

# ATOM NEWS

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## First-aid firemen hitch home



THREE Harwell firemen on their way home after their night shift leapt from the staff bus on its way to Newbury, Berks, as it passed the scene of an accident involving two lorries. They found the driver of one of the lorries lying in the grass at the side of the road beside his wrecked cab.

In the picture Leading Fireman G. J. Duffin bends down to give him help as (left) Fireman A. J. Sheppard and (back to camera) Fireman A. S. Jackson stand by.

The three firemen also helped three other people injured in the accident and stayed until two ambulances took them to hospital in Reading.

Then they had to hitch-hike the last four miles home to Newbury.

# QUEEN AND DUKE LUNCH IN WINFRITH

THE QUEEN and Prince Philip were spending 2½ hours at Winfrith on July 11 during a series of visits in Dorset.

In the morning they were due to see farms belonging to the Duchy of Cornwall at Poundbury, near Dorchester.

They were expected at Winfrith at 12.10 pm and were to visit the Reactor Physics Hall and the General Services building.

"These buildings were chosen so that as many staff as possible could see the royal party," said a spokesman.

Exhibits showing some of Winfrith's work were ready in both buildings.

The Queen and the Prince were being accompanied by the Lord Lieutenant of Dorset, Colonel J. W. Weld; the Minister of Technology, Mr. Anthony Wedgwood Benn, and Authority Chairman Sir John Hill.

## Road lined

Winfrith's Director, Mr. D. W. Fry was host to the visitors for lunch. They were being joined by senior members of the staff, and representatives of staff associations and trade unions.

"The route for the royal cars passing through the establishment has been chosen to give staff an opportunity to see the Queen and the Duke travelling through the site," said a spokesman.

Families of Authority employees were expected to line the private road leading to the site as the royal party drove past.

## Bank's business is booming



BUSINESS at the Springfields branch of the District Bank has doubled more than twice since it opened eight months ago.

A new boom is expected now that all Britain's banks are closing on Saturday mornings, making it harder for Authority employees to visit their local branch in their own time.

Not every customer that the clerk, Mr. Richard Alexander, deals with has the charm of machine operator Valerie Porter. But, says a Springfields spokesman, they all get the same helpful service.

## Britain is in the top five

BRITAIN is one of "the most advanced five members of the International Atomic Energy Agency in the technology of atomic energy", says the agency in naming the members of its board of governors.

Canada, France, Russia, Britain and the United States are board members for 1969-70 "as the most advanced five members in the technology of atomic energy".

Australia, Brazil, India, Japan and South Africa are on the board as "the most advanced members in the technology of atomic energy in the geographical areas not represented by the other five".

Czechoslovakia and Portugal join the board "from

among the producers of source materials". Sweden joins as a supplier of technical assistance.

Seven members will be elected for a two-year term of office by the general conference of IAEA when it meets in September and five members of the present board, elected by the general conference last September, will continue for another year. They are Argentina, Iran, Italy, Singapore and Venezuela.

## Culham to be test centre

THE AUTHORITY is setting up a test centre for superconducting materials at Culham. It has been specially asked for by the Ministry of Technology.

It will take a year to set up the equipment, but when it is ready manufacturers and others who use superconducting materials will be able to use it to test new devices and help them to guarantee the technical quality of commercially produced materials.

## Other work

The technology of making, testing and operating superconducting coils has been developed at Culham for the nuclear fusion research programme, said an Authority spokesman.

Work on other applications of superconductivity has already been undertaken in collaboration with the Ministry of Technology.

The laboratory already has limited test facilities.

## £225 MEMORIAL

THE Cyril Sanders memorial fund—started in memory of the man who ran Harwell's Clinical Pathology Department for 21 years—has closed at £225, which will provide a prize for the Institute of Medical Laboratory Technology.

## BRAZIL IS BUYING 6 BRITISH REACTORS

BRAZIL has ordered £1,500,000-worth of nuclear equipment from Britain. The order is for six nuclear research and training reactors. It has been placed with Fairey Engineering Ltd., of Stockport, Cheshire.

The Brazilian Ministry of Education wants five Helen-type reactors for training and basic research, and a Herald five-megawatt reactor for more advanced work.

Both types of reactor are sold overseas by Fairey under a licence from the Authority.

## New centre

The Herald will be installed at Brazil's new centre of government in Brasilia, and the Helen reactors will go to universities.

This contract follows a £600,000 order from Chile for a Herald reactor for which the contract was signed only six months ago.

## Director on NRDC

DR. WALTER MARSHALL, Harwell's Director, has been appointed by the Minister of Technology, Mr. Anthony Wedgwood Benn, to be a member of the National Research and Development Corporation.

Dr. Marshall will hold the appointment until the end of June 1972.

He fills a vacancy on the board which followed the appointment of Sir Frank Schon, already a member, to be its chairman from March 1.

## SPAIN TO SEND FUEL TO WINDSCALE

FUEL from the Spanish nuclear power station at Zorita, near Madrid, is to be reprocessed at Windscale. An agreement between the Authority and the Spanish Junta de Energia Nuclear was signed on July 4.

A minimum of 28 tons of fuel from the station will be going to Windscale between 1971 and 1975.

The Zorita nuclear power station is Spain's first. It generates 160 megawatts of electricity and uses a pressurised water reactor.

The original fuel is American. The Authority will buy the plutonium recovered during reprocessing and it is likely to be sold back to Spain later as fuel for other power stations.

International agreements ensure that it is used for peaceful purposes.

The Authority already has contracts to reprocess fuel at Windscale from Japan, Italy, Canada and Switzerland.

● Fuel agreement with Denmark, page 3.

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# Egypt's cash problems show up in reactor

TWENTIETH century nuclear science may soon provide man with a knowledge of economic conditions in ancient Egypt.

The first step in the search for clues has already been taken at McMaster University in Hamilton, Ontario, the site of the only nuclear reactor at a Canadian university.

More than 40 ancient Egyptian silver coins owned by Mr. Richard Hazzard, of Toronto, were irradiated in the reactor under the supervision of Dr. I. D. Brown, of the Department of Physics.

Heinz Lycklama, a gradu-

ate student, conducted the project.

The coins were lowered into the reactor in a plastic bag. When they had been irradiated they were put on a gamma-ray counter.

By identifying and grading impurities in the coins Mr. Hazzard hopes to obtain clues about the economic situation in Egypt during several reigns of the Ptolemys.

## Diluted

Between about 184 BC and 42 BC other metals such as copper were added to the silver used to make coins. Economic conditions dictated what was added and in what quantities.

Results have been recorded, but final conclusions have not yet been published. So far, a spokesman said, the results do not agree with tests of specific gravity made earlier on the same coins.

## New top doctor

DR. S. M. B. HILL, head of the Health and Safety Division at Dounreay, is the Authority's new Chief Medical Officer.

He succeeded Dr. K. P. Duncan on June 9 when Dr. Duncan joined the British Steel Corporation.

Dr. Hill will be moving to Harwell but for a time he keeps the title of Head of Health and Safety at Dounreay.

# REACTOR MIGHT RELEASE WATER FROM MOON ROCK

DR. EDWARD TELLER, who has been working on the development of nuclear weapons, said last month that it would be "useful scientifically" to set off a nuclear explosion on the moon.

The vibrations of the blast, said American Dr. Teller, would be the best source of seismographic measurement from which to learn about the moon's interior. The doctor also suggested building a nuclear reactor there.

"The best information on the earth comes from nuclear explosions," he said, "because then the energy-generating event is confined very sharply both in space and in time."

The explosion should be "set up out of the way of mischief and at a place which you have already sufficiently explored," he said. Although the explosion might change things on the moon "in a local area" he doubted if significant changes would be made over big distances.

"One can confine the radioactive particles below the surface as we do on earth," he said.

But research from a nuclear reactor would be of greater importance, the doctor claimed.

"I would like to see the development start right after the landings of Apollo II," he said. "But it may take quite a few years—perhaps five—before we have a station that is continuously manned."

"A nuclear reactor could heat lunar rocks to very high temperatures and liberate oxygen from them for breathing," Dr. Teller claimed.

"There is a probability that, bound in the lunar rocks, you will also find water which you can boil out. There is no reason why we cannot produce it, keep it and use it."

The reactor might be able to provide enough fuel for short-range rocket trips on the moon, he suggested.

## MINISTER HANDS POWER STATION ARCHITECTS AN IDEA FOR THE FUTURE

# See-through walls to show off beauty

A SUGGESTION that buildings like power stations could be built of transparent material "to reveal interesting or beautiful design and movement" was made by the Minister of Technology, Mr. Anthony Wedgwood Benn, when he opened the nuclear power station at Oldbury-on-Severn last month.

"It is curious how little is said about the sheer aesthetic beauty of engineering work," he said. "There are some exceptions. The Severn Bridge or Concorde may win acclaim for their overall proportions."

"But the immensely detailed and accurate work on electric circuits or the structure of man-made fibres or the intricate pattern of mechanical parts in ordinary equipment seems often to escape the eye of the art critic."

"Many of us are familiar with the sense of loss which accompanied the replacement of the steam locomotive, with its visible moving parts providing a sense of animation, by diesel and electric traction."

## Excitement

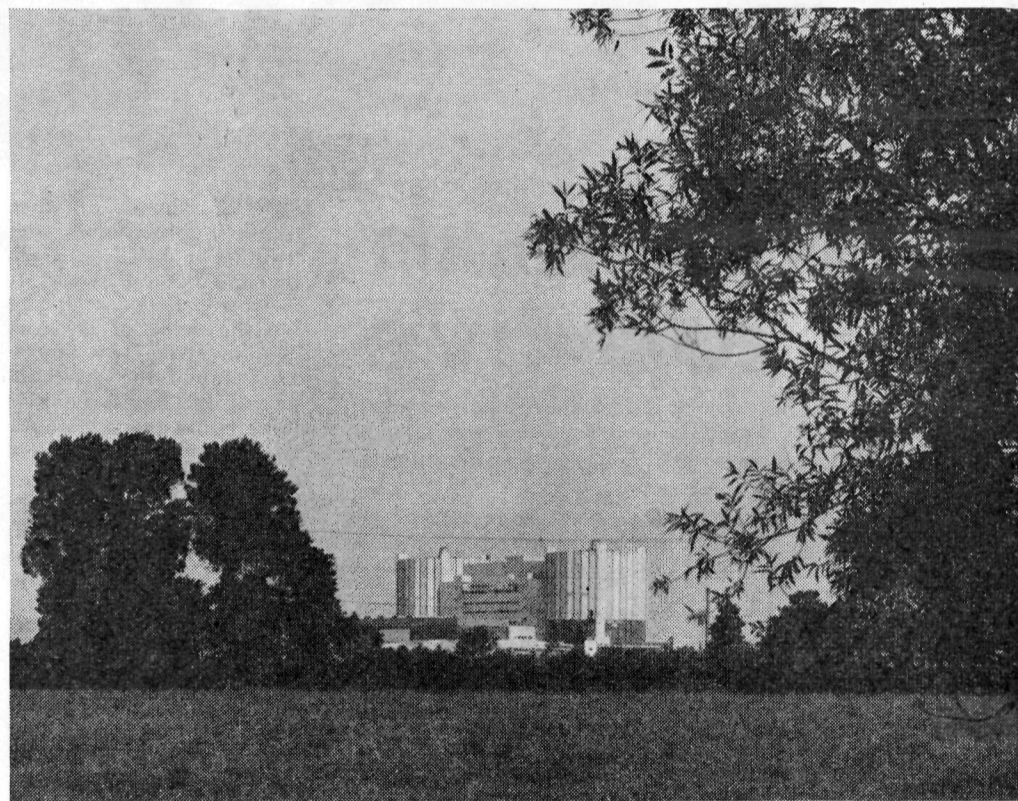
"For the same reason, I think, our technological environment would gain in excitement and beauty if more working parts were visible to the eye."

