House at Chilton, Isle of Wight. Architect : Gerald Lacoste, A.R.I.B.A. Builder : Brazier & Son, Southampton.

THE ARCHITECTS' JOURNAL

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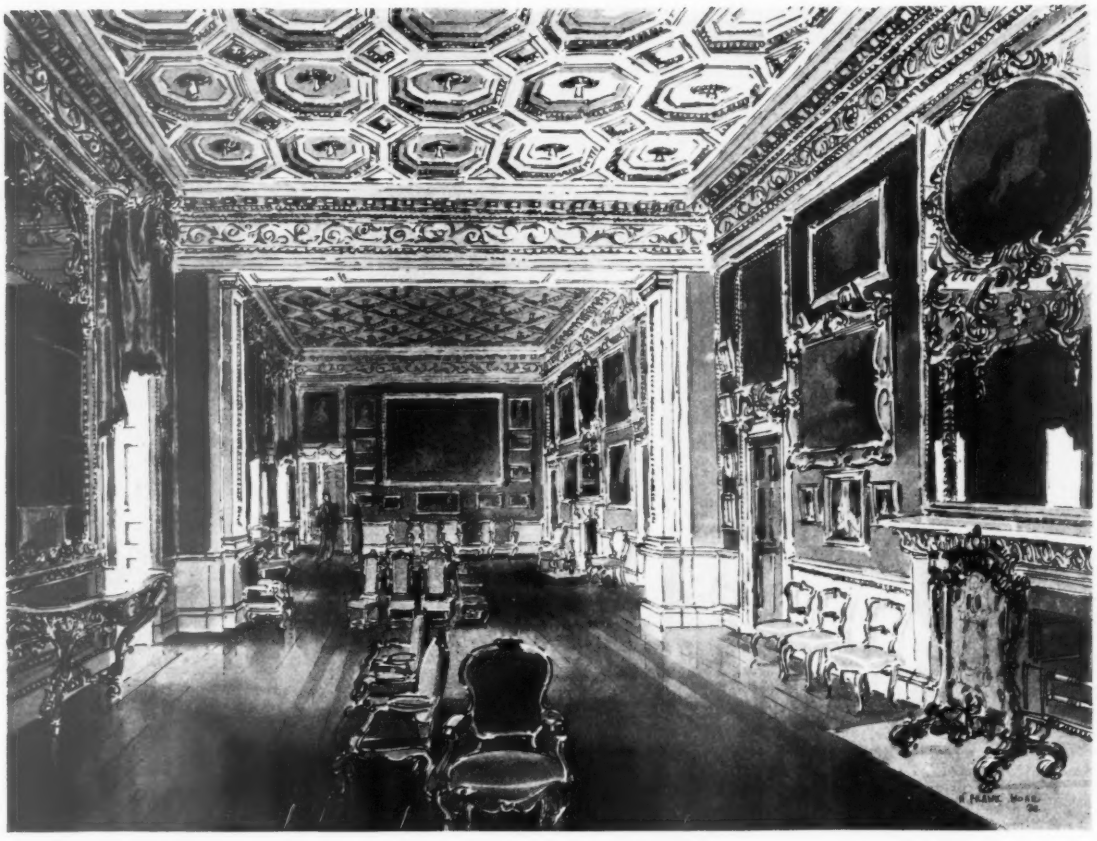
The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

THURSDAY, MARCH 31, 1938. NUMBER 2254 : VOLUME 87

PRINCIPAL CONTENTS

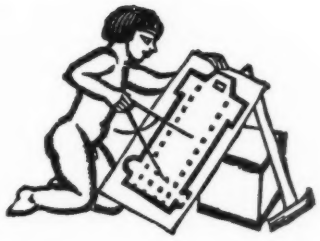
NOW BEING DEMOLISHED: NORFOLK HOUSE



THE drawing-room of Norfolk House, St. James's Square, S.W. The building is now being demolished and a block of offices is to be built on the site. The drawing is by Mr. H. Frank Hoar.

SWIMMING BATH IN ICELAND

The new swimming bath at Reykjavik, built of reinforced concrete. The bath, like many other public buildings in Reykjavik, is heated from hot springs some miles from the city. Iceland is making increasing use of such springs, where water is available at very high temperatures.



ARCHITECTS AND PUBLIC AFFAIRS—2

THERE is to-day an increased conviction among ordinary men that the primary possessions of the country could be better used in the interest of the whole community.

If this is true its significance for architects should largely control their future policy—if they intend to have a policy.

The public sees injustices, vaguely. It knows nothing of remedies. Necessarily, pathetically, it looks to the technicians for remedies. "The technicians" means the professions.

Now just as politics may be divided into internal and external affairs so must the activities of a profession. A profession's central organization must be able to supply technicians when wanted, must educate them, regulate them, and defend them against any form of imposition. But doing all these things well will not help it in that part of the public confidence which most matters.

The common man is glad to have technicians competent and at his service in matters immediately relating to their particular technique. But he is not touched by it. Where he wants help and direction is in his own troubles, in the wider matters which, although they need technicians, do not offer immediate rewards for their services. It is the altruism of the skilled and determined men which, in time, gets the confidence which makes a great profession.

Judged in this wider way architects since the war make poor showing. Internal problems have been great and have been in 20 years surmounted with a success that proves the amount of work carried out. It is a dignified and authoritative profession. But it does not touch the public imagination.

On its record there is little reason why it should. The post-war housing campaign, town planning, the slum campaign, trading estates and the roads have shown architects collectively ready to fight for their own interests (which sometimes, admittedly, coincided with the public interest) and ready to follow the band. Never have they been ready to state emphatically their collective view of the public interest when there was danger of its differing from that of those in authority.

If rocketing prices, a demoralized public and unsettled profession provided some excuse for architects' failure in post-war housing, none is available for their failures in town planning. Here individual architects were the pioneers and a united professional attitude might have speeded up constructive town planning by a decade. In fact, the apathy of the Government and local authorities in conjunction with uninterested architects turned the whole profession away from town planning. To-day, when constructive territorial planning is on the point of beginning, the number of architects capable of taking part in it is negligible.

The anti-slum campaign came next. Public opinion was genuinely and deeply moved by the attempt to clear up the slums. Architects collectively made no suggestions of the alternative solutions available. One individual architect, Sir Raymond Unwin, did realize the profession's responsibility and by his efforts brought the profession nearer than it had ever been to enjoying popular confidence; and it is significant that Sir Raymond Unwin is the only President of the R.I.B.A. known by name to vast numbers of the public. For the rest architects did nothing to examine collectively the problems of rehousing.

A third example of collective failure, the trading estate, is still not past remedying. The first sign of constructive town planning, favoured by the Commissioners for Special Areas and even the Government, the trading estate might be made by architects to develop into the forerunner of architecture in the grand manner which is, with or without architects, inevitable. But there are no signs that architects collectively have heard of trading estates.

Now supposing that architects decided, as the public has now decided, that housing, transport and industry must be tackled in much larger units if they are to be tackled well, how would they set about doing what is essentially their job? Where is the organization which can examine the facts, prepare the policy, and allocate the place of each architect in its execution? That is the next question.

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NOTES & TOPICS

TOWN PLANNING BECOMES EFFECTIVE

A LARGISH part of last week was taken up answering questions about the meaning of my note called *Glorious Future*.

*

The bewilderment of those who read it is understandable. I was bewildered when I wrote it. Since then the matter has become rather clearer.

*

Rather over a week ago I was glancing in the way of business through the Ministry of Health's *Model Clauses* for use in preparation of Town and Country Planning schemes when I came upon Clause 45—*External Appearance of Buildings*, sub-clauses 2 and 3 which run :—

(2) The Council shall approve the external appearance of a building, or if they consider that, having regard to the character of the locality or of the building erected or proposed to be erected therein, the building would disfigure the locality by reason of its external appearance or of its size, withhold their approval or give it subject to appropriate modifications or conditions.

(3) For the purposes of this Clause the Council shall constitute in the manner provided in the Fourth Schedule to this Scheme a standing tribunal of appeal . . . and the procedure with respect to appeals shall be as provided in the said schedule.

*

Clause 45 (5) states that the tribunal's decision shall be final, and the Fourth Schedule states that the tribunal shall consist of *one member of the R.I.B.A., one member of the Chartered Surveyors' Institution and one J.P.* A little further research disclosed the fact that at the discretion of the authority, the appeal can lie instead to the local Bench.

*

Presumably many people read these clauses and made this discovery. Undoubtedly, someone framed them and someone else vetted them. It is likely that a Committee at the R.I.B.A. has heard about them. To me—and those to whom I have spoken—they came as a revelation. What do they mean ?

*

Apparently this. Hitherto any architect building in a district where a town planning scheme was in process of formulation has been liable to have his designs rejected for reasons of external appearance. Either he has been a hated modernist or, sometimes, just a foreigner, i.e. not local. And thereafter—if the advisory panel, where such existed, supported the Council—his only court of appeal was the Ministry of Health.

*

Not merely modernists but every architect of goodwill will agree that the officials of the Ministry of Health have carried out their job with extraordinary tact and vision. Every architect has felt himself assured—where his client would face the nuisance and expense involved—of a disinterested hearing by a court outside the influence of local backchat and prejudice.

*

The point of my " discovery " is that now it turns out that this state of affairs only holds good under Interim Development Orders. When a Town Planning Scheme is fully approved by Parliament and passed into law a different procedure comes into force. There is still a court of appeal, but it is (*a*) the local Bench, or (*b*) the tribunal before described.

*

Consider, my dear architects, just where you will get off under the new dispensation.

*

Unless you can design like an estate agent or have a strong local pull, your schemes will be turned down pretty often. You then appeal to the Bench *or* to a committee of three, one of whom is a J.P. anyway, another a chartered surveyor. Even if the third, an R.I.B.A. man, is browbeaten by headquarters into not doing down a fellow trade unionist, there are still two fine old English gentlemen to carry out the good work and fill some columns in the local papers. It will all be so good for trade.

WATCHING BRIEF

Sir Charles Allom, the well-known architect and light-fitting magnate, explained to the press last week how his name had become associated with the project, financed by a German, to run an anti-Communist paper in Belgium.

*

" I was willing to join the board," he said, " to find out what was really happening, and perhaps to use my position to counter any developments which might have been inadvisable from a patriotic standpoint, Belgian or British. As a loyal Briton . . . I thought my joining the board might be a sound move.

*

" I am still willing to join the board if it is what they told me it was."

THE WINDOW FRONT

" And how long will it take to build? "

*

" Let me see—about seven months, I should think. Five months to build and two months to wait for the steel windows."

