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## *Winter Harlequin 1968*

Vol. XXIII No. 4 (63)

Leisure Magazine of the United Kingdom Atomic Energy Research Group  
and Associated Organisations

Christmas is a time of hope and of spiritual and physical refreshment for us all. This Christmas, after the appalling events that have taken place throughout the world in 1968, we all look forward with the hope that comes with the New Year.

For Harwell, 1968 has been an important year. We look forward now with confidence both to playing our full part in the new organisational arrangements for nuclear power that are being set up and in the task of turning our assets and our skills to research with British industry, aimed at achieving major innovations which earn the highest possible national and commercial benefits. The achievements of the past year have been substantial, though, for commercial reasons, we cannot talk about them yet. Thus, I am sure that we have laid the foundations for the future soundly and well, and I would like to thank every member of the Laboratory for contributing to this.

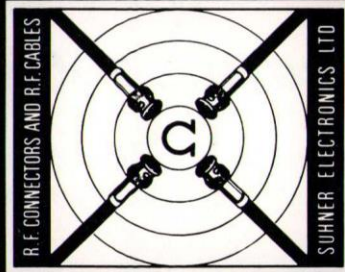
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W. Marshall

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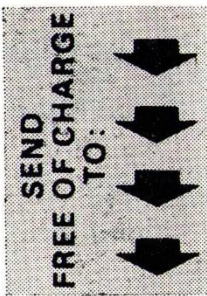
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"PASTORAL ESPAGNOL" by D. R. Dring (Eng.)  
 Winning print in the Exhibition reviewed in this issue.

WINTER 1968

Vol: XXIII, No. 4(63)

*in this  
 issue*

*Editor*

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*Treasurer*

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## EDITORIAL

It is appropriate in a Christmas issue to put the emphasis on leisure rather than on work, and on the past rather than on the future. Looking from the Harwell of 20 years ago, it is pleasant to reflect that the challenges are as great today.

Looking at the life of Victorian Wantage on other pages, it is possible to say that life for the young and middle-aged is better today. But how will the elderly fare this Christmas? We have to take into account two hard facts: (1) Science keeps them alive longer; (2) When too frail to look after themselves the few homes that exist are full, with long waiting lists.

St. Katharine's House, Wantage, run by the Anglican Sisters, has served as a home for elderly ladies since 1939, and the residents — of all denominations — contribute towards their upkeep only according to their means.

The main building has dry rot and, although every effort at control has been made, it now proves more economical to replace the building than to continue the outlay. At the same time it will be more convenient and easier to run.

No government grants are available, and to make this re-housing possible an appeal has been launched which will depend for its success on a number of people giving a little this Christmas. You may like to visit the place for yourself, or to receive further details: "Harlequin" or A.E.R.E. Toc H Group will be pleased to help in this connection.

*As the Sister Superior says: Towards the end of their long lives of service to others, these old people depend on us for the things we all need increasingly as we grow older — love and care, the sense of being wanted, and the security of a home; but above all they crave the assurance of God's presence and peace which they find in the Chapel: and it is our privilege to help and support them up to and through the time of their death.*

To them and to you the Reader: A Merry Christmas!

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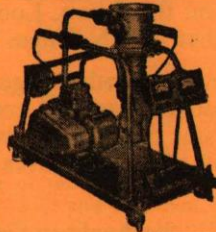
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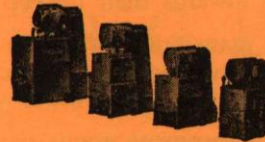
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# TWENTY YEARS AGO

## **"Atom Age not for 50 years"**

Professor M. H. L. Pryce of Oxford spoke on the constructive applications of atomic energy at the annual conference of the Atomic Scientists Association in October 1948 and was quoted in the "Oxford Mail" (then priced 1½d.) as follows:—

"The atomic age, if it ever comes, is likely to be half a century off . . . I suggest it is likely that atomic energy, if it is ever used, will be used in remote regions."

## **"Atom Power turned on at our secret H.Q."**

At exactly 3.30 p.m. yesterday, Britain officially entered the atomic age. At that moment Sir John D. Cockcroft, Britain's No. 1 atomic scientist, gave a signal to drive home the uranium bars into the newly-completed atomic pile housed in this closely guarded township of Harwell, Berkshire.

Within a few minutes, the first surge of atomic energy was being generated. There was no elaborate ceremonial of pressing buttons or throwing switches. But the power to drive factories and produce radio-active isotopes — which have opened up new methods of diagnosing and treating disease — were inaugurated on this momentous but secret occasion.

Fifty scientists, including the heads of all departments at Harwell, and high-ranking officials of the Ministry of Supply and Ministry of Works were present.

The pile will operate almost non-stop in view of the great demand for radio-active isotopes.

In the ex-R.A.F. hangar where, since June, 1946, Sir John Cockcroft has directed this "hush-hush" atomic research station, the excitement was intense.

In the laboratories and control rooms around the hangar they knew that history was being made.

Despite the strict security measures imposed by the town's special police force, the news of Britain's new scientific triumph leaked out a few minutes later. — **Empire News, 4th July, 1948.**

Later in July, 1948, after 2 years of closely guarded secrets, the curtain was lifted at Harwell with the first Press Visit. As well as detailing some technical matters, information sheets, prepared for the occasion, included these references to Welfare and Recreation:— "A weekly memo sheet and a quarterly magazine provide the inhabitants with a record of current Harwell topics. In the near future it is hoped

to have a swimming pool and at a later date to build a new theatre and establish a gliding club."

**It is interesting to see how Harwell was seen in July 1948:—**

"Confusing dials and odd-shaped contraptions fill the huge, echoing hall which once housed bombers. The Wellsian environment is dominated by a massive concrete cube, flanked by metal stairways; it is the smaller of Britain's two atomic piles — both at Harwell, nerve centre of British atomic research." — **Dublin Irish Times.**

"In the middle of this sprawling Boom Town, where there are more builders to the acre than anywhere else in Britain, stands what looks like an ultra-modern hotel.

This elegant, two-storey building faces the Berkshire Downs, contrasting strangely with the rows of aluminium "pre-fabs" which are, in fact, the homes of the scientists who work day by day in the Atom Hotel.

Never have architects schemed so cleverly in the interests of privacy and comfort. The entire upper floor houses an intricate system of pipes and electric fans which do nothing more than ensure that the men and women in the 12 three-roomed suites on the ground floor shall breathe the purest air.

Each suite — the workaday home of three atomic research workers — is self-contained with its own bathroom. By pressing a button, which brings down a steel door portcullis-fashion, the tenants can isolate themselves completely from their neighbours.

But there is something about this half-finished building which gives away its true nature. The furnishings and fittings of this Atom Age laboratory are made of lead instead of oak and chromium. And the refinements are for the scientists' safety — not for their comfort. . .

In the 12 "hot suites" (their official name) 36 men and women will analyse and process chemicals many times more dangerous than pure radium.

Didcot is a story of achievement. The men behind it had to start their work from scratch working in odd cubby holes while the permanent buildings — delayed for lack of materials — were being erected. .

The problems involved are more complex than anything yet faced, but the Didcot team, under its chief, Sir John D. Cockcroft, is well on the way to solving them." — **Chapman Pincher in Daily Express.**



### Have Atom Bomb Trials Ruined Britain's Summer?

"After atom bomb explosions all clouds within 1,500 miles disappear. Are they forced over Britain?"

"Is the atom bomb the cause of the very inclement weather we have suffered for the past few years and which we continue to receive?"

The question is posed in a letter from a reader, who concludes:—

"Why not let off a few minor atom bombs in some isolated spot in our own country and see if we can 'blow' the awful weather back whence it comes, so that WE can have a clear sky for a change? It might well work, and seems well worth a trial." —

Northampton Independent, 3rd September, 1948.

In September, 1948, it was a tribute to the work done by Britain since Harwell was established that Sir John was chosen to preside at a special meeting on atomic secrets to decide which could be declassified:—

"Amid the rural peace of the Berkshire downs some twenty men meet next week for the world's most secret conference. They represent more potential power to influence the fate of nations than any other gathering in history, for they are the foremost atomic experts of Britain, America and Canada. . . .

Security measures at Harwell, already the most stringent of any Government establishment in this country, will be increased for the conference. Not that they will really be needed, for in the placid open country that surrounds the centre the eagle-eyed guards could spot a stranger a mile away." —

Daily Graphic, 3rd September, 1948.

### "A Harwell Problem"

"Several scientists attached to Harwell Atomic Energy Research Establishment have told me recently that lack of outside intellectual stimulus is a real hardship to men "marooned" there who have been accustomed to regular attendance at concerts and theatres.

A gift for higher mathematics and a love of music are too often to be found together for this to be mere coincidence, and men who have hitherto worked most of their lives in big towns feel their isolation keenly.

One mathematician who, until recently, held a fellowship in the North of England is often to be seen walking the roads to his quarters at midnight after 'attending Oxford concerts.' — Oxford Mail 7th December, 1948.

### 20 Years Ago

As seen then by Ritchie Calder,  
News Chronicle Science Editor:—

A motorist, astray in the by-roads of Berks, might say "That's a nice village, that was". He might even consult his map and say "Harwell? Harwell? Why should I know Harwell?"

Why, indeed! A demure little village, with thatched cottages and a disarming rustic appearance, which is barely a speck on any road map. But it is writ large on the maps of the military intelligence of the services of the world. It is the location of Britain's Atomic Research Station.

The rural setting is somewhat cynical. Two miles away from this dissembling simplicity will be released forces which will either make gracious living possible or turn the world into a heap of rubble.

Up that side road, two miles away, is the main Newbury road. On it, on the sweep of the Downs, is the former R.A.F. airfield of Harwell, from which airborne troops took off for the invasion, now turned over in part to the Ministry of Supply.

### The Difference

It still looks nothing more than an R.A.F. station. Except perhaps for one of the hangars, which has become slightly eccentric. It seems to be pretending to be a church, with a stunted steeple rising from the centre. And the three oast houses which have sprung up would be more appropriate in the Kent hopfields than on a flying field.

It isn't until one tries to drive up to the main entrance gate, set in the high wire netting of the compound, that one has any hint of mysterious goings-on. Only those with highly vetted credentials are allowed even to pause there. If the visitor can convince the guard that he has any right to be there he will be taken to the guard-house and submitted to a complicated system of checking with the authorities.

Then, jealously escorted, he will be led about 50 yards down the road to the main administration buildings, where the atmosphere of cabala will be dissipated again by the incongruity of attractive flower beds in this (officially) sinister setting.

Any illusion of mystery will be finally banished by meeting Professor J. D. Cockcroft and his "boys". At 50, Cockcroft is positively elderly compared with his colleagues, none of whom is over 40 and most of whom are in their twenties.

### Sightseeing

If he's O.K. the visitor will be shown round the establishment. He will be taken to the near-by hangars over ground full of pitfalls in the form of drains and other excavations . . .

It is almost certain that the visitor would be asked to join the hospitable scientists in what used to be the R.A.F. Mess.

There, as a farewell incongruity, he would find the young men and women who are the indispensable brains behind all this secrecy, reliving the free-and-easy life of the university common room, with a shaggy young man at the piano, defiantly strumming "Open the Door, Richard."

