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The Architects' JOURNAL for May 19, 1955

## ARCHI



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

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ocieties and Institutions

#### SECTION TECHNICAL.

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Surrent Technique Questions and Answers

rices The Industry

HYSICAL PLANNING SUPPLEMENT

BUILDINGS URRENT

STATISTICS

Appointments rchitectural Vacant Vanted and

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A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ie one week, Ig to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address. AA AAI

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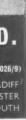
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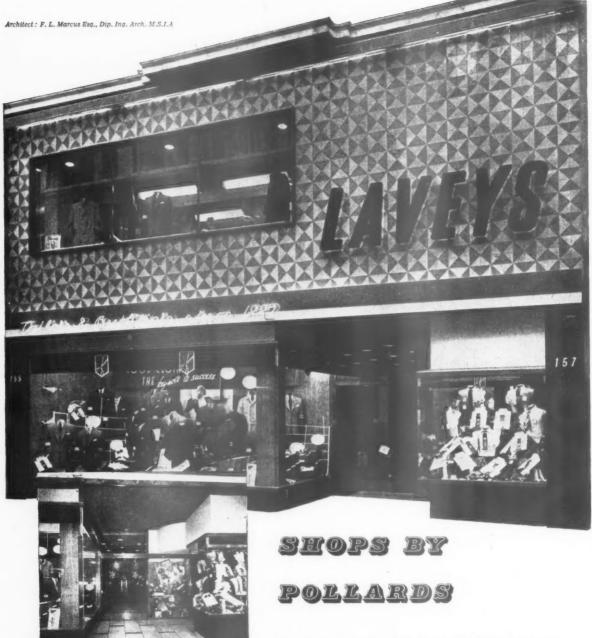
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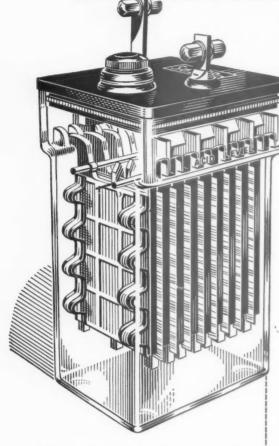
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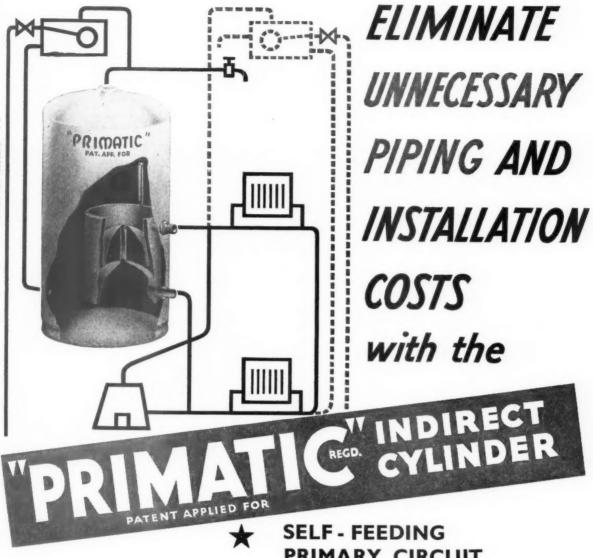
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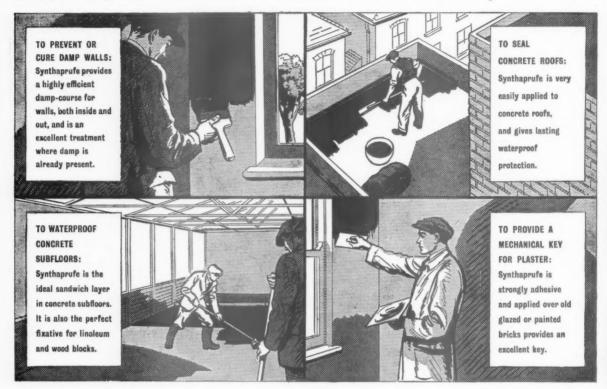
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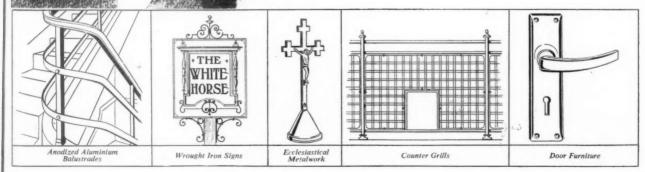
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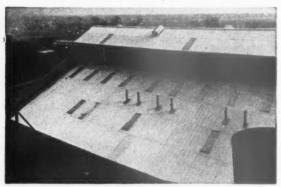
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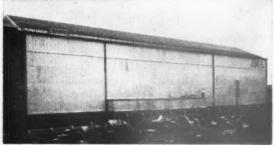
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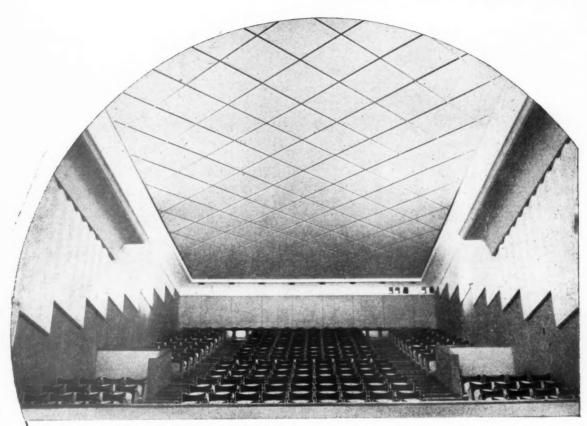
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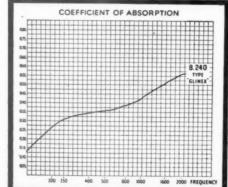
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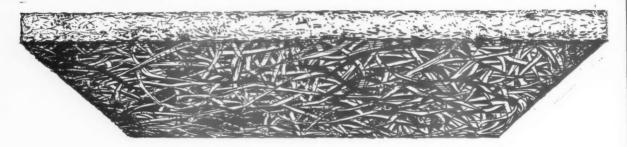
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Data Sheet A.S.2 gives fixing and other details for steel framed multi-storey buildings where distances between beams necessitate subsidiary grids for panel suspension. Data Sheet A.S.3 is related to a 40-inch planning module. Write for your copies.



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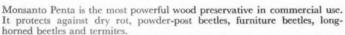
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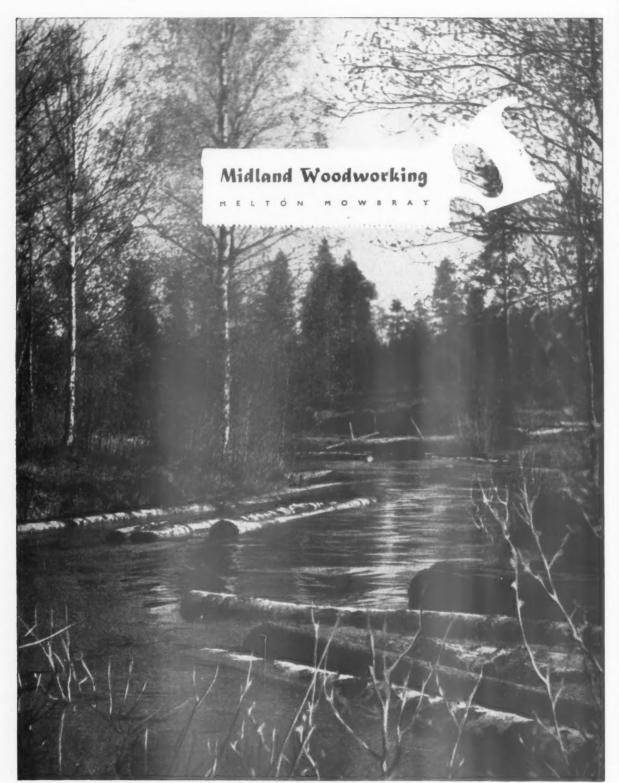
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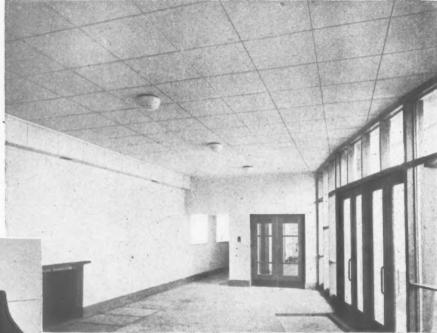
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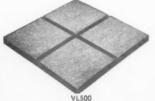
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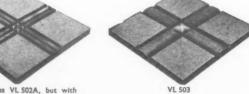
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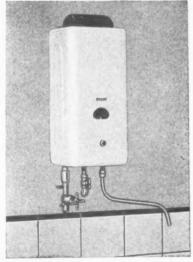
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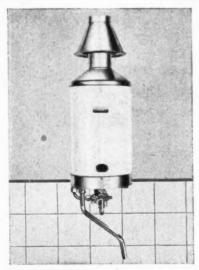
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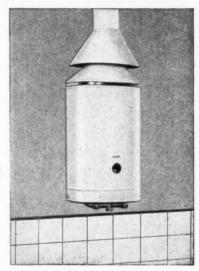
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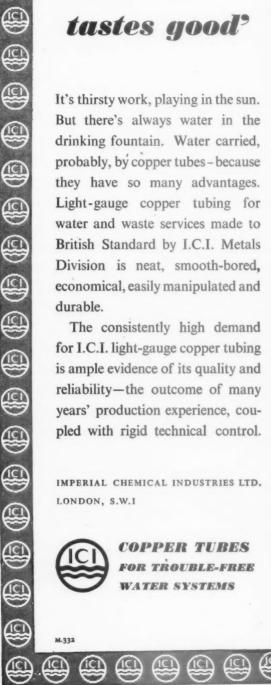
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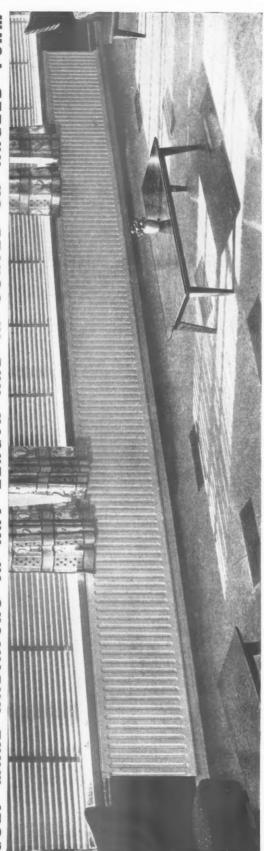
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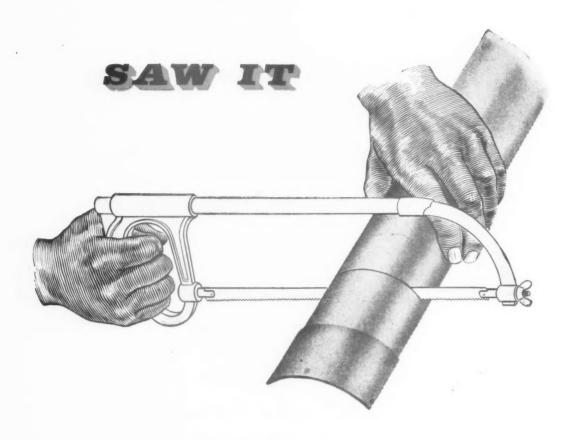
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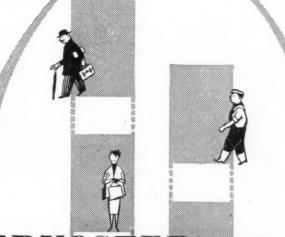
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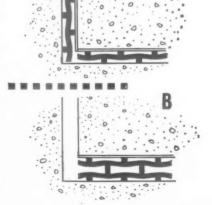
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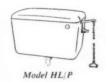
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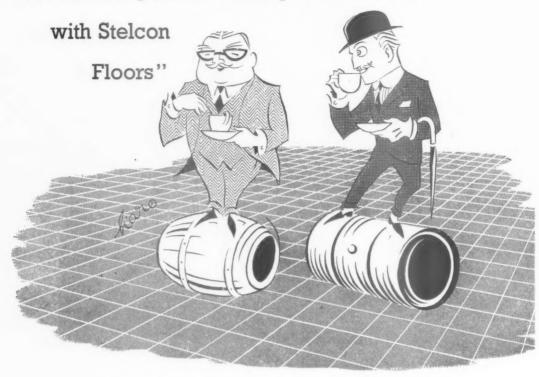
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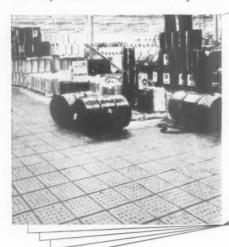


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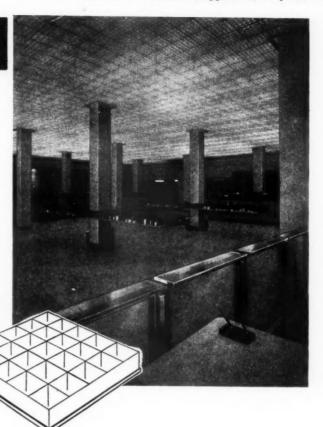
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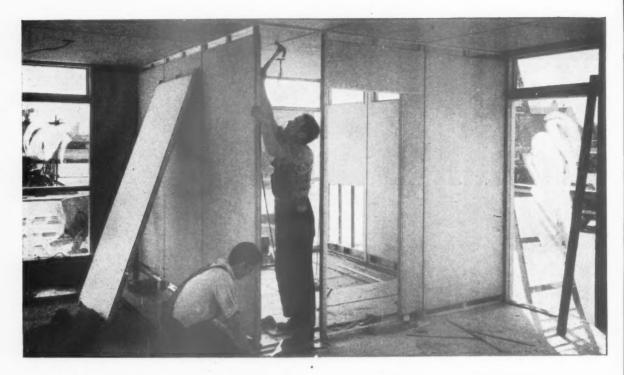
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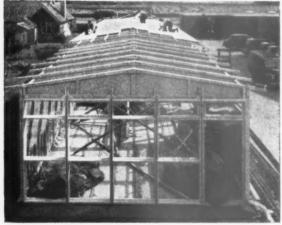
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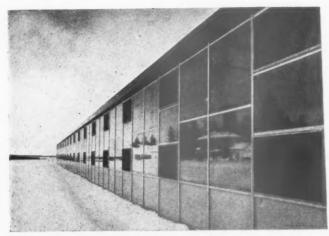
Glasgow: Barrhead South Goods Station.

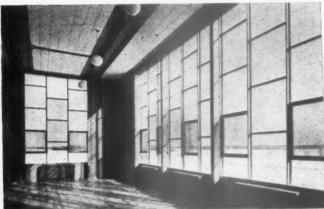
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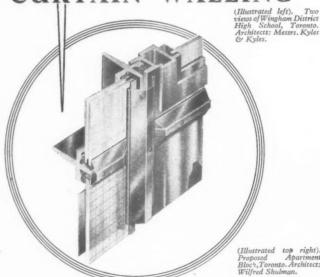


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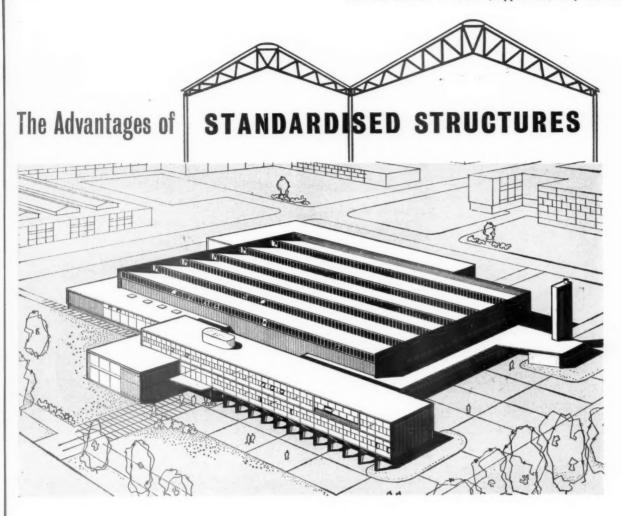
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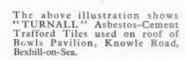
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Architect: Kenneth G. Higgs, A.R.I.B.A. Bexhill-on-Sea.



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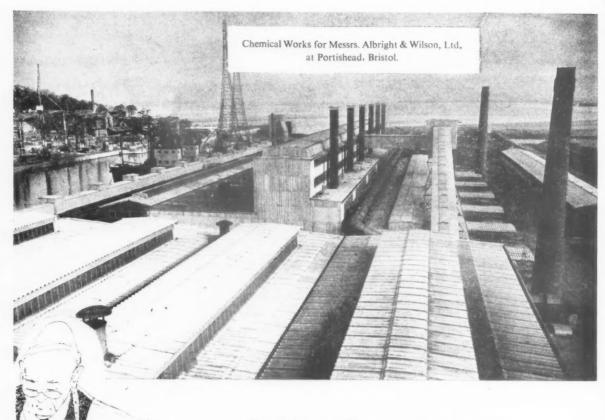
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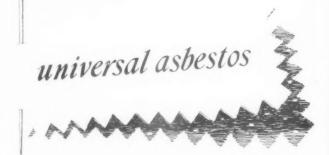


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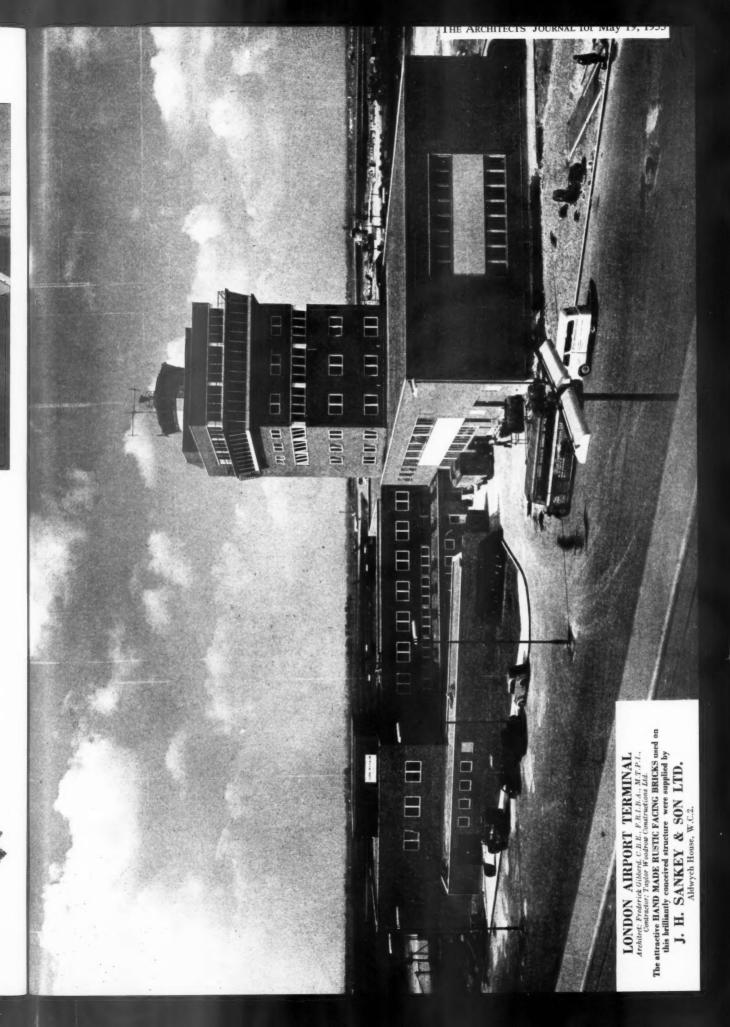
For this light-weight all-weather garb, Reinforced Troughing and Trofec Sheets were laid on purlins spaced at 6 ft. 3 in. centres.

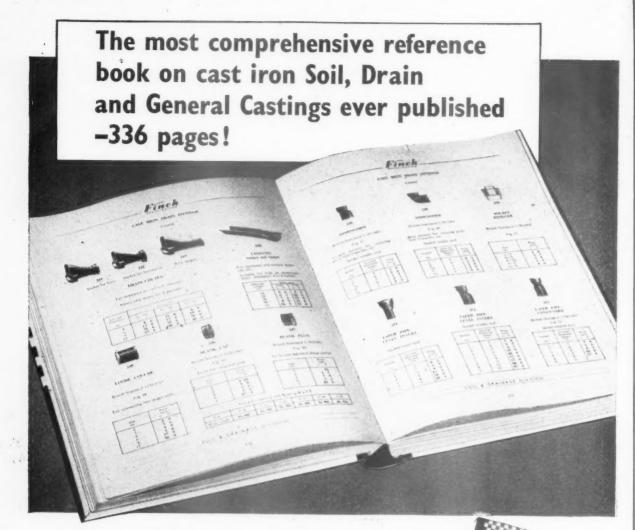
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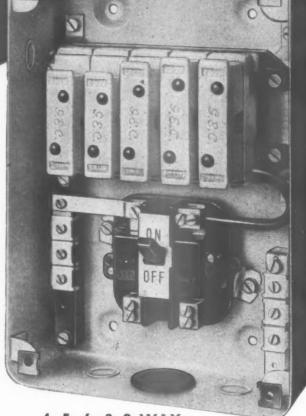
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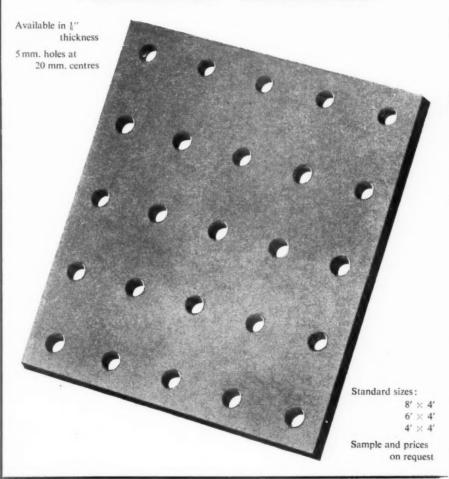
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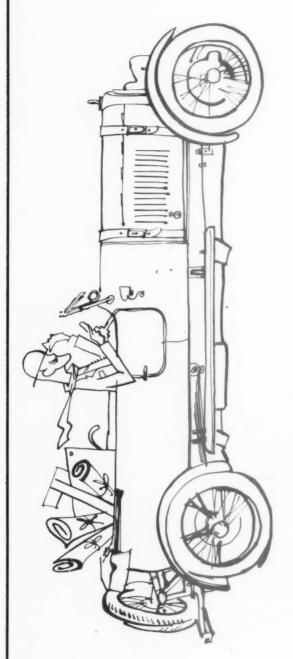
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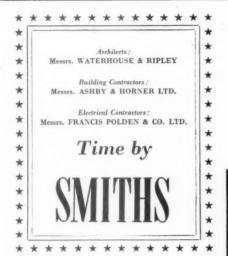
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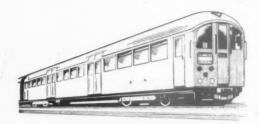
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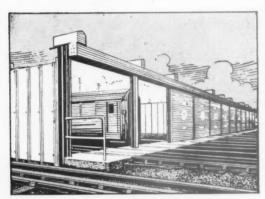
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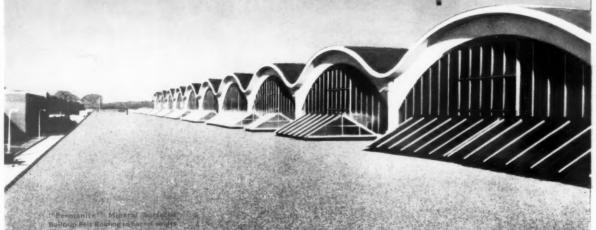
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THE ARCHITECTS' JOURNAL for May 19, 1955



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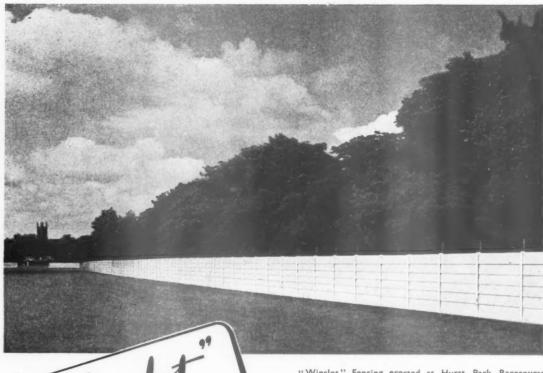
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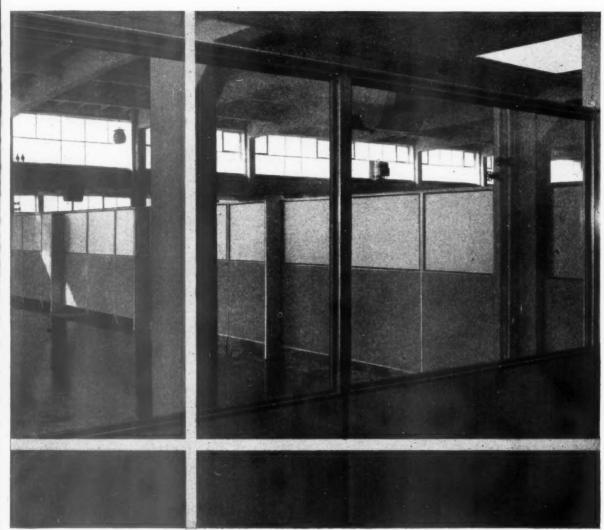
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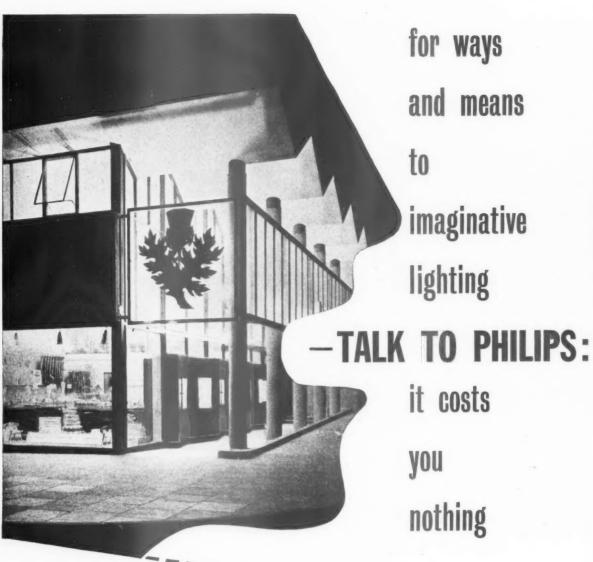
- Medium price high quality contemporary style
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Architects: Messrs. Challen & Floyd, A/ARIBA.

#### House at Woodford Green

These illustrations show an interesting example of Italianized zinc roofing applied to a modern house. By this system, the sheets are factory formed: site work is cut down to a minimum, and roofs can be rapidly covered.

From roof to foundation, zinc has vitally important uses in contemporary building — for gutters, pipes, weatherings, flashings and hoods. And there are now no restrictions on its use. Supplies are plentiful, and likely to remain so.

The price of zinc has dropped considerably, and it is now one of the cheapest permanent materials.

The Zinc Development Association is always prepared to give technical help to potential users. Publications, together with lists of stockists of all zinc building materials and of firms specialising in zinc work, are freely available.





View showing contour of Italianized sheets.

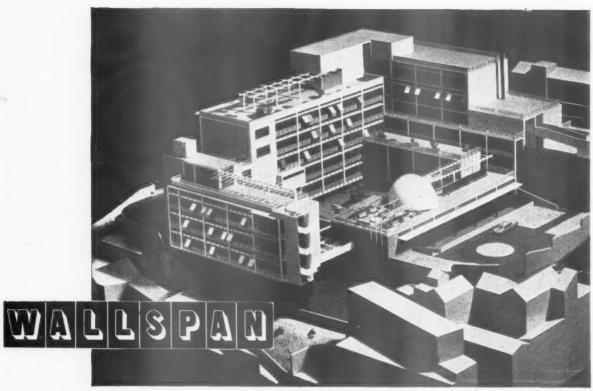


Flashing round chimney stack.



Detail of verge apron.

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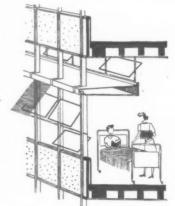
(Architect & Building News photograph)

# is going up fast-all over the world!

Gibraltar's new hospital to have Wallspan walls

Gibraltar is not all solid rock! In fact, when planning the new Colonial Hospital, it was found that the load-bearing rock stratum was at a much greater depth than had been supposed. As site restrictions dictate a multi-story building, a light structure is imperative—especially as part of the hospital has to rest on piles with a road running underneath.

Architects Covell & Matthews, F/A.R.I.B.A., A.M.P.T.I., have specified Wallspan as part of their solution to this problem. The all-aluminium construction of the Wallspan grid and the lightness of the infilling panels cut the dead weight of the walls to a minimum. And Wallspan's versatility makes it easier to incorporate the special sun-baffle design and blindbox installation shown in this detail. The new hospital is being erected in stages on the site as the old one is pulled down, stage 1 being the Children's Extension in the left foreground of the photograph. The speed at which the Wallspan walls are completed will help to minimize the disturbance to normal hospital routine that the changeover will entail.



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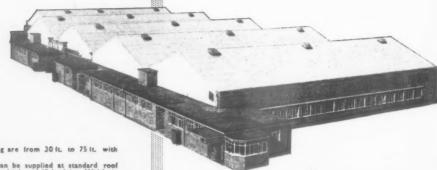


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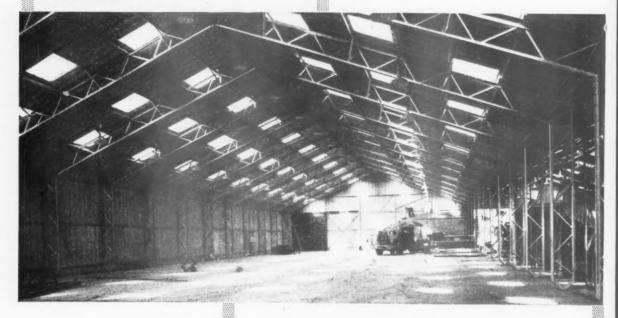
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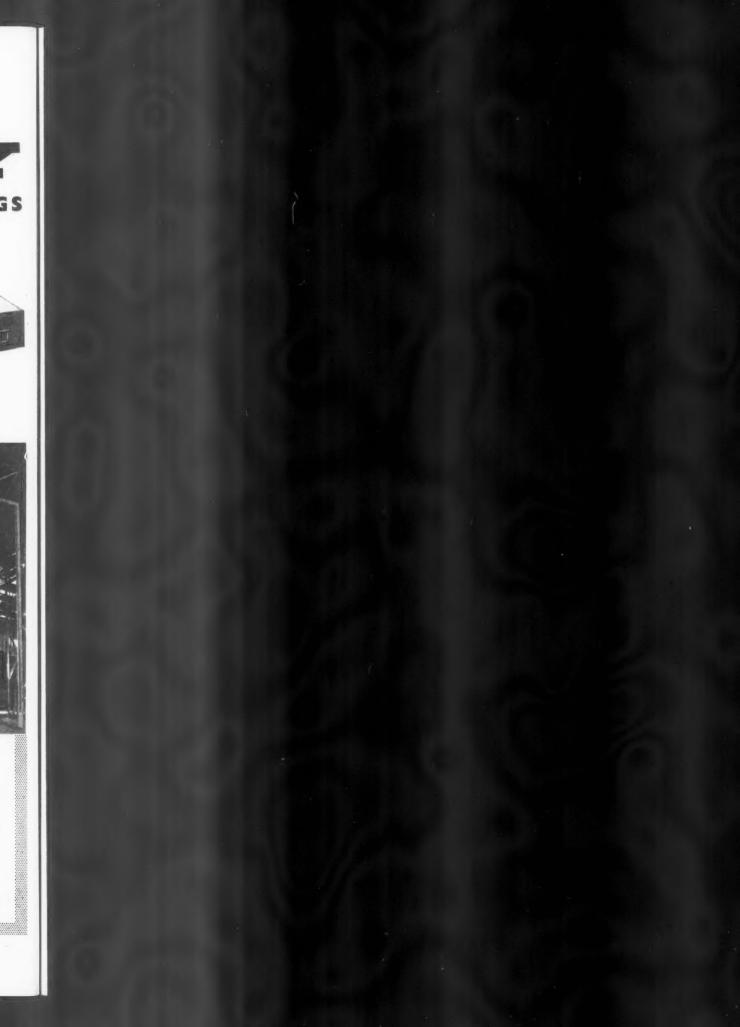
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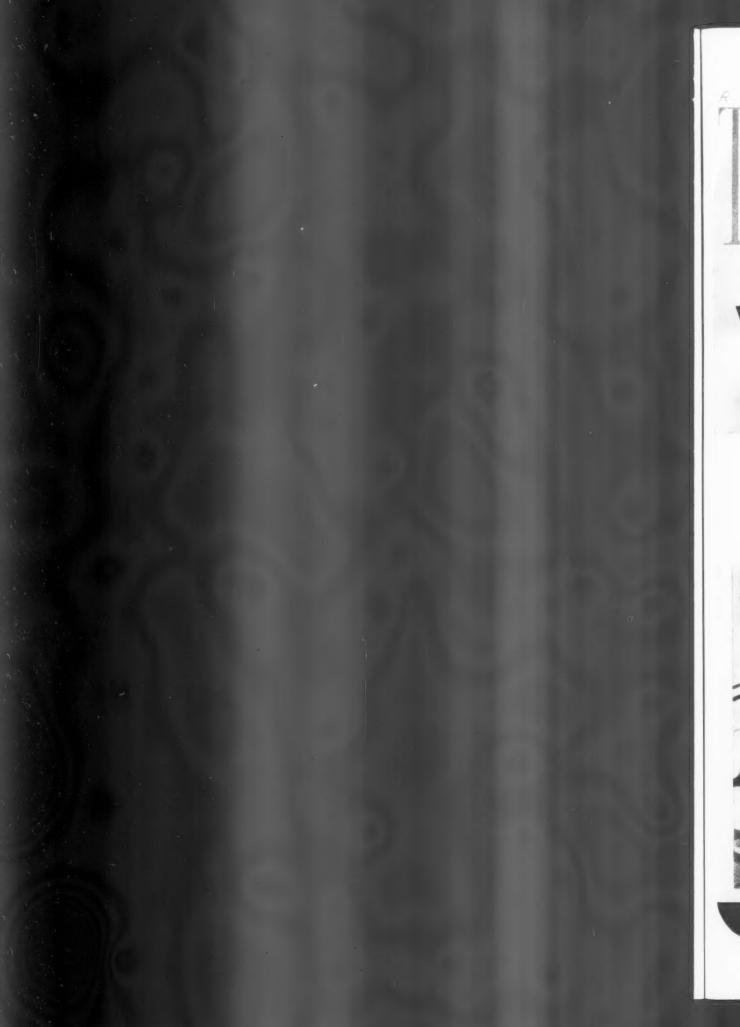
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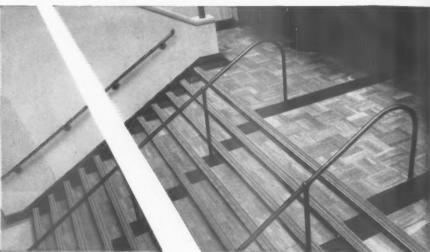
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THE RIBA'S NEXT MOVE?

ASTRAGAL agrees with the JOURNAL editors (page 663) that the RIBA must feel somewhat embarrassed after its members' display of faith (at the annual meeting) in its ability to provide a negotiating body-something better than a trade union. No doubt two of the speakers at the meeting, the expressive Dr. Bradbury and J. L. Womersley, eminent salaried-architects, have helped to persuade the Council that existing organizations are adequate. And very few private architects on intimate terms with their own assistants will have found any number who appear to be keenly interested in having an RIBA-sponsored negotiating body-or any other form of trade union for that matter. But who can the Council go to for advice now that its own Salaried Architects' Committee has been ignored?

Is not the obvious course to take the one which every contemporary architect has been trained to take on being confronted by a difficult question: to to first principles thoroughly analyse the problem? It should not be forgotten that no one has argued so far on a sound basis of

At the moment the Council has lost the initiative. Without facts it can only start again on the long, weary round of discussion and argument. But no one knows better than the president, C. H. Aslin, what can be done in terms of building by detailed analysis and careful synthesis. As in building, so in other creative tasks. Here, in the appointment of a fact-finding commission-of top-level men-is the perfect opportunity for the president to exercise the leadership for which he is so much admired.

WEST RIDING FOR A FALL?

ASTRAGAL, who is looking forward to seeing your tanned country and sallow city faces at Harrogate next month, when the British Architects Conference is to be held there, has had a disappointing preview of the hotels of West Riding. A colleague, who writes of high prices and poor food, says that while the service is willing-in a rough Yorkshire way, chefs are not. "Be prepared," he says, "for a corner of civilization where the taste-buds of the wealthy have apparently atrophied through indiscriminate gulping and a naive confidence that if food costs a lot it must be good."

