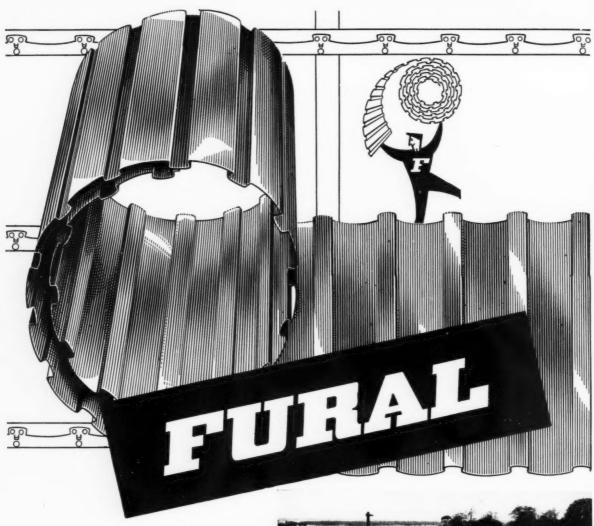
The Architects' Journal

istered as a newspaper. One shilling. Vol. 126. No. 3254. July 11, 1957

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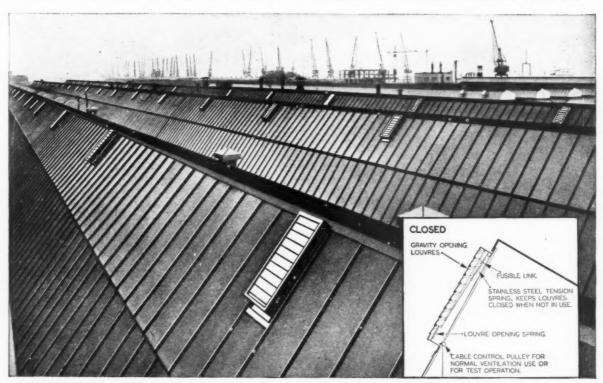
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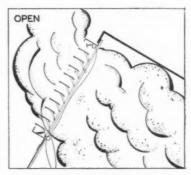
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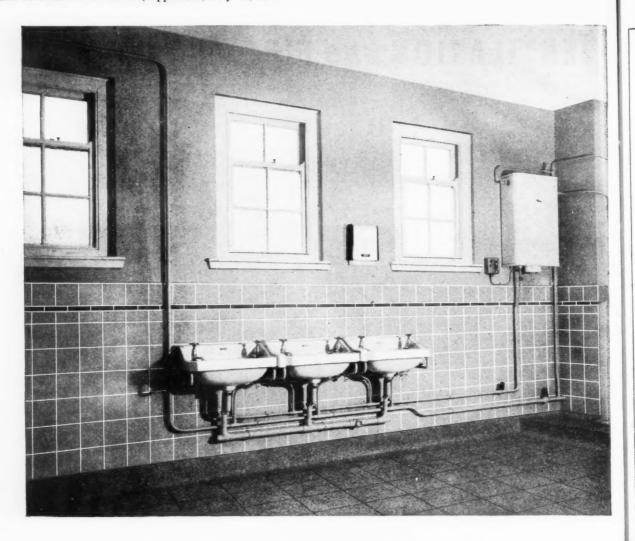
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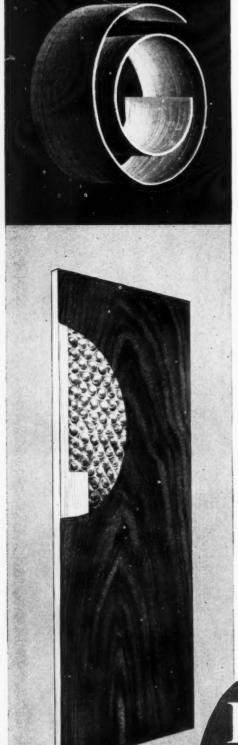
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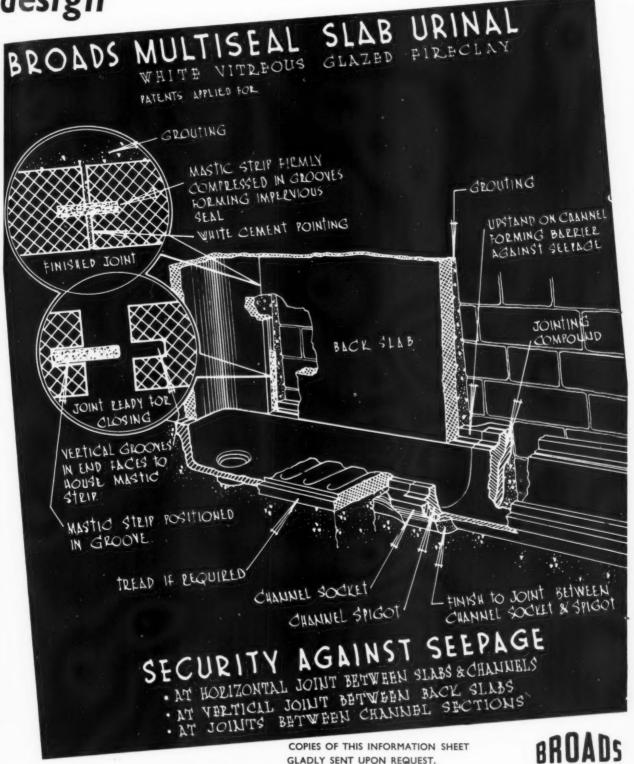


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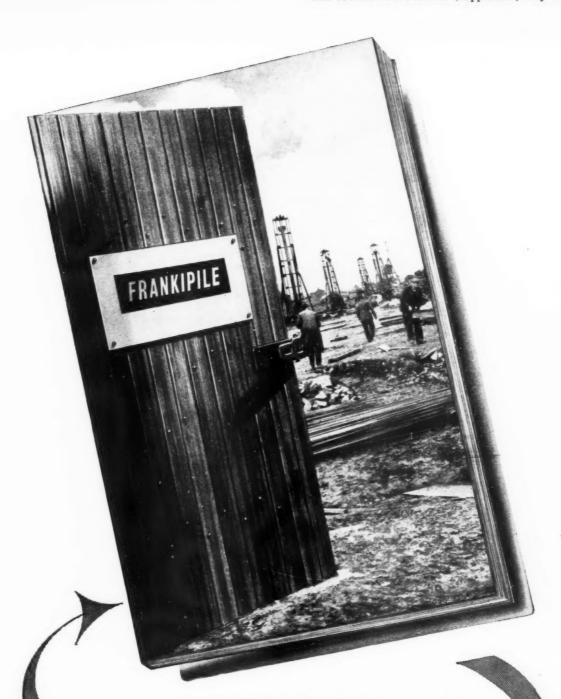
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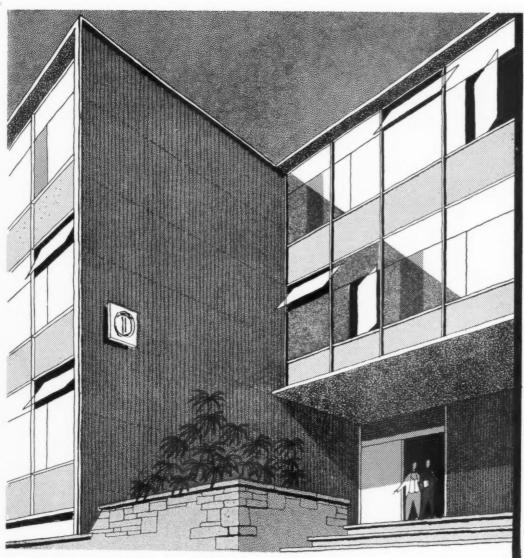
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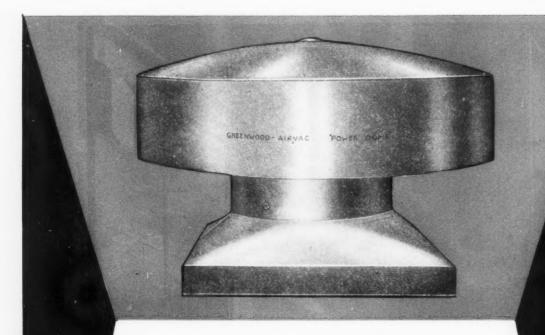
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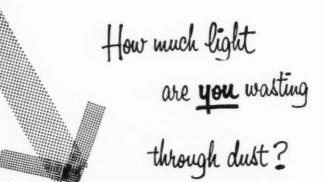
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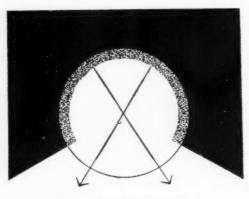
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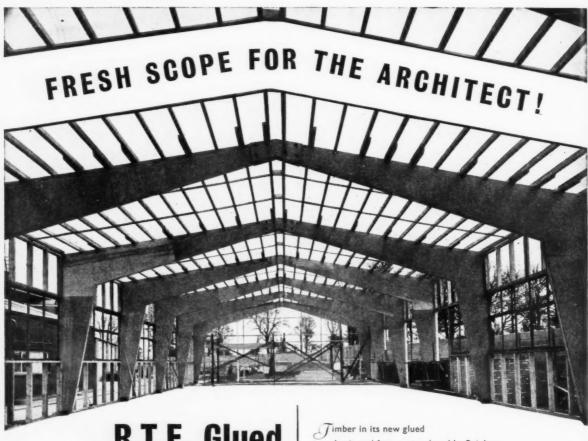


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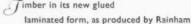
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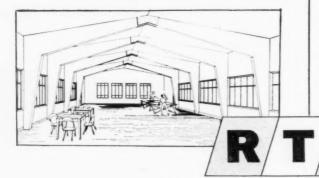
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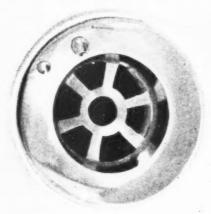


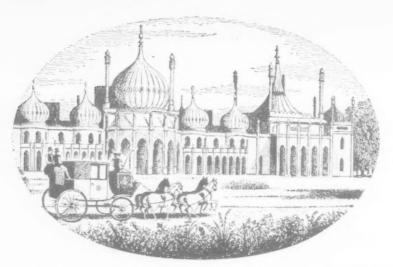
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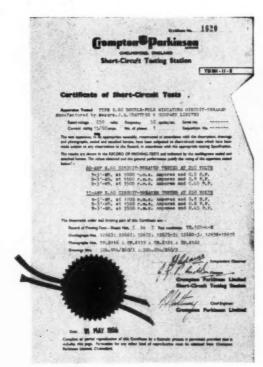
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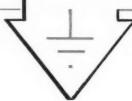
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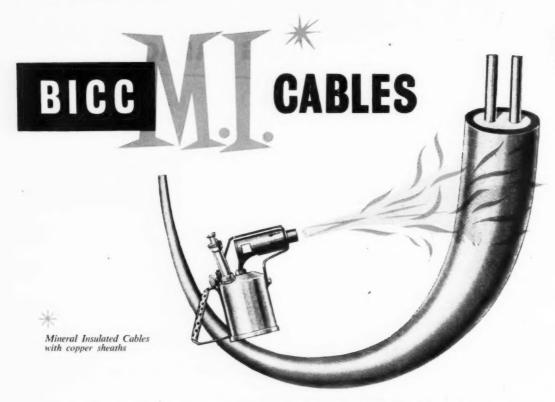
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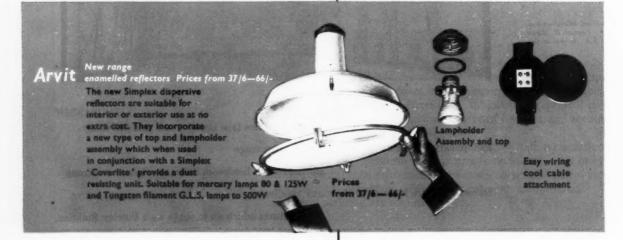
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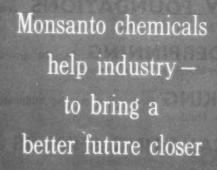
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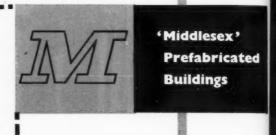
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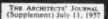
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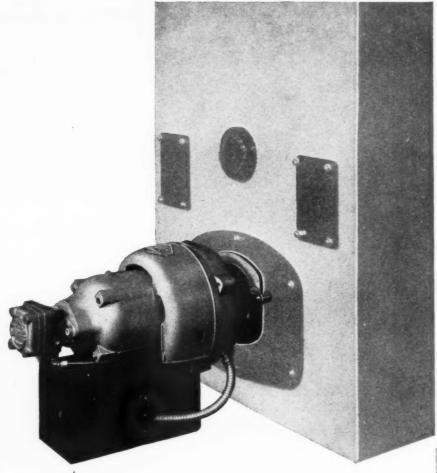


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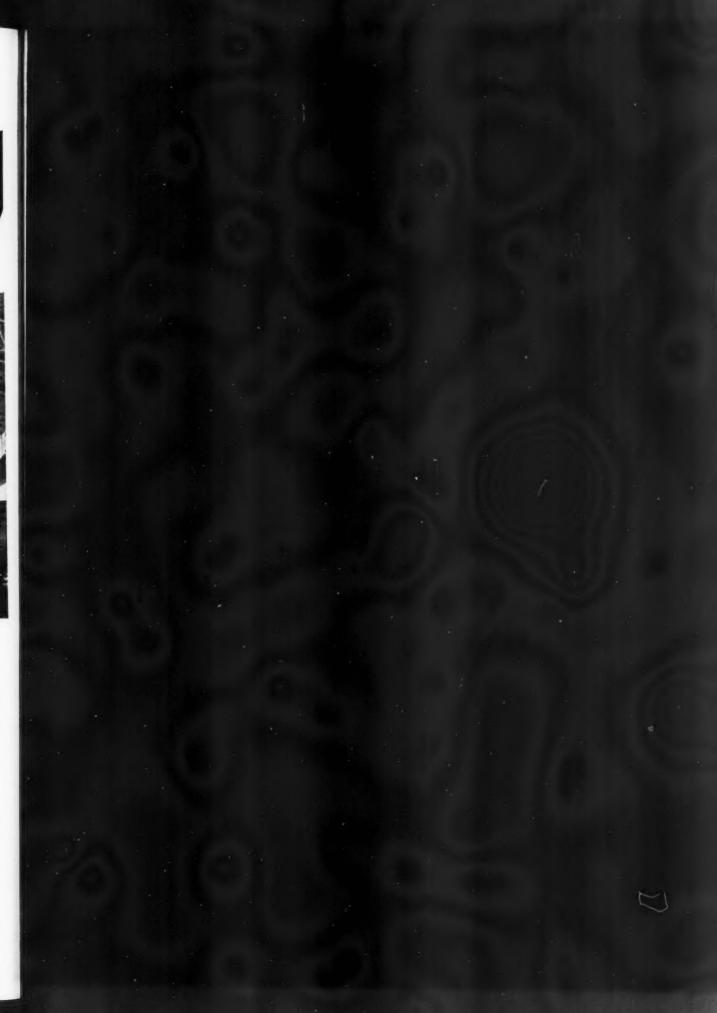
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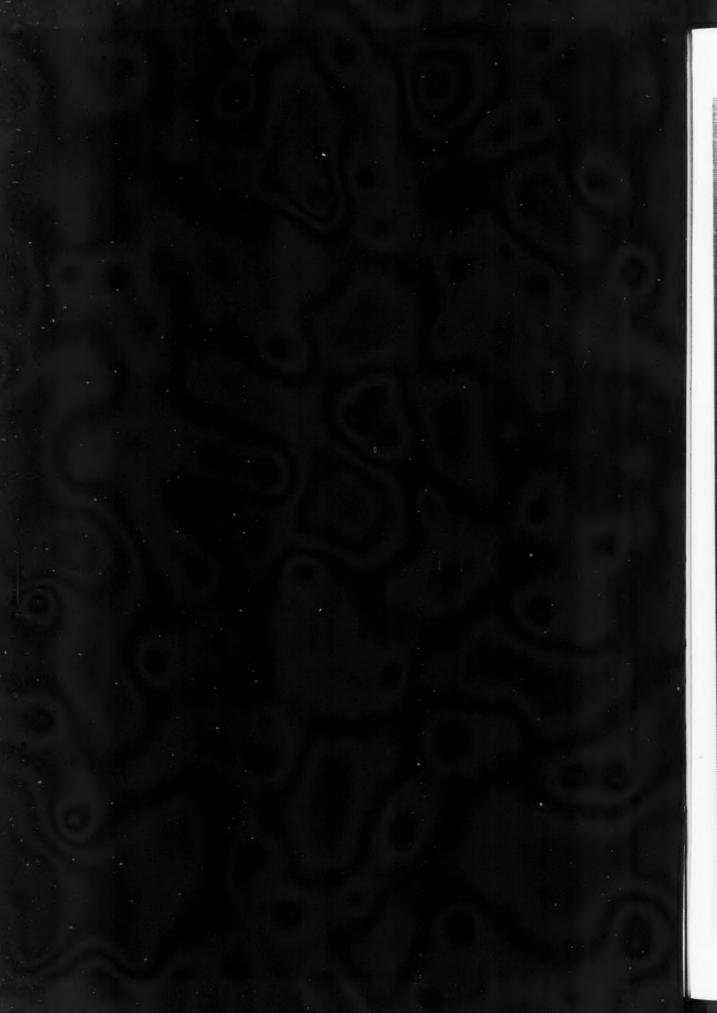
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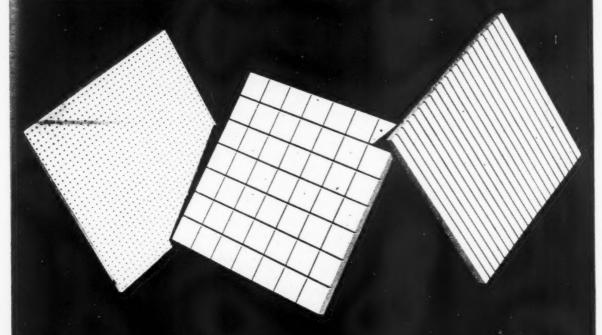


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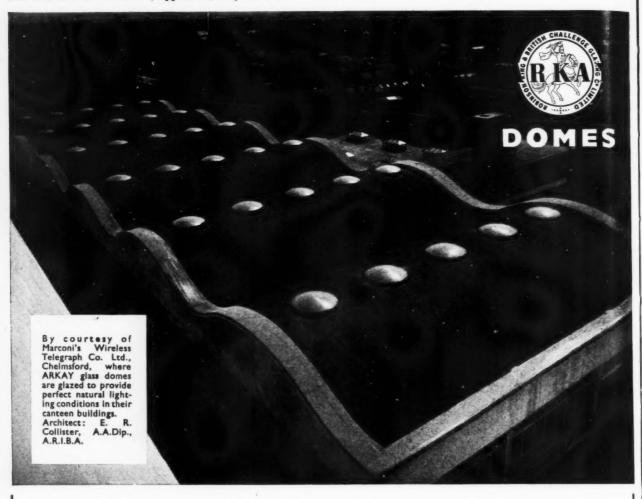
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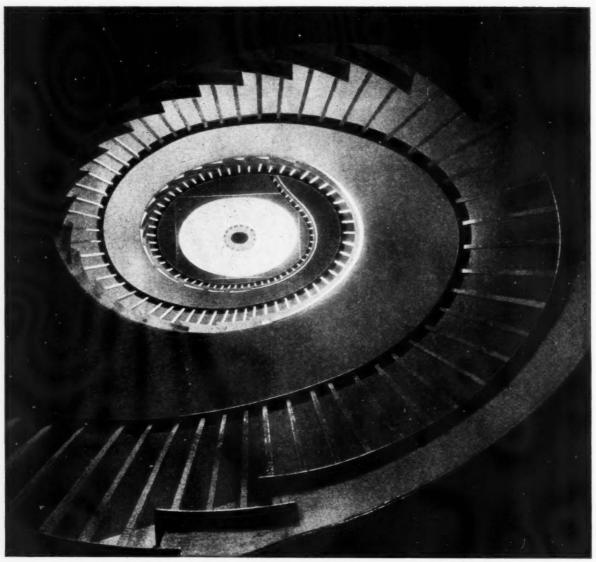
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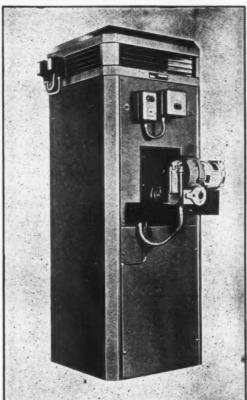
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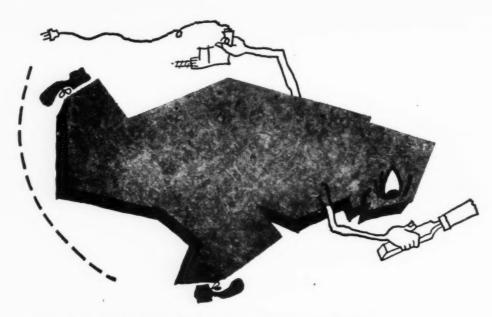
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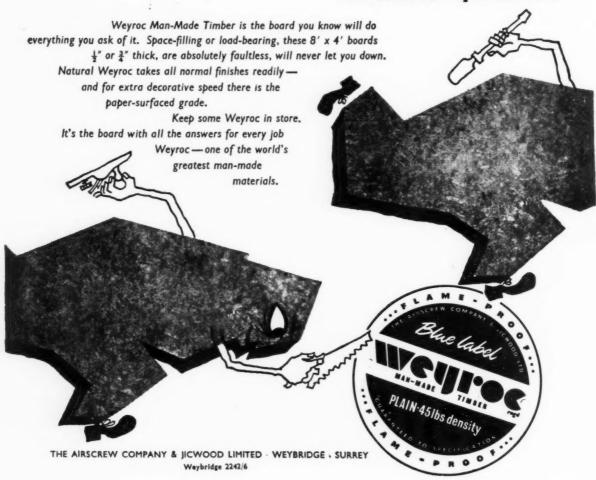
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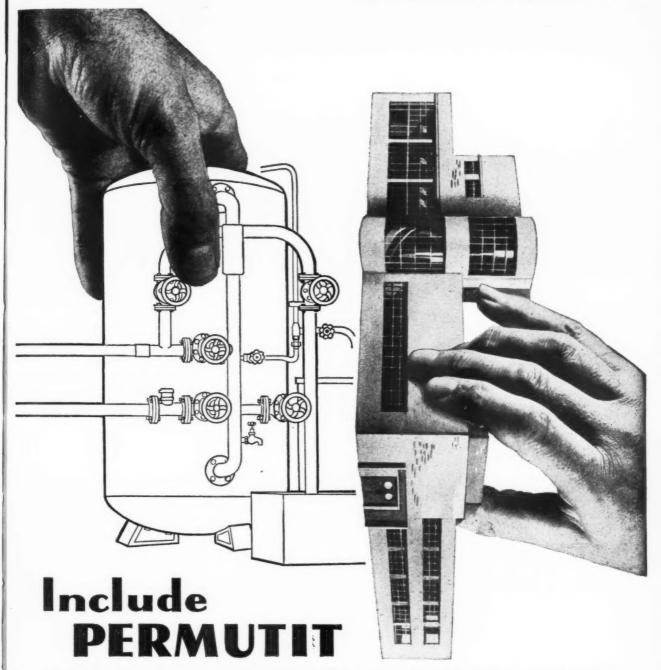
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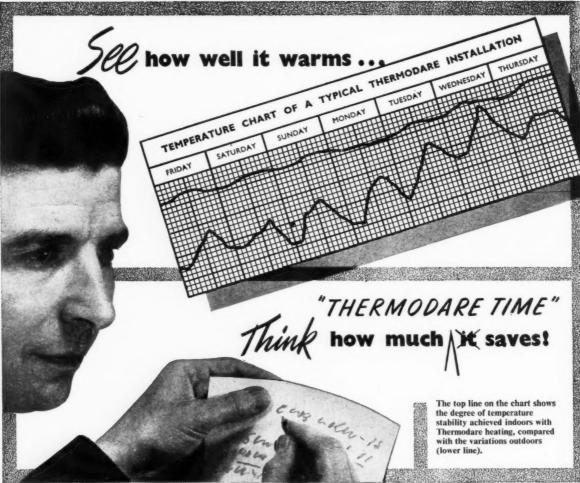
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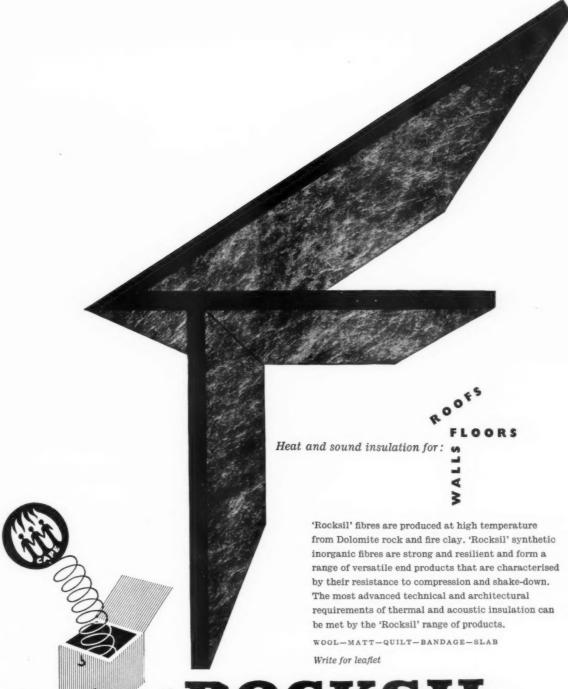


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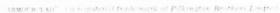
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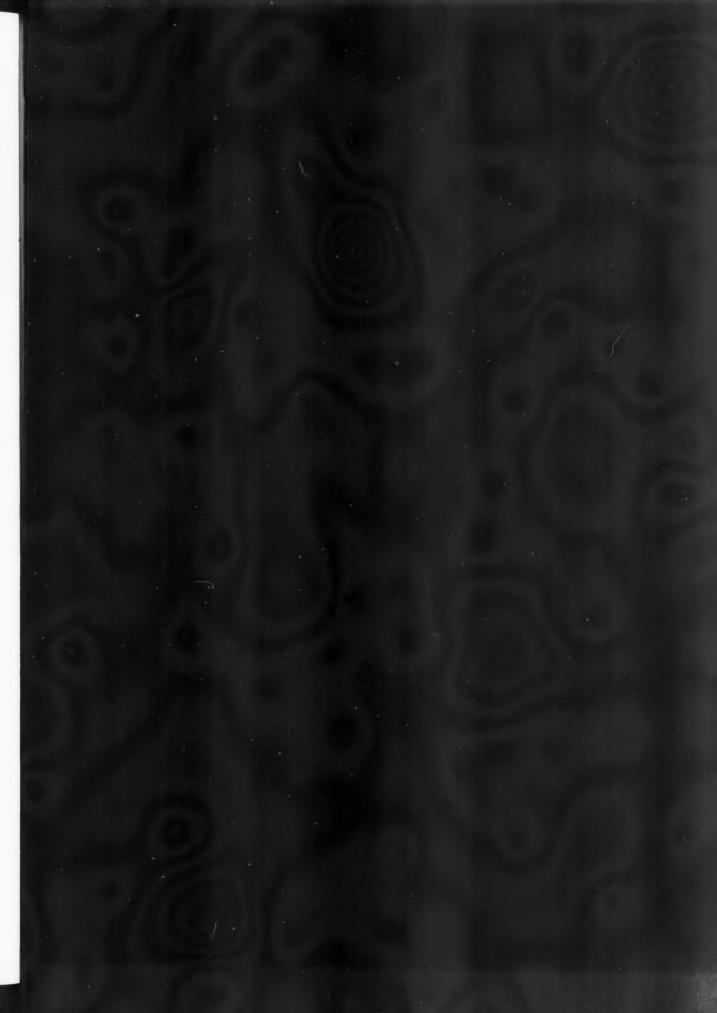
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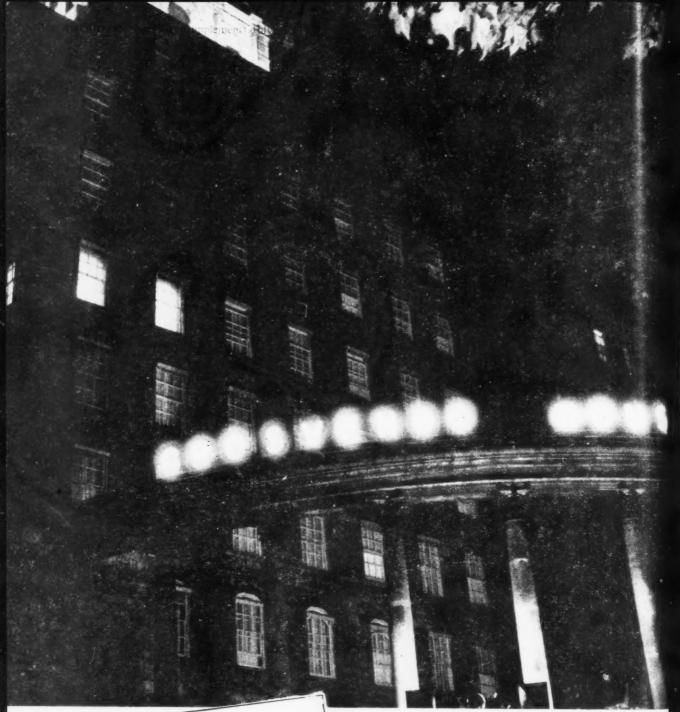
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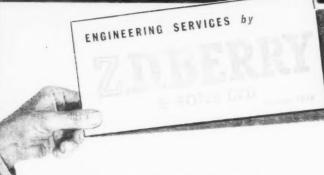




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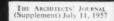
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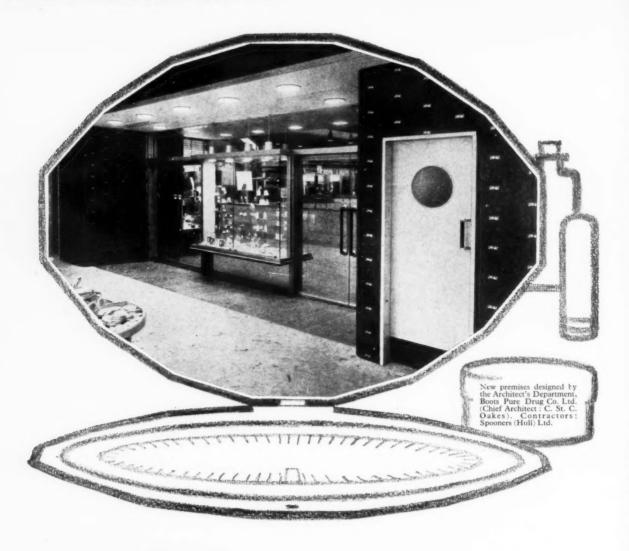
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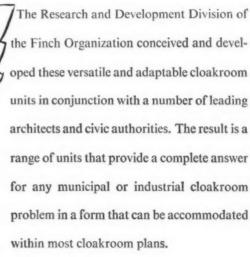
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This 3-bedroomed house near

Tunbridge Wells was built

in the 1930's. It has a fine

view across the Weald of

Kent. The up-to-date

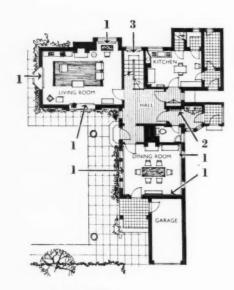
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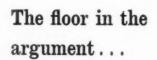
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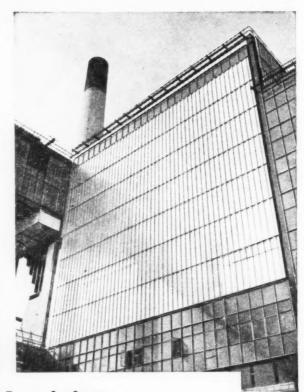
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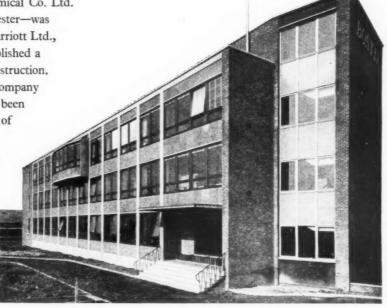
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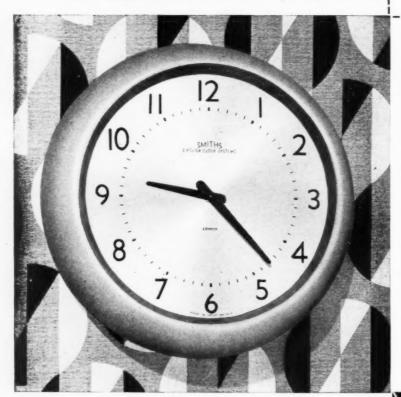


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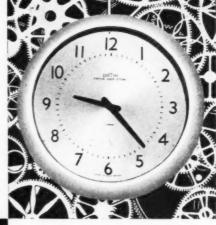


DIMENSIONS

12" 9" Diameter of face Overall diameter 144" 114"

DIMENSIONS

Diameter of face 12" 9" Overall diameter 138" 107" Projection from wall I #" 'Wall-box 6" square 2" deep



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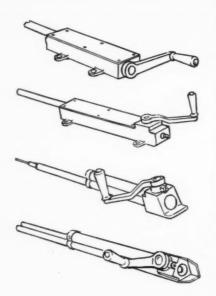
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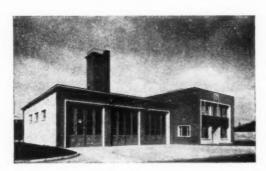


Architecturally, the City of Oxford combines the grace of the old with the freshness of the new; and one could hardly think of a better setting for the 1957 R.I.B.A. Conference. A journey through Oxford is a journey through many periods of architecture; and a delegate could be forgiven for 'pausing to look' on his

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Above:—Secondary School, North Way. Architect: E. G. Chandler, A.R.I.B.A., A.M.T.P.J., City Architect and Planning Officer. Main Contractors: Y. J. Lovell & Son Ltd. Interior Sand Lime Bricks of Gymnasium decorated with Cementone NUMBER SEVEN Interior Flat Finish.