*

My acquaintance's waggishness seems so far as my inquiries have yet gone to be only mildly out of relation with the facts. It may be re-armament or big jobs getting all the attention—the manufacturers have not confided in me. My experience is that on smaller jobs deliveries are becoming grossly behind the manufacturers' undertakings.

I am even thinking of starting a little society of angry architects.

*

Anyone else on whom the comedy of railway companies' failings, wiring down the line, following up the consignment and all the rest is beginning to pall is now invited to send in evidence.

APOLOGY

I did a grave injustice last week in describing Major and Mrs. Pershouse's residence, which is, inside, "a complete French chateau of the Renaissance period." I said the house was vast and stuccoed.

*

It isn't. It is the centre house above and was designed by Messrs. T. P. Bennett and Son. On careful examination the Renaissance chateau can be seen through the windows.

NIGHT FLIT

Stealthily, in the early hours of March 4, a block of flats in Moscow was moved back 150 ft. to widen Gorky Street. "Pliable pipe extensions" kept the services going, and "most of the tenants were unaware of the removal until they looked out of their windows in the morning."

*

But there was a blackleg. "A man named Bachelis, who knew beforehand, placed some wineglasses filled with water on a table before going to bed." The removal, adds the note, "was effected with such smoothness that not a drop of water had been spilt. . . ."

"IT CAN'T HAPPEN HERE"

A precedent for an entirely new kind of art censorship was set up in this country last week, but it has raised a considerable outcry, so we can at least still say that we have not yet arrived at a Nazi dictatorship of what the public ought and ought not to be allowed to look at.

*

Letters to *The Times* and *Telegraph*, signed by an imposing list of prominent authorities on art, condemned Mr. J. B. Manson's action in declaring that not a single specimen of a collection of sculpture by some of the foremost European sculptors, including Brancusi, should be regarded as a work of art, and that these should not therefore be admitted to a forthcoming London sculpture show without the payment of Customs duties.

*

The purpose in appointing the Director of the Tate Gallery as arbitrator with whom should rest the decision as to what was art and what was not for Customs purposes is to have at hand a means of distinguishing between works of creative art and, say, mass-produced plaster saints; the purpose is not to give any one person the privilege of denying to the public the opportunity of looking at art that he does not happen to like. Though Mr. Manson's publicly expressed justification for his action is that the sculpture in question was the kind that ought to be kept out of this country.

*

How were the Customs department of the Post Office to know that the Director of our national gallery of modern art would be an opponent of modern movements in art?

*

It may be of interest to add that the only letter supporting Mr. Manson's action which I saw among the press correspondence that it raised was one from a quite well-known *architect* who (I hope not characteristically) had got hold of the wrong end of the stick and solemnly wrote to the *Telegraph* to express his agreement with Mr. Manson that this was really not his idea of what artists ought to be doing.

ASTRAGAL

The last section of the series on "Schools" will be published in next week's issue.

NEWS

POINTS FROM THIS ISSUE

ART AND INDUSTRY

The following members of the Council for Art and Industry have recently retired on the completion of their term of appointment: Sir Thomas Barlow, Mr. F. V. Burridge, Sir William Crawford and Mr. W. L. Stephenson. They are succeeded by Mr. P. H. Jowett, Principal of the Royal College of Art; Mr. Gordon Selfridge, Junior, managing director of Selfridge Provincial Stores, Ltd.; Mr. R. C. Sykes, a director of London Press Exchange, Ltd.; and Mr. W. Turnbull, managing director of Turnbull and Stockdale, Ltd., calico printers.

NEWS FROM LEEDS

Yesterday, the Lord Mayor of Leeds officially opened the first completed section of the Quarry Hill Flats, Leeds, which have been built on the Mopin system from the designs of Mr. R. H. Livett, Director of Housing.

The Leeds Corporation Improvements Committee has rejected the scheme of Briggate Properties, Ltd., to build a 23-storey building between Briggate and Trinity Street, Leeds. The plans for the skyscraper have been rejected under Section 39 of the Leeds Corporation Act, 1930, relating to elevations. In that section of the Act there is a provision that if the Corporation considers, having regard to the general character of buildings in the vicinity, the proposed elevations would be open to objection, it has power to disapprove of them.

The proposal was to demolish the existing property and erect on the site a building which would be 255 ft. high.

A sum of £670,000 will be spent on a new civic centre for Leeds if a scheme now being considered is carried through. The architect is Mr. John C. Procter, F.R.I.B.A. A scale model, sketch plans and the architect's preliminary report were examined by the Libraries and Art Committee on March 24, and it was decided to defer consideration of the scheme. Satisfaction with the plans has been expressed by the city librarian, the director of the Art Gallery and the curator of the museum, and, in an interview with a representative of the *Yorkshire Post*, Alderman Leigh recalled that for 25 years various schemes had been prepared and rejected, but he hoped that with the good will of all concerned it would be possible to carry out the present magnificent project.

The three suggested stages of the building programme are:—

1. The whole of the accommodation required to house the city museum. Accommodation for the art gallery approximately equal to that existing in the present building. Certain accommodation for the central library, mostly comprised in book-storage. Cost £360,984.

2. The completion of the main block (as distinct from the office block). This would complete the new central library and the whole of the art gallery (with the exception of the exhibition galleries, which come over the office block), and would complete the façade to The Headrow. Cost £160,000.

3. The office block on the north of the site, together with the art gallery exhibition rooms. Cost £150,000.

THE ARCHITECTS' DIARY

Thursday, March 31

R.I.B.A., 66 *Portland Place, W.1. Exhibition: "Health, Sport and Fitness." Last day.* 10 *a.m. to* 8 *p.m.*

ARCHITECTURE CLUB. *Twenty eighth dinner. At the Savoy Hotel, W.C. Subject: "London's Waterfront through the Ages." Lantern slides will be described by Oswald Barron; other speakers—Sir Giles Gilbert Scott, R.A., A. G. MacDonnell and Clifford Bax. 7.45 p.m.*

SOCIETY OF ANTIQUARIES, *Burlington House, W.1. "Two Bronze Age Cairns in Glamorgan." By Sir Cyril Fox. 8.30 p.m.*

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE, *Lincoln's Inn Fields, W.C. "The Appraisement of Pictures—Pitfalls and Problems." By H. Mordaunt Rogers. 7 p.m.*

INSTITUTION OF HEATING AND VENTILATING ENGINEERS AND INSTITUTE OF FUEL. *At the Institution of Mechanical Engineers, Storey's Gate, S.W.1. "A Comparison of the Cost of Heat Supply by Electrode Boiler or by Coke Boiler to the same Group of Buildings." By S. Livingstone Smith and Professor C. H. Lander. 6 p.m.*

Monday, April 4

CHARTERED SURVEYORS' INSTITUTION, *Gt. George Street, S.W.1. "The Basis of Map-making: the Survey of Control." By G. T. McCaw. 6.30 p.m.*

R.I.B.A., 66 *Portland Place, W.1. Presentation of the Royal Gold Medal. 8.30 p.m.*

Tuesday, April 5

Daily Mail IDEAL HOME EXHIBITION. *At Olympia. Until April 30. 10 a.m. to 10 p.m.*

HOUSING CENTRE, 13 *Suffolk Street, S.W. Tuesday lunches: "The Work of the MARS Group." By Serge Chermayeff. 1 p.m.*

Wednesday, April 6

ROYAL SOCIETY OF ARTS, *John Street, Adelphi, W.C.2. "The 1935 Exhibition—and After." By John A. Milne. 8.15 p.m.*

B.I.F. 1939

Next year's British Industries Fair will be held in London and Birmingham from February 20 to March 3. Already, within three weeks of the close of the Fair, 798 exhibitors have applied for 431,500 sq. ft. of space in London and Birmingham next year, or more than half the area occupied this year.

TIMBER RESEARCH

On Monday last the Lord Mayor of Manchester opened a Timber Research Exhibition in the large hall of the College of Technology, Manchester. The exhibition has been arranged at the request of the North Western Educational Association for the Building Industry by the Forest Products Research Laboratory.

The exhibition, which runs until April 2, is a very comprehensive one and covers practically every aspect of timber research.

PRESERVATION OF AMENITIES

The Minister of Health, Sir Kingsley Wood, recently received a deputation from Members of Parliament representative of all parties who are interested in the preservation of amenities in the building of new houses.

The deputation, which was introduced by Mr. Ronald Tree, said that they were anxious that the additional houses for the agricultural worker which would be built under the provisions of the Housing Bill now before Parliament should be of suitable appearance and built on suitable sites. They emphasized that a number of the houses already built by rural authorities were out of harmony with their surroundings and asked the Minister to make it compulsory that in carrying out their housing schemes local authorities should employ the services of a fully qualified architect.

Sir Kingsley Wood, in reply, said that he agreed with the deputation that the preservation of amenities was a matter of vital importance, and he thought that this could best be secured, not so much by statutory provision, as by the vigilance of and co-operation between all concerned. A statutory requirement, for instance, that local authorities should employ architects would not be the most effectual way of meeting the situation. The architectural profession had done much to help, but it was only a proportion of architects who had had such experience of cottage building as would be likely to secure the desired result.

Sir Kingsley Wood said that he believed that in the administration of the new measure and our housing generally we could best secure that the houses to be built should be both sound and attractive, and he proposed to intensify administrative action. So far as plans for rural housing were concerned, he proposed to make it a condition that they should be presented to the Department at an early stage so as to enable alterations to be made without involving delay in the progress of the schemes. This would ensure that the building of houses should not proceed until the plans had been carefully examined and approved. The Ministry's staff of architects had been strengthened in order that full consideration might be given to plans at the earliest possible stage, and every step would be taken to secure any desirable improvements in the plans by discussion where necessary with officers of the local authorities concerned or by local conferences.

The Minister said that he would continue to encourage the use of the existing voluntary panels of architects, the setting up of new panels where at present none existed, and the adoption of suggestions made by

In the early part of this month the B.B.C.'s television service included a broadcast given jointly by Mr. Christopher Tunnard, A.I.L.A., the garden designer, and Mr. J. M. Richards, A.R.I.B.A., on the subject of "Garden Lay-out," with particular emphasis laid on its architectural aspect. An interesting television technique was worked out so that the points could be made by the manipulation of models in front of the camera. The models consisted of typical garden sites with garden elements that could be disposed about them, according to various theories that were discussed. The photograph shows the broadcast in progress with one of the models in process of being built up. Mr. Tunnard is on the left.

the C.P.R.E., and that he would also encourage what was already being done in some counties—the submission of plans and elevations by local authorities to the county planning officer—another method of securing effective control of design and elevation.

GOLD MEDAL FOR LONDON BRICK BUILDING

The fourth annual award of the gold medal to be presented by the Tylers and Bricklayers Company to the architect of the building judged to have the most merit within the R.I.B.A. radius of eight miles from Charing Cross, will be announced in June, 1938.

