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Review

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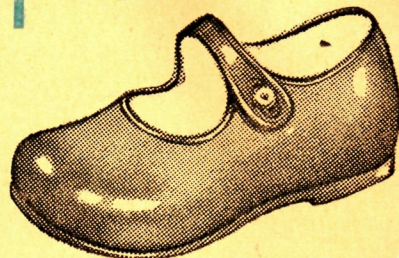
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No. 17

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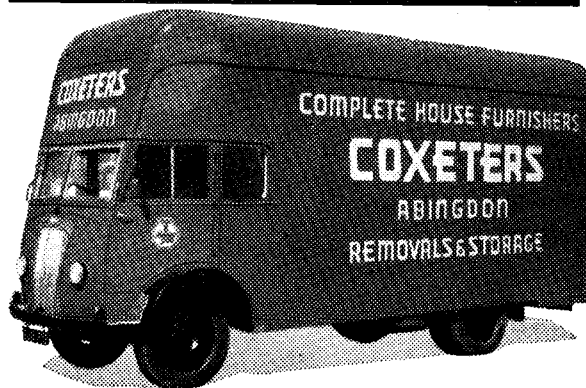
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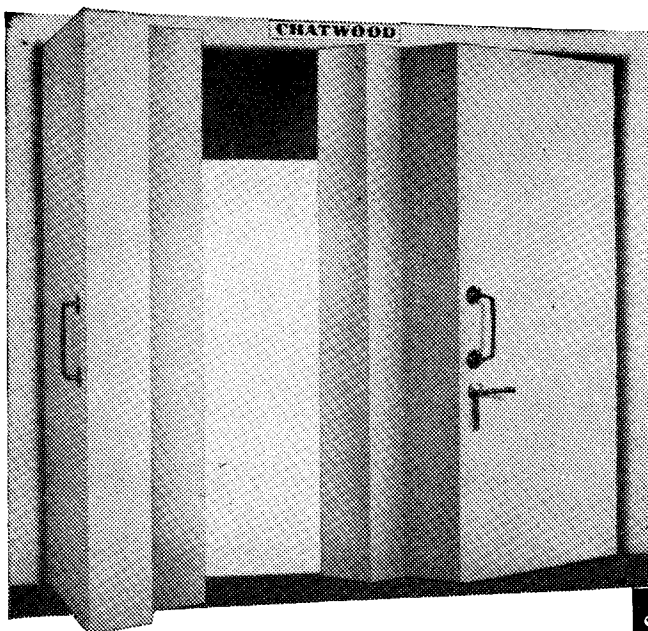
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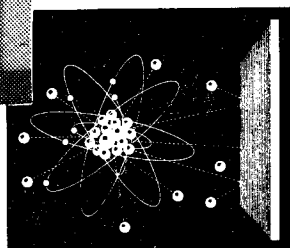
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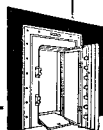
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Second from the right: Academician Topchiev; second from the left: Dr. Schonland, Deputy Director, A.E.R.E.
(See article on page 26.)

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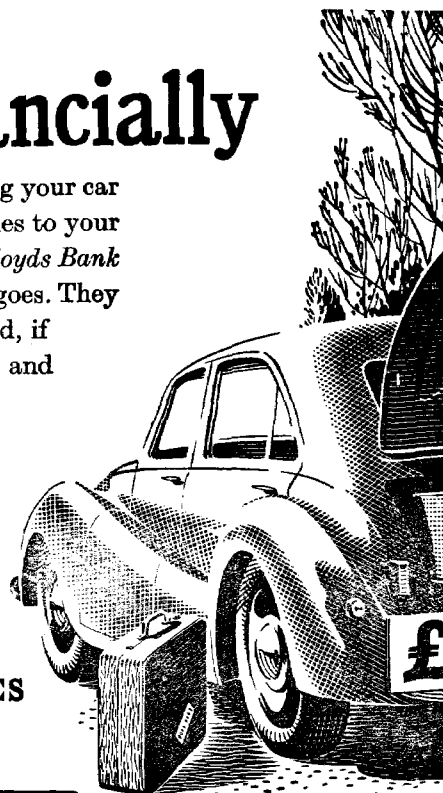
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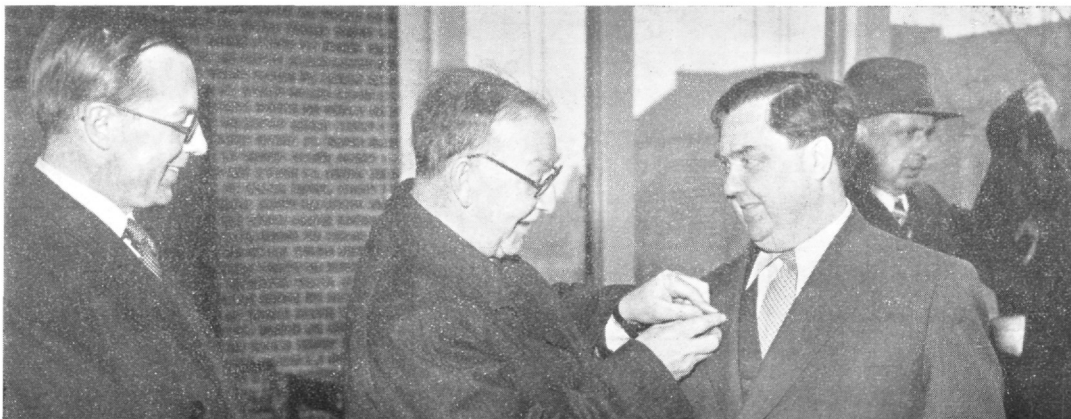
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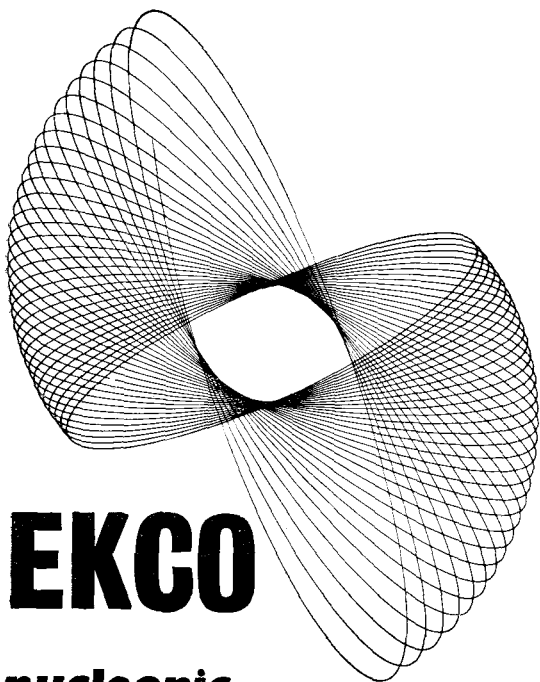
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LEFT TO RIGHT Mr. Selwyn Lloyd, Q.C., Secretary of State for Foreign Affairs, Mr. Krushchev, Leader of the Russian Communist Party, Sir John Cockcroft, Director of A.E.R.E., Dr. Schonland, Deputy Director, Marshal N. A. Bulganin, Soviet Prime Minister, and Sir Edwin Plowden, Chairman of the U.K.A.E.A.

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EDITORIAL

In this issue, in which we record the welcome visit of H.R.H. The Princess Margaret, we recall in our article of tribute to R.A.F. Station, Harwell, the visit of King George VI to this site.

The horizon has changed much since then: today the runways are divided by wire fences; weird new buildings have sprung up, and yet the old hangars remain, their sides barbed with offices, workshops, stores and laboratories.

On the other side of the Oxford-Newbury road the view has long remained untouched since the days of Arnhem, but now this too is changed: not by the addition of some vast new structure of bizarre design, but by the subtraction from the horizon of that familiar solitary landmark, the R.A.F. gymnasium. In our years it has served as Cinema, as the meeting place for such widely differing activities as Keep-Fit classes and election meetings, and more particularly as the Theatre of the Dramatic Society. As demolition proceeded, first the skeleton of the roof straddled flimsily across the sky, then the walls were reduced to rubble. Now, but for a rectangular grassless patch, no trace remains.

Yet it is not just the site, but we too who change: since the cutting of our ties with the Civil Service, there remains often one form to be filled in where several existed before and "one copy only will be required". Today it might be said that the energy released by our scientists from the reactors seems almost paltry compared with the human energy set free by the enlightened administrator.

External relations too have changed and are recorded in this issue. Significant has been the visit of the Russian leaders and the lecture in the week that followed by the Soviet Atomic Chief. At this lecture were divulged by him details of atomic methods which would have been classified top secret here and in the United States.

The angry satire on Soviet Communism, "Animal Farm", presented by the A.E.R.E. Film Society is reviewed in this issue. Its showing on the night of the same day, and in the same hall, as the above lecture was purely co-incidental, but illustrates the many-sided life of Harwell.

After hearing a great deal elsewhere about "The Russian visit", it is refreshing to read in this issue of the visit of Harwell delegates to Moscow under Dr. Schonland.

In these days when East-West relations are prominent in the news it is particularly inspiring to be reminded of ties that remain with the Commonwealth. Recorded in this issue are the personal generosity and goodwill of our Australian friends and colleagues, some of whom return now after periods of nine years in the U.K.

This magazine plans to feature in a later issue news from "our correspondents of the Southern Hemisphere" and would remind others who have left us that "Harlequin" will always be pleased to hear from them wherever they may be—

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It Happened Here

by

A. B. JONES



MAY 1938. The visit by air of H.M. King George VI to the "bomber" base, R.A.F. Station, Harwell.

For rather more than ten years now "Harwell" has been associated in the public mind—both in this country and overseas—with the United Kingdom's programme of nuclear research. The Atomic Energy Research Establishment has had its share of publicity which has ranged from the fascination of the project itself to the leisure time pursuits of the folk who have chosen to work behind the, now, familiar security fence; there have also been references—mainly favourable—to the impact of the Establishment and its activities upon the rural scene of North Berkshire. In the comparatively short period of its existence the Establishment has been playing its part in the making of history: it is proper, however, to chronicle the fact that only a few years earlier history was being made on the self same site—albeit by a somewhat different company.