But this letter is addressed only to your columnist's baser self. Fleshpots apart, all-it is said-augurs well. The conference hand-book (says my colleague) will be the most useful and welldesigned one produced for a post-war conference; the subject is as interesting as last year's, and the organization is as smooth as it was for the '54 Torquaytalkie. In addition, Yorkshire-with an ex-(Somerset)-county opening batis said to be as confident of winning a cricket match as ASTRAGAL is of hearunrepeatable ing some speeches.

#### SCULPTURE IN CHURCH

The first exhibition of modern sculpture to be held in a London church seemed to ASTRAGAL not to be worth missing. And he found he was right. Not that the sculpture itself is very exciting, but it gave ASTRAGAL an inducement to see for the first time the charming and beautiful church of St. John, in St. John's Wood. Most of the pieces shown are too small to compete with the grandeur of the church interior, and no one who took a keen eye with him could hope to restrain it from wandering to wall plaques and to the good modern font, which was designed by the vicar, the Rev. Perry-Gore.

The only piece of sculpture which really interested ASTRAGAL, apart from Epstein's study for the Cavendish Square "Madonna and Child," was a figure by Willi Soukop, in painted plaster, and the bronze Entry into Jerusalem, by David Wynne—the most ambitious as well as the most expensive work on view. So many pieces suffer from a charming, but trivial, sentimentality. However much the needs of

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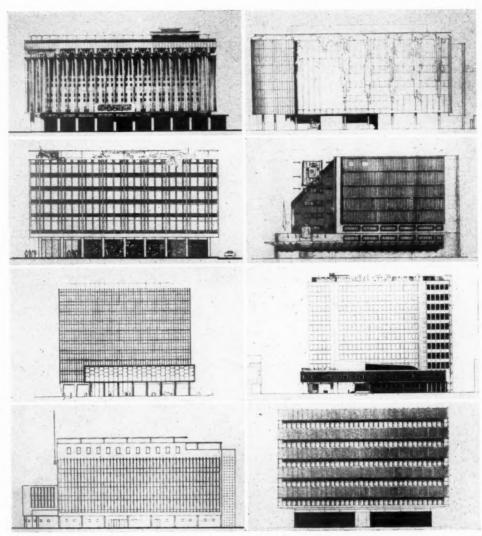
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Professor William Dunkel has just won a limited international competition for a bank in Baghdad. As readers will see overleaf, where the winning design and two others are illustrated, entrants were advised to express the spirit of Baghdad in their designs. The assessors (Professor Otto Bartning, Cecil Howitt and Sune Lindstrom) chose a scheme which has the oriental charm of a Hertfordshire school. Those that got away included the designs above by:—left, top to bottom: Henry Lacoste, Belgium; Professor Sep Rut, Germany; Professor Werner March, Germany; Pierre Vago, France. And right, top to bottom are designs by:—Alvar Aalto, Finland; Giovanni Ponti, Italy; D. Roosenburg, Holland; Palle Svenson, Denmark.

mothers and children are a "natural" to sculptors, more than mere charm is needed to give sculpture once again its rightful place alongside architecture—especially church architecture.

#### PRICE-SWAPPING

4ES)

Something, it seems, is being done about the Monopolies Commission's comments on the building industry and the London Builders' Conference. You may remember that when the subject first came up, Mr. Eccles, as he was then, announced that all tenderers for MOW contracts would be asked to sign the RIBA's "no ganging-up" clause. Most of us took his remarks to mean that those who didn't sign didn't get

the job. But it seems that he meant no more than he said, and that it made no difference whether the clause was signed or not. In future, one gathers, it will, and those who don't sign will be off both the MOW and the LCC approved lists. And those who sign but still compare prices? No snooping, but these things are not easy to hide and comparing prices will presumably be breach of contract and can be dealt with accordingly. If the excuse for the LCC was the suicidal competition of the 30's then there's no need for it now when the jobs compete for the builders.

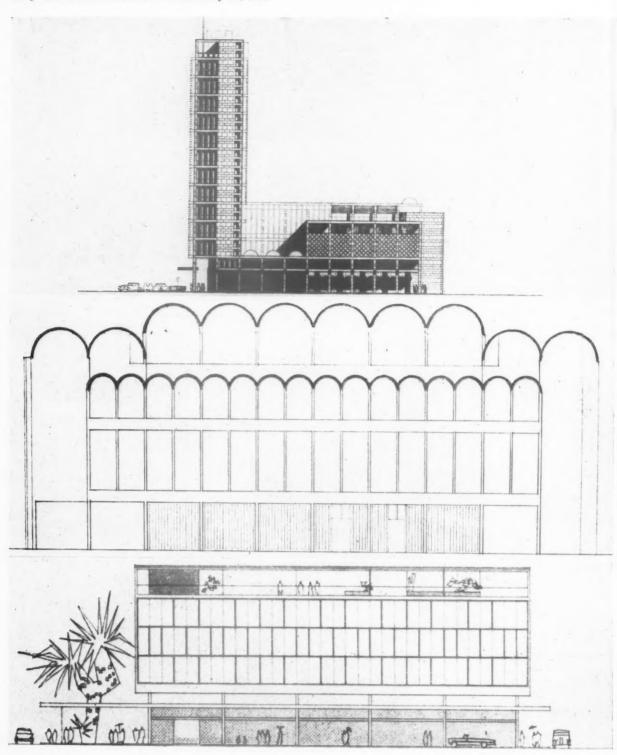
#### LOOK OUT FOR LA CORBUSIER

"Who can I ask to oppose Professor

Richardson in an article-debate," asked the lady on the daily paper who was lucky enough to get ASTRAGAL'S telephone ear last week: "the Professor suggests someone called Frank Lloyd." Your columnist not only bit back the merry quip, "That's Wright": he also swallowed a caustic comment on the Professor's modesty.

Which reminds me: Batsford's spring book list, written in the uncertain manner of the English synopsis in a foreign magazine, includes the volume you've all been waiting for—a selection of photographs of the complete works of "Miss van der Rohe."

ASTRAGAL



# The Orient Expressed?

"Competitors should have in mind that Baghdad is an oriental city and it would be advisable to express the spirit of the country in modern technique." That warning was given to the entrants in a limited competition for a new central bank in Baghdad, Iraq. Which, then, of the above three designs, do you suppose is the winner. It is not the top one, in which Gordon Tait (the English entrant) raised

a modest dome or two. Nor is it the centre one, by the Swedes, Celsing and Tesch, who know a hint when they see one. The winner is Professor William Dunkel, of Zurich, whose design (bottom) is doubtless too subtle an interpretation of the Oriental spirit for any but the Oriental mind. Or is this just another case of the Emperor's new clothes? (See also page 661.)

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Compe RIBA have the a stand at Olyn Water Centre, are (1) 50 guin Mardal date is

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#### In Brief

Competition. Architects and students (at RIBA Intermediate stage, or its equivalent) have the chance of competing in designing a stand for this year's Building Exhibition at Olympia. The sponsors are Ascot Gas Water Heaters, Ltd. (c/o the Building Centre, 26, Store Street, W.C.1); the prizes are (1) 200 guineas; (2) 100 guineas; and (3) 50 guineas; the assessors will be C. S. Mardall and F. R. Yerbury, and the closing date is July 8.

Hospital Congress. The ninth international hospital congress is to be held in Lucerne from May 29 to June 3.

Gold Medal. The Triennial Gold Medal (1950-1952) of the Royal Institute of the Architects of Ireland has been given to Thomas P. Kennedy, for his design of the Outpatients' Department and Treatment Centre, St. Luke's Hospital, Rathigar.

Architects' Photographs. The RIBA Council has agreed to the suggestion of the Public Relations Committee that architects can send photographs of more than buildings a year for inclusion in the RIBA's record of members' work.

Honorary Members of AIA. The American Institute of Architects has elected C. H. Aslin, the RIBA president, an honorary corresponding member, and C. D. Spragg an honorary member. Both are too busy to accept an invitation to the annual construction of the AIA in Minrocarding the AIA in Minrocarding. vention of the AIA in Minneapolis.

Housing Figures. In March 37,921 houses were completed in Great Britain. Local authorities built 27,526; private builders, housing associations, 1,256, and government departments, 539.

Housing Exhibition. An exhibition of hous-Housing Exhibition. An exhibition of housing (1954-1955), which is to go to the IUA's Congress at the Hague, in July, was opened yesterday at the Building Centre, where it can be seen until June 4. (Daily: 9.30 a.m. to 5 p.m., Saturdays until 1 p.m.) It was designed by Cassidy, Farrington and Dengue Dennys.

Looking at Africa. Joint talk by Peter Kenyon and Ian Leslie. At the AA, 36, Bedford Square, W.C.1. 8 p.m.

Criticisms of Members' Works. Discussion on the Malory School, South Lewisham, designed by D. L. Bridgwater and Peter Shepheard. At the AA, 36, Bedford Square, W.C.1. 6.15 p.m. June 2

Housing 1954-1955. Preview of the British contribution to the exhibition, organized by the IUA, to be held at the Hague. Prepared by the BC from material selected by the UK committee of the IUA. At the BC, 26, Store Street, W.C.1. Daily 9.30 a.m.-5 p.m. Saturday 9.30 a.m.-1 p.m. UNTIL JUNE 4 (CLOSED MAY 28 AND 30)

Visit to the Worthing Technical High School. AA party leaving Victoria Station at 9.25 a.m. will visit the School in the morning and Parham Park in the afternoon. Train and coach fares £1 5s. Lunch extra

JUNE 11

#### The Editors

#### BACK TO FIRST PRINCIPLES

THE profession should not be too alarmed by the motion on the representation of salaried architects which was carried overwhelmingly at the recent AGM of the RIBA. Nor should the Council allow itself to be stampeded into making hasty decisions. It is, perhaps, significant that some of the loudest bursts of applause followed the speeches calling for something better than a trade union. The qualities of existing trade unions were acknowledged, but the touching faith and confidence which shone on the faces of some union supporters was due to the weight which is felt to be behind the initials RIBA. It is the support of the RIBA which the bulk of the membership wants for any new negotiating body. RIBA Council deserves some sympathy for the embarrassing position in which it finds itself through this demonstration of

To whom, though, can it now go for advice? Not to the Salaried and Official Architects Committee presumably; sulking because its original advice was ignored. Nor can it go again to the body of the profession, whose own preferences have been stated through the results of the questionnaire. Unsatisfactory conditions are admitted, but their degree is unknown. The task of discovering the facts is too vast for a slow-moving part-time committee. The Council, as we suggested in a leading article of January 6, should appoint a whole-time team, which should include a member of another profession, such as a lawyer or economist.

What facts should the commission discuss? First, of course, present-day incomes, in public and private offices, for both principals and assistants. Second, and closely linked with the first, responsibility. The degree of responsibility which the architect has, is the real way of measuring the reward due to The architect, if he is considered a professional man, must only get a professional scale of income if he is carrying sole professional responsibility. But he must never get less than a professional scale of income if, although beneath a screen of seniors, he is, in fact, shouldering the professional responsibilities. Other subjects to which thought should be given are education and qualification. When the architect's responsibilities have been assessed it is obviously imperative to discover whether the present system of training and examining ensures a standard of knowledge adequate to carry out those responsibilities. It is when a man takes on the responsibilities of an architect and not before—that he should be called an architect, and paid accordingly. And then, of course, he can no longer be an "assistant" in the usual sense of the term, but only a "professional man." The professional man, and the artist, of which the architect is a compound, does not, ideally, delegate responsibility, but is solely responsible to the client.

The study of the problem from first principles is the key to the matter. It is surely high time for the Council of the RIBA to study the problem—as an architect would.

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## CHOOSE YOUR LEADERS: 1



The JOURNAL editors sent the principal political Parties a number of questions on matters that affect the profession. In the replies, printed below, readers will see that while the Conservatives answered every question, the Labour Party, whose replies were written by Morgan Phillips, chose only the questions which, in the words of Mr. Phillips, " are perhaps the most important from the point of view of readers of the JOURNAL.'

#### NATIONAL PLANNING

a. Are we planning sufficiently on a National basis?

b. Are policies of decentralisation working?

Bearing in mind that it is estimated that within five years, i.e. the date of the next General Election, there will be nearly twice as many motor cars on the road, what are

labour

No replies to (a) or (b).

(c) First, with regard to roads, your questionnaire states that within the next five years there will be nearly twice as many motor-cars on the road and this is quite possibly correct. This factor alone makes a complete mockery of the plan put forward by the present Government. Had it been determined solely by the need for better transport facilities, it could not have taken the form that it has. We are aware of the need for a road building programme to provide an economic road transport system for the nation. Indeed the Labour Government drew up a 10-year programme and we believe that it will be possible now to implement this plan.

(d) You ask whether we are satisfied with the Town and Country Planning Act of 1947. I am not sure whether you mean the whole Act or purely those parts of it which still remain in force. The Act, in its entirety, was an honest endeavour to deal with hundreds of problems. Local planning authorities were instructed to draw up complete land use plans for their areas. We believe that these are essential to ordered development and are rather disturbed at the length of time that is being taken by the MOHLG in approving the plans submitted to them. The Act also endeavoured to deal with the very serious problem of compensation and betterment. This section, as you are well aware, has been radically altered by the present government. It is quite possible that improvements were needed and a labour government would probably have amended some of the proposals in this part of the Act. We have, however, expressed very grave doubts as to the new proposals enacted by the present government. We feel, amongst other things, that by abolishing the £300 million fund and introducing a different method of compensation that too much planning power is left in the hands of the Treasury and this is liable to endanger the schemes drawn up by the local planning authorities.

(e) You refer to the scale of grants for comprehensive development schemes. I am afraid I am not in m position to go into detail in this matter. The replacement by a fixed scale of the previous adjustable rate may, of course, give considerable benefit to some areas, thus penalizing others, but experience will show whether or not the position is satisfactory.

(f) The adequacy or otherwise of these grants will probably have a wide effect on the proposals of local authorities to deal with central area reconstruction. Many towns appear to be making an exceptionally good job of this type of work; among these are Coventry and Plymouth.

your proposals for dealing with central area congestion, National road routes, etc.

d. Are you satisfied with the Planning Act, 1947?

Are grants for comprehensive development sufficient? Are you satisfied that local authorities are planning adequately to deal with central area reconstruction, green belts, industrial estates, new towns?

#### conservative

(a) Parliament decided, quite rightly we believe, that physical planning was to be carried out by democratically elected local authorities. (The only exception to this was the control of industrial location, entrusted to the Board of Trade.) We should not like to see the present framework disturbed without good cause. The machinery of appeals to the minister, and his power to confirm, reject or amend development plans does introduce scope for a general oversight of local authorities, and as the development plans are fully analysed the pattern of any national guidance that should be given to local planning authorities can be fully assessed. This analysis is still proceeding. Meanwhile the minister's action on subsidies for central area redevelopment and for "overspill" schemes and his action on green belts give an indication of what can be done within the present framework.

(b) The decentralization policy adopted in the 1947 Act was essentially a flexible one. It left much discretion to the counties. Of the sixty-one counties, as a matter of fact, only ten adopted a policy of centralization, and some of these are small authorities. All the other counties delegate or decentralize according to varying patterns. Size, population, rateable values and frequency of development vary so much that we feel the policy of trusting the planning authorities to work out their own patterns is the right policy. It is worth noting that now development plans are getting completed, some counties have given district councils more discretion to decide planning applications: decentralization may increase in future. (c) The amount of capital resources we can devote to roads and town improvements depends basically on the economic state of the nation. Of course our road pattern is out of date. Of course every post-war government has wanted to do as much as possible. All have had to cut their coat according to their cloth. The Conservative government is the first post-war government to have been able to launch a major road improvement and construction programme since the war. Expansion of the road programme will be possible.

(d) We did not pass the Town & Country Planning Act, 1947, but we have cleared up the mess made by parts VI and VII of this Act. Our general attitude to the Act is shown by our actions in office. We have left the remaining parts of the Act substantially untouched. They form an agreed code for the control of land use. The code has worked smoothly on the whole; but if changes of detail show themselves to be desirable in practice, there is no reason why Parliament should not pass amending legislation.

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(e) A new scale of grants for comprehensive development was introduced in the Conservative government's 1954 Planning Act. This scale was decided on after considerable discussion with the local authority representatives. It substitutes a flatrate 50 per cent. for the former variable scale and is in agreement with the views of the men who have to carry out the work of redevelopment. In special cases where commitments have been entered into, the old variable scales are to be continued.

(f) Development plans indicate a realistic approach to central

area redevelopment, with possibly an over-emphasis on laying out new industrial estates. Apart from London, green belt provision seems to have been lagging behind and Duncan Sandys, Minister of Housing and Local Government, recently called upon all planning authorities to think again about the provision of green belts. The firm statement he gave at the same time about grants towards "over-spill" schemes will help the decongestion of central areas. New Towns are not a local authority responsibility. They have made very satisfactory progress indeed under the Conservative government.

#### HOUSING

- a. We are producing over 300,000 houses a year but the number of State-subsidised houses is diminishing. Is the end of State housing (save for replacement of existing local authority houses) in sight?
- b. Is the rehabilitation of old houses best undertaken as a private or public responsibility?
- c. Should housing subsidies continue as they are or be reviewed?

#### labour

(a, b, c) You have submitted three questions on housing and I must say straight away that we are of the view that the field of public enterprise in housing should be considerably widened. In our election manifesto we propose that subsidies on the building of houses to let by local authorities should continue and that local authorities will be asked to submit schemes for gradually taking over and modernizing rent-controlled private property, subject to fair compensation. We can no longer tolerate the position where more than one-third of our population live in houses that lack elementary amenities such as a fixed bath or separate water closets. Many privatelyowned rented houses in this country will have to be demolished as they are unfit for human habitation. I note that in the Conservative Manifesto it is stated that a Tory government would aim to rehouse at least 200,000 people per year from slums. This means that only about 40,000 slum houses will be demolished each year, and it would appear that the Conservative Party are rather complacent. We shall know towards the end of this year, when the local authorities have completed their survey under the provisions of the Housing Repairs and Rents Act, 1954, exactly the size of this problem. Only then can we draw up a national plan for dealing with slum clearance. A Labour government would tackle this problem energetically.

Almost everybody is now agreed that slum clearance must be undertaken by the local authorities or it will not be done. We have the same attitude towards the improvement of property. In 1949 the Labour Government pased the Housing Act which made generous provision for grants to private landlords wishing to improve their property. A similar Act for Scotland was passed in 1950. Certain amendments have been made to this legislation by the present Government. Yet only about 16,000 landlords have taken advantage of this help. One must realize that when  $6\frac{1}{2}$  million households have no fixed bath of their own and over 3 mil-

lion share or are entirely without a water closet, the task of modernisation and improvement is completely outside the scope of private enterprise. The local authorities are the only bodies capable of doing this work within the foreseeable future.

As well as tackling the problem of slum clearance and improvement of houses we must of course carry out a mass of other building work and all possible steps must be taken to improve efficiency in the building industry by the provision of more modern equipment and, subject to agreement between both sides of the industry and to it being possible, the introduction of bonus schemes. An expanding and efficient building industry will of course require properly trained craftsmen and administrators and we would like to see greater provision for training employees in the building trade. But here again it is very largely a matter of negotiation and agreement between the Trade Unions and the Employers' Federations.

#### conservative

(a) There is little evidence to support the suggestion that the number of state-subsidized houses is diminishing. Indeed, in the last three-and-a-half years the government has provided 800,000 subsidized houses for letting. This is of course a record rate; and as many areas still have an acute housing shortage, it should be maintained. As you know, the Conservatives aim, under the slum clearance campaign, to re-house at least 200,000 slum-dwellers a year. Until local authorities are well advanced in their clearance programmes, it would clearly be premature to guess at the ultimate size of their re-housing commitments.

(b) Local authorities will need to modernize old houses which are their property. But the great bulk of out-of-date houses are in private hands. Under the Housing Act, 1949, and more especially under the Housing Repairs and Rents Act, 1954, private owners are given the opportunity and the encouragement to resume their proper economic function of keeping housing conditions up

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to date. The success of the 1954 Act is demonstrable: whereas grants for improvement and conversion were approved under the 1949 Act at the average rate of some 2,400 a year, about 8,000 were approved in the first four months after the passing of the 1954 Act. There are, of course, the two special functions—sanitary enforcement and the patching-up of slums pending demolition—which are a proper local authority

responsibility. But we regard the Socialist proposal to nationalize rented houses as extravagant, time-wasting, and unfair both to tenant and landlord.

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(c) We agree with the Labour Party that housing subsidies should be regularly reviewed under the Housing (Financial and Miscellaneous Provisions) Act, 1946. In accordance with existing practice, the next review will be held in June of this year.

#### HEALTH BUILDINGS

a. Do you feel that more money should be spent on hospitals, health centres, nursery schools, and old people's homes?

#### labour

No reply to this question

#### conservative

(a) The ability to spend more money on hospitals, health centres, nursery schools, old people's homes and other improvements to the social services depends directly on the economic conditions of the nation.

Under the Conservative government, which staved off the national bankruptcy for which the country was heading in 1951, prosperity has been restored, and priority needs are being properly met. Nursery Schools, of course, have to be considered by the Minister of Education in the light of all the other demands made on the school building programme. In the health service, record amounts of money have recently been devoted to meeting demands for development, and the first hospital building programme since the war was recently set in motion.

#### BUILDING DESIGN

- a. The design of buildings is now often under the control of a Planning Officer who has no architectural training. What are your views?
- b. Many of the new speculative housing estates are being built without the assistance of architects. Can, or should, anything be done to remedy this?
- c. Can you foresee a time when it would be statutorily required for all buildings to be designed by architects?

#### lahour

(a) Your questions about the architect's place in the building industry appear to suggest that the profession might welcome legislation providing that certain works must not be carried out unless under the supervision of architects. I do not wish to comment on this, but I would point out that whatever the qualifications of a local planning officer he is not the person who, in the first instance, draws up the plans submitted to a local authority.

(b) It would appear to me that it is primarily the responsibility of the profession itself to prove to those concerned in the erection of buildings of all kinds that the employment of an architect is in their own interests. I am sure your readers would agree that many of the building experiments encouraged during the period of office under a Labour Government prior to 1951 have been very beneficial to the whole building industry. I can assure you that as a Party we are concerned not only with what is going to take place within a particular building but also that the building should be designed in the best manner and that new ideas should be developed.

No reply to (c)

#### conservative

(a) It is agreed that planning officers should have a lively appreciation of architectural

values just as they must have a knowledge of e.g. economics and land values. This is a necessary part of their training. But it does not necessarily follow that they should have to study the same full formal course of training that is followed by a practising architect who will be responsible for producing or supervising the design of a building.

(b) In general, builders choose the type of designs which will attract buyers, both by their cost and their style. There is plenty of evidence that out-of-date and out-ofplace designs are adopted in some areas, and Conservatives yield to none in their anxiety to improve public standards of taste. While one can and should strive to raise standards of taste by education and example, one cannot do so by legislation or force. However, the Conservative Government deliberately introduced the scheme of "Housing Medals" for architectural merit, which are annually offered for competition by private developers. The early results show that this scheme, and no doubt other such methods of stimulating interest in good design, could have farreaching effects on the future of private building.

(c) You ask whether we can foresee a time when it would be statutorily required for all buildings to be designed by architects? This question relates partly to the previous one. As to the future, the crystal-gazers in Victoria Street and Old Queen Street have no secret advantage over those nearby in Queen Anne's Gate.

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#### MATERIALS

- a. Should any steps be taken to increase supplies and reduce costs?
- b. Are you satisfied that there are no price rings, monopolies or restrictive practices?

#### labour

No reply to (a)

(b) To ensure efficiency in the industry we will tackle any price rings or monopolies that exist. The recent experience of the LCC in receiving identical tenders from several different contractors for the erection of a steel frame for a building, seems to show signs of loopholes in the tendering system. The recent report of the Association of Municipal Corporations indicates that identical quotations are received by many local authorities for cement, metal windows and doors, pre-cast concrete woods and earthenware pipes. As we say in our Manifesto, we shall take firm action against monopolists which, through price fixing and restrictive practices, exploit the public.

#### conservative

(a) Should any steps be taken to increase supplies and reduce costs? The answer to this lies with the building materials industry itself. The runaway increase in costs after the war has been checked, and in some cases lowered, in recent years. The industry is already well aware of the need to try and re-

duce all prices. On production and output, the *Municipal Journal* of November 5, 1954, made the good point that the very substantial increases in work, which became available as a result of the end of licensing, "should give manufacturers the encouragement they lacked while licensing restrictions were being vigorously applied, to invest capital in the new plant needed to step up their output." It is only fair to point out that in recent years the output of bricks, cement, plasterboard, tiles, etc., have already risen to record post-war levels.

(b) The Conservative Government has already referred a wide variety of industries to the Monopolies Commission; Conservative policy is to obtain an impartial statement of the facts and their effect on the national interest, and then to take the action appropriate in each case. Following criticisms by the Commission, new trading arrangements have been adopted by suppliers of cast-iron rainwater goods, by traders in imported hardwood and softwood, and plywood etc.; and practices criticized by the Commission have been abandoned by suppliers of Insulated Electric-Wires and Cables, and by the London Builders Conference. In the vast majority of cases the reforms advocated by the Commission have been secured by voluntary action of the industries con-

# THE BUILDING INDUSTRY

- a. Have you any measures for promoting efficiency in the building industry?
- b. Do you agree with profitsharing or bonus schemes for increasing production?
- c. Has the building industry its correct place in the national scale of wage rates?
- d. Are you satisfied with the measures the building industry and the building professions are taking to ensure well-trained recruits?

#### labour

No reply to these questions

#### conservative

(a) We believe that in normal times the building industry holds the key to most of its own problems. It is not the government's business to tell the building industry and professions how to do their job. The loss of efficiency through the Socialist Government's interference was starkly revealed by the Girdwood Reports and the 1950 Report of the Working Party on Building. Within a policy of financial security, sound planning, full order books and professional confidence, the Government should help by co-operation and not compulsion. The Conservative Government, in helping the producers of New Tradition Houses to expand output, and in appointing the Bailey Committee on House Interiors, were only supplementing professional enterprise. The Building Research Station is doing admirable work; its tower-crane method alone promises striking economies in cost and time. There is no dearth of Official Reports, technical manuals or productivity reviews, to assist future progress.

(b) We wish to see proper rewards for extra skill, effort and responsibility. Where they are suitable and desired, co-partnership and profit-sharing schemes should certainly be encouraged. They give employees a stake in the prosperity of their firm.

(c) Has the building industry (you ask) its correct place in the National scale of wages rates? In this country, we believe in wages negotiations between both sides in industry.

(d) In the twentieth-century, it would be short-sighted to say that any industry or profession can ever be wholly satisfied with existing methods of technical education, or with the standard of recruits it gets. In a scientific revolution, the demand for quality must soar. There is no evidence that either the building industry or the building professions are complacent about their methods. But since the war considerable progress has been made in training methods, in adopting higher standards for positions of responsibility, and in raising the status of the building industry as a career. The Ministry of Education deliberately gave this industry a priority for the provision of local authority technical colleges during the period of financial stringency which affected further education generally, and further opportunities will be available under the government's schemes for higher technology.

## CHOOSE YOUR LEADERS: 2

As long ago as 1938 it was suggested at an RIBA annual meeting that the RIBA Journal should invite members nominated for the Council to say why they were standing for election and what they hoped to do if they were successful. Nothing ever came of that suggestion, and last year the JOURNAL editors, who thought it was time that members were given some idea of the views of the men they were voting for, gave space to nominees who had something to say. This vear we have asked nominees three questions on the matters of greatest importance to the profession at the moment. Not everyone wanted to reply to these questions (they are printed on the right). As will be seen in the list on page 672, some said they were "too busy," but some of these busy people also told us that they could not consider such questions until they knew the Council's views, and one nominee even said that he could not bring his mind to bear on them until (or unless) he got on to the Council. We leave it to readers to judge whether nominees can have any valid reasons for not putting their views before the electorate. And once again we ask the RIBA to take this annual task away from us. If nominees, were asked by the Institute to make their views public in the RIBA Journal, it is surely unlikely that they would evade their responsibilities. (N.B.) We have received only three replies from a privately nominated member to the questions we published in last week's JOURNAL presumably because we were unable to give reader-nominees enough time to prepare statements for this issue—the last before RIBA election day.

#### REPLIES FROM 12 (OUT OF 18) FELLOWS

Nominated by Council: HUBERT BENNETT, H. T. CADBURY-BROWN, HAROLD CONOLLY, F. G. FAIRHURST, S. VINCENT GOODMAN, A. DOUGLAS JONES, EDWARD MILLS, T. E. NORTH, F. J. ORMROD, C. G. STILLMAN, GORDON TAIT, H. MYLES WRIGHT

HUBERT BENNETT writes: 1. The RIBA would surely welcome any steps that could be taken to improve the position of the private architect, and the Council, Executive and the appropriate Committee would give most urgent attention to any recommendation in this direction. The RIBA Kalendar—pages 7 to 23 surely provides sufficient evidence that the RIBA does adequately represent architects in private practice.

2. The standard of professional services given by architects can only be increased by improvements in the training of architects, in their status and in their capacity to serve the public. The majority of the architectural profession today must be indebted to the RIBA for the powerful influence it has exercised in the past and which it will continue to exercise.

3. A survey of present conditions would be extremely valuable in that it would give the salaried architects in public and private offices and also principals in private practice, a great deal of information which is at present not available.

I am sure that an investigation of this nature would be of the greatest value.

H. T. CADBURY-BROWN 1. Improvement in the professional status of the architect is very necessary. This, I think, can best be achieved by the architect proving his indispensability to the community. This in turn can best be done through architecture, the medium of his profession. It might be assisted at some point later by legislation. If architects took more care over the architecture they produce their work would be more appreciated and their status improved. That architects don't take the trouble they should is very apparent and in the ensuing disappointment, felt perhaps by the more sensitive ones, it is only too easy to turn and scold the Royal Institute.

2. The RIBA depends on making the best use of its members' energies within a framework which is not too partisan either from the point of view of æsthetics or employment. This responsibility can, in defence of the "status quo," be easily over-emphasized. The danger is that the RIBA, in trying to represent all, may please no one. Groups within the Institute may have views perhaps strong and



1. Some architects in private practice have suggested that the RIBA does not adequately represent their interests. Could you outline what further steps the RIBA should take to reassure these architects?

2. Is the RIBA functioning satisfactorily as a learned society? What action could be taken to improve the standard of professional service given by architects to the public?

3. Some dissatisfaction has been expressed by salaried architects in public and private offices with their salaries, status and conditions of employment. It has been suggested that, before any action can be taken by the RIBA to remedy this, some investigation should be made into present conditions in order to: define the true responsibilities of an architect; discover the maximum amount of work which the individual architect can undertake while fully discharging his responsibilities as a professional man; and, to establish a fair range of remuneration for the fulfilment of the architect's task, irrespective of whether the architect is salaried or not. Do you agree that such an investigation is necessary? Have you any further or alternative proposals to make?

well formed which, because of this sense of responsibility, cannot adequately be expressed. Perhaps, therefore, more freedom might be given to these groups to work out their ideas within the organization, but recognizing the independence of their views as being particular to the group and not being part of the policy of the Institute. In this way it might be possible to draw attention to and publish views on controversial subjects such as the rebuilding in the city and thereby steal some of the thunder normally emanating from your own Journal. Meetings at the RIBA should be renowned for their colour and excitement. 3. The battle to be won concerns the status of the architect. He must prove his indispensability as much as a dentist or a fitter. Only to justify his existence by the production of cheap enclosed space quickly erected is to equate himself with the contractor who being without inhibitions is better at doing it. The rallying point is not centred on professionalism, unionism, status and "how much architecture can an architect control" (which resembles very closely an earlier theoretical discussion concerning the number of angles able to dance on the end of a pin). The rallying point is the Mistress Art herself.

H. CONOLLY writes: 1. I don't see why the RIBA and the Allied Societies cannot deal properly with all private

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I should not object to a special committee being set up within the Institute to consider special problems of the private man. No doubt the root of the matter is that the average member does not hear what is going on. Perhaps the answer is to tell him more-much more. Or even, why not let the Press report Council meetings? It is common practice in local government,

> and works well. 2. To the first part of your question-yes. Second Part: We might consider having more research and study groups; more papers on technical subjects of the Mills /Allen quality; more conferences such as the one on Health Buildings; fuller practice notes and information on job organization and contractural procedure. But members can help themselves a lot more than they do, by reading professional Journals like your own, and the RIBA Journal. The trouble is-so many

architects' problems as they arise. I should

have thought that the existing committee

structure at the RIBA was adequate. But

3. Your third question is a proper " teaser." And a tall order for somebody or other to do. I should say yes, because both fees and salaries have fallen behind the cost of modern living. Something certainly should be done. Our troubles largely revolve round the status of the architect in public esteem, which is admittedly too low. This affects both the private and salaried architect. The problem is to assess how far we can go in raising our status without damaging ourselves in other ways. In this sort of question the rewards of the profession as a whole need to be reviewed. Neither private practice nor salaried employment can be taken in isolation. In local government, at least, the pressing problem to my mind is the dwindling differential between the pay of the experienced and able senior man and the new graduate entrant to the service.

satisfied that the RIBA represents the interests of private architects in its present constitution and this is the body by which they should be represented. 2. The RIBA functions quite properly. as a learned society. The standard of professional service given by architects to the general public is entirely a matter of their own capacity and the improvement of this lies in the hands of the individuals concerned. The Institute watches all aspects of the profession by its committees and is there for assistance of all architects in matters of principle but does not concern itself with detailed inter-

P. G. FAIRHURST writes: 1. I am quite

3. I do not believe that the RIBA should partake in the functions of a trade union. There is existing machinery for all those who want to avail themselves of these facilities

S. VINCENT GOODMAN writes: You ask for brevity in reply to your questionnaire, and I can only invite a survey of the activities of the Royal Institute over past years, and a comparison of the status of the architect today with that of pre-war years.

The Institute can and will do more, as it shows no intention or desire to go into retirement. The last AGM was no place for a quiet snooze, and the health of private practice is the constant concern of all Council members alike. Definite proposals are afoot for further improvement of the status of the architect in practice as well as others concerning the salaried member. All that is required is the unified support of the Institute by its members.

A. DOUGLAS JONES: 1. Surely the Council has acted wisely in discouraging the formation of independent "interest groups," but to justify its action it must show its concern about the very real anxieties of some architects in private practice, if necessary by forming an effective representative committee. But, presumably, the interest and security of the private practitioner also depends on an attitude of mind and many members already recognize that they may have to concede some of their personal status as heads of firms and employ chartered architects on a "partnership basis," as an AJ correspondent suggested recently. This would have the effect of changing ... the unwieldy and impersonal architectural combines and return the architect to his true status of personal professional adviser to his client.'

2. There seem to be two separate questions here. In answer to the first, I would say that the RIBA functions very well as a learned society, that the standard of its speakers is often very high, and that the contents of the RIBA Journal are generally relevant and well-informed, and the issue for April of this year was, I thought, first-rate.

In regard to the second part of the question:-The schools and the profession are one and indivisible. If the architect's service to the public is inadequate, the long-term remedy lies in the standards of training which have improved steadily since the inception of the schools and which will go on improving.

3. What a vast omnibus question number 3 is. Of course it is the Council's job to investigate any problems that worry its members, though it is hard to see how it can reach useful decisions on the basis of the suggestions you have set out. The Council's decision about a trade union obviously came as a disappointment to

many salaried architects, including myself, yet I am sure the subject was investigated conscientiously, without prejudice and with the best legal advice. A Council ruling cannot solve the problem entirely: it cannot prescribe the head of a department relationship with his assistants. This is a field in which certain heads have had outstanding success in the share out of responsibilities and by organizing their architects as efficient and enthusiastic teams. The RIBA must try to strengthen the hand of these leaders and to show that it means what it says when it speaks of "continuing to explore the means whereby . . . etc."

EDWARD MILLS writes: 1. The RIBA Public Relations Committee is doing a good job in relation to the profession in general, but a bolder approach could be made in a campaign to achieve the employment of architects for a wider range of work which is still carried out by unqualified people. The profession still needs publicity, as a recent broadcast on the new London Airport showed, when, during a long discussion on the new buildings, the architect's name was not mentioned once.

2. The interest of the profession in discussion amongst members on matters of current practice and experience was shown at the RIBA Torquay Conference, and this interest has been further revealed in recent symposiums organized by the Institute. With the development of new techniques and new architectural problems, this method of general discussion and exchange of ideas amongst architects should be fostered and will take the place of some of the more formal lectures given at the Institute.

3. Investigation is certainly necessary into the organization of both private and public offices, particularly in view of the large amount of work on which some firms are now engaged, and the increasing difficulty in obtaining adequate welltrained staff. This question is linked with the problem of architectural education and the training of assistants, and their status in both public and private offices. If the present boom in building continues without some consideration of this problem, there will be a general lowering of the standard of the services rendered to the public by the profession.