## A HISTORY OF HARWELL

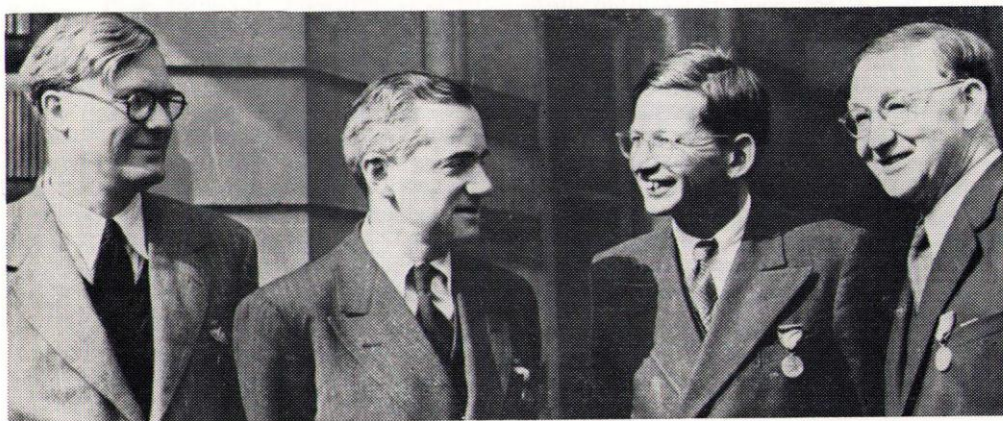
D. R. WILLSON

1948

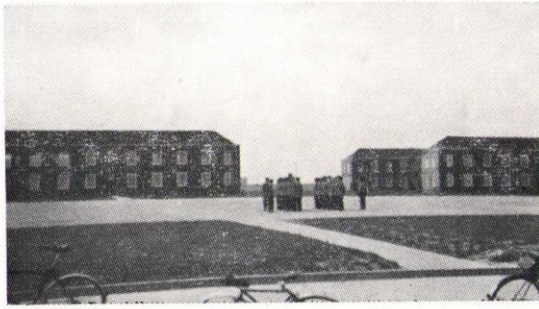
On the 1st January, 1948 the staff of A.E.R.E. were delighted to see in the New Year's Honours List that a knighthood had been conferred on the Director, the late Sir John Cockcroft, in 1947 Dr. J. D. Cockcroft. The news spread rapidly round the site and congratulations poured into the Director's Office. During the previous year, the Establishment had increased greatly in complexity as well as in size, and the first Steering Committee of 1948 started a systematic review of the entire programme of work, and of the allocation of staff among the formidable number of projects. The workshop and design office arrangements were also discussed, and it was decided to supplement the main workshop in Hangar 9 with a number of divisional workshops to give more direct support to the laboratories. The Safety Committee was formed during this month under the watchful eye of the Chief Engineer, to co-ordinate and control safety measures throughout the Establishment. The Fitzharry's estate at Abingdon was by now largely occupied, and on the Wantage estate a

number of steel houses to the B.I.S.F. design were being erected (for the sake of speed) in advance of the brick ones. The first fourteen steel houses were completed and allocated in January. In Abingdon, we had bought Fellows Close for conversion into a hostel to supplement the A.E.R.E. site hostels, and we were already negotiating for Coseners House in the grounds of Abingdon Abbey.

Up to this time, the 'bus service between A.E.R.E. and Didcot had been operated by the establishment, but on the 11th January, the "White's Special" made its last run and this route was taken over by the City of Oxford Motor Services. The Black Beetle Canteen on the site, opened in 1947, was already seriously congested and a third sitting for lunch had to be started. All the indoor and outdoor clubs of the Recreational Association were being strongly supported and two new ones started up this month — the billiards club and the car club. On the 26th January, Sir Ben Lockspeiser who was visiting the Establishment, gave an evening music recital with Holoubek



In the year before his knighthood Professor Cockcroft (right) received the Medal of Freedom at the American Ambassador's home in London. It was also awarded to (from the left) Dr. William Penney (now Lord Penney), Dr. Frisch and Professor Peierls.



The Parade Ground, RAF, Harwell — to the West of the road (seen in photograph right), which runs towards the North Gate.

and Kuchemann in Ridgeway House. Early in February the Caledonian Society held its first social evening and elected Dr. Cockburn as its President, Harry Atkinson providing piping for the eightsome reels.

A series of five lectures on Atomic Energy was given in Abingdon during February by senior members of the Harwell staff. They were similar to the lectures given the previous year in Didcot, and which had proved so successful. For Harwell staff and their families, the A.E.R.E. Cinema was able to show the film "Atomic Physics" on the history and development of Atomic Energy. There was a great demand for admission tickets and extra showings had to be arranged. At the end of February the Dramatic Society presented Bernard Shaw's "Misalliance"; the performance was excellent in spite of the primitive state of affairs that still existed backstage in the gymnasium, and although the temperature was little higher than in the refrigerated early days of 1947, the audience soon warmed up to the play.

On the site itself, the graphite core of the BEPO reactor was complete and double shifts were being worked on the remaining engineering construction. About this time, expressions of acute anxiety appeared on the faces of those responsible for producing the uranium charge; serious snags had arisen in its production and doubts were felt whether the reactor could start on the planned date. The reactor physicists and engineers were undeterred, and evolved a detailed programme for the start of operations. Dr. Lewis visited us from Chalk River and reported that in spite of many delays the NRX reactor there had now started and was running well on low power. At Harwell the monthly total of isotope irradiations in GLEP had passed the hundred mark. The physicists operated their 4 MeV linear accelerator for the first time in March. Erection of the cyclotron magnet in Hangar 7 had commenced in February, and by the end of March over four hundred tons of steel were in position out of

the total of six hundred and seventy tons. Another large magnet for the main electromagnetic isotope separator was being erected in Hangar 7 at the same time. The radioactive chemical laboratory (Building 220) was up to ground floor ceiling level and work had been started on Building 353 for the chemical engineers who were beginning to return from Canada. A large active chemical engineering laboratory (Building 351) was planned for construction later.

The idea of taking into Harwell a number of vacation students from Universities was discussed, and plans laid for the first batch to come in the summer of 1948. The number of committees on the site was found to have grown to more than thirty, and some drastic pruning was done. One sadly reflects that, as in horticulture, this merely strengthened subsequent sprouting. The "Atomic Train" exhibition organised by the Atomic Scientists Association visited Oxford in March and Reading in April, and attracted a good deal of attention.

Local transport facilities were still inadequate for our needs, and on the 11th April Harwellians welcomed an hourly 'bus service to Oxford and Newbury from the site—the previous ration had been one 'bus every two hours. On Good Friday the new swings were opened on our children's playground—the children's delight was matched by that of the keener gardening fathers, who felt that the hazards facing their exhibition specimens had hereby been reduced. Schooling arrangements were still a problem, and after discussion with the director of Education, Berkshire, a site at Chilton was selected for a new primary school. On 17th April a presentation was made in the Social Club to two founder-members of the Recreational Association who were departing—John Fisher to Canada and Sandy Milne to Croydon. These two had played a major part in building the Association, and their departures were keenly felt.





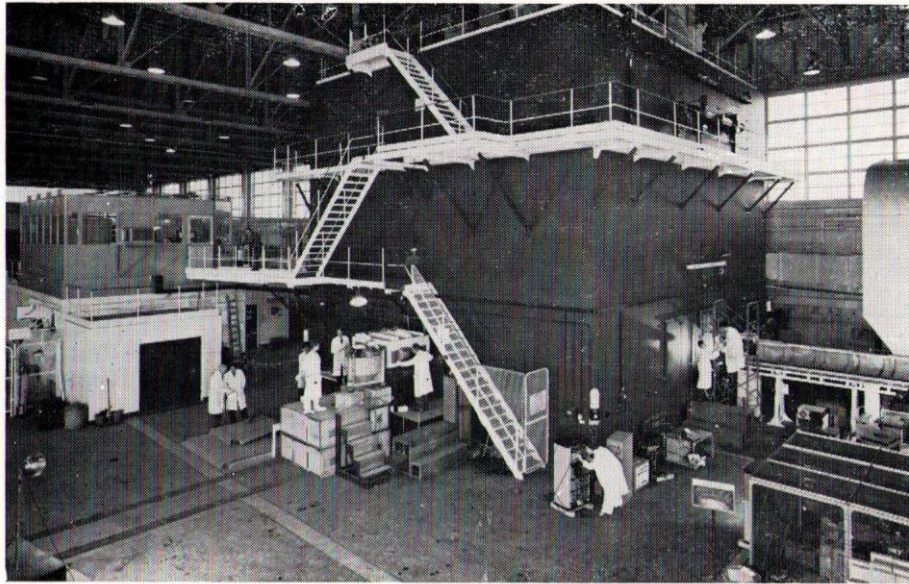
A.E.R.E. site looking North, February, 1948

On May 7th the first Caledonian Ball was held in Ridgeway House and on the 12th and 13th the Dramatic Society gave an excellent performance of "Saloon Bar" with Peter Stewart in the leading role. The total pay-roll on the site was now approaching 2,000, and canteen facilities were again overloaded in spite of three lunch sittings in the Black Beetle and extra lunch services in Ridgeway and Icknield Way House. A new contractor's canteen was therefore planned on the west side so that Building 150 could be freed to become the main A.E.R.E. Canteen. There were many complaints about lack of co-ordination of the bus timetables to Didcot with train arrivals and departures, and shopping requirements. The problem proved so difficult that it was officially handed to the A.E.R.E. mathematicians in the Theoretical Physics Division to solve. This method of attack helped to improve matters later in the year, but perfection was of course unattainable.

The structure and equipment of BEPO was now complete and undergoing acceptance tests. Enough of the uranium charge to start the reactor had been finished in spite of the snags, and on the 2nd June loading of metal into BEPO started with a very informal ceremony, at which the Director and others concerned with the BEPO project each pushed in a uranium slug. During this month the British Railways, the Home Office and the Ministry of Civil Aviation visited Harwell to discuss isotope transport arrangements, and some postal deliveries of isotopes were started.

On the 3rd July, a number of senior visitors came to Harwell to witness the start-up of BEPO. All went well though some alarm was observed among the uninitiated when the automatic trip sent the safety rods in with a bang. Britain's second reactor could now operate on low power. Many of those who had had such an anxious time during the later stages of its construction were able to celebrate with a dinner in Ridgeway House on 16th July, and then to turn their attention to the second A. E. R. E. Annual Sports Day, held on the 17th July. The weather was much worse than in 1947, but the event was a success, particularly the Horticultural show at which the keen gardeners could now display their carefully-nurtured specimens. A Caledonian Summer Ball was held in a large marquee to finish off the day, which had also seen the appearance of the first issue of "Harlequin." By this time the size of Establishment had made it difficult for recent recruits to know much of what went on outside their own laboratories. An Open Day was therefore arranged on which parties of junior staff could make a tour of the entire Establishment. Its success led to the later introduction of the Saturday Divisional Open Days on which wives and close relatives could visit the site. A notable newcomer in August was Mr. R. G. Elkington who joined us as the first secretary of A.E.R.E.

The Establishment had by now firmly established its reputation as a scientific research centre, and we were getting many distinguished visitors. In September, many members of



GLEEP, Europe's first nuclear reactor

A.E.R.E. took part in a Nuclear Physics Conference in Birmingham and parties of other scientists attending it came to the site. On the 1st October the Isotopes Division was formed under Dr. Henry Seligman. Over three hundred deliveries of isotopes were made during October and November, and their production was being transferred to the new reactor.

“Weep  
for the GLEEP  
Now that BEPO  
Of isotopes is the depot.”

