REPAIRS ON THE ACROPOLIS

THE TEMPLE OF WINGLESS VICTORY

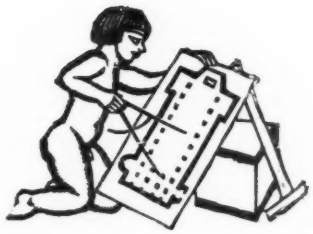
THE famous temple of Wingless Victory at Athens, designed by Callicrates and completed about the year 440 B.C., has had to be demolished in order that its foundations might be rebuilt.

The temple was first demolished and its podium used for the storage of gunpowder in the Turco Venetian wars of the 17th century. In 1835 it was re-erected by archæologists, but unfortunately on a poor foundation which is now giving way. All the original stones of the temple have been numbered, and rebuilding will be completed in a few months.

Above, the temple before demolition; right, the podium being rebuilt.

JAMAICAN ARCHITECTURE

Two examples of Jamaican architecture : top, Colbeck Castle, reputed to be one of the earliest examples of British Colonial architecture. It is rectangular in plan and measures 114 ft. by 90 ft. Four three-storied towers rise from the corners and are connected by arcades of brick. Bottom : Gale's Valley Sugar Works, Trelawney. This ruin recalls the prosperity of the eighteenth-century planters. The factory was built in a local stone. Though cane still flourishes in the valley, the factory is desolate ; the sugar is crushed by one of the island's modern plants.



THE *NEWS CHRONICLE* COMPETITION

THERE took place last Tuesday an event which deserves a notable place in the story of British architecture; and in saying this the JOURNAL has been at pains to measure its words.

On that day the *News Chronicle* surprised architects, and must have caused a shoulder-shrugging state of incomprehension in Fleet Street, by becoming the promoter of an open architectural competition.* So unusual an undertaking by a national daily newspaper —especially by one which takes pains to secure authoritative contributors and to emphasize the world's events in reasoned proportion—might seem astonishing enough in Britain. But it is to be feared that Fleet Street's bewilderment may have been completed by the choice, as subjects for this competition, of an urban and a rural senior elementary school. And even premiums totalling £1,200 to be awarded by a jury consisting of Professor Newton, the Board of Education's architect and Mr. Brian O'Rorke may not make the motive any clearer.

Between international threats, political rivalries, rearmament and distressed industrial areas, it may be that some who read the *News Chronicle's* announcement may have forgotten for the moment some other needs of this unfortunate age.

Nor would it be surprising if the public should for the moment fail to appreciate the statesmanship of the *News Chronicle's* announcement. Setbacks and progress in national education are dreary rather than dramatic issues, whether retailed from political platforms or in newspaper columns. The history of national education has made since the war rather sorry reading.

But with the new hope the *News Chronicle* has given to education and to architecture it is worth while to think again of this rather dismal progress. Before 1914 the average citizen was of the opinion that in giving children whose parents could afford nothing better some rudimentary book instruction and a periodical medical inspection (a result, be it noted, of the Boer War revelations of bad physique) they were really doing them rather proud. That such instruction took place in huge classes in buildings uniformly appalling from every point of health and design, with meagre yards as the only space for physical activity, did not cause much worry. After all, a lot of quite expensive schools were not much better.

The war held up all building and afterwards there was an enormous amount of building to be done, more urgent building than schools. But the country was then beginning to think of education; and by the end of the 'twenties the volumes of the Hadow Report, which recommended the complete transformation of everything about existing schools, had begun to have an effect. Then, just as schools in which an adequate preparation for adult life was possible were about to be built, there came the slump of 1931–32.

Once again those who believed in the possibilities of education had to take up the struggle, and at the end of 1934 it seemed that, when the raising of the school age almost passed into law, *real* schools were almost with us.

The last year, however, has seen a serious danger to that new hope in the present rearmament programme.

This JOURNAL does not consider that discussion of that programme comes within its sphere of comment, but, vital though it may be, there is a tendency for subjects no less vital to receive, because of it, less than their due of public emphasis.

It is no secret that a shockingly high percentage of recruits for the services are now being rejected for reasons of bad physique, and that schemes are being discussed for physical training centres throughout the country. This JOURNAL believes that the best kind of physical training centres are properly planned schools, and that the only lasting remedy for bad national health and physique is to make such schools universal.

The causes of the deplorable standards of building in schools, even in many of those recently completed, are complex; control by local committees who see no reason for doing what no one else has done; cries of no money; and lack of public interest. There have been rumours in the past year of an open competition to overcome this national defect and to impress the ordinary citizen with the need for large sites, open-air schools, and fully-equipped assembly halls—in fact for buildings which can be centres of preparation for a healthy and cultured life. But these rumours remained rumours until the *News Chronicle* acted this week upon its own account.

There is now an opportunity for architects to show, and for the public to realize, what school buildings could be. The *News Chronicle* has made one of the best of all contributions to rearmament—it has offered a splendid encouragement to the national and long-term rearmaments programme, and one not for war but for living. We hope this time a matter of education will have the public interest due to it and that the deeper significance of the *News Chronicle's* offer will not be missed by the Government.

* Full details of the competition are printed on page 626.

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NOTES & TOPICS

PRESIDENTIAL WISDOM

As hearty and prolonged a round of applause as I have heard in Portland Place greeted Mr. Percy Thomas as he took the chair for his second presidential year. It left no doubt of the popularity of the president and paid tribute, too, to the work Mr. Thomas has done for the Institute during his first year.

*

And his presidential address confirmed our views of the importance and wide scope of that work. A brief summary of some of the work brought Mr. Thomas, as it did Mr. Bucknell at the A.A. a week ago, to the question of town planning and especially to the more vital and urgent point of a greater London plan.

*

The Vice-Chancellor of Oxford, in moving the vote of thanks to the President, became quite excited over the picture of a really planned London. He commented vividly on the need for the vision and imagination of the artist in solving planning problems, as distinct from merely working out traffic routes.

*

What seems to be even more essential nowadays is an artist with vision and imagination applied to ways and means—an artist concentrating entirely on the study of methods of seeing that a real plan has some hope of execution.

AT THE YERBURY ARMS

How Chesterton would have loved the show at the Building Centre that opened on Monday. And what a lot we owe to Sir Guy Dawber for arousing public interest (in a double sense) to the pitch of getting for London the privilege of seeing this exhibition of Inn Signs. And what rousers of memory those signs are : to go round the Building Centre is like flitting from tankard to tankard.

*

Brewers up and down the country have shown a pretty conceit of recent years in thinking that their house sign is more important than the inn sign. Did ever a thirsty traveller go consciously to a place selling "Blank's bitter" rather than to "The Crown," "The Angel," "The White Hart," or to one of the thousands of well-rounded inn names?

*

The Building Centre exhibition shows that at least one brewer has combined a standard framing and badge with a painted sign peculiar to each inn—an example to be followed if the trade sign must appear as well as the all-important inn sign.

TOWN-PLAN SURGERY

The application of the Ribbon Development Act to central London, necessitating a traffic "in-and-out" to all buildings of public resort, is already perturbing architects.

*

One proposed new building, not far from Oxford Street, will come under the new ruling, and the architect tells me that to carry out the requirements strictly will mean the virtual loss of the ground floor and the reduction of the financial return on the building by about 50 per cent.

*

Another architect, more fortunate in site, is considering putting his entrances for traffic on the back street, thereby retaining the main frontage for shopping.

*

A third architect has not been able to understand the real intent of the Act and has merely advised his client to "wait and see."

*

It is urgent that the authorities should at once expound their real wishes and publish a few diagrams showing exactly what is likely to be acceptable.

*

Or is it intended to enforce the Act only in very exceptional cases, where traffic problems are really urgent?

*

And who is to pay for this piecemeal town-plan surgery?

TELEVISED ARCHITECTURE

Television started officially this week. More than once I have hailed television as the medium best suited to public education in architectural matters, and the B.B.C. now tells me that it has asked the R.I.B.A. to organize four televised talks on architecture. This is a real opportunity, and the fact that the invitation has come so early in television's career suggests a keen appreciation of the place of architecture in our visual interests.

*

Television is still a novelty to most of us and I hope the R.I.B.A. will remember this in organizing its four shows.

*

Will there be a parade of members to choose a silver voice combined with characterful features to attract the television fans? The point is quite an important one if architecture is to be presented as a bright and vital and lively art instead of as a confused tangle of academic theories.

"ARCHITECTURE NEEDS CREATIVE ABILITY"

Thus the *Daily Mail* in its Careers Series—No. 13. "At every point the work of the architect impinges on national life"—true enough, of course; but a faintly surprising sentiment to find in a mammoth-circulation daily.

*

Not a really inspired article, but at least honest, with no wild statements about the colossal incomes earned by

A perspective, by R. Myerscough-Walker, of the new Westminster Hospital, the architects for which are Adams, Holden and Pearson.

anybody and everybody. "Income depends very largely on the personality, ability and popularity of the practitioner." Only too true, alas, for ability is often the least important part of success. "Play golf, old boy, and travel first class"—is the simple doctrine quite honestly avowed by one of our more successful architects who is a fairly distant acquaintance of mine.

QUICK HEAT

A luncheon at the National Coal Convention last week was impressive in its way, for all the speeches made much of the acute need for real research and enterprise.

*

But coal for cooking? Any cook—real cook—will tell you that one of the first essentials to good cooking is quick heating. And for quick heating a quick flame of some sort appears to be necessary—for few homes can afford to *store* sufficient heat for quick cooking use.

*

Apparatus, too, for burning solid fuel smokelessly for cooking is expensive—much more so than gas or electricity when it comes to apparatus. And without reasonably frequent attention the solid smokeless fuel consumer needs must have a gas ring or primus stove at hand for emergency quick cooking.

ELECTRICAL INDUSTRY'S RESPONSIBILITY

A medal for H. T. Young, the new President of the Institute of Electrical Engineers, for rubbing in the fact that design in electrical equipment wants bringing up to date. His inaugural address to the Institute was full of well-put common sense.

*

He did strike a fresh note in professional responsibility to society when he spoke of the "profound desire to understand the social problems that, from time to time, arise as the result of advances made in electrical science." There was more than a hint, too, of his desire to see a closer collaboration between the electrical industry and other professions whose civic and social responsibility is closely concerned with design.

*

One day I want to form a Council for the Preservation and Extension of Common Sense in England, and I hope to see on it: Sir Owen Williams, Clough Williams-Ellis, Elizabeth Denby, Hugh Quigley (I should hand Scotland over to him), H. T. Young (to deal with the gas industry) and Sir Francis Goodenough (to deal with the electrical industry). I should add others—all from the architectural profession.

HUMAN AMBITION

Determination to do the thing one wants to do is one of the commendable traits of this life which the old guard moan about as nowadays non-existent.

*

I once knew a student of one of our full-time schools who financed his education by keeping a cigarette kiosk round the corner, using his lunch hour to relieve for lunch the youth normally left in charge. Another man studied architecture during the day and paid his fees out of monies obtained as a restaurant waiter at night.

*

More recently a cloakroom boy at one of the new London stores for men—anything from pants to 'planes—was observed to be drawing Renaissance balusters and Ionic columns.

*

Oh, yes . . . he was determined to become an architect . . . had been to an evening school for a year already . . . no, he hadn't looked much over this modern store . . . been too busy studying architecture . . . real architecture . . . oh, yes, he had a thoroughly good textbook, told you all about temples and churches and palaces and big architecture like that . . . Well, yes, one day he might get as far as the modern style . . . one day, if he was still behind the counter, he might even draw that staircase . . .

BUILDERS TOO BUSY

The Isle of Wight R.D.C. decided a few months ago to build some houses at Freshwater, and in the course of time specifications were prepared, and tenders advertised for, during a whole fortnight. Last week the Clerk to the Council reported progress.

*

No tenders had been received. Somewhat insultingly, or flatteringly to the specifier, the explanation given was that local builders were already full up with work of a more paying kind.

*

It is questionable, though, whether the builders of the island were not kinder than their confrères who send in fancy prices for work they don't want.

*

I had a client once who suffered from an obsession that architects always tell prospective clients that work will cost far less than the true facts warrant in order to entrap such innocent building owners more readily. This client, a business man, didn't want anything of that kind; he wanted the real price with no nonsense about it, as well as the architect's pledged word that a tender would fall within that stated price.

*

Naturally he got both the price and the pledge. And a very careful—nay, generous—price it was. There were four contractors invited to tender, and the client wanted to be present when the tenders were opened. He got that, too.

*

Only one builder could be got on the 'phone the day the tenders came in, and I shall never forget that client's face as three tenders were opened giving prices for 25 to 8 per cent. above the estimated cost. The fourth one wanted the job.

ASTRAGAL.

NEWS

POINTS FROM THIS ISSUE

THE KING GEORGE MEMORIAL

Lord Esher's suggestion that Parliament Square should be substituted for Old Palace Yard as the site of the proposed King George Memorial will be the subject of a statement by the Lord Mayor on November 9.

So far the memorial fund is short by nearly £40,000 of the scheme's estimated cost of £350,000. A sum of £750,000 was aimed at, with the idea of providing playing fields all over the country as well as the memorial in London.

NEW FORTH BRIDGE OPENED

The new £327,000 road bridge over the River Forth at Kincardine was formally opened last week. Designed by Sir Alexander Gibb and Partners, London, it is the longest road bridge in Great Britain.

WESTMINSTER HOSPITAL

A final appeal for £250,000 to complete the rebuilding fund of Westminster Hospital was made by Lord Wigram, President, and Mr. Bernard Docker, on Monday last at a meeting of the members of the House, Appeal and Building Committees of the Westminster Hospital, which is now in course of construction on a site in St. John's Gardens, Horseferry Road, S.W. The total cost of the scheme will be £850,000. Mr. Docker said: "A covered road, traversing the hospital from north to south, that is, from Horseferry Road to Page Street, is one of the main features of the building, a feature introduced for the first time in hospital construction. This covered road will make possible the introduction of another entirely new feature. As Westminster Hospital is of necessity remaining in a district of London specially liable to attack by air, we have agreed upon certain plans, after consultation with the Air Raid Precautions Department of the Home Office, for making it as safe as possible under circumstances which we must all trust will never arise. At either end of the covered road we shall be able to erect at very short notice double doors constituting an air-lock within which gas victims can be cleansed from gas contamination and so transferred to the hospital for shelter and treatment. In addition, the roofs of the hospital will be specially strengthened, and its windows will, as far as possible, be arranged to protect the patients from splinters; and further, all rooms below a certain level in each wing will be supplied with fresh air from an air-conditioning plant. What we are doing in this respect entitles new Westminster to be called 'the first gas-proof hospital.'"

THE ARCHITECTS' DIARY

Thursday, November 5

HOUSING CENTRE, 13 *Suffolk Street, S.W.1. Exhibition: "Forbidden Houses." Arranged by the Ex-Servicemen's Group of the Hundred New Towns Association. Until November 21.*

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C.1. Annual Exhibition of water-colours, etchings and drawings executed by members. Until November 6.*

BUILDING CENTRE, 158 NEW BOND STREET, W.1. *Exhibition of Inn Signs. Until November 28. 10 a.m. to 6 p.m. (Saturdays, 1 p.m.).*

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE, 29, *Lincoln's Inn Fields, W.C. "Income Tax on Land." By N. E. Mustoe. 7 p.m.*

GEFFRYE MUSEUM, *Kingsland Road, Shoreditch, E.2. "Furniture: Medieval Wall Paintings." By A. K. Sabin. 7.30 p.m.*

BARKING COMPETITION. *Exhibition, at Eastbury Hall, Barking, of the designs submitted in the competition for a new town hall and municipal buildings, Barking. Until November 12.*

Friday, November 6

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. *East Midlands Branch. At the School of Art and Technology, Leicester. "Warmth and Comfort." By T. Bedford. 7.15 p.m. Liverpool and District Branch. At 312 India Building, Water Street, Liverpool. "Commercial Uses of Gas." By A. E. Alexander. 7 p.m.*

Monday, November 9

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C.1. Exhibition of drawings and paintings by students in English Schools of Architecture. Organized by the A.A. Students' Art Club. Until November 20.*

CHARTERED SURVEYORS' INSTITUTION, *61, George Street, S.W.1. Inaugural address by J. M. Theobald. 6.30 p.m.*

Wednesday, November 11

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. *Birmingham and District Branch. At 95 New Street, Birmingham. "Air Conditioning with reference to Industrial Work." By E. L. Joselin. 6.45 p.m.*

RE-PLANNINGS OF LONDON

Five public lectures on "Re-plannings of London, c. 1520–1930," will be delivered by Miss E. Jeffries Davis, M.A., F.S.A., at the University of London, University College, Gower Street, W.C.1, on Tuesday, November 10, 17, 24, December 1 and 8, at 5.30 p.m., and will be repeated in the second term on Tuesday, February 9, 16, 23, March 2 and 9, 1937, at 8.15 p.m.

LONDON MASTER BUILDERS' ASSOCIATION

The annual dinner of the above Association will be held at the Dorchester Hotel, Park Lane, W.1, on Thursday, December 10, at 6.30 p.m. (for 7 o'clock).

RESIGNATION

Mr. John Keppie, A.R.S.A., F.R.I.B.A., who has been associated with the Glasgow School of Art for almost half a century, intimated his resignation from the position of chairman at the annual meeting of the governors last week. He has been chairman since 1930.

Mr. J. R. Richmond was unanimously elected chairman of governors.

TOWN PLAN FOR THE CITY

The Minister of Health has approved the proposal of the Corporation of the City of London to prepare a town planning scheme. This will regulate the height of buildings and the development of sites adjoining historic places.

APPOINTMENT

Professor W. G. Holford, B.ARCH., A.R.I.B.A., has been appointed architect to the Team Valley Trading Estate in the North-East Special Area.

SLUM CLEARANCE

In the House of Commons, on Thursday last, Sir G. Mitcheson asked the Minister of Health if he could make a statement as to the progress in respect of slum clearance and the abatement of overcrowding.

Sir Kingsley Wood said that some 25,000 slum dwellers were being re-housed month by month under the five-year slum clearance plan, and the total at the end of August was some 450,000. He had fixed "appointed days" for overcrowding in respect of 1,320 of the total 1,536 authorities. For 1,284 the appointed day was January 1 next, and for 36 it was April 1 next, and rehousing proposals to abate overcrowding were now under active consideration.

HOUSING IN SCOTLAND

Except for six county councils all the local authorities in Scotland have completed their overcrowding surveys and have submitted their reports thereon to the Department of Health for Scotland.

In all, 1,071,652 houses have been surveyed (813,384 in burghs and 258,268 in counties); and of these 247,032 were found to be overcrowded (194,413 in the burghs and 5,619 in the counties). In the burghs 23·9 per cent. of the houses were overcrowded, and in the counties 20·4 per cent. The number of families living in overcrowded houses was 221,362 in burghs and 57,232 in counties—a total of 278,594 overcrowded families.

Of the overcrowded houses, 34,819 are owned by local authorities themselves. About 23 per cent. of the houses owned by town councils and about 24 per cent. of those owned by county councils were found to be overcrowded.

The numbers of new houses which local authorities show to be required (after making allowance for full use of existing houses) in order to put an end to overcrowding, are 123,634 in burghs and 32,668 in counties—a total of 156,302 new houses.

One hundred and eighty-three town councils and sixteen county councils have submitted to the department their building programmes for the period to the end of 1938. These programmes show a total of 58,109 houses proposed to be built in that period. This total will be substantially increased when all programmes have been framed and submitted. In the burghs, 57·8 per cent., and in the counties 64·9 per cent. of the proposed new houses are to contain four or more rooms. It is clear from this that, as contemplated by the Housing Act of 1935, the local authorities intend to deal first with the worst cases of overcrowding.

An ever-increasing number of local authorities are now engaged in the erection of houses in fulfilment of their programmes.

CARDIFF CIVIC SOCIETY

It was announced at the annual meeting of Cardiff Civic Society, on Thursday last, that prizes were to be offered to Cardiff students for the best schemes of street decoration during Coronation celebrations next year. An exhibition of the designs prepared will be held at the Technical College on November 5, and later the best schemes will be exhibited in London.

In an address on the creation of civic amenities, Professor W. G. Holford, Professor of Civic Design in Liverpool University, said: "The past can prove beyond question that towns were never more serviceable and habitable nor the country more pleasant and productive than when planned." Stated in blackest terms, the position today was that the large towns were chaotic and diseased; a large proportion of houses were out of date and dilapidated; the streets were congested and dangerous, and they were used for pleasure, business, transport, and ventilation all at the same time.

Civic centres, with a few exceptions, including Cardiff, were too small in scale or non-existent. Civic amenities were the result of thought, public criticism and technical ability, and he was sure that societies such as they had in Cardiff would not be slow in proving their ability.

THE SALARIED ARCHITECT

At a public meeting held at the Caxton Hall, Westminster, on October 29, under the auspices of the Association of Architects, Surveyors and Technical Assistants, Mr. E. Maxwell Fry opened a discussion on "The Work of the Salaried Architect."

The salaried architect, he said, could be divided primarily into two kinds, the salaried principal and the salaried assistant. In either case it was a common view that the salaried man was something of a slave to his master—an inferior being who must practise only a mutilated version of his art. But the private practising architect, working in a competitive world, with a free choice of producing good architecture and equally of starving, was also bound by very stringent conditions.

The salaried architect was in receipt of a fixed salary in good times and bad. The architect in private practice stood a possible chance of becoming rich and still keeping the inner shrine alight—the two major ambitions of capitalistic ideology. Those were the two main differences between the salaried architect and the man in private practice.

It was often said that official architecture was dull largely because of the feeling of safety in a big organization and because the architecture was designed to pass committees. But the best part of architecture today was done for boards and committees.

The root of the matter lay very largely in the status of architects in society generally. The answer was to raise the status, particularly of the salaried architect, and to secure a greater measure of freedom for both salaried and private architects.

The system of group working as adopted, for example, by the Swedish Co-operative Architects and by the Miners' Welfare Committee in this country, gave salaried architects and assistants a feeling of a team enjoying life and experimenting with new ideas.

There always had been and would be large offices and small, and architects who could share and others who could not. What had really changed was the social basis of architecture. It was no longer an esoteric mystery for the private enjoyment of a few gentlemen of taste: it had a collective basis. But things that architects once controlled were no longer controlled by architects. An enormous amount of work needed doing and needed architects to do it, but the control had passed into the hands of administrators and others. The really great hope for the future, the hope of making the architecture of great towns and corporations something good, and even better than Liverpool was now producing, lay in the possibility of architects working as groups on the programmes of large public bodies.

It was suggested during the meeting that the A.A.S.T.A., with the co-operation of the R.I.B.A., should organize to send on tour an Exhibition of the Work of Salaried Architects, to include the work of foreign architects as well as English ones.

L.C.C. AND HOUSING

On Tuesday last the London County Council had before it housing schemes to a total value of more than £1,500,000. The Housing and Public Health Committee submitted proposals for the erection of flats on ten sites in Hackney, Lambeth, St. Pancras, Stepney and Southwark at a total cost of more than £929,000. These schemes provide for the erection of 1,700 separate flats containing about 5,400 rooms and providing accommodation for more than 8,000 people. Electric light will be installed in all cases and the layout of the estates provides for the planting of trees and, wherever practical, for the provision of children's playgrounds. Shops will be provided on several of the sites.

The Committee also submitted particulars showing the progress of housing in Greater London up to December 31, 1935. These show that up to that date nearly 128,000 houses had been provided since 1919 in Greater London by local authorities. The number provided by the London County Council in 1935 was 4,276, an increase of more than 1,000 over the number in 1934. The building by local authorities generally in 1935 shows a slight decline on the previous year. Since the war the number of houses built by local authorities and housing associations and private enterprise has been over 605,000, an average of 37,817 a year, but the number provided last year was 75,676, slightly more than double this average. Of the new houses and flats provided by local authorities during the period under review 61,634, or nearly one-half, were built by the London County Council, over 20,000 by the City and Metropolitan Borough Councils, 46,251 by out-county local authorities, and 8,230 by housing associations, etc.

LIVERPOOL ARCHITECTURAL SOCIETY

A new method of land acquisition by which town-planning would be facilitated and a new era in architecture begun was suggested by Mr. B. M. Ward in his presidential address to the Liverpool Architectural Society last week.

Mr. Ward visualized the town of the future—laid out in wide rings of buildings with wide intervening green stretches with sunken, dual motorways, coaches travelling at eighty miles an hour and midget aeroplanes alighting on the roof-tops.

He began by criticizing the present system of land acquisition. We had advanced in the last hundred years or so, but conditions were still ridiculous. Land for the railways, for instance, was acquired on terms which had hampered them and caused the unnecessary cost of travel and freight-carrying which was crippling the railways today in competition with other means of transport, and which was crippling also our producers in competition with foreign producers. If town-planning were to be efficient, some fundamental changes were essential. There could not much longer be any great prejudice against land passing to the ownership of the community *before* it was earmarked for any special purpose.

By recent legislation Parliament had given power in certain circumstances to local authorities to acquire land up to 220 yards from the centre of a road. Facilities for the acquisition of land by public bodies were being increased, but only very gradually. Occasionally, a large estate in a favourable position could be procured by a municipality or a large commercial firm or garden city association. Great work had been done at Port Sunlight, Letchworth, Welwyn, Bournville, Wythenshawe, and other places. But all these places had their limitations and, in large proportion, their expenditure went into the pockets of neighbouring landowners.

Mr. Ward paid a tribute to a great architect whom he did not name, but whose identity will doubtless be clear to Liverpool people. This architect, he said, was a great sociologist and was not merely planning the layout of houses, schools, community centres, shopping districts, and industrial areas, but he was planning how future communities would live together.

