THE ARCHITECTS' JOURNAL

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The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

THURSDAY, SEPTEMBER 1, 1938 NUMBER 2276 : VOLUME 88

PRINCIPAL CONTENTS

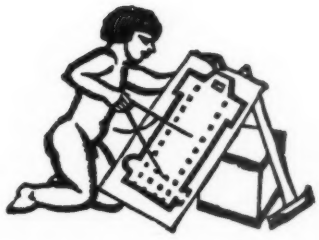
TWO SHOP SIGNS FROM SCANDINAVIA

FOR the considered ways of an earlier generation the barrels beneath the veranda, from which the quality of the goods themselves might be tested, were of greater moment than the sign on the stair ; and the sign itself in its deliberate reticence conformed with a fashion of neat white stocks, low-crowned tophats and tightly buttoned homespuns. From Oslo.

Against a cream travertine facing the Stockholm shop sign, by Professor E. G. Asplund, stands out in all the boldness of neon-outlined three-dimensional lettering. Display of goods is replaced by what may be called their abstract representation in architectural terms. The shop sign must speak above the din of German cars, British radios and American films:

THE GROWTH OF AN IDEA

Camping, for adults or whole families, was once one of the recreations of the comparatively few, and a scene like that in the lower photograph raised no problems. The present huge numbers of annual campers have, however, caused protests against the unsightliness and damage which assemblies of campers are creating in holiday districts. The upper photograph shows the sensible solution of large-scale camps—a permanent camp at Clacton for 2,000 people. This development, and the new architectural problems it raises, are considered in the article opposite.



THE ARMY UNDER CANVAS

IN the earlier nineteen-twenties—a period which seems now to have had many charms unmarked at the time—a certain number of adults were accustomed to spend their annual holiday in getting away from it all.

This summer a very much larger number may have been trying to do the same. But circumstances have changed.

In the unnerve-racked post-war summers those in search of space fell broadly into two groups. There were those whose peculiar hobbies demanded spacious surroundings in which to fall several thousand feet without third party insurance, or the smaller space needed to prevent fly fishing degenerating into tree climbing. And there were those who liked getting away for its own sake.

It is a portion of this second group whose subsequent history has been of such astonishing interest—that portion of open-air lovers who went nap ; and went under canvas.

Consider for a moment the position of these extremists in, say, 1925. Campers seemed then somewhat rare. By a Devonshire stream or in a Welsh valley there used to be one, or sometimes two, bell tents. To look at, or even to live in (if one had someone to do the cooking), those tents meant much that was precious, restful, re-invigorating. And in the night, when it rained—as one supposes a little resentfully that it may have done—and the wind rose to nine on the Beaufort scale, those splendid army bell tents remained where they were ; flurried, but overhead.

Much has happened since then in the world of the camper. To begin with, more campers appeared—swarms more campers. This in itself might have been forgiven by the old guard if their great traditions of camp fire, billycan and bell tent had been preserved. But they were not ; a zip-fastened and shorts-clad army of youth trampled them under exceptionally heavy-duty boots.

The younger brigade, or at least the newer brigade, took to new ideas wonderfully. Rapid movement, light-weight equipment, comfort in action, dispersion of target ; there was hardly a phrase known to *The Times* military correspondent which the new army did not take to heart. And none more so than mechanization.

As the manufacturers struggled for the pleasure of arming the newcomers at all points, the veterans enjoyed during the next few summers a respectable number of blissful moments. Every few miles a bogged trailer, two feet of bare leg projecting from a minimum tent or youths wrestling hotly with twisted hatpins and bits of string (called super-lightweight guys and pegs) showed that reorganization was proceeding smoothly and according to plan.

Those summers passed. Camping had begun as a pastime for a moderate number of people who wanted to do simple things by themselves ; it had become popular ; it had built up industries ; and by 1934 it had become something between a nuisance and a menace throughout all the pleasanter counties of Britain.

This menacing nuisance does, however, differ from others of its type. It is created very largely, not by those who will continue to create it unless rigorously prevented, but by those who would really much prefer to do something a little different and quite innocuous. This discovery has been made by people commercially interested in camping, who may be guaranteed to know what is what.

The passion for camping spread because it was cheap, a complete change from everyday life, romantic, and took place in the country. But of the very large number who embarked on camping holidays the very great majority had no appreciation of its less obvious pleasures. This majority did not want to be by themselves, did not like being three miles from shops, did not understand how to look after camping gear ; and the wives especially did not like cooking on unfamiliar contrivances with the children on top of them. (And who can blame them ?)

It has been amateur remedies for these popular dislikes—the "permanent" camp sites, the old railway coaches, and the crowding—which has led to most of the protests and the repressive action of local councils. The proper remedies have only been undertaken in a few places ; by private initiative and with enormous success.

These remedies — permanent, large-scale holiday camps—may not be everybody's cup of tea, but they are perfection to those nineteen out of twenty who want camping entirely without tears and with the best of good times for all. They have furnished open-air chalets, with electric light and h. and c. ; they have central dining halls, swimming baths and any amount of beach ; *and* a staffed nursery for the children.

The genuinely worried societies and individuals who are trying to preserve rural England and are horrified at what is happening to our coasts, have here a stage all set for victory. In their battles against speculative house development the catch hitherto has been that the public will not want what it ought to want. Here it *does* want what it should, but cannot get it.

Local councils will surely need only a little encouragement to set up, or encourage others to set up, a number of well-spaced, permanent camps which would be pleasing, popular and profitable.

Such camps would even be of great potential military value and in 1938, unfortunately, one can hardly say fairer than that.

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NOTES & TOPICS

A.R.P. AND TRANSPORT . . .

MR. H. V. LANCHESTER, writing to *The Times*, suggests that the London Underground system should be extended so that it will provide possible air raid shelters. No new idea, of course, but Mr. Lanchester has several very reasonable arguments in favour of it. Tackling the problem from the transport end, Mr. Lanchester maintains that surface transport is tangled up at focal points and that widening schemes are prohibitively expensive, and that the suburban lines don't take people to the end of their journey.

He visualizes therefore "a grid of tube lines with interchange stations at all crossings and combined with all the suburban routes" and maintains that the trains could be used for evacuating the civil population, or the stations themselves as air raid shelters.

*

Now it seems to me unlikely that Mr. Lanchester's suggestion will ever be adopted for its A.R.P. value alone, but it *may* one day arrive purely as a solution to the traffic problem. And judging by the way Mr. Pick is extending the tubes, it looks as though the traffic argument may win, with the A.R.P. side as a not unwelcome by-product. Let us hope it will not be too late a by-product.

. . AND A SCIENTISTS' SCHEME FOR ST. PANCRAS

While the Home Office keeps to lectures and anti-panic squads, the Science Commission of the International Peace Congress (which includes, amongst others, Messrs. J. B. S. Haldane and Bernal) has got out a plan for St. Pancras.

*

Why St. Pancras? Largely because it makes a good test problem. Three military objectives in Euston, St. Pancras and King's Cross; a crowded working-class population, and a well-to-do group with a fair percentage of open space. The scheme proposes country camps for children up to 14, mothers of infants, the sick, and all over seventy. Bomb-proof shelters for the rest would cost about £11 a head, and a shelter would be within 200 yards of everyone.

*

The country camp part of it seems not the least difficult problem. The design of shelters seems based very largely on the recent A.A.S.T.A. report published in the JOURNAL. One and sevenpence on the rates for four years may sound a lot, but something has apparently got to be done—once more, if there is time.

CORRESPONDENCE SCHOOLS

Elsewhere in this issue are printed two letters concerning my last week's note about correspondence schools; and there are others for which no space was available.

*

It was a little surprising to find that those who resented my remarks resented them very strongly. Mr. Julian White, for instance, of the International Correspondence Schools.

*

Mr. White's points are: (1) That I am trying to make trouble; (2) that as I do not know how correspondence schools work I should not express an opinion; (3) that the I.C.S. has had many successes in R.I.B.A. examinations; (4) that I imply that anything short of personal instruction in a studio can be of no use to an intending architect.

*

The original note appears in Mr. White's hands to become a more powerful piece of journalism than its actual statements justify. *My* two points were "that I find it difficult to believe that any form of tuition by post can possibly be as good as studio work with a good teacher," and "no one will object to the idea of a 'crammer,' by post or otherwise, for six months before the Intermediate or Final. Such intensive try-outs have been to my knowledge very valuable and extremely cheap."

*

I see nothing in this that is an unreasonable attack, and nothing that I want to withdraw.

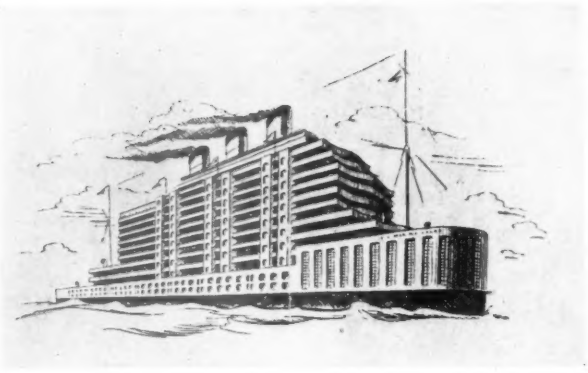
*

For those students out of reach of a good studio and teacher, correspondence courses may be very helpful, especially when, as in the case of the I.C.S., over 90 per cent. of the students are gaining practical experience simultaneously in architectural offices. I did not intend to imply that this was not so.

*

Moreover, the value of attendance at a school does depend upon the standard of the school. A letter from a young man attending an evening school makes this clear. Here are some extracts:

> For two years I have taken a recognized R.I.B.A. course at an evening institute.
>
> This year two evenings out of three we had a lesson called "Design." Given a print of a plan of a house we were told to draw the elevation in Georgian style. A modern house, mind you, in musty velvet and lace Georgian style.
>
> We drew our elevations assisted by the master, and after six weeks' strenuous labour they were all finished and pinned up. I couldn't tell mine from the rest. They were like so many prints of the same thing, with little variation in colour.
>
> This is, I am led to believe, theoretical training at its best and noblest. Here we have men instilling in the younger generation a love of beauty, individuality and truth.



If it were not the only way I have of getting into that select class called architects, I would tell the whole show to go to blazes. Only five more years. At the end of that time I shall probably be like my master, a civil servant, slow and lazy, all the time wondering what tomorrow's weather will be like, waiting for death or a pension.

*

The most interesting point, in my view, which has emerged from the correspondence is that a very large number of students preparing for R.I.B.A. examinations are either unable or unwilling to attend day or evening schools. The factors which have contributed to this situation would seem of considerable importance to the Board of Architectural Education.

NINE BELLS

My illustration is from a brochure issued by the Marine Court Hotel, at St. Leonard's, a design that also appears on the Marine Court restaurant menus.

*

Good idea, eh? I'll bet that stops people saying the place looks like a ship.

DRY WALLING

Newspaper accounts of the Peak and West Derbyshire Dry Stone Walling Association's competition at Flagg last week recalled my hiking days in the High Peak and Wapentake of Wirksworth, where even a wretched architectural student struggling to escape from it all could not fail to be impressed by the imposing straightness of those dry stone jigsaw puzzles of walls that seem, despite their loose appearance, to be remarkably permanent.

*

Many of the old walls were built by skilled freelances who went from farm to farm, putting up walls that have lasted sometimes without repair for seventy years. They charged, I believe, about 1s. 10d. a rood (which readers of the JOURNAL will probably require to know, is seven yards).

*

A rood is rather more than a day's work for the average waller, and would cost today, I suppose, anything from twelve to eighteen shillings.

*

The technique of dry walling is to start with your base of large stones, and then build up with a course of "throughs" (large flat stones that may project beyond the face of the wall without discredit), at each vertical foot. Your section may be some two-and-a-half feet thick at the base, in a five-foot wall, narrowing to perhaps a foot at the coping. It is a fine old country craft.

*

The "Peak and West" was won by a Corporation stonemason from Buxton.

THE PLANNING SCHOOL

I was very pleased to hear of the announcement concerning the Planning School, whose fate had been rather uncertain since the A.A. Council declared that they were no longer able to carry it on.

*

Mr. Yerbury appears to have collected a pretty comprehensive team of Vice-Chairmen. Proof, I should think, against almost anything.

*

With Mr. Rowse remaining as Principal, No. 7 Bedford Square should see the continuation of what seemed to most of us a thoroughly worthwhile experiment when the School was inaugurated under the, then, slightly more outstretched wings of the A.A.

NOW AVAILABLE

I have been looking through a new publication, *The Scottish Architect and Builders' Journal*, called into existence, it seems, because "Scottish architects have not been getting a square deal in the technical Press."

*

"Architects in Scotland," says the editorial a little cryptically, "know too much about each other and too little about . . . their work. The Empire Exhibition was perhaps the only occasion in recent times that afforded the opportunity of a general perspective of contemporary design in Scotland. The result was vaguely astonishing —taken either way."

*

I am afraid I don't know which way to take that.

HATS OFF TO MAJOR TRYON

Now that the idea of anti-germ-transmitting sloping glass screens in front of ticket boxes has been thoroughly tried out by London Transport (see any comparatively modern tube station), the Post Office is to see whether stamp-sellers get less colds behind the same device. You could, of course, just order by telephones across the counter, and then you could catch the previous visitor's cold direct off the mouthpiece instead of having it nicely incubated for you by the girl behind the counter. But let us not progress too quickly: glass slats will at any rate be better than the present grilles.

TECHNICAL QUERY

What does lead do to oak? I don't know the answer to this, but I see that workmen cleaning between the false ceiling and the roof of Manchester Cathedral are having to wear gas masks "owing to the fumes caused by the disintegration of the lead on the roof in conjunction with the oak timbering."

*

Quite new to me, unless I have been misled by daily paper reporting. The trouble is, of course, that I don't get enough cathedrals to build.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

THE ARCHITECTS' DIARY

Friday, September 2

TOWN PLANNING INSTITUTE. *At Marden Hall, Essex. Town and Country Planning Summer School. Until September 9.*

Sunday, September 4

ARCHITECTURAL ASSOCIATION. *Annual Excursion to Holland. Until September 13.*

SANITARY INSPECTORS' ASSOCIATION. *Annual Conference at Edinburgh. Until September 10.*

Friday, September 16

BUILDING EXHIBITION. *At Olympia. To be opened by Sir Philip Sassoon at 4 p.m. Until October 1.*

Thursday, September 22

INSTITUTE OF HOUSING. *At Norwich. Sixth Annual General Meeting and Conference. Until September 24.*

Friday, September 23

BUILDING EXHIBITION. *Olympia. Ball in aid of the Architects' Benevolent Society. 7.30 p.m.*

Friday, September 30

ARCHITECTS' REGISTRATION COUNCIL. *At 68 Portland Place, W.1. 26th Ordinary Meeting.*

SCHOOL OF PLANNING AND RESEARCH FOR NATIONAL DEVELOPMENT

Following on the recent announcement of the Council of the Architectural Association, that it was no longer able to carry on the school of planning, the Advisory Board has made the necessary arrangements to continue it under the Board's direction, at its present address, No. 7 Bedford Square, London, W.C.1.

The policy of the school will aim at giving a thorough and wide post-graduate education in planning, both local, regional and national, following upon the lines pursued in the previous year. Research work will form an important part of this training.

Mr. E. A. A. Rowse, A.R.I.B.A., A.M.T.P.I., A.M.I.STRUCT.E., has agreed to remain as principal.

The membership of the board is now as follows :—

Chairman : Sir Raymond Unwin, PP.R.I.B.A. PP.T.P.I. (general planning).

Vice-Chairmen : The Rt. Hon. Lord Horder, G.C.V.O., M.D., B.SC., F.R.C.P., D.C.L. (health) ; Dr. Thomas Adams, D.ENG., F.R.I.B.A., F.S.I., P.I.L.A., PP.T.P.I. (planning) ; Major H. E. Aldington, A.M.I.C.E., Divisional Road Engineer (London Division), Ministry of Transport (transport) ; *Dr. David Anderson, LL.D., B.SC., M.INST.C.E., representing the Institution of Civil Engineers ; The Rt. Hon. Lord Balfour of Burleigh, K.C., LL.D. (housing) ; Professor Ernest Barker, M.A., LITT.D. (sociology) ; Mr. H. Berry, A.M.I.MECH.E., J.P., chairman, the Town Planning and Building Regulations Committee, L.C.C. ; Sir Leonard Browett, C.B., C.B.E., K.C.B., representing the Institute of Transport (transport) ; Mr. L. H. Bucknell, F.R.I.B.A., representing The Architectural Association ; Sir Henry Bunbury, K.C.B., vice-president, The National Institute of Industrial Administration (communications) ; Mr. R. Coppock, general secretary, The National Federation of Building Trades Operatives ; *Dr. A. P. M. Fleming, C.B.E., D.ENG., director, Metropolitan-Vickers Electrical Company, Ltd. (electrical industry) ; Sir Gwilym Gibbon, C.B., C.B.E. (public administration) ; Mr. H. S. Goodhart-Rendel, P.R.I.B.A., representing the R.I.B.A. ; *Sir Alfred Hurst, K.B.E., C.B., chairman, the London Builders' Conference ; *Mr. J. E. James (industry) ; Dr. G. W. C. Kaye, O.B.E., M.A., D.SC., superintendent, Physics Department, National Physical Laboratory (scientific research) ; Mr. Percy W. Lovell, F.S.A., secretary, The London Society ; The Rt. Hon. Lord McGowan, K.B.E., LL.D., D.C.L., chairman, Imperial Chemical Industries, Ltd. (industry) ; *Mr. G. L. Pepler, PP.T.P.I., F.S.I., Ministry of Health, Town and Country Planning Division (town planning administration) ; *Mr. Frank Pick, vice-chairman, London Passenger Transport Board (urban transport) ; Mr. Howard Robertson, M.C., F.R.I.B.A., S.A.D.G. ; Major Leslie Roseveare, O.B.E., PP.T.P.I., M.INST.C.E., representing The Town Planning Institute ; Air-Marshal Sir John Maitland Salmond, G.C.B., C.M.G., C.V.O., D.S.O., D.C.L., LL.D. (airways) ; Sir Arthur Salter, K.C.B., M.A., D.C.L., LL.D. (economics) ; Sir Giles Gilbert Scott, R.A., PP.R.I.B.A., D.C.L., LL.D. (architecture) ; The Rt. Hon. The Lord Justice Scott, K.C. (law) ; Sir Jonah Walker Smith, M.P., M.INST.C.E. (employers and building industry) ; Mr. Louis de Soissons, O.B.E., F.R.I.B.A., S.A.D.G. (town planning) ; The Rt. Hon. Lord Stamp, G.C.B., G.B.E., LL.D., D.SC., F.B.A. (railways) ; Mr. Percy Thomas, O.B.E., PP.R.I.B.A. ; Mr. Christopher Turnor, (agriculture) ; *Mr. V. Watlington, M.I.E.E., director, The British Electrical and Allied Manufacturers' Association, Ltd. *Honorary Secretary and Treasurer : Mr. F. R. Yerbury, Hon. A.R.I.B.A.

At a meeting of the board, held on Thursday, August 11, a resolution was passed appointing an executive committee to control the School. The names of the members are marked with an asterisk.

The School will commence its academic year on Tuesday, October 4, 1938.

Applications for entry to the School to be sent to the School Secretary, at No. 7 Bedford Square, London, W.C.1, with whom arrangements for interviews with the principal can also be made.

VILLAGE HALLS

A memorandum issued last week by the National Fitness Council for England and Wales to the twenty-two Area Fitness Committees deals with the basis upon which grant-aid under the Physical Training and Recreation Act, 1937, will be available for village hall schemes.

The memorandum points out that the National Council of Social Service has, either direct or through a rural community council, aided schemes for the provision of village halls, and that over the past few years over 400 of these have been provided. It is further stated that many of these halls, while admirably suited to other uses, do not provide satisfactorily for physical training and the more active forms of indoor recreation. In order to facilitate the building, adaptation or improvement of halls in which such activities could be carried on effectively, the Grants Committee of the National Fitness Council for England and Wales is prepared to recommend grant-aid under the Act where, by the addition of such aid to that which is obtainable through the National Council of Social Service, a hall could be built which would provide for physical training and active forms of indoor recreation as well as for other purposes.

The National Fitness Council is considering grants for village halls works in close collaboration with the National Council of Social Service. All preliminary inquiries and requests for advice should be made in the first instance to the National Council of Social Service, 26 Bedford Square, London, W.C.1.

NATIONAL CONFERENCE, 1938

The eleventh National Conference for the Preservation of the Countryside, organized by the C.P.R.E., will be held at Chester from October 13 to October 16.