The building is to be one of brick and tile (buildings having a small amount of stone or other dressings will not necessarily be precluded) and must have been completed within the last three years ending December 31, 1937.

Any practising architect is at liberty to nominate any buildings including his own for the consideration of the jury, no special form is necessary and the following information only should be given: Name, situation and architect of building signed by the nominator. Nominations must be sent to the Clerk of the Tylers and Bricklayers Company, 6 Bedford Row, W.C.1, not later than April 30 next.

CREMATORIUM COMPETITION

Architects practising or resident in the counties of Oxford, Buckinghamshire and Berkshire are invited by Oxford Crematorium, Ltd., to submit designs in competition for the proposed new crematorium on a site in the Bayswater Road between Headington and Beckley, some 3½ miles from Oxford. Sir E. Guy Dawber, R.A., has been appointed assessor, and the following premiums are offered: £100, £60 and £40.

Conditions are obtainable from Mr. Graham G. Watson, Secretary, Oxford Crematorium, Ltd., 55 Corn Market Street, Oxford. Deposit £1 1s.

I.C.I. LABORATORIES, BLACKLEY

Messrs. Samuely and Hamann write: "In last week's issue you stated that we are the consulting engineers for the laboratories for Messrs. Imperial Chemical Industries, Blackley. It was our former partnership, Messrs. Helsby, Hamann and Samuely who were the consulting engineers."

EXHIBITIONS

[*By D. COSENS*]

"CROSS-SECTION of English Painting, 1938," is an ambitious title for an exhibition, and should surely mean one that is arranged to show the whole structure and interrelation of the various manifestations of contemporary art. This the exhibition arranged by the Wildenstein Galleries certainly cannot be said to attempt to do, for it illustrates one outlook only—that of some of the younger and more intelligent exponents of realism. And it remains doubtful whether this one facet, admirably displayed as it is, is very important either as a portent or in actual accomplishment. The interest of this exhibition lies in the fact that it shows to the best advantage the work of painters still sensitive enough to travel beyond the limits by which they are at present bounded. Within those limits of the direct representation of observed happenings nearly all the work is admirable, and in many cases the actual painting and feeling for paint and for atmosphere are far above the average. Victor Pasmore is an artist whose work steadily improves, and his "Parisian Café" is a fine example of the rightness of his sense of colour. The tempestuous and highly dramatic quality of Rodrigo Moynihan's work may lead him anywhere, but if he does not let his skill replace his vision and carry him straight through the portals of Burlington House he will undoubtedly succeed. His "Portrait of Anastasia Anrep" and "Brighton Beach" are each, in their own way, remarkable *tours de force*. Kenneth Rowntree, a comparative newcomer, should be specially noted, for in his work there is evidence of great ability and an insight that will almost certainly take him beyond realism. Ginner, Pitchforth, Coldstream, Daintrey and Le Bas are each represented by work that adds greatly to the interest of this exhibition.

But 1938 can say a lot more for itself than this.

•

Rosenberg and Helft have hung on their end wall, facing the entrance, a painting by Picasso which is so immediately arresting and so complete that the rest of the exhibition might as well not exist—in fact, cannot exist unless one pays it a separate visit while carefully avoiding Picasso's all-seeing eye. The rest, particularly Braque and Raoult, are exceptionally fine, but it is to the exact balance of Picasso's "Pichet, compotier de fruits, sur une table," that one inevitably returns. This is an astonishingly perfect composition, a flowing and self-contained arabesque, completely balanced through the colour and placing of similar forms, and completely stabile in its perpetual movement. Painted in 1931, it is a wholly abstract conception, and has none of the more surreal or literary qualities of his latest work.

Tooth's have arranged an exceptionally fine exhibition of paintings by Modigliani. Many of these are familiar, but there has seldom been so complete a survey of the later work of this painter who has already taken his deserved place as one of the finest of his generation. His life and æsthetic development are excellently outlined in the catalogue, but his work with its strange mixture of Negro and Italian influences, accurate statement through deliberate distortion, and passionate truthfulness, needs no foreword.

•

"Cross-section of English Painting, 1938." Wildenstein Galleries, 147 New Bond Street. Until April 9.

Bonnard, Braque, Matisse, Picasso and Raoult. Rosenberg and Helft, 31 Bruton Street. Until April 14.

Modigliani. Tooth's Galleries, 155 New Bond Street. Until April 9.

LETTERS FROM READERS

A. W. BARR (Secretary, A.A.S.T.A.)
G. V. DOWNER (Director, G. V. D. Illuminators, Ltd.)
H. L. NATHAN, M.P.
EDUCATIONAL SUPPLY ASSOCIATION
R. ALAN LAMBOURN
ARCHITECT AND R.E. (S.R.O.)
D. V. WALLACE

Minimum Salaries

SIR,—As a matter of public interest, I feel that your readers may be interested in the attached copy of a letter which has been sent to the Town Clerk, South Shields, by the Salaries Committee of this Association.

The A.A.S.T.A. invites the co-operation of your readers in its efforts to achieve the general establishment of recognized minimum salary scales for Architectural Assistants.

A. W. BARR

Appointment of Architectural Assistant

DEAR SIR,—Further to our correspondence regarding your advertisement in THE ARCHITECTS' JOURNAL for January 20 last, the Salaries Committee of this Association have given the matter their careful consideration. It would appear from your letter of February 15 that the vacancy was for a "Junior Architectural Assistant" in accordance with Grade Va of your Council's Scale for Technical Staffs, at a fixed salary of £200 a year. It would appear also that, above this grade, there are in the Borough Engineer's Office five incremented grades of Architectural Assistants. The vacancy advertised was therefore for the position of the most junior assistant in the office. My Committee are of the opinion that your Council are not justified in asking in their advertisement to fill this position for an "Architectural Assistant" who "should be an Associate of the R.I.B.A. and have had experience in the design of public buildings."

As pointed out in my letter of February 12, an assistant to have had any useful "experience in the design of public buildings" must have had at least a number of years' experience in an architectural office. The Council of the Royal Institute of British Architects, in a published Scale of Salaries which it recommends to its members as a guide to reasonable rates of salary to be paid to architectural assistants, states that "students who pass or are exempted from the Final Examination of the R.I.B.A. might reasonably be placed within Scale (F)" i.e. £210–£325—the term "student" here means a person who has completed a course of training at an architectural school, but who has had only 12 months' office experience. An annual salary of £210 is thus the recommended *minimum* for a *student* who passes his A.R.I.B.A. An associate with a number of years of office experience must, surely, expect to receive a much higher salary than this.

My Committee (who are unaware of the actual appointment which has been made, and would welcome further information on this matter) wish to protest strongly, on behalf of salaried men in the profession, against the terms of your advertisement. They are of the opinion that an appointment made in accordance with these terms could be neither in the best interests of your County Borough nor in those of the profession, and that such an appointment could only tend to lower both architectural and professional standards generally.

I should be glad if you would kindly bring this letter to the notice of your Council.

Faithfully yours,
A. W. BARR,
Secretary.

Lighting

SIR,—I note in your issue for March 10 two replies to my letter published in your previous issue.

Mr. M. C. Toner states that he is at variance with my views, but he does not give any views of his own, beyond saying that "the standard of modern illumination has been raised . . . and intensities which were adequate 10 or 12 years ago are not sufficient for modern requirements." I should have thought that if the standard of illumination had been raised, its improved quality would have enabled us to see with less intensity, just as the improved standard of, say, aircraft engines enables us to obtain better results with less weight and bulk. I certainly think the G.V.D. System has contributed to an improved standard of illumination, and in many cases it certainly enables better illumination than before to be obtained with less intensity.

Apart from this point, Mr. Toner merely refers to a handbook published by the Illuminating Engineering Society and apparently implies that no discussion or further progress is possible now that the oracle has spoken, but why should architects "adopt a standard" and thereupon cease to think for themselves or to consider any alternative suggestions? In any case, I fail to see how the findings of a body

Photograph of a model of Mr. J. C. Procter's design for a building comprising a museum, art gallery, library and office block, to be built at Leeds. *See page 526.*

The first official meeting of the newly formed Liverpool School of Architecture Society was celebrated by a dinner in London on Friday last, at which this photograph was taken. The object of the Society will be to form a link with the school in Liverpool and to arrange informal meetings, debates, exhibitions and research groups.

whose members are interested in the sale of lamps and apparatus can be regarded as "impartial," however long their "experience."

Mr. Gilbert Allom airily says there is no occasion for me to be disturbed because the human eye can stand very much higher intensities than 15 to 20 ft. candles, and quotes 1,000 ft. candles of daylight. This, however, entirely disregards the very great difference between daylight and artificial light in colour, distribution and general conditions; it is this difference which renders dangerous the use of more intense artificial light than is necessary. Moreover, the fact that we can produce 15 to 20 ft. candles very economically is no justification for doing so unless there is a definite advantage in doing so—certainly not when there is even the possibility of danger.

Perhaps the chief reason for my concern at the use of needlessly high intensities is the tendency which I observe to use and advocate ever higher and higher intensities, which can only lead in the long run to loss of the power of response to more moderate intensities; in fact, our sight will gradually become atrophied and lose its power of adaptation. In the days of candle-light an average illumination of 1 ft. candle was ample for much fine work, and the standard of eyesight was very much better than nowadays. Owing to our deteriorating eyesight, I consider that we now require 4 or 5 times this amount, but I cannot agree with those who advocate 15 to 20 times this amount.

I am tempted to wonder whether Messrs. Toner and Allom really appreciate what a foot-candle means, namely, the light given by a candle at a distance of 1 ft., and I cannot resist the temptation to set them a little problem. Take a room 30 ft. by 30 ft. by 12 ft. high; the required intensity to be 20 foot-candles over the whole floor area; the height of any fittings to be 9 ft. from the floor. How many *candles* will be required?

My object in writing on this subject is to stimulate intelligent discussion rather than to quote other people's views, or bandy references and statistics; in other words, I prefer to contribute something logical and easily comprehensible, based on my own experience, with a view to enabling the reader to think for himself.

G. V. DOWNER

Community Centres on Housing Estates

SIR,—Some time back the JOURNAL published a letter from me calling attention to the urgent need of providing Community Centres upon new housing estates.

According to the Ministry of Health, only 13 towns and two urban districts in England and Wales have so far obtained official sanction for loans for the provision of Community Centres or buildings of similar type.

May I point out that the powers of Local Authorities under the Housing Acts for the erection of such buildings have now been considerably enlarged by the Physical Training and Recreation Act, 1937? Under this Act any Local Authority may provide and maintain a Community Centre and may apply for grant-aid from the Exchequer towards the capital cost. The grant-aid will normally vary from 25 to 75 per cent. of the approved estimate of the cost, and the amount of the subvention will depend largely on the extent to which the proposed expenditure will increase provision for physical training and recreation, and the character and economic circumstances of the local community.

