities are completed and we are whisked over to the Domestic Airport where it is possible, if one is brave enough, to have breakfast. The waitress speaks Canadian French, but eggs and bacon are well understood in any language and I am sufficiently well fortified to undertake the short flight to Ottawa.

This time of year, when the snow has disappeared and the grass has not yet started to grow, is not the best of all times to visit Canada, and Ottawa, the city of trees, is dusty, untidy and leafless. The train to Chalk River is late and I join a queue forming at the barrier. In front of me an Englishman and his Canadian wife are saying goodbye to a little white-haired man who is too obviously English to be true. When we board the train, I discover



Norris Dam-Tennessee

that his seat reservation is just across the corridor from mine in the big pullman car. We murmur the conventional greetings and he tells me that this is the first time he has travelled on a Canadian train and that he is much impressed. Our train is the "Canadian", Canadian Pacific's crack train, which covers the journey from Montreal to Vancouver in five days—by Canadian standards very good going.

We go forward to the dining-car and afterwards climb the stairs to the observation dome from where, as the journey proceeds, we have an uninterrupted view of virgin forest and halffrozen stretches of water glittering redly in the sun.

In the front of the car a family are chattering together in what appears to be Dutch. The white-haired Englishman joins them, speaking with equal facility in their own language, until he overhears two French-Canadians discoursing in the local patois, whereupon he goes bounding off to join in their conversation. I discover later that he is Professor of Comparative Philology in a famous English university and on my second night at Chalk River I find myself one of a large audience that listens spellbound as he lectures on the languages and dialects of Europe.

The town of Deep River, which houses the employees of Atomic Energy of Canada, Ltd., is a rapidly expanding community in which, despite television and the deep freeze unit, the pioneering spirit is never far below the

surface. Particularly is this so among the English-born residents, of whom there seem to be a great many. The staff hostel has a friendly atmosphere, and I am much impressed at breakfast time when a white-coated head waiter, bowing from the waist, escorts me to the serving counter and hovers at my elbow until my needs are satisfied. The gesture is not repeated at subsequent meals, but the effect lingers.

The plant is a half-hour's bus ride from Deep River, much of the route running parallel to the mighty Ottawa River, which dominates this part of Canada. After signing in and receiving my temporary pass, I am requested to walk along the corridor to a small room in which the most conspicuous object is a large Bible. With my hand on the book, I promise to see no evil, hear no evil and speak no evil, or words to that effect, after which precaution I am given the full run of the plant.

Two days pass pleasantly and quickly, and after another hasty look at Ottawa I find myself airborne once more, en route for Cleveland. The Viscount makes short stops at Toronto and London before crossing Lake Erie, and there is a good deal of snow falling as we leave Canada behind. It is dark when we reach Cleveland and I appear to be the only non-American passenger alighting. With considerable chaff and banter the citizens of the United States are whisked through the customs examination, and I find myself alone in the waiting room. After a while I am called into the presence of the customs officer who examines my passport page by page and, finding nothing wrong with it, scratches his head and repeats the procedure. It is evident that this is an unprecedented occurrence. He disappears into the back room, obviously to consult his colleagues. After a while he returns, goes carefully through the passport again and suddenly his eyes light up as he thinks of a question. Can I prove my identity? (I had grave doubts of that passport photograph when I first saw it.) I produce my driving licence and sundry other documents. This is the end. With an air of deep disappointment he stamps the passport and I am allowed to go forth into God's own country without a stain upon my visa.

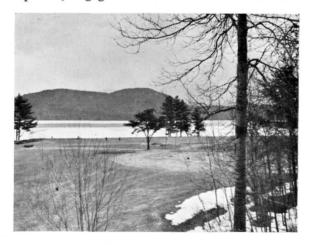


Norris Dam-Tennessee

The Americans are a friendly people, hospitable and courteous, and if their method of drinking Scotch whisky borders on the irreverent, well, one has to remember that it is available to them in far greater quantities than it is to the people who make it. I met a great many of them during my three days in Cleveland, and any advantage I derived from the conference I was attending was in no small measure due to the thoughtfulness of people who went out of their way to be helpful.