*(H. W. B. Skinner)*

An A.E.R.E. team visited Göttingen University in Germany to lecture on the production and use of radioisotopes. September also saw the opening of the Nursery School at A.E.R.E. in the capable hands of Miss Harrison.

The building programme was going steadily forward and the engineers proudly moved into the west wing of their “palace” in Building 329; countering envious comments from the less well-housed staff by stoutly maintaining that for its size and type of construction it had been the cheapest building on the site!

Standard hutting accommodation was now ready for the Health Division, the M.R.C. Unit and the Photographic Group as well as for the Electronics Group which transferred from Malvern to Harwell on the 30th September. The BEPO reactor was running well but a continuous whine from the exhaust system was

causing badly frayed nerves on the site. Since it could frequently be heard by visitors on arrival at Didcot Station, and was as loud by night as by day, the effects on the residents of the Aldfield Farm Housing Estate can well be imagined. In November, they petitioned the Director, asking if anyone really cared whether they retained their sanity or not. The Reactor Engineers were, however, by no means indifferent to this menace and they had already called in the assistance of acoustic experts from the National Physics Laboratory. This help was extremely effective and in a comparatively short space of time the noise had disappeared, to the great relief of all concerned. At the end of October the Dramatic Club had presented “Murder without Crime” for three nights instead of the usual two. During November the B.B.C. sent a recording unit to A.E.R.E. for the “Down Your Way” programme; the subsequent broadcast showed an astonishing variety of musical taste among our staff. In December a Christmas Bazaar was followed by two concerts given by John Tennison’s Orchestra to raise funds for the Children’s Parties which were held on the 17th and 18th of the month. The second issue of “Harlequin” appeared and sold well.

The Health Physics Division was formed this month under Dr. Marley to centralise all work on radiation hazard control, which had become a complex business with the many active laboratories operating and the large staff. The



During 1948, further members of the T.R.E. team, engaged on atomic energy at Malvern, transferred to A.E.R.E. Some have remained, and others have left, including Dr. Denis Taylor, and D. W. Fry, Director of A.E.E. Winfrith.

**Front Row, left to right**

J. G. Thomason, I.C.I., Pangbourne; R. B. R.-S.-Harvie, SERL, Baldock; H. H. H. Watson, Culham Lab; F. K. Goward, (CERN — Deceased); F. Wingfield, R.R.E.; H. A. Chedzey, R.R.E.; J. B. Marsh, R.H.E.L.;

**Second Row, left to right**

P. S. Rogers, R.H.E.L.; G. Clarke, R.R.E.; R. H. Wharmby, Rolls Royce, Derby; H. Lyons, Defence Research Board, Canada; G. H. Hirst, Culham Lab; Mrs. Avis Brown, (Husband at R.R.E.); W. T. Cowhig, Shirley Institute, Didsbury, Manchester; Mrs. Joan James;

**Third Row, left to right**

D. Taylor, Univ. of Strathclyde; J. W. Gallup, English Electric; R. E. Clay, (R.H.E.L. — Retired); L. B. Mullett, Ministry of Transport; L. Metcalfe, R.R.E.; B. G. Loach, R.H.E.L.; C. P. C. Dalziel; J. D. Lawson, R.H.E.L.; W. Walkinshaw, R.H.E.L.; W. Abson, A.E.R.E.; J. Dain, English Electric; J. J. Wilkins, (R.H.E.L. — Deceased); J. M. Weaver, Culham Lab; D. W. Fry, A.E.E., Winfrith;

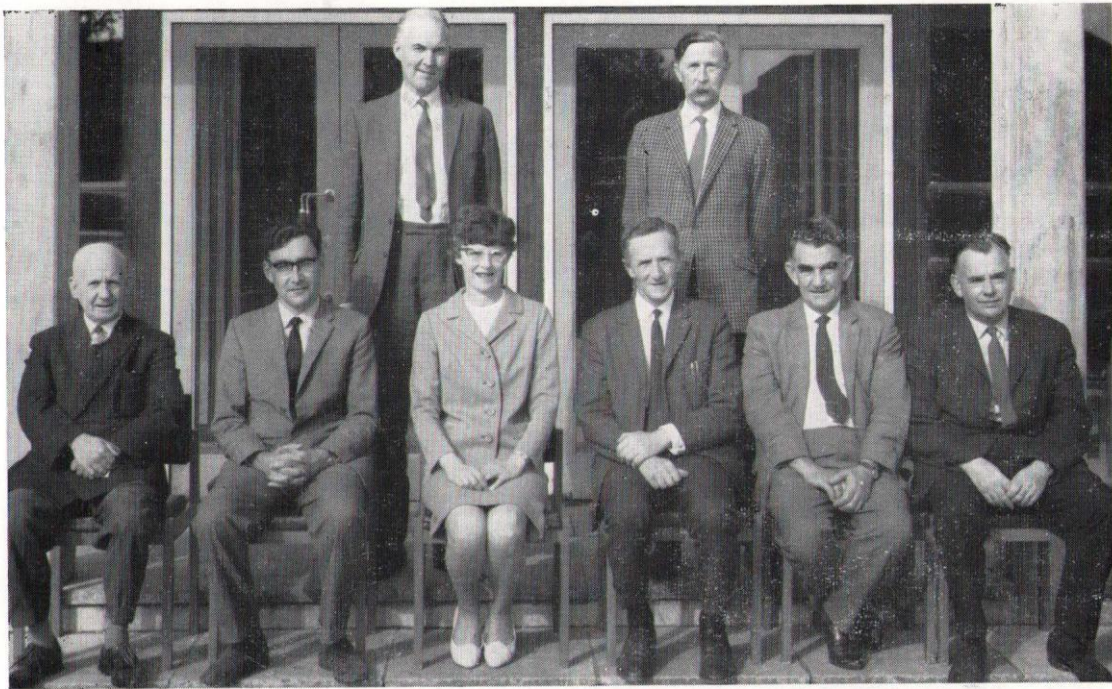
**Back Row, left to right**

R. Carruthers, (Culham Lab.); W. A. Gregory; V. Powell; G. T. Hawkins, (A.E.R.E. — Deceased); A. E. Andrew, A.E.R.E.; B. E. Kingdon, R.H.E.L.; L. S. Holmes, Culham Lab; ? . ? . Cox; G. Rae, R.R.E.

cyclotron and the main electromagnetic isotope separator were approaching completion, although they did not operate until 1949. It was decided to improve the Sick Bay facilities by converting one of the South Drive houses.

The year ended with no fewer than three

New Year's Eve Dances—a Rugger Club Ball in Ridgeway House, an Icknield Way House Dance and the Caledonians celebrating after their own fashion in the Social Club. The occasion marked, perhaps, the end of the first stage in the development of A.E.R.E. In its first three years, Harwell had changed from an



More A.E.R.E. Staff of 1948 who have completed 20 years' service.

Dr. H. A. C. McKay; R. West;  
C. G. Benham; C. F. Britton; Miss E. M. Flew; J. Swain; J. H. Bicknell; R. H. Hall.

R.A.F. airfield into one of the country's greatest research establishments. Most of the projects originally conceived for it were complete or nearly so; both its reactors and several particle accelerators were operating; a large programme of research and development was under way. Much work had still to be done, particularly by the chemists, chemical engineers and metallurgists, before we could supply our colleagues at Risley with all the data they needed for constructing and operating their factories. But already an appreciable effort was being devoted at Harwell to the theoretical and technological problems of reactors for producing useful power. It was, moreover, clear that this part of the project would steadily demand a greater proportion of our available effort.

A.E.R.E. continued to grow after 1948, but inevitably the pattern of development differed from that of the first three years. As the discomforts lessened the problems multiplied. Effluvia from paraffin stoves ceased to blend with the tobacco-smoke-laden atmosphere of primitive offices, but the paperwork grew, and grew again. The shivering queues at the "Black Beetle" disappeared, but staff to be fed and housed and transported increased both in number and variety of demand.

Regarding now our colleagues of twenty years back, grown so mature and some perhaps more dignified, it is fun to recall them squelching in the mud, circumnavigating the trenches and cursing the debris of construction as they struggled into unfinished buildings to press on with the job. Our cars were short of petrol if we were lucky enough to run them at all, our meals were limited by food rationing and our wives exchanged our children's clothes to save precious coupons. All of us who were then at A.E.R.E. will remember also the boundless enthusiasm which made it all worth while, the sense of creating and building for the future.

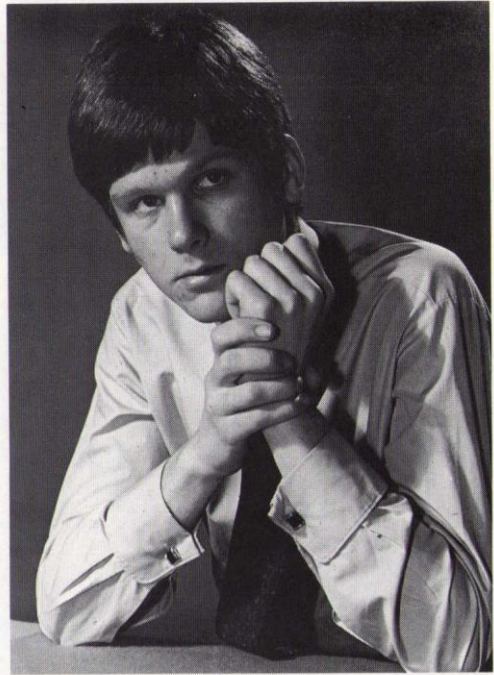
But "Those were the Days" is a dangerous sentiment, and although it has been good to look back it is even better to look forward. A.E.R.E. faces challenges now at least as great as those of twenty years ago, and perhaps the most significant change is that it is better equipped to meet them. The greatest achievements do not necessarily lie in overcoming discomfort and primitive conditions: they can just as easily result from strong and wise leadership of well-equipped organisations. And so it is for the future and not for the past that I send you my wishes, for this future could be even more rewarding than that which we contemplated in 1948. It is up to us to make it so.

# A.E.R.E. PHOTOGRAPHIC EXHIBITION 1968



IMAGE

by T.G. Hoskin - Remote Handling



PORTRAIT  
by G.G. Webb - Eng. Services



VIGIL  
by P. Marsden - P.S.S.F.



1st Place in Ordinary Class: Girls by Reg Wilkinson, M.R.C.

## EXHIBITION REVIEW

A significant change in the organisation marked the tenth anniversary of the A.E.R.E. Harwell Camera Club's Annual Photographic Exhibition. This year for the first time, sufficient prints and slides were received to enable the organisers to select "the best" for the official exhibition.

Benefiting from this change in the exhibition's structure, the print section showed a welcome and marked improvement over last year's standard. The winning print was a beautifully executed landscape entitled "Pastoral Espagnol" by D. R. Dring (Harwell). The horizontal format suits this picture admirably and the composition suggests both action and the peace and quiet of the Spanish countryside. Many of the prints were clearly influenced by the photographic magazines. For example, the portrait by G. G. Webb (Harwell) of his son shows to perfection the triangular composition of head, hands, and arms advocated by the experts. Likewise "Image" by T. G. Hoskin (Harwell), which shows the profile of the model's face on a  $\frac{3}{4}$  portrait, may not be a new idea but it is still a very effective one.

Industrial plants are not often photographed for their pictorial quality. For this reason, "Vigil" by P. S. S. F. Marsden (Harwell), a well conceived view

of a chemical plant by night, is all the more praiseworthy.

The exhibition was capably judged by Mr. C. O. Steinbock, A.R.P.S. His comments were often sagacious and interesting. It was a pity therefore that his comments on the slides were marred by a series of facetious remarks. In fairness it must be added that his original comments were written and that the stentorian tones on the tape recordings were not his but a member of the Camera Club.