Under the Education Act, 1921, as extended by the Physical Training and Recreation Act, 1937, a Higher Education Authority may provide and maintain Community Centres or contribute to their provision and maintenance, and in this case approved schemes will qualify for 50 per cent. grant-aid from the Board of Education in respect of both capital and maintenance costs.

In view of these extensive powers and generous subsidies, the larger Local Authorities should lose no time in providing suitable Centres on their estates where families can meet for social, recreation and cultural purposes. It is not good that the working-class people living on our new housing estates should feel that they are segre-

the "Schools" articles a chapter on gymnasia.

H. L. NATHAN

Schools

SIR,—We are interested in seeing in the "Schools" articles a chapter on gymnasia.

In this you have produced two illustrations of German gymnasia and stated in a footnote that "in the provision of well-equipped gymnasia, Germany is considerably ahead of this country." In the illustrations are shown a few wall bars, half a dozen climbing ropes and some rings, the latter of which are

not used in English or Swedish gymnasia.

In the paragraph referring to windows, you make reference to the fact that these should be on either side and come down to a level just clearing the radiators, whilst the windows in the end walls should be kept at least 9 feet above the floor to avoid injury in ball games. In the illustration the windows are shown exactly the reverse.

On page 86 is shown an illustration showing "the principal fixed equipment" which apparently consists of wall bars, rings and trapeze and a climbing post; we presume that this also is a German gymnasium.

We are venturing to enclose a photograph of the Gibbons Road Council School gymnasium, Willesden. This you will see has the windows down both sides and the end windows are at a considerable height above floor level; in addition, it is fitted with booms which can be hoisted up and the uprights moved to the side. The climbing ropes also can be drawn either side of the room on the latest principles; a window ladder at the end can be brought forward or moved back to the wall when not in use, and wall bars strongly fixed in front of the windows, raised slightly from the floor so that they can be swept under.

This is an example of an English gymnasium, well fitted, well lighted and well proportioned, which are to be found under nearly every Authority in England.

We feel it is a great pity that a paper with so much influence amongst architects as yours should lend its authority to the statement that in the provision of well-equipped gymnasia, Germany is *considerably* ahead of this country, and shows, as an illustration, what is practically a *drill hall* and not a gymnasium.

THE EDUCATIONAL SUPPLY ASSN., LTD.

The authors of the Schools articles reply:

The E.S.A. have sent a photograph of a very good gymnasium and we regret that we did not approach them for help in the illustration of gymnasia. But we think that otherwise our attitude has been misunderstood.

The articles concern Senior Schools, not secondary, technical or other schools, and it is in the provision of gymnasia for these that we believe Britain to be behindhand by having, so far as we know, not more than twenty throughout the whole country.

Death on the Inadequate Roads

SIR,—I am particularly glad to see Mr. D. P. Martin's practical suggestion. I say anything and everything must be attempted which will lead to a reduction in this appalling death rate on the roads. Cost is secondary consideration and it would help reduce unemployment to create work.

May I make an additional suggestion? That all canals, especially the old *disused* ones, are turned into heavy transport cuttings for goods. These canals also go without interference to existing roads, from place to place. I believe this has been practised with success in Wales already.

R. ALAN LAMBOURN

A.R.P.

SIR,—Events outside these islands have served to emphasize my recent letters upon the importance of architects in the carrying-out of A.R.P. schemes.

I also gather from your leading article this week, that the JOURNAL intends to play a part in showing how this might be achieved in the most efficient manner, very shortly.

This is welcome news, and I feel certain that soon architects and surveyors will be among the foremost leaders in passive air defence all over the country.

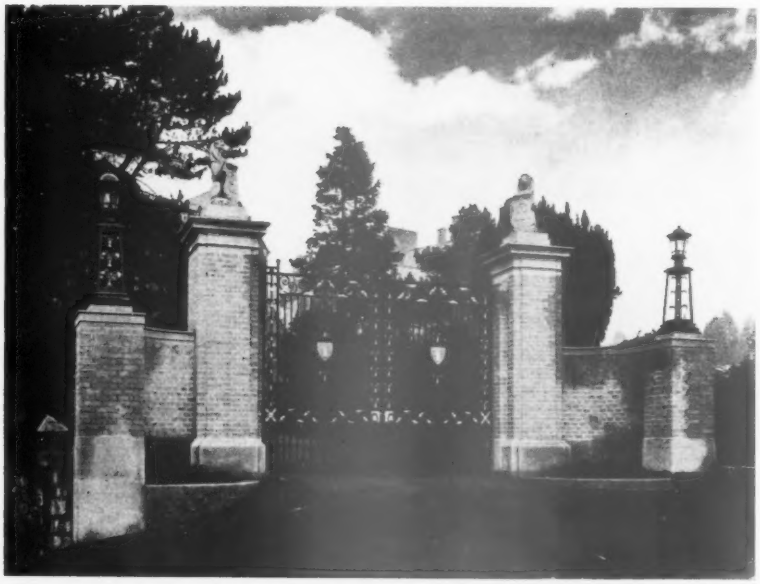
"ARCHITECT AND R.E. (S.R.O.)"

SIR,—Instead of negatively opposing air raid precautions and measures for defence against poison gas attacks, which admittedly cannot be 100 per cent. effective, it would be better if those guilty of such negative opposition directed their efforts to the establishment of international control of the air and poison gas weapons. Resolutions and even protocols like that of the Geneva Gas Protocol of 1925 will not do. They are "scraps of paper." I have likewise no confidence in the present efforts to draw up a world pact against air bombing of civilians in open towns.

Once war breaks out there is only one object which the contending nations have in view, and that is to defeat the other side or, to put it negatively, avoid being defeated. If the use of poison gas or any other diabolical weapon is the only way of securing the former alternative or staving off the latter, is there any nation which will say: "To maim and smash, destroy and kill with bombs, shells, bullets and bayonets is as far as we shall go—but we draw the line at poison gas"? Surely to put the question is to answer it.

There is only one way to abolish war. It is the way in which it was abolished within the national life, and that was to take the instruments of force out of the hands of the individual and place them under centralized national control. If some readers do not believe this I ask them to read again the history of the medieval system and its evolution towards the king's peace and to read also the history of our civil police.

The same evolutionary process must take place and is taking place in international relations. The attempts to organize collective security are simply steps in this direction comparable to the hue and cry system of medieval times or to the feudal system of contributing armed troops to the king which later gave place to scutage payments. Sooner or later (the sooner the better) the nations must agree to pool their super-armaments to form an international force under a joint command and stationed at strategic bases throughout the world. The upkeep of this force of land, sea and air units will be maintained by



New gateway to King Edward the Sixth's School at Morpeth designed by Mr. G. E. Charlewood. The bricks are a brownish pink, the stone brown, Woodkirk and the ironwork is handwrought and gilded. The lions were carved by Mr. Sidney Spedding of Edinburgh.

The R.I.B.A. Exhibition "Health, Sport and Fitness" closes today. Above is one of the exhibits—a photograph of the Breslau Stadium. (Photo: German State Railways.)

"scutage" payments from all the nations apportioned according to the barème formula of the League of Nations. Nations will retain only small militias deemed necessary for reinforcing the civil police in times of grave internal disorder. In the background will be the international force ready to come to the aid of a nation in times of disorder caused by storm, flood or earthquake and to intervene in times of international tension to prevent war.

Gradually as the world draws together to form an economic unit or federation of co-operating units, the necessity for force will recede into the background, so that eventually the peoples of the world will have visible proof of the dictum, which cannot be repeated too often: "Centralized force tends to eliminate the need for all force, including itself." D. V. WALLACE.

R.I.B.A.

NEWS BULLETIN

Presentation of Royal Gold Medal.—At the General Meeting on April 4, the Royal Gold Medal will be presented to Professor Ivar Tengbom (Sweden). The Acting Swedish Minister in London will also present him with a complimentary address prepared by the Federation of Swedish Architects (Svenska Arkitekters Riksförbund).

Musical Evening at the R.I.B.A.—The Dorian Trio will give a concert of chamber music at 66 Portland Place at 8.30 p.m. on Thursday, April 7. No tickets are required for admission, but it is hoped that everyone will help to defray expenses by buying a programme.

Exhibitions.—The Health, Sport and Fitness Exhibition, which closed on March 31, prior to going on tour, was visited by about 4,000 people. It aroused most interest in London among a specialist public such as members of the National Fitness Council, and Local Authorities. The provincial tour starts at Hull on May 1.

The exhibition of Civic Centres opens at Brighton on April 2. Modern Schools and Airports and Airways are still at Hereford and Derby respectively.

THE VICTORY SCHOLARSHIP AND THE TITE PRIZE PRELIMINARY COMPETITIONS

In the United Kingdom 98 students took part in the Preliminary Competition for the Victory Scholarship, and 192 students took part in the Preliminary Competition for the Tite Prize. The following have been selected to take part in the Final Competitions:—

The Victory Scholarship

Miss Barbara M. Beresford (Birmingham School of Architecture); and Messrs. T. B. H. Ellis (Royal College of Art, London); J. C. Gill (Liverpool School of Architecture); H. R. Hetherington (School of Architecture, King's College, Newcastle-upon-Tyne); D. E. Lang (School of Architecture, Edinburgh College of Art); E. W. Lovett (School of Architecture, The Polytechnic, Regent Street, London); W. L. Roworth (School of Architecture, Edinburgh College of Art); Thomas Taylor (Birmingham School of Architecture); E. W. R. Waugh (School of Architecture, Edinburgh College of Art); and K. L. Wightman (Birmingham School of Architecture).

The Tite Prize

Messrs. D. G. Bouquet (School of Architecture, The Polytechnic, Regent Street, London); G. A. W. Brandreth (School of Architecture, The Polytechnic, Regent Street, London); H. E. Burton (Birmingham School of Architecture); C. N. Cameron (School of Architecture, Edinburgh College of Art); L. T. Channing (School of Architecture, The Polytechnic, Regent Street, London); Alec Daykin (Department of Architecture, University of Sheffield); F. C. Dobson (School of Architecture, King's College, Newcastle-upon-Tyne); J. H. Donald (Aberdeen School of Architecture, Robert Gordon's Technical College, Aberdeen); A. F. Down (School of Architecture, The Polytechnic, Regent Street, London); C. R. Fowkes (Department of Architecture, Northern Polytechnic, Holloway, London); William Hood (School of Architecture, King's College, Newcastle-upon-Tyne); William MacDonald (Glasgow School of Architecture); I. W. Paterson (Aberdeen School of Architecture, Robert Gordon's Technical College, Aberdeen); J. R. C. Rowell (Glasgow School of Architecture); R. B. Thomson (Department of Architecture, University of Sheffield); and S. S. Walde (School of Architecture, The Polytechnic, Regent Street, London).