Top Left:—East Oxford Fire Station, Cowley. Architect: E. G. Chandler, A.R.I.B.A., A.M.T.P.I. Main Contractors: T. H. Kingerlee & Sons Ltd. Decorated throughout with Cementone NUMBER SEVEN, Cementone No. 9 Waterproof Stoneface Composition and Freoline Washable Water Paint.

Bottom Left:—New Sewage Disposal Works, Littlemore. Architects: E. G. Chandler, A.R.I.B.A., A.M.T.P.I., and J. Campbell Riddell, B.Sc., A.M.Inst.C.E., M.I.Mun.E., City Engineer. Main Contractors: Turriff Construction Co. Ltd. Painting Contractors: J. J. Hamilton & Sons Ltd. Internal concrete and brickwork of Vacuum Filtration Building decorated with Cementone NUMBER SEVEN Universal Decorative Finish.

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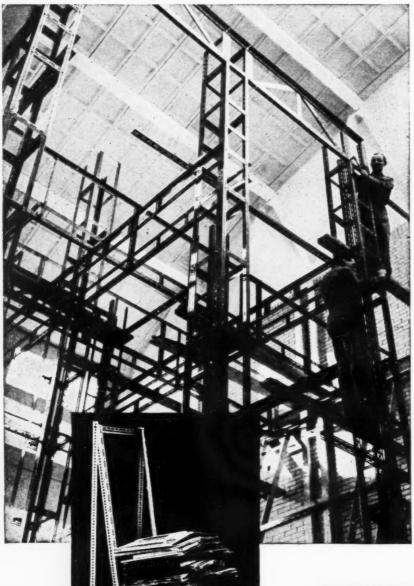
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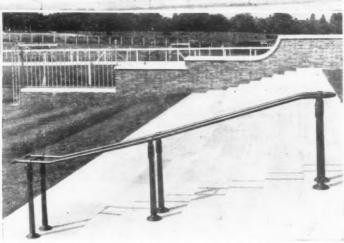
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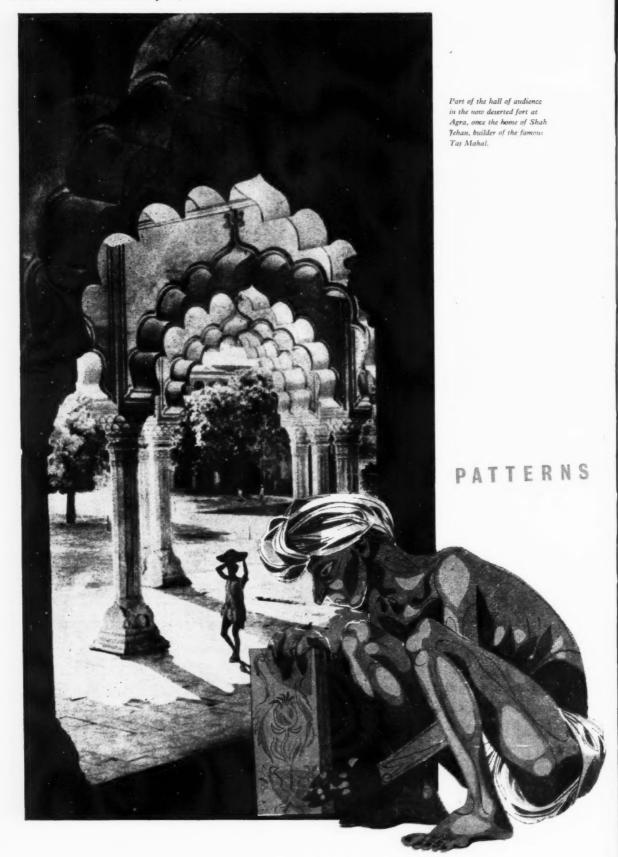
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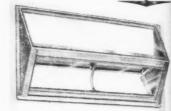


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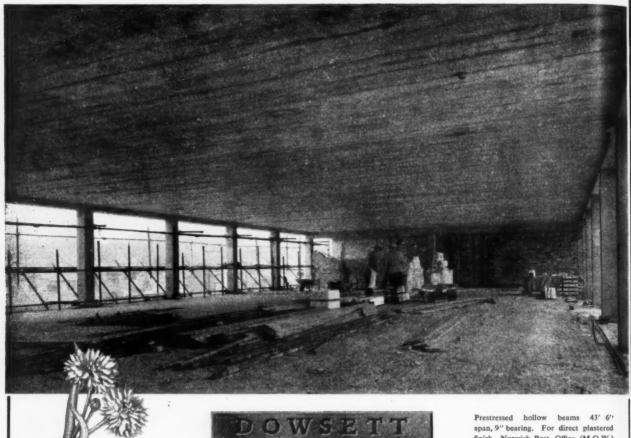
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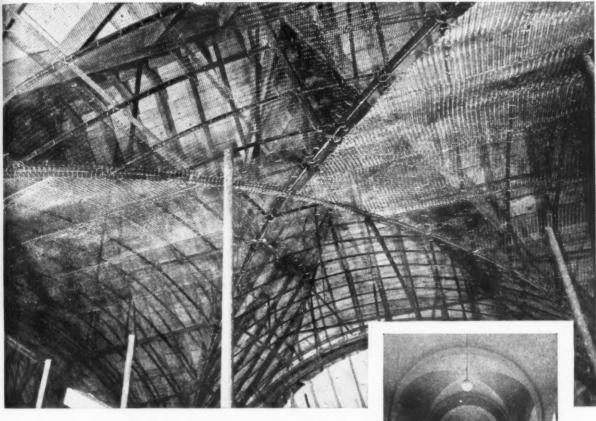
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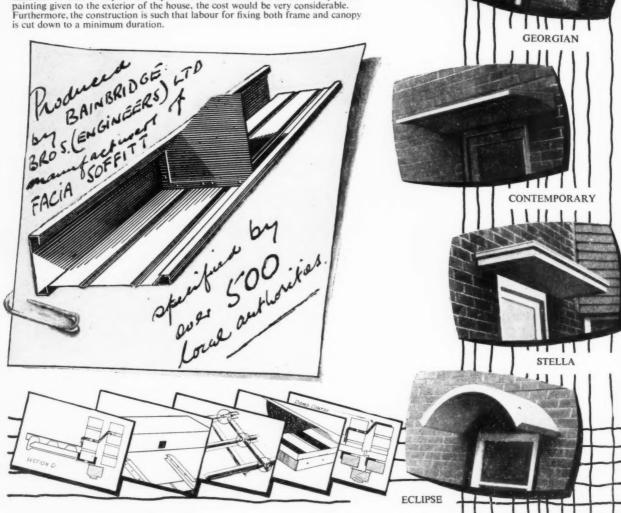
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Cooperative Society Main Traffic Garage, Birkenhead (Architects: Rd. Owen & Son).

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North Western Gas Board, I.V.C.O. House, Garston (Architect: Ian Maclaren, Dip.ARCH., A.R.I.B.A.).

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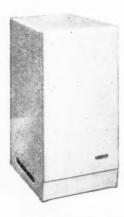
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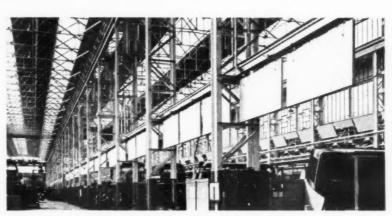
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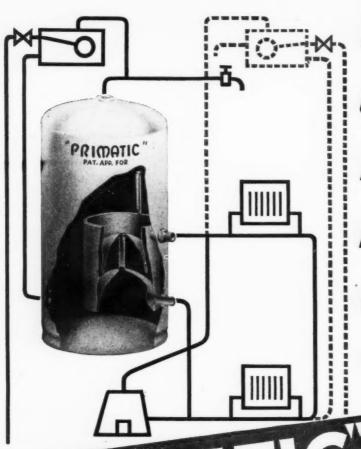


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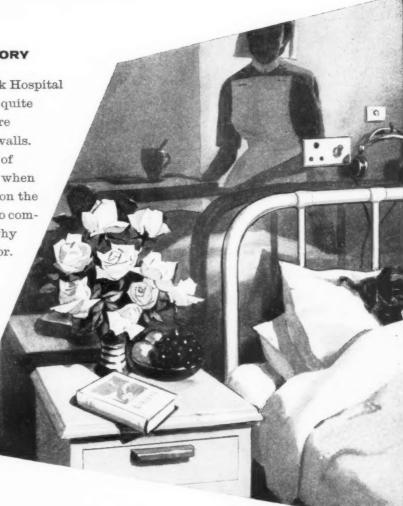
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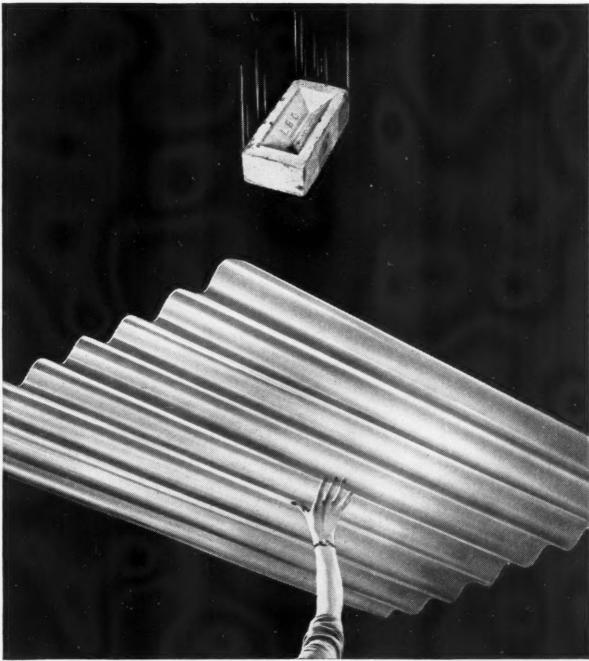
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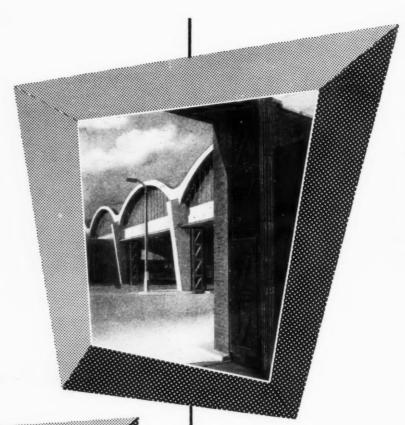
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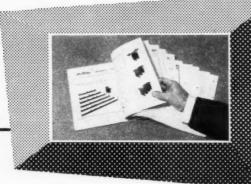
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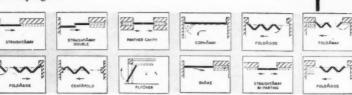
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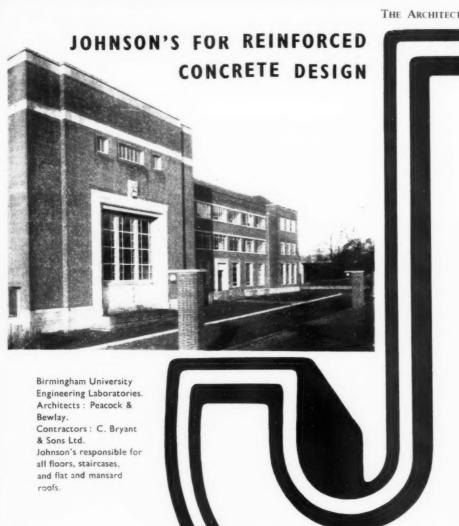
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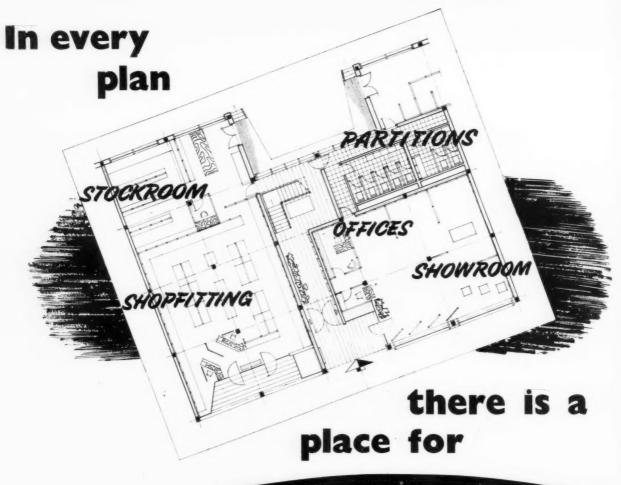
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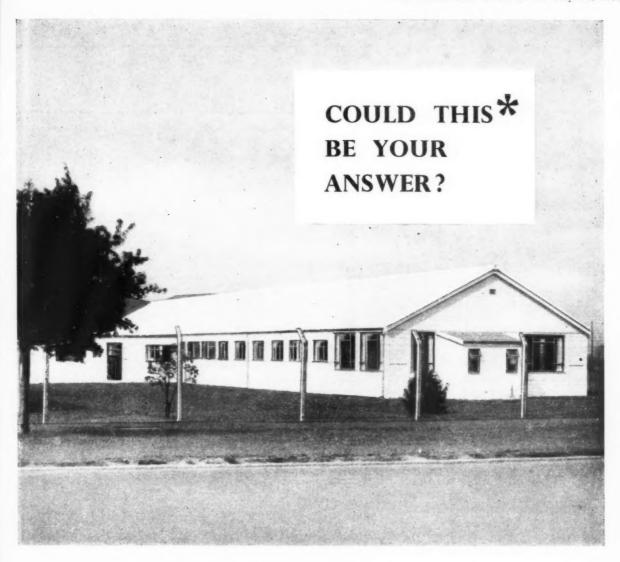
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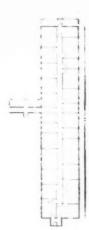
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Hollow Glass Blocks at Victoria Coach Station, S.W.1.

Note application of corner blocks to form column. Architects: Elliott, Cox & Partners, F.R.I.B.A. Contractors: Higgs & Hill Ltd.

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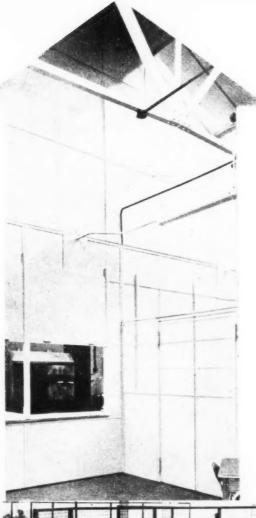


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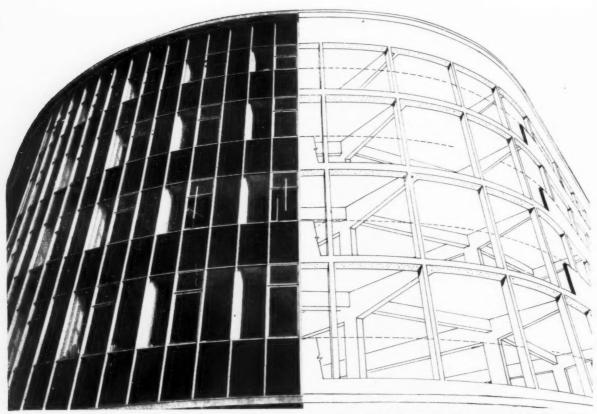
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The story behind a 'Wallspan' Wall

Tower House, Hopton Street, S.E.1, was designed specifically to house a printing works. High floor loading had to be provided for but at the same time it was desirable to minimise the total load on the foundations—even so the foundations would carry a 35-story block of



Curtain wall close up and construction detail at Tower House.

flats. This problem has been ingeniously overcome. The structure is supported on reinforced concrete columns which are set back some 15 feet from the face of the building, the floor slabs being cantilevered out. An aluminium and glass curtain wall—Williams & Williams 'Wallspan'—is anchored to the edges of the floor slabs and backed up to sill height by a reinforced concrete stub wall.

A secondary range of columns is placed immediately behind the curtain wall. These are

not structural but are designed specifically to support the floor loading—in this case printing machinery. Their very slim section was made possible by casing them in a thin layer of special fire-resistant vermiculite plaster.

The sweeping curved facade is the most striking feature of the contract. It is, as far as we can trace, the first time that a curtain wall of this description has been constructed to a curved building line—at least in Great Britain. It is in fact—as close examination of the photograph will show—faceted, each face spanning between a pair of the secondary stanchions referred to above. This arrangement involved a great deal of meticulously accurate draughting and cutting, especially as the curve is 3-centred and not part of a circle. The final result can be judged from its appearance.

Purpose-made aluminium windows by Williams & Williams have been used throughout and the infilling is reeded 'Plyglass'—in dark red on the front of the building and white at the back. The reeded texture allied to the vertical emphasis afforded by the 'Wallspan' mullions gives height and dignity to the facade which otherwise would be dominated by the horizontal pattern of windows and spandrels.

All in all Tower House is a notable contribution to London's architecture south of the river.



Tower House, Hopton Street, S.E.I. for Messrs. Whitehead Morris Ltd. Architect: Justin H. Alleyn, F.R.I.B.A. Contractors: G. E. Wallis & Son Ltd. Consulting Engineers: C. J. Pell & Partners

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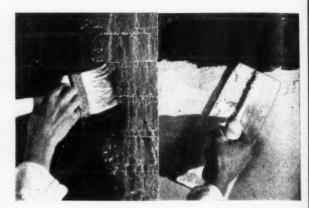
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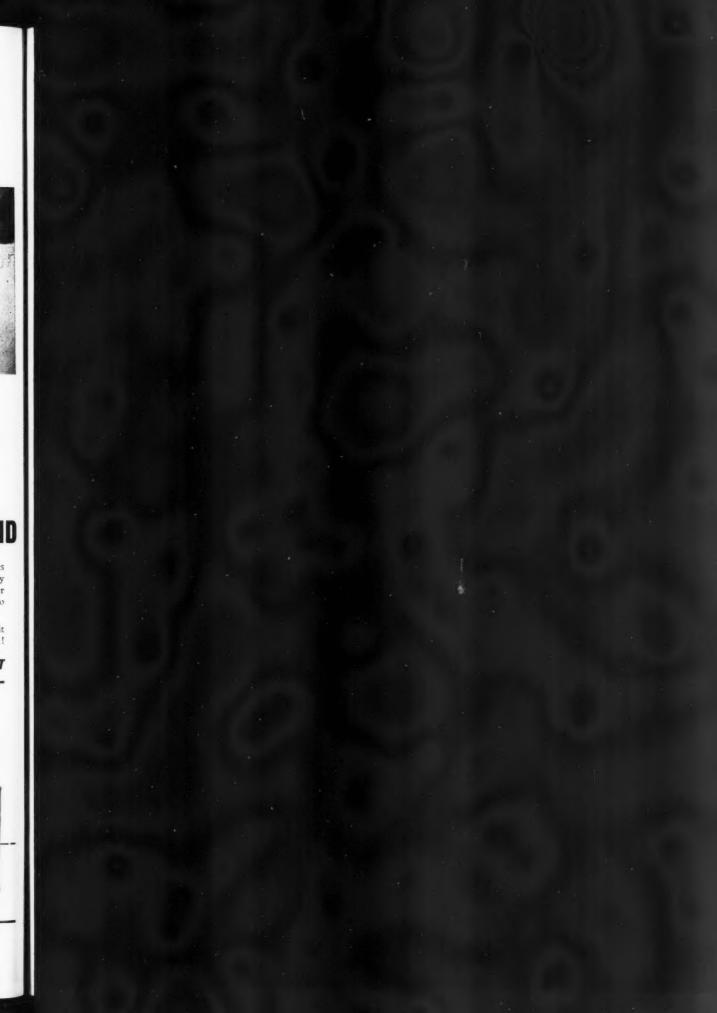
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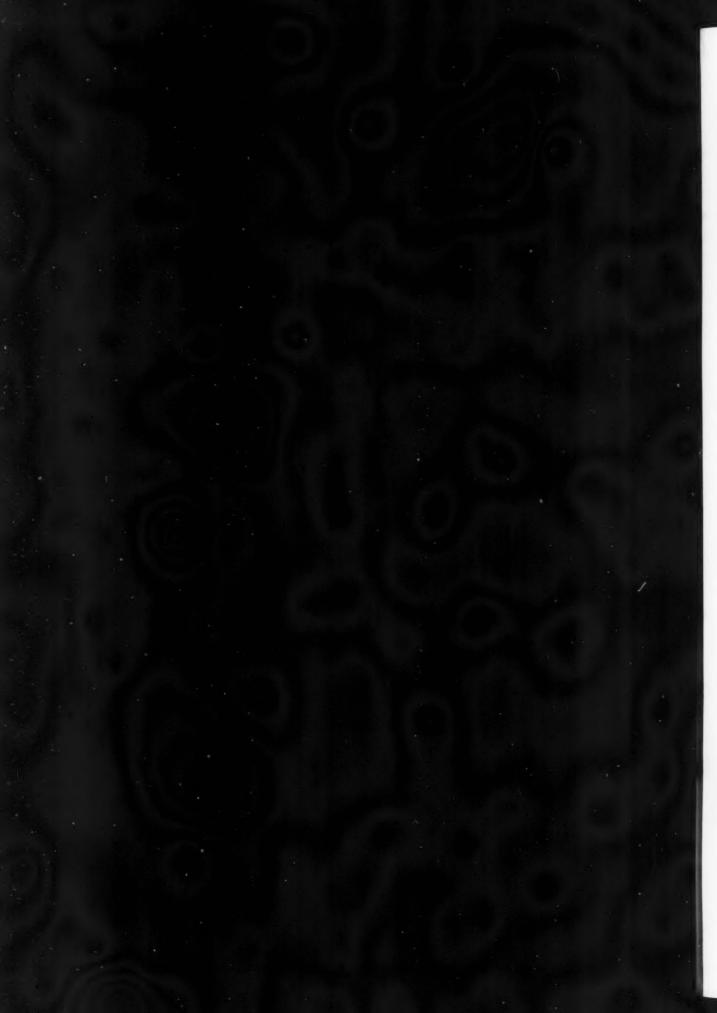
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THE ARCHITECTS' JOURNAL

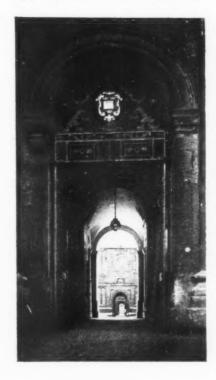
No. 3254 Vol. 126 July 11, 1957

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ARCHITECTURE IN OXFORD

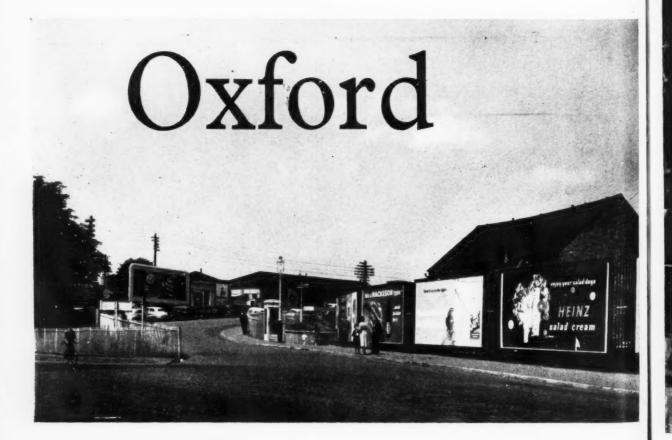
This year the British Architects' Conference is being held in Oxford (July 10 to 13). In last week's JOURNAL we published a historical guide to some of the colleges and parts of the city. Today we have given over most of our pages to a survey of Oxford's present and future appearance. The photographs of local personalities are by Sam Lambert. And for the benefit of architects who are attending the Conference we publish a guide to where to eat, on page 68.



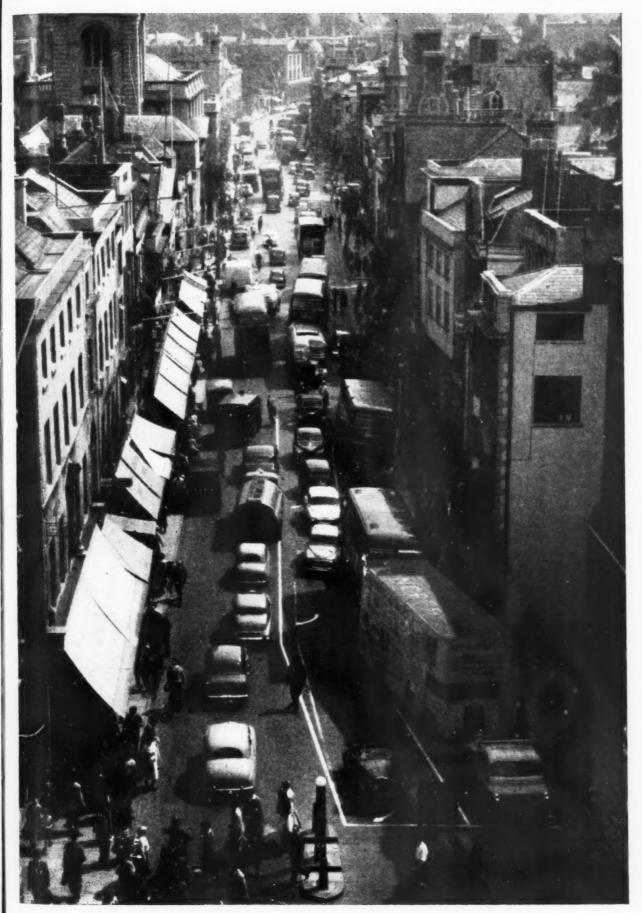
The British Architects' Conference is now being held in the City of Oxford, at the invitation of the Berks, Bucks and Oxon Architectural Association. It is a city in which the conflict of town, gown and dungarees seems, to the visitor, to be as strong as it was ten years ago, when Thomas Sharp wrote his report, Oxford Replanned.* To the traveller who changes trains here, and slips out—in his ignorance—hoping for a quick look at those dozing domes, the view is still as shown below. And the passer-through will still see the incomparable High in the most unfavourable conditions (picture opposite). Traffic still thunders along the spine of Oxford, its din reverberating through the college buildings, its belching fumes obscuring the long, curving panorama of a street that is unique. Has nothing been done in the post-war years to meet the threat (in Sharp's words) of a "breakdown of the entire organization of Oxford as a centre of civilized life?" We felt that this issue of the JOURNAL should answer that question—a question that is of interest not only to visitors to the Conference, but to architects everywhere. If all our resources—our planners, preservationists and architects—cannot save a city like Oxford from a creeping decay, then we all might as well go out of business. Must we go out of business? You will find the answer to that question by reading on . . .

*Published for the Oxford City Council by the Architectural Press.

This is







rks, ees ford iick the the ng, the zed not serwell ling

This is Oxford . . .





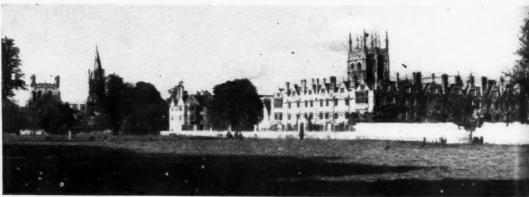


There are two Oxfords. The subtopian mess which the rail-traveller sees is typical only of the outskirts of Oxford (above right). And the traffic that mars the peace and splendour of the High (seen below in its early-morning glory) may one day be removed to the peace and splendour of Christ Church Meadow (bottom). (If you have lost track of the High by-pass story, you will find it retold in the article on page 61. The Oxford seen by the appalled traveller who has no time

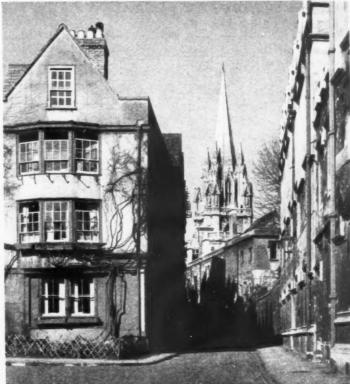
to stop and browse is nothing like the Oxford which so many people know and cherish. You have to take some trouble to find the hidden city, but there is a lot to be found—the dramatic streetscapes, the quiet lanes with neat punctuation-marks and the college quads and gardens, which are on view only at certain hours. And then (overleaf) there are the two Oxfords of the twentieth-century.

... and so is this

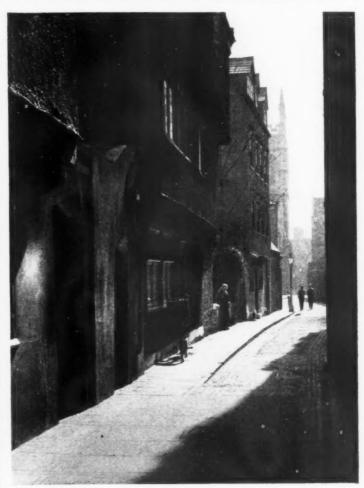












This is Oxford

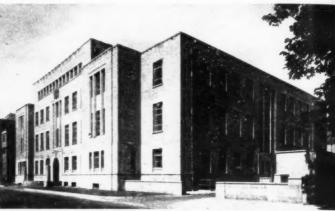
There are two 20th-century Oxfords. All the buildings on these two pages were put up fairly recently. If you thought that the city would never permit uninhibited structures to rise cheek by jowl with masterpiecs of as-you-weremanship, you would be right. There is nothing cheek by jowl about these buildings: those on this page are within the core of the city; those opposite are on the outskirts (where they can offend nobody)-except for the new facade for Freeman Hardy Willis. This grins cheekily across the Corn Market at the rubble faced front of Woolworths, which was designed by Sir William Holford after the clients had become overawed by their hallowed site. (See picture on page 59).



Nuffield College, designed by Harrison, Barnes and Hubbard.



Lodgings for Pembroke College, designed by T. Worthington and Sons.



Inorganic chemistry building, designed by Lanchester and Lodge.