An American conference is an invigorating affair in which paper follows paper like bullets from a sten gun. All the resources of modern technology are made use of, including closed circuit television, cinematography, teleprinter and transatlantic cable. It is true that the voice coming over the cable from Paris is quite unintelligible, the cinema projector has a nasty habit of breaking the film and the television screens can be seen by only one percent of the audience, but it is a very fine effort, and I picked up a great deal of information during it all.

No American conference is complete without a banquet at which a carefully chosen speaker can cast his pearls before the assembled swine, and I am looking forward to this one with enthusiasm. It is with some consternation that I learn that I am invited to sit at the speaker's table, and my trepidation turns out to be well founded. The table is raised on a platform so that it is clearly visible to the rest of the room. It is customary for the toastmaster to introduce each of the half-dozen or so people at the table, in turn, whereupon the poor unfortunate must stand, grinning inanely, while his name, rank and station are recited for the benefit of the mob. When my turn comes, I have an overwhelming desire to clasp my hands above my head in the manner of a prize fighter acknowledging the cheers of his supporters, but the moment passes and the meal proceeds. I feel sure that five hundred pairs of eyes are watching every mouthful I take, but my neighbour, who is the guest speaker, engages me in conversation and the



Ottawa River from Staff Hostel

situation returns to normal. I discover, with relief, that I am not expected to make a speech. The speaker has been invited mainly because he controls a research endowment of five million dollars from which many in the audience hope to benefit. His address is delivered in a friendly and informal way without committing him to give away a cent.

The conference draws to a close, and after goodbyes all round I head southward for Knoxville and Oak Ridge. Spring is well advanced in Tennessee, the dogwood is in full flower and the gardens are full of irises, the national emblem of the state.

Except for the climate, there are great similarities between Oak Ridge and Deep River, this being particularly noticeable in the house building programme. Tennessee, like Ontario, is a timber country—the land is not fertile

enough to support an extensive agriculture so that until the arrival of the Tennessee Valley Authority this was one of the poorest regions of the United States. The houses originally built by the Atomic Energy Commission were small and hurriedly constructed and were let to the employees. Now that it is possible to buy them, the new owners are busily engaged in improving their properties, enlarging them by the addition of more bedrooms or, strangely enough, by adding basements as the situation of a house on sloping ground makes this a comparatively simple matter.

I can spend only one day at Oak Ridge, but, through the courtesy of one of my hosts, I am taken, in the evening, to see the Norris dam which is part of the T.V.A. project. The dam itself is an impressive feat of engineering and the lake which it forms is one of the most beautiful stretches of water I have ever seen. On the way back we pass through Clinton, where the air is still heavy with racial antagonism. My companion, who comes from New England, says that, because he is regarded as something of a foreigner in Tennessee, he is careful to keep his opinions on the colour problem to himself. That he has sympathy for the coloured people is obvious, but I glimpse an internal discord which must be very hard to live with.

The airport at Knoxville is over an hour's ride from Oak Ridge, and as my plane leaves at 8.45 a.m. an early start is necessary. Unfortunately the plane is late and, although I manage to obtain a transfer to another flight, I arrive at Idlewild, after a mad dash across New York, just in time to see the B.O.A.C. Stratocruiser taking off. The B.O.A.C. clerk suggests that I stay the night in New York and get the plane on the following day. By this time, however, I am tired of hotel life and my face betrays my lack of enthusiasm. He therefore consults his Pan-American colleagues who are able to offer me a seat on the Clipper leaving almost immediately, and this I gratefully accept. Maybe I shall regret the fact that I did not take the opportunity to have a closer look at the dollar capital, but as the Clipper climbs into the evening sky I do not even look back at the Statue of Liberty receding in the distance. Ahead lies England and home.



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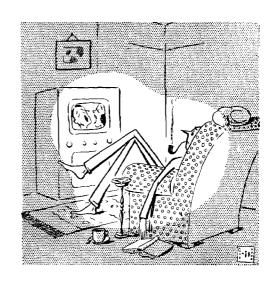
H OW do the Harwell men behave at home? What sort of husbands do they make? Anyone who has lived on one of the Authority's housing estates will have had ample opportunity to study the answers to these questions. Let us look only at the stable, married, Harwell men; for the unstable types, which includes the Single Ones and the Newly Weds, are only in a transitory stage of life.