T. E. NORTH writes: 1. My immediate reaction to the first question was "How does one convince those who will not be convinced?" But perhaps I have misread the question, and would therefore say that if some members feel that their interests are not adequately safeguarded, their remedy lies in making known their grievances to the RIBA Council-and suggested remedies-to enable the appro-

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2. The more frequent engagement of eminent persons to give papers which would stimulate thought for the future should prove beneficial to architects and the public.

3. In my opinion, investigation into the maximum amount of work which the individual architect can undertake will prove nothing. The professional status and consequential remuneration must be viewed from a much broader angle, with every member playing his part in good public relationship. We must combat the public point of view, so frequently held, that architects' fees are an extravagance, by demonstrating conclusively that capital for building work is wisely invested only when entrusted to the hands of architects.

Finally, I cannot understand the constant reference to the RIBA as a body divorced from its members.

F. J. M. ORMROD writes: 1. I'think this feeling among some of the private practising architects arises from the activity and consideration which has lately been given to points raised by the official and salaried members through their appropriate committee. Many architects in private practice feel aggrieved that there is not an equivalent committee to represent their views but I, personally, am not in favour of forming such a committee for I feel this would only aggravate any danger of a split in the profession. The answer, I think, lies in the proper representation on Council and on appropriate committees, such as the practise committee and the support of the RIBA to the local societies to endeavour to persuade these aggrieved members to work with and through the societies.

2. I would say the RIBA is functioning satisfactorily as a learned society. Indeed, it would appear that many members feel it is functioning too satisfactorily in that direction and desire additional attention to be given to more mundane matters! The ultimate action to ensure an improved standard of professional service for the public, surely lies in making obligatory, the use of registered architects for the preparation of all plans. This should be the aim in view, difficult and long though the process undoubtedly will be, with all that it entails in establishing a proper professional competence and integrity.

3. I cannot understand what is further required beyond the ARCUK and RIBA definitions of responsibility. Neither can I understand how the "maximum amount of work, etc." can be discovered. Does this envisage establishing a limit of numbers for an architect's office and how would this operate, particularly in respect of Official Depart-

ments? I am certainly in favour of a fair monetary reward for labour and this even more certainly ought to apply to all architects, and here I would reiterate that I am of the opinion that the unity of the profession is a first consideration and distinction between members is most harmful.

C. G. STILLMAN writes: The particular aim of the profession (which includes architects in both private and public practice) is to establish, as early as possible, conditions whereby all buildings are designed by architects—either by accepted cusom or by amendment to the Registration Act. This aim can be achieved only by the support of public opinion, and we all know that public apathy and lack of interest is the main problem.

This is not surprising when so little is done to stimulate popular recognition of the architect's place in society. If we are to change this state of mind, the claims of architects must be given wider publicity. In other words, not only must the substance of the claims exist by virtue of the standard of professional service given, but it must be seen to exist.

I do not think, therefore, that an immediate solution can be found in the use of trade union methods, or by forming new organisations. I think the short answer is greater unity and organised effort in presenting architecture to the public. We must accept and adopt the old truism "it pays to advertise," and the implementation of this should become a major duty of the RIBA to its members, and more than ever the Institute's primary function.

Undoubtedly, the Institute should devote its further attention to the training of entrants to the profession with a view to improving the standard of professional service, and also continue its investigations into the conditions of employment most likely to produce the best architecture.

GORDON TAIT writes: As always, I find myself in difficulties when it comes to answering questionnaires, and I will not attempt to answer all your queries specifically; rather I would content myself with more general observations, as I find it difficult to make any constructive criticism without any experience of the inner workings of the RIBA.

1. However, regarding your first point, I think it should be realized that a fundamental change has taken place in our profession since the war which has considerably altered the situation so far as architects in private practice are concerned. This section has become a minority by virtue of the architectural offices which have been set up by various

commercial firms and local authorities. I do not think we can object to this in principle, although it may not produce the best architecture; but I am sure all architects resent the tendency of engineers, contractors, estate agents, survevors and so on undertaking work which should have been carried out by an architect. On the other hand, the unfortunate architect is forbidden by the RIBA from taking reciprocal action and embarking upon engineering, building and the sale of property, and is denied the financial benefits which a company can enjoy. The only suggestion I can make is that the RIBA should take action to prevent the aforementioned operators poaching on the architect's preserves!

2. In reply to point No. 2, the question of the RIBA functioning as a learned society must be rather negatived by the preponderance of salaried members in the profession, as I do not think the salaried architect's interests are best represented by a learned society. The increasing minority of private architects hardly justifies the continuance of an institution whose function is purely academic.

3. I have no doubt that dissatisfaction will always be expressed with salaried status and conditions of any employment. The education which an architect receives is directed to the creation of a potential private practitioner, and it must be particularly disappointing for a qualified man to find himself doomed to a lifetime of salaried subservience. Your reference to the maximum amount of work which can be undertaken by an individual architect does not take into account the fact that in many cases today there are architects who function as a firm, and not as individual architects. It is quite possible for a considerable number of individuals to function within the firm and I do not see any limit to the amount of work which such a firm can undertake. I feel that the RIBA scale of charges is inflexible and could, with advantage, be graded to meet different types of buildings and sizes of contracts.

H. MYLES WRIGHT writes: All three questions are very difficult to answer shortly, the more so as it seems to me that each may be read with more than one meaning. My answers are:

1. I have no personal knowledge of these complaints. The RIBA has to stand for the raising of the standard of design of all buildings and must leave it to the client to decide between the private architect and the establishment of a salaried staff. The most reassuring thing the RIBA could do at present would be to try to prevent the building of any house which has not been competently designed and laid out. They should

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2. The title of architect has been protected for 17 years and it is therefore disappointing to find that stories are still common of architects providing contractors with inadequate drawings and instructions. If these stories are true the Professional Conduct Committee could remind us all of our duties and then, if need be, take other steps.

3. I do not think the proposed investigation would tell us anything except that people's abilities and temperaments differ vastly and clash sharply and that those who have less often want more. The aim of every office has to be to get the jobs, to get them at the right time, and to carry them out without becoming bankrupt. The public office has an advantage over the private office in that the jobs are obtained easily and their rate of arrival may sometimes be regulated better. Both face the difficulty that good work costs a lot, and repetitive, half-standardised work can be done cheaply. I do not see how any scheme of pay, conditions, and status for salaried architects could be devised to be suitable for all offices.

things about all of these, and can do more. It should not, of course, bother to reassure people who are going to be dissatisfied whatever happens.

2. The learned society can only do more with more support. Much more is now being done than formerly for public relations. Here architects must face the consequences of more publicity and must be less narrowly professional about articles and talks by named architects in the Press and on the BBC.

3. Such an investigation would be useful so far as responsibility, salaries and conditions are concerned, but (a) it must consider the profession as a whole and do nothing to encourage differences between private and public practitioners, and (b) it is probably impossible to say how much one man can properly take on, because some can do easily ten times as much as others.

L. HUGH WILSON writes: 1. I think it would be useful for the RIBA to review the scope and activities of the various committees to ensure that the particular interests of private architects are adequately represented but I consider that the setting-up of a new committee should be avoided if possible. It is important to bear in mind that all members are working in the best interests of architecture and everything should be done to avoid divisions in the profession between private and official architects. In point of fact, private architects have always had a majority in the RIBA Council.

2. There is considerable scope for the RIBA to improve the knowledge of the members. Advances in technology are so rapid that there is a great need for the dissemination of research material to the profession perhaps on the lines instituted by the Ministry of Education. I think that consideration should also be given to the provision of refresher courses for architects, possibly run on a regional basis through the organization of the Allied Societies.

To increase the influence of the profession it is essential that all architects should provide first class service to the public and for this purpose the small office should have the same facilities to keep up to date as the large office with a more or less permanent research team. I believe that the RIBA could play a vital part in this matter.

Yes. I believe such an investigation is. necessary and should include some consideration of the structure of the individual office.

J. L. WOMERSLEY writes: 1. So far as provincial architects are concerned the Allied Societies provide the machinery whereby any member of the Institute may openly record his views on the

Nominated by Members: ERIC LYONS. (See also page 672):

ERIC LYONS writes: I have found it difficult to answer separately the three questions, as many of the answers overlap. So much can be summed up as evidence of the low status of the architect in this country; certainly the fact that the questions have been asked at all, is a criticism of the RIBA. The biggest criticism among my friends is that the Institute is remote from our problems, and while this may be unfair, blame must be attributed to both sides. However, if these vital matters are not openly discussed there is bound to be an increase in the cynicism with which many of the RIBA activities are regarded.

1. This criticism of the RIBA may be unfair, but the Institute should explain such matters as whether or not the RIBA can influence the distribution of work in

private offices; or whether it believes that something ought to be done with the competitive system, and so on. I think that a junior organization should be investigated, and all possible methods of ensuring closer contact between members and the Institute.

2. We can improve the standard of professional service when we establish high architectural standards and improve the architect's status. This will allow us greater influence on affairs and give to the architect his proper responsibilities.

3. Such an investigation is long overdue. The profession must be "up-graded." I voted for the motion at the AGM because I feel that this may be an important step in the process of improving the status as well as the remuneration of the profession.

#### REPLIES FROM 4 (OUT OF 7) ASSOCIATES

Nominated by Council: R. LLEWELYN DAVIES, PETER SHEPHEARD, L. HUGH WILSON, J. L. WOMERSLEY

RICHARD LLEWELYN DAVIES writes: The Architects' Journal's three questions are all inter-connected and question 2 is the key one. The historic rôle of the RIBA has been to improve the standard of professional service given by architects to the public, and it is only by continuing on this path that it can, in the long run, further the interests of both private and salaried architects. The RIBA should not undertake any action which drives a wedge between the private practising and the salaried architects. It must continue, as it always has done, to represent the profession as a whole.

As a profession, I do not think we yet enjoy as much public confidence as we should, and I think the main rôle of the RIBA is to rectify this position. Perhaps the most important step is to work for improved professional training, which should include facilities for post-graduate teaching and research, such as are avail-

able in almost every other profession. In answer to question 3, I doubt whether it would be possible to design any investigation which would define the true responsibilities of architects. I think it would be impossible, and indeed undesirable, to try to establish architects' salaries by discovering the maximum amount of work which they can undertake by time and motion studies at the drawing board.

PETER SHEPHEARD writes: 1. Architects are much too dissatisfied: in fact, whether in private or public work, they have not had it better for nearly fifty

Things needing solution: (a) Income tax, which prevents building up reserves for office use. (b) Distribution of work: too many jobs to too few firms. (c) The paltry scale of fees for state-aided houses, which keeps many architects out of their most fundamental jobs. The RIBA is doing

2. The standard of service given by architects to the public is all-important as on it depends the extent of the future use of architects. At present, complaints from dissatisfied clients to the RIBA show that the standard is not good enough, and that it is the practical side, rather than the aesthetic side, which is at fault. The solution lies in better train-

ing and the "McMorran" Report points the way. Too many teachers have too little practical experience and some never move from the School in which they themselves were trained. This must be changed as quickly as possible.

3. As no two architects have the same capacity, I would deprecate any investigation designed to provide standard strait-jackets for a profession which is already sufficiently restricted in designing to build to a price.

I think all architects should have representation on one side or another of a negotiating body empowered to prescribe remuneration and conditions, in their particular sphere.

The report of the Salaried & Official Architects Committee provides an excellent survey and starting-off point from which to give further study to a problem which is far more complex than some people seem to think.

Just before going to Press we have received the following replies from privately-nominated candidates:

MARK HARTLAND THOMAS (F) writes: Your first and third questions remind us that private practitioners and salaried members, principals and assistants, have all recently expressed dissatisfaction with their lot. I am in favour of means being found to strengthen the bargaining powers of the whole profession and I believe your second question about improving the service that we give to the public points to one of the best ways of doing this. One improvement, in particular, is imperative at the present time—to become more closely associated with the manufacturing and contracting sides of the industry.

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GEORGE I. FAIRWEATHER (F) writes: 1. The RIBA might hold an annual exhibition of members' works along the lines of the Royal Academy Exhibition. If architects in private practice are making a more worthy contribution than their fellow members conducting practices under the control of government departments and local authorities, their interests will be well represented in such an exhibition.

2. I don't know whether the RIBA is functioning satisfactorily as a learned society or not, but I think the RIBA could help members to improve the standard of professional service given by architects to the public by appointing a committee to investigate the ways and means of architectural practice with a view to publishing a report.

3. I think that the kind of enquiry de-

3. I think that the kind of enquiry described in this question will do very little if anything to relieve the dissatisfaction that has been expressed by salaried architects. I think that the results of the enquiry I have suggested in answer to question two will throw some useful light on the problems from which this dissatisfaction springs.

R. W. TOMS (L) writes: 1 (a). By raising the status of the profession as a whole, the prospects of all architects would be improved, private architects included. (b) The RIBA should set up a negotiating council representing private practising members on the one hand and the "sponsored" union representing their staffs on the other, to regulate salaries and conditions of work in private practice.

tions of work in private practice.

2. The present "third programme" approach of the RIBA is outdated. Architects today must be building for all sections of the public and the annual conference, for example, should play the same role as the annual meeting of the British Association instead of appearing to be a little more than expensive junketing for those who can afford to go.

3. There can be no doubt that salaried members want the RIBA to bring forward "fresh and definite proposals" (in the words of the resolution passed by the AGM of the Institute). On the question of a single body sponsored by the RIBA to negotiate for them. While the proposed investigation would be valuable it must not involve deferring positive action—especially as some of the matters proposed to be investigated would be the duty of the negotiating body itself.

#### REPLY FROM 1 (OUT OF 2) LICENTIATES

Nominated by Council: W. NORMAN OLIVER

W. NORMANOLIVER writes: 1. I feel the Institute should give much greater consideration to the problems confronting the architect in private practice. This can be achieved if all architects will avail themselves of the machinery which already exists, namely by joining the Allied Societies of their own area, by which means their grievances and local problems can be brought before the Institute by their elected representatives. It is essential for the RIBA to continually bring before the public, through the Press, Radio, TV, and a large increase in exhibitions of his work, the numerous ways in which the architect serves his clients interests. The number of unqualified "pirates" poaching the work of qualified architects in private practice, particularly in the provinces, is growing daily and becoming a matter of much concern. If elected, I am determined to

constantly press the Institute to take every opportunity to bring about legislation to ensure that all plans deposited with local authorities for approval should be the work of and signed by a registered architect.

2. I consider that, generally speaking, the services given to clients by the profession are of a high standard.

3. This matter was strongly put forward at the annual general meeting of the Institute recently. If, in addition, architects will avail themselves of the machinery I have mentioned above, the Institute must, of necessity, undertake to give every constructive suggestion very full and careful consideration. The difficulties which are inherent in this problem can be successfully solved, but not by the present tendency to form "splinter" societies, which tend to weaken representation and create disunity.

#### 9 NOMINEES WHO WOULD NOT REPLY

Nine nominees did not want to reply to our questions: they were A. R. F. ANDERSON (F); J. T. CASTLE (A), who asked us to say he was "too busy to give a considered opinion in the short time available ", E. MAXWELL FRY (F); A. E. GEENS (F)—"should I be elected to the Council I would prefer to hear the views of the Council before making any comments"; T. MELLOR (A), who "would certainly want to know more about the detail work of the RIBA and about the views of different sections of the profession before coming to any

decision"; S. R. PIERCE (F); NORMAN THOMAS (A), who does "not consider that it should be either necessary or desirable in a Professional Institute to publish the views of candidates for election to Council in one particular, or—for that matter—any technical journal"; F. R. S. YORKE (F), "too busy", and S. L. WHITEHOUSE (L) also "too busy."

J. MURRAY EASTON (F) is not in the country, and has not received the JOURNAL'S questions.



This is the sixth article by the JOURNAL Guest Editors (Costs) for 1955: (N. Stanley Farrow, M.I.O.B.; A. W. Cleeve Barr, A.R.I.B.A.; James Nisbet, A.R.I.C.S.; Ivan Tomlin, A.I.B.E.; E. F. L. Brech, B.A., B.Sc. (Econ.) M.I.I.A.). It begins a second group of articles which will deal with the contribution to control of cost that can be made by the architect, the quantity surveyor and the builder. First, the architect's contribution.

## ARCHITECTS' CONTROL OF COST

In our first two articles, the "Office Building" story, we presented an imaginary case history, illustrating, in slight caricature, the symptoms of the cost problem that occur in day-to-day work. In our fourth article, "Why Building Costs" we examined the problem as we see it, comprehensively, showing it to have a complex form, each figure involved, whether architect, builder, quantity surveyor or specialist, depending in many essentials on all the others. But for a closer look at the problem, we must take each figure separately—to study his work and to consider ways in which his contribution might be improved. In this, our first article of this more detailed study, we consider the architect. To provide basic information we asked four private architects to tell us how they run their practices, and what problems and possibilities they think call for attention.

The results of this inquiry are presented below, under headings representing the main aspects of an architect's work. This forms the ground-work for our next article, in which we put forward our own ideas and conclusions.

We analyse the practices of private architects partly because the problems discussed are, in general, more acute for them than for the official or staff architect. The latter is in a different economic situation, and his relationship to his client permits, among other things, long-term programming of the flow of work. For administrative convenience London architects were chosen, but we would be glad to hear from others whose methods and practices, relative to the cost problem, might be of interest.

We would like to thank the four architects named below, for their interest and co-operation in compiling this account.

#### NORMAN & DAWBARN

#### TYPE OF PRACTICE

Staff (including office in Jamaica): 9 Partners and Associates, 50 Architects, 30 Engineers (civil, structural, electrical, plumbing), one librarian in charge of the Information Section, 4 accounting staff, 3 secretaries and 15 typists/clerks. The office works a 5-day week, 3 weeks holiday, salaries are in accordance with those recommended by the RIBA and ABT. Bonuses are paid if possible and luncheon vouchers provided at present. There is a pension scheme for "permanent" staff.

Work done: About 100 jobs in progress. They cover most types of building and vary in cost from several millions to under £5,000.

#### OFFICE ORGANIZATION AND CLIENT'S BRIEF

Organization: The office management and job programming sections of the office are dealt with at regular monthly meetings attended by some or all of the partners and associates depending on the agenda. Matters of policy are initiated or confirmed at partners meetings.

Jobs are divided into groups with a senior member of the staff in charge. On a large job a group contains architects, engineers and probably a services co-ordinator. On the other hand the group leader might have several jobs under his care with a "job runner" for each. The "job runner" would have his own team of architects and be advised by the engineers and other specialists. The occasion also occurs when a job is predominantly an engineering problem, in which case the architect advises the engineer. Outline programmes are prepared at the briefing stages of all jobs, mainly to inform the client how long he has to agree a sketch plan. As soon as the sketch scheme is approved a more accurate programme is then made for preparing working drawings, obtaining the necessary approvals, preparing the bills of quantities and obtaining tenders. Regular progress meetings are held on each job.

Office records (technical) are the responsibility of the librarian and include journals, catalogues, samples, reference books, record drawings (micro film), slide library, contractor and sub-contractor

lists, reports and price lists,

Brief: Norman & Dawbarn do not expect a complete brief from a client; they find that instructions can vary from a full list of requirements to "design me a soap factory." They compile a really complete schedule of conditions in collaboration with the client and any specialist consultants needed. They think that the number of changes made during the later stages of a job are often the result of a poor brief, and they try not to start any job until the brief is reasonably complete.

Norman & Dawbarn cannot estimate the time necessary to prepare this brief but since the client usually has a completion date in mind they can roughly estimate the time the client has to make up his mind exactly what is wanted.

#### SKETCH DESIGN AND COST INVESTIGATION

The quantity surveyor is brought in at the beginning. In many cases, particularly with local authorities, the quantity surveyor has already been appointed when the architect receives his instructions to prepare sketch designs. Norman & Dawbarn do not employ their own quantity surveyors, but they have long associations with certain firms who do have their own systems of cost analysis. As a firm of architect/engineers, they investigate the structural alternatives and possibilities fully at the inception of the design, this being one of the purposes of this type of office. Approximate estimates are made when the briefing and sketch schemes are complete, and a check is made when the working drawings are nearly ready for billing.

## WORKING DRAWINGS, SPECIFICATIONS AND BILLS OF QUANTITIES

Norman and Dawbarn believe in co-ordination of all the technicians necessary for the job from the earliest possible moment. This presupposes that a contractor should be nominated without competitive tendering, but they are not convinced that there is yet sufficient control over building rates for this to be reasonably recommended to the majority of clients. Competitive tendering thus remains an important part of the procedure. Norman &

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Dawbarn write their own specifications and consider them an integral part of the drawings from which Bills are made and priced, and from which the building is erected. Both drawings and specification and most of the sub-contractor details have therefore to be completed before the building starts, and this they usually achieve. They find that constructional economies striven for on the drawing board are very rarely reflected in builders' tenders, and thus savings normally accrue to the contractor rather than the client. This difficulty relates to the problems of pre-contract collaboration and nomination of a selected contractor. Solution of the problem would depend to some extent on the continuity of one type of building in the flow of office work.

Cost Analysis: Likewise, they think that the MOE type of cost analysis can only be applied where a number of buildings of the same type are passing through the office. Runs of similar jobs do occur, but after sufficient analyses to be useful have been made, it is quite likely that the particular type of building would not occur in the office again for some years. A high proportion of their work consists of single buildings, many of them original in purpose. They believe, however, that every quantity surveyor should keep a proper cost analysis of all his jobs which should be used in the planning stages. They find that full analyses are not common practice among surveyors; what is done is less detailed than those published in the JOURNAL. Norman & Dawbarn do not keep their own cost analysis but consider that their preparation and use is one of the most important functions of a quantity surveyor.

#### SUB-CONTRACTORS, SUPPLIERS AND CONSULTANTS

A large proportion of the specialist design work is done within the firm, especially in the case of waste and water services, electrical installation and structural engineering. Norman & Dawbarn believe that the division of specialists into separate organizations is detrimental to the standard of advice offered to clients. They do not encourage the use of contractors as consultants, but if this method has ever to be adopted a fee should be paid for the design advice with no obligation attached to it. They recognize that this practice does, at present, fulfil a need but they are doubtful whether it would be a move in the right direction if ultimately adopted. Norman & Dawbarn try to reduce the number of nominated subcontractors to a minimum.

#### CONTRACT OPERATIONS

Supervision: Norman & Dawbarn think that the standard of supervision required today is not what is described in the RIBA scale of professional charges. This, they feel, represents the practice of the inter-war period. Modern construction calls for closer collaboration between the contractor and the designer at least during construction and this should earn a higher fee. Regular site meetings are held on all jobs, as a continuation of the pre-contract progress meetings.

Clerks of Works: It is difficult to find a clerk of works who can cope as efficiently with this stage of the work as a member of the consultant's staff and thus for the larger jobs Norman & Dawbarn favour the resident architect or engineer. The problem is even more difficult for the small jobs which need the same standard of supervisory skill, a standard which can hardly be expected of a junior clerk of works.

Progress Charts: Norman & Dawbarn consider these particularly important. They call them programme charts and progress can be recorded on them for comparison. They do not favour the usual sheet which shows when the contractor proposes to start and finish the various trades; but a more complete guide to the dates when drawings must be given to the contractor, when drawings for specialist work and shop drawings are approved and checked, when orders are placed and the delivery dates (on site) and also the building time. Placing of orders before the contract date is dealt with during the working drawing period. The target is to have this chart complete at the time or very soon after the contract is signed. If possible it should be a condition of the contract that the contractor supplies his part of this information at the start of the job.

Some of the forms used by Norman and Dawbarn for job administration, on different coloured papers for easy identification. There are a number of copies of each, marked for, and sent to the relevant people.

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		of all on amandment to clock	ical									, ,						and letter 12.7

<sup>&</sup>quot;Dummy" financial statement taken from Messrs. Norman and Dawbarn's office administration "bible." The form is filled in as jobs progress.

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Bill Foge	Cornodity	Source of Supply	-	Tate Ordered	lelivered	lete lequired	e arks	
3	Teleprone	Telephone Co.	*	-/1/54	-/2/54			
£	Temporary water	Nater Eng.		22/12/53	23/12/53			
3	Intrinos	Site Stock		1/4/54	10/4/54			
8/21	Denolition	Part by H. & H.		3/12/53				
2€	Hardcore	From Desclition			-		}	
28 -	Coment	local purchase	-1				To be requisitioned	
28	Aggregates	Local purchase	1	- 5			by site.	
28	Sand	local purchase	1				5	
49	Plexuell 2"	Crown Torks	18	31/12/53		,		
49	Mastic	Grown Works	18	31/12/53				
50	Seelsatic	Crown Works	18	31/12/53			i.	
50	Pliastic	Crown Works	16	31/12/53				
51	Copper Exp. Joint	Crown Works	11	22/12/53				
51	2-Ply Roofing Felt	Crown Works	11	22/12/53			*	
54	Reinforcing Steel	Part on Site					850 tons on site - res te be ordered locally.	
59/62	P.C. Concrete	Site Mig.	-	Site				

Portion of a schedule of materials requirements with planned dates for orders and instructions. Schedules of this kind are submitted by the contractor and subcontractors and are used to compile a programme schedule for the whole job.

#### YORKE, ROSENBERG AND MARDALL

#### TYPE OF PRACTICE

Staff: Each of three partners has own staff, jobs being apportioned among partners according to circumstances, type of work, etc. Yorke's section for instance has about 18 assistants, each of whom, except for juniors, has charge of one job or more, with overlapping. There are no specialists on the staff.

Work done: Hospitals, housing, commercial and industrial buildings and a large number of schools,

#### OFFICE ORGANIZATION AND CLIENT'S BRIEF

Organization: Yorke, Rosenberg and Mardall often use a questionnaire, specially drawn up for each job, except for local authority work where the briefs are usually comprehensive. The office work for each job is programmed back from a job starting date

AMSWERS Gas Supply 1. Will gas be required? Yes. 2. Position and size of existing supply. On drawings. Main supply in boiler house. Position and size of street main. 4. Hame and address of supply undertaking. Southern Gas Board. Local Authority Home and address of Local Authority, and name of Surveyor or Engineer. Wokingham Borough, Mr. Pressey. Industrial Development Certificate for 20,000 sq.ft. None required under 5,000 sq.ft. 2. What existing approvels granted. 3. To what authorities have plans to be submitted. Local Authority. POINTS FOR DISCUSSION Structurel 1. Floor leadings. Type of structure to give flexibility of planning. 3. Structure for staging. Planning 1. Degree of flexibility against cost. Type of partition 3. Twoe of ceilings 4. Type of heating ) 5. Type of lighting 6. Type of floors 1. Staff and wisiters to be separeted?

agreed with the client, dates for the various stages being decided-tendering date, working drawings complete, drawings to q.s., getting local authority consents and so on. There is no standard form for their programmes—they are worked out separately for each job. The dates actually achieved and other information is entered on job history sheets, of three pages, one for sketch design stage, one for working drawings stage and the third for the contract period. In local authority work job programming is geared to their client's committee meeting dates, so that decisions required and reports to be made can be prepared for in good time.

Brief: Messrs. Y., R. and M. tell us that they find the briefing problem easier where the authority is a large one, where an administrative official deals with it and where the building in question is a well-established type. For example, the hospital and technical college are not nearly such well-explored problems as primary schools. The brief takes longer to draw up and the architects have to enter more into its working out. This they do in any case with private clients. For factories they will, in appropriate cases, re-state the original requirements handed to them, incorporating their own ideas in the form of a "flow diagram." Clients by no means always expect this kind of positive contribution. They often come with the idea that the building is provided first, and the method of using it is worked out afterwards.

#### SKETCH DESIGN AND COST INVESTIGATION

The policy of Y., R. and M. is to get the quantity surveyor appointed before the sketch design is begun. The significant thing here is the long association they have had with the quantity surveyors they employ, over a number of years. Thus the surveyors are not only familiar with their approach and methods but have access to the cost records of previous jobs. In general this firm rely on "experienced intuition" in detailing and in the choice of materials. But in special cases, such as the consideration of a new method of external walling or roof structure, their surveyors will make comparative analyses of the cost of alternatives. Approximate estimates are always done by the quantity surveyors.

### $\begin{tabular}{ll} WORKING DRAWINGS, SPECIFICATION AND BILLS OF \\ QUANTITIES \end{tabular}$

Y., R. and M. try, and mostly succeed, they say, in completing all drawings before going to tender. For added clarity in instructions they make extensive use of schedules—of ironmongery, of doors, of finishes, windows, and so on. This saves time searching through the bill for such items, and it makes variations easier to record.

Left: extract from  $\[mu]$  questionnaire used in compiling the client's brief. Below:  $\[mu]$  job history sheet.

			RY SHEET	_				
	J	OB RE	FERENCE:					
T	INSTRUCTIONS RECEIVED							
2	QUESTIONNAIRE SUBMITTED:							
3	SITE PLAN ASKED FOR:							
4	PRELIMINARY SKETCHES TO CLIENT	SUGMITTED						
_	PRELIMINARY APPLICATION FOR	APPLICATIO	N TO					
5	LICENCE OR APPROVAL IN PRINCIPLE	SUBMITTED						
_		APPROVED						
-		ASKED FOR	1					
6	DETAIL SURVEY AND LEVELS	RECEIVED						
	SKETCH PLANS AND ELEVATIONS SUE		-					
	A CLEMT		N PRINCIPLE					
	8 LOCAL AUTHORITY		APPROVED					
7	C FIRE REGULATIONS APPROVED							
	B TOWN AND COUNTRY PLANNING APPROVED							
			PRELIMINARYPLAN	SCHEME				
	CONSULTANTS :	PMANE	TO COMBULTANTS					
	HEATING							
8	LIGHTING	-						
0	PLUMBING							
	DRAWAGE							
	STRUCTURAL							
9	DRAMAGE PLANS TO LOCAL AUTHORITIS SUBMITTED APPE	ES HOVED						
10	PRELIMINARY PLANS TO Q.S. FOR CUBING							
	ESTIMATES RECEIVED	DATE	T	REMARK				
	A . BUILDING			-				
	8. HEATING							
	C. LIGHTING							
11	D. PLUMSING							
**	E DRAMAGE							
	F. EXTERNAL WORKS		-					
	TOTAL							
12	ESTIMATES TO CLIENT		APPROVED					

			REFERE	
13	BUILDING LICENCE APPL	JED POR		EIVED :
14	DETAILED LAYOUTS	SUBMITTED		
15	WORKING DRAWINGS	COMMENCED		
16	COPY OF NECESSARY WAS A MEATING B LIGHTING C SERVICES D DRAINAGE	FORKING DRAWINGS TO	COMBULTANTS -	
17	TRIAL HOLES REQUEST	ED	REPORT REC	EIVEO
18	WORKING DRAWNINGS TO	QUANTITY SURVEYOR		
19	SPECIFICATION HOTES A	HD SCHEDULES TO QUAN	TITY SURVEYOR	
20	BILLS OF QUANTITIES R	ECEIVED		
21	TEHDERS MYITED		RECEIVED	
22	TENDERS REPORTED		APPROVED	
	LOWEST OR ACCEPTED TENDERS	NAME		COMPLETED COS
	A. BUILDING			
	8 HEATING			
	C. LIGHTING			
23	D. PLUMBING			
	E DRAINAGE			
	F EXTERNAL WORKS			-
		TOTAL		
24	FINAL APPROVAL AND	AUTHORITY TO PROCE	tep	
25	APPLICATION FOR MA	ATERIAL S		
26	MAIN CONTRACT SIGN			

		JOB REFERENCE:
27	WORK STARTED	• • •
28	CLERK OF WORKS APPOINTED	hant
29	CONTRACT COMPLETION DATE	ACTUAL DATE
30	MAINTENANCE PERIOD	RMAC CERTIFICATE
31	RECORD CRAFFINGS SENT TO CLIENT	\$
32	JOB COMPLETED AND DRAWINGS FO	LEO
		PER SQUARE FOOT
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	C AREA PRICE	PER SQUARE FOOT
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4) 2

C. S. MARDALL ARIBA P. R. S. VORKE PARA E. ROSENBERG PALEA 2 HYDE PARK PLACE W 2 CONTRACTOR VARIATION ORDER No. CONTRACT SUM REASON FOR VARIATION DATE DESCRIPTION f ace available from contingencies and savings on P.C. and provisional sums etc Estimated effect of this order on the above balance Extra (subtract) . MOMINATED SUPPLIERS\* FORM OF TRIDER. To:- Messrs. Torke, Rosenborg & Mardall, 2 Hyde Park Place, London, W. Z. Date ..... quired for ..... Delivery. Notwithstanding any condition attached to the quotation, the prices Include for delivery to the site unless otherwise stated hereunder-Cash Discount. Motwithstanding any condition attached to the quotation, we have allowed for the payment of a cash discount of 5% to the principal Contractor, subject to our receiving payment within 30 days of the end of the month during which delivery is made. Delivery Dates. We undertake to commence delivery within ...... weeks of the scooptance of this order and to complete delivery within a further ...... weeks British Standards. We confirm that no material will be of a lower quality than that required by the latest relevant British Standard.

5) Licences etc. To enable us to earry out our undertaking, we shall require licences etc., for the following (quantities to be stated):-....

\*

Special Conditions. It is understood that any special conditions noted on or attached to our quotation will only apply insofar as they are not at variance

7) Acceptance. This tender is subject to acceptance within ..... weeks.

Signed:- .....

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One practice of theirs is that of writing a special description of any part of the construction which is unusual or complicated, and attaching this to the bill of quantities.

The ideal of pre-contract collaboration with the contractor is not an article of faith with Y., R. and M., but they have had good experience of it. They point out that where proprietary forms of construction by nominated sub-contractors form the bulk of the contract, collaboration is very nearly achieved anyway. They find clients generally reluctant to engage a nominated general contractor.

Cost analysis: They are interested in the MOE method of cost analysis, and would like to know more about its workings. They are not sure that it would provide a more certain guide to economical construction than their own way of doing things, i.e., "experienced intuition" backed by occasional analyses of particular alternative elements.

#### SUB-CONTRACTORS, SUPPLIERS AND CONSULTANTS

Y., R. and M. normally use consultants for structural work, for services and electrics, although they use specialist firms occasionally. They find the structural consultant generally better able than the others—and more willing—to investigate, and analyse the cost of alternative proposals. As with the quantity surveyors, there is a long association between themselves and the engineers, and consequently a close and informal relationship. Thus advice is asked for, and given quite freely, for jobs where there is no official appointment of an engineer. In getting nominated supplier or sub-contractor tenders they use a standard form giving the conditions as to contract terms, discount, attendance, British Standards and so on.

#### CONTRACT OPERATIONS

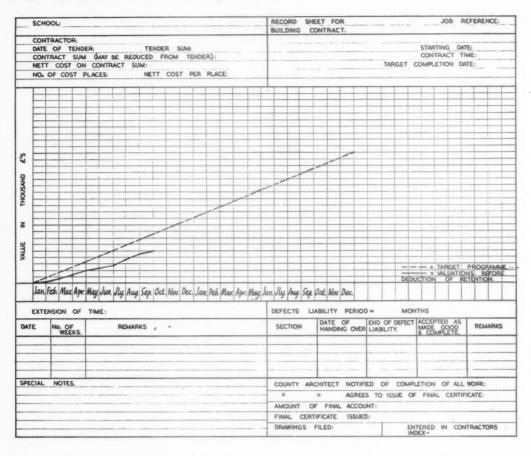
supervisory staff.

Supervision: There is a fairly elaborate standardized procedure for job management, fully described in a typescript document issued to all the relevant people at the commencement of the work. The principal items in it are these-the foreman keeps a duplicate site query list which is checked through by the supervizing architect at each visit, one copy being taken back to the architect's office as a record of action taken and as a reminder of drawings, variations orders, or instructions required. The clerk of works keeps a triplicate list of all his instructions, which is also checked through by the visiting architect. Of these, one copy goes to the foreman, one to the architect's office, and one remains on the book as a site record. At the same time all drawings sent out by the architect are recorded in his office on a card index, to forestall disputes about drawings that "were not received." Variation orders are brought up to date every two weeks on a printed form with a column for the architect's own rough estimates of the extra or saving. They are therefore in a fairly good position to know, to within £100 or so, what the state of the job is, and can make informed use of savings. These rough estimates are periodically checked and worked out more exactly by the quantity surveyor. Site visits: The job architect inspects about once a week. Every four or six weeks there is what the architects describe as a site progress meeting at which a senior member of the architect's staff presides and to which come the consultants, sub-contractors, agent, foreman and clerk of works, and of course, the job architect. It thus has a certain "brass-hat" flavour; indeed one of its purposes

Progress charts: Y., R. and M. believe that these have a value, but find few contractors who can work them out realistically or in sufficient detail. To help solve the difficulty of making a reliable forecast of times required, right through to completion they split the programming into two phases—one programme to the end of the main carcassing trades and another, worked out at this point in the contract, to the end of the job. In their own office they keep an eye on the broad picture by means of an interesting graph. This is formed of co-ordinates from a vertical cost scale and a horizontal time scale, the curve thus expressing the rate of expenditure. They find that these graphs give a good early indication of

is to keep alive the sense of urgency on the site, and among the

Above left: variation order form. Left: nominated suppliers form of tender.