Extension of south building for St. Hilda's College, designed by Professor Sir Albert Richardson.



Church in Marston Road, designed by T. L. Dale.

Rest I the Nu Walter Consul

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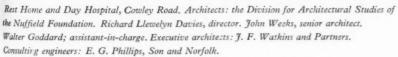


Boathouse for Queens College. Designed by Henry Goddard.



Shop in Corn Market. Designed by Miss N. Beddington.

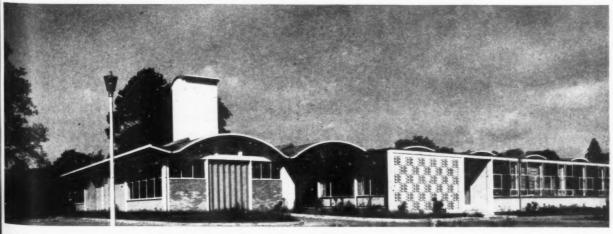




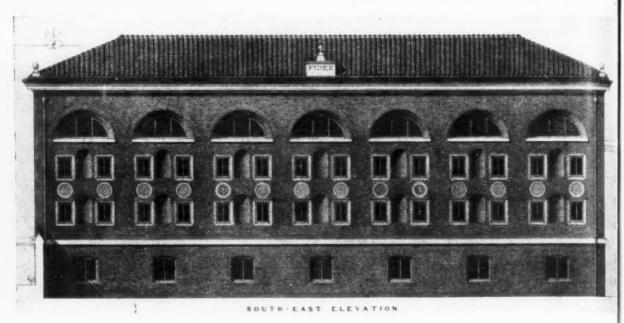




Top: House at Woodstock. Designed by G. G. Banks. Above: Admission block for Littlemore Hospital. Designed by R. Fielding Dodd and Stevens.



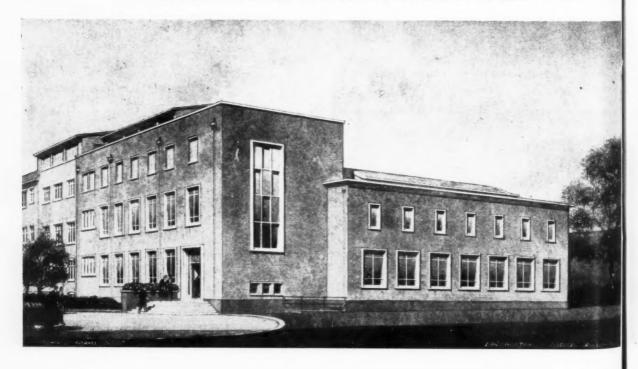
Technical College. Designed by E. G. Chandler, City Architect and Planning Officer.



This design for a new library at Lady Margaret Hall is by Raymond Erith

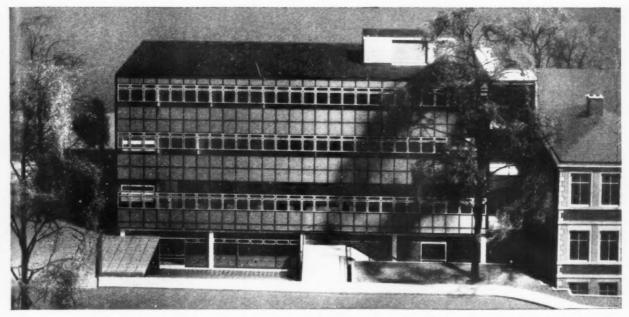
What of the future Oxford? Clearly the city intends to stick to its twentieth-century tradition. It seems determined to twist one foot round a root of the past while it plunges forward, quite courageously, with the other. How, you will wonder, does it maintain this balance between "traditional" design and progressive architecture? If you turn the page you will see some of the people who keep a watchful eye on the architect's work in Oxford.

Perspective of the Department of Human Anatomy, designed by Lanchester and Lodge, and now under construction



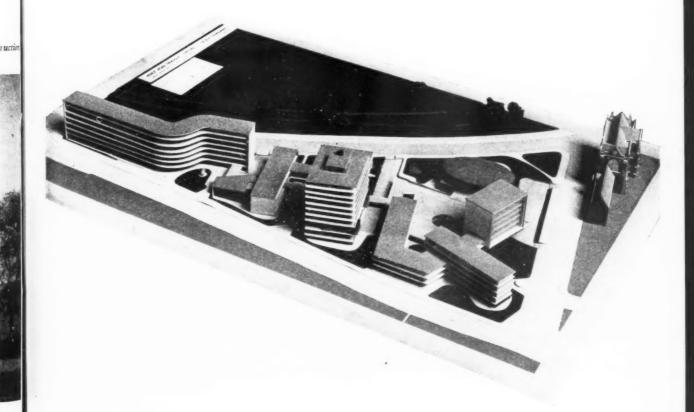
... and so is this

l Erith



This extension to the Department of Pharmacology, designed by Gollins, Melvin, Ward and Partners, will adjoin the Inorganic Chemistry Building which is shown on page 50.

Below, a model of the proposed layout of the university science area in the Keble Road triangle, designed by Basil Ward of Ramsey, Murray, White and Ward. It is hoped that work will start within the next two years on the 10-storey engineering laboratories. There will be a large pedestrian concourse at first floor level, with a covered car park beneath. The architect has been working in close consultation with the Oxford City Planning Committee.



THEY CONTROL OXFORD'S ARCHITECTURE BECAUSE

THEY KNOW WHAT THEY LIKE

There is a growing discontent among architects about the powers exercised by laymen on planning committees. In London and the Home Counties groups have been formed to prepare evidence of the weakness of a system which allows people with no design qualifications to criticise, reject or alter the work of qualified architects. The architect-members of these rebellious groups have stories to tell which would be richly comic, were they not exposures of democracy at its most deadhead. They are stories of professional designers humiliated by committees of men who "know what they like." If we conclude from these stories that the architect has less chance of determining a building's appearance than the local grocer, who says "thatch it" every time he sees an elevation, then the real controller of a town's growth is the planning committee. For this reason we are not following our usual practice of publishing details about the architects in the Conference city: instead, we interviewed the 12 members of Oxford's planning committee and got their views on several controversial matters, such as the replanning of the derelict area, St. Ebbe's. From these interviews we have extracted 10 statements made by some of the committee members. It will be of interest to our readers to know that when this jury sits down to consider the fate of an architect's work it has at least the following

... TEN POINTS TO PLAN WITH

- 1. "Very modern structures are not at all suitable for Oxford."
- 2. "One should look askance at contemporary hob-nobbing with the classics."
- 3. " I don't like flat roofs."
- 4. "The old buildings are better than anything we are likely to get."
- 5. " New schools go in for too much glass."
- 6. " Architecture is not my line."
- 7. "No modern buildings are anything like the standard of buildings of years ago."
- 8. "I'm not keen on ultra-modern flats."
- 9. "New schools are generally barren of ideas in architectural treatment."
- 10. " The Planning Committee cannot read drawings."







WILLIAM CHARLES WALKER (above), was born 1882, and has lived in Oxford for the last fifty years. He retired two years ago from the directorship of Benfield and Loxley Ltd., a building firm responsible for more buildings in Oxford than any other. He has been on the planning committee for nine years.

PERCY DUDLEY BROMLEY (left), 49, linotype operator on the Oxford Mail and Times, has lived in Oxford for 28 years. Born in Kent. On Planning Committee for three years. Thinks Cowley deserves a Civic Centre as it is the largest ward (he represents it). Thinks some of the buildings in the Science area are "fairly appalling." Prefers Duncan Sandys' proposal for the inner relief road to any others put forward. In his opinion the Planning Committee, when dealing with neon signs, should exercise strict control in the University area, but should ease up east of Magdalen Bridge. Would like to see replacements of trees which are cut down, and the removal of hoardings. Only a few temporary posters should be allowed, he thinks, and these should be controlled in colour, size and number. Feels that inner relief road is worth the price of going through Christ Church Meadow, for the High should be protected. Thinks that as there is very little worth saving in St. Ebbe's, the chance of redeveloping this area now is equivalent to the opportunity presented by the blitz in other cities. He hopes something modern and useful will be done there.

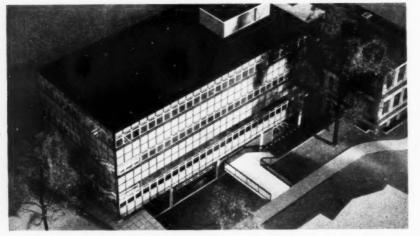


D. Y. FELL (below), vice-principal of Wolsley Hall Correspondence College, was one-time Prime Minister of Kalat State, Pakistan. Lived in Oxford between 1929-35. Came back in 1949. Has been on Planning Committee for one year. First interested in planning because connected by marriage to Sir Raymond Unwin. Would like to see an area within the inner relief road big enough to provide space for adequate expansion of business and therefore drawing business outwards. In principle, favours Abercrombie's plan. Thinks St. Ebbe's should have mixed development, not neglecting residential. Considers St. John's is finest specimen of architecture in Oxford. "Magdalen is also beautiful as example of decadent gothic style." Likes Sir Hugh Casson's work, approves of "new styles of building" and sees no reason why they should not go up in the centre of Oxford. Wants High to continue to be a busy place. " Artificial peace and quiet can be very intolerable." Would like to see traffic moving smoothly and freely.



FREDERICK GEORGE INGRAM (left), 45, full-time Secretary of the Oxford City Labour Party since 1948, was born in East Oxford. Joined the Planning Committee this year and is "most particularly interested in the early development of St. Ebbe's." Fears that it will become shops and offices, and is against this because the residential area is dwindling in the centre. Would like to see a break-away from the traditional council house, preferably a variety of designs "broken up." Hopes development will blend with the centre of the city. Would like to see inner relief road go to Worcester Street. Is not in favour of closing Magdalen Bridge: thinks one-way traffic would share the load. Believes big free car parks must be provided. Is concerned about possible spoilation of the High by bus shelters and more and more signs. Thinks that council estates tend to look like barracks.

Does the planning committee like the buildings it approves? That may sound a curious question, but we decided to try it out on some of the committee members We learned that this is WHATTHEYTHINK ABOUT...



. . . The Department of Pharmacology Extension*

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- " An egg-box thing with a very alarming facade, like a West End store."
- "We should have real modern buildings in Oxford: not imitations of the old."
- " An anachronism."

* Designed by Gollins, Melvin and Ward



PHILIP PRATLEY (above), born in Oxford in 1914, is director of the family building business. Joined Planning Committee this year. Would like to see more bridges across the Thames and the traffic thus decentralised. "Traffic from the High into Queen Street should run one way, west-to-east, and along the Corn Market and St. Aldate's from north-to-south. Oxford is like a pair of lungs with Magdalen Bridge in between and the main shopping area is too small to cater for local traffic." His answer to the St. Ebbe's problem would be to provide flats with as much open space around as possible: also sites for car parks. The flats would need local shops. He joined the Planning Committee because there were a lot of things he was not happy about. As a builder, specialising in council houses, he has been particularly interested in Oxford's development, which he considers to have been " anything but beautiful" between the wars.

PETER SPENCER SPOKES (below), who is on part-time extra staff at the Bodleian, has a special knowledge of certain manuscripts of topographical Oxfordshire. Was compiler of MOTCP list of houses of architectural and historical interest in Oxford (500 in all). Came to live in Oxford in 1920 and has been on Planning Committee since 1952; chairman of it since 1953. Thinks that although the Planning Committee cannot reject a building on grounds of design, Oxford would be in a very much worse state than it is without the Committee. "The Planning Committee has responsibility for some reasonable good manners in the architecture being designed now." Thinks that the architectural possibilities of developing St. Ebbe's are very great (" the parish feeling should not be destroyed") and has confidence in the City Architect. Hopes Paradise Square will be retained and that St. Ebbe's river front will be developed.



WHAT THEY THINK ABOUT ...

... The Sewage Disposal Works*

"The sewage works are very nice, but like power stations they could never look attractive."



*Designed by E. G. Chandler, City Architect, and J. Campbell Riddell City Engineer and Surveyor.



... The Garage on the Woodstock Road †

" Ghastly."

"I would prefer not to have it there, but it's better than I expected."

"A garage can never be a thing of beauty, because it is designed to attract the passing motorist."

"It has ruined one of the two wonderful approaches to Oxford."

*Designed by A. E. Harvey



ALAN BROCK BROWN, 46, below, Australian by birth, has lived in Oxford for 25 years. Is don at Worcester College. Joined Committee in 1944: was chairman from 1948 to 1953. Likes contemporary architecture and has catholic tastes. Thinks Oxford is too slow in decentralising, and that it misses chances. Feels it is a mistake to put more shopping and commerce in the centre. Would like to see ring road round central area on Sir Patrick Abercrombie's line, thus preserving the urbanity of Oxford.



ARTHUR BERNARD GREEN, left, born in Oxford 1908, is a maintenance foreman on the building side of the maintenance depot of Morris Motors Ltd. Radiators Branch. He always wanted to be on the Planning Committee. Joined this year. Has lived in the same house since 1917. Does not like by-pass road cutting through Meadow. Thinks traffic could be relieved by more bridges, both north of University Parks and south of Christ Church Meadow. The High, he says, should be preserved as a highway. Says that St. Ebbe's should be designed for mixed use, including housing and schools, but he would not like to see industry there. Thinks civic offices could be sited there.

WHAT THEY THINK ABOUT ...

. . . The Principal's House, St. Hilda's College *

"St. Hilda's Lodge is one of the best pieces of small domestic design."



* Designed by Professor Sir Albert Richardson.



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.. The Inorganic Chemistry Building †

"The Inorganic Chemistry Building is a successful design: an example of maintaining the tradition of stone building."

† Designed by Lanchester and Lodge.



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M. MACLAGAN, who is, Fellow and Senior Tutor of Trinity College, has been on the Planning Committee since 1950. He is in favour of the inner relief road leaving the Iffley Road at Jackdaw Lane and crossing the Meadow somewhere near the barges. Also in favour of closing the High or of making the High unpopular-with cobbles perhaps. He would like to see some shops and offices at St. Ebbe's, as there is a grave shortage of offices in Oxford. Fears that the urban sprawl will, in three generations, lead to this country being covered with airfields, cemeteries, highways and housing estates. Would like to see a river front road with promenade leading from St. Aldates to the station. In favour of decentralising chain stores. Admires Scott's Lady Margaret Hall Chapel. Likes Coventry Cathedral. Concerned about great danger of streets in the old town becoming cluttered with all kinds of signs. Says there are two real tragedies of Oxford. First, that Dons did not break through the barrier of celebacy until 1870: " If Dons had married, the north of Oxford would now be Georgian in style instead of Victorian." Secondly, that Nuffield enterprises have led to rapid expansion, with no planning policy, and have put all Oxford's industrial and economic eggs in one basket. Insists that factories should be prevented from increasing in Oxford, and that no large new industries should be admitted. Thinks science area is badly planned, and that the grouping of buildings could be more exciting.

WHAT THEY THINK ABOUT ...

... The Girls' High School, Marston Ferry Road *



"Schools like this may let in a lot of light, but so does a greenhouse."

. . Woolworth's, Corn Market †.



"Woolworth's is a very fine building by a very eminent London architect."

"I don't know who the architect is, but I doubt if the exterior is very good: it is a planning disaster."

" I quite like it."

"Woolworth's is very horrid: but the planning committee do not turn down any facade just because it is horrid. They are reticent about taking a stand on any building which is likely to result in an appeal."

"I have nothing against this type of building, but it would be better to have it in a suburb."

"It is as good outside as you could get for such a mammoth building."

" It is certainly an expensive-looking building."

"It is not bad: a near miss: a bit hefty."

"It would look better somewhere else-in Cowley, perhaps."

"I don't mind it as a building, but I don't favour the type of trading to be done there."

* Designed by Ramsey, Murray, White and Ward.

† Facade designed by Sir William Holford.



MRS. CAROLINE RUBY GOULTON-CONSTABLE was born in Leicestershire, but has lived in Oxford longer than 'anywhere else. Joined the city council in 1946 and is now an alderman. Tried to get on to the planning committee for six years before she succeeded ("they are awfully exclusive"). Has now been on it three years. Very interested in architecture and archæology. Wanted to be an archæologist. Lived in South Africa for three years; also visited Egypt, Palestine and many parts of Europe. She once favoured an inner relief road passing the barges, but has now voted in favour of the Meadow road (in view of Sandys' proposal) but would not like to see Magdalen Bridge closed. Her views about St. Ebbe's are blunt: while she would most certainly dislike



the middle of Oxford looking like the city of London, she realises that there will be an obligation to build upwards because of land values. Thinks the city housing estates will be very attractive when they have settled down. Is very much against a proposal by the city architect for an II-storey block of flats ("rival to spires"). The geography of Oxford, she says, is determined by the waterways. Industry has become so top heavy that it is a danger to itself. If the motor works expanded and a slump came it would be disastrous. When asked about the new shops in the city centre, she said: "The colleges sell land when it suits them; if it is anything for their profit they do not consider the beauties of Oxford."

MICHAEL RICHARD DANIELL FOOT (below left), born in London 1919, lived in Oxford since 1938. Has been a teaching don for 10 years at Keeble and Trinity. Does not represent the University on Council but stands for abour. Has been on Planning Committee for one year. Feels himself ar Tusiastic and ill-informed amateur. Considers new direction signs, with sans serif lettering on a sign four times the size of a blackboard, absolutely hideous. Thinks Oxford has been very unlucky with architecture in science area. Would prefer to see inner relief road performing a broad circle through Jericho and east Oxford; " for it to go anywhere within a furlong of the Broad Walk would be a disaster." Says that as there has been no traffic census since 1949, the objections against a relief road farther away from the centre are not valid. Describes Nuffield College as anachronistic. "It is obviously meant to be nice and homey but I would like to see something like the Swiss Pavilion in Paris." Would like to see the removal of all neon signs in the High. Regrets that all the lovely buildings in Oxford are seen against a plinth of cars. "A car park in Gloucester Green would be ideal but people do not want to use their legs." It would be impossible, he believes, to refuse to include offices and shops as part of the redevelopment of St. Ebbe's, but it would be short-sighted to put big stores on any relief road driven through the area. He regrets the growing tendency for the strip of land bordering the canal to be industrial, and would like to see the river front opened up.



JOHN NORMAN LEONARD BAKER (above), Bursar of Jesus College, has lived in Oxford since 1923. Has been on the Planning Committee since 1946. Does not want to see buildings which are too high in St. Ebbe's and would like streets with vistas. Thinks Cowley shopping centre (illustrated on page 62) has great possibilities.

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We have shown you something of historical Oxford and of modern Oxford, and of the democratic set-up which is guarding every conceivable interest and prejudice in the city. It is a city where bold ideas are tempered with sober caution, and where two main problems (how to build and how to deal with traffic) are given so much attention by so many people that whatever solutions

are reached or discarded, at least everyone will have had a chance of "getting into the act." To conclude our survey of present conditions in Oxford, we asked a correspondent to plunge into the conference city's sea of controversy and procrastination and to emerge with some *facts*. He returned, looking very much like a man who has just come up for the third time, with these notes.

OXFORD'S FUTURE

A summing-up

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Are you, like most people, tired of the continuous wrangling and subsequent publicity over the almost interminable proposals for the city of Oxford? One thing you should know is that the authority responsible for the planning of the city, which includes Cowley, Headington and other suburbs, is the city council of Oxford-subject only to the over-riding control of the Minister of Housing and Local Government. Many people who air their views on the replanning of the city have no idea of this fact. And while their interest in the place may arise from a real love of it, and from a recognition of its unique character, they would do well-in the council's opinion-to get to know the underlying causes of Oxford's problems. Before you start to express views about the future of the centre of Oxford, you should cross Magdalen Bridge and find out what has happened, and is happening, in the other Oxford in the eastern part of the city. More of that later.

The City's problems

Oxford's problems arise from three main causes. Firstly, its position in the road system of the southern half of the country. (It lies athwart roads leading from London to the west, and roads leading from Southampton and Portsmouth in the south to the industrial midlands.) Secondly, the restrictions placed on development by the rivers and floodlands surrounding the old city. Thirdly—and this is most important—the unregulated growth of population that took place between the wars, following the development of the motor industry at Cowley.

These are the causes of the ruination of a fine piece of townscape—ruination by traffic, miscellaneous street furniture and much other unseemly development. It is tragic that the High Street still remains a main traffic road and the only road linking the population on the

east with the main shopping and amusement centre and railway station to the west of the ancient city.

The relief roads

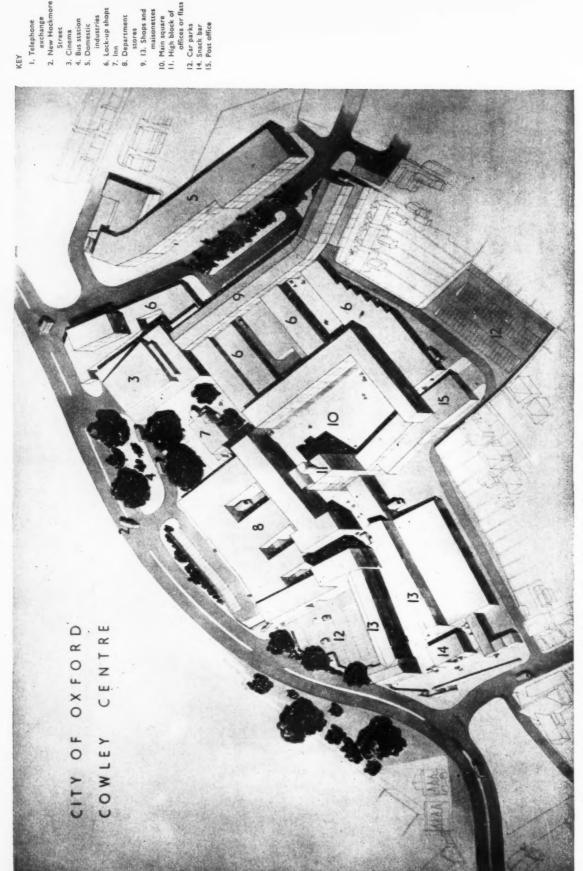
In submitting its Development Plan to the Minister in March, 1953, the city council stressed the necessity for completing the outer ring roads. Work on these has recently commenced. But what about relief roads in the centre of the city? It was stated in the Development Plan that although the construction of one or more inner relief roads might be found necessary in the future, the council did not think there was a clear case for any such roads to be included in the town map at that stage. There is little doubt that this evasion was adopted because it was impossible to get anywhere near agreement on any one set of roads.

A multi-purpose city

There were other matters incorporated into the Development Plan, and subsequently approved by the Minister, which are of considerable importance in the planning of Oxford. One of them was the statement that the Development Plan was designed to preserve the existing character of a university city and at the same time to ensure that the city continued to fulfil its other main functions as a regional centre, a county and market town, an industrial city and a tourist centre. A difficult proposal to fulfil—when you consider the geographical features of the city.

Population control, green belt and overspill

Another important part of the Development Plan was the agreed policy to resist any sort of development which would lead to further increases in the population. This was clearly a most important step to take and the city council have, in fact, agreed to limit employment figures for the two main industries con-



The proposed shopping precinct for the Cowley centre. The road at the top is the Between Towns Road, the one on the left is the Church Cowley Road, the one at the bottom is Crowell Road (from Littlemore) and the one on the right is Barns Road Extension (from the Cowley Airfield Estates).

cerned with the motor industry. But, of course, although the city might restrict the population within its boundaries, there is a danger of this move being nullified by over-development in the two adjoining counties, so the city council has sought the co-operation of the adjoining planning authorities in its attempt to restrict population size. Recently a Green Belt has been established. This has been brought right into the city, almost touching Magdalen Bridge on both its northern and southern sides. These two steps ought to go a long way to prevent things getting worse, but even with these restrictions Oxford has a substantial overspill problem. This was the subject of a dispute between the city council and the Oxfordshire county council, and finally the City was allowed an overspill of 5,000 to the south-east-beyond Morris Motors and the Pressed Steel works. All major housing development is to take place on the south-east and east of the city. And land has been set aside for the relocation of industry-at present badly-sited in the central area-to the south-east,

The Cowley Centre

A very important proposal, which is part of the decentralization policy, is the provision of a major shopping and public buildings centre in Cowley itself. Many people believe that when the Cowley Centre is built, there will be less congestion in the central area. At the very least, it will provide facilities that the people of Cowley ought to have. A compulsory purchase order has been made for the purchase of the land, and the development, which is illustrated opposite, will provide in Cowley a contemporary precinctual scheme which may brighten the present depressing character of most of the Cowley area.

Less gas, more river

Another proposal in the Development Plan was the removal of the gas works from its present position south-west of Carfax. The production of gas on the north bank of the river has now ceased, the works there are now dismantled, and it is hoped that the remainder of the gas works will be moved before long. It provides enormous opportunities for opening up the river frontage, in conjunction with the redevelopment of St. Ebbe's area, which occupies roughly the southwest quadrant of the City, and will restore the unequalled view of the City from the south-west.

The Meadow skirted

It is unlikely that anyone who has not studied the matter very carefully can be quite sure what has happened about that controversial proposal to relieve the High Street of its heavy load of traffic. So here is a re-cap. When Duncan Sandys, then Minister of Housing and Local Government, approved the Development Plan in August, 1955, he said that the Plan included many proposals which he welcomed, including the Cowley Centre, bypasses and such like. But this was not sufficient, he said, to safeguard the old city from the incessant stream of traffic. He reminded the council that they had agreed to submit proposals for a new road to deal with this problem.

They speedily assured him that this was their intention. In December, 1955, after exhaustive examination, the Council produced proposals for a road on the south of the river known as Eastwyke Farm Road and another on the north of High Street, leaving the London Road at the foot of Headington Hill and emerging in St. Giles'. These two roads were specifically linked in the city council's submission, and it was clearly stated that they should be approved together or rejected together. The reason for this was that the city council thought that there might be a chance that those who did not believe in real inner relief roads might succeed in getting the Eastwyke Farm Road through and leaving out the more important northern road. These two roads avoided touching in any form the two coveted open spaces of Christ Church Meadow on the south and the University Parks on the north. It was popularly rumoured that the Minister had given some indication to the city council that if these two roads were submitted they would be approved, but this unfortunate suggestion was speedily removed when the Minister rejected the proposals.

The Meadow divided

Whilst many people who firmly believe that Oxford's problem will be solved by the bypasses, Cowley Centre and such like without the necessity for building any additional roads near the centre, were pleased at the rejection of the northern road by the Minister, they and many others were appalled by the rest of his letter. This indicated that the Government, having considered the matter, were of the opinion that the real answer lay in the closure of Magdalen Bridge, and he suggested that the city council should put forward proposals for a road directly through Christ Church Meadow running along the north side, just south of the Broad Walk, crossing St. Aldate's and curving through the area of St. Ebbe's (planned for redevelopment), entering New Inn Hall Street and continuing north to a well-designed junction with St. Giles'. In making these suggestions he went on to say that he fully realized the necessity for constructing a road through Christ Church Meadow would be regretted, but that nevertheless, he was convinced that the loss of quiet at the northern end of the Meadow would be greatly outweighed by the peace and dignity in the heart of the University. This clearly envisaged something on the lines of the proposals which had been made by Dr. Thomas Sharp.

The result of the letter was devastating. Many were convinced that this was the right thing to do, and that it was a pleasant change for a Minister to take a positive and active part in this matter. Others were vehemently opposed to the suggestion and particularly the procedure associated with it. Clearly, it was not a direction to the city council, which the Minister has, in any event, the power to make. It was, however, a pretty strong hint. In the turmoil that ensued Christ Church issued a writ against the Minister which was subsequently withdrawn when a debate took place in the House of Lords on the whole problem. At the debate in the House of Lords, assurances were given that when the city council submitted proposals the

public inquiry would take an unusual course. An independent inspector would be appointed, not from one of the Ministries, and his report would be published. Further, his report would be debated in the House and, in addition, the inquiry would range over all aspects of the Oxford planning problem, including the Cowley Centre.

The Meadow spared?

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Subsequently, the Minister, Duncan Sandys, was transferred to the Ministry of Defence and many people felt that this fact, together with the prospect of a House of Lords debate, made it much less likely that there would be a road across the Meadow. And when the Plan was presented to the city council, the proposals for a road, which almost followed Dr. Sharp's line across the Meadow (though proceeding somewhat differently elsewhere) was rejected. The present position is by no means clear. It is probable that another traffic survey will be conducted, but what happens next, no-one can guess.

Townscape spoiled

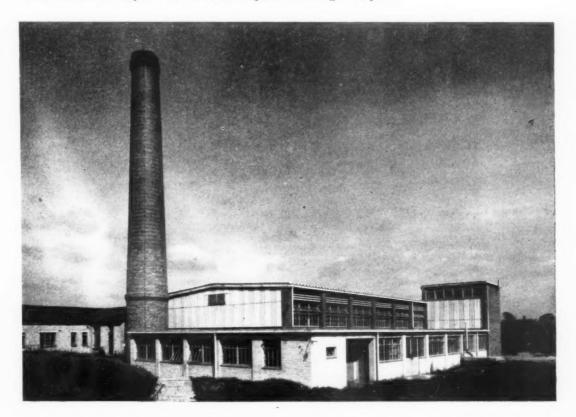
So today the ancient city of Oxford, with its remarkable collection of buildings, is plagued by an everincreasing mass of stationary and moving vehicles. It is often impossible to view the unique street scenes and in the near future there will probably be an everincreasing number of traffic direction signs, zebra crossings, 'bus stops and shelters to further detract

from one of the best townscapes in Europe. The city grows in congestion and new buildings are going up fast. Unless the building happens to lie in a redevelopment area or on the route of a possible new road (of which there are many) it gets planning permission, if it is consistent with the approved Development Plan. The planning committee has not rejected any building on elevational grounds since the war, although "persuasion" has sometimes been brought to bear on architects to alter their designs. Many "contemporary" designs have been approved, as have many "keepingin-keeping" designs. It is interesting that the University and the colleges have recently swung in their selection of architects from one extreme to the other. Traditional architects appear now to be in the minority and the advanced modern school have many developments under way in the city.

Nuffield says "No architects"

The main local industries, incidentally, do not employ architects at all. And Lord Nuffield, whose name—in connection with the well-known Nuffield Foundation Division for Architectural Studies—is coupled with good architecture, has recently made an extraordinary bequest. He has given money for the extension of Wingfield Hospital, on condition that no architect is used for this work. Surprising? Well, nothing is surprising in this city which many people love too well. For those who not only love Oxford, but also have an enlightened attitude towards design, the future is full of uncertainty.

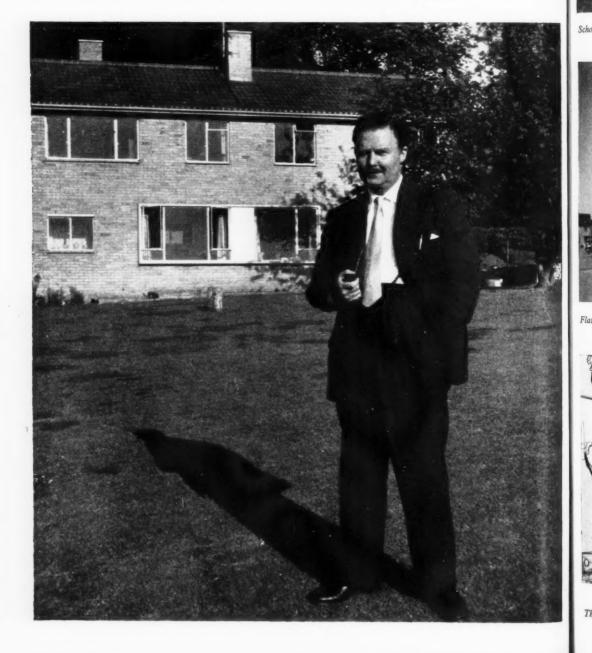
This extension to Wingfield Hospital was designed by R. Fielding Dodd and Stevens. But, as the author of this article points out, further extensions to the hospital will not be architect-designed—at Lord Nuffield's request.