Details of the conference are obtainable from Mr. H. G. Griffin, Secretary, 4 Hobart Place, S.W.1.

WORK ON 45 STATIONS

Work is proceeding or is just about to begin on 45 of London Transport's stations. A contract amounting to £120,000 has just been signed for the lengthening of 13 additional platforms on the Bakerloo Line, making 30 platforms in all to be lengthened on this line. This will enable longer trains to be run—seven cars instead of six cars—when the extension of the Bakerloo Line to Stanmore is placed in service next year.

THE REDCAR COMPETITION

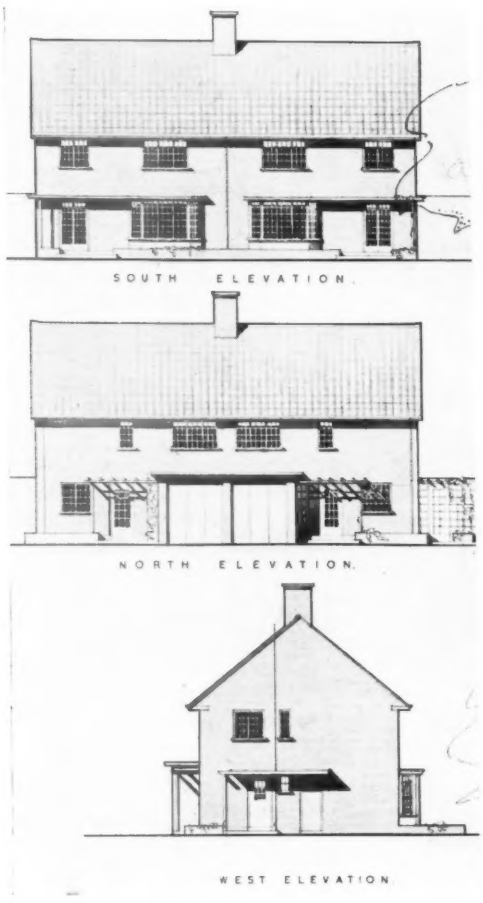
The premiated designs in the competition for the development of the "Stray," Redcar, were reproduced in our issues for July 21 and July 28; below we print the assessor's (Professor Patrick Abercrombie) report, which has just been received from the promoters of the Competition.

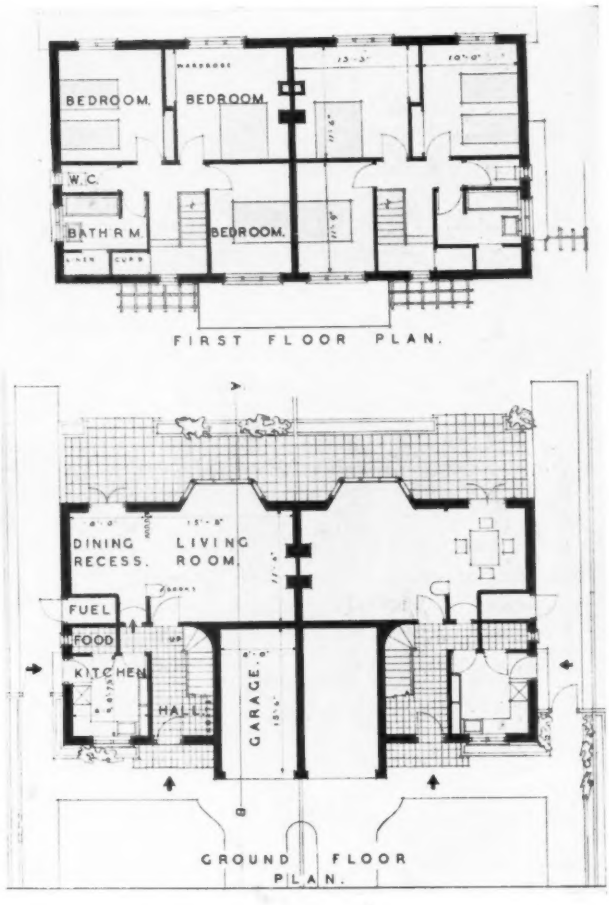
I have given very careful and lengthy study to your competition, and after selecting six schemes out of the forty submitted, I have now decided to award the first premium to design No. 29 (R. P. S. Hubbard), which I consider to be the best design submitted from an all-round point of view. I award No. 23 (B. Haward) the second premium, which is a design containing many conspicuous merits not the least of which is the attractiveness with which its features are displayed. The third premium I award to No. 36 (Cordingley and McIntyre).

It will be observed that Nos. 29 and 36 are both very similar in general disposition, being what might be described as axial schemes. No. 23, on the other hand, is an irregular plan containing many picturesque and interesting features.

I also wish to give special mention to designs Nos. 27 (D. Wyn Roberts and Thomas Sharp), 2 (D. W. Aberdeen), and 21 (H. Spence-Sales and John Bland), and generally congratulate the Corporation on the high standard of designs sent in for this competition. I hope it will be

COMPETITION FOR SMALL HOUSES, SURREY





WINNING DESIGN BY K. HART

Elevations and plans of the winning design in the competition for 20 houses to be erected on the Kingston By-pass. *(See Competition News on page 352.)*

possible to exhibit the whole of the designs in London.

I would like to add that in this competition which contains so many diverse features, it has been found impossible, apparently, by any of the designs which I have put in the first class to avoid some minor transgression of the requirements, although these were kept intentionally as loose as possible. It is clear in my mind that all such schemes would require some modification before being erected, but I am convinced that none of the minor departures that have been made are such as to have given an advantage to the competitor in his design.

EXHIBITIONS

[By D. COSENS]

ALL the picture galleries that are still open are having mixed exhibitions, mostly lasting until the end of September. The idea is excellent and should give grand opportunities for a survey of contemporary work; but unfortunately in nearly every case a safe mediocrity is the standard, leavened perhaps by a sprinkling of the work of such accepted masters as the galleries happen to have on hand. The notable lack of originality is particularly unfortunate as one imagines that these shows are largely organized for the benefit of provincial visitors, the very people who, because they have few opportunities of seeing new paintings presumably want to know what is being done. The work shown is mostly good of its kind, some of it very good, indeed, but paintings in which the interpretation is in any other terms than those of exact realism are, for the most part, avoided.

The Lefevre have one of the best collections. In addition to the catalogued paintings there are three very fine and sensitive Modigliani's, and three paintings by Derain, an artist who somehow missed by a very small margin becoming one of the foremost of his generation. In comparing these relatively early and quite recent works of his the reason becomes apparent. There is an excellent portrait by Wyndham Lewis, "Froanna" (40), and "Sussex Landscape," by Duncan Grant, Frances Hodgkins' colour is as good as ever, but sometimes it is not, in itself, quite enough, and the paintings of Ivon Hitchins, so largely inspired by her work, become vaguer and more nebulous in form as time goes on. Winifred Nicholson's "Flowers, Twilight" is charming in a slightly superficial way; Aldridge, Hawthorne and Steggles are showing good straightforward work, not perhaps very experimental or inspired, but sound; and Le Bas remains versatile and indecisive, good failings up to a point. In Walter Goetz we have the backwash of Christopher Wood, and in his "Cumberland Landscape" Christopher Wood at his best and least mannered.

At the Redfern are several of the same painters, but this time a very successful Frances Hodgkins, "Cut Melons"; one of Augustus John's finer portraits; a magnificent Sickert, "The New Home"; both Lucien and Camille Pissarro, and a number of other pleasant works.

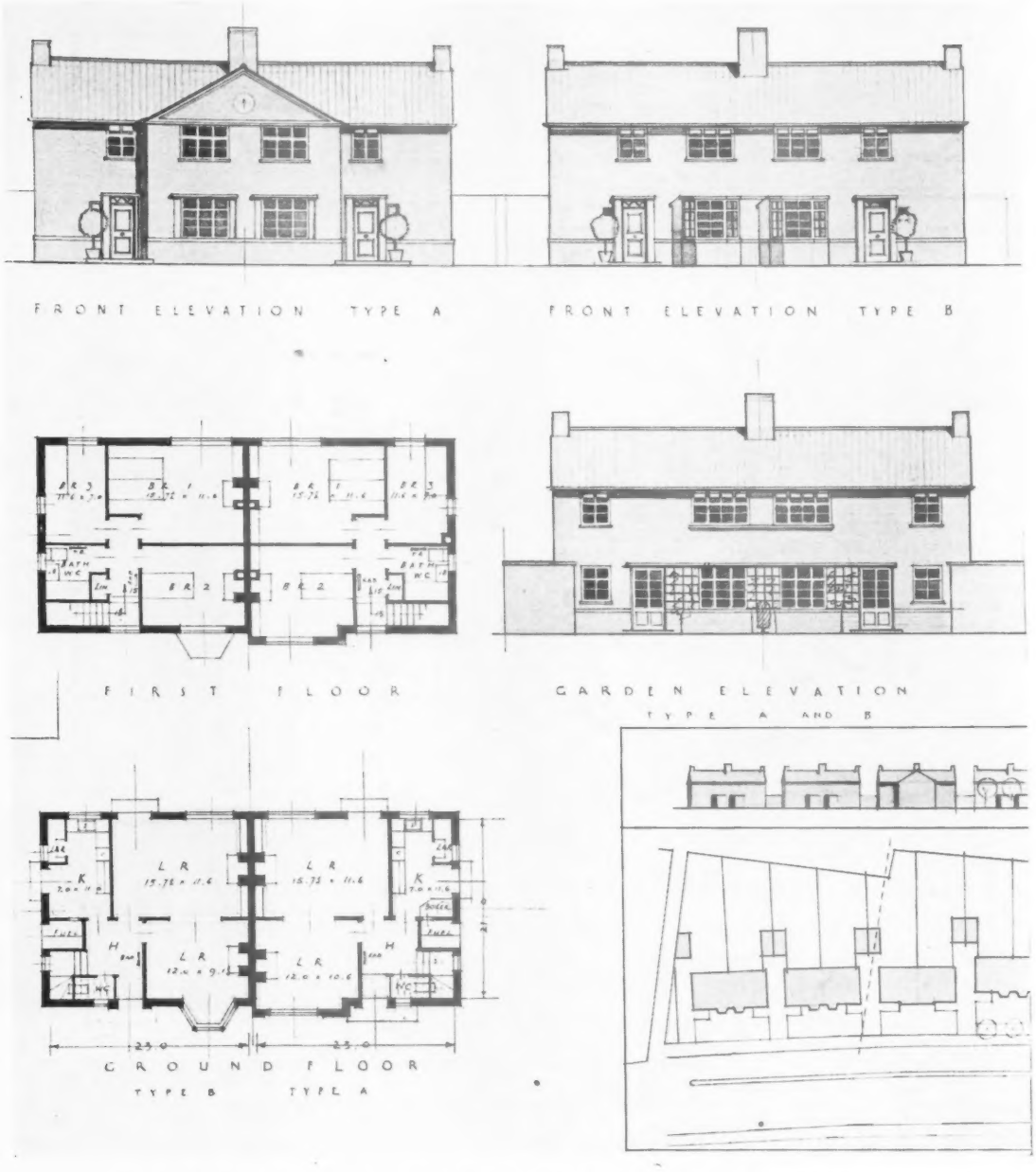
Zwemmer's have an intelligent show which is well worth seeing, particularly for some of the Picasso drawings, a very fine Vlaminck landscape, Meninsky's "Bathers Resting," two paintings by Filippo de Pisis, and Elmslie Owen's "The Conch," with its pleasant textures and harmony.

At both Tooth's and the Wildenstein the Old Masters, and the eighteenth- and nineteenth-century drawings completely eclipse the contemporary work which is very average at the best. Two small paintings by Crome and one by Richard Wilson at the former, and drawings by Ingres, Van Gogh and Degas at the latter, are outstanding. Van Gogh's drawings are particularly interesting in their strong definition of form and pattern without colour.

Summer Exhibitions

Lefevre Gallery, 1A King Street, St. James's. Until September 30.

COMPETITION FOR SMALL HOUSES, SURREY



DESIGN PLACED SECOND: BY D. F. MARTIN-SMITH AND JOHN GREY

Redfern Gallery, 20 Cork Street. Until October 1.

Zwemmer Gallery, 26 Litchfield Street. Until September 17.

Tooth's Gallery, 155 New Bond Street. Until the end of September.

Wildenstein Gallery, 147 New Bond Street. Until the end of September.

COMPETITION FOR 20 HOUSES, MALDEN, SURREY

As announced in last week's issue, Messrs. Louis de Soissons, C. H. James and Norman Wates, assessors of the competition for the design for 20 houses to be erected on the Kingston By-Pass, at New Malden, Surrey, announced their award as follows: First, K. Hart, 21 Cannon Street, Sherwood, (Student, R.I.B.A.). Second, D. F. Martin-Smith and John Grey, F/A.R.I.B.A., 5 Bloomsbury Street, W.C.1. Third, George A. Rose, F.R.I.B.A., "Southover," Chelsfield Hill, Chelsfield, Kent. Designs commended: Cyril Sjostrom, A.R.I.B.A. (two schemes), and P. J. Westwood and Sons.

The designs placed first and second are illustrated in this issue. Below we print extracts from the assessors' report:—

The response to the invitation to submit designs in the above competition was very good indeed. Approximately 170 designs were received, several of them of a high standard. Many competitors, however, who produced designs of great merit, failed to visualize in the least the mode of life or the taste of the persons to whom the houses would have to be sold, and ignored the second clause of the general considerations in the Conditions which read as follows: "It should be noted that the houses are primarily to be built for sale and that the designs are to be a study of the factors which should make the scheme a financial success."

The competition was promoted with the object of affording the architectural profession an opportunity of collaborating with a firm of builders in producing a type of small house which would represent an advance on the contemporary standard of "speculative" design.

In general, the assessors feel that complete success has not been achieved, and they are therefore disappointed that a competition so widely advertised should not have proved more conclusively the usefulness of the architectural profession to the speculative builder.

To take a few instances of the way in which competitors failed to visualize the mode of life of the prospective tenants, many designs had back doors facing one another across an open common drive-way, with no possibility of screening dustbins or washing: and there were frequent cases of bedrooms looking into one another at very short range. The ground-floor water-closet, even in the design placed second—and in numerous other cases—had its window immediately beside the front door; and there were a number of designs in excellent taste which the promoters would have had the utmost difficulty in selling, owing to their extreme austerity.

No. 139 (K. Hart).—This is an extremely simple scheme which, while it should make an appeal to the general public, at the same time suffers nothing thereby in architectural quality. Its author is one of the very few who made the garages an integral part of the house without thereby spoiling the front elevation, thus making a really spacious first floor possible. One of the few faults in the plan is the curtailing of the dining recess by the insertion of a large fuel store. Fuel can be more economically stored in an external bin.

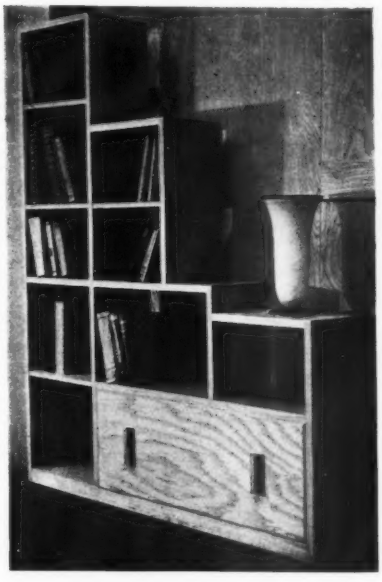
The layout is unimaginative, and the promoters, if proceeding with the scheme, will require the competitor to design an additional type in which the garage is external to the house and can be omitted if desired. It is also their opinion that, in spite of the aspect, a number of the houses should have a sitting-room looking towards the road.

No. 64 (D. F. Martin-Smith and John Grey).—Subject to the criticism of the position of the water-closet already mentioned, this is one of the best plans submitted. The elevations, both front and back, are simple and attractive. The roof pitch is a little too flat for pantiles—a mistake which could easily be rectified. The kitchen is not too well planned and has the fault of the door facing that of the neighbouring house across a 10-ft. common drive. The garages, as placed, would be extremely difficult to get into, and impossible to get out of with any but the very smallest cars. Good points are the large amount of living-room accommodation, the very neat square hall and the excellent bedroom-plan.

No. 169 (George A. Rose).—This competitor has given the scheme more thought than any other. The grouping is admirable, but, from the point of view of selling the houses, the rather elaborate layout in front of them would be out of the question, and the promoters would probably find themselves saddled with its upkeep.

The drawings are beautifully presented and the plans, generally speaking, are good. The sitting-room accommodation, however, in some of the plans is very limited, and we question the wisdom of so many pairs of double doors, which would leave but little space for furniture in either of the sitting-rooms.

The elevations would doubtless attract purchasers, but would be very expensive to build. The garages are neatly arranged, and their omission in certain cases would not spoil the scheme.



Above, bookcase in ash with ash panelling behind.

THE UNKNOWN TIMBERS

BY

N. C. STONEHAM

IF any one were to ask an architect what opportunities there are for using English timbers either decoratively or structurally, he would most probably answer, "None." Pressed as to why he says "None," he would say, "Because there aren't any." Remind him of the woods and trees that still, literally, cover England; remind him of the New Forest, Savernake Forest, the woods in the Chilterns, and the hundreds of other woods he and all of us know, and his reply is, "But they are TREES."

And there we have the crux of the argument. England produces no timber, only trees.

Lest this be thought a fanciful conception of the architectural mentality, let me say straight away that it is based on many conversations with architects during the past year, conversations which, like mass observation, were designed to find out what they thought. The trouble actually goes much deeper than is apparent on the surface. The publicity, both paid and unpaid, that has been lavished on foreign timbers has entirely obscured English timbers and driven them out of the architects' minds. Added to which has been the mass of rather sentimental photographs and newspaper articles showing "our great national heritage, the beautiful countryside of England," so that the thought of cutting down our trees and using the timber from them has been relegated to the realm of sacrilege and vandalism.

Truly, sentiment and forgetfulness has caused us not to see the woods for the trees. All of which lays me open to cries of "Bosh, Rot. What about English oak and walnut? We're not as ignorant as you try to make out. We know all about oak and walnut." "Well," I reply, "Go on. Oak—walnut and——?"

But there the list ends. Suppose I was to say that there are about twenty trees capable of being used architecturally, all growing in our English countryside, all of which, if they are not cut down and their timber used, will die and fall down, rotten, while we go on using and buying foreign timber, what would be the response? Blank incredulity, or else the rather lofty air of "Supposing that the trees are there all right, but not in commercial quantities."

And there we have it. "Not in commercial quantities." I am quite willing to admit that the neglect of the wealth inherent in our "tree-crop" during the past sixty years has been such that many of those which yield the richest timber, from the decorative point of view, are beginning to die out. Only recently, by the efforts of the Forestry Commission, has this wastage begun to be checked.

But even so, admitting that we have not all the trees we might have, there are still plenty to use, without any fear of shortage, and plenty to keep any one who is interested in producing really beautiful effects happy for years.

First of all, there is elm. Nobody is going to suggest that there are not sufficient elms in England. There are many thousands of them—red, Dutch or wych. Yet how often do we see elm decorating our houses, offices or municipal buildings. "Oh, you can't use elm for house work" is the usual reply from one who does know something about woods.

Two examples of joinery in elm which can be seen at the Building Centre. Above is a range of elm cupboards and framing. Below, a desk in elm with English walnut top.

Well, the Forest Products Research Laboratories made the same famous reply as the sea-sick passenger made to the steward, and did. For six years now, elm panelling has boxed in the *radiators* of their board room, and if there is a tougher test for any wood than that, I should like to know it.

Elm, with its bold, striking grain-markings and beautiful mellow colouring, is one of the most glorious woods obtainable. It is not what I should call a "lady's wood," like sycamore. Its grain is far too strong for that, but for a bold effect in the hands of one prepared to work within, and to make the most of, the limitations of the medium, it is unrivalled. Cream, red or deep brown, and all the multitudinous variations in between, are the colours elm offers, and, with its grain, what more can anybody ask of a wood? If more be indeed asked, let anyone regard the figure of quarter-cut elm and spend a few pleasurable hours thinking of what he could do with it.