"Here is the answer to the cult of the commercial stylists who offer us brilliant designs with dull overcoats of streamlining. Today, thanks to the inspired leadership of the Council of Industrial Design, design is seen as a joint operation uniting the engineer and the industrial designer in a common study of basic problems so that they can be solved in an integral form."

## Go further

"But I think we need to go further and consider how the mechanisms of things can be made plain and evident by the use, for example, of transparent coverings to reveal interesting or beautiful design and movement, in all their manifestations, mechanical, electronic, electrical and chemical."

"For centuries the finest craftsmen laboured to produce the architectural masterpieces at Canterbury and York, Wells and Gloucester, Bath Abbey and St. Mary Redcliffe, Bristol. They remain today centres



THE VIEW for future pilgrims? Oldbury-on-Severn nuclear power station from the south-east. "The profile is simple and dignified... it has a colossal impact upon its surroundings," said the Minister of Technology, Mr. Anthony Wedgwood Benn, when he opened it.

"Inside it, in the reactor core, the pressure vessel, the turbines and the cooling system, is some of the most intricate engineering work to be found anywhere in the world. Every piece of equipment is precision designed and built to meet vigorous operating requirements."

"Enough can be seen to allow us to imagine it as a centre of pilgrimage for future engineers and technologists."

## Watch for school man

AFTER working for 12 years in Aldermaston's apprentice school, Mr. Dick Ward has retired. Mr. I. K. Walters, the apprentice school manager, presented him with a wristwatch as a farewell gift.

## Harwell men head the council

MR. FREDERICK HOLD-BROOK, a 38-year-old senior technical officer at Harwell, has been elected chairman of the Conservative-controlled Didcot Parish Council.

Mr. Holdbrook has been a member of the council for three years and since 1967 has been chairman of its Allotments and Cemetery Committee.

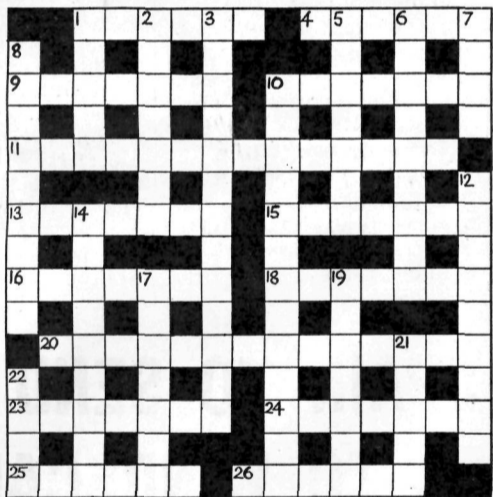
Last year he was elected vice-chairman of the council.

The new vice-chairman is Mr. Derek Holmes, who also works at Harwell.

## CROSSWORD CORNER

### ACROSS

- 1 Oppose up-setting sister. (6)
- 4 Not radioactive, but it may produce winners. (6)
- 9 Take in the shut-down period, it's something atrocious. (7)
- 10 Mistake in the hills can produce great fears. (7)
- 11 Orange or butter will provide this power station component. (5-9)
- 13 Animal's front support causes twisted grin in fog. (7)
- 15 Mid-hour is source of metallic element. (7)
- 16 Five dye the French with this flavour. (7)
- 18 Negotiator stands a round (7)
- 20 Refresh exercise in camp-anology. (4, 3, 7)
- 23 Instrument in charge of carbon compounds (7)
- 24 Time off in Basle I surely enjoy. (7)
- 25 One container in a hundred, brown all round. (3, 3)
- 26 Young bird sounds like a small seal. (6)



Name .....

Address .....

- 14 New car gets this arresting treatment. (7, 2)
- 17 This car has silver on 500 in the French version. (7)
- 19 Right off one of the family? That will cause delight. (7)
- 21 Haggard, time-honoured Lancaster. (5)
- 22 Broken atom provides medieval defence. (4)

### JUNE SOLUTION

A I L S A C R A I G E P I C  
L I U O N P R O  
I S L A N D S T R E F O I L  
G L T S H N F O I  
H E E D T I R E E N E O N  
T W E O S S S  
S C R I M B R O W N S E A  
C A G F Y E E Y  
R O L P H T O N C A L D Y  
O F T U M T S  
S T O P U L L I N S A R K  
S F H N S W R E  
C O M P O S E C L E A R E R  
U A Y S U L A R  
T U N E A S C E N D A N C Y

Book token for Mr. D. Holder, of Aldermaston. Entries this month to Crossword, Room 124, London Office, by July 24. First correct entry opened wins.

- ### DOWN
- 1 It goes round, backwards or forwards. (5)
  - 2 Bird might be a gannet. (7)
  - 3 When twisted, cog part here is solid-looking. (13)
  - 5 Oh, Daniel, rubbish! Turn back, there's a violent wind. (7)
  - 6 A student of life. (9)
  - 7 Simple midshipman. (4)
  - 8 One rebellion, three times another. (5-4)
  - 10 According to the books, the supporter contains gold, etc. I'm in the middle. (13)
  - 12 Stamped the little devil with a ship in the music pipe. (9)

# BALLOON IDEA SCRAPPED, BUT GOLFER AND ARCHER-ANGLER STAND BY

# Climbers scale Clett

DEREK YOUNG, the Dounreay climber who was one of the first to reach the top of the 200-foot Peddie stack, off the coast near John O'Groats, two years ago, led another team of climbers who spent six hours last month reaching the top of the previously unclimbed Clett Rock, 40 yards off the towering cliffs of Holborn Head, near Thurso.

The three men completed their climb on June 22 after weeks of preparation.

## Club members

With Derek, who works in the Engineering Development Group at Dounreay, were Mick Willis, of the same group, and Roger Jolly, who works on the prototype fast reactor there. They are all members of Caithness Mountaineering and Ski Club.

To land at the base of the rock they had to wait for calm weather and scramble on to a narrow ledge from a lobster boat belonging to Willie McDonald, who works in Dounreay's Central Design Office. Normally huge waves keep boats well away from the rock.

At their first attempt on June 16 they spent 4½ hours climbing the first third of the 160 feet to the top. For most of the time they were fighting overhanging rock, described by observers on shore as "vicious".

## Pegs left

With Derek and Mick on this climb were John Johnson, of the Instrument Department at Dounreay, and Steve Scadden, of the Administration Division.

When they gave up, they left stout metal pegs in the rock face ready for their next attempt.

Four days later they pegged out more of their route.

But it still took them from 9.30 am to 4.15 pm to complete the final climb.

## 34 US A-stations delayed

THIRTY-FOUR nuclear power stations which could be generating 7,500 megawatts of electricity in the United States have been delayed up to a year—more in several cases—according to a census made by the Atomic Industrial Forum.

As a result, there might have been power cuts in some areas of America if power stations had not been able to buy electricity from neighbouring organisations.

So far in 1969 only two major nuclear power stations have been ordered from the four companies in America building them, says the forum.



**SURROUNDED** by the swirling waters of the Pentland Firth, the Clett Rock stands alone, 50 yards off the towering cliffs of Holborn Head, near Thurso.

Dounreay climbers scaled it last month—six weeks after they first discussed whether it was possible. Their route was up the far right-hand side of the rock (arrowed).

Below, Mick Willis, the lightest member of Caithness Mountaineering and Ski Club, returns to sea level past the vicious overhang which the climbers had to overcome. The photograph was taken by fellow climber Derek Young.



From the top they climbed back down their ropes to the lobster boat. At one time they had thought of returning to the mainland by walking hand over hand across a rope stretched from the top of Clett to Holborn Head.

Champion archer Charlie Evans, of Dounreay's Engineering Development Group, had already fired an arrow from the mainland to the top of the rock, stretching a light line across the sea.

## Strong wind

When the climbers reached the top they had planned to pull across a heavier rope and then swing across it. In practice, Charlie had also got a line across using a fishing rod to make a long cast. But strong winds defeated him on June 22.

Golfer Alan Clifton was also beaten when he tried to send a light line across to Clett attached to a golf ball. The line broke and the ball landed in the sea.

Landing at the foot of Clett Rock is so difficult that the climbers had seriously thought of lowering Mick Willis, the lightest member of the club, on to the top of the rock from helium-filled balloons.

## Deflation

Alan Ainsworth, the club secretary who works in Dounreay's Engineering Development Group, had suggested that Mick should be dangled from a kite supported by four balloons which would be flown from the mainland to the top of the stack.

When Mick was directly over the rock, Alan suggested firing a dart from a gun at two of the balloons to deflate them and land him on the rock's flat top.

Mick would have been carrying a rope, anchored on the mainland, which he would have fixed to the top of the rock so that members of the club could swing across, slide down other ropes to the base of the rock and then start their climb.

## Dounreay delay to cost £750,000

DELAY in building the prototype fast reactor at Dounreay is likely to cost £750,000, Mr. J. P. W. Mallalieu, Minister of State for Technology, said in the House of Commons.

The delay follows problems in making the complex steel

radiation shield roof for the reactor, but it had nothing to do with the fast reactor system as such.

The Minister of State told Mr. Eric Lubbock that the estimated loss of electricity receipts from the reactor was £1,200,000 in 1971-72 and

## Capenhurst loses three messengers

THREE of Capenhurst's long-serving messengers have retired. Mr. H. Jones, the head messenger, left after working at Capenhurst since 1942.

Known to everyone as Harold, he was keen on music and during the 1939-45 war gave up his spare time to provide entertainment for the forces as a member of Ensa.

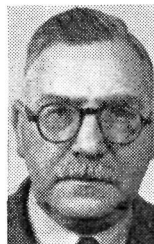
He plans to spend much of his retirement in North Wales, fishing and taking photographs.

Colleagues at Capenhurst gave him a pair of binoculars as a farewell present.

Mr. Ivor Williams, who has also retired, started work at Capenhurst in 1952 and he, too, plans to move to North Wales — and a country cottage. Colleagues gave him a barometer.

Mr. H. Baldock, who has also worked at Capenhurst since 1952, has had a long illness. Colleagues gave him a clock as a farewell gift.

Mrs. Jones, Mrs. Williams and Mrs. Baldock all received handbags.



**MR. HAROLD JONES** (top), head messenger at Capenhurst, has retired. So have Mr. Ivor Williams (left) and Mr. H. Baldock. Between them they have worked there for over 60 years.

## Springfields

Mr. Ernest Harper, who has retired from Springfields, worked there for more than 21 years. Before he left, Mr. J. Doran, Production Manager, presented him with gifts from the works benevolent society, colleagues and the Transport and General Workers Union.

Mr. B. O. Grady, who has retired on health grounds, worked since 1949 as a fitter in the Springfields Plant Maintenance Department. Gifts from the benevolent society and colleagues were presented to him by Mr. A. C. Matthews, Assistant Chief Mechanical Engineer.

Mr. Harry Cox, who joined Springfields in 1950, has also retired and the Works Manager for Oxide Fuels, Mr. P. Dalley, presented him with gifts from the benevolent society and colleagues.

After 12½ years at the works, Mr. Brinley Bluck has also retired.

## Welsh greeting for Prince

MR. CHARLES OWEN, of the Welfare Section at Aldermaston, has written a message of congratulations to the Prince of Wales. In Welsh, it was sent to the Prince, on his investiture this month, by the Reading Welsh Society, whose president is Mr. E. W. Jones, also of Aldermaston.

## Show time

HARWELL Horticultural Society's 23rd show opens on July 17.

## Danes sign new fuel contract

NEW CONTRACTS between the Authority and the Danish Atomic Energy Commission were signed in London last month. They cover fuel supplies and reprocessing for Danish reactors.

The contracts were negotiated for the Authority by Mr. G. A. Greenwood, of Production Group's Commercial Directorate.