Office progress chart used by Yorke, Rosenberg and Mardall. Certified payments and time are plotted to form a curve which expresses the rate of expenditure.

the likelihood of achieving the completion date, by seeing how soon the "actual" curve begins to converge with the "theoretical" straight line. Y., R. and M. try to cut down the number of nominated sub-contractors and suppliers because of the difficulty of getting the general contractor to accept responsibility for them. This applies especially in local authority contracts where the tenders are advertised and there is no knowing who the builder will he

#### STILLMAN AND EASTWICK-FIELD

#### TYPE OF PRACTICE

Staff: Three partners, eight assistants, all qualified, all young and all given responsibility. Each job is run as a "partnership" between a principal and the assistant in charge. No specialists on

Work done: General practice: emphasis formerly on schools, now more general, including local authority housing, farm and hospital work.

#### OFFICE ORGANIZATION AND CLIENT'S BRIEF

Organization: Stillman and Eastwick-Field do not reinforce the interviews with their client with a questionnaire which he has to fill in. They find it impossible to use a standard questionnaire form in dealing with a succession of differing types of buildings. But for programmes of one type of building, such as schools, a dossier of standard information and questions could be built up. An office "progress form" is made out giving the salient dates and tasks for office work up to tender stage-"complete sketch design," "town planning and byelaw consents," "trial holes," and so on. The times for each stage are estimated and the "programme' column is filled in. As work goes forward, the "actual" column is completed providing, of course, valuable information for future programming.

Brief: Stillman and Eastwick-Field make the following points. (a) That clients, except for local authorities, are often alarmingly ignorant about an architect's work and have no idea whether a contract should take weeks or years. They suggest the need for

more corporate action by the profession to inform the public of what architects do for their fees on the lines of the excellent RIBA pamphlet "The Architect and his Work"; (b) that it is difficult to elicit a policy from clients as to the allocation of money between initial and maintenance costs; that is to say whether a client would prefer an expensive material requiring no maintenance, or a cheap material which would. They say it is not at all easy to find information on this branch of building economics. An investigation which they made among ten authorities revealed school repainting periods to vary from 3 to 6 years externally and from 5 to 8 years internally. They have found local authorities providing briefs to outside architects often do not know the policies of their own maintenance departments.

#### SKETCH DESIGN AND COST INVESTIGATION

Stillman and Eastwick-Field rely at this stage for small buildings on their own cost knowledge based on previous experience and published figures, otherwise they obtain the advice of a Q.S. They make a practice of putting the approximate estimate figure (cube or super) on the sketch drawings so that it is clearly recorded in case of later changes or disputes. They find that quantity surveyors, being trained mainly to produce bills of quantities (" which they do very efficiently") are ill-equipped to make analyses of unfamiliar forms of construction, or of familiar construction in unconventional circumstances. They stress two points; (a) the need for quantity surveyors to evolve a technique of cost guidance at the sketch design stage, and in this connection they welcome the AJ's publication of cost analyses; (b) the difficulty of arriving at a policy for the allocation of money between initial and maintenance costs.

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EXTENSIONS period date NOTES

STILLMAN AND BASTWICK-FIELD A/A.R. L.B.A. 84 Dear Street, W.L.

Stillman & Eastwick-Field . A A.R.I.B.A., Architects Contract 24 Dean Street, W.1 Tel. Gerrard 4814 General Contractor We should be pleased if you would submit an estimate as below :-TO SUPPLY AND FIX
TO SUPPLY & DELIVER TO SITE AS SHOWN ON DRAWINGS Nos. ENCLOSED 8 C The order will be placed in accordance with the R.J.B A. form of contract Please include  $\frac{2\frac{1}{2}}{5}$  DISCOUNT for the General Contractor D Please state period required for the delivery from the date of order including the time required for the preparation of any working drawings, etc. The material is required PLEASE SUBMIT YOUR ESTIMATE BY FIRST POST Architect

WORKING DRAWINGS, SPECIFICATION AND BILL OF QUANTITIES

Stillman and Eastwick-Field try to complete their drawings, including full size details, before going to tender. Photostat copies of the main drawings are bound in with the bill—for information, not as part of the contract documents—and builders apparently welcome the practice. They do not see how a builder can price a job properly

unless he has the drawings, and wonder how the custom of NOT sending drawings ever came about. Tenderers have told them that the visits to the office to see the drawings is more to "see the office" than to aid the pricing. They provide schedules of finishes, doors, ironmongery and so on, on the drawings, as well as in the bill of quantities. For jobs where quantities are used, they provide the quantity surveyor with specification notes which he incorporates in the bill. They ask builders in advance if they are willing to tender and ask for estimates of the duration of the contract. Tenderers do fill in the times, and these prove to be more realistic on large jobs than on small ones. The tender amounts seem, they say, to fluctuate "wildly." They believe that pre-contract collaboration be:ween architect and builder would answer a real need and have in fact tried it tentatively. One experience of theirs shows how deep seated is the old relationship, for the builder approached

Above, right : job programme and progress record. This also forms a job history sheet for quick reference. Above, left: Form for subcontractors' estimates. The chief value of this is to ensure that items B to F are not forgotten. Right: contract progress chart, used only for small jobs. For larger buildings Messrs. Stillman and Eastwick-Field ask the builder to submit his own chart.

GR.FL,CONST & DPC.  DOOR & WINDOW FRAMES.  WALLS TO I.ST FLOOR.  FIRST FLOOR CONST.	SIILLAAN AND EASTWICK-FIE A/A.R.I.S.A. 24 Dean Street, V.1. HOTES.
EXCAVATION FOUNDATION CONC.  GR. FL. CONST & DPC.  DOOR & WINDOW FRAMES.  WALLS TO I.ST FLOOR. FIRST FLOOR CONST.  WALLS TO ROOF.  ROOF CONSTRUCTION.  ROOF FINISH.  GLAZING.  PLUMBING.  HEATING.  GAS INSTALLATION  ELECTRICAL INST.  PLASTERING	NOTES.
FOUNDATION CONC.  ORAINS  GR.FL.CONST & DPC.  DOOR & WINDOW FRAMES.  WALLS TO I.ST FLOOR.  FIRST FLOOR CONST.  WALLS TO ROOF.  ROOF CONSTRUCTION.  ROOF FINISH.  GLAZING.  PLUMBING.  MEATING.  GAS INSTALLATION  ELECTRICAL INST.  PLASTERING	
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policy e costs. assumed the worst motives and asked John Stillman if he were a qualified architect! On the problem of relating methods of construction to the plant needed to carry them out, builders have said that at tender stage they are not interested in the kind of plant the job will need. But the architects have also been told that if, for example, they design for the use of a tower crane, it is perfectly feasible for the builder to buy one, and then, if he has no further use for it, to sell it on completion of that one job. They are doubtful if this is realistic, especially for so expensive an item, and would like to know more about this branch of building economics.

#### SUB-CONTRACTORS, SUPPLIERS AND CONSULTANTS

Stillman and Eastwick-Field have found that attempts to persuade clients to employ consultants often fail because the client will not pay the fee, even when it is pointed out that the specialist firm conceal their "fee" in the estimate for the work ("what the eye doesn't see, the heart . . . etc."). At the same time they think it unfair to use a scheme worked out by one specialist firm to get estimates from others. For large jobs they get competitive quotations for heating and electrical work on a consultant's design, for small jobs, quotations based on their own specifications. Plumbing is usually by the general contractor. They feel that the increasing amount of technical knowledge involved in modern building and the greater amount of specialist advice the architect must use, put him in an embarrassing dilemma. One solution might be for the architect to provide a comprehensive service, perhaps by having the appropriate abilities represented, on his staff, and charging a consolidated fee. This would be difficult for the small practice. Stillman and Eastwick-Field told us of one special problem in local authority work where the consultant services are provided by the local authorities. The latter give them the p.c. sums that are to be put in the bill. If, when tenders for the whole contract come in, they prove to be too high, S. and E.-F. make their reductions on other parts of the work, often only to find later that the p.c. sums were higher than was necessary and could thus have borne some of the reductions.

#### CONTRACT OPERATIONS

Supervision: S. and E.-F. regard site visits more as inspections to ensure that work done is to plan and to standard, than as a means of co-ordinating the various parties concerned. This, they feel, is the contractor's responsibility. Site visits then are informal, not regular, and are spaced according to the size and stage of the job. There are no periodic cost checks during construction, apart from valuations for interim certificates made by the quantity surveyor. Clerks of works: S. and E.-F. have wondered whether a clerk of works is worth having. The work he does does not seem commensurate with his salary, which is often more than that of the assistant architect in charge of the job. His "watchdog" function is not always necessary because foremen are usually trustworthy and often more capable technically than the clerk of works.

Progress Charts: For large contracts the builder usually provides an adequate progress chart. For small contracts such as houses the office practice is to issue a blank progress chart at the beginning of the contract for the builder to fill in but they find that it takes the builder by surprise. They have to help him fill it in and explain how it works. S. and E.-F. have a legal query on progress charts: if an architect approves a completed chart and it later appears that some of the times given are too optimistic, can the builder support a claim for extension of time on the ground perhaps of delay in the supply of materials by reference to the chart?

Below left: form for variation estimates, used mainly for small jobs where there is no bill of quantities. Below right, form for tenders submitted by general contractors.

Contrac		Stillman & Eastwick-Field  A.A.R.I.B.A., Architects  24 Dean Street, W.I 952  Tel. Gerrard 6536
Ple		ON TO CONTRACT.  tes for making the following variations  KEN BEFORE A VARIATION ORDER IS ISSUED.
Da	te	Architect
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TENDE	R for work to be done st
	for
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To:-	A/ARIBA, BA, Architects.
	2h. Dean Street, London, W.1. GERrard 9512.
Sirs,	
to en	willing to contract for, and hereby undertake kacute, the whole of the Works required to be done
in ac	coordance with the RIBA Conditions of Contract (1939 s rowised 1950) and with particulars supplied by you to four online satisfaction for the following sum:
	£. a. d.
And .	also undertake to:-
(a)	Carry out such Dayworks as may be ordered in writing at the prices and rates set out in the "National Schedules of Daywork Charges".
(b)	Complete the works within weeks.
AS W	ITNESS hand this day of
	195 .
Name	********
Addr	080
	************************
NOTE	1. No Tendor will receive consideration unless submitted on this form, and by the date specified.
	2. The Employers do not bind themselves to accept the lowest or any Tender.
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Staff: Seven assistants, all qualified and all given responsibility in the running of jobs. Office run rather like a school studio, the principal doing little actual drawing, but spending most of his "designing" time at assistants' boards. No specialists on staff. Work done: General practice: factories, offices, laboratories, schools, houses, restoration work, but very few alteration jobs.

#### CLIENT'S BRIEF

After a first meeting with the client Handisyde sends him a questionnaire before a further main discussion of requirements, so that the client will have time to consider what the architect will want to know. He finds that the questionnaire, while not entirely forestalling changes of mind, does help to make the brief more thorough. Each job is programmed within an overall office programme, the time for each stage being kept to as far as possible by a firm policy—"we will do it like that "—which means resisting the temptation to let one problem upset the schedule.

#### SKETCH DESIGN AND COST INVESTIGATION

Handisyde gets his quantity surveyor appointed as soon as possible, and as with Yorke's office there is a long standing relationship between the two, so that the surveyor is familiar with Handisyde's methods. On jobs where structure is a major element, the structural engineer may be the more relevant advisor on cost, and he then is the one to be called in early.

The q.s. makes the approximate estimate, more often based on rough quantities than on cube or super rates. Up to this stage, Handisyde relies upon his own cost experience in working out the constructional method, except where there is one major element which is going to take a fairly high proportion of the cost and for which alternatives are possible. For these, alternative costs are analysed by the quantity surveyor or engineer.

#### WORKING DRAWINGS, SPECIFICATIONS AND BILLS OF QUANTITIES

Handisyde finds that if he succeeds in finishing all the drawings before going to tender, it does save trouble later on. He would like to see specifications incorporated in the bill of quantities, to avoid discrepancies between the two and because the bill is a contract document which the builder attends to most closely. For jobs with quantities, he sometimes writes a brief "directive" specification. He has not arrived at the ideal form for it, but the policy is this: to bring all description of quality together, to avoid overlapping with the drawings, to avoid specification "jargon" and to write the clauses so that they describe and follow the sequence of operations on the site, in the order that the building goes up. This method he thinks should be much more useful to the foreman than the more customary arrangement by trades.

Handisyde feels strongly that the form of the bill of quantities should be revised so that it may express efforts made by the architect to simplify and standardize constructional methods. At present, to deal with this problem, he explains and discusses his jobs with builders before they tender. Handisyde expressed the view that one cannot get down to brass tacks on construction until one has a builder appointed, and for this reason believes in pre-contract collaboration. In practice he has sometimes achieved this either by using a fixed fee contract and a nominated contractor or by calling in a builder who later will be one of the tenderers.

Cost analysis: Handisyde thinks that the MOE method of cost analysis is a valuable technique, but that a small office might not have the time, manpower or continuity of particular building types to use it.

#### SUB-CONTRACTORS, SUPPLIERS AND CONSULTANTS

For his structural work, Handisyde uses a consultant who works out alternative schemes and analyses the cost of them. For other specialist work he may go either to a consultant or to a specialist firm, but he is inclined to think that in some specialist fields the more skilled men go into contracting firms rather than private practice. He has experienced extremely wide variations in tenders for virtually the same work, suspects that there is little systematic

5. Elegri a) Finish in Granolithis. Details of falls, steeped livels for sections and sizes of floor imains will be meaded. (Probably best obtained by a meeting at Darrow Read). Is there any likelihood of floor drains being extended Sorthward beyond the "Gangemy" if the whole Testory is extended. If so we must errange present levels scoordingly. Are any mannine bases or halding down bolts required. If so one a mannine lay-out be prepared in time to do bases as part of the bullding york. Can preliminary details be given in time for inclusion in sill of quantities. Can details of requirements be supplied. Is it to be ordered as part of Sullding Contract. In any case details will be needed for foundations. 6. Granes Can probable present number of machines, and their electrical requirements (voltage and frequency) be specified. A rough lay-our would be helpful. 7. Electricals Can an estimate of future total load/be given for purpose of main cable and switchboard requirements. e) Are machines to be wired by drope from above. Apert from good general lighting is any special local lighting required in the factory. External lighting proposed is: Qutside "Nens Entrances"
 Wall lamps along the building opposite the seems resi,
 Qutside Boiler Rouse.
 Query on 3.5. wall of Factory to light chip dump, Note: Front part of access road would not be lighted though some light to ear park would be given from sain office door external light. f) Is any fleedlighting of the office black required. g) Is any illuminated, neon or other mass required. (Skysigns not nerwitted). All supplies, except drinking taps or foundains in laratories. Vill come from storage tank ever Boiler House. Main require-ment appears to be for a quiet flow to anohime. Com requirements be given in terms of: 6. Water Supply: 1) Gallons per minute maximum use for processes. 11) Gallons per day total use for processes.

CECIL	C. HANDISYDE A.R.I.B.A. A.A. D	1.0
	66, GREAT RUSSELL STREET, LONDON, W.C.1. TEL. HOLDORN 3834-3655	

Job:

I should be pleased to receive from you a tender for works as described below. The conditions of tender are:

(1) You would be a sub-contractor to the General Contractor and would be required to enter into a contract in accordance with the terms of the main contract which is...

(2) You should include for....% cash discount to the General Contractor.

(3) Tenders should state clearly the time required from acceptance of your tender to completion of your detail drawings, the time required from approval of your detail drawings to delivery to site, and the time required on the site.

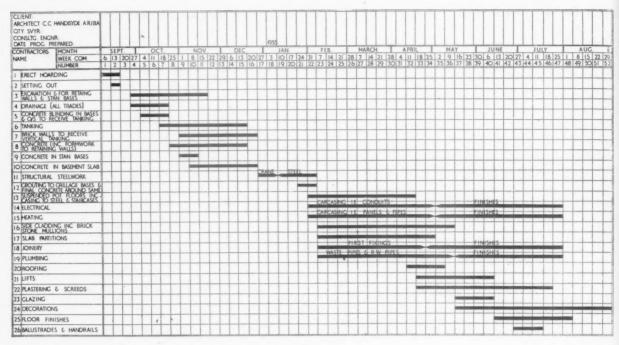
(4) Your tender should include a list of builders' work or attendance required.

(5) Tenders should be in triplicate.

T. 1

(6) Tenders should be delivered by.....

Top, extract from a questionnaire. This would be sent to the client after a preliminary scheme has been worked out. Above, form for sub-contractors' tenders, with a space for the description of the work to be filled in.



Progress chart used on one of Handisyde's jobs. This is submitted by the builder to give a general indication of times for the co-ordination of sub-contractors and suppliers.

knowledge of economy in specialist work, and feels that the specialists ought to be able to give the architect more information on cost breakdowns so that he can be better informed in adjudicating between alternatives. He makes a practice of getting advice from his quantity surveyor on sub-contract quotations.

#### CONTRACT OPERATIONS

Supervision: Site meetings are the main instrument of control. These are at about two-weekly intervals, the job architect goes, and Handisyde goes himself. Fairly full notes are made at these meetings which are circulated to the relevant people with indi-

cations of the action required and by whom. At each meeting the notes of the previous meeting are discussed first.

Progress charts: As with the other three architects, Handisyde finds that builders are not always prepared to work out progress charts in sufficient detail—and are often not well enough organized to keep to them, especially in the matter of marshalling sub-contractors. He also mentioned to us the difficulty of maintaining a progress chart where the client is given to changing his mind. At the beginning of a job, he makes a separate list of the p.c. and provisional sums, and checks these off as they are let on the job to keep an eye on the expenditure.

Staff time sheet showing columns for the rate and cost.

Totals for the months are transferred to an annual sheet.

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#### WORKING DETAIL

AERODROME CONTROL: LONDON AIRPORT

Frederick Gibberd, architect

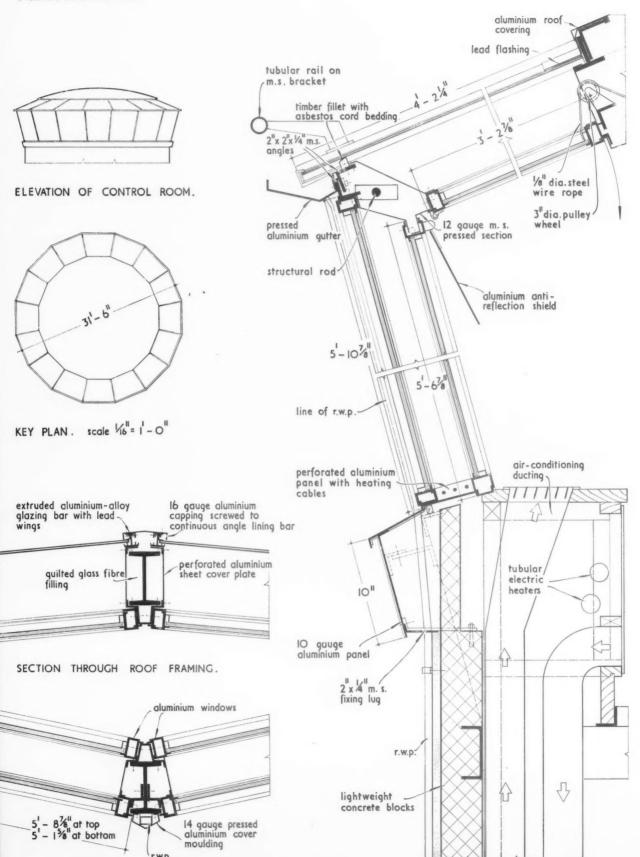
WINDOWS: 31



Anti-sun glass has been used throughout on the outer sheet to prevent glare. Heating cables run at the foot of the window between the sheets of glass to prevent condensation: they are turned on only as and when condensation appears. The control room is fully air-conditioned: the heating pipes beneath the windows are only for use in the event of a breakdown of the air-conditioning. A continuous ladder rail (which had not been fixed at the time this photograph was taken) runs round the perimeter of the control room above the eaves to give access for cleaning and to the radar scanner (likewise not shown in this detail) fixed to the apex of the roof.

AERODROME CONTROL: LONDON AIRPORT

Frederick Gibberd, architect



#### WORKING DETAIL

ILLUMINATED SIGN: LONDON AIRPORT

Frederick Gibberd, architect

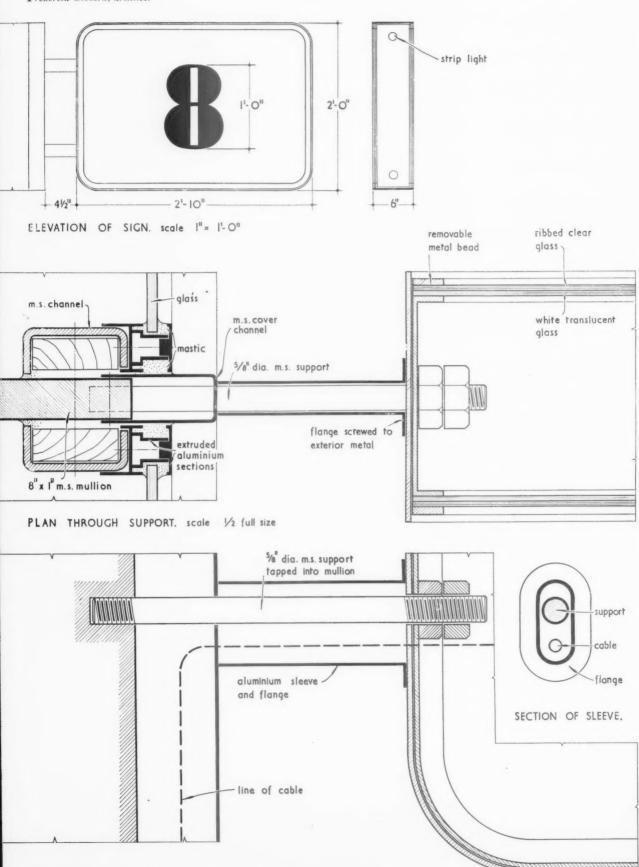


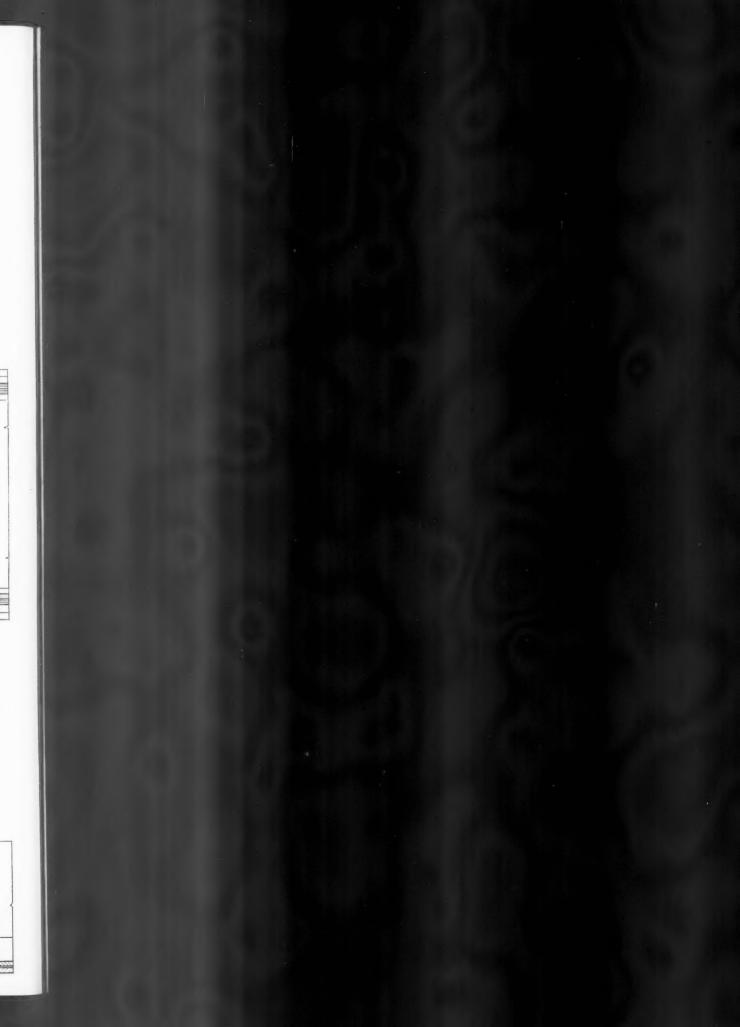
Each face of the sign is covered with a double layer of glass: an outer sheet of ribbed clear glass (to diffuse the light from the two fluorescent tubes) and an inner sheet of white translucent glass on which the number has been fired in black. All metal parts open to the weather have been spray painted in the factory with silver paint of a type in common use on motor car bodies.

ILLUMINATED SIGN: LONDON AIRPORT

SECTION THROUGH SUPPORT, scale 1/2 full size

Frederick Gibberd, architect





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#### TECHNICAL SECTION

A review in "Information Centre" on French Schools (see page 688) draws attention to the oppression of French architects by their building regulations. These, instead of stipulating standards of performance, lay down standard methods of achievement.

Are such factors really beyond the architects' control? English architects certainly, have been singularly fortunate in both their clients and their administrators. But it is perhaps not too much to say that the educationists (to take a notable example) have received as much stimulus from their architects as they themselves have given. Young architects working for forward-looking Authorities have had great encouragement to examine and re-assess in close detail the ways in which architecture could contribute to educational aims. In doing so they have not only advanced architecture, they have brought educational ideas forward at the same time. And if our administrators have framed Building Regulations calling for standards of performance and quality rather than for standard methods, it is largely because architects—working mainly through the BRS—have had a wholly beneficial influence.

#### CURRENT PRICES FOR MEASURED WORK

#### Prepared by Davis, Belfield & Everest, chartered quantity surveyors

Prices are for work executed complete and are for an average job in the London area. All prices include overhead charges and profit for the general contractor. Current prices of materials and rates of wages last appeared in the JOURNAL for May 5.

EXCAVATOR—(continued)

PRELIMINARIES		
To all valuations for measured work add for I Water and Insurances, according to the natu (say)	re of the job	10%
EXCAVATOR Excavation		
N.B.—The following prices are applicable to he soil.	and excavation	n in heavy
Surface digging, 6" deep	Yd. super	$\frac{1}{2}$
Excavating not exceeding 10' 0" deep to reduce levels Excavating not exceeding 5' 0" deep to form	Yd. cube	8/8
basement Ditto exceeding 5' 0" and not exceeding	27	$9/9\tfrac{1}{2}$
Excavating not exceeding 5' 0" deep to form	**	14/2
Ditto exceeding 5' 0" deep and not exceeding	22	12/-
10' 0" deep ditto	>>	16/4 20/8
Disposal	,,	2010
Returning, filling and ramming around foundations	Yd. cube	3/10
vards and depositing	**	4/4
Ditto and spreading and levelling Ditto, ditto, and consolidating to make up	**	5/8
levels under floors and pavings Filling into lorries and carting away	22	7 /2 14 /-

Planking and Strutting			
Planking and strutting to sides of surface or basement excavation not exceeding 5' 0" deep	Ft. super	-/7	
Planking and strutting to sides of surface trenches not exceeding 5' 0" deep (both	27	-/9	
sides measured)	77	-/2	
Ditto not exceeding 10' 0" deep (ditto)	22	-/3	
Hardcore			
Hardcore filled in, in layers, each layer well			
rammed with a mechanical rammer	Yd. cube	19/1	
Bed of ditto, 4" thick	Yd. super	3/2	
CONCRETOR  Concrete (Basic Prices)			
Portland cement concrete 1:3:6 with 1½" coarse aggregate in foundations and		00 10	
masses exceeding 12" thick	Yd. cube	66/2	
Ditto 1:2:4 with \( \frac{2}{3}'' \) coarse aggregate ditto add to basic prices for:—	29	71/4	
Working around rod or mesh reinforcement	**	4/4	
Being in beds less than 12" thick (6"-12")	**	2/2	
Ditto less than 6" thick (4½"-6")	**	6/6	
Being in small quantities not exceeding 3'			
cube	2.2	17/4	
Being in suspended floors and roofs	22	13/-	
Being in walls not exceeding 6" thick	,,	21/9	
Ditto exceeding 6" but not exceeding 12"			
thick :	**	15/3	
Ditto exceeding 12" thick	99	10/9	

#### CONCRETOR—(continued)

CONCRETOR—(continued)					
Add to Basic	Prices	for:-			
Being in lintels, beams, etc., not exce					
72 sq. in. sectional area Ditto exceeding 72 and not exceeding 1-	44 sq.	Yd	cube		2/7
in, sectional area Ditto exceeding 144 sq. in, sectional ar Being in columns not exceeding 72 s	ea		**		3 /1 1 /9
1. 1	****		85	4	1/3
in. sectional area Ditto exceeding 144 sq. in. sectional ar			**		$\frac{2}{6}$ /1
			**		
Formwo Flexible formwork to soffits of barrel					
roofs Close boarded formwork and suppor		Yd.	super	1	9/7
soffits of floors not exceeding 12' high Ditto to vertical faces of walls (both	h		**	1.	5/11
measured) Ditto to sides and soffits of lintols and	beams	Ft.	super		$\frac{6}{2} \frac{2}{3\frac{1}{2}}$
Add to the above for wrot boarded form and rubbing down concrete	nwork		super		2/11
Reinforces	ment				
5 to 1" diameter mild steel rod					
forcement, hooked, bent and tie	ed at				
intersections as required and fixi			Cwt.	5	4/1
concrete ½" diameter ditto			23	5	9/-
Steel wire mesh fabric reinforcement to			12	7	4/2
1221, weighing 4.71 lb. per yard well lapped at joints and embedd					
		Yd.	super		$\frac{3}{7}$ 6/11
BR!CKLAYER					
Common Br	ickwor	k			Dough
Reduced brickwork one brick thick in cement-lime mortar (1:3:9)	Yd.	super		tons	Rough stocks 36/11
Add to the above:— If in cement mortar (1:3)		11	***	/3	-/3
If circular on plan to flat sweep		11	5	/1	5/5
Ditto to quick sweep  Half brick wall in cement lime mortar		**		/2	10/10
(1:3:9) Ditto built fair and pointed both sides with a neat flush joint		**		/10	19/10
One brick wall built fair and pointed both sides with a neat flush joint		**		/-	22 /- 42 /9
11" hollow wall with 2" cavity and galvanized iron twisted ties		,,		/5	42/6
Engineering E	Reichen				
Engineering L	or echee	OF K	En		Blue
Reduced brickwork one brick thick in					Pressed bricks
cement mortar (1:3)	Yd.	super	45	/2 /6	78/4
Half brick wall in cement mortar (1:3) Ditto built fair and pointed both sides		22			
with a neat flush joint One brick wall built fair and ditto		**		/8 /	$\frac{44}{83}$
Sundri	ies				
Extra for internal fair face and flush	37.1				9
Horizontal damp-proof course of two courses of slates and bedding and	¥d.	super		1,	3
pointing Ditto of hessian base bitumen well	Ft.	super		3	10
lapped at joints Fixing only metal window, size $1' 8'' \times 4' 0''$ , including cutting and pinning		"		-	10
lugs to brickwork, bedding frames and pointing in mastic one side		Each		9	-
Ditto, 3' 3" × 4' 0" ditto Ditto, 6' 6" × 4' 0" ditto		33		13 24	11
Partitio	122.5	9.2		42	
Clinker concrete solid parti- tion blocks to B.S. 2028 (Type B and C) and setting	nes.	2"	$2\frac{1}{2}''$	3"	4"
	per	8/41/2	9/9	11/7	14/-
Moler hollow partition ,,		9/2	10/2	11/9	-
blocks, keyed on both sides and ditto ,,		19/11	21/5	23/3	3 28/-

BRICKLAYER (continued)				
	Facings			Wh:4-
			1.	White glazed eings p.e. 376 /- M for cretchers
Extra over common brickwork		Ord		,354/6M r headers
built with bricks p.c.113/- M for facings as described and pointing with a neat weath- ered joint:— To solid wall in Flemish bond	Yd. supe	fac p.c. 244/-	p.c. in 261/4	nd point- ng with white
To cavity wall in stretcher bond	s as supe	12/-		67/10
To ditto in Flemish bond with snapped headers		14/3		01/20
Half brick wall in facings in stretcher bond built fair and pointed one side with a peat	**			
weathered joint Ditto pointed both sides	99	27 /7	28 /6 29 /8	
One brick wall in facings built	2.2			
fair and pointed one side Ditto pointed both sides	,,	51/4 52/6		
Brick on end flat arch in facings	5.9	0=1		
4½" on soffit and 9" high and pointing	Ft. run	3/3	3/4	
Brick on edge coping to 9" wall with two courses plain tiles under, laid breaking joint,				
two cement angle fillets and pointing	**	5/5	5/6	_
ASPHALTER				
	Tanking		To B.S. 1097	To B.S. 1418
Horizontal asphalt tanking in thicknesses on brick or concr Vertical ditto	ete Y	d. super	$\frac{18}{5}$ $\frac{5}{23}$ $\frac{8}{8}$	$\frac{29}{5}$ $\frac{5}{33}$ $\frac{7}{7}$
	Roofing			To B.S.
asphalt flat in two thickness and including felt underlay Asphalt skirting 6" high with  Asphalt skirting 6" high with  ""  ""  ""  ""  ""  ""  ""  ""  ""	У	d. super	988 13 /2	1162 22 /1
fillet at bottom and rounde turned into groove Asphalt fascia 6" high with	ed top, solid	Ft. run	2/4	2/7
water check roll at top and cut drip at bottom	under-	27	4/6	5/3
DRAINLAYER	7 7 7 10			
N.B.—The following prices are soil, only requiring planking ar Excavate trenches for 4"-9" planking and strutting, filliming, and wheeling and spree For each 12" in depth, for	nd strutting pipes, inclu ng in and ading surplu	to hand ending ram- not	of 3' or	more.
exceeding 3' 0" deep Ditto for trenches exceed		and Y	d. run	$3/5\frac{1}{2}$
not exceeding 5′ 0″ deep Ditto for trenches exceed		****	3.9	4/11
not exceeding 10' 0" deep	****	and	**	7/9
6" concrete (1:3:6) bed and for pipes 6" ditto, and surround	benching	Yd. run	4" 9/- 14/7	6" 10/6 17/8
	Drains	9.11	4"	
Clayware butt-jointed land	12.	3"	-	
drains and laying in trench "Seconds" quality glazed	Ft. run	-/5 4"	-/6 6"	9"
stoneware socketed drains and laying and jointing in				
"British Standard" quality ditto	9%	$\frac{2}{1\frac{1}{2}}$	2/11	4/11
Extra on "Seconds" qual-	" Fach	$\frac{2}{5\frac{1}{2}}$	3/61/2	6/-
ity for bends Ditto "British Standard"	Each	3/2	4/9	13/9
quality ditto Extra on "Seconds" quality	51	4/-	5/11	17/7
for equal single junction Ditto "British Standard"	,,	5/5	8/-	17/3
quality ditto	11	7/11	9/10	21/8

DRAI Cast ir B.S. joint Extra

Glazed ized Ditto v Cast ir ing, Ditto Glazed tion man Brown char Cast in frame in co Galvar

PAVI Cemen scre Ditto lino Cemer trov

con ½" red prej §" ter

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MAS Portla and Ditto Ditto Ashla

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4½" > and
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9" ×
2" ×
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3" ×
5" >

thi 6" ×

SLA

Best 3" sto

Ditte

an

DRAINLAYER—(continued)				
Cast iron socketed drains to				
B.S. 437 and laying and jointing in trench Extra for short radius bend Extra for single junction	Ft. run Each	4'' $12/ 24/10$ $45/9$	6" 18/3 60/- 100/6	9" 35 /7 158 /- 262 /-
	Fittings, etc			0#
Glazed stoneware trapped gui			4"	6"
ized grating and outlet and s Ditto with vertical inlet ditto Cast iron trapped gulley with	high invert,	, grat-	28/6	$\frac{42}{48}$ $\frac{6}{1}$
ing, and 4" outlet and settin Ditto with vertical inlet ditto Glazed stoneware intercepting tion arm, stopper and cha	trap with in	nspec-	70 /10	_
manhole and jointing to dra Brown glazed stoneware half channels and bedding and jo	in f round strointing in e	raight ement		84 /4
mortar Ditto ordinary channel bend a	and ditto	Ft. ri	$\frac{1}{5} = \frac{1}{81}$	2/10 8/-
Cast iron coated single seal material frame to B.S. 497 Grade C and in cement and cover in grea	d setting fra	ame	$24'' \times 18' \ 45/3$	$^{'}24''\! imes\!24''$ $66/8$
		**	$\frac{45}{75}$	114/10
PAVIOR	1		2" 14	. 11//
Cement and sand (1:3) florescreed to receive pavings Ditto trowelled smooth to re	Y	d. super	3/81 4/	
linoleum Cement and sand (1:3) po		**	4/11/2 4/	
trowelled hard and smooth Granolithic paving $(1:2\frac{1}{2})$ la		77		
concrete ½" red composition paving to	B.S. 776 la	uid on	$6/5\frac{1}{2}$ $7/3$	
prepared screed 5" terrazzo paving (Portland	cement and	l spar	Yd. super	
aggregate) laid on prepared Extra for white or cream ceme g" rubber flooring in all color	ent urs, laid or	pre-	"	$\frac{33}{5}$
pared screed $1'' \times 12'' \times 12''$ rubber tile flo	oring ditto		**	$\frac{55}{45}$
5" × 12" × 12" cork tile shades) laid in mastic on surfaced and polished	prepared s	creed,	91	45/11
laid flat on prepared bed in	.c. 441/6 p cement moi	er M.	**	24 /1
1½" ditto laid herringbone 6" × 6" red quarry tile pavir 1286 laid on prepared ser	ng to B.S.		" 5″	26/3 7″
straight joints $6'' \times 6''$ buff quarry tiles as la	st	Yd. sup		3 26/3
2½" (finished) gravel path lair pared bed, well watered and cambers and falls		19	2	2/101
MASON				
Portland stone and all labo	urs in pila	isters,	Ft. cube	49/7
Ditto in jambs, lintols, etc. Ditto in arches	****   ****		**	51/9 65/-
Ashlar av. 63" on bed with pla	in dressed f	ace	Ft. super Port-	29 /3 Arti-
Portland stone or artificial B.S. 1217:— $4\frac{1}{2}$ " × 4" sill, sunk, weathered	, throated		land	ficial
and grooved for water bar jointed in cement mortar 9" × 3" ditto 2" × 12" Coping, weathered	, set and	Ft. run	10/3 13/6	$\frac{4}{3}$ $\frac{1}{6}$ $\frac{1}{6}$
throated, set and jointed as	last	9.7	$\frac{12}{16}\frac{1}{2}$	
3" × 12" Ditto 5" × 12" Saddle back copy throated, set and jointed as	last	**	25/4	13 /4
6" × 12" Ditto	****	**	32 /-	15/1
SLATER, TILER AND RO	OOFER Slates			
Best Bangor slates to B.S. 680	laid with		20"× 10"	16"×10"
3" lap, each slate nailed stout copper nails	****	Square	351/9	283/6
Ditto hung vertically to dorm and gables		38	357 /-	291/4

White glazed coings p.c. 376/- M for cretchers 354/6M r headers ad pointing with white coment

cement 84/9 67/10

To B.S. 1418 29/5 33/7

To B.S. 1162 22/1

2/7

5/3

n heavy ore.

