FINE ARTS DEPT.

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standard

contents

every issue does not necessarily contain all these contents, but they are the regular features which continually recur

and COMMENT NEWS

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CURRENT BUILDING Major Buildings described : Details of Planning, Construction, Finishes and Costs Buildings in the News Building Costs Analysed

Appointments Architectural Vacant Wanted and SIA

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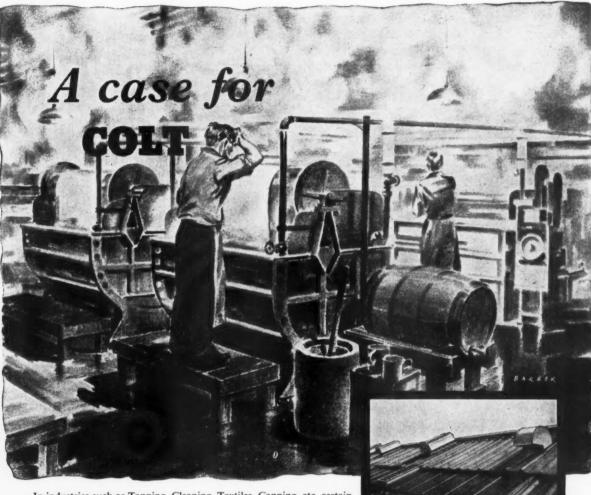
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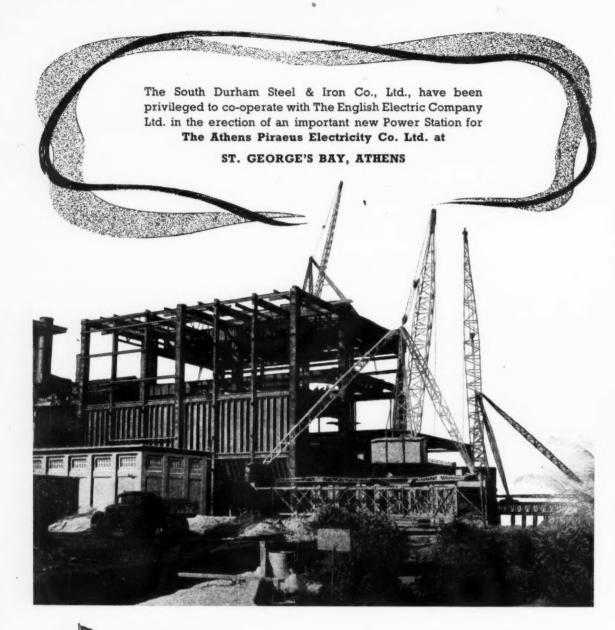
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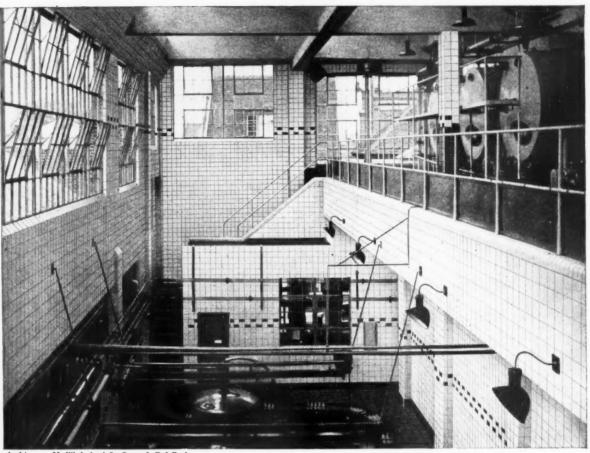
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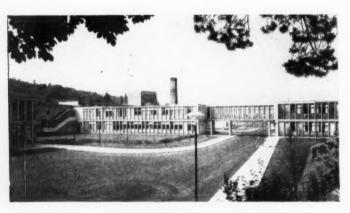
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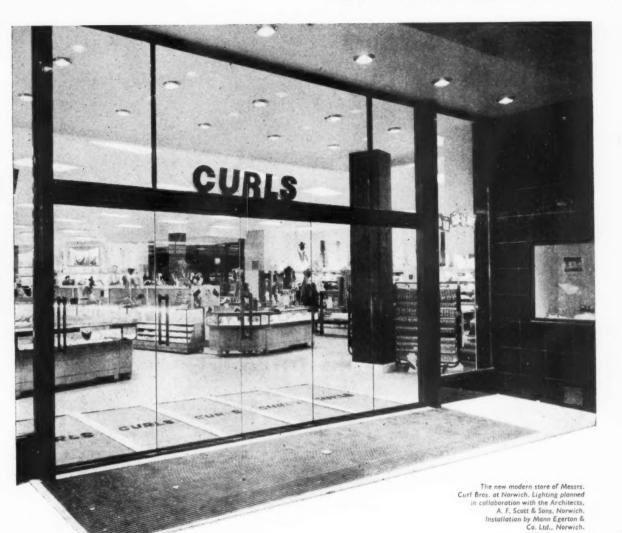
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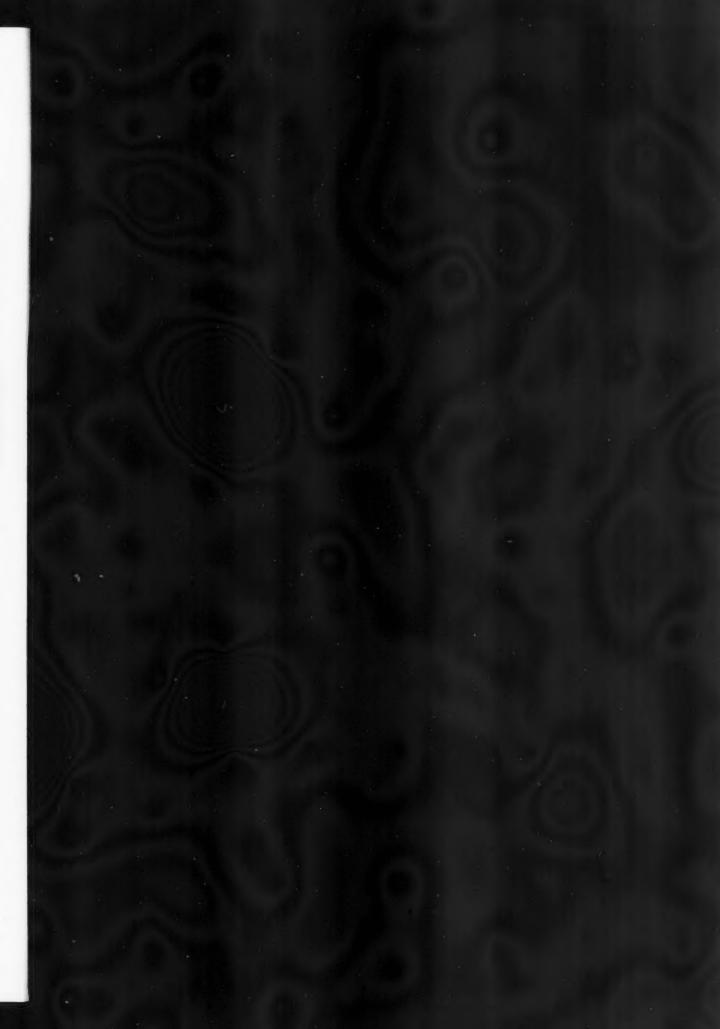
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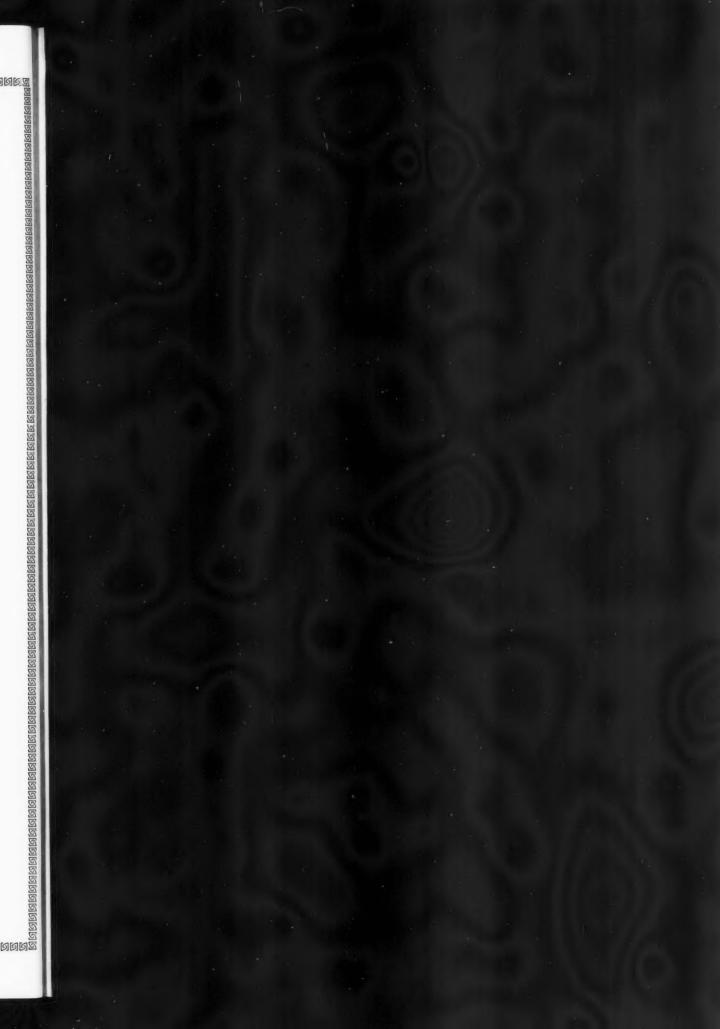
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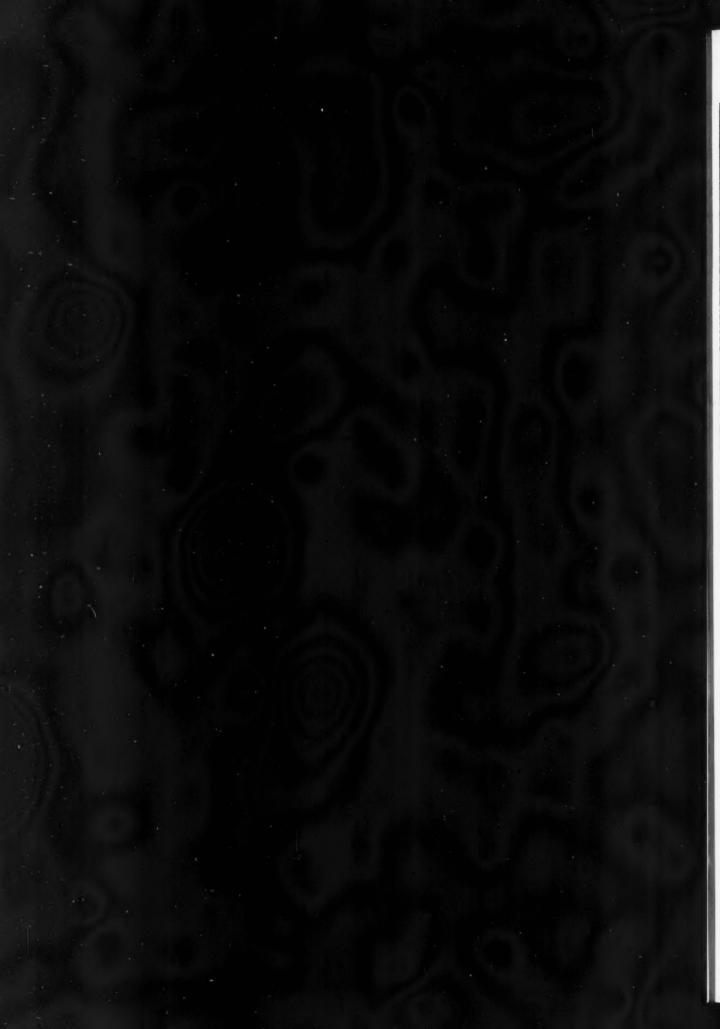
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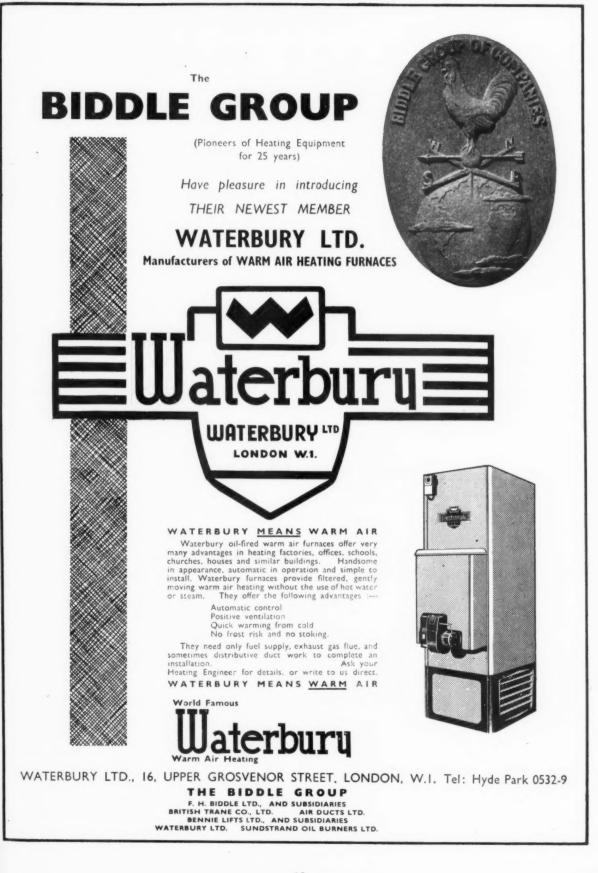
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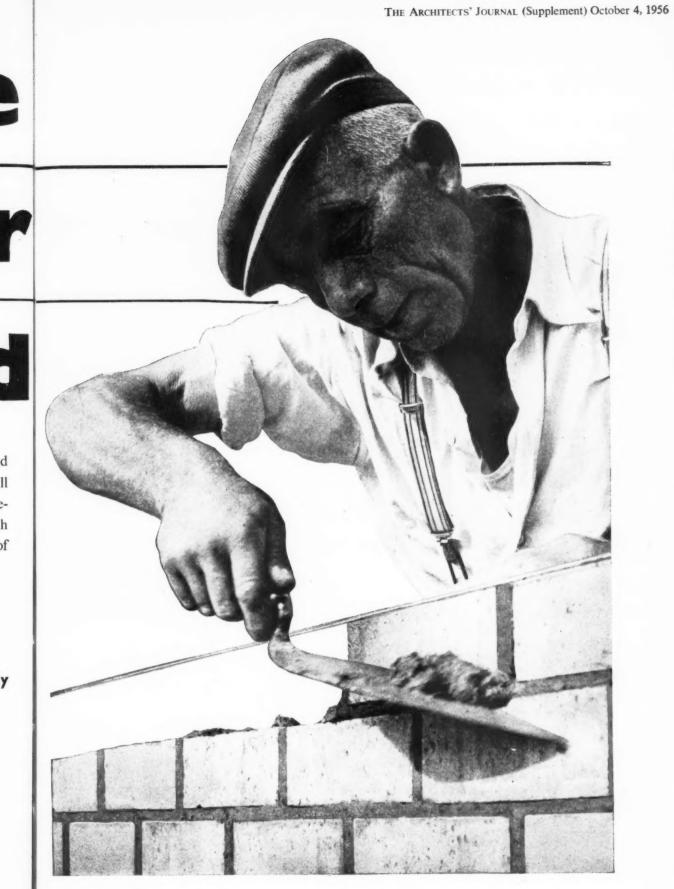
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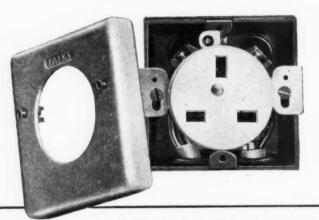
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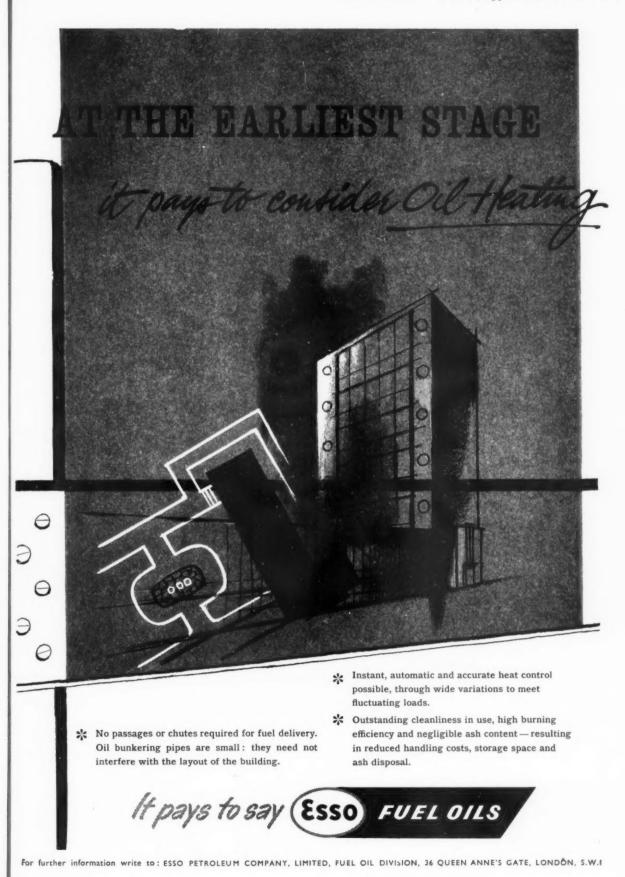
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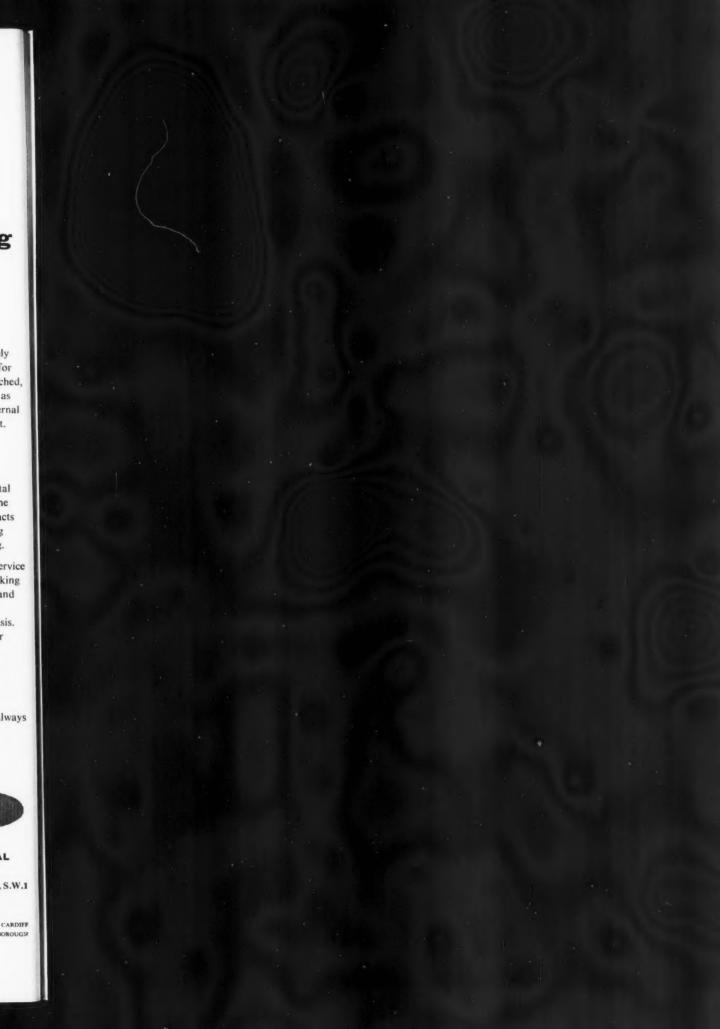
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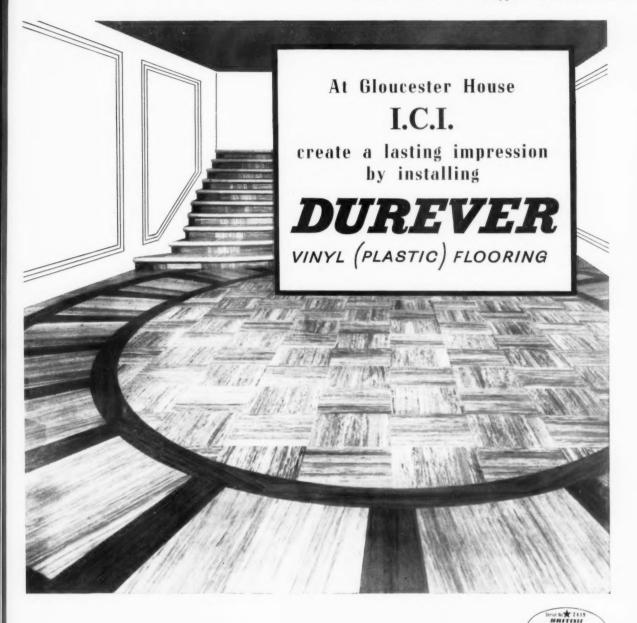
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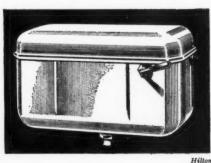
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technical details

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For further information on the use of glass in building consult the Technical Sales and Service Department, St. Helens, Lancs. (Telephone: St. Helens 4001) or Selwyn House, Cleveland Row, St. James's, London, S.W.I. (Telephone: Whitehall 5672-6). Supplies are available through the usual trade channels.

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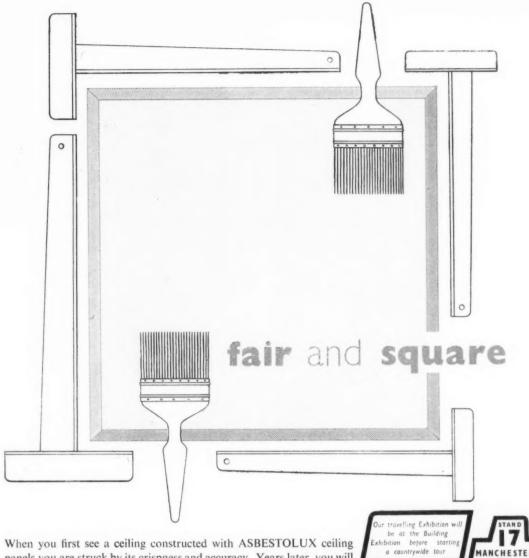
The Bilston is designed to heat the water without fuss (enough to draw off a bath every half-hour and heat a radiator). Without dirt, too. The Bilston's dust-free riddling and emptying make a big appeal to the modern housewife.

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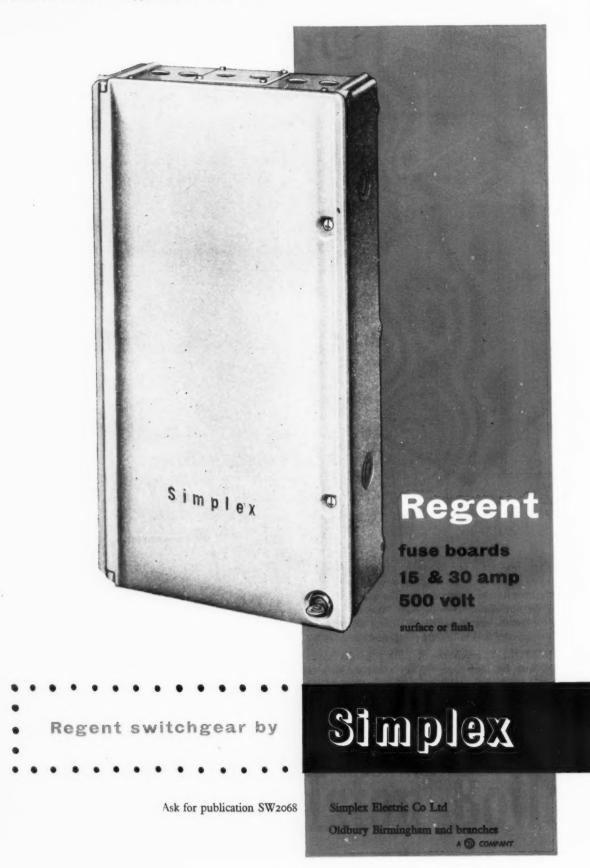
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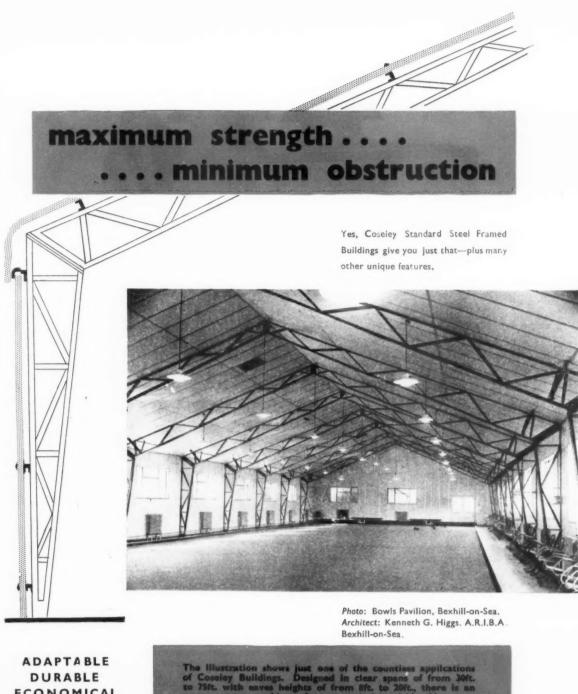
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THE ARCHITECTS' JOURNAL (Supplement) October 4, 1956



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The Jacket has been re-designed, now having rounded corners and entirely enclosing the front platework, and is lined with adequate insulating material.

The front, back and sides of the Jacket are enamelled in a most attractive finish of Forge Red, a pleasing shade mottled with a metallic effect to lend it the appearance of a hammered finish. The top portion and the Diverter castings, including Diverter Jacket Ring, are finished in black enamel.

Those parts of the Jacket which are removable for cleaning purposes are fitted with neat black plastic handles, while the apertures through which the burner pipes enter the Boiler are framed with chromiumplated strips.

The front platework is painted black and is sealed with asbestos rope to ensure a gas-tight fit.

A new type of thermostat is fitted, with a dismountable head and sheath which enables it to be removed and replaced with the minimum of inconvenience and labour.

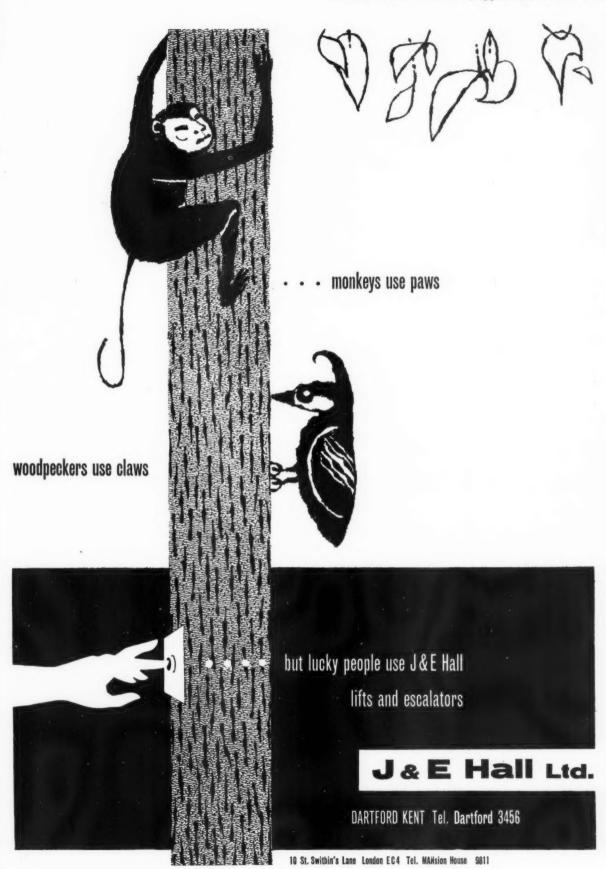
All these improvements are provided with no increase in price and result in a Boiler that is eminently suitable for boiler-houses in which both a clean and attractive appearance and the highest functional efficiency are required.

The new No. 3-GBD Series Gas Boiler is available in nine sizes, for Hot Water and low-pressure Steam Heating, with ratings from 390,000 to 1,430,000 B.T.U.'s per hour.