The Single Ones are in process of being caught or courted, and the Newly Weds are struggling to maintain their bachelor freedom against heavy odds. Some of the latter still manage to play rugger on Saturday afternoons, drink with their rugger friends on Saturday night, and even sneak off to practice on Sunday morning well into their first year of marriage, but this state of affairs is temporary, and they finally emerge as one of the main social types now to be described.

Our first, The Burn-the-Midnight-Oil Type, is married to his job and profession, and really only needs a housekeeper. He spends his time going to colloquia and attending meetings during the daytime, but being a conscientious fellow, he therefore has to do his real work in the evening. Needless to say, he cannot rise early in the morning, and therefore staggers in late to work in time for the first colloquium. This type may be working hard under the mistaken idea that such behaviour can result in his early promotion, but obviously, he makes a dull husband, for "all work and no play makes Iack a dull boy".

Examples of our second type, *The Roving Kind*, may be found among the more senior grades at Harwell. They are hardly ever seen at home, for they tour the U.S.A. and Canadian Atomic Energy Laboratories, go to the continent to attend trade fairs and conferences, give lecture tours, and in between whiles visit Windscale, Dounreay, Risley, and Capenhurst. They are very busy, very important men, and their lonely, dutiful wives stay at home, bringing up the children, consoling themselves with the fact that they are indeed married to the mighty, and that things would be a little worse if they had married into the Mercantile Marine.

Examples of a contrasting type, The Sit Downer, are widespread. He invariably sits in



# HARWELL U \* S \* B \* A \* D \* S TALL PENNINGS

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an office all day long and even sits there to eat his lunch. He sits in a bus or car when travelling to and fro, and on arriving home, sits down to an evening meal. Afterwards, he relaxes into a chair for the news and sportsreel while his wife baths the children. The rest of the evening is spent in watching T.V., filling in football pools, or just resting in a chair. On Sundays, he rests in bed until 12.0 o'clock to recover from the week's work. Lunch is 'slept off' in an arm chair. Early to bed on Sunday night is the usual policy, in order to be fresh for the following week.

The Social Rounder, on the other hand, is swept along in a tide of social gaiety, entirely planned by his better half who is concerned with keeping her husband in the public eye, under the delusion that a promotion is more likely. She may be right, of course, but conversation at breakfast runs like this:

She—"We haven't had the Smiths in recently, dear."

He— "Couldn't we do them and the Jones' at the same time?"

She—"No, dear." (Long silence.)

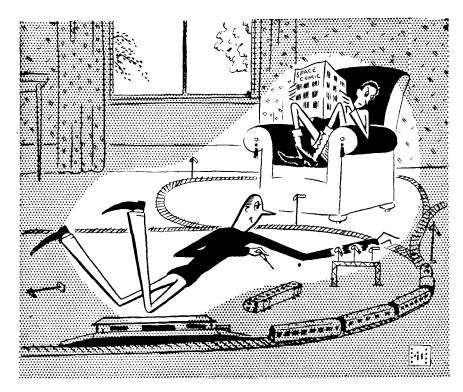
He-"Where are we tonight?"

She—"Cocktails at the Binks at 7.0 p.m., look in at the Nuclear Ball at 9.30 p.m., and be ready to go back for coffee with the Bloggs if invited."

He—"But when can I have a night off to clean the car?"

(Silence again.)

The Complete Organizer is very different. His mental harmony results from the fact that he feels very important, he unselfishly giving up his spare time to the service of his fellow creatures. He starts off in his youth in a small way, with committee membership in the rugger, cricket, darts and skittles clubs. After a few years of married life, he is soon coping with the Tenants' Association, Everyman's Educational Association, Horticultural Society, and the Institution of Professional Public Servants. In between whiles, he is always 'getting something up'. It may be collections for somebody's marriage, a fellow's widow, or just a local pageant. Finally, he becomes elected to the council, and eventually emerges as a City Father—Joe Bloggs, Esq., B.Sc., J.P. When



Illustrated by cover artist Reg Heath

he arrives home from Harwell, the Complete Organizer finds his drawing room is being used as a waiting room for the defendants of lost causes. His wife usually throws up the sponge at this stage of life, and joins the committee of the Boroughwomen's Guild.