But his plans had to be made with a view to their submission to Parliament, who, with the best intentions in the world, could not follow sympathetically the requirements, the customs, and the methods of a particular district, and who invariably looked at every question with the idea that the answer must be conformable not only to that district, but to every other district in the kingdom. Nor could the architect in question earmark any land for his schemes without pushing up the price of the land and clogging the progress of those schemes.

The remedy for this state of affairs, suggested Mr. Ward, lay in the decentralization of the Parliamentary institution by the division of the kingdom into fifteen to eighteen suitable states or provinces of reasonable size, reasonable population, and reasonable homogeneity.

Generally a state would centre in one of the great cities—obviously Liverpool, Manchester, Birmingham, Sheffield, Newcastle, and Bristol would be the chief cities for the next few generations of their particular states. Mr. Ward sketched out how land might be acquired by these states on an equitable basis, the landowner being paid out of an immense issue of redeemable State bonds, the interest on which would be met by the land rentals, which would probably include the old land taxes. The

sinking fund for redemption would be a first charge on the death duties, which would not be used as part of the ordinary income of the State.

He passed on to the architectural potentialities of such a scheme. The question of existing towns would be a bit of a nightmare for some generations, but slowly the wholesale replanning of these would be achieved. Schemes planned long beforehand for planting parks all round the centres of the towns would be realized, and the built-up areas beyond these parks would be intersected by other radial parks so as to leave a series of townships surrounded by greenland a mile or two beyond.

These would be the well laid-out dormitories of what was once an immense city of perhaps a million people. Only one-eighth or one-tenth of that population would remain within two or three miles of the centre. Along the dual motorways connecting the townships with each other and with the rebuilt centre of the old city, coaches would travel cheaply, without intermediate stop, at eighty miles an hour, and from great aerodromes, midget aeroplanes would be able to descend on any roof or garden in the city.

Some of the old town (and later the old towns, too) would consist of a great central garden of ten or twelve acres, surrounded by all the public buildings of central importance, generously spaced. Outside this ring of public buildings there would be a green space of about 100 yards in width, a motor cutting, then another ring of central shops and offices, warehouses, exhibition halls, and places of entertainment. Then a ring of parks and playing-fields, after that another of churches, schools, halls, blocks of flats, and behind them again, clustered in green spaces, groups of houses.

*

On page 588 of last week's issue we printed extracts from the presidential address by Lt.-Col. Westcott to the Manchester Society of Architects. We inadvertently stated that the address was given to the Liverpool Society of Architects.

ANNOUNCEMENT

Mr. H. Hubbard Ford, A.R.I.B.A., of 5 Ivy Terrace, Eastbourne, has opened an additional office at 35 Curzon Street, Mayfair, W.1, to which address his London practice will now be transferred. Mr. Ford will continue to practise from Eastbourne, whilst his London office will be in charge of Mr. Ralph G. Covell, A.R.I.B.A. Telephones: Grosvenor 3346 and Eastbourne 3399. Mr. Ford will be pleased to receive trade catalogues at his London office.

OBITUARY

We regret to record the death of Mr. Allan M'Lymont Ure, of Glasgow. Mr. Ure was a member of his father's firm of Allan Ure & Co., Ltd., ironfounders, Glasgow, and was the inventor of a specially designed grate for small houses. He was sixty-eight years of age.

CORRECTION

The Ruberoid Company point out that the roofing of the timber house at Woodford Green was incorrectly described in our working detail No. 516 last week. Their roof is a bituminous felt, *not* a bituminous rubber.

R. I. B. A.

INAUGURAL ADDRESS

The new session of the R.I.B.A. was opened by a general meeting on Monday last, when the President, Mr. Percy Thomas, O.B.E., F.R.I.B.A., delivered his inaugural address and presented the R.I.B.A. Bronze Medal and Diploma for a London building built between 1933 and 1935 to Mr. R. H. Uren, A.R.I.B.A., the architect for the Hornsey Town Hall. Extracts from the address are given below.

If, at the start of his term, a President may plead with justification, as I pleaded last year, that he would rather submit a design thesis than stand before you to discourse on public affairs, that plea has little justification for a President starting his second year of office after such a year of activity as I have had. No President can pretend that when he starts his term he is fully qualified for his immense and important duties, but soon enough he begins to learn, and, with luck, by the time he has to stand here for his second Inaugural Address he can with pride claim to have met most of the problems and personalities of the profession and should, if he is worthy of his office, have learnt enough to speak with authority. Should any of you ask by what means a President acquires this experience I could reply that during the past year I have visited 19 Allied Societies, eaten in the course of my wanderings 49 public dinners, made 46 speeches and served as the Institute's representative on many public bodies and committees. To meet his obligations, a President needs to go into training like an Olympic athlete!

There have been times when our own domestic affairs have claimed the biggest share of our attention. It was so during all the years of the Registration battle and also in more recent years, when our thoughts were centred on our own Centenary: but those times are past. Though most certainly it is necessary for us continually to maintain a critical attitude to our own professional affairs, as indeed is always being done by the many committees inside the Institute, the peculiar duty of a President now, as I am sure you will agree, is to relate our affairs to wider affairs outside. Public opinion will not tolerate narrow self-interest in communities or individuals. Unless the whole force of the immeasurable strength of the R.I.B.A. can be turned to National Service—well, we might as well relapse into being what I trust the R.I.B.A. has never been, an organization concerned merely with details of our professional well-being. I do not want to discount that side of our work; it is essential and, of course, always must take a large share of our time.

I think that anyone who has had my opportunities of getting about would agree with me that in all types and classes of the community, increased recognition is being paid to our profession: architects and architecture mean something, at least, to many people who previously were entirely ignorant of our specialized contribution to life. It happens that the last two years have been fortunate ones for us; individually and collectively the members of the profession have had more opportunities of showing their powers than ever before in our history. What is the Institute's duty at a time like the present? The R.I.B.A. cannot actually create work but it can see that when opportunities of work appear they are properly used. In this the Institute properly stands above the profession and independent of the particular affairs of any individual member. In the widest sense it is concerned for *architecture* rather than architects. This responsibility cannot be fulfilled by standing passively by. The R.I.B.A. has to go among the people, study their needs, answer their questions. Services within the Institute, at one time private services for architects only, are now widely used by the public and by national bodies. In this general fight for architecture no single activity of the Institute is now of more dramatic effect than the work of the Exhibition Committee. I can refer to one quite minor side of this branch of the R.I.B.A.'s activities which, even if it is small compared with some of the Exhibition Committee's ambitious schemes, can serve as an introduction to what else I have to say.

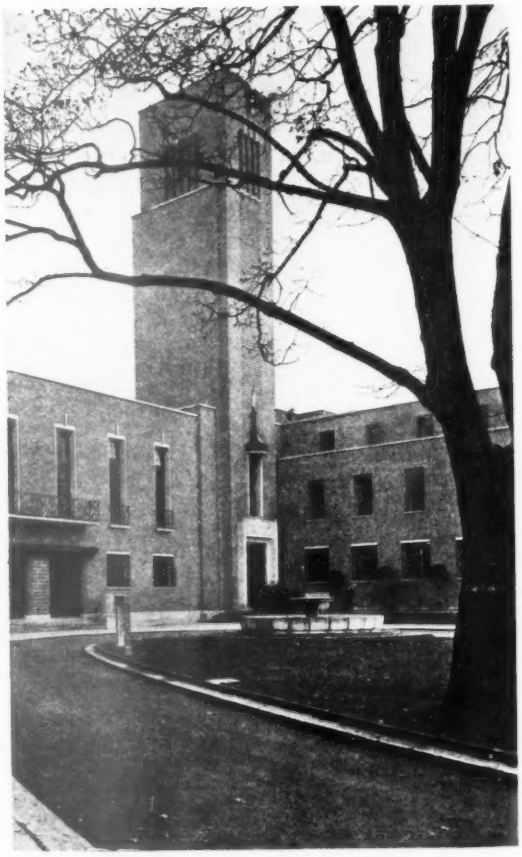
The R.I.B.A. is about to send on tour an exhibition of Civic Centres. The most interesting fact about this exhibition is that it is in response to a demand for information from several of the leading local authorites. It is already fully booked up until the spring of 1938. Local authorities are becoming aware that the administrative and cultural buildings in a town should form its heart and that the group should be planned as a whole. The next inevitable step is the realization that once a planned centre is created the remainder of the town must also be planned in a positive way. Its industries, business, traffic flow, residential and recreational requirements must all form part of an ordered whole, planned with vision and a far-seeing eye to future needs and expansion.

Town Planning

Many years of effort and study by town-planners (it is hardly necessary to mention Sir Raymond Unwin's name in this connection) have brought the Government and people of this country to something of a realization of the benefits that town planning can confer. Great progress has been made since the experimental Town Planning Act of 1909—fathered by John Burns—but the end has as yet by no means been attained. We have the 1932 Town and Country Planning Act and the Restriction of Ribbon Development Act, but so far their influence appears to be mainly negative in character. Local authorities are busying themselves with restricting heights of buildings, widths of streets and densities. They are also exercising control of the design of buildings, not always with happy results, particularly when they neglect to employ skilled advisers either in the form of town-planning consultants or the Advisory Panels. They are, in fact, at present merely trying to control the worst excesses of private and speculative building.

Town Planning must be made a positive—a creative—force. The Government should not think it has achieved the full ends by the two Acts of Parliament just mentioned. So far we have merely tinkered with the complex problem of town-planning, a problem made up of the requirements of traffic flow (both road and rail), public health, public recreation, the needs of industry and business. Moreover, study of these functions is but the groundwork to the building up of a town that is orderly, dignified and beautiful, from which squalor, muddle, waste and ugliness have been abolished.

So much of the statutory town planning has been only two-dimensional—lines on a map—and not visualized as three-dimensional, which is the medium in which the architect has to work. What is really required is an adequate planning technique for the grouped development of towns and villages, not an extension of ribbon development under more spacious conditions. Another field of service which will be opened out to the architect is the



On Monday last the President of the R.I.B.A. presented to Mr. R. H. Uren the R.I.B.A. Bronze Medal and Diploma for a London building between 1933 and 1935. Above is a view of Hornsey Town Hall, the building for which Mr. Uren was awarded the medal.

planning and design of the new communities and satellite towns, which are likely to be laid out in the future. In them will be found the greatest opportunities for solving the dual problem of urban overcrowding and of countryside preservation near the great centres of population. In these new towns there will be opportunities for demonstrating planning on an adequate scale, for civic design in which industrial location is not associated with squalor and muddle, and the enjoyment of natural amenities as the normal accompaniment of daily life. There will—or may be—these opportunities, but will they be taken? Will the authorities ever claim the powers they should have to compel the proper location of industry or must everything continue to be left to the irrational competition of vested interests?

Perhaps in all this there is a vicious circle. The officials say that there is no established planning technique so generally accepted as to make its national presentation in legal form possible; the town planners and architects say that there can be no established technique until they have the chance to work on a large scale. It is certain, however, that the final objective of good planning cannot be achieved in a day or even in many years, but its achievement is possible. It requires energy, foresight and good will, and, above all, a national survey followed by national control.

I referred a moment ago to statutory planning as being two-dimensional. The Ribbon Development Act is one instance of this—here is an Act which might have been of inestimable value as a means of applying broadly conceived town planning ideas—instead it was produced primarily as a transport or two-dimensional expedient and fails to do half the things it might have done. Merely to prescribe building lines and positions of side roads, however desirable this may be as a traffic measure, will do little more than move the ribbon and the sporadic building further away from the main road.

Traffic

The Restriction of Ribbon Development Act is chiefly concerned with building in what is, or what was, the countryside. Within the city the expedients adopted are hardly better and show no more foresight. Let us for a moment consider one aspect of the city problem, that of traffic. Palliatives such as roundabouts, traffic lights and one-way streets have temporarily staved off the inevitable, but their limits are being reached. Nothing but bold and vigorous re-planning—surgery, not doctoring—can save the modern town from a futile congestion that is not very far off. Schemes such as that for Charing Cross Bridge, while desirable in themselves, fail to be fully effective because they are not part of a complete scheme.

So far the Government has not concerned itself with the planning of London—the capital city. It has been left to the more or less conflicting interests of local authorities, of which the London County Council is the greatest. It is true that the Greater London Regional Planning Committee was formed to co-ordinate town planning effort and produced some very useful reports, but it has now been dissolved. It is in any case very doubtful whether an advisory body, however technically qualified its members may be, can ever get carried through the large scale schemes of co-ordination that are daily becoming more urgently necessary. The City of London is now tackling the extremely complicated problem of planning the central area. The London County Council and the Metropolitan Boroughs are endeavouring to apply town planning in the areas they control. The outer suburbs are in some cases preparing their own schemes. The Ministry of Transport is about to take over the trunk roads. These are all parts of what is essentially one problem, that of greater London. Who is to provide the necessary unified control? There is little doubt that the Government must inevitably take charge of the situation.

London is being rebuilt piecemeal in a continuous process. It requires guidance and firm control by a nationally-constituted body. It has been said that a democracy cannot plan and indeed our political system has of necessity to pay attention to all interests. But this country has before now sunk its sectional aims for the common good and can do so again if given a clear lead.

We are at the present time urged to become air-raid minded. It is not unlikely that the first aid-raid, coinciding with the outbreak of a war, may bring about a tremendous exodus from London. The roads will be congested far beyond their limits and it does not require a very vigorous imagination to picture the results. It is not too much to say that the town planning of London ought to be considered as a problem in national defence.

Open Up the Towns

It is said we are a C.3 nation and that large numbers of those who present themselves for service in the army are rejected on physical grounds. The establishment of national playing fields and of health centres and clinics, the teaching of hygiene and the encouragement of sport and physical exercise are all good in themselves, but they cannot do away with one root cause of an unfit nation—our congested, smoky towns. It is true that slums are being cleared, but slums do not have a monopoly of physically unfit persons. The cure is to open up the towns to admit air and sunlight. Much land in towns is wasted by being covered by mean little buildings two or three floors high, bounded by mean streets, narrow courts and alleys. One cure is to build higher without increasing the existing densities of population, thereby freeing land for parks, public gardens and easier traffic flow. To achieve this skyscrapers are not necessary; if half the existing two and three storey buildings in London were doubled in height and the rest pulled down there would be abundant room for the widest and finest boulevards in the world. No one will, however, suppose that the cure is as easy as that. Merely building higher is not a cure in itself but a means to be used judiciously where circumstances demand.

The financial aspect of the problem is of secondary importance. Experience has shown often enough that a boldly planned scheme pays for itself. In Kingsway it was a direct financial return on rents, but in housing poor people it is no solution to build houses that will give a higher rent and rate return. There the financial return must be found—if we must always resolve our problems into pounds, shillings and pence—in the improved health of the people which will mean fewer wage losses and savings on health services. Unless new housing can be provided without increasing rents the gain in improved environment may be more than offset by a loss due to the occupants having to pay for the higher rents out of money that should go to food.

The engineering aspect is also secondary, though important. The needs of traffic must not be allowed to outweigh those of health or of industry or indeed of amenity. The problem

is essentially one for the creative planner—the architect who can plan a living town, not the engineer who can plan a traffic system. It is not necessary to remind architects of the opportunity lost when Wren's plan for London was rejected, but today even Wren would find the enormous and complex problems of London to be far beyond his capacity. It calls for a group of government-appointed experts, each responsible for one aspect of the problem, but there must be the driving force of the national will behind them.

Can it be done? It must be done if we are not to waste our resources on palliatives that do not remove the root cause of many of the evils of our time.

For many years now the champions of town-planning have contained many architects in their ranks. It is to architects that the major technical achievements in town-planning have been due. But the ideals of town-planning have as yet by no means been achieved, and though many of us find ourselves hampered in our work by the new town-planning restrictions, not always administered with vision, we must nevertheless work steadily towards the fulfilment of those ideals. We must press on with the education of the public in the benefits that town-planning and architecture can bring to the community, a task with which we were charged by the King when he urged us to "educate the people of this country in better living."

Most thinking persons in this country realize only too well the many ills from which our civilization suffers. Architects know that the cure for many of them lies in ordered re-planning and the rebuilding of our congested towns and cities, and it is our duty to teach what we know.

Once the nation realizes that this aim must and can be achieved, it remains to see that it is carried out with all the resources of knowledge, all the taste and skill that we possess. It is on the technical ability of architects that the success or otherwise of rebuilding our towns and cities will depend. That the aggregate skill of the architectural profession is increasing rapidly there is no doubt, but we must not be content with present standards. We exist solely to serve the community and we must bend our utmost powers to that end.

ELECTION OF MEMBERS

At a recent meeting of the Council of the Institute the following members were elected :—

As Hon. Corresponding Member (1) : Einhorn, A. (Kharkov, U.S.S.R.).

As Fellows (7) : Messrs. Alexander, T. M., F.S.I. (Liverpool) ; Halfhide, F. W. (London); Meredith, J. N. (Norwich); St. Leger, C. D. (London); Scarlett, F. (London) ; Scott - Willey, H. H. (London); and Nicholson, A. T. (Preston).

Associates (21) : Messrs. Barrell, S. F. (Orpington, Kent); Belton, T. A. L. (Nottingham); Carr, H. N. (Mosman, N.S.W., Australia) ; Flower, G. W. (London) ; Haythornthwaite, G. G. (Sheffield); Heath, F. N. (Melbourne); Hinchcliffe, (Miss) Kathleen M. (Oxton, (Birkenhead); Howells, B. T. (Liverpool); Kirby, R. A. (London); Lambert, L. C. (Durban, South Africa); Lawson, R. D. (Altrincham, Cheshire) ; Lines - Roberts, (Miss) Denise M. (Bickley, Kent); Murray, A. H. (Johannesburg); Poole, M. M. F. (Durban, South Africa); Rogers, A. E. (Haslemere, Surrey); Shapley, R. S. (Leeds); Smalley, E. A. (Accrington); Taylor, G. L. (London); Weegmann, H. C. (Bramhope, near Leeds); Wilkinson, F. (Barnsley); and Williams, A. L. (Pen-y-Groes, Caernarvonshire).

As Licentiates (6) : Messrs. Buckley, F. L. (Leigh - on - Sea, Essex) ; Cross, W. E. (Hounslow, Middlesex); Harling, G. (Burnley); Manser, H. A. (Eastbourne); Mellor, R. F. M. (Maidstone, Kent); and Nisbett, D. (Liverpool).

COMPETITION NEWS

SCHOOLS

On November 3 the *News Chronicle* published particulars of an architectural competition for two senior elementary schools, in which £1,200 in prizes is being offered. The *News Chronicle* states that the object of the competition is to improve school buildings of the future. "The familiar elementary school that fulfilled the requirements of 20 to 30 years ago is being replaced. The old school house does not meet modern demands in capacity, sanitation, equipment or style. It has been condemned on account of its ugliness. The present tendency is towards more air, more light and more gaiety, with adequate facilities for games.

"Modern educationists are in general agreement with this outlook, but the ideal school of the type that will be in greatest demand during the next few years has yet to be designed. The *News Chronicle* has set itself this task believing as a result of this competition some tangible contribution will be made towards better education for British children."

Architects are invited to submit designs for schools of two types that will shortly take the heaviest toll of the public funds :

1 : A large senior mixed elementary school for 480 children suitable for an urban district.

2 : A smaller senior mixed elementary school for 160 children in rural surroundings.

"New ideas and fresh lines of thought will be welcomed in this competition. The *News Chronicle* desires to make it clear that architects should consider themselves unfettered by tradition or convention of plan, elevation, internal fittings, materials and methods of construction. These are the points that should govern the conception of the new buildings. They should :—

"1 : Fulfil satisfactorily the functions of a school;

"2 : Maintain the present accepted standards of safety and health for children and the staff;

"3 : Be economical, taking into account first cost with cost of running and upkeep;

"4 : Encourage appreciation of fitness and beauty."

The *News Chronicle* points out that "the R.I.B.A. has laid down the lines on which the contest will be conducted and the Board of Education is in complete sympathy with its aims and objects."

The following have been appointed assessors : Professor W. G. Newton, M.A. (OXON), F.R.I.B.A., Mr. Brian O'Rorke, M.A., A.R.I.B.A., and Mr. George E. Kendall, O.B.E., F.R.I.B.A., architect to the Board of Education.

The prize money (£1,200) will be distributed as follows : Section 1, £500, £200 and £100 for the designs placed first, second and third, respectively; section 2 : design placed first, £300; design placed second, £100.

Conditions, etc., are obtainable (deposit, 10s.), from : Schools Architectural Competition, *News Chronicle*, 19–22 Bouverie Street, London, E.C.4. The latest date for submission of designs is February 1, 1937.

THE BARKING COMPETITION

The designs submitted in the competition for a new town hall and municipal offices, Barking, for the Barking Corporation, are now on exhibition at Eastbury House, Barking. The exhibition will remain open until November 12.

The designs placed first, second and third were illustrated in our last issue. Below we print the report of the assessor (Mr. H. V. Lanchester, F.R.I.B.A.) :—

"I have made a very careful study of the fifty designs sent in and would congratulate the council on the very good response received to its invitation, as indicated by the large proportion of able designs submitted. I have no hesitation in placing first the design No. 30 (Herbert Jackson and Reginald Edmonds) as fulfilling exceptionally well the requirements of the council and embodying these in a dignified composition that will be a credit to the town and a striking feature from various points of view.

"It may be suggested that when the council is in touch with the author of this design some minor re-arrangements in the council suite will be found desirable, and that consideration might also be given to the advisability of shifting the building a short distance towards the south-west so that the tower may stand centrally on the line of Grove Place.

"Design No. 49 (Bradshaw Gass and Hope) must take the second place and premium. This is a brilliant design well worked out and providing accommodation in connection with the assembly hall exceeding what was demanded. Unfortunately this excess has increased the cubic content by a considerable amount, and though I should hesitate to challenge the estimate of such an obviously experienced designer, the cost would undoubtedly be from 12 per cent. to 15 per cent. more than that of No. 30, assuming a similar degree of efficiency in building methods in each case.

"No. 4 (E. D. Lyons and L. Israel and C. H. Elsom) is awarded a third premium of £150 for a good design artistically handled and economically planned.

"A fourth premium of £50 is awarded to design No. 46 (Basil G. Duckett) which handles the problem in an individual manner and comes very near to proving that this might have produced the best solution. In my view, however, it has not quite achieved the result aimed at.

"Design No. 33 (Crabtree and Freeman) must be commended for similar reasons, and design No. 2 (H. T. Wright) is also worthy of commendation for a well-thought-out scheme on lines rather similar to those of the designs placed first and second."

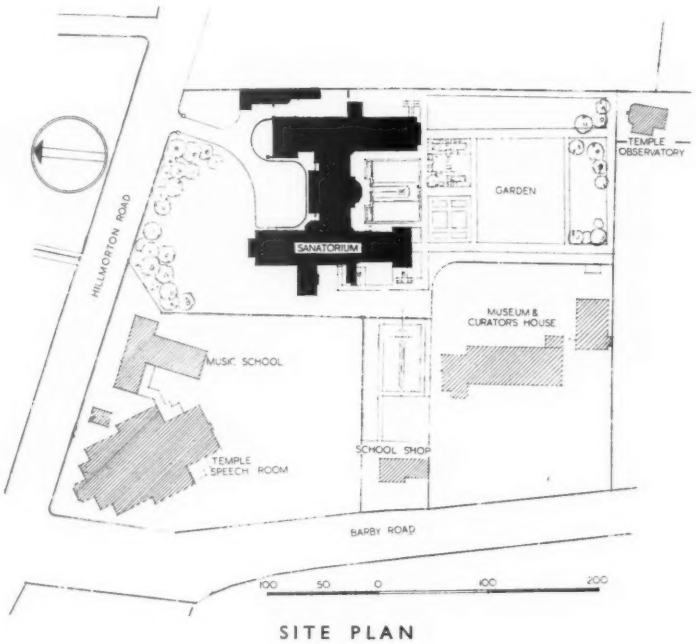
EXTENSIONS, ST. ANDREW'S CATHEDRAL, SYDNEY

The Secretary of the R.I.B.A. writes : "I have just received the following cablegram from Mr. B. J. Waterhouse, one of the assessors in the competition for extension of St. Andrew's Cathedral, Sydney : 'Please inform competitors closing date Saint Andrew's competition extended first June thirty-seven. Answers questions sent. Waterhouse.' "

[*A list of competitions open was published in our issue for October 22.*]

SANATORIUM AT RUGBY SCHOOL

DESIGNED BY WILLIAM A. PITE, SON AND FAIRWEATHER



SITE PLAN

GENERAL PROBLEM — *Sanatorium with two twelve-bed wards, three four-bed wards and twenty-four single-bed wards. Eight of the single-bed wards on the second floor can be isolated from the remainder of the sanatorium, there being a separate entrance to the staircase and bed lift. The sanatorium takes the place of one built in 1847, and is planned to cope with the peculiar situations which obtain in a population of 600 boys where the principal illnesses are acute infectious diseases.*

SITE—*In Hillmorton Road, Rugby, Warwickshire, within easy walking distance of the boarding houses of the school.*

PLAN — *Generally the patients' rooms face south, where there is a large well-laid-out garden. In the centre of the ground and first floors are the recreation rooms. The ground floor room, also used as a dining room for convalescents, was panelled and furnished as a gift to the school by the parents of Dr. A. V. Simey, who was, until recently, medical officer.*

On the north-west angle and approached by a separate entrance is the out-patients' department, consisting of examination cubicles, waiting-room, small laboratory, etc. Near it is the operating theatre, with anaesthetic and sterilizing rooms.