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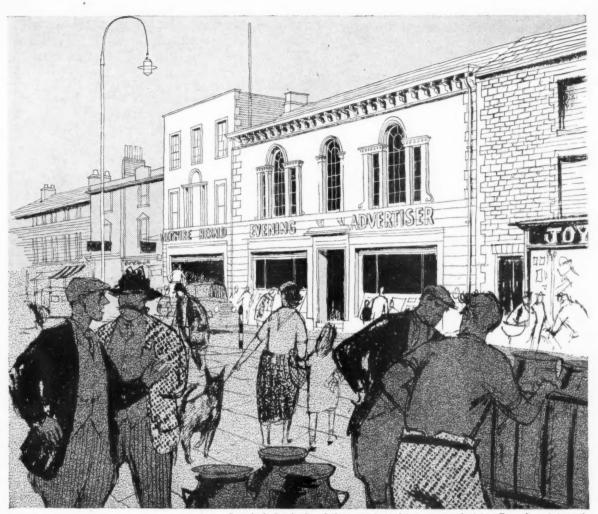
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Recently the Swindon Press built an extension to their newspaper and printing offices. In a printing works, a controlled temperature is essential, and this has been achieved with an oil-fired central heating system assisted by insulation of the walls and roof. The oil fuel is supplied by Shell-Mex and B.P. Ltd.

A PRINTING WORKS NEEDS A CONTROLLED TEMPERATURE

The Swindon Press installed oil-fired heating in their extension

A FEW MONTHS ago the Swindon Press Ltd. built an extension to their newspaper and printing offices. Work was completed in November 1955, and now this fine building provides 50% more floor space, and relieves severe congestion in many departments.

In a printing works, constant temperatures are vital to the efficient operation of inks and paper surfaces. The walls and the roof of the new extension have been insulated, and an oil-fired central heating system installed. This provides a comfortable, even warmth throughout the building, enabling it to be kept at a controlled temperature for as long as necessary, which can be altered at the touch of a switch. No other system demands so little maintenance — only a few minutes is needed every few weeks. There is no stoking. No ash to be cleared out. Oil burns cleanly, is easily stored in quantity, and is easy to handle and deliver.

It is a well-known fact that there is a steadily growing gap between this country's demand for fuel and available home supplies. Already last year Britain was forced to import 11 million tons of coal. By 1960, this figure may well have reached 50 million tons. It has been estimated that by that date no less than one in four of Britain's industrial fuel consumers will have to change to oil-firing. Aware of this serious situation, more and more industrialists and property - owners are installing or converting to this most flexible and labour-saving heating system. Shell-Mex and B.P. Ltd. have had over forty years' experience in the handling of oil fuel and providing information on applying it to the best advantage. If you are considering oil-firing for the heating system of any building which you are designing or altering, please write to Fuel Oil Dept. 42F, Shell-Mex House, Strand, London, W.C.2. This of course will place you under no obligation.



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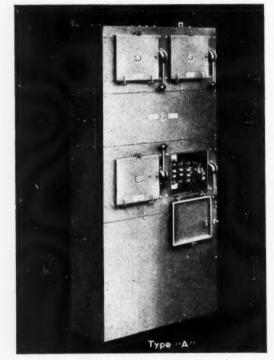
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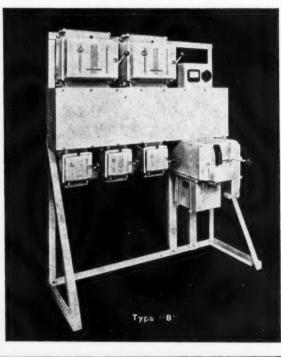


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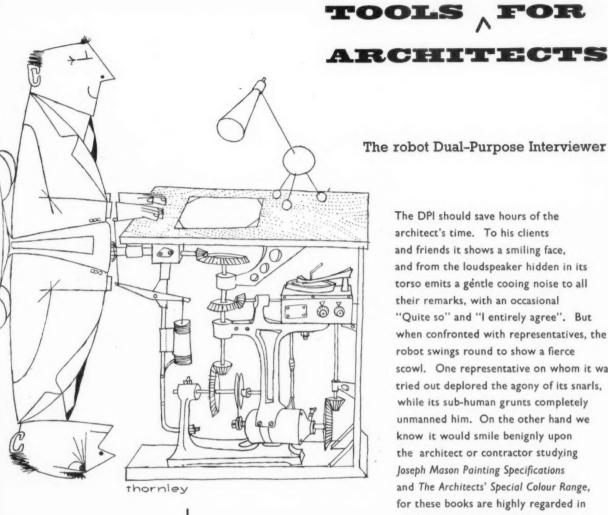


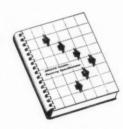


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torso emits a gentle cooing noise to all their remarks, with an occasional "Quite so" and "I entirely agree". But when confronted with representatives, the

The DPI should save hours of the architect's time. To his clients

and friends it shows a smiling face, and from the loudspeaker hidden in its

robot swings round to show a fierce scowl. One representative on whom it was tried out deplored the agony of its snarls, while its sub-human grunts completely unmanned him. On the other hand we know it would smile benignly upon the architect or contractor studying Joseph Mason Painting Specifications and The Architects' Special Colour Range, for these books are highly regarded in the best architectural circles as part of the Joseph Mason Technical Service.

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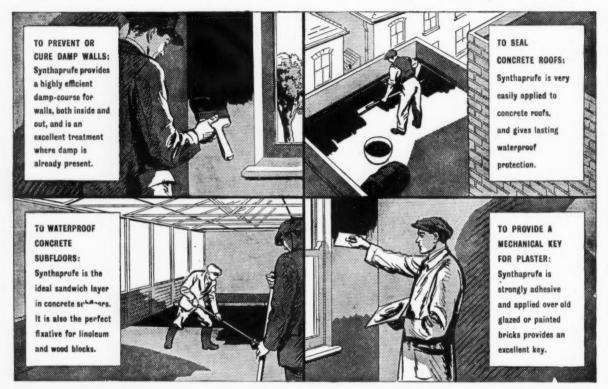
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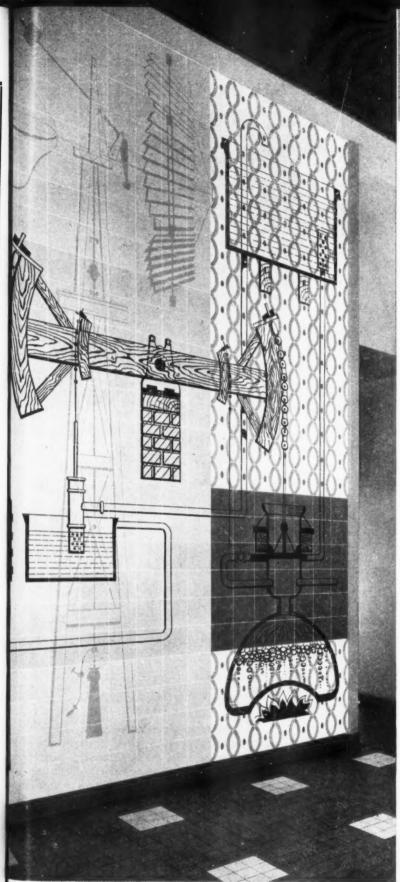
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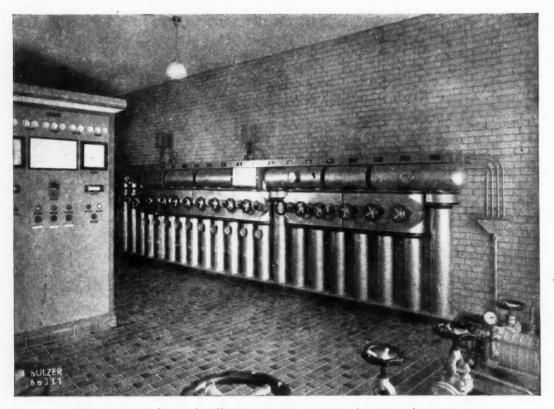
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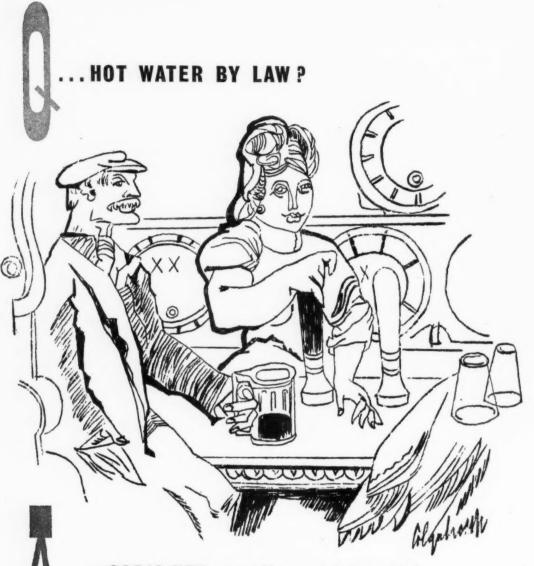
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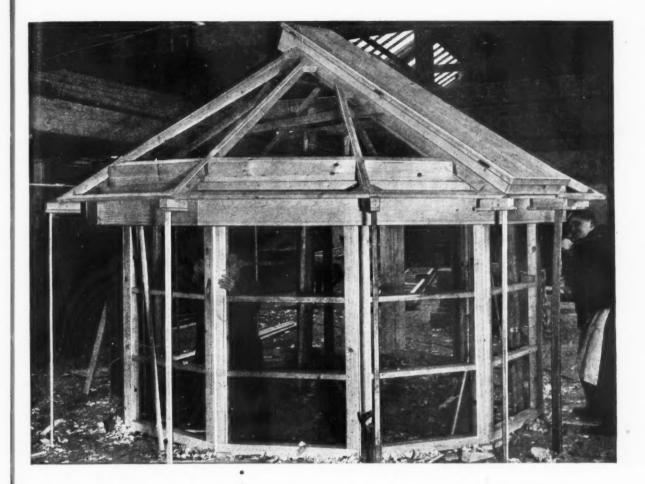
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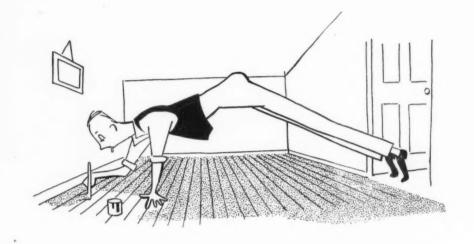
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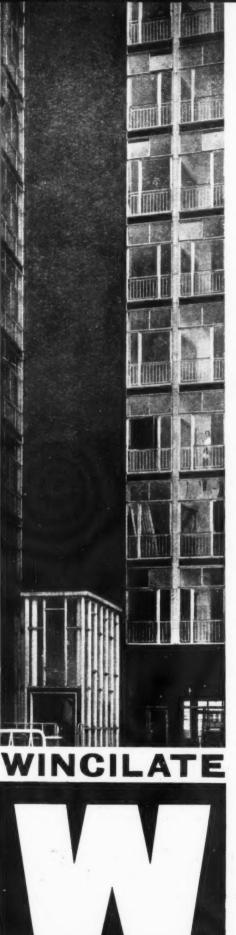


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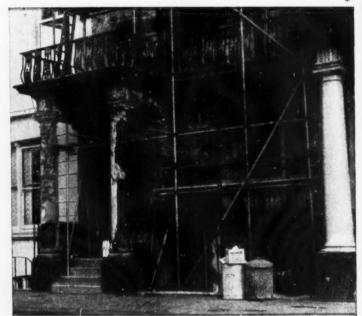
The Berger Architectural Service at work

CASE HISTORY No. 15

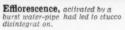
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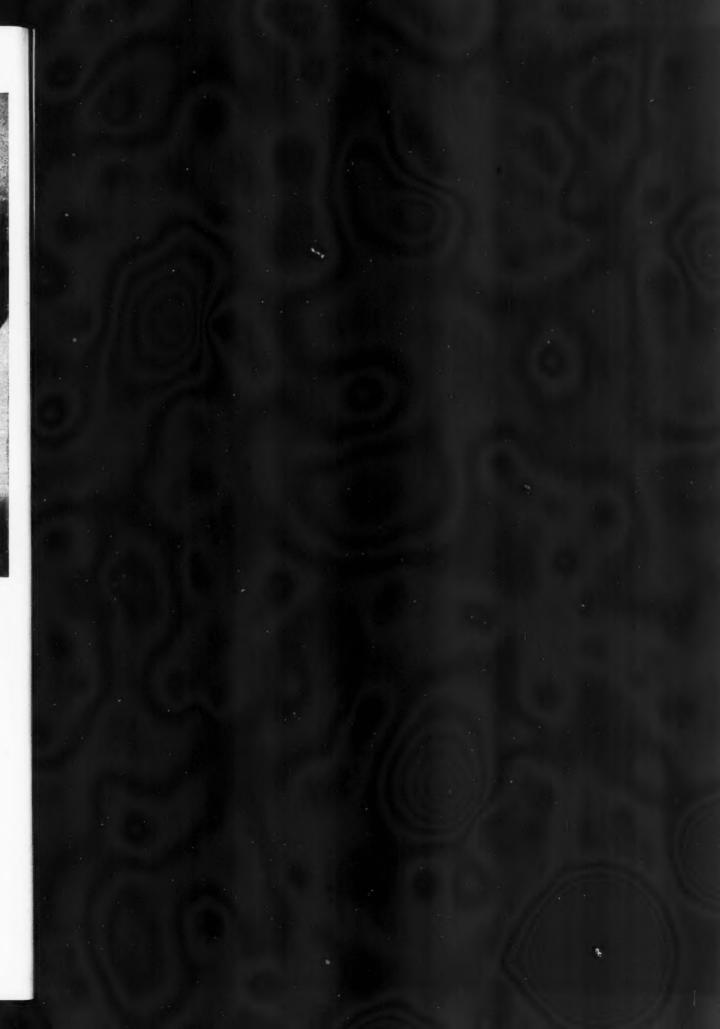
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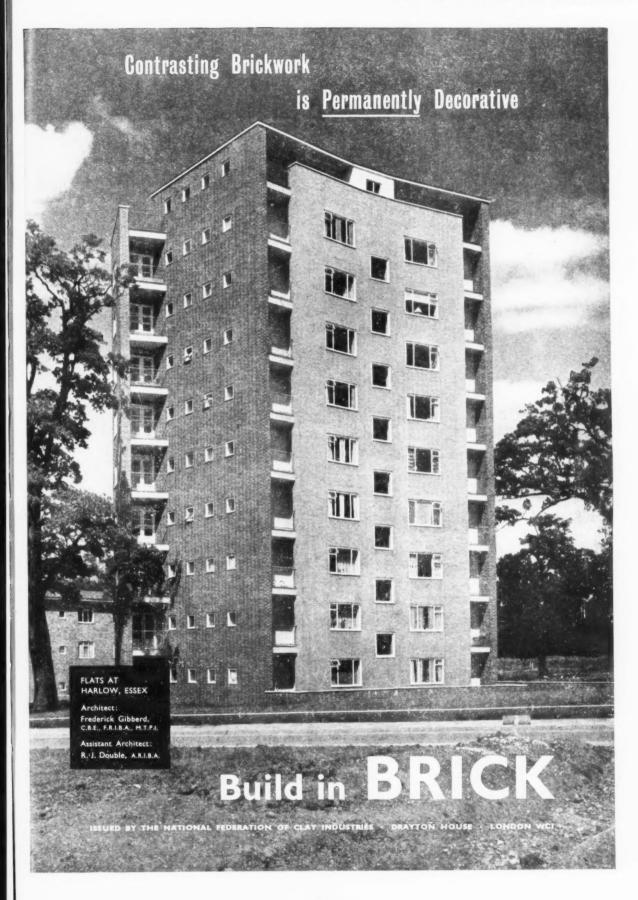
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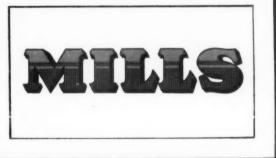
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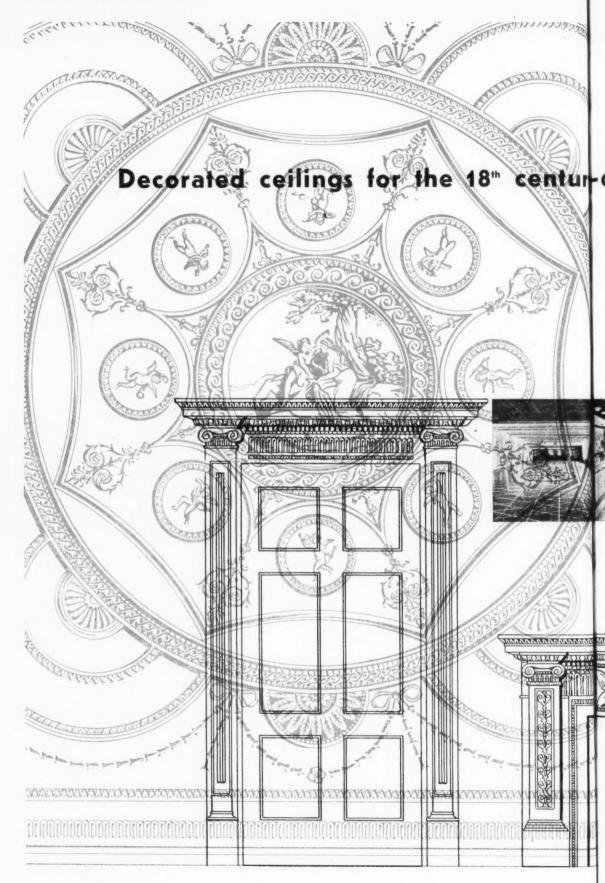


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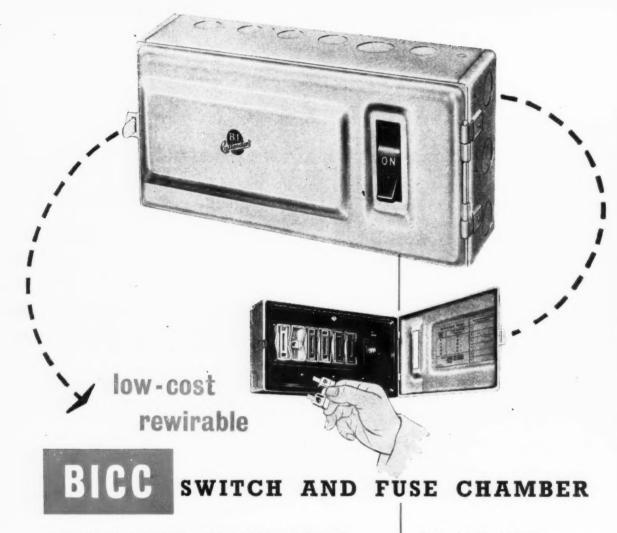
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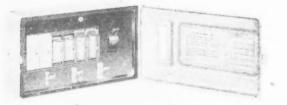


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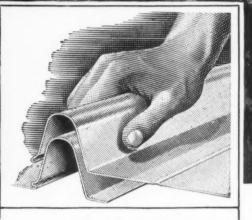
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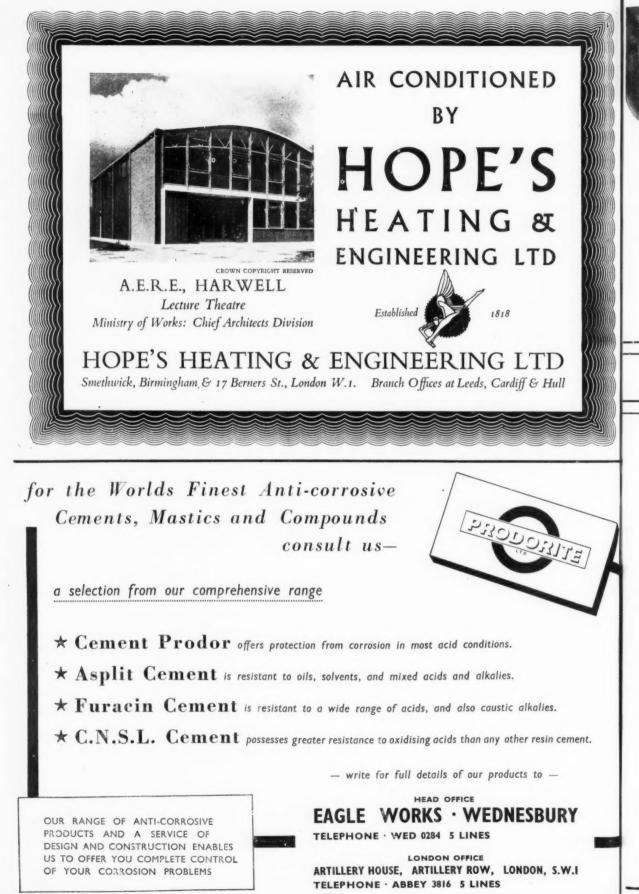
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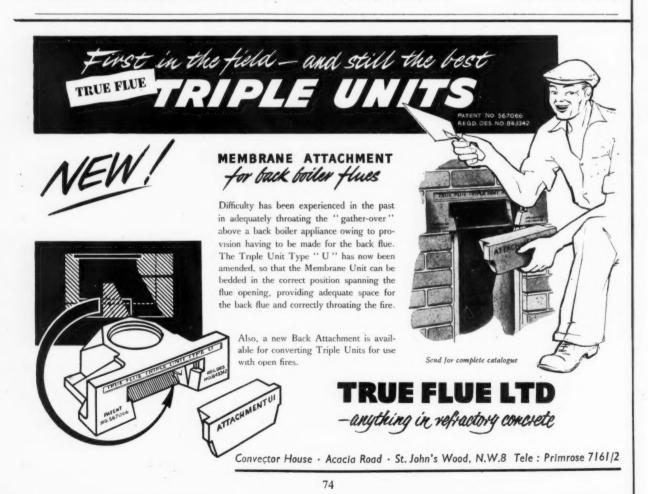
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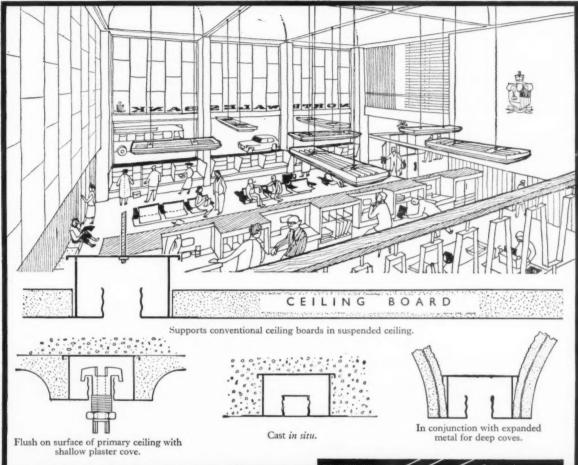
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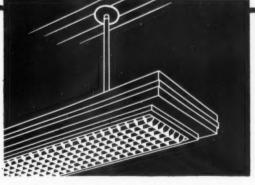
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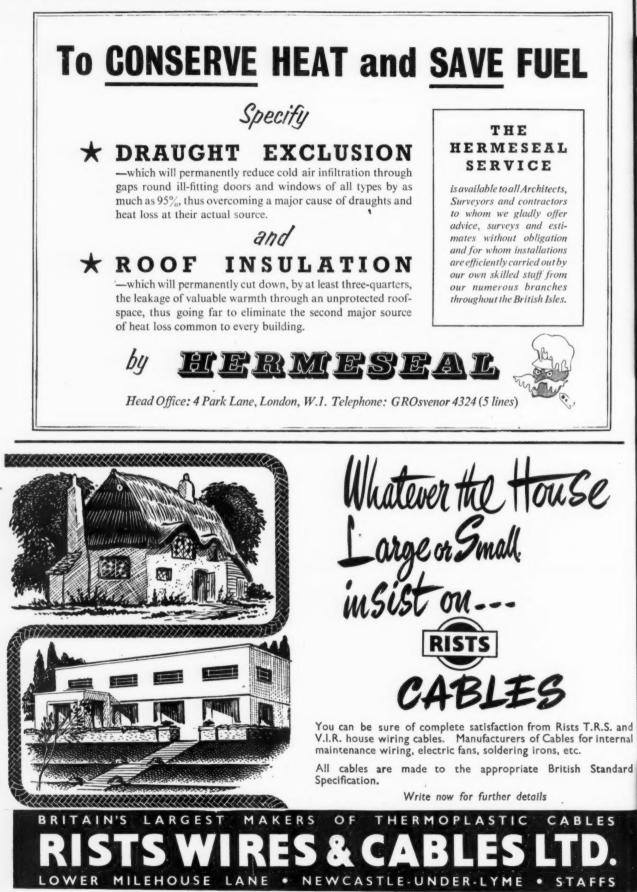
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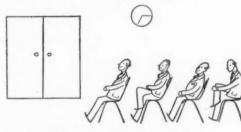


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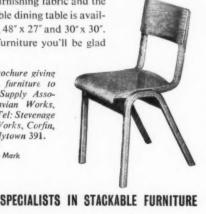
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No. 3214 Vol. 124 October 4, 1956

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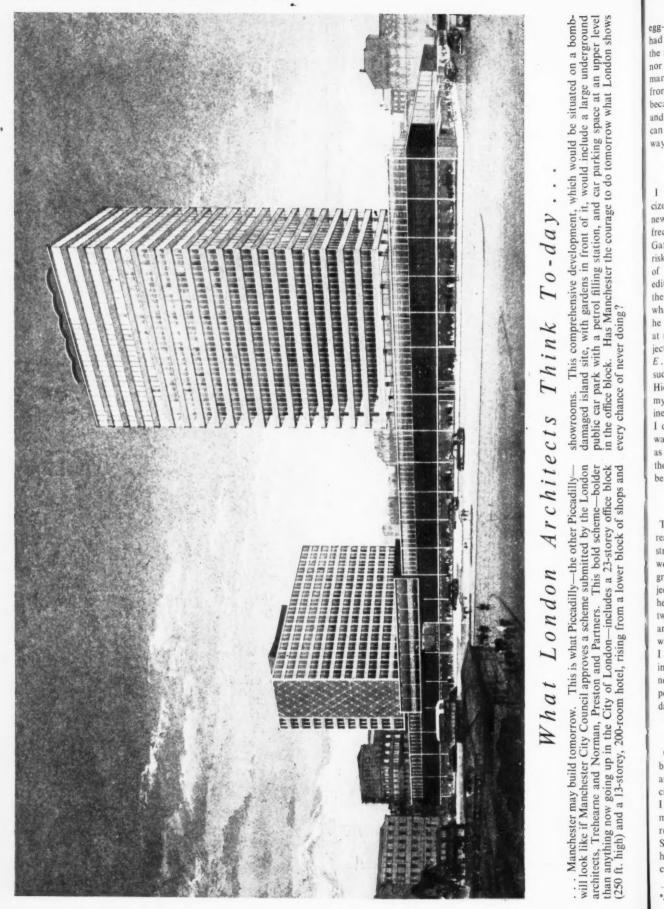
NOT OUITE ARCHITECTURE

HAIR-CUT, YOU!

Last week reader Sidney H. Tasker accused various people, including Reyner Banham, of obscurity, of being unable to write simply, and "thinking they were on to something new", in involving themselves with the New Brutalism. In the autobiographical notes below, one long-hair strikes back . . .

When I was a long thin flight-mechanic with a quarter-inch crew-cut and a sevena-side moustache, I would sometimes lie in the shade of a Beaufighter with a copy of Grigson's New Verse, or C. H. Waddington's The Scientific Attitude, and wonder what it could be like to be a leading egg-head, a bell-wether of intellectual opinion, like the egregious Grigson or the erudite Waddington. Little did I think in having my top-hamper pruned right back to prevent it falling into air-intakes and other embarrassing places, that I was laying myself open to being called one of the people "who think they are 'on' to something new." Fortunately, the word crew-cut didn't then exist for secondmagnitude ploy-boys like Sidney Tasker (letter in AJ Sept. 27, p. 438) to shout at me in scorn, and it was only later that I came to realize that I had accidentally been a pioneer, a leader of world opinion, wig-wise, at least.

Now that I am a non-commissioned



egg-head in my own right, I have not had my hair-line artificially receded, in the manner of A. Stevenson or A. Miller, nor have I had it raked forward in the manner of M. Brando. It starts at the front and grows right over to the back. because it suits me to have it that way, and the winds of avant-garde opinion can blow as they list-it will stay that way as long as I want it to.

I am not, like St. Paul's well-publicized Athenians, always seeking some new thing, though I must admit that in frequenting places like Queen Anne's Gate I am exposed to an occupational risk of having new things fall on me out of the blue, or, more likely, from the editorial board-room. It was thus with the New Brutalism (which I suppose is what's needling the man Tasker, since he quotes the Smithsons while pointing at me) and I was introduced to the subject much as a staff-writer on the D. . ly E.p.ess might have Rock 'n' Roll suddenly fall on him/her. Unlike W. Hickey or E. Perrick, however, I found my subject sympathetic, though almost ineffable. If, in the process of effing it, I dragged in Thomism and Topology, it was because they seemed to me relevant as illustrative comparisons, not because they seemed good ploys or new things to be on.