 $\frac{3}{5\frac{1}{2}}$   $\frac{4}{11}$ 

7/9 6″ 10/6 17/8

9" 4/11 6/-13/9 17/7 17/3 21/8

Tiles		Hand	Machin
Best sand faced plain (nibbed) tiles to		made	
B.S. 402, $10\frac{1}{2}'' \times 6\frac{1}{2}''$ laid to a 4" gauge			
with each tile in every fourth course nailed with galvanized nails	Square	192/2	178/
Ditto hung vertically to dormer cheeks and gables to 4½" gauge with each tile			
nailed with galvanized nails Berkshire hand made sand faced red p		208/11	1 197/
$14\frac{1}{2}'' \times 10''$ laid to $2\frac{1}{2}''$ head and $1\frac{1}{2}''$ sides	le laps,		
each tile in every third course naile galvanized nails		Square	194/3
Ditto to mansard slopes Bridgwater hand made Double Roma	****	27	215/3
Bridgwater hand made Double Roma sandfaced tiles $16\frac{1}{2}$ " $\times$ 14" laid to 3	n red " laps,		
each tile in every course nailed with g ised nails			139/8
Concrete plain (nibbed) tiles to B.S. 473	3, 101"	99	100/0
×6" laid as before described for plain Ditto hung vertically to dormer cheek	tiles s, and	99	120/9
gables, ditto		99	147/-
lap, each tile in every third course naile	d with		
galvanized nails		99	94/6
Ditto to mansard slopes ditto		99	99/9
Asbestos Cen			
6" corrugated asbestos cement sheeting to wood roofs with galvanized drive			
and washers with a side lap of 11 corrus	zations		
and an end lap of 6" 6" ditto but fixed vertically		"	106 /- 116 /6
Add to both last if fixed to steel pur		**	110/0
sheeting rails with galvanized hook be	olts	99	5/3
Felt			
Reinforced bituminous roofing felt laid v			
laps and nailed to rafters at 18" centre galvanized clout nails			21/3
		" Two	
One-ply bitumen felt to B.S. 989 laid on concrete. Each layer bedded in hot		layer	layer
bitumen		er 8/8	11/-
Extra on last for finishing with granite chippings		-/91	-/9
enippings	,,,	102	10
CARRENTER			
CARPENTER  Carcassin	q		
		Ft. cube	15/5
	****		
joists and lintols Ditto in floor and ceiling joists Ditto in stud partitions, purlins and stru		99	17 /5 19 /3
joists and lintols Ditto in floor and ceiling joists Ditto in stud partitions, purlins and stru Ditto in rafters, framing and ridge	****	99	17/5
joists and lintols Ditto in floor and ceiling joists Ditto in stud partitions, purlins and stru Ditto in rafters, framing and ridge	****	99 99	17/5 19/3
joists and lintols Ditto in floor and ceiling joists Ditto in stud partitions, purlins and stru Ditto in rafters, framing and ridge Ditto in hip and valley rafters including or rafters to sizes	eutting	22 23 29	17/5 19/3 19/2
Ditto in floor and ceiling joists Ditto in stud partitions, purlins and stru Ditto in rafters, framing and ridge Ditto in hip and valley rafters including o	eutting	99 99 99 99	17/5 19/3 19/2 21/7
joists and lintols Ditto in floor and ceiling joists Ditto in stud partitions, purlins and stru Ditto in rafters, framing and ridge Ditto in hip and valley rafters including c rafters to sizes  Battening and B	eutting	,, ,, ,, Roof	17/5 19/3 19/2 21/7
joists and lintols Ditto in floor and ceiling joists Ditto in stud partitions, purlins and stru Ditto in rafters, framing and ridge Ditto in hip and valley rafters including c rafters to sizes  Battening and B  3" × 2" battens nailed to softwood for	eutting	Roof slopes 32/3	17/5 19/3 19/2 21/7 Vertica
joists and lintols Ditto in floor and ceiling joists Ditto in floor and ceiling joists Ditto in stud partitions, purlins and structure Ditto in rafters, framing and ridge Ditto in hip and valley rafters including of rafters to sizes  Battening and B $^3$ " $\times$ 2" battens nailed to softwood for $20$ " $\times$ 10" slates to $8\frac{1}{2}$ " gauge Ditto $16$ " $\times$ 10" slates to $6\frac{1}{4}$ " gauge	eutting	Roof slopes	17/5 19/3 19/2 21/7 Vertica hangin
joists and lintols Ditto in floor and ceiling joists Ditto in floor and ceiling joists Ditto in stud partitions, purlins and structure Ditto in rafters, framing and ridge Ditto in hip and valley rafters including of rafters to sizes  Battening and B $^3$ " $\times$ 2" battens nailed to softwood for $20$ " $\times$ 10" slates to $8\frac{1}{2}$ " gauge Ditto $16$ " $\times$ 10" slates to $6\frac{1}{4}$ " gauge	eutting coarding Square	Roof slopes 32/3 42/ 54/7	17/5 19/3 19/2 21/7 Vertice hangin 34/5
joists and lintols Ditto in floor and ceiling joists Ditto in floor and ceiling joists Ditto in stud partitions, purlins and stru Ditto in rafters, framing and ridge Ditto in hip and valley rafters including or rafters to sizes  Battening and B $A^{*} \times 2^{"}$ battens nailed to softwood for $20^{"} \times 10^{"}$ slates to $8\frac{1}{2}^{"}$ gauge Ditto $16^{"} \times 10^{"}$ slates to $6\frac{1}{2}^{"}$ gauge $A^{*} \times 1\frac{1}{2}^{"}$ ditto for $10\frac{1}{2}^{"} \times 6^{"}$ tiles to $4^{"}$	oarding Square	Roof slopes 32/3 42/ 54/7 Roof	17/5 19/3 19/2 21/7 Vertica hangin 34/5 45/2 52/6
joists and lintols	oarding Square	Roof slopes 32/3 42/- 54/7 Roof slopes M	17/5 19/3 19/2 21/7 Vertica hangin 34/5 45/2 52/6
joists and lintols	oarding Square	Roof slopes 32/3 42/ 54/7 Roof	17/5 19/3 19/2 21/7 Vertica hangin, 34/5 45/2 52/6
joists and lintols	oarding Square	Roof slopes 32/3 42/- 54/7 Roof slopes 10 24/2 18/8	17/5 19/3 19/2 21/7 Vertica hangin 34/5 45/2 52/6 Mansardi 25/3
joists and lintols Ditto in floor and ceiling joists Ditto in stud partitions, purlins and strip Ditto in rafters, framing and ridge Ditto in hip and valley rafters including c rafters to sizes  Battening and B $\P'' \times 2''$ battens nailed to softwood for $20'' \times 10''$ slates to $8\frac{1}{2}''$ gauge $\P'' \times 1\frac{1}{2}''$ ditto for $10\frac{1}{2}'' \times 6''$ tiles to $4''$ gauge $(4\frac{1}{2}'')$ for vertical hanging) $\P'' \times 2''$ ditto for $14\frac{1}{2}'' \times 10''$ pantiles to $12'''$ gauge $\P'' \times 1\frac{1}{2}'''$ ditto for $15'' \times 9'''$ concrete interlocking tiles to $12'''$ gauge Roof boarding in batten widths close	oarding Square	Roof slopes 32/3 42/- 54/7 Roof slopes 1 24/2 18/8	17/5 19/3 19/2 21/7 Vertica hangin 34/5 45/2 52/6 Mansard 25/3 19/8
joists and lintols  Ditto in floor and ceiling joists  Ditto in stud partitions, purlins and stri Ditto in rafters, framing and ridge Ditto in hip and valley rafters including c rafters to sizes  Battening and B  \$\frac{2}{3} \times \times 2\frac{2}{3} \times 10\frac{2}{3} \time	oarding Square	Roof slopes 32/3 42/- 54/7 Roof slopes 10 24/2 18/8	17/5 19/3 19/2 21/7 Vertica hangin 34/5 45/2 52/6 Mansardi 25/3
joists and lintols Ditto in floor and ceiling joists Ditto in stud partitions, purlins and stri Ditto in stud partitions, purlins and stri Ditto in rafters, framing and ridge Ditto in hip and valley rafters including c rafters to sizes  **Battening and B  \[ \begin{align*} \times 2'' \times \text{ battens nailed to softwood for} \) \[ 20'' \times 10'' \text{ slates to } 8\begin{align*} \text{ gauge}	oarding Square	Roof slopes 32/3 42/- 54/7 Roof slopes 10 24/2 18/8 4" 115/3	17/5 19/3 19/2 21/7 Vertica hangin 34/5 45/2 52/6 Mansardi 25/3 19/8 1" 142/1
joists and lintols	oarding Square	Roof slopes 32/3 42/ 54/7 Roof slopes M 24/2 18/8 4" 115/3	17/5 19/3 19/2 21/7 Vertica hangin 34/5 45/2 52/6 Mansardi 25/3 19/8 1" 142/1
joists and lintols Ditto in floor and ceiling joists Ditto in floor and ceiling joists Ditto in stud partitions, purlins and str Ditto in rafters, framing and ridge Ditto in hip and valley rafters including c rafters to sizes  **Battening and B  *** **Y ** battens nailed to softwood for **20" × 10" slates to 8½" gauge Ditto 16" × 10" slates to 6½" gauge *** **Y 1½" ditto for 10½" × 6" tiles to 4" gauge (4½" for vertical hanging)  *** **Y 2" ditto for 14½" × 10" pantiles to 12" gauge *** **Y 1½" ditto for 15" × 9" concrete interlocking tiles to 12" gauge Roof boarding in batten widths close jointed and fixed to flat or sloping roofs Ditto tongued and grooved and pre- pared for felt roofing including firring to falls **Sawn gang boarding fixed to joists in roof **Vrot and crosstongued caves soffit	oarding Square "" "" "" "" "" "" "" "" "" "" "" "" ""	Roof slopes 32/3 42/- 54/7 Roof slopes M 24/2 18/8 3/* 115/3	17/5 19/3 19/2 21/7 Vertica hangin 34/5 45/2 52/6 Mansardi 25/3 19/8 1" 142/1
joists and lintols Ditto in floor and ceiling joists Ditto in stud partitions, purlins and stri Ditto in rafters, framing and ridge Ditto in hip and valley rafters including c rafters to sizes  **Battening and B  \[ \begin{align*} \perp \times 2" \\ \perp \times \times 10" \\ \perp \ti	oarding Square " " " " " " " " " " " " " " " " " " "	Roof slopes 32/3 42/ 54/7 Roof slopes M 24/2 18/8 4" 115/3	17/5 19/3 19/2 21/7 Vertics hangin 34/5 45/2 52/6 dansard 25/3 19/8 1" 142/1 200/- 1/6 2/4
joists and lintols Ditto in floor and ceiling joists Ditto in stud partitions, purlins and stri Ditto in rafters, framing and ridge Ditto in hip and valley rafters including c rafters to sizes  **Battening and B**  **Ba	oarding Square " " " " " " " " " " " " " " " " " " "	Roof slopes 32/3 42/- 54/7 Roof slopes 10 24/2 18/8 3 " 115/3 171/- 1 1/3 2/1	17/5 19/3 19/2 21/7 Vertica hangin, 34/5 45/2 52/6 Mansardi 25/3 19/8 1" 142/1
joists and lintols Ditto in floor and ceiling joists Ditto in stud partitions, purlins and stri Ditto in rafters, framing and ridge Ditto in hip and valley rafters including c rafters to sizes  **Battening and B**  **Ba	oarding Square " " " " " " " " " " " " " " " " " " "	Roof slopes 32/3 42/ 54/7 Roof slopes M 24/2 18/8 4 115/3 171/ 1/3 2/1/11	17/5 19/3 19/2 21/7 Vertica hanging 34/5 45/2 52/6 Mansarde 25/3 19/8 1" 200/-1/6 2/4
joists and lintols Ditto in floor and ceiling joists Ditto in stud partitions, purlins and strr Ditto in rafters, framing and ridge Ditto in hip and valley rafters including c rafters to sizes  **Battening and B**  **Ba	oarding Square " " " " " " " " " " " " " " " " " " "	Roof slopes 32/3 42/- 54/7 Roof slopes 1 24/2 18/8 2 115/3 171/- 1/3 2/1 -/11	17/5 19/3 19/2 21/7 Vertica hangin, 34/5 45/2 52/6 Mansardi 25/3 19/8 1" 142/1 200/- 1/6 2/4
joists and lintols Ditto in floor and ceiling joists Ditto in stud partitions, purlins and stri Ditto in rafters, framing and ridge Ditto in hip and valley rafters including c rafters to sizes  **Battening and B**  **3" × 2" battens nailed to softwood for 20" × 10" slates to 8½" gauge Ditto 16" × 10" slates to 6½" gauge **3" × 1½" ditto for 10½" × 6" tiles to 4" gauge (4½" for vertical hanging)  **3" × 2" ditto for 14½" × 10" pantiles to 12" gauge **4" × 1½" ditto for 15" × 9" concrete interlocking tiles to 12" gauge Roof boarding in batten widths close jointed and fixed to flat or sloping roofs Ditto tongued and grooved and pre- pared for felt roofing including firring to falls	oarding Square " " " " " " " " " " " " " " " " " " "	Roof slopes 32/3 42/- 54/7 Roof slopes M 24/2 18/8 3/8 171/- 1/3 2/1 -/11  Vertically	17/5 19/3 19/2 21/7 Vertics hangin 34/5 45/2 52/6 fansard 25/3 19/8 1" 142/1 200/- 1/6 2/4
joists and lintols Ditto in floor and ceiling joists	oarding Square " " " " " " " " " " " " " " " " " " "	Roof slopes 32/3 42/ 54/7 Roof slopes M 24/2 18/8 3/8 171/- 1/3 2/1 -/11  Vertically	17/5 19/3 19/2 21/7  Vertica hangin, 34/5 45/2 52/6  fansard: 25/3 19/8 1" 142/1 200/- 1/6 2/4 1/1

#### JOINER

Floor	J	Citizat	

(ATT 4	hicknesses	stated	0.110	nomin	011
(All t	nicknesses	stated	are	nomin	an

(Al	I thick	nesses star	tea	are nom	inai)		
Plain edge softwood f	or jois	ts		Square	146 6	163 /-	196/-
Tongued and grooved	d ditto			99	156 /6	173/6	208 /-
1" double grooved as	nd tong	gued and	gro	oved woo	od bloo	ek floor	
laid herringbone v							
composition on pre							
Swedish softwood		****			Yd.	super	29 /-
European beech	****	****				27	34/2
English oak						55	46/3
European oak						93	41/-
Burma teak	****		****			**	46/3
Australian jarrah		****				***	37/10
Softwood skirtings	with	splayed	or			Section	al area
molded top edge, p						3" to 6"	Over 6"
sectional area)				Ft.	run	-/23	
Extra for grounds pl				22			/8

#### Windows in Softwood

Rebated and molded softwood and casement sashes divid				11"	2"
squares for glass	***		Ft. super	2/10	3 /4 5 /6
Extra for hanging	***	****	Each	5/6	5/6
Cased frames with $6'' \times 3''$ oak s	illand	12"			
molded double hung sashes i	includ	ling			
pulleys, line and weights			Ft. super	ALC: UNIX.	11/-
N.B.—The above prices are	e for	purpose	made join	ery. S	tandard
pattern casement windows ar	nd de	ouble hu	ng sashes	and fra	mes to
B.S. 644 are cheaper.			C		

#### Doors in Softwood

Framed ledged and brafilled in with 1" T. &				$\frac{1\frac{1}{2}''}{4/5}$	13"	2"
jointed boarding and h	angin	g	Ft. super	4/5	5/7	5/7
Four-panel door, square	both	sides		,		
and hanging	****	****	27	4/5	5/7	5/7
Ditto molded one side		****	27	4/8	5/10	5/10
Ditto molded both sides	****		22	4/11	6/2	6/2
N.B.—The above pri	ices a	re for		de doo	rs. St	andard
panelled doors to B.S. 48	59 are	cheaper				
11 standard flush doors	2'6">	6'6" in	nternal patte	ern	Each	49/6
$2'''$ ditto $2'$ 9" $\times$ 6' 6" ext	ternal	pattern			22	76/6

#### Linings, Frames, etc., in Softwood

		Section	nal area
Window and door linings etc. (per inch	-		6" to 12"
in sectional area)	Ft. run	-/4	$-/3\frac{1}{2}$
Frames wrot all round and framed			
(ditto)	59	-/3	-/3
Mullions, transomes and cills (ditto)	22	$1/3\frac{1}{2}$	-/3½ 4" to 6'
		2" to 4'	4" to 6'
Moldings, architraves, etc. (ditto)	2.5		-/4
6" Window boards with rounded nos-		Thic	kness
ings, tongued at back and including		1"	11/
bearers	29	$2/9\frac{1}{2}$	3/1
Extra for each additional 3" width	22	$-/6\frac{1}{2}$	-/8

#### Shelving and Fittings in Softwood

Shelving of 2" slats spaced 1" apar	ton		3"	1"
bearers (measured separately)	****	Ft. super	2/-	2/5
Shelving on ditto	****	**	2/2	2/9
Cross tongued shelving on ditto	****		2/5	3/-
Shelving 9" wide on ditto	****	Ft. run	1/10	2/2
2" shelf bearers plugged to walls	****	22	-/7	-/10
The following in framed up cupbe		ttings:	1.	1 ~ -
T. & G. & V-jointed back		Ft. super	2/4	4/2
Cross tongued top, bottom shel		- er saper	-1-	-1-
division		4.	3/5	4/3
14" flush cupboard doors	****	22	0/0	5/3
Labour rebate or groove	****	Ft. run		-/31
Labour cross-grain		**		-/41
1" × 2" bearers screwed on				-/8
N.B.—The above prices are		urnose mede	numboand	
Standard pattern kitchen fittings	to D	ar pose-made	upooaru	fittings

#### IRONMONGERY

		Soft- wood	Hard- wood
3" steel butts (medium quality)	Pair	5/5	6/8
4" ditto (ditto)	21	7/3	8/10
Double action floor springs and top centres including filling boxes with oil P.C. 149/3 Overhead check action door springs, P.C. 66/8	Each	183 /10 85 /8	190 /5 89 /9

#### IRONMONGERY (continued)

					Soft-	Hard-
					wood	wood
6" barrel bolts. P.C. 5/6				Each	7/10	8/5
Cupboard locks. P.C. 8/2				,21	12/8	13/11
Norfolk latches. P.C. 5/6			****	22	11/-	12/7
Cylinder night latch. P.C. 1	5/11	****	****	99	23/8	25/9
Mortice latch. P.C. 9/4				**	15/2	16/10
Rim lock. P.C. 10/-				2.5	14/9	15/11
Mortice lock. P.C. 15/2				,,	22/10	24/11
Door furniture. P.C. 24/-				Set	27/8	28/-
Sash fasteners. P.C. 9/-				Each	11/11	12/6
Casement fasteners. P.C. 7/	11			22	10/2	10/8
Casements stays. P.C. 11/6				**	14/2	14/8

#### STEEL AND IRONWORKER

#### Structural Steelwork

The following prices are for Basic sections only.					
sections vary roughly in proportion to the price of t	he steel	ex I	nills	-	
see "Current Market Prices of Materials."					
R.S.J.—in steel framed structures hoisted and fixed		£	S.	d.	
complete	Ton	61	5	0	
Riveted compound girders including plates and					
rivets	7.7	72	0	0	
R.S. stanchions including caps, bases, cleats, etc	22	71	0	0	
Riveted compound stanchions ditto	22	76	10	0	
Riveted roof trusses with flat and angle members,					
plates, cleats, etc., 30' span		107	15	0	
Ditto 40' span	99	101		0	
27000 20 0000	99		-		
Sundries					

# Simple wrot iron balustrades fixed complete (excluding mortices etc.) .... .... .... .... .... Bolts with heads, nuts and washers and fixing ....

PLASTERER AND TILE FIXER		
24 gauge expanded metal lathing and fixing to softwood soffits	Yd. super	5/4

11 10 6 11 13 10

.... Cwt.

#### Lime and Gypsum Plaster

Three coat lime and two coat "Sirapite" or		
similar gypsum plaster:-	Lime	"Sirapite"
On brick walls and partitions Yd. s	super 6/7	5/1
0	,, 8/1	7/4
On soffit of E.M.L. (measured separ-		
111	., 6/9	7/11
3" Gypsum plasterlath fixed to softwood		
soffits, in accordance with manufacturer's		
instructions, finished with setting coat of		
suitable plaster	Yd. super	8/11
Plaster moulded cornice or cove (per inch in		
girth)	Ft. run	-/5

#### Cement Rendering

Rendering in Portland cement lime sand (1:1:6) and setting in Keenes cement on brick walls		
and partitions	Yd. super	6/4
Portland cement and sand (1 : 3) plain face trowelled smooth on ditto	**	5/10
Portland cement and sand (1 : 3) screed for tiling on ditto	**	3/1

#### Wall Tiler

$6'' \times 6'' \times \frac{3}{8}''$ standard quality white glazed		
wall tiles set and jointed on prepared screed	Yd. super	41/9
Ditto eggshell matt or glossy glazed enamelled	22	52/3

#### EXTERNAL PLUMBER AND COPPERSMITH AND ZINC WORKER

		Flats	Gutters, flash- ings, etc.	flash-
Milled sheet lead and labour	Cwt.	215/6	215/6	225/9
24 S.W.G. sheet copper and				
labour	Ft. super	6/3	6/7	6/10
23 S.W.G. sheet copper and	-			
labour	**	6/6	6/10	7/1
14 gauge zinc and labour	***	2/6	2/9	3/-

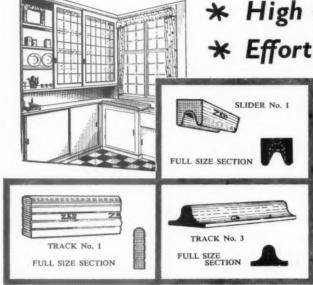
#### Rainwater Pipes and Gutters

Cast iron medium section ( as "metal) R.W. pipes and jointing and fixing to walls with	3"	4"
pipe nails and distance pieces or holderbats (cutting and		With With holder- nails
pinning holderbats measured separately) Ft. run	bats 5/6 4/4	bats $6/9   5/5\frac{1}{2}$

# by Henderson

with the new '**ZED**' slider

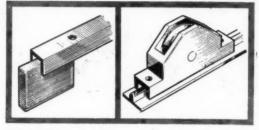
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- \* High load-bearing capacity
- \* Effortless starting and sliding



The cabinet-makers' ready answer to sliding door equipment will now be 'Zed' sliders. They are very economical, neat and unobtrusive and slide with an easy and almost silent action. 'Zed' tracks are treated with 'Chemmod,' the secret which ensures effortlesss travel.

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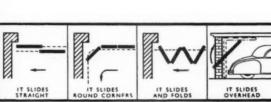


Most Builders also keep a supply of 'Loretto' rollers handy-they are superbly made and are essential to highclass joinery.

Supplies are obtainable in separate cartons each containing 36 - 6 ft. lengths of track (Nos. 1 or 3), 36 'Zed' sliders and 12 roller bolts, but Dealers will supply any smaller quantity when required.

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Hardvood 13/11 12 /7 25 /9 16/10

15/11 24/11 28/ 12/6 10/8 14/8

15 0

10 6

5/4 5/1 7/4

7/11 8/11

-/5

6/4 5/10 3/1

1 /9 52 /3 ZINC epped lash-

ings 5/9 6/10

3/-

With nails

5/51

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EXTERI

Pressed
ditto .
Asbestos
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Cast irc
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Asbestos
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Lead soi ing pij 3" and diame lead t Medium iron so ing pij fixed nails a

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				bats	nans	bats	r nan
Pressed steel R.W. pipes an		Ft. rur	,		G.	$\frac{20}{5/1}$	
Asbestos cement R.W. pip	es		1		3/-		
and ditto Cast iron half round eav	es	**		2/9	2 //	4/10	5" 5/4½
gutter and jointed and fixe with brackets to fascia	ed	**		3/1	3/61	1/8 1/8	16 5 /41
		**		$3/6\frac{1}{2}$	$4/5\frac{1}{2}$	5/1	$6/9\frac{1}{2}$
round ditto Ditto O.G. ditto		**		2/	$7\frac{1}{2}$		71/2
Asbestos cement half rour	nd	22		3/		4	
ditto	****	72		2/	0	3	/10
		entilating	g P	ipes			
Lead soil, waste and ventila ing pipes (17 lb. per yard for							
3" and 22.8 lb. per yard for diameter) fixed to walls with	4"			3	"	4	"
lead tacks and brass screv	WS	Ft. run			3		
Medium or heavy section ca iron soil, waste and ventila			)	Heavy	Med-	Heavy	Med-
ing pipes with caulked joint fixed to walls, with pip				64	ium	7/6	ium
nails and distance pieces		99		5/9	5 31	7/6	7/2
INTERNIAL DIVIADED							
INTERNAL PLUMBER		1.00					
Prices are based upo		ad Pipes	ing	weight	ts ner	vard	
			6	1"	3"	1"	11"
Supply		****		pro-	lb.	lb. 16	lb. 21
Distributing				6	9 5	$\begin{array}{c} 12 \cdot 5 \\ 7 \end{array}$	16
Supply Distributing Flushing and overflow Waste and ventilating Supply pipe in trench (me		****		1"	3"	1"	7 1}″
sured separately)		Ft. run		4/-	0/2	0/8	11/6
Ditto fixed to walls and ceiling Distributing pipe fixed to wal	go.	2.7		4/7	6/11	9/8	12/10
and ceilings		**		$\frac{4}{2} \frac{1}{8}$	$\frac{5}{10}$		
Waste and ventilating pipe did	tto	Paul.		5/4		_	6/1
Joints to fittings		Each		-	6/3	-	$\frac{1}{2}$
Branch joints	****	27		6/9	7/9	8/3	9/7
Steel	Tub	es and Fi	ittin	gs			
Galvanized steel tubes to B.1 1387 Class C with screwe							
joints in red lead as suppl	ly						
pipe laid in trench (mea ured separately)		Ft. run		2/2	2 5	2/7	3/2
Ditto Class B ditto fixed t walls and ceilings as supply							
distributing, waste pipe, et Joints to fittings	c.	Each		$\frac{2}{3}/\frac{1}{11}$	2/4 4/8	2/6 5/6	$\frac{3}{6}$
Bends		39			-	4/1	6/1
Tee, equal or reducing		22		2/6	2/11	3/5	4/8
		bes and I					
Prices are based upon the foll	IOWII	ng gauge	5 :-	1"	3"	1"	11/
Supply Distributing, waste, etc.		****	****	18 19	17 19	16 18	16 18
C TO C 1000	as	****	****	20	4.0		20
Copper tubes to B.S. 1386, a					= 40		
supply pipe laid in trend (couplings and trench mea	a-			2/2	3/2	4/4	$5/5\frac{1}{2}$
supply pipe laid in trend (couplings and trench med sured separately)		Ft. run					
supply pipe laid in trenc (couplings and trench mea- sured separately) Ditto to B.S. 659 as distributed	t-	Ft. run					
supply pipe laid in trenc (couplings and trench mer sured separately)	t- ed p-	Ft. run		2/2	2/9	3/9	4/61
supply pipe laid in trene (couplings and trench mer sured separately)	t- ed p- p-			5/2	6/-	8/5	4 /6½ 10 /9
supply pipe laid in trene (couplings and trench mer sured separately) Ditto to B.S. 659 as distributing, waste pipes, etc., fixe to walls and ceilings. Couplings measured separately Brass compression type couplings—copper to copper Ditto bends	t- ed p	., Each		5 /2 6 /9	6/ <del>-</del> 7/11	8/5 11/6	10/9 14/5
supply pipe laid in trenc (couplings and trench mer sured separately) Ditto to B.S. 659 as distribuing, waste pipes, etc., fixe to walls and ceilings. Couplings measured separately. Brass compression type couplings—copper to copper Ditto bends	t- ed p	Each		5/2	6/ <del>-</del> 7/11	8/5 11/6	10/9
supply pipe laid in trenc (couplings and trench mer sured separately)	t- ed p p anita	Each	gs	5/2 6/9 8/11	6/- 7/11 10/1	8 /5 11 /6 15 /5	10 /9 14 /5 22 /2
(couplings and trench messured separately) Ditto to B.S. 659 as distributing, waste pipes, etc., fixe to walls and ceilings. Couplings measured separately. Brass compression type couplings—copper to copper. Ditto bends	t- ed p p anita	Each	gs	5/2 6/9 8/11	6/- 7/11 10/1	8/5 11/6 15/5	10/9 14/5 22/2

EXTERNAL PLUMBER AND COPPERSMITH AND ZINC

INTERNAL PLUMBER—(continuea)					
Fireclay lavatory basin 25" × 18" with taps and towel rail bracket including screwing brackets to	771		s.		
tiled wall. P.C. 138/6  Rectangular cast iron porcelain enamelled bath 5'6' long, with taps, and panels to side and one end fixed to framing (measured separately)	Each	8	9	0	
P.C. 390/6	**	23	12	0	
floor and cistern brackets to backboard. P.C. 200/-	22	12	16	0	
Ditto with low level cistern P.C. 240 /	99	15	0	0	

floor and cistern brackets to backboard. P.C. 200 /-	**	2 16 0
Ditto with low level cistern P.C. 240 /	,, 1	5 0 0
GLAZIER		
	To	To
18 oz. Ordinary quality sheet glass and	wood	metal
glazing with putty in squares not		
exceeding 4 ft. sup Ft. super	1/01	1/2
24 oz. Ditto and ditto ,,	1/23	1/4
32 oz. Ditto and ditto ,,	1/83	1/10
1" figured, rolled, and cathedral—un-		
tinted and ditto ,,	1/4	1/51
‡" rough cast and ditto ,,	1/83	1/10
‡" wired cast and ditto ,,	1/11	2/01
4" Georgian wired cast and ditto ,,	1/111	2/1
4" Georgian wired polished plate and		,
ditto ,,,	6/8	6/10
1" polished plate (glazing quality) and	,	
ditto ,,,	6/3	6/41

#### PAINTER

#### Whitening, Distemper and Paint on Walls

Prepare and twice whiten plastered ceilings Prepare and twice distemper with washable	Yd. super	1/3
distemper on plastered walls and ceilings	**	1/10
Ditto on brick or concrete	27	2/5
Prepare and paint two coats emulsion paint on plastered walls	**	2/8
Prepare, prime, and paint two coats oil colour on plastered walls and ceilings	**	4/11

#### Paint on Metal

		Basic price	each ad- ditional
Prepare, prime, and paint one coat oil			coat
colour on general surfaces	Yd. super	3/11	1/51
Ditto metal casements	99	4/11	2/2
Ditto members of roof trusses	22	4/-	1/10
Ditto balustrades one side	**	4/11	2/2
Ditto bars, etc., not exceeding 6" girth	Yd. run	-/10	$-/4\frac{1}{2}$
Ditto small pipe	**	-/10	$-/4\frac{1}{2}$
Ditto large pipe	99	1/8	$-/8\frac{1}{2}$

#### Paint on Wood

Knot, prime, stop and paint one coat oil colour on general surfaces of wood-	Basic price	Add for each ad- ditional coat
work Yd. super	3/6	1/54
Ditto on skirtings, rails, frames, etc.,		
not exceeding 3" girth Yd. run	$-/5\frac{1}{2}$	-/2
Ditto ditto for each additional 3" in girth ,,	-/5	$-/2 \\ -/2$
Ditto on sash squares one side Dozen	4/7	1/91
Ditto on large sash squares one side ,,	8/31	

#### Stain and Varnish on Wood

Prepare, size, stain and twice varnish on		
general surfaces of woodwork	Yd. super	3/11
Ditto on skirtings, rails, frames, etc., not exceed-		
ing 3" girth	Yd. run	-/6
Ditto ditto for each additional 3" in girth	9,	$-/5\frac{1}{2}$

Jawains

F.R.I.C.S., F.I.Arb.



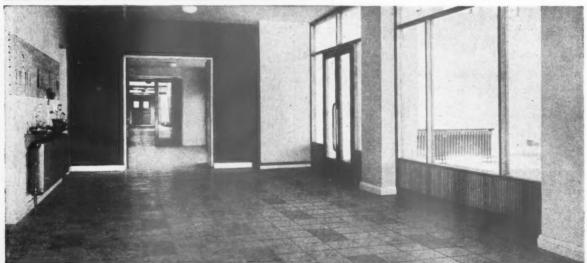
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A digest prepared ists; pour out them up

10.126 FACTOR Neue Ind

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#### INFORMATION CENTRE

A digest of current information prepared by independent specialists; printed so that readers may cut out items for filing and paste them up in classified order.

#### 10.126 design: building types FACTORY DESIGN

Neue Industriebauten. (Otto Maier Verlag, Ravensburg.)

Ever since the days of the Weimar Republic, German architects have allowed a greater prestige to factory design than their colleagues in the other European countries. They seem to have had a clearer notion of the factory as an architectural idea as distinct from a mere utilitarian problem than have others. This book is a fair representation of this awareness. Compiled from the periodical "Bauen und Wohnen," it illustrates 21 factories, 12 of which come from Germany and Switzer-

Though small, this is the most convincing collection that has so far been made. Setting aside such tours de force as Bryn Mawr and the Illinois Institute of Technology, the best average is struck by the Swiss and German examples, which deserve to be better known. Among the best are Hans Fischli's electrical equipment factory at Zürich and Professor Schupp's pithead buildings at Essen. Since so much turns on neatness of constructional finish it is a pity that more working details are not given.

#### 10.127 design: building types SCHOOL DESIGN

School Construction, 1954. (Councils and Education Press Ltd. 10s. 6d.)

This book is a reprint of articles which appeared during 1954 in "Education," the official organ of the Association of Education Committees. These articles are mostly descriptions and appraisals of new schools; they are not so thoroughly reported as in architectural journals-and certainly not so thoroughly as in the AJ. What is valuable is that the book gives the educationalist's point of view. A particularly admirable feature of these reports is one described as

#### CLASSIFICATIONS FOR TECHNICAL ARTICLES AND INFORMATION CENTRE

AND INFORMATION CENTRE

1 Sociology. 2 Planning: General. 3 Planning: Regional & National. 4 Planning: Urban & Rural. 5 Planning: Public Utilities. 6 Planning: Social & Recreational. 7 Practice. 8 Surveying & Specification. 9 Design: General. 10 Design: Building Types. 11 Materials: General. 12 Materials: Miscellar Materials: Miscellarious. 12 Materials: Miscellaneous. 17 Construction: General. 18 Construction: Theory. 19 Construction: Details: 20 Construction: Complete Structures. 21 Construction: Miscellaneous. 22 Sound Insulation & Acoustics. 23 Heating & Ventilation. 24 Lighting. 25 Water Supply & Sanitation. 26 Services & Equipment: Miscellaneous. 27 Furniture & Fittings. 28 Miscellaneous.