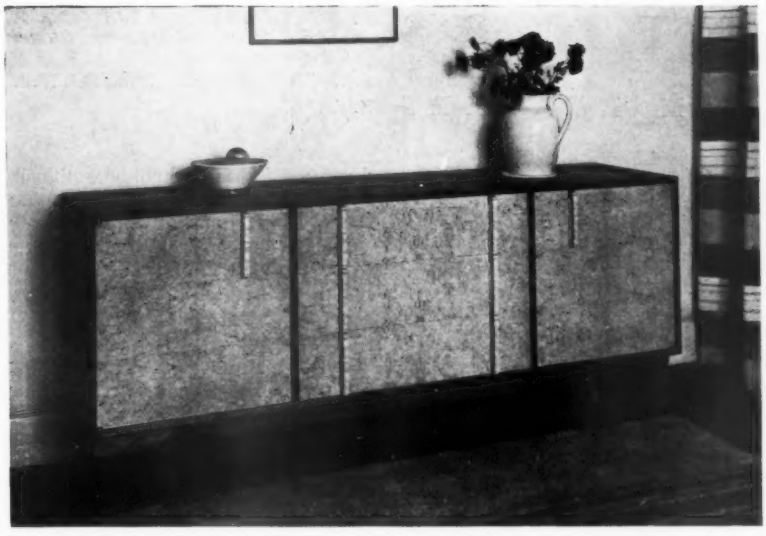
Next, ash. "Whoever heard of using ash in a house?" That's just it. Whoever did? Whoever heard of using Canadian red birch, until it was given the pet name of "Betula" (and Betula, for the benefit of the unbotanical, is only the Latin name for birch)? Call ash by any name you like, and it still remains a glorious wood. Again, with strong markings, brownish on a creamy white, ash can give life to any room in which it is used; while, used as a piping to contrast with darker woods, it can be really magnificent.

Recently, while inspecting a joinery works in Bath, I was shown some of the most beautiful ash veneers I have ever seen. The tree had been cut through and through, and while the outside, or sapwood, was still cream coloured, the heart had become diseased and had gone brown. Oh, to have been able to have got my hands on that tree and to have used it for matched panelling! The possibilities that were inherent in it made me itch.

In passing, a few blessings may be called down upon the gods of trees for their diseases. So often the disease transforms the tree from something of just ordinary value into something of priceless beauty. Burrs are an example, for they are the tree-gods' efforts to make good afflictions and may be likened to the scar-tissues of our own bodies. Brown oak, so greatly prized by some, is another disease, caused by fungus. The wood is not affected, either in structure or durability. Only its colour is changed.

And who has ever seen olive ash? The rarest and the most lovely of all ash trees. This, again, is a disease, and a rare and very highly-prized one. Water sometimes penetrates the tree

A sideboard of English walnut with doors in root ash veneer.



and turns its wood a greeny brown (or browny green) reminiscent of large Spanish olives. Whoever cuts that tree up for anything other than its use in the most exquisite furniture or panelling deserves roasting, very slowly, over a fire built of it.

The beech, or shall we give that its Latin name of *Fagus* to make it popular? Is anyone going to say that our chalk hills have not sufficient beech trees to suit all comers?

Beech is not a strongly marked wood, but neither is mahogany in many instances, yet beech, used naturally in its yellow-cream colouring or stained (and it will stain and polish to almost any colour one could want) is a wood entirely neglected by architects. "Oh, that's the wood they use to make cheap chairs of." Yes, that's the wood. The wood that time and use have mellowed to a rich deep brown in the old country-made "wheel-backs"; the wood that dealers and collectors have ransacked every pub and farmhouse in my own childhood playground of the Chilterns to find articles made of it. That's the wood that the builders have neglected, and now is to be found in the corner of many a modern home—at a price.

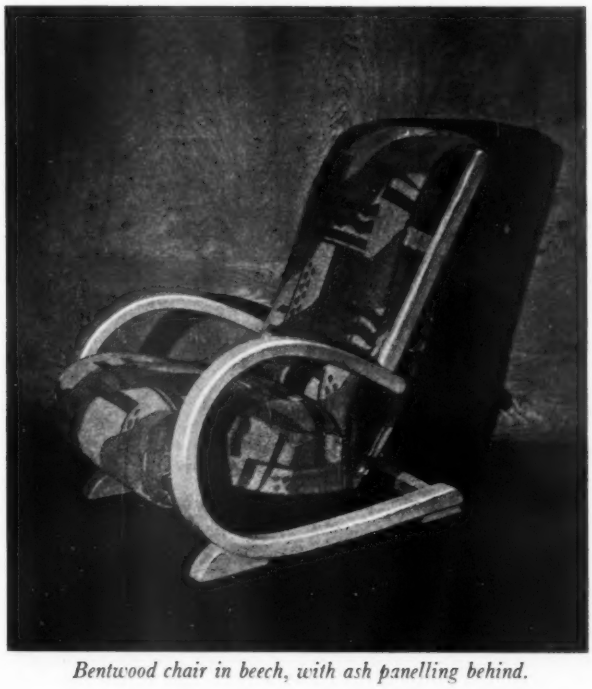
And quarter-cut beech, with its delicate, lace-like figure, silvery flakes against a darker background, who uses it? Who spends hours matching panels of it so as to work out a design? Yet, quarter-cut beech offers the opportunity for endless designs, once it is forgotten that "cheap chairs" are made from it.

And so the list can go on. I haven't mentioned oak or walnut. There has been no need to. Right through the alphabet, from acacia to yew, are woods from which, with right treatment of each, fresh beauties can be discovered and, incidentally, a home industry to the value of many millions of pounds, supported.

The go-ahead, modern furniture designers have not been so neglectful of English woods as have architects. One has turned out some wonderful pieces in English woods. Nor does he use just one wood alone, but combines them and uses the strength of one colouring in one to "point up" the beauties of another—sycamore with walnut, fiddle ash with brown oak, cherry and elm. His reward has been to turn out some of the most beautiful furniture since the days of Sheraton.

And, if furniture designers can do it, why not architects? If there be any still in doubt that it can be done, let them look at the office of the Timber Section in the Building Centre. There in panels are to be found eighteen woods, many of them in different sawings, to suggest possibilities to the fertile minded and the imaginative, and, let it be whispered, all the styles of the panelling are of elm. So is the desk—elm and walnut.

"You can't use elm." "Oh, can't you!"



Bentwood chair in beech, with ash panelling behind.

LETTERS FROM READERS

E. JULIAN WHITE, A.R.I.B.A., M.R.S.I. (Head of the School of Architecture, International Correspondence Schools)
L. STUART STANLEY, M.A., F.R.I.B.A.
A. LEVEY

Correspondence Schools

SIR,—My attention has been drawn to some comments by one signing himself Astragal, published in last week's issue of THE ARCHITECTS' JOURNAL. Having said openly that in effect he does not know anything at all about correspondence schools, he proceeds to air his views upon the subject of correspondence tuition for R.I.B.A. Examinations.

Whilst the International Correspondence Schools, and I personally, do not care to enter into controversy, it is felt that comments such as those made by Astragal can hardly be allowed to be made without some protest.

Astragal's object in making such comments may be to stir up controversy and to encourage correspondence, but I feel that comments which are definitely ill-informed and which may well have a very damaging effect upon reputable correspondence schools should not be published. We have so often found that criticism of the methods adopted by certain of our contemporaries unfortunately reflects upon our own methods.

The School of Architecture in the I.C.S. has prepared and is preparing large numbers of candidates for the Intermediate and Final Examinations of the R.I.B.A., in addition of course to candidates for the examinations conducted by a number of similar professional institutions. The School has been most successful with its R.I.B.A. examination courses, and we can show a list of successes that could hardly be bettered by any of the large universities or other schools of architecture. I take exception particularly to one passage of the comments, that is the one in which Astragal states that he finds it difficult to believe that any form of tuition by post can possibly be as good as studio work with a good teacher, thereby implying that correspondence teachers cannot be good teachers, and indicating that anything short of personal instruction in a studio can be of no use to an intending entrant to the profession.

I cannot imagine how Astragal could account for the continued successes of our students not only at the examinations but in professional work. In view of the nature and tone of the comments, and the fact that as I have said Astragal admits he knows nothing about the subject, I would like to say in conclusion that I should be delighted to meet the gentleman at these schools at any time to suit his convenience. The hours during which the School of Architecture is open are from 9 to 5.30, though the school is not open on Saturdays.

Looking forward to the opportunity of seeing your comment writer in the near future.

E. JULIAN WHITE

SIR,—I am very interested in Astragal's remarks concerning correspondence tuition for the R.I.B.A. Examinations, which appear in today's issue of the JOURNAL, more particularly because I am the Tutor in the Bartlett School of Architecture (London University), and because I have been preparing students for some years past for the R.I.B.A. external examinations.

I agree absolutely with Astragal's remarks; for a student to rely solely upon correspondence tuition (especially in architectural design) for his whole theoretical training would be a policy quite wrong in principle and in fact—he would soon find this out at the oral examination.

It is interesting to be told that one correspondence school, for a matter of £10 or £12 in fees, gives all the tuition required to pass the examinations, guarantees this, supplies all necessary books and instruments and refunds fees if the student fails. I should be very interested to hear more about this offer.

L. STUART STANLEY

Working Details

SIR,—I was interested in the construction of the house at Sevenoaks (Walter Gropius and E. Maxwell Fry) shown on Working Details 675, in your issue for August 18.

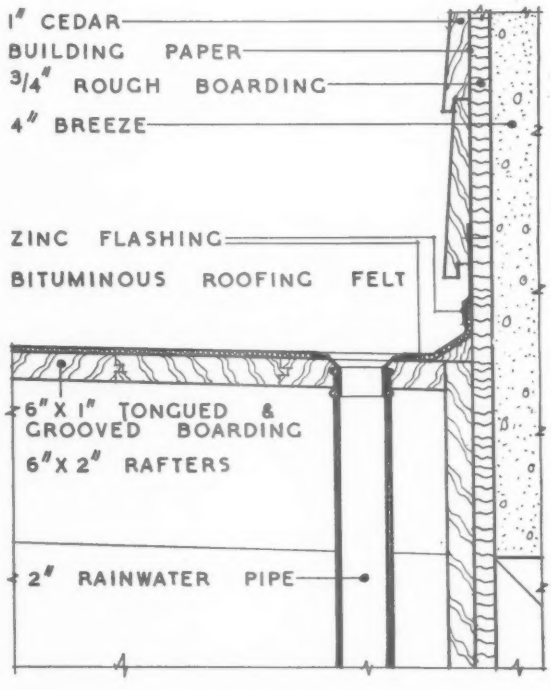
In the photographs, there appears to be a rainwater pipe at the right-hand side of the doorway, but in the drawings it is not shown. I presume it is omitted in order to detail the construction of the canopy more clearly.

I should have liked to know how the outlet for rainwater from the canopy is arranged, and whether the zinc flashing is turned up against the weatherboarding on the house wall.

Perhaps other readers would be interested, too.

A. LEVEY

[*A detail of the construction at the point mentioned is shown below.*—Ed. A.J.]

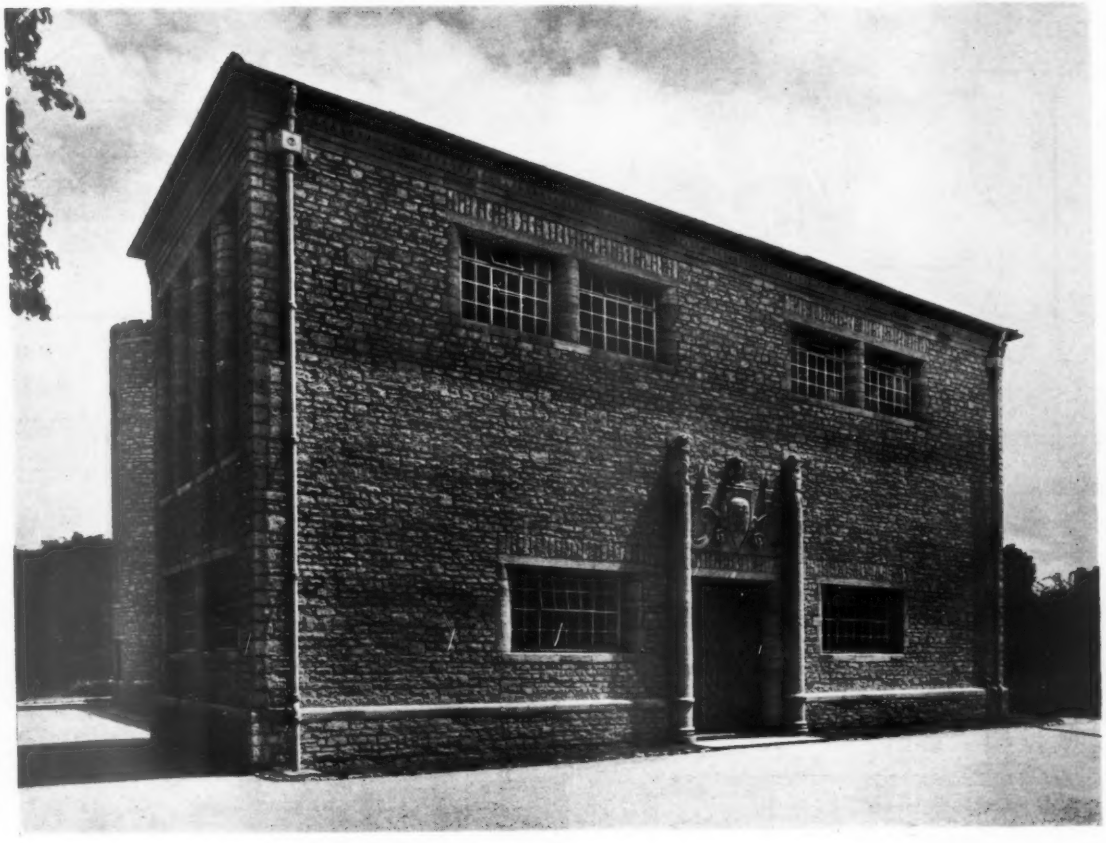


Right, the method of drainage of the canopy of the house at Sevenoaks, a detail drawing of which was published in our issue for August 18. See letter above.

INTERNATIONAL BUILDING CLUB

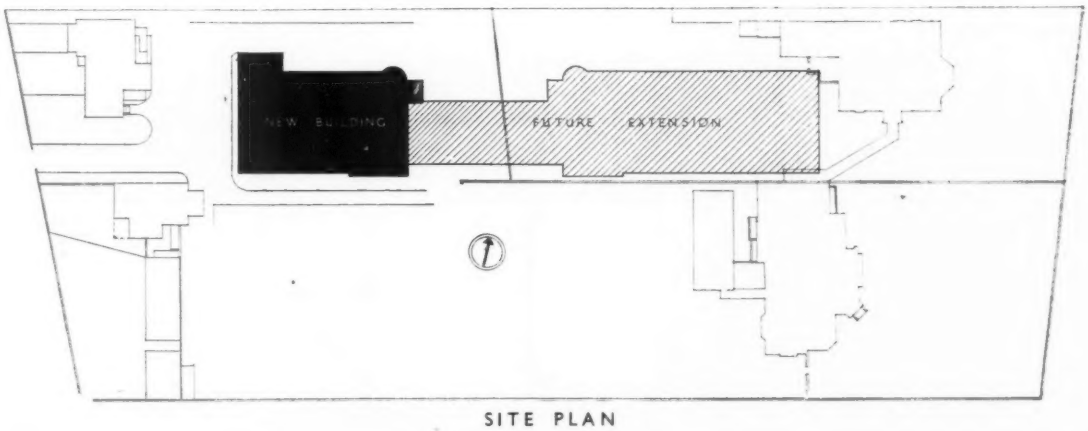
The International Building Club, of which Sir Harold Bellman is the president, is to open on or about October 10. The headquarters of the club are at 141 Park Lane, London, W. We are informed that the membership of the club is now well in excess of 1,000, which figure is composed of some 400 town members and 600 country members (i.e. those residing outside the Metropolitan Police area and having no office address within that area). In addition, there are approximately 200 overseas members. Full details of the club may be obtained from the secretary, Mr. Lionel J. Lawler, at the club's headquarters.

NEW BUILDING, SOCIETY OF OXFORD HOME STUDENTS



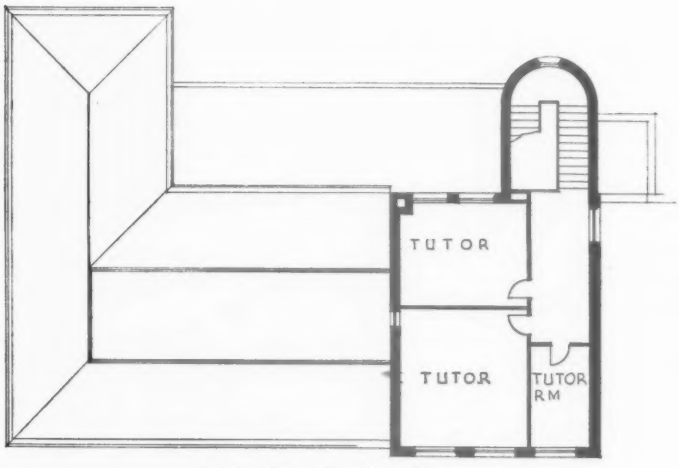
DESIGNED BY SIR GILES GILBERT SCOTT, R.A.

GENERAL—*This block, which represents the first section of the new building for the Society of Oxford Home Students, stands on a level site, lying between Woodstock Road and Banbury Road. When completed the building will extend to some three times the size of the present unit.*
Above, a view of the west entrance front, showing the sculptural qualities of the door surround in relation to the unbroken surfaces of walling.

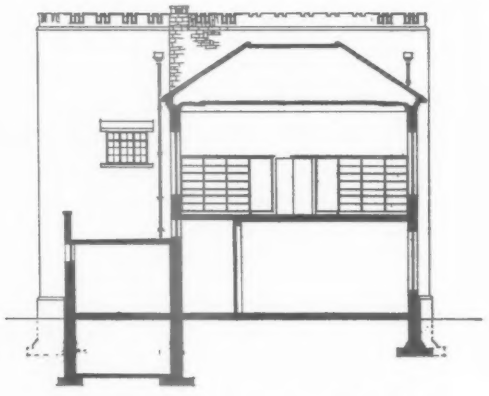


SITE PLAN

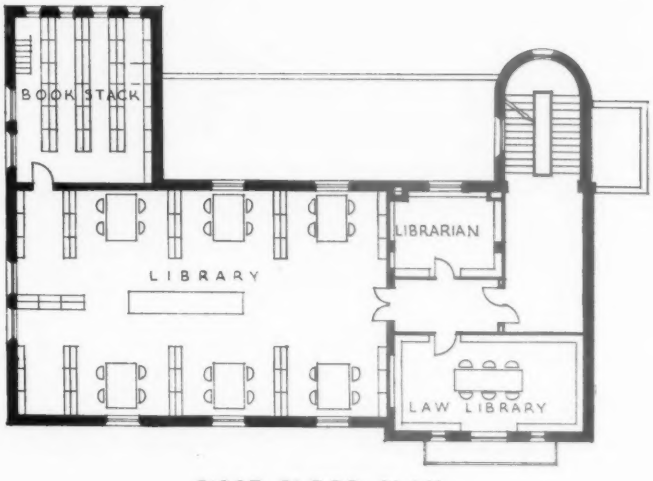
NEW BUILDINGS, SOCIETY OF OXFORD HOME



TOP FLOOR PLAN

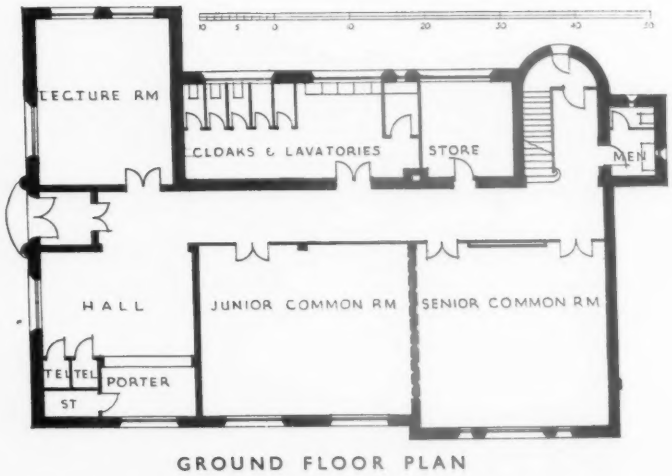


SECTION THROUGH LIBRARY LOOKING EAST

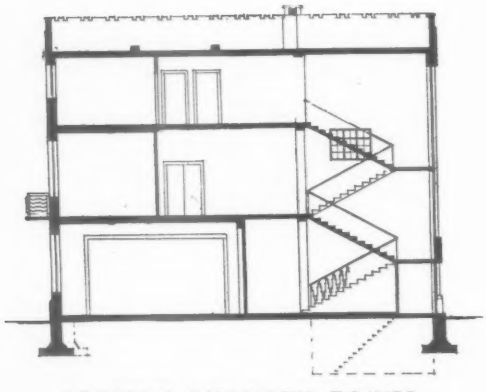


FIRST FLOOR PLAN

PLAN—*On the ground floor the accommodation consists of the entrance hall, senior and junior common rooms, lecture room and lavatory accommodation. The first floor is devoted entirely to the library accommodation, consisting of the main library, the law library and the stack room, together with the librarian's room. There is a second floor, which extends over only a portion of the block and contains three tutors' rooms. In addition, there is a small basement, in which is situated the heating-chamber, etc., which will eventually serve not only the block here illustrated, but also the remainder of the scheme. When the scheme is completed, the existing houses on the site will be demolished.*

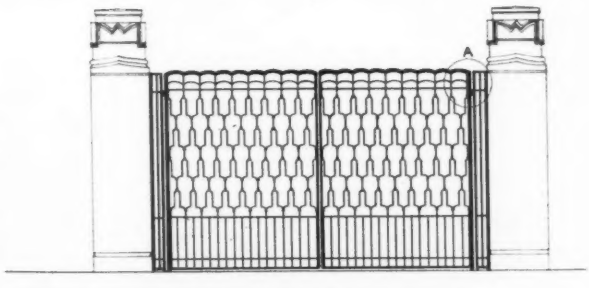


GROUND FLOOR PLAN



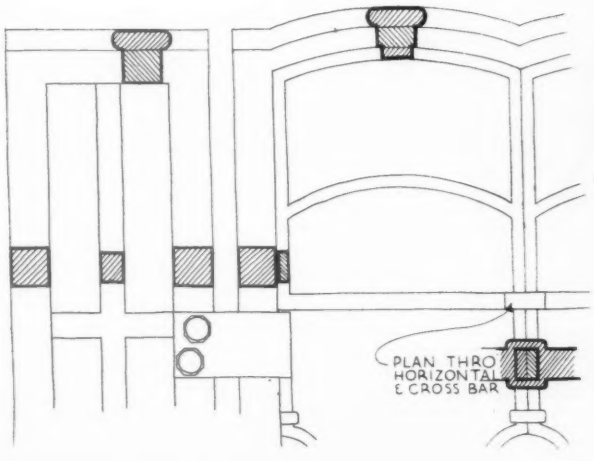
SECTION THROUGH TOWER LOOKING WEST

STUDENTS: BY SIR GILES GILBERT SCOTT, R.A.