The result,* I know, is heavy going to read-it was heavy going to write. If, in struggling through it, the Taskers of this world find it necessary to do some background reading outside their own subject-then, good. It shouldn't prove too heavy a labour for those who have had two more years of university than I have, and were able to put off the evil hour of wage earning until they were twenty-five. I used to think that I was hard done by in having to swop the pen for the spanner at the age of seventeen, and to postpone University for ten years, but nowadays I sometimes wonder.

Of course, if I was really riding the band-waggon with the angry young men and the lucky jims I should properly be cursing my fate about this, but somehow I can't get my hair to flop forward over my eyes in that fetching manner that is required currently-though apparently S. H. Tasker can get his to do it when he reads the Architectural Review. Haircut, You! REYNER BANHAM

*Architectural Review, December, 1955

EDITORIAL BOARD: (1) Consulting Editor, F. R. Yerbury, O.B.E., Hon. A.R.I.B.A. (2) House Editor, J. M. Richards, A.R.I.B.A. (3) Executive Editor, D. A. C. A. Boyne. (4) Editor Information Sheets, Cotterell Butler, A.R.I.B.A. (5) Editorial Director H. de C. Hastings. TECHNICAL EDITOR: (6) Lance Wright, A.R.I.B.A. SPECIALIST EDITORS*: (7) Planning (8) Practice (9) Surveying and Specification (10) Materials (11) General Construction (12) Structural Engineering (13) Sound Insulation and Acoustics (14) Heating and Ventilation (15) Lighting (16) Sanitation (17) Legal. ASSISTANT EDITORS: (18) Chief Assistant Editor, Kenneth J. Robinson. (19) Assistant Editor (Buildings), L. F. R. Jones. (20) Assistant Editor (Production), W. Slack. (21) Assistant Editor (Information Sheets), V. A. Groom. (22) Assistant Editor (Costs), J. Carter, A.R.I.B.A. (23) Photographic Department, H. de Burgh Galwey, W. J. Toomey. (24) Editorial Secretary, Monica Craie. Craig

To preserve freedom of criticism these editors, as leaders in their respective fields, remain anonymous

The Editors

THE KEY TO THE PROBLEM

HOSE who pinned their faith in trade unions as being the most likely organization to help in the improvement of architects' salaries will be confounded by one of the statements made by Mr. Warren, the General Secretary of NALGO, and published in the September issue of the RIBA Journal. Mr. Warren is reported as saying that NALGO was not concerned with matters of establishment, which were the exclusive responsibility of the individual employing authorities. This is only a small part of one of the periodic and very welcome reports which the Salaried and Official Architects Committee has been directed by the RIBA Council to make on the representation of salaried architects. It is, however, a key point to bring home to those who may have been ignorant of the policy of the trade union which caters for the largest number of salaried architects.

We are convinced that most of the dissatisfaction which arises constantly in the profession with regard to remuneration is due to inadequate financial rewards being made to those who are carrying great responsibilities. Better pay will not come in the right amount and to the right people by simply raising the salaries recognized for the various APT grades, pleasant though such a prospect might be to the majority. The improvement which should be sought lies in convincing local authorities that they will not get the standard of architecture they should have from their salaried staff until those who carry real responsibility for the design and supervision of a building are acknowledged to be architects-not senior assistants, or principal assistants-but simply architects, and paid accordingly.

MERTON MALL

There is no doubt that the decision to drive a road through the Meadow must have been a very hard one for a Minister to make, but it is clearly the right decision, and Duncan Sandys must be wholeheartedly congratulated upon making it. It is to be hoped that his advice over the St. Paul's redevelopment will be equally sound. It is over issues of this magnitude that posterity will judge the effectiveness of our planning legislation and the imagination and calibre of our Ministers. It was only to be expected that as soon as the Minister of Housing and Local Government, Duncan Sandys, decided in favour of an inner by-pass road for Oxford through Christ Church Meadow (virtually Dr. Thomas Sharp's proposed

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Merton Mall) considerable pressure should be exerted by some to nullify this wise, if painful decision. And no doubt there are members of Christ Church who will put their own College before the good of the University as a whole and endeavour to prevent this bold plan from being carried out. However, it is difficult to see what they can now do except create ill-feeling. It has been reported that Duncan Sandys has the support of the Cabinet, and there would seem to be no legal way of challenging the Minister's decision. Would it be too much to hope that the opponents of the scheme should now accept defeat gracefully—having had a fair hearing—and put their energies into ensuring that the new road is a success ? —so that it becomes as much an asset to Oxford as' Queen's Road and the Backs are to Cambridge ?

It is probable that, with Oxford a growing market town and shopping centre, and with the certain increase in motor traffic in the next few years, the substitution of a Merton Mall for the High will not, by itself, solve the traffic problem for long. To avoid the possibility in the future of demands being made for Magdalen bridge to be re-opened to allow traffic along the High again, in order to relieve traffic on Merton Mall, the outer by-passes must be speedily completed, an adequate shopping centre built for Cowley, a large number of car parks created and a very much more positive policy adopted to ensure that the main traffic routes are kept clear of parked cars. (Indeed, as regards traffic control it would seem that the Oxford police have much to learn.) It is only by such comprehensive measures that the traffic problem will be controlled and the essential Oxford regained.



WRIGHT AGAIN The quarterly magazine issued by the Liverpool Department of Civic Design, The Town Planning Review, is constantly giving us admirable stuff. The present issue excels itself. Myles Wright's article, "The Next Thirty Years," discusses problems of sprawl, decentralization, commuting, the motorcar, etc., and their effect on central areas and upon each other. Myles Wright's argument is that there are certain tendencies-i.e. slum clearance, the tendency towards pedestrian shopping precincts, the ubiquity of the motor-car and the fact that large sections of large firms can be out of townwhich will combine to mean further sprawl and more traffic, even though population itself may decrease. This will, as he says, mess up our citiesunless planners can dare to persuade their municipal bosses to plan thirty years ahead. Myles Wright has given here a succinct examination of the subjects round which town planning circles are always revolving. Whether he gives adequate weight to the impact of his urbanism upon ruralism-which in fact he ignores-is another matter.

.... AND SHARP AS EVER

Most timely is the other major article in the current Town Planning Review-Dr. Thomas Sharp's submission last February, to MOHLG, on the Oxford Development Plan. Clearly Mr Sandys has taken more notice of Dr. Sharp than of anyone else, and quite rightly too. If you read this submission the current arguments of the Christ Church lobby look pretty thin. The assumption that the road will be an evesore is not justified; the roads through the Royal Parks and the Bois de Boulogne are a lively asset. Of course, the new "Merton Mall" must be made beautiful, but this is not bevond Dr. Sharp, who should be called in now to prepare a design.

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ASTRAGAL feels that neither Sharp nor Sandys have yet been positive enough about the University's centre. To close Magdalene Bridge is magnificent, but what does one then do with the High-Broad-Turl area? An entirely dead cathedralic precinct would be wrong a university is a busy place—but a mere twenty per cent. reduction in the High's traffic would be a poor sort of conclusion to the whole business.

ASTRAGAL hopes that the British people, not to mention the Cabinet, realise that the whole lamentable business would never have arisen if we had not allowed a large motor-car factory to be put down within five miles of a mediæval university. It is not the factory or the university that is bad—it is the contiguity.

THE RURAL FRINGE

The September issue of The Forum, like Myles Wright, looks ahead. But what an odd contrast. The Forum-in its snappy American way-reads like space-fiction. Like space-fiction, of course, it may confound us all. Its journalistic manner does not belie its facts-that by 1976 fifty-five million more people will be living in America's standard metropolitan areas-a fifty per cent. increase. The consequent "rural fringe" frightens The Forumas well it might, since it offers no solution. The US problem, given US space, is not, of course, as tough as ours; but The Forum technique gives the whole thing an horrific Wellsian air-presumably because it is a matter of " the future."

CHEAP TRY-OUTS

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At NPL last week, top-ranking scientists exchanged ideas about how research should be conducted. High on the list of essentials was building for research. In the white and green drawing-room of ex-royal Bushey Houseit still retains its cut-glass door knobs and exquisite plaster ceiling-they heard Dr. F. M. Lea, Director of Building Research, put the client's point of view to MOW architect H. A. Snow, who handles much of DSIR's new building. ASTRAGAL was surprised-and relieved-to learn that the occasion gave rise to no violent controversy. Here at last appears to be a field in which the profession delivers

the goods, though sometimes for a price at which even scientists boggle.

The nigger in this high-cost woodpile is, of course, the demand for flexibility" (which means adaptability, not wobbliness). Many scientists ask for it, but it appears that few of those who have bought it-at anything up to 15 per cent extra over-ever bother to use it. Asked what advice he would give to a director starting a new establishment, Dr. Lea said, "Don't rush too quickly into big permanent buildings: find out first what you really want in cheap and temporary try-outs." Which prompted J. D. Bernal to ask why we do not have standard, general-purpose laboratory parts assembled from buildings factory-made in sufficient quantity to be cheap. Why not, indeed?

BATTLESHIP STYLE

The vehicles at the Earls Court Commercial Motor Show looked very rugged compared with the usual private cars, and they were really far more interesting if you like bare chassis and engines and things like power steering. Buses and coaches for use in this country look much the same (except that engines tend to be in unusual places) and it is only in the export jobs, where size limits are more generous and distances are far longer, that one finds the luxuries of air conditioning and adjustable seats. Hours or days in any coach is more than my flesh could bear. The ultimate horror to me would be the Paris-Bombay trip, which runs twice a year each way, and takes fifty daysthough at least there are one or two days off en route.

ASTRAGAL

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NUFFIELD FOUNDATION Architectural Division to, Design for Tropics

The following extracts are from the report of the Nuffield Foundation for the year ended March 31, 1956. It refers to the work of the Division for Architectural

year ended March 31, 1936. It refers to the work of the Division for Architectural Studies only. "The Division's initial fields of research were laboratories, hospital accommodation for children, and farm buildings. Now it has added a study of tropical architecture in relation to human comfort. In May, 1955, the Division was invited to design halls of residence and a dining-hall for students of the Imperial College of Tropical Agriculture in Trinidad, towards which the Foundation is making a grant. Discussions were held with the Director of the Building Research Station (who is a member of the Controlling Committee of the Division) and its Colonial Liaison Officer, G. A. Atkin-son, who has been guiding studies in tropical building problems for some years. It appeared that, although a good deal had been learned about design in relation to climate, such knowledge had probably not been fully exploited in the design of actual buildings. The Building, and offered to help by providing design data and advice and assessing what degree of success had been achieved in the actual building. A detailed picture of climatic conditions in Trinidad is being prepared with the help of local meteorological services. "The survey of requirements in labora-tories in England and Scotland will be com-pleted by mid-September, 1956, and the

local meteorological services. "The survey of requirements in labora-tories in England and Scotland will be com-pleted by mid-September, 1956, and the drafting of the report will then begin. The survey team has singled out certain aspects of laboratory provision for particular obser-vation: the length of work-bench appro-priate in various laboratories; the use made of gas and electrical outlets, of water taps and other plumbing services; the proper amount and arrangement of storage space in individual laboratories and for depart-ments as a whole; the furniture and appar-atus in rooms used for special kinds of in-vestigation. All these considerations are closely interrelated and lead to a conclusion reached also in the hospital studies made by the Division—the need to provide working spaces which will accommodate groups of people comfortably even when the nature of the work they are doing and the equip-ment they use may change. "In studying the environment to be pro-vided for children in hospital, the research team began by making general observa-tions in a number of wards. From those

tions in a number of wards. From those

observations a series of problems clearly needing special study has been detached. It includes nursing organization as it affects the layout of wards; the proportion of beds to be provided in single cubicles and small groups; the design of furniture and fittings; and the way in which ventilation, artificial lighting, the structural control of noise, and colour schemes, may be planned to suit the particular needs of children and of the nurses looking after them. In this last group of studies the Building Research Station is collaborating with the research team. The Registrar General and the Ministry of Health are giving valuable help to the study of the child in hospital by making available to the team data derived from the hospital in-patient inquiry statis-tics."

INTERNATIONAL COM-PETITION

For Memorial Pavilion to Enrico Fermi

A first prize of \$5,000 will be awarded to the winning design for a memorial pavilion on Fort Dearborn Plaza, Chicago. The pavilion is to be dedicated to Enrico Fermi, the man who, on December 2, 1942, "achieved the first self-sustaining chain reaction, and thereby initiated the con-trolled release of nuclear energy." The pavilion, according to the programme issued by the competition sponsors, the Chicago Joint Civic Committee of Italian Americans and the Chicago Junior Association of Commerce, will form a focal point in the Fort Dearborn Plaza—which will be the future governmental and institutional centre of Chicago when the North Bank of the A first prize of \$5,000 will be awarded to future governmental and institutional centre of Chicago when the North Bank of the Chicago River has been redeveloped. The pavilion, which will be used by the sur-rounding institutions, as well as by the public, is to "unite Art and Science" in its design. Although details are left open to the competitors, the design has to inglude: an exterior space for the permanent and temporary exhibitions of science and art; an interior space for the same purpose; an auditorium seating 300 for music, lectures and movies of science and art, and facili-ties for parking, service, and access below and movies of science and art, and facili-ties for parking, service, and access below the plaza level. The other prizes are: second award \$3,000; third award, \$1,000; and five awards of \$200. The jury consists of: architects, Mies van der Rohe, of Chicago; Gordon Bunshaft, of New York; Jose Luis Sert, of Cambridge, Mass. Structural engineer: Pier Luigi Nervi, of Rome. Physicist: Dr. Lancelot Law Whyte, of London. Non-voting honorary members: Joseph Barbera, Nicholas Dis-penza and D. Samuel Allison, all of Chicago. Chicago

Chicago. The closing date for the competition is February 1, 1957. The material to be sub-mitted is as follows: Model to \neg_6 in. scale to demonstrate the essential concept, mounted on a plywood base 13 in. × 13 in. Plans and sections to explain the handling of space and materials. Diagrams and ex-planation of the structural concept, and " of the forming of the inner space and surface for the acoustical concept." Requests for further information should be sent to: Fermi Memorial Competition: John O. Merrill, 100, West Monroe Street, Chicago 3, Illinois. Illinois.



Post-war Architecture : Built in USA. Exhibition at the BC. 26, Store Street, W.C.1. Monday to Friday, 9.30 a.m.-5 p.m. Saturday, 9.30 a.m.-1 p.m. **REVISED DATES : OCTOBTER 6 TO 27** sented a factual survey of the present problem, including reference to the relevant legislation and subsidies, and a historical review (article 1, published in the issue of the JOURNAL for September 20); and a case study of post-war residential redevelopment in an intense urban area of blitz and blight, West Ham (article 2,

The previous articles in this series have pre- published in the issue of the JOURNAL for September 27). In this issue, the authors present the results of a questionnaire sent to a selected number of people of many different interests. The purpose of the questionnaire was to try and discover whether there is a unanimity of opinion on the cause and cure of slums.

SLUM CLEARANCE AND URBAN REDEVELOPMENT: 3 THECAUSE AND CURE OF

SLUMS

Results of a questionnaire by D. Rigby Childs and Jack Whittle

In this article we discuss and present the extraordinarily interesting answers which we received in reply to a questionnaire which we sent to a wide variety of people. We present here a different approach to that adopted for the previous two articles. In the first one we approached the subject in an abstract and factual way, the scale of the problem being visualized in national terms. For the second article, the opposite approach was used; interest was focused exclusively on redevelopment in one area. In this third article, the approach broadens to encompass the problem of slum clearance as it is seen through the eyes of men and women living and working in many different parts of England and





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The photograph on the previous page, and the view, top, of typical Manchester slums contain almost every fault which can be found in this type of industrial worker's housing: lack of light, lack of ventilation, and bad layout. Slums in Liverpool, above, are not restricted to cottage development but include a large number of tenement blocks, many much larger than the three-storey flats shown here. Left, part of a northern town in the part of England designated by the authors in their first article (September 20) as a National Clearance Area for slums. It is obvious that a single terrace of these early industrial dwellings, when laid out in open conditions, do, in spite of all their faults, provide passably healthy conditions. But when the terraces are enormously multiplied, without interruption, the brutality of such housing becomes only too apparent.

Wales. Their replies vividly demonstrate how slum clearance is a problem which must not exclusively be thought of in abstract and standardized ways, but how it is a vital problem of extraordinarily varied ramifications; above all, that it is a problem of people, as well as of building and planning.

The necessity for preparing such a questionnaire emerged early in our preparations for this series of articles.

When this preparation was being discussed, it was at first thought that a round table discussion between experts in urban redevelopment would enable the authors to assess current ideas on slum clearance and give sufficient material for an appreciation of the problems to be faced and of present techniques for dealing with them. It soon however became apparent that the scope of the subject would require a discussion needing a large and diverse company; the chance therefore of producing any conclusive evidence by such a means seemed unlikely, unless the meetings reached the scale of a Royal Commission. So it was decided instead to circulate a questionnaire to members of the various professions which at one stage or another are concerned in slum clearance. That is to say, to: planners, architects, lawyers, engineers, surveyors, sociologists, housing managers, doctors and sanitary inspectors.

The questionnaire, as at first designed, put the questions in a very broad form, giving therefore wide scope for answers. Eventually, in order to make answers more readily assembled for analysis, detailed and specific questions were asked. At every stage, opportunity was also given for the reply to include additional points not covered by the questionnaire, and for criticism of the questions themselves.

The questionnaire dealt with the possible causes of slums, the problems they pose, and the means of curing them, together with the possible effects of a new environment upon former slum dwellers. The last section of the questionnaire dealt with legislative measures. Except for this last section, the questionnaire was intended to cover what may be called " the area of uncertainty " which appears in any study of these points.

We deliberately designed the questionnaire to be of manageable proportions in length, and we sought answers which could be given from experience rather than from filed data. So although the range of questions was wide, the list of individual questions was not necessarily comprehensive. Our objective was also limited-problems of density, the economics of land use and of urban redevelopment were not touched upon. This does not mean that the points omitted were not considered important in the context of the broader aspect of town building. 'Indeed, it is the authors' confirmed opinion that slum clearance on any scale must be related to these wider factors; but they were not thought relevant to the specific and limited problems which the questionnaire was designed to investigate. The questionnaire had therefore in a sense a limited objective-to find out whether there is any collective and informed expert opinion on the cause and cure of slums; and whether such opinion was satisfied with

The People We Asked

existing techniques and policies.

We limited our list of invitations to reply to about 120 people. By this means, we hoped to draw in a wide variety of views, without the task of later analysis assuming unmanageable proportions. There is no doubt that the questionnaire created great interest, for many people went to a great deal of trouble in replying.

To all those who replied, we wish to offer our most sincere thanks for their contribution to this series. We wish also to thank those who, in their official positions, felt that they could not answer our controversial questionnaire, but who sent us their support. A number of people also felt that their experience was not sufficiently up-to-date.

We met with some disappointments. We invited a number of Town Clerks or Clerks to the Council to reply. It was with regret that we received answers from only one. In spite of the publicised interest of the political parties, none of the research departments of the principal parties, whom we asked, sent any answers.

We should make it clear that to avoid extra complications for the answers we sought personal views



standards of the houses themselves.







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not departmental or inter-departmental views. Because of this, in some cases, we addressed invitations to more than one officer in a local authority. The replies were generally made in this spirit. In a few cases, however, a number of principal officers of a local authority collaborated in their answers.

As slum clearance is essentially the results of team efforts we should also like to acknowledge this interest. Lastly, we wish to acknowledge the enterprise of W. A. Geenty, the County Planning Officer for County Durham, who wrote that as he thought his own experience as a planning officer was "somewhat

second-hand" he had had the questionnaire duplicated and sent out to a representative number of local authorities in the county, as their experience in the housing field provided a better background for answering the detailed questions.

The total number of people who sent detailed replies was about fifty. We have placed them in five groups, as shown. The list below gives their names and their viewpoint. In some cases, people replying asked to be anonymous, and in the list following, to give an indication of such people's viewpoint, an appropriate pseudonym has been given.

The Experts Who Replied

Group A: LARGE TOWNS Officials in the main towns and cities with over 1,000 unfit dwellings

Ronald Bradbury, Liverpool's City Architect and Director of Housing.

Sheppard Fidler, Birmingham's City Architect and G. P. Macey, Housing Manager, jointly. Official Architect.

A Northern Local Authority Official.

J. R. Piggott, Stoke-on-Trent's City Architect. A London Planning Officer.

A. Mackenzie, Director of Housing Manchester, and Roland Nicholas, City Surveyor and Engineer. jointly.

Sir Herbert Manzoni, Birmingham's City Engineer and Surveyor.

J. B. Bennett, Bristol's City Engineer and Planning Officer and Surveyor, and J. B. Abbey, Housing Manager, jointly.

Group B: SMALLER TOWNS and individual metropolitan boroughs in London Officials in towns and cities with between 500 and 1,000 unfit dwellings

An inner London Borough Official. Hugh Wilson, Canterbury's City Architect. An East Anglian Engineer.

J. L. Thomas, Ebbw Vale's Architect and Surveyor.

A Midland town's Officials, jointly.A South London Engineer.Cotswolds City Official.A Midlands' Official.J. A. T. Richards, Chatham's Borough

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Group C: RURAL AREAS Officials to Rural District Councils or comparable authorities

T. A. Bowen, Wrexham's Engineer and Surveyor and D. Thomas, Chief Sanitary Inspector, jointly.

A Midlands Rural Official. County Durham Rural Official. Chester-le-Street Official. J. R. Heslop, Stanley U.D.C. Engineer and Surveyor.

F. Hedley, Brandon and Byshottles U.D.C.'s Architect.

Stockton R.D.C Official.

A Northern Rural Council Official. A Northern Rural Surveyor.

An Area Planning Officer.

Group D: PUBLIC HEALTH Medical Officers of Health and Sanitary Inspectors

J. G. Hailwood, Crosby's M.O.H. R. Williams, Coventry's Chief Sanitary Inspector.

I. Lewis, Pontardawe's Senior Sanitary Inspector.

A Midlands Medical Officer of Health. J. Bullock, Warwick's Public Health Inspector.

J. BUHOCK, Warwick's Fublic Health Inspector.

Group E: GENERAL A selection of people with official or independent views

Jocelyn Adburgham, a Planning Consultant. A Housing Expert.

Elizabeth Denby, a Housing Consultant.

Lionel Brett, an Architect-Planner. L. G. Vincent, New Town Architect and

Planner. Martyn Webb, a geographer.

Arthur Ling, Coventry's City Architect and Planning Officer.

F. G. Southgate, Walthamstow's Architect and Engineer and Surveyor.

A Critic.

T. E. North, West Ham's Borough Architect and Planning Officer.

Dennis Chapman, Liverpool University Sociologist.

An official Sociologist.

D. H. Crompton, Liverpool Research Fellow. Mary Courtney, Chairman of Townwomen's Guild.

A Housing Association Official.

An Inner London County Planning Officer. A New Town Official.







Top, another example of the mining cottage in a rural area so sited and built that it is inevitably a slum by modern standards. Centre, Charles Street, Jarrow, a typical street of single-storey terrace cottages on Tyneside. They are due for early demolition, and it is proposed to site the main shopping centre in this area. Above, slum housing for Hamsterley Colliery, in north-west Durham. These slums are isolated and poorly situated in relation to employment and social facilities. After clearance the site will probably be used for afforestation.





The views of London slums, together with the illustrations on the preceding pages serve to show, in miniature, the variety of dwellings which have been, and are being, scheduled by local authorities as unfit, and are, therefore, slums. It will be noted that, irrespective of a minor variety in style, the regular layout and the general



sordidness gives most of these slums a characteristic anonymity, and basic similarity. Left, an example of overcrowded conditions in Stepney. Above left, another example from Stepney, this time of slums, which have fairly attractive facades. Above right, bye. law type slums in Bethnal Green.

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Question 1: the cause or causes of slums

The nation is embarking on a vast surgical operation. We suspect that the underlying causes of slums are not fully understood and may even be recreated in new schemes. In an attempt at the diagnosis of the disease the questions shown in the table below were put to the experts listed on page 477. The left-hand column of the table gives the nine questions asked. The next column gives the number of replies received. The third column gives the number of "yes's" and "no's" received, and the next series of columns show the order of importance in which the experts noted the causes listed in the left-hand column.

1 (a) Range of causes

Questions	Replies Relative selection in order of priority												
Would you say slums are principally the outcome of:	No. replied *	yes	no	I	2	3	4	5	6	7	8	9	No. replied
(i) poverty	42	25	17	4	5	0	6	5	4	2	0	I	27
(ii) bad structural condition	42	38	4	13	12	2	7	0	0	0	2	0	36
(iii) bad layout	41	38	3	15	9	6	4	2	0	I	0	0	37
(iv) neglected building maintenance	43	41	2	5	IO	18	3	I	0	2	0	0	39
(v) sloth and laziness	38	21	17	4	0	5	2	6	3	3	0	0	23
(vi) bad physical environment	39	33	6	2	I	8	8	8	3	I	0	0	31
(vii) bad social surroundings	35	23	12	0	4	2	5	4	7	0	I	0	23
(viii) inertia of local authorities	37	16	21	0	0	0	I	2	0	0		3	9
(ix) effects of rent control	42	26	16	3	4		7	0	4	I		2	27
* The number of people who replied about each cause differed; also more (yes or no) replies were received than opinions about order of priority.													

Group variations All the groups of experts show the same trend of thought on physical causes, but differences show up when assessing less tangible causes. The large towns group tend to disregard poverty, sloth and laziness as causes. It is the smaller towns group who are more decisive about the inertia of the local authorities; whereas it is the rural group who are more conscious about the effects of rent control.

SUMMARY OF VIEWS

Many causes additional to those in the table were mentioned. They cover a wide field: overcrowding, density, poor education, deficient sense of values. smoke, dust, and atmospheric pollution, sporadic demolition, improved standards of living, mining subsidence, indiscriminate building, multiple occupation of property, failure to improve property, feeblemindedness, lack of self-discipline, tenant-landlord hostility.

One therefore asks, what is the real cause of a slum?

People were also asked: (b) Are there any other causes ? (c) Have you any special experience, or comment to make, on the causes of slums.

Is it the property? Is it the tenant? Or are slums inevitable in any society which has an accepted minimum standard of living?

A very large number of comments were received. We are unable to print them all, partly because of lack of space and partly because many comments overlapped. However, a representative selection of the experts' comments follows.

(Note the emphasis is on the social influences as opposed to the physical influences as shown up by Table 1.)

EXPERTS' COMMENTS

Martin Webb: Geographer

Your first question aims to get at the root cause of slums and, of course, we must know the answer to that, in order that we do not, in trying to solve our present slum problem, do nothing more than create potential slums. This and other questions imply, in the suggestions embodied in the "yes" or "no" type of reply that there is basically a three-fold answer to the problem as it stands now : it concerns the dwelling, the tenant and the public (embracing the local authority, the landlord and the community in general). If I can divine your present standpoint it is that the problem is essentially a matter concerning the last two and reduced to its elements you mean, who makes slums and allow slums to be made. In other words you boil it down to a matter for the sociologist. In my view this is all you can do as long as you stick to the word slum, which the C.O.D. defines as a dirty back street or court or alley, or, as a verb, to frequent such places. You see the word has surrounded itself with a social meaning; the smart set would consider drinking coffee at a stall as "slumming' though the coffee stall may be miles away from anything remotely resembling what architecturally would be called a slum. Thus, in my view, the word slum has this double meaning-one architectural and the other social.

Arthur Ling: Coventry's City Architect and Planning Officer

As a generalisation I think it is true to say that slums are the outcome of an attempt to house the industrial and agricultural worker "on the cheap" sacrificing standards of space, construction and layout. Where the houses have not been built for the working classes in the first instance, but are now in slum condition, they are usually larger dwellings which have outlived their original purpose and have been taken over without proper sub-division into separate dwelling units. These are, in fact, secondhand houses used by working classes in very much the same way as the poor people have in the past been obliged to wear second-hand clothing.

J. B. Bennett and J. B. Abbey: City Engineer, Planning Officer and Surveyor, and Housing Manager, jointly

Houses become obsolete because of the changing standards of life as well as by physical deterioration.

I. Lewis: Pontardawe's Senior Sanitary Inspector

Principally slums are caused by bad original planning and structure. Such properties become the homes of people of poor environment much sooner than well-built, well-planned houses and are less able to withstand abuse and neglect. Most neighbourhoods deteriorate due to industrial encroachments, momentary fashion, etc., and, as with second-hand cars, subsequent owners are of lower income scales. Changes in social habits—the decline of domestic service, reduction in family size, the flight to the suburbs leaving large numbers of middle-class town houses vacant, but unsuitable for working-class families. They become slum tenements,

Jocelyn Adburgham: a Planning Consultant

The general readjustment of purchasing powers, leading to discontent with accommodation considered adequate by preceding generations, and consequent neglect of the tenant's obligations.