The already high standard of colour photography continues to improve. Two major influences are discernible here—those of the advertising sections of many glossy magazines and the week-end colour supplements. Thus the winning colour slide of A. C. Thomson (Harwell), "Square and Round", a bold composition in red, yellow, blue and green, would grace the pages of any glossy magazine. Similarly the study of a craftsman's hands by Miss C. A. Fisher (Risley), entitled "Shoe-maker", might well have been featured in a colour supplement.

In conclusion, the high standard of exhibition reflects much credit on the competitors and the organisers, ably directed by K. J. Hill. Congratulations!

P. HAWTIN, (Chem. Eng.)

# HIGHLIGHTS OF 1968

— year of the 7th plenary meeting of the World Power Conference held under the title: **World energy resources and their utilization for the benefit of mankind.**

## **Atomic Power Industry: Achievements and Prospects**

In the past three years the atomic power industry has far surpassed expectations, according to a report made at a working group of the World Power Congress which ended in Moscow on August 24th.

In fact, atomic stations may now prove more economic than conventional ones even in areas where organic fuel is relatively cheap. Thus the main economic drawback obstructing the progress of atomic power generation has on the whole been overcome.

The report sums up other reports delivered at the congress by experts from 12 countries. It notes that many countries have had to expand their atomic power development plans in the past five years. Nuclear power stations are now being built on a large scale in Britain, the Soviet Union, the U.S.A. and Japan, for instance.

Scientists believe that in the next few years the atomic power industry may confirm its other advantages over conventional methods of generation, such as the possibility of keeping the air over big cities pure, cutting down on fuel carriage, diverting much of the organic fuel to the Chemical Industries, and expanding research in radiation chemistry. In less than 15 years since the launching of the world's first atomic power station these prospects have already become real.

In expert opinion, the most important problems of the atomic power industry include its adequate supply with nuclear fuel and the selection of the best types of reactors for it.

The widely scattered reserves of uranium in the earth's crust are very great: in tons, they are expressed by a figure of 14 zeros. Yet many scientists believe that the known reserves of cheap uranium ores are modest compared with the predicted demand for the power industry for the end of this century and the beginning of the next.

At present the share of atomic power stations in the world's total power output amounts to less than one per cent. Judging by reports at the congress, in 1980 its share will reach about 14 per cent and at the turn of the next century about 50 per cent.

Thus, the demand for uranium by the beginning of the next century will grow to 2½-5 million tons. Experts do not rule out the possibility that the demand for uranium will grow still more if great amounts of nuclear fuel are to be consumed by ships and motor vehicles.

Specialists also believe that it should be possible to improve the process of separating uranium concentration. As a result, the demand for uranium ore could be cut 20-30 per cent.

It should also be possible to raise the efficiency of atomic stations to 42-45 per cent, (the average efficiency now equals 33 per cent) in order to dispense

with much of the uranium otherwise needed. It may take 15 years or so to gain these advantages.

New methods to generate power are expected in the more distant future. The most hopeful in this respect is the possibility of a controlled nuclear synthesis in plasma media using deuterium for raw material. The deuterium reserves in the world ocean are very big. Yet few people would venture today to predict when a plasma nuclear reactor could be available. — **Novosti Press Agency, Moscow** 26/8/68.

## **Coal v. Nuclear Power**

Coal will never again be used to fuel a major British power station. Atomic power has been given the go-ahead to become the nation's principal future source of electricity generation. This fact, hard to absorb in a country still floating on a raft of unmined coal, has been rammed home by the decision of Mr. Roy Mason, Minister of Power, to use nuclear energy to drive the 1,250 MW Hartlepoons power station — sited slap on top of north-east England's principal coalfield. Mr. Mason, a National Union of Mine-worker's MP, has rejected the pleas of his union and of Lord Robens, chairman of the National Coal Board, to use coal.

Atomic power has won the struggle to fuel the Hartlepoons project (known as Seaton Carew when the scheme was first mooted) because reactors are cheaper to run, although dearer to build, than their coal-powered equivalents. Hartlepoons is the only major power station to be authorised this year. Its construction, at a cost of £91 million, will mean, Mr. Mason reckons, that 3,000 miners at three high-cost pits will lose their jobs. But even their redundancies, with the considerable financial cost involved, still cannot make the overall costs tip in favour of coal.

Next year only one large power station, that at Heysham (Lancs), is due to be approved. Heysham — at 2,500 MW, exactly double the size of Hartlepoons — will certainly go to the atomic industry, because Mr. Mason is now saying that coal-fired stations are too costly to be put on round-the-clock running. On that basis Heysham, likely to be built in two stages at a total cost of at least £150 million, could not be given to coal. — **The Economist** 24/8/68.

The Government's decision to choose nuclear power instead of coal for the new Hartlepool power station may one day be seen as an important landmark in British economic history. Hartlepool is situated on top of the Durham coalfield, and yet nuclear power has been given preference because it is said to be cheaper than coal. Although both the Government and the Central Electricity Generating Board emphasise that this decision does not prejudice other stations, it is difficult to see where coal can compete if not in Durham. There may never be another large coal-fired power station built in Britain. — **The Financial Times** 28/8/68.



## — AS SEEN BY THE WORLD'S PRESS

### Thinking Big With Fusion

Some of the difficulties of plasma engineering which make the enthusiasm of the supporters of fusion research at Culham hard to share would disappear if a very large fusion reactor were considered. If one could envisage a 10,000 MW power station, plasma containment times only a few times those already achieved would be sufficient to produce economic power.

According to MIT Professor, D. J. Rose, who has published a report on the subject (Oak Ridge Laboratory-TM-2204) direct conversion is hardly feasible. He proposes instead that fusion should be used to provide heat for the production of electricity in the usual way. Capital costs in the region of £12 per kW and generation at 0.3d/kW should be possible. — **Electrical Review** 23/8/68.

### Now for the Planets

The United States may soon have an answer to the big question: Where next in space, after the moon?

If men are to explore Mars, and if robots are to journey to Jupiter and Saturn to discover whether there is a place for man or his machines on the giant planets, spaceships must be nuclear powered.

Atomic propulsion will have as great an advantage over today's chemical rockets in space travel as the jet had over piston engines in air travel.

100 miles north of Las Vegas, scientists will start to move into place equipment for the world's first full-scale atomic engine test — due to be carried out around Christmas, at about the time American astronauts will be blasting off on a six-day mission round the moon.

Small-scale trials have shown that the reactor can be switched on and off and even throttled like a car.

If the test were carried out in orbit, the power yield would be enough to blast a 30-ton spaceship to Mars. — **The Sun**. 24/9/68.

### Nuclear Answer to World Poverty

A dramatic new plan to use nuclear reactors to help solve the problem of world poverty has been announced by the U.S. Atomic Energy Commission (A.E.C.)

The Chairman of the A.E.C., Mr. Glenn Seaborg, said recently the reactors would be the heart of huge self-contained complexes which would employ and house 100,000 people and produce enough food for five million others.

Mr. Seaborg said such a complex could be built now for about £416m.

He specifically mentioned the Middle East and India as areas where these nuclear complexes (nuplexes) could be built to produce electricity, manufacture fertiliser, and desalt water for irrigation.

The A.E.C. chairman said he defined a nuplex as a giant agro-industrial complex built around nuclear reactors and using advanced agricultural and industrial technologies

The complexes would generate their own electricity and pump oceans for unlimited quantities of water for irrigation and industrial uses, he explained.

Mr. Seaborg said he envisioned a time when deserts could be turned into very rich grain bowls. And if industrial raw materials were anywhere near at hand valuable export industries could also be developed at the same spot.

All this would mean that deserted sea coasts could be turned into populous agricultural and industrial centres, he concluded. — **Evening Times, Glasgow**. 26/8/68.

### Nuclear Power to Tap the Earth's Stored Heat.

Among prospects of using nuclear power to open new sources of energy is that of tapping the earth's own stored heat. Many areas have underlying rock deposits with temperatures of 500 degrees C. or more at a depth of some kilometres. If a chimney were blasted by nuclear explosion, this heat could be recovered for use controlled by injecting water and releasing the superheated steam through conduits.

Professor Theo Ginsburg, of the Swiss Federal Polytechnic at Zurich, has put this and other prospects before delegates from the 94 countries attending the current United Nations conference in Geneva of non-nuclear Western States.

The difference between manual earth-moving and what is possible by nuclear explosion is of such magnitude, says Professor Ginsburg, that entirely new dimensions of economic activity can now be contemplated for developing countries.

The great question-mark is still whether the hazards of nuclear explosion techniques can be eliminated or reduced to negligible proportions. The principal one is radioactivity.

In contained underground explosions carried out in dolomite and silicate, 95 per cent or more of the radioactive particles are trapped. But, for other types of soil, further investigations are necessary.

"It is historically accepted," Professor Ginsburg told the conference, "that no new technology becoming available to man has ever been rejected. There have been time delays, and there has often been great initial opposition, occasionally of an ideological nature.

"Difficulties often arose not based primarily upon the new industries or activities themselves, but because of the assumed or known, direct or indirect, side effects. However." He believes the new technology of nuclear explosives for peaceful purposes is bound to be accepted and will work for mankind as an answer to the increasing demand for energy, water, minerals, transportation and food. — **The Scotsman**. 27/9/68.

### Nuclear Power Changes Course

This year of grace 1968 marks a turning point for the nuclear power industry in Britain. The industry has achieved its prime objective of establishing nuclear power as an economic alternative to electricity from fossil fuels. — **New Scientist**. 17/10/68.



▲ The Market Place, viewed from the top of Wallingford Street, as seen in a print of 1857. Thatcher's the watchmaker is visible, right, and further down that side near the wine merchant and clothier was Bunce, another watchmaker. On the south side beside the drapers and chemists was another watchmaker, Mr. Wise, also representative of one of Wantage's oldest crafts, clockmaking . . . but the general picture, with the Pond, the old Town House and the pervading air of spacious emptiness, even allowing for artist's licence, is not that of a thriving town.