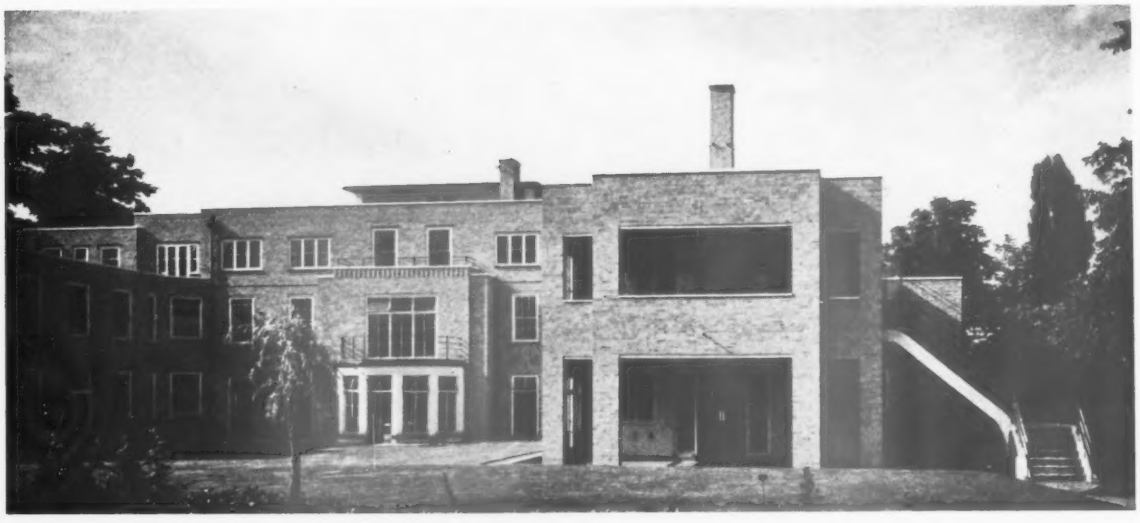
Over the wing are the nurses' quarters and a suite for the matron.

On the opposite corner, approached by a separate entrance, is the kitchen unit, with accommodation for the domestic staff above. On the south-west corner are two large solaria.

For a list of general and sub-contractors, see page 648.

The photograph is of the entrance front facing Hillmorton Road.

SANATORIUM AT RUGBY SCHOOL: DESIGNED BY



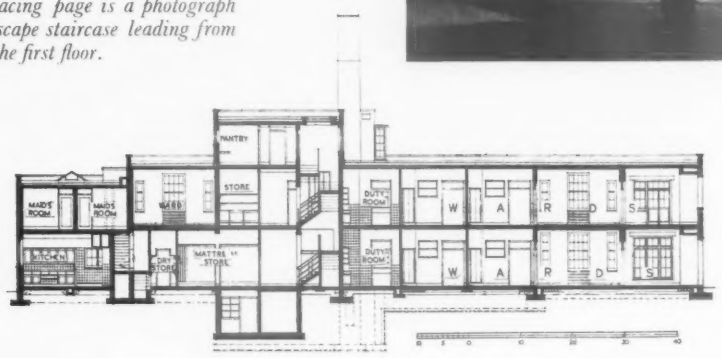
CONSTRUCTION—*Brick walls, with hollow tile and reinforced concrete floors, flat roofs and staircases, wrought iron railings, reinforced concrete lattice foundations, and metal windows.*

INTERNAL FINISH—*The twelve-bed wards have gurgun floors and built-in furniture, the single-bed wards a polished hardwood floor and a built-in wardrobe. Around the doors and wardrobes are metal architraves varied in light colours. On the top storey the floors of the corridors and rooms are rubber, in the other wards the floors are hardwood, principally oak, gurgun, maple and teak.*

SERVICES—*Each single-bed ward has a radiator painted a distinctive colour and a ventilating gas fire. The electric light is recessed in the ceiling. A reading lamp and wireless plug are also provided. The twelve-bed wards have open coal fires and radiators, recessed under the windows.*

The photographs show: Above, the south front; right, the recreation and dining-room on the south front.

On the facing page is a photograph of the fire escape staircase leading from a ward on the first floor.

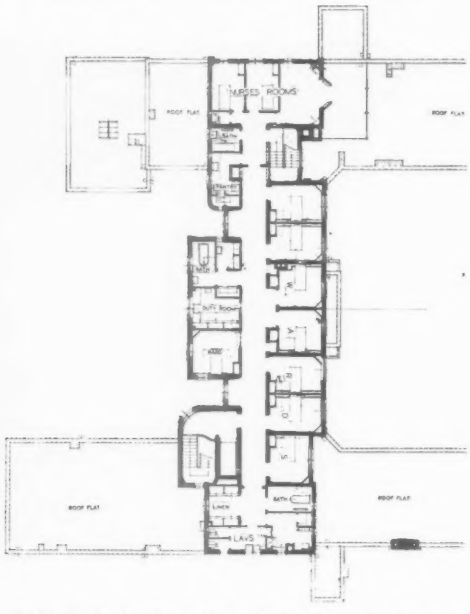


SECTION

WILLIAM A. PITE, SON AND FAIRWEATHER

SANATORIUM AT RUGBY SCHOOL: DESIGNED BY

The photograph is of the operating theatre.



SECOND FLOOR PLAN

GROUND FLOOR PLAN

FIRST FLOOR PLAN

WILLIAM A. PITE, SON AND FAIRWEATHER

The staircase landing on the first floor. The walls and ceilings are executed in matt pale grey sirapite plaster and the dado is of oyster grey glossy enamel. The floor is covered with mottled green rubber and the staircase is of cream terrazzo. The wrot-iron railing, horizontal and raking bars are pale green and the vertical bars are blue-green. The door shown gives access to the nurses' station.

LETTERS FROM READERS

Lighting of Roads

HAROLD FALKNER

WILLIAM R. GORDON (Director, Coal Utilization Council).

DEAR ASTRAGAL,

Among all the nonsense you contribute weekly (most of which I am ashamed to say I read) there was a week or two ago a shred or two of sense.

I refer to certain remarks on the lighting of roads from a motorist's point of view.

I have no doubt at all, after nearly forty years of motoring, that the lighting should be low, both as to angle and as to brilliancy.

That a continuous white kerb with a chamfer of about 45 per cent. of a reflecting surface, with reflectors (the white crystalline ball with mirror backs) at about 10 ft. intervals is all that is needed in country roads, and that, in built-up areas, small lights in concrete standards rising out of the kerbs with a fairly powerful floodlight on to buildings or fences would make the roads considerably more safe by night than by day.

All other lights, except traffic signals and recognizable crossings, should be suppressed or confined to certain colours not required for the latter.

The present system of intensive overhead lighting is expensive and inefficient. The sidelights and rear lights of cars would sufficiently protect them, and the headlights would never be used if it were not for the difficulty of spotting cyclists and other slow-moving obstacles proceeding in the same direction.

The continuity of the kerb (and the reflecting quality of its substance), together with the closeness of the kerb lights or reflectors, would show up even a slowly moving cyclist, so that it would be possible to hug the left-hand kerb.

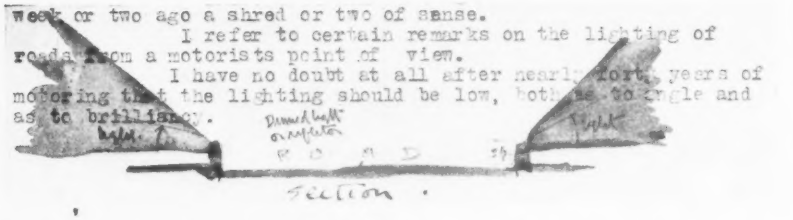
The flood lighting towards the buildings, trees, etc., would help the motorist to identify the locality (and would, of course, include signposts), and to judge position and distance.

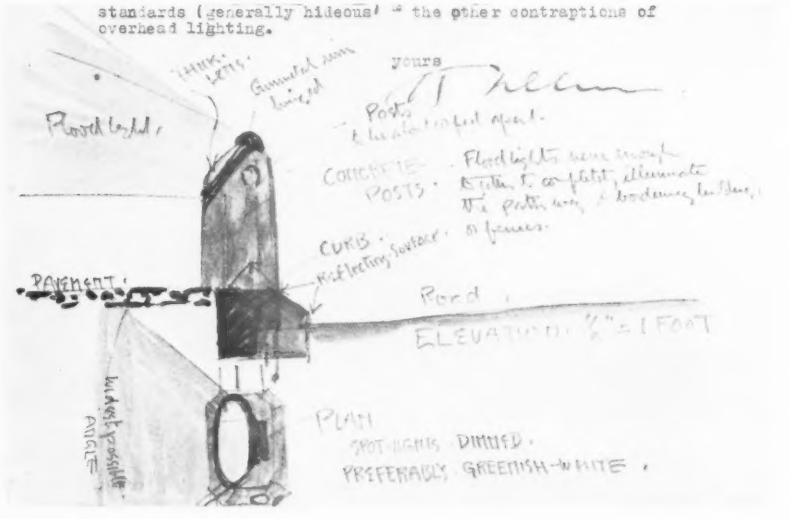
The advantage of the brightening of colour of roads (at great expense) is totally negatived by the overhead lighting, which makes night driving almost a terror directly the roads get wet.

I suggest that experimentally the posts might be concrete, hollow to take the light unit for flood lighting and the dimmed lights, but probably in the end toughened cast iron with bronze rims and bearings would have to be used.

All this would be infinitely cheaper than the present standards (generally hideous) and the other contraptions of overhead lighting.

HAROLD FALKNER





Smoke Abatement

SIR,—In your issue for October 29 you published extracts from the papers read at the recent Smoke Abatement Conference. In one of these you quoted Dr. Margaret Fishenden as saying that "something must be done to reduce the smoke emission from coal grates."

I should like to point out to your readers that something is being done and that the coal industry has already taken steps to deal with the problem. The Coal Utilization Council has set aside a fund of some thousands of pounds to finance research into the problem of burning raw coal smokelessly in the domestic grate. This research is being carried on in collaboration with the Fuel Research Board at the Government Fuel Research Station at Greenwich, and substantial progress has already been made.

A speaker at the National Coal Convention held in London last week described this progress as most encouraging, and there is now actually on view in our showrooms at British Industries House an automatic fire-lighting device which not only lights a fire quickly and efficiently without the aid of paper, sticks or special fire-lighters, but materially reduces smoke during the "burning-up" process, when, in ordinary circumstances, a very large proportion of the total volume of smoke is emitted.

For the Coal Utilization Council,

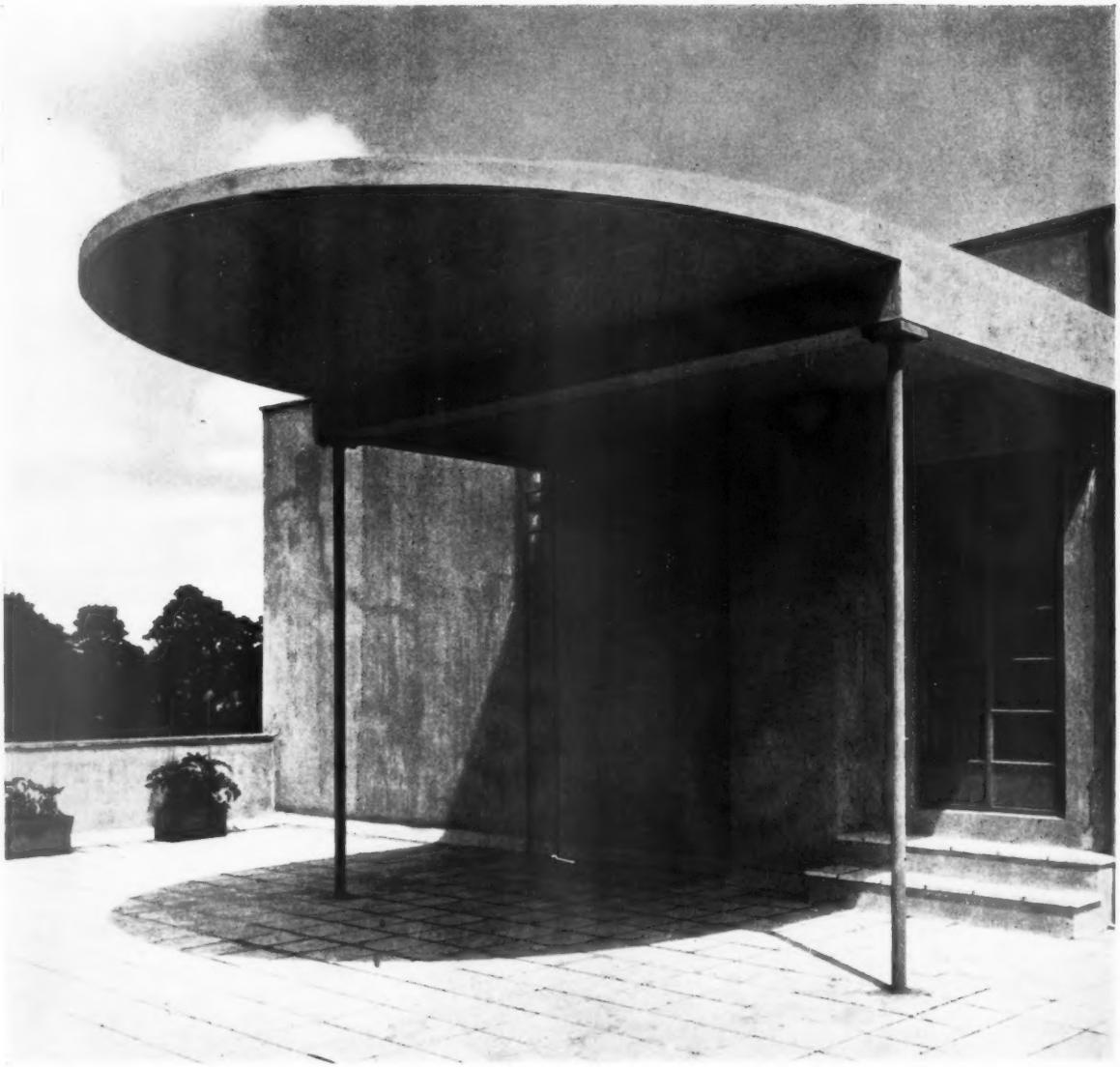
WILLIAM R. GORDON,
Director.

Tynemouth Memorial Flats

A £100,000 block of flats is contemplated by the Tynemouth Council as a memorial to the late Sir James Knott, a shipowner. Plans have been adopted and the general outline of the scheme confirmed by the Tynemouth Corporation for the erection of flats to contain 195 separate dwellings, at Percy Square, Tynemouth, the site occupying a high headland, which will cause the block when completed to be a landmark which will be visible many miles seaward. The qualification for tenancy of the flats will be an association with the sea as a means of livelihood.

WORKING DETAILS : 519

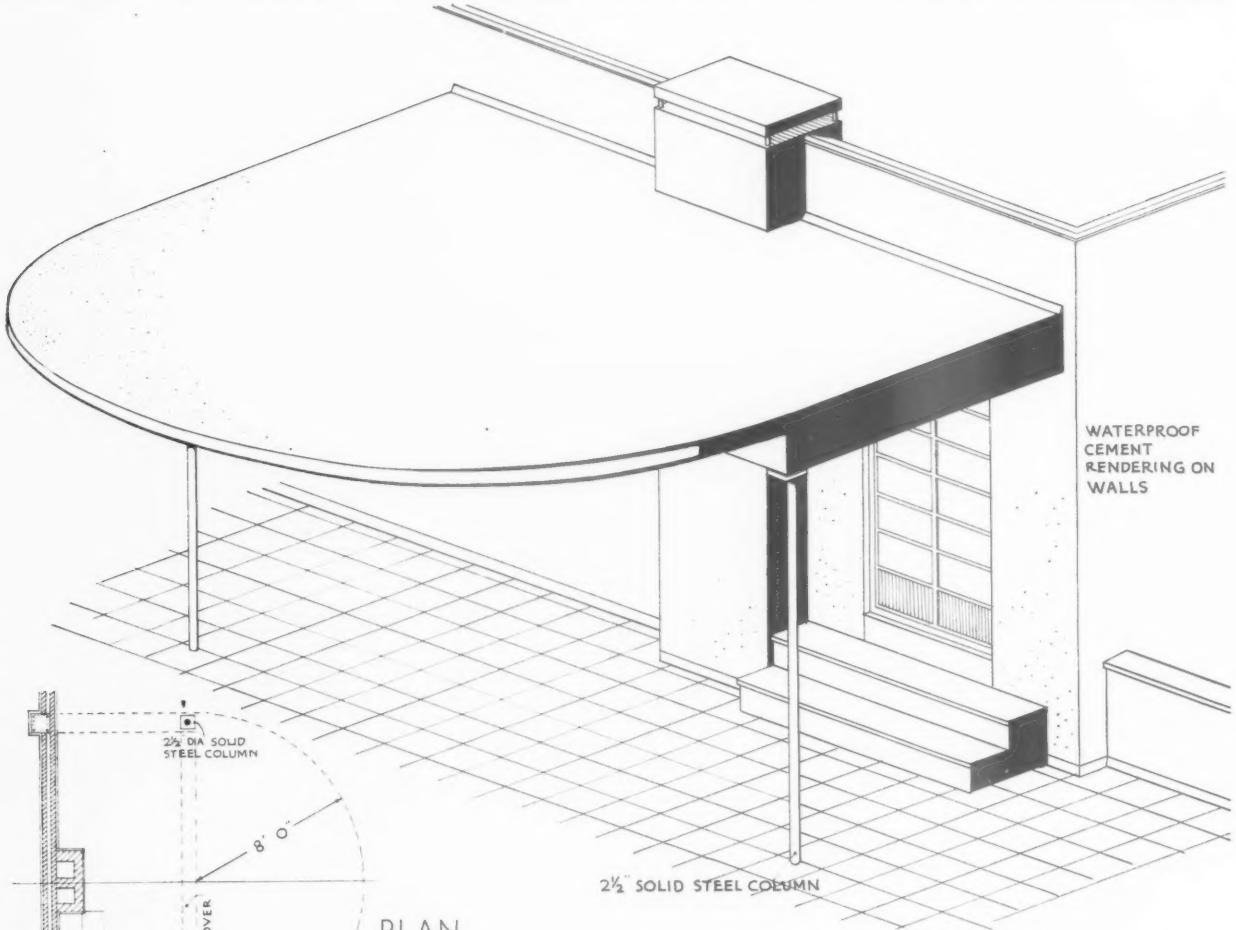
CANOPY • HOUSE AT HOLMBURY ST. MARY • W. DALTON IRONSIDE

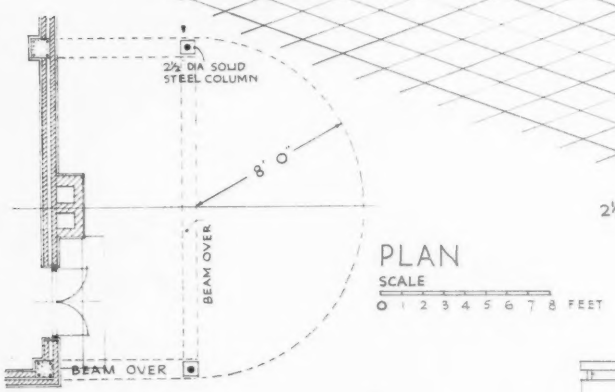


A reinforced concrete canopy built out in front of the owner's bedroom on the roof of a house at Holmbury St. Mary. The house was illustrated in the JOURNAL for September 10 last. Details are given overleaf.

WORKING DETAILS : 520

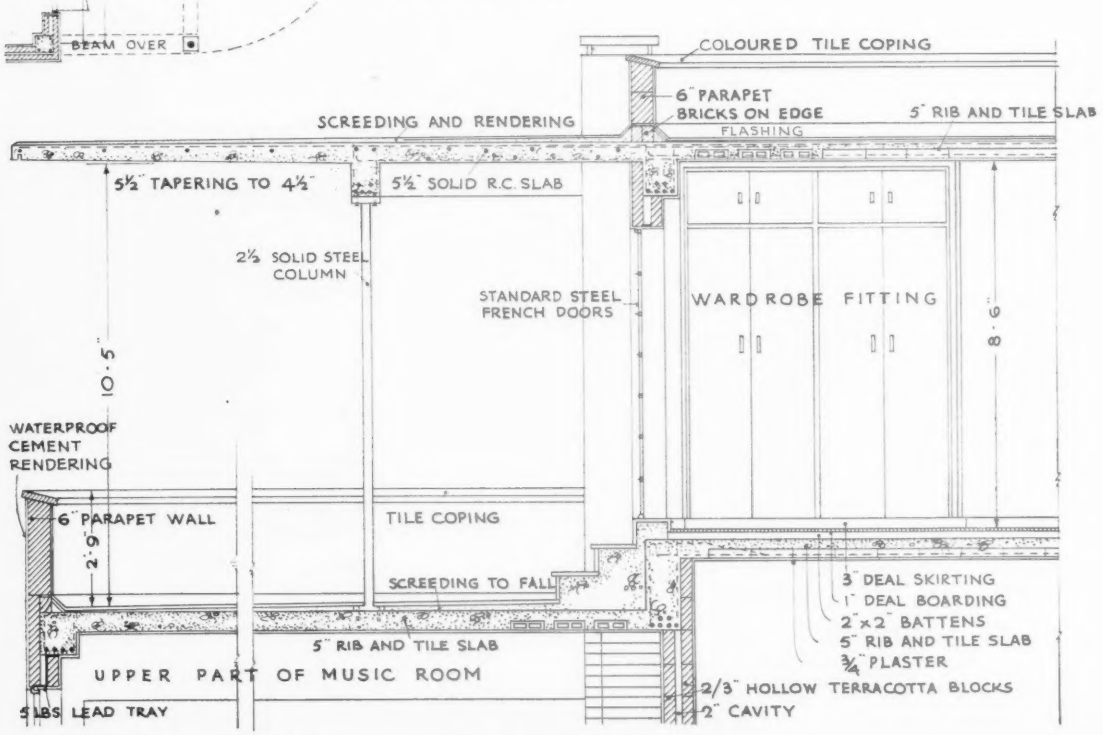
CANOPY • HOUSE AT HOLMBURY ST. MARY • W. DALTON IRONSIDE





PLAN

SCALE 0 1 2 3 4 5 6 7 8 FEET



SECTION

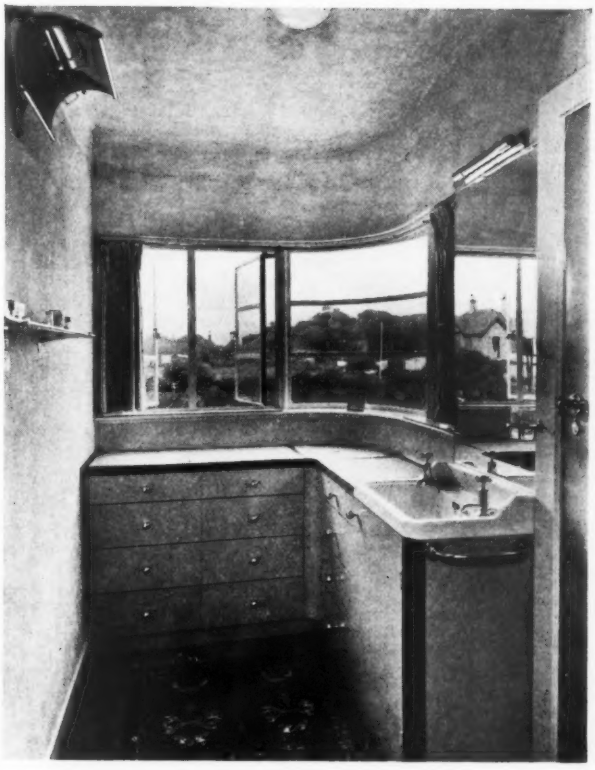
SCALE 1 0 1 2 3 4 5 FEET

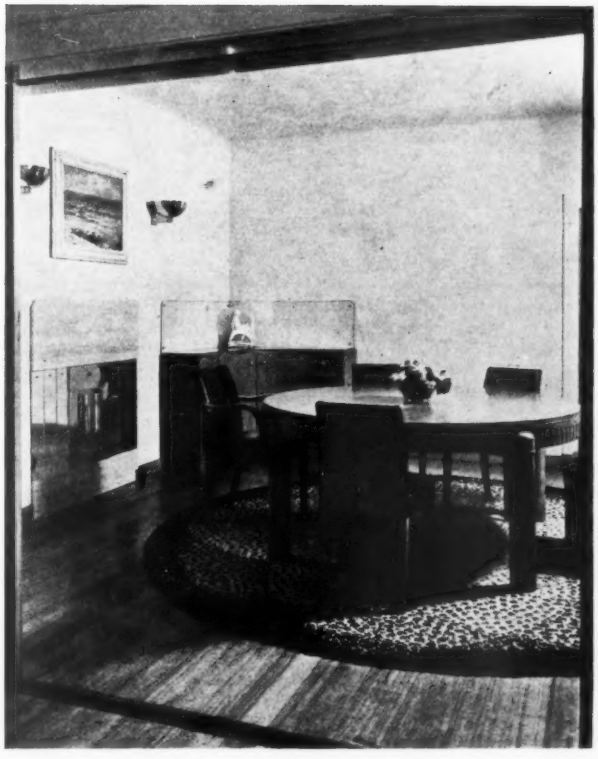
Isometric and Details of the Canopy illustrated overleaf.