COUNCIL MEETING

Notes from the Minutes of the Council:

Appointments. Parliamentary Science Committee. Mr. Walter Goodesmith (A.) (with Mr. A. H. Barnes (F.)) in place of the late Mr. Alan E. Munby.

Junior Members' Committee. Mr. J. H. Elliott (student) in place of Professor W. G. Holford (A.), who has found it necessary to resign from the Committee owing to pressure of work.

New Building Bye-laws of the L.C.C. On the recommendation of the Science Standing Committee it was resolved to set up a joint sub-committee of the Practice and Science Standing Committees and the Town Planning, Housing and Slum Clearance Committee to consider the new L.C.C. Building Bye-laws with a view to their eventual revision.

Membership. The Fellowship. The Council, by a unanimous vote, elected the following architect to the Fellowship under the powers defined in the Supplemental Charter of 1925: Mr. James Nangle, O.B.E. (Sydney).

Resignation. The following resignation was accepted with regret: Mr. Matthew Spencer Rogers (L.).

Transfer to the Retired Members' Class. The following members were transferred to the Retired Members' Class: As retired Fellow, Mr. Joseph George Oatley; as retired Associate, Mr. Alfred Harry Gloyne; as retired Licentiate, Mr. Tom Woolnough.

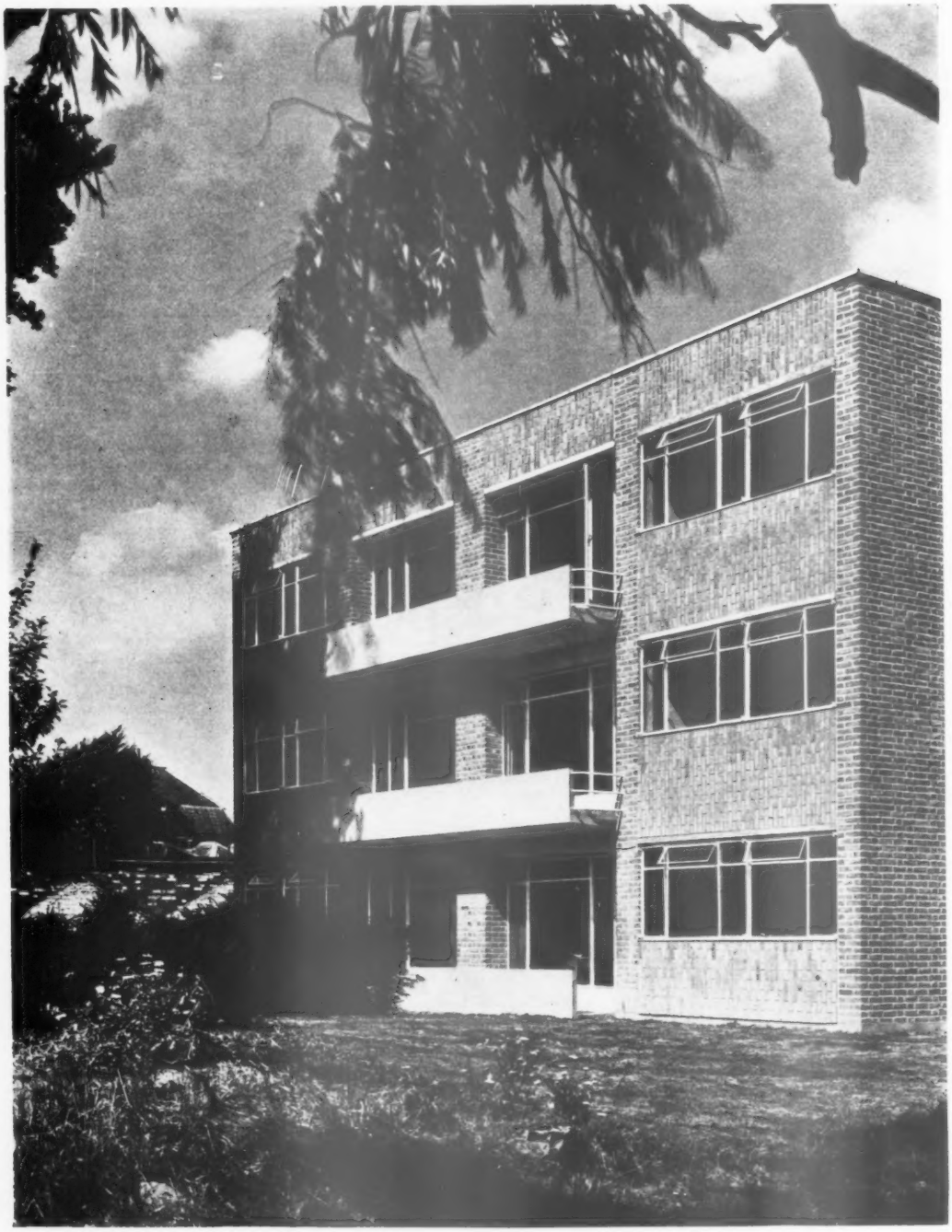
Election of Students. The following probationers were elected as students of the R.I.B.A.: Messrs. E. S. Atherton (School of Architecture, the Polytechnic, Regent Street, London); E. V. Barber (Intermediate Examination); W. F. Burrows (School of Architecture, the Polytechnic, Regent Street, London); M. H. Cooke-Yarborough (Architectural Association); A. Dixon (University of Manchester); S. George (Liverpool School of Architecture); M. C. Harrison (University of London); C. Hilton (University of Manchester); T. Howarth (University of Manchester); K. C. Jeremiah (University of London); E. H. Knight (Leeds College of Art); W. H. Lindsay (University of London); T. H. Lodge (Leeds College of Art); F. J. Meech (University of London); J. R. Penoyre (Architectural Association); J. T. Pinion (University of Cambridge); I. W. Watkin (Architectural Association); T. C. Watson (Robert Gordon's Technical College, Aberdeen); C. B. Wells (Special Exemption); H. C. Wilson (Municipal School of Arts and Crafts, Southend-on-Sea); A. B. Wylie (Edinburgh College of Art); and Mrs. A. H. Wolfe (Architectural Association).

ANALYSIS OF A BUILDING

ELLINGTON COURT, HIGH STREET, SOUTHGATE

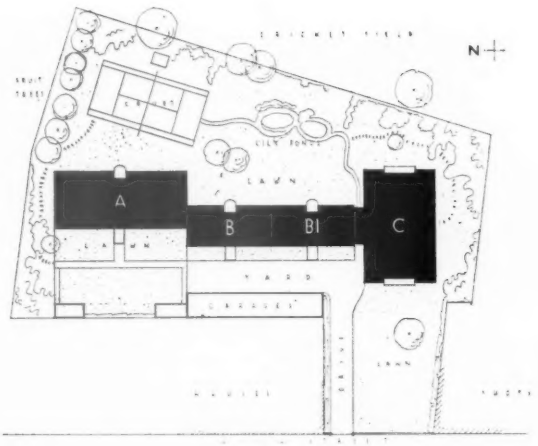
DESIGNED BY FREDERICK GIBBERD

REQUIREMENTS—The clients wished to erect a block of low rental family flats as an investment. The flats were to have not less than three rooms and the average rents were to range from £110 to £130. The cost of the building and, in consequence, rents, were not to be kept low through skimping the equipment or planning minimum size rooms. A feeling of spaciousness was required and the equipment was to include everything necessary for contemporary living. The hard tennis court and as much as possible of the existing gardens were to be preserved.

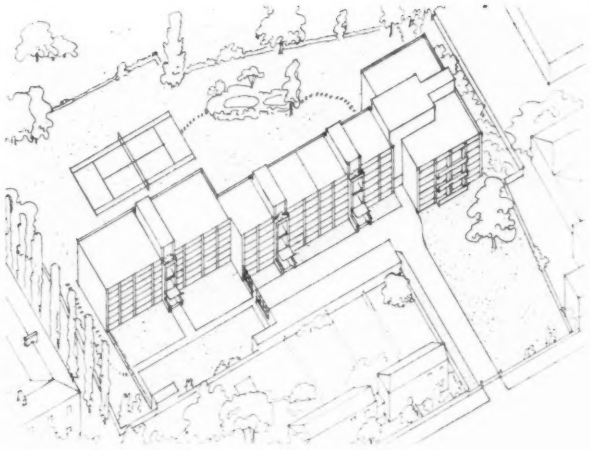


West elevation of block C.

1



2 Block plan



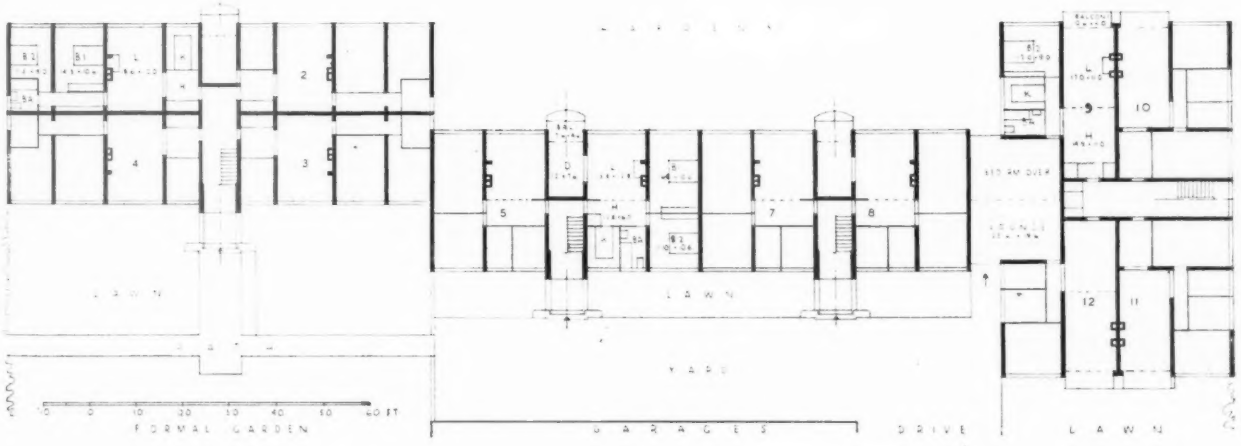
3 Axonometric view

LIMITATIONS—The Town Planning authorities limited the height of the building to three storeys and the number of flats to thirty-six, plus caretaker's accommodation above roof level. They asked that the building should be " Georgian " in character. The bye-laws required the plumbing to be outside the building.