The first occasion was the visit paid to the R.A.F. Station Harwell by H.M. King George VI in May, 1938, when it had been in use as a "bomber" base for only just over twelve months. It is noticeable that the trees which now effectively screen the facades of the hangars from the airfield were not there in those early days. His Majesty paid a second visit to the Station during the war—in July

1941—when it was in use as an Operational Training Unit.

In 1944 the Royal Air Force Station at Harwell came into its own as one of the most important airfields of No. 38 Group, Royal Air Force; the duties of that Group were co-operation with the Airborne Forces and the dropping of personnel, supplies and arms to Resistance Groups in the occupied countries of Europe.

It was about an hour before midnight on Monday 5th June, 1944: the war, which for four and three-quarter years had been waged against Hitler's Germany, was about to break into its final round; the scene was the Royal Air Force Station at Harwell from which airfield the first aircraft, carrying parachute troops who were the spearhead of the invasion for the liberation of Europe, took off at 2303 hours precisely. The operation was one of the most closely guarded secrets of the war. The first aircraft to leave on this historic mission was piloted by Squadron Leader C. Merrick and carried Air Vice Marshal Hollinghurst—now Sir Leslie Hollinghurst—who at that time was Air Officer Commanding No. 38 Group, Royal Air Force. At thirty-second intervals it was followed by five other pathfinder aircraft carrying the 22nd Independent

Parachute Company. The remainder of the 6th Airborne Division under the command of Major-General Gale—now General Sir Richard Gale, Commander in Chief of the British Army of the Rhine—took off an hour or so later from the Harwell and other No. 38 Group airfields in a vast air armada of 264 aircraft and 98 Horsa and Hamilcar gliders. It is recorded that "Richard the First" was chalked on the side of the glider which carried the General from Harwell.

But let Squadron Leader Dennis Wheatley who was then working with the Joint Planning Staff of the War Cabinet and who witnessed the activities at the Royal Air Force Station Harwell during the forty-eight hours which preceded the start of the operation, describe the happenings:

“

“And then at last D-day was almost upon us. For the second time only since the end of 1941 I was allowed to go to an airfield—in this case the one from which the key operation for the first act in the liberation of Europe will be directed.

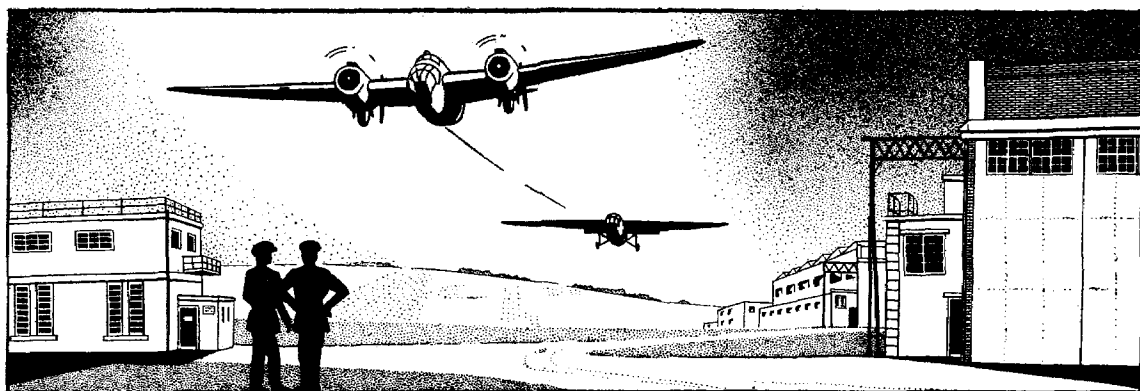
On the sunny morning of June 3rd I left London in an Air Ministry car. We sped along the Great West Road now, owing to the impossibility of obtaining petrol except for war purposes, almost empty of traffic, to Maidenhead. In peacetime the river there would have been gay with picnic parties in punts and launches; now it was still and deserted. More miles of England's green and pleasant land; the country lanes, the little cottages, inviolate for centuries from the brutal hand of an invader and inviolate still thanks to God and

the Royal Air Force. Then on to the downlands and, over to the horizon, to the widely spaced buildings of the R.A.F. Station which I am to visit.

It is a peace time aerodrome with well designed buildings and comfortable quarters, but they are crowded now as it is also the Headquarters of the 6th British Airborne Division. I see an adjutant and am taken to the mess. I do not feel in any way a stranger and within half an hour I have made a dozen new friends.

That evening I attend the preliminary briefing. It is a colour film showing a part of France. It is just as though we were all seated in a huge aircraft flying over the country of the film. Again and again we run in over the German held beaches to the fields in which the paratroops are to be dropped and the gliders come down. As we make our series of chairborne flights to the different objectives the commentator points out the principal landmarks of the area by which the pilots can identify their targets.

Back in the mess I meet scores more officers: there are about equal numbers in khaki and air force blue: they are now talking and laughing together. They all look incredibly fit and their morale is terrific. Half a dozen of us talked on till midnight: when soon afterwards we went to bed we were a bit worried about the weather but we knew that there could not possibly be a postponement unless it becomes exceptionally bad. That Saturday night ships were already moving to their concentration points and the security of the whole operation might be jeopardised if it was put off even for a single day. But in the morning the weather



was worse. At 1130 hours the Station Commander sent for me and told me that the operation would not take place that night. I was utterly appalled. Even an hour earlier, in spite of the poor weather, I would have bet anyone 100 to 1 in pounds that there would be no postponement. Fortunately, however, very few people even knew that a postponement had occurred, far less the possible use the enemy might make of it if his reconnaissance aircraft were active and alert. In consequence, that night the crowded mess was again the scene of gaiety and mirth: at about nine o'clock an impromptu sing song started and for over three hours we made the rafters ring with all the old choruses.

The morning of Monday, June 5th passed quietly. Very few people as yet knew that this was now definitely D-1. But at lunch time the whispered word ran round among the operational officers "Final briefing at 3 o'clock." There were three briefings, each taking an hour, for three separate but co-ordinated operations, and I listened to them all with wrapped intent. Major General Crawford, Director of Air Operations, War Office, had arrived from London to join us, and soon after, Air Vice Marshal Hollinghurst came in. Both had played a great part in the preparations of the forthcoming operation and the Air Vice Marshal was responsible for it, since under his command lay all the airfields in the area on which the aircraft and gliders, that were to take the 6th Airborne Division to France, were assembled.

The Station Commander, Group Captain Surplice, opened the proceedings in each case by reading orders of the day from the Supreme Commander, General Eisenhower, and the Commander-in-Chief, Air Marshal Sir Trafford Leigh Mallory. Then, having explained the general layout of the sea-borne assault, he asked General Gale to describe the part his Division was to play. The General told us that his task was to protect the left flank of the Allied Armies. To do this three separate landings would be made to the east of the river Orne. It was imperative that a large German battery which enfiladed the assault beaches should be silenced. One of the first groups to land would storm a small chateau and seize a car in its garage. Two paratroopers, both Austrians, would get in the car and drive hell for leather towards the steel gates of the battery



JULY 1941. The King comes again to R.A.F. Station, Harwell—this time by road—to inspect the No. 15 Operational Training Unit.

shouting in German "Open the Gates! open the Gates! the invasion has started!" The Germans would have heard the aeroplanes overhead so it was hoped that they would open up, then the paratroopers could hurl bombs through which would render it impossible to close the gates again. It was a suicide job. This fortress battery had a twenty foot wide and fifteen foot deep concrete ditch all round it filled with barbed wire and to make certain of the job the General meant to crash three gliders across the ditch.

The other two parties were to seize two adjacent bridges crossing the river Orne and the Caen Canal about five miles from the coast and to blow up other bridges further inland. The General then meant to establish his battle H.Q. between the two seized bridges, to infest with his men all the territory to the east in order to delay a German attack against the British flank and, when the attack came, as come it must, to fight with his back to the double water line. He thought that the 21st German Panzer Division would be at him pretty soon so he would need every anti tank gun that he could get in. 'We shall need those guns pretty badly' he said, and then, as though it had just occurred to him, he added, 'as a matter of fact we shall want them tomorrow' at which a great roar of laughter went up from the packed benches of the briefing room.

The Station Commander then briefed his pilots, giving detailed instructions to each flight as to their course in and out with the navigational aids arranged to get them safely

home. Group Captain Surplice was followed by the Signals Officer, the Meteorological Officer and the Secret Devices Officer. The "Met" man predicted clear skies under 2,000 feet and broken cloud above which would let moonlight through so that the pilots should be able to pick out their dropping zones without difficulty.

The briefing over we returned to the mess. After dinner a few of us gathered round a rather special bottle of wine which had been produced for the occasion and together we drank to the success of this great venture".

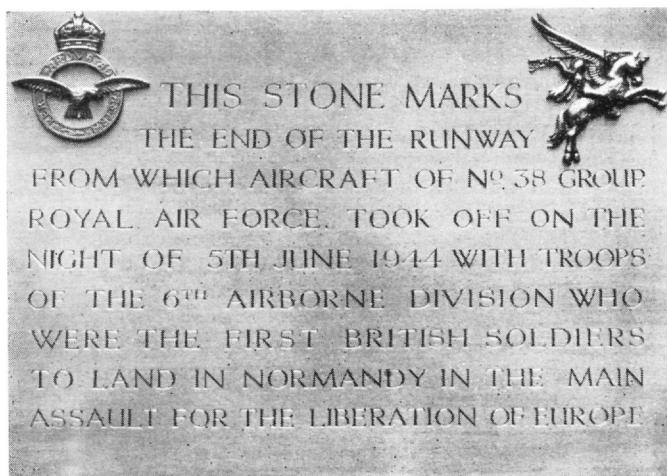
——— And now for a graphic description of the scene on the airfield shortly before "take off" as related by the late Chester Wilmot in his book "The Struggle for Europe": ———

"On the evening of June 5th, 1944, as the last glow of twilight was fading from the western sky six R.A.F. Albemarle were drawn up on the runway of Harwell airfield. Gathered around them, drinking tea and smoking cigarettes, were 60 men of the 22nd Independent Parachute Company, pathfinders who were to guide the 6th British Airborne Division to its landfall behind the Atlantic Wall near Caen. Their faces and equipment were smeared with brown, black and green paint, and over their uniforms they wore camouflaged jumping smocks. Every man was a walking arsenal. They had crammed so much ammunition into their pockets and pouches, so many weapons

into their webbing, that they had found it difficult to hitch on their parachute harnesses. Grenades were festooned about them; they had fighting knives in their gaiters and clips of cartridges in the linings of their steel helmets. No man was carrying less than eighty-five pounds, some more than a hundred, and in addition each had strapped to his leg a sixty-pound kitbag containing lights and radar-beacons with which to mark the dropping- and landing-zones for the rest of the division.