634

WORKING DETAILS : 521

FITMENTS • HOUSE AT HUNSTANTON, NORFOLK • GERALD LACOSTE

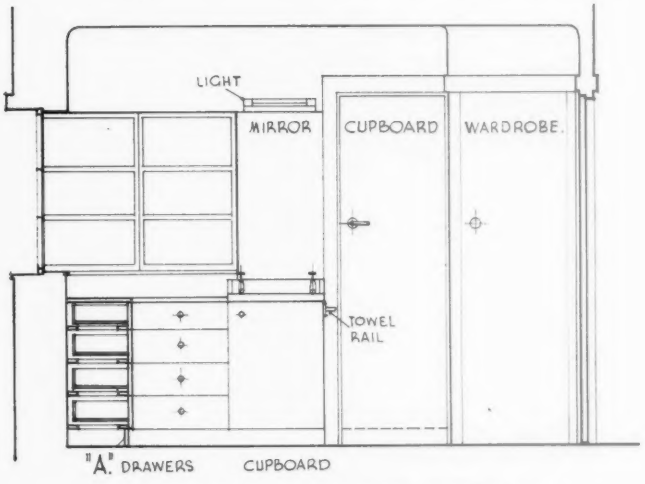




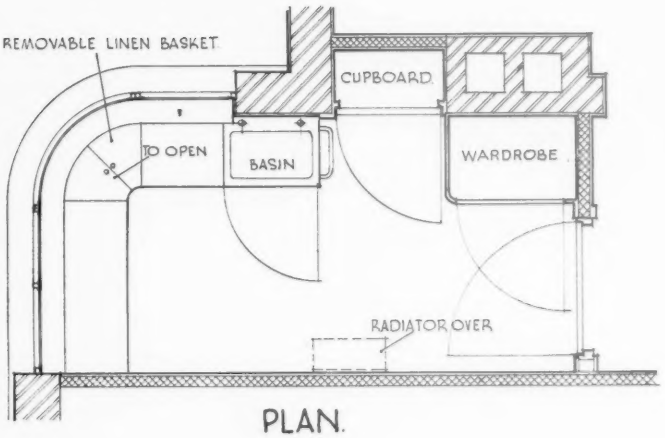
These photographs and the details overleaf show a fitted dressing-room and the sliding doors between dining- and sitting-rooms in a house at Hunstanton. The house was illustrated in this JOURNAL for October 8 last.

WORKING DETAILS : 522

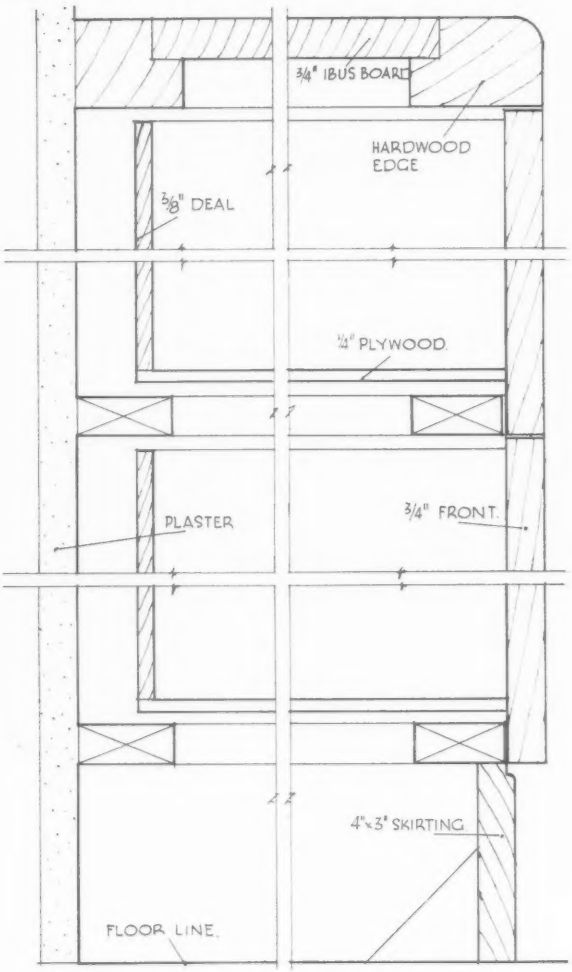
FITMENTS • HOUSE AT HUNSTANTON, NORFOLK • GERALD LACOSTE



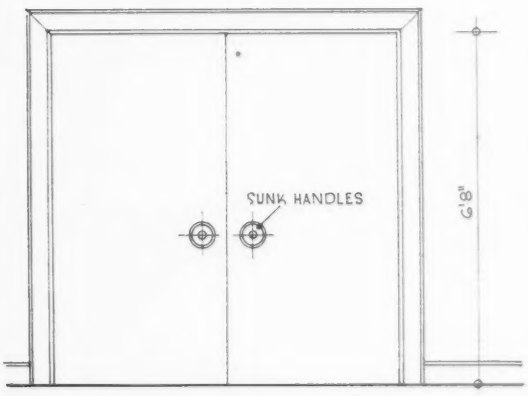
DRESSING ROOM • SECTION.



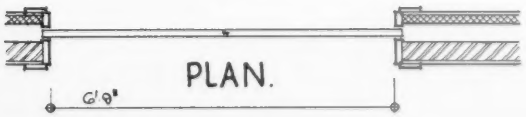
PLAN.

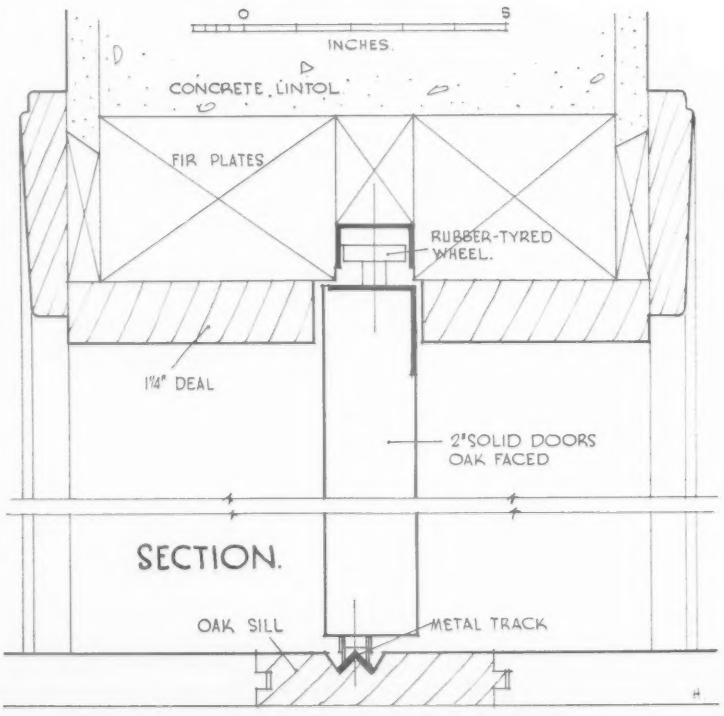


DETAIL AT "A".



SLIDING DOOR • LIVING R.M.





SECTION.

Details of the Fitments illustrated overleaf.

"A perfect combination of strong architectural form and delicately incised decoration."—From "Garden Decoration and Ornament."

LITERATURE

GARDENS

[*BY D. COZENS*]

Garden Decoration and Ornament. By G. A. Jellicoe. London: Country Life. Price 12s. 6d.

GARDENS, with the possible exception of the garden of Eden, cannot be considered entirely apart from the architecture of their epoch, for they serve as truly as architecture as an index to its culture and its habits. It is therefore with some concern that we review the gardens and garden ornaments of our own generation.

In his new book Mr. Jellicoe definitely confines himself to dealing with the contemporary garden of what he describes as the "established aspect," and he prefaces his illustrations by saying "At the present day the world of illusion is sustained dramatically and somewhat cheaply by such means as association of ideas with the past. Crazy-paving, thatch and other remembrances are introduced because the makers of gardens have seen these features in old and beautiful gardens. This surely is false sentiment in regard to a new garden, for at the time when the older gardens were made, the use of those materials was eminently practical. There is nothing so mean in a garden as false sentiment and nothing so fine as the sentiment that rises out of a garden built logically and straightforwardly in the materials of the time."

With that, and with much that he says in the introductions to the various sections of his book, one can entirely agree. Unfortunately, the illustrations, particularly those of garden ornament, frequently contradict his words.

Many books have been written on the planning of gardens, from historical treatises on the gardens of every age, to today's little hand-books of encouragement and advice to those who wrestle with about half an acre, usually devoid of trees and overlooked on all sides. And it is generally accepted that the lay-out of gardens in relation to houses, landscape and such existing features as there may be, is a problem for the solution of which certain rules can be applied with some success. But although the intention that uses some type of ornament as a focal point in garden planning is often in keeping with the precepts of design, the garden figures of to-day are almost inevitably disappointing. Eric Gill has said more than once that the modern tendency to eliminate all ornament from buildings is due not so entirely as is generally supposed to a new structural technique but to the impossibility of producing by machinery any ornament that is not mechanical and lifeless. He was referring to mouldings, but if true, this statement applies even more definitely to any form of sculpture. Most garden figures tend to be either faithful copies of accepted works of art, with that lifeless escaped-from-the-museum look, or else they are only too often of the type that the author rather regrettably calls playful. There seems little alternative, for few can afford first class sculpture for a garden. On the whole one finds oneself inclined to agree with Bacon in his disapproval of those princes and noblemen who "for the most part taking advice with workmen, sometimes add statues and such things for state and magnificence, but nothing to the pleasure of a garden."

Much of this also applies to the section on fountains, and Fig. 30, a Portuguese court, is in pleasant contrast in its architectural setting to the German fountain figure of St. Francis which, in itself weak in design, seems to have no connection with its surroundings.

A book on contemporary gardens may seem rather disappointing, not because of any lack of taste on the part of the author, but because the limitations he sets himself in dealing only with the "established" type of garden leave him, except where he uses examples that are obviously hundreds of years old, with material of rather a low standard. There has not yet been time for a strong tradition to appear in the slow medium of gardening in keeping with the recent development of building, for, though a tradition is beginning to evolve, it is still very unsure of itself and a garden designed to emphasize space easily lapses into the conventional type, over-accented with flowers and shrubs. The author is undoubtedly one of the few architects who is really interested in the subject, and that he realizes better than anyone what a garden should be in its relation to architecture and sculpture is shown by the immense

"A Portuguese court in which the lines of the clipped box echo closely the lines of the architecture."—From "Garden Decoration and Ornament."

amount of painstaking research he has done, particularly on the Baroque gardens of Austria.

ART AND LIFE

Art and Life. By Hannah Priebsch Closs. Oxford : Basil Blackwell. Price 15s. net.

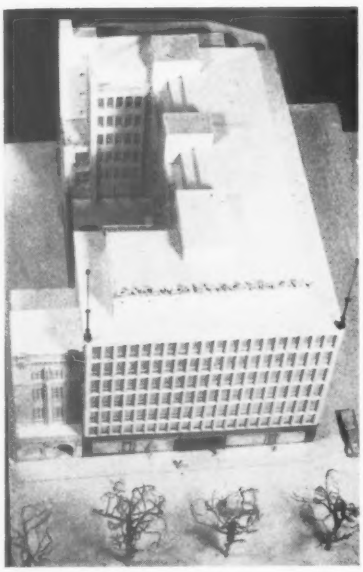
SO subtle and difficult is the task of art criticism that the reviewer of books in this field labours under an exasperating sense of disappointment and frustration. So many books promise well, and then fall short in performance. Frau Closs's volume is typical of them. It starts with the phrase : "Art is an expression of life," and goes on to affirm the unity of the artist with the general consciousness of his age. By the title, by this introductory matter, and in some degree by the chapter scheme, we are led to expect an essay that will attempt to explain the evolution and progression of artistic styles in relation to the social, economic and spiritual life of succeeding ages. But we get no such thing. Learning is here in abundance; and a finely perceptive appreciation of æsthetic values; and there are flashes of real insight. But the book is inchoate : it jumps about from subject to subject and age to age with a vagueness that is bewildering. At this time of day it is unnecessary to insist so much that there is no fixed æsthetic canon to which all art may be related. There must be, however, some rationale; and it is surely the business of a book with so wide a title as "Art and Life" to attempt to determine what it is and from what sources, psychological, ethnological and economic, it springs. Frau Closs does not, for example, stress sufficiently the fact that medieval Gothic was an expression of an "age of faith," when eternity was (as someone has well put it) "just the other side of the hill," and when men's minds were under the sway of a tortuous and highly systematized theology in which they profoundly believed. There is little appreciation of the fact that modern architecture is, consciously or unconsciously, another aspect of a world outlook that embraces athletics, daily bathing, sunlight, public health and short skirts.

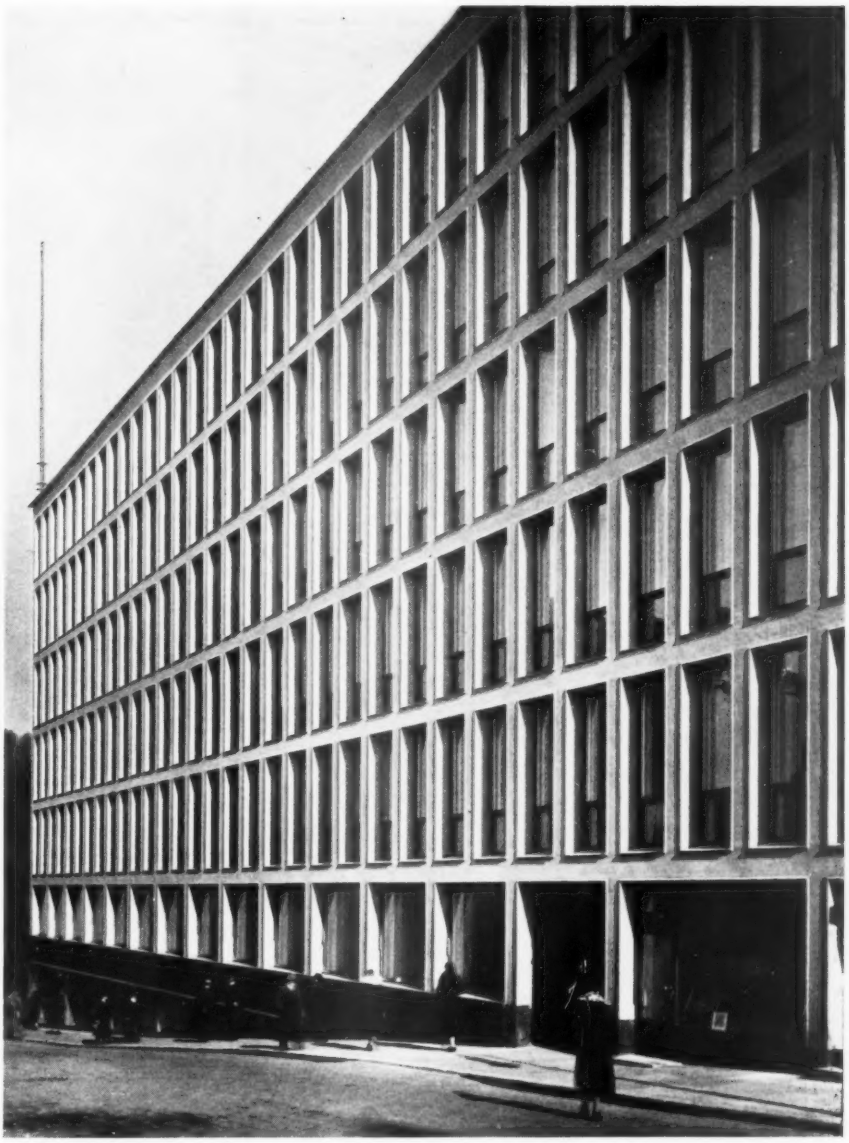
Yet when all this has been said one must beware of doing the learned author an injustice. Her volume is one in which frequent "dipping" will provoke many valuable trains of thought. Her illustrations (unfortunately segrated at the end) are singularly well chosen; and one of her highest virtues as a critic is her manifest ability to expound their significance with ease and precision. Lack of organization is her bugbear. Consider this as a volume of essays, loosely related in theme, and it will have much to give that is of real worth.

H. B. G.

OFFICE BUILDING, HELSINGFORS

DESIGNED BY J. S. SIREN



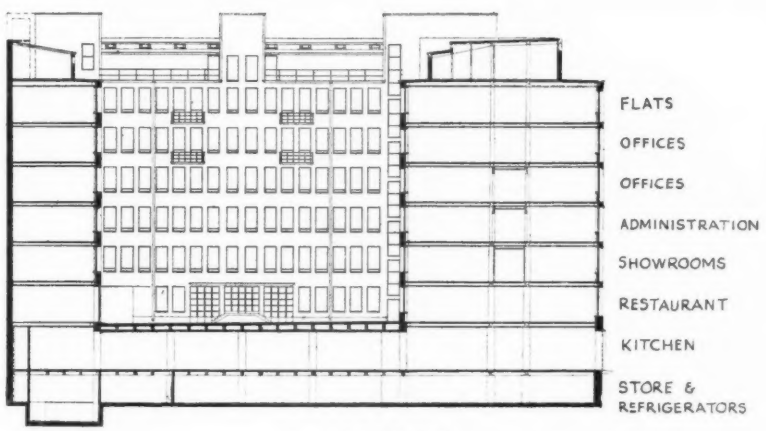


GENERAL PROBLEM—*Office building for a large firm of clothiers, Messrs. Lassila and Tikanoja. The design, by Professor J. S. Siren, was awarded first place in a limited competition.*

SITE—*On a sloping site; the main front faces a public park.*

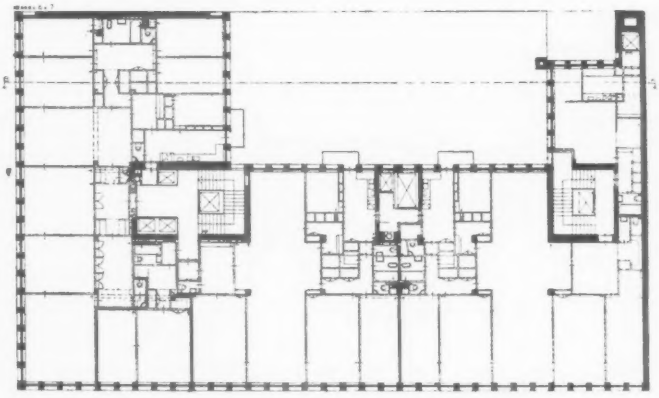
CONSTRUCTION AND FINISHES—*The foundations are on rock. The structure has a central spine of reinforced concrete piers supporting the main girders which carry the secondary joists supported at the external walls by the reinforced concrete piers between the windows. At every alternate inner column there is a duct containing water, refuse, and gas pipes, with branches in the ceiling construction allowing extensive rearrangement of the plan. The lift and stair wells are built in solid brickwork. Cork is used for heat insulation, and the floors are covered with a rubber parquet. Externally the building is finished, above first floor level, with a deep yellow ochre rendering having a coarse chipped aggregate. On the lower floors polished black granite facing-slabs from Jyväskylä are used.*

The photographs show: above, model of the building; and the elevation to the side street.

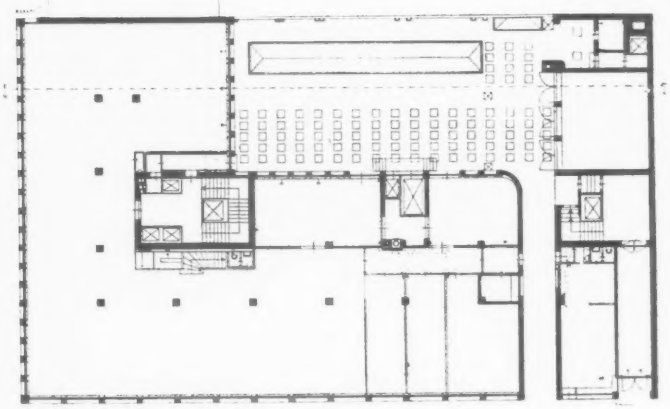


SECTION

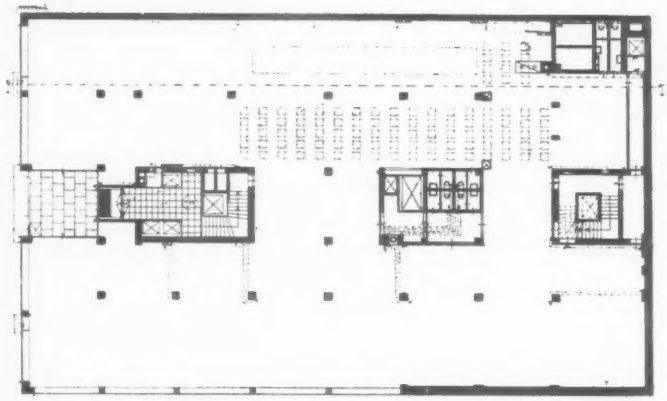
OFFICE BUILDING, HELSINGFORS:



TYPICAL UPPER FLOOR PLAN



GROUND FLOOR PLAN



LOWER GROUND FLOOR PLAN

The photographs show : top, a general view showing the main front (left) and the return elevation ; bottom, the entrance in the internal courtyard.

DESIGNED BY J. S. SIREN

PLAN—*The feature which dictates the whole lay-out and its elevational expression is a unit of working space, including its window area. By adopting this scheme subsequent re-arrangements made necessary by changing needs can be easily catered for with a minimum of structural alteration.*

ACCOMMODATION—*Basement : storage including refrigerators for furs and woollens. Ground floor : storage for ready-made clothes and drapery department ; restaurant with kitchen, etc., under the service yard, which contains the firm's garage. First floor : exhibition rooms for clothing department. Second floor: administration, exhibition and packing rooms. Third, fourth and fifth floors : rentable office space. Sixth floor : flats.*

The typical floor plan has a wide central corridor joining the staircases and lift halls, which are at opposite ends of the building. There is a secondary circulation by means of a small lift for three persons running to basement and attic from the service yard. The goods lift opens on to a landing bay in the service yard externally and to the general traffic routes or packing space internally. Adjoining the stairs and lift halls are the main lavatory blocks.

HEATING—*The heating is done by low-pressure system circulated by electric pumps to flat radiators of cast iron. The vertical pipes for heating and water are sound-insulated by ceiling plates cast round them and the apertures filled with sand.*

Rooms on the street façade have fresh-air inlets, and in the courtyard hoppers are formed in the lower part of the windows with extracts in ducts over passages.

The photographs show : above, a typical landing ; right, the main entrance doors.

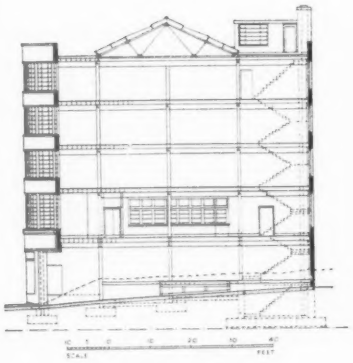
OFFICE BUILDING, HELSINGFORS

DESIGNED BY J. S. SIREN

The photographs show : top, fabrics department ; centre, the clothes and drapery department ; bottom and right, storage departments ; top, right, a corridor on the fourth floor.

SHOWROOMS AND WAREHOUSE, NEWCASTLE-UPON-TYNE

DESIGNED BY CACKETT, BURNS, DICK AND MACKELLAR



SECTION

GENERAL PROBLEM—*Showrooms and warehouse for Messrs. Shanks & Co., Ltd., to display and store sanitary fittings.*

SITE—*Carliol Square, Manors, Newcastle-upon-Tyne 1.*

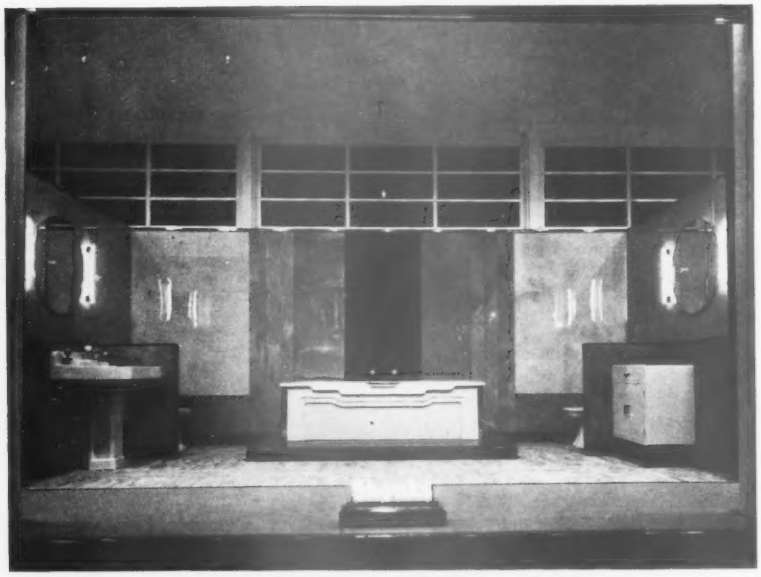
CONSTRUCTION—*Steel frame, with wood floors designed to carry 2 cwt. per super ft. Walls are brick ; window heads and cills, artificial stone, mullions faced with terrazzo. The bottom storey is faced also with terrazzo ; window fittings are stainless steel.*

INTERNAL FINISH—*Main staircase and vestibule, terrazzo ; walls, artificial stone ; bathrooms, glass, marble and tiles. The manager's room is panelled in French walnut.*

SERVICES—*Heating is by hot water, low pressure, with flush-type panels in the showrooms and pipes in the warehouse.*

The photographs show : above, a view taken by night of the bathroom displays in the show windows ; right, a general view taken by day.