Among those at the signing ceremony were Mr. G. H. Kinchin, assistant director at Dounreay where the fuel is made and reprocessed; Mr. J. A. Waddams, Production Group's Chief Commercial Officer; Mr. P. J. Snare, of the Danish Atomic Energy Commission in Copenhagen, and Dr. F. Juul, Vice-Director of the Danish Research Establishment at Risø, where the reactors which will use the fuel are situated.

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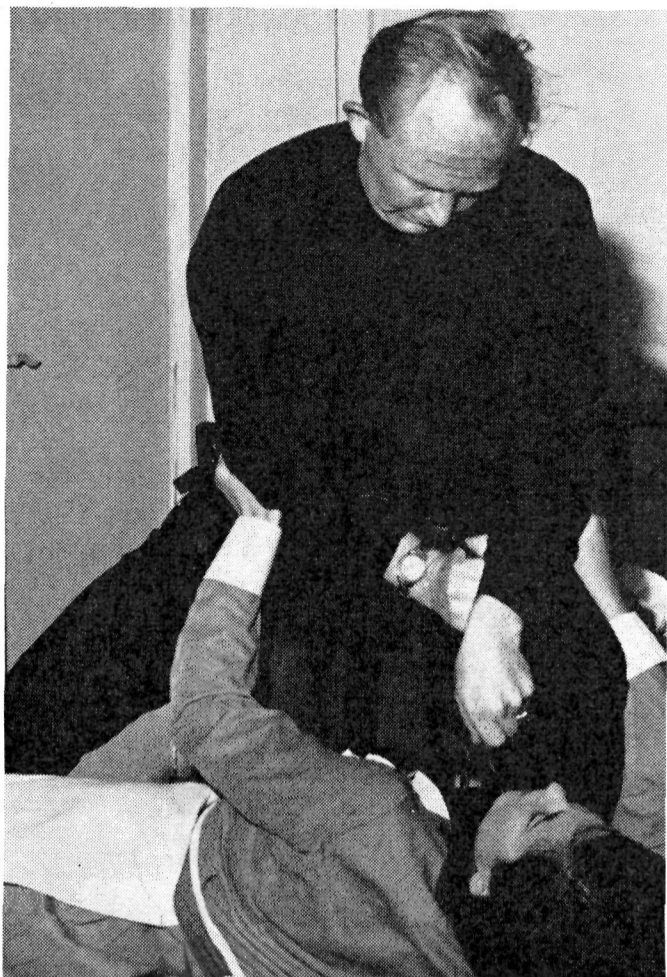
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## PHYSICIST TURNS TO MURDER



A NURSE is strangled . . . one of three murders in Friedrich Durrenmatt's comedy-drama *The Physicists*, produced last month by Harwell's drama society.

In the shelter of a sanatorium for the mentally unstable elite, the three physicists Einstein, Newton and Mobius—or patients who use their names—are involved.

In the picture, Mobius, played by Angus Bowman, kills Nurse Monica Stettler, played by Linda Harris.

With less than half an

hour's warning Christine Stirling, who had already become property mistress at the last moment, walked on stage for the last two performances when one of the members of the cast was unable to turn up.

*The Physicists*, the last play of the season by the society, attracted audiences from a wide area and played to full houses for a week.

## KITTY MET FAMOUS HEART SURGEON



DR. KITTY LITTLE (left) research consultant on plastics and tissues at Wantage, was one of a panel of 20 surgeons phycisists and research workers who met in Budapest, Hungary, to discuss the use of irradiation to sterilise transplants made into human bodies.

Also there was Dr. Christian Barnard, the South African heart transplant pioneer, pictured on the right.

Arranged by the International Atomic Energy Agency, the talks were the first international ones on the subject.

The specialists heard that small doses of radiation can help to overcome the body's natural rejection of some bone, nerve and valve grafts as well as sterilising the new part.

Good results have been obtained with bone grafts, and Mr. J. R. P. Gibbons,

a surgeon from the Brompton Hospital in London, who became a Member of the British Empire Order in the Queen's birthday honours, reported more than 100 cases of heart-valve transplants doing well with valves which had been irradiated.

"More work is still needed to find out the best methods of preparation and irradiation of grafts," said Dr. Little after the discussions. "The conditions are different for each tissue."

"An important part of the discussion was about how to get together the essential clinical data needed for sorting out the mechanisms involved."

And she emphasised that, because radiation doses kill cells, the technique cannot be used for transplants of whole organs like hearts and kidneys.

# NEARLY £3 MILLION MORE FOR RESEARCH Dragon, 10, gets 3 extra years

WITHIN days of the ceremonies at Winfrith to celebrate the tenth anniversary of the Dragon project there, the European Nuclear Energy Agency announced that work will go on at least until 1973.

The 12 countries taking part in the project—six of them represented by Euratom—have allocated nearly another £3 million to carry research and development on for three years after the end of the present agreement next year.

At the celebrations, Mr. J. P. W. Mallalieu, Minister of State at the Ministry of Technology in London, said "this successful international enterprise" brought two major rewards to countries taking part.

"First," he said, "it has provided a successful demonstration of international collaboration."

"Secondly, it has demonstrated the technical success and commercial potential of the high-temperature reactor."

"For a comparatively modest investment, every signatory country has received a



high return in both these respects.

"Additionally, contracts emanating from the project have been a stimulus to nuclear industry in all the countries concerned and—of perhaps greater importance in the long run—they have played an important part in establishing international links between industrial concerns in the nuclear business."

"The commercial future of the high temperature reactor can now begin to be seen in the fact that Germany and Switzerland are already on the brink of exploitation and that in Britain it is being developed as the next stage in our well-established family of gas-cooled reactors."

### 'Missing bus?'

Earlier, Mr. Sam Hosegood, of the Dragon Operations Group, had suggested that Britain and other European countries were too slow in deciding to build a Dragon-type reactor, although Sir Stanley Brown, chairman of the Central Electricity Generating Board, had told the House of Commons Select Committee on Science and Technology that the board might be able to build one in 1971.

Germany and America who are not taking part directly in the Dragon project, could secure the first orders for Dragon-type power stations, said Mr. Hosegood. "If the Dragon signatory countries delay too long, they may miss the bus which their own countries started."

### Three a penny

The capital cost of a Dragon-type power station would be £50 for each kilowatt of electricity it was designed to generate, he said. Generating costs of a little over three units for a penny were suggested by the Dragon Chief Executive, Dr. Leslie Shepherd.

Tributes to the late Sir John Cockcroft, whose "quiet determined drive" launched the Dragon project, were paid

MR. ANDREW HARVEY, of the BBC, interviews Mr. S. B. Hosegood, of Dragon, for the evening's TV news-magazine. The cameraman is Mr. R. Longman and the sound engineer Mr. I. Killian, both from the BBC. Looking on at the right of the picture is Mr. A. W. A. Willis, of the Public Relations Section at Winfrith.

by speakers at the celebrations last month.

"Without his enthusiasm for international co-operation in science and technology, the idea of Dragon might well never have existed at all," said Mr. Mallalieu.

"He formed the European Atomic Energy Society—known as the Cockcroft Club—and at a time when official links between national organisations in this field were fewer than they are today he undertook quite informal discussions with the scientists who were his personal friends all over Europe and formed a small society of which he became the first president."

### Gratitude

The Dragon idea was born at a Cockcroft Club meeting.

"From 1964 Sir John was Britain's most consistent and determined advocate of an international high-temperature reactor project and we should remember his contribution with gratitude," said Mr. Mallalieu.

There were tributes, too, to Mr. Compton Rennie, Dragon's chief executive for nine years.

"Rennie, in greater measure than any other individual, can be accorded credit for the success that the Dragon project has attained," said Dr. Sigvard Eklund, Director-General of the International Atomic Energy Agency.

And Mr. Mallalieu added: "In him we were fortunate to find a man whose diplomatic qualities made him a most effective exponent of international collaboration."

## Treaty that would not sink

THE STORY of the unsinkable canister, told by Dr. Sigvard Eklund, Director-General of the International Atomic Energy Agency, at the tenth anniversary celebrations for the Dragon project, was "a demonstration of the unsinkable nature of the Dragon agreement," he said.

On April 27, 1960, Dr. Eklund put into the concrete foundations of the Dragon reactor a metal cylinder containing a copy of the agreement and some coins from the countries who had signed it.

"I placed the cylinder in the hole which the contractors had left for it", he said, "and some more or less liquid cement was then poured on top."

"Those gathered round began to applaud, and I was thinking noble thoughts about another great new international enterprise when, through the surface of the wet cement in the hole, the cylinder came floating back into sight."

"This demonstration of the unsinkable nature of the Dragon agreement provoked even more applause, and there is no doubt that the project has prospered steadily and progressed ever since."

## A L'EUROPE

A CONTINENTAL evening is planned by the London Office Recreation Association for September 11.

## CERN site choice on October 1

THE SITE for the new 300,000 million electron volt accelerator planned by the European Organisation for Nuclear Research (CERN) will be chosen early in October.

The CERN council starts a meeting on October 1 and by then countries who have said they want to take part in the project will be asked to confirm that they will support the detailed programme which has now been prepared.

So far Austria, Belgium, France, Germany, Italy and Switzerland have said they want to join in.

Before Britain backed out of the project one of the sites discussed for the new laboratory was at Mundford, Norfolk.

## TANKARD FOR THOMPSON

AFTER working at Aldermaston since 1955, Mr. K. Thompson has left for a new job. Colleagues presented him with a tankard, handed to him by Mr. W. H. Williams.

# URANIUM SPIN — MORE TALKS

AGREEMENT between Britain, Holland and Germany, and possibly other countries, about the production of enriched uranium by ultra centrifuges—they are like giant spindryers—should be reached within a year, Mr. Anthony Wedgwood Benn, Minister of Technology, told reporters last month.

He had just attended a meeting in Bonn, Germany, with Mr. Fred Mulley, Minister of State at the Foreign Office; Dr. Josef Luns, the Dutch Foreign Minister; Mr. Leo de Block, the Dutch Economics Minister; Mr. Gerhard Stoltenberg, the West German Minister of Scientific Research, and the German Secretary of State at the Foreign Office, Mr. Gunter Harkort.

## Wine and cheese from the visitors

A formal communiqué after the talks said "a few questions of substance still remain open." They will be the subject of further talks between the three governments.

Meanwhile the draft agreement is being revised, but officials have declined to ex-

plain what changes are being made.

Mr. Stoltenberg said they would not alter the broad concept of the agreement.

The communiqué also said that the Ministers "gave particular attention" to the possibility of other European countries joining in the project once it had been established. Mr. Stoltenberg would not deny to reporters that the possibility of America joining the project had been discussed, but he said that there were no negotiations going on.

### Down to detail

The Ministers agreed that discussions should now take place between the industrial interests which will be joining in the project. Reporters in London say talks between the Ministry of Technology and Rolls-Royce Ltd. have already begun.

Mr. Wedgwood Benn told reporters that extremely detailed economic and financial points will now have to be discussed and Government finance will be needed for research and investment in the early plants.

But, he said, the project was the first international one for which a very large international market had been established. It would operate on a commercial basis and the aim was to create a lasting international company, he said.



STAFF of the Post-graduate Education Centre at Harwell were guests at an international wine and cheese party given for them last month by members of the eighth reactor safety course organised by the Authority Health and Safety Branch.

Wine and cheese came from many of the 15 countries represented on the course and traditional national songs were sung. IN THE PICTURE Mr. J. F. Hill, head of the Education and Training

Department at Harwell (left), is being welcomed by Frau Wolany and (right) Herr Wolany, from the Ministry of Scientific Research in Bonn, Germany.

In the centre of the picture is Mr. G. Hensley, the course manager, from the Authority Health and Safety Branch at Risley.