Lionel Brett: Architect-Planner

Not only failure to maintain but failure to *improve*, without which no domestic architecture or landscape can long survive.

A Housing Expert

In some cases multiple occupation and overcrowding without conversion of buildings designed for different ways of living. There are really two types of slum dwelling; the one, being due primarily to physical causes, would be a slum wherever it was and whoever lived in it; the other is the result of social causes, and if lived in by a different family with plenty of money, etc., might be quite satisfactory—e.g. some Chelsea houses.

Ronald Bradbury: Liverpool's City Architect and Director of Housing

You make no mention of overcrowding, *i.e.*, more than one family living in the dwelling planned for a single family only. This I regard from my own experience as one of the greatest single contributory factors in the creation of slums.

The density of development of any given area is in some respects more important than the layout of the area so far as its effect upon the inhabitants are concerned. Again, this is another aspect of overcrowding but on an area rather than a housing unit basis.

A poor educational background, with its attendant lack of interest in thrift and the need for putting away money "for a rainy day," and a too-glib acceptance of the immediate advantages of the hire-purchase system without realization of its long-term disadvantages is also an important contributory factor.

A Critic

First, in order of priority: Feeble-mindedness. Then; inadequate education. Lack of self-discipline.

A New Town Official

Ill-health and low intelligence much more important than sloth and laziness.

A Housing Association Official

I have taken "Slum" as a group of substandard houses, but the occupiers are not necessarily slum-minded and do not necessarily behave as the so-called "slum dwellers."

A Critic

Slum-makers are either mentally feeble or with a faulty sense of values. If the former, they need a course of house-management. If the latter, they need anything from a fine to a psychiatrist's couch.

T. A. Bowen and D. Thomas: Wrexham's Engineer and Surveyor, and Chief Sanitary Inspector, jointly

The huestion may be posed: Do the people create slums or does the environment over several generations result in such deterioration as to produce a lower type of human being? If the deterioration has been a gradual process, then it follows that the emancipation of the slum dweller will also take many generations.

A Housing Association Official

Poverty alone need not cause a slum. It all depends on whether the housewife is a good manager and at all houseproud.

Some yards pre-war were maintained at a very high standard but the routine and discipline of yard-cleaning and caring for window boxes, etc., went with the war and young people today do not readily take part in it, and do not keep their children sufficiently under control. In the old days they were often not allowed to play in the yards, but today they do it, and often do a lot of damage, and with present traffic in the roads it is dangerous to forbid them to play there when playgrounds are far away.

Thomas E. North: West Ham's Borough Architect and Planning Officer

The order of my replies (in order of priority) expresses my views at the present time, but it would have varied considerably if the same question had been put before the War.

For instance, I think poverty then played a big part and to some extent sloth and laziness has supplanted it. One frequently finds the odd house, which, whilst structurally is identical with its neighbours, has no resemblance to a slum internally. It is also not uncommon to find in juxtaposition to such a dwelling a house well-provided with the socalled modern luxuries (indicating a high weekly income), but otherwise in a deplorable condition. An analogy can be drawn with two motor cars of same make, age, and mileage, and the same amount of money being spent on maintenance; one looking very presentable and the other deplorable. I was staggered recently on visiting some flats twelve months after initial occupation by elderly couples to see the dirty state of the interiors. Making due allowance for advancing age, I came to the conclusion that they had never risen above this stage and it would be extremely difficult to lift them out of this rut. Some of these people had long periods of unemployment during the years of "depression," and whilst one might think that it would have provided them with more time in which to keep their homes up to a reasonable standard of cleanliness, I think it is a case of inertia encouraging inertia.



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J. Bullock: Warwick's Public Health Inspector

In general it can be said that there is far greater pride by tenants in interior standards—cleanliness, furniture, equipment than when I first practised, but many of the houses are the same dwellings that were condemned as "unfit" years ago. Structurally they are worse and present tenants (now another generation) are definitely not satisfied with the houses; they are not slum dwellers.

Consider the effects of a modern cooker instailed by the tenant as opposed to the dirty old black gas cooker, a modern fireplace as compared with the old cast-iron register grate, DDT for successfully ridding the house of vermin, electric lighting, gas coppers and so on—all provided by the tenant. The enlightened tenant has brought about great improvements but cannot change the property fundamentally and sighs for a better environment.

Elizabeth Denby: A Housing Consultant

Ignorance of both home-making and wise spending. Especially marked among young wives today.

Ronald Bradbury: Liverpool's City Architect and Director of Housing

Nor should we forget the influence of the newspapers, the films and television, and the effect these have had upon the way in which the poorer classes spend their money. Often the slum house will have a bigger and better radiogram and T.V. set than the middle classes can afford, and the members of the family will spend more per head on films and entertainments and the Pools proportionately than do other classes of the population. This, of course, ties up with education and economics.

One further factor which you have not mentioned and which I personally regard as of the greatest importance is the question of smoke and dirt. Slum areas tend to be in the worst, smoke-polluted, situations, and as the inhabitants of such areas regard cleanliness as less important, and, indeed, have less facilities for keeping clean, the effect of smoke and dirt upon them is cumulatively much more serious.

J. G. Hailwood: Crosby's M.O.H.

Indiscriminate building. Industrial premises mixed with houses.

J. G. Heslop: Stanley U.D.C. Engineer and Surveyor

In this area there is no doubt that mining subsidence is a considerable contributory cause as is also the age of property.

A Housing Expert

No special experience, but the main cause is the age of so many houses, built at a time of bad design, construction and layout, and our failure over the last century or so to catch up with replacements and improvements, due, in turn, to many causes, including recently, in particular, a failure to realize the real cost or real value of housing as an item in national and personal economics.

An Inner London Borough Official

Many areas in cities were built at the same time and are decaying at the same time. Some of these obsolescent areas are so large that the local authorities cannot keep pace with the decay as fast as they would wish.

J. B. Bennett and J. B. Abbey, jointly

The demolition, or closing, of unfit properties causes sore spots throughout the City and this increases the speed of decline of the surrounding properties.

Ronald Bradbury

I find that the bigger the area of poor housing, the worse the slums in it are liable to become. Put mathematically, the horror of slumdom increases with the extension of the area of obsolete and unsatisfactory dwellings.

A Northern Rural Surveyor

Much of the property was integral with the ownership of the industry and was therefore regarded as shelter for workmen and their families with not too constant attention paid to regular maintenance. The balance of such housing was normally made up of speculative investment property and when this aspect was coupled with low rent income and a tight financial schedule, the combined circumstances tended for the property to assume gradual decay.

A London Planning Officer

Much of the slum property in London is tenanted and its present unfitness is due to lack of action by the owner. The oft advanced excuse of rent control is only sometimes justified: the real point is that owners insist on having a financial return on property which has virtually ceased to have a capital value. No doubt many owners would have rebuilt their property before now—appropriately—but for the war and subsequent lack of alternative accommodation for tenants.

Dennis Chapman: Liverpool University Sociologist

Hostility of tenants to landlords as "exploiters" leading to neglect of structure by tenant. Contrast the condition of owner-occupied bye-law houses.

A Housing Association Official

It is a vicious circle—a poor landlord uninterested in the property encourages bad, careless, tenants whose neglect and misuse of the premises helps to create slum conditions—and a bad tenant discourages the landlord from doing repairs, etc., and also the other tenants from caring for the property if he gets away with it.

A Critic

Residential property, when put up for private financial speculation, should be leased on a rent which would provide a reasonable percentage profit on capital, plus a certain sum for repairs (bearing in mind that repairs will increase with the age of the property) and plus a sum to cover the eventual demolition and rebuilding of the property at the end of its economic life. This, if made law, would prevent landlords using rents purely as income and allowing properties to decay and become a public nuisance, *i.e.* slums. The rebuilding sum would be a frozen asset, transferable with the property. Property owners would have to get planning permission to leave the property standing at the end of the economic life. (Might not such a law apply to *all* properties? Schedule A tax might be abolished, or reduced, in compensation.)

J. C. Blackall: Planning Student

Slum property in an area is frequently that, which, owing to the Rent Restriction Acts. can be let to those persons whose aim it is to spend as little as possible in order to secure the minimum standard of accommodation. It is debatable whether or not these persons constitute the so-called "problem families" found throughout the country, but they are people whose material sense of values do not conform with the standards set by society. The subsequent lack of interest in the condition of the property by the occupier and the fact that the landlords are unable to charge a rent which allows for adequate maintenance results in the primary phase in the development of slums. Once a definite area is discernible in which such conditions exist, then this results in the "secondary stage" in the development of slums, i.e., a tendency for the movement out of "normal families" from adjoining properties and their replacement by " sub-normal families." Slums cannot be considered as being static; in many cases they result from an outward spread from a central core.

T. A. Bowen: Wrexham's Engineer and D. Thomas: Chief Sanitary Inspector

The present position in rural areas, however, is the result of attempts made by the miner of 80 years ago to provide his own insurance against adversity and old age. The life of the miner is a precarious one and in the days before the advent of the Minimum Wage Act and the Health Insurance Act, it was not uncommon for comparatively young men with families to maintain to be incapacitated through accident or sickness and to be compelled to live on what could be obtained from the Board of Guardians, and often ending their days in a Poor Law Institution.

To safeguard against this eventuality, it was a tradition that each miner endeavoured to build two houses, one for his own occupation, the other to rent to meet the rate charges on both houses. With the limited resources at their disposal, the houses were merely shelters, comprising one living room and one bedroom, having a superficial area of under 300 square feet on the ground floor.

Many of these houses are still occupied and are damp, insufficiently lighted and ventilated, and possess none of the amenities now found in modern dwellings. In spite of the fact that the cottages are mere shacks, the occupants have a very high standard of living. One often asks the question: To what extent is this type of house responsible for the high incidence of tuberculosis in Wales? ent landome and become a ebuilding nsferable rs would to leave d of the aw apply might be tion.)

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A Midlands Rural Official

Rural areas, in general have their problems, but poor property cannot be found in large blocks as in the urbanized areas-the problem arising mainly from individual unfits or groups of, say, up to a dozen in any particular locality. This lends to the view that the countryman, as owner or tenant, is in the main, proud of his plot and in his pride takes steps to put something into it. The countryman living nearer nature learns that to reap you must sow. The townsman has been taught, and expects, to take all and put nothing in.

Ronald Bradbury : Liverpool's City Architect and Director of Housing

All the reasons you give are undoubtedly contributory causes (although I think there are one or two omissions which I shall comment on later). None of them, however, has any more priority than the others, nor would a yes or no answer be a very complete reply to your questions. For example, poverty in itself is a contributory cause but not in all cases an essential cause. I know many families living in poor areas whose individual homes are well cared for, and in no way slums. Bad structural conditions, bad layouts,

neglect of building maintenance are all

AUTHORS' NOTES

We see, therefore, that this section proved provocative and stimulated considerable comment. There were those who, from experience, felt unable to give an unqualified "yes" or "no." We find diverse views and experiences, sometimes conflicting, but often corroborative, and the blame for slums is fairly evenly distributed between physical conditions, tenants' behaviour and bad landlords, with the underlying reasons for certain views sometimes revealed, as in the comments made by T. A. Bowen and D. Thomas. One of the important points which emerges is that changes in social habits and structure produce population movement from well-to-do property, thus leaving the property to be occupied by tenants of lower status, often giving rise to multiple occupation, poor conversion and the subsequent decline of the area.

Again one finds in many comments the implication that tenants of slum property, used to low rents, have little appreciation of the value of housing as such. Perhaps, understandably, they spend money on films, similarly contributory causes but by no means conclusive causes. Sloth and laziness and the psychological effects of bad environment and bad social conditions are all human factors capable of very wide variations as between individual families. But, again, bad social surroundings and bad physical environment does not necessarily lead to slum conditions if the calibre of people living in them is such as to enable them to fight the bad environmental factors. I would put it this way. That where all, or the majority of the conditions which you list are present in any given area, then it is likely that, human nature being on average what it is, slums will be created.

T.V., pools, etc., and resent having to divert this expenditure to increased rent when they move. It seems that those living in slums do not, in the main, value the benefits of well-planned estates as opposed to just a convenient dwelling. There is also a sense of desperation on the part of the experts-the dog chewing the rubber bone-and the feeling that, like the poor, slums are always with us, that as our standards improve, ideas of what slums are change also. Perhaps when society reaches a certain standard of living, slums will not matter, but even then, will we still have the slum-makers? There are causes of slums, therefore, which are not included in any legal definition. Personal failings and deficiencies of character may be as big a menace as the " unfit " dwelling. The difficulty arises in assessing the validity, importance and inter-relation of these numerous factors, but what is quite apparent is that solving the problem involves far more than the clearing of an area and the erection of well-designed housing schemes. In many cases, with the demolition of the slum must go the rebuilding of the human character.

Ouestion 2: problems which arise in slum clearance schemes

discover what problems directly or indirectly shape

Next in the series of questions was an attempt to the course of slum clearance and redevelopment, both in order of difficulty and order of importance.

2(a) (i) Problems in order of difficulty

Questions													
What would you say are generally the most difficult problems in slum clearance	No. replied	R	Relative selection in order of priority										
schemes ? Please list in order of difficulty the following		I	2	3	4	5	6	7	1				
(i) finance	33	15	7	4	3	-	_	2					
(ii) scattered sites	30	3	4	4	2	7	7	I	1				
(iii) sites which have to be left vacant for many years	30	4		2	3	6	4	4	1				
(iv) technical site problems, especially below ground	29	3	3	2	3 3 6	5	4	9	-				
(v) legal problems of ownership, compensation, etc.	34	3	7		6	4	5	2					
(vi) social and population problems	32	5	2	8	5	7	3	I					
(vii) time entailed	29		7		6	4	2	3					
(yiii) size of problem	34	9	6	5	2	2	4	2					
2 (a) (ii) Problems in order of importance													
Duestions	No. replied	Relative selection in order of priority											
What would you say are generally the most important problems in slum clearance													
schemes.													
Please list in order of importance the following		I	2	3	4	5	6	7	8				
(i) finance	35	X.4	8	3	4	2	2	2	_				
(1) Insuce													

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(iii) sites which have to be left vacant for many years	28		I	2	4	5	4	4	8
(iv) technical site problems, especially those below ground	28	2	3	2	2	5	5	6	3
(v) legal problems of ownership, compensation, etc.	31	2	3	9	8	4	I	2	2
(vi) social and population problems	33	8	7	6	4	5	I	_	2
(vii) time entailed	30	2	7	7	4	6	2	2	_
(viii) size of problem	31	9	7	5	2	2	5	_	I

People were also asked:

2 (b) Are there any other problems not listed above which you think (i) to be of importance? (ii) to be difficult?

SUMMARY OF VIEWS

Again the additional points raised were very numerous; they included: population overspill arrangements, shortage of alternative accommodation during clearance operations, the preservation of existing social communities, integration of new housing with old, acquisition of other properties, operation of slum clearance powers in a fair and just manner, leadership, keeping slum rehousing in balance with the general waiting list, cost of building, prolongation of negotiations, shortage of building sites, shortage

EXPERTS' COMMENTS

I. Lewis: Pontardawe's Senior Sanitary Inspector

The two fundamentals of slum clearance are (a) An acceptance of the social problems and (b) Adequate finance for its solution. If these are accepted then all other difficultie: are easily overcome with modern resources and technology. If acceptance of (a) is limited and (b) is resultingly inadequate then the problems you have listed will emerge, but will vary in difficulty and importance from area to area in accordance with local conditions.

J. Bullock : Warwick's Public Health Inspector

A difficult problem is presented by the absence of a fixed policy over a sufficient number of years. The excellent financial provisions of the Housing Act 1930 were not allowed to operate long enough before they were drastically altered. 1939 came too soon for those concerned with the clearance of slums. Now, financial changes (principally increased rates of interest) will slow up the implementation of the 1954 Act.

Jocelyn Adburgham : a Planning Consultant

Nos. (i) (iii) (iv) (vii) and (viii) in question 2a (i)(see table above) should not be accepted as problems. They can all be dealt with methodically in a straightforward business-like way. There is a tendency for the official methods and conceptions adopted in these matters to be too static and hesitant; also there is no continuity of policy.

Ronald Bradbury: Liverpool's City Architect and Director of Housing

Finance and legislation are obviously top priority. If you have the money and the legal powers to clear the sites expeditiously, then slum clearance becomes *merely*, and I deliberately emphasize the word "merely," a technical problem. Once it becomes a technical problem it is capable of solution since I firmly believe that the profession is fully equipped to deal with it efficiently.

A London Planning Officer

The problem which is both the most im-

pertant and the most difficult, is to operate slum clearance powers in a manner which is absolutely fair and just. The criterion is always: " is the house fit for human habitation ? " If the answer is no, then it is the duty of the local authority to secure either that the house is made fit, or that it is no longer lived in. It appears in some cases that pressure is exerted to secure a negative answer in order that the property may be bought cheaply. This situation, which may result in some owners being unjustly treated. would be eased if adequate powers existed for local authorities to deal with obsolete properties which, although not technically unfit, ought to be demolished.

A. Mackenzie: Director of Housing, Manchester, and Roland Nicholas: City Surveyor and Engineer, jointly

(In answer to question 2b (j): The provision of alternative accommodation to permit clearance to proceed.

Sheppard Fidler: Birmingham's City Architect, and G. P. Macey: Housing Manager, jointly

(In answer to 2c) Shortage of alternative accommodation in relation to size of problem. 50,000 slum houses in Birmingham. Sites for only 10,000 additional dwellings in city. Overspill problems not yet resolved. Large housing problem in addition to slum clearance problem.

Ronald Bradbury

The rate at which slum clearance can be undertaken is directly related to the number of dwellings which can be built on sites other than those to be cleared. We find, working at very high densities of redevelopment, that only one half of the population displaced from any congested slum area can be rehoused on an equivalent area or the same area in the central portions of the city and that the other half has to be accommodated on suburban sites or as peripheral or long-distance overspill. This involves, of course the critical problem of the expansion of the boundaries of our towns and cities or the displacement of population under longdistance overspill arrangements.

2 (c) Are there any other comments you would like to make on this aspect ?

of staff, journey to work, unwillingness of Councils to offend local property interests, absence of a fixed policy for a long enough period.

It is clear from the foregoing that technical matters are of relatively subsidiary importance. In carrying out slum clearance, it happens, the first of importance in terms of means, are finance and legislation; but, as objectives, social and general planning aspects come first. The emphasis in the experts' comments is once more, fundamentally, on the social questions.

East Anglian Engineer

Up to the present the greatest difficulty has been to rehouse persons without detriment to the waiting list of applicants for new houses

Dennis Chapman: Liverpool University Sociologist

Local authorities are deterred by the problem of caring for the slum tenant on the new estate. They are often "problem families" expensive to supervise and destructive to property.

Mary Courtney: Chairman of Townwomen's Guild

Far too few provisions made for meeting places (halls etc)., so that people can get together in groups. Often when such facilities are provided the cost of living is just wicked.

A Housing Association Official

(In answer to 2c) Personal problems of occupiers of houses and provision of alternative accommodation at suitable rents reasonably near work.

Dennis Chapman

The effects of high rents, cost of journey to work, cost of refurnishing the new house to the ex-slum tenant.

R. Williams: Coventry's Chief Sanitary Inspector

Aged people are a specially difficult part of (vi) (social and population problems). Reluctant to be moved away from old home locality.

Elizabeth Denby: A Housing Consultant

2b (i) Not to break up human relationships of value when clearing a slum. Not to destroy the character of an attractive but worn-out quarter by replacing with ordinary Council housing.

2b (ii) To remember that slum people are as sensitive as any other group of citizens, and should not be shamed. I am deeply disturbed by the latitude given to planners to take in other, good (or relatively good) property, to "round off the scheme." It is wrong and extravagent, to permit unnecess-

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ary "comprehensive redevelopment" to suit ideas of what an area should look like, instead of bending to the wishes of the people living in the locality.

A Housing Expert

2c. The shortage of qualified officers may well be a difficulty. Sanitary inspectors, legal departments, and so on appear doubtful whether they can handle work quickly enough (or whether the other chap can!) and local authorities are being urged to economise on staff rather than the opposite.

J. B. Bennett: City Engineer and Planning Officer and Surveyor, and J. B. Abbey: Housing Manager, of Bristol, jointly

2b (ii) The question of the availability of the necessary technical staff required to enable slum clearance programmes to be carried out raises one of the most difficult problems at the present time. The solution to this problem is of paramount importance. The problem of the adequacy of compensation from the angle of the man in the street is of importance. He is concerned about the method of assessment, and the adequacy of it, and in practice this problem raises difficulties which result in delays.

Arthur Ling: Coventry's City Architect and Planning Officer

2b (i) Undoubtedly the main difficulty about slum clearance is the erratic way in which preperties fail to be dealt with under slum clearance powers. They have to be certified by the Medical Officer of Health whose staff on the sanitary inspector's side has been too few in number to cope with the problem. The properties represented are

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usually very scattered, giving no comprehensive area for redevelopment and involving lengthy investigations as to ownership, compensation, etc. It is possible for the Local Authority to seek acquisition for adjoining property for redevelopment purposes but a public enquiry is involved. Quite clearly a more rapid method of proceeding is required which will allow authorities to tackle redevelopment of slum clearance areas in a comprehensive way.

Dennis Chapman : Liverpool University Sociologist

2b (i) Unwillingness of Councils to offend local property interests, including shops and breweries. Apathy by central government. Compare the vigour with which nuclear research is financed and developed.

An Official Sociologist

2b (ii) If in order to avoid isolated infilling, large areas, including non-slum properties, are acquired—then the problems of reheusing (vi) and ownership (v) are acute and my lead to the temporary spread of slum conditions for some years.

R. J. Piggott: Stoke-on-Trent's City Architect

2b (i) The acquisition of borderline property and industrial and commercial properties which would prevent economic and efficient redevelopment of the area.

2b (ii) Persuading owners or occupants of industrial and commercial properties to relinquish their premises even when adequate compensation would be paid or new premises provided elsewhere without cost to the business or industry affected.

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Walter E. K. Bull: Surveyor in private practice

In my view one of the biggest obstacles at the present time is the basis for the compulsory purchase of the properties. As you know, this is based on site value and I consider that a large number of houses which have been reasonably well maintained and which provide a reasonable standard of living accommodation are condemned as slum houses and the owners compensated on a basis of site value only. As an example, seven houses belonging to clients of ours which are not at all bad little houses and which have had £178 spent upon each house over the last five years have been scheduled for clearance. The result of this sort of activity is to make the owners of houses that are even remotely likely to be scheduled, avoid spending any money on maintenance and so create slums all the quicker.

Hugh Wilson: Canterbury's City Architect 2b (ii) Lack of sites in suitable positions.

Sir Herbert Manzoni: Birmingham's City Engineer and Surveyor

2b (ii) To overcome the maze of legislation and detailed Government control.

2b (i) To find someone sufficiently powerful and enthusiastic to sustain the effort involved

F. Hedley : Brandon and Byshottles UDC's Architect

20 To provide immediately whilst re-housing the whole of the social amenities and service industries, recreational and educational facilities, which are essential for a balanced community.

AUTHORS' NOTES

One of the surprising features of comments on causes of slums was the way so few of the comments duplicated one another. Comments on problems, although of many kinds, showed more in common. The Public Health group in particular were conscious of the problems caused by shortage of staff. The fact that

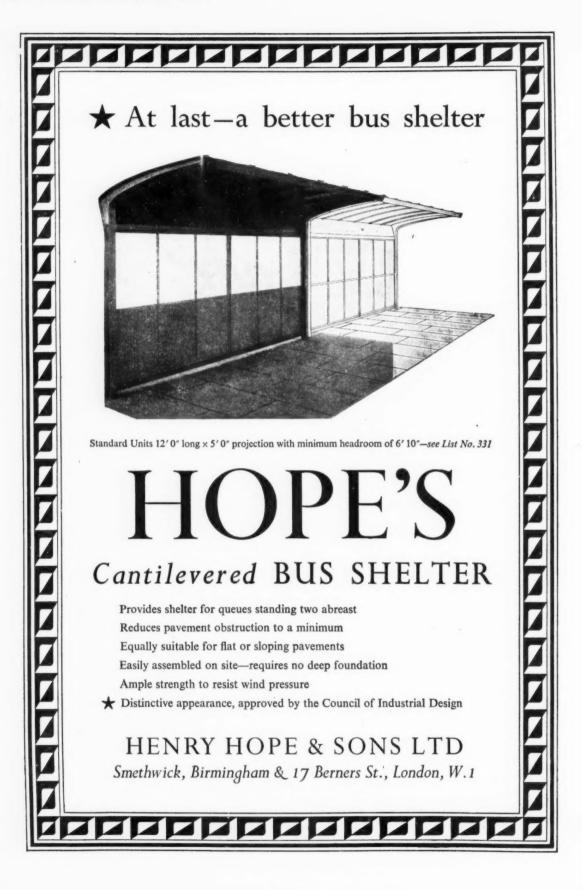
technical problems were barely discussed may be because the redevelopment of large urban blighted areas is not a familiar problem. Although this aspect was given so little weight by those who replied, it is nonetheless an aspect which must not be overlooked in the future.

Question 3: elements necessary to ensure the success of slum clearance schemes

These questions were asked in an endeavour to establish the principles on which to base policy and design in the clearance of slums and in the provision of new housing for the tenants.

3 (a) Range of elements for success

Questions				
From out of the following, which would you say are the most important elements generally required to ensure the success of slum clearance schemes.				
(i) the internal design of dwellings	31			
(ii) the presence of a garden attached to the new building	IO			
(iii) the influence of a good layout within the new scheme	37			
(iv) the presence of a good environment adjoining the new scheme	25			
(v) the use of education campaigns before re-housing is carried out to allow the rehoused families an opportunity to adjust				
ways of living before any move is made	16			



sh A Th M mo Co Re ele of be ter tha rei no J. En He W m ap ga Sh ha joi Ex liv Pr ad da im Pe an ed as co tic

> en Ti

E Sin En No (vi) a clean break with the past
 (vii) alternatively with (vi), preservation in the new scheme of some of the features of the old slum area: whether in terms of density of housing, known landmarks or any other feature
 (viii) rents people can afford

(ix) good architecture(x) good housing management

Group variations

Generally, all groups replied alike; but as regards (3 v) the use of "education campaigns," it was only the General Group who showed

SUMMARY OF VIEWS

Our points were considered elementary and wide of the mark. A few additional points were made: The slum dweller should be treated as an individual, the need for personal respect and a guiding hand during transitional period; balanced communities and de-

EXPERTS' COMMENTS Sir Herbert Manzoni: Birmingham's City

Engineer and Surveyor Not wide of the mark but elementary and

should cause no difficulty whatever.

An Inner London Borough Official

These are all somewhat wide of the mark. Most families in these areas are anxious to be rehoused even at much higher rents, and most of them have adequate means and a good domestic standard.

County Durham Rural Official

Rents people can afford are by far the greatest element towards the success of any scheme of housing, and with this could usefully be coupled a scheme for assisting the tenant to purchase suitable furniture so that a transfer from old houses (cheap rents) into new houses (dear rents) would not be a serious financial ordeal.

J. B. Bennett, J. A. Abbey, of Bristol: City Engineer, Planning Officer and Surveyor, Housing Manager, jointly

We do not feel that they are wide of the mark, but we feel that the first essential in approaching a slum clearance project is to gain the confidence of all persons involved in the contemplated proposals.

Sheppard Fidler and G. P. Macey: Birmingham's City Architect and Housing Manager, jointly

Experience in Birmingham shows that people living in slums do not differ greatly from a cross section of the ordinary waiting list. Pre-education is not necessary but adequate advance warning should be given of the date of removal. Follow-up visiting is also important.

I. Lewis: Pontardawe's Senior Sanitary Inspector

People transferred from slums to new houses are in most cases balanced on the razor's edge of rehabilitation. It is vital that they be established in their new houses as happily as possible. Within all reasonable limits consideration should be given to the particular needs of each applicant and every endeavour made to settle them happily. The first months are vital.

J. C. Blackhall: Planning Student

Slum dwellers cannot be classified as being homogeneous and this fact should be realised before any clearance scheme is undertaken. Many progressive housing managers are at present trying to satisfy individual demands regarding accommodation but this is frequently achieved by disregarding the resiting of those families.

J. Bullock: Warwick's Public Health Inspector

These elements are not really wide of the mark, but a very big factor is the extent to which people, previously of a low social standard, will copy and compete with others. In time of prosperity this gives remarkable results.

An Official Sociologist

It is a most important task to create a balanced community in the clearance schemes by mixing families with different social and economic backgrounds.

R. Williams: Coventry's Chief Sanitary Inspector

Facilities for adequate transport. Roads to be made up before houses occupied; schools, shops, churches, places of entertainment to be opened in synchronisation with house occupation.

A Housing Association Officer

Contact with some permanent person (e.g. housing manager) before and after letting to settle them into new surroundings. Need for social activities, a playground and creation of a community. Careful placing of tenants near suitable neighbours—not all the dirty, poor, tenants together—as far as possible a mixed community.