Wantage Parish Church prior to 1877 ►

*The extracts that follow are reproduced by permission of the author from her recent book of the same name, which is published at 12/6. It brings to life the times of the lamplighter when the beadle went his rounds, swinging his truncheon with the red and gold Royal Crest of Arms and with WANTAGE in letters of gold.*

*Some of the other 100 pages of "Victorian Wantage" re-capture, after painstaking research, the gaiety and festivity that enlivened it on fair days. "Dark" Wantage is illuminated on other pages by the Town's Commissioners and Churchwardens, the result of whose untiring efforts can be seen in the brighter, cleaner Wantage of today.*

*A copy of "Victorian Wantage" can be obtained from 22 Belmont, Wantage, or from Mallows, AERE, Shopping Centre.*

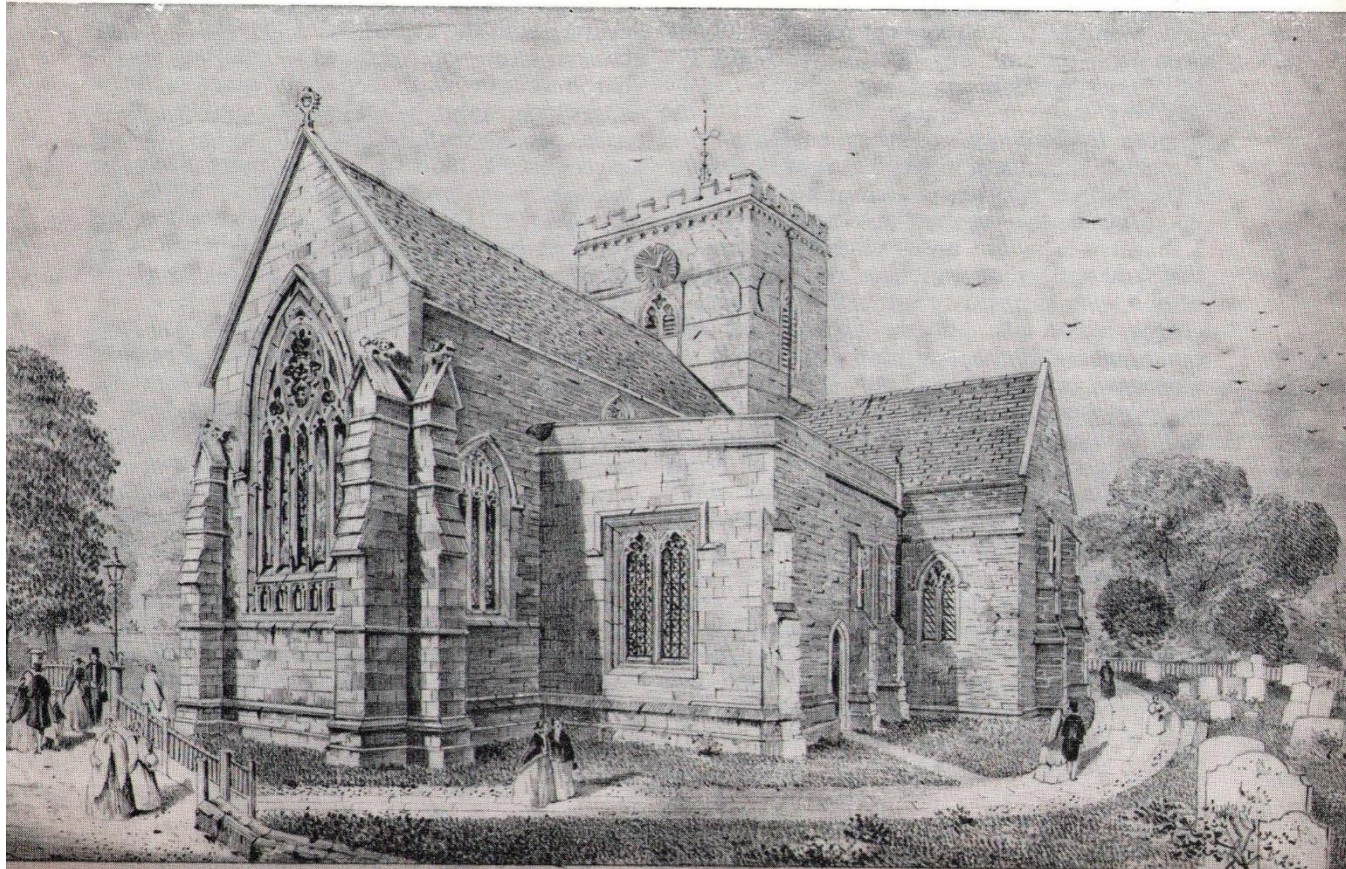


# VICTORIAN WANTAGE

KATHLEEN PHILIP

Why Wantage has never become really important is largely because of its distance from the sea or from any important coalfield. Remember we are talking about the nineteenth century. You think of any of the towns which became really large and then you'll see that they possess one or other, or both of these essential advantages in the industrial revolution economy.

Why then, wasn't Wantage completely left behind by the changes? I suggest it was because the roads which converge on the town led directly to and from towns which were themselves increasing in importance. As the century wore on men and goods came through Wantage by the Canal, by the railway and over the roads from the Downs to the Cotswolds, from the Midlands to the sea, from ▶



London to Bristol. The Township became more prosperous but, more important in the present context, there flowed into the Market Place news of the far-reaching social, religious and educational changes taking place in the rest of the country. Gradually the new ideas percolated the town.

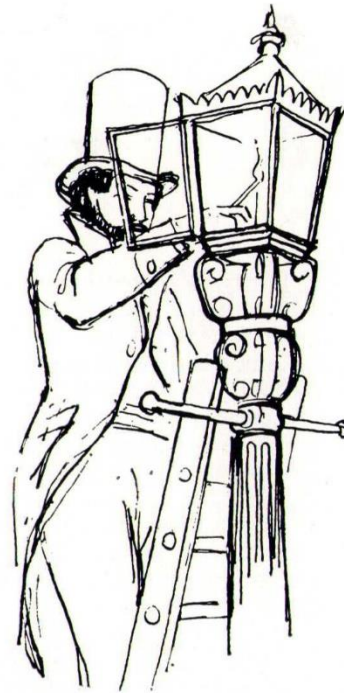
What ultimately mattered for the future of Wantage, what has shaped the Wantage we know today, was the way in which the people in the town faced the challenge. Here, then is our theme, the study of how the people of one small country market town adapted and changed the pattern of its life, as England itself adapted and changed, to the burgeoning of fresh ideas, successive inventions and widening horizons.

### IMPROVEMENTS COME

Ever since I came to Wantage, nearly twenty years ago, I have been told about the Act that was passed in 1828 to improve the Town. My informants always went on to tell me about Black Wantage and the criminals who allegedly poured into the Township via the Canal. Official copies of the Act can be acquired and there is a general impression that Wantage *did* improve after its passing but nobody seemed to be able to tell me exactly how or by whom it was put into effect. The Commissioners whom the Act appointed, I was told, didn't seem to have kept records. Nobody even took seriously my queries as to how the M.P.'s at Westminster came to hear of the shocking state of Wantage, far less take the trouble to compose and pass an Act for a remote country town in the depths of Berkshire. I plodded on with my search and now all my questions in this respect have been answered. I shall try to record my discoveries in print so that you can enjoy enriching your knowledge of our town as much as I myself have done.

One major task was the provision of adequate lighting in the Township. The streets and passageways were to be lit by "oil lamps, gas or inflammable air". The Commissioners were to "set up the necessary lamp-posts, dig the streets up as they require and provide oil or gas as necessary". Here again trouble was anticipated. Detailed penalties were laid down for "wilfully throwing away or displacing any of the lamps".

The impression of the lack of co-operation of some of the inhabitants is deepened by the elaborate rules for watchmen. The Commissioners were to appoint able-bodied men and provide "watch-boxes, watch-houses and



The Lamplighter

other places for the reception, protection and support of such watchmen". Why this was necessary can be guessed from the special clause about the behaviour of the Watch. "Any person", it was enacted "entertaining or harbouring in his outhouses or other premises any watchman or patrol—while on duty—every such person shall forfeit and pay a sum not exceeding five pounds." So no more glasses of home-brewed ale or quiet game of cards for the Watch! I wonder if the Commissioners prowled round the precincts of the Falcon or the Crown to discover if the guardians of the law were refreshing themselves?

The watchmen were to be properly equipped to meet attack. They were to have arms and materials necessary for the proper carrying out of their duties. On the one hand they were to exert themselves "in the prevention of fires, robberies and other outrageous disorders" but on the other hand they would be handsomely rewarded for reporting offenders or for being "disabled, or hurt or wounded in the execution of their duty".

In some ways I suppose rules for the good conduct of the Township were for public safety, just as building a thatched roof was forbidden or even mending an existing thatched roof. The danger of fire seemed particularly great in

Wantage. On the other hand some provisions do seem a little spoil-sport—for instance noisy trumpets must not be blown in Wantage streets, nor must children bowl hoops. It is a serious thought that the Act has never been repealed!

Anyway in July 1828, thanks to the efforts of some worthy citizens, the organising ability of William Ormond and the help of the local M.P.'s the Commissioners met to decide what rate they would require to levy—they were allowed 5/- in the £ on houses and 2/9 on other property such as gardens, cellars and malthouses. That should give them sufficient money to set about their task of seeing to the lighting, paving and watching of the Township of Wantage.

### WATCHING

The first three watchmen appointed were Robert Duck, Robert Phillips and Mark Trupp who were paid 12/- each a week while William Arnold the "patrol" had 8/-.

The Watchmen were to go on duty at 10 p.m. and call the time every half hour till 5 a.m. till Lady Day and thereafter, till 3 a.m.—in other words the hours of darkness. They were to get a week off in rotation so what it comes to is that two would be on duty on any one night.

The patrol, officially the "day watch" had many and various jobs and seems to have been on duty more or less all the time. He had to see to the "state of the lodging houses and pubs, seek out beggars and keep order in the Churchyard on a Sunday"!

Sometimes he was referred to as the Beadle, a much older title really belonging to an officer of the Vestry. His badge of office was the Beadle's Truncheon. The daughter of the last Beadle of Wantage, Miss Clement, generously gave to the Town her father's truncheon, a handsome and workmanlike affair painted dark blue with the red and gold Royal Coat of Arms and WANTAGE in letters of gold. It is one of the most precious exhibits of the Wantage Museum.

Several of the Patrolmen must have been colourful figures. Take William Lee. Lee was appointed a watchman in September 1836 and Beadle in 1837. Lee was to have 9s. a week, a close bodied coat, a great coat and a hat. He also had a truncheon with a coat of arms on it—much the same, I suppose, as the one in the Museum.

Bill Lee had some orthodox duties like seeing that none of the innkeepers allowed cards to be played during Divine Service but he must have

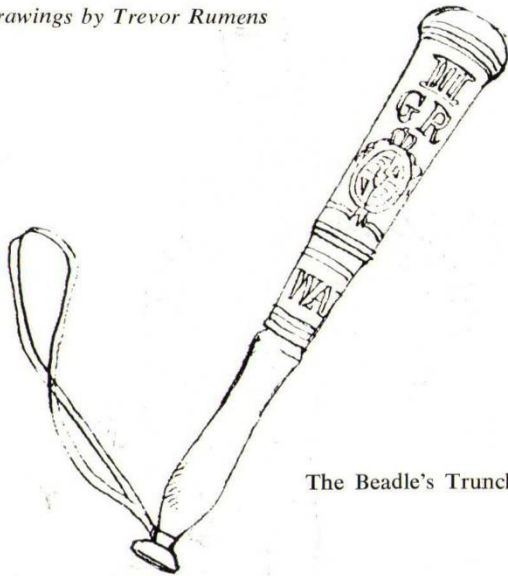


A "proper"  
Policeman

been an obliging fellow as well, because in July 1842 when the Commissioners wanted all the posts in the Town painted white William Lee undertook the job. He whitened all the lamp-posts, the railings round the pond and the posts at the corners of the Market House. And for all this he got an extra 14s. The paint was bought from Mr. Whitehorn for £2.5.6.

For seven years he patrolled the streets with his truncheon in his hand, until one night in March 1849 he was drunk on duty and the Commissioners made him "discontinue the office of Patrol".

But this was not the last we hear of Lee. Three years later he was before the Justices for attacking his successor in the pursuit of his duties! This leads us to another interesting character—one Thomas Thornhill. Like Lee, Thornhill began by being a watchman and became a policeman in 1851. Among his other duties was keeping order at the election of 1852. "The election was a very tame affair," according to the report to the Justices, "but about 11 o'clock a parcel of idle and noisy fellows got up a procession and one of the party who styled himself Mr. Walter, was seated in a chair and carried upon the shoulders of his companions. A big loaf and little loaf were carried in front. After passing round the



The Beadle's Truncheon

Town Hall three times the procession endeavoured to pass under the hall in front of the booths, but were prevented by the officers and after a struggle the iron gates were closed. About a dozen of the party left the procession and made attacks upon the gates—they were mostly persons who had been convicted before the magistrates and entertained ill-feeling toward the police.”