"Teaching Aspect," in which the headmaster (or headmistress) says what he (or she) thinks about the new school. These tend to follow a certain pattern: they begin with a tribute to the general uplift induced in the students by the new premises and then go on to make some crab about the narrow access to the boys' cloaks; but they are authentic user comment, uninhibited by professional scruples. Our only thought is how much more interesting they would be if they were made, say, three years after the school's opening.

#### 10.128 design: building types MOTELS

Motels. Geoffrey Baker and Bruno Funaro. (Chapman & Hall Ltd. for Reinhold Publishing Corporation.) Price 96s.

The Motel-a word used to describe roadside accommodation for motorists-is an institution which has grown up during the last 20 years in America. It is hailed over there as the successor to the down town hotel, which it can undercut through lower staffing costs and over which it has so many advantages for the traveller by road. Though informality was one of its greatest original assets, the motel has become sophisticated. The congeries of roadside huts are now an elaborate layout of airconditioned bungalows with fitted carpets, TV and picture windows. To judge by this book, a considerable proportion is architect-designed, which is, of course, tacit evidence of the motel's standing.

Following usual American practice, this volume discusses construction hardly at all and planning at great length. Most valuable of all is the very full and circumstantial discussion of all the economic forces which act upon the motel: for the book is intended for clients as much as for architects and assumes that the architect will con-cern himself more fully with the venture as

a whole than is customary over here. Though our short distances militate against the development of the motel in this country, disgust with English hotel and boarding house accommodation may easily give rise to something similar. In which give rise to something similar. case this book will prove a rewarding guide.

#### 10.129 design: building types FRENCH SCHOOLS

Constructions Scolaires et Universitaires. Charles Rambert. (Vincent Freal et Cie).

This book is the first of a series devoted to contemporary French architecture and aims to show the response made by French architects to evolving educational techniques. In appearance it reminds one of those glossy publications of Le Corbusier's Oeuvres Completes and Roth's New Architecture which brought the Modern Movement to England between 1932 and the outbreak of war. But the resemblance does not go much further, and the examples of schools, technical colleges and university buildings illustrated-they seem a catholic collectionmust sadden francophiles.

There is not a work of distinction to be found anywhere amongst the 150-odd pages and no hint of sympathy for the requirements of the young and growing mind. Almost every plan, with the exception of those for university buildings, is basically

the same—a series of equal-sized classrooms off a corridor which varies in length only according to the number of rooms it has to serve, one example picked at random being 240 ft. long.

The tone of the book is smug and no attempt is made to excuse the results that plans and photographs reveal except for a passing reference to the need for economy (no costs are given). It may be supposed, however, that by English standards the French educational approach offers little stimulus to the architect, favouring as it does an emphasic on book learning as it does an emphasis on book-learning and blackboards rather than experience through experiment and activity. Furthermore, as the rather naïve text implies, the French architect must work under most burdensome regulations which reflect the unshakeable conviction of French administrators that there can only be one correct solution to a building problem. Thus here our own School Building Regulations simply demand a standard amount of light, the French regulations dard amount of light, the French regulations prescribe a drill for lighting: "windows shall be placed on the longest side of the room and their area shall be not less than one third of the floor area." There is, it seems, a similar drill for the size and shape of teaching spaces. Thus there is little left for the architect to do except manipulate corridors and standard classrooms in a hopeless attempt to emulate at best Le. C. or Dudok or Perret, at worst the classical esquisses remembered from his days at the

The university and technical college buildings illustrated are, as one might expect, less standardized. But the strong Beaux Arts characteristics which underlie an outward semblance of modernism, strongly suggest that the architectural forms result from studies equally superficial in this instance as

in the other.

The book deals entirely with the post-war period, but it records not a single technical or educational advance over the work of Andre Lurcat at Villejuif or of Beaudouin and Lods at Suresnes, building as pioneers in 1933-35. There is not even a cliché in it later than 1939. It will be useful to the historian of the future as a picture of France in the doldrums; but those who seek to learn something to their present advantage must look elsewhere.

#### 10.130 design: building types **OLD PEOPLES HOMES**

Residential Accommodation for Old People, Homes for the More Infirm. Ministry of Health Circular 3/55. (HMSO 1955. 9d.)

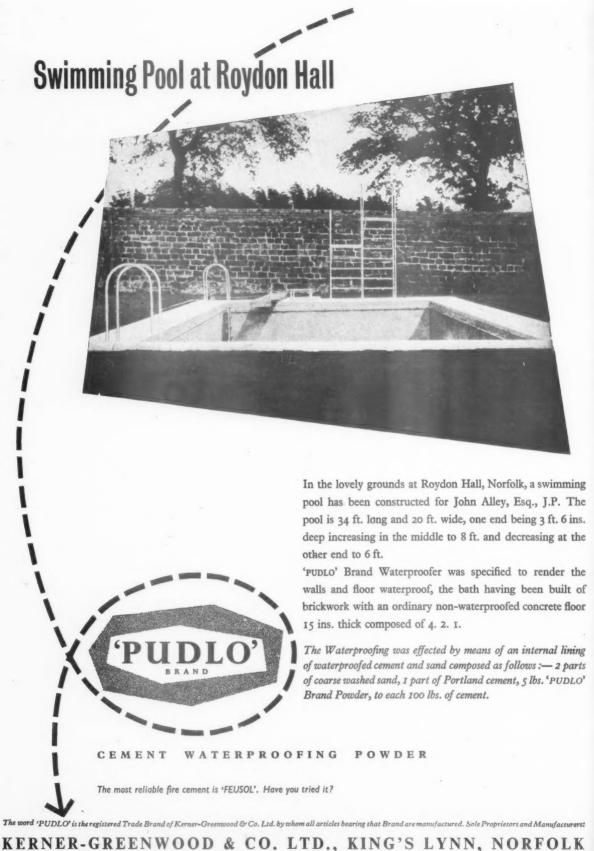
The increasing need for old people's houses to cater for the very infirm who need periods of care in bed is recognized. Avoidance of an institutional character is important so size should be kept small, though in large towns where considerable numbers have to be dealt with, it may be reasonable to accommodate up to 60 old people in one building. Size should be related to demand in the district as old people like to be within easy reach of visiting relatives.

The case for having single bedrooms is discussed and it is tentatively suggested that one-fifth of the accommodation should be is single rooms with the remainder as from

four to six-bedded rooms.

Based on these considerations, a set of standards of accommodation has been drawn up and a sketch design prepared as a guide. The design is for a two-storeyed building and is planned on a 3-ft. 4-in, module.

The circular also discusses furniture and mentions also the possibility of using second hand furniture. One can only hope that this latter suggestion will be acted upon with discretion or else it will open up some horrid possibilities.



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#### 13.124 materials: timber TIMBER DEFECTS

Stains in Timber. Timber Information No. 44. (Timber Development Association 1955.) Many people still believe that any type of stain on timber is an indication of decay. whereas in fact discoloration on wood used in this country is usually only detrimental if the material is to be used decoratively in its natural finish, or possibly with light colour paint decoration.

This leaflet describes the various types of stain that may occur and gives their characteristics, though it is rather doubtful whether distinguish all types just from the written description. It is worth noting that the fairly common blue stain in sapwood is not harmful in attacking the timber.

#### 15.130 materials: applied finishes, treatments WALL AND CEILING TILES

Polystyrene Tiles for Walls and Ceilings. BS 2252: 1955 (British Standards Institution, 20 6d)

Specifies dimensions, opacity, colour fastness and finish. A very brief appendix on fixing method by adhesive. A flat surface is needed for the background material and access of water to the backing material should be avoided.

#### 15.131 materials: applied finishes, treatments

Sprayed Metal Coatings. Part I—Protection of Iron and Steel; Part II—Protection non of Iron and Steel at Temperatures between 120° C. and 950° C. BS 2569: 1955: Parts 1 and 2. (British Standards Institution, Each Part 2s.)

Part I covers the application of sprayed coatings of aluminium or zinc by various spraying methods. It specifies surface preparation and method of application as well as requirements for thickness and adhesion. Part II is similar but is restricted to spraying with aluminium.

#### 16.115 materials: miscellaneous LAMINATED SHEET PLASTICS

Phenolic Laminated Sheet. BS 2572: 1955 (British Standards Institution.)

One of a series of BS dealing with plastics. Distinguishes between several types of material but is not directed towards particular uses to which the material might be put. Of little direct interest to archi-

#### 22.74 sound: insulation-acoustics CHURCH ACOUSTICS

Planning for Sound in Church Worship. R. Berry & B. Y. Kinzey. (Architectural Forum Dec. 1954.)

This article says nothing particularly new, but restates some important and relevant factors which are sometimes overlooked in the acoustic design of churches.

The need for a reasonable degree of reverberation consistent with the requirements of intelligible speech is stressed. Apparently some American churches suffer from an over zealous application of "acoustic treatover zeasous application or "acoustic treatment." A statement that bass reverberation can with advantage be increased above that at 512 c/s "by as much as 150 per cent." is probably intended to mean "by as much as 50 per cent." Factual advice on the layout of the choir and organ is sound, but what is probably the principal reason for avoiding plans with the organ tucked into an odd recess is not brought out. While this arrangement is quite commonly found in old churches the reverberation in these is frequently so excessive that any loss in is frequently so excessive that any loss in definition caused by the hiding of the pipes is hardly appreciable. Now that reverberation is more carefully controlled, a direct view of the organ pipes, and its concomitant, a proportion of unconfused direct sound from them, seems a natural and desirable aim. desirable aim.

#### 23.207 heating: ventilation

**CHURCH HEATING** 

Church Heating (XI). Notes for the Clergy and Church Wardens. 17 pp. 1954. (Church Information Board, Church House, Westminster. 1954. 1s.)

These notes are based on the detailed report on Church heating being published by the Central Council for the Care of Churches, and have been prepared to assist Church Councils in deciding on the most satisfactory and economical solution of their particular

The modernization of heating systems in churches involves a number of problems which are outlined. The systems must be unobtrusive and must not induce dirtying of surfaces. A warning is given against the use of flueless heaters without adequate general usualisation, otherwise stonework and use of flueless heaters without adequate general ventilation; otherwise stonework and particularly limestones used in many churches will disintegrate. Measures must be taken to avoid dry rot conditions, particularly in roof structures which should be well ventilated. It is suggested that a layer of insulating board should be used on the underside of lead covered roofs to reduce the danger of dry rot resulting from condensation on the lead, and also to reduce the rate of heat loss through the roof. This the rate of heat loss through the roof. action will not entirely remove the risk of damp conditions at roof level and it would be preferable to have a ventilated space between the roof skin and the thermal insulation.

The principal problems to be considered in the selection of a heating system are then discussed, including such points as the periods for which heating is required, possible effects on the organ, frost protection, sible effects on the organ, frost protection, running cost and the labour required. The notes then give a list of the alternative systems for heating with solid fuel, oil, gas and electrical systems and discusses their various advantages and disadvantages. For continuous heating, low pressure hot water systems, although rather expensive to install, involve the lowest running costs and should involve the lowest running costs and should use solid fuel or oil; alternatively, a form of warm-air stove should be installed. For intermittent heating, gas or electrical heating systems may provide satisfactory soluing systems may provide satisfactory solu-tions. Radiant and convective gas heaters are described and safeguards to be followed with flueless heaters outlined. The notes on electrical systems are restricted to convec-tive systems such as tubular heaters under news, and windows convectors and windows. pews and windows, convectors and unit heaters; surprisingly, there is no reference to electrical radiant systems which should be suitable in some of the smaller buildings.

The booklet concludes with a section on the care and maintenance of heating installations.

#### 23.208 heating: ventilation OFFICE HEATING

Desirable Temperatures in Offices. A Study of Occupant Reaction to the Heating Provided. Flora W. Black. (Journal Inst. Heating & Ventilation Engineers, Nov. 1954, pp. 319-327.)

The investigation reported in the paper

was made in two large office blocks in London. One of these was heated by radiators below the windows and the other by low temperature radiant ceiling panels. Air temperatures in the rooms were remotely recorded but no indication of temperature readings was given to the room occupants. The occupants were asked to record at intervals their general impressions of thermal comfort, and these assessments were later correlated with the measurements of air temperatures. It was found that for any given air temperature, the subjective assessments of warmth or coldness were the same with the two different types of heating system. An interesting table summarizes the combined results and gives the percentages of men and of women assessing conditions as hot, warm, neutral, cool, cold at intervals of 1° F. for the range 60°-72° F. Assuming that votes of warm, neutral or cool indicate acceptable conditions, it is shown that 95 per cent. of the men were satisfied with air temperatures of 64°-72° F. and 90 per cent. of the women with temperatures of 65°-71° F. These values are rather higher than those recommended by earlier workers, and indicate that in view of the normal variations of temperatures from design figures, it may be desirable to design for 68° F. rather than the accepted value of 65° F. It is of interest to note that at no temperature were more than 95 per cent. of the subjects satisfied with conditions; so although a change in design temperature to 68° F. would, on the evidence offered, reduce the number of complaints, it would not remove them entirely. It may, however, be possible to reduce the number of complaints below that suggested in the paper, for the results given may well reflect not only the particular characteristics of the two heating systems but also the adoption of air temperature as the single criterion of comfort.

#### 24.191 lighting ECONOMICS OF FACTORY LIGHTING

The Economics of Four Industrial Lighting Installations by S. T. Clark, W. Howe, F. Jones, G. W. S. Levey. (Transactions of the Illuminating Engineering Society, Sept. 1954.) Four interesting and detailed papers, the data from which have been used in Artificial Light Sources for Industrial Buildings, by Collins and Godfrey in ARCHITECTS' JOUR-NAL, April 7, 1955.



10.F1, 10.G1-6, 10.G10-15, 10.G20-22, 26.A1 and 33.C1-12 REFERENCE

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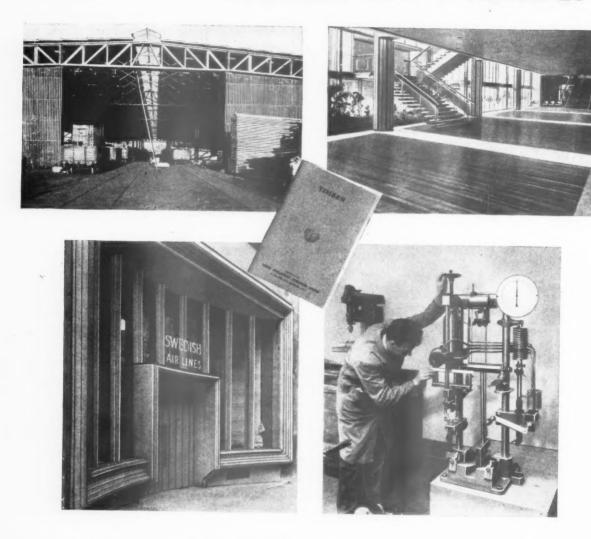
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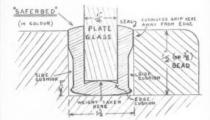
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#### THE INDUSTRY

From the industry this week, Brian Grant reports on a new method of bedding plate glass, a range of standardized building frames, new lighting fittings, roof sheeting and a booklet on structural insulation.

#### BEDDING PLATE GLASS

As an alternative to the usual wash leather or rubber bedding, the Quickfix Co. has produced Saferbed, a special soft plastic channelling section for bedding plate glass in windows and doors. The glass is held away from the vulnerable extreme edge and the grip is cushioned; fixing should be comparatively quick, as there is no surplus to



The "Saferbed" channelling section.

trim off. Standard colour is mahogany and price is 1s. 3d. a yard. Other colours and non-standard sizes can be made to order. (Quickfix Company, Cannonfield, Hathersage, Sheffield.)

#### STANDARDIZED STEEL FRAMES

The photograph on the right shows one of a range of storage buildings recently standardized by Sanders & Forster. Their design is based on the plastic theory, using a tied portal frame as the basis for the design, but using considerably less steel than the conventional truss and stanchion type of construction. Simpler connections are also used, and these reduce the steel weight still further.

A 10-ft. module has been adopted with a frame spacing of 20 ft., which has been achieved without any substantial increase in purlin weight. These are 4 in. by 1½ in. joists, and are fixed by a special pressed steel cleat which provides a high degree of continuity at the joint and cuts down the purlin deflection. In the plan of the roof the purlins are connected by hooked rods which eliminate threaded ends and nuts.

The stanchions are plain r.s.j's. without caps or bases, and are planted in sockets left in the floor slab, being concreted after the building is levelled and plumbed. Most of the shop fabrication is by welding, but site connections are bolted. Standard spans are 30, 40, 50 and 60 ft. and four wall heights

are standardized, from 11 to 20 ft. eaves. Any type of normal roofing, asbestos cement, aluminium or galvanized sheeting: various accessories are available, such as sliding doors, steel windows, patent glazing or Perspex, and gutters and downpipes can also be supplied, while insulating linings can be fitted to roofs and walls. (Sanders & Forster Ltd., Hertford Road, Barking, Essex.)

#### LIGHTING FITTINGS

Those who like to floodlight their indoor plants may be interested in the new Siemens Fleurlite range, one of which is illustrated on the right. There are seven designs and the prices vary from 57s. 6d. to 87s. plus purchase tax. (Siemens Electric Lamps & Supplies Ltd., 38/39, Upper Thames Street, London, E.C.4.)

#### FIRE RISKS OF ROOFING

There are now on the market several types of sheeting which are often used for factory roofs and walls, and which consist of some basic material covered with bitumen. Several of these materials have a bad reputation so far as fire risks are concerned, as the bitumen may soften and drop burning material on anything which may be underneath.

One of the oldest manufacturers of protected metal sheathing, Messrs. Cellactite, do not accept this view, and have adopted the logical course of submitting their material to an independent test at Elstree. The report shows that under the quite exacting conditions of the test there is no lateral spread of flame and no flaming drops at all were formed. The conclusion seems to be that, at least so far as Cellactite is concerned, the fire risk from melted bitumen should not exist, presumably because the bitumen is held by the asbestos ingredient, even at high temperatures. Copies of the report are obtainable from Cellactite & British Uralite Ltd., Cellactite House, Whitehall Place, Gravesend, Kent.



One of the new Fleurlite fittings.

#### STRUCTURAL INSULATION

A new and most informative booklet from Thermalite, Ltd., describes their building blocks, which combine the functions of loadbearing and thermal insulation at a cost comparable with traditional brickwork or concrete.

The standard Thermalite block measures 18 in. by 9 in. and is produced in thicknesses of 3, 4 and 6 in. Weight is 50 lb. per cu. ft., and two 3-in. leaves with a 2-in. cavity, rendered outside and plastered internally, have a U value of 0.15, while an outer skin of 4½ in. facing bricks, cavity and 3 in. plastered Thermalite give a U figure of 0.21. The blocks can be easily cut and shaped as required, and will hold nails well. On the site there are no particular precautions to be taken, though the blocks should be sheeted during wet weather, and should be allowed to dry out thoroughly before rendering or plastering. (Thermalite Ltd., Shepherds House Lane, Earley, Reading,

A standardized storage building from the new range by Sanders & Forster.



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Readers requiring up-to-date information on building products and services may complete and post this form to the Architects' Journal, 9, 11 and 13, Queen Anne's Gate, S.W.1

#### ENQUIRY FORM

I am interested in the following advertisements appearing in this issue of "The Architects' Journal." (BLOCK LETTERS, and list in alphabetical order of manufacturers' names please.)

Please ask manufacturers to send further particulars to:—

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PROFESSION or TRADE

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19.5.55

## Announcements

Mr. Ivor Hodges, L.R.I.B.A., F.R.I.C.S., has moved to 52, Upper Berkeley Street, W.1 (telephone number: Paddington 8318).

(telephone number: Faddington 6316).

Mr. A. B. Waters, F.R.I.B.A., and Mr. A. Llewellyn Smith, M.A. (0XON.), F.R.I.B.A., have taken into partnership Mr. B. G. Fender, A.R.I.B.A., A.R.I.C.S., Mr. R. S. Laskey, M.A., A.R.I.B.A., and Mr. F. H. Lloyd, A.R.I.B.A., who have been on their staff for a number of years. The style of the firm will remain the same.

Mr. Eric G. V. Hives, L.R.I.B.A., of 3, Cork Street, Reading, has opened a branch office at 21, Market Place, Derby, and would be pleased to receive trade catalogues.

Messrs. Richard Sheppard (F), and Partners have moved to 5, Southampton Place, W.C.1, telephone number, Chancery 4261-5.

Mr. George L. Sykes, A.I.Q.S., A.F.S. (ENG.) (QUANTS.), LIOB, Incorporated Quantity Surveyor, has commenced in private practice on his own account at Barclays Bank Buildings, 3, Bolton Road, Walkden, Manchester (temporary telephone number: Walkden 3585).

Mr. Ernest A. Baker, F.R.I.C.S., A.I.A.S., has moved to 36, Addiscombe Road, Croydon (telephone number: Croydon 9988).

Mr. Graham F. Goatley, A.R.I.B.A., is now in private practice at Forester's Hall, Wyle Cop, Shrewsbury, and will be pleased to receive trade catalogues.

#### TRADE

The telephone number of Messrs. J. Gliksten & Son Ltd., and subsidiary companies [The National Plywood Corporation Ltd., Gliksten Doors Ltd., Gliksten (West Africa) Ltd., and Gliksten Building Materials] operating at Stratford, is now AMHerst 3300.

The directors of Messrs. Walter W. Jenkins & Co. Ltd., marble merchants, Torquay, and 82, Victoria Street, S.W.1, wish to state that the business of the company is absolutely and in every way independent of any other marble company. Since the death of its governing director—the late Mr. Walter W. Jenkins—the business of this company has been carried on by the directors appointed with him during his lifetime. The present governing director wishes it to be understood that she has no intention of winding up the company now or at any future date, nor has she ever considered such a course of action. The directors also wish it to be known that they are prepared, as they were in the late Mr. Walter Jenkins' time, to tender for any marble or granite contracts in Great Britain or abroad.

Messrs. Copperad have opened an office at Chesterfield Chambers, Westbourne Place, Queens Road, Clifton, Bristol 8 (telephone, Bristol 33883), under the management of Mr. R. Wilyman.

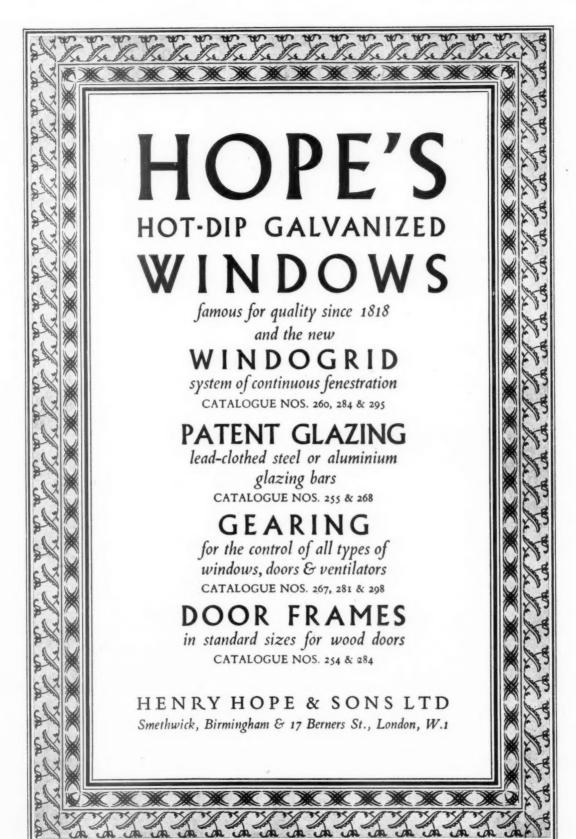
Mr. C. R. Evans has been appointed London Sales Manager (Paints) for Messrs, Mander Brothers Ltd. Mr. Evans has for some time been operating as representative and advisor in the London area.

Mr. Frank Banfield, general manager for the past year, has been appointed managing director of The Expanded Metal Co. Ltd., of West Hartlepool and London. Mr. Banfield succeeds Lt.-Cmdr. G. C. Hans Hamilton who retains his position as chairman of the company.

#### Correction

Messrs. J. H. Sankey & Son Ltd., who supplied hand-made facing-bricks for the London Airport buildings, should have been included in the list of contractors on this page on April 21.





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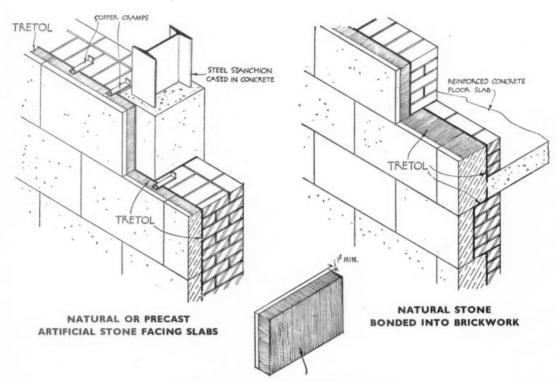
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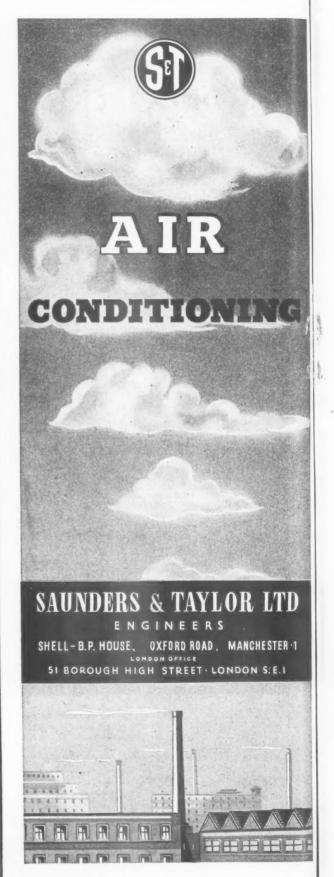
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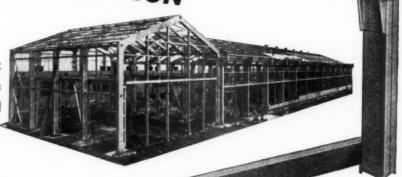
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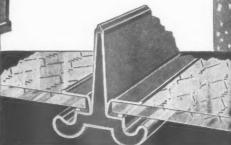


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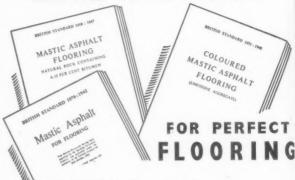
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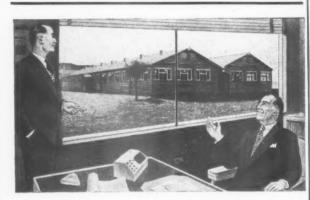
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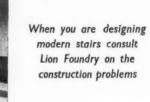
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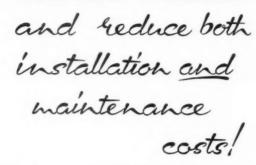
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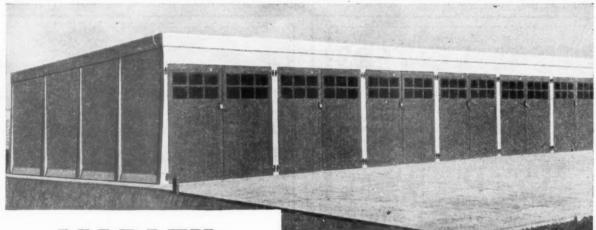
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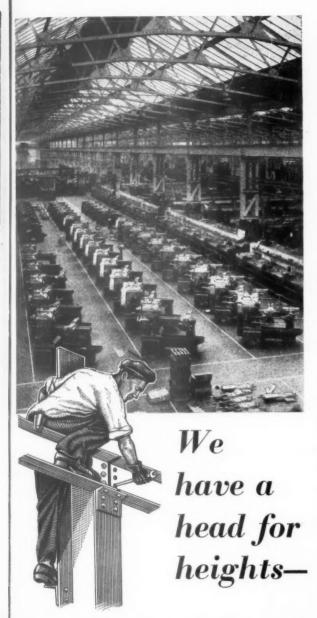
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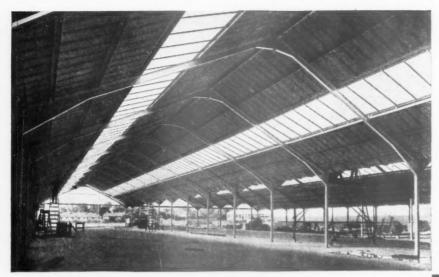


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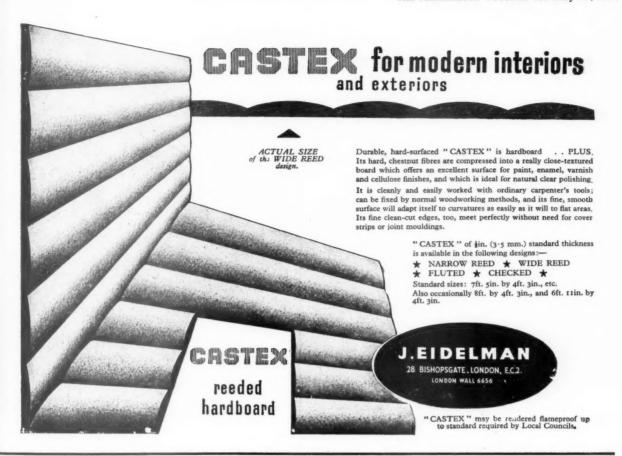
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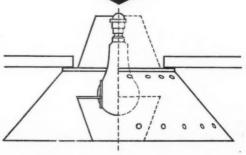
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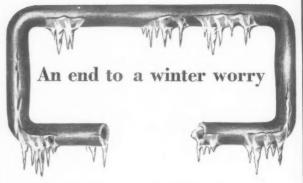
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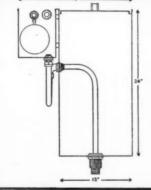
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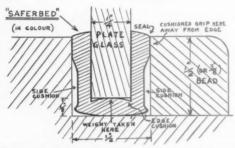


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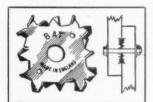
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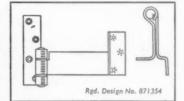
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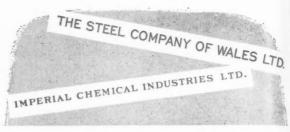
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CLASSIF Advertisem Manager, 13, Queen A should reac morning for Replies to tare of Th given above

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25s. IN The enga advertisement of the Employment aged 18-64 inclusive un excepted fro of Vacancie.

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OXFORD
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Town Hall Dyne Re Kilbur April, 1950

CLASSIFIED **ADVERTISEMENTS** Advertisements should be addressed to the Advt. Hanager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post on Friday morning for inclusion in the following Thursday's

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

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25s. per inch; each additional line, 2s.

The engagement of persons answering these disertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a managed 18-64 inclusive or a woman aged 18-69 inclusive unless he or she or the employment is scepted from the provisions of the Notification of Tacancies Order, 1952.

BOROUGH OF WREXHAM.

TWO ARCHITECTURAL ASSISTANTS—sulary 250 × 25 to 2775 per annum. Housing Accommodation.

Form of Application and Particulars and Conditions of Appointment from Borough Surveyor, II, Chester Street, Wrexham. Closing date, 23rd May, 1955.

ABY, 1995.

OXFORD REGIONAL HOSPITAL BOARD,
REGIONAL ARCHITECT'S DEPARTMENT.
Applications are invited for the following
ppointments:—

ASSISTANT ARCHITECT, £900 × 30-£1,050. ASSISTANT ARCHITECT. £625 × £25 (7) ×

ASSISTANT ARCHITECT. £625 × £25 (7) × £26 (3) -£890.
QUANTITY SURVEYING ASSISTANT. £465 × £26 (1) × £20 (8) -£650.
CLERK OF WORKS. £570 × £20 -£670.
Particulars of the post and of the qualifications expected may be obtained from the Regional Architect. Applications, with the names of two referees, should be submitted to the Secretary of the Board. 43, Banbury Road, Oxford, not later than 3rd June. 1955.

BOROUGH OF WILLESDEN.
ARCHITECTURAL AND TECHNICAL
ASSISTANTS.
Applications are invited from suitably qualified and experienced persons for the following permanent appointments in the Architects' Section of the Borough Engineer and Surveyor's Benartment

Department.
(a) ARCHITECTURAL ASSISTANTS (2) Grade
A P T VI £825—£35—£1,000 per annum. A.P.T.VI £825—£35—£1,000 per annum. (b) TECHNICAL ASSISTANT (1) Grade A.P.T.VI

A.P.T.VI £825—£35—£1,000 per annum.
(b) TECHNICAL ASSISTANT (1) Grade A.P.T.VI £825—£35—£1,000 per annum.
(c) ARCHITECTURAL ASSISTANTS (5) Grade A.P.T.V £750—£30—£900 per annum.
(d) ARCHITECTURAL ASSISTANTS (2) Grade A.P.T.III\_/IV £600—£25\_£20—£264 per annum.
(e) ARCHITECTURAL ASSISTANT (1) Grade A.P.T.III\_/IV £600—£25\_£20—£264 per annum.

The salaries quoted are exclusive of the appropriate London Weighting which is payable in addition and which is £30 per annum for officers 26 years and over. The commencing salary in each case will be fixed in accordance with the qualifications and experience of the successful candidate. Applicants for appointments (a) and (c) must be Associates of the R.I.B.A. Applicants for appointments (b) must be either an Associate of the E.I.B.A. and (e) must be students of the R.I.B.A. There is a large and interesting programme of work in the Department, including the clearance and redevelopment of urban areas for housing purposes, Minor Capital Works for the Education Services and various Municipal buildings.

For one of the posts (a) and (c) preference will be given to 'candidates having experience in the preparation of layouts for high density housing davelopment.

The Technical Assistant, post (b) will be princi-

be given to candidates having experience in the preparation of layouts for high density housing development.

The Technical Assistant, post (b) will be principally concerned with maintenance and small works of alteration to schools, with possibly an occasional capital job up to about £10,000 in value. The duties of the appointment call for an Architect or Surveyor with a sound practical approach to day-to-day maintenance problems and with considerable experience of specification writing. The person appointed will be required to work with only limited supervision and assistance and to accept responsibility for the carrying through from initiation to completion of a very large number of small jobs, consulting as necessary with Senior Officers of the County Council on aspects of design, construction and finance relating to the work assigned to him, Approximately £60,000 per annum is at present being spent on the maintenance of schools.

Forms of application and conditions of appointment may be obtained from the Borough Engineer and Surveyor. Town Hall, Dyne Road Kilburn, N.W. 6. Applications are to be returned to the undersigned not later than 10 a.m. on Tuesday, 31st May, 1955. When writing for application from scandidates must state for which appointment they wish to apply.

The Council is unable to assist with housing accommodation.

R. S. FORSTER, Town Clerk.

Town Hall, Dyne Road. Kilburn, N.W.6. April, 1955.

BOROUGH OF WATFORD.
ASSISTANT ARCHITECT.
Applications are invited for the appointment of an Assistant Architect on Grade II, A.P.T. (£560—£640 p.a.). Commencing salary will be fixed according to experience.
Application forms obtainable from the undersigned are to be returned by 31st May.

F. C. SAGE,
Borough Engineer, Surveyor and
Architect.

9971

Town Hall, Watford.

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 is about to undertake.

(1) SENIOR ASSISTANT ARCHITECT—Candidates must be qualified and registered architects and should possesse experience in planning large schemes. Salary £900 × £30—£1,050 per annum.

annum.

(2) ASSISTANT ARCHITECTS—Candidates must be qualified and registered architects and possess good general experience in design, construction and specification writing. Knowledge of hospital work desirable. Salary £625—£890 per

of hospital work desirable. Salary £625-£890 per annum.

(3) ARCHITECTURAL ASSISTANTS—Intermediate Examination of R.I.B.A. or recognised equivalent essential. Candidates must have had experience in architectural work. Salary £466 (at age 21 or over)—£650 per annum.

(4) DRAUGHTSMEN—Candidates must have had suitable training and experience in architectural work. Salary £380 (at age 21 or over)—£570 per annum.

(5) ASSISTANT QUANTITY SURVEYOR—Candidates must hold, or have previously held, Corporate Membership of R.I.C.S. and have had experience in preparation of preliminary estimates, taking off and preparation of Bills of Quantities, site measurements, valuations for interim certificates and settlement of final accounts, etc. Salary £625—£890 per annum.

(6) QUANTITY SURVEYING ASSISTANT—Candidates must have passed Intermediate Examination of R.I.C.S. or examination recognised by Institution as equivalent. Person appointed will be responsible for working up Bills of Quantities, assisting in site measurements and taking off. Salary £465 (at age 21 or over)—£650 per annum.