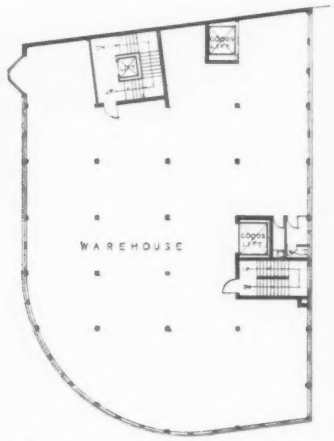
SHOWROOMS AND WAREHOUSE, NEWCASTLE-UPON-TYNE



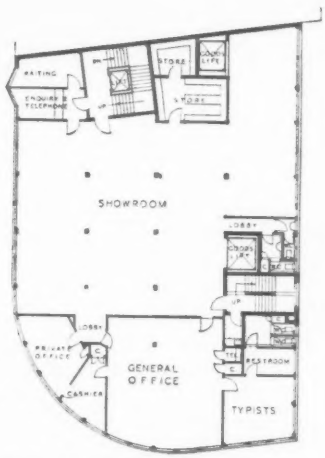
DESIGNED BY CACKETT, BURNS, DICK AND MACKELLAR

For list of general and sub-contractors see page 648.

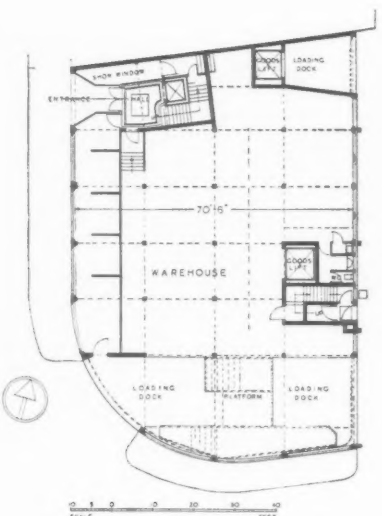
The photographs show : above, bathroom display in the showroom window ; left, general office ; below, central part of showroom.



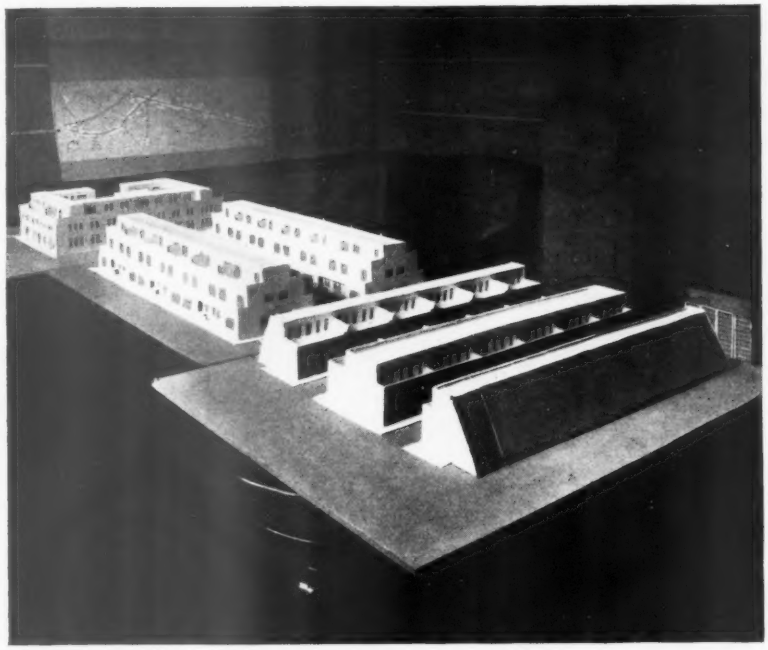
TYPICAL UPPER FLOOR PLAN



FIRST FLOOR PLAN



GROUND FLOOR PLAN



Three models now on view at the Exhibition, entitled "Forbidden Houses," now being held at the Housing Centre under the auspices of the ex-Servicemen's group of the Hundred New Towns Association. *(See also the illustration on the next page.)*

SOCIETIES AND INSTITUTIONS

ARCHITECTURAL ASSOCIATION

The annual general meeting of the Architectural Association was held on October 27, when Mr. L. H. Bucknell delivered his presidential address, which was entitled "Individualism." Extracts from the address are given below :—

"Much of the indifferent work done today is a misconception of what we were doing long ago. What we do today will be likewise misunderstood and in about thirty years we shall have the doubtful pleasure of seeing more horrible misconceptions, and, by that time, if we proceed as in the past, we shall have again changed our mode. But we must not proceed as in the past. We must accept the discipline of architecture, realize its relation to life, and not think of it as a matter of abstract æsthetics. We must consider association and environment, and we must get a better understanding between ourselves and the layman. We must meet him in a helpful way by showing him that we can fulfil his aspirations in a way that he can understand.

"We taught him individualism, and with some honourable exception, we are teaching him still. We must give up our shock tactics, think less of originality and more of quality. Unless we rid ourselves of this evil of individualism and the practice of fashions called styles we cannot hope to arrive at an architecture.

"I would not suggest for a moment that the last 100 years has not produced some fine architects.

"In any period there will be some who put architecture above self, men who are not concerned with self-expression, and all its egotism, whose work is restrained and of a fine quality.

"With such as these we need not bother. We are concerned with their lesser followers —men who can see architecture only within the limits of themselves, who talk of self-expression and fail to see its evil.

"Architects are not the only offenders, our whole system is based upon individualism with the consequent lack of co-operation between individuals, between societies and communities.

"We know that in the next 100 to 120 years London will be rebuilt. It depends upon the outlook of the younger generations whether that rebuilding will produce a more orderly and more efficient London.

"We must cease to think of architecture in terms of single buildings, and must think of groups and streets of large districts and towns. Our neighbour, Tottenham Court Road, is rebuilding, and doing it piecemeal, yet Tottenham Court Road is an important thoroughfare; the only northern artery of importance between Edgware Road and Gray's Inn Road. If the shopkeepers got together and decided to produce a finely-designed thoroughfare, they could do it, and achieve a street of greater æsthetic and economic value. You may say that a designed street is not a success, that Regent Street is dull, but at least Regent Street is orderly, and a little dullness is better than the awful confusion of the eastern end of Oxford Street.

"The lack of collaboration shown in our buildings is repeated in our furnishings. Our memorials are surrounded by all sorts of dissimilar things. The Crimea Memorial is a famous example; a large lamp on each axis, a collection of bollards, two secondary statues, and a sand-bin. Eighteen features on one small island. Many of our turning-points contain a curious collection of things. The one in Guilford Street has a memorial drinking fountain, sanitary conveniences, traffic signs, and beacons.

"At the top of Shaftesbury Avenue there is an island which contains an elaborate cast-iron lamp standard, surrounded by a rustic wall and garden, with seats for loungers, and in front of one of the seats a row of telephone boxes. There are many more examples. There appears to be no central control, and it would seem that each authority dumps its particular pet where it wills. We have a curious habit of associating hero worship and sanitation—evidence of an unfortunate collaboration.

"These are only details. The problem of London is greater. The population is dense, the area vast, and it is rapidly sprawling into the country, yet near the heart of London there are hundreds of acres of waste land, not open spaces, they are necessary—many more are necessary—but acres of land not properly utilized, miles of mean streets far too close together, thousands of mean little houses and slums. The backbone of London runs east and west. Within a comparatively short distance of this line there is an area which could be developed as a health-giving residential ring, housing those workers who must be near the centre. If you examine the surface utilization, maps prepared by the London Society and the R.I.B.A., you will be able to trace quite clearly this stretch of waste.

"The new Survey of London Life and Labour following the survey by Charles Booth, 1889, divides the population of London into five main groups.

1 : The lowest class of degraded or semi-criminal population.

2 : Those living below the Charles Booth poverty line.

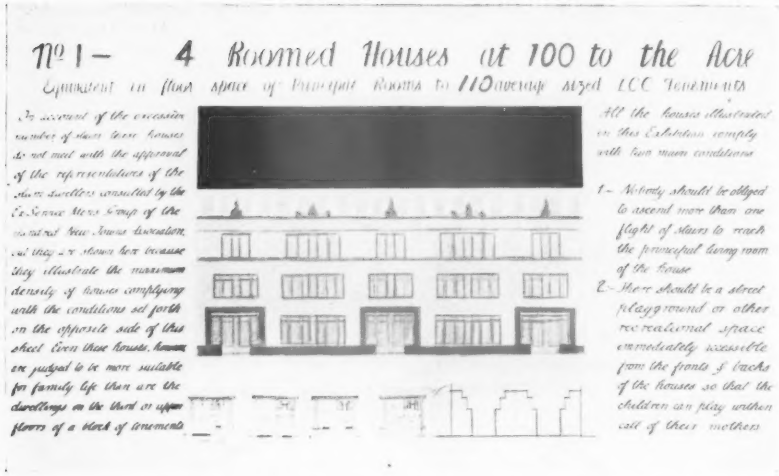
3 : Unskilled labourers and others of similar income, but above the poverty line.

4 : Skilled workers and others of similar grades of income.

5 : The middle classes and the wealthy.

"These are broad divisions, and many streets have a mixed population, but taking that broad division and including the first three sections only, the lowest and semi-criminal, those below the poverty line, and the unskilled labourer class, it will be found that the area covered forms a ring round the inner part of London. Starting at Regent's Park and tracing it eastwards it passes through Islington to Whitechapel, southwards, and over the river to Bermondsey, westward through Southwark, Kennington and Battersea, across the river again to Fulham, northwards through Wormwood Scrubs to Kensal Green, and eastwards again to Regent's Park.

"This forms a natural ring of property which must be rebuilt within half a century. It not only forms a ring but it connects at some points to natural outlets. From Fulham there is an outlet through Barnes Common to Richmond Park, from Hampstead Road to the Heath, from Bethnal



A screen on view at the exhibition, entitled "Forbidden Houses," now being held at the Housing Centre.

Green to Victoria Park, and the Lee Valley. If this inner area were gradually cleared, it would be possible to house the present tenants in modern flats, and to save enough land to provide playing fields, swimming baths, children's play centres and clinics, schools, and playgrounds, and all those amenities necessary to a healthy life, and at the same time provide London with a healthy inner ring which could eventually be connected by arteries to the outer green belt which is gradually being formed.

"I do not think that this is fantastic. The two-storey houses, slums, and mean streets are there, and they will have to be rebuilt. We can do them piecemeal, section by section or borough by borough, not necessarily related to each other, or in collaboration, or we can conceive this as a great scheme—the responsibility of London as a whole and not left to boroughs and land owners.

"You will say it is too difficult—too many interests are involved, that it can't be done, but that is always the case; even Haussmann must have had some little difficulty in Paris. What seems to me to be really important is to reach the state of mind which wills to do such things in a comprehensive way instead of this wasteful individualistic tinkering which has been our habit of thought for so long.

"That is London, but we are not concerned with London alone, but with the development of the whole country. A survey has recently been completed of the whole of Britain from the point of view of the proper economic use of the land. The committee under the direction of Dr. Dudley Stamp has produced the *Land Utilization Survey of Britain*, and shows throughout the whole country the barren soil of some of the heath and moor lands, the forest and woodland, meadowland, the highly-productive land of the market gardens and garden allotments, orchards, and nurseries. To what extent are we going to use this? We have talked of the reclamation of the barren areas to produce fertile land, to make England self-supporting. We talk of the reclamation of The Wash again to produce fertile land while in the meantime we gaily build villas on our market garden soil.

"We have many enthusiastic workers striving to save this or that beauty spot, an open area, or a playground, collecting often great sums of money to achieve their aim. We have societies for the preservation of almost everything except the preservation of common sense.

"The work of the many bodies and committees is unfortunately unrelated, and there must be much overlapping. There is no plan, yet it should be possible to arrive at a plan of the whole of England, Scotland, and Wales, showing what, for economic reasons, should never be built upon, what can be economically preserved as a national park scheme for the good of the community.

"Something has already been attempted in the Chilterns area, but it is not sufficient to consider one area alone. You may say what has all this to do with the architect? I think, everything. The conception of the architect, as a designer of buildings, is inadequate. He has to deal with the conditions under which the people live, work, play, and develop their lives. He should be as much concerned with the means of the use of leisure as with the home and factory.

"He cannot design the home and the factory without the recreation area, without considering the means of food production, and the means of transport. He must know the whole life of the community if he is to serve it efficiently. Unless we conceive architecture, with a broad vision, as an all-embracing service, we can never regain the high position we held — too long ago.

"Our profession is better organized now than ever before. Our schools have reached a high standard of training. Our younger men are beginning to work together.

"This should give us hope. We have a century of rebuilding before us; not only will London be rebuilt in the next 100 years, but most of Britain. The next few years will decide what course that will take. Shall we repeat the tragedy of a century or shall we produce a country worthy of a great art and a great people?"

WELSH SCHOOL OF ARCHITECTURE

A lecture entitled "The Application of Timber" was given to the staff and students of the Welsh School of Architecture, Technical College, Cardiff, and to members of the South Wales Institute of Architects on October 16, by Mr. R. P. Woods, B.A., of the Timber Development Association.

The lecturer dealt with the distinction of the various kinds of timber, defects in timber and with seasoning, paying special attention to the moisture contents and the preservation of the commoner building timber. The lecturer showed clearly the great advantages to be derived from the scientific study of timber.

Mr. W. S. Purchon, M.A., F.R.I.B.A., presided.

CORONATION DISPLAY

Valuable advice to the individual shopkeeper in a small way of business, as well as to the display men of the large stores, was given by Mr. G. Grey Wornum, F.R.I.B.A., in his lecture on "Coronation Decorations" in the Buyers' Club of British Industries House, Oxford Street, London, under the auspices of the National Display Association, on October 21.

In his opening remarks, Mr. Wornum stressed the importance of harmony and co-ordination in the carrying out of street schemes. He said that where no street schemes were being organized by associations of retailers, shopkeepers should join together in groups, particularly those in the same building, so that some degree of continuity for the whole building might be assured. It was important, he pointed out, above all things to keep as large a scale as possible, and to avoid the use of frilly festoons and flimsy banners that would not stand up to exposure. Materials with reasonably durable qualities should be chosen. A specially treated rubber-faced fabric for vertical or horizontal draping of façades was available in the approved Coronation colours. On the matter of colour, the British Colour Council could give helpful advice.

Flags should not be used indiscriminately, but preferably in clusters of similar colours, which could be illuminated by floodlight when possible. An aim should be made at co-ordinating the general background along each street, and thus obtaining a cohesive scheme for the complete building first of all. Individual retailers could then add their own smaller decorations to their shop-fronts so long as a reasonable degree of harmony was assured.

An aim should be made at co-ordinating the main background of the façades in each street by means of vertical banners hung several floors deep between windows, or, in the case of the more important buildings, along the predominant horizontal lines. Freedom could still remain for smaller individual ornaments, whether of flowers, paper, or other materials on the aprons of windows and other places. The vertical scheme, however, where employed, was likely to be more effective since it could produce almost the unity of a colonnade down a street.

In regard to colour, vertical banners were,

in Mr. Wornum's opinion, likely to be more effective if kept on the light side. On the other hand, where façades were dark or dirty, a red, gold, or white scheme was likely to be more effective. He hoped that flowers would play a large part in the smaller decorative motifs.

Mr. Wornum expressed the hope that discrimination would be exercised in the use of floodlighting, particularly the coloured variety. Although excellent effects could be produced by the use of this medium of decoration, there was the risk of abuse by over-use. It was generally better to use floodlighting for emphasizing certain architectural features rather than to splash it indiscriminately over the whole building, particularly if the adjoining buildings were also illuminated. The greatest effect achieved by floodlight was one of contrast rather than of luminosity.

HANTS AND ISLE OF WIGHT ARCHITECTURAL ASSOCIATION

Lt.-Col. R. F. Gutteridge, F.R.I.B.A., in the course of his presidential address to the above Association, said :—

"When I try to contrast the methods of today with those of thirty years ago I sometimes wonder if my memory serves me aright and whether things have really changed to the extent that we are inclined to think they have. Then we dealt with ordinary simple brick or stone buildings, timber for our floors and roofs, tiles or slates for our roof coverings. The need for flat roofs frequently indicated indifferent planning, while large internal gutters of lead certainly created many troubles for the future. Our engineering services were of the simplest and central heating was seldom used. The installing of electric light was usually considered when the plasterer had finished his work. Today what do we find? Steel-framed buildings, concrete encasings, all sorts of external finishes, engineering services of a most complicated character and a selection of materials and methods of construction bewildering in their number, many of them having had a life of only yesterday. To keep pace with these conditions entails a constant study, not easy to do with thoroughness in the rush of modern life. Today is the day of the specialist. But I cannot help feeling that this cry is largely brought about by our own blindness. This need for specialization has brought about the existence of the fully qualified staffs of the big commercial houses. The various specialized firms in steel and floor construction will solve for any architect any problem, prepare all the drawings necessary and execute the work at apparently no extra cost to the client. The large joinery firms have staffs of very able architectural draughtsmen. They will design and erect anything you require for any purpose. It does appear to me, therefore, that these experts are tending to displace the architect altogether, for the public are going to these people and having the work carried out without worrying to engage the architect.

"There is to my mind another very disturbing feature and that is the amount of detail work the quantity surveyor has to do before he can proceed to take off any bill, which detail should have been done by the architect. Or again, how often do we hear of problems being left to the contractor to solve and the architect being too short-sighted to acknowledge that what he has drawn is impossible of execution. Surely all these factors are most disturbing and I cannot help thinking that they are the cause of some of our troubles. You have thousands of pounds of work being executed every week for which an architect has never been consulted, the builder or the specialist usurping his job. That this is all wrong there can be not the shadow of a doubt and it is time that we asked ourselves the reason. I am afraid that it is largely our own fault. We have not progressed with the times and have allowed all these specialists largely to usurp our province.

"How can we therefore improve this condition of things? In the first place the architect should be the dictator and designer of his buildings, not the specialist. That he can be an authority on every phase of his work is a physical impossibility. Rather do I compare him to the general who will direct a campaign, outlining his intentions so that his executive, administrative, medical and other services can submit their proposals for the co-ordination of the whole. This entails much study and in my opinion the qualities of an organizer. Another feature of modern needs is the ability to select your collaborators. As in all walks of life, it is team work that is required, with the architect at the head in full executive control. If I had my way I should prefer to employ on every job the same consultants, the same contractor, the same foreman, the same men, for then you would get a team used to working together and I firmly believe that it would pay and that the result would be better and cheaper work and therefore more satisfactory to the client. This I know is dreaming, but I am sure every one in this room would rejoice if such a state of affairs were possible."

The meeting was held at the Castle, Winchester.

TRADE NOTES

[*EDITED BY PHILIP SCHOLBERG*]

Good Cooker Design

ONE more well-designed cooker is to be added to the slowly growing list, for Messrs. Parkinson have produced another model which seems to me to have many virtues. There is a photograph of it at the head of these notes, from which it can be seen that there is no nonsense about it: all the surfaces are white vitreous enamel with no awkward corners to collect dirt, and the splashback shuts down to give a certain amount of extra working space in a crowded kitchen.

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The cooker itself has most of the features which one associates nowadays with high-class work, a governor for constant gas pressure, an automatic control for constant oven heat, and an automatic lighter, which last, by the way, employs a catalyst of platinum black, a type which used to be rather unreliable, but which has been the subject of a good deal of intensive experiment during the last two years, and which may now be regarded as efficient.

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Dimensions are as follows :—

	H	W	D
Oven, inside	18¼″	19″	18″
Oven door opening ..	15″	17½″	—
Height to hotplate ..	36″	—	—
Height over cover when open	57¼″	—	—
Hotplate	—	21¼″	21¼″
Overall dimensions of cooker	57¼″	24¼″	24½″

The New Forth Road Bridge

The opening to road traffic of the Kincardine-on-Forth bridge on October 29 by the Convenors of the counties of Fife, Stirling and Clackmannan marks a further

Adastra poles erected by the Rowley Regis Gas Company on the main Wolverhampton road. (See note below.)

stage in the development of road communication across the Firth of Forth. Prior to its completion the only means of crossing the Forth for road vehicles was at Queensferry alongside the Forth railway bridge, or the bridge across the river at Stirling, 25 miles west.

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Stirling bridge has thus been, in effect, the bottle-neck for all Central Scotland traffic crossing the Forth, and the increasing use made of this bridge by road vehicles in recent years is reflected in the traffic census returns, which show a rise from 150 vehicles per hour in 1922 to 400 per hour in 1935.

●

The new bridge at Kincardine, is as far down the river as is practicable. Immediately east of Kincardine the river broadens out into an estuary and, thereafter, the only practicable crossings are 10 miles downstream where the cost of a structure would be 10 to 15 times that of the bridge at Kincardine. The new bridge is 15 miles west of Queensferry and 9 miles south-east of Stirling. As a result, for a large proportion of central Scotland traffic, the bridge not only cuts off about 20 miles of detour which was necessary *via* Stirling bridge, but also enables delay to be avoided at Stirling due to traffic congestion.

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Typical examples of the mileage savings which are effected by the new bridge are as follows :—

Route	Distance *via* Stirling Bridge Miles	Distance *via* New Kincardine Bridge Miles	Saving in Mileage Miles	Percentage Saving
Edinburgh to Dunfermline ..	58	38	20	35
Edinburgh to Perth ..	70	62	8	11
Falkirk to Dunfermline ..	32	17	15	47
Glasgow to Dunfermline ..	47	37	10	21
Lanark to Alloa	41	36	5	12
Linlithgow to Dunfermline ..	38	20	18	47

Thus it will be seen that the new bridge will benefit Edinburgh and Glasgow traffic bound for Fife and the north as well as north-south traffic. It gives in addition an alternative route to Perth.

●

The bridge was designed by Sir Alexander Gibb and Partners, and the contractors for its construction were the Cleveland Bridge and Engineering Co., Ltd., of Darlington. The total length is just over half-a-mile, and a roadway, 30 ft. wide, is constructed over the bridge, with two footpaths each 5 ft. wide, supported on a cantilever construction along each side of the main structure.

One of the chief points of interest is the swing span in the centre of the bridge. This span rotates on a central pier, weighs 1,600 tons and has a length of 364 ft., providing two clear openings for shipping, each 150 ft. wide. The whole of the control gear installed in this swing span, together with the traffic control, warning devices, etc., and the complete lighting of the bridge, was designed and manufactured by the G.E.C.

Street Furniture

The photograph at the top of this page shows a series of remarkably well designed lighting poles recently erected by the Rowley Regis Gas Company on the main Wolverhampton road.

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These poles, called Adastra, were noted in this JOURNAL on August 27, but this illustration is now published because it offers such a good example of what to do and what ought never to have been done, for the old standards in the background are *not* the best sort of design.

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And now what about the Great West Road, and the various other by-passes that are changing over to the now fashionable sodium vapour lamps? A chance here not only for better lighting but better looking standards at the same time.

Addresses

The Parkinson Stove Co., Ltd., 52 Grosvenor Gardens, S.W.1

The General Electric Co., Ltd., Magnet House, Kingsway, W.C.2.

Poles, Ltd., 3 London Wall Avenue, E.C.2.

Manufacturer's Item

We are informed that Messrs. Finmar, Ltd., are not the only manufacturers who have been awarded certificates by the Institute of Hygiene. Peerless Kitchen Cabinets, Ltd., were awarded certificates both in 1935 and 1936 for built-in furniture.

THE BUILDINGS ILLUSTRATED

RUGBY SCHOOL : NEW SANATORIUM (pages 627-631). The Quantity Surveyor was Arthur J. Willis. The general contractors were : Foster and Dicksee, Ltd., who were also responsible for the wrot-iron railings, fire escape staircases, panelling to dining-room, and flush doors. The principal sub-contractors and suppliers included : Adamite Co., Ltd., "Alundum" stair treads ; Ames and Finnis, facing bricks; Artifex Guild of Metalworkers, electric light fittings; Joseph Avery & Co., Ltd., dark blinds; Bratt Colbran & Co., Ltd., dining-room fire and gas fires; Carter & Co. (London), Ltd., wall tiles; Caxton Floors, Ltd., hollow tile and reinforced concrete floors and flat roofs and staircases; Dent and Hellyer, Ltd., cabinet bed-pan washer; Diespeker & Co., Ltd., terrazzo paving; F. G. Edey & Co., Ltd., electrical work; Etchells, Congdon and Muir, Ltd., electric lifts; Falkirk Iron Co., Ltd., kitchen fittings; Faulkners (Furnishers), Ltd., curtains; James Gibbons, Ltd., ironmongery (instrument cupboard); International Refrigerator Co., Ltd., B.T.H. refrigerator; Johnson's Reinforced Concrete Eng. Co., Ltd., reinforced concrete and lattice foundations; Korkoid Decorative Floors, Ltd., cork carpet; Leyland and Birmingham Rubber Co., Ltd., rubber flooring; Leeds Fireclay Co., Ltd., sanitary fittings; Manlove Alliott & Co., Ltd., steam disinfector; James Slater & Co., Ltd., sterilizing equipment; Stevens and Adams, Ltd., wood-block flooring; Troughton and Young, Ltd., electric light fittings; Waring and Gillow, Ltd., dining-room furniture; C. E. Welstead, Ltd., metal windows; Young, Austen and Young, Ltd., heating, ventilating and hot water.