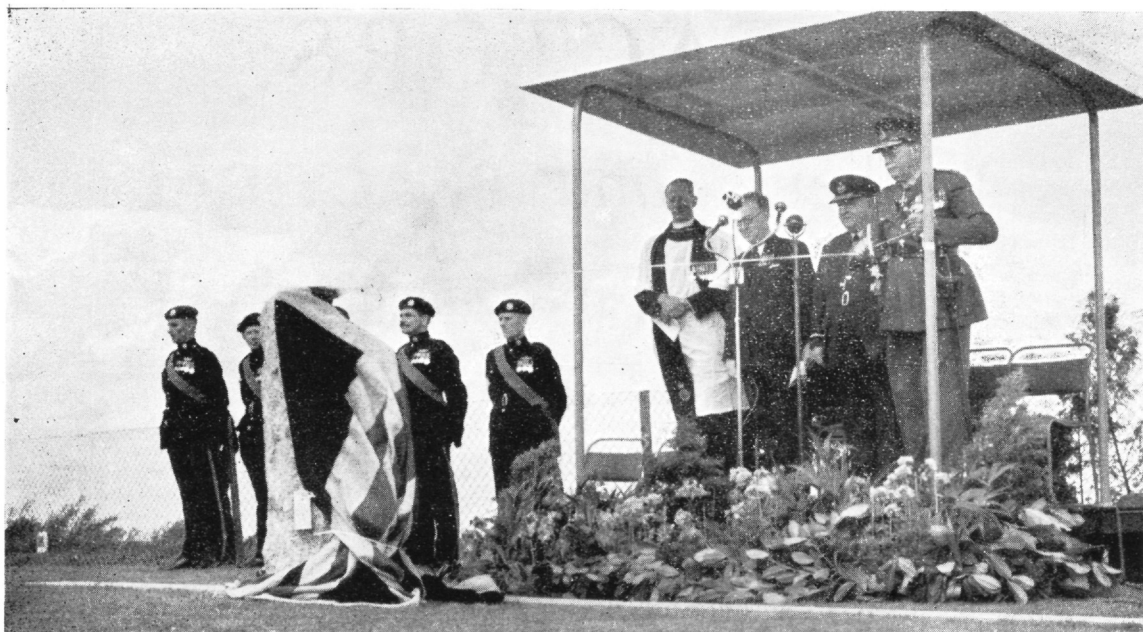
These men were the torchbearers of liberation. Like all paratroops they were volunteers, and they had been specially picked and trained for this responsible task, but otherwise there was little to distinguish them from the rest of Montgomery's force. Beside the leading aircraft were the ten men who were due to land first, at the point of the invasion spearhead, a Berkshire hod-carrier and a toolmaker from Kent, a bricklayer from Edinburgh, a Worcestershire kennelman and a lorry driver from Dumfries, two 'Regulars', a deserter from the 'army' of the Irish Free State and a refugee from Austria, led by a young lieutenant who, when war began, had been in the chorus of a West End musical comedy. Three of them had been at Dunkirk, one had fought in Africa, but the rest were going into battle for the first time.

These pathfinders were the vanguard of the force that had the most vital rôle in the Neptune plan—that of seizing and holding the left flank of the bridgehead—the open flank, against which the main weight of German counter-attack was likely to fall as the panzer divisions moved in from their garrison areas south-east and east of Caen. If 6th Airborne were to fail, the whole bridgehead might be rolled up from this wing before the seaborne divisions could become firmly established."



The commemorative plaque, mounted on a granite plinth, which stands at the east end of the historic runway.

On Saturday, 14th May, 1955 a long wished-for sequel materialised in a special event on the former Harwell airfield: it was the occasion of the unveiling, by General Sir Richard Gale, of a plaque mounted on a granite plinth and standing at the east end of that same runway from which the aircraft had taken off on their invasion operation nearly eleven years earlier. The ceremony was arranged by the Old Comrades Associations of the Glider Pilot Regi-



MAY 1955. A long wished-for sequel to the events recorded here - the unveiling of a commemorative plaque on the Harwell runway beside the Oxford—Newbury road. This was performed by General Sir Richard Gale, who commanded the Sixth Airborne Division in Normandy and who this year again led the pilgrimage to Renville Cemetery on this the 11th anniversary of D-Day

ment, the Parachute Regiment and of No. 38 Group, Royal Air Force.

It was a blustery day and the rain which had threatened for most of the morning conveniently held off. The occasion was memorable in many ways apart from the opportunities afforded to renew war time acquaintanceships. Service and civilian celebrities played their appropriate parts in the handing over and acceptance of custody of the commemorative stone; the paratroopers displayed an obvious pride in being chosen to flank the rostrum and the bearing of a second Guard of Honour provided by the Royal Air Force Station, Abingdon was fully in keeping with tradition. Music was played by the Band of the 2nd Battalion, The Parachute Regiment, and cadets of No. 211 Newbury Squadron A.T.C. dispensed programmes.

After Sir Richard Gale had inspected the Guards of Honour, Sir Leslie Hollinghurst explained how the idea of a commemorative plaque came about and expressed his pleasure at the outcome. He also recollected with what sorrow he himself had learnt of the Government's decision to deprive the Royal Air Force of the Harwell airfield and put it at the disposal of "boffins".

The Union Jack and the Royal Air Force Ensign shrouded the plinth behind which stood Sir Richard Gale: he pulled a cord to reveal the plaque and proceeded to tell his listeners how thrilled he was to be back on the historic airfield after such a long absence. He recounted a story of the golden syrup, a tin of which had been formally handed to him by the Station Commander, Harwell—Group Captain Surplice—just as he explained in his glider for Normandy in the early hours of June 6th, 1944.

Sir John Cockcroft accepted with pleasure custody of the plaque and pledged the Atomic Energy Research Establishment to maintain it and its immediate surroundings in a style worthy of the event which it commemorates. In thanking Sir Richard for performing the unveiling he recaptured for his listeners the picture given in war memoirs of Sir Richard Gale striding across the Harwell airfield in the dim moonlight muttering to himself the lines:

*And Gentlemen in England now abed
Shall think themselves accursed they were
not here.*

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REACTORS:

Academic and PRACTICAL

by Admiral H. G. RICKOVER

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by arrangement with the British Embassy, Washington, and the
United States Atomic Energy Commission.

Important decisions relative to the future development of atomic power must frequently be made by people who do not necessarily have intimate knowledge of the technical aspects of reactors. These people are, nonetheless, interested in what a reactor plant will do, how much it will cost, how long it will take to build, and how long and how well it will operate. When they attempt to learn these things, they become aware of confusion existing in the reactor business. There appears to be unresolved conflict on almost every issue that arises.

I believe that this confusion stems from a failure to distinguish between the academic and the practical. These apparent conflicts can usually be explained only when the various aspects of the issue are resolved into their academic and practical components. To aid in this resolution, it is possible to define in a general way those characteristics which distinguish the one from the other.

An *academic* reactor or reactor plant almost always has the following basic characteristics:

1. It is simple.
2. It is small.
3. It is cheap.
4. It is light.
5. It can be built very quickly.

6. It is very flexible in purpose ("omnibus reactor").
7. Very little development is required. It will use mostly "off-the-shelf" components.
8. The reactor is in the study phase. It is not being built now.

On the other hand, a *practical* reactor plant can be distinguished by the following characteristics:

1. It is being built now.
2. It is behind schedule.
3. It is requiring an immense amount of development on apparently trivial items. Corrosion, in particular, is a problem.
4. It is very expensive.
5. It takes a long time to build because of the engineering development problems.
6. It is large.
7. It is heavy.
8. It is complicated.

A common example can be given to indicate the application of the above generalities:

A fairly conventional *academic* power reactor might use natural or slightly enriched uranium rods in which the burn-up is a minimum of



The academic-reactor designer is a dilettante. He has not had to assume any real responsibility in connection with his projects.

10,000 megawatt-days per ton. The fission products are confined to the fuel element by a simple cladding technique. The elements operate in high-pressure water at 600° F.

In the *practical* reactor, difficulties are encountered. No element of the above type has been tested beyond a few thousand megawatt-days per ton. Eight years of work on high uranium fuels have failed to produce cladding techniques which give really satisfactory performance in water at even 200° F. At 600° F. uranium reacts violently when exposed to water. The Chalk River experience shows the difficulty of maintaining a plant in which some fission products have escaped.

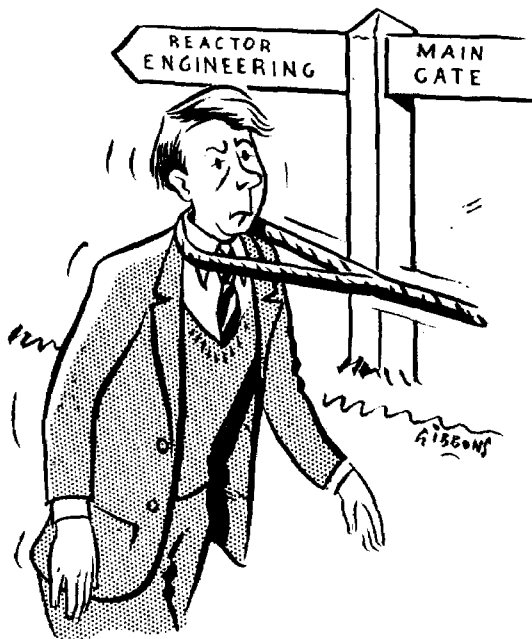
The tools of the *academic-reactor* designer are a piece of paper and a pencil with an eraser. If a mistake is made, it can always be erased and changed. If the *practical-reactor* designer errs, he wears the mistake around his neck; it cannot be erased. Everyone can see it.