BUILDING TYPE—The direct access type of plan was selected in which the flats are immediately entered from a staircase. This avoids the duplication of corridors, which occurs in the corridor access type, and is more private than the gallery type where rooms are overlooked from the open gallery. Two blocks were planned in pairs with one flat on either side of a central staircase (blocks B and B.1), making six flats per block. Owing to height limitations thirty-six flats of this type would have covered a large proportion of the site, therefore two blocks were planned with four flats per stair per floor (blocks A and C).

BLOCK PLAN—The noise and dust arising from the main road required the buildings to be set well back. The necessity of preserving the existing gardens and tennis court on the west, and for building on the site of the old house (blocks B.1 and C) was responsible for the buildings being placed in a row parallel to the road. As the living-rooms of the A and C blocks look in opposite directions, one block was arranged to look down the existing lawn (block C) and the other on to a lawn formed by setting forward the building (block A). The blocks B and B.1, in which the living-rooms look one way only, were placed between blocks A and C close to the boundary, in which position the kitchen and bathroom look over the garage yard and the living-rooms over the wide garden. The scheme therefore consists of thirty-six flats in four independent blocks : two of these buildings have six flats each and two twelve flats each. The block of garages was limited in length by the fact that it was thought undesirable that any living-room should look either on to it or its access yard.

As each flat is approached by a minimum size staircase and landing it was thought desirable that a large communal hall should be provided as a meeting place for tenants and their friends. Two adjacent ground floor bedrooms of the C block were appropriated for this purpose and a large hall formed. In this position it is near to the main drive and garages, and provides a means of access to the gardens and tennis court. The caretaker's flat was placed over block C, the nearest position to the lounge, visitors' enquiries, and the boiler-house. The boiler-house was placed under block C, the nearest point to the drive—access for coke—and the one position where a flue could be taken up well above roof level without being visible—(running up through the caretaker's flat).



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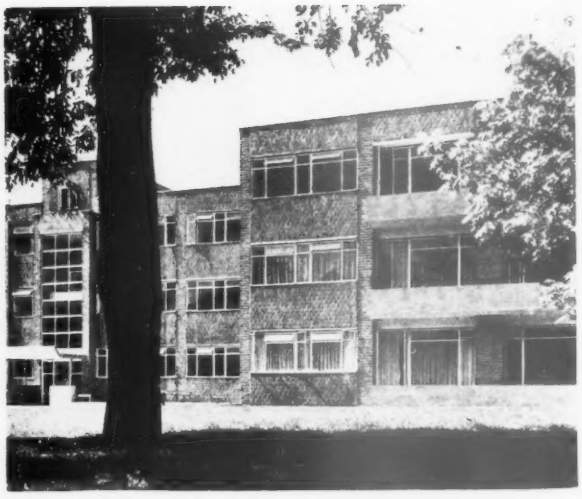


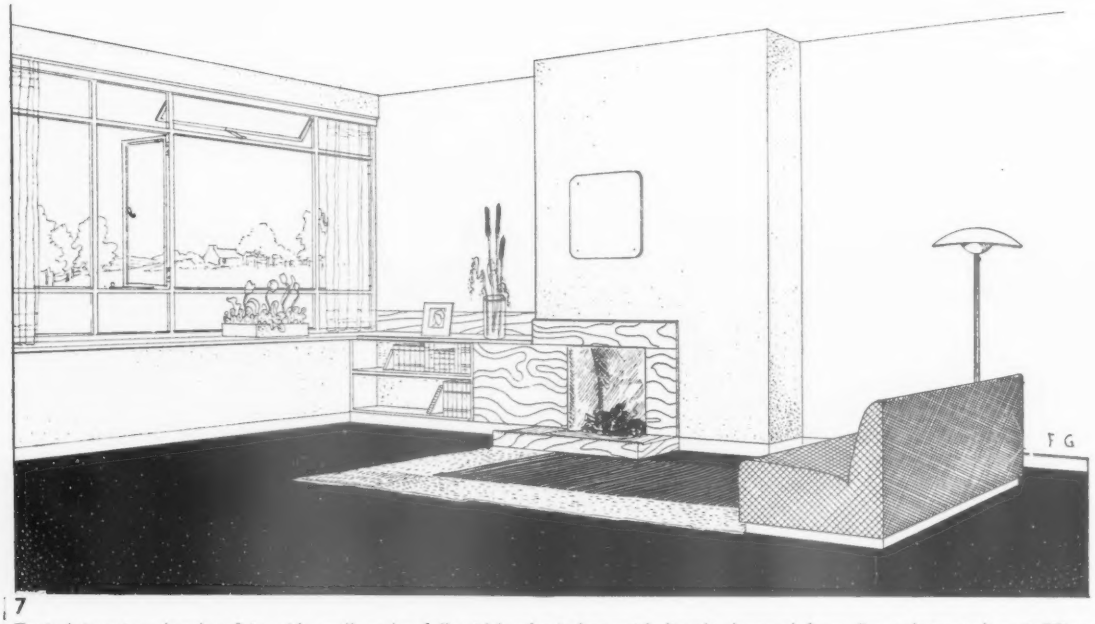
5 West elevation from drive.

6 East elevation from garden.

CONSTRUCTION—The constructional system was devised to give simple rectangular rooms, free from projections and odd corners, and with a maximum of light and air. The system is as follows : A series of parallel 9-in. weight-carrying brick walls form the sides of the rooms, 10. Spanning from wall to wall are hollow tile reinforced concrete floors, 9. The ends between the 9-in. brick walls are filled in with windows, 12, under which are brick panels, 11. By this method the maximum window area provided by a framed structure was obtained without its expense—walls 9 ins. thick in a three-storey building will carry the weight and without beams and columns projecting into the rooms.

The widths of the rooms are a maximum of 12 ft. 8 ins., which allows an economical floor thickness of $5\frac{1}{4}$ ins.

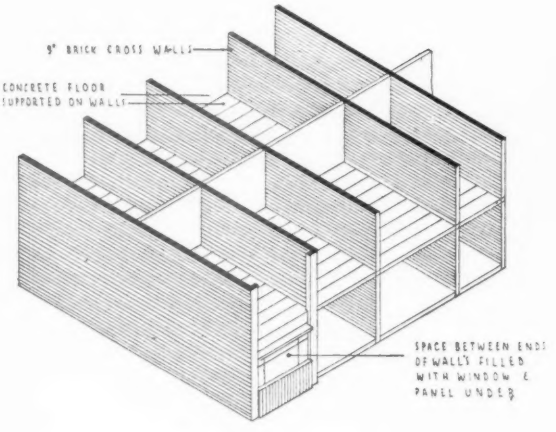
Lintols over the windows are hung from the reinforced concrete floors. They have a 3-in. deep projecting concrete nib to carry the brick panels under the windows. These panels, being merely insulation, were constructed of brick on end to express their non-structural character. Balconies and hoods were formed by cantilevering out the reinforced concrete floor slabs.



7 Typical interior showing 9-in. side wall under full width of window with lintols dropped from floor above and an infilling panel under.

8 : West elevation from cricket field. The brickwork is a warm golden brown colour, the bricks to the panels under the windows being lighter in colour than those of the structural walls. The reinforced concrete is painted beige and pale blue ; the windows white ; and the copings are 1½ in. thick precast concrete slabs.

8



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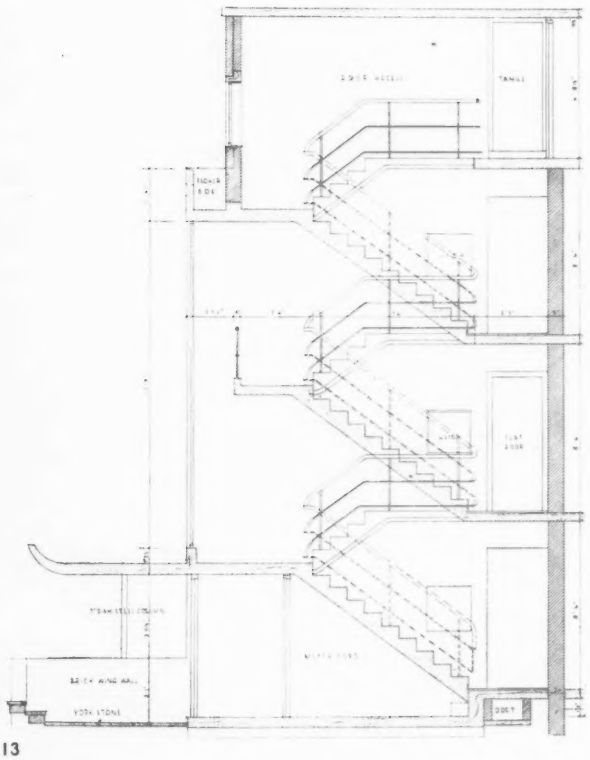
10

9. The constructional system consists of a series of parallel 9-in. brick walls forming the sides of the rooms, with floors spanning from wall to wall, and the space between the ends of the walls filled in with windows and brick panels. 10. The 9-in. walls in course of construction. 11. Building the panel walls under the windows. To express their non-structural character they are of lighter colour bricks than the main walls, built in soldier courses, and project ¾-in. in front of the structural walls. 12. Detail of one bay showing the windows stretching from wall to wall with the brick panels under them.

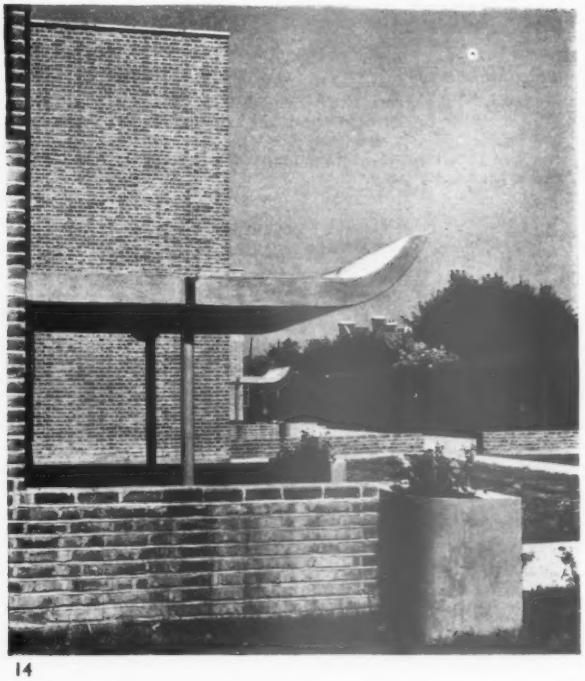
11

12



13

The diagram (13) shows a section through a typical staircase (shown in elevation on page 534). The steps down to the entrance allow a dog-leg type stair, thus economizing floor space. The projecting hood is turned up at the end for head room (14).