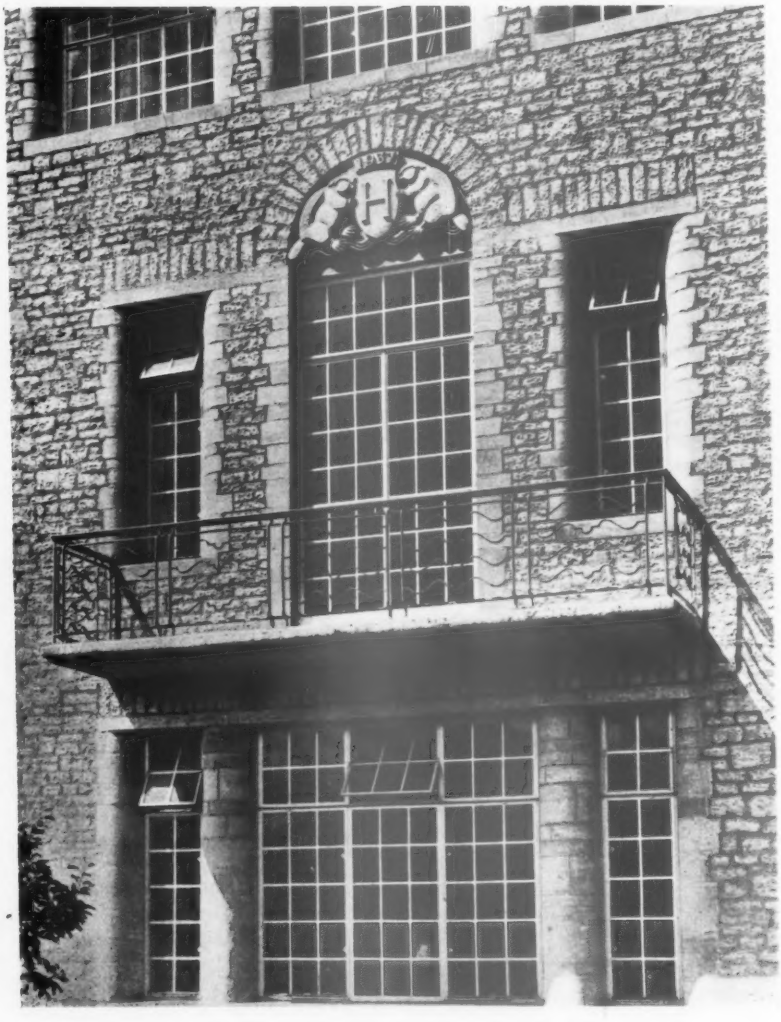
EXTERNAL FINISHES—*The building is faced externally with Bladon stone, in random-coursed rubble, with dressings of Clipsham stone, while the roof is covered with Cotswold stone slates, laid in graduated courses.*

Above, the main entrance on the west elevation showing the sculptured symbolic features over the doorway. Right, drawing and photograph of the wrought-iron entrance gates, a detail of which is reproduced below.



NEW BUILDINGS, SOCIETY OF OXFORD HOME STUDENTS

DESIGNED BY SIR GILES GILBERT SCOTT, R.A.



INTERNAL FINISHES—*The principal rooms on the ground floor have oak dadoes, the walls above being plastered. In the main library, on the first floor, the walls are panelled in oak to the height of the bookcases, which are of the same material. The bookcases and cupboards in the law library and the librarian's room are also in oak. The staircase is finished in terrazzo, and has wrought iron painted balustrading, with a handrail of ebonized wood. The stack room is to be regarded purely as a book store, and here steel shelving has been employed. This department has only been partially fitted up for the present, with a view to later additions.*

Above, left, the side elevation; above, right, the library; left, a detail of the side elevation.

The general contractors were Benfield and Loxley. For list of sub-contractors see page 377.

WORKING DETAILS : 679

SIDEBOARD • DINING ROOM, HOUSE AT FAWLEY • CHRISTOPHER NICHOLSON

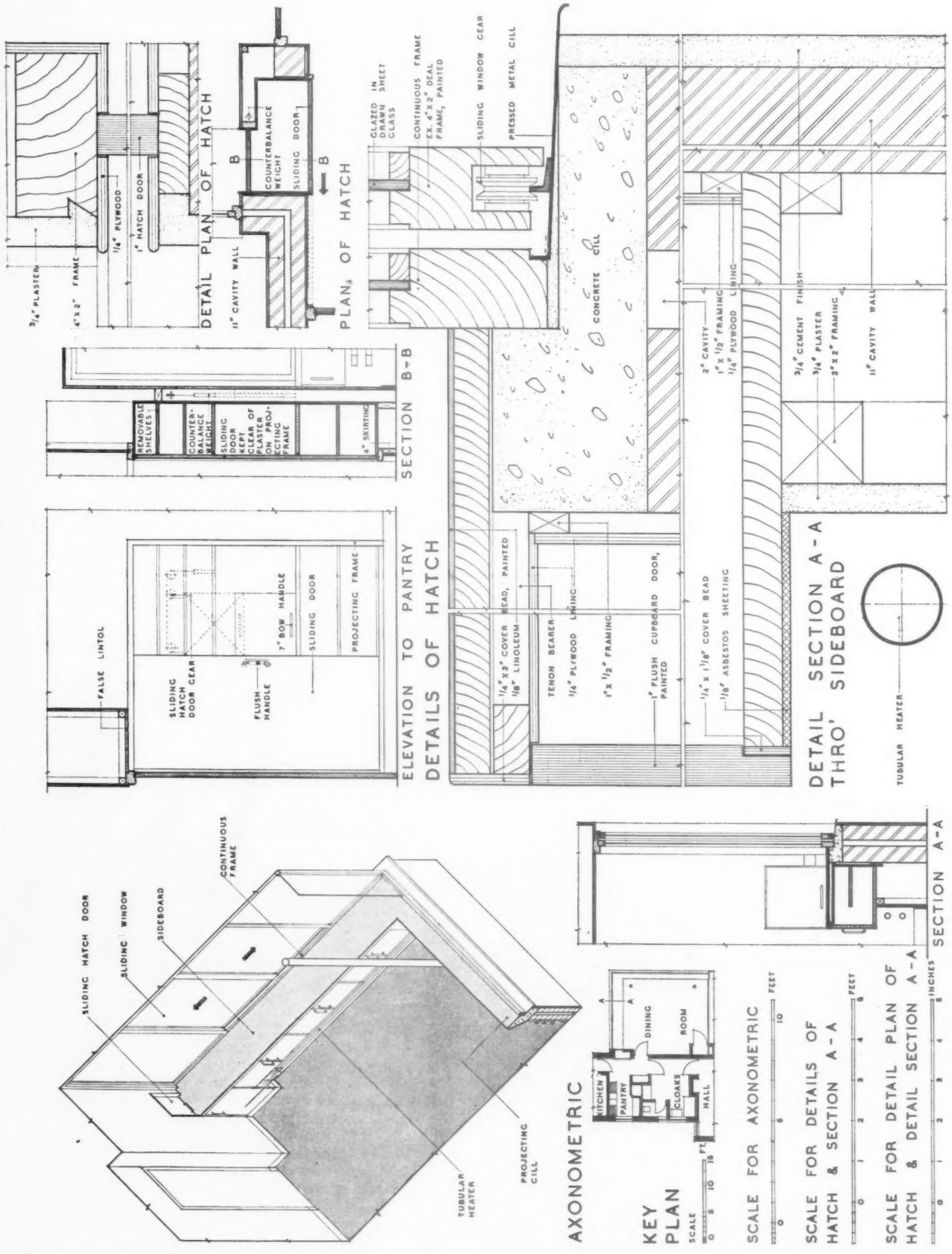
The sideboard is situated underneath the dining-room windows and is designed to serve both the dining-room and the breakfast terrace outside. The two centre windows are therefore made to slide outwards, thereby allowing space for service. The sideboard is served by a hatch from the pantry; it consists of a series of painted deal cupboards and has a linoleum covered top. Electric heating tubes run below the sideboard continuing round the dining-room beneath the projecting cill.

Details are shown overleaf.

FILING REFERENCE:

WORKING DETAILS : 680

SIDEBOARD • DINING ROOM, HOUSE AT FAWLEY • CHRISTOPHER NICHOLSON



Axonometric and details of the sideboard illustrated overleaf.

The Architects' Journal Library of Planned Information

INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

657 Floor Construction

658 Partitions

In order that readers may preserve their Information Sheets, specially designed loose-leaf binders are available similar to those here illustrated. The covers are of stiff board bound in "Rexine" with patent binding clip. Price 2s. 6d. each post free.

Sheets issued since Index :

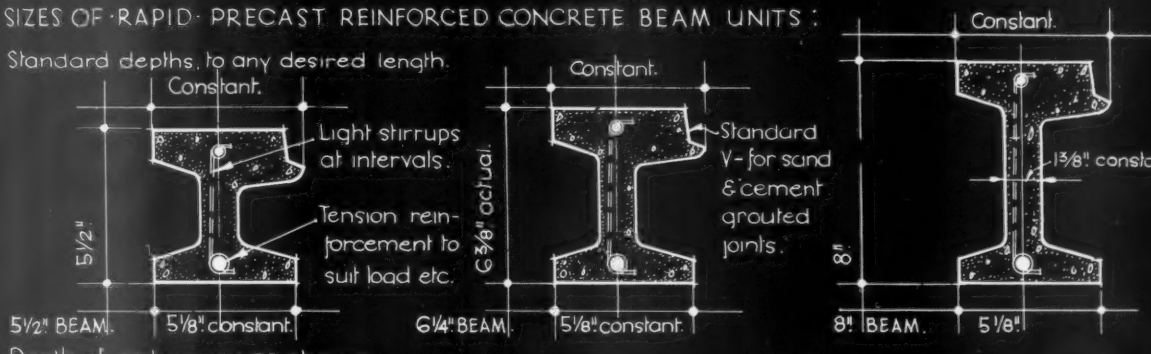
601 : Sanitary Equipment
602 : Enamel Paints
603 : Hot Water Boilers—III
604 : Gas Cookers
605 : Insulation and Protection of Buildings
606 : Heating Equipment
607 : The Equipment of Buildings
608 : Water Heating
609 : Fireplaces
610 : Weatherings—I
611 : Fire Protection and Insulation
612 : Glass Masonry
613 : Roofing
614 : Central Heating
615 : Heating : Open Fires
616 : External Renderings
617 : Kitchen Equipment
618 : Roof and Pavement Lights
619 : Glass Walls, Windows, Screens, and Partitions
620 : Weatherings—II
621 : Sanitary Equipment
622 : The Insulation of Boiler Bases
623 : Brickwork
624 : Metal Trim
625 : Kitchen Equipment
626 : Weatherings—III
627 : Sound Insulation
628 : Fireclay Sinks
629 : Plumbing
630 : Central Heating
631 : Kitchen Equipment
632 : Doors and Door Gear
633 : Sanitary Equipment
634 : Weatherings—IV
635 : Kitchen Equipment
636 : Doors and Door Gear
637 : Electrical Equipment, Lighting
638 : Elementary Schools—VII
639 : Electrical Equipment, Lighting
640 : Roofing
641 : Sliding Gear
642 : Glazing
643 : Glazing
644 : Elementary Schools—VIII
645 : Metal Curtain Rails
646 : Plumbing
647 : Veneers
648 : U.S.A. Plumbing—V
649 : U.S.A. Plumbing—VI
650 : Ventilation of Factories and Workshops—I
651 : School Cloakrooms (Boys)
652 : U.S.A. Plumbing—VII
653 : Plumbing
654 : U.S.A. Plumbing—VIII
655 : School Cloakrooms (Girls)
656 : Ventilation of Factories and Workshops—II

264

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

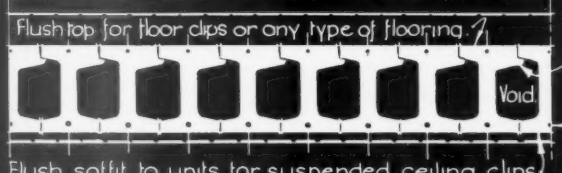
SIZES OF ·RAPID· PRECAST REINFORCED CONCRETE BEAM UNITS :

Standard depths, to any desired length.



Depth of webs vary as shown.

TYPICAL SECTION THROUGH FLOOR:



Flush soffit to units for suspended ceiling clips or direct plastering.

Ledge projecting below flange of adjacent beam to spread local loads from adjoining units and to prevent grout of V-joints from leaking through the voids to damage finished floors, etc., below.

Tension reinforcement is variable to suit a range of spans and loads for each standard depth of unit, shown below. A reinforcing rod runs through each flange, with light stirrups at intervals.

TABLE GIVING MAX. CLEAR SPANS OF SIMPLY SUPPORTED UNITS UNDER VARIOUS SUPERIMPOSED LOADINGS.

RAPID SECT. Nº	CLEAR SPAN IN FEET.																	
Load, lbs./ø'	30	40	50	56	70	80	84	100	112	120	150	200	224	280	336	392	448	560
141	7·9	7·4	7·0	6·8	6·4	6·2	6·1	5·8	5·5	5·4	5·0	4·4	4·2	•	•	•	•	•
142	9·8	9·3	8·8	8·6	8·1	7·8	7·7	7·3	7·0	6·8	6·3	5·6	5·3	•	•	•	•	•
143	11·7	11·1	10·5	10·2	9·6	9·3	9·1	8·7	8·3	8·1	7·5	6·7	6·4	5·8	5·3	5·0	•	•
144	•	12·9	12·3	11·9	11·3	10·8	10·7	10·1	9·7	9·5	8·8	7·8	7·5	6·9	6·2	5·8	5·5	4·9
145	•	•	•	•	12·8	12·3	12·2	11·5	11·1	10·8	10·0	8·9	8·5	7·8	7·2	6·7	6·2	5·6
146	•	•	•	•	•	12·7	12·5	11·8	11·4	11·1	10·3	9·2	8·7	8·0	7·4	6·8	6·4	5·8
147	•	•	•	•	•	•	•	•	12·7	12·4	11·4	10·2	9·7	8·9	8·2	7·6	7·2	6·4
161	8·4	7·9	7·6	7·4	6·9	6·7	6·6	6·2	6·0	5·8	5·4	4·8	4·6	•	•	•	•	•
162	10·5	9·9	9·5	9·2	8·7	8·4	8·2	7·8	7·5	7·3	6·8	6·0	5·8	5·2	•	•	•	•
163	12·5	11·9	11·3	11·0	10·4	10·0	9·9	9·3	9·0	8·8	8·1	7·2	6·9	6·3	5·8	5·4	5·1	•
164	14·6	13·8	13·2	12·8	12·1	11·7	11·5	10·9	10·5	10·2	9·5	8·5	8·1	7·3	6·8	6·3	5·9	5·3
165	•	•	•	14·6	13·8	13·3	13·1	12·4	12·0	11·7	10·8	9·7	9·3	8·4	7·8	7·3	6·8	6·1
166	•	•	•	•	•	14·2	14·0	13·3	12·8	12·5	11·6	10·3	9·9	8·9	8·2	7·6	7·2	6·5
167	•	•	•	•	•	•	•	•	14·3	13·9	12·9	11·5	11·3	10·0	9·3	8·6	8·1	7·3
201	9·3	8·8	8·4	8·2	7·7	7·5	7·4	7·0	6·7	6·6	6·1	5·4	5·2	•	•	•	•	•
202	11·7	11·1	10·6	10·3	9·7	9·4	9·3	8·8	8·5	8·3	7·7	6·9	6·6	6·0	5·5	5·1	•	•
203	14·0	13·3	12·7	12·4	11·7	11·3	11·1	10·5	10·2	9·9	9·2	8·2	7·9	7·2	6·7	6·2	5·8	5·2
204	16·2	15·5	14·8	14·4	13·6	13·1	13·0	12·3	11·9	11·6	10·8	9·6	9·2	8·4	7·8	7·3	6·8	6·2
205	•	17·6	16·8	16·4	15·5	15·0	14·8	14·0	13·5	13·2	12·3	11·0	10·5	9·6	8·9	8·3	7·8	7·1
206	•	•	•	•	17·5	16·7	16·5	15·7	15·2	14·8	13·7	12·3	11·8	10·7	10·0	9·3	8·7	7·9
207	•	•	•	•	•	•	18·3	17·3	16·7	16·4	15·2	13·6	13·1	11·9	11·0	10·2	9·7	8·8

KEY TO SECTION NUMBERS.
14 = 5½" beam section. 16 = 6¼" beam section. 20 = 8" beam section.

TENSION REINFORCEMENT (Unit of Sect. Nº)
1 = ¼" 3 = ⅜" 6 = 9/16"
2 = 5/16" 4 = 7/16" 7 = ⅝"
5 = ½"

The above figures make allowance for the weight of the flooring itself, and in addition an allowance of 18 lbs./ø has been made for plastered soffit & top finish.

NOTE: For detailed application of standard types to suit various forms of bearing, loading, etc., trimming of units and particular constructional uses of the Rapid precast floor, see future Information Sheets of this series

Information from The Rapid Floor Company Ltd.

INFORMATION SHEET : PRECAST CONCRETE UNIT FLOORS. Nº 1.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Oscar A. Bayne

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 657 •

FLOOR CONSTRUCTION

Product : Precast Concrete Beam Units

Description :

This Sheet deals with the "Rapid" floor units which are precast reinforced concrete beams of approximately "I" section. This section has been found to make the maximum use of material and to give the greatest structural efficiency.

The beams are suitably reinforced in both flanges with steel rods varying in diameter according to span and loading, the reinforcement being positively located in position by light metal stirrups at intervals.

The top flange of the beam is so designed that in conjunction with the projecting ledge on the flange of the adjacent beam a "V" joint is formed, and the grouting of the joint is the only work done on the site.

Properties :

Laying: No centering or formwork of any description is required. The precast beams are lowered directly into position and the floor can be put into commission and will carry its specified load immediately. Following trades are, therefore, not obstructed.

Uniformity: The beam sections are produced in a steel moulding machine to avoid variations from the standard dimensions.

The beam units, when laid, give a flush top surface and a flush soffit. The small "site" joint is filled with a cement and sand grout.