The *academic-reactor* designer is a dilettante. He has not had to assume any real responsibility in connection with his projects. He is free to luxuriate in elegant ideas, the practical shortcomings of which can be relegated to the category of "mere technical details". The *practical-reactor* designer must live with these same technical details. Al-

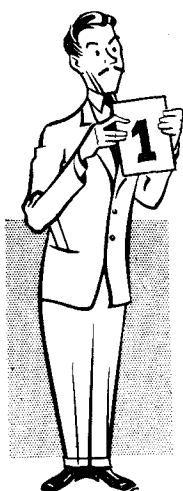
though recalcitrant and awkward, they must be solved and cannot be put off until tomorrow. Their solutions require manpower, time, and money.

Unfortunately for those who must make far-reaching decisions without the benefit of an intimate knowledge of reactor technology, and unfortunately for the interested public, it is much easier to get the *academic* side of an issue than the *practical* side. For a large part those involved with the *academic* reactors have more inclination and time to present their ideas in reports and orally to those who will listen. Since they are innocently unaware of the real but hidden difficulties of their plans, they speak with great facility and confidence. Those involved with *practical* reactors, humbled by their experiences, speak less and worry more.

Yet it is incumbent on those in high places to make wise decisions and it is reasonable and important that the public be correctly informed. It is consequently incumbent on all of us to state the facts as forthrightly as possible. Although it is probably impossible to have reactor ideas labeled as *practical* or *academic* by the authors, it is worth while for both the authors and the audience to bear in mind this distinction and to be guided thereby.



If the *practical-reactor* designer errs, he wears it round his neck...



BRIEF GUIDE TO HARWELL TYPES



Part II



by HOMOLKA

By the way in which he dresses the inmate of the Establishment can be put into one of six main types: (1) Engineers, (2) Chemists, (3) Physicists, (4) Office or Administration, (5) Very Rare and (6) Others

Having pinned your type down by his dress the next thing is to verify your analysis by observing his habits or activity. Enquiry is not to be recommended. Asking questions inside the Establishment can be a hazardous business, especially to the uninitiated. Conversation with type (1) will only get you involved in pipes and gauges and foot pounds per square ton. Type (2) will speak for hours on anhydrous water or the isolation of double bonds. Type (3) will hand you over to the police. Type (4) will ask you to repeat your questions in triplicate. Type (5) will ignore you completely while Type (6) will sell you a second-hand car or a ticket for a dance. So we suggest you silently observe.

In this respect Engineers can be ruled out immediately. True, they all have little offices, but these are seldom, if ever, used. Most of their time is spent rushing around all the other little offices or attending meetings in Birmingham, Glasgow or Newcastle. Extreme activity is therefore the characteristic habit of this

type, which makes identification a simple matter as quick movement is rather unusual in the establishment.

The habits of the Chemist are unmistakable, but, unless a large part of your childhood was spent playing around the gas works or in sewers, it is inadvisable to approach closely. From a safe distance he can be seen pouring stuff into things, turning taps and shaking tubes. Periodically he is obliterated in a cloud of gas from which he emerges, half dead but happy. Chemists are, necessarily, lonely people, and a few kind words—even from a distance—are often appreciated.

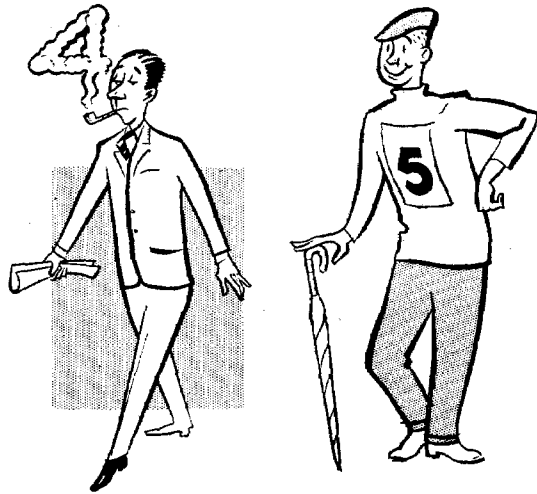
Physicists spend most of their time thinking. The characteristic movement is a limited one. It consists essentially in stretching over and turning some knob or other. They then sit back, very tired, and write it all up in their notebooks. On a fine day they have been known to get up from their notes and perform an operation known as 'looking for leaks'. As this resembles an activity carried out by certain

groups of type (6) it is scarcely characteristic. Agitated immobility is probably the best criterion here.

Type (4) are gregarious in their habits. There is about them a certain air of furtiveness and they tend to collect in groups of three or more. From a distance, their conversation—usually in subdued voices—would appear to concern isomeric transitions or top secret classifications, but, on closer approach, words like “compost heap” or “runner beans” can be distinctly heard. Indoors, the main activity is pencil chewing, carrying bits of paper from desk to desk and frantic searching in drawers or filing cabinets. The females’ habits are similar, only the conversation is in whispers and the searching is even more frantic. The popular idea that the Office or Administration types spend much time in tea drinking is a complete fallacy. Actually, we should say that the reaction to the various tea breaks is probably the characteristic feature of this type. The stoical indifference to the arrival of the beverage is a complete repudiation of public opinion. It is sipped hurriedly with an air of resentment against the interference with work which it entails. This aura of unpleasant duty regarding tea drinking is undoubtedly the thing to look for in type (4).

Living as they do in a world apart, the appearance and habits of the Very Rare type are somewhat ethereal. The general impression is that they are not quite with us. Their actions may be a bit unpredictable, but—and this must be stressed—they are completely harmless. Perhaps the best test for type (5) reaction is to tread on the toes of the particular chap. This merely brings out expressions like “Pimesons” or “Differential coefficient”. Most other types would punch your nose. Contrary to popular belief, Very Rare types have excellent memories but they remember the right things about the wrong people and vice-versa. It is quite possible that one of them will approach you with money, thinking he owes it to you. If so—take it without demur. Refusal might be detrimental to his self esteem.

The habits and activities of type (6) might well be a study in themselves. For simplicity we shall divide them into three subdivisions, (a) the “Pseudo-types” whose activities are best understood with the help of Freud or Jung, (b) the “Normal types” whose activities are rather obvious and uninteresting as they



are working most of the time, and (c) the “Pseudo-normals”. Subdivisions (a) and (b) will be considered in a later issue and we shall finish with a brief word on the “Pseudo-normal” group.

The characteristic habits of this group may be listed as follows:

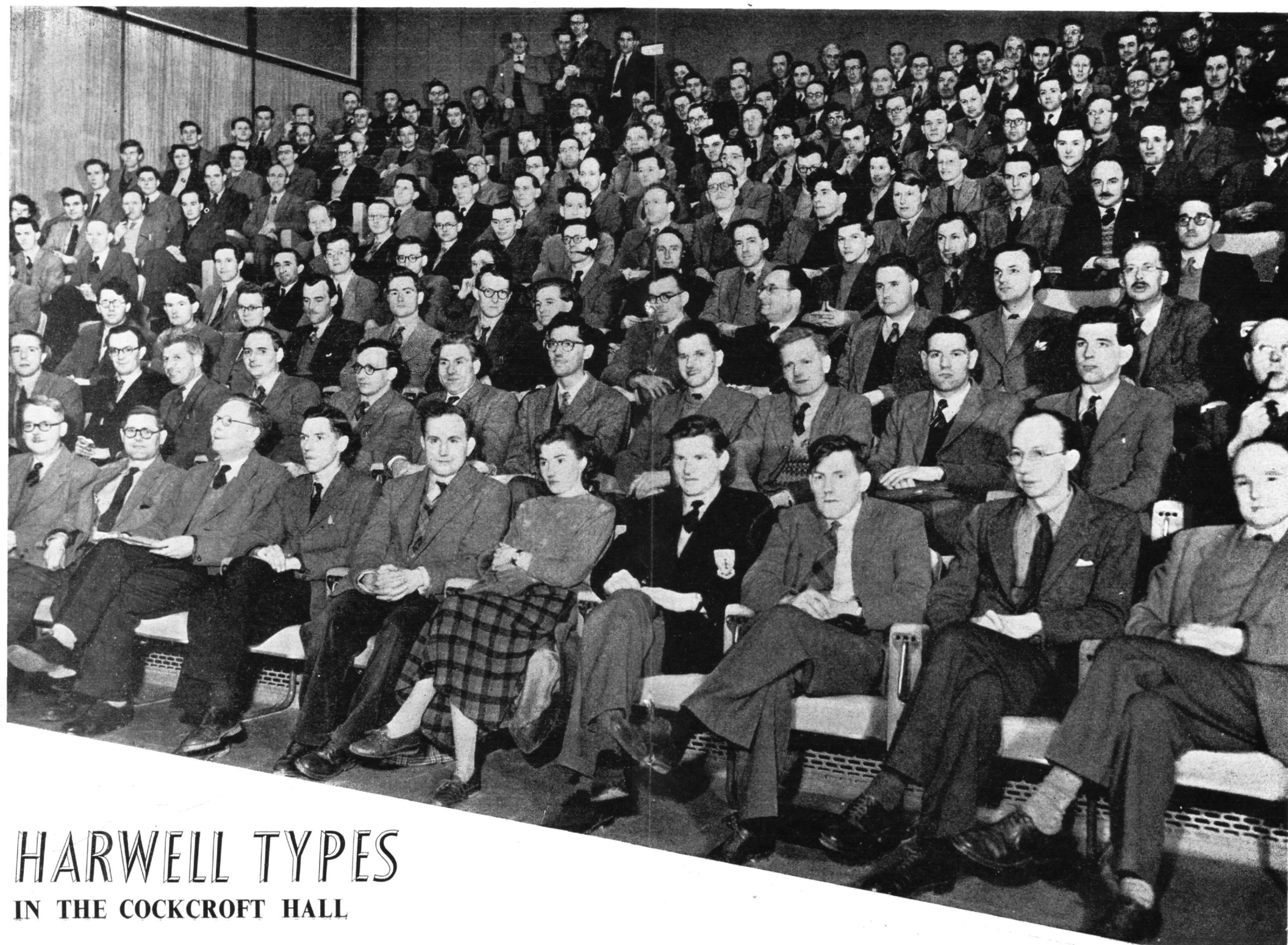
Arriving for work. This is always a spectacular business. It entails much noise, bonhomie, buying of newspapers, telephoning, etc. and lasts until about the first tea break.