Dennis Chapman : Liverpool University Sociologist

As long as mothers have daughters and daughters mothers, there will not be a break with the past. Rents that can be afforded —this is a problem of education. Housing is grossly undervalued.

much interest, and likewise, in their regard for the preservation of old features. Only the Public Health group ignored the importance of good architecture.

velopment; the need for continuity of environment, the need for a break in continuity. Here again: there was an emphasis in the comments on the human problem, as opposed to the emphasis on the physical problem shown by the table.

Ronald Bradbury: Liverpool's City Architect and Director of Housing

For some families a clean break with the past is a good thing. For others it would be a disaster. Where families should go must be carefully considered in relation to the different schemes where houses are being let at the time the displacement of population from the slum areas takes place. Of course, people must be treated as human beings, particularly when to move out to the suburbs is for them as great an adventure as it would be for us to emigrate to Australia.

Elizabeth Denby: Housing Consultant

Not to break up human relationships of value when clearing a slum. Not to destroy the character of an attractive but worn out quarter—replacing by ordinary Council Housing. To remember that slum people are as sensitive as any other group of citizens, and should not be shamed.

Hugh Wilson: Canterbury's City Architect Maintain "the friendliness of the slums." Integration of parts of a scheme covering a wide area with the existing elements retained in the area to give comprehensive redevelopmnt.

A South London Engineer

In my opinion the slum area, once removed, should not be remembered in its original form.

A Midlands Rural Official

Here, in rural life, all the factors mentioned can be applied in one or other case, but they do not necessarily all apply in all cases. The problem, to my mind, cannot be generalised and although this district has some 40,000 population and well over 13,000 dwellings, each family and each dwelling must be regarded as an individual and the aspects of each case should attract attention. No mass approach can be given, if satisfaction to the future generations is to be established.

10

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AUTHORS' NOTES

The comments on this section were not so prolific as those of Section 1. We must confess that we do not share the erudition of Sir Herbert Manzoni, nor the confidence and assurance of the Inner London Borough Official. The difference between his comment and that of the County Durham Rural Official may reflect the differing financial position between the town and rural worker. In the main, observations showed: the need for careful treatment of tenants before and after the move ; the need for a scheme to be really complete before occupation ; and the suggestion that slum dwellers should not be rehoused en bloc. There was generally a feeling (but not specifically mentioned) of the importance of assistance and education after the move. The argument lies in whether or not there should be a clean break with the past. Does the rehoused slum dweller need to forget his previous environment? Is slum life wholly bad? or are there physical or psychological aspects of it which are valuable and which should be carried over to the new environment? In our view that may well be so.

Question 4 : the influence of environment

This question was designed to find out, first, how a move into new surroundings affects former slum dwellers, secondly, how they affect their new environ-

ment and thirdly, the interplay of influence between new housing and existing development, whether residential or otherwise.

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a)	Effect	OB	tenants	

Questions	Replies			
Have you any experience of, or have you any views on, some of the following points: What is the effect on the life of former slum dwellers of living in new housing conditions of a good or reasonable standard ? Do you find:	No. rcplied	yes	no	
(i) increased personal cleanliness	39	37	2	
(ii) improved health	34	33	I	
(iii) improved moral standards	17	13	4	
(iv) (a) the change has a greater effect on young				
families	37	37		
(iv) (b) the change has a greater effect on old				
people	17	I	16	
(v) any adverse effects, if so what	15	4	II	

4(b) Abuse of new environment

Questions Have you found that slum dwellers abuse their	Replies			
new environment ?				
If your answer is " yes," why do you consider this occurs ?	No. replied	yes	no	
(i) has the abuse been of the dwelling	37	17	20	
(ii) has the abuse been of those communal parts of the scheme	34	16	18	
(iii) has the abuse been of the layout and space around the buildings (iv) do you find a greater abuse by rehoused slum dwellers than occurs among occupants of	33	17	16	
ordinary local authority housing (v) do you find protests from tenants about	34	IO	24	
abuse of property by other tenants (vi) does the abuse tend to diminish after a	36	16	20	
period (vii) have you found that new schemes are abused by those living in slums adjoining the	35	18	17	
new schemes	32	9	23	
(viii) have you any other comment on abuse	29	9	20	

4(c) Adjoining influences

Questions	Replies		
Do you consider in general that social standards and behaviour of occupiers of:	No. replied	yes	no
(i) new housing schemes are influenced by			
existing adjoining residential development (ii) adjoining development is influenced by	40	25	15
the new housing schemes (iii) that adjoining non-residential development— thops, industry, offices, prisons, cooling towers, tc., open spaces, etc.—influence social tandards and behaviour of residents in new	39	29	10
housing schemes	34	22	12

Group variations

. K

For item (i) the large towns and public health groups were the only ones who gave a clear cut general "Yes "; for item (iii), the large and smaller towns ended to conflict, possibly as only to be expected.

SUMMARY OF VIEWS

The concensus of opinion is that the majority benefit from the move ; there is a need for care in treatment of elderly persons; the adverse effects are mainly economic and social.

Abuse of the new environment is almost universal, but is usually limited to a few cases in each new scheme-comments were unanimous on this point. Abuse arises through an underdeveloped sense of values or ignorance on the part of a few tenants, and through inadequate or incomplete layouts. The former rural slum-dweller does not, in general, abuse his new home. Any new scheme influences the adjoining old development and is, in turn, influenced by it, whether it be housing or some other use-this is clear from the answers to the specific questions (See Table 4c). Comment on this was slight, i.e., one cannot generalize; and, not applicable to rural conditions.

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EXPERTS' COMMENTS

EFFECT OF NEW ENVIRON-MENT ON TENANTS Ronald Bradbury: Liverpool's City Architect

My answers cannot be simple yes's or no's. If, however, a hundred families move from a small area, about 20 per cent, take badly to their new environment, no matter how good it may be, and many of them take the first opportunity to drift back to the slums. Thirty per cent. make good immediately and enjoy and take full advantage of all the facilities which are offered to them in the new estate, whether it be in the central areas or the suburbs. The remaining 50 per cent. do not change much initially, but from experience here it is certainly clear that even the worst estates settle down and improve after four or five years and continue so to do until a fairly high level is reached as the years pass. It would be a fairly true generalization to say that families with young children settle better after a few years than families with teen-age children. I find that the influence of the new schools on the children soon extends to the families. In any case, the families with young children are prepared to attempt to settle in when they see the effect upon the health of the kids which the new environment undouotedly has. Teenagers on the other hand appear to be lost and tend to grow perhaps a little wilder. The "Teddy Boy" menace on our new estates is a serious matter. Only when the teen-agers have grown up and married do their parents appear to settle down and enjoy the new surroundings.

J. L. Thomas: Ebbw Vale's Architect and Surveyor

I cannot say that the personal cleanliness and the moral standards of slum dwellers have been noticeably different from those of other people, but health does undoubtedly benefit from improved living conditions.

Dennis Chapman: Liverpool University Sociologist

On morals, do you drink more or less if you have to walk three miles to the pub? Morality depends on public opinion. If your neighbours know you, you will behave. New estates therefore start with worse morals than the old area, but become better later.

J. B. Bennett and J. B. Abbey: City Engineer, Planning Officer and Surveyor, and Housing Manager of Bristol, jointly

Young families accept change in their stride —old families have to be very sensitively handled and generally prefer to be rehoused in an old neighbourhood. Old people may pine if uprooted violently and should be transplanted very carefully, if possible, to

RDS

an area which enables them to preserve their old associations.

A Housing Expert

There have been cases of rents, fares and shopping costs, etc., being so high as to counteract other influences on health. There may be loneliness and other social difficulties if rehousing is not carried out in the most suitable way. Juvenile delinquency may arise from inadequate social facilities, parents going out to work to meet higher rents, and less neighbourliness, etc.

T. A. Bowen and D. Thomas: Wrexham's Engineer and Surveyor, and Chief Sanitary Inspector, jointly

The families are adversely affected for a period following rehousing. In their desire and efforts to be equal to their neighbours, a great financial strain is placed upon them, due to a substantial increase in rent, and need for more and better furniture, floor coverings, curtaining, etc., which are acquired under the hire-purchase system, thus mortgaging their future for a considerable time.

Jocelyn Adburgham: A Planning Consultant

If suburban development is referred to, then travel difficulties arise—making for longer days away from home for the men, and a tendency to boredom for the women, who rectify this by working away from home. If redevelopment is intended, there seem to be fewer adverse effects—though lack of garden space is sometimes a disadvantage to a proportion of people.

A Housing Association Official

There is a tendency to become self centred, and losing the feeling of being one of a group, all helping each other and being helped, as in the old yards, where all were close together (sometimes this could be a good group; in others the lack of privacy became too irksome). There is loneliness.

ABUSE Ronald Bradbury

Unfortunately my answers so far on the influence of environment (Question 4 (b)) must be a qualified "yes" except to question vi. There are always people who will abuse their house and the estate and amenities generally. Although these may be few in number, their adverse effect upon the estate as a whole is very serious, but this abuse tends to grow less as the estate shakes down.

A Housing Association Official

Abuse usually starts only by the few, and many are blamed, but unless there are other influences these can lead others astray.

J. Bullock: Warwick's Public Health Inspector

Such limited abuse that occurs lessens as children grow older and often ceases with the next generation.

J. R. Piggott

Abuse occurs through lack of training and experience in the use and benefits of services and amenities provided in the new dwelling.

A Midlands M.O.H.

Serious abuse rarely arises but is usually associated with unsatisfactory family life.

An East Anglian Engineer

Most damage is done to trees, verges, lamps and fences.

A Midlands Official

What they have had before is just not worth taking care of, and destruction becomes a habit.

J. B. Bennett and J. B. Abbey, jointly

Abuse arises because of the individual, and not because of the type of property from which he or she is removed.

A Critic

The natural slum-makers will continue at the expense of their unfortunate neighbours.

Cotswolds' City Officia!

Abuse more likely to occur, or occur to greater extent, where design and layout are inadequate, or where there is a serious timelag between completion of various parts of the scheme.

A Midlands Rural Official

In general the rural dweller does not abuse his new environment. He may not reach the high standards the idealist would wish, but on the other hand he does generally improve and it is possible that improvement will be reflected far greater in the future generations, but that is a point where experience only will prove.

In the few cases of abuse it can generally be traced to ignorance and irresponsibility.

ADJOINING INFLUENCES Ronald Bradbury

The questions under 4 (c) (Adjoining Influences) are very difficult. It depends so much where the new estate is, the types of families who have been housed in it and whether they fit in there.

Midlands Rural Official

In towns, the questions may be identified, but I do not feel that one can particularize to the extent indicated for rural dwellers.

AUTHORS' NOTES

The answers to this part were both reassuring and disturbing. Although, in general, a move to a new scheme benefits the former slum-dweller, it can do harm. This applies particularly to old persons who may suffer from loneliness and have a difficulty in adjusting themselves to their new home.

Yet other dangers are the adolescent at a "loose-

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We are left with the inveterate slum-maker whose influence can ruin a block of flats or a terrace of houses, discouraging neighbours and causing much ill-feeling. Is all abuse of schemes caused by such persons, or is it more generally spread? Is it caused by ignorance, lack of training or resentment? What The Architects' Journal for October 4, 1956 [487

drives the new tenant to rip off doors, break windows, and deface new buildings?

How much of this is generated by, or restrained by, the development next-door to the new housing, is not revealed. Do people behave better if they live beside a park than if beside a gas-works? Is it giving the new tenant a chance if his living room overlooks a boneboiling factory and his bedroom fills with industrial smoke? Table 4c shows a majority opinion that external influences are effective one way or another, and this aspect could do with more investigation.

Question 5 : the effect of current financial limitations

For this section, our primary aim in detail was to find out how far the present, central government, financial policies were affecting slum clearance and redevelopment; as a secondary aim, we sought out opinion on how far further economies could be made in design and so on.

5 (a) Effects of changes in subsidy

Questions	Replies			
In support of the protest made to the Minister				
of Housing and Local Government by the RIBA about the subsidy arrangements, have you any experience of these subsidies affecting your scheme in terms of:	No. replied	yes	mo	
(i) schemes being revised to exclude redevelopment as opposed to sium clearance	2.4	2	22	
(ii) extent of revisions entailed if scheme revised	5	0	5	
5 (b) Present rates of interest and general arrangements 	Baska		-	
Questions Have you any experience of the effect of present rates of interest and financial arrangements	Replies			
generally on Local Authority re-housing in terms of:	No. replied	yes	no	
generally on Local Authority re-housing in terms of:	No. replied	yes 8	19	
generally on Local Authority re-housing in terms of: (i) scheme being reduced in standard (ii) scheme being postponed		yes S		
generally on Local Authority re-housing in terms of: (i) scheme being reduced in standard (ii) scheme being postponed (iii) schemes being kept intact only as a consequence of ingenious planning	27	8	19	
generally on Local Authority re-housing in terms of: (i) scheme being reduced in standard (ii) scheme being postponed (iii) schemes being kept intact only as a consequence of ingenious planning (iv) schemes retained only by raising rents	27 29	8 10	19 19	
	27 29 23	10 7	19 19 16	

Group variations

The only noticeable variation in replies to this series of questions were under (iv) (schemes retained only by raising rents). From the limited replies received, the larger towns generally replied " No_i " whereas the smaller towns replied " Yes."

Apart from inviting comments on the above, we also asked: (c) Is there any scope for further economies by ingenious planning, design or methods of production?



EXPERTS' COMMENTS

An Inner London County Planning Officer All housing questions are bedevilled by the unreality of rents which have been distorted by artificial restrictions and subsidies to such an extent that it is simply uneconomic to build the numerous small dwellings which are one of the nation's most fundamental wants. Slum clearance legislation is virtually as good as it can be in such a topsyturvy situation. It is the *situation* that needs changing.

A Housing Expert

It is most unfortunate that renewed slum clearance activity has occurred at a time of high interest rates. Also, rent policy since the war has been antagonistic to good housing. Until everyone realises that good housing costs, and is worth, more than tobacco and pools (as symbols of mistaken values) we shall find it difficult to clear slums!

East Anglian Engineer

It is questionable whether present slum dwellers are able to pay rents which present building and rates of interest demand. Many will, it is feared, be unable to do so. The problem is what to do about them. A small part of the answer may be to change over tenants of older houses to new ones and put slum dwellers in the older houses. To put extra financial burden on Local Authorities is not likely to be a popular move.

L. G. Vincent: Chief Architect, Stevenage New Town

Perhaps the biggest stumbling block in front of slum clearance and redevelopment is the high cost of multi-storey dwellings. The average two-storey dwelling costs about $\pounds 1.500-\pounds 1.600$ and an equivalent flat in a multi-storied scheme is in the order of $\pounds 2.400-\pounds 2.500$. Until the figures can be brought nearer, *i.e.* the higher reducing, it will always be difficult to obtain sufficient money to carry out redevelopment on a proper scale necessary to deal with the problem.

Dennis Chapman: Liverpool University Sociologist

Steps should be taken to bring the value and the cost of housing into line: the reduction of subsidies and the relaxation of rent controls, combined with public education. Houses should be made smaller and simpler for those who want low rents, with Nogarden houses for Non-Peasants. Costs might be reduced by improved building methods, ring busting, etc.

The rehousing of the difficult tenant requires the help of skilled persons.

A Housing Association Official

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Some people living in cheap sub-standard houses earning high wages have been able to afford TV etc., and have plenty of spare cash for a very good, extravagant, table and other extras (but little saving). These people are usually good at expressing

their point of view and expect when rehoused to be able to continue with these "extras." They refuse to move because the rent is too high. Had rents risen in line with wages the contrast between old houses and new would not seem so great. Standards have risen very greatly in the last twenty years and they expect more conveniences. Some want everything new they see; others realise the advantages of a good house and surroundings for their children and will deny themselves for that, as many of their parents did in many ways before them. It is a question of their set of values.

Arthur Ling: Coventry's Architect and Planning Officer

The new Housing Subsidies Act is now in force and it does not make provision for the higher subsidy to be paid for comprehensive redevelopment areas. Such subsidy applies only to those properties which are represented as slums. In my view this is quite wrong and it is to be regretted that the RIBA protests were not met. As I mentioned previously, it would be much better if areas were declared slum clearance areas and comprehensive redevelopment proposals were called for by the Government.

R. Williams: Coventry's Chief Sanitary Inspector

Consider it is too early yet to assess the effects of subsidy revision.

Ronald Bradbury: Liverpool's City Architect and Director of Housing

So far, I can say definitely that the current financial limitations have had no effect on our slum clearance problems. The Corporation realizes that, whatever the cost, it must continue to press on with the comparatively small amount of slum clearance which physical limitations, quite apart from financial considerations, make possible.

My answer to 5(b) is that the problem is too urgent and my Council is too aware of its importance to alter either its standards or the scope of its activities.

Sheppard Fidler and G. P. Macey: Birmingham's City Architect and Housing Manager, iointly

In Birmingham, slum clearance schemes and redevelopment schemes are coincidental.

Hugh Wilson: Canterbury's City Architect

Not as yet, but fully support the RIBA since great danger of development not being sufficiently comprehensive in character. There is a slowing down of normal housing programme. A differential rent scheme is operated.

East Anglian Engineer

Not yet but likely. (Referring to Question (1) of Table 5(b).)

Official Architect

The scope of our redevelopment schemes has had to be curtailed to avoid demolishing fit houses. This will entail piece-meal redevelopment scattered over an area, and inhibits the complete elimination of "blight."

A. Mackenzie and Roland Nicholas: Manchester's Director of Housing, and City Surveyor and Engineer, jointly

This Authority does not propose to allow the subsidy revision to interfere with the prepared programme.

Lionel Brett : An Architect-Planner

The above cuts (referring to Table 5(b)) are being made all along the line.

A Midlands Rural Officer

So far as this district is concerned, whilst the financial restrictions have been recognized, the Local Authority has not made a specific determination to curtail its schemes and endeavours. Surely it is proper that the full cost of achieving any improvement should be recognized and the recipient given the opportunity of appreciating that that is being done. To attract that appreciation there is no better medium than having to pay. Ease where necessary, but do not provide everything free, gratis and for nothing.

Co-operation by Local Authorities, landlords and tenants should enable slum clearance to proceed with success.

COMMENTS ON SCOPE OF ECONOMIES (QUESTION 5c) Sheppard Fidler and G. P. Macey: Birmingham's City Architect, and Housing Manager, jointly

I consider that economies to be brought about by ingenious planning and design have been practically exhausted, and no new large saving can be looked for in this direction.

It is always possible that methods of production either of complete structures or portions thereof, may be improved upon to produce further economies.

F. Hedley: Brandon and Byshottles UDC's Architect

Only prefabrication would seem to be the method of production to reduce cost, but this has not proved itself so far as housing is concerned. The opinion is that it would be a poor effort and a retrograde step as investment to fill all our towns and villages with mass-produced light buildings. It is a different matter for schools and other single units of construction but a serious thing in housing. Increased housing contracts permitting a higher degree of use of material and plant, and purchase in mass and phasing of work are economies to be practised by some.

L. G. Vincent: Chief Architect, Stevenage New Town

The house building industry is badly organized, and more than offsets savings made by ingenious planning and design.

A Critic

Greater standardization, using a flexible building system, and mechanization, might reduce costs. The money saved should be used to lower maintenance costs and to create amenities: trees, lawns, playgrounds, pools.

J. L. Thomas: Ebbw Vale's Architect and Surveyor

It is difficult to see where further economies

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can be made in two-storied development, but I should say that for building above these storeys there is considerable scope for experiment on the lines now being carried out by the LCC and Birmingham.

J. R. Piggott: Stoke-on-Trent's City Architect

Densities might be increased, but in Stokeon-Trent the cost of structural precautions against damage by mining subsidence prohibits the erection of multi-storey buildings.

A South London Engineer

There is no question but that the building industry as a whole could, if they were willing, introduce more mechanization in order to reduce building costs. Standardization without monotony could play a large part if a sufficient number of people were interested in its general adoption.

A New Town Official

Possibly, by building smaller houses with whole house heating, so that bedrooms could be used for nursery, bed-sitters, etc.

A Northern Local Authority Official

Yes, but only small unless standards are to be reduced.

A Housing Association Official

Yes. But houses should not be made pokey or too small.

An Inner London County Planning Officer Planning and design are pretty ingenious already and should not be further "economized." But methods of production must surely always offer scope for further economy.

J. B. Bennett and J. B. Abbey: City Engineer, Planning Officer and Surveyor, and Housing Manager of Bristol, jointly

There is always scope for economies in this way as long as standards are not reduced standards are already low.

East Anglian Engineer

Yes, with possibly slightly lower standards to cheapen building.

Hugh Wilson: Canterbury's City Architect By ingenious planning of layout but not of house-planning. Still scope in design and certainly in methods of production—need for co-operation between manufacturers, builders and architects.

Jocelyn Adburgham: Planning Consultant No. Not in view of the wage rises, etc., that are largely responsible for high costs as compared with pre-war.

SOME GENERAL COMMENTS County Durham Rural Officer

The effect of reduced subsidies in a rural district tend to (a) limit the size of the unit and amenities, (b) make prospective tenants in sub-standard houses (some of which are quite large) hesitate before accepting tenancies of modern houses which, although having all amenities, are somewhat smaller in floor area. (c) When there are increased rents charged many tenants feel that, during a period of inflation, it is not wise to commit themselves to higher rents in case a slump should follow.

The Council (average) tries to build houses of reduced floor space in order to avoid increasing the rents and this limits the tenant regarding the amount and arrangement of furniture. For instance there are very few modern houses in which a complete bedroom suite can go into one room, and similarly with the dining-room. Shortage of money for each house tends to make the Council cut out some of the minor amenities, some of which cannot be added later without considerable expense. An example of this is in sculleries, where with a slightly larger floor area and an additional flue the room could be used for the taking of everyday meals, leaving the single living room as a place for evening rest and leisure. In my experience the Council is constantly seeking methods of construction and adjustment of layout, etc., in order to reduce the overall price of the houses and so make rents which are reasonable.

I believe that by a definite but gradual programme for abolishing rent restriction, property would find its own level on rents and on level of amenity. This would throw into sharper relief the hard core of slumclearance dwellings, which at present tend to be blurred in the public mind with the vaster area of sub-standard housing.

T. A. Bowen: Wrexham's Engineer and Surveyor, and D. Thomas: Chief Sanitary Inspector, jointly

Site clearance should be National charge. Greater co-ordination is required between the town planning authority and the local authority.

It would appear that many years will clapse before the completion of Town Maps, with the result that sporadic development may occur within an area which the local authority consider should be redeveloped. In a rural district area where the county authority are the highway authority, it would appear that difficulties will be met in bearing the cost of any road improvements required.

A Midland Rural Officer

The insistence of planning authorities that schemes should be built away from existing roads increases the use of manpower in time of overfull employment; also, I am not always sure that in the circumstances of today the extra cost involved is warranted. The infilling of towns of all sizes can help considerably where roads and services exist. In rural areas the requirement for extensive "open spaces" on relatively small estates is regarded as wasteful.

A County Durham Rural Officer

I have had experience in rural and urban areas on slum clearance work and dealing with houses under Section II of the Housing Act, 1936. In connection with the latter I feel that, on occasions, time and probably money can be saved by councils showing firmness with all property owners of substandard houses. In many cases it is much more satisfactory to advise an owner that his house cannot be made fit at a reasonable cost (even border-line cases) than suggest to him that sub-standard property can be made fit with the aid of an Improvement Grant. Should the owner then wish to proceed with the latter, he realises that he is probably tackling work that may result in some considerable expense. In many cases I have found that, when owners have even obtained rough estimates of cost (and allowing for improvement grants of up to 50 per cent.) the proposal has had to be dropped by the owner because of the lack of income and the financial outlay. In connection with small pockets of bad property which have originally been considered suitable for inclusion in a slum clearance area, considerable saving of time has resulted by the council buying up the property at site value for housing purposes, and in these circumstances it has been unnecessary to go to all the trouble of making a clearance area. In some villages, where anything up to 90 per cent. of the houses are still being let at ridiculously low uneconomic rents, many of these houses may be found to be in a very sub-standard condition and again the council might find the owner only too willing to turn the property over to the council on site value. The council, in turn, can arrange for the erection of new houses, carry out improvements to some houses and generally clean up the situation. I consider it a rather serious matter for sub-standard cottages to be bought by occupiers who have little or no means for repairs or improvements. This often results in hardship, when the council are obliged to step in and condemn the property.

AUTHORS' NOTES

The foregoing comments make it quite clear that for the future it is once again a case of not concentrating on remedying any faulty details but of revising the very framework of financial policies and methods and public's attitude to housing finance.

Now-a really elegant bath

for a surprisingly low price

-it's the Vogue

Never before has such an elegant bath been produced for the same price as the Magna bath.

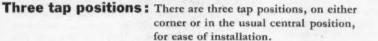
First Class Design: Big as a Magna, the three tap positions make the Vogue easy to install in bathrooms. The bottom is flatter than most baths — a good safety device — and the bath can be ordered without or with a useful handgrip at a small extra cost. The fact that it is shallow too,

makes it extremely suitable for elderly people or for mothers with children to bath. The convenient recess is an insurance against toe-stubbing when cleaning the bath or washing children.

The Price: For a bath with such elegance, the Allied Vogue is an outstanding bargain, and like all Allied baths, will stand up to any amount of hard wear.

The Colour Range—all the well-known Duramel colours are available.

She'll love the elegance and be delighted at the price of the ALLIED VOGUE BATH



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For further details write to the Housing Division of

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Question 6: slum clearance and redevelopment

This part was in three sections and the questions were drafted to obtain views on the inter-relation of clearance and redevelopment generally, and on the adequacy of existing legislation to deal with the problem.

<i>Questions</i> Do you think it is possible to		Replies		
		No. replied	yes	no
(i) carry out substantial slum clearance schemes satisfactorily with	out any redevelopment being entailed	44	5	39
(ii) are you satisfied with present legislation		37	15	22
(iii) if not, are further powers required		23	14	9
(iv) or does present legislation require co-ordinating		21	19	2

Group variations

The only "yes" replies to (i) (can slum clearance schemes be satisfactorily carried out without redevelopment) came from the Rural and General Group. The Large Town Group was unanimous in expressing dissatisfaction with present legislation; the other Groups were less decisive.

SUMMARY OF VIEWS

The few comments on the first question of this section confirmed the overwhelming view shown by Table 6 that, to carry out extensive slum clearance, redevelopment is necessary. The Law is found by some to be unintelligible, by others to be difficult. Some are content with it, most are not. Suggested revisions are put forward and there is a strong opinion that it needs co-ordinating.

EXPERTS' COMMENTS

CLEARANCE AND RE-DEVELOPMENT: IS SATISFAC-TORY LARGE SCALE CLEAR-ANCE POSSIBLE WITHOUT REDEVELOPMENT

J. B. Bennett and J. B. Abbey: City Engineer, Officer and Surveyor, and Housing Manager, of Bristol, jointly

Not in Bristol, in view of shortage of sites and overspill population.

County Durham Rural Official

This applies in rural areas where in small villages the change should be gradual and the layout of the old village preserved. The new schemes for re-housing should include the filling-up of gaps, and any extension of the village should be made to harmonise with the village layout, and not merely be an urbanised form of development on the outskirts of the village. To this extent I would say that it is hardly possible to carry out some clearance schemes without any redevelopment being entailed. There is always some minor feature in the village in connection with the layout that can be improved.

R. Williams: Coventry's Chief Sanitary Inspector

Most areas, particularly large towns, are already land hungry.

An Official Sociologist

If it is assumed that the alternative to redevelopment is rehabilitation of existing property, then the overspill resulting from improved standards necessitates some redevelopment somewhere.

Arthur Ling: Coventry's Architect and Planning Officer

" Is it possible to carry out slum clearance schemes satisfactorily without redevelopment"? Satisfactory to whom—the ratepayers, the Council, the nearby inhabitants, the industrialists who want labour, the industrialists who want room to expand, the planner who wants open space, the War Office who want a drill hall, or the education Officer who wants a school?

LAW (ARE YOU SATISFIED WITH PRESENT LEGISLATION?)

The Critic

No. I can't understand it.

Sir Herbert Manzoni: Birmingham's City Engineer and Surveyor

It is the method application of legislation which causes most of the difficulty.

R. Williams: Coventry's Chief Sanitary Inspector

Simplify the procedure, clarify the law refix the standards of fitness and unfitness so that the total of defects has a proper reflection in the decision of whether a house is fit or not.

J. Bullock: Warwick's Public Health Inspector

In general, yes, but let us be given full encouragement to apply it. Slum clearance can always be stopped, if it is thought conditions are not favourable.

L. G. Vincent: Chief Architect, Stevenage New Town

Tied too much to varying political thought.