Stability: The ledge formed on the top flange of one beam is made to project below the flange of the adjacent beam ; this serves a double purpose, since the ledge, firstly, is of value in spreading to adjacent beams local loads applied to one beam. Secondly, the projection holds the grout and prevents leakage through the voids. The properties of the units are calculated on the standard theory for reinforced concrete.

Weight and Cost: The distribution of concrete and steel in the girder section gives the greatest economy of material as well as of weight and cost.

Fire and Sound Resistance: The longitudinal cavities formed by the interlocking beam sections provide adequate resistance to heat and sound.

Standard Sizes :

Beams are made in three standard depths, namely, 5½ ins., 6⅜ ins., and 8 ins. The flange width and web thickness remain constant throughout. The reinforcement in the flanges is varied to suit the loading conditions.

The following key to sections should be read in conjunction with the table of spans appearing on this Sheet.

5½ ins. = 14–
6⅜ ins. = 16–
8 ins. = 20–

Thus :—

141 indicates 5½ ins. section with ¼ in. tension reinforcement.

163 indicates 6⅜ ins. section with ⅜ in. tension reinforcement.

205 indicates 8 ins. section with ½ in. tension reinforcement.

Standard Types :

Beam units are supplied to suit any form of bearing. The system is flexible to such a degree that provision can be made during the process of manufacture to give any combination or arrangement in design of bearing, or of the finished floor, to suit special conditions of loading or other requirements.

Future Information Sheets :

The detailed application of standard types of beam, together with particular constructional uses, including heavy sections and continuity, will be dealt with in future Information Sheets of this series.

Manufacturer : The Rapid Floor Co., Ltd.
Address : Albion House, New Oxford Street, London, W.C.1
Telephone : Temple Bar 8284

Manufacturer : The Rapid Floor Co., Ltd.
Address : 113 West Regent Street, Glasgow

Manufacturer under Licence : Mono Concrete Company, Ltd.
Address : Thames House, London

Manufacturer under Licence : Rapid Floor Construction Co. (Bath), Ltd.
Address : Bath

Manufacturer under Licence : John Ellis and Sons, Ltd.
Address : Leicester

Manufacturer under Licence : Rapid Precast Floors (The Brandesburton Gravel & Concrete Co., Ltd.)
Address : Hull

Manufacturer under Licence : Tarmac, Ltd. (Vinculum Dept.)
Address : Ettingshall, Wolverhampton

Manufacturer under Licence : Rapid Pre-Cast Concrete Company, Ltd.
Address : Cardiff

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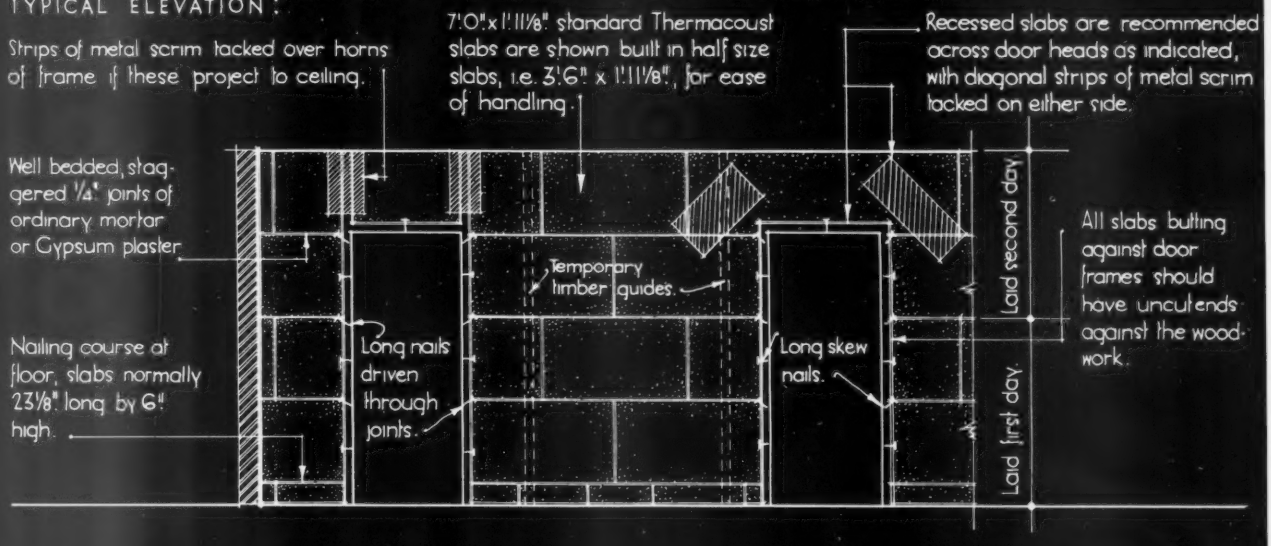
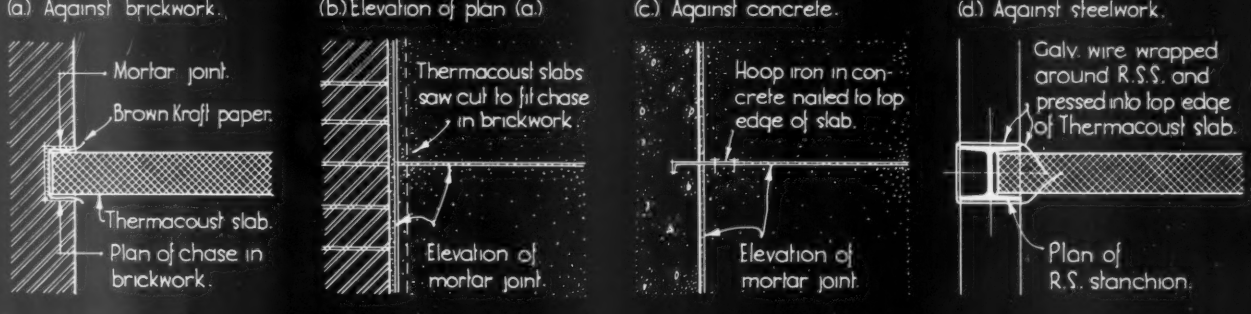
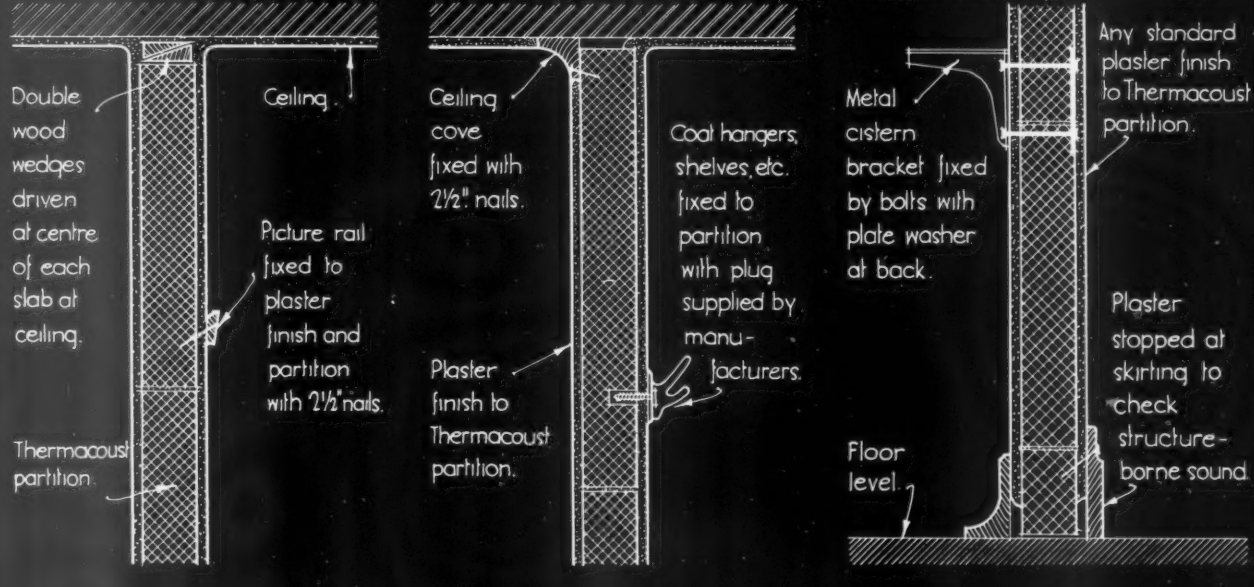
THERMACOUST SOLID PARTITIONS, FREE-STANDING & NON-BEARING TYPE: TYPICAL ELEVATION:



DIAGRAMMATIC DETAILS SHOWING METHODS OF FIXING ENDS OF PARTITIONS:



DIAGRAMMATIC SECTIONS THROUGH PARTITIONS SHOWING TYPICAL 'SECONDARY' FIXINGS:



Information from Thermacoust Products Limited.

INFORMATION SHEET: CONSTRUCTIONAL USES OF WOOD WOOL FIBRE BUILDING SLABS: No. 1.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Alan A. Bayne.

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 658 •

PARTITIONS

Product : Thermacoust Wood Wool Fibre Building Slabs

General :

This is the first of a series of Sheets showing the various constructional uses of Thermacoust building slabs, and deals with solid partitions of the free-standing and non-bearing type.

Material :

Thermacoust is manufactured from wood wool fibres cemented together under pressure. The inorganic content exceeds 80 per cent. and no magnesite is used. The material has been subjected to tests by the Building Research Station, the National Physical Laboratory and other authorities, and tests and reports relating to fire resistance, moisture movement, plastering, strength of joints, sound absorption and resistance and thermal resistance are open to inspection upon application to the Company.

Properties :

The fire resistance of the material falls within grade C approved by the L.C.C. for division between flat and flat, and flat and corridor. Thermal conductivity is 0·58 B.Th.U.'s per sq. ft. per hour for 1" thickness and 1°F. difference in temperature. Weight per cubic foot is 25 to 30 lbs., according to thickness and the use intended.

A strong mechanical key is provided for either plaster or concrete, and cracking in the finished plaster work is reduced to a minimum. The high thermal resistance of the block reduces the liability to condensation.

Joints :

The strength of the ¼" joint in 2" Thermacoust 9" wide has been tested over a 15" span with the following results :—

3 : 1 sand and cement failed (after 28 days) at 61·5 lbs.

Neat gypsum plaster failed (after 28 days) at 60·5 lbs.

Unjointed slab failed ... ... at 112·7 lbs.

The figures given above are each the average of three tests.

Partitions :

When used for partitions, the standard 7' 0" × 1' 11⅛" slabs are usually cut in half for ease of handling. Nailing slabs for skirtings are 1' 11⅛" long by any width.

Erecting :

Partitions should be built against temporary timber liners fixed at suitable intervals. Any grade of mortar may be used for the ¼" jointing, although gypsum plaster is recommended for strength and speed on small jobs. All vertical joints should be staggered, and care should be taken to see that the slabs are well bedded.

Slabs should be keyed or tied to the side walls by one of the methods shown, and the centre of every top slab should be wedged from the ceiling with two hardwood wedges.

It is usual to build partitions to half their height one day and to finish them the following day.

Slab ends should be fixed to door-frames with standard metal ties or long nails as indicated. Uncut slab ends should always be used in this position.

Where horns are left on the door-frames, they should be covered with metal scrim to the ceiling. If the frame is flush at the head, it is recommended that a long slab be recessed over the head and strips of metal scrim tacked over the door as indicated.

Chases may be cut in the slabs either with a saw or a stout knife, cutting against a strip of timber.

Thermacoust partitions may be rendered with any standard lime, cement or gypsum mix. If cement is used, however, it should not be of stronger mix than six to one.

	STANDARD SLABS									HEAVY DUTY	
Thickness	½"	¾"	1"	1½"	2"	2½"	3"	4"	5"	1½"	2"
Price per yard (ex Works)	1/3	1/6	1/9	2/3	2/9	3/3	3/9	4/7	5/6	2/9	3/3
Weight per slab in lbs.	20	29	33	44	56	68	80	95	110	50	67
Weight per square yard in lbs. ...	14	19	22	29	37	45	53	63	73	33	44
Number of slabs per ton	112	79	67	50	40	34	28	24	20	45	34
Square yards per ton	168	118	100	75	60	50	42	36	30	68	52

Sizes, Weights and Prices :

The standard 7' 0" × 1' 11⅛" slab gives a superficial area of one and a half square yards.

The cost of carriage is additional, depending on quantity of slabs and travelling distance. Fixing blocks 1' 11⅛" long and generally 6" high are included in the above prices.

Slabs made for acoustic purposes and to special shape are subject to individual quotation.

Hardwood Wedges :

If required wedges can be supplied at the following prices :—

2" × 1" × 1"	6d. per dozen
3" × 1" × 1"	9d. ,,
4" × 1" × 1"	1s. 0d. ,,
5" × 1" × 1"	1s. 3d. ,,

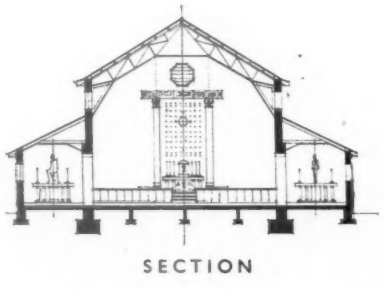
Manufacturer : Thermacoust Products Limited
Address : 32 Victoria Street, London, S.W.1
Telephone : Abbey 6211

CHURCH, ARDROSSAN: BY GILLESPIE, KIDD AND COIA

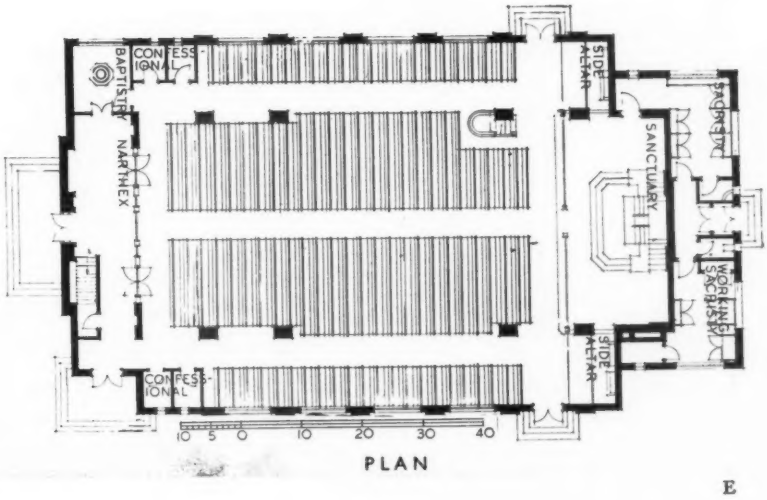
GENERAL—*Designed to serve the growing Roman Catholic population of Ardrossan the church has accommodation for approximately 800 persons in a simple plan-form with side aisle accommodation.*

EXTERNAL FINISHES—*The church is finished externally in rustic facings, individual bricks on the tower being brought out to form a 2¼-in. projecting pattern on the unfenestrated surfaces. The roofs are covered with rustic sanded tiles, and the plinth running round the base of the building is in Blaxter stone. Window frames are in natural finish teak.*

Right, a view of the entrance front.



SECTION



PLAN

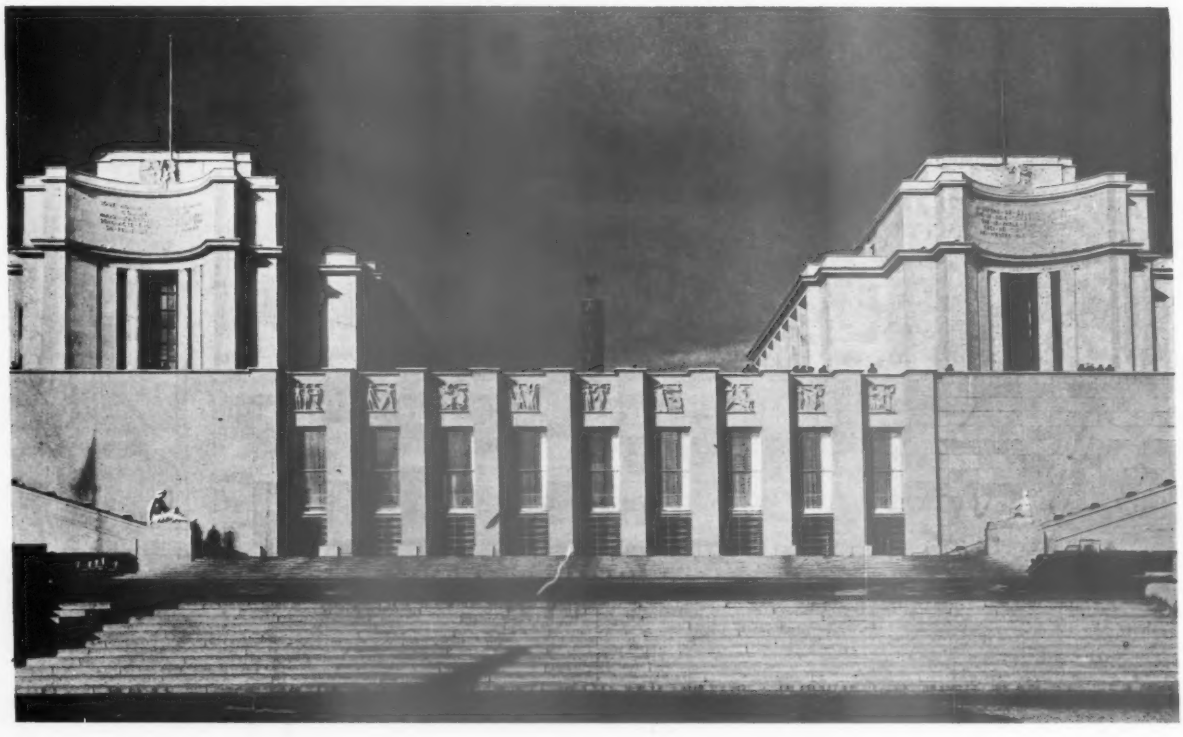
The general contractors were Findley and McGeechan; for list of sub-contractors see page 377.

E

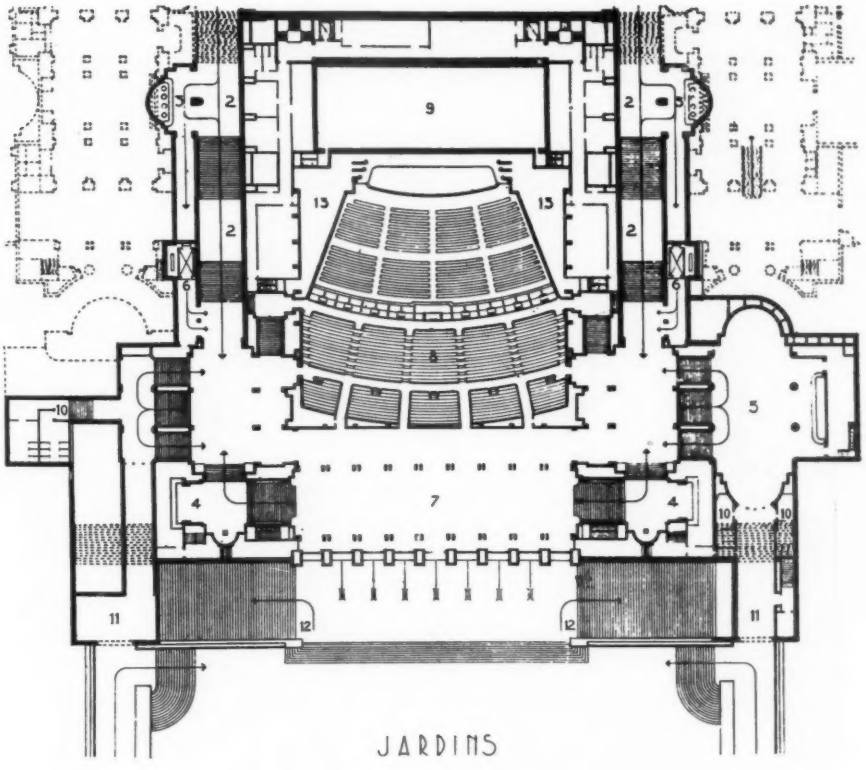
NEW STATE THEATRE, PARIS:

GENERAL.—*Among the permanent buildings of the 1937 Paris Exhibition was the rebuilt Trocadéro Palace, with which was incorporated the construction of a new State theatre. The "Théatre du Trocadéro" is situated between, and beneath, the two great wings of the new building (below). The main entrance is from the Trocadéro gardens, the approach steps being divided into two flights with a road for theatregoers' cars between.*

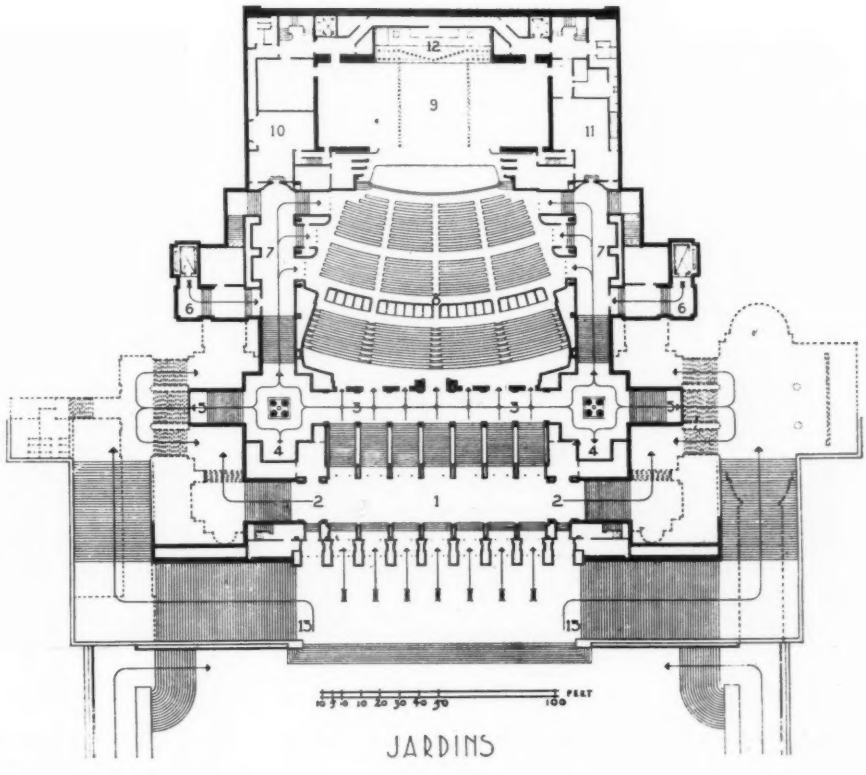
Left, the proscenium arch with its metallic finish, bas-reliefs and decorative lighting features.