A Postscript from the Oxford Battlefield

In the midst of all the pressure-group tactics from woolly-minded preservationists, thoughtful but unseeing dons, hysterical commercial interests and stuffy die-hards, one man retains a sane, level-headed approach to the city's problems. He is E. G. Chandler, the city architect and planning officer. Mr. Chandler, who is 43, was appointed to post of city architect, when the Architect's Department was first set up in 1947. In 1948, the responsibility for planning was transferred to him. He believes that Oxford possesses the finest townscape in Britain, if not in Europe. He regards the continued use of the High and of the other streets of the old city for through traffic as a tragedy. The solution of Oxford's problems can only be brought about, he says, by a number of urgent and necessary developments, such as the provision of the outer

by-passes, the Cowley Centre, decentralization and limiting of population. He has dealt with all these problems and he believes that the approved solutions will bring some relief in the forseeable future. He does not, however, regard these proposals as being sufficient, and believes that the old city must be treated as a precinct in which only traffic concerned with that area will circulate. Very reluctantly, he is prepared to see much-loved open space in Oxford used for fully landscaped parkways, provided they are part of the old city precinct plan and produce a certain and lasting return to quiet conditions in the old city. He welcomes the employment of architects practising in contemporary idiom in Oxford and believes that contemporary architecture is not out of place, provided bulk silhouette and material are carefully considered.



The work of the City Architect's Department



School at North Way.

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Fire station at Cowley.



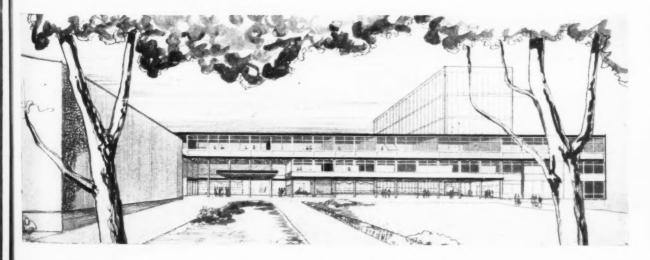
Old people's home.



Flats at Wood Farm.



Flats at Minchery Farm.



The proposed technical college at Headington. The first part of the scheme is shown on page 51.

If a visit to Oxford and a taste of its planning frustrations does nothing to your ulcer, you will be looking for some good food. And without our help you would certainly look for a long time. So here is a gastronome's guide, written by John Ch. Simopoulos.

Food Guide

There is little to choose between Oxford and a Certain Other Place for the predominantly poor quality of such food and drink as are available to those who do not gormandize at High Table. But there is just one place which could hold its own with a high-category London restaurant. And that is *Elizabeth's*, which you will find in St. Aldate's just opposite the threatened Christ Church Memorial Gardens. Its standards are high. They prepare your food, of which there is a wide choice and which is all fresh, carefully and indi-

vidually; drinks are sent out for on request, which may be made in advance, and there is a Club licence (2s, 6d, a year) giving wider—in fact quite interesting—choice. Not a place for the gobbler; but the gourmet will enjoy it.

On a different level there are also two satisfactory, exotic eating-houses in Oxford which can be safely recommended: the Golden Dragon, a Chinese place at the corner of Keble and Banbury Roads, for those whose taste runs to crispy noodles, beansprouts and such; and the Bombay, in Walton Street, for curries. In both of these the service is agreeable and the food more than adequate of its type.

Within a radius of a dozen miles from Oxford there are two places worth attention. One is Studley Priory, a lovely 16th-century house with extensive grounds and woods. It is friendly and cheerful and has a most attractive bar. You can also play tennis or work off your good lunch at clock golf. Most of the vegetables come from their own garden. (It is also an excellent place to have tea. No dinner on Sunday evening.) Lastly, at Middleton Stoney, there is the Jersey Arms, an inn which would be remarkable anywhere in England for the fine quality of its dishes—pheasant and duckling to be singled out for special praise, and better scampi than you'll get at the best restaurant you can think of. Not open on Sunday, or for lunch.

And so we say farewell . .



This week's technical article deals with an aspect of the RIBA Conference heme "Finance, design and durability." One of the co-authors, John Fastwick-Field, is reading a paper at the Conference—on "Finishes."

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9 DESIGN: GENERAL the Royal Festival Hall after six years

One of the facts which have come out of the RIBA's Oxford Conference papers is that although the evidence of how materials behave in buildings is literally before our eyes, the profession has taken no steps to record them in a systematic and usable manner. We congratulate the LCC, the General Manager of the Royal Festival Hall, T. E. Bean, and the LCC's chief architect, Hubert Bennett, for breaking with tradition. They have permitted—and, indeed helped—the authors of this article, John Stillman and John Eastwick-Field, to report in detail on the way in which the Royal Festival Hall

Everybody knows that schemes are afoot for enlarging parts of the Royal Festival Hall and it is opportune to see how the building has withstood the enormous use to which it has been put during the six years of its life. It rarely happens that any comprehensive review is published of buildings after they have been in use, to see to what extent the design has met the practical requirements. Although this is something which we think ought to be done more often to give architects facts as a basis for their work, there are the difficulties that owners, architects and manufacturers are naturally reluctant to expose any shortcomings there may be in their buildings; yet these shortcomings as well as the successes are essential data for architects. The LCC has taken a lead in putting at our disposal facts and figures about the Festival Hall and allowing the photographs in this article to be published. The Festival Hall was a natural first choice, being a building that is well known and an outstanding expression of modern design. Its æsthetic qualities have been debated, but these are not our concern in this article: what we are concerned with is the behaviour of the materials and techniques used in it, many of which are common to practice generally.

The Hall has been an indisputable success, and the General Manager's main complaint is that its full programme leaves insufficient time to clean it—at weekends there are sometimes as many as seven functions, and 1½ million people attend the Hall annually—one in the eye for its critics!





1, one of the foyers overlooking the river.

has stood up to six years' hard wear. As readers may remember, the same authors reported on the building when it was going up.*

The General Manager is convinced that its popularity is greatly enhanced by its architectural appeal, which justifies a higher expenditure on maintenance than would perhaps be incurred in a duller and less imaginative building. This is not to suggest that there have been any major unforeseen expenses; indeed, the building has worn remarkably well, as anybody who goes there can see. Nevertheless, the criticisms in this article are, we think, of importance since they are concerned with characteristic details of much modern work; and the merit of this work depends to a large extent on the success of its details.

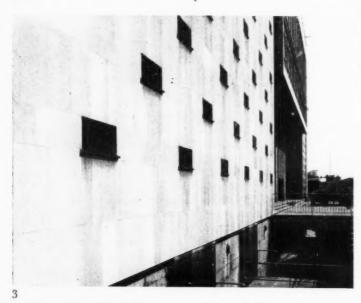
Readers may find it of interest to know that the total annual expenditure on running and maintaining the Festival Hall is approximately £78,000. Included in this figure is: £18,000 for attendance and cleaning (including £1,000 for window cleaning and £1,000 for cleaning aluminium window frames); £8,000 for repairs and renewals, including redecoration (anticipated average annual expense); £21,600 for Engineering maintenance, including salaries and wages of engineering and maintenance staff; £29,400 for running costs, about half for lighting and half for heating and ventilating. All the items of expenditure are governed by decisions taken during the design of the building, but we have chosen to discuss here only cleaning and repairs and renewals.

Our comments are by no means exhaustive and are based on our own observations of things which occurred to us as being of interest, together with information given to us by the LCC.

First of all, let it be said again that the inside of the









Hall shows remarkably little evidence of the enormous wear to which it is subjected, and for the most part the choice of materials and details of design has proved itself. I shows one of the foyers overlooking the river: the photograph was taken recently and shows how well its good appearance has been maintained. Even the planting which so often disappears rapidly after an initial showing is still there in profusion.

Nevertheless, in a building of this size, put up in a short time and incorporating many new ideas in its planning, and unfamiliar materials in its design, it is inevitable that experience should bring to light a few misjudgments: but the things that have gone wrong are often as much a disturbing commentary on the behaviour of the user as on the behaviour of the materials.

Although the points in question do not always show very clearly in black and white photographs we have included as many as possible and have written round them. To make it easier to remember them when designing a new building, we have divided the photographs into six groups: and under each we discuss what appear to us to be both good and bad points. The groups are: (1) general design, (2) new and unfamiliar materials, (3) permanent ("maintenance free") materials, (4) special details of design, (5) legitimate maintenance, (6) user's behaviour.

General design

2 shows a pile of chairs stacked near a column, and it can be seen that this column has suffered a good deal of knocking about. Square edged plaster corners inevitably get chipped, even with hard plaster, when chairs or tables have to be moved around them, and although the damage is not serious it is difficult to repair satisfactorily, and when not attended to looks most untidy.

Two examples of staining are illustrated in 3 and 4. 3 shows the natural weathering of Portland Stone in London, where the protected areas become dirtier than those washed by the rain. The characteristic patterning of heavily moulded buildings like Somerset House, just across the river, is looked upon as a delight, but the appearance of buildings such as the unmoulded London University Senate House (which became uniformly dirty and is now being cleaned) suggests that the use of Portland Stone does not ensure æsthetically satisfactory weathering. It remains to be seen whether the streaky patterning under the small windows in the staircase towers of the Royal Festival Hall will be acceptable or whether washing will become part of regular maintenance. Incidentally, the strong pattern of joints which was so much a feature of the drawings of these elevations (as of so many modern drawings) does not show itself to anything like the same degree in the actual building.

Staining of a different kind is shown in 4. It is one of those accidents of design, and logically any water pouring down the face of the building ought to be

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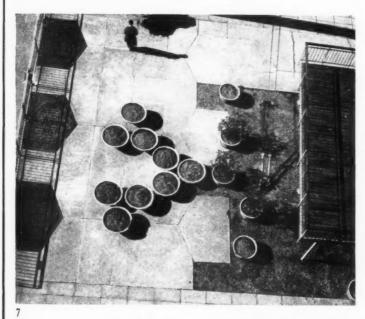
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thrown clear by the sill. However, under each of the broad aluminium mullions a similar stain appears. As the LCC propose to rebuild this elevation to a new design to accommodate an enlarged restaurant the interest in these stains is perhaps academic, and frankly we do not know why they occur, although they may well be due to the run off from the aluminium mullions or from the materials used in washing these mullions. Floors are always a difficulty. Much of the Royal Festival Hall is carpeted and we have some comments to make on this later on, but two particular points can be made about some of the other floorings. The first is that where stone is used adjacent to polished wood floors-and any polished floor for that matter-the dust from the stone is unavoidably walked on to the wood-5 was taken at the top of the entrance staircase. The management say that in wet weather a lot of mud is brought into the Hall because the usual coir or rubber link mats are not provided. At present it is found very difficult to keep the wood floors clean, and the LCC chemists are investigating the possibility of finding a seal to put on the stone. Apart from stopping dusting this would help to avoid food and drink stains and facilitate the removal of chewing gum which at present causes difficulties! The wood floors are treated with a seal and the only disadvantage attached to it is the time it takes to apply and to dry. The second point is that the carefully worked out patterning in the stone foyer floor does not register even as clearly as is suggested by the accompanying photograph 6. From the point of view of maintenance the two kinds of Derbydene which are used to make up the pattern are wearing at a different rate and one or two of the stones have already had to be replaced. Outside pavings are just as difficult as inside floors. Plain concrete and asphalt are notoriously dreary and even when a proportion of more expensive materials such as cobbles are introduced it is still difficult to make an attractive scheme that lasts well. 7 shows that paving slabs and cobbles are satisfactory but that large panels of in situ concrete nearly always crack, which gives an unkempt appearance and is difficult to make good.

Light fittings are often replaced to conform to current fashions and this may be considered a normal procedure, but sometimes a great effort is made by architects to design special fittings—just as they design special furniture—as an integral part of the design, and then it is disappointing if in the course of a very short time these fittings have to be replaced for one reason or another by stock items. Our illustrations show (8) the original lights on the restaurant tables in the bay windows and (9) the fittings which have recently replaced them.

The LCC aims to redecorate the public spaces in the building once every 5 years, but when it comes to the auditorium it is expected that the good effect of the air conditioning in reducing dirt and dust will enable this period to be extended to 10 years. We have heard of other instances where it has been thought worthwhile to introduce air conditioning for the reason







II





that substantial savings can be made in cleaning and redecoration. 10 shows the good appearance of the auditorium, and if some of the surfaces such as the brass rails are not as bright as they once were, our feeling is that this mellows the original brittleness.

New and unfamiliar materials

Much of the excitement of the Royal Festival Hall after the war was due to the rich variety of materials used in it. Some of these were materials usually associated with traditional work, such as marble, faience, scagliola, hardwood panelling, stone, fibrous plaster, polished bronze and brass and so on: others were relatively new—aluminium in windows, hidulignum stair treads, plastic cloth, foamed rubber, acoustic tiles and "knucklebone" panelling.

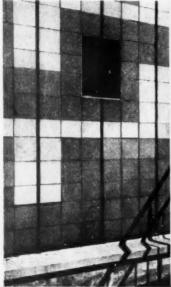
The successful plastic casing to the handrail standards, and the large panels of unframed armour-plate glass are shown in 11. 12 shows the perforated plastic sheets which were self coloured and were intended to be permanent, though, as can be seen, their colouring has remained anything but permanent and will obviously require attention. 13 shows the temporary end to the Hall which is clad with asbestos cement sheets. In many ways asbestos cement is an excellent material and we have been impressed by its successful appearance in farm buildings. Every now and again it is tried as a "permanent" facing for modern buildings and examples are profusely illustrated in those most excellently produced trade publications AC 1-6, etc. (International Asbestos Cement Review) which arrive mysteriously in architects' offices from Zürich. In one example, reference is made to the apparently good effect of the application of silicones (School in Seattle, by J. Lister Holmes) and it would seem that unless some such treatment really does prove successful asbestos cement will always turn a yellowy grey and look drab in industrial atmospheres.

Permanent (maintenance free) materials

With the current interest in designing to save maintenance, architects are naturally attracted by materials which seem not to require it. There are five obvious examples in the Festival Hall, of which only one or two appear to us to have wholly lived up to expectations.

The theory behind aluminium windows 14, which are always advertised as being maintenance free, is that although the metal corrodes, the oxides in the process are said to form a protection so that progressive corrosion does not take place as with ferrous metals. The different alloys of aluminium vary in the degree of corrosion, the best being "commercially pure" aluminium which is too soft for use in manufacturing windows.

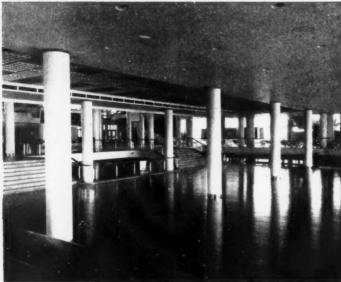
The difficulty is that the layer of oxidization, which is a white powder, quickly collects dirt and cannot then be said to have a pleasant appearance. The architect of the Royal Festival Hall admittedly considered that at a later date the windows might have to be painted, especially since they are in a more than



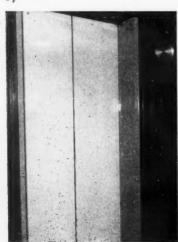


15

16



17





usually corrosive atmosphere, but so far they have not been painted, and although the windows were specially lacquered to maintain them in a bright condition they have had to be cleaned regularly at an annual cost not very different from the cost of cleaning the glazing itself. By contrast the lacquered aluminium inside has remained in a good condition without attention

The "one fire" ceramic marble glazed tiles (15) were specially made for the Festival Hall. These tiles are similar to faience but whereas the latter are fired twice in manufacture (the body and the glaze separately) the tiles in question are—as the name implies—fired only once. They are supposed to be more frost resistant and so far they have been satisfactory in this respect and have moreover shown no lack of adhesion. By contrast the unglazed vitreous tiles used on the plinth (16) have come away, and it is interesting that reference is made in BRS Digest No. 99 to the need for a pronounced mechanical key for vitreous tiles, which lack the necessary suction for good adherence on vertical surfaces.

It was obvious that columns in the middle of circulation spaces would get dirty, but the architects hoped that by using Scagliola, which is a high grade plaster finish containing a large proportion of marble dust, polished on completion to imitate marble, it would be possible to keep them clean without redecoration. In practice it has been found desirable to paint them and this had just been done with oil paint when the photograph (17) was taken. The silver bronze skirtings had also been repolished, and the ceilings had been redecorated, in part with textured paint, and in part with soft distemper.

One of the disappointments we suffer from time to time is the realization that stove enamelled metal work. such as the lift doors and frames shown in 18, is not proof against mechanical damage, however long it may otherwise last. Where it does get damaged it is more difficult to remedy than ordinary painted metal. In fact, the whole of the frame and doors ought to be taken out and sent back for respraying and stoving, but this must obviously cause much inconvenience. The counter top in the main bar (19) is in a now familiar plastic veneer, showing some signs of wear but still in good condition considering the use it gets. The main point at which it has worn is the front edge, where the two veeners are mitred without any cover strip. As can be seen from the photograph, the leather front is still perfect.

Special details of design

One of the notable characteristics of the Royal Festival Hall is the liberal use of undivided plate glass screens. As the manager says, "it is surprising how people bumble about," even to the extent of trying to walk through the glass, in spite of the original acid etched designs which were intended to show the presence of the glass. 20 shows three of the additional precautions that have had to be taken: (1) the placing of flower boxes in strategic positions; (2) the use of loose









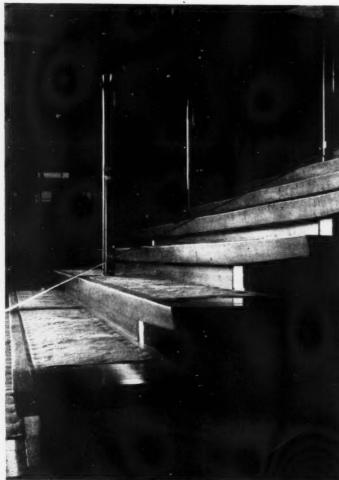
barriers; (3) the use of barriers fixed to the framing. Another desire nowadays is to dispense with skirtings. 21 shows the typical result of doing this when plaster meets a polished wood floor. On the other hand, 22 shows the juxtaposition of wallpaper and carpet. Where the vacuum cleaning apparatus is appropriately designed it is possible to clean up to the edge of the carpet without marking the wall.

The combined handle and plate on one of the entrance doors is illustrated in 23. A great deal of trouble was taken initially to choose a metal which could be spun, drawn, cast, and used in sheet form, and would not show too much variation in colour when polished. A special bronze using a percentage of manganese was finally chosen. The intention was that these plates should be kept brightly polished for æsthetic effect, but this was found too arduous a task and they have since been toned down and waxed: even so, they need daily attention to keep them free of finger marks and it still costs a considerable sum to keep them in good order. It may come as a surprise to realize that dull bronze (BMA finish), where it is not automatically polished by handling, requires a regular waxing to keep a good appearance.

Other maintenance problems associated with these doors are the constant adjustment required of the springs and the breaking of the door stops which were found to be too delicate for the heavy use they

One of the many successful items are the seats in the





auditorium (24). Apart from deliberate vandalism—the slashing of one or two of the white leather arms—the condition of the leather and the fawn uncut moquette and the aluminium strip is still excellent.



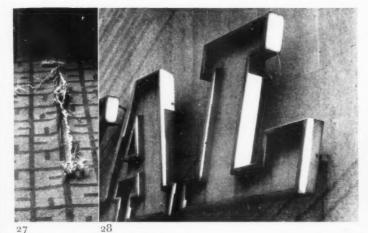
26. Legitimate maintenance

In every building there is an obligation to replace items subject to fair wear and tear, and to carry out redecoration. 25 shows the wear on the stair treads. Two things have happened. The wood has worn, and some bolts holding the treads to the concrete have come loose, 26, new front treads are now being fixed. Fitted carpets 27 are attractive: they are quiet, relatively easily cleaned, and hard wearing: but they have their problems. If the wear is not uniform it is difficult to patch them without it showing, even if supplies of the design are available. One suspects that carpet should last more than six years and we would be interested to have readers' views on this matter. We have noted that in Lyons' restaurants they appear to be a very successful form of flooring.

Three examples of external surfaces which require painting to keep them in good order are seen in 28, 29 and 30. Where paint is relied upon one must accept the fact that the appearance remains fresh for only a limited time after repainting. On the other hand, one can take steps to guard against premature failure. 28 shows that unless special precautions are taken to protect ferrous metals against rusting it is not enough to rely on paint. 29 and 30 show the difficulty of finding suitable paints for concrete and rendered surfaces, and illustrates how shabby these materials look when the paint fails. The beams and columns might ultimately have looked better left unpainted, or alternatively, if they had been painted far more frequently. Since the photographs were taken most of the outside paint work on the Hall has been redone.

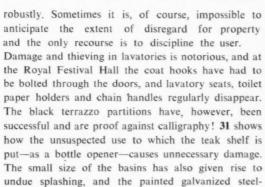
Users' behaviour

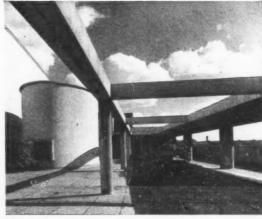
However much architects may hope that the users of public buildings and public spaces will behave in a seemly manner—architects are born optimists—they have to guard against wishful thinking, and design













faced ply panel at the back of the basins is not as satisfactory in appearance as the usual glazed tiles. A restaurant table which has suffered badly from cigarette burns is seen in 32. Some of these tables were originally wax polished and some varnished, but neither treatment has withstood the use they get. This is surely an instance where one of the phenolic resin finishes, which are known to withstand alcohol and heat, might be tried. 33 shows unmistakably that boys will be boys and paint cannot be expected to resist them indefinitely!



32

33

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CRITICISM

What readers think

The following letters refer to the Golden Lane housing scheme in the City of London, criticised by 7. M. Richards on June 20. architects, Chamberlin, Powell and Bon, replied on 7une 27.

I have read J. M. Richards's criticism, and the architects' reply to the points raised, and have also visited the site. Let me say at once that this scheme is a brilliant con ception, well detailed with a high standard of finish which, with schemes such as Powell and Moya's Churchill Gardens, finds itself in the top flight of post-war housing schemes

The site has, in my opinion, been developed to its maximum advantage, and great care has been taken with the arrangement of the blocks. I am, however, inclined to agree with Mr. Richards that three, rather than four, courtyards could have been provided, which would make for a less restless treatment, but it is, I think, only fair to reserve judgment until the whole is complete.

The use of plain concrete for the balcony fronts is unfortunate. In our experience it never does weather uniformly and is not cheap in the long run, if one has to con-sider the application of finishes such as bush-hammering or painting. I do not agree that the framework of the staircases crude, either in detail or execution, but agree wholeheartedly with Mr. Richards's remarks concerning its shabbiness.

Curtains in any block are important, and

although the architects seem to realized this and have advised their clients to insist on uniform linings and net curtains, it does not appear to have worked out very well in practice. In our experience, it is almost impossible to enforce unless the client is willing to meet the extra over cost of such refinements.

So little thought is given to the placing of excrescences caused by lift motor rooms, tanks, etc., on the roofs of so many important buildings, that it is refreshing to see the bold attempt that has been made to exploit them sculpturally rather than to conceal them, but it does seem that the canopy could have been worked out more carefully from a sculptural viewpoint. Nevertheless, the shape is, as the architects stated, a welcome relief by the time the eye has travelled up the plain surface of the high block.

No mention of cost has been made either by the architects or by the critic, and it would be very interesting to see the analysis.

RICHARD DAVIES (F.R.I.B.A.).

J. M. Richards seems to me to have been over-cautious both in his praise and in his criticism. This is an extremely bold pioneer scheme, carried through with courage and persistence, and it deserves our gratitude as such. In its site planning and floor-scape it is the first example, actually built, high-density central area scheme following those principles of precinctual planning, combined with unabashed acceptance of metropolitan character, that one has come to associate with the leadership of the Architectural Review. One can make minor criticisms of detail—such as to question the decorative use of grass at these densities-but there can surely be no denying that this is an eminently successful environment for living. To my mind it is far and away the best scheme at 200 persons per acre in London and the only one at this density in which I should happily be pre-

pared to live.

Incidentally the boldly detailed railings which J. M. Richards questions look absorbidge to the control of the lutely right to me, and have just that robustly monumental character which lan Nairn, in Counter-Attack, suggested as

suitable to a metropolitan area.

The scheme also contains the first example, in London, actually built, of a very tall block of flats, and the architects have had to face up to the new architectural and social problems this involves. The key architectural problem is that of silhouette. Buildings, or groups of buildings, of this height should surely be unique in the same way that Wren's city spires were unique.

The Golden Lane housing scheme, with the six-storey maisonette block in the foreground and the sixteen-storey flats behind.





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Granted the assumption that elaboration of silhouette in a tall building containing flats can only be obtained in the top-hamper rather than in the repetitive package below (an assumption we are beginning to take too much for granted) the architects have realized this need for uniqueness in a roof treatment of the utmost spirit and originality that does not, however, look freakish—to this observer at least. J. M. Richards is surely right to question the flush treatment of the tall block's principal façades: when living at great heights most people find it unpleasant to be able to look out of their windows sheer down the face of the building. Is it not correct—as both Le Corbusier and the LCC have done—to plan continuous balconies at this height to interpose a barrier, both psychologically and, in fact, protective, between the dwelling and the space beyond?

The only serious criticism that I should still like to make concerns the use of colour. This is really appalling, strident colours being applied to every surface in sight without discrimination. The purplish brick used in the maisonette blocks does not, surely, call for cherry red or bright blues (both Oxford and Cambridge being liberally represented) in close relationship to it, and the wicked custardy yellow used on the refuse chutes in the tall block has to be seen to be believed. It is most gratifying, however that the block most successful in its use of colour and materials is the one most recently designed in detail—the four-storey block facing on to Golden Lane itself. The use of materials here is quite brilliant and will obviously be much copied. The use of black-painted grotto-textured concrete (bush-hammered seems far too concrete (bush-hammered seems far too mild a description for this deeply pitted brilliant invention, both as surface) is a used for panel walls in this block and as used for the structural elements at the base of the tower. This four-storey block achieves a very real elegance arising, as the architects said last week, out of the "contrast between the rough and the smooth, the bright and the dull." (It is worth turning back to the penultimate paragraph of the architects' reply, for it contains points of worth pondering seriimportance, ously.) This block should be a locus classicus for proving two points: firstly, that elegance is not achieved by making every-thing thin, but by a controlled play of textures and forms in which the full gamut from roughest to smoothest, from most massive to most refined is at the designer's command; secondly, that it is not necessary, in reaction to the over-refinement of so much recent English design, to fly to the fashionable pagan revivalism of the brutalists but that there is a sensible, original compromise to be achieved by hard thinking.

D. M. GREGORY JONES (A.R.I.B.A.).

Golden Lane has a density of 200 people to the acre. This points to the key question that must be asked about it: has it succeeded in making 200 people to the acre enjoyable, or even tolerable, to live in? I was disappointed that Mr. Richards, writing so soon after the RIBA symposium on family life in high density housing, did not treat the scheme from this standpoint, and only gave the information from which the density could be inferred in his final paragraph. He did, it is true, commend the design of the space about the buildings, but primarily on aesthetic grounds and without apparently considering the magnitude of the functional problems raised by 200 people living on every acre of it.

Before expressing any opinion on this point I wish to enter two cautions. The first is to say that, even if Golden Lane is completely successful as an experiment in high density living, it is expressly designed (at any rate in its first stage) for families with

few children or with no children at all. The 16-storey block contains only one-bedroom flats, and the overwhelming majority of the maisonettes already built are two-bedroom. This, in my opinion, is right, and I hope that this balance will not be greatly altered in the completion of the scheme. For Golden Lane, lying in the centre of a commercial area, far from parks or playing fields, is not suitable for large families. I hope that the high density boys (I am only a moderately high density girl) will not try to draw the conclusion from Golden Lane that 200 to the acre is therefore right for normal family living.

The second caution almost amounts to saying that I must suspend judgment. architects are not responsible for the choice of the site, and have shown great ingenuity exploiting it (and particularly its levels) to compensate for its natural deficiencies. So far, the Community Centre, communal laundries and drying rooms are the only community facilities provided. The success of Golden Lane will (from the point of view of the tenants, the only people who really matter) turn very largely on the provision of all the other facilities for different age groups which the architects are anxious to provide in the second stage. If the garages (the plan does not seem to show very many), a restaurant, a pub, a bowling green, playgrounds, a sunk pit games, a nursery room and two badminton courts are provided (and if the playgrounds are supervised), then Golden Lane may begin to take the place of some foreign models in lantern-slide lectures on highdensity housing in city centres.

The planning of the pedestrian precinct is first-rate, and I do not wish to repeat what Mr. Richards has said about it. Full use has been made of the additional space won on the ground by going high. It is not, however, entirely true to say that the scheme is inward looking. Those above six storeys in the tall block are looking outward. The immediate view is depressing in the extreme, but the middle and distant views contain unending interest, even if the Bankside power station is seen rearing up and belching its steam an inch from the dome of St. Paul's. On the whole, the view helps to make high life in Golden Lane acceptable.

The fact that even now, before any play ground has been provided, the children remain within the paved areas to play in-stead of going into the streets, shows how skilfully the available space has been used. It is essential, where there are no gardens, to provide usable, well orientated balconies, and this has been done for every flat and maisonette. It may seem like a glimpse of the obvious, but how good it is to see buildings going round corners and effectively enclosing the space between them, and to find tenants' stores neatly tucked away in basements instead of littering the ground. Ground floors of flats are noisy, and the sunken areas adjoining the maisonette blocks should go some way to reducing the noise level in their ground floors. But, unless there is a very high standard of maintenance, the open spaces can quickly be spoiled by litter and the deterioration of surfaces: some of the wall surfaces at ground floor level (e.g. painted concrete) cannot be cleansed of children's scribblings, the hammered concrete collects dirt and the ornamental water is already getting a sad accumulation of old newspapers, grass cuttings and stones. fountain would not only have looked well, but might have kept the water clean.

There are many minor points that could be made, either in criticism or in praise: I cannot refrain from saying that it is absurd to try and regulate the colours of tenants' curtains to fit into an architect's colour pattern. In my opinion it is unnecessary in this case, as the choice of a single colour for the wall panels provides a unity which a variety of curtains cannot destroy. But to go further into detail would only divert attention from what, to me, is the main

issue. Subject to the reservations made earlier, I think that the architects have made an outstanding contribution to the solution of high density housing, which we can all study with profit.

ANN M. MACEWEN (A.R.I.B.A., A.M.T.P.I.)

With regard to comment about curtains in the high block of the housing scheme in Golden Lane, I am prompted to make a suggestion I am trying out, which I hope will solve the curtain problem, without the occupiers realizing that any restraint has been put on them. Mount a curtain track on the ceiling, or on the back of the lintol to pass the jambs of the opening sufficiently for the curtain to be pulled back to uncover the whole of the window.

The logic of using the whole of the window for the purpose it is designed, the protection of the curtain from the sun and the decorative effect of the fabric against the wall will have their appeal. If modern elevations are designed to look well without curtains, then the desire of the gentler sex to show the flag, may find other forms of expression.

GERARD J. COLLINS (A.R.I.B.A.).

So Chamberlin, Powell and Bon would like to make all the tenants use the same curtains. What an intolerable impertinence! Do they appreciate that their building is a matrix for the homes of living individuals? If this is their approach to the designing of a block of flats. . . .!

W. W. J. TROLLOPE (L.R.I.B.A.).

DIABY

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The Case for a Theory of Modern Architecture. Talk by John Summerson. BBC Third Programme. 8 p.m. July 14

Visit to Southwark. TCPA Planning Forum outing. Meeting at Nancy's Steps, Southwark side of London Bridge. 6.15 p.m. JULY 15

Historic Churches Preservation Trust. Exhibition at Charing Cross Underground Station. July 15 TO AUGUST 5

Mr. Therm at Home. Gas Council exhibition at the Tea Centre, 22 Regent Street, S.W.1. 10.30 a.m. to 6.30 p.m.