## DOWN GOES NERO, A WINNER

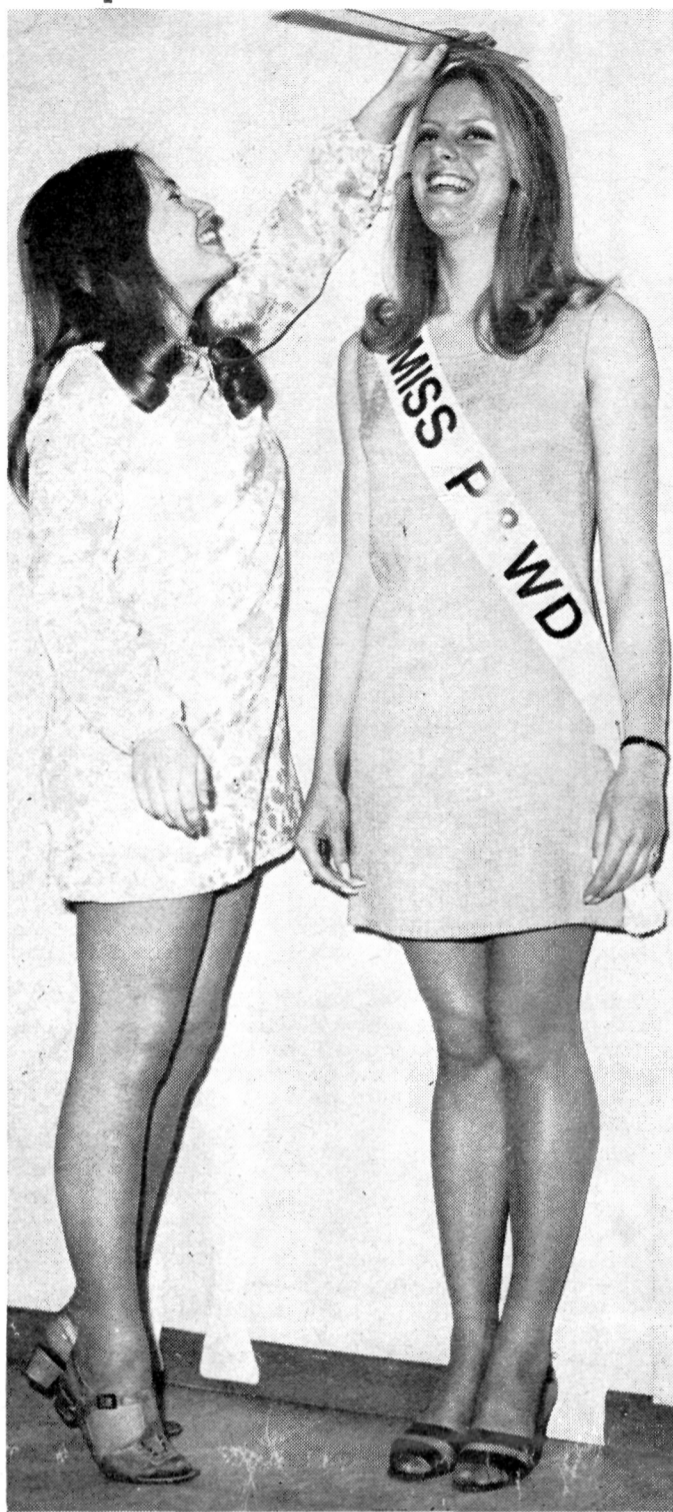


"NERO" KNOWLES, of Harwell's Metallurgy Division, was the best male competitor in a limbo dancing contest arranged in the site's social club. He is pictured in action as the bar is held above him by Mary and Helen, two assistants of professional

limbo—and fire-dancer Ranny Cool, who is looking on.

His act was part of the club's calypso cabaret which included music from the Los Tropicanos steel band.

## Tiptoe to metres



JULIE SEDIN, of Harwell's Production and Works Division, stands on tiptoe to measure 5 foot 9 inch Liz Atkins, "Miss P and WD" to prove that she is 1.75 metres tall.

It is all part of Harwell's

campaign to get employees interested in metric measurements ready for the change to the metric system which should be completed in British industry by 1975.

Julie was one of three winners in a contest in which Harwell employees were invited to guess—in kilograms—the weight of a sack. Nearly twice as many as expected entered the contest. The other winners were Mr. R. R. Harding and Mr. A. E. Davies, both of the Engineering Services Division.

The prize—a litre of ale to be drunk from a metre glass—was shared by the winning trio in Harwell's Social Club.

## ICI SEEK CARBON FIBRE PLANT

IMPERIAL Chemical Industries are likely to be the first major British industry to set up a large plant to make the new "wonder strength" carbon fibres.

ICI are discussing a manufacturing licence with the National Research Development Corporation.

In a formal statement the company said that, after the publication of the report on carbon fibres by the Select Committee on Science and Technology in March, they wrote to the Ministry of Technology saying they were interested in building a large plant in Britain provided other manufacturers were not likely to do so.

### Harwell link

They also said that they would have to negotiate satisfactory terms to use patents held by Harwell and the Royal Aircraft Establishment at Farnborough, where most of the development work on carbon fibres has been done.

"Subject to obtaining satisfactory licensing terms, it is ICI's intention to assess the magnitude of the investment required in terms of men and money to erect and operate a large carbon-fibre plant," said the statement.

Company experts are believed to be thinking of producing something approaching the amount of fibre suggested by the select committee in its spring report. This is about 450 tons a year.

Well over £5 million would have to be invested, say experts.

### Welcome

ICI say they are hoping to "draw on the considerable experience at Harwell" and a spokesman suggested the possibility of research and development contracts being placed at Harwell "to bring this project to fruition".

At Harwell a spokesman said: "We would certainly welcome furthering the national interest through the development of carbon fibre. Obviously it is far too early to say what we might be doing if ICI eventually go ahead."

"Research and development for the plant could involve Harwell."

## Savannah sails on... Sister ships coming?

THE nuclear ship *Savannah* will continue in operation, said the head of the United States Maritime Administration, Mr. A. E. Gibson.

Speaking at Savannah, Georgia, he declared that the ship would sail on while the second generation of nuclear ships was built. The Maritime Administration was considering building two or three merchant ships—tankers or container ships.

It would also "undertake a long range research and development programme directed towards development of improved nuclear systems."

"The objectives will be to reduce capital costs of marine reactors and reduce operating and associated costs and thus produce a competitive nuclear power system by the end of the next decade," he said.

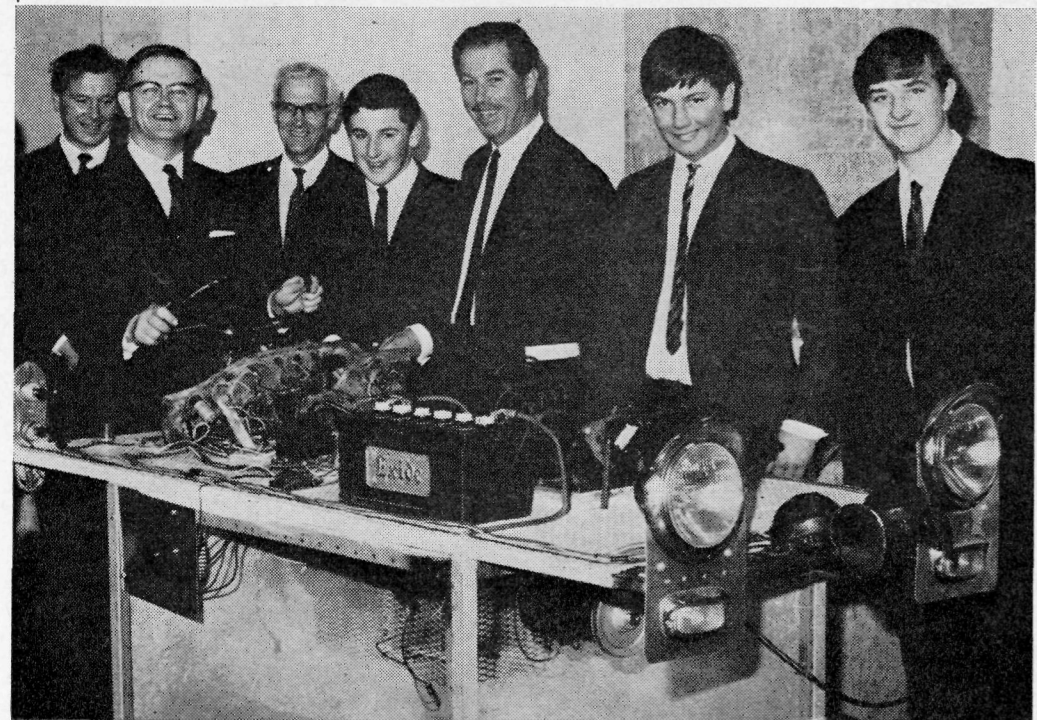
## SINGLE UNIT 'ABSURD'

FORCING a single nuclear design and construction organisation on to British industry, as part of re-organisation, would have produced a "manifest absurdity". Mr. Anthony Wedgwood Benn, Minister of Technology told the House of Commons Select Committee on Science and Technology last month.

He had decided that there was enough work in Britain and abroad to support two companies, and international trading links already formed by companies in the nuclear power and associated business would be of great value in getting export orders, he said.

He denied that 18 months was an unreasonable time for re-organisation.

## Dr. Franklin tries his hand at car-less driving



## Japan aims for 1975

JAPAN has succeeded in enriching uranium in a centrifuge, says its Power Reactor and Nuclear Fuel Development Corporation. The experiments were made at the Tokai laboratories of the Japan Atomic Energy Research Institute. They are part of a long-term programme to develop and use atomic energy. By 1972 Japan is expected to choose between the older gaseous diffusion method of enriching uranium and the new centrifugal process. The country is expected to have its own plant to make uranium by 1975.

## INSTANT CHAOS

ALTHOUGH visitors are being invited to tour the Central Electricity Generating Board's nuclear power station at Dungeness, Kent, this summer and specially trained hostesses will show them round, children under 15 are not being admitted. "Children can throw a power house into utter confusion," said a spokesman.

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## MORE CASH FOR COIN STUDY

Mr. Lawrence Cope, a metallurgist at Culcheth who has been studying Roman coins, has been given another award of £300 by the British Academy to continue his work.

Last year he received £250 to help pay for his study of problems associated with the Roman Imperial coinage.

Mr. Cope has been doing the work privately for about 13 years. He is a member of Warrington Archaeological and Historical Society and a fellow of the Royal Numismatic Society.

His research is into the policies which governed the Roman silver coinage and is based on a study of the metallic composition of a series of coin issues.

## UNION MAN LEAVES



**CHAIRMAN** and treasurer of the Salwick Branch Social Committee of the Transport and General Workers Union for seven years, Mr. Hildred Cammell has retired from Springfields.

He began work there as a driver in November 1947 and for 20 years did regular shift work.

He was the T and GWU shop steward for his section and served on the Works Transport Sub-Committee for 12 years. For 10 years he was its joint secretary.

Mr. D. Thomas, Springfields staff manager, presented Mr. Cammell with gifts from the works benevolent society and colleagues before he retired.

A cheque from the Transport and General Workers Union was presented at a special ceremony at the Trades Club in Blackpool.

## Cup stays home

THE Harwell cup competed for by ten bridge clubs in a team-of-four event organised by Harwell Bridge Club, was won by a Harwell team—Dr. R. Fletcher, Mr. P. Halliwell, Mr. M. Powell and Mr. M. Simpson.

## Flier keeps feet on ground

AFTER winning his first three contests with a radio-controlled glider and then beating a field of 27 fliers in a national round-the-pylons flying championship at the RAF station at Hurlingham, Wilts, last month, Harwell senior scientific officer Mr. John Ralph went ahead with preparations for a similar championship at Thorney Island, Sussex, on July 6.

Mr. Ralph is a member of the North Berks Model Aircraft Flying Club and has been flying model aircraft for nine years. His success at Hurlingham was his best.

His model reached speeds over 100 miles an hour on some stretches of the triangular course. He completed the ten-lap, 2½-mile race in 2 mins. 17 secs.

"That may not sound a long time, but when you have to concentrate for every second and know that a wrong movement with the controls can send over £150-worth of equipment crashing, it seems a very long while," he told a reporter.