Tea-taking. An elaborate ritual this, requiring a knowledge of politics, sport, local history and human nature. (This should be compared with the austerity of type (4) tea taking.) It can be observed at least twice a day.

Car-tinkering. This usually starts with one man—the owner of the car—but in a short time there is invariably a fair cross-section of all the other types clustered around the car. Incidentally, this affords an excellent opportunity for identifying all the various types *en masse*.

Departure from work. Starting about afternoon tea time this activity is similar to Arriving for Work only in the reverse order and considerably faster.

It is hoped that this preamble will give some idea about what must be looked for in the initial identification of Harwell types. In the next issue we shall approach the subject in greater detail, embracing such topics as the eating habits of the different types, how to detect an unmarried Divisional Administration Officer, and what Typists talk about, etc.



HARWELL TYPES
IN THE COCKCROFT HALL

THE MAILED LOBSTER

by J. B. SYKES

It would need the pen of a Jennings (the journalist, not the schoolboy) to do justice to the Post Office—that strange complex which embraces so many things, from stamp-machines to telegraph poles, with which one gets brought into contact from time to time.

There is, however, a certain feature of the Post Office which may have impressed itself on my readers, namely the masterly inactivity which sometimes characterises the behaviour of those godlike personages who sit on the other side of the counter. The theory I wish to put forward is that these ladies and gentlemen are occupied with a far more weighty task than the mere serving of the public; they are endeavouring to memorise the provisions of the Post Office Guide.

This hardy annual is red in colour, as we might expect, and blossoms in July, as we might not expect. Its five hundred and twenty pages are crammed with details regarding what can or cannot be posted when, where, whither and how, as well as the little matter of what it will cost. Some of its revelations seem to evidence a kindly disposition on the part of the legislators; for instance, the Inland Revenue Office (what have they got to do with it?) will emboss postage stamps on suitable envelopes provided by the user, while *addresses and petitions forwarded to H.M. the Queen are exempt from postage*. The majority of the Guide, however, bears a somewhat forbidding appearance. A lengthy list of *Embarrassing Packets* includes *A packet having its address parallel to the breadth instead of to the length of the envelope Red packets or envelopes A packet enclosed in a wholly transparent envelope A packet of such small dimensions as to be likely to impede the officers of the Post Office in dealing with it.* (One begins to see why the chaps behind the counter look at everything so thoughtfully.) Some time ago, I crossed swords with the Post Office regarding the legality of sending a crossword solution at the Printed Paper Rate. My contention was disallowed, on the grounds that *Coupons, forms, cards and so*

on, bearing written answers to acrostics and guessing competitions, and communications indicating, whether by means of words, letters, marks or numbers, moves in a game of chess (on a printed form or otherwise), are inadmissible. Still more astonishing is the remark that *Correspondence exchanged between students at school, even when it is current and personal, is admitted at the commercial papers rate, provided that it is sent through the intermediary of the principals of the schools concerned.* What was that, Bunter? No, I regret to say that this concession applies only to *overseas* mail.

The aspiring clerk who has got this much by rote has, however, barely reached the first bend. There still remain to be mastered some one hundred and seventy pages concerning the rates and conditions for individual countries overseas. These include numerous prohibitions and restrictions, some of which seem almost to border on the eccentric. To Aden, Burma, India, Nepal, Pakistan and Tibet, you may not on any account send quinine coloured pink. Any other colour, yes, but not pink. A vast area, including Australia, Hong Kong, Oceania, and the United States and nearly all its dependencies, will not admit wedding cake unless it is *securely packed in tin boxes*. What frightful catastrophe, felt right across the Pacific, must have occurred to bring about this ordinance? Did some émigré from the Solomon Islands send each of his numerous old pals a piece of wedding cake wrapped in brown paper and tied with string, and did the whole lot come to pieces at San Francisco, covering the floor of the Customs House with a brown, glutinous mess? Holland and Norway refuse gooseberry bushes; can it be chance that the stork flourishes in these countries? Iraq rejects hair-dye containing diamine, and rubber balloons. Guatemala gardenias and beer, Nicaragua petrol lighters. Basutoland eau-de-Cologne: pity the poor counter-hand! Even John Hookham Frere's query

"Ah, who has seen the mailed lobster rise, Clap her broad wings, and soaring claim the skies?"

must remain unanswered: for living animals can be accepted for express delivery only if *a suitable receptacle or lead is supplied, and the sender takes precautions to safeguard the messenger from injury.*

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APPLICATION FORM FOR BEVERAGES (Non-Alcoholic) FOR AUTHORISED DRINKERS ONLY

NOTES: (1) This form can only be used for applications for tea: applications for coffee, cocoa etc. should be made on FORM CUPA 2 and not on this form.

(2) Three copies of this form must be sent to the chief teamaker's office at least THREE Days before the tea is required.

(3) Omissions and errors in the completion of this form may lead to its return with consequent delay in delivery time.

Name in BLOCK LETTERS	Rank	Cup No.
.....	Branch	Cup capacity
.....	Room No. & Bldg.	No. of cups per day.....
.....	Private Address	

STATEMENT OF APPLICATION BY APPLICANT

Please make arrangements to supply.....cup(s) of tea, each containing.....lump(s) of
 { sugar § { with § { milk § ¶
 { saccharin { without { saucer(s)
 on the following day.....at the following times.....

I Certify that (1) All particulars stated above are correct.

(2) The tea is intended for my personal consumption in the hours covered by the Regulations of the department and is not intended for consumption by unauthorised persons.

(3) Any unused tea will be returned to the tea pool: arrangements for removing the used cup(s) have already been made using FORM SCUM 3.

Usual Signature of Applicant..... Date.....

I Certify that (1) The delivery of tea requested on this form is fully authorised. (2) The tea is essential for the satisfactory discharge of official business and its consumption will not result in substantial loss of working time. (3) The amounts and particulars stated are correct.

Signature of Certifying Officer..... Rank

Date..... Branch.....

AUTHORISED FOR DELIVERY		DELIVERY MADE	USER'S COMMENTS
Stocks checked		Collection time.....	
Cup No. correct		Date	
Sugar not excessive		Delivery Time.....	
Date of brew		Date.....	
Volume of tea before delivery		Initial Temperature.....	
Volume of tea after delivery		Final Temperature.....	
Signature		Signature	
Branch..... Date.....		Branch..... Date.....	

†Application to become an authorised drinker must be made on FORM HOG 12 and not on this form.
 §Strike out whichever does not apply.

¶Application for milk may be made separately if desired, using FORM Cow 82.

SOME IMPRESSIONS ON A VISIT TO MOSCOW

"Guests of the Soviet Government are brought to Russia on brief and feverish visits. They are entertained with oriental ostentation. They are overworked, overfed and overstimulated and all but the most critical of them go home staggered by Soviet hospitality and astonished by what has been shown them. It is not surprising, therefore, that so much writing about Russia falls into one or other of two categories: monotonous panegyrics from visitors who have been led round Moscow like

sacred bulls in an Oriental city, and petulant denunciations from Pressmen who have been confined to the Metropol hotel".

So, somewhat ungratefully, says Eric Ashby in his book 'A Scientist in Russia'. The visit which enables me to write my impressions was certainly brief—of four days duration only; feverish—decidedly, the more so since I had, only nine days before, returned from a longer but equally concentrated visit to the U.S.A.; overworked? yes, but this is normal at Harwell; overfed—definitely; overstimulated—considering alcohol as a stimulant—possibly! However, in giving my impressions I shall try not to be monotonous or petulant but as factual as possible. And I must begin by expressing my thanks for much kindness and generous hospitality on the part of our Russian hosts.

TRANSPORT

After travelling from London to Stockholm and thence to Helsinki in the luxury of a B.E.A. Viscount and a Scandinavian Air Services D.C.6, the Soviet Aeroflot's Ilyushin IL-12 twin engined plane was somewhat spartan. Absent was the usual welcome of the air hostess, the cheery greeting over the intercom from the aircraft's captain, and the illuminated instructions on "no smoking" and "fasten seat belts". The plane was roughly similar to the D.C.3 used on some aircoach services in the U.S.A., and was rather draughty with a heating system which suffered



Church of St. Basil, Red Square, Moscow.

from long delays in the operation of its thermostatting system. In spite of these minor discomforts we arrived punctually in every case.



Forty-ton cannon of the 17th Century in the grounds of the Kremlin.

In Moscow there are trams, and although I did not have an opportunity to use them they seemed similar to many still in use in this country but not as good as those in Stockholm which were surprisingly silent. Most of our travel was by car, in either a ZIS or a ZIM, very roomy and speedy and fitted with overdrive in the later model, but draughty and rather cold, and smelling somewhat of hot oil on a long journey. The driving in Moscow seemed to be every bit as belligerent as that in Paris with little consideration for other motorists, and none for pedestrians. In fact a pedestrian's life seemed even more hazardous than usual because of the very wide streets, four traffic lanes in each direction in some cases, and the very inadequate street lighting. For the jay walker who attempts to cross the road at other than an approved place there is also the prospect of coming into contact with the baton of the long-coated policeman who marches up and down in his neutral zone between the two streams of traffic.

The underground system, the Metro, is of course a real show piece, with marble walled stations, efficient and quiet escalators and remarkable cleanliness. I only made a short journey on the Metro and cannot say anything about the range and frequency of the service, but it smells better than the Paris Metro!

THE HOTEL SOVETSKAYA

This is a modern building only two or three years old, and the spacious suite which I shared with a colleague was very comfortable,

with entrance hall, bathroom and sitting-room with a curtained alcove containing two double beds and wardrobe. There was a telephone and a large table model radio, on which, incidentally, I was able to listen to the B.B.C. news in English on one of the short wave bands. The bathroom was modern and fitted with accessories we had been warned might not be available. The most obvious difference from Western hotels was the silence; even the lobby was hushed. In the large restaurant, however, it could be noisy and dances were held there to a band playing surprisingly American-type music.