JULY 15 TO OCTOBER 4

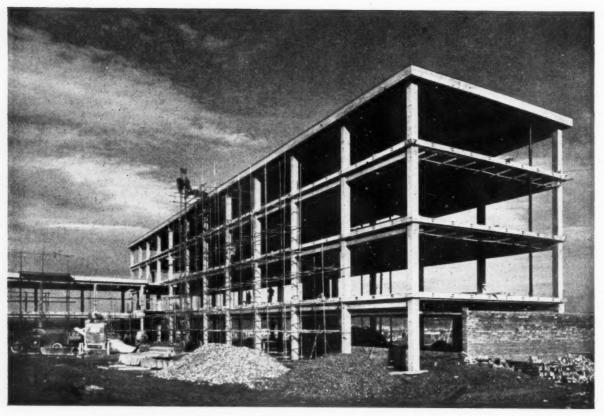
Thomas Telford Bicentenary Exhibition.
At the ICE, Great George Street, S.W.1.
10 a.m.—8 p.m. (including Saturdays and Sundays).

JULY 22 TO AUGUST 10

Planning Control. ICA Discussion: Lionel Brett, Peter Shepheard, Percy Johnson-Marshall, Ian Nairn and Peter Smithson. Chairman: J. M. Richards. At the ICA, 17 Dover Street, W.1. Members 1s. 6d., guests 3s. 8.15 p.m. JULY 23

Sculpture 1850 and 1950. Exhibition at Holland Park, W.8. 10 a.m. to dusk (including Sundays). Admission 1s. 6d.

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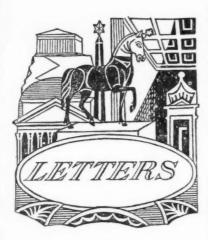
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Jennifer Hunter, Secretary, Planning

H. G. Edwards, A.R.I.C.S.

D. E. Hennessey, A.M.I.C.E., A.M.I.Struct.E., A.M.T.P.I.

Mrs. Heather B. M. Howes

Planning Forum

SIR,-With regard to the report of the Planning Forum visit to the City of London on June 17, while we are duly flattered that a representative of your paper attended, and that it was given space in your issue of June 27, this report, has in fact, caused fact, caused some grave anxiety on the part of the City Planning Officer, Mr. Anthony Mealand. He asks me, therefore, to write to you, correcting a false impression that this report

implies. He feels that three points need enlarging upon to put them in the right perspective, and I should be most grateful these points could be corrected in the forthcoming issue of your journal, thereby helping to prevent strained relations between

myself and the Planning Forum, the City Corporation, and THE ARCHITECTS' JOURNAL. The corrections that Mr. Mealand makes are: (1). In regard to costs of housing, he said that the larger type flats, including garages and rates might conceivably cost from £300 to £500 a year, but that no decision had been taken. (2). He did not say "this housing scheme is doubtful," but that the model we were looking at was "doubtful," and this would have to be revised—quite a different statement. (3). In regard to garages, he did not say that any site had been let, nor did he say they would cost 10s, a day His statement was to the effect that the cost of garaging might be as high as 10s. a day.

I am sorry to trouble you, but feel in fairness to Mr. Mealand, who was giving a completely informal, unprepared talk, not expecting any report to be made, other than a purely factual one on the meeting, these points should be made known.

JENNIFER HUNTER.

The editors write: We naturally regret it if any report of ours has caused friction. But our representative was invited to the TCPA Planning Forum (we presumed) for the purpose of reporting what was said, and adding any appropriate comments of his own. If Mr. Mealand was not informed that the press was invited, he certainly has a legitimate grievance, but not against us. Those who speak informally and without notes in the belief that they are not reported can, and do, frequently say things which they would not have said had they known they were being reported. This, and not any inaccuracy in our part, seems to have been the cause of the trouble: and we gladly publish Miss Hunter's letter to remove any misunderstanding about what Mr. Mealand intended to say.

Cost Control

Sir,—I find, on reading the report (June 13) of the discussion following Mr. Austin-Smith's lecture (Cost control in building), that I failed to make myself clear.

My first point followed from the remarks of some of the previous speakers. I was taking exception to what I thought was the implication that some of the architect's work (responsibility for design) should be passed on to the quantity surveyor. The second sentence in my speech should read: "The making of the cost plan, and then the designing to it can be more of a problem for the quantity surveyor than for the architect." This happens when the architect, instead of accepting the cost data (supplied by the quantity surveyor) as a challenge to his abilities as a designer-as described so well by Mr. Grenfell Baines in his lecturesimply allows the cost aspect to dominate the whole project, and permits (or thrusts on) the quantity surveyor a *major* part in design. There is a danger of this happening if too

much emphasis is placed on the cost aspect of buildings at a time when the architect is working under pressure (as, of course, he usually is).

I think it can be said that quantity surveyors have, of recent years, assumed more and more responsibility for the "business" side of building contracts. I feel sure, per-sonally, that this is highly desirable, since sonally, that this is nightly destrable, since it relieves the architect of some of his work at a time when that work is becoming daily more complicated. The process can, however, go too far. As Mr. West said at the symposium: "The architect is the natural leader of the team. For heaven's sake let him lead." In particular, I think the archi-tect should never allow any portion of the design of buildings to leave his control.

H. G. EDWARDS.

London.

Motorways Design

Sir.—As an engineer, I applaud your editorial of June 20 and the efforts of the architectural press generally in drawing much-needed attention to the ugliness associated with many of our roads.

The new Motorways involve not only re-The new Motorways involve not only re-habilitation in blighted areas through which the routes will pass, but more fundamentally the superimposition on the landscape of a new "flowing ribbon of highway." Engineers who, following Koester's example in Germany, have taken to heart the lessons of successful visual design, may feel justified in criticizing your campaign on the grounds that emphasis is being laid on the superficial abuses at the expense of an understanding of basic design principles, a suspicion which is not allayed by your reference to "curves allayed ahead.

Good motor road design is essentially the creation of a flowing and harmonious line in space conforming with the requirements of vehicle dynamics and of economy of construction, superimposed in visual congruity from both static and moving viewpoints upon another space-form (the landpoints upon another space-form (the land-scape). By all means let us look to good design as well in the road furnishings even to the extent of assisting "fish hatcheries," but let us beware of the red herrings.

D. E. HENNESSEY.

St. Ebbe's

SIR.—J. N. Mogey, whose book, "Family and Neighbourhood," was recently reviewed by Paul Brenikov in the JOURNAL, writes about Saint Ebbe's, Oxford, and since I live there, the subject arouses my interest. In my dictionary, the word "slum" is defined as "a dirty, crowded district in a town." If this is a true definition then I live in a slum. live in a slum.

Three years ago my husband (an architect) and I came to live in Oxford and bought a house in Saint Ebbe's, which, as you probably know, is a re-development area in the ably know, is a re-development area in the centre of the city. We understood the risk we were taking, but hoped that we should be undisturbed for a few years. Our hopes have been realized, and shortly after we moved in, the house was scheduled as an ancient monument, and we have since re-ceived a grant and a loan from the City Council to put it in order.

After life in a London flat I was delighted by the seemingly rural quality of Oxford. What surprised me was the attitude of Oxford people to Saint Ebbe's. "What do you want to live 'down there' for?" they and when my husband was ill with said; and when my husband was ill with chicken pox: "I suppose he caught it 'down there'," was the comment To me, Saint Ebbe's seemed very like parts of Chelsea, Chiswick, Battersea and Kensington where I had seen houses of a similar character being much sought after by people working in London. I soon discovered that Saint Ebbe's was not quite alone; other parts of Oxford had their neglected areas—older houses on the London Road, in Saint Clements, the Plain, Cornmarket, Queen Street and Jericho were falling into disrepair and being pulled down-and yet in London they would probably have been prized.
Saint Ebbe's is a pleasant place if a shabby

Whenever I walk through its streets with my small children I am conscious of a very happy, relaxed atmosphere. After three years amongst these people I am no more a stranger than the old lady next door

who has been here all her life.

My neighbours are of all ages, but they all have one thing in common, a lack of the "lace curtain," "front garden" outthe "lace curtain," "front garden" out-look. We are friendly but not inquisitive, helpful but not pushing, and we like our urban existence. Urban, to me, means town, not New Town or Garden City, but a conglomeration of large and small buildings and enclosed spaces which delight the eye by their changing and contrasting scale.

So many English cities have a dead area in the centre, and Oxford will soon be one of them. Apart from the splendid College buildings, the domestic architecture of buildings, the domestic architecture of Oxford goes unnoticed, and the few remaining houses will not be with us much longer. My husband has taken photographs of groups of buildings we consider worth remembering, and a good thing too, since they are vanishing week by week. What a pity that Saint Ebbe's is to be so completely redeveloped. A great deal of demolition, I agree, is very necessary, but I should have thought that the contrast between old and new buildings, and the changes of scale so necessary to a town scene would have been a delightful challenge to any architect.

Two aspects of Saint Ebbe's seem to me to be worth preserving. The first is the spirit of a truly urban community; the second is a selection of the older houses of that community. I know from experience that they form an essential part of it.

It would be a pleasant thing to see some of these small town houses of undoubted merit contributing to the new Saint Ebbe's as similar houses do to less neglected parts of Oxford

But any discrimination where demolition is concerned, or doing up of old houses seems to be frowned on. Perhaps it is too much trouble, perhaps it is too much like hard work.

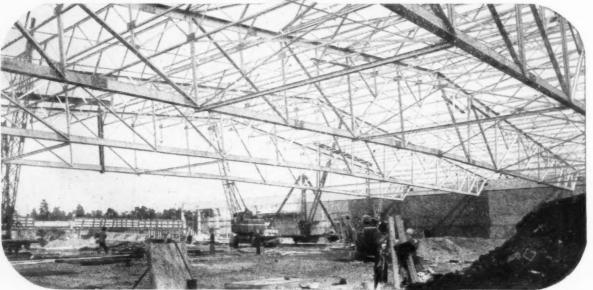
HEATHER B. M. HOWES.

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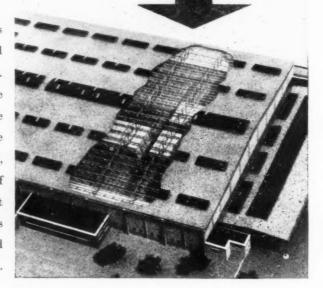
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PARLIAMENT

Hospital design

The Ministry of Health proposes to publish shortly a bulletin on the principles of designing operating theatre suites, said Mr. Vaughan-Morgan, the Parliamentary Secretary, in the Commons last week. He also said that officers of the Department had during recent years studied the design and operation of new hospitals in the U.S., Canada and Western Europe. Their knowledge of labour-saving devices adopted in recently-built hospitals abroad was applied to their examination of hospital building schemes in this country. Mr. Vaughan-Morgan said that his officers had not visited the newly-completed Salvation Army Booth Memorial Hospital. New York, which, said Major Tufton Beamish, incorporated many new labour-saving ideas. new labour-saving ideas.

Theatres and Offices

Questions were asked in the Commons last week about the proposed demolition of St. James's Theatre, London, to make way for offices, and about the amount of office-building taking place in central London. Heary Brooke, the Minister of Housing and Local Government, asked to save the theatre from destruction, said that as revocation of the planning permission already given by the LCC for an office building on the site would be likely to involve the Council in payment of a large sum in compensation (which he later put at upwards of £50,000) he did not consider himself justified in intervening. Asked by Kenneth Robinson whether this Asked by Kenneth Robinson whether this meant that he was totally unconcerned about the loss of the last two Georgian theatres in London, and by Mr. Snow whether he wanted the whole parish of St. James's to suffer the fate of Berkeley Square, the Minister repeated that it would be wrong to pay "a very heavy contribution" to revoke planning permission already given in outline three years ago.

Mrs. L. Jeger asked the Minister to revise planning consents given for office building in central London, and to refuse further applications for development that would increase the number of people travelling to work in the area. Mr. Brooke replied that it would not be reasonable to do this, adding that the spread of offices in London should be

checked by the restrictions placed upon the granting of permission by Mr. Duncan Sandys when he modified the LCC development plan. In an area recently surveyed by the LCC and the City about 8,300,000 sq. ft. of new office floor space was constructed between 1948 and 1955. At the end of 1955 9,900,000 sq. ft. was in course of erection, most of which had since been completed. and permissions were outstanding for 17,400,000 sq. ft of additional floor space. He could not say how new office accommodation compared with that available before the war. Mrs. Jeger suggested that there were a large number of vacancies in completed office blocks, and that this pointed to overbuilding, but Mr. Brooke replied that if this were so it was the likeliest thing to bring additional building to an end.

RIBA

Commonwealth Tour

The main question discussed with the allied architectural societies of the Common-wealth by Kenneth M. B. Cross, the presi-dent of the RIBA, and C. D. Spragg, the secretary, in their round-the-world tour, was the possibility of architects qualified any-where in the Commonwealth being enabled to practise anywhere else. Mr. Cross told a Press conference last week that the solu-tion put forward on behalf of the RIBA was a two-part examination. The first part for the main architectural qualification would be based on a syllabus common to all Commonwealth countries, to ensure a common standard, and the second part would be a local examination on local conditions, method and practice. This would enable an architect qualified anywhere in the Commonwealth to practise in any other part, once he had passed the local examina-tion. Mr. Spragg admitted that in some parts of the Commonwealth British architects who were now admitted freely would have to take the local examination.

The response to this proposal seems to have been unexpectedly favourable, and was everywhere the same. The allied societies, said Mr. Cross, were with the RIBA up to the hilt in principle, even in Canada where a lukewarm reception seems to have been anticipated. Serious difficulties still remained to be overcome (there were, for instance, the registration laws of the various Common-wealth countries, and in Australia each state had its own registration law) but these were not, Mr. Cross thought, insuperable. The next step was for the Board of Architectural feducation to formulate a draft syllabus for the first part of the examination, for consideration by the allied societies, Mr. Cross thought that in framing the syllabus the RIBA would have to make concessions to the point of view of Australia.

One of the difficulties mentioned by Mr. Cross was the tendency in Australia to train architects as engineers rather than as architects; bills of quantity were little used, consultants were not frequently employed. and most of the structural work was left to the architect. Consequently, Mr. Cross thought that the RIBA would have to go a little way to meet the Australians by placing more emphasis on construction, and the Australians would have to come a little way to meet the RIBA on design.

Another proposal made by Mr. Cross which Another proposal made by Mr. Cross which had been generally agreed was the desirability of holding a Commonwealth conference every three years in the countries of the various allied societies, with two or three delegates from each. Mr. Cross envisaged the societies getting together on structural problems and methods of design as similar. problems and methods of design, as similar problems with new materials and new methods had been experienced everywhere.

CIVIC TRUST

To Encourage Good Archi-

The formation of "The Civic Trust" to encourage good architecture and civic planning was announced last week by Mr. Duncan Sandys, M.P., in his private capacity. The trustees include, in addition to such venerable figures as the Archbishop of Canterbury and Mr. Sandys himself, a judge, three industrialists, a Labour politician (Mr. Herbert Morrison). Sir Herbert Manzoni and Sir Howard Robertson. A technical advisory committee conson. A technical advisory committee consists of the president and three other representatives of the RIBA, the RICS, the ICE, the Institution of Municipal Engineers. the Society of Town Clerks and the TPI. This committee will give the trust expert advice on civic design. The trust is said to be establishing a close relationship with existing amenity societies, and is already assured of an income of £40,000 a year for seven years under covenants from big companies.

The statement issued by Mr. Duncan Sandys says that the Trust will seek by a variety of means to stimulate a keener variety of means to stimulate a keener interest in the general appearance of towns, villages and countryside, including the avoidance of unsightly development. The Trust has also assembled an impressive list of patrons ranging from the Lord Mayor of London to the Earl of Rosse (representing the Georgian Group) and a small inaugural conference is being held at Lambeth Palace on July 20, 1957. Michael Middleton, until recently the editor of *House and Garden*, has been apponted to the permanent staff.

SLUM CLEARANCE

Fast or Slow?

How fast is slum clearance progressing? How fast is slum clearance progressing? Very satisfactorily, according to the Minister of Housing and Local Government, Mr. Henry Brooke, who spoke on the subject at the annual conference of the Housing Centre last week: too slowly, according to Mr. A. L. Hobson, the Borough Surveyor of Oldham who gave a paper at the recent conference of the Institution of Municipal Engineers. Engineers.

In support of his view Mr. Brooke, who In support of his view Mr. Brooke, who warned that slum clearance was "not an exercise in adding up numbers," said that if all went well it should not be long before the Government's intention was fulfilled of getting 200,000 people a year out of unfit houses into good ones. The number of unfit houses closed or demolished had increased from 10.065 in 10.54 to 24.952 in 1956 and from 19,965 in 1954 to 34,852 in 1956, and from 19,965 in 1954 to 34,852 in 1956, and the number of slum dwellers moved into new houses had risen from 61,000 in 1954 to 108,000 in 1956. The number of clearance and compulsory purchase orders confirmed in the first three months of 1957 was double the number confirmed in the first three months of 1956. He was confident that within first three would have been cleared. five years the slums would have been cleared. except in the big towns and cities, and hoped the Rent Act would prevent further decay.

Mr. Hobson's paper cast doubts on the prospects of success for the present programme of rehousing on two grounds-first, gramme of rehousing on two grounds—first, the sheer size of the task, particularly in the industrial Midlands and North where, he thought, councils would find it difficult to keep pace with the decay of further houses, and, secondly, the danger that building costs would put the rents of new houses out of the seach of present accurates of slum dwallings. reach of present occupiers of slum dwellings. Mr. Hobson acknowledged that many towns would finish their slum clearance within five years but said that programmes submitted to the Government by the fifteen towns with the worst slum problems showed that they would take an arrange of 25 that they would take an average of 25 years to clear the 324,000 houses which were already unfit.



for surface rendering



Architects: G. Raymond Morgan & Partners, Bristol 1

"Greystones", Almondsbury, the new Gloucestershire home of Mr. & Mrs. E. J. Adams, has been recently completed. 'PUDLO' Brand Cement Waterproofer was specially chosen to protect the walls against damp, and to ensure that perfect dryness within, which is so essential.

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FARM BUILDINGS Fellowship Award

A Fellowship in farm building design has been established by the National Farmers' Union and is to be administered by the Nuffield Foundation. The value of the Fellowship, which is tenable for two years, will be between £700 and £800 per annum. The Fellow will be required to devote himself, full time, to a course of study in farm building design.

The Fellowship is open to men and women who are citizens of the United Kingdom, who have completed a course qualifying them for registration as architects and have gained some practical experience in archi-

tecture after qualifying.

Application forms are obtainable from the Division for Architectural Studies. The Nuffield Foundation, Nuffield Lodge, Regent's Park, N.W.I. The last date for the receipt of applications is September 30.

NFBTO

Interest in Technique

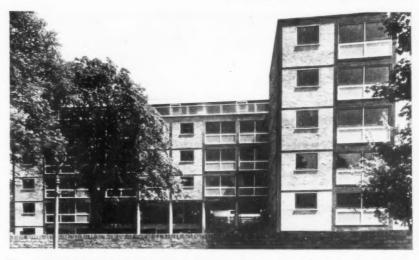
The close attention now being paid by building trade operatives to changing techniques in the industry was evident at the annual conference of the National Federation of Building Trade Operatives, which was held last month. The conference instructed the Executive Committee to convene a special Executive Committee to convene a special conference for the purpose of considering trade union organization in the light of changing techniques to meet the new and ever changing conditions. The executive committee was also asked to keep closely in touch with all developments in building industry practice, the introduction of new dustry practice, the introduction of new techniques and materials and the changed "format" of building, automation and other changes, to make such investigations as would enable it to keep affiliated unions informed, and to arrange for inter-union conferences if necessary to avoid internecine warfare over demarcation disputes.

The conference also expressed grave con-cern at the number of accidents in building and civil engineering, and asked the Ministry of Labour Factory Department to strengthen the existing regulations. It attributed the high rate of accidents in part to the inefficient erection or maintenance of scaffolding, and asked the executive committee to examine the possibility of obtaining a statutory order under the Factory Acts forbidding the erection of scaffolding except by scaffolders, examined and registered by an Industrial Joint Committee in conjunction with the Factory Inspector. Profound dissatisfaction was also recorded by the conference with the standards of design and erection of houses for sale by private speculators. It demanded legislation empowering local authorities to compel the observance of standards of design and accommodation, supervise the construction in all stages to ensure good standards of work, and require the contractors to observe the Fair Wages

TOWN PLANNING

New Leeds Course

A new Certificate Course in Town Plan-A new Certificate Course in Town Planning of three years' part-time study has now been approved by the Town Planning Institute at the School of Architecture and Town Planning, Leeds College of Art, and is to start on September 16, 1957. The course is open to candidates at least 17 years of age who, after leaving school, would like to choose town planning as their profession. Such candidates would have to be employed as draughtsmen in profesbe employed as draughtsmen in profes-sional offices in order to gain practical



The staff of the Soviet Trade Delegation have recently moved into these new flats superbly situated near West Hill, Highgate, overlooking Hampstead Heath and the Highgate ponds. They are designed by Eric Lyons, and provide 36 flats on 4 and 5 floors, ranging from bedsitters to two bedroom flats. At the rear on a courtyard is a two-level Assembly Hall, containing games room, small theatre and projection room, and linked to a children's playroom. The main construction is r.c. frame, rendered dark grey, with stock brick infilling panels and pink laminated glass panels under the windows. The single storey "penthouse" with perimeter walkway on the roof, is rendered brick construction with laminated timber trusses to support the roof.

experience during attendance at this part-time course (occupying two half-days and two evenings per week). After the success-ful completion of the Certificate Course candidates will be admitted to the Diploma Course in Town Planning of the Leeds School of Architecture which entails three years of part-time or two years of full-time and part-time study and leads to exemption from the Final Examination of the Town Planning Institute.

Particulars can be obtained from the Clerk to the School of Architecture and Town Planning, 43A, Woodhouse Lane, Leeds, 2.

Telephone: Leeds 32491.

INDUSTRIAL DESIGN

International Council

Delegates from professional organizations of industrial designers in Denmark, France, Germany, Italy, Norway, Sweden, U.S.A. and the United Kingdom met in London recently to establish The International Council of Societies of Industrial Designers. Their hosts were the British Society of Industrial Artists.

The Council's aim is to bring together professional societies of industrial designers in all countries and exchange information on the theory and practice of training student industrial designers and their teachers and to establish a sound basis for this comparatively recent profession of industrial designers, architects, painters, sculptors, engineers and other technologists and thus relate the work of the industrial designer with his colleagues in associated fields of creative designer. creative design.

The delegates elected the first Executive Board of the Council: Peter Müller-Munk (U.S.A.), President, Misha Black (Britain), Executive Vice-President, Enrico Peressutti (Italy), Vice-President, Pierre Vago (France),

Secretary/Treasurer.

In Brief

The number of permanent houses completed in Great Britain in the first five months of 1957 was 127,154, compared to 116,640 in the same period of 1956. Of this total 76,058 were completed by public authorities and 51,096 by private builders.

Inigo Jones's Queen's House and the Royal Naval College, Greenwich, are to be the centres of the "Son et Lumière" displays centres of the "Son et Lumière" displays at Greenwich Park each evening in August and September. "Son et Lumière" is described by its originator, M. Paul Robert-Houdin, conservator of the Chateau of Chambord (who is co-operating in the production), as "a ballet of light and sound." The various parts of an historic building are dramatised by lighting while recorded music, narrative and dialogue in stereophonic sound are supposed to suggest the presence of invisible actors. In effect the presence of invisible actors. In effect the building becomes a canvas and light is used as paint.

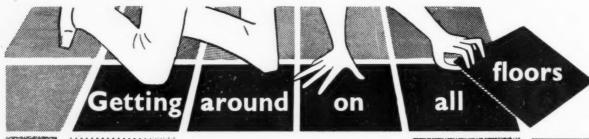
The first comprehensive manual on the protection of staff engaged in radiological work is now available to all National Health Service hospitals. It is titled a "Code of Practice for the Protection of Persons exposed to Ionizing Radiations" and is published by HM Stationery Office,

The Royal Institution of Chartered Surveyors Gold Medal and prize of 100 guineas for 1957 has been awarded to Dr. Wilfred Robert Logan of London, for a paper on "capital formation and land value."

Misha Black has been appointed by the Royal Society of Arts to the distinction of Royal Designer for Industry in recognition of his work for exhibition and interior design.

The theme for the next ABS Ball is "It's All Greek." It will be held at Grosvenor House on December 11, and tickets, costing 50s. each, can be obtained from C. J. Epril, 55, Pall Mall, London, S.W.1.

Professor Gibson A. Danes, chairman of the Department of Art at the University of California, has been appointed the new Dean of the Yale School of Architecture and Design. Mr. Paul Rudolph, of Sarasota, Florida and Cambridge, Mass, one of the United States' leading younger architects, has been appointed the new chairman of the school's Department of Architecture.

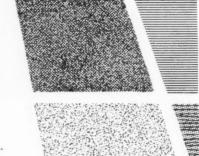


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HAMPSTEAD GARDEN SUBURB

The Hampstead Garden Suburb | As seen by its critics . . . has been celebrating its Jubilee this month. The following appreciation is written by Percy Johnson-Marshall, who is both planner and planned, as he is himself a resident of the Suburb.

I remember when, as fifth year students, we were brought down from Liverpool on a visit to the architectural sights of the metropolis (an excellent tradition which Professor Gardner Medwin still keeps going), we were taken to see the Penguin Pool, the Peckham Health Centre, Highpoint One, and . . . the Hampstead Garden Suburb. Our disappointment was sharp, and I dare-say numerous architectural students who say numerous architectural students who have been advised to visit the suburb as part of their education have come away with similar feelings. But as with most architectural and planning experiments, it is necessary to consider it from a number of points of view, and to measure it against various criteria; for there are some today who dismiss it summarily as something akin to prairie planning, and others who uphold it as the contemporary answer to all our residential design problems. Before making any dential design problems. Before making any assessment, a brief summary of the where/ what/when and how may be useful, par-ticularly for those who live outside London.

Where it is

The Hampstead Garden Suburb is situated just to the north of Hampstead Heath, and just to the north of Hampstead Heath, and is, in fact, connected to it by the Heath Extension. The Finchley Road runs along its north-east flank, and the North Circular just touches it to the north, while the Northern Underground line and Golders Green Station bound it on the south-west. Its title is slightly misleading, as although it is certainly a garden suburb, it is not part of the Borough of Hampstead, nor unfortunately has it a local government identity, but is partly in Hendon and partly in Finchley, two rather formless suburban units.

What it contains
With due respect to the Americans and the Russians, it is almost certainly the world's first planned neighbourhood. It covers an area of some 800 acres, and includes among its community facilities the Institute, which is a combined secondary girls school and adult educational centre, two primary schools and some half-dozen nursery schools. Of religious buildings there are St. Jude's Parish Church, the Free Church and the Friends' Meeting House, all in the centre, and on the fringes a Catholic Church and a Synagogue. Both St. Jude's and the Free Church have Church Halls, but the popular Club House was destroyed in the war, and the pleasant little Tea House is now used as an overflow from the girls' school. If the Heath Extension is included, the amount of open space is some 125 acres. the amount of open space is some 125 acres. In addition to playing fields and tennis courts there are two woods, in one of which is an open-air theatre, allotments, and numerous smaller squares, greens, footpaths, and other explaints. and other exclusively pedestrian spaces. There are two shopping centres equipped with garages, builders' yards, etc., but alas both on main roads, a cinema just over the boundary, and the pubs are also in outer darkness owing to the strong views of the founder.

(Continued on page 85)



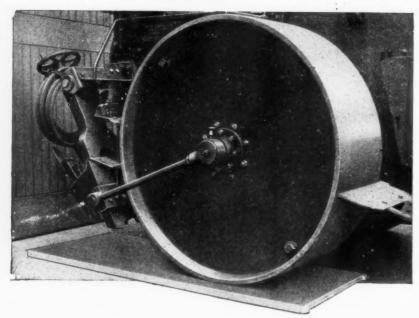
. and by its defenders . . .



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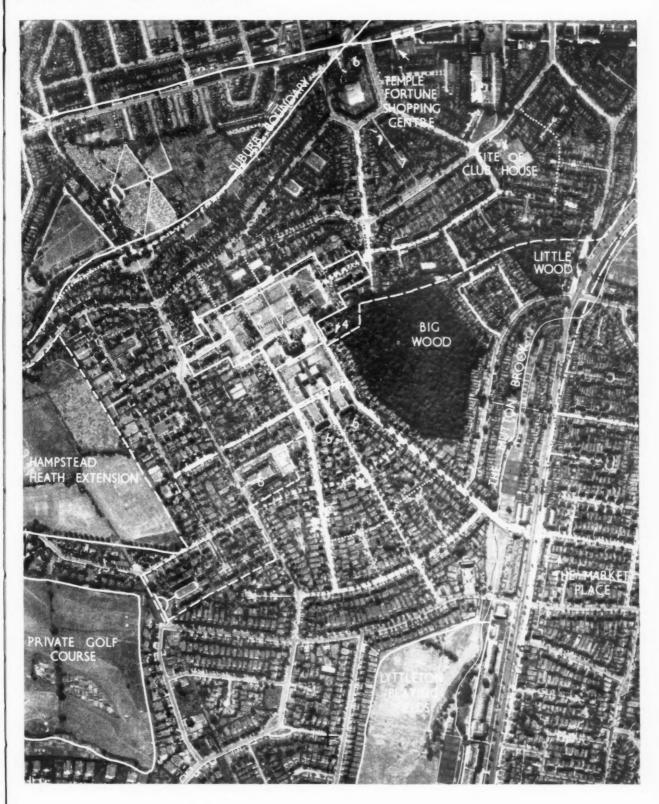
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HAMPSTEAD GARDEN SUBURB



KEY:

- centrepiece designed by Lutyens
- Limit of original scheme
- Division between 1st and 2nd schemes
- Footpaths

- 1. The Institute
- 2. St. Jude's Church
- 3. The Free Church
- 4. Friends Meeting House
- 5. Primary School
- 6. Flats
- 7. Old People's flats

The residential buildings, which house a community of some 16,000 at 8 houses per acre (or 28 persons at 3.5 per dwelling), show a great variety of types for a wide income range (it was originally intended to be even wider), and although the majority are semi-detached, there are numerous squares of terrace houses, several squares or closes of three and two-storey flats, as well as groups of single and old people's flats.

When it was built

The idea of the Suburb was conceived by Dame Henrietta Barnett in the early years of the century, and was designed in 1905-06 by Raymond Unwin, with help from Sir Edwin Lutyens, and constructional work was begun in 1907. The original scheme was almost completed by the outbreak of the first World War, but two additional areas were acquired and developed during the '20s and '30s, and the whole neighbourhood was not finished until 1936. It is extremely interesting and valuable to see the various maintenance problems which have arisen over the years, the growth of trees and hedges, and the gradual maturing and weathering of the whole scheme.

How it was done

The "how" is exceptionally interesting, and it is one of the great planning misfortunes of our time that it has remained almost the only example of its kind instead of acting as a prototype for the enormous suburban developments of the last thirty years. As has already been said, the idea of the Suburb was conceived by a layman (or rather, a laywoman). Dame Henrietta rather, a laywoman). Dame Henrietta Barnett, the wife of Canon Barnett of Toynbee Hall fame, was a woman of remarkable intelligence, personality, initia-tive and determination. She was in the direct line of Florence Nightingale, Octavia Hill and the other great women reformers of the 19th Century. Her experiences in the East End led her to think how good it would be to create a Utopia where all classes of the community could live together in clean, healthy and beautiful surroundings. Having once thought of the idea, she determined to bring it to reality, and as it happened it was a very propitious moment. The underground railways were just then extending far out into the green fields of the home out into the green fields of the home counties, and the Northern line had just tunnelled through the heights of Hampstead to Golders Green, then still open country. As trade follows the flag, so London's escapers followed the suburban railway, and incidentally were destroying the garden land-scape they were trying to reach. In fact, it was a wish to preserve the open land now known as the Hampstead Heath Extension from speculative building that decided the Dame on the place for her new social experiment.