An Official Sociologist

Rates of interest on loans to Local Authorities are too high. Government subsidies are too low.

A London Planning Officer

Continual variation in subsidies makes a comprehensive and coherent housing policy impossible.

Official Architect

Present legislation too restrictive for comprehensive redevelopment.

Sheppard Fidler and G. P. Macey: Birmingham's City Architect and Housing Manager, jointly

Where deferred demolition is the course decided upon, there is no power to include "grey" property in the Compulsory Purchase Order. This is a definite disadvantage where "grey" and "pink" property is closely intermingled—this leads to management and maintenance difficulties.

F. G. Southgate: Walthamstow's Architect, Engineer and Surveyor

There is enough!

J. R. Piggott: Stoke-on-Trent's City Architect

With present legislation progress can only be made by piece-meal redevelopment which increases the cost and gives a bad mixture of the old and new property.

AMENDMENT OF LEGISLATION A London Planning Officer

Amend Legislation to enable local authorities to deal with near-slum areas.

J. L. Thomas: Ebbw Vale's Architect and Surveyor

One act covering all aspects of housing relating to slum clearance would be helpful.

F. Hedley: Brandon and Byshottles UDC's Architect

It is my opinion that the powers of the New Towns Development Corporation should be extended to neighbourhood unit planning. It is a further opinion that housing distribution and development should be done purely on a "community of Interest basis" rather than district boundary requirements. Therefore, revisions of Local Government boundaries are required.

J. B. Bennett and J. B. Abbey: City Engineer, Officer and Surveyor, and Housing Manager of Bristol. iointly

The officers of the Bristol Corporation have considered the possibility of making all future Compulsory Purchase Orders for Slum Clearance Purposes under Part V of the Housing Act, 1936, as it was felt that the Corporation would still be able to claim the slum clearance subsidy under Section II (1) (a) (iii) of the Housing Subsidies Act, 1956. The Minister, however, has stated that he will not be prepared to confirm Compulsory Purchase Orders under Part V in respect of properties which in his opinion ought properly to have been dealt with under the provisions of Part III.

It is considered that if the law could be so amended as to enable Compulsory Purchase Orders in respect of unfit and adjoining properties to be made under Part V and the owners paid compensation on the basis of the market value of their properties (in the case of unfit properties the compensation would of course be very small), a great deal of the work which at present is being undertaken by the Medical Officer of Health in inspections and recording defects for determining the unfitness of houses for the purpose of being able to rebut objections at Public Inquiries would be unnecessary.

It is also felt that a very much larger proportion of owners of properties would not lodge objections if they knew that they would get "market value."

R. Williams: Coventry's Chief Sanitary Inspector

Co-ordination of planning and housing law.

L. J. Vincent: Chief Architect, Stevenage New Town

A comprehensive policy is required which is dictated by national interests alone.

An Official Sociologist

Local Authorities should be given added powers to buy comprehensively both to prevent blight and to permit comprehensive redevelopment.

AUTHORS' NOTES

There seems no argument over the fact that slumclearance and redevelopment must go hand in hand. Arthur Ling's comment shows the conflicting demands which arise once a site is cleared or its clearance is proposed. Others seem to regard redevelopment as the last resort of a land-locked Authority. To us, satisfactory slum clearance involves the redevelopment of the cleared site in such a manner that it makes a positive improvement in the environment of the community in general, whether the site is to be used for housing, schools, open spaces or industry.

The comments on the law indicates dissatisfaction with its effectiveness to achieve this, and how we sympathise with the Critic! The labyrinthine law of slum clearance, housing and planning is probably only equalled by that of betting. Both also have it in common that the outcome is always in doubt. In the words of F. G. Southgate, "There is enough!"

Is it beyond the capabilities of our legislators to clear the clutter of out-of-date Acts and Orders and devise comprehensive law which will encourage and facilitate a positive approach to comprehensive urban rehabilitation as opposed to the present laws which have only the limited aim of achieving site clearance and the erection of dwellings? The restrictions within which slum clearance must operate is indicated by the comment from Bristol. There is the Planning Act of 1947 but where does it stand today? Recent legislation appears to have deliberately ignored its potentialities, by feebly soldering the slum clearance drive to machinery which is fundamentally pre-war in its conception.

Conclusion

Looking at the results of the questionnaire in the round, the impression gained is of the immense technical and social complexities of slum clearance and urban redevelopment. If the replies we received indicate the general feeling among the professions concerned in this great task, there exists considerable doubt as to the effectiveness of present national policy to meet the problem. This has confirmed our view that

the difficulties to be faced are not fully understood by the policy makers, nor are our technical, administrative and legislative resources capable of dealing with them.

In our fourth, concluding article, which will appear shortly, we shall put forward our view on what future action should be, and publish a selection of the general comments which were generated by our questionnaire.

building illustrated

OFFICES

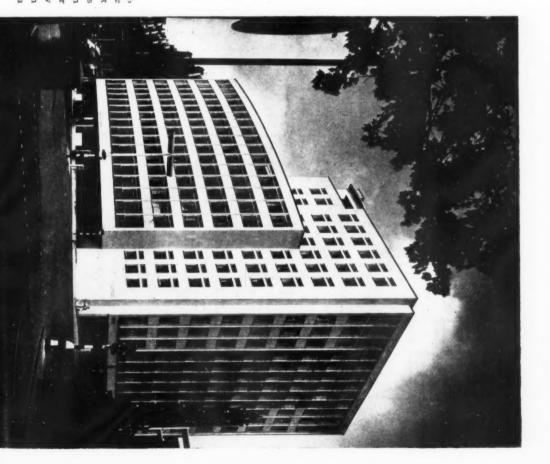
in SOUTHAMPTON ROW, LONDON, W.C.I designed by T.P.BENNETT and SON: partner in charge G.W.BOWES assistant architects, J.G.ARDLEY and E.SHOOLMEIFER assistants, R.E.WILLIAMS, P.W.STEWART, G.A.COLLENS consultants (structural) SIR ROBERT MCALPINE and SONS

quantity surveyors WATKINS and DECKER

Sentinel House, which occupies a commanding site facing the north end of the disused tram tunnel to the Embankment, comprises a ground floor occupied by a bank and four shops, which were not completed at the time the photographs were taken, and approximately 61,000 sq. ft. of lettable office space on the nine upper floors of the tall block and six upper floors of the block facing Southampton Row. Instructions were received from the clients, Marcus Securities (Kingsway) Ltd., in April, 1954, and building work commenced in mid-August, 1954, the contractors working from sketches. Work was completed, except for the ground floor premises, in just over 12 months.



Left: (viewpoint r on key plan overleaf) Sentinel House, seen from the Holborn end of Southampton Row. On the right is the LCC Central School of Arts and Crafts. Right (viewpoint 2), the massing and elevational treatment has succeeded well on this corner site, and the scale has been nicely adjusted to the adjacent buildings. Note the slender columns between windows on the Southampton Row frontage, and in the centre of the tall block fronting on Theobalds Row. Stone facings on these elevations were a



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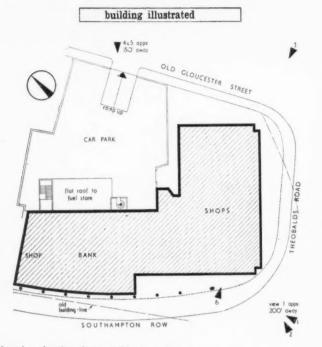
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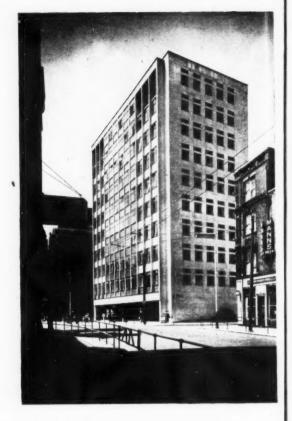
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appear at future general ionnaire.



Key plan showing photographic viewpoints

Above right (viewpoint 3): elevation to Theobalds Road, and the return. A straightforward expression of free floor space has been achieved, but without the dreariness that often typifies the office block. Below, plan of basement: this is occupied by the oil-fired boiler and fuel store (the latter being large enough to be used for solid fuel if necessary),

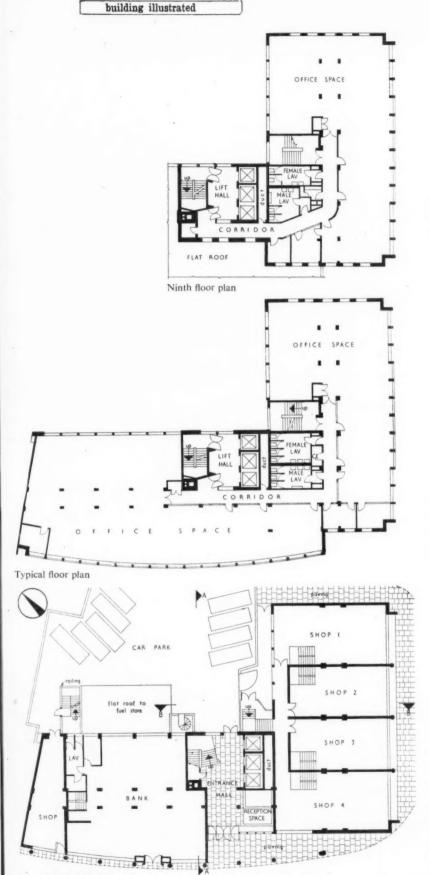


stores for offices, and basement accommodation for the shops. Below (viewpoint 4): the rear elevation. The warm red brickwork with the slim stone-faced columns and trim detailing produce a composition that is rarely met in back elevations of office blocks. The canopy of the lift motor and tank rooms is unfortunately heavy.





Basement plan [Scale: 32" = 1'0"]



e shops. 1 brickletailing evations

k rooms

Ground floor plan [Scale: 32" = 1' 0"]

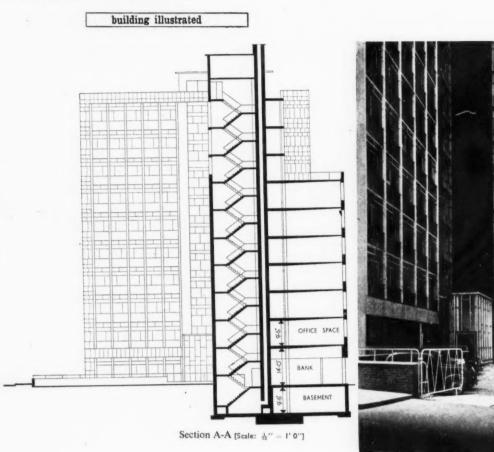
OFFICES

in SOUTHAMPTON ROW, W.C.I designed by T. P. BENNETT and SON

Ninth floor plan (left): this floor gives a low return of office space in relation to stairs, lifts and circulation.

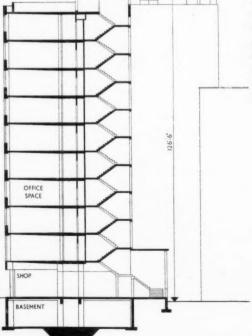
Typical floor plan (left): the circulation corridor of fire resisting construction was part of the contract, but the office space was later divided up to suit tenants at their cost.

Ground floor plan (left): this shows the car park, the through-way entrance lobby, the floor area taken by a bank, and the space used for lettable shops.



Above (viewpoint 5): The courtyard at the rear. The trimness of the detailing of the rear elevation can be clearly seen here. Note on the other hand, the ungainly appearance of the projecting staircase lobby, which was part of the price that had to be paid for commencing the building before all the consents had been obtained. Planning and fire escape requirements demanded an exit in this position but it was too late to replan the inside of the building, and too late to have the lobby constructed in steel. It had to be in timber and is now in sad contrast to the delicacy of fenestration elsewhere. Below (viewpoint 6) : windows in the stone-faced return wall. Metal frames and slate sills are neatly detailed, but the problem of avoiding stains at sill ends has not been solved.



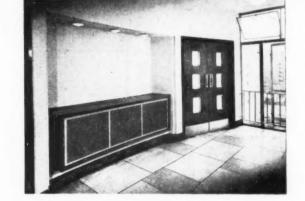


Section B-B [Scale: 1 " + 1' 0"]



rear. The be clearly appearance f the price before all fire escape but it was too late to in timber enestration tone-faced y detailed, s not been





Above: the Southampton Row entrance foyer, showing the waiting and enquiry lobby in the centre, staircase in the foreground and two of the three lifts. Left: lift lobby on upper floor. A heating convector can be seen beside the doors which lead to the staircase. Similar doors on the left of the convector lead to the circulation corridor and second staircase. Note the full-height opening of the window, as required by the fire authority. Below left: lift doors to upper floor lobby. The need for low capital and maintenance costs in lobbies and staircase has resulted in the use of terrazzo for floors and stairs, and hard plaster for walls and ceilings. It is a pity that the budget did not allow some small degree of acoustic treatment.

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OFFICES in SOUTHAMPTON ROW, W.C.I designed by T. P. BENNETT and SON



building illustrated

Interior of the bank premises on the ground floor. The manager's office can be seen on the left.

OFFICES

analysis

in SOUTHAMPTON ROW, W.C.I designed by T. P. BENNETT and SON

CLIENT'S BRIEF: his stated requirements

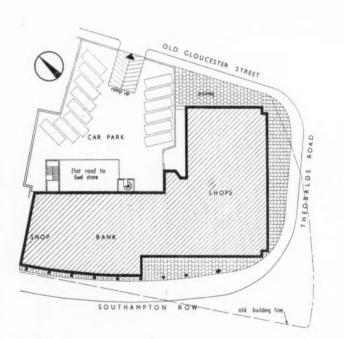
Client's instructions were received late in April, 1954, for the design of a building, giving an approximate lettable floor area of 61,000 square feet. Sketch drawings were prepared for application to the London County Council for approval under the Town Planning Section 34, Means of Escape, Section 20, excess height and cube.

SITE: topography, surroundings, access, planting

Area of site 20,330 sq. ft. The site is enclosed by Southampton Row, Theobalds Road and Old Gloucester Street, and is adjoined by an existing building, Faraday House. Access during building operations was via Old Gloucester Street.

PLAN: general appreciation and relation of units

The building is comprised of one basement, show room on ground floor, nine upper storeys and penthouse to the Theobalds Road block. The Southampton Row block consists of basement, boiler house, bank strong rooms, banking hall on ground floor and six upper storeys.



Site plan

The blocks screen a car park and service yard adjoining Old Gloucester Street.

MAIN CONSTRUCTION: general appreciation

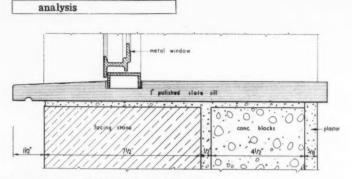
The structure is reinforced concrete throughout with lateral beams and columns to the central spine only. The solid reinforced concrete floot slabs and roof taper from a central spine of to in. to 5 in. on the outside, with concrete posts and precast edge beams between carrying apron panelling. Staircases were in precast flights with a number of constructional walls in reinforced concrete.

analysis

STRUCTURAL ELEMENTS

level foundation type, basement	Location	Materials		Finish		Reasons and comments
Mass reinforced concrete and strip reinforced concrete	Column bases and retaining walls	Reinforced cor	ncrete	Shuttered		Good ballast at m depth of 16 ft.
External walls and facings	Location	Materials		Finish		Reasons and comments
Panel infill	Southampton Row					Bedford Estate's requirement in main elevations
	Throughout	3-in. Portland	stone	Ashlar		In man creverous
	Theobalds Road, Old Gloucester Street					
	Throughout	3-in. Portland		Ashlar		Appearance
		∄-in. glass ply Brick	7 panels	Bucks m multi fa	r and Flemish— nachine made cings. Rubbed lain mortar	
Frame or load bearing element	Location	Materials	Beam spans		Column grid	Reasons and comments
Reinforced concrete	Columns, slabs, stairs and walls	Reinforced concrete	Precast edge at 6-ft, 8-in. line. cantilev 21 ft.	centre	13 ft. 4 in. and 6 ft. 8 in.	Economic spans related to frontage and room size
Upper floor construction	Location	Materials		Finish		Reasons and comments
Reinforced concrete	1st to 9th and roof	Reinforced con	ncrete	Floors s Terrazz lavatorie	creeded for lino. o to stair halls and es	Economy and maintenance
Staircases	Location	Materials		Finish		Reasons and comments
Precast reinforced concrete flights, in situ landings		Reinforced con	ncrete			Economy and maintenance '
ingito, in site enterings						
		Metal balustra	ading	Precast and poli	terrazzo painted ished	
Height: floor to floor = 10 Width between landings =		Metal balustra Wood hand-ra				
						Reasons and comments
Width between landings =	8 ft. 9 in.	Wood hand-ra Materials	sphalt on	and poli	ished	Reasons and comments Insulation and maintenance due to pedestrian traffic
Width between landings = Roof construction Reinforced concrete / I-in. mastic asphalt on 2-in. woodwool slabs laid in	I ft. 9 in. Location Seventh floor roof, ma	Wood hand-ra Materials in 1-in. mastic as 2-in. woodwoo sand and cem	sphalt on	and poli	ished	Insulation and maintenance
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Section through sill, Theobolds Road block [Scale: 3" = 1' 0"]

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Glazing	Location	Materials	Finish	Reasons and comments
General	Windows	To-in. and }-in. sheet		Large pane sizes
Doors	Entrance	‡-in. sheet	Polished	

PARTITIONING

Internal partitions	Location	Materials	Finish	Reasons and comments
	.Corridors	4 ¹ / ₂ -in. brick	Plaster	LCC requirement
	Lavatories	41-in. brick and 1-in. terrazzo	Plaster and polished	Design
	Office space	21-in. plaster board		Economic demountable partitions
W.c. doors and partitions	Location	Materials	Finish	Reasons and comments
Doors and partitions	Lavatories	Ply faced 1 ¹ / ₂ -in. precast terrazzo as previous	Painted	Serviceability. All lavatories are mechanically vented
Internal doors	Location	Materials	Finish	Reasons and comments
	Corridors	12-in. Mukore faced solid core	Polished	LCC requirement
	Lift halls	2-in. flush panel	Polished	LCC requirement
Ironmongery to internal doors	Location	Materials	Finish	Reasons and comments
Plush plates and pull handles. Circular knob furniture	Throughout	Nickel bronze		

FINISHINGS

Floor finishes	Location	Materials	Finish	Reasons and comment:
	Offices	Screeded for lino		Tenants' liability
	Corridors	Screeded for lino		
	Lavatories	9 in. square precast terrazzo tiles		
	Lift halls and stairs	Terrazzo		
	Entrance hall	Marble		
	Reception space	Beech strip		
Wall finishes	Location	Materials	Finish	Reasons and comments
	Offices	Plaster	Painted	
	Corridors	Plaster	Painted	
	Stairs	Plaster and terrazzo dado	Painted above dado	
	Lift halls	Terrazzo and plaster	Plaster painted	
	Lavatories	Terrazzo and plaster friezes	Painted	
	Main entrance hall	Marble		

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Ceiling finishes	Location	Materials	Finish	Reasons and comments
General	Office space	Plaster	Painted	Economy
Suspended	Lavatories	Plaster on metal lathing	Painted	Air conditioning
	Entrance hall	Plaster on metal lathing and fibrous plaster	Painted	
Decorations	Location	Paint types	Munsell or other ref.	Reasons and comments
Plaster	Lavatories	Hard gloss	Munsell 7.5Y 8/10	Lemon because light
Plaster	Offices	Distemper	B.S. 1572	Off-white
Plaster	Staircases	Distemper	B.S. 1572	Off-white
Internal woodwork	Joinery throughout	Polished		
External woodwork		Painted		Georgian white
FITTINGS				
Other fittings	Location	Materials	Finish	Reasons and comments
Sinks and electric tea maker	Tea dispensary			One to each floor to tenant requirement
SERVICES				
Plumbing: external	Location	Materials	Finish	Reasons and comments
Internal r.w.p.'s	Spine column	LCC cast iron	Bitumastic paint	
Rain water disposal	Location	Materials	Finish	Reasons and comments
Combined sewer	Southampton Row	Heavy duty c.i.		Rain water pipes dropped internally in cast-iron pipi incorporated in columns
Plumbing internal: waste disposal	Location	Materials	Finish	Reasons and comments
One pipe plumbing to combined sewer	Central stack	LCC cast iron and copper		Local Authority requireme and speed of erection
Hot water storage	Location	Materials	Capacity	Reasons and comments
One calorifier	Boiler house	Galvanised steel		Serving basins
Cold water storage	Location	Materials	Capacity	Reasons and comments
Four tanks	Tank room	Galvanised steel	4,000 galls. total	
Plumbing: sanitary fittings	Location	Materials	Finish	Reasons and comments
WC's, lavatory basins and urinal stalls	Lavatories	Fireclay		
Heating installation: heat exchanger type	Location	Criteria temperature	Air change rate	Reasons and comments
Oil fired low pressure hot water radiator system from central plant	Office space	65° F.		Most suitable for lettable offices
Boiler type and capacity	Location	Heat load and fuel type	Stoking method	Reasons and comments
Two Charles McNeil boilers, 300,0000 BTU	Boiler house			Low maintenance
Water heater type	Location	Fuel type	Stoking method	Reasons and comments
One Charles McNeil boiler, 320,000 BTU	Boiler house		Viscosity of 200 seconds	Low maintenance Redwoo No. 1
Drainage: type of system	Location	Materials	Finish	Reasons and comments
Combined	In plumbing waste disposal under basement in LCC cast iron			To satisfaction of Local Authority
Gas installation	Location	Materials	Finish	Reasons and comments
Gas incinerator	Female lavatories			
Supply	Ducts	Gas barrel		
Flue	Ducts	Asbestos		

analysis					
Electrical installation: source and fitting type	Location	Illumination l	evel	Quality	Reasons and comments
Company's supply tungsten	Offices	14 to 18 cand	lles		
Wiring and switching types	Location		Materials		Reasons and comments
Main wiring MICC and VRI cables in conduit	Structure 1 per 13 ft. office space	bay to	Enamelled tu	be metal covered	Speed
Power supply type	Location		How distribut	ed	Reasons and comments
Via transformer chamber on premises 240/415 volts, 50 cycles, alternating current; 4 wire system			One per 6 ft.	8 in. bay	
Lifts	Location	Capacity and	speed	Motor room position	Reasons and comments
Three, fully automatic	Lift halls	12 persons ea per minute	ach 300 ft.	Roof	
Pared areas	Location		Materials		Reasons and comments
	Car park		Tamped concrete		
	Forecourts		2-in. York ste	one	
THERMAL INSULA	TION				
Туре	Location		U-value		Reasons and comments
Woodwool	Roof				Saving in heating costs
FIRE .					
Structural precautions	Grade of protection at	oparatus	Sprinklers		Reasons and comments
4-hour standard to basement. 4-hour standard to stairs and lift halls. 1-hour standard to corridors					

Planning precautions	Access for fighting	Means of escape	Reasons and comments	
LCC statutory requirements	At all floor levels on main staircase	Two internal staircases	LCC requirements under sections 20 and 34	

REFUSE DISPOSAL

Method	Type of refuse	Waste recovery	Materials and installation	Reasons and comments
	Waste paper	Local Authority		

TIME SCHEDULE

			Work completed Type of contract Comments	September 1, 1955 Schedule of prices Contractors began building operation on sketches
--	--	--	--	--

RATIOS

Area of enclosing walls	1.013	Area of windows (including external doors)	0.24
Total floor area	I	Total floor area	I
Area of solid wall	0.013	Total roof area	0.009
Total floor area	na <u> </u>	Total floor area	1

COST ANALYSIS

The architects were unable to obtain permission to publish the cost analysis.

CONTRACTORS

Clerk of Works: S. R. Watling, A.I.C.W. General contractors: Sir Robert McAlpine & Sons Ltd. wiring, bells: Electrical Installations Ltd. Electric Burkle & Co. Ltd. Lifts: Waygood-Otis La Sub-contractors: Dampcourses: Bricks: W. T. Lamb & Sons Ltd. Stone: Bath & Portland

Asphalt Paving Co. Ltd. Tiles: A. H. Herbert & Plastering Ltd. & Jonathan James Ltd. Decon Co. Ltd. Slates: Bow Slate & Enamel Co. Ltd. tive plaster: Clark & Fenn Ltd. Joinery: Shaple Partitions: British Plaster Board Ltd. Glass: & Petter. Marble: J. Whitehead & Sons La Faulkner Greene & Co. Ltd. Artificial stone: Furniture: James Walker Ltd. Door furniture Empire Stone Co. Ltd. Waterproofing material: sanitary fittings: W. N. Froy & Sons La R.I.W. Protective Products Ltd. Central heating, Casements, window furniture: Crittall Manufer ventilation: Rosser & Russell Ltd. Gas fitting, turing Co. Ltd. Fireproof doors, roller shutter plumbing: Structural Services Ltd. Electric metal staircases: Haskins Ltd. Shop fittings: D. light fixtures: Merchant Adventurers Ltd. Signs: The Lettering Centre. Paint: Hadhe Boilers: Combustions Ltd. & Charles McNeil

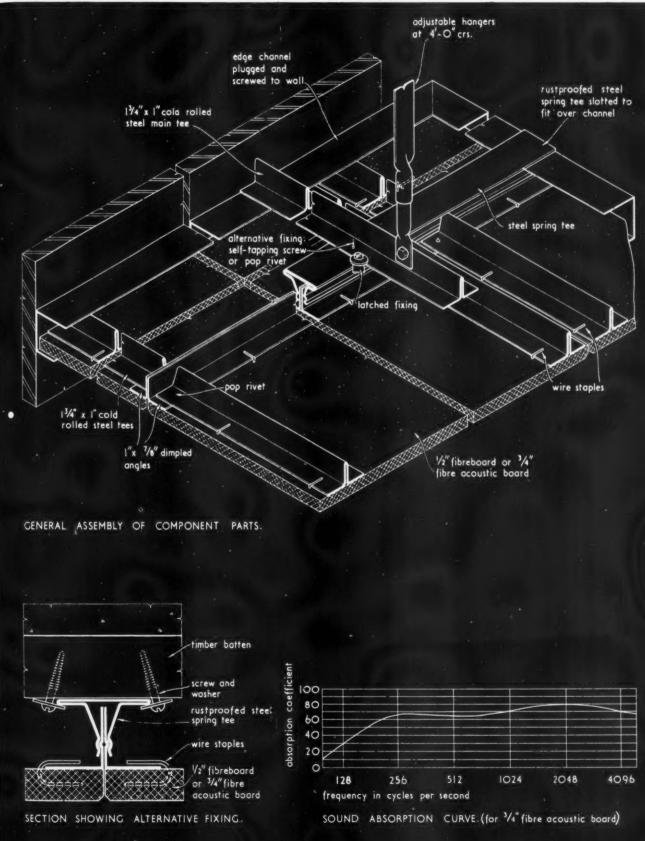
Stone Firms Ltd. Roofing felt, asphalt: Ragusa Ltd. Stairtreads: Zanelli (London) Ltd. Plass (Merton) Ltd.





ACOUSTICS DETAILS CEILINGS

The Architects' Journal Library of Information Sheets. 587. Editor: Cotterell Butler, A.R.J.B.A.



27.B

27. B13 -

FIXING SYSTEM FOR DEMOUNTABLE FIBREBOARD AND FIBRE ACOUSTIC CEILINGS. (Patent No.741842) Manufacturer: John Dale Limited.

27.B13 FIXING SYSTEMS FOR FIBREBOARD AND FIBRE ACOUSTIC CEILINGS (Patent No. 741842)

This Sheet describes a demountable ceiling which is in 4 ft. 0 in. by 2 ft. 0 in. panels of fibreboard or, alternatively, fibre acoustic board. The fixing is concealed and no screws are visible on the surface of the board. The panels may be suspended or fixed directly to the structural ceiling.

Components

Panels: These are 4 ft. 0 in. by 2 ft. 0 in. and are formed with fibreboard or fibre acoustic tiles secured to rustproofed dimpled angle frames. A vee groove across the centre of the fibreboard will give the finished ceiling an appearance of 2 ft. 0 in. by 2 ft. 0 in. squares if desired. If the ceiling is formed of fibre acoustic board this has an appearance of 2 ft. 0 in. by 2 ft. 0 in. squares. A combination of the two types of board can be employed where it is desirable to vary the degree of sound absorption.

Steel spring tees: These hold the sides of the units together by clipping over the dimples in the upstand of the angle frame. They are rustproofed.

Main tees: Where the ceiling is to be suspended, the steel spring tees are drilled or latched to $1\frac{1}{4}$ in. by 1 in. main tees which run at right angles to them at 4 ft. 0 in. centres. These main tees are bolted to adjustable hangers.

Edge channels: These are of aluminium alloy or rustproofed steel and are $1\frac{9}{16}$ in. by $\frac{7}{8}$ in. by $\frac{1}{2}$ in.