THE 'SIGHTS' OF MOSCOW

Travelling to and from Moscow, for example from the airport, the most impressive sight on the skyline was the University, particularly at night when the outline was shown by coloured lights on the various towers. Generally speaking, however, buildings in the city have a certain Georgian or in some cases even American-Colonial style monotony. Red Square (much more of a rectangle incidentally) is quite distinctive: at one end is the red brick Natural History Museum; at the opposite end the Church of St. Basil, its brilliantly coloured towers glistening, fresh from its repainting for the October Revolution celebrations when we saw it; in the centre the dark red marble mass of the Lenin-Stalin mausoleum; and of course the whole of one side dominated by the Kremlin buildings inside their protective brick wall. We were fortunate in being able to visit



The Kremlin

the Kremlin on the Sunday we were in Moscow—the Scientific Institutes being closed on that day—and saw the impressive collection of Russian heirlooms in the museum of the Kremlin, one of the Churches and something



In the grounds of the Kremlin: the cracked bell of Ivan Veliki's bell tower.

of the other buildings, including Ivan Veliki's bell-tower and alongside it a great cracked bell which was so heavy that when it was hoisted it fell down again and was never hung—a monument to the failings of some engineer. Long queues of Muscovites, in their Sunday best (or its equivalent), continually filed into the Kremlin and its show pieces as well as through the Lenin-Stalin tomb just outside. The



Entrance to Lenin - Stalin tomb.

latter was most impressive, both from the outside and inside, where the well preserved bodies of Lenin and Stalin lie regally, appropriately illuminated. One of the best vantage positions for an overall view of the Kremlin buildings is undoubtedly the balcony of the British Embassy, just across the Moskva river, and we had the good fortune to get such a view when we visited the Ambassador. The balcony happened to have a good deal of sand on it and the diplomatic aplomb of Sir William Hayter and his charming wife must have been a little strained when they saw eight pairs of heavily sanded footprints (atomic, but we hope not radioactive) treading across their beautiful recently-vacuumed carpet as we came in from the balcony!

THE BALLET

In the four evenings we had in Moscow some of us saw one opera (*Carmen*) and three ballets; *Swan Lake*, *Giselle*, in which the young Struchkova danced beautifully, and *The Bronze Horseman*, a modern Russian ballet with excellent music and remarkable stagecraft. Lady Marie Noele Kelly, wife of a former Ambassador, has written "The technical miracle of inflating canvas to simulate huge waves, the boats, the rising crescendo of the storm, the fountains whose jets of real water reach from thirty to forty feet, the live horses of the *chevalier-gardes*...that is another side of Soviet ballet which...most impresses *workers' delegations*" (my italics). All I can say is that our delegation was most impressed! The Bolshoi Theatre has a quite beautiful auditorium with its red and gold tiers of boxes and I was fortunate in being able to take some Kodachromes, after a little initial bother with startled attendants indicating that cameras were not admitted.

THE FAIR SEX

There was only limited opportunity for forming impressions on this topic. At the ballet, however, some wives accompanied the scientists who acted as our hosts, and during the intervals we would "promenade" along the corridors and halls—quite a well-organised leg stretching custom apparently. It appears that the Russian women aim quite clearly at equality and independence by working and studying. Most of the wives we met were glad of the opportunity to practice their English on us. Russian women seem to accept manual work—the snow which fell during our last night in Moscow was being shovelled into the side of the roads by gangs of women the next morning. We had little time for shopping—about an hour in fact—but it was amusing to see the shop assistant or cashier making calculations on her abacus—a kind of bead frame clearly in widespread use in Moscow.

THE TECHNICAL VISITS

These naturally took up most of the available time. The whole party visited the Praesidium of the Soviet Academy of Sciences, the Lebedev Institute for Physical Problems, and the Atomic Power Station of the Acad-



Farewell Banquet given by the Academy of Science, Moscow, to the U.K.A.E.A. Delegates to Russia, November 1955. Chairman: Academician: Topchiev; on his right and beneath bust of Stalin: Dr. Schonland, Deputy Director, A.E.R.E.

emy. On one of the days we split into units or pairs so that more places could be seen. It was in this way possible to pay visits to the Krizhanovsky Institute of Energetics, the Baumann Moscow Higher Technical School of Mechanical Engineering, and four other Institutes, of Metals, Nuclear Physics, High Energy Physics, and Analytical and Geochemistry.

The Atomic Power Station is in a village about seventy-five miles from Moscow; judging from the barriers and fences I imagine that this village has grown up in the style of Oak Ridge, and that the power station is by no means the only project there. Most of our party had seen the Soviet film of the Power Station at Geneva, but we were shown it again before being taken to the Station itself. This is not the place to give technical descriptions but I was impressed by the Chief Engineer who in addition to being completely knowledgeable on his plant, was obviously regarded with respect and even affection by his staff.

At all the Institutes of the Academy, it was very pleasant to meet some of the people whose

names one has come across in the literature, and to renew acquaintance with some of those met for the first time at Geneva last year and some who visited Harwell shortly afterwards. At the Vernadsky Institute for Analytical Chemistry and Geochemistry, where I spent one day accompanied only by one of the two interpreters supplied for our party by the Academy, I was able to meet again the Director of the Institute, Prof. Vinogradov and to be introduced to Prof. Alimarin of Moscow University, and see some of their work. Vernadsky, who died only in 1945 at the age of eighty-two was the first to attempt to establish an independent science of geochemistry, and he is clearly revered in the institute named after him. His old study is preserved there as a small museum.

There was no doubt that all the members of our party were impressed by the scale of training of scientists and engineers in Moscow. The scientists we met seemed to be very anxious to establish or increase scientific contact with the West.

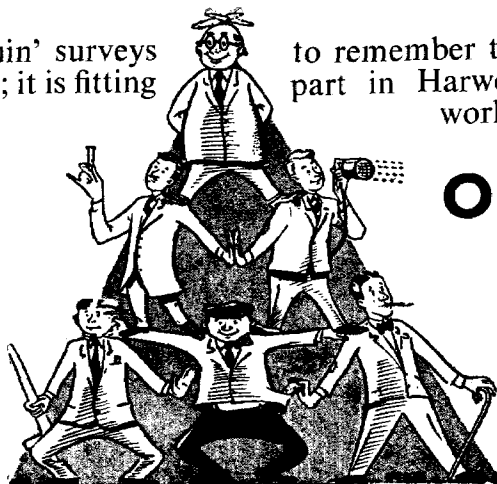
A.A.S.

♦ ♦ ♦

As this issue of 'Harlequin' surveys somewhat wider horizons; it is fitting

to remember those who play a vital part in Harwell's effort, but who work... .

Other People's Jobs



OUTSIDE THE FENCE

No. 3—by D. A. TYLER, in collaboration with A. E. ANDREWS

Apart from Harwell's co-operation with sister Research Establishments, there are external organisations, other than contractors, who for convenience have come inside to join us. Typical is the help received from officers of the Australian Atomic Energy Commission—mentioned elsewhere.

One could never hope, however, to have on tap in one place all the highly specialised knowledge and varied techniques that we needed. To meet this need *extra-murally*, i.e. outside the wall, Extra Mural Research was one of the Divisions set up.

Through E.M.R. external development and research is co-ordinated and many are the problems—from metallurgy to electronics—that have been solved with this outside help. Many of the scientific and technological advances attributed to Harwell should in fact have credit shared with such bodies as universities, industries and other Establishments with whom profitable liaison has been achieved. Power stations such as Calder Hall and Dounreay are the direct outcome of liaison in which many have co-operated.

But too great a modesty on our part is not demanded. Liaison is always mutually advantageous and no information or technique makes a one-way trip. The Reactor School, Isotopes School and the more recently formed Electronics School, all play a part in dispensing information to those from outside. Moreover, in the race to harness the A- and H-bombs for industry no help that is free from

security risks can be overlooked.

There is a job of external relations that, like the publishing of this magazine, might be regarded at first sight as being a leisure activity in function. This is the organising of visits to Harwell for selected persons from outside—from organisations working with us and from academic centres. These visits, apart from their technical advantages, fulfil a valuable purpose. It is desirable to dispel the illusion that we at Harwell are solely engaged upon work aimed at blowing some unfortunates to Kingdom Come—desirable also to avoid the opposite idea of our offering some panacea or medicine for the 'ills of the world'. On the other hand we need to have known the facts about our exports of radio isotopes, the applications in such varied fields as medicine and agriculture, not forgetting the new methods of generating electricity.

The man in the road outside may not grudge us our high fence. Yet as he pays for it and what is beyond, it is necessary for him to know something of what goes on on the other side. So, although we have our fence, we shall never work in monastic isolation from the world outside.

Such organisations as E.M.R., Contracts and Outside Manufacturing Groups are developing increasingly profitable outside collaboration. Tomorrow greater achievements will be shared by those who work side by side—and on either side of the fence.



Australians Dr. D. J. O'Connor and Dr. J. N. Gregory hold up one of the original oil paintings presented on April 13th to commemorate the association of Australian staff with the U.K.A.E.A. Beside the Director is C. N. Watson-Munro, Chief Scientist of the Australian Atomic Energy Commission.

Australian Presentation

The two original oil paintings and collection of prints by Australian artists were purchased by private subscription. In thanking the Australian staff Sir John writes:

"During the past nine years we have benefited greatly from the work you have done here, and the achievements of your engineers and scientists who have worked in our laboratories are part of the foundation of our whole project. We look forward to the continued exchange of ideas and information with you all when you occupy your new laboratories in Australia.

Your paintings will always provide a permanent memorial of our collaboration as well as providing for us vivid pictorial images of Australia".

The two originals in the Cockcroft Hall portray two different aspects of the Australian countryside and form a contrasting pair. They are by two of Australia's most celebrated artists and, although the notes prepared about them may assist those unfamiliar with Australian Art, the originals should be seen for themselves. (*See pages 33 and 35.*)

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'SUMMER HAZE'

William Alexander
DARGIE

F.R.S.A. (Lond.), F.R.A.S (N.S.W.)

—is a painter in oils and has been the winner of the Archibald Prize, an annual prize for portraiture, on seven occasions. Tone is the basis of his realism today. He is a convinced 'realist' and paints exactly what he sees with a fluid technique which enables him to 'cover the ground' swiftly and accurately.