NEW SHOWROOMS AND WAREHOUSE FOR SHANKS & CO., LTD., NEWCASTLE-UPON-TYNE (pages 643-644). The general contractors were: Stephen Easten, Ltd., who

were also responsible for the plaster; and the principal sub-contractors and suppliers included : Northern Cast Stone Co., Ltd., artificial stone; Commercial Marble and Tiles, Ltd., tiles and tiling; A. M. Macdougall and Son, wood-block flooring; Rowells (1924), Ltd., central heating; Ideal Boilers and Radiators, Ltd., radiators; Gray Bros., Ltd., electric wiring; Sun Electrical Co., Ltd., electric light fixtures; J. A. France and Sons, plumbing; N. F. Ramsay & Co., Ltd., door furniture; Henry Hope and Sons, Ltd., casements; Haskins, rolling shutters; W. M. Shaw, tiling; Robson and Sons, Ltd., Smiths Systems, Ltd., and Betty Joel, Ltd., furniture; Harris and Sheldon, Ltd., shop fittings; Express Lift Co., Ltd., passenger lifts; Evans Lifts, Ltd., goods lifts; Franco-British Electrical Co., Ltd., signs.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICT (15 miles radius)

BRENTFORD AND CHISWICK. *School Clinic, etc.* The Brentford and Chiswick Joint Education Committee is to erect buildings on the site of the Rothschild School, Brentford, to accommodate a school clinic, a maternity and child welfare centre, and a juvenile employment bureau for Brentford, at a cost of £10,210.

BRENTFORD AND CHISWICK. *Schools.* The Brentford and Chiswick Joint Education Committee is to provide new buildings at Strand-on-the-Green, Chiswick, for junior mixed, infants' and nursery schools, at an estimated cost of £24,930.

BRENTFORD. *Houses.* The Brentford and Chiswick Corporation is to erect houses in Ealing Road Bridge, Brentford.

CROYDON. *Houses, etc.* Plans passed by Croydon Corporation : Factory and offices, Purley Way, Messrs. J. B. Rudkin & Co.; cinema and car park, Station Road, South Norwood, The Odeon Theatres, Ltd.; block of flats, Park Lane, Mr. S. Kemp; 36 houses, Woodmere Rise, West's Houses, Ltd.; six houses, Bywood Avenue, Mr. S. Connor.

EALING. *Maternity Hospital.* At Ealing Corporation the Town Clerk reported that the Minister of Health had sanctioned the borrowing of £59,659 (towards which Ealing is contributing £41,039) in connection with the new maternity hospital, and had also approved the appropriation of the site for maternity and child welfare purposes.

EALING. *Flats.* Ealing Corporation is to prepare a scheme for the erection of three-storied flats, incorporating lifts, on the site of the Southern Works.

EALING. *Schools.* The Ealing Education Committee has obtained sanction for loans of £20,218 and £18,184 for the erection of elementary schools at the Coston and Perivale sites.

EALING. *Houses, etc.* Plans passed by Ealing Corporation : 50 houses, Middleton Avenue, Messrs. R. Lancaster and Sons; 15 houses, Worcester Gardens, Mr. A. J. Marshall; 39 houses, Stanhope Park Road, Messrs. Houselands, Ltd.; block of flats, Haven Green, Mr. F. Byford; six houses, Medway Drive, Mr. A. E. Murdoch; 16 houses, Carr Road, Mr. B. Creasey; 16 flats, Oldfield Lane, Messrs. Lawton and Wright; 101 houses, Rugby Avenue, Messrs. Clayton Farm Estates, Ltd.; 49 houses, Castle Road, Messrs. Swannell and Sly; six houses, Oldfield Gardens, Mr. B. R. Willcox; two factories, Long Drive, Mr. W. G. Phillips; 20 flats, Oldfield Lane, Unity Building Co.; 92 houses, Delamere Road and Elgar Avenue, The Bloomfield Building Co., Ltd.; 84 houses, Gonville Crescent, Hillingdon Estate Co.; 18 shops and 22 flats, Church Road, Northolt, Messrs. Evans Bros.

GREENFORD. *School.* The Ealing Education Committee has purchased a site in Greenford for the erection of a school, and is to acquire other school sites at West Twyford, Walford and West End.

HERTS. *School.* The Herts Education Committee is to erect an elementary school at St. Albans at a cost of £43,316.

HAMMERSMITH. *Town Hall.* The Hammersmith B.C. recommends the erection of a new town hall on the site between Riverside Gardens and the Regal Cinema. In order to envisage the most modern methods of construction and lay-out a committee has visited a number of town halls recently erected by several architects of repute, and was particularly impressed with the buildings erected and in course of erection to form the new Civic Centre at Southampton, to plans prepared by Mr. E. Berry Webber, A.R.I.B.A. It considers that the quickest and most efficient method of dealing with the question of the erection of a new town hall would be to appoint an architect of repute who is thoroughly familiar with and experienced in the erection of buildings of this nature, rather than to have a competition with the consequential delay in the appointment of an assessor, etc., occupying many months. It accordingly asked Mr. E. Berry Webber to submit for consideration a design and preliminary plans, etc., together with an estimate of the probable cost, of a new town hall on the site selected, on condition that if he is appointed by the Council architect for the new town hall his fee for the preliminary work shall merge in the agreed fee for his services as architect for the building. It has had a report prepared by Mr. E. Berry Webber together with preliminary plans, etc., and a perspective drawing giving an impression of the new buildings as seen from King Street. Mr. Berry Webber is of the opinion that the new building should be erected in Portland stone. The total cost of the proposed building is estimated at £200,000.

MIDDLESEX. *Extensions.* The Middlesex C.C. has instructed the county architect to prepare plans for modernizing the buildings formerly known as Warkworth House, for the purpose of providing an extension to West Middlesex County Hospital, at an estimated cost of £45,000.

MIDDLESEX. *Schools.* The Middlesex Education Committee is to proceed with the following new schools : Long Lane, Stanwell, for 800 children; Stanwell Road, Ashford (900); Ruislip Gardens Estate, Ruislip (800); Cranford Park Estate, Hayes (800); Pinnerwood Estate, Pinner Hill Road, Pinner (800); Porlock Avenue, West Harrow (900); and Welbeck Road, West Harrow (800); and enlargement of The Yeading Council school, Hayes (500), and Whitefriars Council school, Wealdstone (900).

PADDINGTON. *Cinemas, etc.* Plans passed by Paddington B.C. : Cinema, Harrow Road and Irongate Wharf Road, The Associated British Cinemas, Ltd.; flats, shops, restaurant, cinema, services and petrol station and underground garage, Edgware Road, Cambridge Street, Connaught Square, Messrs. T. P. Bennett and Son.

PADDINGTON. *Offices.* Messrs. Shepherd and Thomerson are to erect a new block of business premises, eight storeys high, in Westbourne Grove and Douglas Place, Paddington.

POPLAR. *School.* The L.C.C. is to rebuild the public elementary school in Wharf Road, Cubitt Town, Poplar.

SOUTHGATE. *Swimming Bath.* Southgate Corporation has prepared a revised scheme for the erection of a covered-in swimming bath on the site adjoining Winchmore Hill Road, at an estimated cost of £45,000.

SOUTHGATE. *Houses, etc.* Plans passed by the Southgate Corporation : Five houses, Gloucester Gardens, Cockfosters, Mr. F. H. Shearley; nine houses, Chase Side, Messrs. W. J. Jennings & Co., Ltd.; house, Stone Hall Road, Mr. E. Lewis; canopy at the Palmadium, Green Lanes, Messrs. Garton and Thorne; shop and kiosk with office accommodation over, 26-32 Chase Side, Mr. N. Martin; six houses, Westpole Avenue, Mr. C. E. Ward; nine houses, Cockfosters Road, and two houses, Bramley Road, James Estates, Ltd.; 20 flats, Green Dragon Lane, Mr. R. J. L. Slater; 15 houses, Wolverton Way and Lakenheath, Mr. T. S. Rutter; house, Heddon Court Avenue, Cockfosters, Mr. F. W. Walker; 13 houses, rear of The Laurels, Church Hill, Mr. W. J. Mitchell; two houses, Arnos Grove, Messrs. Vine and Vine; two houses, Ash Grove, Messrs. Trout and Dilloway; two houses, Wayside Close, Mr. H. A. Nash; house, The Vale, Messrs. H. Hands & Co.

SOUTHGATE. *Houses, etc.* Southgate Corporation is to erect 16 flats, six small houses for aged people and 50 houses on the Council housing estate.

ST. PANCRAS. *Tenements.* St. Pancras B.C. is to erect 102 tenements in Leighton Road, at a cost of £82,075.

SOUTHERN COUNTIES

BEXLEY. *School.* The Roman Catholic church authorities are to erect a school for about 200 children at Burnt Oak Lane, Bexley, Kent.

BEXLEY. *School.* The Kent Education Committee is to erect a school for about 700 children at Lodge Hill, Bexley.

EASTBOURNE. *Houses.* Plans passed by Eastbourne Corporation : Eight houses, Kinfauns Avenue, for Prospect Houses, Ltd.

WORTHING. *Houses, etc.* Mr. J. W. Coleman, architect, on behalf of the executors of the late Mr. F. Stubbs, has prepared a scheme for the erection of 331 houses and 10 shops at Arundel Road, Durrington, near Worthing.

SOUTH-WESTERN COUNTIES

PAIGNTON. *Café.* Paignton U.D.C. has asked the surveyor and the entertainment manager to prepare a scheme for the provision of a large café at Preston Green.

SWANSEA. *Cinema.* Swansea Corporation has approved plans for the erection of a cinema in Singleton Street by the Union Cinema Co.

EASTERN COUNTIES

WOODFORD. *Houses.* Plans passed by Woodford U.D.C. : 4 shops, Chigwell Road; 4 houses, Horn Lane and Broadmead Road; additions to Bancrofts School, High Road; 10 houses, Chigwell Road.

MIDLAND COUNTIES

BARLASTON. *Factory.* Messrs. Wedgwood and Son are to erect a new factory at Barlaston, Staffs.

CORBY. *Houses.* Messrs. Stewarts and Lloyds, Ltd., are to erect an additional 400 houses at Corby.

STOKE-ON-TRENT. *Houses.* Plans passed by Stoke-on-Trent Corporation : 6 houses, Holly Bush Farm Estate, Blurton, Mr. D. Holland; 10 houses, off Chaplin Road, Longton, Mr. J. H. Summerfield; 20 houses, Shelton New Road, Messrs. W. Brammer & Co.

STOKE-ON-TRENT. *Extension.* Stoke-on-Trent Corporation has obtained sanction to the erection of an administrative block and the provision of a further 180 acute medical and surgical beds and 30 children's beds, at the London Road institution.

STOKE-ON-TRENT. *Central Library, etc.* Stoke-on-Trent Corporation Libraries Committee has considered suggested sites for the provision of a central library, museum and art gallery and appointed a sub-committee to consider and report upon suggested sites.

TUNSTALL. *Houses.* Plans passed at Tunstall : 34 houses, Wignall Road, Mr. G. H. Wignall; 58 houses, off High Street, Sandyford, Mr. L. Bates.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s.	I d.	II s.	II d.
A_1	ABERDARE ...	S. Wales & M.	1	5½	1	1¼
A	Aberdeen ...	Scotland	1	6½	1	2
A_1	Abergavenny ...	S. Wales & M.	1	6	1	1½
A_2	Abingdon ...	S. Counties	1	5	1	0¾
A	Accrington ...	N.W. Counties	1	6½	1	2
A_2	Addlestone ...	S. Counties	1	5	1	0¾
A	Adlington ...	N.W. Counties	1	6½	1	2
A	Airdrie ...	Scotland	°1	6½	1	2
C	Aldeburgh ...	E. Counties	1	2½		11
A	Altrincham ...	N.W. Counties	1	6½	1	2
B_2	Appleby ...	N.W. Counties	1	3		11¼
A	Ashton-under-Lyne	N.W. Counties	1	6½	1	2
B_1	Aylesbury ...	S. Counties	1	4	1	0
B_1	BANBURY ...	S. Counties	1	4	1	0
B_1	Bangor ...	N.W. Counties	1	4	1	0
A_2	Barnard Castle	N.E. Coast	1	5	1	0¾
A	Barnsley ...	Yorkshire	1	6½	1	2
B	Barnstaple ...	S.W. Counties	1	4½	1	0½
A	Barrow ...	N.W. Counties	1	6½	1	2
A	Barry	S. Wales & M.	1	6½	1	2
B_1	Basingstoke ...	S.W. Counties	1	4	1	0
A_2	Bath	S.W. Counties	1	5½	1	1¼
A	Batley ...	Yorkshire	1	6½	1	2
A_2	Bedford ...	E. Counties	1	5½	1	1¼
A_2	Berwick-on-Tweed	N.E. Coast	1	5½	1	1¼
A_2	Bewdley ...	Mid. Counties	1	5½	1	1¼
B_2	Bicester ...	S. Counties	1	3		11½
	Birkenhead ...	N.W. Counties	°1	7½	1	2⅝
A	Birmingham ...	Mid. Counties	1	6½	1	2
A_1	Bishop Auckland	N.E. Coast	1	6	1	1½
A	Blackburn ...	N.W. Counties	1	6½	1	2
A	Blackpool ...	N.W. Counties	1	6½	1	2
A	Blyth	N.E. Coast	1	6½	1	2
B_1	Bognor ...	S. Counties	1	4	1	0
A	Bolton ...	N.W. Counties	1	6½	1	2
A_3	Boston ...	Mid. Counties	1	5	1	0¾
A_2	Bournemouth...	S. Counties	1	5½	1	1¼
B_2	Bovey Tracey	S.W. Counties	1	3½		11⅝
A	Bradford ...	Yorkshire	1	6½	1	2
A_1	Brentwood ...	E. Counties	1	6	1	1½
A	Bridgend ...	S. Wales & M.	1	6½	1	2
B	Bridgwater ...	S.W. Counties	1	4½	1	0½
A_1	Bridlington ...	Yorkshire	1	6	1	1½
A	Brighouse ...	Yorkshire	1	6½	1	2
A_2	Brighton ...	S. Counties	1	5½	1	1¼
A	Bristol ...	S.W. Counties	1	6½	1	2
B	Brixham ...	S.W. Counties	1	3½		11⅝
A	Bromsgrove ...	Mid. Counties	1	5½	1	1¼
B	Bromyard ...	Mid. Counties	1	3		11¼
A	Burnley ...	N.W. Counties	1	6½	1	2
A	Burslem ...	Mid. Counties	1	6½	1	2
A	Burton-on-Trent	Mid. Counties	1	6½	1	2
A	Bury	N.W. Counties	1	6½	1	2
A	Buxton ...	N.W. Counties	1	6	1	1½
A_1	CAMBRIDGE...	E. Counties	1	6	1	1½
B_1	Canterbury ...	S. Counties	1	4	1	0
A	Cardiff ...	S. Wales & M.	1	6½	1	2
A	Carlisle ...	N.W. Counties	1	6½	1	2
B	Carmarthen ...	S. Wales & M.	1	4½	1	0½
B	Carnarvon ...	N.W. Counties	1	4½	1	0½
A	Carnforth ...	N.W. Counties	1	6½	1	2
A	Castleford ...	Yorkshire	1	6½	1	2
A_3	Chatham ...	S. Counties	1	5	1	0¾
A	Chelmsford ...	E. Counties	1	5	1	0¾
A	Cheltenham ...	S.W. Counties	1	5	1	0¾
A	Chester ...	N.W. Counties	1	6½	1	2
A	Chesterfield ...	Mid. Counties	1	6½	1	2
B_1	Chichester ...	S. Counties	1	4	1	0
A	Chorley ...	N.W. Counties	1	6½	1	2
B_1	Cirencester ...	S. Counties	1	4	1	0
A	Clitheroe ...	N.W. Counties	1	6½	1	2
A	Clydebank ...	Scotland	1	6½	1	2
A	Coalville ...	Mid. Counties	1	6½	1	2
A_2	Colchester ...	E. Counties	1	5½	1	1¼
A	Colne	N.W. Counties	1	6	1	1½
A_2	Colwyn Bay ...	N.W. Counties	1	5½	1	1¼
A_1	Consett ...	N.E. Coast	1	6	1	1½
A_2	Conway ...	N.W. Counties	1	5½	1	1¼
A	Coventry ...	Mid. Counties	1	6½	1	2
A_2	Crewe	N.W. Counties	1	5½	1	1¼
A	Cumberland ...	N.W. Counties	1	5	1	0¾
A	DARLINGTON ...	N.E. Coast	1	6½	1	2
A	Darwen ...	N.W. Counties	1	6½	1	2
B	Deal	S. Counties	1	4	1	0
A_2	Denbigh ...	N.W. Counties	1	5	1	0¾
A	Derby	Mid. Counties	1	6½	1	2
A	Dewsbury ...	Yorkshire	1	6½	1	2
B	Didcot ...	S. Counties	1	4½	1	0½
A	Doncaster ...	Yorkshire	1	6½	1	2
B_1	Dorchester ...	S.W. Counties	1	4	1	0
A	Driffield ...	Yorkshire	1	5	1	0¾
A_2	Droitwich ...	Mid. Counties	1	5½	1	1¼
A	Dudley ...	Mid. Counties	1	6½	1	2
A_2	Dumfries ...	Scotland	1	6	1	1½
A	Dundee ...	Scotland	1	6½	1	2
A	Durham ...	N.E. Coast	1	6½	1	2
A_2	EASTBOURNE ...	S. Counties	1	5½	1	1¼
A_1	Ebbw Vale ...	S. Wales & M.	1	6	1	1½
A	Edinburgh ...	Scotland	1	6½	1	2
A_2	Exeter ...	S.W. Counties	°1	5½	1	1¼
B	Exmouth ...	S.W. Counties	1	4½	1	0½
A_3	FELIXSTOWE ...	E. Counties	1	5	1	0¾
A	Filey	Yorkshire	1	5	1	0¾
A	Fleetwood ...	N.W. Counties	1	6½	1	2
B_1	Folkestone ...	S. Counties	1	4	1	0
A	Frodsham ...	N.W. Counties	1	6½	1	2
B_2	Frome ...	S.W. Counties	1	3½		11¼
A	GATESHEAD ...	N.E. Coast	1	6½	1	2
B	Gillingham ...	S. Counties	1	4½	1	0½
A_1	Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1	6	1	1½
A	Glasgow ...	Scotland	1	7	1	2½
A_2	Gloucester ...	S.W. Counties	1	5½	1	1¼
A_2	Goole	Yorkshire	1	5½	1	1¼
A_2	Gosport ...	S. Counties	1	5½	1	1¼
A_3	Grantham ...	Mid. Counties	1	5	1	0¾
A_1	Gravesend ...	S. Counties	1	6	1	1½
A	Greenock ...	Scotland	°1	6½	1	2
A	Grimsby ...	Mid. Counties	1	6½	1	2
B	Guildford ...	S. Counties	1	4½	1	0½
A	HALIFAX ...	Yorkshire	1	6½	1	2
A	Hanley ...	Mid. Counties	1	6½	1	2
A	Harrogate ...	Yorkshire	1	6½	1	2
A	Hartlepools ...	N.E. Coast	1	6½	1	2
B	Harwich ...	E. Counties	1	4½	1	0½
B_1	Hastings ...	S. Counties	1	4	1	0
A_2	Hatfield ...	S. Counties	1	5½	1	1¼
B	Hereford ...	S.W. Counties	1	4½	1	0½
A_2	Hertford ...	E. Counties	1	5½	1	1¼
A	Heysham ...	N.W. Counties	1	6½	1	2
A	Howden ...	N.E. Coast	1	6½	1	2
A	Huddersfield ...	Yorkshire	1	6½	1	2
A	Hull	Yorkshire	1	6½	1	2
A	ILKLEY ...	Yorkshire	1	6½	1	2
A	Immingham ...	Mid. Counties	1	6½	1	2
A_2	Ipswich ...	E. Counties	1	5½	1	1¼
B_2	Isle of Wight ...	S. Counties	1	4½	1	0½
A	JARROW ...	N.E. Coast	1	6½	1	2
A	KEIGHLEY ...	Yorkshire	1	6½	1	2
A_3	Kendal ...	N.W. Counties	1	5	1	0¾
A_3	Keswick ...	N.W. Counties	1	5	1	0¾
A_1	Kettering ...	Mid. Counties	1	6	1	1½
A_2	Kidderminster	Mid. Counties	1	5½	1	1¼
B_1	King's Lynn ...	E. Counties	1	4	1	0
A	LANCASTER ...	N.W. Counties	1	6½	1	2
A_1	Leamington ...	Mid. Counties	1	6	1	1½
A	Leeds	Yorkshire	1	6½	1	2
A	Leek	Mid. Counties	1	6½	1	2
A	Leicester ...	Mid. Counties	1	6½	1	2
A	Leigh	N.W. Counties	1	6½	1	2
B	Lewes	S. Counties	1	3		11½
A_2	Lichfield ...	Mid. Counties	1	5½	1	1¼
A	Lincoln ...	Mid. Counties	1	6½	1	2
	Liverpool ...	N.W. Counties	°1	8	1	3
A_2	Llandudno ...	N.W. Counties	1	5½	1	1¼
A	Llanelly ...	S. Wales & M.	1	6½	1	2
	London (12-miles radius)		1	8	1	3
	Do. (12-15 miles radius)		1	7½	1	2⅝
A	Long Eaton ...	Mid. Counties	1	6½	1	2
A	Loughborough ...	Mid. Counties	1	6½	1	2
A_1	Luton	E. Counties	1	6	1	1½
A	Lytham ...	N.W. Counties	1	6½	1	2
A_1	MACCLESFIELD	N.W. Counties	1	6	1	1½
A_3	Maidstone ...	S. Counties	1	5	1	0¾
A_3	Malvern ...	Mid. Counties	1	5	1	0¾
A	Manchester ...	N.W. Counties	1	6½	1	2
A	Mansfield ...	Mid. Counties	1	6½	1	2
B_1	Margate ...	S. Counties	1	4	1	0
A	Matlock ...	Mid. Counties	1	5	1	0¾
A_1	Merthyr ...	S. Wales & M.	1	6	1	1½
A	Middlesbrough	N.E. Coast	1	6½	1	2
A_2	Middlewich ...	N.W. Counties	1	5½	1	1¼
B_2	Minehead ...	S.W. Counties	1	3½		11½
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1	3½		11¼
A	Morecambe ...	N.W. Counties	1	6½	1	2
A_2	NANTWICH ...	N.W. Counties	1	5½	1	1¼
A	Neath	S. Wales & M.	1	6½	1	2
A	Nelson ...	N.W. Counties	1	6½	1	2
A	Newcastle ...	N.E. Coast	1	6½	1	2
A	Newport ...	S. Wales & M.	1	6½	1	2
A	Normanton ...	Yorkshire	1	6½	1	2
A	Northampton...	Mid. Counties	1	6½	1	2
A	North Shields...	N.E. Coast	1	6½	1	2
A	North Staffs ...	Mid. Counties	1	6½	1	2
A_1	Norwich ...	E. Counties	1	6	1	1½
A	Nottingham ...	Mid. Counties	1	6½	1	2
A	Nuneaton ...	Mid. Counties	1	6½	1	2
A	OAKHAM ...	Mid. Counties	1	5	1	0¾
A	Oldham ...	N.W. Counties	1	6½	1	2
A_3	Oswestry ...	N.W. Counties	1	5	1	0¾
A_1	Oxford ...	S. Counties	1	6	1	1½
A	PAISLEY ...	Scotland	°1	6½	1	2
B_2	Pembroke ...	S. Wales & M.	1	3		11¼
A	Perth	Scotland	°1	6½	1	2
A_1	Peterborough	E. Counties	1	6	1	1½
A	Plymouth ...	S.W. Counties	°1	6½	1	2
A	Pontefract ...	Yorkshire	1	6½	1	2
A_1	Pontypridd ...	S. Wales & M.	1	6	1	1½
A_2	Portsmouth ...	S. Counties	1	5½	1	1½
A	Preston ...	N.W. Counties	1	6½	1	2
A	QUEENSFERRY	N.W. Counties	1	6½	1	2
A_2	READING ...	S. Counties	1	5½	1	1½
B	Reigate ...	S. Counties	1	4½	1	0½
A	Retford ...	Mid. Counties	1	5	1	0¾
A_1	Rhondda Valley	S. Wales & M.	1	6	1	1½
A	Ripon	Yorkshire	1	5	1	0¾
A	Rochdale ...	N.W. Counties	1	6½	1	2
B	Rochester ...	S. Counties	1	4½	1	0½
A_1	Ruabon ...	N.W. Counties	1	6	1	1½
A	Rugby ...	Mid. Counties	1	6½	1	2
A_2	Rugeley ...	Mid. Counties	1	5½	1	1¼
A	Runcorn ...	N.W. Counties	1	6½	1	2
A_1	ST. ALBANS ...	E. Counties	1	6	1	1½
A	St. Helens ...	N.W. Counties	1	6½	1	2
B_3	Salisbury ...	S.W. Counties	1	3½		11⅜
A_1	Scarborough ...	Yorkshire	1	6	1	1½
A	Scunthorpe ...	Mid. Counties	1	6½	1	2
A	Sheffield ...	Yorkshire	1	6½	1	2
A	Shipley ...	Yorkshire	1	6½	1	2
A_2	Shrewsbury ...	Mid. Counties	1	5½	1	1¼
A_2	Skipton ...	Yorkshire	1	5½	1	1¼
A_2	Slough ...	S. Counties	1	5½	1	1¼
A_1	Solihull ...	Mid. Counties	1	6	1	1½
A_2	Southampton	S. Counties	1	5½	1	1¼
A_1	Southend-on-Sea	E. Counties	1	6	1	1½
A	Southport ...	N.W. Counties	1	6½	1	2
A	S. Shields ...	N.E. Coast	1	6½	1	2
A_1	Stafford ...	Mid. Counties	1	6	1	1½
A	Stirling ...	Scotland	1	7	1	2½
A	Stockport ...	N.W. Counties	1	6½	1	2
A	Stockton-on-Tees	N.E. Coast	1	6½	1	2
A	Stoke-on-Trent	Mid. Counties	1	6½	1	2
B	Stroud ...	S.W. Counties	1	4½	1	0½
A	Sunderland ...	N.E. Coast	1	6½	1	2
A	Swansea ...	S. Wales & M.	1	6½	1	2
A	Swindon ...	S.W. Counties	1	5	1	0¾
A_1	TAMWORTH ...	N.W. Counties	1	6	1	1½
B	Taunton ...	S.W. Counties	1	4½	1	0½
A	Teeside Dist. ...	N.E. Counties	1	6½	1	2
A_2	Teignmouth ...	S.W. Coast	1	5½	1	1¼
A	Todmorden ...	Yorkshire	1	6½	1	2
A_1	Torquay ...	S.W. Counties	1	6	1	1½
B_2	Truro	S.W. Counties	1	3½		11¼
A_3	Tunbridge Wells	S. Counties	1	5	1	0¾
A	Tunstall ...	Mid. Counties	1	6½	1	2
A	Tyne District	N.E. Coast	1	6½	1	2
A	WAKEFIELD	Yorkshire	1	6½	1	2
A	Walsall ...	Mid. Counties	1	6½	1	2
A	Warrington ...	N.W. Counties	1	6½	1	2
A_1	Warwick ...	Mid. Counties	1	6	1	1½
A_1	Wellingborough	Mid. Counties	1	6	1	1½
A	West Bromwich	Mid. Counties	1	6½	1	2
A_2	Weston-s.-Mare	W. Counties	1	5½	1	1¼
A_2	Whitby ...	Yorkshire	1	5½	1	1¼
A	Widnes ...	N.W. Counties	1	6½	1	2
A	Wigan ...	N.W. Counties	1	6½	1	2
B	Winchester ...	S. Counties	1	4½	1	0½
A_2	Windsor ...	S. Counties	1	5½	1	0¾
A	Wolverhampton	Mid. Counties	1	6½	1	2
A_2	Worcester ...	Mid. Counties	1	5½	1	1¼
A_3	Worksop ...	Yorkshire	1	5	1	0¾
A_1	Wrexham ...	N.W. Counties	1	6	1	1½
A	Wycombe ...	S. Counties	1	5	1	0¾
B	YARMOUTH ...	E. Counties	1	4½	1	0½
B	Yeovil ...	S.W. Counties	1	4½	1	0½
A	York	Yorkshire	1	6½	1	2