Foreseeing the difficulties ahead she first formed a "high level" Committee, consisting of two earls, two lawyers, two Free Churchmen, a Bishop, and herself. She then organized a Development Company, appealed for funds, helped to work out a special Act of Parliament in the absence of planning legislation, organized the purchase of the land, employed the ablest town-planner of the day to design the layout and the most brilliant architect to do the centre-piece. It was she who decided exactly where that centre should be. "This is the highest place, and here we will have the houses for worship and learning." She cut the first sod, planted a tree by the first row of houses, turned the first spadeful for St. Judes, and laid one of the foundation stones for the Free Church. What a woman! The energy that this human dynamo expended over some twenty years is significant, for this is the intensity of energy required if city building and rebuilding is to succeed. But the methods are equally important, such as the acquisition of all the land, the overall three-dimensional plan, and the strict leasehold control.

A brief assessment

First, as to layout. In turning his client's instructions into reality Unwin, as has been said, created empirically the first neighbourhood. Here for the first time are all the items in the neighbourhood schedule (except perhaps point blocks and maisonettes!). The mistakes, and they are few enough, are interesting, as they are often the result of conflicting requirements of the client and prospective users. The shops, for instance, instead of being up at the centre, were placed along what have become two major roads on the periphery. As a result both are dangerous for family shopping and the centre is not only very quiet but rather a long way from the shops. Then, only up at the centre could large enough building units be created to enable the planners formal ideas of space enclosure to be realized. If one examines the plan one sees a number of design effects in terms of vistas and set-pieces which are not visible on the ground simply because the basic unit was the two storey semi-detached house, and according to their special Act "There shall be between any two houses standing on opposite sides of the road a space of not less than fifty feet free of any buildings..." In spite of these difficulties it is surprising how many closes and squares there are with a real feeling of space of space enclosure. Perhaps the saddest thing was that the "hygienic" safeguards made most of it a little dull, and prevented the vital element of surprise which is so important element of surprise which is so hipper in the real traditional town or village. Second, as to architectural design. It is worth remembering that most of the build-

worth remembering that most of the buildings of the Suburb proper were designed around 1907. Pevsner has described the general conditions influencing design thinking at the time with the romantic revival in full swing, the ideals of the English village predominant, and Lutyens wedded to his "Wrennaissance" revival. Just as with Lansbury and Harlow, a number of well known young architects of the time were employed—Baillie Scott, Voysey, Hennell and James, Michael Bunney, and many others. The emphasis was on good traditional materials and forms of construction which were well understood by the building trade, and very good some of the results are, once you are in sympathy with what the architects were trying to achieve. In the idiom which Lutyens chose, the centrepiece of Institute, two churches, the squares and their approaches are outstanding, even though to its detriment the Central Square was never finished as originally designed.

Third, as to how it has fulfilled the social ideas of its originators. Although it was never able to cater for "all classes," for the simple reason that there was no industry near enough for the "artisans," it has always had a strong community life. There are societies for various kinds of social activities which are both active and well patronized and most of the residents feel they are part of a distinctive neighbourhood and are very pleased to live in it. Certainly for those with large families it still has considerable value as a prototype, but there is no doubt that the density could be raised considerably, if it were done skilfully enough, and it would be useful to see how it might be done in terms of a School of Architecture project.

In a short appreciation such as this it has not been possible to mention the excellent work of the Suburb Trust, successor to the original Company, and of the many devoted persons who have contributed in various ways to its success. As with any realized planning or architectural idea, by far the best thing is to see it, and I would join with many of my older colleagues in advising all students to make a pilgrimage, not with the vain hope of finding a second Unité, but with the more sober idea of examining how the various planning ideas which were put into the suburb have worked out over a fifty year period.



St. Jude's church from Heathgate, the most successful vista in Lutyens' centre piece. The individual units are large private houses designed strictly as one composition.



"The Orchard," a group of old people's flats, a quiet close in the middle of an orchard with access only by footpath.



In North Square, the value of having had a master designer for the whole composition is felt. The buildings are of 2-in. grey brick with red brick dressings, and the roofs of steep pitched dark brown tile.



Millfield Green goes far to reproduce the character of the English village. The Club House, which used to face this green, was destroyed in the war.

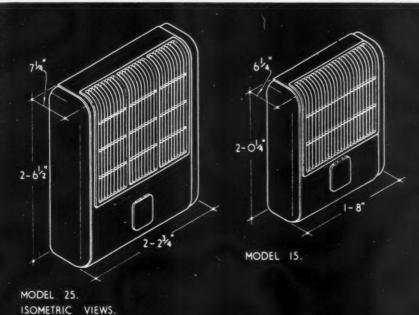


Asmins Place, Dame Henrietta Barnett would be sad to see the viciously pollarded tree on the left, as it bears a netice to say she planted it. This view illustrates some other shortcomings, too, including the lamp standard.





The Architects' Journal Library of Information Sheets 627. Editor: Cotterell Butler, A.R.I.B.A.



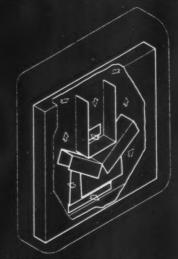
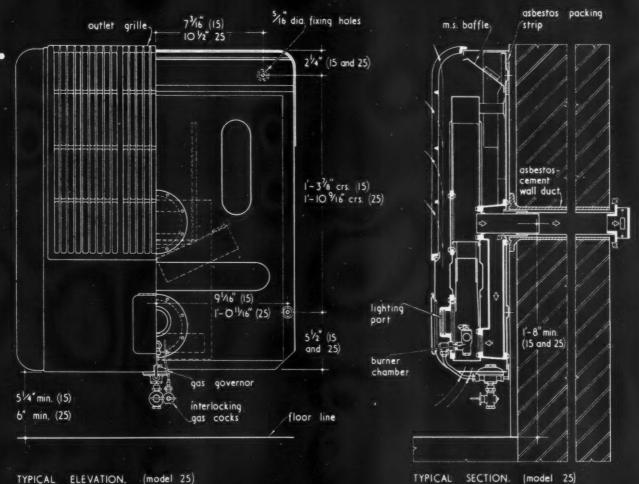


DIAGRAM SHOWING AIR CIRCUIT THRO' COMBUSTION CHAMBER



TIFICAL ELEVATION, (IIIOGET 23)

29.C4 ·SAPPHIRE· BALANCED-FLUE GAS SPACE HEATERS

This Sheet describes Sapphire balanced-flue gas space heaters. Two models are available as shown in the isometric drawings on the face of the Sheet. A typical elevation and section through the heater and balanced flue are given, together with an isometric diagram showing the air circuit through the combustion chamber.

Principle and Design

The air required for combustion by this type of heater is drawn straight from outside the building and the products of combustion expelled through the balanced flue. There is, therefore, no vitiation of the internal atmosphere where these heaters are used. Air from the room enters the heater at the base, is warmed over the combustion chamber and discharged through the grille of the outer casing. A constant circulation of warmed air is thus convected throughout the space to be heated. Part of the heat output also is in the form of low-temperature radiation.

The balanced flue of the Sapphire heater, which is installed horizontally through an outside wall, is no larger in cross-sectional area than a standard brick and has a terminal which projects less than 2 in. from the external wall face. One important advantage of the design is that the efficiency of the heater is little affected by wind velocity.

Components

Outer casing: This is in sheet metal with cast aluminium-alloy outlet grille.

Combustion chamber: This is of sheet aluminiumalloy with mild steel end plates.

Burner: There are 4 Bray No. 266 jets. An integral flame-failure device of the bi-metal strip type ensures that no gas can pass to the burner until the pilot flame is lit. The gas rate of the main burner is adjusted by a screw regulator with locking nut at inlet to burner float. There is a gas pressure point on the circular burner plate at the left side of the lighting port.

Pilot: The permanent pilot is set by a screw regulator with locking nut at outlet of pilot cock and is accessible through the glazed lighting port cap.

Balanced flue: This is of aluminium-alloy and runs axially through the asbestos-cement air inlet duct, terminating on the outside of the wall. The terminal is of cast aluminium-alloy. The flue is suitable for any wall from 6 in. to 1 ft. 4 in. thickness: it can be adapted for wall thicknesses less than 6 in. or over 1 ft. 4 in.

Controls: Interlocking burner and pilot cocks are provided below the heater.

Gas connection: 4-in. B.S.P. female thread.

Sizes and Weights

The heater is available in the following overall sizes: Sapphire 15: 2 ft. 3 in. high (including cock), 1 ft. 8 in. wide and $6\frac{1}{4}$ in. deep.

Sapphire 25: 2 ft. 10 in. high (including cock), 2 ft. $2\frac{3}{4}$ in. wide and $7\frac{1}{4}$ in. deep. The weights are 50 lb. and 72 lb. respectively.

Characteristics

The gas consumption of the two models is as follows: 15: 7,500 B.t.u./hr. or 15 cu. ft./hr. of 500 c.v. gas. 25: 12,500 B.t.u./hr. or 25 cu. ft./hr. of 500 c.v. gas. The Sapphire 15 is suitable for a room of normal construction up to 1,400 cu. ft. capacity and the 25 up to 2,300 cu. ft. capacity.

Fixing

The minimum distance which must be allowed from the bottom of the outer casing to the floor is 6 in. for model 25 and 5½ in. for model 15. The side of the casing must be at least 1 ft. 6 in. from any side wall to give access to the cover fixing screws.

Where the wall is less than 1 ft. 4 in, thick the wall duct must be shortened and the securing brackets for the terminal refixed. The duct is then cemented into the hole prepared for it in the wall. Each end of the duct should be flush with its appropriate wall face, the flanged end inside. The fixing holes for No. 14 screws and plugs (or 1-in. rag-bolts) should then be prepared. Fireproof cement is applied (to a depth of $\frac{3}{16}$ in.) to the face of the flange and to the backplate of the heater for approximately 1½ in. round the spigot and 1 in. along the spigot: when the fixing screws are tightened an effective seal is thus made. The aluminium flue duct, with terminal attached, is cut to the same length as the wall duct and fitted so that it telescopes on to the flue spigot with an overlap of at least 2 in.: the terminal is bolted to the securing brackets.

Where the wall is over 1 ft. 4 in. in thickness the wall duct is cut in two and the sides of the intervening space, which must not adjoin any other wall cavity, cement-rendered after fixing. Where the wall is less than 6 in., the flanged end of the wall-duct must either protrude into the room so that the heater is fixed away from the wall, supported as necessary, or alternatively the wall must be thickened to the required extent on either surface. Where the outer surface is built up the thickening should extend for at least 6 in. all round the terminal.

In new buildings, the wall and flue ducts and terminal can be incorporated during construction so that the heater can be fitted or dismantled from inside the building.

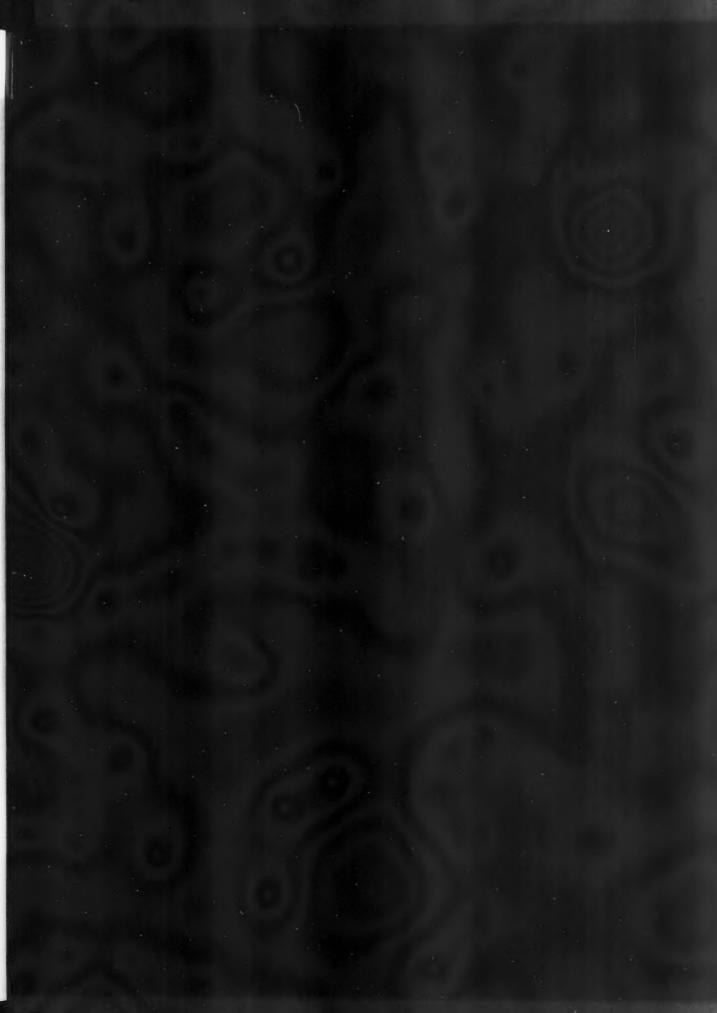
Finish

The outer casing is stove-enamelled in gold hammer finish.

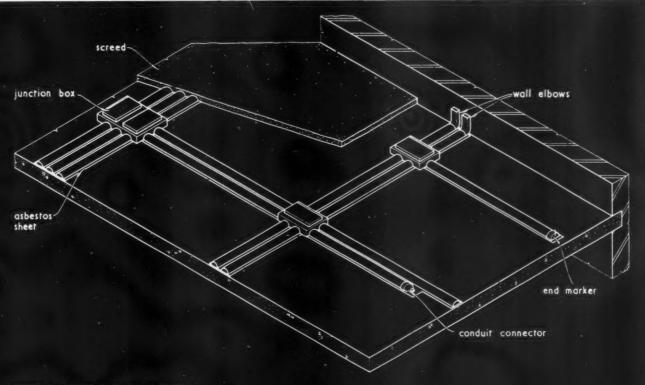
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William Sugg & Co. Ltd.

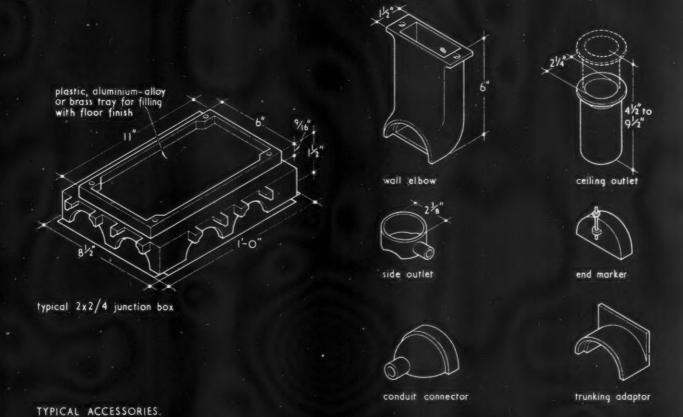
Address: 67-73, Regency Street, London, S.W.1. Telephone: Victoria 3211.







TYPICAL LAYOUT OF DUCTING.



37.C4 · KEY · FIBRE UNDERFLOOR DUCTING

This Sheet describes Key fibre underfloor ducting which is manufactured in accordance with BS.815: 1938 Under-floor Non-metallic Ducts for Electrical Services, with fittings.

Material and Construction

The ducting and accessories (except where otherwise stated) are formed from spun cellulose and asbestos fibres, impregnated under pressure and vacuum with pitch of high melting point. It is chemically inert, non-corrodible and produces negligible condensation. The ducting is semi-circular in section and is laid on asbestos sheet approximately 1/16 in. thick to which it is jointed with a sealing compound. The appropriate accessories are designed to take pedestal type socket outlets and telephone outlets which are supplied complete by the manufacturer.

The ducting is manufactured in three sizes D1, D4 and D6 with cross-sectional areas of 6, 3 and 1½ sq. in. respectively.

It is normally supplied in lengths of approximately 5 ft. 6 in. with a spigot and socket to each length.

The crushing strength per foot run varies between 1,800 lb. and 2,200 lb. depending on the size of ducting used. Tests were made without the supporting screed which would be normally used.

Accessories

Junction boxes: Various types are available dependent upon the size of duct and number of services required for any given installation. They are supplied complete with recessed covers of phenolic plastic, aluminium or brass, or alternatively with a chequered cover primarily for the industrial type of installation. Conduit knock-outs are provided where required and all boxes are complete with baffles and tunnels where necessary in accordance with BS. 815.

Wall fittings: Where the direction of the duct is to be changed from a horizontal to a vertical plane a wall elbow or access box is used. Conduit entries can be formed in these fittings and the elbows are provided with access panels to facilitate wiring.

Ceiling outlets: There are two types; one adjustable to suit varying thicknesses of floor slab and the other, which can be installed after the duct is laid, designed for use with 1-in. screwed conduit.

Side outlets: These fit over the duct and permit lateral connections for §-in., 3-in. or 1-in. conduit. They may have a single entry or two, positioned on opposite sides of the ducting.

Direct outlets: These outlets are designed to give direct entry to the duct from the floor surface and are supplied in various sizes dependent upon the floor finish. Power and telephone pedestals are screwed to these direct outlets in the normal manner.

Floor flanges: The direct outlets may be fitted with a plugged flange when no longer required. Alternatively the flange may be used as a conduit entry for use with 5-in., 3-in. or 1-in. conduit.

Markers: Screw markers are used for ease of location and are adjusted to lie flush with the finished floor surface. End markers are incorporated with a semicircular cap which seals off the duct, and intermediate markers are fixed on the crown of the duct by a clip which saddles the duct.

Conduit connectors: Where a run of conduit is required from the termination of a duct, a connector is available with an entry for \{\frac{1}{8}\-in., \frac{3}{4}\-in. or 1\-in. conduit.

Trunking adaptors: These are used when connecting the ducting to a rising main.

Sub-floor: The sub-floor on which the ducting is to be laid must be reasonably smooth and level, without sudden depressions and humps, protruding features or bolt heads which reduce the effective depth of fill in which service pipes and ducts are buried. Ducts may also be laid in chases provided in the slab.

Siting of ducts: Ducts must be laid in straight lines between points of top access and markers: it is recommended that they be laid parallel to, and at definite distance from, a fixed base line on each floor.

Junction boxes: All junction boxes have a limited vertical adjustment, and after setting in position on the floor the lids must be adjusted and levelled to the correct height by a dumpy level or other accurate means before screeding. Twin and triple junction boxes must be always laid with baffles facing in the same direction unless the relative positions of lighting and communication cables are deliberately opposed. Where boxes are specified for the minimum floor depth, it is strongly recommended that at least 1 in. over the minimum be allowed in the screed depth, as there is no possibility of downward adjustment.

Sequence of operations: The lines of duct runs should be marked and the asbestos sheet rolled out on the lines, placing overlaps between lengths where junction boxes will occur. Ceiling outlets should be fixed and junction boxes placed in position: where the box lids are rectangular they should be placed square to the walls. Any steel conduit should be connected and the ducting laid, sealing all joints and longitudinal edges with sealing compound of the type supplied by the ducting manufacturer. Junction boxes and marker points are then adjusted to the correct level.

Screeding should be carried out immediately, before other trades are allowed in the area. Where this is not possible the ducts should be covered with screeding material to prevent movement and damage and junction boxes protected against damage and ingress of dirt.

The use of Key fibre underfloor ducting makes it possible to install outlets for power, lighting or telephones at any time in the life of a building, where rearrangement of furniture, etc., is desired.

Compiled from information supplied by:

The Key Engineering Co. Ltd.

Address: 4, Newgate Street, London, E.C.1. Telephone: City 1185-7.

Telegrams: Keypoint Cent. London.

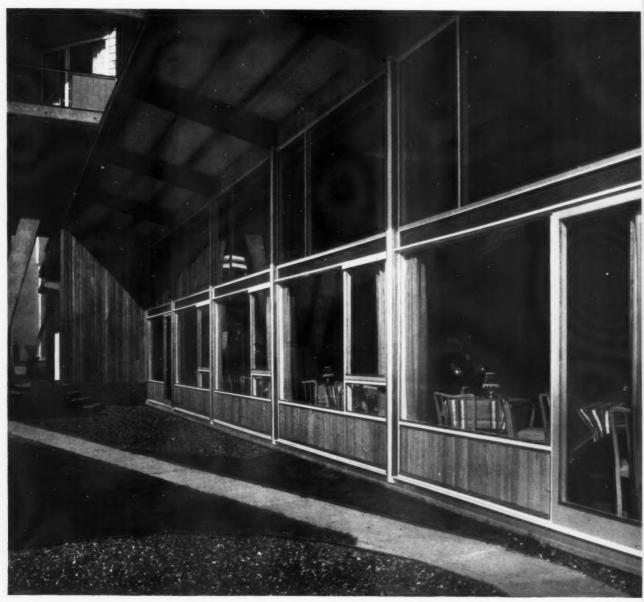


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GLAZED WALL: HOTEL AT DOVER

Louis Erdi, architect

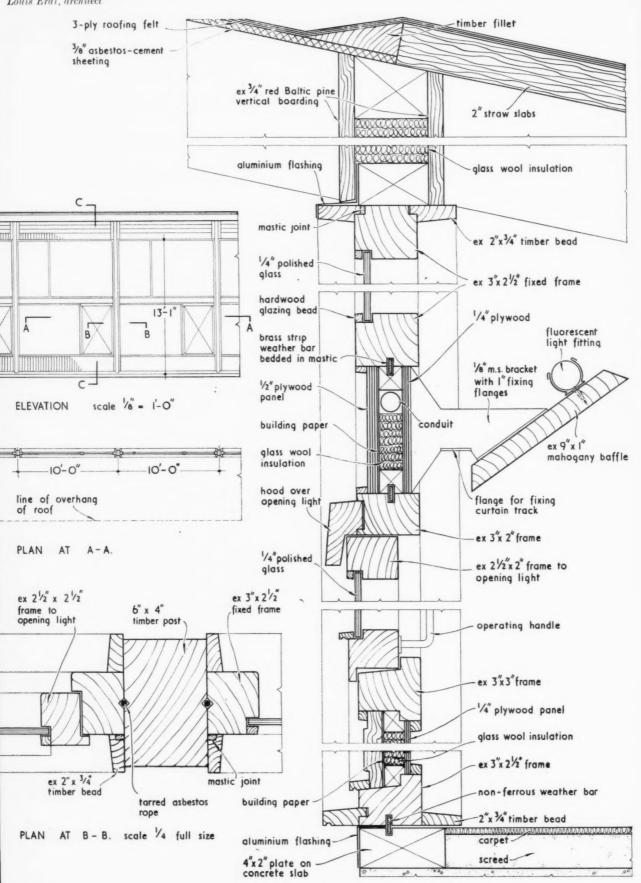


This is an unusual example of a glazed wall to a public room in which the transom is used to accommodate the curtain track, strip lighting and conduit.

working detail

GLAZED WALL: HOTEL AT DOVER

Louis Erdi, architect



SECTION C-C. scale 1/4 full size





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THE BROUGHTON MOOR GREEN SLATE QUARRIES LTD.

The illustration shows the beautiful texture, character and colour of this

Fine rubbed, sanded, rough diamond,

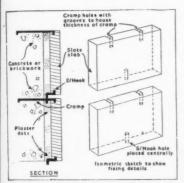
CONISTON, THE LAKE DISTRICT, LANCASHIRE CONISTON 225.6

material.

SLATE SLABS

Broughton Moor Light Sea Green Slate Slabs

Other finishes include:

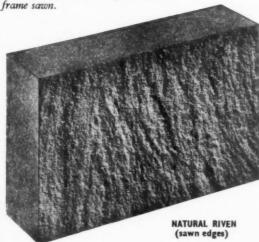


FACING WITH BROUGHTON MOOR SLATE

The Broughton Moor quarries are situated in the Lake District mountains, and from them is obtained the beautiful Olive Green and Light Sea Green Slate famous for its colour, texture and great durability

THE SLABS, after being wire sawn and blasted from the quarry face, are sawn to size and given the appropriate finish. They are readily available up to 5' o" × 2' o" in the Light Sea Green colour with a frame sawn, sanded or finely rubbed finish, and in thickness from I" up.

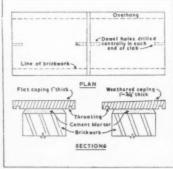
NATURALLY RIVEN (i.e. naturally split) slabs can be supplied both in the Olive Green and in the Light Sea Green colours. In the Olive Green colour slabs can be supplied up to sizes 24" × 15" and in thickness from \(^3_4\)" up. Light Sea Green slate slabs with a naturally riven finish can be supplied in sizes up to, say, 18" × 15". Small sized slabs can be supplied with a naturally riven finish approximately \(^1_2\)" thick in both the Light Sea Green and the Olive Green colour.



ALL WORK is normally executed from Architects' prepared drawings, combined with Contractors' site details, and templets if required. A high degree of accuracy, combined with a first class standard of craftsmanship, is guaranteed.

A TYPICAL SPECIFICATION. "The facing slabs to be of Broughton Moor Light Sea Green Slate, obtained from the Broughton Moor Green Slate Quarries Ltd., Coniston, Lancs, all 1" thick and with natural riven finish to top face, and sawn edges, to sizes as shown on detailed drawings, and having two holes drilled for cramps, and one hole for 'S' hook per slab."

HOLING of slabs can be done at the quarry for cramps, dowels or 'S' hooks, with grooves cut from the hole to the back of the slab to house the thickness of the metal.



COPING WITH BROUGHTON MOOR SLATE

SPECIAL MOULDINGS, cuttings, weatherings, or lettering will be quoted for on request. This material is ideal for work in low relief.

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Coping				22	3
Cills				22	4
Riven Fa	ce Slabs			33	5

A REPRESENTATIVE is available to discuss all supply and fixing problems.

Further particulars, delivered prices, samples, etc., from :-

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THE BROUGHTON MOOR GREEN SLATE QUARRIES LTD., CONISTON, LANCS

Coniston 225/6



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As this happens, a bond is formed with the material in contact with the foam, thus adding rigidity and strength to the structure.

A range of foams of varying densities can easily be produced.

Ask for details of these foam-producing products — 'Daltolac' 21 and 'Suprasec' D.

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Contractors

Nuffield College, Oxford (page 50). Architects: Harrison, Barnes & Hubbard. General contractor: Benfield & Lovley Ltd. Sub-contractors—Heating and hot water: F. Alden Ltd. Electrical work: Hill Upton & Co. Ltd. Metal windows: James Gibbons Ltd. Lifts: Bennie Lifts Ltd. Stone slating: J. W. Stapleton & Sons. Piling: Holmpress Piling Ltd.

Holmpress Piling Ltd.

Undergraduates accommodation, Besse Building, Pembook College, Oxford (page 50). Architect: Sir Hubert Worthington, R.A. (Thomas Worthington & Sons). Quantity surveyors: William Fishwick & Son. General contractors—Bored piles: Benfield & Losley Ltd. Sub-contractors—Bored piles: The Piling and Construction Co. Ltd. Electrical installation, fires and boiler heaters: Lowe and Oliver Ltd. Sanitary plumbing: F. G. Alden Ltd. Asphalting: The Limmer and Trinidad Lake Asphalt Co. Ltd. Copper roofing: F. Braby and Co. Ltd. Metal windows: H. Hope & Sons Ltd. Floor and wall tiling: Conways Ltd. Flush doors: J. P. White & Sons Ltd. Lead rainwater piges: F. Church. Oak block flooring and oak strip flooring; Hollis Bros. Ltd. Fromnongery: Laidlaw and Thomson Ltd. Fireplaces: J. & H. Patterson Ltd. Glazing: H. Hunter & Co. York stone steps and coping: J. B. Heywood Ltd. Fire escapes: J. Kerr & Co. (Manchester) Ltd. File blocks: James E. Beard & Co. Ltd. Loft ladders: Loft Ladders Ltd.

Marston Church, Marston Road, Oxford (page 50).
Architect: Lawrence Dale, F.R.I.B.A., F.R.S.A., F.I.I.A.
General Contractors: T. H. Kingerlee & Sons Ltd. Subcontractors—Oak seating: Frank Duke Ltd. Felt roofing:
Engert & Rolfe Ltd. Roof tiling: Broadbent's (Leicester)
Ltd. Ironnomgery: Parker Winder & Achurch. Fron gates:
R. G. Buchanan. Heating: British Pipeless Central
Heating Co. Electric lighting: Lowe & Oliver. Carved
stone panels and font: W. H. Axtell. Reinforced concrete:
Cowley Concrete Co. Ltd. Metal windows: Crittall
Manufacturing Co. Ltd. Terrazzo flooring: Art Pavements and Decoration. Missanda wood block flooring:
Horsley Smith & Co.

Inorganic Chemistry Department, Oxford University, South Parks Road, Oxford (page 50). Architects: Lanchester & Lodge, Quantity surveyors: Northcroft, Neighbour & Nicholson. Consulting engineers for heating: Oscar Faber & Partners. Clerk of works: T. R. Davies. General contractors: Gilbert-Ash Ltd. Sub-contractors—Heating mains: Fred. G. Alden Ltd. Lifts: Waygood-Otis Ltd. (now Otis Elevator Co. Ltd.). Ventilation and fume extract plant: Sturtevant Engineering Co. Ltd. Roof lights: Lenscrete Ltd. Electrical installation: Drake & Gorham Ltd. Heating and hot water: Rosser & Russell Ltd. Asphalte: Highways Construction Co. Ltd. Aluminium windows: James Gibbons Ltd. Paropa roofing: Frazzi Ltd. Sanitary fittings: Dent & Hellyer Ltd. Terrazzo and tiling:

W. B. Simpson & Sons Ltd. Air compressors: Broom & Wade Ltd. Carving: Wm. Bloye, Curtain tracks and control gear, projector and screen: G. B.-Kalee Ltd. Lecture theatre seating: Cox & Co. (Watford) Ltd. Ironmongery: Lockerbie & Wilkinson Ltd. Sanitary and lab. fittings: W. N. Froy & Sons Ltd. Rainwater heads: Stoner & Saunders Ltd. Sliding and folding doors: Esavian Ltdr Joinery fittings: Norbury Joinery & Cabinet Works Ltd. Unique blackboards: Wilson & Garden Ltd. Plastic faced blackboards: Firmin & Collins Ltd. Granwood flooring: Granwood Flooring Co. Ltd. W. B. floors: Aeme Flooring Co. Ltd. Lightning conductor: J. W. Gray & Son Ltd. Metal fume cuphoard: Crittall Manufacturing Co. Ltd. Metal fume cuphoard: Crittall Manufacturing Co. Ltd. Internal telephone installation: Standard Telephones & Cables Ltd. Rubolin and cork floor coverings: Inlaid Rubolin Flooring Ltd. Linoleum: Webbers (Oxford) Ltd. Isotope Store: Chatwood Safe & Engineering Co. Ltd. Bronze lanterns: Tucker & Edgar Ltd. Bronze letters: The Lettering Centre. Special clocks: Richard & Tucker Nunn Ltd.

Littlemore Hospital Admission Unit, Littlemore, Oxford (page 51). Architects: R. Fielding Dodd & Stevens. Consulting engineers: Hoare, Lea & Partners. Quantity surveyors: E. R. Babbs & Sons. Sub-contractors—Heating and hot water: F. Church Ltd. Electrical: Thorpe & Thorpe Ltd. Metal windows: Ideal Casements Ltd. Entrance canopy steelwork: Conder Engineering Co. Ltd. Concrete toof beams and water tank: Concrete Ltd. Sanitary fittings and sterilisers: Dent & Hellyer Ltd. Metal door frames: Crittall Manufacturing Co. Ltd. Flush doors and sidling doors to common room: Adamite Co. Ltd. Terrazzo w.e. partitions: W. B. Simpson & Sons Ltd. Ironmongery: James Gibbons Ltd. Silding folding door gear: E. Hill Aldam & Co. Ltd. Cloakroom fittings: B. Finch & Co. Ltd. Wood block flooring: Hollis Bros. Ltd. Bituminous feltroofing: Standard Flat Roofing Co. Ltd. Sun blinds: Deans Blinds Ltd.

Cowley Road Rest Home and Day Hospital, Oxford (page 51). Architect: R. Llewelyn Davies, F.R.I.B.A. Senior architect: John Weeks, A.R.I.B.A. Assistant in charge; W. Goddard, Executive architects: J. F. Watkins & Partners. Consulting engineers: E. O. Phillips, Son & Norfolk. General contractor: Ephraim Organ & Son. Sub-contractors—Electrical installation: N. G. Bailey & Co. Ltd. Heating and hot water installation: F. Church Ltd.