DESIGNED BY CARLU, BOILEAU AND AZEMA

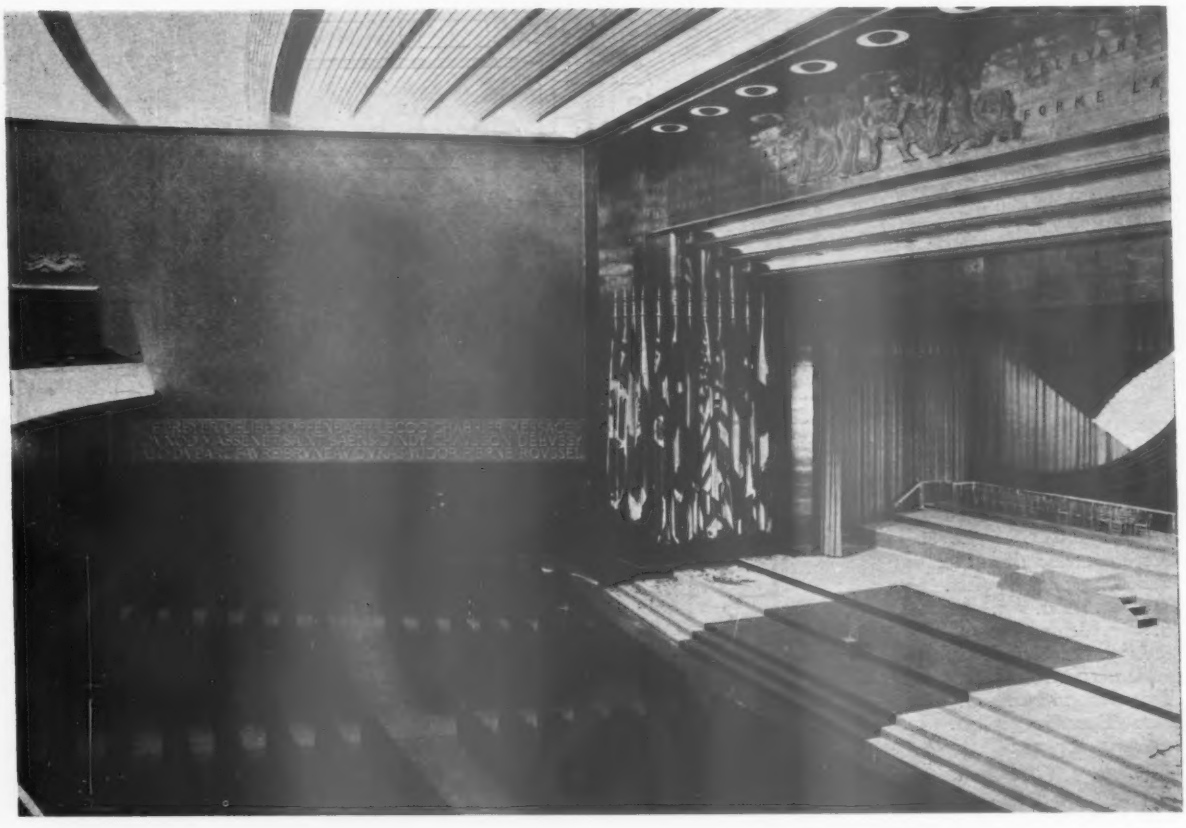


PLAN AT BALCONY LEVEL—*2. Main staircase from Place du Trocadéro. 3. Box offices. 4. Balcony vestibules. 5. Bar. 6. Lifts. 7. Main balcony foyer. 8. Balcony. 9. Scene dock above stage. 10. Cloakrooms. 11. Exit to Trocadéro gardens. 12. Main stair to Trocadéro gardens. 13. Acoustic control rooms.*



PLAN AT STALLS' LEVEL—*1. Entrance vestibule from Trocadéro gardens. 2. Stair to balcony foyer. 3. Stalls foyer. 4. Stalls' cloakrooms. 5. Bar foyer. 6. Lifts. 7. Access corridors to stalls. 8. Stalls. 9. The stage. 10. Musicians' foyer. 11. Players' foyer. 12. Organ. 13. External grand staircase to the Trocadéro Palace level.*

NEW STATE THEATRE, PARIS

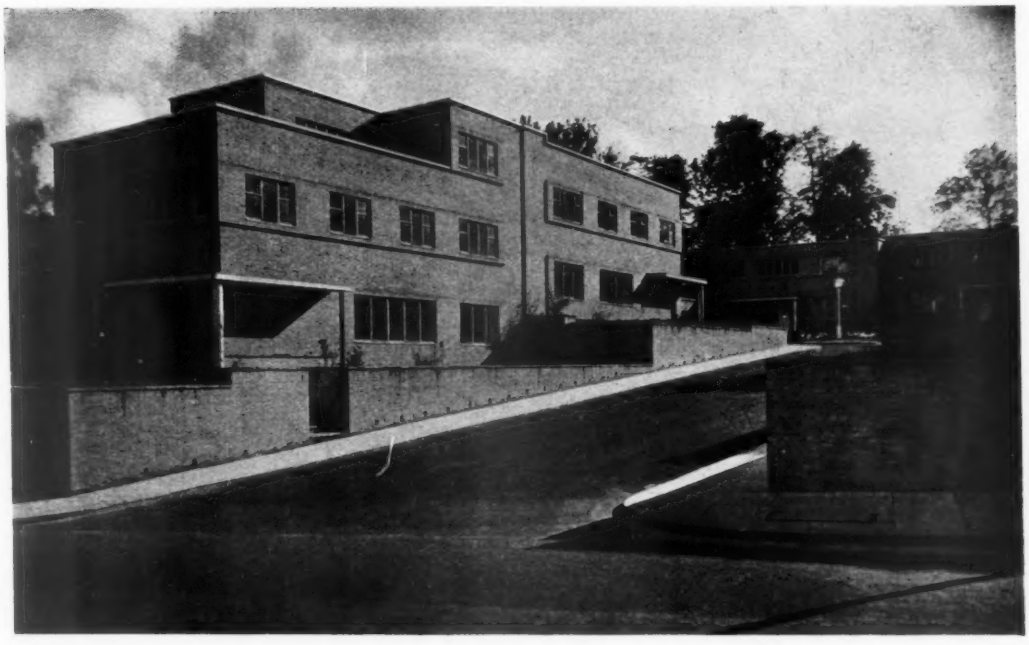


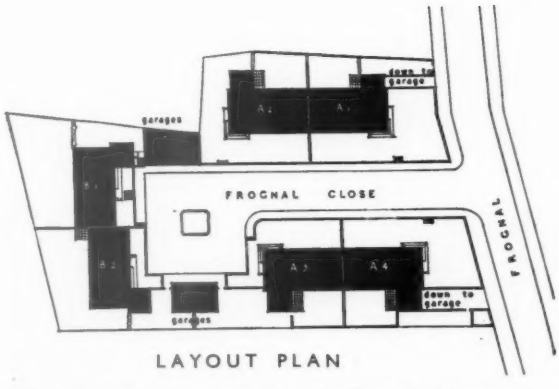
DESIGNED BY CARLU, BOILEAU AND AZEMA

Top, the proscenium arch, apron stage and a part of the stalls. Above, left, the main entrance vestibule from the Trocadéro gardens. Right, grand staircase from the Place du Trocadéro entrance.

GROUP OF HOUSES IN HAMPSTEAD:

DESIGNED BY ERNST L. FREUD

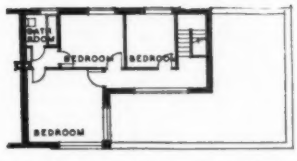




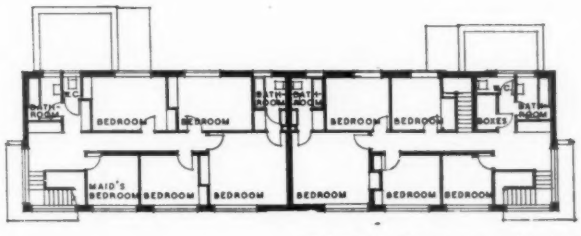
LAYOUT PLAN

GENERAL AND SITE—*The site is in Frognal, Hampstead. This district is zoned for a maximum of eight houses to the acre, and the architect's first proposal was for six houses, four of them detached (two on each side of a new cul-de-sac road) and the other two semi-detached at the end, the detached houses to be on different levels but linked by garages between. This scheme allowed all houses to face south and to have comparatively good gardens, but it was rejected by the L.C.C. because the distance across the road did not comply with its minimum of 70 ft. In the scheme carried out (see layout plan above), therefore, the houses on either side of the road were turned parallel to the road to form pairs of semi-detached houses, giving the required 70 ft. between them. Each house is terraced to follow the rising ground, but the end houses, nearest Frognal, have a third storey so that the roof line of each pair of houses is continuous. The other four are two-storey houses. Each house has a front garden, a small but private back garden and a separate yard. The houses at the lower level have garages beneath them, reached by a ramp direct from Frognal. For the other houses a row of lock-up garages is provided on either side of the internal square. Above, the view up the private access road from Frognal, showing one pair of identical houses, the nearest house having the addition of a third storey and roof garden.*

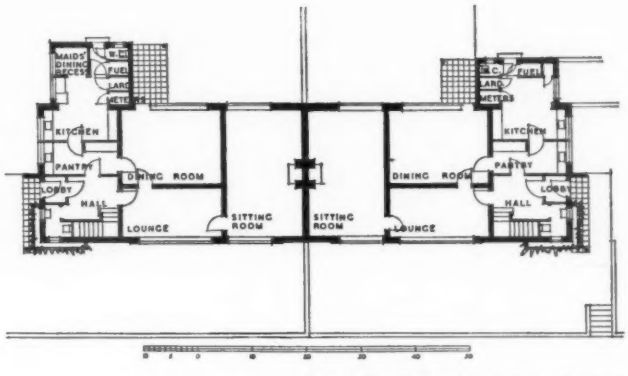
PLANS OF HOUSES A1 AND A2 (A3 AND A4 IDENTICAL)



SECOND FLOOR PLAN

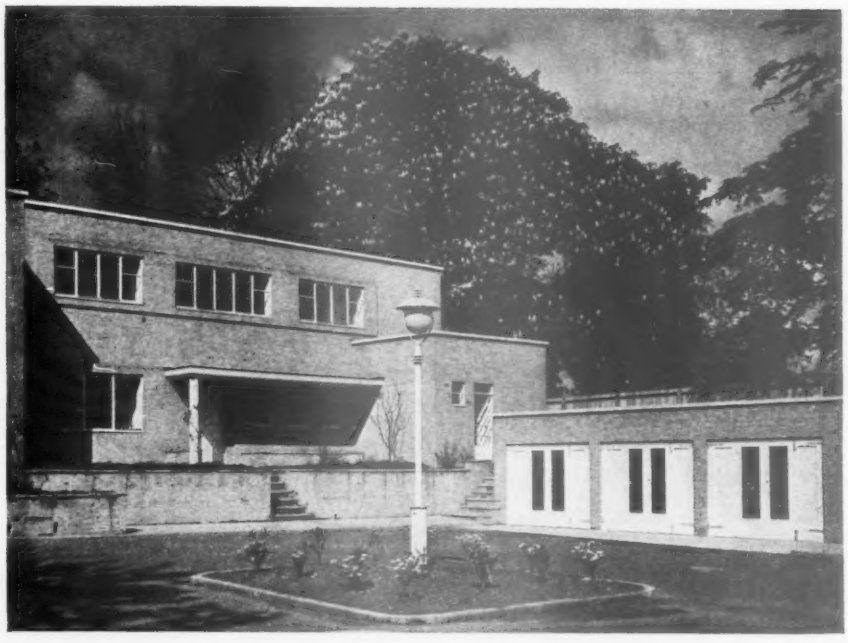


FIRST FLOOR PLAN

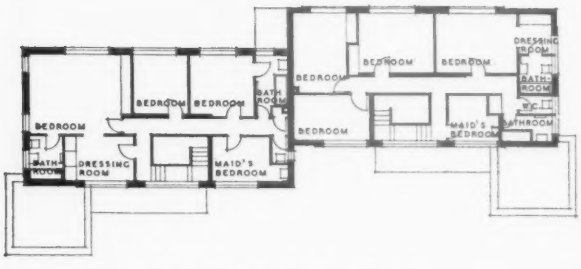


GROUND FLOOR PLAN

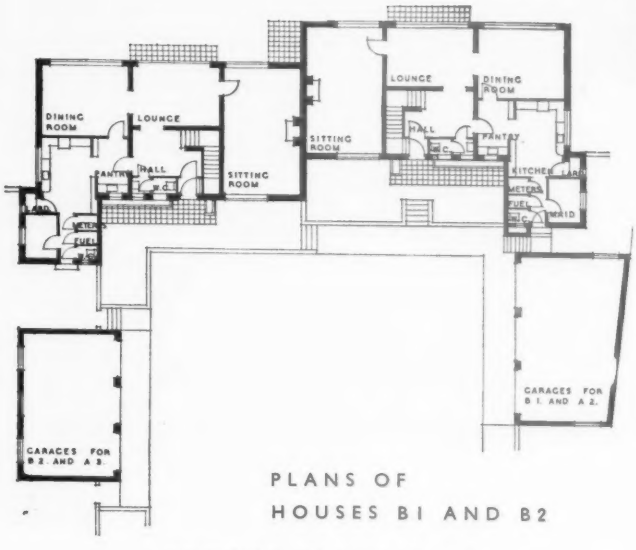
GROUP OF HOUSES IN HAMPSTEAD:



Left, looking diagonally across the square; the rows of lock-up garages are seen on the right. Above, the entrance terrace and steps to the end pair of houses. Below, a garden elevation.



FIRST FLOOR PLAN



PLANS OF HOUSES B1 AND B2

GROUND FLOOR PLAN

EXTERNAL FINISHES—*The exteriors of the houses and all garden and retaining walls are in a 2-in. sand-faced brick of a buff colour, a small amount of stone being used for copings. The windows are metal, painted cream colour, and the front doors will be coloured individually. The principal sitting-rooms have sliding-folding windows giving on to the gardens.*

DESIGNED BY ERNST L. FREUD

HEATING—*The houses are electrically equipped, with invisible ceiling panel heating in the reception room and the best bedroom and tubular heaters elsewhere.*

Above, a detail photograph, showing the rough texture of the 2 in. facing bricks. The same bricks, with a small stone coping, are used in the retaining walls to the front gardens.

The general contractor was H. Meckonik; for list of sub-contractors see page 377.

The above photographs show the results of the polarizing material: on the left is an Elephant seal in a glass museum case, the whole thing being rendered almost useless by reflections; on the right is the same thing photographed with a Polaroid filter over the lens, the filter cutting out all reflections and making the result intelligible. See note below.

TRADE NOTES

[*By PHILIP SCHOLBERG*]

Polaroid Light-Polarizing Material

THE phenomenon of light polarization has been known since about the middle of the seventeenth century, though it was not until 1828, when William Nicol discovered the polarizing properties of Icelandic spar, that polarized light was put to more than academic uses. Optically perfect crystals, however, are very scarce, and large crystals are unobtainable, so that the Nicol prism is limited to small apertures and is very costly. Twenty years or so after Nicol, Dr. Herapath discovered that a periodide of quinine sulphate had much the same properties as Icelandic spar, but this material suffers from the same disadvantages in that it can only be obtained in small sizes. More recently an American physicist called E. H. Land has evolved a method of arranging minute crystals of this substance so that their optical axes are parallel, binding them together with a thin cellulose acetate film which allows the substance to be cut or shaped like any ordinary gelatine film. Exactly how this is done need not concern us here, though it may be of interest to mention that the process is very like straightforward extrusion. But the fact remains that it is now possible to obtain a polarizing material in almost unlimited sizes.

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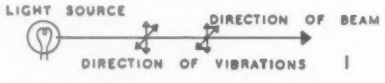
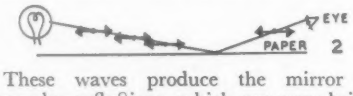
Now what exactly does this mean to the architect? It is really impossible to answer this question without going into the more elementary aspects of polarization and explaining more or less what it involves. Take, for example, the question of lighting. Everyone knows that, under certain conditions of illumination, it is almost impossible to look at photographs printed on a highly glazed paper because there is so much glare from the surface reflections. Ordinary light may be represented by the symbol below.



This is meant to indicate that the light waves vibrate at right angles to the direction of the beam. When ordinary light is reflected from an object the up and down waves behave differently from the side to side waves, which bounce directly from the surface more or less like this :—



These waves produce the mirror or specular reflections, which are very bright and white, since they have not been down into the paper at all, and these are the waves which produce the glare. On the other hand the up and down vibrations do not bounce from the surface, they go into it and come out again like this :—

These are the useful waves which enable you to see what is printed on the paper.

Now, if you place a sheet of Polaroid between the light source and the paper the side to side waves are removed from the light before they reach the paper,

and all the light which reaches the surface is made of the up and down vibrations which enable you to see properly.

The diagrams are not, of course, strictly accurate, in fact the whole description would make a real physicist shudder, but none the less it presents a not altogether untrue picture of what happens.

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Since Polaroid is a comparatively new material not very much has so far been done in the lighting field, though one American firm had produced a desk lamp which sells at a comparatively high price and which is also a rather ugly design, with all the usual ribbed effects which industrial stylists seem to find irresistible. None the less there will obviously be a lot more of these fittings made, and it can only be a question of time before they are on the market in this country.

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One other architectural application is perhaps looking too far ahead, but is none the less quite amusing. It should be

realized that these Polaroid screens have a definite polarizing axis, that is to say, they eliminate only those waves in one particular plane. If, therefore, you take *two* sheets of Polaroid and look through them when their axes are at right angles you will see nothing at all. Now assume a hotel or flat block with an internal courtyard. You glaze the windows on one side of the court in Polaroid with its axis vertical, and the windows on the other side with the same material, but with its axis horizontal. Then although all the tenants will be able to see out of their own windows, they will see the windows on the opposite side of the court as black voids, and they will not be able to see through into the rooms at all, though it would, of course, be necessary to keep the windows closed. For ordinary glazing in the bathrooms of private houses the scheme would not work unless everyone went about wearing Polaroid spectacles, and anyway the material is still expensive enough to prevent its use in large areas, but the idea is certainly very near the old one of one-way glass.