° In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality and include delivery to site in Central London area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		s.	d.
Bricklayer	per hour	1	8
Carpenter	,,	1	8
Joiner	,,	1	8
Machinist	,,	1	8
Mason (Banker)	,,	1	8
,, (Fixer)	,,	1	9
Plumber	,,	1	8
Painter	,,	1	7
Paperhanger	,,	1	7
Glazier	,,	1	7
Slater	,,	1	8
Scaffolder	,,	1	4
Timberman	,,	1	4
Navvy	,,	1	3
General Labourer	,,	1	3
Lorryman	,,	1	5½
Crane Driver	,,	1	7
Watchman	per week	2	10

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	18	6
Hydrated Lime	,,	3	0	9
Portland Cement, in 4-ton lots (d/d site, including Paper Bags)	,,	1	19	0
Rapid Hardening Cement, in 4-ton lots (d/d site, including Paper Bags)	,,	2	5	0
White Portland Cement, in 1-ton lots	,,	8	15	0
Thames Ballast	per Y.C.		6	6
¾" Crushed Ballast	,,		7	0
Building Sand	,,		7	6
Washed Sand	,,		8	6
2" Broken Brick	,,		8	0
¾" ,, ,,	,,		10	3
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest Bends	,,	4	3	6	3
Single Junctions	,,	3	6	5	3
Double	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	1	6	2	6
Bends	each	5	0	10	6
Inspection bends	,,	9	0	15	0
Single junctions	,,	8	9	18	0
Double junctions	,,	13	6	30	0
Lead Wool	lb.		6		—
Gaskin	,,		5		—

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	12	0
Grooved do.	,,	2	14	0
Phorpres bricks	,,	2	15	0
,, Cellular bricks	,,	2	15	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	8	14	0
,, Wirecuts	,,	7	12	6
,, Brindles	,,	7	0	0
,, Bullnose	,,	9	0	0
Red Sand-faced Facings	,,	6	18	6
Red Rubbers for Arches	,,	12	0	0
Multicoloured Facings	,,	7	10	0
Luton Facings	,,	7	10	0
Phorpres White Facings	,,	3	17	3
,, Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	0	0
Headers	,,	20	10	0
Bullnose	,,	27	10	0
Double Stretchers	,,	29	10	0
Double Headers	,,	26	10	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	7
2½" ,, ,, ,,	,,		1	10
3" ,, ,, ,,	,,		2	1
4" ,, ,, ,,	,,		2	6

MASON

The following d/d F.O.R. at Nine Elms:		s.	d.
Portland stone, Whitbed	F.C.	4	4½
,, ,, Basebed	,,	4	7½
Bath stone	,,	2	10
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2"	F.S.	1	8
,, ,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	28	17	6
22" × 12" Marchionesses	,,	24	10	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	10	0
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey per 1,000 (actual)		21	11	6
,, ,, green ,, ,,		24	7	4
Best machine roofing tiles ,, ,,		4	5	0
Best hand-made do. ,, ,,		4	17	6
Hips and valleys	each			9
,, hand-made	,,			9½
Nails, compo	lb.		1	4
,, copper	,,		1	6

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		18	6
,, 1"	,,		1	1
,, 1¼"	,,		1	2
,, 1½"	,,		1	5
,, 1¾"	,,		1	10
Deal matchings, ¾"	,,			14
,, 1"	,,			15
,, 1¼"	,,		1	4
Rough boarding, ¾"	,,			16
,, 1"	,,			18
,, 1½"	,,		1	6

Plywood, per ft. sup. Thickness	¼"			⅜"			½"			¾"		
Qualities	A d.	B d.	BB d.	A d.	B d.	BB d.	A d.	B d.	BB d.	A d.	B d.	BB d.
Birch 60 × 48	4	2½	2	5	3	2½	7	5	4	8	6	5
Cheap Alder	–	2	1½	–	3½	2	–	–	–	–	–	–
Oregon Pine	–	2½	–	3	2½	–	4	3½	–	5	4½	–
Gaboon Mahogany	4	3½	–	5	4½	–	7	6½	–	8	7	–
Figured Oak	6½	5	–	7½	5½	–	10	8	–	1/–	9	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

	¼"	½"	1"	1½"	2"
Tubes, 2'–14' long per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"–23" long each	10	1/1	1/11	2/8	4/9
,, 3"–11½" long ,,	7	9	1/3	1/8	3/–
Long screws, 12"–23½" long,,	11	1/3	2/2	2/10	5/3
,, ,, 3" M–½" long ,,	8	10	1/5	1/11	3/6
Bends ,,	8	11	1/7½	2/7½	5/2
Springs not socketed ,,	5	7	1/1½	1/11½	3/11
Socket unions ,,	2/–	3/–	5/6	6/9	10/–
Elbows, square ,,	10	1/1	1/6	2/2	4/3
Tees ,,	1/–	1/3	1/10	2/6	5/1
Crosses ,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples ,,	3	4	6	8	1/3
Diminished sockets ,,	4	6	9	1/–	2/–
Flanges ,,	9	1/–	1/4	1/9	2/9
Caps ,,	3½	5	8	1/–	2/–
Backnuts ,,	2	3	5	6	1/1
Iron main cocks ,,	1/6	2/3	4/2	5/4	11/6
,, with brass plugs ,,	—	4/–	7/6	10/–	21/–

Discounts	Tubes. Per cent.		Per cent.
Gas	65	Galvanized gas	52½
Water	61½	,, water	47½
Steam	57½	,, steam	42½

	Fittings. Per cent.		Per cent.
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

		s.	d.
Rolled steel joists cut to length	cwt.	12	9
Mild steel reinforcing rods, ¾"	,,	10	6
,, ,, ½"	,,	10	3
,, ,, ⅜"	,,	10	0

SMITH AND FOUNDER—*continued*

		s.	d.
Mild steel reinforcing rods, ¼"	cwt.	9	6
,, ,, ⅛"	,,	9	6
,, ,, 1"	,,	9	6
,, ,, 1¼"	,,	9	6
,, ,, 1½"	,,	9	6

Cast-iron rain-water pipes of ordinary thickness metal	4" s.	4" d.	6" s.	6" d.
	F.R.	8		10
Shoes	each	2	0	3 0
Anti-splash shoes	,,	4	6	8 0
Boots	,,	3	0	4 0
Bends	,,	2	7	3 9
,, with access door	,,	—		6 3
Heads	,,	4	0	5 0
Swan-necks up to 9" offsets	,,	3	9	6 0
Plinth bends, 4½" to 6"	,,	3	9	5 3

Half-round rain-water gutters of ordinary thickness metal	4"	6"
	F.R.	5	6
Stop ends	each	6	6
Angles	,,	1 7	1 11
Obtuse angles	,,	2 0	2 6
Outlets	,,	1 9	2 3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	26	3	
,, drawn pipes	,,	25	9	
,, soil pipe	,,	28	9	
,, scrap	,,	16	9	
Solder, plumbers'	lb.		9½	
,, fine do.	,,	1	0	
Copper, sheet	,,		8½	
,, tubes	,,		11	

L.C.C. soil and waste pipes:	3"	4"	6"
Plain cast	F.R. 1 0	1 2	2 5
Coated	,, 1 1	1 3	2 8
Galvanized	,, 2 0	2 6	4 6
Holderbats	each 3 10	4 0	4 9
Bends	,, 3 9	5 3	10 3
Shoes	,, 2 10	4 4	9 6
Heads	,, 4 8	8 5	12 9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	0	0
Plaster, coarse	,,	2	15	0
,, fine	,,	4	7	6
Hydrated lime	,,	3	0	9
Sirapite	,,	3	6	0
Keene's cement	,,	5	0	0
Gothite plaster	,,	3	6	0
Pioneer plaster	,,	3	6	0
Thistle plaster	,,	3	6	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3

GLAZIER

		s.	d.	s.	d.
Sheet glass, 21 oz., squares n/e 2 ft.	s. F.S.				2½
,, ,, 26 oz. ,, ,,	,,				3
Flemish, Arctic, Figures (white)*	,,				7
Blazoned glasses	,,			2	6
Reeded: Cross Reeded	,,				11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite	,,				6
Crown sheet glass (n/e 12" × 10")	,,			2	0
Flashed opals (white and coloured)	,,	1	0 and	2	0
¼" rough cast; rolled plate	,,				5½
¼" wired cast; wired rolled	,,				9½
¼" Georgian wired cast	,,				11
¼" Polished plate, n/e 1 ft.	,,	†10	to ‡1		1
,, ,, 2	,,	†1	2 ,, ‡1		4
,, ,, 4	,,	†2	3 ,, ‡2		6
,, ,, 8	,,	†2	9 ,, ‡3		2
,, ,, 20	,,	†3	1 ,, ‡3		9
,, ,, 45	,,	†3	3 ,, ‡4		0
,, ,, 100	,,	†4	0 ,, ‡4		10
Vita glass, sheet, n/e 1 ft.	,,				1 0
,, ,, ,, 2 ft.	,,				1 3
,, ,, ,, over 2 ft.	,,				1 9
,, ,, plate, n/e 1 ft.	,,				1 6
,, ,, ,, 2 ft.	,,				3 0
,, ,, ,, 5 ft.	,,				4 0
,, ,, ,, 7 ft.	,,				5 0
,, ,, ,, 15 ft.	,,				6 0
,, ,, ,, over 15 ft.	,,				7 6
"Calorex" sheet 21 oz., and 32 oz. rough cast ¼" and ½"	,,	2	6 and 8½	3	6 0
Putty, linseed oil	lb.				3

* *Colours, 1d. F.S. extra.*
† *Ordinary glazing quality.* ‡ *Selected glazing quality.*

PAINTER

		£	s.	d.
White lead in 1 cwt. casks	cwt.	2	8	6
Linseed oil	gall.		2	3
Boiled oil	,,		2	9
Turpentine	,,		4	1½
Patent knotting	,,		14	0
Distemper washable	cwt.	2	6	0
,, ordinary	,,	2	0	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready mixed paint	,,		13	6
Brunswick black	,,		7	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£ s. d.
Digging over surface n/e 12″ deep and cart away	Y.S.	2 9
,, to reduce levels n/e 5′ 0″ deep and cart away	Y.C.	8 6
,, to form basement n/e 5′ 0″ and cart away	,,	9 0
,, ,, 10′ 0″ deep and cart away	,,	9 6
,, ,, 15′ 0″ deep and cart away	,,	10 0
If in stiff clay	add ,,	6
If in underpinning	,,	4 0
Planking and strutting to sides of excavation	F.S.	1 0
,, ,, to pier holes	,,	5
,, ,, to trenches	,,	5
,, ,, extra, only if left in	,,	3
Hardcore, filled in and rammed	Y.C.	10 0
Portland cement concrete in foundations (6–1)	,,	1 6 0
,, ,, (4–2–1)	,,	1 12 6
,, ,, underpinning	,,	1 16 0
Finishing surface of concrete, space face	Y.S.	7

DRAINLAYER

		4″ s. d.	6″ s. d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1 6	2 3
Extra, only for bends	Each	2 8	3 9
,, junctions	,,	3 9	4 6
Gullies and gratings	,,	16 6	18 0
Cast iron drains, and laying and jointing	F.R.	4 9	6 9
Extra, only for bends	Each	10 6	15 6

BRICKLAYER

		£ s. d.
Brickwork, Flettons in lime mortar	Per Rod	26 10 0
,, ,, in cement	,,	27 12 6
,, Stocks in cement	,,	34 0 0
,, Blues in cement	,,	50 0 0
Extra only for circular on plan	,,	2 0 0
,, backing to masonry	,,	1 10 0
,, raising on old walls	,,	2 0 0
,, underpinning	,,	5 10 0
Fair Face and pointing internally	F.S.	1½
Extra over fletton brickwork for picked stock facings and pointing	,,	8
,, ,, ,, red brick facings and pointing	,,	11
,, ,, ,, blue brick facings and pointing	,,	1 4
,, ,, ,, glazed brick facings and pointing	,,	3 6
Tuck pointing	,,	7½
Weather pointing in cement	,,	3
Slate dampcourse	,,	10
Vertical dampcourse	,,	1 1

ASPHALTER

		s. d.
½″ Horizontal dampcourse	Y.S.	4 9
½″ Vertical dampcourse	,,	7 9
½″ paving or flat	,,	6 3
1″ paving or flat	,,	7 6
1″ × 6″ skirting	F.R.	1 0
Angle fillet	,,	2½
Rounded angle	,,	2½
Cesspools	Each	5 6

MASON

		£ s. d.
Portland stone, including all labour, hoisting, fixing and cleaning down, complete	F.C.	17 9
Bath stone and do., all as last	,,	13 6
Artificial stone and do.	,,	13 0
York stone templates, fixed complete	,,	10 6
,, thresholds	,,	13 6
,, sills	,,	1 0 6

SLATER AND TILER

		£ s. d.
Slating, Bangor or equal to a 3″ lap, and fixing with compo nails, 20″ × 10″	Sqr.	3 10 0
Do., 18″ × 9″	,,	3 7 0
Do., 24″ × 12″	,,	3 17 0
Westmorland slating, laid with diminished courses	,,	6 0 0
Tiling, best hand-made sand-faced, laid to a 4″ gauge, nailed every fourth course	,,	3 0 0
Do., all as last, but of machine-made tiles	,,	2 16 0
20″ × 10″ medium Old Delabole slating, laid to a 3″ lap (grey)	,,	2 16 0
,, ,, ,, ,, ,, ,, ,, (green)	,,	4 15 0

CARPENTER AND JOINER

		£ s. d
Flat boarded centering to concrete floors, including all strutting	Sqr.	2 2 6
Shuttering to sides and soffits of beams	F.S.	7
,, to stanchions	,,	7
,, to staircases	,,	1 6
Fir and fixing in wall plates, lintols, etc.	F.C.	3 9
Fir framed in floors	,,	4 6
,, ,, roofs	,,	6 6
,, ,, trusses	,,	7 6
,, ,, partitions	,,	8 6
⅞″ deal sawn boarding and fixing to joists	Sqr.	1 14 6
1″ ,, ,, ,, ,, ,,	,,	1 17 6
1¼″ ,, ,, ,, ,, ,,	,,	2 3 0
2½″ × 2″ fir battening for Countess slating	,,	9 6
Do., for 4″ gauge tiling	,,	12 0
Stout feather-edged tilting fillet	F.R.	4½
Patent inodorous felt, 1 ply	Y.S.	2 3
,, ,, ,, 2 ,,	,,	2 9
,, ,, ,, 3 ,,	,,	3 3
Stout herringbone strutting to 9″ joists	F.R.	10½
1″ deal gutter boards and bearers	F.S.	1 2
1¼″ ,, ,, ,,	,,	1 6
2″ deal wrought rounded roll	F.R.	8
1″ deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2 1 0
1¼″ do.	,,	2 10 0
1½″ do.	,,	2 17 0
1″ deal moulded skirting fixed on, and including grounds plugged to wall	F.S.	1 6
1⅛″ do.	,,	1 9

CARPENTER AND JOINER—*continued*

		s. d.
1⅛″ deal moulded sashes of average size	F.S.	1 9½
2″ ,, ,, ,, ,,	,,	1 11½
1⅛″ deal cased frames double hung, of 6″ × 3″ oak sills, 1¼″ pulley stiles, 1½″ heads, 1″ inside and outside linings, ⅜″ parting beads, and with brass faced axle pulleys, etc., fixed complete	,,	3 7
2″ ,, ,, ,, ,, ,,	,,	3 10
Extra only for moulded horns	Each	6
1⅛″ deal four-panel square, both sides, door	F.S.	2 0
2″ ,, ,, ,, ,,	,,	2 8
1⅛″ ,, but moulded both sides	,,	2 4
2″ ,, ,, ,, ,,	,,	3 0
4″ × 3″ deal, rebated and moulded frames	F.R.	1 0
4⅛″ × 3⅛″ ,, ,, ,,	,,	1 4
1¼″ deal tongued and moulded window board, on and including deal bearers	F.S.	1 9
1¼″ deal treads, 1″ risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	2 6
1⅛″ deal moulded wall strings	,,	2 1
1⅛″ ,, outer strings	,,	2 4
Ends of treads and risers housed to string	Each	1 9
3″ × 2″ deal moulded handrail	F.R.	1 3
1″ × 1″ deal balusters and housing each end	Each	2 0
1⅛″ × 1⅛″ ,, ,, ,,	,,	2 9
3″ × 3″ deal wrought framed newels	F.R.	1 3
Extra only for newel caps	Each	6 0
Do., pendants	,,	6 0

SMITH AND FOUNDER

		£ s. d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.	16 6
Riveted plate or compound girders, and hoisting and fixing in position	,,	1 0 6
Do., stanchions with riveted caps and bases and do.	,,	19 0
Mild steel bar reinforcement, ½″ and up, bent and fixed complete	,,	17 6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.	11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1 10 0

PLUMBER

		£ s. d.
Milled lead and labour in flats	cwt.	2 0 3
Do. in flashings	,,	2 3 9
Do. in covering to turrets	,,	2 9 3
Do. in soakers	,,	1 14 9
Labour to welted edge	F.R.	3½
Open copper nailing	,,	3
Close ,, ,,	,,	4

		½″ s. d.	¾″ s. d.	1″ s. d.	1¼″ s. d.	2″ s. d.	4″ s. d.
Lead service pipe and fixing with pipe hooks	F.R.	10	1 0	1 3	2 0	2 10	—
Do. soil pipe and fixing with cast lead tacks	,,	—	—	—	—	—	5 6
Extra, only to bends	Each	—	—	—	—	2 0	6 9
Do. to stop ends	,,	6½	8	9	11	1 0	—
Boiler screws and unions	,,	3 3	3 9	5 0	8 0	—	—
Lead traps	,,	—	—	—	6 3	8 9	—
Screw down bib valves	,,	6 9	9 6	11 0	—	—	—
Do. stop cocks	,,	7 0	9 6	12 6	—	—	—

		£ s. d.
4″ cast-iron ½-rd. gutter and fixing	F.R.	1 0
Extra, only stop ends	Each	1 0
Do. angles	,,	1 6
Do. outlets	,,	2 9
4″ dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1 2
Extra, only for shoes	Each	1 3
Do. for plain heads	,,	5 6

PLASTERER AND TILING

		£ s. d.
Expanded metal lathing, small mesh	Y.S.	2 0
Do. in n/w to beams, stanchions, etc.	,,	2 9
Lathing with sawn laths to ceilings	,,	1 3
½″ screeding in Portland cement and sand or tiling, wood block floor, etc.	,,	1 5
Do. vertical	,,	1 7
Rough render on walls	,,	1 2½
Render, float and set in lime and hair	,,	1 9
Render and set in Sirapite	,,	1 11
Render, backing in cement and sand, and set in Keene's cement	,,	2 9
Extra, only if on lathing	,,	4
Keene's cement, angle and arris	F.R.	6
Arris	,,	1½
Rounded angle, small	,,	3
Plain cornices in plaster, including dubbing out, per 1′ girth	,,	1½
1″ granolithic pavings	Y.S.	3 6
1½″ ,, ,, ,,	,,	4 6
6″ × 6″ white glazed wall tiling and fixing on prepared screed	,,	17 6
9″ × 3″ ,, ,, ,,	,,	1 2 6
Extra, only for small quadrant angle ,, ,, ,,	F.R.	8

GLAZIER

		s. d.
21 oz. sheet glass and glazing with putty	F.S.	6½
26 oz. do. and do.	,,	7¾
Flemish, Arctic Figured (white) and glazing with putty	,,	1 1
Cathedral glass and do.	,,	1 2
Glazing only, British polished plate	,,	7
Extra, only if in beds	,,	2
Washleather	F.R.	4

PAINTER

		s. d.
Clearcolle and whiten ceilings	Y.S.	6
Do. and distemper walls	,,	9
Do. with washable distemper	,,	1 1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3 3
Do. on woodwork	,,	3 6
Do. on steelwork	,,	3 0
Do. and brush grain and twice varnish	,,	5 6
Stain and twice varnish woodwork	,,	1 11
Stain and wax polish woodwork	,,	4 6
French polishing	F.S.	1 2
Stripping off old paper	Piece	2 0
Hanging ordinary paper	from ,,	2 9

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TURNALL ASBESTOS-CEMENT TRAFFORD ROOF TILES: ROOFING ACCESSORIES.

NOTE: Previous sheets of this series deal with the properties & laying of the tiles, purlin spacing, ridges, etc.

(A) POILITE ASBESTOS-CEMENT LOUVRE BLADES:

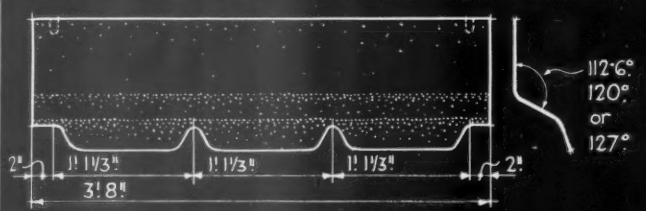
for use in conjunction with Turnall Trafford tile apron flashing pieces.

PROPERTIES: Poilite louvre blades are composed of 1/4" thick asbestos-cement to match the Trafford tiles, and are designed for right to left fixing from the outside in a continuous tier.

SUPPORTING STRAPS: The supports may be of metal or timber, spaced at 3'8" (maximum) centres, with the fixing accessories spaced at 6 5/8" c. to c. up the middle of each. Length depends on the number of blades.

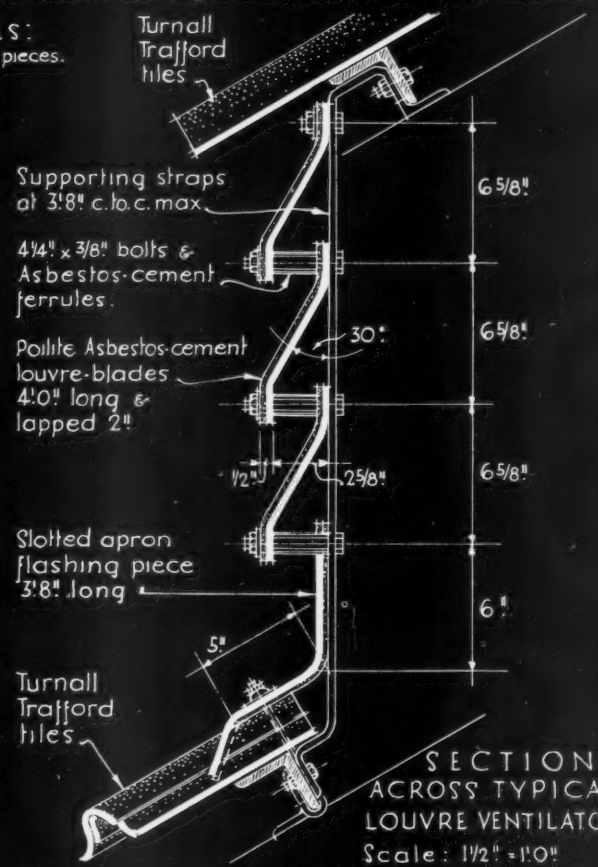
DETAIL OF SLOTTED & SERRATED APRON FLASHING.

NOTE: These pieces are also used to flash the tops of lean-to roofs.