Bricks Gloucester Red Facings and Stonehenge sandlime flettons): London Brick Co. Ltd. Roofing, roof deeking and woll cludding. Midland Builders' Supplies Ltd. Windows: Crittall Manufacturing Co. Ltd. Metal entrance screen: Cotswold Casement Co. Ltd. Bituminous felt roofing: Ragusa Asphalte Paving Co. Ltd. Ironmongery: Parker, Winder & Achurch Ltd. Wood block flooring: Horsley Smith & Co. Ltd. Paints: Fairfield Paint Co. Petrol Filling Station, Woodstock Road, Oxford, for the City Motor Co. Ltd. (page 57). Architect: A. E. Harvey A.B.I.B.A. Quantily surveyors: H. J. Ridge & Partners. General contractors: Hinkins & Frewin Ltd. Sub-contractors—Metal wirdows: Crittall Manufacturing Co. Ltd. Safe: Chubb & Son. Floors (terrazzo): Art Pavements & Decorations Ltd. Floors (Nairns Newhouse Tiles): Marbolith Flooring Co. Ltd. Gas heaters and supply: Oxford & District Gas Undertaking. Sanitary httms: Rownson, Drew & Clydesdale Ltd. frommongery: K. S. Neale Ltd. Electrical works: Ileo Ltd. Lubrication system. compressed air: Tecalemit Ltd. Flagstaff: J. W. Gray & Son Ltd. Reconstructed stone cills: Cowley Concrete Co. Ltd. Roofing: Standard Flat Roofing Co. Ltd. Glazing: Hunter & Co. Distemper: The Walpamur Co. Ltd. Paint: LC.I. Ltd.

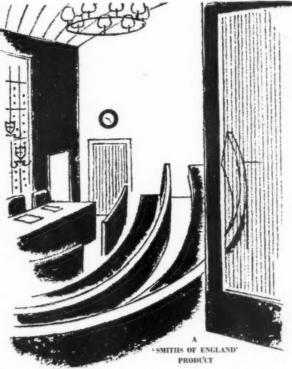
Ltd. Paint: L.C.I. Ltd.

Sewage Disposal Works, Oxford (page 57). Architect:
E. G. Chandler, A.R.I.B.A., A.M.T.P.I., City Architect and Planning Officer. J. Campbell Riddell, City Engineer and Surveyor. Quantity Surveyor: H. J. Ridge & Partners. General contractor: Turriff Construction Corporation Ltd. Sub-contractors—Asphalt: Appolo Asphalte Terrazzo: Art Pavenents and Decorations Ltd. Precast concrete: Cowley Concrete Co. Ltd. Industrial flooring: Macnab and Co. (Flooring) Ltd. Flush doors: Saro Laminated Wood Products Ltd. Door jurniture: James Gibbons Ltd. Steel shutter doors: Potter Rax Ltd. Metal windows and donelights: Rustproof Metal Window Co. Ltd. Glazed wall tiles: Carter & Co. London Ltd. Acoustic cettling: John Dale Ltd. Facing bricks: Ibstock Brick and Tile Co. Ltd. Paints: Lewis Berger (Great Britain) Ltd. Dytard. High. School Ltg. Giff. Marston Ferry Bood

Tile Co. Ltd. Paints: Lewis Berger (Great Britain) Ltd.
Oxford High School for Girk, Marston Ferry Road,
Oxford Jagae 59). Architects: Ramsey, Murray, White &
Ward. General Contractor: Richard Costain Ltd. Subcontractors:—Heating, water and gas services. Benha &
Sons Ltd. Electrical installation. Griersons Ltd. Cartain
walling and windows: Williams & Williams Ltd. Joinery:
Kings (B.D.J).. Roofing: D. Anderson & Son Ltd. Flasth
doors: Jaynbaee Ltd. Asphalting. Oxford Asphalt Co.
Ferrazzo: Minoli & Co. Flooring: Haskel Robertson.
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Swain Ltd. W.c. partitions: Flexo Plywood Industries Ltd.
Gymnasium equipment: Neils Larson & Son Ltd. Lettering: The Lettering Centre. Staircase handralling: F. J.
Lewis. Metal handralling: Clark Hunt & Co. Ltd.
Rooflights: Guildford Glass & Metal Co. Ltd. Fibsons
plaster: Claridges (Puncy) Ltd. Supended cellings:
Jenkins & Sons Ltd. Sanitary fittings: E. Marshall Ltd.,
Reconstructed stone: True-Crete Ltd. Flue: True-Flue Ltd.
Boiler Plant and Boiler House, Nuffield Orthopaedic
Centre, Oxford (page 65). Architects: R. Fielding, Dodd
& Stevens. Consulting engineers: Hoare, Lea & Partners.
Quantity surveyors: Ernest R. Babbs & Sons. General
contractors: Benfield & Loxley Ltd. Engineering contractors: Bightside Heating & Engineering Co. Ltd. Subcontractors—Chimney stack and boiler fittings: Chimney
Construction Co. Ltd. Electrical contractors: S. Dagnal
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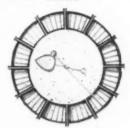
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Marston Secondary Modern School, Maltfield Road, Marston, Oxford (page 67). Architect: E. G. Chandler, A.R.I.B.A., A.M.T.P.I., City Architect & Planning Officer. Quantity surveyor: Henry Cooper & Sons. Consulting engineers: Donald Smith, Seymour & Rooley, General contractors—Thermagard construction—steel frame, aluminium windows and external doors: Gardiner Sons & Co. Ltd. Mechanical services: F. Church Ltd. Electrical services: Hill, Upton & Co. Ltd. Facing bricks: National Coal Board. Precast floor slabs: Cowley Concrete Co. Ltd. Woodwool roof slabs: Thermacoust Ltd. Precast cladding and eaves units: Bristol Stone & Concrete Co. Ltd. Ceiling panels: Meta-Mica Ltd. Sanitary fittings: John Bolding & Sons Ltd. Blinds: J. Avery & Co. Ltd. Paying fields: Em-Tout-Cas Co. Ltd. Playground tarmac: Constable, Hart & Co. Paint: Blundell, Spence & Co. Ltd.

Extension to Old People's Home, Barton End House, Oxford (page 67). Architect: E. G. Chandler, A.R.I.B.A. A.M.T.P.I., City Architect & Planning Officer. Quantity surveyors: Henry Cooper & Sons. General contractors, Y. J. Lovell & Son Ltd. Sub-contractors—Bricks: Woodham Brick Co. & London Brick Co. Ltd. Partition blocks: Thermalite-Young Ltd. Precast concrete lintols, etc.: Uniment Ltd. Structural floors and roofs: F. Bradford & Co. Ltd. Roof felting: Engert & Rolfe Ltd. Doors: Jayanbee Joinery Ltd. Ironmongery, sanitary goods: Stephenson & Co. (Oxford) Ltd. Metal windows: George Jennings-Hamer (Windows) Ltd. Heating and hot water installation: H. & E. Engineers Ltd. Plumbing: Cooper Plumbing Ltd. Painting: J. J. Hamilton & Sons (Walpamur Distemper, Mander's Paints). Cork and thermoplastic floor tiling: S. H. Ware & Co. Ltd. Electrical installation: A. F. Bolton (Oxford) Ltd.

A. F. Bolton (Oxford) Ltd.

Flats, Minchery Farm Estate, Oxford (page 67). Architect:
E. G. Chandler, A.R.I.B.A., A.M.T.P.I., City Architect and
Planning Officer. Quantity surveyors: H. J. Ridge &
Partners. General contractors: C. F. Kearley Ltd. Subcontractors—Bricks: London Brick Co. Ltd. (Tuscan
facings). Precast concrete lintols, etc.: Cowley Concrete
Co. Ltd. Structural floors and stairs: Concrete Ltd. Metal
windows: Blanchford & Co. Ltd. ("Beacon" windows).
Roof tiling (Redland tiles): Broadbents (Leicester) Ltd.
Iron balustrades: S. G. Day. Gas installation: Southern
Gas Board. Electrical installation, communal television
installation: A. F. Bolton (Oxford) Ltd. Sanitary goods:
General Light Castings Co. Ltd. "Fisholow" sinks: G. R.
Cooper (Oxford) Ltd. Doors: Jayanbee Joinery Ltd.
"Newton" boiler flue sets: Metal Agencies Co. Ltd.
Fireplace surrounds: P. Blockley. Kitchen units: M. Fisher
& Sons Ltd. Ironmongery: James Wood. Thermoplastic
tille flooring: Marley Tile Co. Ltd. Painting: Ernie Bayliss
Ltd. (Walpamur Distemper, I.C.I. Paints, Cementone
Concrete Paint). Plumbing: S. Handover Ltd. Plastering
granolithic flooring: F. Margetts & Co. Glazing: James
& Clark and Eaton Ltd.

Flats, Wood Farm Estate, Oxford (page 67). Architect: E. G. Chandler, A.R.I.B.A., A.M.T.P.I., City Architect and Planning Officer. Quantity surveyors: H. J. Ridge & Partners. General contractor: Frederick J. Minns & Co. Sub-contractors—Bricks: London Brick Co. Ltd. Freezas Concrete lintols, etc.: Cowley Concrete Co. Ltd. Structural floors and stairs: Concrete Ltd. Metal windows: Blanchiori & Co. Ltd. Roof tiling (Redland tiles): Broadbents (Leicester) Ltd. Iron balustrades: S. G. Day, Gas installation: Southern Gas Board. Electrical installation. communal television installation: A. F. Bolton (Oxford) Ltd. Sanitary goods: General Light Castings Co. Ltd. Doors: Jayanbee Joinery Ltd. Newton 'boller flue sets: Metal Agencies Co. Ltd. Fireplace surrounds: P. Blockley. Kitchen units: M. Fisher & Sons Ltd. Ironmongery: James Wood. "Fisholow" sinks: G. R. Cooper (Oxford) Ltd. Thermoplastic floor tiling: Marley File Co. Ltd. Combination h.w. tanks: Elsy & Gibbons Ltd. Plumbing: W. P. Spearman Ltd. Plastering, granolithic flooring: F. Margetts & Co. Ltd. Distemper: Walpamur. Paint: Dulux, Cementone.

Co. Ltd. Distemper: Walpamur. Paint: Dulux, Cementone.

East Oxford Fire Station, Cowley, Oxford (page 67).

Architect: E. G. Chandler, A.R.I.B.A., A.M.T.P.I., City Architect: E. G. Chandler, A.R.I.B.A., A.M.T.P.I., City Architect: E. G. Chandler, A.R.I.B.A., A.M.T.P.I., City Architect: A.R.I. Cowley Constructors: T. H. Kingele & Sons Ltd. Sub-contractors-Obricks: J. P. Walshe & Sons Ltd. Structural floor and roof, lintols and cills: Cowley Concrete Co. Ltd. Heating and hot water services: F. Church Ltd. Electrical work: Hill, Upton & Co. Ltd. Felt roof covering and woodwood decking: Vulcanite Ltd. Reinforcment to in situ r.c. work: The Square Grip Reinforcement Co. Ltd. Metaid door frames: Henry Hope & Sons Ltd. Glazed Cement wall finish: John Ellis & Sons Ltd. Glazed Cement wall finish: John Ellis & Sons Ltd. Glazed Cement wall finish: John Ellis & Sons Ltd. Glazed Cement word frames: Henry Hope & Co. Ltd. General ironnongery: Parker, Windows, Casements doors and structural steelwork. Gardiner Sons & Co. Flush doors excluding appliance room: Boulton & Paul Ltd. Appliance room doors: Woodworth Joinery Ltd. Sanitary fittings: Rowe Brothers & Co. Ltd. General ironnongery: Parker, Winder & Achurch Ltd. Hardwood strip flooring: S. Bennett & Son (Wood Flooring) Ltd. Accottle and studded rubber: S. H. Ware & Co. Ltd. Aphati flooring: Oxford Asphalt Co. Ferrazzo tile flooring: Minoli & Co. Stair balustrading: Lockerbie & Wilkinson (B'ham) Ltd. Roof lights: Hills (West Bromwich) Ltd. Lightning conductor: R. C. Cutting & Co. Ltd. Plastic name plates to internal doors: Parco Industries. Lighting fittings: Falk, Stadelmann & Co. Paint: Joseph Freeman Sons & Co. Ltd. Apas to name plates to internal doors: Parco Industries. Lighting fittings: Falk, Stadelmann & Co. Paint: Joseph Freeman Sons & Co. Ltd. Apas to name plates to internal doors: Parco Industries. Lighting fittings: Falk, Stadelmann & Co. Paint: Joseph Freeman Sons & Co. Ed. Chauditgon. Oxford (apas 61). Architect: E. G. Chauditgon.

Paint: Joseph Freeman Sons & Co. Ltd.
College of Technology, Art and Commerce, Headington,
Oxford (page 67). Architect: E. G. Chandler, A.R.I.B.A.,
A.M.T.P.I., City Architect and Planning Officer, Quantity
surveyors: Henry Cooper & Sons. General contractor:
Lavender, McMillan (Contractors) Ltd. Sub-contractors—
Structural steel: Palmers Hebburn Co. Ltd. Reinforcement: "Twisteel" Reinforcement Ltd. "Presweld"
beams, patent glazing and roof fights: Hills (West Bromwich) Ltd. Precast concrete: Cowley Concrete Co. Ltd.

Floor tilling: S. H. Ware & Co. Ltd. Wood block floorong: Vigers Brothers Ltd. Flat roofing: F. McNeill & Co. Ltd. Doors: Woodworth Joinery Ltd. Iroomongery: N. F. Ramsay & Co. Ltd. Metal windows: Aygee Ltd. Sliding doors: Bolton Gate Co. Ltd. Insalation: Midland Builders' Supplies (Oxford) Ltd. Glazed wall finish: John Ellis & Sons Ltd. Wall tiling: Carter & Co. London Ltd. Santiary fittings: John Bolding & Sons Ltd. Heating and ventilation: F. C. Alden Ltd. Terrazzo: Minoli and Co. Facing bricks: Ibstock Brick & Tile Co. Ltd. Paint: LCt. (Paints Division) and Ripolin Ltd. Electrical installation: Lowe & Oliver Ltd.

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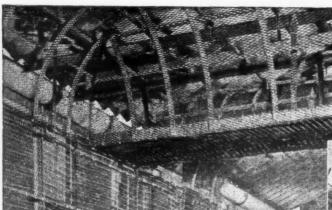
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Correction

In the Oxford Guide (AJ July 4) the map on page 3 was incorrectly keyed. 3 is Magdalen Bridge; 31a is the Cathedral, and from Queen's College to Christ Church inclusive, at present numbered 3-30, should be 4-31, 1-2 and 32-48 are numbered correctly. On page 27 the house in illustration 8 was designed by E. P. Warren in 1901. On page 28, the date in the reference to the Merton Street parapet should be 1737, not 1937.

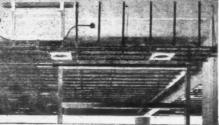
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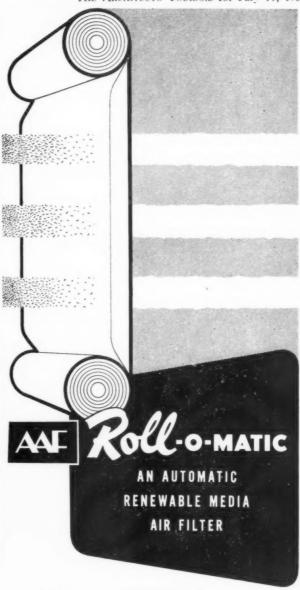
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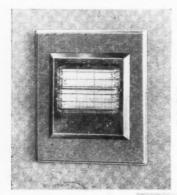
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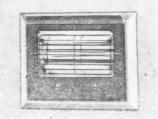
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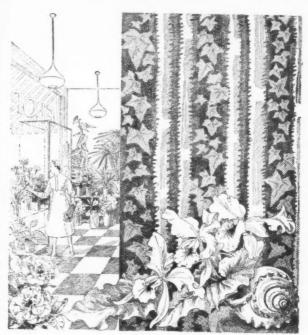
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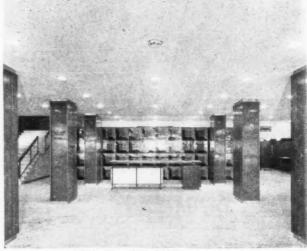
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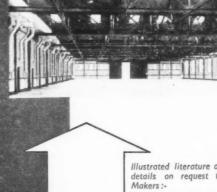
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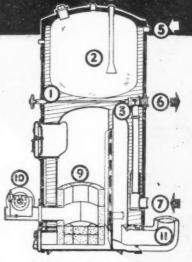
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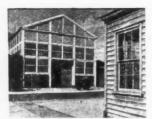
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July Architectural Review

Mills, docks and harbours, ware-houses, fences and gates, railways and canals—all bear witness to the theme of July's special issue of the Review, *The Functional Tradition*, compiled and edited by J. M. Richards. In our present need to consolidate the results of the technical revolution that has overwhelmed architecture in this century, we need the discipline of an unconscious vernacular, a



Sheerness Naval Dockyard: cast iron frame extension, 1858.

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e ARCHITECTURAL REVIEW until further notice:

simple way of doing things simply, and we have no better guide for this than the monuments of the functional tradition that dot the country from end to end, even in the most remote and rural areas. The tradition is not limited to any material-with its wooden water-mills, its brick warehouses, its iron framed naval boatsheds, its stonework by canal and railway-it had the adaptability we admire in the great masters of today, fitting together material, function and form, but into an unselfconscious unity. Most architects know of the great tradition's existence, have seen one or two textbook examples llustrated, have discovered one or two favourites of their own, but in The Functional Tradition they will find for the first time a systematic analysis of the nature and value of the tradition, supported by the results of an extended photographic campaign by Eric de Maré, which has rescued many unknown and forgotten buildings from undeserved obscurity.



Bentley's piano factory, Nailsworth.

Draught-Stoppers Hotels Advertising

August Architectural Review

The year-round English draught Weather-stripping makes subject of perennial interest and in the August issue of the Review, Peter Whiteley will make a study of the products available for remedial work on both doors and windows, as well as the kind of preventive design that is better than even the best of cures. Two hotels of outstanding interest will be described and illustrated; the Malmen, by Wallander and Varhelyi in Stock-



Model of a village at Rushbrooke, Suffolk by R. Llewelyn Davies and John Weeks to be illustrated with pilot houses.

holm, and Louis Erdi's Coachotel. A creative and broadminded approach to a vexed question, outdoor publicity, will be outlined in the new proposals for Advertising in Stevenage, and the social and architectural problems of building new Urban Nuclei in rural areas will be considered in an article by Hilda Selem on recent re-settlements in Italy, and a study of Richard Llewelyn Davies' and John Weeks' rebuilding programme for Rushbrooke in Suffolk. Historical features in this issue will cover the early romantic days at the Weimar Bauhaus, whose expressionist and religious fervours are recalled by Helmut von Erffa; a sheaf of notes on out-of-the-way aspects of Italian architecture, and a study of Bernardo Bellotto's four magnificent views of the mysterious Wilanow Palace outside Warsaw, now on view at the Whitechapel Gallery. In Skill, the Interior of the Month will be the new offices for the Orient Line, and in Design Review, John Blake will survey recent developments in wallpapers and furnishing fabrics.

Curtain Walls Roman and Gothic Shepton Mallet

September Architectural Review

A major feature of the Review's Machine Made America issue, and rapidly becoming a dominant topic in discussions of the economics, technics and aesthetics of building today, Curtain Walling will bulk large in the September number of the Review. Michael Brawne will contribute a full scale study of the potentialities and perils, scope, materials and

methods of this fully industrialised means of clothing buildings, while in Skill there will be a supplement on some of the products and systems that are available on the British Market. Also in Skill will be new Jaeger shop Interiors by Dennis Lennon, as well as Design Review and other regular departments. Aspects of the diversity of English nineteenth-century architecture are covered by Hugh Honour's account of the improbable Roman Church at Everingham, in Yorkshire, whose decorators were a suitably incongruous combination of Yorkshire and Rome, and a narrative of the building



Curtain Walling detail of the new BEA terminal now under construction off Cromwell Road, Kensington.

activities at Strawberry Hill of Frances Waldegrave, recounted from original sources by Osbert Wyndham Hewett, author of a recent full-dress biography of Lady Waldegrave. September Townscape features will deal with Shepton Mallet, whose multilevel town-centre will be discussed by Gordon Cullen, and Hampstead Garden Suburb, source of so much good and so much evil in English planning, whose status after a half-century of existence will be evaluated by Ian Nairn. And, as usual, the Counter-Attack Bureau will give the latest battle-bulletins on the continuing fight against Subtopian blight.



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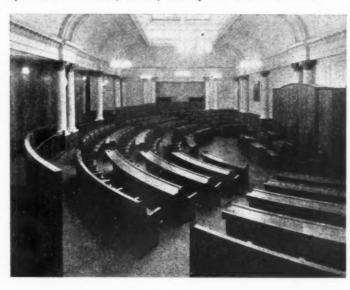
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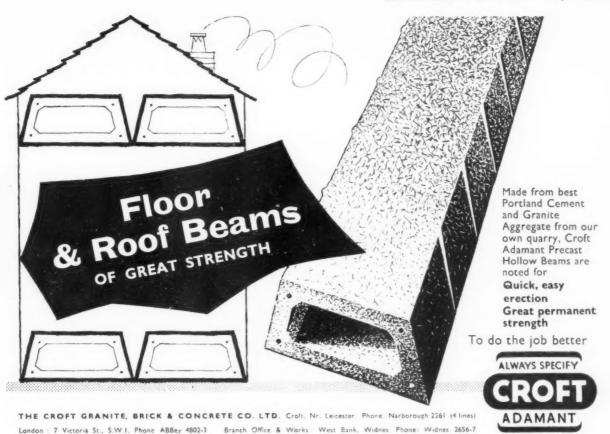
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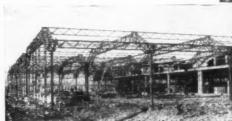


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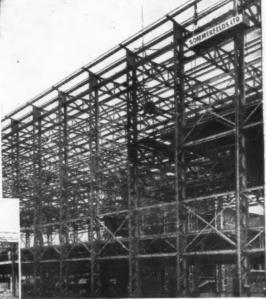
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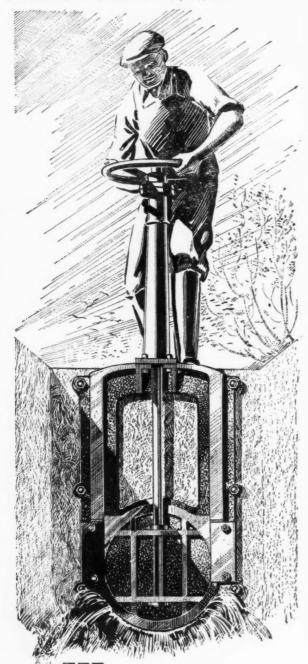


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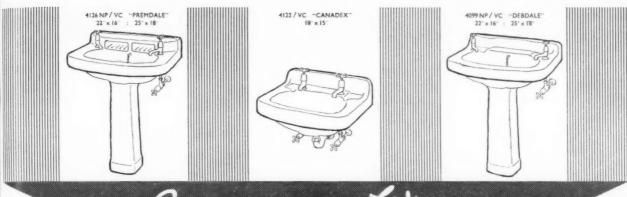
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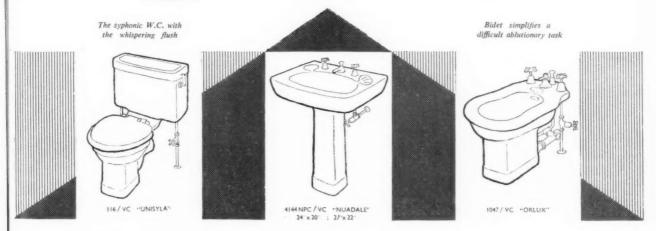
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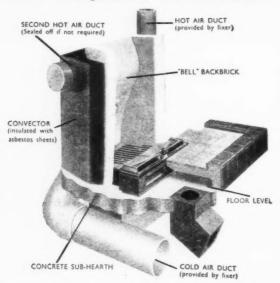
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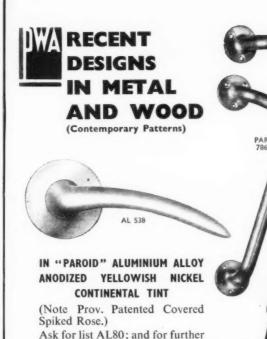
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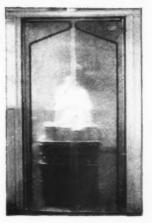
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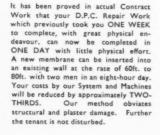
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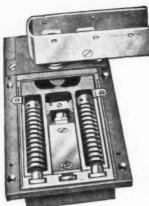
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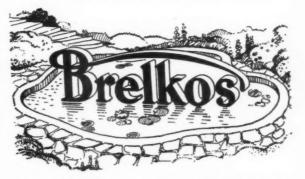
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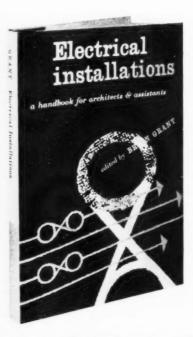
a handbook

for architects

and assistants

edited by

Brian Grant



THIS BOOK DOES NOT SET OUT TO be a technical work on electricity, but is designed to provide architects and their assistants with all the essential information they need for the efficient planning and supervision of electrical installations in cases where no consultant has been employed. The book will also help them to specify and obtain good materials and workmanship, as well as to choose the most suitable available fittings and accessories for the job in hand. In addition it will give them a fair understanding of questions they are likely to be asked by consultant engineers or contractors when working on larger jobs, and so enable them to deal intelligently with any problems that may arise.

The majority of the contents were first published in the *Architects' Journal*, but they have now been revised and enlarged for presentation in book form.

The size of the book is $8\frac{1}{2} \times 5\frac{1}{2}$ in.

It contains 100 pages including some 100 line diagrams and half-tone illustrations. 16s. net, postage 8d.

THE ARCHITECTURAL PRESS 9-13 Queen Anne's Gate, S.W.1



CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 15, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post on Friday morning for inclusion in the following Thursday's

Replies to Box Numbers should be addressed are of "The Architects' Journal," at the address eare of " The given above.

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Public and Official Announcements

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30s. per inch; each additional line, 2s. 6d.

LONDON COUNTY COUNCIL

RACHITECT'S DEPARTMENT

Selections for appointment are now being made
from students at architectural schools who will
take their final examinations this summer. Starting salary up to \$676. Vacancies also for ARCHITECTS of experience at starting salaries up to
\$21,036. Full programme of houses, flats, schools
and many other interesting buildings.

Application forms and full particulars from the
trehteet (Ref. AR/EK24/572), The County Hall,
S.E.I. (895)

S.E.I. (896)

LINDSEY (LINCOLNSHIRE) COUNTY

ONE ELECTRICAL ENGINEERING ASSISTANT Grade A P.T. III, £666–£784 2s. £6d. Should be capable of preparing drawings in connection with Electrical Installations in Schools. Higher National Certificate required. In special circumstances consideration will be given to starting salary not more than two steps up the grade.

N.J.C. Conditions of Service. Canvassing will disqualify. Candidates must disclose in writing whether to their knowledge they are related to any Member or Senior Officer of the Council. Applications giving age, qualifications, experience, present salary, and the names of at least two persons to whom reference can be made to be sent not later than 22nd July to the County Architect, County Offices. Lincoln.

METROPOLITAN BOROUGH OF

Architect, County Offices. Lincoln. 6773

METROPOLITAN BOROUGH OF
SHOREDITCH
ARCHITECT'S DEPARTMENT
Applications are invited for ARCHITECTURAL
ASSISTANTS on the following grades:—
A.P.T. IV £757—£937 p.a.
A.P.T. IV £757—£937 p.a.
A.P.T. V £844—£1,024 p.a.
Subject to medical examination, Council's Superannuation Scheme and N.J.C. Conditions.
Applications giving full particulars of age, training, qualifications and experience, together with the names of two referees to Borough Architect, Town Hall, Old Street, E.C.1. 6818

Architect, Town Hall, Old Street, E.C.I. 6818

UNIVERSITY COLLEGE OF SWANSEA WORKS AND BUILDINGS OFFICER Applications for the above appointment are invited from persons with suitable professional qualifications and at least five years' post-qualification experience. The salary scale is £900 to £1,650 per annum together with child allowances and membership of the F.S.U. Commencing salary will be in accordance with the successful candidate's experience and qualifications. Experience in the design, supervision of construction and maintenance of large scale educational buildings is highly desirable. Site planning experience of comprehensive layouts will be an advantage. Further particulars may be obtained from the undersigned. The last date for receipt of applications is 18th July, 1957.

University College of Swansea, Singleton Park, Swansea, Glam.

APPOINTMENT OF SENIOR ASSISTANT
APPLICATION ARCHITECT
Applications are invited for this appointment within A.P.T. Grade V (salary £814-£994 per

Candidates should be Registered Architects and Associate Members of the R.I.B.A. and should have had experience in housing and general municipal work.

Housing accommodation will be offered to the successful candidate if necessary.

The appointment is superannuable and subject to a medical examination.

Applications with the names of two referees and stating age, qualifications and experience are to be delivered to the City Engineer & Surveyor, 22, Bridge Street, Worcester, by 17th July, 1957.

BERTRAM WEBSTER, Town Clerk.

Guildhall, Worcester.

CITY OF NORWICH

CITY ARCHITECT'S DEPARTMENT
Applications are invited for the following appointments on the permanent staff:—
(a) ASSISTANT ARCHITECT, salary within Special Grade (£707 5s. × £30 15s. to £861 per annum).
(b) ARCHITECTURAL ASSISTANT, salary grade A.P.T. II (£609 17s. 6d. × £20 10s. to £691 17s. 6d. per annum).
Application forms, giving details of post, are obtainable from the City Architect, City Hall, Norwich, and must be returned by not later than 5 p.m. on Wednesday, 31st July, 1957.

NORTH WEST METROPOLITAN REGIONAL HOSPITAL BOARD
Applications are invited for the following

Applications are invited for the following appointments:—

(a) ASSISTANT ARCHITECT. Good experience of design and construction necessary, preferably in hospital work. Salary scale: £680×£25(3)×£30 (2)×£35 (1)×£30 (1)×£35 (3)—£985, plus £20—£40 London weighting. Improved scale awaited.

(b) ARCHITECTURAL ASSISTANTS. To give technical assistance to professional officers. Salary scale: £510 (age 21 and over)×£20(5)×£30 (1)×£25 (2)—£710, plus £20—£30 London weighting. Improved scale awaited. Applicants for (a) above must be Associate Members of the R.I.B.A., and for (b) must have Inter. R.I.B.A. Commencing salary above minimum may be paid to successful candidates, according to relevant practical experience appropriate to the posts. Posts are subject to Whitley Council conditions and are superannable. Apply, stating which post and giving age, qualifications (with dates) and experience, with names of two referees, to Secretary, North West Metropolitan Regional Hospital Board, 11a, Portland Place, W.I, by 22nd July. 6883

CITY OF SHEFFIELD
CITY ARCHITECT'S DEPARTMENT
Applications are invited from students at Architectural Schools completing courses this year and others suitably qualified for the following posts:—
(a) ASSISTANT ARCHITECTS, Grade S.C. (4707—2861).

(a) ASSISTANT ARCHITECTS, Grade S.C. (£707-£861).

(b) ARCHITECTURAL ASSISTANTS, Grade A.P.T. II (£609-£691).

The posts offer excellent opportunities for young Architects to gain first-class experience on new schools and colleges, public buildings, including bus garages, office blocks, new retail markets, mixed developments of houses and flats, redevelopment of outworn central areas, including muitistorey flats.

For good Architects prospects of promotion within a short time to higher grades are very favourable.

Applications, stating age, education and training, qualifications and experience, together with the names and addresses of two referees, should be made immediately to the undersigned.