And finally we come to the most unpleasant of all types — who will always be found by the wife to be living next door: namely "The Perfect Husband". His activities will serve material for frequent reports by your wife:

"Mr. Smith will be glad to help me lay the lino... Mr. Smith does all the washing-up in his house—not just the wiping-up ... Mr. Smith will come round with his soldering iron..."

In actual fact the so-called "Perfect Husband" is fully occupied in such things as repairing the neighbours' electrical accessories or assisting a colleague to recondition the engine of his car, while his own lawn becomes like a meadow, his children ride bicycles with flat tyres and no brakes, and the doors of his own home are propped open because the handles have broken. It is no good the unfortunate wife of the "Perfect Husband" reminding him that 'charity begins at home', because for some

queer reason he experiences a greater kick from being thought of as a jolly good fellow by your wife, than by being considered a good husband by his own. However, there is always hope for the wife married to this misnomer for, if she can get him to start building a model electric railway for the children, or develop an interest in landscape gardening, at least he will be kept playing on his home ground where he can keep an eye on the family while she herself struggles with the work of house, garage and garden. The so-called "Perfect Husband" is only "Perfect" to the women next door.

The above six groups of husband are not intended to cover all types found at Harwell—there other types such as *The Drinkers*, *The Sportsmen* (vice, golf) and even the *Intellectuals*, all of which names are self-explanatory.

In conclusion, what lessons can be learnt from this social study? The obvious answer is that the Harwell Husband should always strive against sliding into any of the categories described.

The unknown man who combines a judicious mixture of all six types should make an interesting enough husband for any women.

What do we know about Harwell Wives? (Ed.)

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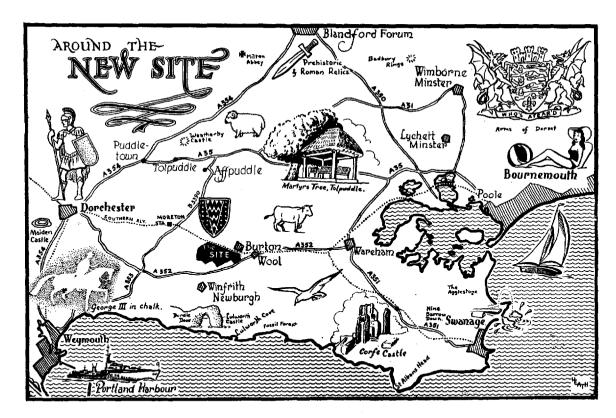
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PROSPECTIVE SETTLERS at A.E.R.E., Winfrith Heath, who are unaquainted with the area may like to know what it has to offer by way of entertainment, places of interest, and the amenities available.

The site is within easy reach of Dorchester and Weymouth to the west, and Wareham, Poole, Bournemouth and Swanage to the east. British Railways, Southern Region, passes the northern boundary, making runs to Dorchester, Swanage and Bournemouth an easy prospect. By road, there are buses connecting all the towns, and the A352 from Dorchester to Wareham runs along part of the southern boundary.

Winfrith Heath is surrounded by country which is steeped in history and places of interest. Maiden Castle; The Cerne Giant; Tolpuddle Martyrs Tree; Corfe Castle; a fossil forest; a white horse cut in the chalk hillside, to which the figure of George III has been added; and Lulworth Cove and Castle are but a few of the things worth seeing.

At Bournemouth can be found all the entertainment that even the blithest spirit could desire, and in

the most pleasant surroundings. Weymouth has similar entertainment value and, with an extended trip to Portland, throws the fleet in for good measure. Other seaside towns are Poole and Swanage, each with its separate attractions.

For those who prefer a more academic survey, the educational facilities are adequate, containing 16 grammar, 18 secondary modern and many independent schools, including a well-known school of art. There are also Further Education facilities at Weymouth and Poole. The County museum, containing Roman exhibits, is situated in Dorchester.

An excellent Guide Book can be obtained from the Dorset County Council at Dorchester and it costs 1/-. This gives in greater detail most of the facts one requires to know about the county and is a well produced and profusely illustrated book

produced and profusely illustrated book.