(7) JUNIOR (MALE), for squaring dimensions,

Quantities, assisting in site measurements and taking off. Salary 2465 (at age 21 or over)—£559 per annum.

(7) JUNIOR (MALE), for squaring dimensions, abstracting and giving general assistance to technical staff of Quantity Surveying section. Salary £170 (at age 25).

Additional increments within the scale based on experience and age may be granted in respect of posts (2) and (5). Commencing salary for posts (3) and (6) may be fixed at point above minimum but will not exceed £550 per annum.

Applications indicating appropriate post and stating age, qualifications, experience and details of present position with names of three referes to Secretary of Board, 117, Chesterton Road, Cambridge, by 31st May, 1955.

METROPOLITAN BOROUGH OF

CAMBERWELL.

DEPARTMENT OF DIRECTOR OF HOUSING AND BOROUGH ARCHITECT.

National scale, A.P.T., V, VI or VII (salary range £780—£1,130, inclusive of £30 London weighting) Grade and commencing salary according to qualifications and experience; (b) ASSISTANT ARCHITECT. A.P.T., III/IV (£630—£255, inclusive); (c) JUNIOR ARCHITECT, A.P.T., III/IV (£630—£255, inclusive); (c) JUNIOR ARCHITECT, A.P.T., III/IV (£630—£255, inclusive); (d) JUNIOR ARCHITECT, A.P.T., III/IV (£630—£255, inclusive); (d) JUNIOR ARCHITECT, A.P.T., III/IV (£630—£650, inclusive); (e) JUNIOR ARCHITECT, A.P.T., III (£630—£255, inclusive); (e) Junior Architect R.J.B.A. Intermediate Examination or its equivalent, followed by a minimum of one year in an architectural office. Work of department includes design and construction of public buildings, housing estates, including multi-story construction. No housing provided. Superannation scheme, Application form from Town Clerk, Town Hall, S.E.5. Closing date: 31st May, 1955. 9787

COUNTY OF HUNTINGDON.

COUNTY ARCHITECT'S DEPARTMENT.
Applications are invited for the following appointments:—

(a) ARCHITECTURAL ASSISTANT Grade
A.P.T. 3. (£600×£25(5)—£725 per annum)
(b) TWO ARCHITECTURAL ASSISTANTS
Grade A.P.T. 2. (£560×£20(4)—£640 per annum)

Grade A.P.T. 2. (£560×£20(4)—£640 per annum)

(c) ARCHITECTURAL ASSISTANT Grade A.P.T. 1. (£500×£20(4)—£580 per annum)

The appointments will be subject to the provisions of the Local Government Superannuation Acts and the successful candidates will be required to pass a medical examination.

If required, the Council may be prepared to consider the provision of accommodation in due course. An allowance of 30s. per week will be paid for a period not exceeding six months in the event of a married man being appointed who is unable to find accommodation.

Applications stating age, qualifications, experience, present position and salary, together with the names of two referees, should be delivered to S. M. Holloway, A.R.I.B.A., County Architect, County Buildings, Huntingdon, in a sealed envelope appropriately endorsed, by Thursday, 26th May, 1955.

County Buildings, Clerk of the County Council.

Huntingdon.
12th May, 1955.

BOROUGH OF LEYTON.

Applications are invited for the appointment of TWO GENERAL ARCHITECTURAL ASSISTANTS, Grade A.P.T.II (£560—£640 per annum plus London Weighting Allowance according to age, which at 26 years is at a maximum of £30). Candidates should have passed the Intermediate Examination of the R.I.B.A. and must have had good experience in the design and construction of houses, flats and municipal buildings.

Alternate Saturday mornings free of duty and canteen facilities available.

Details of appointments and form of application may be obtained from Mr. H. D. Peake, M.Sc. (Eng.), Borough Engineer and Surveyor, Town Hall, Leyton, E.10, to whom they should be returned not later than Friday, 3rd June, 1955.

Town Hall, Leyton, E.10.

Leyton, E.10. 9822

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.

Vacancies for ARCHITECTS, Grade III (up to 2892 10s.), and ARCHITECTURAL ASSISTANTS (up to 2739 10s.), in Schools, Housing, and General

(up to 2739 10s.), in Schools, Housing, and General Divisions.
Particulars and application forms from Architect (AB/BK/A/2), County Hall, S.E.1. (1058) 2205

BOROUGH OF GILLINGHAM.
APPOINTMENT OF SENIOR ASSISTANT ARCHITECT.
BOROUGH ENGINEER'S DEPARTMENT.
Applications from candidates, appropriately qualified, are invited for the appointment of SENIOR ASSISTANT ARCHITECT Grade A/P.T.
IV (£675-£825).

SENIOR ASSISTANT ARCHITECT Grade A.P.T. IV (£675-£825).

IN SUITABLE CASES HOUSING ACCOMMODATION CAN BE MADE AVAILABLE. The post is superannuable and the National Conditions of Service will apply.

Application forms may be obtained from the Borough Engineer, Municipal Buildings, Gillingham, Kent.

Latest date for receipt of completed applications Tuesday, 31st May, 1955.

FRANK HILL.

Tuesday, 31st May, 1955.

Municipal Buildings,
Gillingham, Kent.
6th May, 1955.

CITY OF BELFAST—EDUCATION
COMMITTEE

APPOINTMENT OF ARCHITECTS.

Applications are invited for the following positions in the Education Architect's Department.
The appointee must be a qualified architect who has passed the Final R.I.B.A. Examination, or its equivalent, and as the Senior Officer in charge of the New Schools Drawing Office, must be a capable and efficient administrator possessing enthusiasm and ability for contemporary architectural design and building construction. Preference will be given to applicants with experience of modern school design. The present selarly scale (which is under review) is 295 × 20-41,045, the commencing salary within the scale to be determined in accordance with the qualifications, ability and experience of the successful candidate.

(b) ARCHITECT CLASS II (NEW SCHOOLS).
There is a vacant post for a Registered Archi-

tions, ability and experience of the successful candidate.

and the candidate of the successful candidate of the candidate of

The following conditions apply to these appoint-

ments:—
Superannuation contributions payable at the rate of approximately 6 per cent. of remuneration.
Canvassing in any form will be a disqualifica-

tion.

Application forms, etc., are obtainable from the Education Office, Academy Street, Belfast, on personal application or by sending a stamped addressed foolscap envelope Completed applications must reach the undersigned not later than 4 p.m. on Thursday 26th May, 1965.

JOHN DUNLOP, Town Clerk.

City Hall, Belfast,
P.O. Box 234.
2nd May, 1955.

MINISTRY OF WORKS require ARCHITECTURAL ASSISTANTS for drawing offices in London. Edinburgh and various provincial offices, with at least 3 years' training, some experience in an architect's office, and of Inter. R.I.B.A. standard. London salary, £442 to £695 per annum; rates elsewhere slightly less. Starting pay according to age and experience; prospects of promotion and permanency. State age and full details of training and experience to E. Bedford, Esq., C.V.O., A.R.I.B.A., Chief Architect, Ministry of Works, 20 (F), Abell House, John Islip Street, London, S.W.1.

OFFICE OF THE RECEIVER FOR THE METROPOLITAN POLICE DISTRICT. METROPOLITAN POLICE DISTRICT.
Applications are invited for unestablished appointments as ARCHITECTURAL ASSISTANTS (New Works and Maintenance Branches) and also as SANITARY ENGINEERING ASSISTANTS in the Chief Architect and Surveyor's Department.

Department.

Rates of pay, £442 10s. (age 21) by annual increases to £695 (men) and £442 10s. by annual increases to £615 (women). Overtime of approximately £24 per annum is also payable while a 45½-hour week is worked.

Conditional hours, 44 per week. Annual leave, 24 days.

Application forms from the Chief Clerk, Architect and Surveyor's Department, New Scotland

tect and Surveyor's Department, New Scotlar Yard, S.W.1, stating for which drawing offi application is made.

SURREY COUNTY COUNCIL.

Applications invited for the following

vacancies:—
(1) ASSISTANT ARCHITECT GRADE V,
2750 × £30—£900 p.a. plus London Allowance.
(2) ASSISTANT ARCHITECT GRADE IV,
£675 × £30—£925 p.a. plus LA.
(1) and (2) should be Associate Members
R.I.B.A.

R.I.B.A.

(3) ASSISTANT ARCHITECT GRADE III.

(500 × £25-£720 p.a. plus L.A. Pref. given applicants who bave passed Inter. R.I.B.A.

(4) ARCHITECTURAL ASSISTANT GRADE I. £500 × £20-£580 p.a. plus L.A.

(5) ASSISTANT QUANTITY SURVEYOR GRADE V. £750 × £30-£900 p.a. plus L.A.

(6) ASSISTANT QUANTITY SURVEYOR, GRADE IV. £250 × £30-£925 p.a. plus L.A.

(6) ASSISTANT QUANTITY SURVEYOR, GRADE IV. £2575 × £30-£225 p.a. plus L.A.

(5) and (6) should be Associate Members R.I.C.S.

(7) ASSISTANT QUANTITY SURVEYOR GRADE III, £600 × £25—£725 p.a. plus L.A. Pref. given applicants who have passed Inter. R.I.C.S.

R.I.C.S.

(8) QUANTITY SURVHYING ASSISTANT

(BADE I, £500 × £20-£580 p.a. plus L,A.

Full details and present salary, accompanied by

copies of three recent destimonials to County

Architect. County Hall, Kingston, as soon as pos
sible.

BOROUGH OF OLDBURY.

BOROUGH SURVEYOR'S DEPT.—
ARCHITECT'S SECTION.

Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT Grade A.P.T. III (£600-£725), in the Borough Surveyor's Department. Applicants for the appointment should be good architectural draughtsmen with experience in the preparation of working drawings and details from preliminary sketches and should have good experience of housing and education work normally undertaken by Local Authorities and capable of administering small building contracts.

The appointment will be superannuable, subject to the National Conditions of Service and to the selected candidate passing a medical examination.

Applications, giving particulars of age, qualifications and experience and the names of two referees, should be delivered to the undersigned not later than Saturday, 28th May, 1956.

KENNETH PEARCE.

Town Clerk.

Municipal Buildings,

Oldbury, Nr. Birmingham. 3rd May, 1965.

COUNTY BOROUGH OF OLDHAM.
Applications are invited for two SENIOR ARCHITECTURAL ASSISTANTS within the Salary Scale 2675/2825.
Applicants should be qualified and the appointments are subject to the Superannuation Acts and to the passing of a Medical Examination.
Housing accommodation will be provided if necessary.

Applications, together with copies of two recent testimonials or names of two persons to whom reference may be made, must reach me not later than Monday, the 6th June, 1955, in envelopes endorsed "Senior Architectural Assistant."

A. L. HOBSON,

Borough Engineer & Surveyor.

1036

COUNTY BOROUGH OF SOUTHEND-ON-SEA. BOROUGH ARCHITECT'S DEPARTMENT. Applications are invited for the following estab-lished posts:—

lished poets:—
Assistant Architects:—
ASSISTANT ARCHITECT (female), salary
£560 × £20—£640.
ASSISTANT ARCHITECT, salary £625 × £25

ASSISTANT ARCHITECT, salary £625 × £25 – £675.
ASSISTANT ARCHITECT, £675 × £30 – £825.
ASSISTANT ARCHITECT, £675 × £30 – £825.
ASSISTANT QUANTITY SURVEYOR, salary £625 × £25 – £676.
ASSISTANT QUANTITY SURVEYOR, salary £675 × £30 – £825.
The appointments will be subject to the provisions of the Local Government Superannustion Act, 1937, and the N.J.C. Scheme of Conditions of Service so far as adopted by the Council.
Medical examination.
Applications stating age, qualifications and experience, with the names of two referees, should be submitted to the Borough Architect, 30, Alexandra Street, Southend-on-Sea, forthwith ARCHIBALD GLEN.

GOVERNMENT OF SIERRA LEONE. ARCHITECT—PUBLIC WORKS DEPARTMENT.

DEPARTMENT.

Duties are to prepare plans and specifications for buildings of all types.

Appointment is on contract for 18-24 months in the salary scale £886—£1,758 per annum, plus a gratuity of from £25—£37 los. for each completed 3 months' service, payable on completion of

gratuity of from £25—£37 l0s. for each completed 3 months service, payable on completion of contract.

Free lst class passages are provided for officer and his wife, and up to £75 each for a maximum of two children is granted in respect of their passages or maintenance in the United Kingdom.

Leave is granted at the rate of 7 days for each completed month of resident service. Furnished quarters are provided, if available, at a rent of 10 per cent. of basic salary subject to a maximum of £150 per annum.

Candidates must be A.R.I.B.A. and/or hold a degree in Architecture of a recognised University. Apply in writing to the Director of Recruitment, Colonial Office, Great Smith Street, London, S.W.1, giving briefly age, qualifications and experience, and quoting reference No. BCD.112/15/011. Closing date: 11th June, 1955.

LINDSEY COUNTY COUNCIL.

LINDSEY COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
Vacancies on the permanent staff for:—
(a) TWO QUALIFIED ASSISTANT ARCHITECTS, A.P.T., IV (£675—£825), or Special Grade
(£650—£775), according to experience.
(b) QUALIFIED ASSISTANT QUANTITY
SURVEYOR, A.P.T., V (£750—£900).
(c) HEATING ASSISTANT, A.P.T., III (£600—£725).

(d) ELECTRICAL ASSISTANT, A.P.T., II

(a) ELECTRICAL ASSISTANT, A.P.T., 11 (E550—2640).

(e) BUILDING INSPECTOR / SURVEYOR, A.P.T., I1 (E550—2640).

N.J.C. Conditions of Service, Canvassing will disqualify. Candidates must disclose in writing whether to their knowledge they are related to any member or senior officer of the Council. Temporary financial help possible to married man unable immediately to find housing accommodation.

dation.
Applications, giving age, qualifications, experi-

Applications, giving age, qualifications, experience, and names of two persons to whom reference can be made, to be sent to the undersigned not later than 25th May, 1955.

A. RONALD CLARK, A.R.I.B.A.,

A.M.T.P.I.,

County Offices Lincoln.

County Offices, Lincoln. 1017
CITY OF LIVERPOOL.
ARCHITECTURAL AND HOUSING
DEPARTMENT.
Applications are invited for the following

DEPARTMENT.

Applications are invited for the following appointments:—

ARCHITECT'S GENERAL SECTION:

(a) FIRST ASSISTANT ARCHITECT. Salary, £825—£1,000 p.a. (A.P.T., Grade V).

(b) SECOND ASSISTANT ARCHITECT. Salary, £750—2900 p.a. (A.P.T., Grade V).

(c) THIRD ASSISTANT ARCHITECT. Salary, £650—£225 p.a. (A.P.T., Grade IV).

(d) ASSISTANT ARCHITECT. Salary, £650—£75 p.a. (N.J.C. Scale).

Applicants for the above must either hold the R.I.B.A. Final Examination or its equivalent at one of the recognised schools of Architecture. The work of the Section is concerned with general architecture, including schools.

(e) ASSISTANT ARCHITECT. Salary, £650—£775 p.a. (N.J.C. Scale).

Addicants must be qualified A.R.I.B.A. and/or A.M.T.P.I., and should have some experience in the development of central areas.

\*\*TEMPORARY ARCHITECTS\*\*

(f) Vacancies also exist for Temporary Architects, who will be paid in accordance with the National negotiated salaries, and if fully qualified at the rate of £675 per annum.

(g) UNITITY SURVEYING SECTION:

(g) THREE ASSISTANT QUANTITY SURVEYEVORS. Salary, £650—£775 p.a. (N.J.C. Scale).

Applicants should be qualified A.R.I.C.S. or hold the final certificate of the Institute of Quantity Surveyors.

\*\*SURVEYING SECTION:\*\*

(h) ASSISTANT SURVEYOR. Salary, £650—

Applicants should be qualined A.R.A.V.S. or most the final certificate of the Institute of Quantity Surveyors.

(h) ASSISTANT SURVEYOR. Salary, £650—£775 p.a. (N.J.C. Scale).

Applicants should be qualified A.R.I.C.S. Application Forms, obtainable from the City Architect and Director of Housing. Blackburn Chambers, Dale Street, Liverpool, 2. must be returned to him not later than 4th Jume, 1955.

Permanent appointments are superannuable, and ail are subject to the Standing Orders of the City Council. Canvassing disqualifies. Thomas Alker, Town Clerk, Municipal Buildings, Liverpool, 2. (JA.3933)

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

Vacancies for ARCHITECTURAL ASSISTANTS (up to £739 108.), for widespread construction programme, which includes houses, blocks of flats, schools of all types, and various public and industrial buildings. Application forms and particulars from Architect (AR)EK/A/2), The County Hall, S.E.I. (678)

DEVON COUNTY COUNCIL require PLANNING ASSISTANT, A.P.T., I. Drawing office experience essential, and must be first-class draughtsman, Closing date: 25rd May, 1955. Particulars from Director of Planning, "Bellair," Topsham Road, Exeter.

BRICK AND TILE INDUSTRY.

The National Federation of Clay Industries invites applications for the post of Technical Officer, to take charge of the Clay Producis Technical Bureau. Candidates should possess a good technical knowledge of building methods and materials, and should be interested in the development of clay products to meet modern trends in building design and construction. Duties will be concerned mainly with obtaining information by investigation and liaison with architects, engineers and technical bodies; and its dissemination among brick and tile manufacturers and users by advisory work, lectures, drafting reports and preparation of articles for the professional and trade Press.

Remuneration will be at the rate of £1,250 per annum, plus expenses, and the appointment in the first instance will be for three years, subject to a probationary period of six months.

Applications, giving full details of qualifications and experience, should be sent by 9th June to the Secretary. The National Federation of Clay Industries, Drayton House, 30, Gordon Street, London, W.C.1.

Industries. Drayton House, 30, Gordon Street, London, W.C.1.

NORFOLK COUNTY COUNCIL.

ARCHITECTURAL ASSISTANT required. Salary: A.P.T., I (£500×20-£580) per annum, Local Government Superannuation Acts and National Joint Council Conditions of Service apply. Candidates must be good draughtsmen with general office experience. Applications, stating age and giving details of training, experience, present appointment and salary, and names of three referees, to County Architect, 27, Thorpe Road, Norwich, by 27th May, 1955.

BRACKNELL DEVELOPMENT CORPORATION.

Applications are invited for the appointment of STRUCTURAL ENGINEER on the staff of the Chief Architect. Salary Grade, £975×£50 (3)×£45 (1)—£1,170. Applicants should be Corporate Members of the Institution of Structural Engineers and have had good all-round experience. The successful applicant will be required to advise the Chief Architect on all matters relating to structural work and foundations to buildings, including factories, public buildings, etc., to prepare designs and to supervise all the specialist works.

Superannuation schemes. Medical examination.

works.
Superannuation schemes. Medical examination.
Housing available in due course. Apply by 2nd
June, 1955, giving age, education and qualifications; experience and appointments held (with
dates and salaries), and two referees, to General
Manager, Bracknell Development Corporation,
Farley Hall, Binfield, Bracknell, Berkshire. 1039

Farley Hall, Binfield, Bracknell, Berkshire. 1033

CITY OF CARDIFF

APPOINTMENT OF ARCHITECTURAL

ASSISTANT (EDUCATION).

Applications are invited for the following appointment in the City Surveyor's Department:—

ARCHITECTURAL ASSISTANT (EDUCATION). A.P.T., Grade 2 (£560—£640 per annum). Candidates should possess the minimum qualifications and experience prescribed by the National Joint Council for Local Authorities Administrative, Professional, Technical and Clerical Services for posts in the above-mentioned Grade.

Grade.
General Conditions of Appointment may be obtained from the undersigned.
The Council will assist in providing housing accommodation for a period for the successful

accommodation for a period for the successful applicant.
Applications, accompanied by the names and addresses of three referees, and endorsed "Architectural Assistant (Education), A.P.T., Grade 2" must be delivered to me not later than the 25th May, 1955.

S. TAPPER-JONES, City Hall, Cardiff. May, 1955.

EBBW VALE URBAN DISTRICT COUNCIL-ARCHITECT'S DEPARTMENT. Applications are invited for the under-mentioned appointment on the permanent staff of the Archi-

appointment on the permanent tect's Department:—ARCHITECTURAL ASSISTANT (Grade A.P.T. ARCHITECTURAL ASSISTANT (Alarmediale tector)

tect's Department:—
ARCHITECTURAL ASSISTANT (Grade A.P.T.
II). Salary, £560—£540.
Applicants should have passed the Intermediate Examination of either the Royal Institute of British Architects or the Royal Institution of Chartered Surveyors (Building Sub-Division).
The appointment will be subject to the provisions of the Local Government Superamnuation Acts, 1937 and 1955, and the National Conditions of Service. The successful applicant will be required to pass a medical examination, and the appointment will be subject to one month's notice in writing on either side.
The Council are unable to provide housing accommodation.
Applications, stating age, qualifications and experience, together with the names of two referees to whom reference may be made, should be delivered to the undersigned not later than Saurday, the 28th May, 1955.
Applicants must state in their applications whether, to their knowledge, they are related to any member of the Council or senior officer under the Council.
Canvassing will disqualify.

the Council.

Canvassing will disqualify.

H. J. WILLIAMS,

Acting Clerk of the Council.

District Council Offices, The Walk,

Ebbw Vale, Mon.

CRAWI require an perience ontribut om Ch from Ch Crawley,

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(b) One salary Applimedia
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CRAWLEY DEVELOPMENT CORPORATION require an ASSISTANT ARCHITECT, salary scale \$F15-\$960 p.a. Applicants should be qualified, experienced in design, construction and planning. Contributory superannuation. Apply on forms from Chief Architect (Vacancy), Broadfield, Crawley, Sussex, by 6th June, 1955.

C. A. C. TURNER, Chief Executive.

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C. A. C. TURNER, Chief Executive.

1012

CITY OF NOTTINGHAM.

HOUSING ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

(a) One ASSISTANT ARCHITECT, at a salary in the A.P.T. Special Grade, 1650 × 225-275.

Applicants should have passed Parts I and II of the R.I.B.A. final or special final examination and have had at least 5 years' experience (including theoretical training).

(b) One ARCHITECTURAL ASSISTANT, at a salary in Grades A.P.T. I and II £500-2640, according to qualifications and experience. Applicants should have passed the intermediate examination of the R.I.B.A.

The appointments will be subject to the National Joint Council's Scheme of Conditions of Service.

Service.

Applications, stating age, qualifications, experience, present appointment and salary and naming two referees, should be sent to the City Housing Architect. The Guildhall, Nottingham, by the 3rd June, 1955. T. J. OWEN. Town Clerk.

The Guildhall, Nottingham.

Notingham.

9904

COUNTY OF LINCOLN—PARTS OF LINDSEY.
Vacancy on permanent staff for Two qualified ASSISTANT ARCHITECTS, Salary A.P.T. Grade IV £676, rising to £285 or Special Grade £650 rising to £475, according to experience. N.J.C. Conditions of Service. Canvassing will disqualify. Candidates must disclose in writing whether to their knowledge they are related to any Member or Senior Officer of the Council.

Allowance of 25s. per week and return fare home bi-monthly may be paid up to six months to married men unable to find housing accommodation.

Applications giving age, qualifications, experience and names of two persons to whom reference can be made to be sent to the undersigned not later than 24th May, 1955.

A. RONALD CLARK, A.R.I.B.A., A.M.T.P.I., County Offices Lincoln 9850

County Offices

Government of Bechuanaland.

Government of Bechuanaland.

Assistant architects.

Duties include the preparation of preliminary, working and detail drawings and specifications for all work on proposed building programmes. Appointments are on contract for 3 years on a fixed salary of £1,34 per annum, including cost-of-living allowance. Gratuity of £25 for each 5 months' resident service is also payable on satisfactory completion of contract.

Furnished quarters provided at a rental of 10 per cent. of salary. Free return passages for officer and his wife, and assistance towards children's passages. Leave is granted at the rate of 3½ days for each completed month of resident service.

of 3g gays for each compress and service.

Candidates should be Associates of the Royal Institute of British Architects. Age limit 45.

Apply in writing to the Director of Recruitment, Colonial Office, Great Smith Street, London, S.W.I. giving briefly age, qualifications and experience, and quoting reference No. BCD.112/76/08.

COUNTY BOROUGH OF STOCKPORT.

TEMPORARY CLERK OF WORKS required, to supervise new school buildings. Inclusive salary: £11 8s. 2d. per week. Conditions of appointment and application forms from the Director of Education, Town Hall, Stockport. 9965
BOROUGH OF HESTON AND ISLEWORTH.

Applications are invited for the under-mentioned appointments in the Town Planning Section of the Borough Engineer and Surveyor's Department:

the Borough Engineer and Surveyor's Department:—

(a) SENIOR TOWN PLANNING ASSISTANT. Salary in accordance with A.P.T., Grade IV (£675 × £95.—£825), plus London weighting. Applicants must have obtained the qualifying examination of the Town Planning Institute, or an equivalent diploma in town planning recognised by that body. It will be an advantage if applicants hold additional examination qualifications of another professional institute of standing. Applicants must have had considerable experience in the Town and Country Planning Department of a local authority. Experience in the control of staff will be deemed an advantage.

(b) DRAUGHTSMAN.

Salary in accordance with A.P.T., Grade I (£500 × £20 – £590), plus London weighting.

Candidates must be capable and expeditious draughtsmen, and Town and Country Planning experience would be an advantage.

The Council is unable to assist the successful candidates with housing accommodation.

Applications are to be submitted by 31st May. 1955. on forms to be obtained from and returned to the Borough Engineer and Surveyor, 88. Lampton Road, Hounslow.

D. MATHLESON,

Town Clerk.

9966

Town Hall, Hounslow.

EASINGTON RURAL DISTRICT COUNCIL.
ENGINEER'S DEPARTMENT.
ARCHITECTURAL ASSISTANT—GRADE
A.P.T., II (£560—£5640).
Applications are invited for the above-mentioned

appointment.
Applicants (1) must have had previous Municipal experience, and have been trained in the office of a Municipal Engineer, Architect or

office of a Municipal Engineer, Architect or Surveyor.

(2) Must be experienced in Municipal Housing and General Architectural Work. Preference will be given to those holding the Intermediate Certificate of the R.I.B.A. or equivalent.

These appointments are subject to the National Joint Council's Scheme of Conditions of Service and the Local Government Superannuation Acts. Forms of Application may be obtained from the undersigned, and must be returned, accompanied by copies of not more than two recent testimonials, to reach the undersigned by not later than 2nd June, 1955.

J. W. GRAY, Clerk of the Council. Council Offices, Easington, Co. Durham.

9th May, 1955.

COUNTY BOROUGH OF BURNLEY. Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department:—

(1) ARCHITECTURAL ASSISTANT—Special Grade (£650×£25—£775).

Applicants, who should be Associate Members

(1) ARCHITECTURAL Grade (£650×£25—£775). Applicants, who should be Associate Members of the Royal Institute of British Architects, and have had considerable experience, will be required for work in connection with new schools. (2) QUANTITY SURVEYING ASSISTANT—Grade II (£560×£20—£640). Applicants should have a sound knowledge of building construction and experience in the preparation of Bills of Quantities and the Measurement of Works is essential. Preference will be given to candidates holding appropriate qualifications.

Forms of Application and Conditions of Appointment may be obtained from the Borough Engineer, 22/24, Nicholas Street, Burnley, to whom applications should be returned not later than Saturday, the 4th June, 1955.

C. V. THORNLEY,

Town Clerk.

9977
COUNTY BOROUGH OF BARROW-INFURNESS.
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.
ARCHITECTURAL STAFF.
RE-ADVERTISEMENT—AMENDED CLOSING
DATE.
Applications are invited for the following permanent posts:—
(1) SENIOR ARCHITECT, Grade V (£750—
1900 p.a.).

£900 p.a.). (2) ASSISTANT ARCHITECT, Grade IV (£675—£825 p.a.).

£825 p.a.).
(3) ARCHITECTURAL ASSISTANT, Grade I-II (£500-£640 p.a.). II (£500—£640 p.a.). (4) QUANTITY SURVEYOR, Grade V (£750—

(4) QUANTITY SURVEYOR, Grade V (£750—£900 p.a.),
In each case the commencing salary will be fixed according to the qualifications and experience of the successful candidate.

In respect of appointments 1, 2 and 4, it is possible that the Council will allocate a Corporation house subject to the merits of the cases being satisfactory to the interviewing committee.

The Department works a 5-day week.
Further details of the post, conditions of appointment and forms of application, may be obtained from the Borough Engineer and Surveyor, to whom completed applications must be returned not later than Friday, 3rd June, 1955.

LAWRENCE ALLEN.

Town Hall. Barrow-in-Furness.

Town Hall, Barrow-in-Furness.

METROPOLITAN BOROUGH OF WANDSWORTH.

ARCHITECTURAL ASSISTANTS.
Applications invited for appointments of:—
(a) ASSISTANT ARCHITECT, unestab. A.P.T.,
(b) ARCHITECTURAL ASSISTANT, estab.
(680—6805 p.a.).

(b) ARCHITECTURAL ASSISTANT, estate. (1980–1985 p.a.).
Applicants for (a) must be Associates of the Royal Institute of British Architects and have had experience in the design and planning of houses and flats. Applicants for (b) must have passed Parts I and II of the R.I.B.A. Final or Special Final Examination or their equivalent at one of the recognised schools of architecture, and had at least 5 years' experience.
Application forms obtainable from the Borough Engineer at the under-mentioned address must be returned to me by 9th June, 1955.

R. H. JERMAN,
Town Clerk.

Municipal Buildings, Wandsworth, S.W.18. 9980

DURHAM COUNTY COUNCIL—STAFF
VACANCIES.
ARCHITECTURAL ASSISTANT—for the preparation of 1/2,500 scale sketch layouts, 1/500th working drawings and unit centre designs. Salary: £650—£775. Must be Members of R.I.B.A. Closing date: 4th June, 1955. Particulars from County Planning Officer, 10, Church Street, Durham.

J. K. HOPE, Clerk of the County Council.

COUNTY BOROUGH OF GATESHEAD.
BOROUGH ENGINEER'S DEPARTMENT:
ARCHITECTURAL SECTION.
Applications are invited for the following appointments, which are subject to N.J.C. Conditions:—

appointments, which are subject to N.J.C. Conditions:—
ARCHITECTURAL ASSISTANTS.
A.P.T., IV (£675×£30—£825) if registered and Corporate Members of the Royal Institute of British Architects; or Special Grade (£650×£25—£775) if unregistered but have passed Parts 1 and 2 of the R.I.B.A. Final or Special Final examinations or equivalent, and have had at least 5 years' experience, including the period spent in theoretical training.
JUNIOR QUANTITY SURVEYING ASSISTANT. Grade A.P.T., I (£500×£20—£530), Applicants should have passed or be studying for the Intermediate Examination of the R.I.C.S. or the I.Q.S., be not less than 21 years of age, and have previous experience of Quantity Surveying, including measuring up on site.
Posts pensionable, subject to medical examination and one month's notice on either side.
Applications, on forms obtainable from the Borough Surveyor, Swinburne Street, Gateshead, 8, must be returned to him by 1st June, 1955.
C. D. JACKSON,
Town Hall, Gateshead, 8.

Town Hall, Gateshead, 8. 9th May, 1955.

CITY AND COUNTY OF THE CITY OF
EXETER.
Applications are invited for the following appointments on the staff of the City Architect's Department:
(a) SENIOR ASSISTANT QUANTITY SUR-

appointments on the staff of the City Architect's Department:—

On SENIOR ASSISTANT QUANTITY SURVEYORS.

Salary within new A.P.T., Grade IV (£675—£825 per annum). Candidates must be experienced in the preparation of Bills of Quantities, Interim Valuations and Final Accounts.

(b) QUANTITY SURVEYING ASSISTANTS. Salary within new A.P.T., Grade II (£560—£640 per annum). Candidates must be experienced in Abstracting, Working Up Bills of Quantities, and Site Measurement.

Candidates for the above posts must possess the appropriate qualifications under N.J.C. Conditions of Service.

The appointments will be subject to one month's notice on either side and to the provisions of the Local Government Superannuation Acts, 1937 and 1955. Successful candidates will be required to pass a medical examination.

Canvassing will disqualify, and candidates must disclose whether, to their knowledge, they are related to any member of the Council or to the holder of any senior office under the Council.

Applications, stating age, qualifications, previous and present appointments and salaries, full details of experience and the earliest possible date when available, should be sent to H. B. Rowe, F.R.I.B.A., A.M.I.Struct.E., City Architect, Municipal Offices, Exeter, not later than the 6th June, 1955.

C. J. NEWMAN, Town Clerk.

C. J. NEWMAN, Town Clerk.

Exeter. May, 1955.

GLAMORGAN COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
Applications are invited from persons who possess the necessary qualifications, and have had the requisite training and practical experience, as laid down by the N.J.C. for Local Authorities' Staffs, for the under-mentioned permanent appointments:—
(a) SENIOR

Grade (£650—£775). (d) ARCHITECTURAL ASSISTANTS, A.P.T.,

(d) ARCHITECTURAL ASSISTANTS, A.P.T., II (£250—£640).
(e) HEATING ENGINEERING ASSISTANTS, A.P.T., V (£75—£900), and A.P.T., IV (£675—£825).
(f) SENIOR ASSISTANT QUANTITY SURVEYOR, A.P.T., VI (£825—£1,000).
(g) QUANTITY SURVEYING ASSISTANT, A.P.T., II (£560—£640).
(h) JUNIOR ASSISTANT for Quantity Surveying Section, Higher General Division, III (£170—£475).
(i) SENIOR LAND SURVEYING.

£475). (i) SENIOR LAND SURVEYOR, A.P.T., V (£750—£900).

(£750-£900). (j) LAND SURVEYING ASSISTANTS, A.P.T., II (£560-£640).

(i) LAND SURVEYING ASSISTANTS, A.P.T., II (£550—£640).

(k) DRAUGHTSMEN—Architectural / Engineering—Misc., IV (£465—£545).

(l) DIRECT LABOUR BUILDING ESTIMATOR, A.P.T., IV (£675—£825).

(m) DIRECT LABOUR BUILDING ESTIMATING ASSISTANT, A.P.T., II (£560—£640).

(n) ELECTRICAL ENGINEERING ASSISTANT, A.P.T., II (£560—£640).

Applications, giving details as to age, qualifications, training and practical experience, together with the names of two referees, to be forwarded to County Architect, County Hall, Cardin, not later than 14 days after the appearance of this advertisement.

Canvassing, directly or indirectly, will disqualify.

RICHARD JOHN, Clerk of the County Council.

CITY OF MANCHESTER—CITY ARCHITECT'S OFFICE.

Applications are invited for the under-mentioned

appointments:—

(1) SENIOR ASSISTANT QUANTITY SURVEYOR. Salary: Grade A.P.T., V (£750-£900
per annum).

(I) SENIUR ASSISTANT QUANTITY SURVEYOR. Salary: Grade A.P.T., V (£750-£900
per annum).
(2) SENIOR ASSISTANT QUANTITY SURVEYOR. Salary: Grade A.P.T., IV (£675-£825
per annum).

Applicants for the above appointments must
have had considerable experience in the preparation of Bills of Quantities and Specifications,
Interim Valuations and settlement of final
accounts for all classes of building work.
(3) ASSISTANT QUANTITY SURVEYOR.
Salary: Basic Grade (£650-£775 per annum).

Applicants should have had at least 5 years'
experience in the preparation of Bills of Quantities and Specifications, Interim Valuations and
settlement of final accounts for all classes of
building work.

(4) TECHNICAL ASSISTANT—DRAUGHTSMAN. Salary: Grade A.P.T., II (£560-£640 per
annum).

annum).

Applicants should be experienced in the design and detailing of all types of school furniture.

(5) ARCHITECTURAL ASSISTANT. Salary: Grade A.P.T., I/II (£500—£640 per annum).

Applicants must have passed the Intermediate Examination of the B.I.B.A. or its equivalent.

TEMPORARY STAFF:

(6) SENIOR ASSISTANT Salary: A.P.T., Grade IV (£675—£825 per annum).

Applicants must be A.R.I.B.A., with some years' office experience.

Further particulars and

Applicants must be A.R.I.B.A., with some years office experience. Further particulars and forms of application may be obtained from the City Architect, Box No. 488, Town Hall, Manchester, 2. The completed form to be returned to the same address by 7th June, 1955. Canvassing is prohibited. 1001

COUNTY BOROUGH OF PRESTON.

APPOINTMENT OF JUNIOR ASSISTANT

APPOINTMENT OF JUNIOR ASSISTANT

Applications are invited for the above-mentioned appointment in the Borough Engineer and Surveyor's Department, at a salary in accordance with A.P.T., Grade I (£500-£880).

Candidates must have passed the Intermediate Examination B.I.B.A. and have had some office experience.

experience.