All afternoon they continued their attacks with sticks and staves retiring at intervals to refresh themselves. “Towards four o'clock their proceedings created alarm for the safety of the officers and the peace of the Town and some of the magistrates threatened to read the Riot Act unless they dispersed. All had sticks with which they struck Thomas Thornhill, the policeman of Wantage.”

One sequel was a four months' sentence on the rioters but those officers who had been “much ill used and kicked” were suitably rewarded by the Commissioners. Thornhill was ill for three weeks and a grateful Town gave him £1 in recognition of his services. That was on March 12th, but on March 26th Thomas Thornhill “having been found drunk upon receiving a donation of £1 from the Commissioners, they are of the opinion that he should be dismissed”.

One case brought before the Reading Justices connects Thornhill and Lee. The Master of the Workhouse kept complaining of losing quite large quantities of his property. Finally he lost “6 counterpanes, 17 blankets, 32 linen sheets, 7 cotton sheets, 4 flock bolsters,

one fibre bolster, 1 linen bed tick, 30 pairs of hose, 5 jackets, 7 pairs of trousers, 1 waistcoat, 9 upper petticoats, 7 underpetticoats, 5 wool handkerchiefs, 14 pairs of stays, 5 check aprons, 1 chemise and 7 miscellaneous tins”—this over a period of three years.

Now one night our old friend William Lee, ex-policeman of Wantage, was walking along the Turnpike Road near Lockinge with some friends. It was just after one o'clock and they were startled to see, coming towards them, a man carrying a large sack. Lee and his pals had been to Ardington Feast and so were in a merry mood. They took the sack from the man and emptied it out. Jackets, bed ticks, stays and blankets, a smock frock and handkerchiefs littered the ground. The man, his name was William, offered Lee any of the clothes, or “some of the soap” if he would let him go but Lee's years as patrol stood him in good stead and William was marched off to the lock-up in Wantage.

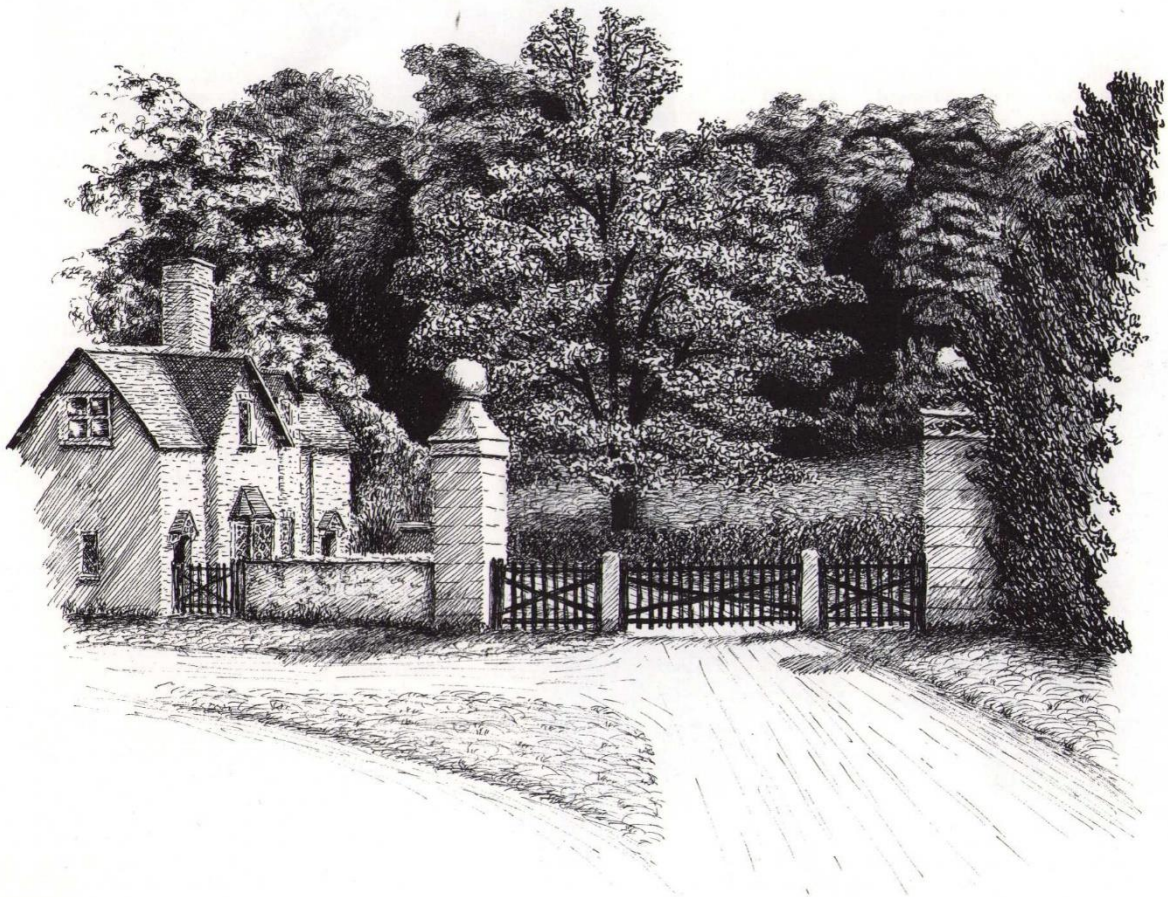
There it was established that William lived in a hut at Harwell so the Harwell policeman, one Joseph Hyde, got a search warrant and entered it. There he found a great store of soft goods of all kinds, and three letters. These were written by William's wife Mary Ann who from time to time became an inmate of Wantage workhouse. In them she told her husband the exact location of her bedroom and at what time he was to be under her window to pick up what she dropped out of it! Wantage Workhouse got back its property and William got ten years' jail and his wife one!

To return to the Commissioners' task of policing Wantage adequately. Elections, as we have seen, were particularly liable to become rowdy and extra patrolmen were usually appointed during them and also for the fairs. Murder was not unknown. Joseph Heath was the patrol who had to deal with the most notorious murder of the century.

On September 3rd, 1833 Ann Pullen aged 40 was buried in Wantage graveyard. The Burial Register records the circumstances of her death. “Ann Pullen was declared by the Coroner's Inquest to have been murdered by George King who separated the head from the body by one stroke of a beanhook on the evening of 30th August. He was apprehended the next morning, convicted at Reading on February 28th, 1834 and executed on Monday, March 3rd.”

Small wonder that in 1835 the Commissioners began to agitate about having a

# A.E.R.E art exhibition 1968



St. MICHAEL, PENKEVIL  
by D.R. Willson - Culham Laboratory



MOTHER AND CHILD  
by W.O. Herd - P. & W. D.



CHILD  
by Susan Harecourt - M.R.C.



# EXHIBITION REVIEW

A feature of the eleventh annual art exhibition at A.E.R.E. was the large number of new exhibitors and the (resultant?) higher standard of the paintings.

Noticeable among the newcomers was a figure group study in pastel, "Mother and Child", by W. O. Herd. This was one of the best classical style figure groups we have seen here for some years. The composition and drawing of the nude figures were excellent, and Mr. Herd has managed to avoid that rather simpering effect often prevalent with this subject. The only criticism was in the morbidezza, which was perhaps a bit monotonous.

Portraits and figure studies tax the amateur artist's ability to a greater extent than the more favoured landscapes, and some credit should be given to those exhibitors who attempt them. Portraits are popularly judged by their likeness to the subject. In this respect Susan Harcourt's "Kamlesh" was not successful, although well painted. Her other portrait, "Child", showed more imagination and technique in conveying expression as distinct from mere photographic likeness. "Portrait Study", by another new exhibitor, J. Tennison, was an example of good painting competing with good photography. There was something extra in this efficiently composed replica of a young woman, but not quite enough. H. J. Crawley's "Archie Utin" was an oil sketch rather than the full-blooded portrait we expect from this artist, but the capable brush work and delineation were still in evidence. "Anne", by C. J. M. Scott, was another capable portrait, although the lack of contrast tended to make it look flat.

Works by two established artists were, in my estimation, their best. The distinctive style of Seton-McConnell was seen to advantage in "Power Station (Night)". This artist has the ability to take the most mundane subject and, using strong, economical lines with subtle tonal values, present it as an interesting semi-abstract. N. G. Douglas's "Edinburgh Rock" was, again, a compromise between his former heavy impasto, abstract *métier* and representationalism. In this blue-green study only the high lights were in impasto, which heightened the cold effect. One spectator remarked of this painting "I don't recognise the shape but the temperature is familiar".

It seems to be characteristic of these exhibitions that watercolours and drawings are of a much higher standard than oil paintings. Perhaps they have to be. Kathleen Abson, who excels in a uniquely bold, contrasting use of water colour, produced another invigorating landscape in "Achill Sound". The use of

light and shade to give a sombre, brooding effect with an essentially airy medium is rare. "Into the Water", by W. J. C. Hastings, achieved something difficult with watercolour in conveying action, at the same time retaining the fluid quality of the medium. Another water colour of note was "The Thames, nr. Binsey", by H. E. Crooks. This was small and in rather low key, but attractive. Good draughtsmanship was shown in both of K. W. Viney's pen studies "Rose", and in Doris Burrell's pencil drawing "Chang Hong".

In an exhibition where landscapes form the bulk of the exhibits a reviewer tends to become afflicted with 'mal de paysage'. However, there were some noticeable ones. "House by the River", an impressionist-like painting by T. Nicholls, was characterised by warm tones and a pleasant, even texture. G. F. E. William's enigmatically named "Swiss 2", although rather stylised, was attractively painted and showed good colour sense. A small painting "Rhines, nr. Glastonbury", by Jean Lyon (yet another newcomer), had a freshness and spontaneity lacking in the heavy oils round about. Too often, landscapes are laboured and over-worked; this little picture had the simplicity of a first impression. Eddie Storey's "Footbridge, Culham" was somewhat pictorial for this artist, who usually paints in a more sophisticated style, but, as with all his "styles", it was done well.

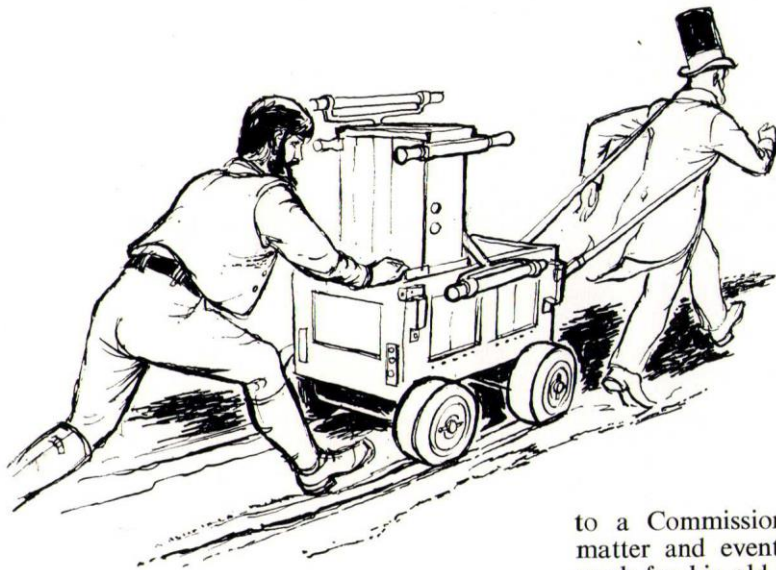
The decried art of collage was well represented by Rachel Houghton, whose "Storm" showed imagination and, for an abstract, unusual integration. There was nothing Ernst-like about Patricia Lloyd-Rogers' "Family Portrait" which, strictly speaking, was not a collage but rather a cartoon in cloth. It had the rare quality of whimsicality.