"Split seconds round the pylon can win or lose a race." John Ralph built his own model which incorporates a pressure-fed engine with an exhaust system which he designed. He made much of the radio-control equipment, too.

## Dr. Kronberger joins 'the eminent'

DR. HANS KRONBERGER, the Authority Member for Reactor Development, has been appointed a member of the Scientific Advisory Committee of the International Atomic Energy Agency for three years from July 1.

Established in September 1958, the committee consists of eminent scientists nominated by the Director-General of IAEA and appointed by its board, says the agency.

## Picnic time

THERE was a picnic hamper as a gift from colleagues for Mr. R. A. W. Causon when he retired from Aldermaston's Stores Branch after working there for 18 years.

## CHRISTINE IS IN ITALY... AND SHE WANTS WORK



AFTER working for 18 years as a typist at Risley, Christine Urmoston has set off for Italy—to work.

With two girl friends she left England with no special plans, but all three hoped to find a job, they said.

At Risley Christine has worked in most sections and was recently in the teleprinter office.

Most of her spare time has been spent on the Continent. She has spent holidays in Italy and the Greek islands.

She told colleagues before she left that it was one of her ambitions to work abroad.

## Computer plays its own funeral march

CAPENHURST'S Deuce computer played Chopin's Funeral March on the day it was shut down. There is an oscillator in the computer which can be programmed to produce musical notes.

The shut-down ceremony was attended by 20 former members of Capenhurst's computer section as well as present management and staff.

The computer has been working for 10 years but new developments have now made Deuce out of date and in future Capenhurst will rely on links to the new ICL 4/70 computer at Risley.

## Atlas girl weds electrician

Miss Judith O'Regan, who works at the Atlas Computer Laboratory near Harwell, has married a chargehand electrician at nearby Didcot power station, Mr. Brian Herring.

## 'Hobby' film man lands ITV order

JONATHAN WEBB, the Harwell technician who said he has "absolutely no ambitions" to make a career in television, has been commissioned by Independent Television's Adult Education Department to make their first educational film series on angling—in colour.

## THRUSH POSES A BAKED EGG MYSTERY

THE THRUSH which built a nest on a steam pipe in a lean-to at Windscale has disappeared. So have the two eggs that she was hatching.

Now the men of Metallurgical Services at Windscale are trying to discover what happened to them.

"The anticipated period of gestation for our thrush's two eggs was well exceeded and the mother must have got browned off," said Mr. Alfred Fenwick.

"When it was decided to perform an autopsy on the eggs it was discovered that someone or something had got there first and extracted them."

"It is not unreasonably felt that the excess heat had baked the two eggs, however."

Rats, owls, and squirrels are among many wild creatures which will steal birds' eggs.

## Do-it-yourself day out

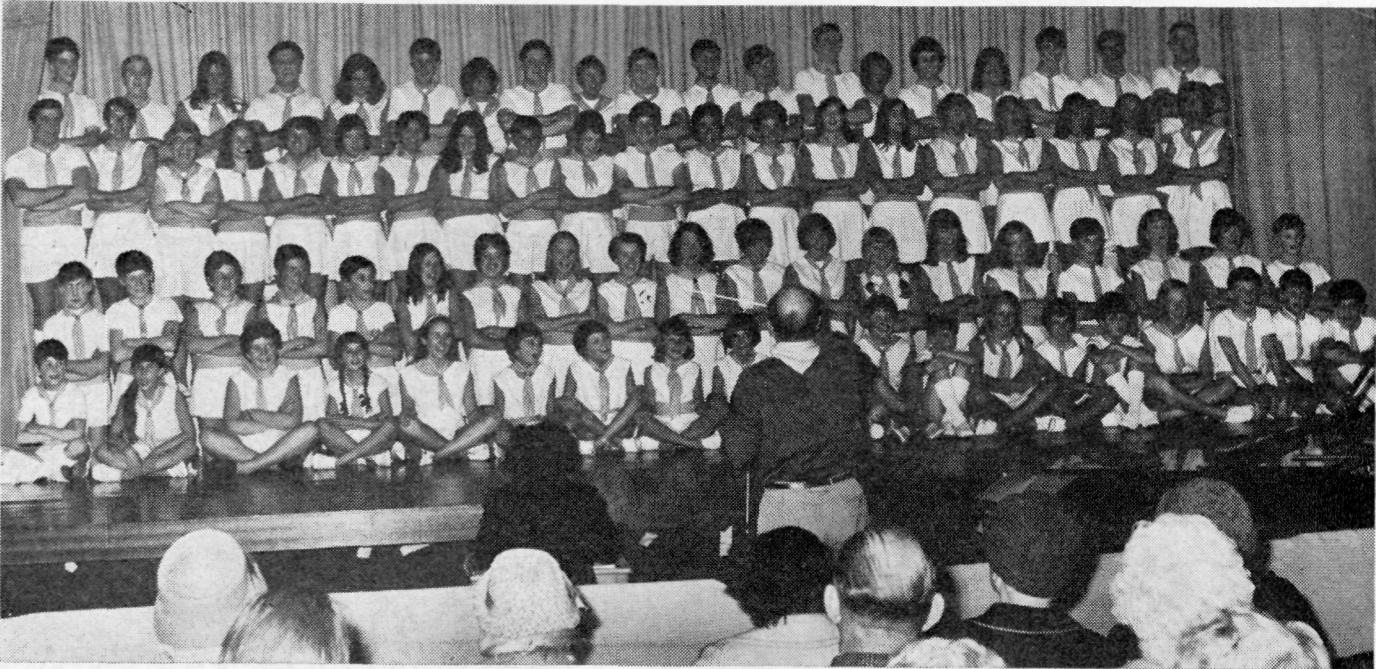
CAMERA Club summer outing, June 28, Lacock, Wilts. Travel: please make your own travel arrangements. . . . Feeding: please make your own arrangements for lunch. —AERE News.

## Bishop stops for a chat



THE BISHOP OF CARLISLE, the Rt. Rev. C. S. Bulley, chatted to employees at Windscale after he had celebrated holy communion there, helped by the Vicar of Calderbridge, the Rev. J. C. Johnson.

## THE PAGE ABOUT PEOPLE AND PLACES



## SALE ON A LAWN AIDS CLUB

THREE girls who held a sale on a front lawn in Thurso raised £2 for Thurso Senior Citizens Club.

They were Aileen, daughter of John Finlayson, of the Dounreay workshops; Jacqueline, daughter of Dounreay fireman Jimmy Hill, and their neighbour Linda Martin.

They sold unwanted toys and books as well as home-made toffee.

## JACK GARTON, of Harwell's Analytical Sciences Division, conducted the chorus of Wantasia '69, which he produced and for which he wrote many of the items.

The show was staged last month by Wantage Guides and Scouts. Nearly 140 of them took part and the show was acclaimed by 2,000 people who saw it during its five-day run.

Many Authority employees helped back-stage and in the orchestra.

Mr. R. McClure, of the Science Research Council, was stage manager and his

colleague Mr. R. Atkinson was assistant producer.

From Harwell Messrs. K. Beechy, G. Bowen, W. Stuart, R. Rose, A. Black, C. Sharpe, Miss J. Brinklow and Miss C. Payne all helped backstage, with Mr. A. Cash, Mr. A. Hodges and Mr. G. Spinks, from the Science Research Council, and Mr. Robin Fuller, from Wantage.

Mr. J. Marns, from Harwell's Library, was accompanist and Mrs. Foxon, wife of Mr. David Foxon, reactor manager at Harwell, was wardrobe mistress.

## Writer goes... in verse

WHEN science writer Steve Makepeace-Lott left London Office last month he said goodbye to colleagues in the Public Relations Branch in verse.

Steve, who intends to devote his full time to writing books, read limericks he had composed about each of his colleagues.

Presenting a week-end case as a farewell gift, Mr. Eric Underwood, Director of Public Relations, said Steve was the author of the British book on desalination which had led directly to the sale of a British desalting plant in Libya.

From the book, which was in the British Consulate, the Mayor of Benghazi had obtained an introduction to William Boby and Co., the firm who were awarded the contract.

## After the Med...

WINFRITH'S former singing storeman Ray Ironside, who has been sailing round the Mediterranean entertaining passengers on the cruise liner *Queen Frederica*, has returned to England. And after a short stay in Weymouth he and his sister, Shirley, were off for a tour of north-of-England clubs.

## Training man's daughter weds oil man

MISS MADELEINE SMITH, whose father, Mr. Paul Smith, is Head of Management Training at Harwell, has married Mr. Patrick Mannix, who works in an operations research team for an oil company and has recently returned from work in the Gulf of Mexico.

Mr. Smith is also vice-chairman of Abingdon Division Conservative Association and his wife is secretary of the division's Women's Advisory Committee.

## Australians at Winfrith

WESTERN Australian Prime Minister, David Brand, accompanied by Mr. K. Townsing, Assistant Treasurer of Western Australia and Pro-Chancellor of the Western Australian University, visited the steam generating heavy water reactor at Winfrith last month.

They were met by Dr. J. E. R. Holmes and Mr. J. L. Phillips, assistant directors.

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## These are the winners as ...



WINNERS of the Authority Bowling League at Aldermaston are the Piccolos, who are (from the left) Steven Gee, Mick Willoughby, Wally Cowtan and Malcolm Chalker. Steven's brother, Graham, now in the Far East, sent a cable congratulating the team he used to captain.

## AN EX-CAPTAIN CABLES GOOD LUCK FOR THE PRIZE NIGHT



WALLY SMITH, captain of Quads I, who are bottom of the Authority Bowling League at Aldermaston, receives a giant wooden spoon from the editor of Atom News, Derek G. Gomer. The spoon was made by Lawrence Proctor, member of the rival Costodians team, who were second in the league.

A CABLE from a tanker somewhere in the Pacific brought good wishes and congratulations to winners of the Authority Bowling League at Aldermaston when prizes were presented last month. It was sent by former league player Graham Gee, now an engineer on Shell tankers in the Far East and former captain of the team that won the league—Piccolos I.

Until he joined Shell on February 1 Graham was a keen bowler in the league.

### Brother there

Now his brother Steven is a member of the Piccolos, with Mick Willoughby, Wally Cowtan and Malcolm Chalker.

The Piccolos used to be a family team. Les Gee, secretary of the league was once the captain, but he left to form a new team, Piccolos II.

Second in the league this year are the Costodians, with the Bee-Js third.

The knock-out cup was won by Quads II, but Quads I collected the wooden spoon at the bottom of the league.

### Highest game

Quads II also took the prize for the highest game score, and the highest series prize went to the Electrons.

**Individual winners**—men's high average, Barry Jacobs; ladies' high average, Mrs. Jean Sutherland; Men's high series, Fred Lee; ladies' high series, Mrs. Joyce Warburton.

The trophies were presented at the Dog and Partridge at Riseley, Berks, by the editor of Atom News, Derek G. Gomer.

## SWANS JUST ONE POINT UP

HARWELL archers were runners up in the ICI open contest held at Slough, Bucks. They were beaten 3,630-3,629 by Swan Archers, of Kent.

Harwell's John Long was the second gent in the Western round and Jean Long missed the third lady's prize by one point.

## NEW TEAM

A NEWLY formed darts section in Harwell's Social Club has applied to join the Didcot and District Darts League and may enter two teams.

## His rifle has not changed

MR. N. L. ANDREWS, who has just won his first national trophy in 32 years of rifle shooting, is this year's captain of Winfrith's A team which competes in the Dorset rifle league.

But Mr. Andrews is no newcomer to the prize lists. In those 32 years he has won 30 cups and trophies, 31 silver spoons and 27 medals. And he was many times Berkshire county champion.

He is still using the same rifle that won him his first contest.

## ALEC IN GOLF CLIFF-HANGER

A 36-HOLE contest for the Morland cup was won by Harwell golfer Alec Coulson after a tense five-hole play off with two other competitors.