It is to be expected that as the site progresses further facilities will become available, and the bleakness, which is often one's first impression of the Heath, will be ameliorated. Winfrith Heath could be a very pleasant place for both work and leisure.



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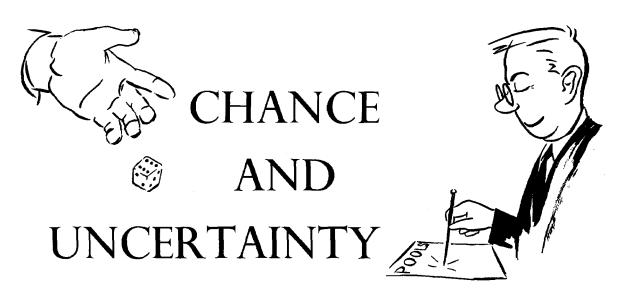
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- ★ Take a sheet of paper—ruled for preference—and put your answers to each of the questions below beside the relevant number.
- ★ This survey seeks your views and there is no "correct" answer except for Question 12. Here the Editor has sealed his own choice of colour and number and awards one Guinea for the first solution opened that co-incides with or is nearest to his.
- ★ Entries will be forwarded to Dr. W. Mays of Manchester University, who is conducting the survey, and results will be summarised in the next issue of "Harlequin".
- ★ No reader will be quoted without permission, but to assist the survey, please quote occupation and age group: e.g., Under 20, 20/25, 25/30, over 30, over 50.
- ★ The object of the Survey is outlined on page 37.
- Someone in a factory is required to work on Saturday afternoon; no one wants to do this so a coin is tossed to decide who shall stay. Is this a fair method of deciding? Please give your reasons.
- 2. In 150 years only once have ten boys been born one after the other at a certain Maternity Hospital. Nine boys have been born in succession and a donation of £100 has been promised to the hospital if the next birth is a boy. How likely is it that the hospital will get the money? Why do you think this?
- 3. Can you say what a coincidence is? Give an example, if you can, from your own experience.
- 4. Brown and Johnson are playing 'Heads and Tails'. Brown has tossed a coin ten times in succession and has had a run of ten heads. Johnson knows that such a run rarely occurs. Do you think Johnson would be wise to bet that the next one will be a tail, and for what reason?
- 5. People sometimes speak of things being ordained by 'Fate'. What do you think is meant by this? Do you think that your actions are determined by 'Fate', or that you yourself control them?
- 6. Smith has just won a large sum of money in a lottery. His friends say he is 'lucky'. Do you agree? What do you think is meant by luck?

- 7. What do you mean when you say something happens by chance? What is the difference between chance and design (or intent)?
- 8. In the past a weightlifter has been able to lift a heavy iron bar only ten times in succession, no matter how much practice he has had. He has just lifted it ten times and is about to try again. What do you think will happen this time? Please give your reasons.
- 9. What is an equal chance? Do you think that in tossing a coin, heads and tails have an equal chance of coming up? Why?
- 10. Jones bets that a certain horse will win the Derby. The odds offered against it winning are 100 · 1. Is Jones taking a risk in backing it? Do you think the risk would vary with the amount of money put on? Would you explain what you mean by 'taking a risk'?
- 11. Smith is playing with a coin and has thrown it a large number of times. What do you think has happened as far as the number of heads and tails is concerned?
- Would you please write down a number and a colour, selected at random.

What difficulties, if any, have you encountered in answering these questions?

Post your answers to "Harlequin" as soon as possible—and by October 15th at the latest.

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BERKSHIRE EDUCATION COMMITTEE

NORTH BERKSHIRE FURTHER EDUCATION SERVICE

# EVENING CLASSES

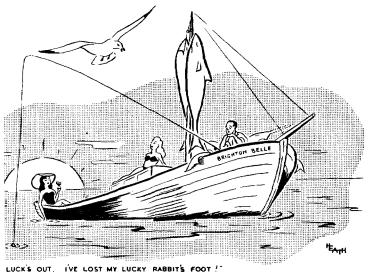
COMMENCE ON

Monday, 23rd September, 1957

IN

ABINGDON, BOTLEY AND FARINGDON

Details of Classes and Enrolment in the Prospectus obtainable from the Institute of Further Education, Mayott's Road, Abingdon; from Post Offices; or from the Education & Training Dept., AERE, Harwell.