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CONSTRUCTION (*Cont.*) :—Balconies, hoods, and staircases are of reinforced concrete construction. Boiler-house is of waterproofed reinforced concrete.

INSULATION—Roof : ½ in. fibre board on screed to falls covered with three-ply bituminous felt. Impact noises from first and second floors deadened by covering the whole of the floors with linoleum. The 9 ins. brick walls forming the sides of the rooms have, through their weight and mass, made the flats exceptionally quiet. In planning, precautions were taken against noise by placing bedrooms of adjacent flats next to each other so that the living rooms, the greatest noise factor, are in the heart of the plan well away from bedrooms in the adjoining flat.

PARTITIONS—A few 2 in. breeze partitions only were necessary ; the 9 in. walls reducing the area of these to a minimum. Living-rooms are divided from the halls by doors and wood screens.

WINDOWS—Standard section metal windows with 1 ft. 8 ins. wide side-hung casements and 1 ft. deep top-hung hopper lights ; copper bronze fittings. Head of windows has combined curtain rail, pelmet, and permanent ventilation slots all in one unit in extruded aluminium. A condensation channel and metal cill are provided at the bottom of the windows. Metal doors to balconies of medium universal section.

DOORS—Living-room : Glazed doors 1¾ ins. thick with 3½ in. styles, 3½ in. top rail, 8½ in. bottom rail, and 1¾ in. glazing bars. Bedrooms : 6 ft. 6 ins. by 2 ft. 6 ins. by 1⅜ ins. flush painted. Bathroom and kitchen : 6 ft. 6 ins. by 2 ft. by 1⅜ ins. flush painted, with single glazed panel size 1 ft. 4 ins. by 1 ft. 10 ins.

DOOR FURNITURE—Mortice locks with chromium-plated spring lever handles. "Egro" catches to cupboards. Sunk slide bolts to folding doors. Flat entrance doors equipped with combined letter-box. night latch, and door knocker.

PLUMBING—Two-pipe system to standard practice. The pipes were originally planned in a duct between the kitchen and bathroom ; but as sanction could not be obtained for this they deface the elevations.

SANITARY FITTINGS—5 ft. 6 ins. overall rectangular top pattern porcelain enamelled baths with enamelled asbestos panels. Built-in recessed earthenware soap holder. Lavatory basins 22 ins. by 16 ins., white-glazed earthenware. Low level w.c. suites comprising two-gallon white enamelled cast-iron cistern with chromium-plated external mountings, white-glazed earthenware pedestal pan, and ring seat. Monel metal sink with double draining-boards and metal cill in one unit ; raised pillar valves. Galvanized metal refuse and coal bins to each flat.

ELECTRICAL—Wiring on the "looping-in" system, heavy gauge welded, screwed and enamelled steel conduit. Switches sunk pattern with bakelite cover plates. Wall bracket over bed in bedrooms with two-way switch. Kitchen equipped with steamproof ceiling fitting, 30-amp. cooker point, and 2-amp. refrigerator point. Bathroom provided with 24 in. striplight over mirror. Conduit or telephone and wireless aerial point provided in each flat. Special plugs with fused adaptors are provided in the bedrooms which enable a 15-amp. fire, standard lamp, and vacuum cleaner to operate at the same time.

HEATING—A central system of heating is provided to the living-rooms by means of a convector hot water heater enclosed in an enamelled grilled cabinet, giving a temperature of 60 deg. F. Additional heating is given if required by a coal fire with a 22 ins. well. Radiators are provided in the hall of each block. Each bedroom is equipped with a special 15-amp. plug with three fused adaptors.

EXTERNAL FINISH—Metal windows painted white. Reinforced concrete painted with "stone" paint, beige on vertical surfaces, pale blue on soffits.

INTERNAL WALL FINISH—Hard plaster to walls and ceilings generally. Tiled dado in bathrooms. Walls and ceilings to habitable rooms twice distempered ; kitchen and bathroom painted ; joinery primed and painted three coats.

FLOOR FINISHES—York stone paving under external hoods. Granolithic to landings and staircase covered with a "carpet" of linoleum with rubber nosings. The whole of the floors internally are covered with 2.2 m.m linoleum stuck down to screeding with a special mastic.

15

13 shows living-room separated from balcony by glass screen in type C flats. 14 : The balconies of the type A and B flats. The balconies have low walls so that the view when sitting is not obstructed, and they are left open at the sides so that they may be swept out.

COSTS—The simple planning and constructional system produced an exceptionally low building cost. Whilst no figures can be published, some proof of this can be obtained by considering the lowness of the rents, which are based on the usual 10 per cent. investment. Furthermore, the high cost of the land, through its exceptional position and amenities, and the low density allowed, both contributed towards making the rent higher than would have been the case had the building been in a less exclusive district.

Architects are often blamed for the high rentals at which the average flat lets. Whilst, in some cases, through poor planning and organization this is in part true, there is no doubt that the fault lies in the land costs. Immediately a landowner discovers his land is suitable for the erection of a block of flats he puts the price up out of all proportion. If he does not discover this someone else will ; and the site may change hands many times before a building is eventually erected. The profit that takes place on each transaction is ultimately paid by the tenant in his rent. Flat rentals are also deceptive in that a large proportion of them consist of "outgoings." The rates, management, maintenance and other services account for at least 33 per cent. of the gross rent. In a well-run block of flats with central heating and proper service they amount to as much as 45 per cent.

The following schedule shows the proportionate outgoings on a £130 rental flat at Ellington Court :—

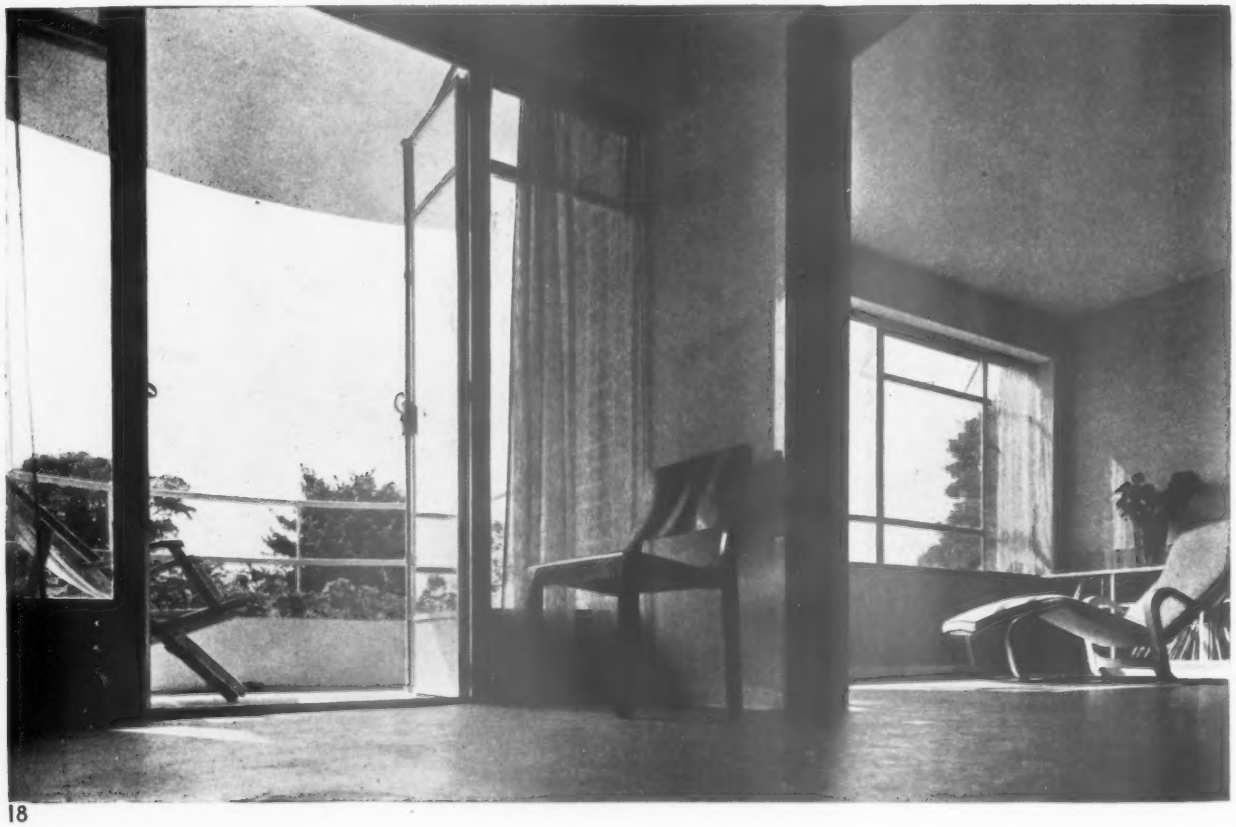
(1) Rates	£22	0	0
(2) External repairs and maintenance of building	6	10	0
(3) Fuel for central and domestic heating ...	5	0	0
(4) Management	4	0	0
(5) Caretaker	3	0	0
(6) Tenants' lounge (value as tenantable area) ...	2	0	0
(7) Fixed charge for electricity	1	17	0
(8) Water rate	1	10	0
(9) Garden maintenance	1	0	0
Total	£46	17	0

Thus, without making allowance for the use of tennis court, individual gardens for those who wish them, curtain rails, wardrobes, and other equipment, the rent is £83 3s., exclusive.

16

17

INDIVIDUAL FLAT PLAN—The clients required the flats to give an impression of spaciousness and, at the same time, have a low cubic capacity. This has been attained by planning the hall, living-room, dining space, and balcony *en suite* with no solid walls between them. Thus the hall is separated from the living space by glazed screens and doors, the living space from the dining by a curtain, and the dining from the balcony by glass doors. Thus a large space is obtained for entertaining, which can be divided up at will, and long vistas obtained in the flat. The kitchen and bathroom are planned adjacent to minimize services and plumbing runs.