Alec was an early starter and waited most of the day to know whether his score had been bettered.

## They run club

ANNUAL meeting of Harwell's motor club elected G. Warrall as chairman with T. Paget vice-chairman. Secretary is R. Shepherd and treasurer J. Isaacs. C. Walters is competition secretary.

## Close end to golf

ALMOST all the leading players in the Authority golf championship at St. Andrews, Fife, on June 17, were separated by just one stroke.

Play between 73 competitors from eight establishments was over 36 holes, and Dounreay and Harwell were tying until the last Risley man, T. Dale, came in with a net 62 to give his team victory . . . by one stroke.

The Risley team scored 594, with Dounreay and Harwell both on 595.

Chapelcross were only three points further behind with 598.

D. Currie, from Chapelcross, was the winner of the individual scratch championship, beating Risley's R. Campbell . . . by one stroke.

### Handicaps

Best player with a handicap under 12 was Aldermaston's G. McKenzie, who returned 140, also one stroke better than the runner-up, Harwell's B. H. Patrick.

Dale was the best player with a handicap between 12 and 18, returning 139 to the 140 of A. R. Imlach, of Dounreay.

Each competitor played one round on the old course at St. Andrews and one on the Eden course. J. A. S. Mowat, from Springfields, was best on the old course with a net 70. Runner-up A. Lunney, from Harwell, returned 71.

Best round the Eden course was Dounreay's A. Proudler who, with runner-up J. Niven, also from Dounreay, returned a net 68.

## HALIBUT CLUB MAN LANDS A COD



WALTER LACEY, of the Dounreay fast reactor, who is a member of the steering committee which is launching the new Halibut Club of Great Britain, lands a 10-pound cod during one of the monthly trips made by Caithness Sea Angling Association on the Annabelle for fishing in the Pentland Firth. Jack Johnstone, of Dounreay's Engineering Division, is ready with the gaff in the background. Walter is chairman of the Caithness association.

## Dounreay men lead new club

JOHN CAMPBELL, of Dounreay's Administration Division, is secretary and treasurer of the new Halibut Club of Great Britain. And six other Dounreay men are on the club's steering committee.

More halibut are caught in the sea around Caithness than in any other part of Britain and the Caithness Sea Angling Association have helped to form the new club.

The Caithness halibut festival, which is expected to attract entries from all over the world, is scheduled for October 3 and 4. And in April the first British halibut championships are planned.

The new club is sworn to develop the big game sport of angling for halibut in the area of the Pentland Firth, to exchange information on the techniques of the sport and to circulate known information on angling for halibut as widely as possible. Its headquarters will be in Caithness.

### Island invite

Orkney Sea Angling Club are being invited to join in the first British championships which are likely to be fished from both sides of the Firth.

Authority employees are also being invited to take part by John Campbell.

Dounreay men on the steering committee are Police Sergeant Duncan Speirs, Jimmy Mackay and Walter Lacey, of the Dounreay fast reactor, Eddie Beattie, a painting contractor working at Dounreay, Jimmy Pratt and Jimmy Anderson, both of Dounreay's Electrical Section.

## WAITING FOR CUPS



TWENTY-TWO young footballers at Springfields have been waiting impatiently to collect two cups.

The two youth teams in the soccer section of the Springfields Sport and Recreational Association ended last season as winners of the Preston and District Football Association Youth League cup and the local Redmayne cup.

The teams, formed three years ago, include several Springfields apprentices as well as sons of Springfields employees.

After the boys had topped the Youth League contest without losing a game and by scoring 83 goals in reply to the nine scored against them, an

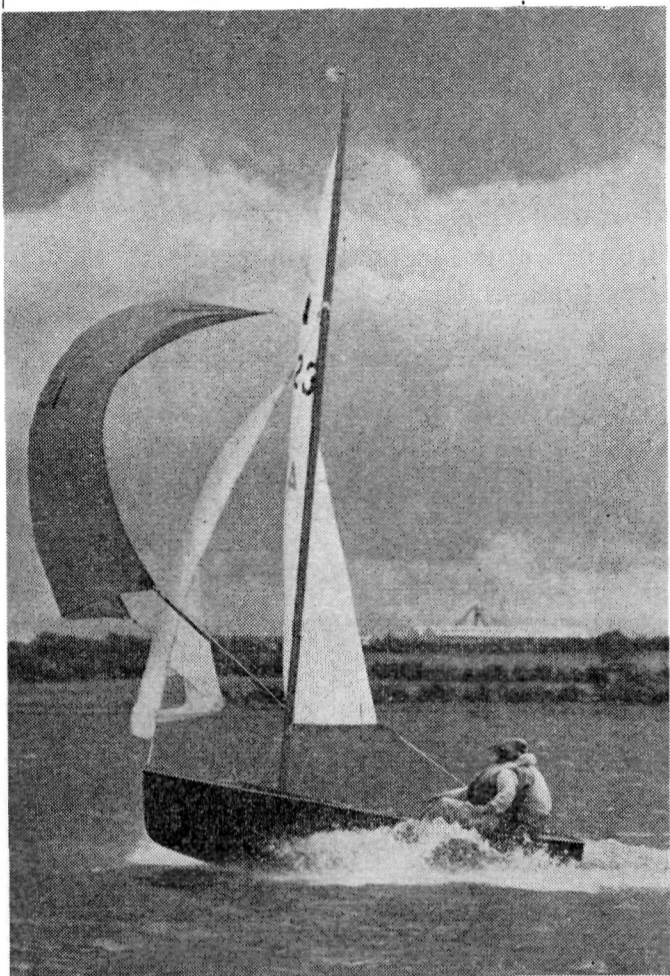
extra youth team was formed, and both A and B teams entered for the Redmayne cup.

They both fought through to the semi-final and the match between them was one of the keenest of the season. The Bs made the As play hard for their 2-0 entry to the final.

Then A conquered their opponents from the British Aircraft Corporation by six goals to two.

IN THE PICTURE: Springfields apprentice members of the teams include (from the left, back row) Jack Smith, John De Santi, Dave Caley, Hadyn Dewitt and (front row) Mervyn Lewis and Peter Wilson.

## Win in the north-east



## DRAMA IN CLOSING OVERS

WHEN Harwell cricketers entertained local rivals Moreton, the home team put up 100 runs for one wicket in 70 minutes.

Then, after a partial collapse, J. Dawson added 53 in 18 minutes.

In reply to Harwell's 187 for 7 declared, Moreton had made 43 for 3, but H. Marriott made victory possible in a long, controlled innings in which he was partnered by M. Underwood.

Everything depended on the closing seconds of the game . . . and Moreton won by three wickets.

F. T. COOPER, of Inspection and Progress at Risley, won the north-eastern championships for GP racing dingies at the new Derwent reservoir in County Durham last month.

A week later he was second in the GP north-western championship at Leigh, Lancs.

Mr. Cooper is a member of the Lowton Sailing Club and has been racing for about 12 years. So far this year he has collected four firsts at open meetings.

He is pictured at Leigh with his wife as crew.

## Lunch base

ROUNDERS and baseball may become lunch-time games at Harwell. Miss M. Breasley is trying to form teams there.

## Two Mikes fight for golf bowl

HARWELL'S two Mikes—Powell and Waterman—won the British Golf Society's championship for the Ashdown bowl at the Royal Ashdown new course in Sussex.

The Harwell pair looked like running away from the Mocratra Golfing Society when they stood four up after ten holes of the 18-hole final.

But their opponents made birdies on the 12th and 13th holes to reduce the deficit to two, and only a par-saving eight-foot putt by Powell for a half at the short 16th preserved that lead.

A half in par-five at the 17th gave Harwell a two and one victory.

## Husband and wife take top prizes

CULHAM Archers' sixth annual western tournament held at the laboratory last month attracted a record entry of 94 archers.

Harwell's Pedro Taylor and his wife Margaret both won first prizes and, with fellow team members Dave Goodenough and Ken Archer, took the team trophy, too.

Dave Goodenough was second in the men's individual contest.

Master A. Long, also from Harwell, won the junior competition.

## . . . again

HARWELL'S Margaret Taylor was the lady with the highest score in an inter-counties archery match between Berkshire, Middlesex and Surrey. On the same day her husband Pedro had the highest gents' score of 713—a new Berkshire record—at a meeting at Thame, Oxon.

# The queen had a secret



WINFRITH clerical assistant, 16-year-old Ann Collier (left), who lives in Dorchester, was elected Miss Dorchester 1969 at a "Beauty and Beat" evening in the local Corn Exchange.

She entered the contest without telling her boyfriend. "I shall have some explaining to do later on," she told a reporter as she was crowned by the Mayoress of Dorchester, Mrs. J. Matthews.

The following evening Ann led the carnival-week procession through the town. It told the story of Dorchester through the ages and included a float (below) built by Winfrith's apprentices mocking the negotiations between the Authority and Greece for the sale of a steam generating heavy water reactor in return for Greek tobacco.

A model of the reactor was enclosed in a mock-up of the Parthenon and surrounded by empty cigarette packets.

The float had already taken second prize in the carnival at nearby Wool.

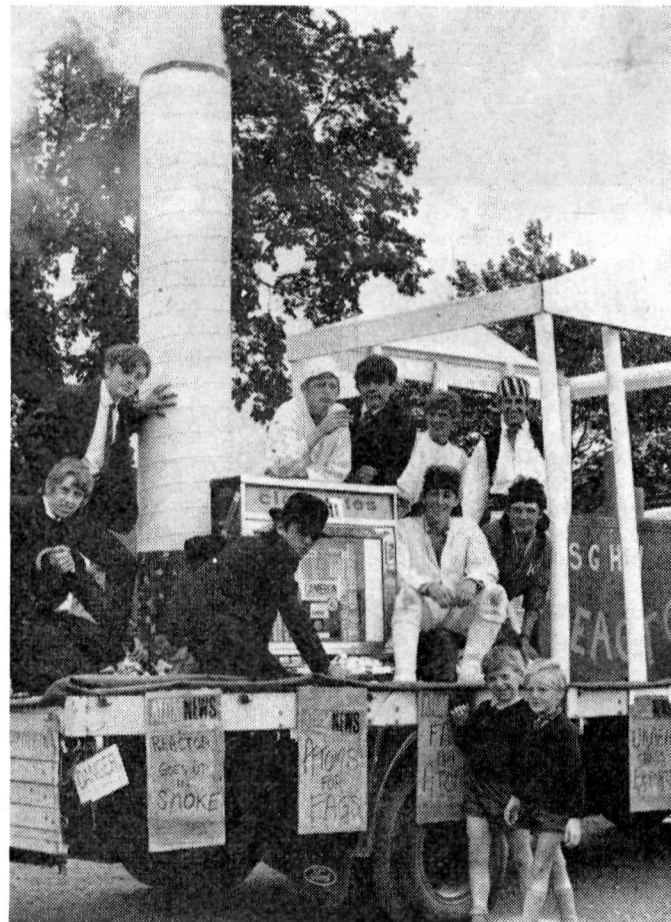
## Pistol contest too big?

THE BERKSHIRE county full-bore Rifle and Pistol Association's annual pistol meeting on Harwell Rifle Club's range at the old Grove Airfield may have to be extended from one day to two.

The meeting, held last month, was open to club members from Berkshire, Buckinghamshire and Oxfordshire and attracted 39 entries—more than half as many again as in 1968.

Harwell's Dave Johnson, secretary for the meeting, told reporters: "If members increase like this we shall have to consider spreading the event over two days, but it is pleasing to get so many entries."

Peter McPherson, of Harwell, who took second place in the county .22 pistol event a week earlier, was second again at Grove, but he won the self-handicap contest.



## Culham lose trophy



EVEN spirited saves by R. Jenkins failed to save the game for the team from Building D1 in the final of Culham's annual six-a-side soccer competition. The winners were a team from one of Culham's contractors, Whites.