Adjustable hangers: The telescopic hangers are of rustproofed mild steel and are spaced at 4 ft. 0 in. centres.

Weight

The fibreboard tile in 4 ft. 0 in. by 2 ft. 0 in. by $\frac{1}{2}$ in. thick panels complete with frame weighs 10 lb., and fibre acoustic board $\frac{3}{4}$ in. thick weighs 11 lb. 13 oz. for the same assembly.

Installation

The complete ceiling assembly is installed by the manufacturer, but the following design considerations should be noted. Panels can be cut for filling in at the edges, the edge channel masking the cut edge. Fibreboard and fibre acoustic board can be arranged in patterns where a completely perforated ceiling would give too much sound absorption for a particular application. The panels can be used in conjunction with lighting or ventilation. They can be demounted easily from the grid and replaced without loss, thus giving freedom of access to the void for maintenance of services.

Sound Absorption

The graph on the face of the Sheet shows the soundabsorption curve for a $\frac{3}{4}$ -in. fibre acoustic ceiling.

Fire Resistance

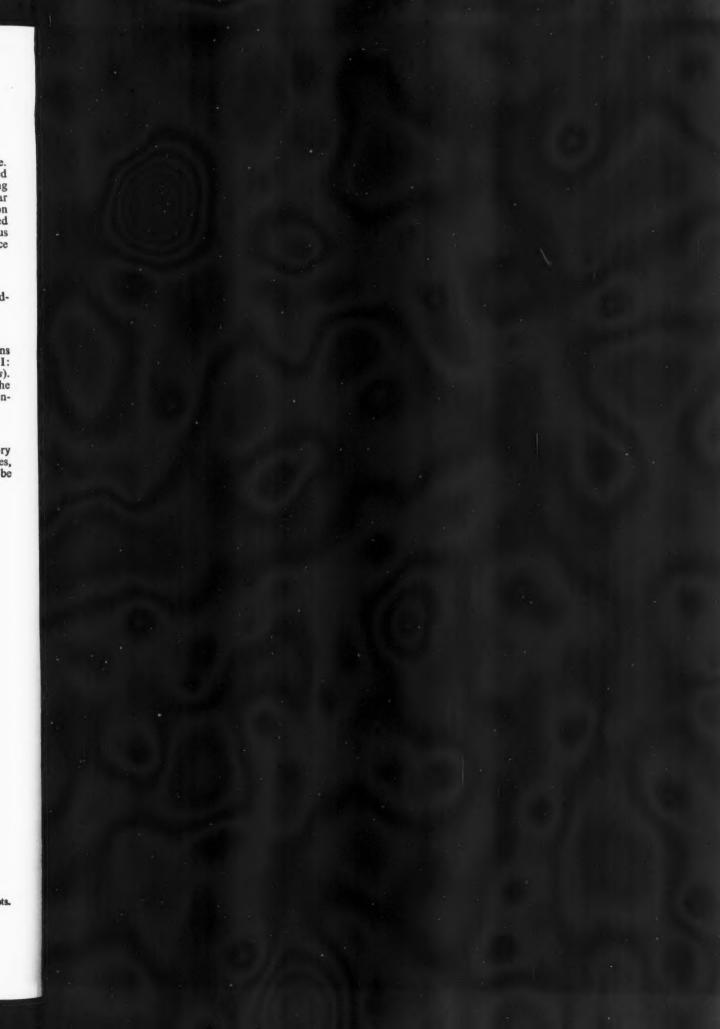
The panels can be treated with fire-resisting solutions to attain Class 1 spread of flame (see BS.476: Part I: 1953. *Fire Tests on Building Materials and Structures*). The fireproofing materials give a white finish to the panels and the ceiling can be decorated in the conventional manner.

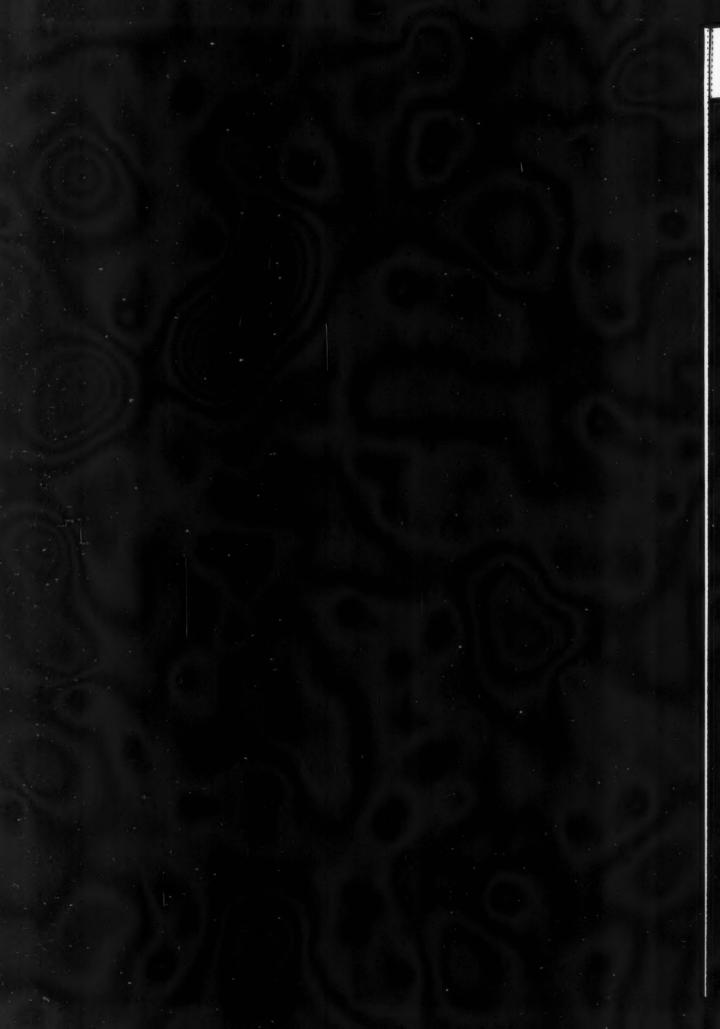
Further Information

The manufacturer maintains a technical advisory service and will submit acoustical reports and analyses, and quotations for installations. The tiles cannot be supplied apart from the ceiling assembly.

Compiled from information supplied by: John Dale Limited Address: New Southgate, London, N.11. Telephone: Enterprise 1272.

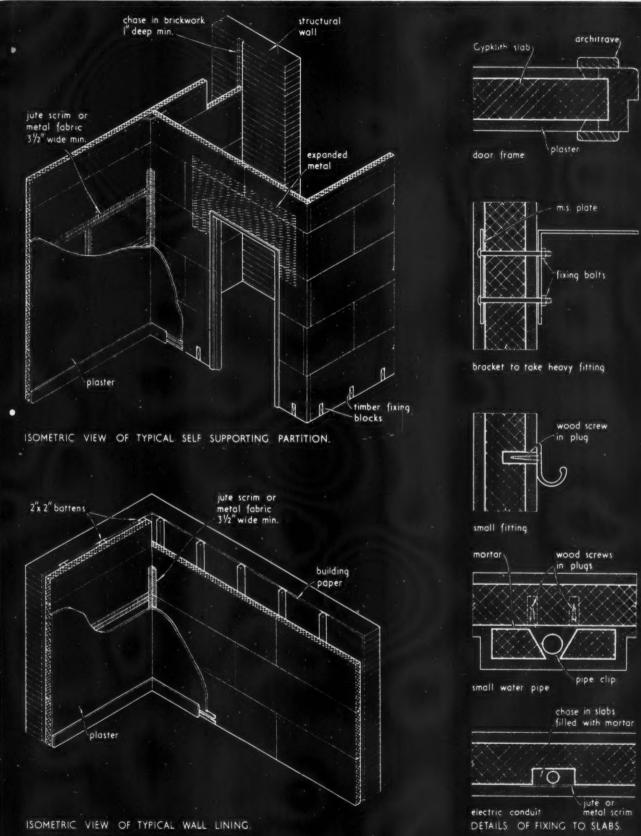
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BUILDING SLABS LIGHTWEIGHT MATERIALS APPLICATIONS 14. LI2 3

The Architects' Journal Library of Information Sheets. 588. Editor: Cotterell Butler, A.R.I.B.A.



GYPKLITH WOOD-WOOL SLABS: SOLID SELF-SUPPORTING PARTITIONS AND WALL LININGS. Manufacturer: Cyproc Products Ltd.

14.L12 · GYPKLITH· WOOD-WOOL SLABS: SOLID SELF-SUPPORTING PARTITIONS AND WALL LININGS

This Sheet is one of a series on Gypklith wood-wool slabs and describes their use for solid self-supporting partitions and wall linings. General data on the characteristics and properties of the material and the sizes in which it is available are given on Sheet 14.K1.

Self-supporting Partitions

Maximum sizes: Normal quality Gypklith slabs 2, $2\frac{1}{2}$ or 3 in. thick are suitable for self-supporting partitions, the maximum heights permissible for each thickness being 12 ft., 14 ft. and 16 ft., respectively. Where the length of the partition exceeds 20 ft. vertical supports should be provided at suitable intervals.

Fixing: Temporary supports should be erected at approximately 4-ft. centres to ensure correct alignment of the partition and should remain in position until the plaster undercoat on each face has set. The slabs are laid with horizontal joints level and

vertical joints staggered; angles and junctions should be bonded. Where the partition meets a structural wall, a chase should be provided not less than 1 in. deep and $\frac{3}{4}$ in. greater than the thickness of the slabs. The slabs should be laid with a mortar consisting of 1 part by volume of haired Paristone browning plaster to $1\frac{1}{2}$ volumes of sand to BS.1198 Class A. All joints between the slabs and surrounding structure should be filled with mortar. The partition should be firmly wedged at ceiling level with hardwood wedges. Slabs spanning the top of an opening should have at least 4 in. bearing on the course below and where possible the lintel should be formed from one slab. Door frames should be secured by cut nails through the frame into each course of slabs or by skew-nailing from each horizontal joint into the frame. Where skirting boards are to be fixed, timber blocks should be inserted in the slabs at the appropriate height.

Plastering: For plastering Gypklith slabs reference should be made to Sheet 14.K1. In addition to the reinforcing of the joints, as described, expanded metal should be tacked round the heads of openings. Bedding mortar should be completely set before plastering begins and, if possible, both sides of the partition should be plastered simultaneously.

Wall Lining

Thicknesses: Wall lining may be carried out in normal quality Gypklith slabs in 1, $1\frac{1}{2}$, 2, $2\frac{1}{3}$ or 3 in. thickness,

depending on the degree of thermal insulation required.; 2-in. by 2-in. fixing battens should be provided at 1 ft. 6 in. centres for 1-in. slabs and 2-ft. centres for $1\frac{1}{2}$ - to 3-in. slabs.

Fixing: Battens at the appropriate centres should be provided over building paper. The slabs should be fixed with Gypklith galvanised nails which are specially manufactured for the purpose. Otherwise, galvanised clout nails or galvanised nails with washers should be used. Sizes of nails should be $2\frac{1}{2}$ in. for 1-in. slabs, 3 in. for $1\frac{1}{2}$ -in. and 4 in. for 2-, $2\frac{1}{2}$ - and 3-in. Five nails should be used across the width of the slab into each supporting batten and centres of slabs should be fixed to intermediate battens before the ends are secured. Vertical joints are staggered and all angles bonded.

Plastering: With 1-, 11- and 2-in. slabs, 22 gauge galvanised wire netting of 2-in. maximum mesh should be attached loosely over the entire surface to reinforce the plaster. Otherwise, joints only should be reinforced, but in either case all junctions with ceilings and structural walls should be reinforced with jute scrim or metal fabric as described on Sheet 14.K1. For plastering also, reference should be made to Sheet 14.K1.

Further Information

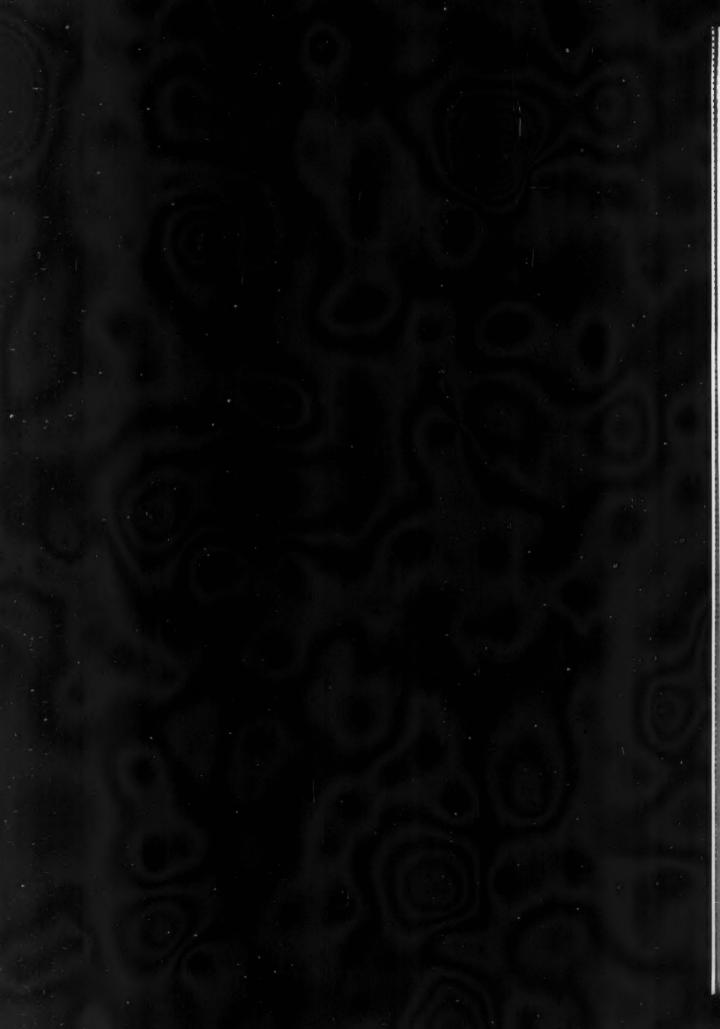
The manufacturer maintains a technical advisory department which is available to give advice on all aspects of this subject.

Compiled from information supplied by:

Gyproc Products I	Lita.
Head Office :	Singlewell Road, Gravesend, Kent
Telephone :	Gravesend 4251-4
	Gyproc, Gravesend
	Gyproc Wharf, Shieldhall, Glasgow, S.W.1
	Govan 2141-3
	Gyproc, Glasgow
Midland District	
	East Leake, Loughborough, Leics.
	East Leake 231.
	Bath House, Piccadilly, London, W.1.
Telephone :	Grosvenor 4617

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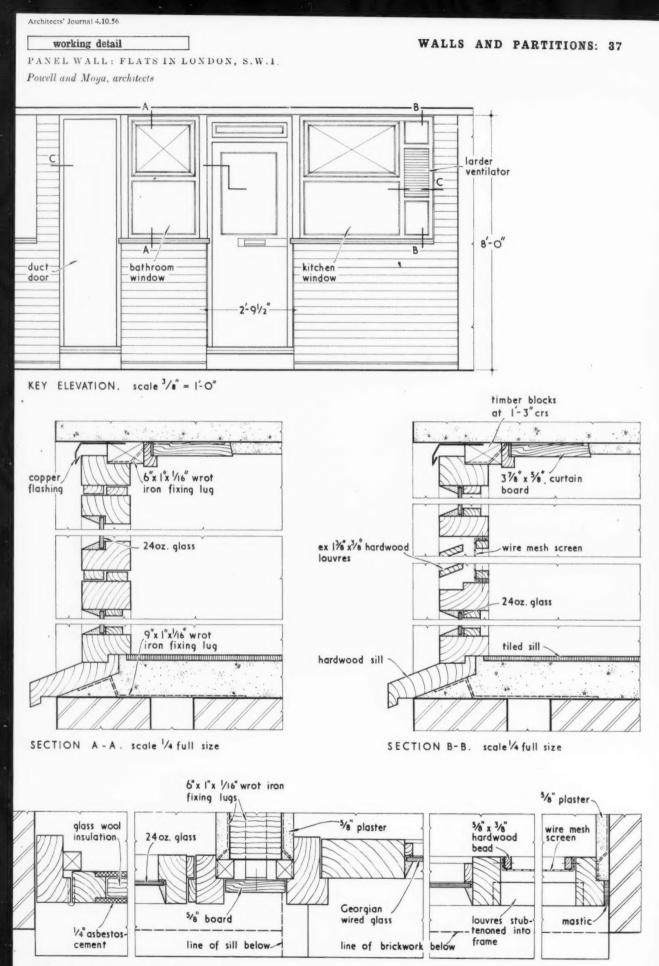
working detail

PANEL WALL: FLATS IN LONDON, S.W.1.

Powell and Moya, architects



The interest of this panel wall lies in the ingenuity with which so many functions have been accommodated in so small a space. The distance between cross walls is only 12 feet; yet, reading from left to right, we have in this space a service duct access door, a bathroom window, a front door giving on to a vestibule, and a kitchen window in which has been incorporated a larder ventilator. The "larder" (which does not itself figure in the drawing) is in effect a standard EJMA ply wall unit. Permanent ventilation is by means of an intermittent gap at the top of the panel. This is concealed on the external elevation by the continuous flashing. Thresholds are of African mahogany resting on precast concrete.



PLAN AT C - C



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Barry Ostlere & Shepherd Ltd., Kirkcaldy Dundee Linoleum Co. Ltd., Dundee Linoleum Manufacturing Co. Ltd., 6 Old Bailey, E.C.4 Michael Nairn Co. Ltd., Kirkcaldy North British Linoleum Co. Ltd., Dundee Scottish Co-operative Wholesale Society Ltd., Falkland, Fife Jas. Williamson & Son Ltd., Lancaster Wherever there is a floor to be walked on, to be admired, and to remain a constant economy, linoleum is the logical choice. Here is another example of linoleum's ability to provide the finishing touch to an enchanting decor. Over the years the passage of thousands of feet, bringing in the abrasive grit from the street, will not impair its surface. No other floor is easier to clean. Send for booklet, "Why . . . Where . . . How ", which gives the full story of linoleum's many virtues.

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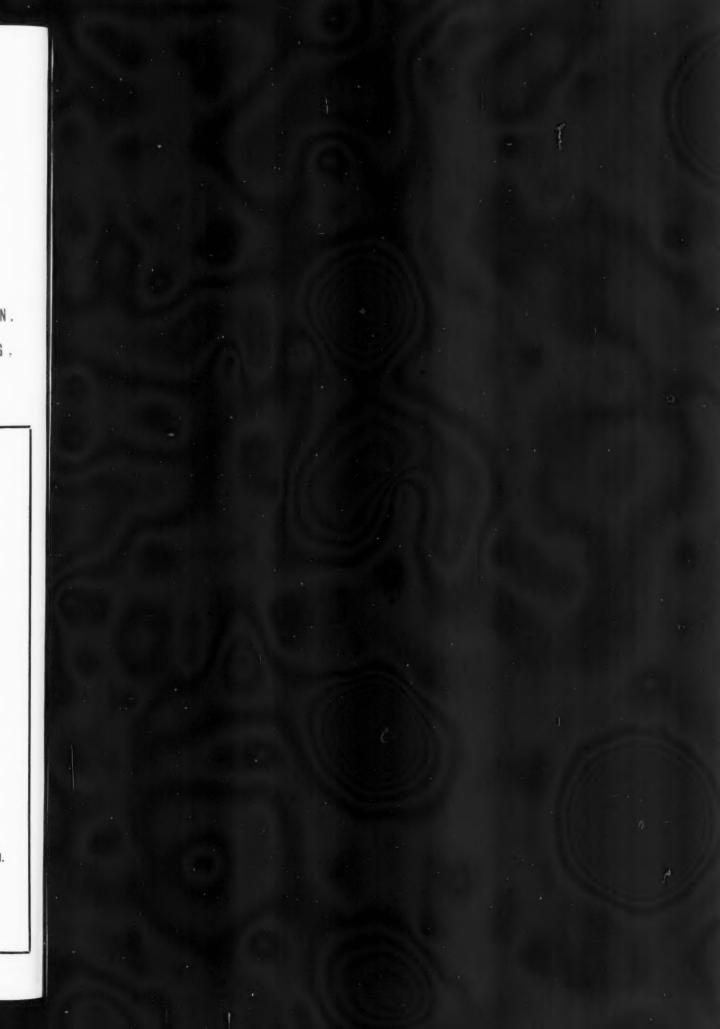
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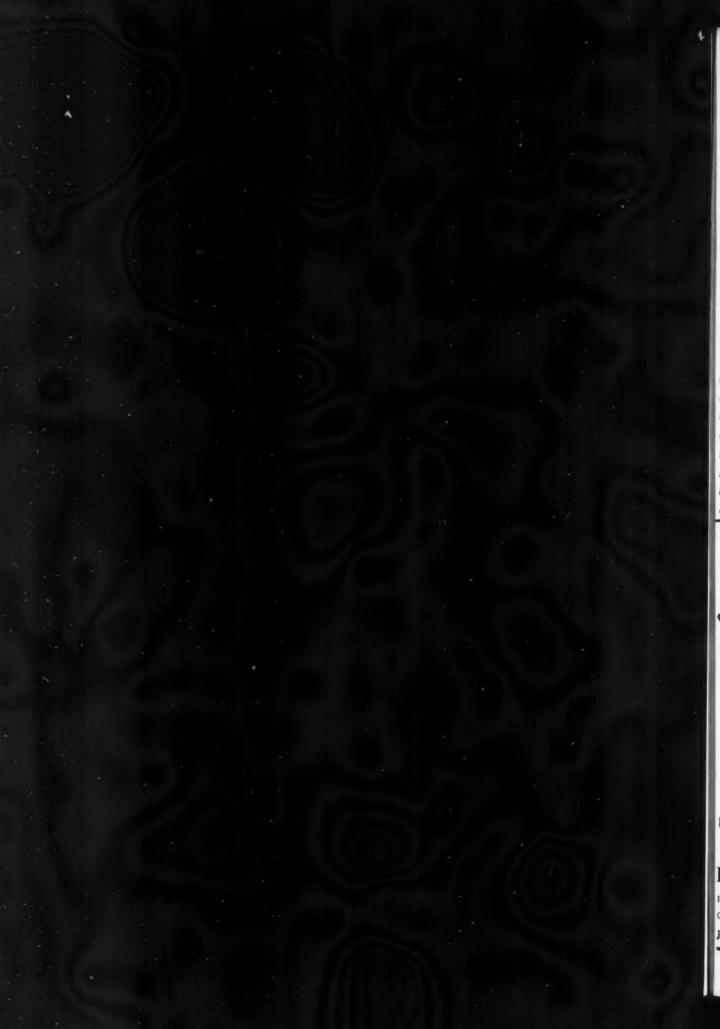
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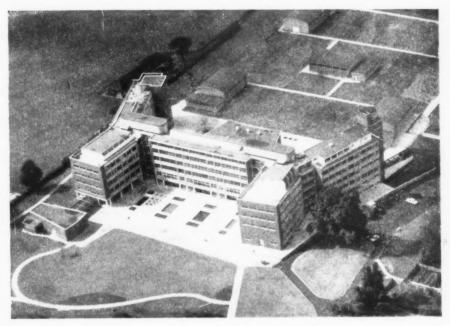
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Comprehensive School at Eltham

The Eltham Green comprehensive School in Queenscroft Road, Woolwich, for the LCC, was designed by Dr. J. L. Martin, Architect to the Council; F. G. West, Deputy Architect; the late S. Howard, former Schools Architect; G. F. Horsfall, Assistant Schools Architect, and Andrew Boyd, architect-in-charge. Consultants: structural, J. H. Humphreys, senior structural engineer; heating and electrical, J. Rawlinson, chief engineer; landscaping, L. A. Huddart, chief officer, Parks Department; quantity surveyors, Crosher and James. The school, which came into use at the beginning of this term,



accommodates 2000 boys and girls and provides specialist courses in engineering, catering, etc. The site is just over 10 acres, surrounded on three sides by two-storey houses and on the south by playing fields. The ground falls about 20 ft. from east to west, allowing for a lower ground floor at ground level in part of the main building. The aims of the plan were, (a) to leave as much as possible of the very restricted site open for play space and garden, (b) to express clearly the single organization of a comprehensive school, (c) to provide some flexibility, and (d) to provide as direct a system of circulation as possible.



CIVING DETAILS OR DRAWING OF BUILDING REQUIRED, TO:-

Quickly!

G

J. THORN & SONS LTD., (DEPT. 188), BRAMPTON ROAD, BEXLEYHEATH, KENT

Announcements

PROFESSIONAL

A. H. Brotherton, L.R.I.B.A., A.M.S.A., of Matley, Brotherton & Mills, has opened a branch office at 5, School Road, Sale, telephone Sale 8164, where they will be pleased to receive trade catalogues, etc.

The Department of Agriculture for Scotland have changed their address from 18, Blythswood Square to 71, Renfield Street, Glasgow, C.2.

J. G. Hill, A.R.I.B.A., of Public Works Department Headquarters, Enugu, Nigeria, West Africa, will be pleased to receive trade catalogues, etc.

It is announced that Mr. Edward Duncan, last survivor of the firm of S. Butterworth and Duncan, Architects and Valuers of Ballie Street, Rochdale is to retire. The work will be carried on by Mon & Bateman (incorporating S. Butterworth & Duncan) Chartered Architects, of Prudential Buildings, South Parade, Rochdale, to whom all future correspondence should be addressed.

TRADE

The Divisional Architect's Office of the Northern (N & C) Division of the National Coal Board will move from Ashfield Tower, Kenton Road, Newcastle-upon-Tyne, 3, to new Divisional Headquarters, situated at Whitley Road, Benton, Newcastle-upon-Tyne, 12, on July 26. Thomas V. J. Armstrong has been appointed to the position of Merchandise Manager for the Caterpillar Tractor Co. Ltd., Desford.

C. C. Mell, chief technical manager of Blundell Spence & Co. Ltd., the paint manufacturers, is flying to America early this month to talk to American paint chemists about his new invention, an electronic viscometer now in use at his firm's Hull Works.

Northern Aluminium Company, Limited, announce several new appointments within their Sales Department: D. W. Taylor, formerly Assistant Manager of the company's Sales Development Division, has succeeded G. A. Vernon, who has retired, as Manager of Birmingham Area Sales Office. D. A. Pinn, previously Manager of Bristol Area Sales Office, has been appointed Export Sales Manager. He is succeeded by H. M. Louch, previously Manager of Leeds Area Sales Office, which is now under the management of H. Q. Lievesley. D. L. Roper has been appointed Manager of Southampton Region Office, with effect from Ocother 1, in succession to N. P. Campbell who is to attend a year's course at the Centre d'Etudes Industrielles, Geneva, sponsored by the Aluminium Limited Group of Companies.

T. Harold Edwards has been appointed to the position of Chief Buyer for the Caterpillar Tractor Co. Ltd., Desford.

The Appliance Division of The English Electric Company, Ltd., announce the

appointment of L. C. Eaton to be sales representative in the South Western territory of the L.E.B. area, who will work from Queen's House, Kingsway, under Area Manager A. W. H. Bradstreet. In 1949 Mr. Eaton joined the Burndept Vidor Group in London, and remained with this Company as Sales Supervisor and later as Area Sales Manager for the North until he resigned to join the "English Electric" sales force.

The appoint me English Electric safes force, The appointment of Mr. J. R. Allan, B.Sc. (ENG.), A.M.I.MECH.E., as General Manager of the Acme Companies, in which are incorporated Acme Conveyors Ltd., Acme Ventilating Ltd., and Acme Welding & Constructional Engineering Co. Ltd., has just been made.

Correction

On page 426 of the issue of the JOURNAL of September 20, under the heading "Housing Act, 1949," reference is made that " these buildings must have a life of at least thirty years. . . " This is correct so far as the 1949 Act is concerned, but this has been amended by Sections 16 and 37 of the Housing Repairs and Rents Act, 1954, The requirement in Section 15, sub-section 2 of the 1949 Act relating to 30 years is amended to allow the Minister, or the local authority as the case may be, to approve improvement and conversion proposals if satisfied that they are likely to provide satisfactory accommodation for over fifteen years. A statement about this amendment is made in circular 55/54, August 28, 1954, issued by the Ministry of Housing and Local Government, and is set out in appendix IV, paragraphs 1 to 6, page 22.