Dargie was appointed Master of the Gallery Schools, Melbourne, in July 1946 and has been an artist member of the Commonwealth Art Advisory Board since 1953.

Better known as a portrait painter, he has recently executed a painting of Her Majesty the Queen which was commissioned by the late James P. Beveridge, O.B.E., and presented to the Australian Government on behalf of the nation in 1955.

The painting entitled 'Summer Haze', with sheep and rider, depicts typical pastoral country not far distant from the coastline.



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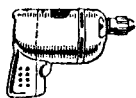
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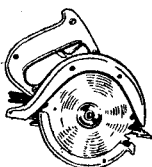
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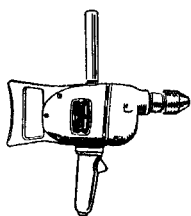
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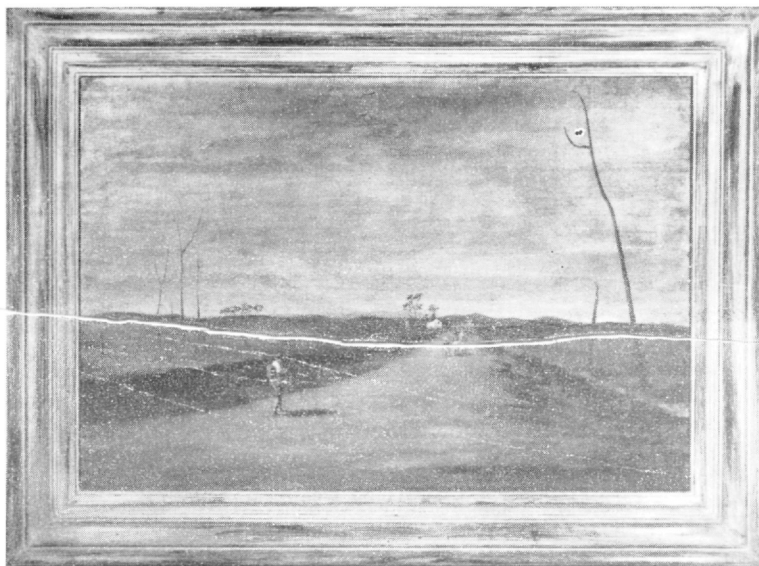
THE KNOWL

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'SCHOOL CHILDREN'

George Russell
DRYSDALE
M.S.A.

—was born in England in 1912 and went to Australia as a boy. Having worked as a jackaroo, or boundary rider, in the Riverina district of New South Wales, and in sugar mills in Queensland, he is well equipped to portray the essence of Australian country life.



Drysdale is recognised today as one of Australia's foremost artists and is one of those who think exclusively in terms of the Australian scene. His paintings of the outback country and rugged bush settlements combine rich colour with harmonious forms. His landscapes, of which "School Children" is typical, show "illimitable yellow horizons under a burning sky, lonely verandahed buildings and rare skinny trees". Drysdale simplifies material facts, strips bare the elements of his pictures to make certain of conveying his stark message.

In 1950 he held a successful one man show at the Leicester Galleries, when the Tate Gallery made a purchase. His work has been bought for a number of national galleries and for private collections in the Commonwealth.

The landscape depicted in "School Children" is typical of good sheep country in the "Outback".

Twenty-five prints were also presented. These were selected from the works of a large number of leading Australian artists and will be distributed among the Harwell Division and other U.K. Establishments.

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*Proof Readers' Competition*_____

That this competition is very popular is repeatedly proved by the number of entries received.

First prize of one guinea was awarded to S. J. Boot of Health Physics and the runner up by a margin of only one point was M. Meaburn, Chemistry Division who received the second prize of half a guinea.

One competitor observed an error which had escaped other readers. A. C. Davis of Stores alone spotted the error in the Chapman-Hall announcement. This he neatly transcribed into verse:

*"In spring we had the 'Rein' to 'hold'
Or so wrote Chapman-Hall
Yet Christmas turns the 'Rein' to 'Gold'
Now which is right, withal?"*

In the Christmas rush this escaped even our professional proof reader—for him a brickbat and for Mr. Davis a book token.

Errors more widely spotted are listed below:

Front Cover	Bailey's	inverted inverted commas!
Page 2	All Power	+ EV for + VE
„ 3	Faulkner & Son	Son for Sun
„ 3	Coxeters	Cabiner for Cabinet
„ 5	Grays Inn Tent Shop	Astronomer for Astrologer
„ 37	Hare & Hounds	Licensed for Licensed
Back Cover	Camp Hopson	occasional for occasional

By arrangement with the advertisers in this issue another ten errors have been carefully concealed. Send your list to "Harlequin Competitions, A.E.R.E. Harwell, Berks.", to arrive not later than July 31st. Once again a first prize of one guinea will be awarded with second prize of 10/6 and a book token for an unique correct entry.

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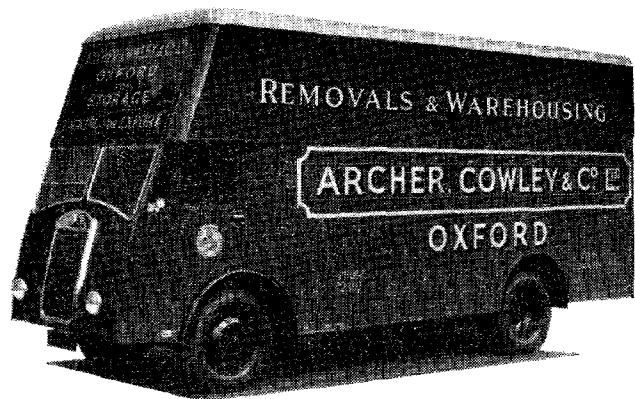
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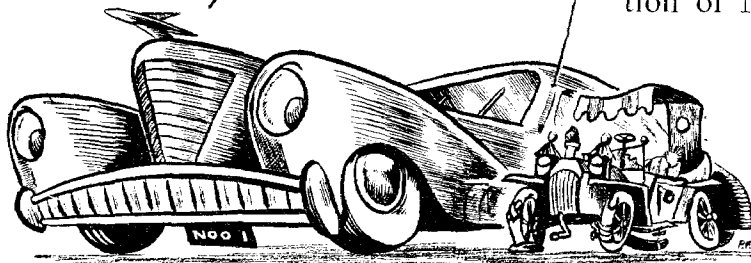
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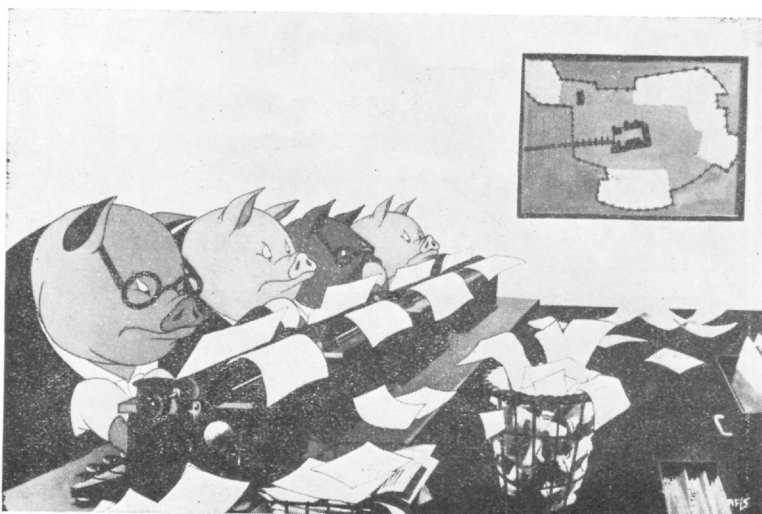
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'Animal Farm'

'Still' by courtesy of Halas and Batchelor Cartoon Films Ltd.



The A.E.R.E. Film Society closed its first season with the showing of this full length cartoon adaptation of George Orwell's political fable, produced and directed by John Halas and Joy Batchelor. There can be little doubt that this was a popular choice, for "Animal Farm" is an enjoyable film of considerable merit. It is, however, a disappointing film and must be classed as an honourable failure.

The makers, and Louis de Rochement their American backer, are to be commended for producing the first full length animated film with a serious theme. They form a team which might be expected to handle this angry satire of Soviet Communism effectively. Halas and Batchelor have been responsible for a series of brilliant short cartoons which are full of invention; de Rochement, formerly producer of the "March of Time" series, was the producer of a number of socially conscious Hollywood films such as "Boomerang". That the film does not fulfill expectations is thus particularly disappointing.

The details of Orwell's story are closely followed until the final sequences of the film are reached, but here the whole message of the book is weakened by the "happy" ending. Instead of leaving the animals completely and hopelessly dominated by their pig masters, the film closes with their carrying out a counter revolt. Since the initial revolt had been inspired by the same noble motives, this conventional ending suggesting a revolutionary spiral is basically meaningless.

The drawing too is, in general unsatisfactory. It was clearly intended that the animals should appear as realistic as possible, the

better to arouse interest and sympathy; but for ease of animation it has been necessary to simplify their form as much as possible. This simplified realism makes the animals indistinguishable from Disney figures, with the consequence that one has to struggle throughout against a feeling that they are meant to be humorous. If it is technically too difficult to carry the realism farther than has been done, then the use of stylized figures would probably have been more effective. The humans in the film are, in this respect more acceptable than the animals. The introduction of simple slap-stick humour is another unfortunate Disney influence. The little duckling that cannot climb the stairs is too reminiscent of the tortoise that had the same difficulty in "Snow White and the Seven Dwarfs".

On the credit side, the characterization of Boxer, Major and Napoleon is good, the horror of the secret-police dogs is well conveyed, and the performance of Maurice Denham who provides the voices of all the animals is a tour de force.

As John Halas said during his talk to the Film Society the week after, there are signs of a growing interest in the cartoon film, particularly as a medium of serious expression. The quality of the short films made by the Halas and Batchelor group is extremely high. With the experience gained in making "Animal Farm" there is no reason why this group should not lead the world in this fascinating development of the cartoon film. At the least they have given other animators a glimpse of what might be done.

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COMPETITION RESULTS

Cartoon Fission

(1) The painting Competition was won by Anne Willson, who receives a book token (10/6).

The entry of Ian Smith of 37 Ridgefield Road, Oxford, was highly commended.