"It was a bitter pill for the Authority players," said a spokesman. "They had to

be content with runners-up medals."

The final score of 2-1 reflects the run of a game in which Whites always had the edge.

The trophy and medals were presented by Mr. E. K. Skinton, chairman of the local Wantage Town football club.

## Committee will fight for Dounreay

A PLAN to set up a Dounreay vigilantes committee pledged to do everything possible to maintain the largest possible labour force at Dounreay has been approved by Thurso Town Council.

They are asking Caithness County Council and Wick Town Council to join in the plan.

The new committee will also put pressure on Government departments to move new industries to the area to provide jobs for any people

who are made redundant at Dounreay.

The idea was proposed by Thurso town treasurer William Swanson.

## Gone for ever

"Once we lose our labour force it will have gone from the area," he said. The new committee would have to remind the Government that the Government's decision to site the Dounreay reactor where it is had caused imbalance in available jobs.

After 40 cars and buses had been used to take 180

members of the Amalgamated Engineering and Foundry Workers Union from Dounreay to Reay village hall for a union meeting, Danny Kerr, chairman of the Dounreay Shop Stewards Committee, told reporters that employees were "quite worried and concerned" about the "continuing prospect of a run-down at the establishment".

Mr. Kerr, who was the convenor of the meeting, said it had agreed to press for the introduction of an incentive bonus scheme.

## Ronald Burton is chess champion

RONALD BURTON, son of Mr. R. J. Burton of the stores at Winfrith, won the minor championship in the Dorset County Chess Association's spring congress, held at Winfrith.

This was the fifth time since 1964 that the congress has been held there under arrangements made by Winfrith's own chess club, and Winfrith's Director,



Mr. D. W. Fry, is pictured starting it with a ceremonial first move.

Mr. C. Durston, of the Fast Reactor Physics Division, was the controller for a second year.

Twenty-six people took part.

The main championship was won by Mr. R. H. K. Mann, of nearby Wareham. A Southampton man, Mr. I. Stenhouse, won the reserve championship.

## DRAMA CLUB AGED IN A NIGHT

THIS YEAR is not the 21st birthday of Harwell's drama society. It is the 23rd.

Members thought the society might be 21 this year after they hunted for old records and talked to some of the earlier members.

The evidence suggested that there was a drama group at Harwell within a couple of years of the Atomic Energy Establishment being set up, the society's chairman, Alan R. Ball, told *Atom News* last month.

"Almost overnight I was given a programme and photograph of a play, *Murder Without Crime*, produced in 1953," he said later.

### Inception

"I was shown a 1953 issue of *Harlequin*, the Harwell quarterly magazine, containing an article by S. J. Cocking, then chairman, referring to the society's inception in 1946.

"I also received a letter from Miss M. Gossett, the Harwell librarian who has now retired, with snippets of information relating to the society's first production in 1947. This was *Jane Steps Out*.

"An advertisement in volume 1, number 1 of *AERE News* is undoubtedly the earliest written record. It refers to 'the next play-reading of the drama group' on November 26, 1946.

"With our origin back in the summer or autumn of 1946 we must be one of the oldest, if not the oldest, society in Harwell's recreational association."

## PLAY IN ABBEY RUINS



FOURTEEN Authority employees joined the Berkshire Shakespeare Players for their production of Shakespeare's *Richard III* under floodlights in the ruins of Reading Abbey last month. Most of them were members of Aldermaston's Boundary Players.

Reading Abbey was already 350 years old when Richard III became king. Shakespeare's version of his life was produced by Peter Todd.

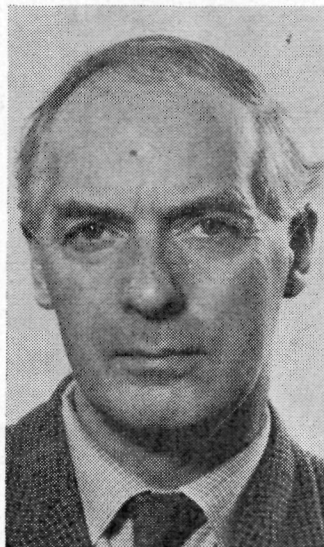
Among the members of the Boundary

Players taking part were (from the left, standing) Walter Long, Leslie Aburrow, Michael Brooke, Andrea Brooke, Alan Wilding, Norman Hughes, Jean McKeown, Paul McKeown and Kit Burgess.

In the centre of the group in front is producer Peter Todd with (left) Joan Cadman and (right) Elizabeth Utley and Ann Cameron.

Also taking part in the play was Charles Owen, of the Welfare Section at Aldermaston.

## HENRY WAS ONE OF THE FIRST



MR. HENRY MONTEY, who died last month, was one of the original staff of the Radiochemical Centre at Amersham.

Aged 55, he had worked there for 29 years without a break.

A bachelor of science, he started work as part of the laboratory team and at the time of his death he was in charge of the dispensary in the Inorganic Department.

He was interested in photography and tennis and in 1952 was one of the founders of the Methodist Church at Little Chalfont, near the Radiochemical Centre. He was also the church's organist.

Mr. Montey leaves a widow and one daughter.

## CIGARETTE STARTS FIRE

A LIGHTED cigarette-end thrown into a bag of used paper towels in a Harwell toilet started a fire which scorched a newly painted wall before it was put out. The date: Friday the 13th.

"This is not by any means the first fire caused in this way by thoughtless smokers," said a Harwell spokesman.

# RUNWAY PLAN: 'WE'LL LISTEN'

— SAY AIRLINE

THE AUTHORITY and British European Airways have agreed to consider a plan put up by Thurso Trades Council that Dounreay should provide an alternative landing strip for BEA services when bad weather closes nearby Wick Airport.

"We feel that, if this area is to develop at all, an alternative airport is essential," said Mr. James Fry, a Dounreay fitter who is chairman of the Trades Council.

"We know from our own experience that it is very frustrating flying up from Inverness and finding that heavy mist over Wick prevents a landing and then perhaps going over to Kirkwall, in the Orkneys, or back to Inverness.

"The east coast has misty conditions a lot more than the north and north-west."

A trades council suggestion to use Castletown, east of Thurso, was rejected because the landing strip there is in bad condition and there are no fire-fighting or emergency services.

### Naval base

Dounreay was built on a war-time Naval air station and its 3,000-foot concrete runway is still used occasionally by aircraft on Authority business. The Authority has fire engines and ambulances on the site.

A Dounreay spokesman said: "It is difficult to say at first glance whether we would have the facilities BEA expect. We would certainly consider the matter."

In Glasgow, BEA said: "We would certainly listen to such a proposal. An alternative airfield in bad weather is always useful if it is up to the standard we require."

But the airline spokesman doubted if Wick was closed often enough to make it worthwhile to bring the Dounreay airstrip up to normal civil aviation standards.

## COMING SOON—No 500

BY THE END of the year 479 nuclear reactors will be working in countries which are members of the International Atomic Energy Agency, says an agency survey.

But only 105 of them generate electricity. The other 374 are for research and training.

The power reactors are responsible for 20,000 megawatts of electricity.

They are spread between 15 countries and 48 have research or training reactors.

The agency estimates that by 1975 there will be 283 power reactors in 21 countries, generating nearly 130,000 megawatts of electricity.

## OFF TO A GOOD START

FIRST VENTURE at the new Salwick Club, Springfield—a dance and cabaret featuring the Nolan Family singing act—was a sell-out with 300 members filling the club on a normally quiet Tuesday night.

The club replaces converted wartime huts which have now been demolished.

## Meanwhile, on the runway itself . . .



AN OYSTER-CATCHER—in the foreground of the picture above—has built a nest and has been sitting on two eggs in the gravel pit in the centre of what used to be the main runway at Dounreay. Cars and buses, using the runway as one of the site's main roads, pass constantly either side of the bird. But she remained undisturbed.

And—on the right—six chicks have been hatched by a pied wagtail on the edge of an excavation on the prototype fast reactor site at Dounreay.

Men working for Alex

Sutherland Ltd., the contractors, are building within six feet of the nest. To protect it and the small birds they built a foot-high wall of concrete blocks.



NEWS special

# THIS GREAT ERA OF THE SIGNIFICANT ATOM

NUCLEAR energy will prove to be the most significant of all the developments in the sources of power used by man, Mr. Anthony Wedgwood Benn, Minister of Technology, said last month when he formally opened the nuclear power station at Oldbury-on-Severn.

"Human history is sometimes classified by the sources of power used by man at various stages of his progress," he said.

## Duke's gold for a DJ



TWENTY-YEAR-OLD John Waring, an instrument mechanic in the fifth year of his apprenticeship at Capenhurst, has been given a Duke of Edinburgh gold award.

It follows six months of work as a disc jockey on a hospital radio service and an award of merit from the Royal Life Saving Society.

John is already a member of the National Boys Club—the highest honour awarded after a week of extensive training and testing.

As part of his work for the gold award, John trekked 60 miles across unfamiliar country, made his own fishing rod and spent four weeks at a boys' camp working as an assistant leader.

## RADIO LINK

A PRECISION fitter at Aldermaston, Mr. S. E. R. Sarjeant has retired. Colleagues gave him a portable radio set as a memento of his 13 years there.

"The age of sail broke down the isolation of continents and witnessed the great voyages of discovery on our planet.

"The age of steam marked the beginning of the great period of industrialisation which transformed man's prospects.

"The advent of electrical power has permitted the invention of machines which, over the past few decades, have revolutionised our conditions of life and our ability further to explore the secrets of nature.

"The jet age has ushered in a revolution in transport by air, land and sea, and rocket power is now enabling man to escape the confines of this planet.

## Most of all

"But for the majority of mankind the advent of nuclear energy will certainly prove to be the most significant of all these developments.

"The development of nuclear power in Britain in the last few years has been one of the most remarkable achievements in our history. It is perhaps the most vivid example ever of the principle of beating swords into ploughshares.

## Leading part

"This country is playing a leading part in the advance of nuclear technology with gas-cooled reactors, with the steam-generating heavy water reactor and with the fast reactor.

"There is no doubt that the research and development work of the Central Electricity Generating Board, the Atomic Energy Authority and the nuclear consortia have put us in a very strong position to meet the country's future demand for economic electric power from the atom."

# PATHFINDERS ARE REMEMBERED AS HELICOPTERS SWOOP LOW OVER HARWELL



FOUR Wessex helicopters from the RAF station at Odiham, Hants, flew low over the line of the old runway at Harwell last month at the end of a service held in memory of men of the 6th Airborne Division who took off on June 5, 1944, the eve of D-day.

The Pathfinder teams who left what was then RAF Harwell were launching Britain's invasion of Europe.

The helicopters flew over the stone memorial and garden where a service is held every year. Air Vice-Marshal Harold Martin, Air Officer Commanding No. 38 Group of Air Support Command, took the salute from a guard of honour supplied by the RAF Regiment. Among those who laid wreaths at the memorial was Mr. Billy Griffiths, secretary of the MCC and a former glider pilot.

The service was conducted by the Rev. V. J. E. Boatwright, of RAF Abingdon, and the Rev. E. C. Atkins, Vicar of Harwell.

Dr. Walter Marshall, Harwell's Director (pictured below with the guard of honour), promised: "I would like to renew the pledge given by Sir John Cockcroft at the first service in 1955 that this stone of remembrance will be maintained in perpetuity.

"We are honoured to be charged with this continuing act of remembrance."



## More calibration work planned

THE mechanical standards laboratories at Harwell and Winfrith have been authorised by the British Calibration Services to issue certificates for the calibration of mechanical measuring equipment.

They will form part of a national network sponsored by the Ministry of Technology to provide a calibration service to industry.

The laboratory at Harwell—where the instrument test laboratory already issues BCS certificates for electrical instruments—will carry out tests on measuring instruments, gauges and tools.

It is planning to provide a prompt service so that valuable equipment need not be out of use for long periods.

At Winfrith measurements will be made of size and form on gauges and precision assemblies, said a spokesman.