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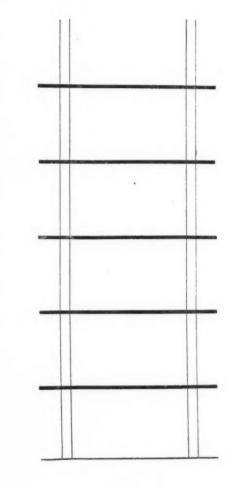


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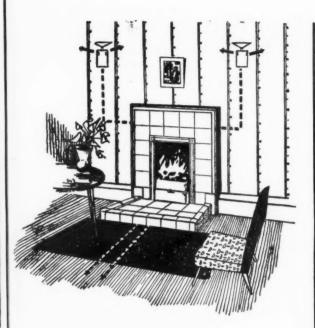
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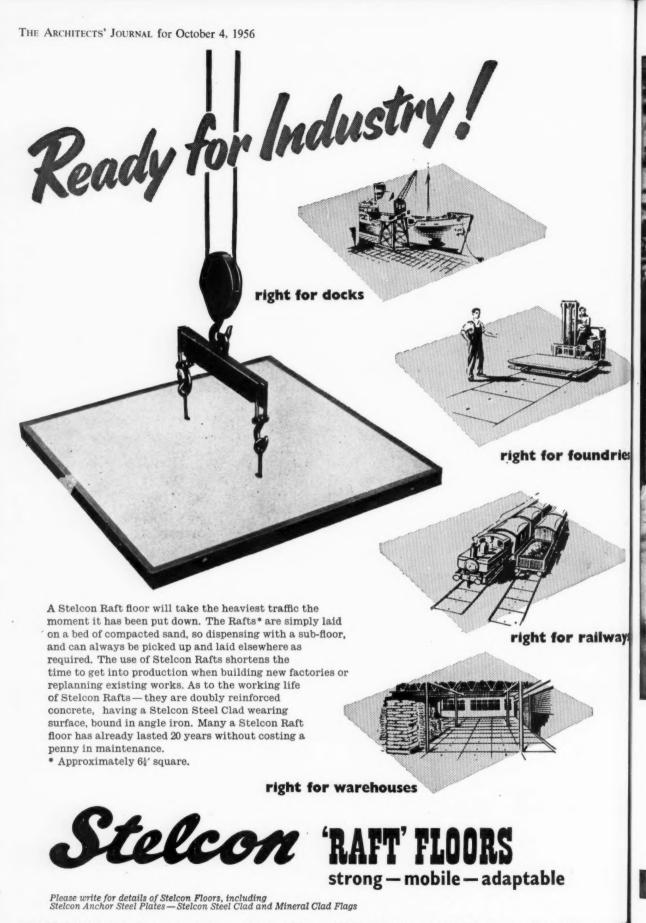


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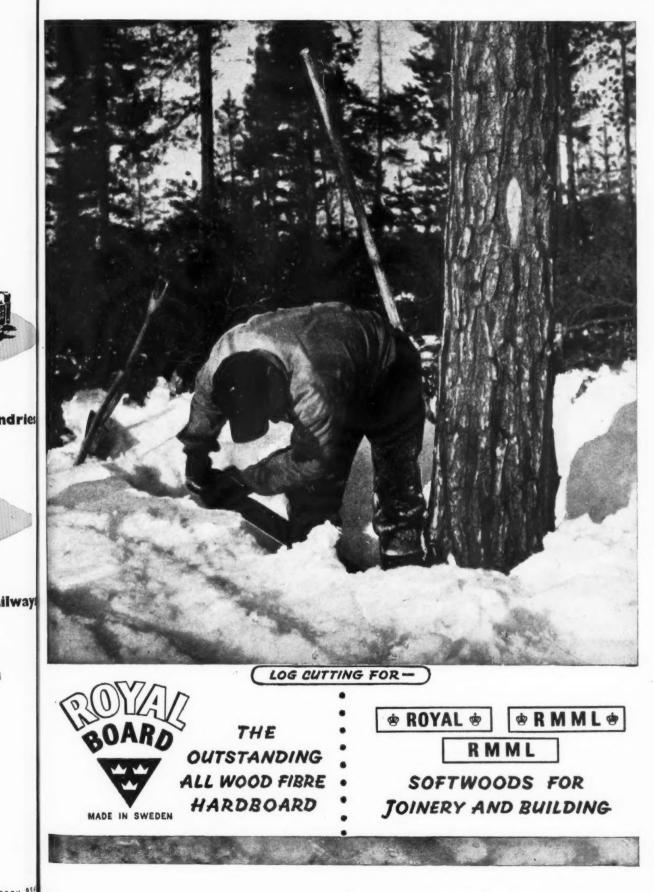
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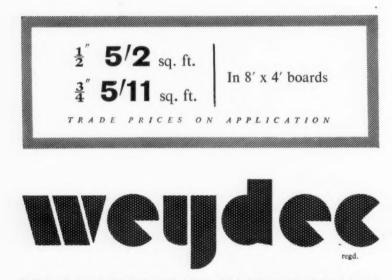


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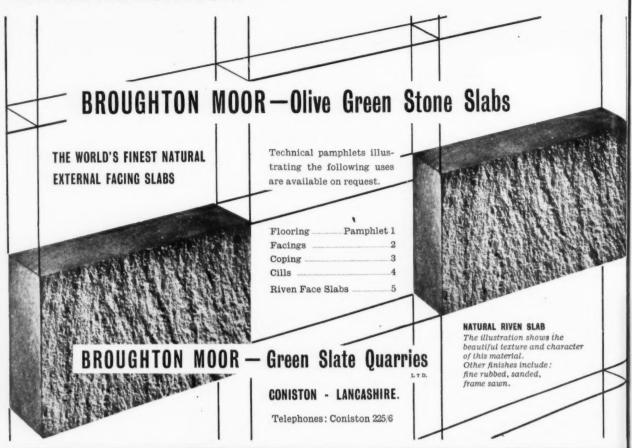
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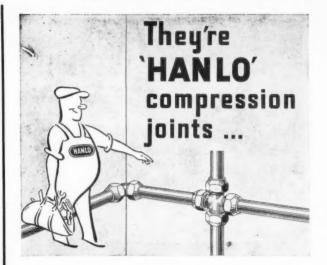
The case of the gloomy grandstand Brighter cricket-or a gloomy grandstand? This was the dilemma facing the Leicestershire County Cricket Club. Glass windows in the back of their grandstand would hardly have been practicable when the "Big Hitter" was at the wicket, or, indeed, during similar periods of "Spectator Excitement" when small boys in the grandstand are apt to express their appreciation of play in somewhat athletic manner. In the interests of more exciting cricket it seemed that grandstand spectators would have to continue to squint at their scorecards ... until someone remembered CASCALITE, the translucent sheeting that admits plenty of glarefree daylight, and is completely shatterproof. Here, clearly, was the answer: CASCALITE sheets (big-hit and small boy proof) were fitted, simply and cheaply, into the back of the grandstand - and things brightened up all round!



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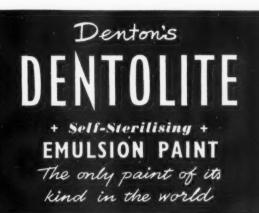
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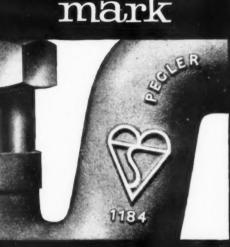
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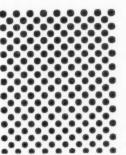


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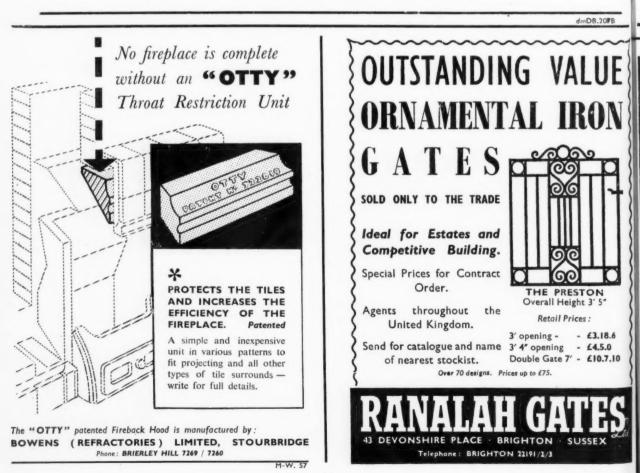
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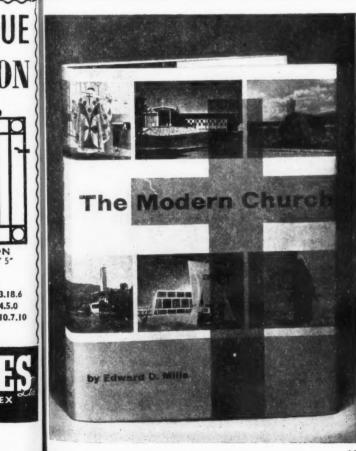
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CITY OF NOTTINGHAM TEMPORARY BUILDING INSPECTOR (210 to £12 108, per week) Applications are invited for the position of Temporary Building Inspector in the City Engi-neer's Department. Applicants should have a good knowledge of all branches of the building trade, and preference will be given to those who are trained tradesmen. Previous experience as a Building Inspector, Foreman, or Clerk of Works will be an advantage. Wages will be between £10 and £12 108, per week, according to successful candidate's ex-perience and ability: Applications on forms to be obtained from R. M. Finch, O.B.E., M.I.C.E., are to be returned to him not later than Monday, 15th October, 1956. 4047

NATIONAL COAL BOARD NORTH-EASTERN DIVISION Applications are invited for the following poontments in the office of the Divisional Chief renited at Conisbrough, near Doncaster:-QUANTITY SURVEYOR, Grade II (Salary cale 2700 × ±30-±1,000 per annum). Qualifications RICOS

Architect at Consolvoign, near Doncaster — QUANTITY SURVEYOR, Grade II (Salary scale 1700 × 130-41,000 per annum). Qualifications A.R.I.C.S. QUANTITY SURVEYING ASSISTANT, Grade II (Salary scale 1520 × 120-4615 per annum). Qualifications: preferably Intermediate R.I.C.S. or studying for such examination. ARCHITECTURAL ASSISTANTS, Grade II (Salary scale 1520 × 120-4615 per annum). Qualifications: preferably Intermediate R.I.B.A. or studying for such examination. JUNIOR ARCHITECTURAL ASSISTANTS (Salary scale : according to age-24 5s. per week at 18 to 128 5s. per week at 25). Full details and application forms obtainable from Hugh Smith, F.R.I.B.A., Divisional Chief Architect, P.O. Box No. 4, Denaby, near Dou-caster. 400

Caster. 4022 EAST ANGLIAN REGIONAL HOSPITAL BOARD Department of the Regional Architect (Guy Aldis, A.R.I.B.A., A.A.Dipl.) for planning of a scheme for the major development of a General Hospital which the Board has commenced. ASSISTANT ARCHITECTS. Candidates must be qualified and registered architects and have had good general experience in design, con-struction and specification writing. Knowledge of hospital work desirable. Salary £660–1965; additonal increments within the scale based on experience and age may be granted. Applications stating age, qualifications, ex-perience and details of present position with names of three referees to Secretary of Board, 117, Chesterton Road, Cambridge, by 19th October, 1956.

CITY OF NOTTINGHAM HOUSING ARCHITECT'S DEPARTMENT Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT Of Inter-mediate R.I.B.A. standard. at a salary in A.P.T. Grades I.I. £530-£655, according to qualifications and experience. The appointment will be subject to the National Joint Council's Scheme of Conditions of Service. Applications, stating age, qualifications, ex-perience, present appointment and salary and naming two referees, to be sent to the City Housing Architect, The Guildhall, Nottingham, by the 23rd October, 1956. T. J. OWEN.

T. J. OWEN, Town Clerk.

4048

The Guildhall, Nottingham.



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<section-header><section-header><section-header><section-header><text><text><text> S. TAPPER-JONES, Town Clerk.

4016

City Hall, Cardiff. September, 1956.

BOROUGH OF SWINDON SENIOR ASSISTANT PLANNING OFFICER Applications are invited for the appointment in the Department of the Borough Surveyor and Planning Officer of a Senior Assistant Planning Officer A.P.T. VI (2890-21,080 per annum). Applicants must be well qualified, have had con-siderable experience, and be capable of taking control of a section of the Planning Department dealing with the redevelopment of the Central Area.

control of a section of the Framming Section of the Central dealing with the redevelopment of the Central Area.
 The successful candidate will be next in seniority to the Principal Assistant in charge of the Planning Department.
 Housing Accommodation will be provided if required.
 Applications, on forms obtainable from the Town Clerk, Civic Offices, Swindon, must be returned not later than 13th October, 1956.
 COUNTY BOROUGH OF SUNDERLAND Applications are invited for:
 SENIOR ASSISTANT ARCHITECT, A.P.T. Grade IV (£750-£970).
 ASSISTANT ARCHITECT, A.P.T. Grade IV (£750-£970).
 Commencing salaries according to experience. Particulars of these appointments obtainable from the Borough Architect, Grange House, Stockton Road, Sunderland.
 Applications to be received by me at the Town Hall by 22nd October, 1956.
 Canvassing will disqualify.
 G. S. McINTIRE, Town Clerk.
 MOTOR WEST METROPOLITAN REGIONAL

Iand Place, W.I. by 13th October, 1956. 4021 IAMAICA SENIOR ARCHITECT. TOWN PLANNING DEPARTMENT To work with other planners on problems of town and country planning. Contract appointment. Salary £1,400 p.a. Gratuity of £37 10s, for each completed period of three months' service. Free passages for officer, wile and children under 18. Low Income tax. Candidates must be A.R.I.B.A. and should possess physical planning training and a knowledge of the Town and Country Planning. Act. Write to Director of Recruitment, Colonial Office, London, S.W., giving age, qualifications and ex-perience, quoting BCD 62/32/01. 4022

ISLE OF ELY COUNTY COUNCIL COUNTY ARCHITECTS DEPARTMENT Applications are invited for the following appointments on the Staff of the County Archi-

ATIONAL COAL BOARD Applications are invited for the following permanent and superannuated appoint-ments at Headquarters in Edinburgh. ARCHITECTS, Grade II, Salary 2708 × 250-21000, qualifications required: A.R.I.B.A. ARCHITECTURAL ASSIS-TANTS, Grade I.Salary 2502 × 220-2615. The point of entry wild depend on the ability and experience of the successful applicants. In exceptional for the successful applicants. In exceptional circumstances those applicants who have not passed the Intermediate R.I.B.A. with not less than 3 years' subsequent practical experience. ARCHITECTURAL ASSIS-TANTS, Grade II, Salary 2520 × 220-2615. The point of entry will depend on the ability and experience of the successful applicant. In exceptional circumstances those applicants who have not passed the Intermediate Examination of the R.I.B.A., but have considerable practical experience will be considered for the posts of Archi-tectural Assistant, Grade I or Grade II. The National Coal Board, Soctish Division, is engaged on a development programme which includes complete new collieries and Area Headquarters, embracing 2- and 3-storey Office Blocks, multi-storey composite buildings of framed construction, Labora-tories, Large workshops. Stores, Pithead Baths, Canteens, Medical Centres, Winding Towers and other new and unorthodox architectural compositions. The work offers scope to Architects alive to contemporary design problems. Applications, giving full details of age. education, qualifications, experience (in chronological order), present post and salary, should be forwarded to Staff Department, National Coal Board, 3-grinton Crescent, Edinburgh, 12, within 7 days.

COUNTY BOROUGH OF PRESTON APPOINTMENT OF ASSISTANT ARCHITECT Applications are invited for the above appoint-ment in the Borough Surveyor's Department, in accordance with salary scale A.P.T. IV (£710-(285)

accordance with solary scale A.F.T. IV (2013) Candidates must be Registered Architects and Corporate Members of the R.I.B.A., having had good general experience, preferably with some experience in Education Building work. The appointment is subject to the National Scheme of Conditions of Service and Local Government Superannuation Acts and to passing a medical examination. Forms of Application, obtainable from the under-signed, to whom they should be returned not later than Thursday, October 18th, 1956. W. E. E. LOCKLEY. Town Clerk.

4066

Municipal Building, Preston.

BOROUGH OF EALING, TOWN PLANNING ASSISTANT, APT. III (£640-£765 per annum, plus London Weighting), required for develop-ment control. Full particulars and application form from Borough Surveyor, Town Hall, Ealing, W.5. Closing date 8th October, 1956. E. J. COPE-BROWN, Development Control Control Control Control Control E. J. COPE-BROWN,

Town Clerk. 3251

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 FEDERATION OF RHODESIA AND NYASALAND VACANCIES

 ARCHITECTURAL DRAUGHTSMEN PUBLIC WORKS DEPARTMENT Applicants must hold School Certificates, or G.C.E. with English, Maths. and two other sub-jects at '0' level obtained at one and the same examination, and have had at least four years' experience in an architectural drawing office.

 Starting Salary: £540£1,000, depending on qualifications and experience on Scale rising to £1,00 p.a.
 Application forms and further details from Public Service Attache, Rhodesia House, 429, Strand, London, W.C.2. Closing date October 27.

 COUNTY BOROUGH OF BUPEYNHEAD

4652 COUNTY BOROUGH OF BIRKENHEAD BOROUGH ARCHITECT'S DEPARTMENT Applications are invited from suitably qualified ersons for the following posts — ASSISTANT ARCHITECT, Grade A.P.T. V (1795—470).

ARCHITECTURAL ASSISTANT, Grade A.P.T.

IV (£710-£885). ARCHITECTURAL ASSISTANT, Grade A.P.T.

ARCHITECTURAL ASSISTANT, Grade A.P.T. I (1550-4500). ASSISTANT QUANTITY SURVEYORS, Grade IV (fr10-4885). QUANTITY SURVEYING ASSISTANT, Grade II (1555-4675). The appointments are superannuable subject to satisfactory medical examination and to one month's notice on either side. Forms of application obtainable from the Borough Architect's Department, 3, Conway Street, Birkenhead.

treet, Birkenhead. Closing date for applications—16th October, 1956. DONALD P. HEATH, Town Clerk.

4018

Town Hall, Birkenhead.

Architectural Appointments Vacant 4 lines or under, 7s. 6d.; each additional line, 2s.

CROYDON.-ARCHITECTURAL ASSISTANT required immediately for interesting and varied work. Inter-Friead standard; capable of running small contracts.-Write age, experience, and salary required, to George Lowe & Partner, 4, High Street, Croydon, Surrey. 1951

WORCESTER OFFICE.-Llewellyn Smith & Waters invite applications from ASSIS-TANTS of R.I.B.A. Inter. standard, with 3 years office experience. Preferably with experience of job supervision and specifications. Salary accord-ing to experience and ability.-Write 103, Old Brompton Road, London, S.W.7. 3199

A RCHITECTURAL ASSISTANT required in busy London office with varied practice. Good salary and prospects for suitable applicant. 5-day week. Write, giving particulars of age, qualifications, experience, etc., to Box 775, c/o 7, Coptic Street. W.C.1. 9313

7. Coptic Street. W.C.L. 9313 CO-OPERATIVE WHOLESALE SOCIETY LTD. ARCHITECT'S DEPARTMENT. MANCHESTER SHOPFITTING DRAUGHTSMAN required, ex-perienced in shop equipment and modernisa-tion of interiors. The position calls for the preparation of layouts and perspectives with a modern approach to store fitting problems. The post is pensionable, subject to medical examination and there is a five-day week in operation. Applications giving age, details of previous experience and salary required to G. S. Hay, A.R.I.B.A., Chief Architect. Co-operative Whole-sale Society, Ltd., 1, Balloon Street, Manchester 4. 33056

POST-INTERMEDIATE ASSISTANT required, in large London Office with widely varied practice. Lewis Solomon, Son & Joseph, 21. Bloomsbury Way, London, W.C.1. Telephone HOD. 0082. 3152

7082. SENIOR AND JUNIOR ARCHITECTURAL ASSISTANTS required immediately. Salaries according to experience. Bertram Butler & Com-pany, Chartered Architects, 6, Tettenhall Road, Weilverhammton. 3222 pany, Chartered Wolverhampton.



A RCHITECTURAL ASSISTANT required, Final Standard, for variety of work in con-nection with exhibition and ancillary buildings. Good salary and working conditions. Write, in first instance, giving details of age, training and experience, if any, to Staff Architect, Olympia Limited, Kensington, W.14.

JUNIOR ARCHITECTURAL ASSISTANTS JUNIOR ARCHITECTURAL ASSISTANTS required in busy office handling a wide variety of interesting work including commercial, domestic, school and brewery projects. Please apply stating experience and salary required to:--Portess & Richardson, Lloyds Bank Chambers, Peterborough. 3258

of inte. Salary A RCHITECTURAL ASSISTANT of inte standard required for London offices. Salar 2550/2600. Permanent position with good pro pects. Full details to Box 3259.

CITY CITY ARCHITECTS' OFFICE require ex-options. Commencing salary 4900 per annum; congenial office conditions. Box 3279.

A RCHITECTURAL ASSISTANTS required, approaching or at Intermediate stage. Up 0 4550 p.a. D. Plaskett Marshall, F.R.I.B.A., 59, Gordon Square, W.C.I. MUS 7176/7. 3289

S9, Gordon Square, W.C.I. MUS 7176/7. 3289 A RCHITECTURAL DRAUGHTSMAN re-quired by Company specialising in all types of permanent timber buildings and constructional woodwork generally, both for home and overseas. Good salary and excellent prospects for man with planning and designing ability and capable of working on own initiative. Pension Scheme in operation. Write giving full details of age. ex-perience, qualifications, etc., Medway Buildings & Supplies, Ltd., Phoenix Wharf, Rochester, Kent. 3286

A RCHITECT'S ASSISTANT of about R.I.B.A. Intermediate Standard required in Archi-tect's Department in City. Should be quick, accurate draughtsman and used to good class work. Write stating age, experience and salary required. Box 4012.

RONALD FIELDING, A.R.I.B.A., requires SENIOR AND JUNIOR ASSISTANTS. Please apply with details of experience, age and salary required to Aldwych House, London, W.C.2. Chancery 352/5.

WEST END Architects require ASSISTANT for preparation of working drawings. Some office experience essential, together with a sound knowledge of building construction. State salary required.—Box 4049.

MAJOR Petroleum Company requires for its TANT for work on varied commercial projects. Applicants must be of Intermediate R.I.B.A. standard, with sound knowledge of construction and have had a minimum of five years' private office experience. Salary according to experi-ence. Position will be permanent and pension-able. Excellent working conditions, staff restaurant, sports club, etc.—Apply in writing, giving full details of age, qualifications and ex-perience. to Box 4009. Replies can only be sent to those selected for interview. 4009

Lo those selected for interview. 4009 L ONDON Consultants require immediately ASSISTANTS of Intermediate and R.I.B.A. standard for varied and interesting con-temporary industrial projects. Responsibility given to applicants with good design sense and constructional ability.—Apply, giving full particu-lars and salary required, to Box No. 401, Glovers Advertising, Ltd., 351, Oxford Street, London, 9341 9341

TREHEARNE & NORMAN, PRESTON & PARTNERS have vacancies for SENIOR AND JUNIOR ASSISTANTS. Salaries according to experience and qualifications. Apply: 83. Kingsway, W.C.2 (HOL, 4071). 3028 YORKE, ROSENBERG AND MARDALL have vacancies for ASSISTANTS, Intermediate and Final standard.-2, Hyde Park Place, W.2. 4040

4040

A VACANCY occurs for a person of Inter-standard as ASSISTANT to an Architect in the Loughton area. The post is interesting, comprehensive, and provides real training and scope.-Box 4034.

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JUNIOR ARCHITECTURAL ASSISTANT required. Intermediate standard, for practice in HIord, Essex. Good prospects.—Apply G. F. Siegerts. I. Electric Parade, Seven Kings Road, Seven Kings, HIord, Essex. 4031

ARCHITECTURAL ASSISTANT, Intermediate standard, required immediately for busy general practice.-Write, stating age, experience, and salary required, to Deacon & Laing, 9, St. Paul's Square, Bedford. 4041

ARCHITECTURAL ASSISTANT required by Lockheed Hydraulic Brake Co., Ltd., Leamington Spa. Ability to prepare working drawings, details and specifications, essential, Previous experience of Industrial work desirable, -Give details of age, qualifications, experience, and salary required to Personnel Officer. 4030 Give det Dractice

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A SSISTANT wanted for small private prac Write brief details to T. A. Bird, Welbeck Street, W.1.

Welbeck Street, W.1. 402 TROFDEK.-SENIOR and JUNIOR ASSIS. TANTS required immediately for design department and drawing office in Lincoln. Applicants with general structural background and building construction experience will be given responsible position, high salary, very congenial working conditions, and excellent prospects for rapid advancement.-Please write fully, Box 4028. CENIOR ASSISTANT salary 39, O SE hard 4061. A^R Wide

Prospects for application advancement. Trease write tully, Rox 4428.
SENIOR ASSISTANT required, capable of taking full responsibility of contracts, deal-ing with Client and Contractor. Must belong to the Modern School of Design.—Write, stating ex-perience, age, and salary required, to John H. D. Madin, Dip.Arch.Birm., A.R.L.B.A., 83/85, Hagleg Road. Edgbaston, Birmingham, 16. 4021

J. DOUGLASS MATHEWS & PARTNERS, London, S. W.1, require further medium grade ASSISTANTS. Salaries in accordance with ex-perience. It would be helpful if previously un-successful applicants do not apply. 4028

classi lectur dorm seeks there stand A RCHITECT'S ASSISTANT, Inter. standard, required in Architect's office, Brighton, Sussex. Interesting work in connection with Public Transport undertakings.-Apply H. A. F. Spooner, L.R.I.B.A., 5, Steine Street, Brighton, 1 AF

A RCHITECT'S ASSISTANT required, R.I.B.A. Inter. standard, Experience essential in surveys detailing and working drawings. Salary accordingly-Apply E. H. Davie, F.R.I.B.A. M.T.P.I., Staff Architect, Hillier Parker, May & Rowden, 77, Grosvenor Street, London, W1. 406

SUPERVISOR/AGENT for leading European firm in West Indies. To take charge of number of firms' contracts in Georgetown. Salary \$400 per month (81=4s, 2d). Free furnished accommodation. 3-year contract. Free passages both ways.-Write for further details, quoting reference OSS. 72/8, to O.T.S., 5, Welldon Crescent, Harrow, Middlesex. 4042



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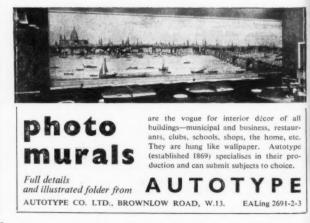
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Architectural Appointments Wanted

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ACCHITECTURAL ASSISTANT (30), varied Rexperience, requires progressive position, South England. Willing to take on part-time work.-Box 4068.

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Last day for submitting designs, March 30th, 1957. Last day for questions, December 14th, 1956. Conditions to be obtained on application to undersigned on payment of two Guineas (£2 2s.) deposit.

Capt. W. H. WILSON, Hon. Sec.

4038

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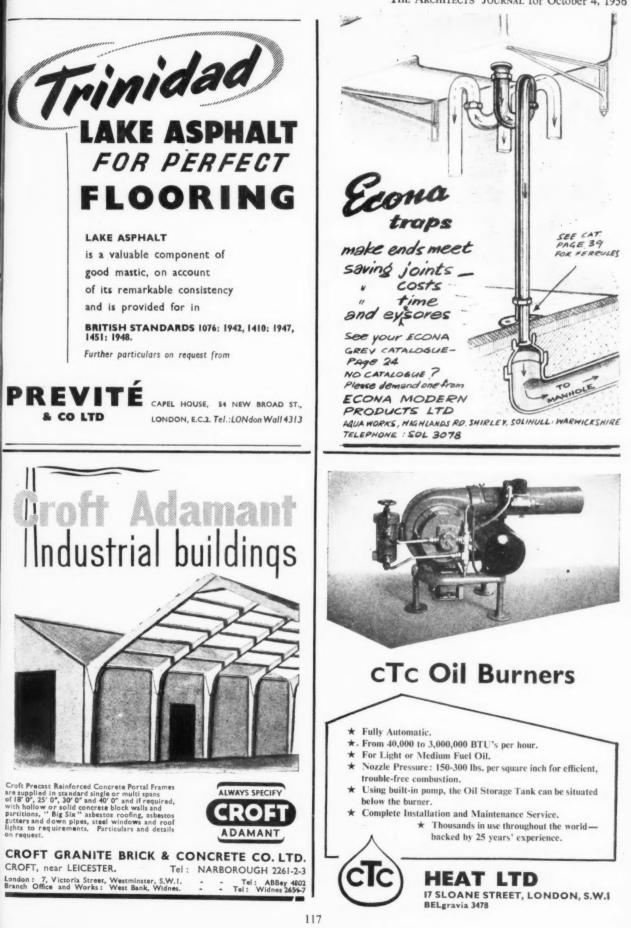
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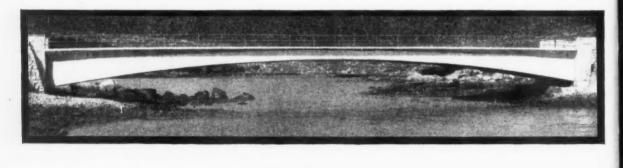


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