Still Lifes are not over-popular with amateur artists, perhaps because of the association with art classes and beginners. The pleasant contrast in tone and clean lines of "Container-Still Life Group" by H. Bisby showed that this subject can be as attractive as landscapes or figures.

One misses the paintings of formerly recognised artists like Whitby, Sanderson, Freeborn, Mulford, George Ashworth and Pauline Flowerday. However, there seems to be an influx of new exhibitors who, judging by their paintings, are quite capable of keeping up the standard of these exhibitions.

Our gratitude is due once again to Dr. Douglas and members of the Art Group for organising the exhibition, and to the Grimsdyke House management for the use of their lounge.

V.J.H.



Off to the Fire

► From page 28

“Lock-up House”. In the next year £100 was borrowed at 5% on the Security of the Rates in order to build the said Lock-up House. Presumably it was built and used because the next time it is mentioned is in 1856 when it was to be handed over to the County authorities.

Besides their pay and odd bonuses for arresting people breaking lamps, other money was spent on the Watch. In 1828 they had a ladder costing 10/7½—though what for I don’t know! The Beadle/Patrol had a uniform coat which was renewed every second year or so—except in the case of Lee who got a new one after he painted all the lamp standards. Occasionally the Watchmen got new coats. In 1835, 18 yards of cloth were bought from Mr. Hazell who had a “cloth factory” at the Mead. This cost 5/6 a yard and was made up by Mr. Hussey.

The first mention of a hat came in October 1839 when Lee asked for a rise in salary. This was refused so he resigned. He was summoned

to a Commissioners’ meeting to discuss the matter and eventually he agreed to return to work for his old salary provided he was given “a new coat and proper policeman’s hat”.

So by 1840 Wantage had a police force of four, in uniform coats and at least one of them had a proper hat and a truncheon. One of the Watch had a rattle as well.

William Lee and Joseph Heath and Thomas Thornhill had powers to summons people—most frequently lampbreakers. On several occasions citizens were threatened with summonses for insulting the Watch! They could summons “any inn-keeper who shall suffer card playing in his house or sell beer or spirits during the hours of Divine Service”. This in addition to their lamp-post painting activities which they did frequently. Incidentally the first use of the word “policeman” was not till 1837.

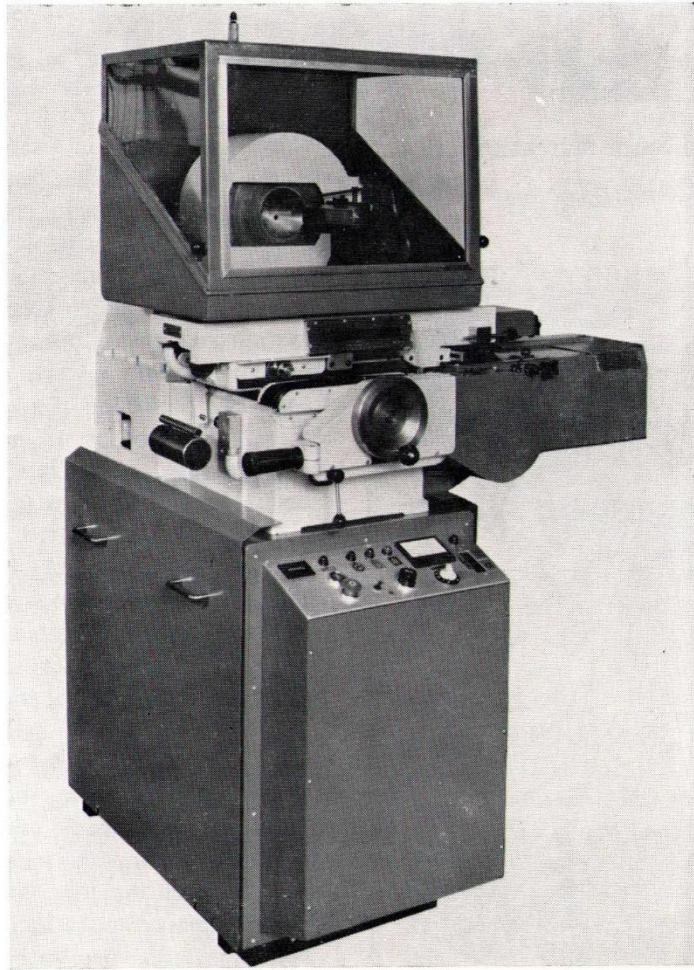
And so by the ’60s the County Police patrolled the Town, the Inspector of Nuisances was busy, the Commissioners had several committees. The accounts were audited. Think back once more to October 1828 to that first meeting of a dozen Commissioners who appointed, a Surveyor and Collector, three Watchmen and a patrol. The Commissioners were doing their work well!

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On that occasion I was woken shortly after midnight by loud footsteps. Must be on the roadway, I thought, in a sleepy way, but as the sound was repeated I realised it was much too loud for that. Crunch, crunch, it went just below my bedroom window. I crept out of bed, adrenaline surging, and stood shivering by the window. All was quiet. Hesitantly I drew back a curtain and peered out, but at first could see nothing. Gradually my eyes accommodated and I could see the shape of a horse silhouetted on the drive. It stood as still as a statue for what seemed an age, but at last it moved. Crunch, crunch sounded the now familiar footsteps, as the apparition disappeared up the drive, only to be followed incredibly by a similar shape which quickly glided into the vacated position.

When the scene repeated itself a third, and even a fourth time, I realised only too clearly I had gone beserk. Could it be a dream, or was I at last experiencing hallucinations at first hand? I nearly tripped over my wife's bed as I dashed madly for the stairs. There was no response from the bed's occupant, which confirmed in my mind the unreality of the whole affair. Not even the dog, snoring in the kitchen, stirred as I leaped to the back door.

Nothing could surprise me now, I thought, as I seized the knob and flung the door open. But as I did so the muzzle of a horse thrust itself under my nose! I reeled back and slammed the door, yelling to my wife. If it was a dream it seemed only fair someone should share it with me. Presently a sleepy voice from upstairs enquired "what's the matter?" "There are horses in the garden" I roared.

My wife sauntered into the kitchen with a half-pitying smirk on her face. "Don't be silly" she said. "All right," I challenged, "take a look at the back garden". An outside light conveniently gave a faint glow to the cabbage patch, which was at that moment sustaining

# Horsillucinations

the appetites of four fully grown horses. "So there are — you had better get them out, hadn't you?" was the smug response, as my partner for life turned back to bed. Her lack of concern added to my fear that I was "seeing things."

Not being a country type, indeed I scarcely know which end of a horse to talk to, I summoned the police. The village bobby answered the 'phone with characteristic restraint. An officer would be sent along to investigate, I was assured. Instinct told me to watch the horses like a hawk — what a Charlie I would look if they vanished before the policeman arrived! I posted myself in the lounge, surveying front and back gardens. The invaders had returned to the front drive — but not for long; one by one they trooped back, right across my prize rose bed.

A moment later a torch appeared at the top of the drive. Dressed in pyjamas and raincoat, I greeted my visitor with profuse apology for bothering him. His exemplary politeness encouraged me, and we set off in the middle of the night on a horse hunt. At this stage I became convinced I was hallucinated. There was no sign of an earwig — let alone a horse. Even the vegetation was undisturbed.

With an air of desperation I urged my colleague to shine his torch next door. The adjoining garden was a near wilderness, capable of hiding a herd of elephants. Mercy prevailed — an ear was pin-pointed sticking up above the tall gras. "Seems as though they have moved on, sir, probably through that hole in your fence" was the official opinion. We found a ladder quick, and blocked the hole.

I mentioned the excitement to my neighbour a few days later. "I wondered what the commotion was," she said. "A friend asked me

*Dr. R. G. ORR (Medical Services)*



to look after his horses for a day or two. I noticed the hole in your fence, and meant to tell you. Sorry I forgot."

# 'A DOCTOR REMEMBERS'



by an ex-Harwell Medical Officer

Memories forgotten by everyone else and  
now safe to recall

To a very ordinary, very unscientific doctor, unwillingly transferred, Harwell was Mount Olympus itself. As an ageing mortal of thirty-six, I listened daily to the lofty discourses of the young gods and made my first discovery. There was a new meaning for "piles" (reactors nowadays). Sometimes, rather pityingly I thought, they tried to explain to my atrophied intellect such basic concepts as "neutron capture" or the "Compton Effect", illustrating their words with simple scientific tools (generally the cruet). At medical examinations, I meekly accepted their diagnoses and their scientific theories on the causation of disease. I soon realised, too, that my neglect of quadratic equations at school barred me from ever practising really scientific medicine.

There were incidents which I realised in retrospect should have cracked the illusion of divinity. Oddly enough they seemed to suffer the ills of mortal men and, when really ill, accepted without question our simple remedies. There was the time, too, when I burst in on my scientific room-mate and found him demonstrating, in quite an old-fashioned way, his collection of Peruvian pottery to a rather attractive goddess. There was also the occasion when the Anaesthetised Cleaner was brought into the surgery. She, poor soul, had been

given a winchester of chloroform as the right scientific approach towards a stained floor. This she diligently applied until sleep overcame her (happily only for a day). But what broke the spell was: "The Day the Dog Died".

This began for me with an urgent message that a Very Important Physicist had had a serious accident. Having not yet learned the difference between an urgent message and a very urgent one, I put on my most practised professional manner and *ran* to the Medical Building. In those days, everything in our Establishment was urgent. My difficulty was, of course, that I could not remember what the permissible dose of radiation was for a Very Important Physicist, and I had no idea how to deal with an overdose if such had been his lot. Fortunately, it was something quite different. The Very Important Physicist (VIP) had decided to have a day off from his labours and to take his mother, wife and baby on an outing to a neighbouring town (the scene is set in the first Petrol Rationing Period and, of course, such an outing was really something). The tragedy occurred as they were leaving home. Their dog, thought to be securely "gated", suddenly projected himself in a last ecstasy of farewell under the slowly moving wheels of their car.

Our Medical Building in these days was "outside the fence" and a natural port of call for miles around. When I arrived, I was led immediately by an unusually subdued Sister into the ward. There, on a bed, with two tearful nurses in attendance, was a very dead dog. Lying face down on the floor, convulsed with sorrow, was the Very Important Physicist. The dog was beyond medical care and it seemed wrong to intrude on such grief, so I tip-toed out to treat my own agitation with appropriate measures (Civil Service tea). In another room was the baby who had bounced onto the floor of the car when the accident occurred. It was being pacified by a motherly nurse while its own mother busied herself making up a bowl of a well-known brand of infant porridge. Meanwhile the old mother (the VIP's, I mean), who was too crippled with rheumatism to get out easily, sat in the car outside. She, too, was stricken with grief, but this took a different form. With true feminine logic she sat immobile declaring clearly for all to hear that if he (the VIP) had not married that woman (the wife), the dog (dead) would be alive today. A cup of tea soothed but did not silence.