A Guinea will be awarded for the best humorous drawing received by 'harlequin' on the subject—chance and uncertainty.

Closing Date—October 15th, 1957.

# CHANCE AND UNCERTAINTY

The object of the survey on page 35 is to find out what people mean when they speak of chance and uncertainty. Though quite a lot has been done on this topic on a purely abstract level, not much has been done to map out people's everyday views on this question. In our ordinary experience we have often to make decisions in situations, the outcome of which is uncertain. These may range from putting a shilling on a horse to getting married. Man is continually confronted with situations in which he has to decide upon a course of action in which his past experience may not always be of help.

In this survey we are not primarily seeking the precise meaning of such words as 'chance', 'uncertainty', etc., but are more interested in finding out people's general attitudes to the situations in which they are used.

This is why we ask you, in your replies to the questionnaire, to give reasons for your views. As there is no one correct answer, your approach will probably be rather different from that of your neighbour. It is worth noting that even in the theory of probability itself the experts are not agreed as to which concepts should form the foundation of their subject.

This survey should enable us to find out what sort of ideas on this topic are current in every-day life, and whether there are individual differences in the way they are held.

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# PROOF READERS COMPETITION

Of the entries received, Mr. R. Jenkin of B.347.2 gave the most comprehensive list of errors gaining a total of 14 marks. He was followed by Miss E. Jackson of South Drive with a total of 11 points.

The most noticeable errors were as follows:

Welshop Ltd. (Cover)—"x" in 2nd "Oxford wrong fount.

W.A.S.M. (p. 5)—"Desperandam".

EKCO (p. 6)—Incorrect punctuation in address. Wheelers (p. 9)—"P.T." and "PT".

Wheelers (p. 9)—"t" in "illustrated" wrong fount.

MILES & SON (p. 34)—"10" inconsistent founts.

Archer, Cowley (p. 34)—"I" in "furniture" wrong size.

WESTON DETAIL (cover)—Varying commas in address.

Vario (cover)—Varying inverted commas around "David" and "Goliath".

Dr. Sykes again honoured us with his entry from the Yerkes Observatory saying he felt it was time to retire from winning the Competition—to give someone else a chance, as it were.

No unique entries were received and the consolation prizes have been carried forward to the next issue when the first prize will be one guinea and second prize 10/6.

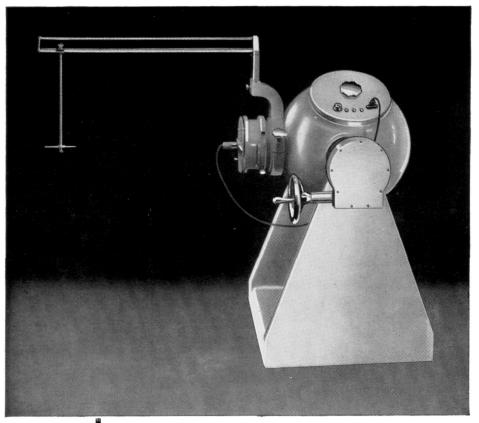
The Competition is limited to errors in the advertisements which have been inserted with the co-operation of the business houses concerned. Marks will again be deducted for red herrings and other incorrect "errors" and entries should be sent to "Harlequin Competition", c/o Central Registry, A.E.R.E., to arrive not later than October 21st, 1957.

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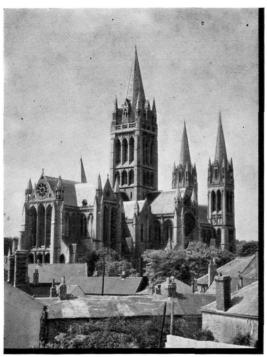
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AND IN BOTTLE

## HOMOLKA REPLIES

Since the inception of "Harwell Types", we have received quite a number of letters from readers seeking information about Harwell and its workers. These have been passed on to Homolka who, with the permission of his warders, has answered some of the more pertinent queries.