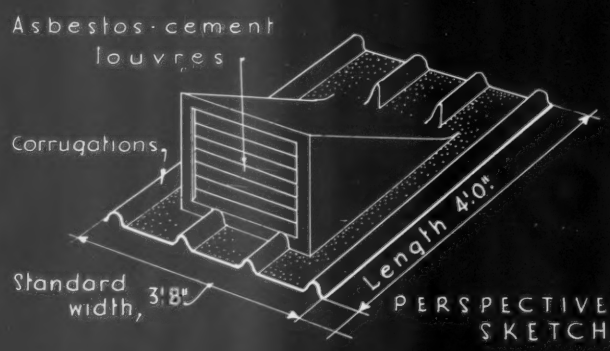
Length of ferrule:
A. = 2 5/8"
B. = 2 3/8"
C. = 2 1/8"

DIAGRAM SHOWING POSITIONS OF ASBESTOS-CEMENT FERRULES. (Any number of blades may be used.)

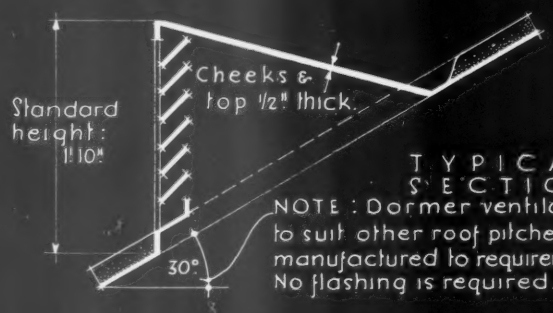


SECTION ACROSS TYPICAL LOUVRE VENTILATOR.
Scale: 1 1/2" = 1'0"

(B) TURNALL TRAFFORD TILE DORMER VENTILATOR:



PERSPECTIVE SKETCH.



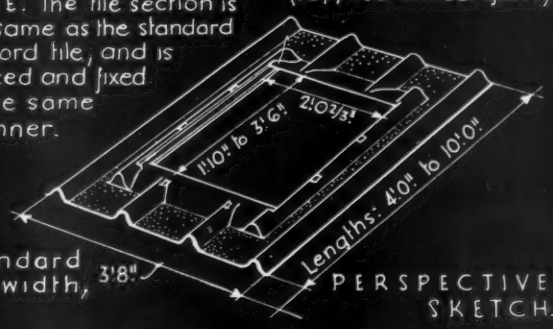
TYPICAL SECTION.

NOTE: Dormer ventilators to suit other roof pitches are manufactured to requirements. No flashing is required.

(C) TURNALL TRAFFORD TILE ROOF LIGHTS:

1. Asbestos-cement dead lights. (Supplied without glass)

NOTE: The tile section is the same as the standard Trafford tile, and is placed and fixed in the same manner.



PERSPECTIVE SKETCH.

2. Asbestos-cement opening lights. (Supplied without glass)

Asbestos-cement opening lights are now manufactured, and details will be supplied on application.

The opening portion of the roof light is constructed of zinc, and is superimposed on an asbestos-cement base similar to the dead light shown above.

Information from Turners Asbestos-Cement Co., branch of Turner & Newall Ltd.

INFORMATION SHEET: ASBESTOS-CEMENT ROOFING TILES: No 5.

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 - Oscar A. Bayne

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INFORMATION SHEET

• 427 •

ASBESTOS-CEMENT ROOFING TILES

Subject : Asbestos-Cement Roofing Tiles

General :

This Sheet deals with a range of Turnall Trafford Tile asbestos-cement roof fittings for use with Turnall Trafford roofing tiles. Previous Sheets of the series dealt with the properties and laying of the tiles, purlin spacing, ridges, etc.

Poilite Asbestos-cement Louvre Blades :

The blades are made in standard lengths of 4 ft. ; and 8 ins. in depth. They are designed for building up in any number of lines at a standard spacing of $6\frac{5}{8}$ ins. Fixing is started at the right-hand bottom corner and continued the full length of the ventilator, a lap of 4 ins. being given to adjacent lengths of blade. Subsequent tiers are fixed in the same manner.

Ferrules :

The length of the asbestos-cement ferrules varies according to position, as indicated on the typical diagram overleaf. Care should be taken to see that the correct lengths of ferrules are fitted in the right positions, after which it is only necessary to tighten up the fixing accessory.

Apron Flashing Pieces :

These 3 ft. 8 in. lengths of asbestos-cement form the necessary flashing between the lower louvre blade and the roofing tiles. As shown on the drawings, they have a serrated apron to coincide with the corrugations of standard Turnall Trafford Tiles, and are fixed over the upper edge of these with the standard fixing accessory, lengths being lapped 4 ins. The upper edges of the flashing pieces will require to be slotted to allow them to be free of the asbestos-cement distance ferrules of the first louvre blade.

Both the louvre blades and the apron flashing pieces are of $\frac{1}{4}$ in. thickness, and manufactured in the standard Turnall Trafford Tile colours of grey, red, and russet-brown.

Dormer Ventilators :

This accessory is composed of asbestos-cement throughout, the section being identical to standard Turnall Trafford Tiles, and therefore able to be inserted in any part of such a roof without flashing, maintenance, or special fixings. The cheeks and top of the ventilator are made in $\frac{1}{2}$ in. thickness, and standard colours are available.

Roof Lights :

(1) *Asbestos-cement dead lights* :

This fitting also has the same section as a standard Turnall Trafford Tile, and is therefore able to take the place of any tile in any position on the roof. Hence the position of the roof lighting may be adjusted to suit the requirements of the internal planning of the building.

The lights are supplied without glass and are obtainable in 4 ft., 6 ft. 6 ins., 7 ft. 6 ins., 8 ft., 9 ft., and 10 ft. lengths, in the standard Trafford Tile colours. The stndard width is 3 ft. 8 ins., allowing a standard width of opening of 2 ft. $0\frac{3}{8}$ ins., for which glass 2 ft. $2\frac{1}{2}$ ins. in width is required. For all lengths of fitting above 4 ft., the standard length of the opening is 3 ft. 6 in., requiring 3 ft. $10\frac{1}{4}$ in. long glass.

Information from : Turners Asbestos Cement Co., Branch of Turner and Newall Ltd.
Address (head office and works) : Trafford Park, Manchester, 17
Telephone : Trafford Park 2181 (8 lines)
London Office : Asbestos House, Southwark Street, S.E.1
Telephone : Waterloo 4041

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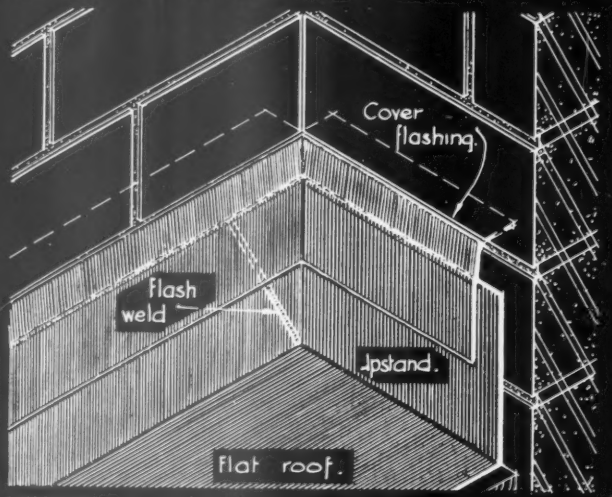
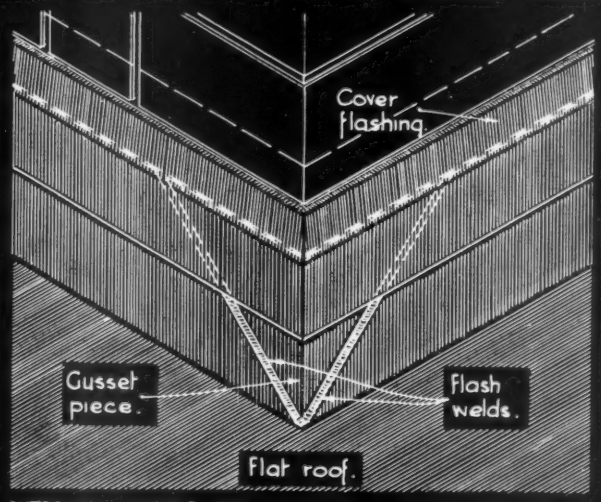
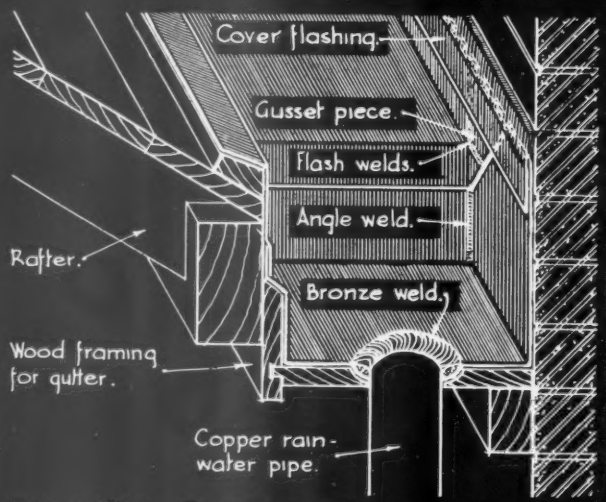
DETAILS OF WELDED SHEET COPPER ROOFING, BOX GUTTER, AND WATER STORAGE TANKS.



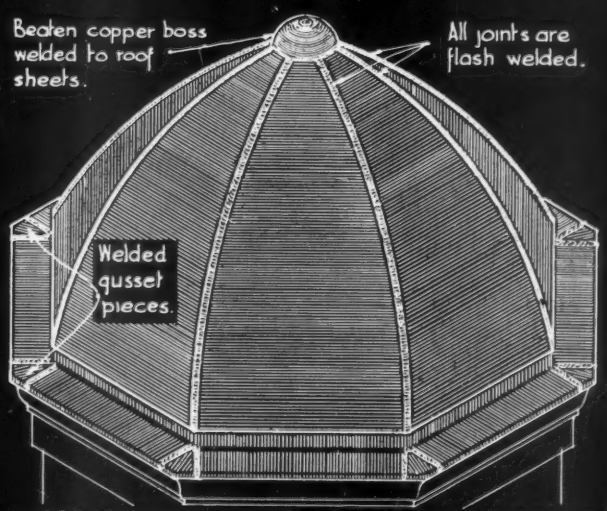
INTERNAL ANGLE TO UPSTAND, & COVER FLASHING.



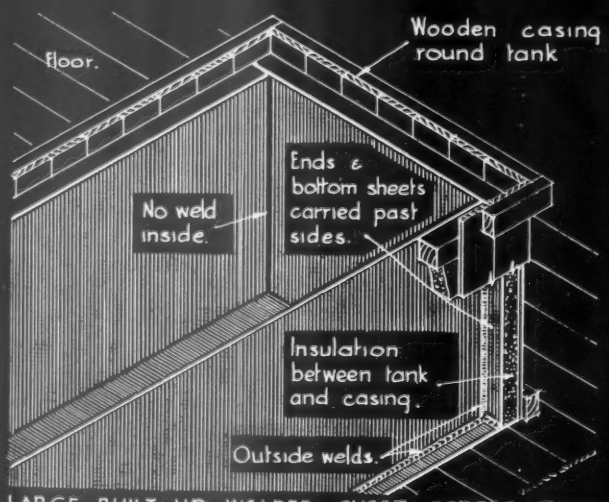
EXTERNAL ANGLE TO UPSTAND, & COVER FLASHING.



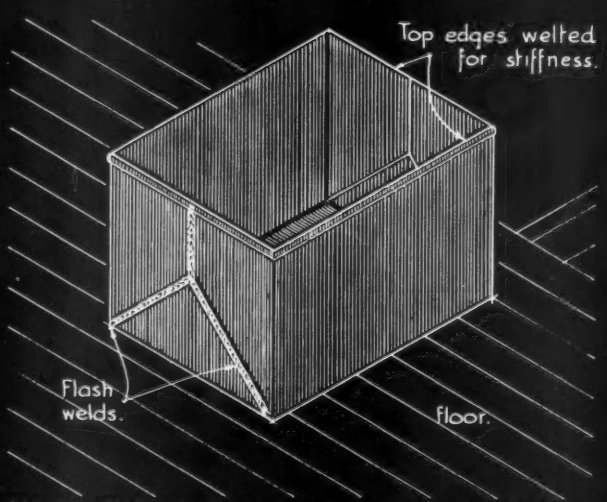
BOX GUTTER, WELDED CESSPIT, & DOWN PIPE.



SHEET COPPER COVERED DOME AND CORNICE.



LARGE BUILT-UP WELDED SHEET COPPER TANK.



SMALL WELDED TANK OUT OF A SINGLE SHEET.

Information from W.L. Kilburn, M.I.W.E., R.P. *Issued by The British Oxygen Co. Ltd.*

INFORMATION SHEET: COPPER AND BRONZE WELDING TO SHEET COPPER WORK, No. 2.

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1.

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INFORMATION SHEET

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WELDING SHEET COPPER WORK

This is the second of two Sheets devoted to the welding of sheet copper for roofing and other architectural purposes.

The first Sheet (No. 422) set out the various types of weld which may be used and gave details of their application to gutters and flashings.

This Sheet gives further details of the application of welding technique to roofing work, curved work, tanks and cisterns.

Roofing :

In general, it may be said that the introduction of welding to copper roofing work has the effect of simplifying the work while giving a better and more reliable job.

The under-construction required beneath the copper remains the same as the established practice ; boarding should run with the fall of the roof, felt should be provided, and expansion joints should also be provided if the roof is of a large area. The simplification of the work occurs in the jointing and forming of the copper around corners, gutters, cesspits, etc.

Here, the general rule is to bend the copper sheet wherever possible, making the necessary cuts to allow the bending to be done : these cuts open out as the copper is bent and a gusset piece is welded in to fill the opening (for example see details " External angle to upstand " and " Box gutter and welded Cesspit " given on this Sheet).

Curved Work :

Welded sheet copper is particularly suitable for curved roofing work, domes, etc., owing to the small neat joint which can be made and to the fact that copper will not tend to " creep " down the roof.

In curved work, such as the dome shown on this Sheet, the copper is cut and bent to shape, put temporarily in position, and the adjoining edges flanged up in preparation for the flash welding.

Tanks :

The linings for large tanks should be built up, as shown, with the sheets forming the bottom and the ends left projecting to form a flange. This gives a good base for the bronze welding of the junction with the sheets forming the sides, the welding being carried out from the outside.

Similar small tanks may be bronze welded from the inside.

In small tanks or cisterns which may be formed from one sheet of copper, a different method is used. The sheet is bent round all angles and the ends are formed by shaping the bottom and sides so that, when folded, the edges abut and may be flash welded.

Issued by: The British Oxygen Company, Ltd.
Address : Thames House, Millbank, S.W.1
Telephone : Victoria 9225

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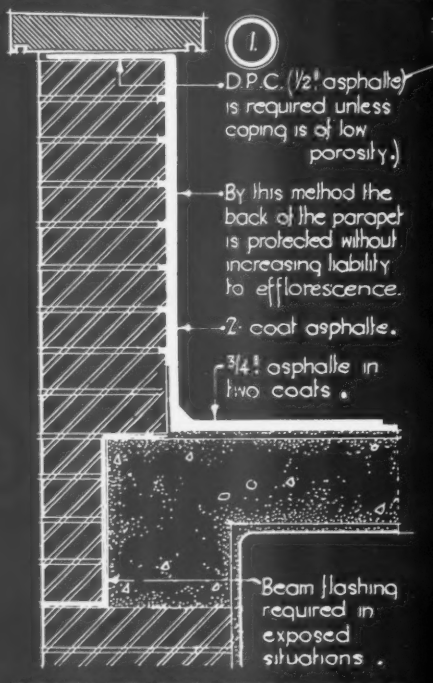
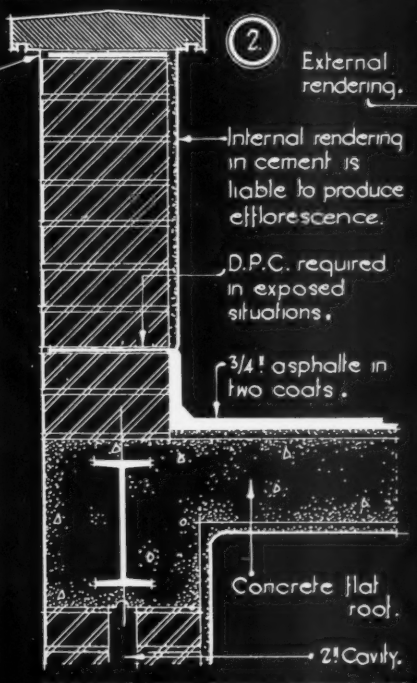
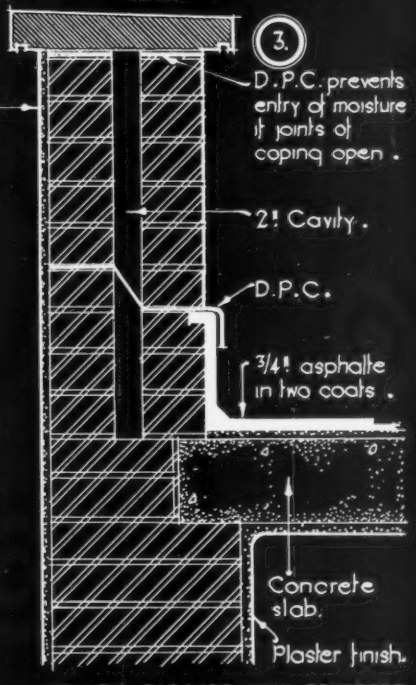
DETAILS OF ASPHALTE FINISHING TO PARAPET WALLS AND FLAT ROOFS : SCALE - 1" = 1'0" .



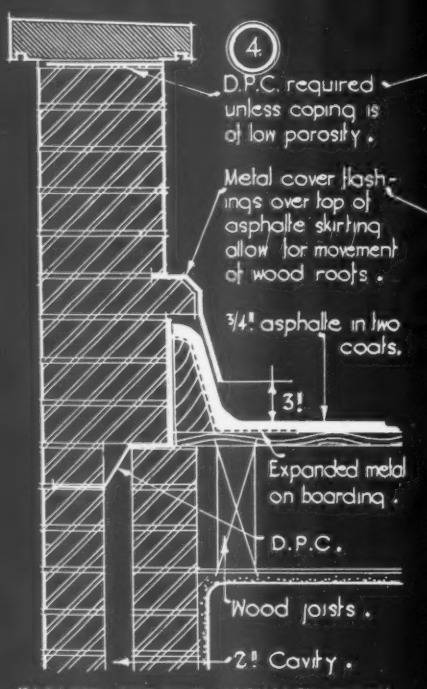
PARAPET WITH BRICK EXTERNAL FACE & ASPHALTE-COVERED INTERNAL FACE .



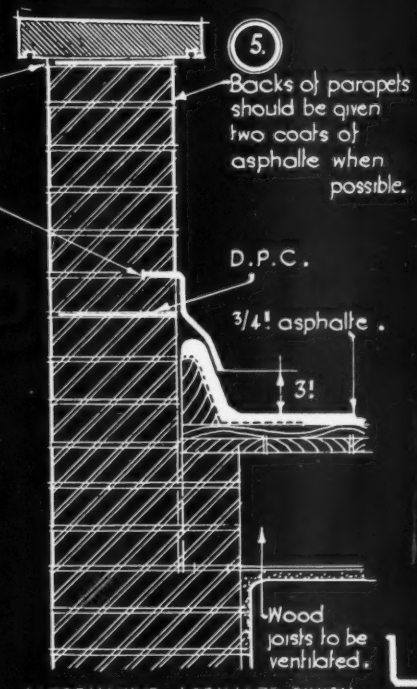
PARAPET WITH BRICK EXTERNAL FACE & RENDERED INTERNAL FACE .



HOLLOW PARAPET WITH RENDERED EXTERNAL FACE .



PARAPET SHOWING ASPHALTE FINISH ON TIMBER ROOF .



ALTERNATIVE ASPHALTE FINISH ON TIMBER ROOF .

ROOF ASPHALTE FINISHING ON SPLAYED CONCRETE LIP .

ROOF SLAB WITH ASPHALTE FINISHING ON TOP OF CONCRETE KERB.

SLAB WITH ASPHALTE FINISH CARRIED OVER KERB ON TO LEAD APRON PIECE.

ROOF ASPHALTE DRESSED ¾" BACK ON WELTED LEAD OR COPPER EAVES FLASHING.

NOTE : An insulating medium may be laid under the asphalte if required, but it should be noted that asphalte does not necessarily raise the temperature of the concrete.

Information from The Natural Asphalte Mine-Owners and Manufacturers' Council.

INFORMATION SHEET : THE WATERPROOFING OF FLAT ROOFS AND PARAPETS :
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Alan A. Bayne.

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INFORMATION SHEET
• 429 •
FLAT ROOFING

The details given on this Sheet are of finishing asphalte work to parapets and to flat roofs without parapet walls. The minor variations of these important details are numerous, preferences amongst specialists in asphalte work and amongst architects being based on individual experience and study.

These diagrams are therefore not necessarily standard methods, but they may be considered as recommendations of good practice based upon accumulated experience.

Damp-Proof Courses under Copings :

There is sometimes a tendency to regard the forming of a D.P.C. immediately beneath the coping as unnecessary.

In this connection, however, the following extract from a note contributed by the Building Research Station to the R.I.B.A. Journal (May 9, 1936) is of interest :—

"With many forms of coping there is the possibility that joints may open, which will allow moisture to enter the wall, and the use of reliable damp-proof courses immediately under the coping is to be preferred."

This statement referred essentially to parapets rendered on the face, but is applicable to all parapets. The necessity for a damp-proof course under a coping, the material of which is porous, is self-evident.

Details Nos. 1 and 2 :

These diagrams show forms of construction in which a protective coating is applied to the back of a solid parapet wall to prevent moisture penetration.

There is some doubt of the efficiency of the usual dense cement rendering for this purpose, owing to the possibility of the formation of cracks and owing to a tendency for the rendering to shrink away at the junction with the asphalte skirting, thus permitting damp penetration. The presence of the rendering compels all evaporation to take place at the exposed face and may increase efflorescence on this face.

The protective coating of two-coat asphalte work shown in Detail No. 1 is, however, not subject to any cracking or shrinkage, and provides a permanent weather protection which can be run in continuity with the D.P.C. under the coping.

All brick joints should be carefully raked out to provide a good key for the first coat of asphalte.

Detail No. 3 :

This type of parapet and waterproofing arrangement embodying a cavity parapet wall is recommended by the Building Research Station (R.I.B.A. Journal, May 9, 1936), for use where the external face of the parapet is to be rendered.

In this case, the rendering of the external face of the wall (for reasons other than the protection of the parapet) necessitates a different treatment from those for solid parapet walls. It is essential to prevent moisture soaking through the wall to the back of the rendering, and for this reason the cavity wall construction is recommended with a D.P.C. under the coping, and also a stepped flashing bridging the cavity and carried out over the top of the asphalte skirting.

Details Nos. 4 and 5 :

These two diagrams each show a method of finishing and flashing asphalte against a parapet, where the roof is of timber construction. The skirting or upturn of the asphalte is carried on a wood fillet fixed to the wood roof and standing free of the brickwork. The angle in the asphalte is reinforced with expanded metal. These two points of detail ensure that the asphalte is adequately supported at the angle and upturn, and will not be damaged by any movement which may take place between the timber construction and the brickwork.

The metal cover flashing should be brought down over the asphalte skirting and finished not less than 3 ins. above the roof level.

Where flashings are turned down over asphalte skirtings, it is recommended, in order to prevent capilliary attraction, that a clearance should be provided between the asphalte and metal.

Detail "D" :

This shows the asphalte dressing with lead or copper flashing on the edge of a concrete flat with an eaves gutter. The screeding is stopped to form a rebate into which the asphalte is turned, and kept back $\frac{3}{4}$ in. from the rounded edge of the flashing.

Roofs without Parapets :

The three details given are variations of treatment for roofs without a parapet or a high kerb. This finish is in favour at the present time.

Three general types are shown, two of which are good from a practical point of view, but of doubtful appearance, and the other of better appearance, but possibly not theoretically satisfactory in ensuring the best protection from the penetration of moisture.

Insulation of Roofs :

Where it is considered desirable to insulate the roof from the heat of the sun, an insulating medium may be laid under the asphalte. It is essential that in all cases there should be a layer of felt between the insulating material and the asphalte.

N.B.—Asphalte does not necessarily increase the temperature of the underlying concrete.

A copy of a Building Research Board Note on this question can be obtained on application to the N.A.M.M.C.

Laying Asphalte on Concrete Roofs :

Asphalte to be laid on concrete roofs should be specified to be laid on an underlay of felt or heavy building paper, and to be of two coats of a total thickness not less than $\frac{3}{4}$ in., the nature of the finishing coat being governed by the type of traffic, if any, to which the roof is to be subject. The underlay should be laid loose, not affixed to the concrete with an adhesive.

N.B.—Copy of a Note by the Building Research Station dealing with the use of felt, etc., under asphalte can be obtained on application to the N.A.M.M.C.

Asphalte on Wood Roofs :

Asphalte on wood roofs must be laid on a felt underlay, which should be carried up the wood fillet against parapets, the asphalte angle formed at the junction of the wooden fillet and the horizontal timber surface being reinforced with expanded metal.

Specification of Asphalte :

Asphalte manufactured according to the standards of the Natural Asphalte Mine-Owners and Manufacturers Council is delivered cast in the form of the Council's registered design bearing its Trade Mark, and the client is then entitled to a warranty given by the Council under seal.

Information from : The Natural Asphalte Mine-Owners and Manufacturers Council
Address : 52 Grosvenor Gardens, S.W.1
Telephone : Sloane 7902