The National Scheme of Conditions of Service and the Local Government Superannuation Acts apply, also a medical examination will be

Standard form of application, obtainable with Conditions of Appointment, from my Department, should be completed and returned to the undersigned not later than 28th May, 1955.

W. H. E. LOGELEY,

Town Clerk.

Municipal Building, Preston. THE DEPARTMENT OF HEALTH FOR SCOTLAND.

Applications are invited for non-pensional

THE DEPARTMENT OF HEALTH FOR SCOTLAND.

Applications are invited for non-pensionable posts of INVESTIGATOR of buildings of architectural or historic interest. Duties involve survey in Scotland in connection with listing of such buildings under the Town and Country Planning (Scotland) Act, 1947.

Applicants should hold a qualification in Architecture or Town Planning, or a Degree in History or the Fine Arts, and be prepared to show evidence of special interest in the field of Scottish Architectural History.

Headquarters Edinburgh, or as may be arranged. Inclusive salary ranges approx. £937—£1,045 for men, £826—£929 for women, in Edinburgh or Glasgow. Slightly less elsewhere.

Further particulars and application form from Stablishment Officer, Department of Health for Scotland, Room 30, St. Andrew's House, Edinburgh, 1. Closing date for applications, 4th June, 1955.

9927
CITY AND COUNTY OF BRISTOL.
CITY ARCHITECT'S DEPARTMENT.
Applications invited for under-mentioned permanent staff appointments:—
(a) SENIOR QUANTITY SURVEYOR—Grade
IV (£675 to £825 p.a.).
Candidates must be members by examination of R.I.C.S. (Quantities) or I.Q.S., and have experience in taking off quantities for various types of buildings. Starting salary according to experience.

perience in taking off quantities for various types of buildings. Starting salary according to experience.

(b) ASSISTANT QUANTITY SURVEYOR—
Grade I (£500×£20 to £530 p.a.).
Preference given to applicants of R.I.C.S. Intermediate standard who have experience of general Quantity Surveying duties, including working up. HOUSING ACCOMMODATION AVAILABLE, IF NECESSARY, AT ECONOMIC RENT. Further particulars and application form obtainable from me. Completed application forms must be received by 27th May.—J. NELSON MEREDITH, F.R.I.B.A., City Architect, The Council House, College Green, Bristol, 1. 9928

ARCHITECTURAL ASSISTANT required. Applicants must have passed Intermediate Examination of R.I.B.A. Persons appointed will give technical assistance to professional officers. Salary scale: £465 × £25 (1) × £20 (8)—£550, plus £20—£30 London weighting, Commencing salary up to £550, plus weighting, may-be paid subject to certain conditions. Apply, giving age, qualifications (with dates) and experience, with names of two referees, to Secretary, North-West Metropolitan Regional Hospital Board, 11a, Portland Place, W.I., by 28th May.

COUNTY BOROUGH OF HASTINGS.
APPOINTMENT OF ARCHITECTURAL
ASSISTANT.
Applications are invited for the appointment of
an Architectural Assistant, in Grade A.P.T. II
(£560—£640 per annum), who will be engaged on
new Housing and School projects.
The appointment will be subject to the
National Scheme of Conditions of Service, the passing of a medical examination, and to one month's
notice in writing on either side.
Applications, stating age, qualifications, experience, present and previous appointments and
salary, accompanied by copies of not more than
three testimonials, should be forwarded to the
Borough Engineer, 37, Wellington Square,
Hastings, not later than the 31st May, 1955.
Canvassing will be a disqualification.
N. P. LESTER, Town Hall, Hastings.

BOROUGH OF SALE.
ARCHITECTURAL ASSISTANT.
Applications are invited from suitably qualified ersons for architectural duties, principally other

persons for architectural quites, production has housing.
Salary: Grade A.P.T., II (£550-£640).
Appointment subject to medical examination and one month's notice on either side.
Applications, stating age, qualifications, experience, etc., together with names and addresses of two persons to whom reference can be made, should reach me by Friday, 27th May, 1955. Canvassing will disqualffy.

BERTRAM FINCH,
Town Clerk.

Town Hall, Sale. May, 1955.

May, 1955.

BOROUGH OF STRATFORD-UPON-AVON.
APPOINTMENT OF SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment, at a salary in accordance with the grade recommended for special classes of officers, i.e., 2650×226—2778 per annum. Candidates must have passed Parts I and II of the Final Examination of the Royal Institute of British Architects, and have had all least 5 years' experience, including the period spent on theoretical training.

The appointment will be subject to the National Scheme of Conditions of Service of Local Government Officers, to the provisions of the Local Government Superannuation Acts, and to the successful candidate passing satisfactorily a medical examination. The appointment will be terminable by one month's notice on either side. The Council will, if necessary, be prepared to consider the provision of housing accommodation. Forms of application may be obtained from the undersigned, to whom completed forms should be returned not later than Thursday, 9th June, 1955.

P. C. SMART, A.M.I.C.E.

P. C. SMART, A.M.I.C.E.,
Borough Engineer and Surveyor.
10th May, 1955.

BOROUGH OF ERITH.

Appointments of: (a) TWO SENIOR ENGINEERING ASSIS-

Appointments of:—
(a) TWO SENIOR ENGINEERING ASSISTANTS.
(b) CHIEF ARCHITECTURAL ASSISTANT.
(c) THIRD ARCHITECTURAL ASSISTANT.
Applications are invited for appointments (a) and (b) at m salary in accordance with the special grade 2650—2775 per annum, plus London weighting, and for appointment (c) at a salary in accordance with A.P.T. II. of 2550×220—2640 per annum, plus London weighting.
Applicants should hold appropriate qualifications and have had a good general Municipal experience.

erience.

The appointment will be subject to the scheme f conditions of service, and the provision of the local Government Superannuation Acts.

Applications, stating age, previous appointments, qualifications and experience, together with the names and addresses of two referees, should e sent to the Borough Engineer and Surveyor, lown Hall, Erith, Kent, not later than Tuesday, 18t May. 1955.

be sent to the property of the

Town Hall, Erith, Kent.

Town Hall, Erith, Kent.

9888

CARDIGANSHIRE COUNTY COUNCIL.
Applications are invited for the following appointments in the County Architect's Department, County Hall, Aberaeron:—
(a) TWO ASSISTANT ARCHITECTS, on A.P.T., IV (2675—£825).

(b) ONE ARCHITECTURAL ASSISTANT, on A.P.T., III (£600—£725).

(c) ONE ARCHITECTURAL ASSISTANT, on A.P.T., III (£500—£640).

Applicants for (a) should be Members of the B.I.B.A.; applicants for (b) should have passed the R.I.B.A. Intermediate Examination, and applicants for (c) should preferably be students B.I.B.A.

Commencing salary will be according to quality

E.I.B.A.

Commencing salary will be according to qualifications and experience. Application forms and conditions of appointment can be obtained from the County Architect, and must be returned to the undersigned not later than 6th June, 1955.

Clerk of the Cardiganshire County Council.

Swyddfa'r Sir, Aberystwyth, Cards.

MIDLANDS ELECTRICITY BOARD.
THIRD ASSISTANT ENGINEER (ARCHITECTURAL) required in the Engineer's Department of the Wolverhampton and District Sub-

Applicants should have reached the Final L.I.B.A. standard or hold equivalent qualifications, and should preferably have a knowledge of quantities. The duties will include preparation of drawings, construction and detail, of offices, ervice Centres, stores and general building work. Salary: £790—£850 per annum (N.J.B., Class K.," Grade 10). Superannuable.

Apply, in writing, within 14 days, stating age, xperience, present salary and position, to Mr. J. Elliott, Sub-Area Manager, Midlands Electicity Board, 33, Darlington Street, Wolverampton.

A. STEPHENS

LONDON COUNTY COUNCIL
ARCHITECT'S DEPARTMENT.
STRUCTURAL ENGINEER, Grade I (£1,01) to £1,224) required to investigate new structural techniques and experimental methods, with special regard to multi-storey buildings.
Application form, returnable by 29th June, 1955, from Architect (AR/EK/SE/3), The County Hall, S.E.I., (691)

S.E.1. (691)

HEMEL HEMPSTEAD DEVELOPMENT
CORPORATION.
CHIEF ARCHITECT'S DEPARTMENT.
SENIOR ARCHITECT'S BAIRY scale: £715—
£975 p.a. Applicants must be Associates of the
R.I.B.A. and should have experience in commercial and domestic architecture.
ASSISTANT. Salary scale: £520—£685 p.a.
Inter. R.I.B.A. essential. Consideration will be given to promotion to next grade £715—£35
p.a.) on passing Final Examination.
Conditions of service similar to Local Government Charter, with opportunity of entering or continuing in Local Government Superannuation Scheme.

Scheme.

Housing accommodation may be available.

Application forms for both vacancies may be obtained from and should be completed and returned to the General Manager, Westbrook Hay, Hemel Hempstead, by 31st May.

turned to the General Manager, Westbrook Hay.

Hemel Hempstead, by 31st May.

METROPOLITAN WATER BOARD.

APPOINTMENT OF ASSISTANT ARCHITEUTS

AND ARCHITECTURAL ASSISTANTS.

There are vacancies for (a) ASSISTANT

ARCHITECTS and (b) ARCHITECTURAL

ASSISTANTS on the permanent pensionable staff.

For (a) the salary scale is £760—£940 p.a., and
it is a condition of the appointment to and the
holding of the positions that the selected candidates must be and continue to be subscribing
Corporate Members of the Royal Institute of
British Architects. The salary scale for (b) is
£490 p.a. at age 21, rising to £730 p.a., and candidates must have passed, or be exempted from
passing. Inter. R.I.B.A., or be Corporate Members
of the Institute. Commencing salaries according
to age, qualifications and experience. Maximum
age 45 years. Housing accommodation may be
available, if required, in a good neighbourhood,
at an inclusive rent of approx. £130 per annum.

Forms of application may be obtained from the
undersigned on receipt of a stamped addressed
foolscap envelope, quoting reference (G.P.11), and
completed forms must arrive not later than 20th
June, 1955.

W. S. CHEVALIER.

June, 1955.

W. S. CHEVALIER

Clerk of the Board, New River Head,

Rosebery Avenue, E.C.1.

BOROUGH OF ROYAL LEAMINGTON SPA.
APPOINTMENT OF TEMPORARY CLERK OF
WORKS.
Applications are invited from men of considerable reinforced concrete experience for the above post, which is the control of a multi-storey block of flats

able reinforced concrete experience for the above post, which is the control of a multi-storey block of flats.

The duration of the contract will be approximately II months, and the salary will be £700-£750 p.a., according to experience. Applications, giving details of experience and accompanied by testimonials, to the Council's Architects. C. F. Redgrave & Partners, A./F.R.I.B.A., 6, The Quadrant, Coventry. 1000

BOROUGH OF LUTON.
TECHNICAL STAFF.
Applications invited for:—
(a) SENIOR QUANTITY SURVEYING ASSISTANTS. Salary Grade, A.P.T., V (2750—2900).
Fully qualified, with experience of taking-off, abstracting and billing for large contracts, including schools, and in settlement of final accounts.

accounts.

(b) JUNIOR QUANTITY SURVEYING ASSISTANTS. Salary, Grade A.P.T., I-IV (£500-£825), according to qualifications and experience.

(c) SENIOR PLANNING ASSISTANT. Salary, Grade A.P.T., V (£750-£900), appropriately qualified. Preference to applicants with some architectural ability, as well as extensive town planning experience.

planning experience.
(d) PLANNING ASSISTANT. Salary, Grade
A.P.T., I-IV (£500—£825), according to qualifica-

A. D. HARVEY, Town Clerk

BARNE' SENIOR Application ment in the (Grade IV, Applicants sponsible he Appointm

Housing Application mitted to the House, Wood 1955.

Municipal County COUNTY BOROUGI

Applicatio intmen TWO AS Salary: £75 Commenci experience. Applicant Royal Insti Applicativestimonials

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Applicat ent, N.J Applicat Surveyor, 31st May,

Town Hal

BARNET URBAN DISTRICT COUNCIL.
SENIOR ARCHITECTURAL ASSISTANT.
Applications are invited for the above appointment in the Engineer and Surveyor's Department (Grade IV, £675 to £825+£30 London weighting. Applicants should be A.R.I.B.A., with responsible housing experience.
Appointment subject to N.J.C. conditions, superannuation and medical examination.
Housing accommodation can be provided.
Applications, with full details, should be submitted to the Engineer and Surveyor, Ravenscroft House, Wood Street, Barnet, Herts., by 28th May, 1365.

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ALFRED S. MAYS.

Clerk of the Council.

Municipal Offices, Wood Street, Barnet, Herts.
6th May, 1955.

COUNTY BOROUGH OF DUDLEY.
BOROUGH ARCHITECT'S DEPARTMENT—
STAFF.

Applications are invited for the following appointments on the Staff of the Borough Architect.

appointments on the Staff of the Dolough Alchitect:—
TWO ASSISTANT ARCHITECTS, Grade V.
Salary: £750 to £900.
Commencing salary will be fixed according to experience.
Applicants should be Associate Members of the Royal Institute of British Architects.
Applications, together with copies of two recent testimonials and the names and addresses of two referees, to reach me by Wednesday, 1st June, 1955.

P. D. WADSWORTH, Town Clerk.

The Council House, Dudley.

6th May, 1955.

BOROUGH OF MAIDSTONE.

APPOINTMENT OF ARCHITECTURAL ASSISTANT IN BOROUGH SURVEYOR'S DEPARTMENT OF ARCHITECTURAL ASSISTANT IN BOROUGH SURVEYOR'S DEPARTMENT Applications are invited for the above appointment at a salary in accordance with the N.J.C.

"special scale" (£550×£25—£775).

The programme of work includes a large new Shopping Centre, multi-storey flats, and Community Centre, and offers considerable scope to candidates with initiative and energy.

Applicants must have passed Part I and II of the R.I.B.A. Final or Special Final Examination or their equivalent at one of the recognised Schools of Architecture, and have had at least two years' experience since completion of training. Previous experience in a Municipal office will be considered an advantage, but is not regarded as essential.

The appointment will be subject to the National Scheme of Conditions of Service, the Local Government Superannuation Act, 1953, the passing of a medical examination, and one month's notice on either side. Canvassing will disqualify. Where circumstances warrant, the Council will be prepared to give consideration to the provision of housing accommodation.

Applications, on forms to be supplied, must reach the undersigned not later than the 3rd June, 1955.

S. F. DIXON, Borough Surveyor.

S. F. DIXON.
Borough Surveyor's Dept.
Palace Avenue, Maidstone.

BOROUGH OF NEATH.
BOROUGH HOGINEER'S DEPARTMENT.
APPOINTMENT OF ARCHITECTURAL
ASSISTANT.
Applications are invited for the above-mentioned appointment, the salary for which will be A.P.T., II, of the National Conditions of Service.
Applicants should be studying for the R.I.B.A. Final Examination, and should have passed the Intermediate Examination.
The appointment will be subject to the Local Government Superannuation Acts, to the passing of a medical examination, and to one month's notice on either side.
Applications, stating age, whether married or single, and details of experience and accompanied by not less than two recent testimonials, must be received by the undersigned not later than 23rd May, 1955.

D. KING DAVIES.

D. KING DAVIES

Town Hall, Neath. May, 1955.

TEMPORARY ASSISTANT ARCHITECT in the Office of Public Works.
Rate of pay: Mam, £11 19s. 7d.—£16 3s. 6d. a week; woman, £9 13s. 7d.—£13 2s. 7d. a week, with higher starting pay in certain cases.
Maximum age limit: 40 years, with extensions in certain cases.

in certain cases.

Application forms and further particulars from Secretary, Civil Service Commission, 45, Upper O'Connell Street, Dublin.

Latest date for accepting completed application forms: 9th June, 1955.

BEESTON AND STAPLEFORD URBAN DISTRICT COUNCIL.

JUNIOR ARCHITECTURAL ASSISTANT. GRADE II (2560-2640).

Applications are invited for the above appointment, N.J.C. Conditions of Service.

Applications, naming two referees, to the Surveyor, Town Hall, Beeston, Nottingham, by 31st May, 1955.

Jist May, 1955.

H. D. JEFFRIES,
Clerk of the Council.
Town Hall, Beeston, Nottingham. 1008

NATIONAL COAL BOARD—NORTH-EASTERN DIVISION.

Applications are invited for the following appointments to the staff of the Divisional Chief Architect at Denaby Main, mear Doncaster:—

(1) ARCHITECTURAL ASSISTANT, Grade II. Scale: £440×£20-£50 per annum.

Applicants should have passed the Intermediate Examination of the Royal Institute of British Architects, and have had some subsequent practical experience, and should be able to prepare Sketch Plans and Working Drawings under supervision and have a sound knowledge of building construction.

The point of entry into this Grade will depend upon qualifications and experience.

(2) JUNIOR ARCHITECTURAL ASSISTANT. Scale: £2 17s. 6d. per week at 16 years of age, rising to £8 per week at 25 years of age, according to age.

Applicants should have obtained their General

rising to 28 per week at 25 years of age, according to age.

Applicants should have obtained their General Certificate of Education in sufficient subjects to enable them to proceed with the Intermediate Examination of the Royal Institute of British Architects, and should preferably be studying for such avanination

such examination.

The work of the office consists chiefy of Pithead Baths, Canteens, Medical Centres, Offices, Laboratories, etc.

Baths, Canteens, Medical Centres, Offices, Laboratories, etc.
Application Forms may be obtained from the Divisional Chief Architect, J. A. Dempster, F.R.I.B.A., Architect's Department, P.O. Box No. 4, Denaby Main, near Doncaster, and when completed should be returned not later than the 11th June, 1955.

COUNTY BOROUGH OF WALSALL.

PUBLIC WORKS DEPT.

Applications are invited for the post of ASSISTANT ARCHITECT. Grade A.P.T. III, at a commencing salary of £500 per annum, rising by annual increments of £25 to a maximum of £725. Applicants should be Registered Architects, and preference will be given to those holding a recognised Architectural qualification.

The appointment is superannuated, and the person appointed will be required to pass a medical examination.

Applications, enclosing copies of three testimonials, and stating age, present position, salary and technical qualifications, together with details of experience, should be submitted to the undersigned not later than Wednesday, 1st June, 1955.

M. E. HABERSHON, Borough Engineer and Surveyor.

Council House, Walsall.

11th May, 1955. 9993

CITY OF LEICESTER.
CITY'S ARCHITECT'S DEPARTMENT.
Applications are invited for the appointments of ASSISTANT ARCHITECTS, special grade (£650, rising to £775 per annum).
Candidates must have passed Parts I and II of the R.I.B.A. Final or Special Final or equivalent at a recognised School of Architecture, and have at least 5 years' experience, including theoretical training.

at least 5 years experience, including encorterations, training.

The appointments will be subject to the National Scheme of Conditions of Service, passing a medical examination, and to one month's notice on either side.

Applications, stating age, experience, qualifications, past and present appointments with present salary, together with copies of two recent testimonials, should be sent to the undersigned not later than Tuesday, 31st May, 1955.

J. H. ELOYD OWEN,

City Architect.

10. Loseby Lane, Leicester.

10, Loseby Lane, Leicester.

BOROUGH OF CHELMSFORD.
BOROUGH ENGINEER. SURVEYOR AND ARCHITECT'S DEPARTMENT. CHIEF ASSISTANT ARCHITECT, A.P.T. IV (£675-£825).
ASSISTANT ENGINEER, Special Grade (£650-£775).

775 p.a.). ENGINEERING ASSISTANT, Grade A.P.T., I

ENGINEERING ASSESSANCE (£5504-£5501).

The Chelmsford Borough Council invite applications for the above appointments, further particulars of which can be obtained from the Borough Engineer, Surveyor and Architect's Department. Municipal Offices, Chelmsford. Closing date: 3rd June. 1955.

B. A. FRANCIS.

B. A. FRANCIS, Town Clerk.

BUCKS COUNTY COUNCIL.

Applications are invited for the following appointments in the County Architect's Department:

(i) ASSISTANT QUANTITY SURVEYOR.

A.P.T., Grade IV (£675—£285 p.a.).

(ii) ASSISTANT QUANTITY SURVEYOR.

A.P.T., Grade II (£560—£640 p.a.).

(iii) ASSISTANT ARCHITECT. Architect's Special Scale (£650—£775 p.a.).

The appointments are superannuable and subject to medical examination.

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

Applications on forms, giving further particulars of the appointments, are obtainable from F. B. Pooley, County Architect, County Offices, Aylesbury, and returnable by 30th May, 1955.

COUNTY BOROUGH OF CROYDON.

ARCHITECTURAL TRAINEE.

Applications are invited for appointment as Trainee in the School Architect's Section from boys with the G.C.E. in at least five subjects, including English and Mathematics, who intend to study for the R.I.B.A. Examinations. Salary according to age, e.g., 16 years £200 p.a., 17 years £220 p.a., rising annually.

Apply with full particulars to the Chief Education Officer, Katharine Street, Croydon, within two weeks from the appearance of this advertisement.

E. TABERNER, Town Clerk

WOKING URBAN DISTRICT COUNCIL.
ARCHITECTURAL ASSISTANT—A.P.T.
GRADE II.
Applications are invited for the appointment of ARCHITECTURAL ASSISTANT in Architectural Section of the Engineer and Surveyor's Department at a salary in accordance with A.P.T., Grade II (£560—£640 p.a.).
Candidates should have had experience in the preparation of sketch schemes and working drawings for houses, flaks, etc., and preference will be given to persons who have passed the Intermediate Examination of the R.I.B.A.
The appointment is subject to the National Scheme of Conditions of Service and the provisions of the Local Government Superannuation Acts, and the successful candidate will be required to pass a medical examination.
Forms of application may be obtained from Mr. H. P. Tame, A.M.I.C.E., M.T.P.I., Registered Architect, Engineer and Surveyor, Council Offices, Woking, and are to be returned to the undersigned, endorsed "Architectural Assistant," not later than Tuesday, 31st May, 1955.

F. H. SMITH,
Clerk of the Council.
Council Offices, Woking.
9984

Council Offices, Woking.

9th May, 1955.

9984

CORPORATION OF LONDON invite applications from A.R.I.B.A., A.R.I.C.S., or A.M.T.P.I., for post of SENIOR ASSISTANT in Development Control Section of City Planning Office. Salary: 2816 5s., by annual increments £30 12s. 6d. (subject to satisfactory service) to £1,000.

Previous experience in control of development in areas of comprehensive development and ability to negotiate on planning applications is essential. The appointment is superannuable and subject to medical examination.

Applications, giving age, qualifications, experience, present position and salary, and two referees, to City Planning Officer, 55-61, Moorgate, London, E.C.2, by 1st June.

#### Tenders Invited

BOROUGH OF EALING.
The CORPORATION hereby invite TENDERS

The CORPORATION hereby invite TENDERS for:

(1) Proposed Tennis Pavilion, Lammas Park Enclosure, Ealing.

(2) Proposed Alterations and Additions to Perivale Park Golf Pavilion.

The Drawings, Specification, and Forms of Tender may be obtained upon application to Mr. C. W. Seddon, M. Inst. C. E., Borough Engineer, Town Hall, Ealing, W. S., any day during office hours, upon deposit of £2, to be returned on receipt of a bona-fide Tender.

No Tender will be received unless it is in a plain sealed envelope, which bears the words "Tender for (1) and/or (2) as above," but does not bear any name or mark indicating the sender. Tenders must be delivered at my office not later than 9.30 a.m. on WEDNESDAY, 1st JUNE, 1955.

The Corporation do not bind themselves to accept the lowest or any Tender.

Dated this 6th of May, 1955.

E. J. COPE-BROWN,

Town Clerk.

Architectural Appointments Vacant
4 lines or under, 7s. 6d.: each additional line, 2s.
The engagement of persons answering these
advertisements must be made through a Local
Office of the Ministry of Labour or a Scheduled
Employment Agency if the applicant is a man
aged 18-64 inclusive or a woman aged 18-69
inclusive unless he or she or the employment is
excepted from the provisions of the Notification
of Vacancies Order, 1952.

ARCHITECTURAL ASSISTANT: Intermediate
approaching final. Commercial and industrial
work; large-scale contracts. Watson, Johnson,
Stokes, Victoria Square. Birmingham.

URGENTLY required. ASSISTANT for responsible position in general practice with
interesting work in hand over a large area. Salary
directly related to ability. Martindale and
Jackson, FJA.R.I.B.A., Cathedral Chambers, Castel
Street, Carlisle.

135

THE NUFFIELD FOUNDATION.

VACANCIES occur for ARCHITECTURAL
ASSISTANTS of both Final and Intermediate
standard in the Nuffield Foundation's Division
for Architectural Studies, working on hospitals,
research laboratories and farm buildings. All
those interested should write in to the Director.
Salary by agreement. Box 9755.

ARCHITECT. OR EXPERIENCED ASSISTANT, REQUIRED BY "THE ARCHITECTS" JOURNAL." Ability to write fluently and well, and a sound knowledge of construction and contemporary building techniques essential. Will be expected to write reports on buildings, supervise the production of technical architectural drawings, commission and sub-edit technical articles and assist production. Please reply to The Editor, "The Architects' Journal." 9, Queen Anne's Gate, S.W.1.

REQUIRED in Chief Architect's Department at Head Office of Multiple Store in London.

(a) JUNIOR ARCHITECTURAL DRAUGHTS-MAN or ASSISTANT with good basic experience to prepare sketch plans, working drawings and give general assistance: (b)JUNIOR SHOPFITTING DRAUGHTSMAN for Store Fixtures and Fittings. Write, with details of experience and salary required, to Box 9194.

OPENING for QUALIFIED ARCHITECTS as Assistant Designers with an expanding firm of new traditional builders. Must have good general practical knowledge and a keen interest in new building methods. A prospect exists for working overseas. Starting salaries range between £650 and £750 according to experience, with an increase after six months' satisfactory service. Messrs, Reema Construction, Ltd., Milford Manor, Salisbury, Wilts.

\$2500\\_-4700 per annum salary offered for ASSISTANT to take part in large-scale development and remodelling of petrol filing stations, service stations, garages and work-shops, etc. Must be capable of working independently. Should be of intermediate standard. Work will involve original design, site visits and a high standard of presentation. Five-day week, good pension and life assurance scheme, sickness benefits and free luncheon vouchers. Social Club. Write, giving full details, stating age, experience and salary required to Box 9325, quoting Ref. Y 593.

Ref. Y 593.

A RCHITECTURAL STAFF, all 'grades, wanted, interesting and varied work of contemporary character; light and airy offices. Apply J. Seymour Harris & Partners, 4, Greenfield Crescent. Edgbaston. Birmingham, 15.

Crescent. Edgbaston. Birmingham, 15. 8786

ARCHITECT'S ASSISTANTS required (1

Senior and 2 Juniors) for West End Office.
Write, stating full particulars and salary required, to Box 8725.

REQUIRED for Architects' office, Central London area, young qualified ASSISTANTS interested in design and construction. Write, stating experience and salary required. Box 2325.

ARCHITECTURAL ASSISTANT required in standard. Write, stating experience and salary required, to: A. F. Bennett, 35, Queen's Gate Mews. London, S.W.7.

ARCHITECTURAL ASSISTANT required by Market and Salary required, to: A. F. Bennett, 35, Queen's Gate Mews. London, S.W.7.

Mews. London, S.W.7. 9266

A RCHITECTURAL ASSISTANT required by Major Oil Company undergoing expansion, for its Sheffield office. Applicants should be of Intermediate standard, and must be capable of carrying out work on the design and re-modelling of service stations. Social Club, Pension and Life Assurance scheme, generous sickness benefits. Write, giving full details of experience, age and salary required, to Box 9262, quoting Ref. A.A. 584.

A RCHITECTURAL ASSISTANTS required in West End office. Qualified or Intermediate standard. Varied and interesting work. 5-day week. Salary range £500-£350.

JUNIOR and INTERMEDIATE ARCHITEC TURAL ASSISTANTS required urgently in London Office with widely varied practice. Good salaries, 5-day week. Lewis Solomon, 8os & Joseph. HOL 5108 or 7082.

salaries, 5-day week. Lewis Solomon, Son & Joseph. HOL 5108 or 7082.

GEORGE WIMPEY & CO., LIMITED.

THE Architect's Department seek ARCHITECTHEA transfer entreastic to apply their knowledge to new construction techniques covering Houses, Multi-Storey Flats, Offices, Schools and Industrial Buildings for contracts in the U.K. and Overseas.

Appointments range from ARCHITECTS to DRAUGHTSMEN with special interest to those of ability, recognising the value of the designer and technician as an integral part of the production team.

Appointments are on a permanent basis, 5 days a week at Head Office. Hammersmith.

For applicants interested in work in the Midlands, appointments are available in Birmingham Regional Office, carrying similar conditions with the exception that the working week is \$\frac{1}{2} \text{days}. Salaries will be according to qualifications and experience, and, subject to satisfactory service, there is a Pension Scheme for those wishing to make a career with the firm.

Applicants should write giving brief particulars to E. V. Collins, AR.I.B.A. Chief Architect, GEORGE WIMPEY & CO., LIMITED, 27, Hammersmith Grove, London, W.6.

TWO ARCHITECTURAL ASSISTANTS re-

TWO ARCHITECTURAL ASSISTANTS re-quired, inter. standard, for contemporary office. Salary according to experience. C. H. Elsom. F.R.I.B.A., 44. Catherine Place, S.W.I.

A RCHITECTURAL ASSISTANT required with A office experience, preferably hospital, for private practice, good salary paid to suitable applicant. Apply giving full particulars: T. F. Lawson, A.R.I.B.A., F.R.I.C.S., Norwich Union Chambers, Clarence Street, Gloucester.

A RCHITECTURAL ASSISTANT, of Intermodiate standard, for interesting and varied
work in Westminster design office. Salary according to experience, £500-£500 p.a., plus free
luncheen vouchers and bonus. Five-day week.
Sandford Fawcett & Partners, 53, Victoria Street,
Westminster, London, S.W.1.

A RCHITECTURAL ASSISTANT or BUILDA ING DRAUGHTSMAN age up to 35, required for work on industrial buildings.
Preference given to candidates with Inter.
B.I.B.A., but this not essential, although O.N.C.
in building is the minimum acceptable qualification. Applicants should have experience in
foundation work, drainage and factory buildings.
Permanent position and attractive salary Assistance with housing given if necessary. Write in
confidence to Personnel Manager, Michelin Tyre
Co. Ltd., Stoke-on-Trent, Staffs., giving all relevant information.

NONALD WARD & PARTNERS require
several capable ARCHITECTURAL ASSISTANTS with contemporary outlook and willing
to use own initiative. Salary range £400 to £300.
Interesting and varied work, home and abroad.
Congenial working conditions. Apply 29, Chesham
Piace, S.W.I. Telephone Belgravia 3361. 7023

SENIOR and JUNIOR ARCHITECTURAL
ASSISTANTS required for busy general
practice. Commencing salaries £500 to £750 p.a.,
according to experience and qualifications. Apply
H. N. Jenson & Partners, Chartered Architects,
Midland Bank Chambers. Nuneaton.

ARCHITECTURAL ASSISTANTS required,
one about Inter, standard, one qualified, in
office in Victoria district, to work direct under
Principal. Church work, domestic, factory, hotel,
etc. Salary in accordance with experience. Box
9749.

L ONDON Firm has vacancy for experienced Write in confidence with full particulars of career to Box 9731.

( 9731. PERATIVE WHOLESALE SOCIETY, LTD. CHITECT'S DEPARTMENT, LONDON. PLICATIONS are invited from the follow-

A PPLICATIONS are invited from the local control of the control of

ARCHITECTURAL ASSISTANT wanted for responsible position in small busy West-end office. At least Intermediate standard with ability in design and working drawings. Holiday arrangements respected. Apply in writing, stating qualifications and salary required. Box 9726.

BREWERY COMPANY require additional ARCHITECTURAL ASSISTANTS for alterations and sew work to Brewery Premises, Purblic Houses. Shops, etc.. Working Drawings, Surveys. Specifications and Sumervision. Inter. to Final standard. Also SURVEYOR for repairs side. Car drivers. Pension scheme. Apply Chief Architect, Friary Brewery, Guildford, Surrey.

RAMSEY, MURRAY & WHITE have vacancies No for:—
(a) QUALIFTED ARCHITECT, with several years' office experience, especially on schools.
(b) ARCHITECTURAL ASSISTANT, advanced student R.I.B.A., with at least 12 months' office

experience.

(c) ARCHITECTURAL ASSISTANT, about Intermediate standard, preferably with office ex-

perience.
Salary according to qualifications. Apply: 32,
Wigmore Street, London, W.1, or telephone
WELbeck 1409.

LATANTS and SENIOR ASSISTANT for Commercial and Industrial Practice in London and Home Counties. Write, stating age, qualifications and salary required, to Box 9821.

and salary required, to Box 9821.

QUALIFIED BUILDING SURVEYOR required. Shop fitting experience useful but not essential. Apply Vigers & Co., 4. Frederick's Place, Old Jewry, London, E.C.2.

BANK Architect's Department in City has vacancies for three ASSISTANTS of R.I.B.A. (Intermediate) standard and used to work of good class. Appointments will be permanent, subject to probationary period, and salary will be according to age and experience. 9991

JUNIOR ARCHITECTURAL ASSISTANT required for busy West End practice. Salary according to age and experience. Shaw & Lloyd, Museum 9693.

ENIOR ARCHITECTURAL ASSISTANT metals.

Sense of the sense

ENIOR ASSISTANT required in busy practice in West End. Age about 30 years, qualified with several years' experience and capable of running contracts. Box 9968.

NAIROBI office require ASSISTANT with new ideas, recently qualified school; man of nonours or distinction standard might well suit. Age pref. 25-30. Some practical experience required, initial salary £80 per month. Passages paid, etc. Apply with brief details quoting: OSS, 70/2, to Overseas Technical Service, 5, Weldom Crescent, Harrow, Middx.

SENIOR and JUNIOR ASSISTANTS required in the Architects' Department of the Cooperative Permanent Building Society for work on new office buildings, alterations and adaptations. Apply giving full particulars and salary required to the Chief Architect, Co-operative Permanent Building Society, New Oxford House, Bloomsbury Way, London, W.C.I.

\*\*CAPABLE\*\* ASSISTANTS\*\* urgently required. Salary £650-£850 according to qualifications and experience. Apply Scott & Westmoreland, F/F.R.I.B.A., 47, Bedford Row, W.C.I. CHAncery 2951.

2901.
COLLINS, MELVIN, WARD & PARTNERS,
15, Manchester Square, W.I., require SENIOR
and JUNIOR STAFF, competent working drawings essential, opportunity to work on contemporary buildings. Write or telephone WELbeck
9991.

porary buildings. Write or telephone WELbeck 9729
Senior and JUNIOR ARCHITECTURAL ASSISTANTS required for commercial practice, West End area. Experience in design of industrial buildings advantageous. Apply Brian L. Sutcliffe & Partners, 5, Manchester Square, W.1. Telephone WELbeck 9237.

SALARY up to 2793, according to experience for ARCHITECTURAL ASSISTANT in City office. Seely & Taget. Central 0321.

SENIOR ASSISTANT required for a general practice in Plymouth. Work in hand includes Churches, shops and houses. State when free and give particulars of age, experience, training and salary required. Apply in writing to L. F. Vanstone & Partners, 11, Grimstone Terrace, Houndiscombe Road, Plymouth.

ARCHITECTURAL ASSISTANT required. Apply in writing to Covell & Matthews, 34, Sackville Street, W.1. Varied practice, including hospitals, schools, churches, housing, etc.

PRAUGHTSMAN or SETTER-OUT with suit-RAUGHTSMAN or SETTER-OUT with suitable experience, required for interesting work on design and detailing for prefabricated timber and other buildings. Good prospects and pension scheme. Apply in writing with full details of experience to: Cawood Wharton & Co. Ltd., 1a. Cavendish Road. Leeds, 1.

CONTEMPORARY approach required from ASSISTANT about Inter. Standard, for interesting work in new office in South East London or W.1. Opportunity to work on prefabrication techniques. Good salary and working conditions, write full details of experience, etc., to Box 1006.

ARCHITELTURAL ASSISTANT required

etc.. to Box 1006.

ARCHITECTURAL ASSISTANT required immediately. 4-5 years' office experience, Intermediate to Final standard. Apply in writing stating age, experience, salary required and when available to Welch & Lander, 38, Gloucester Place, W.1.

when available to Welch & Lander, 38, Gloucester Place, W.1.

UANTITY SURVEYOR required by Manchester firm of Architects, experienced takeroff. Write stating age, experience, qualifications and salary required. Box 9958.

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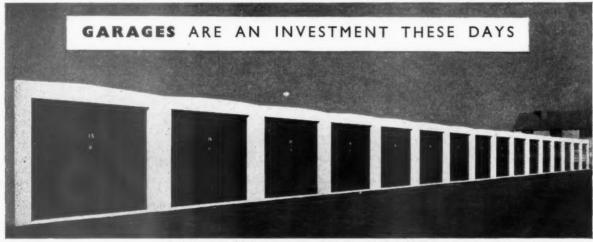
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