## Tumblers go to Scotland

MR. BILL GUNN, of Aldermaston, who has been attached to the Ministry of Health for the last two years, has been appointed to a job in the Scottish Home and Health Department.

With him, as gifts from Aldermaston colleagues, he took a stainless steel soda siphon and cut glass whisky tumblers.

## MUG FOR B-TEST MAN

MR. BRIAN WILLMORE, who has been working on gas chromatography—the breathalyser system—was presented with a pewter mug when he left Aldermaston.

Brian has been captain of an Aldermaston skittles team, the Lurchers.

## Transport man

MR. CHARLIE ROGERSON, a member of Harwell's Transport Section for 20 years, has died.

## Culham death

MR. K. I. MOLYNEAUX, of the Site Services Division at Culham, died on June 10.

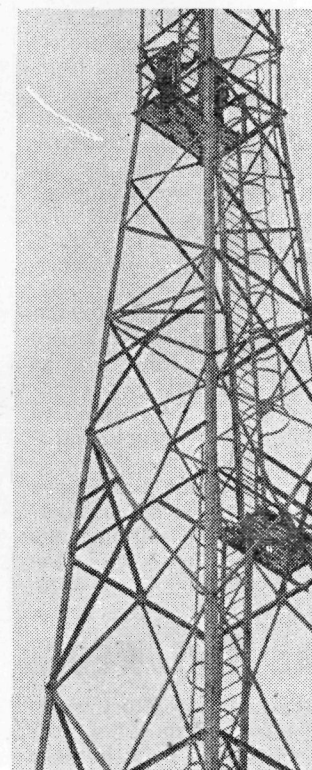
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# GERMANS PLAN A 220 mph NUCLEAR AIRSHIP

PLANS to build a nuclear-powered airship have been announced in Germany.

A shipyard at Luebeck said it had taken an option on the design of an Austrian engineer, Erich von Veress for "an airship of the future".

It will build it if preliminary studies are favourable.

The yard says it is negotiating with the General

Electric Company of America to build a reactor to provide power.

## Slow comfort

Such an airship could carry 500 passengers and 50 tons of cargo at an average speed of about 220 miles an hour for distances which are described as "almost limitless."

It would take almost 17 hours to cross the Atlantic, but passengers would be

offered comforts that present aircraft cannot provide.

Early airships presented a serious fire danger, said experts. The modern version would be made of fireproof plastic and filled with helium to keep it airborne. It would cost almost £16 million to build.

In Britain, Mr. J. P. W. Mallalieu, Minister of State for Technology, told the House of Commons "with

some nostalgic regret" that he could not consider building nuclear-powered airships.

"The commercial prospects do not justify public expenditure," he told Mr. Raymond Fletcher, Labour Member of Parliament for Ilkeston, Derbyshire.

Mr. Fletcher had asked whether the Government would consider a joint Anglo-German study and a possible joint construction programme.

# A KNIGHTHOOD FOR THE CHAIRMAN

**AUTHORITY** Chairman Dr. John Hill receives a knighthood in the Queen's Birthday Honours, announced last month. And Dr. W. P. Grove, who has been Director of the Radiochemical Centre at Amersham ever since it opened, becomes a Commander of the Order of the British Empire.

Sir John, who is 48, is a former RAF officer and has been Chairman of the Authority since October 11, 1967. When he was appointed, the Ministry of Technology described his career with the Authority as "outstanding".

## 'Impressive'

He was appointed Member for Production in 1964 with direct responsibility for the Authority's Production Group. "For some years past the Production Group has had an impressive record of improvement in productivity and manpower utilisation, as well as a growing international standing as a supplier and processor of nuclear fuels," said the Ministry.

Dr. Grove, who is 55,

joined Thorium Limited in 1940 to start a laboratory at Amersham to refine radium for wartime needs. The laboratory became the Radiochemical Centre in 1946, first under the Ministry of Supply and later as part of the Authority.

A justice of the peace and a governor of several local schools and Slough College.

**Professor Brian Flowers**, Chairman of the Science Research Council since 1967, was also knighted. Sir Brian became head of the Theoretical Physics Division at Harwell in 1952 when he was 27. Six years later he was Harwell's chief research scientist.

Senior Superintendent in the Chemistry Division at Aldermaston, **Dr. Frank Morgan** becomes an Officer of the British Empire Order (OBE). Two years ago he headed the team—believed to be the first in Britain—who set out to probe the causes of fires which do £80 million worth of damage in Britain each year.

Working for the Home Office, they hoped to "take a long cool detached scientific look at a mass of evidence and see if there is anything

helpful that can be got out of it".

Two Authority employees become Members of the British Empire Order (MBE). They are **Dr. K. G. Eickhoff**, Research Manager in the Reactor Engineering Laboratory at Risley, and **Mr. A. S. Davidson**, Works Manager for Chemical Separation at Windscale.

Dr. Eickhoff joined the Research and Development Branch of the Authority at Capenhurst in 1955 and did development work for the Dounreay fast reactor.

In 1961 he moved to Risley to join the newly formed Reactor Engineering Laboratory and has been responsible for the development of mechanical components for

sodium-cooled fast reactors. He enjoys camping and fell walking.

Mr. Davidson, a Scot, joined the Authority at Windscale in 1950. Earlier he was a squadron leader in the RAF.

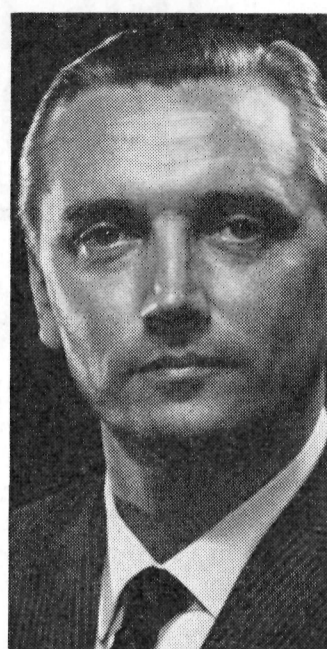
## Chemical work

His work for the Authority has been entirely associated with major chemical plants and he was responsible for commissioning the first primary separation plant, the associated plutonium purification plants, and lately he has been in charge of starting the new separation plant at Windscale. It is recognised as one of the premier nuclear reprocessing plants in the world.

Now he is in charge of commissioning the fuel element plant at Windscale which will provide the initial fuel charge for the fast reactor at Dounreay, and also the other reprocessing plants which will deal with new nuclear fuels.

Mr. Davidson is a keen sailor with the Windscale Boat Club.

A canteen supervisor at Springfields, **Miss Ruth Butler**, has been awarded the British Empire Medal. In 22 years she has served or supervised more than two million meals. She was one of the original employees and has never had a day off for sickness, said a works spokesman.



**KNIGHTED** in the Queen's Birthday Honours, Authority Chairman Sir John Hill is pictured above. Honours also went to (from the left) Dr. W. P. Grove, Professor Brian Flowers, Dr. Frank Morgan, Dr. K. G. Eickhoff, Mr. A. S. Davidson and Miss Ruth Butler.



## Finns are thinking of Russian A-power

FINLAND has re-opened negotiations with Russia about buying her first nuclear power station, plans for which have twice been shelved.

But official Finnish spokesmen denied to reporters in Helsinki that the talks with Russia meant that a decision would be made to buy a Russian reactor.

They have insisted that all they have done so far is to "open meaningful negotiations" about delivery conditions, price and the suitability of what Russia has to offer.

Twice before, Finland has invited tenders for the power station.

## Rejected

The first British bid was rejected before the project was shelved for the first time. The second tender—for a station which would generate 500 megawatts of electricity—was recommended by the state-owned power company Imatran Voima. It was said to be "substantially ahead" of the rival bids from Sweden and Russia.

But, in a decision which was described by Authority Chairman Sir John Hill as "purely political", the Finnish Government decided to wait until 1975 before awarding the contract.

Since then, the Finns have been reported to be considering two power stations, one to be built by Russia, the other by Britain or Sweden.

## LAB GIRL WEDS

HARWELL laboratory worker Miss Pamela Dibley married Mr. William Kinsella at nearby East Hendred last month.

## Dorset pair try big double CHANNEL SWIM IS ON AGAIN

**WINFRITH** apprentice Philip Gollop and his swimming colleague Mervyn Sharp, an apprentice motor mechanic in nearby Weymouth, planned to start their long delayed two-way swim across the English Channel and back on July 8.

The swim, originally scheduled for June 21, has already been postponed twice this year because weather and tides were not right.

Phil spent ten days at Dover last August waiting for the right combination of weather and tides before he was forced to give up.

The boys' coach Mr. Tom Watch, said that one party of swimmers waited for eight weeks at Dover and eventually went home disappointed when the weather failed to clear.

Phil has twice tried the non-stop two-way swim. In 1967 he was beaten by 20-mile-an-hour winds and 15-foot waves which kept him in the sea for 14 hours on the way to Calais from Dover.

In July last year it took him 18 hours against freak tides and currents. Each time he had to return to Dover by boat.

## Odd times

"For a double swim you are looking for favourable tides and weather for something in the region of 48 hours," said Tom Watch.

"You only get the odd occasion when it does come right."

Phil has been hampered by a shortage of cash in his bid to make the double Channel crossing. The round trip for two boys is likely to cost £450. This pays for the two pilot boats they need as well as equipment, food and accommodation.

The boys also lack facilities for practice. There is no swimming pool in Weymouth and the nearest public swimming baths are at Yeovil, 38

miles away. But they have been using the Army's swimming pool at Bovington, 18 miles from Weymouth.

Some of the best times for the double crossing come in June, according to Tom Watch. But the boys can seldom think of making their attempt then because they have no opportunity to get early practice in swimming pools.

One of their practice swims took them from Swanage to Weymouth along the Dorset coast on what may be the first-ever swim between the towns.

For weeks beforehand they studied tides, winds and currents for what many swimmers think is the trickiest trip in English coastal waters.

## Luck

"The coastguard wished us the best of luck," said Philip, "and added that he did not think we would do it."

"The conditions were perfect and I felt a hundred times better than usual because of that. Everything went exactly according to plan. I don't know if it could be done again, but I wouldn't



PHIL GOLLOP

mind making a regular swim of it."

And Mervyn and Philip have knocked almost 14 minutes off the record for the swim from Lulworth to Weymouth.

In the Fairway Buoy race at Exmouth, Devon, last month they finished together after swimming 4½ miles, but Mervyn was awarded third place, nominally a tenth of a second ahead of Phil.

## Nuclear ship plan goes to Whitehall

A PLAN to provide Britain with a fleet of nuclear-powered merchant ships over the next 10 months.

It is based on research by a development and planning group of Cammell Laird and Co. (Shipbuilders and Engineers) Ltd., of Birkenhead, Cheshire.

Talks about a British fleet of four nuclear ships were already going on between the Ministry of Technology, shipyards and shipowners.

They are discussing the possibility of four 40,000-ton

container ships which might travel at 30 knots in the 1980s. They could be the fastest cargo ships in the world and they might run for five or seven years without refuelling.

Experts predict that Government money will have to be put into the project.

Ship men say that to keep up with foreign rivals Britain will need to have her first nuclear cargo ship at sea by 1975. Building would need to start in 1970 or 1971.

## YUGOSLAV SURVEYS

## COMPLETED

YUGOSLAVIA'S first nuclear power station is likely to be built near Videm on the Sava River in Slovenia.

The Yugoslav news agency Tanjug reports from Ljubljana, the capital of Slovenia, that geological, hydrological and meteorological investigations have been completed.

There are two proposals for the project. One suggests a single unit to produce 340 megawatts of electricity, the other would use two turbo-generator units to produce 250 megawatts of electricity each.

## WESTINGHOUSE IN SWEDEN

WESTINGHOUSE Electric International has formed a subsidiary in Sweden to make nuclear fuel assemblies for nuclear power stations using pressurised water reactors.

## LATEST

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