The next few minutes were confused. I know that when the VIP recovered sufficiently to pay his last respects the corpse was missing, removed by a now irate Irish Senior Sister from her precious counterpane to a more mundane place. I remember also some mutual domestic recrimination, the baby taking no part in this.

When all was calm again, a chastened party set out sadly on the return home. The old lady sat immovable in the front. The dog was laid reverently in the boot, and on the back seat a now happy baby lay in its mother's arms, being spoon-fed with ambrosia.

The nursing staff started to clear away the evidence of the tragedy and I went off to consult the higher authorities (Vol. 1) on the mysteries of atomic medicine. We all relaxed, but not for long. In a few minutes they were back with an even more urgent call for help. A sobbing old lady was led slowly into the surgery. Her sobs were muffled by a slowly moving glutinous veil that covered her head and features. Of course, she had been unable to let well alone, an exasperated daughter-in-law had defended herself with the only weapon available (the bowl) and the baby, deprived of its pleasure, was howling again. They were human after all! I never looked back and I am an expert myself now.

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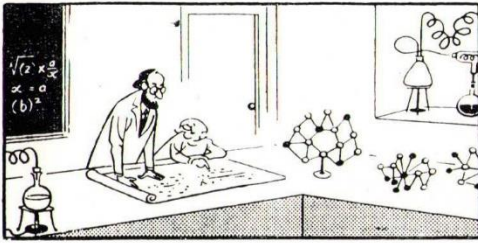
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# 'WE GAVE UP SMOKING'

— A HARWELL SCIENTIST WHO WISHES TO STAY ANONYMOUS

Yes, on 22nd May, 1967, on my 60th birthday, I smoked my last cigarette and became, for the first time since about 1942, a non-smoker, and so did my wife. We had been getting through about 200 a week between us, sometimes more when we returned from a trip abroad and sometimes less when there was another cancer hoo-ha.

Our motivation was two-fold—health and money. I was lashing out some £2 a week, £100 a year or £500 by retirement age. Whereas this amount seemed reasonable out of current income, the hole it would make in my pension would be over twice as big relatively speaking, which is tantamount to saying that my smokes would effectively cost me ten shillings a packet. Addled accountancy? Well, you try and do better. Of course I am older than the average Harwell smoker, but the younger men would save even more by retirement age, that's all I've got to say.

Now motivation is one thing and must of course be the compelling factor, but other factors can help a lot. Dr. Robin Orr says that the timing must be right. I couldn't agree more. So what better than a birthday?

In my case an unusual and rather nice factor presented itself, when I told the momentous news to my "office". Her remark was first "You're lying" and then "I bet you can't keep it up for a week. Tell you what, I'll buy you a bar of chocolate if you do." This really was a challenge—and from a girl just about young enough to be my grand-daughter, too. So I just *had* to earn my bar of chocolate, and did, and got it. She then renewed the offer and as a result I earned, and got, six successive bars, at which stage we agreed that I had made my point and called it off. Actually at that time she was smoking herself, but shortly after she, too, gave it up and it became a matter of honour for me to present *her* with bars of

chocolate! Now this seemingly small and rather absurd thing in fact played quite an important part in the campaign, and I shall always be grateful. Bless you, dear Rosanne!

Another factor was Temptation. At home we had just opened a new packet of 200, and there it sat on the bookshelf, slightly to starboard of the Telly, in full view. We used to sit and stare at it, daring it to open up and pop a fag into our gasping mouths. But it didn't and, when the first few days of Sheer Hell had passed miserably by, I disposed of them to certain of my colleagues distinguished by their fruity coughs, stained fingers and nervous twitches.

And then, on a slightly more serious note, there was the Black Cloud. Every cigarette smoker who has studied the form must have some sort of feeling that there is a black cloud on the horizon, however small, which represents his chance of getting It, and the longer he smokes the larger the cloud becomes. But of course he turns his blind eye and pretends it isn't there at all. Now I know perfectly well as a smoker for twenty-five years that my cloud is already a certain size which cannot get any less, but nevertheless I would not be human if I didn't feel some relief that it won't now get any bigger (and don't give me that guff about diesel fumes and bonfires).

There were naturally side-effects. We started promptly to put on weight. As I said to my faithful spouse one night in bed "Do you realise that these springs are having to stand up to another two stone?" The trouble was, we had started a sort of chain reaction (positive feed-back might be a more appropriate term). The more we ate, thanks to improved appetite and appreciation of flavour and aroma, the more we wanted to eat; but finally we reached a state of equilibrium—or saturation if you like. Unfortunately the extra inches

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*"You never complained about my cooking before you gave up smoking"*

did not spread themselves at all fairly. In fact, a somewhat skew distribution about my centre of gravity (sic) resulted in my wife having to let out all my trousers by about two inches. And now my doctor is advising me to diet and to take more exercise to get rid of some of those troublesome tissues. You just can't win.

Another effect was restlessness—you know, "ants-in-the-pants". We have joined in all sorts of village activities and have generally behaved like human bulldozers in our new garden, to the great interest of our neighbours. Oh, and I have lost the habit of catching colds that lasted three weeks or more.

One of the worst things to cope with was the Gap. Smoking had become the punctuation of our day and even more so in the evening, and we needed something to fill the gap. Perhaps it was natural that we Took to Drink. That glass of sherry which with the cigarettes used to last the whole evening now became two or three, and inside a month my liquor bill had more than doubled. But of course this phase passed and we are now back to normal, beyond an acquired taste for washing down our meals with Plonk.

Our reaction when someone offers us a cigarette is slightly odd. I tend to inspect this strange object (yes, that is what it has become)

from a safe distance and to say "Thank you, no. I don't use them", while my wife just says "No, thank you, I've given it up"—and then spoils the effect by giggling as though it's all a huge joke. And if the other person is a woman she usually says "OOH, I wish I were as strong-willed at that". A man usually says "Blimey. I wish I could".

Now this is the whole point I want to make. We did this off our own bat. Nobody suggested it, nobody tried to impose their ideas on us, and I reckon this is the nub of the matter. I don't think anyone could accuse my wife or myself of being strong-willed—in fact, I expect my A.C.R. reads "easily succumbs to temptation"—but we forced ourselves into a state of mind akin to sheer cussed obstinacy and thereby strengthened our resolution.

And if we can do it, why can't YOU? This is a challenge. Best of luck to Dr. Orr and all that, but really it starts and ends with YOU, with or without his valuable help, and if you can save his time and yours, why not have a stab?

If you succeed you will gain in self-respect and your still-smoking pals will be both astonished and envious, until they, too, develop the resolve to see it through. Best of Luck!

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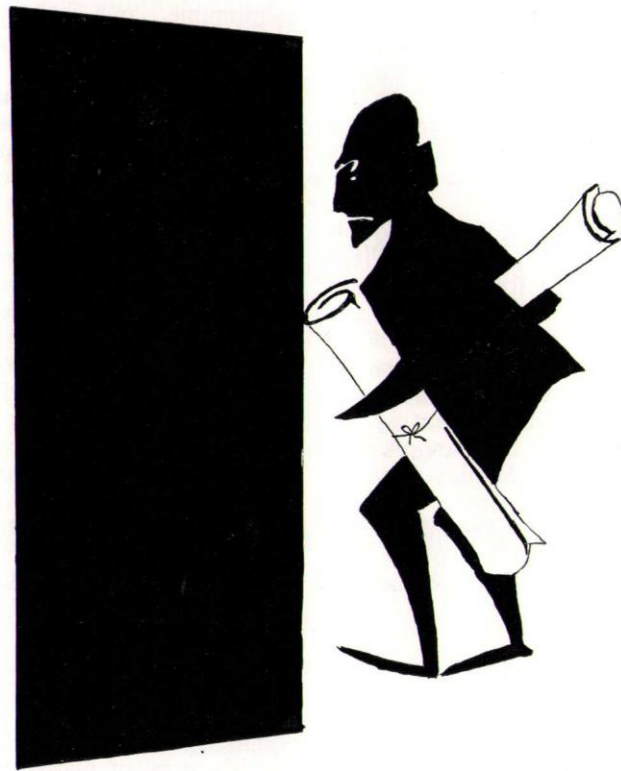
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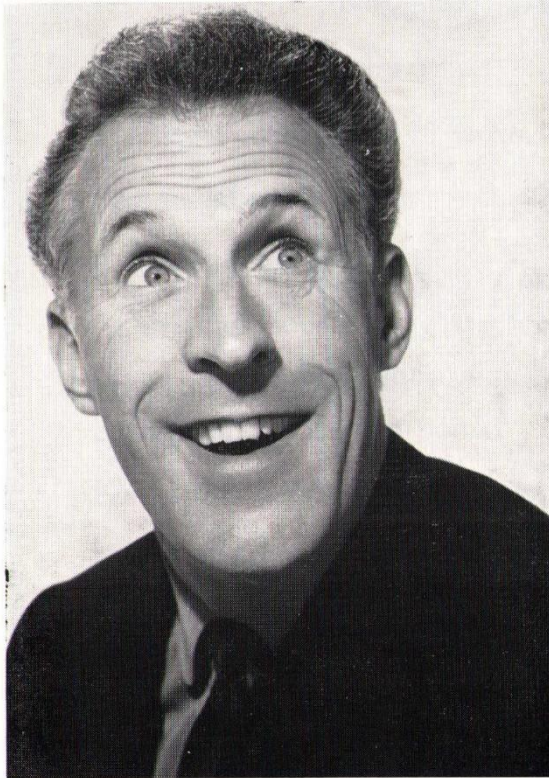
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## TIME FOR PANTOMIME

London born Bruce Forsyth, who stars in *Babes in the Wood* at Oxford's *New Theatre* this Christmas, began his stage career at the age of 14 in the middle of World War II. He appeared in his own song and dance act in a page boy costume, and for two years entertained the American troops stationed in Britain for the American Red Cross.

After the War he appeared in various double acts and had a two year spell at London's Windmill Theatre, a springboard for many British stars. This led to roles in summer shows and provincial pantomimes during which time he gained the valuable experience which was to make him one of our most versatile stars.

1958 proved to be a turning point in his career. He was invited to compare ATV's weekly television spectacular, *Sunday Night at the London Palladium*, and he was to continue to host the top-rating Palladium television show for three consecutive years. 1958 also saw him co-starring in "*Sleeping Beauty*", the Palladium



pantomime, and making his first of three appearances in the Royal Command Variety Show.

In the three years that followed he topped the bill in summer season shows at Blackpool and Great Yarmouth and in pantomime in Liverpool and Manchester. In 1962 he starred for 6 months in his own revue at the London Palladium.

Then firmly established as one of Britain's most popular entertainers, he appeared in cabaret at the Talk of the Town, made his first disc and starred in his first musical, the British production of *Little Me* at the Cambridge Theatre. This show in which he played 7 roles ran for almost a year and he followed up the success with a season in South Africa.

When he returned he played the lead in *The Canterville Ghost* which was screened in colour by ABC TV in the States — this play provided yet another opportunity to show his remarkably versatile acting range. For the last two years he has successfully divided his time between the theatre and television and several of the *Piccadilly Palace* spectacles in which he starred have recently been screened to American audiences.

This July saw the release of the film *Star* — the life story of Gertrude Lawrence, in which Bruce played father to Julie Andrews. He now looks forward to the release of Anthony Newley's new film *Can Heironymus Merkin Ever Forget Mercy Humppe and Find True Happiness* in which he plays the part of Uncle Lime-light. His looks can best be described as "rugged", but added to an ingratiating smile and nimble footwork, they are his fortune.

We look forward to seeing him in the coming production.



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