What are the prospects of obtaining a job at Harwell and can you give me some information on the working conditions and qualifications required please?

#### Z. S. Malenovitch, Ph.D., Omsk University.

★ The prospects of a job at Harwell are quite good. Of course, in your particular case there might be a few nominal restrictions. For example, you may have to pay your own fare home when on leave and you may not be permitted to join the Cricket Club. The working conditions compare favourably with those of your district, although I am afraid grumblers and critics are rather more numerous. These, however, are usually exiled to a place known as Stores Accounts. This is rather harsher than your Siberia, but somewhat warmer.

Qualifications are a bit more tricky unless you are fairly well off (or have some external source of payment) and can support yourself for some years, it is advisable to conceal your degree initially. The soundest course, we suggest, is for you to apply for the post of, say, Assistant Office Linoleum Examiner, Grade 2, and once you are firmly established with a good salary ask to be transferred to laboratory work.

On the whole, you should find the atmosphere quite pleasant, and tolerance is a strong point at Harwell. For example, no one is compelled to use the Canteen, nor need you take tea unless you wish. Unfortunately, subscriptions to Football Coupons is almost obligatory, but this is not a large sum. \*

Does the intensive work done at Harwell permit of any sort of social life at all?

#### John L. Sotwell, M.P.S,, Maidenhead.

★ It most certainly does. Many newcomers to the Harwell Establishment are surprised at the social activity taking place. Quite a lot of this is also carried out after working hours, when there are various pursuits to suit most tastes. Many of these pursuits are essentially Staff Club affairs, but fun and games are amply catered for by our excellent Recreational Association.

For the very adventurous, like the Welsh and Irish, their is a good Rugby Club with practices on several evenings throughout the year—usually to Lew Temple and his Music. A Football Club is also available for those who like pools, betting, etc. There is also Squash, Tennis, Hockey, Golf, even Cricket and, for the more aesthetically minded, Dry-Land Skiing (by appointment only).

For the sedentary a rough game of chess can be had at the Chess Club and there is also Bridge and Play-Reading. Quite recently a most essential activity was started in the formation of a Judo Club. Here, one can learn to defend oneself decorously in all sorts of unexpected situations. For those who like a "bit of bull" we have a Rifle Club and a Dramatic Society. Even the rather unusual tastes are catered for in the existence of a Mountaineering Club and a Horticultural Society.

For the lighter minded there are various bodies where one can "let off steam". Dancing—ancient and modern—can be indulged in and a Scottish Reel Club has a very strong following, including even some Scots people. There is also a Women's Club (but oddly enough, no Men's Club).

This is just a cross section of the variety of Clubs attached to our Recreational Association. More details can usually be had from our weekly publication, the "A.E.R.E. News", which is issued free to everyone at Harwell (except to Recreational Association members who have to pay five shillings a year). \*



This is the CLOSING DATE for all "Harlequin" Competition entries. In addition, 5 GUINEAS will be awarded the contributor of the best article or drawing that is received. Consolation Prizes bring the total Prize Money for this issue to:—

# TEN GUINEAS

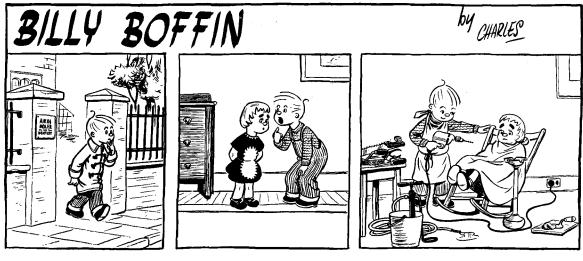
Would-be contributors are invited to send an outline of article or rough of drawing before the above date, if they desire comments, but the Editor particularly requests no visits or telephone calls during official hours on any matters regarding this leisure-time magazine.

Remember this date —

- the Address is

"HARLEQUIN REVIEW", A.E.R.E., HARWELL.

The next issue will be "End-of-Year Harlequin".



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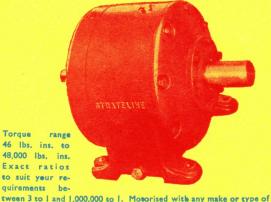
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