JOHN HEYS,

Town Clerk.

Town Hall, Sheffield, 1. 3rd July, 1957.

APP. III (salary £656 to £784 2s. 6d.).

AP.T. III (salary £650 17s. 6d.).

Forms of Application, particulars of post and conditions of service, can be obtained from the under the N.J.C. Conditions:—

ONE SENIOR ARCHITECTURAL ASSISTANT, Grade A.P.T. V (salary £814 17s. 6d. to £994 5s.). FOUR ARCHITECTURAL ASSISTANT, Grade A.P.T. IV (salary £727 15s. to £907 2s. 6d.).

ONE ARCHITECTURAL ASSISTANT, Grade A.P.T. III (salary £727 15s. to £907 2s. 6d.). FOUR ARCHITECTURAL ASSISTANT, Grade A.P.T. III (salary £656 to £784 2s. 6d.). FOR 50 17s. 6d. to £691 17s. 6d. to

undersigned.
Applications, together with copies of three testimonials, must be forwarded to the County Architect, Queen's Hill, Newport, Mon., not later than Saturday, 2th July, 1957.
VERNON LAWRENCE,
Clerk of the Council.
County Hall, Newport, Mon. 6885

County Hall, Newport, Mon.

County Hall, Newport, Mon.

ROROUGH OF REIGATE
ARCHITECTURAL ASSISTANT required on Grade A.P.T. II (£609 178. 6d.—£691 178. 6d. p.a.). Commencing salary according to qualifications and experience. Intermediate examination R.I.B.A. desirable. Housing accommodation provided, if necessary, for married man. Application forms obtainable from Borough Surveyor, Town Hall, Reigate, to be returned by 25th July, 1957.

HEBER DAVIES.

Town Clerk.

Town Hall, Reigate. June, 1957.

June, 1957.

CITY AND COUNTY OF BRISTOL

APPOINTMENT OF CITY ARCHITECT
Applications invited from candidates with
considerable experience in Architecture for
position of City Architect. Salary £2.605 rising
by three annual increments of £195 to £2.920. Post
superannuable, subject to Conditions of Service
of J.N.C. for Chief Officers.

Person appointed will be responsible to City
Council for carrying out Architectural and
Quantity Surveying work of the Corporation and
will be required to devote his whole time and
attention to the duties of the office.

Canvassing disqualifies, but selected candidates
may send 15 copies of their applications and
testimonials for use of members of Architects'
Committee.

testimonials for use of committee.

Printed forms of application, containing conditions of appointment and nature of duties from me, to whom applications, with copies of not more than three recent testimonials, sealed and endorsed "City Architect." must be delivered

ALEXANDER PICKARD, Town Clerk. The Council House, College Green, Bristol, 1,

URBAN DISTRICT COUNCIL OF BASILDON ASSISTANT ARCHITECT, Grade A.P.T. IV (£727 15s.-£997 2s. 6d. p.a.).

Applications are invited from experienced Architects to the above established post in the Engineer and Surveyor's Department. Commencing salary will be fixed according to experience and qualifications. Provision of housing accommodation will be considered.

The urban district has a population of approximately 55,000, covers 27,000 acres, and includes the New Town area and two Townships designated to Expanded Towns. Rapid development will provide an increasing variety of interesting work. Full particulars and application forms from and returnable to Mr. S. A. Wadsworth, A.M.I.C.E., A.M.I.Mun.E., High Street, Billericay, Essex. Closing date: 22nd July, 1957.

A. HATT, Clerk of the Council.

Clerk of the Council.
6862

CITY OF NOTTINGHAM EDUCATION
COMMITTEE
COLLEGE OF ARTS AND CRAFTS
Principal: ALPRED H. RODWAY, A.R.C.A.,
F.R.S.A.
Lecturer-in-Charge: D. S. KILNER,
Dipl.T.P.(Leeds), A.R.I.B.A., M.T.P.I.
Applications are invited for the full-time post
of STUDIO INSTRUCTOR in the Department of
Town and Country Planning, which is recognised
for exemption from the Final Examination of
the Town Planning Institute. The Studio
Instructor may be required to participate in
the work of the School of Architecture. Duties
to commence as early as possible. Candidates
should be Corporate Members of the Town Planning Institute and the Royal Institute of British
Architects.
Salary: Burnham Report, 1956, Grade B, i.e.,
2650×225—£1,025 (men), and £580×£20—£820, with
equal pay increments (women), together with
allowances, if appropriate, in respect of graduation, training, previous full-time teaching,
approved professional experience, and/or war
service.
Further particulars and application forms can

approved professional experience, and/or war service.

Further particulars and application forms can be obtained from the Principal, College of Art and Crafts, Waverley Street, Nottingham, to whom the latter should be returned within 14 days of this advertisement.

W. G. JACKSON,

Director of Education.

Education Office, Exchange Buildings,

Nottingham.

HERTFORDSHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT—QUANTITY SURVEYING STAFF
The following permanent staff required:—
(a) SENIOE ASSISTANT QUANTITY SURVEYORS,

Grade IV (£727—£907).

B.I.C.S. Final Examination standard required for the above.

R.I.C.S. Final Examination standard required for the above.

(c) ASSISTANT QUANTITY SURVEYOR, Grade III (£656-£734).

R.I.C.S. Inter. Examination standard required for the above.

No separate measuring surveyors are employed, and all surveyors would have contracts to manage, in addition to normal quantity surveyor's duties. The office works a 5-day week. Previous Local Government experience is not ossential.

essential.

Applicants must give full particulars of qualifications, training and experience, and state clearly which post is applied for. Applications, with names of two referees to County Architect, County Hall, Hertford, Herts, by 22nd July, 6843.

PERTH AND KINROSS JOINT COUNTY COUNCIL require ARCHITECTURAL ASSISTANTS for work on New Schools. The appointments will be in two Grades, viz. (a) A. & P. V/Va/VI (£730—£890) for experienced assistants with A.R.I.B.A. qualification or equivalent and (b) A. & P. I/IV (£565—£715) for Junior Assistants commencing not lower than £635 for those with R.I.B.A. Intermediate qualification or equivalent. Particulars of appointments and forms of application from the County Clerk, P.O. Box 15, County Offices, York Place, Perth. Applications to be lodged by 20th July, 1957.

CITY AND COUNTY OF NEWCASTLE UPON TYNE
CITY ARCHITECT'S DEPARTMENT
The City Architect will be pleased to receive applications for the following established post in the Quantity Surveying Section of fits Depart-SENIOR QUANTITY SURVEYOR, A.P.T. Division, Grade V (£814 17s, 6d.—£994 5s. per

Division, Grade V (£814 178, 0d.—£794 0s. per annum).

The above post will be subject to the provisions of the Local Government Superannuation Acts, 1937-1953, and to one month's notice on either side. The successful candidate will be required to pass a medical examination.

Further particulars and form of application may be obtained from George Kenyon, A.R.I.B.A., A.M.T.P.I.. City Architect, 18, Cloth Market, Newcastle upon Tyne, 1.

Closing date for receipt of completed applications: Saturday, 3rd August, 1957.

JOHN ATKINSON,

Town Hall.

Town Hall, Newcastle upon Tyne, 1. 5th July, 1957.

SOWERBY BRIDGE URBAN DISTRICT
COUNCIL
ASSISTANT ARCHITECT
Applications are invited for the above post.
The Salary will be in accordance with Grade
A.P.T. IV (£727 158,—£907 28. 6d.) of the National
Scales.
Preference will be given to applicants who
have had experience in preparation plane shade.

Scales.

Preference will be given to applicants who have had experience in preparing plans and quantities for Housing Schemes and supervision of work in progress, and who have also passed Parts I and II of the R.I.B.A. final or special final examination or their equivalent at one of the recognised schools of Architecture and had at least five years experience or is a Registered Architect.

at least five years experience or a standard five Architect.

The appointment will be subject to the Local Government Superannuation Acts 1937, and the successful applicant will be required to pass a medical examination.

Applicants must disclose knowledge, they are related to any member or officer of the Council.

If required, a house will be made available as soon as possible, after the appointment is made.

as soon as possion, made.

Applications endorsed "Assistant Architect," stating age, qualifications, and experience, and giving the names and addresses of three persons to whom reference may be made, must reach the undersigned not later than Monday, the 22nd July, 1957.

ALFRED WOMERSLEY,

Clerk of the Council.

ALFRED WOMERSLEY,
Clerk of the Council.

Allan House,
Sowerby Bridge.

COUNTY LONDONDERRY EDUCATION
COMMITTEE
SECTION ARCHITECT

Applications are invited for the above position in the Committee's Offices in Coleraine. Applicants must be Associates of the R.I.B.A. or have equivalent qualifications. Salary Scale £675 × 25
-£750 × 30-£960 × 40-£1,000, with appropriate pay supplements, point of entry according to experience and qualifications. Travelling expenses at County Council Rates,
Application forms and conditions of appointment may be obtained from the Director of Education, Education Office, New Row, Coleraine and completed forms should be returned not later than Wednesday, 24th July, 1957.

COUNTY BOROUGH OF STOCKPORT
QUANTITY SURVEYORS required (2 posts). Salary £314 178. 6d. to £944 5s., commencing according to age, qualifications and experience. Varied and large scale building programme. Applications, giving age, qualifications, experience, two referees, and stating if related to any member/senior officer of Council, to Borough Architect, Town Hall, Stockport, by 22nd July, 1957. Canvassing disqualifies. Posts pensionable, subject to medical examination.

(a) PLANNING ASSISTANT.

(b) PLANNING ASSISTANT.

(c) PLANNING ASSISTANT.

(d) PLANNING ASSISTANT.

(e) PLANNING ASSISTANT.

(f) PLANNING ASSISTANT.

(g) PLANNING ASSISTANT.

(h) PLANNING ASSISTANT.

(e) PLANNING ASSISTANT.

(f) PLANNING ASSISTANT.

(g) PLANNING ASSISTANT.

(h) PLANNING A

Post (a)—Applicants should be Associate Members of the Town Planning Institute and/or the Institution of Municipal Engineers.

and/or the Institution of Municipal Engineers.

Post (b)—Applicants should have a University Degree in Economics or Geography.

The appointments are permanent, superannuable, and subject to a medical examination. Applications stating qualifications, age and experience and naming two referees should reach the undersigned by the 20th July, 1957.

Canvassing disqualifies.

City Engineer and Surveyor.

Civic Centre.

Civic Centre. Birmingham.

Birmingham, 1. 6865

LANCASHIRE COUNTY COUNCIL
Vacancies exist for SENIOR QUANTITY
SURVEYORS within the scale 4902—47,107.
Applicants must have had a wide experience in
all branches of quantity surveying, and the
successful candidates will be expected to deal
with large contracts from taking off to settlement
of final accounts.
Application forms, obtainable from the County
Architect, P.O. Box 26, County Hall, Preston, to
be returned by Monday, 29th July, quoting
Ref. A/AJ. 6837

Ref. A/AJ.

BOROUGH OF CHESTERFIELD

ARCHITECTURAL ASSISTANT
Applications invited for above appointment at a salary in accordance with the Special Classes Grade, i.e. £707 to £861 or at A.P.T. IV £727 to £907. Commencing salary in accordance with qualifications and experience. Applicants must be Associates of the R.L.B.A. or hold equivalent qualifications and must have had a good general practical office experience.

Housing accommodation available if required. Car allowance is payable.

Applications, stating age, qualifications, full details of experience and positions held, together with the names of two referees, to be received by the Borough Engineer, Town Hall, Chesterfield, not later than Monday, 22nd July, 1957. Canvassing will disqualify RICHARD CLEGG.

RICHARD CLEGG.

Town Clerk.

28th June, 1957.

BUCKS COUNTY COUNCIL
Applications are invited for the following permanent appointments:—

(a) ARCHITECTS.

1 ASSISTANT ARCHITECT, Grade VII £999 7s. 6d.—£1,230 p.a.
3 ASSISTANT ARCHITECTS, Grade VI £902—£1,107 p.a.
1 ASSISTANT ARCHITECT, Grade V £814 17s. 6d.—£994 5s. p.a.
(b) QUANTITY SURVEYORS.
2 ASSISTANT QUANTITY SURVEYORS, Grade VI £902—£1,107 p.a.
(c) HEATING & LIGHTING ENGINEERS.
1 ASSISTANT FINGINEER, Grade V £814 17s. 6d.—£994 5s. p.a.
(d) STRUCTURAL ENGINEERS.
1 ASSISTANT ENGINEER, Grade V £902—£1,107 p.a.
The appointments are superannuable and subject to medical examination.

2902-£1,107 p.a.

The appointments are superannuaute ...
ject to medical examination.

A weekly allowance of 25s, and return fare home once every two months may be paid for six months to newly appointed married officers of the Council unable to find accommodation.

Applications, on forms provided, must be returned by 18th July, 1957.

F. B. POOLEY.

County Architect.

County Architect's Department, County Offices, Aylesbury, Bucks.

Aylesbury. Bucks. 6853

THE NORTH WESTERN ELECTRICITY
BOARD
ASSISTANT QUANTITY SURVEYOR
(FOURTH ASSISTANT ENGINEER),
CONSTRUCTION SECTION—CHIEF
ENGINEER'S DEPARTMENT, AREA BOARD
HEADQUARTERS, MANCHESTER, 28
The duties will consist of general assistance
in the preparation of Bills of Quantities, and
particularly in abstracting, billing and site
measurements, and in taking off and preparing
final accounts.
Preference will be given to applicants who

Preference will be given to applicants who have passed or are about to enter for the Intermediate Examination of the R.I.C.S. or A.I.A.S.

have passed or are about to enter for the Intermediate Examination of the R.I.C.S. or A.I.A.S.

Salary Scale: £710×25—£835—£935 p.a. Grade AXEX & N.J.B. Conditions.

Applications, naming three referees to assistant Secretary (Establishments). The North Western Electricity Board, Cheetwood Road, Manchester, 8, by 20th July. 1957.

6800

BOROUGH OF ROMFORD

Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department:—

(a) SENIOR ASSISTANT ARCHITECT—Grade A.P.T. III (£556 to £784 2s. 6d.).

The commencing salary in each case will be fixed according to qualifications and experience. Housing accommodation for (a) above will be made available if required.

Particulars and conditions of the appointments may be obtained on application to the Town Clerk, Town Hall, Romford, to whom completed applications must be sent not later than saturday, 20th July, 1957.

UNIVERSITY COLLEGE OF SWANSEA WORKS AND BUILDINGS OFFICER Applications and at least five years' post-qualification experience. The salary scale is £990 to £1,650 per annum together with child allowances and membership of the F.S.S.U. Commencing salary will be in accordance with the successful candidate's experience and qualifications, Experience in the design, supervision of construction and maintenance of large scale educational buildings is highly desirable. Site planning experience of comprehensive layouts will be an advantage. Further particulars may be obtained from the undersigned. The last date for receipt of applications is 18th July 1957.

JOHN McINTYRE.

University College of Swansea.

University College of Swansea, Singleton Park, Swansea, Glamorgan,

Singleton Park.

Swansea, Glamorgan, 6831

BORCUGH OF WIMBLEDON

ARCHITECTURAL ASSISTANT, Grade A.P.T.

IV, 2727 to 2907, plus London weighting. Form of application from the Borough Engineer & Surveyor, Town Hall, Wimbledon, S.W.19, by the 19th July, 1957. Canvassing disqualifies. 6816

BUCKS COUNTY COUNCIL

Applications are invited for the position of DEPUTY CHIEF QUANTITY SURVEYOR in the County Architect's Department, salary within J.N.C. Scale "A" (£1.155 × £25 to £1.320 p.a.).

Candidates should be A.R.I.C.S. and have had considerable experience in all sections of the Quantity Surveying profession.

The appointment is superannuable and subject to medical examination.

A weekly allowance of 25s. and return fare home once every two months may be paid for six months to newly appointed married officers of the Council unable to find accommodation.

Applications, on forms provided, must be returned by the 31st July, 1957.

F. B. POOLEY.

County Architect's Department,

County Architect's Department,

County Architect's Department, County Offices. Aylesbury, Bucks.

WARWICKSHIRE COUNTY COUNCIL ARCHITECT'S DEPARTMENT Applications are invited for the follow

appointments:—

(a) SENIOR ASSISTANT ARCHITECTS, Grade A.P.T. V (£814 178, 6d.—£994 5s.). Applicants must be competent designers having a knowledge of modern methods of construction, and be capable of handling large building projects from sketch plan stage to completion.

(b) ARCHITECTS, Grade A.P.T. IV (£727 15s.—£907 2s. 6d.). Applicants must be competent designers having a good knowledge of construction and be capable of handling medium-sized contracts. intments

designers naving a good to handling medium-sized contracts.

(c) ASSISTANT ARCHITECTS. Scale £707 58.—
£861. The successful applicants will work in teams on large projects, but opportunity will be given to men with enthusiasm and ability to design and carry out smaller projects under the Group Architect.

The commencing salaries can be within the grades according to the ability and experience. The appointments are on the established staff and all are subject to the Scheme and Conditions of Service of the National Joint Council for Local Authorities and the Local Government Superannuation Acts, 1937-1955. Successful candidates will be required to pass a medical examination. The Council is unable to offer successful candidates housing accommodation.

Applications are to be on forms which can be obtained from G. R. BARNSLEY, F.R.I.B.A., County Architect, Shire Hall, Warwick.

Shire Hall, Warwick.

SOUTH WESTERN ELECTRICITY BOARD SHOP FITTING DESIGNER
Applications are invited for the permanent and pensionable position of SENIOR ASSISTANT in the Estates Section of the Board's Headquarters at Bristol.
Salary £735×£25 to £810 p.a. Duties and responsibilities include preparation of drawings, specifications and schedules of building and decorative work; preparation and pricing of quantities, principally in relation to alterations to shop premises; checking of estimates received and supervision of work ordered. Experience and knowledge of modern shop fitting, shop design and layout essential.
Applications on form AE6/ACT, obtainable from Establishments Officer, Electricity House, Bristol, 1, should be returned by July 23rd. 6838

CITY OF BIRMINGHAM
CITY ARCHITECT'S DEPARTMENT
Applications are invited for the following
permanent and superannuable posts at commencing salaries according to capabilities and

ing salaries according
experience.
(a) ASSISTANT ARCHITECTS—Grade APT.V
(ERIA 178, 6d.—1994 5s.).
(b) ASSISTANT ARCHITECTS—Grade APT.IV
(EV27 15s.—1997 2s. 6d.)
(c) ARCHITECTURAL ASSISTANTS. Special
Classes Ad Hoc Scale (£707 5s.—£85).
(d) ARCHITECTURAL ASSISTANTS. Special
Classes, Grade APT.II (£629 17s. 6d.—
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(d) ARCHITECTURAL AND Classes, Grade APT.II (£629 Ars. £711 178. 6d.).

(e) ARCHITECTURAL ASSISTANTS. Special Classes, Grade APT.I (£655 5s.—£645 5s.).
Applicants for posts (a) and (b) should be fully qualified and for posts (c), (d) and (e) suitably qualified in accordance with the National Joint Council Scheme for Architectural Assistants. Medical Examination. 5 Day week.
Applications, endorsed with the heading of the post, and stating age, qualifications, experience and two referees, to the undersigned by 2nd Angust, 1957.
Canvassing disqualifies.

A. G. SHEPPARD FIDLER.

City Architect.

LONDON COUNTY COUNCIL
ARCHITECT'S DEPARTMENT
Vacancy for ARCHITECTURAL and TOPOGRAPHICAL MODEL MAKER (up to £817 per
annum). Previous experience essential and applicant should be able to work from architect's plans
and elevations on wood, card, metal and perspex.
Application form returnable by 20th July, 1957,
from Architect (AR/EK/39/57), The County Hall,
S.E.1. (1286)

S.E.1. (1286)

HER MAJESTY'S OVERSEAS CIVIL SERVICE TOWN PLANNING OFFICER SURVEY DEPARTMENT. GOVERNMENT OF NORTHERN NIGERIA

To produce development plans for Government Stations, African towns and villages. Appointment is either permanent and pensionable in the salary range £1,086 to £1,680 p.a. of or contract in the range £1,170 to £1,824 p.a. Officers on contract receive a gratuity of £37 108. in respect of each completed period of three months resident service on satisfactory completion of contract.

Free passages for officer and wife and up to cost of one adult passage for children. Children's allowances from £120-£288 p.a. also payable. Quarters, if available, at rental of 84% of basic salary. Generous home leave on full salary. Candidates must be A.M.T.P.I. Experience in research for planning an advantage.

Write Director of Recruitment, Colonial Office. London, S.W.I, giving briefly age, qualifications and experience, quoting BCD.103/408/04. 6840

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NUFFIELD FOUNDATION

NATIONAL FARMERS' UNION FELLOWSHIP
IN FARM BUILDING DESIGN
Applications are invited from architects for a
Fellowship in farm building design. This Fellowship has been established by the National
Farmers' Union and is administered by the
National Farmers' Union and is administered by the
Sufficial Foundation. The value of the Fellowship, which is tenable for two years, will be
between £700 and £800 per annum. The Fellow
will be required to devote himself, full time,
to a course of study in farm building design.
The Fellowship is open to men and women
who are citizens of the United Kingdom, who
have completed a course qualifying them for
registration as architects and have gained some
practical experience in architecture after
qualifying.
Full details and application forms are obtainwho from the Divisional course.

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Full details and application forms are obtainable from the Division for Architectural Studies, The Nuffield Foundation, Nuffield Lodge, Regent's Park, London, N.W.1. The late date for the receipt of applications is 30th September, 1957.

L. FARRER-BROWN,

Director of The Nuffield Foundation.
6867

Director of The Nuffield Foundation.

6867

CENTRAL ELECTRICITY AUTHORITY
HEADQUARTERS
Applications are invited for the appointment of CIVIL ENGINEERS at the RESEARCH LABORATORIES, LEATHERHEAD, SURREY, to carry out investigations into the properties of pulverised fuel ash concrete, the applications of such concrete to civil engineering projects, and the further use of p.f. ash. Candidates should have a degree or H.N.C. in Civil Engineering preferably with some practical experience, Salary £550-£995 per annum according to qualifications and experience Applications stating age, experience, present position and salary should be forwarded to D. Moffat, Director of Establishments, Winsley Street, London, W.1, by 20th July, 1957. Quote reference A.J./289.

COUNTY BOROUGH OF MERTHYR TYDFIL PERMANENT APPOINTMENT OF TWO SENIOR ARCHITECTURAL ASSISTANTS Applications are invited for the above appointments at a salary in accordance with Grade A.P.T. V of the National Scheme of Conditions of Service.

of Service.

Applicants must be Associate Members of the Royal Institute of British Architects and must have had good all round experience in the architectural work usually undertaken by the Local Authority. Planning experience would be an advantage.

tectural work usually undertaken by the Local Authority. Planning experience would be an advantage. Housing accommodation will be provided if required, and reasonable removal expenses of the successful applicant will be paid. The appointment will be subject to the Local Government Superannuation Acts and to the passing of a medical examination. The appointment will be terminable by one month's notice on either side.

either side.

Applications stating age, past and present appointments, qualifications and experience, together with copies of three recent testimonials should be delivered to the undersigned not later than 12 noon on Saturday, 27th July, 1957.

Canvassing in any form will disqualify.

T. S. EVANS,

Town Hall

Town Hall, Merthyr Tydfil.

Architectural Appointments Vacant

4 lines or under. 9s. 6d.; each additional line. 2s. 6d Box Number, including forwarding reply, 2s. setra

RONALD WARD & PARTNERS require ARCHITECTURAL ASSISTANTS with contemporary outlook and willing to use own initiative. Salary range £600 to £250. Congenial working conditions. Apply 29, Chesham Place, Belgrave Equare, S.W.1. Telephone Belgravia 3361.

Square, S.W.I. Telephone Belgravia 3361. 6322
CO-OPERATIVE WHOLESALE SOCIETY LTD.
ARCHITECT'S DEPARTMENT, MANCHESTBR
A PPLICATIONS are invited for the following
appointments:—(a) SENIOR ASSISTANT
ARCHITECT'S with experience of work on commercial and industrial projects (salary range 2300
to 2975 per annum). (b) ASSISTANT ARCHITECT'S capable of preparing working drawings
from preliminary details (Salary range 250
to 220 per annum). There is a five-day week in
operation and both appointments offer prospects
of upgrading. Applications stating age, experience, qualifications and salary required to
d. S. Hay. A.R.I.B.A. Chief Architect, Cooperative Wholesale Society Ltd., 1, Balloon
Steek, Manchester 4.

A RCHITECTURAL ASSISTANT required in busy London Office with varied practice. Good salary and prospects for suitable applicant. Five-day week. Write, giving particulars of age, qualifications, experience, etc., to Box 851 c/o 7. Coptic Street, W.C.1.

A SSISTANT, Intermediate standard, required, busy West End office. State age, experience, and salary required.—Box 6046.

NORTH & PARTNERS, Chartered Architects with extensive practice, seek partner's Personal ASSISTANT. Position will afford excellent opportunity for capable assistant. Reply: 48, Broadway, Maidenhead.

A SSISTANT ARCHITECT. Co-operative Whole-A SSISTANT ARCHITECT. Co-operative Whole-As ale Society, Ltd., invite applications for the position of Assistant Architect. Must be capable of preparing working drawings from preliminary details. The post is superannuable, subject to medical examination. 5-day week in operation. Applications, giving details of age, experience and salary required, to—W. J. Reed, F.E.I.B.A., Chief Architect, C.W.S. Ltd., 99, Leman Street, London, E.1.

LONDON office with widely varied practice urgently requires all grades of ASSIB-TANTS, preferably with London experience. Five-day week. Lewis Solomon, Son & Joseph, 21, Bloomsbury Way, London, W.C.1. Holborn

RAMSEY, MURRAY, WHITE & WARD returned two to five years' practical experience, to work on interesting industrial and office buildings. Salary by arrangement.—Apply 32, Wigmore Street, W.1.

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CENIOR ASSISTANT required to take charge of large interesting jobs from design stage. Salary £800 to £1,150 p.a. according to capabilities. Apply Morris de Metz. F.R.I.B.A., CITy 4086, 5557

YOUNG ARCHITECTURAL ASSISTANT (male) required in West End office. Write stating age, experience and salary required.

JUNIOR ARCHITECTURAL ASSISTANTS required in the Architect's Department of Multiple Retail Company, Birmingham Area. Applicants must have had sound architectural training up to Intermediate standard, and are required to prepare working drawings and details under supervision of senior staff. Salary within the range of £450 to £509 p.a. Five-day week. Staff canteen and pension scheme available. Replies to Box 6763.

A SSISTANT required, Intermediate standard; also JUNIOR, in West End office. Write stating age, experience and salary required to Box 6724.

YOUNG ASSISTANT required to work with Principal. Cumberland, Weesmorland and Lancashire. Payment related to ability. Real prospects for rapid advancement. First class education and references essential. C. B. Martin-dale, F.R.I.B.A., Castle Street, Carlisle. 6514

A RCHITECTURAL ASSISTANT required for private practice. 5-day week.—Please write, stating age, training, experience, and salary required, Alexander Graham, 15, The Tything, Worcester.

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ROBERT MATTHEW & JOHNSON-MARSHALL, F./A.R.I.B.A., have vacancies in their London office for ARCHITECTS, recently qualified or up to 5 years' office experience.— Applicants should apply, in writing, to 24, Park Square East, Regent's Park, N.W.1.

A RCHITECTS' ASSISTANTS required immediately. Inter./Final standard. Salary according to experience. 5-day week. Staff canteen. Pension Scheme.—Applications in writing, giving full details of age, experience, and salary, to Personnel Department, British Home Stores, Ltd., 129, Marylebone Road, London, N.W.1.

NORMAN JONES, SONS & RIGBY require TWO ARCHITECTURAL ASSISTANTS:
(1) Qualified, experienced, able to take charge of medium sized contracts. Salary range £900—£1,000 p.a., according to ability.
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Please write, stating experience, to 271, Lord Street, Southport, Lancashire. 6788

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Ringstridge, Devon.

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S V. 742. ARCHITECT, Grade II. Salary:
6. £700 × £30 to £1,000, Candidates should be corporate members of the R.I.B.A. with varied

be corporate members of the R.I.B.A. with varied practical experience.

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The architectural work of the department covers the design of colliery surface buildings of all types, including workshops, stores, power plants, offices, pithead baths, canteens, medical centres and recreation buildings.

The point of entry into the salary scales of the respective grades will depend on qualifications and experience. The posts are superannuable and superannuation rights under Local Authority and certain other schemes are transferable. Facilities for part-time study at the Nottingham School of Architecture may be granted to Assistants in certain circumstances.

Applications giving age, present salary and full details of education, qualifications and present appointment should be addressed to The Divisional Chief Staff Officer, National Coal Board, E.M.D. Sherwood Lodge, Nr. Arnold, Nottinghamshire, within 14 days. Please quote appropriate reference number.

6863

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ARCHITECTS' Department of Ind Coope & Allsopp Ltd., Brewers, Burton-on-Trent, have vacancies for SENIOR ASSISTANTS in their Head Office at Burton-on-Trent. Applicants should be Associate Members of the R.I.B.A., and it would be an advantage if they are interested and have experience in interior decoration and furnishing. Commencing salary would be according to qualifications and experience. A five-day week is in operation.

Particulars of training, experience, past and present appointments, qualifications, age, and whether married or single, together with copies of testimonies and salary required, should be forwarded to The Chief Architect, Ind Coope & Allsopp Ltd., Burton-on-Trent.

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HARROW OFFICE requires ASSISTANT,
Intermediate standard, practical experience
working drawings; specification; surveys, etc.,
good draughtsman; Please write with full
particulars including salary required to Field
and Shaw, 40, Station Road, N. Harrow, Middx.
6879

OLIVER LAW & PARTNERS (Chartered Architects) have a vacancy for an ARCHI-TECTURAL ASSISTANT with office experience, but full qualifications not essential. Box 6894.

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A SSISTANT ARCHITECTS with ability to supervise contracts required by London Architect with varied practice, holiday arrangements made. Five-day week. Write stating experience and salary required to Box 6873.

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A RCHITECTURAL ASSISTANTS, all grads, required by Monro & Partners for their London & Watford Offices. Salary by arrangement. Five-day week. Apply 32, Clarendon Road, Watford.

CEENS & CROSS, Metropole Chambers, The Lausdowne, Bournemouth, require ARCHI-TECTURAL ASSISTANTS. Must be good draughtsmen with an appreciation of design and a sound knowledge of building construction. Write stating experience and salary required.

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CHIEF ASSISTANT, aged 32, seeks responsible post with prospects, west or south-west England. A.R.I.B.A. with six years' varied experience. Box 6845.

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ECRETARY, with previous experience, required end of August by Architects, West End office. Salary by arrangement. Five-day week. Telephone HUNter 0361.

EXPERIENCED SECRETARY required for south coast Architect's Office, stenographer essential. State experience and salary required. Box 6876.

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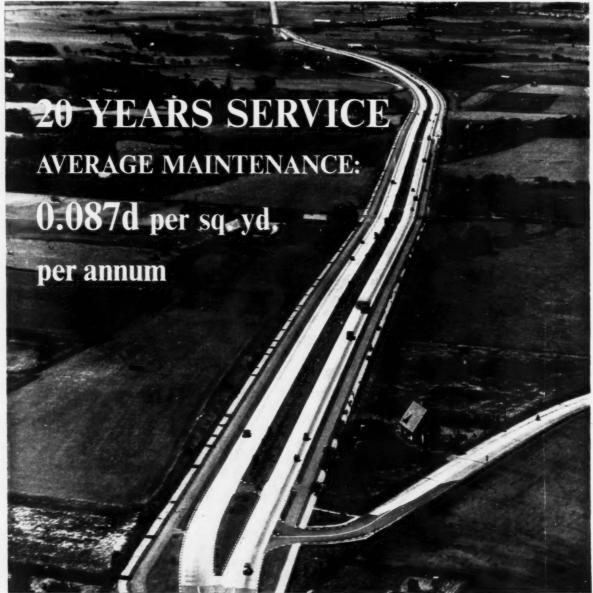
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