(2) For the same drawing older people were invited to supply a caption.

Some entries, including the inevitable pun on *fission*, lacked the erudite originality of J. B. Sykes' caption: "The trouble about fishin' in heavy water is that the capture probability is so small!"

An entry by L. J. Staniland appealed to our pride in accepting a joke against ourselves—"Seems to be plenty of queer fish here!"

Neither of these, however, accounted for the high water level on the site which would appear to call for explanation. The half guinea was therefore awarded to P. Mulford, who was also the artist, for his winning caption: "Bright periods and showers they promised us!"



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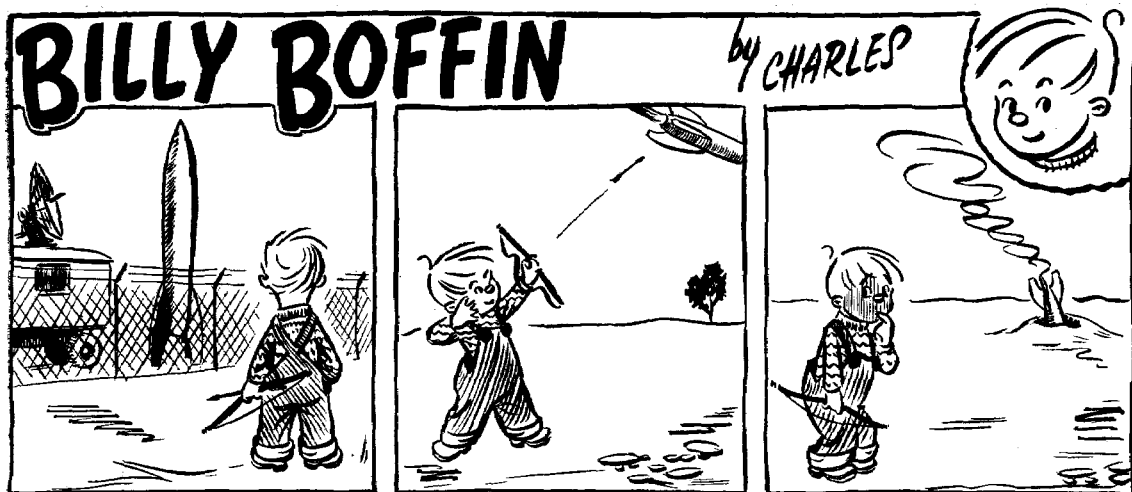
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COMPETITIONS "I had an idea", writes Don Knight, "for a cartoon featuring *five* children, but I am not sure my draughtsmanship is good enough and I haven't given any thought to plot. The children? The Harley Quins of course!"

A guinea is offered for the best cartoon on this theme and another guinea for the best cartoon depicting Life at Harwell. In both cases a brief description, sufficient for an artist to illustrate, may suffice to win. Closing date: July 31st.

RESULTS HELD OVER FROM LAST ISSUE

CHILDREN'S COMPETITION. Of the thirty-one deliberate mistakes in Mr. Ashworth's picture Mark Bretscher claimed to have found forty. Twenty-five of these were allowed and Mark was awarded the prize.

ACROSTICS. In this Dr. J. B. Sykes and A. L. Vann ran level until the latter failed to trace the painter of "The Soldier's Dream". Dr. Sykes was thus the winner of the half-guinea book token.

CROSSWORD. Half a guinea was awarded to David Newby.

SOUL OF WIT. The winning entry, given below, was submitted by V. F. Horgan of MRC who received a half-guinea book token.

- (1) The future of Harwell—Active beer sold here.
- (2) Our sitting M.P.—Try catching Neave hatching.
- (3) Harlequin's Editor—Be Frank—Harlequin stank.
- (4) A.E.R.E. Social Club—Poor lights—boozy nights.
- (5) The Lecture Theatre—Indecently bare, très fonctionnaire.
- (6) Women who wear jeans—Stern view—Moo! Moo!

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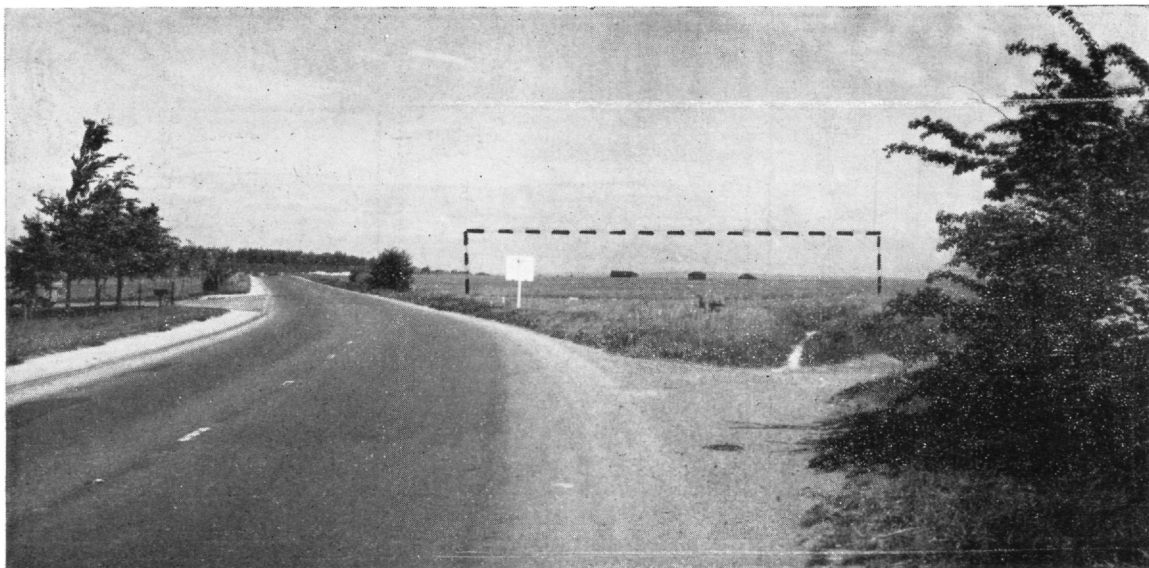
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 Turn wheresoe'er I may,
 By night or day,
 The things which I have seen I now can
 see no more.

—Wordsworth

It is now no more. As you head towards Oxford today the skyline is unbroken and perhaps we shall forget in time the drips of rain that fell down our necks or splashed onto the stage and its furnishings; the stoves that gave out so much smoke and so few calories per hundredweight of fuel; the gales that chilled our legs every time the door was

opened and all too often when it was shut, and the heavy rumble of a bus or lorry trundling by just when an important line was being delivered.

We look forward to happier times and let the Gymnasium-Theatre pass to its limbo unmourned save for these few words.



'Harlequin' c/o Central Registry, A.E.R.E., Berks.

This is the address for all correspondence and brickbats.

July 31st.

This is the closing date for all competition entries and contributions of all kinds needed for the next issue—

The End-of-year 'Harlequin'.

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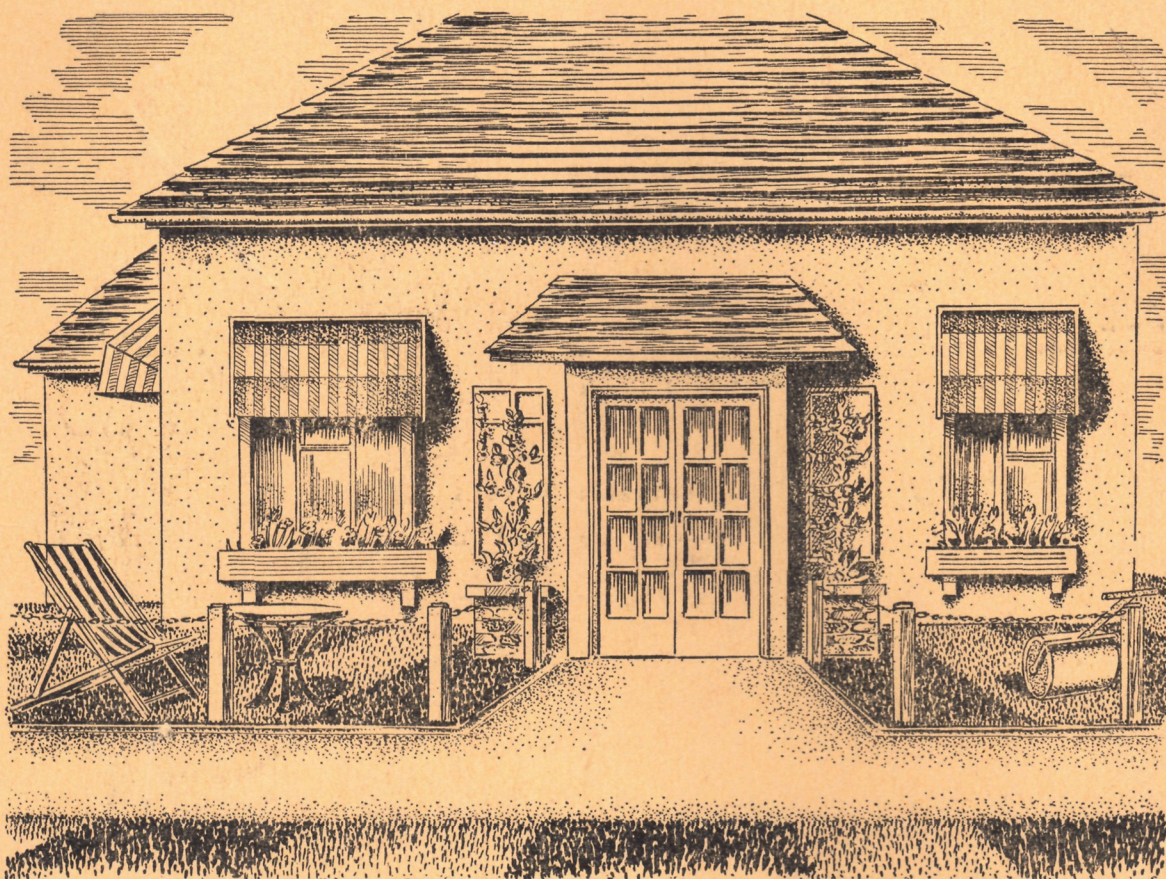
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