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It is, however, outside the strictly architectural field that this material finds its immediate applications. Sun glasses, for instance, can be made to cut out all reflections from horizontal surfaces such as the sea or roads; photographic filters are made which allow you to photograph pictures in their frames without any reflections from the glass or the varnish on the picture itself, and which will also fake blue skies until they are almost black, while the building in the foreground remains normally illuminated. Both these applications are of course much the same as the desk lamp already referred to, except that they do the polarizing at the receiving end instead of at the source. The two photographs on the previous page show the results obtainable; on the left is an Elephant seal in a glass museum case, the whole thing being rendered almost useless by reflections; on the right is the same thing photographed with a Polaroid filter over the lens, the filter cutting out all reflections and making the result intelligible.

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It is also interesting to note that this material could provide the complete solution to the dazzle problem for motor cars. The lamps would be fitted with Polaroid screens and the driver should also have a screen through which he looks when he is meeting another car. The polarizing axes of both screens are set at 45 degrees with the vertical. When two cars meet each driver sees the other man's lamps as merely dull discs, for the two screens at right angles cut off all the light, whereas the light from his own lamps shows up all the detail on the road just as if the other car weren't there at all. The snag is that the device doesn't work unless the other man has Polaroid screens as well. It is to be assumed that the Minister of Transport knows all about this material, but I imagine that it will be the old story of Triplex over again, for obviously no law could be passed to make splinterless glass compulsory while the Triplex patents were still in force and the profit would be confined to a single manufacturer. As soon as the patents ran out splinterless glass was made compulsory in the lower decks of all public service vehicles and in the windscreens of all private cars. Much the same will probably happen with Polaroid, and we shall have to wait until other manufacturers are in the field before dazzle is cured for ever. Assuming of course that all roads aren't floodlit by then.

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There is also another use for this material, perhaps its most fascinating aspect. Given a celluloid scale model of anything from a roof truss to a simple channel section it is possible with polarized light to analyse the stress at any point as the model deflects under experimental loads. To the uninitiated it is merely fun to twist a small celluloid section between the finger and thumb and watch the colours change and move about as the stress varies in different parts of the section, but from these changes it is possible to analyse very accurately the stresses at each point. In the aircraft industry where weight really matters this method of stress analysis is having very important results, but in the building industry, where it is always much simpler to use the nearest R.S.J. section and plate in the larger sizes, it is not going to make very much difference, for the weight of steel saved would not make the trouble involved anywhere near worth while, quite apart from the fact that the L.C.C. probably wouldn't allow it.

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So much space devoted to a material which has not as yet had much influence on building may seem a little peculiar, but it is possible to do so many things with this material that it seems worth while talking about it at some length. Even if it doesn't lead immediately to better architecture it is interesting to know what surprising things can be done with such an innocent looking substance, which, at a casual glance, might be nothing more than any old piece of greenish yellow celluloid.—(*Polaroid Products, Ltd., 39 Lombard Street, London, E.C.3.*)

Timber Research in 1937

The report* of the Forest Products Research Board for 1937 shows that most of the queries received have dealt with problems of seasoning and bending, and the old suggestion that death watch beetle is discouraged by incense in churches is more or less disproved, though it has been found that for eggs laid on incense-treated wood the percentage hatching is slightly reduced. Light reflection experiments show that maximum illumination is given if the grain of wood panelling runs vertically and the room is lit by windows in the walls. Railway sleepers split less when laid heart face up. And so on. The report does not make exciting reading, but is a record of excellent and necessary work done, and it is a good example of just the sort of work which ought to be done by a Government Department, and which cannot very well be done by anybody else.

* *The Report of the Forest Products Research Board* for the year 1937. London: H. M. Stationery Office. Price 2s.

THE BUILDINGS ILLUSTRATED

NEW BUILDINGS, SOCIETY OF OXFORD HOME STUDENTS (pages 357-360). Architect: Sir Giles Gilbert Scott, R.A. The general contractors were Benfield and Loxley, Ltd., and sub-contractors and suppliers included: Concrete, Ltd., reinforced concrete and steelwork; Ragusa Asphalte Paving Co., Ltd., asphalt work; James Gibbons, Ltd., metal windows and wrought iron work; Acme Flooring and Paving Co., Ltd., wood-block flooring; Leeds Fireclay Co., Ltd., sanitary fittings; F. G. Alden, Ltd., heating and domestic hot water installation; Xelite Co., Ltd., plastering; R. Y. Ames, stone slating for roofs; Hill Aldam & Co., Ltd., sliding-door gear; J. L. Green and Vardy, Ltd., joinery; Cashmore Art Workers, r.w. heads; Quiggin Bros., Ltd., ironmongery; H. H. Martyn & Co., Ltd., stone carving; J. W. Gray and Son, Ltd., lightning conductor; Roneo, Ltd., metal bookcases; G. N. Haden and Sons, Ltd., electrical installation; Potter Rax Gate Co., Ltd., wrought iron entrance gates.

ST. PETER IN CHAINS, ANDROSSAN (page 369). Architects: Gillespie, Kidd and Coia. The general contractors were Findlay and McGeechan, who were also responsible for excavation, foundations, internal and external bricks, stonework. Sub-contractors and suppliers included: Caithness Slab Dampcourse, dampcourses; Bothwell Park, bricks (internal); Accrington Brick and Tile Co., bricks (external "Nori" rustic bricks); Stuart's Granolithic Co., Ltd., artificial stone; Redpath Brown & Co., structural steel; A. C. Whyte & Co., Walley's "Superco" rustic machine-made sanded tiles; F. McNeill & Co., Ltd., roofing felt (No. 2 Weathertite); Robt. F. Milligan, glass; Sika-Francois, Ltd., waterproofing materials; John Deas & Co., central heating; The Beeston Boiler Co., Ltd., boilers; Callenders' Cable Co., Ltd., electric wiring ("Simplex"); J. H. Tucker & Co., Ltd., switches and fuses; Kennedy Stark & Co., wiring, switches and fuses installed; Falk Stadelmann & Co., Ltd., electric light fixtures; Jas. Lumsden, Ltd., ventilation; McCulloch and Giffen, plumbing; Shanks & Co., sanitary fittings; Thos. Stewart, Ltd., casements, timber casements, window furniture, joinery, seating; Wm. Sinclair and Sons, hardwall and lime, decorative plaster; the late Archd. Dawson, A.R.S.A., carving; John Youden and Sons, marble and tiling; T. M. Sloan, painter.

GROUP OF HOUSES, FROGNAL CLOSE, HAMPSTEAD (pages 373-375). Architect: Ernst. L. Freud. The general contractors were H. Meckonik, and the sub-contractors and craftsmen included: Permanite, Ltd., asphalt; Girlings Ferro-Concrete, Ltd., artificial stone; H. M. Tiling Company, tiles; V. Franchi & Co., Ltd., wood block flooring; Noel Wood-Mosaic Co., patent flooring; Turners Asbestos Cement Co., patent flooring; Pontifex and Emanuel, grates and mantels; Thomson, Richie & Co., electric wiring and heating; Tucker and Edgar, Ltd., electric light fixtures; Unity Heating, Ltd., unity tubular heater; Richard Crittall & Co., Ltd., electric heating "Dulrae"; A. Johnson & Co., Savestane sinks; S. G. Ross & Co., Ltd., sanitary fittings; W. N. Froy and Son, Ltd., door furniture; Crittall Manufacturing Co., Ltd., casements; Shepherd, Tobias & Co., Ltd., tiling; Brent Fencing and Timber Co., garden furniture; Modern Gardens, Ltd., shrubs and trees; Modern Kitchen Equipments, Ltd., kitchen fittings.

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THE WEEK'S BUILDING NEWS

BECKENHAM. *Extensions.* The Kent Education Committee has approved revised plans for extensions at the County School for Girls, Beckenham.

BIRKENHEAD. *Houses.* Messrs. H. W. Lloyd, Ltd., are to erect 27 houses in Highfield South, Birkenhead.

DEBENHAM. *School.* The managers of the Debenham Voluntary School are to erect a church senior school at Debenham, at a cost of £11,000.

DURHAM. *School.* The Durham County Education Committee is to erect a senior school for 320 in the Barnard Castle area.

DURHAM. *School Enlargement.* The Durham County Education Committee is to prepare plans for the enlargement of the school at Middleton on Teesdale to accommodate a further 200 children.

DURHAM. *School.* The Durham County Education Committee has purchased a site at West Pelton for the erection of an elementary school.

DURHAM. *Houses.* The Durham R.D.C. is to erect 25 houses at Cassop.

EYE. *Telephone Exchange.* The Post Office Engineering Dept. is to erect an automatic telephone exchange at Black Swan yard, Eye, Suffolk.

EYE. *Houses.* Mr. E. L. Hunt is to erect 10 houses at Eye, Suffolk.

GATESHEAD. *Houses, etc.* Plans passed by the Gateshead Corporation: Six bungalows, 369 and 370, and 371-374, Pinewood Gardens, Rochester and Kirk, Ltd.; 12 bungalows, Ilfracombe Gardens, Chowdene Estate, Low Fell, E. P. Calderwood, Ltd.; six houses, Felton Crescent, Ferndene Estate, Mr. H. Kindred.

GLASGOW. *Offices, etc.* Plans passed by the Glasgow Corporation: Transformer house, general offices and boiler-house, Borron Street, The Distillers Co., Ltd.

GRIMSBY. *Library Extensions.* The Grimsby Corporation is to enlarge the public library, at a cost of £30,000.

HARLESTON. *School.* The church authorities are to provide a central school in Harleston, Norfolk.

HILGAY-SOUTHERY. *School.* The Norfolk Education Committee has selected a site of 6¾ acres in the Hilgay-Southery area for an elementary school.

LOWESTOFT. *School.* The East Suffolk C.C. is to erect a secondary school for girls at Lowestoft, at a cost of £37,500.

OLNEY. *House, etc.* The Bucks Education Committee is to enlarge the Olney Senior School and erect a teacher's house, at a cost of £6,408.

RUDDINGTON. *School.* A scheme has been prepared by the Southwell Diocesan Board of Education for the provision of a senior church school at Ruddington, Notts, at a cost of £18,000.

SHEFFIELD. *Houses, etc.* Plans submitted to the Sheffield Corporation: Eight houses, Cherry Bank Road, Mr. D. Kay; 30 houses, Welwyn Road, Mr. H. Seymour; six houses, off Psalter Lane, Mr. G. Thompson; five houses, High Storrs Road, Mr. A. Shaw; 26 shops, Herries Road, Mr. C. S. Sandford.

SHEFFIELD. *Houses.* Plans submitted to the Sheffield Corporation: 16 houses, Jepson Road, Mr. F. Clifton; eight houses and shops, Greystones Road, W. Malthouse, Ltd.; 22 houses, Gleadless Road, Mr. W. Croft; 18 houses, Norton Park View, J. Marsh and Son (Builders), Ltd.; 54 houses, Kirkdale Drive, Mr. C. S. Smith; 78 flats, Fulwood Road, Mr. A. Krausz.

SHERINGHAM. *School.* The Norfolk Education Committee is to obtain a site at Sheringham for the erection of a central school.

SNEDSHILL. *School.* The Shropshire Education Committee is to prepare plans for a senior school at Snedshill.

TENBURY. *Police Station, etc.* The Worcestershire C.C. is to prepare plans for the erection of a station, court and four police residences at Tenbury.

TYLDESLEY. *Houses.* The U.D.C. is to erect 102 houses on the Astley site, at a cost of £39,033.

ULVERSTON. *Hospital.* The Lancashire C.C. has purchased 11 acres at Todbusk Estate, Ulverston, for the erection of a hospital.

WEARDALE. *Houses.* The Weardale R.D.C. is to erect seven houses and four flats in the parish of Frosterley.

WEST BRIDGFORD. *Schools.* The Notts Education Committee is to erect an elementary school in Musters Road and a new school for about 200 infant children at West Bridgford.

WEST MALVERN. *School Enlargements.* The Worcestershire Education Committee is to enlarge the West Malvern open-air school, at a cost of £1,050.

WEYMOUTH. *Houses.* Plans passed by the Weymouth Corporation: 13 houses, 107-111, Marlborough Avenue and Langton Avenue, Andrews and Andrews; 12 houses, 29 and 30, 61, 64 and 71-76 Hardys Avenue, Mr. J. Hardy; six houses, East Wyld Road, Mr. F. W. Parker; seven houses, 20 Glenmore Road and 48-53 Heath Wood Road, Mr. R. Hill; six houses, 44-49 Broadmeadow Road, Mr. J. Burt.

WEYMOUTH. *Houses.* The Weymouth Corporation is to erect 18 houses in Chapel Lane, Upwey.

WEYMOUTH. *Fire Station.* The Weymouth Corporation has obtained sanction to borrow £16,700 for the erection of a new fire station.

WIGAN. *Dwellings.* The Corporation is to erect 172 working-class dwellings on Worsley Hall site, at a cost of £63,530.

WORTHING. *Church.* The Corporation has approved proposals submitted by Messrs. Jordan and Cook, for the erection of a Christian Scientist Church on the site of 117 Grand Avenue, subject to adequate car parking facilities being provided on the site.

YORK. *Church.* The Corporation has sold land on the Water Lane Estate to the Middlesbrough Diocesan Trustees, for church purposes.

Manufacturers' Items

On Monday, August 22, a demonstration of the great carillon of 44 bells for San Francisco was held at Messrs. Gillett and Johnston's Bell Foundry, Croydon.

The carillon will be shipped in about three weeks' time for installation in the 400-ft. Tower of the Sun of the Golden Gate International Exhibition (1939) on Treasure Island. The Exhibition is to be opened in February next, and at its close the carillon will be moved to its final destination, Grace Cathedral, San Francisco. The total weight of the 44 bells themselves is over 18 tons, and together with the frame, fittings and gear, the complete installation will weigh in all 34 tons. Forty-three notes represent 3½ chromatic octaves, rising by semitones from C, weighing 2½ tons, to high G, weighing 12 lb. The 44th note is low G, the largest or Bourdon bell, weighing nearly 5½ tons. The whole carillon is to be played by remote control from an ivory keyboard at the organ console, when it is erected finally at Grace Cathedral. Also an automatic player will operate the bells by means of music rolls travelling over a roller and perforated with any desired tunes. The Bourdon can be utilized by the carillonneur in any bass accompaniment to the remainder of the carillon, and it is also being fitted with the firm's patent equipment for automatic swinging, a small switch setting the bell in motion or bringing it to rest.

The massive steel framework, which itself weighs 10 tons, is in two sections, the lower part carrying the Bourdon alone, and the upper structure, arranged to carry the 43 bells in six tiers, is 24 ft. high.

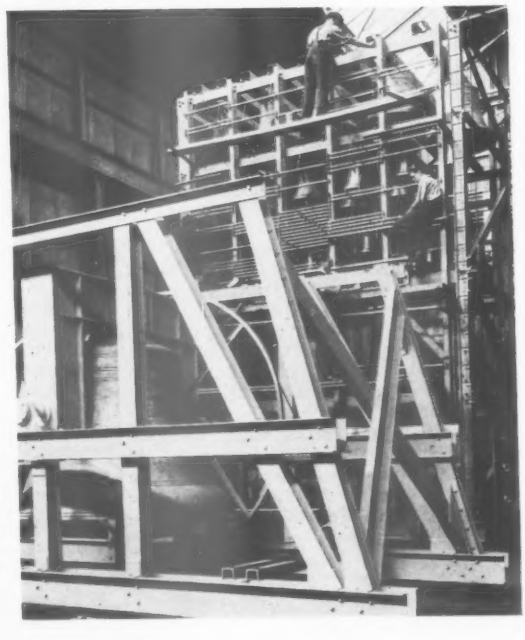
In the Exhibition "Tower of the Sun" the bells will be approximately 230 ft. above the ground and located in a great square in the centre of the Exhibition to which 2,000 fully-grown trees have been transplanted.

The frame is being reinforced against risk of earthquakes, and is unique in that it has had to be designed to suit two distinct towers, at the Exhibition and the Cathedral. In fact, the order has involved dual handling in every respect, for the requirements of the architect, the engineer and the electrician have had to be satisfied for both buildings, whilst considerations of transport, erection, egress of sound from the towers, proper access to the bells, and easy manipulation of the carillon have been studied to conform with the two locations.

The bells are tuned on Gillett and Johnston's improved five tone harmonic principle, whereby the overtones of each bell are tuned accurately with its strike note, and the bell as a whole then put into correct tune with all the others.

The carillon will be one of the most important in U.S.A., being the fifth largest that has been installed in America by the Croydon foundry—the two largest being the Rockefeller Memorial Carillon at Riverside Church, New York, and the carillon at the Chapel of the University of Chicago, which are the two greatest carillons in existence. It will be the premier carillon on the West Coast of America, and, in fact, the only one of any size in the State of California.

The donor of the carillon is Dr. Nathaniel Coulson.



A photograph of the carillon of 44 bells which Gillett and Johnston have completed for the 400-ft. Tower of the Sun of the Golden Gate Exhibition at San Francisco. (See note above.)

PRICES

On the following pages appears Prices for Measured Work—Part I, with prices last published on August 4, brought up to date.

★ *ANSWERS TO QUESTIONS*

While the JOURNAL, *naturally, cannot presume to undertake the responsibilities of a quantity surveyor, it has arranged with the authors of this Supplement to answer readers' questions regarding any matter that arises over their use of the Prices Supplement in regard to their work, without any fee. Questions should be addressed to the Editor of the* JOURNAL, *and will be answered personally by Messrs. Davis and Belfield. As is the normal custom, publication in the* JOURNAL *will omit the name and address of the enquirer so that it is unnecessary to write under a pseudonym.*

The complete series of prices consists of four sections, one section being published each week in the following order :—

1. **Current Market Prices of Materials, Part I.**
2. **Current Market Prices of Materials, Part II.**
3. **Current Prices for Measured Work, Part I.**
4. **A.—Current Prices for Measured Work, Part II.**
   B.—Prices for Approximate Estimates.

● *Prices are for work executed complete and are for an average job in the London Area; all prices include for overhead charges and profit for the general contractor.*

PART 3

CURRENT PRICES FOR MEASURED WORK—I

BY DAVIS AND BELFIELD, P.A.S.I.

PRELIMINARIES

Water for the works		
Third party and other insurances to persons and property, employer's liability, unemployment and Public Health insurances, and fire insurances (based on value of contract) ..		1½%
Single scaffolding	per yard super	2/–
Independent scaffolding ..	per yard super	2/8

EXCAVATOR

		Ordinary Ground	Clay
Surface digging average 9″ deep and wheeling and depositing on spoil heap, not exceeding two runs	per yard super	–/0	1/1

EXCAVATOR—(*continued*)

		Ordinary Ground	Clay
Excavating not exceeding 5′ 0″ deep to form basement and getting out	per yard cube	1/11	2/10½
Ditto, exceeding 5′ 0″ deep and not exceeding 10′ 0″ deep	per yard cube	2/5	3/6
Excavating not exceeding 5′ 0″ deep, to form surface trenches and getting out	per yard cube	2/7	3/10
Ditto, exceeding 5′ 0″ deep and not exceeding 10′ 0″ deep	per yard cube	3/7	5/0
Ditto, not exceeding 5′ 0″ deep to form basement trench excavation commencing 10′ 0″ deep, and getting out	per yard cube	3/4½	4/6
Returning, filling in and ramming around foundations	per yard cube	1/1	1/5

CURRENT PRICES

BY DAVIS AND BELFIELD, P.A.S.I.

EXCAVATOR, CONCRETOR AND BRICKLAYER

EXCAVATOR—(*continued*)

	Ordinary Ground	Clay
Filling barrows and wheeling and depositing excavated soil not exceeding two runs per yard cube	1/1	1/5
Spreading and levelling from excavated heaps in layers not exceeding 12″ per yard cube	–/9	1/–
Filling into carts or lorries and carting away per yard cube	4/6	4/10
Planking and strutting to sides of basement, excavation, including strutting per foot super	1/–	–/9
Planking and strutting to surface trenches (both sides measured) .. .. per foot super	–/4½	–/3
Hardcore, broken brick, filled in under floors and well rammed and consolidated per yard cube	6/6	
Hardcore, broken brick, deposited, spread and levelled, and rammed to a true surface 6″ thick per yard super	1/4	

CONCRETOR

Foundations and Mass Concrete

Portland cement concrete 1 : 6 with unscreened ballast, in foundations and masses exceeding 12″ thick .. .. .. per yard cube ..	20/6
Ditto, 1 : 3 : 6, with one part of cement and three parts of sand and six parts of clean gravel per yard cube	21/–
Ditto, 1 : 2 : 4 with one part of cement, two parts of sand and four parts of ¾″ crushed graded shingle per yard cube	25/10
Add if mixed by hand labour .. per yard cube	2/–
Add if in foundations not exceeding 12″ thick per yard cube	2/3
Add for mechanical hoisting .. per yard cube	1/6
Add for hand hoisting per 10 feet .. per yard cube	2/3

Surface Beds

Portland cement concrete 1 : 6, bed 6″ thick, spread and levelled .. .. per yard super	3/11
Add or deduct for each inch over or under 6″ in thickness per yard super	–/5½
Add for surface finished with spade face per yard super	–/3½
Add if laid in two layers with fabric reinforcement (measured separately) .. .. .. per yard super	–/3½

Upper Floors and Flats

Portland cement concrete 1 : 2 : 4 as before described, 6″ thick, packed around fabric reinforcement (measured separately) finished with spade face per yard super	5/3½
Add or deduct for each inch over or under 6″ in thickness per yard super	–/7½

Casings

Portland cement concrete 1 : 2 : 4 as before, in encasing to steel joists .. .. .. per foot cube	1/3
Ditto, packed around rods (measured separately) in lintols, sectional area not exceeding 36 inches per foot cube	1/5½
Ditto, ditto, over 36 inches and not exceeding 72 inches sectional area .. .. .. per foot cube	1/4½
Ditto, ditto, over 72 inches and not exceeding 144 inches sectional area .. .. .. per foot cube	1/3½
Ditto, ditto, over 144 inches sectional area per foot cube	1/2½

Walls in Situ

Portland cement concrete 1 : 6 with unscreened ballast in 9″ walls packed around rods (m/s) per yard super	6/7
Ditto, in 12″ walls ditto .. .. per yard super	8/–

Reinforcement

¼″ diameter and upwards mild steel rod reinforcement, cut to lengths, including bends and hooked ends and embedding in concrete lintols .. .. per cwt.	23/6
Under ¼″ diameter ditto .. .. .. per cwt.	25/–

Formwork

Close boarded formwork to soffites of floors and strutting up .. .. per yard super	3/9
Vertical formwork to sides of concrete walls, including struts, etc. (both sides measured) per yard super	3/–
Formwork to sides and soffites of concrete lintols and beams per foot super	–/6
Wrot ditto .. .. per foot super	–/7

BRICKLAYER

		Flettons £ s. d.	Second Stocks £ s. d.	Blue Staffordshire Wirecuts £ s. d.
Reduced brickwork in lime mortar 1 : 3 with ¼″ joints	per rod	23 0 4	32 9 0	
Ditto, ⅜″ joints ..	per rod	22 13 4	31 7 3	
Reduced brickwork in cement mortar 1 : 3 with ¼″ joints	per rod	24 15 4	34 3 8	51 15 8
Ditto with ⅜″ joints ..	per rod	24 14 0	33 7 0	50 6 4
Add if lime mortar hand mixed	per rod	5/8	5/8	
Ditto cement mortar ..	per rod	12/9	12/9	9/–
Half brick walls in lime mortar 1 : 3 ¼″ joints	per yard super	5/1	7/2	
Ditto in cement mortar 1 : 3	per yard super	5/5½	7/6½	11/3
Labour forming 2″ cavity to hollow walls including wall ties, etc.	per yard super			9d.

	£ s. d.
Add to the price of reduced brickwork for brickwork in underpinning .. ..per rod	4 0 0
Ditto, for brickwork circular on plan to flat sweep per rod	5 0 0
Ditto, ditto, to quick sweep .. .. ..per rod	10 0 0
Extra for Internal fairface and flush jointing per yard super	1/1½
Extra for grooved bricks as key for plaster per yard super	3d.
Raking out joints ditto .. .. ..per yard super	4½d.
Hacking concrete ditto .. .. ..per yard super	6d.
Horizontal double slate damp-proof course 4½″ wide bedded in cement mortar .. .. per foot run	4d.
Ditto exceeding 4½″ in width .. ..per foot super	10d.
Vertical ditto .. ..per foot super	1/–
" Ledkore " (Grade B) D.P.C. .. ..per foot super	9d.
Plumbing angles .. .. per foot run	1d.
Rake out joints and point to lead flashings per foot run	2d.
Ditto stepped .. .. per foot run	3d.
Bedding door frames .. .. .. per foot run	1d.
Ditto and pointing one side .. .. per foot run	2d.
Ditto and pointing both sides .. .. per foot run	3d.
Parge and core flues .. .. each	4/–
Set and flaunch only chimney pots .. .. each	5/–
Hoisting and fixing metal windows size 3′ 6″ × 4′ including cutting and pinning lugs to brickwork and bedding frames in cement mortar and pointing in mastic on one side .. .. each	5/–
Ditto, including screwing to wood frame (measured separately) .. .. each	3/–

	9″ × 3″	9″ × 6″
Form opening for air brick including slate lintol and render around in cement and sand to 13½″ wall and build in Terra Cotta air brick .. each	2/6	3/3
Galvanized cast iron School Board pattern air bricks and building in .. .. .. each	9d.	1/3
Fixing only fireplace simple interior and surround each	27/6	

Partitions

	2″	2½″	3″	4″
Breeze set in cement mortar per yard super	2/11	3/5	4/1½	5/1½
Clay tile ditto .. per yard super	4/5	4/11	5/8	6/4½
Pumice ditto .. per yard super	4/6	5/2½	6/3	7/2
Plaster ditto .. per yard super	4/–	4/11	6/–	7/2
White glazed both sides best quality bricks, set in cement mortar and pointed in Parian cement per yard super ..	42/5			

Facings

Prices are extra over Fletton brickwork and are for raking out joints and pointing with a neat struck weathered ½″ joint in cement mortar. For raking joints and pointing in white cement add an extra 11d. per yard super to the following prices.

	Flemish Bond	English Bond	Stretcher Bond
Stock facings p.c. 95/– ..per yard super	5/1	5/6	4/2
Rustic Flettons p.c. 70/6..per yard super	3/4	3/6	2/11
Blue pressed p.c. 174/– ..per yard super	11/3	12/6	8/10
Sand faced hand made reds p.c. 120/– per yard super	8/–	8/7	6/4
White glazed, headers p.c. 470/– and stretchers 480/– ..per yard super	32/–	36/–	24/8
For a variation of 10/– per M. in p.c. of facing bricks size 8¾″ × 2⅝″ on face with ½″ joints add or deduct per yard super	9d.	10d.	6¾d.

CURRENT PRICES

BY DAVIS AND BELFIELD, P.A.S.I.

BRICKLAYER, DRAINLAYER, ASPHALTER AND PAVIOR

BRICKLAYER—(*continued*)

Facings—(continued)

	Rustic Flettons	Stock Facings	Sand Faced Hand Made Reds
Half brick wall stretcher bond in cement mortar built fair and joints raked out and pointed in cement mortar on one side .. .. ..per yard super	8/7½	9/10½	12/–
Ditto and pointed both sides per yd. super	10/6	11/9	13/10
One brick wall in cement mortar built fair and joints raked out and pointed in cement mortar on one side per yard super	15/5	17/11	22/1
Ditto and pointed both sides per yd. super	17/3	19/9	23/10
Half brick wall built in best quality white glazed one side bricks, stretcher bond, in cement mortar built fair and pointed in parian cement .. .. ..per yard super			31/–
Ditto white glazed both sides and pointed both sides per yard super			41/9
Labour and material in hand made sand faced red brick on end window head and pointing to face and 4½″ soffite per foot run			1/3
Hand made, sand faced brick on edge coping including double course of tile creasing with two cement angle fillets to one brick wall .. .. per foot run			2/3

DRAINLAYER

Excavate to form drain trenches for 4″ pipes and get out, including planking and strutting, filling in and ramming, and wheeling and spreading surplus.

Prices per 12″ average depth per foot run:	Ordinary ground	Clay
Trenches not exceeding 3′ 0″ deep	–/2½	–/3
Ditto, exceeding 3′ 0″ and not exceeding 5′ 0″	–/5½	–/7
Ditto, exceeding 5′ 0″ and not exceeding 10′ 0″	–/8½	–/9½

	4″ pipes	6″ pipes	9″ pipes
6″ thick Portland cement concrete bed 6 : 1, 12″ wider than diameter of pipe, and flaunched halfway up sides of pipe .. per foot run	–/8½	–/10	
6″ ditto, and completely encasing per foot run	1/7	1/11	

	2″	3″	4″	6″
Agricultural land drain pipes, laid complete with butted joints, exclusive of digging .. .. per yard run	–/4	–/6	–/8	1/1

British Standard Quality Salt Glazed Socketed Stoneware Drainpipes and Fittings

	4″ pipes Over 2-ton lots	4″ pipes Under 2 tons, 100 pieces upwards	6″ pipes Over 2-ton lots	6″ pipes Under 2 tons, 100 pieces upwards	9″ pipes Over 2-ton lots	9″ pipes Under 2 tons, 100 pieces upwards
Pipes jointed in 1:1 cement and sand per foot run	1/1	1/3	1/7	1/10	2/8½	3/4
Extra for bends .. each	1/4	1/7	2/–	2/4	3/6	4/–
Ditto, single junction each	1/10	2/2	2/–	2/4	3/6	4/–
Trapped yard gulleys with galvanized iron gratings, and setting in concrete and jointing to drain each	9/–	11/6	13/–	14/–	19/–	22/–
Ditto, with horizontal back inlet .. .. each	10/6	13/3	14/6	15/9	20/6	23/9
Ditto, with vertical back inlet .. .. each	11/3	14/–	15/3	16/9	21/3	24/9
Intercepting trap with Stanford stopper and setting in manhole and making good .. each	20/6	24/–	25/6	29/–	—	—

Coated Cast Iron Socketed Drain Pipes

	4″	6″	9″
Pipes in 9′ 0″ lengths and laying in trench, including caulked lead joints per foot run	3/6	5/3	9/3
Cutting and waste .. .. each	1/9	3/6	—
Extra for bends, including extra joints and cutting and waste on pipe each	10/10	20/9	59/5
Ditto, junction ditto .. .. each	17/5	32/6	99/5
Intercepting trap .. .. each	49/–	79/4	183/4

DRAINLAYER—(*continued*)

	4″	6″	9″
H.M.O.W. large socket gulley trap with 9″ gulley top and heavy grating and one back inlet	45/5	79/6	—
H.M.O.W. gulley trap with 9″ inlet with high invert outlet for use with raising pieces	33/5	48/–	—
4″ inspection chamber with one 4″ branch .. .. each		66/–	
4″ ditto with two 4″ branches one side each		99/–	
6″ ditto with one 4″ branch .. .. each		95/3	
6″ ditto with two 6″ branches one side each		140/–	
9″ ditto with one 9″ branch .. .. each		212/6	
9″ ditto with two 9″ branches one side each		326/–	

	White glazed	Salt glazed
4″ half-round straight main channel 24″ long each	5/10	2/1
Ditto, channel bends (ordinary) .. .. each	8/6	3/–
4″ Three-quarter round branch bends (short) each	8/6	6/9
Manhole covers and frame bedded in grease and set in cement mortar .. .. .. each	4/–	

ASPHALTER

Various qualities of asphalte are marketed by different firms. The term "Best" is intended to imply the best quality produced by a single representative firm, and not necessarily the best or most expensive asphalte obtainable.

	Natural Rock Asphalte Best Quality	Natural Rock Asphalte Second Quality
Basement (Tanking).		
1½″ horizontal d.p.c. in three layers on concrete per yard super	8/5	6/10
¾″ vertical ditto in three coats on brickwork or concrete .. .. .. per yard super	11/6½	10/–
Double angle fillet .. .. per foot run	–/6½	–/5½
Hard Graded Paving.		
1″ thick .. .. .. per yard super	7/4	6/3½
¾″ thick .. .. .. per yard super	6/3½	5/3½
½″ dampcourse finish, with smooth surface to receive lino or other floor covering	5/3	4/8½
Roofing (Flat).		
¾″ thick in 2 layers .. .. per yard super	6/3½	5/3
1″ ditto .. .. .. per yard super	7/4	6/3½
Extras.		
Felt supplied and fixed .. per yard super	–/6½	—
Expanded metal reinforcement ditto per yard super	1/0½	—
6″ skirting and fillet on brickwork per foot run	1/0½	–/11½
6″ ditto on wood (reinforced) per foot run	1/2½	1/1½
Nosing at eaves on lead apron (measured separately) .. .. .. per foot run	–/3½	–/3½
Parapet outlets .. .. each	4/2½	3/8

PAVIOR

	1″	1½″	2″
Granolithic paving .. per yard super	2/7½	3/6	4/7
Add for dusting with carborundum powder per yard super			–/9
Cement and sand paving (1 : 3) per yard super	1/10	2/4½	—
½″ Jointless flooring, red, buff or brown, finished to a smooth trowelled surface, on concrete sub floors per yard super			5/3
¾″ Ditto, in two coats on spade faced concrete or wood sub floors			6/7
⅝″ thick ditto, reinforced with laths and galvanised wire netting .. .. .. per yard super			6/0½
Add for polishing .. .. per yard super			–/6½
Terrazzo paving, white chips set in white cement, panelled into squares with 1½″×½″ deep ebonite strips, on and including cement and sand screed. Total thickness 1½″ per yard super			19/5
Ditto, but white chips set in grey Portland cement per yard super			17/4
Terrazzo tiles, white chips set in white cement :—			
Size 9″ × 9″ × ¾″ .. .. .. per yard super			20/6
Size 12″ × 12″ × 1″ .. .. .. per yard super			18/8
Ditto, but white chips set in grey Portland cement :—			
Size 9″ × 9″ × ¾″ .. .. .. per yard super			18/11
Size 12″ × 12″ × 1″ .. .. .. per yard super			17/1

	⅛″	3/16″	¼″
Sheet rubber .. .. per yard super	11/7	14/8	17/10
Rubber tiles .. .. per yard super	13/8	16/10	19/11

	3/16″	¼″	½″
Cork tiles, polished .. per yard super	12/10½	11/–	10/–

CURRENT PRICES

BY DAVIS AND BELFIELD, P.A.S.I.

MASON, SLATER, TILER AND ROOFER, AND CARPENTER

PAVIOR—(*continued*)

Hard red paving bricks laid flat (9″ × 4½″ × 2⅝″)	per yard super	9/–
Ditto, laid on edge	per yard super	11/9

	⅝″ thick	⅞″ thick
6″ × 6″ best quality red quarry tiles	per yard super 10/–	11/–
6″ × 6″ best quality buff quarry tiles	per yard super 10/6	11/6

2″ Yorkshire stone paving, square joints and bedding	per yard super	22/–
2″ Finished path of coarse gravel finished with good binding gravel to slight camber	per yard super	1/7½
3½″ Path of clean hard clinker and 1½″ gravel finished to slight camber	per yard super	2/3
7½″ Carriage drive of 3″ clinker, 3″ coarse gravel and 1½″ binding gravel finished to slight camber	per yard super	3/9
2½″ Tar paving in two layers finished with Derbyshire spar	per yard super	4/9

MASON

		Bath	Portland
Stone and all labours of usual character covering 7″ on bed, roughly squared at back, fixed and cleaned down complete	per foot cube	11/9	17/–

Yorkstone

		Thickness 3″	4″	6″
Templates tooled on exposed faces, sawn beds and joints, and set in cement mortar :—				
Size 9″ × 9″	each	1/8	2/3	3/4½
„ 14″ × 9″	each	2/7½	3/6	5/3
„ 18″ × 14″	each	5/3	7/–	10/6
„ 22½″ × 14″	each	6/6	8/8	13/–
„ 27″ × 14″	each	7/10½	10/6	15/9

Artificial Stone

In steps, copings, band courses, etc., per foot cube, from		9/–

Reconstructed Stone

In steps, dressings, band courses, etc., per foot cube	..	12/6

Slate

		1″	1¼″	1½″
Slate slabs, sawn to size, not exceeding 10 ft. sup. and planed, with rubbed face and fixing as shelving, etc.	per foot super	4/6	5/–	6/–
Ditto, not exceeding 20 ft. sup.	per foot super	5/4	5/10	7/–
Rubbed edges	per foot run	–/4½	–/4½	–/4½

SLATER, TILER AND ROOFER

Bangor and Portmadoc Slates

	20″ × 10″	16″ × 8″	24″ × 12″
Slates laid to a 3″ lap and fixed with zinc nails .. per square	79/–	77/–	80/–

Old Delabole Slates

		20″ × 12″	16″ × 10″
Grey medium gradings	per square	86/–	84/6
Unselected greens (V.M.S.) (weathering greens and grey greens mixed)	per square	96/6	94/6

Randoms		No. 1 Gradings 24″/22″ to 12″/10″
Ordinary grey greens	per square	91/3
Weathering grey greens (V.M.S.)	per square	101/9

		No. 2 Gradings 24″/22″ to 12″/10″
Weathering greens (V.M.S.)	per square	107/–

Westmorland Green Slates

Randoms		Bests 24″ to 12″ long proportionate widths
No. 1 Buttermere, fine light green	per square	122/9
No. 2 Buttermere, light green (coarse grained)	per square	120/9
No. 5 Buttermere, olive green (coarse grained)	per square	117/6

SLATER, TILER AND ROOFER—(*continued*)

Tiles

Hand made sand faced 10½″ × 6½″ laid to 4″ gauge, fourth course nailed with galvanized nails	per square	65/–
Machine made ditto	per square	56/7

Pantiles

Berkshire hand made surface red laid dry,	per square	65/–
Bridgewater hand made red laid dry	per square	65/–
Bridgewater double Roman laid dry	per square	48/3

Sundries

Stripping, slating down to and including, 18″ × 9″	per square	4/6
Ditto smaller sizes	per square	6/–
Add for carrying down and stacking	per square	1/8
Ditto stripping battens down to and including 18″ × 9″	per square	1/4½
Ditto, ditto, smaller sizes	per square	2/3

Cedarwood Tiles

Canadian Cedarwood shingles laid to 5″ gauge	per square	47/4

Asbestos

Russet brown asbestos cement roofing tiles 15¾″ × 15¾″ laid diagonally with 2¾″ lap,	per square	38/–

CARPENTER

Centering

Turning piece to flat soffites 4½″ wide (For Formwork see "Concretor.")	per foot run	–/4

Fir Sawn and Fixed

Plates, dragon ties, sleeper joists and lintols, ground floor (4″ × 2″ and 4″ × 3″)	per foot cube	3/7
Floor joists (7″ × 2″)	per foot cube	4/1
Partitions (stud) (4″ × 2″ and 4″ × 3″)	per foot cube	4/10
Rafters and ceiling joists (4″ × 2″ and 4″ × 3″)	per foot cube	4/7
Purlins (6″ × 4″)	per foot cube	5/3
Hand labour wrot face	per foot super	–/2
Machine ditto	per foot super	–/1
Rebates, grooves, beads, chamfers and splays,	per foot run	–/1
1½″ × 9″ ridge	per foot run	–/6½
1½″ × 11″ hips or valleys, including cutting ends of rafters against same	per foot run	–/8½
Extra labour trimming 6″ × 2″ floor joists around fireplace, including notching ends of joists at 14″ centres to trimmer joist 7′ 0″ long and two tusk tenons	each	6/–
Boring small hole per inch of depth	per doz.	–/6
Ditto large	per doz.	1/–

Deal Battening for Slates and Tiles

2″ × 1″ spaced for Countess (20″ × 10″) slates to 3″ lap	per square	10/8
2″ × 1″ ditto for Ladies (16″ × 8″)	per square	14/1
2″ × 1″ ditto for Duchess (24″ × 12″) ditto	per square	8/9
2″ × 1″ ditto for randoms 24″/22″ to 12″/10″	per square	11/10
1½″ × ¾″ ditto for plain tiles (10½″ × 6½″) to n 4″ gauge	per square	13/7
1½″ × 1″ ditto for pantiles to approximately 11½″ gauge	per square	6/7

Roof Boarding

		¾″	1″
✱Deal roof boarding in batten widths close jointed	per square	27/8	33/–
✱Ditto, prepared for patent flat roofing and including firrings to falls	per square	38/1	43/4
Small tilting fillet	per foot run		–/2
Large ditto	per foot run		–/4

Felt

Sarking or slaters felt, fixed with 2″ side laps and 6″ end laps	per yard super	–/10½
Roofing felt ditto	per yard super	1/1
Bituminous hair felt ditto	per yard super	2/–

Weather Boarding

✱Rough deal feather edge boarding in batten widths ½″ average with 1¼″ laps	per square	29/9
Western Red Cedar ditto	per square	32/10

Fascia and Soffite Boards

1″ × 6″ deal splayed fascia fixed to rafter feet	per foot run	–/4½
1″ × 9″ deal soffite tongued both edges, including grooves	per foot run	–/7½

(*To be continued in next Issue*)

✱ **Items marked thus have fallen in price since August 4.**