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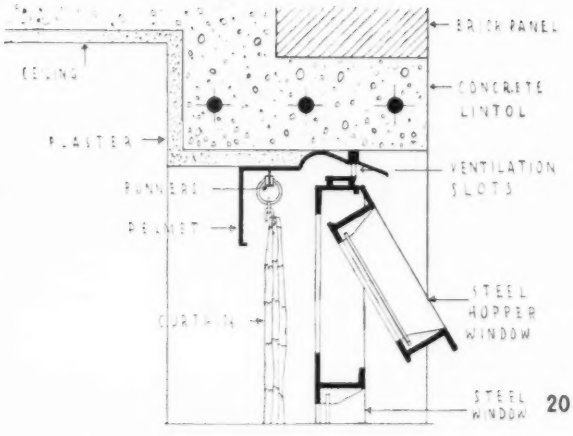
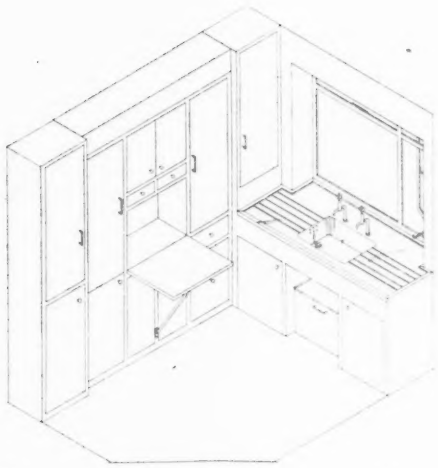


20

The picture on facing page (18) is taken from point 1 on the typical plan and shows the dining extension and the living-room windows. That above (19) is from point 2 in the hall and shows the glazed screen and sitting zone of the living room. The diagram (20) on the right is a section through the window head showing the extruded aluminium pelmet, curtain rail, and ventilation bar designed by the architect in collaboration with the manufacturers.



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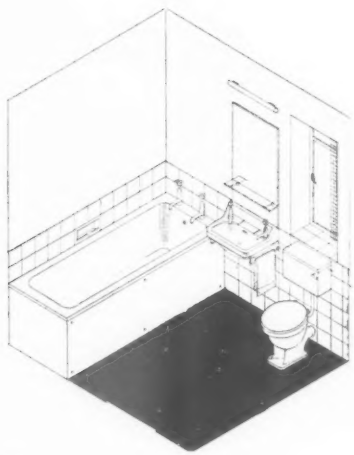

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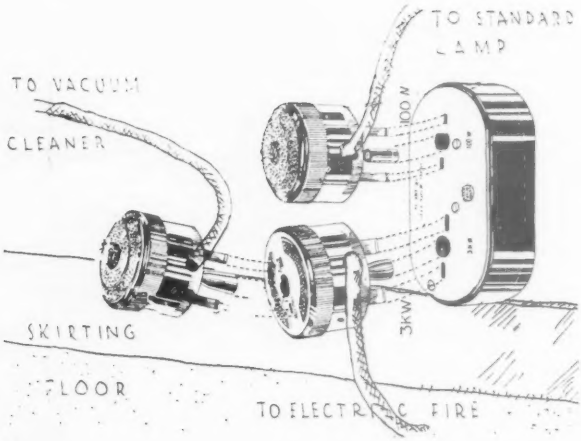

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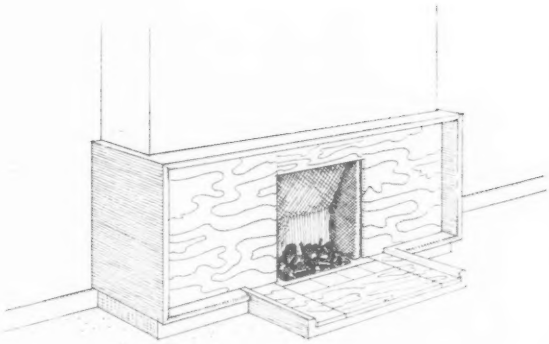

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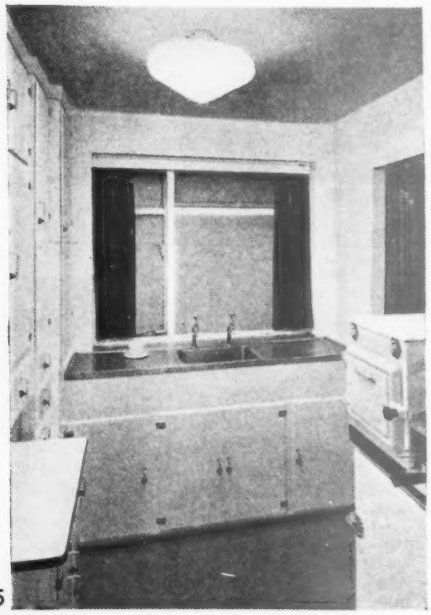


25

EQUIPMENT—KITCHEN (21, 25)—The equipment for the storage of food and its preparation is arranged on the long wall. This equipment consists of larder next to the external wall to obtain outside ventilation ; cook's cabinet with porcelain enamelled cooking table, around which are arranged cupboards and drawers for the storage of dry goods and cooking implements; and cupboards next to the entrance door for storing brooms and cleaning materials. The washing-up unit is on the wall under the window, where there is a maximum of light. This consists of Monel metal sink complete with double draining-boards and metal cill, all in one unit. Thus there are no odd corners for dirt and grease to collect. The taps are raised on pillars so that a kettle or pail can be easily filled. The space under the draining-boards is enclosed by two cupboards for pails and cleaning apparatus, and that under the sink is left open for the metal refuse bin.

BATHROOM (22)—Equipment consists of rectangular bath with enamelled asbestos panels ; 22 ins. by 16 ins. lavatory basin on towel rail brackets ; hot-towel rail ; 22 ins. by 22 ins. mirror with glass shelf below and strip light above ; recessed soap-fitting, and robe hook.

HEATING (24)—A coal fire is provided as a letting factor. Most tenants like to sit round the cheerful blaze of an open fire, even though there is adequate heat from a central system. The fires consist of a 22-in. well fire with surround of lunel marble and mahogany. The hearths have an inset of tiles in front of the fire as marble in this position becomes cracked by live coals. A metal coal cupboard is provided in each flat and coal may be purchased from the caretaker—packed in paper bags for dustless handling—who is provided with a coal store adjacent to the garages. 15-amp. electric plugs for portable fires are provided in the bedrooms (23). These plugs have three fused adaptors, so that a standard lamp and vacuum cleaner as well as the fire will run off the one point.

SOCIETIES AND INSTITUTIONS

BIRMINGHAM AND FIVE COUNTIES ARCHITECTURAL ASSOCIATION

MR. S. N. COOKE, F.R.I.B.A. (President), speaking at the annual dinner of the above Association on March 17, said: "Unfortunately we have still no control over elevations of the central streets of Birmingham. True we have it in the outlying parts, and there are some magnificent layouts; but in the centre there is no control. Anyone can build a six-storey building against a two-storey building; or a building with a glass façade against a good classical building. I feel it is of the utmost importance that the elevations in the centre of the city should have some sort of control. The city is spending millions on its new Civic Centre, but there is a chance that this great scheme will be jeopardized if the buildings immediately surrounding are not designed with some relation to their position.

"The Town Planning Act of 1932 made it possible to have considerable control over the elevations, but the centre of the city has never had the benefit of that Act. It may be that there are difficulties in acquiring these facilities in the near future, and one has to consider whether there is any other method which could be adopted. I have great faith in persuasion.

"Already the Civic Society is doing excellent work. For any new building over which the Corporation has control, the elevations are submitted to this body for their observations. I think that this should be taken further, and should apply to any building which is erected in the most important streets of the centre of our city. This is a practical suggestion. When the plans are submitted to the City Surveyor's Department for approval, the elevations would be submitted to the Civic Society, or a Fine Arts Committee, for their observations."

SOUTH WALES INSTITUTE OF ARCHITECTS

Mr. H. S. Goodhart-Rendel, P.R.I.B.A., speaking at the annual dinner of the above Institute, held at Cardiff last week, said that many of them were trying to prevent senseless ugliness in modern buildings by giving their services on architectural panels where they existed, and where they did not by urging that they be formed and consulted. Some such censorship was obviously necessary, and it would be a thousand pities if it was set back by the improper exertion of the powers they already had. Yet there were rumours that a system intended only to eliminate illiterate design was abused by attempts at dictatorship in matters of taste. A new-old house built among those actually old was the wrong policy, for even a clever sham made the lot suspect.

In the control of urban design he saw a tendency to impose elevations of great length in narrow streets.

He mentioned the dangers of imprudent censorship because he felt that mild control of design was better than none at all and that none at all would certainly be the eventual result of any efforts to make control severe.

I.A.A.S.

"The Airport of the Future" was the title of a paper prepared by Mr. Nigel Norman, B.A., to be read at a meeting of the Incorporated Association of Architects and Surveyors last week. In the absence of Mr. Norman, who was suddenly summoned to fly to Hyderabad, the lecture was read by Mr. R. F. Lloyd-Jones. Points from the paper: The coming airports would need hangars, moorings and slipways, aerodromes and water-alighting areas suitably furnished with all the equipment necessary for the control during arrival and departure of a heavy volume of traffic proceeding regardless of weather conditions by night and day. There was justification for the view that no form of transport terminus presented quite such an intricate combination of light and heavy engineering and of architectural works as would the great airports of the future. The proper co-ordination of all the features of such a port would demand the concentrated attention of specialists, and the task was made especially difficult by the extraordinary rapidity and variety of technical development which was taking place.

●

The Easter Conference of the Incorporated Association of Architects and Surveyors will be held this year at Montrose Ladies' College, Cliftonville, Margate, Kent, from Thursday April 14, to Tuesday morning, April 19.

A.A.S.T.A.

The following details of the A.A.S.T.A. forthcoming tours have been received from the secretary:

1: Amsterdam—Easter (April 14-18). A party, which is being arranged by the A.A.S.T.A., under the leadership of Mr. P. V. Mauger, A.R.I.B.A., will provide members and non-members with an opportunity of seeing this city at unusually cheap rates, and of visiting the more important architectural buildings. A visit will also be arranged to Hilversum. Price to A.A.S.T.A. members, £6; to non-members, £6 6s. The price is inclusive of fares (second-class travel throughout), reserved seats, and cabin berths (dependent on early booking), breakfast, dinner and room at good hotel for four days—supplementary for first class on steamer (paid when booking), 14s. return. The party will leave London at 8.30 p.m. on Thursday, April 14, arriving Amsterdam (via the Hook) at 7.30 a.m. on Friday, returning from Amsterdam at 11.30 p.m. on Monday, April 18, arriving London at 8.38 a.m. on Tuesday morning.

2: Copenhagen, Stockholm, Gothenburg (July 16-August 1). This party will be under the leadership of Mr. E. A. D. Tanner, A.R.I.B.A., and visits will be made to the more important buildings in the cities visited. The party will leave London, Saturday, July 16, at 4.10 p.m., and will arrive Copenhagen, via Esbjerg, Sunday evening. They will travel to Stockholm on Wednesday, July 20 and thence to Gothenburg on Tuesday, July 26. Leaving Gothenburg at 8 p.m. on Saturday, July 30, they will arrive in London at 9.40 a.m. on Monday, August 1. The provisional price to A.A.S.T.A. members will be £16 10s., to non-members, £16 19s. 6d. This will include third-class travel throughout.

3: Glasgow Empire Exhibition—2 days (June 24–26). Arrangements are being made for a party to visit Glasgow, leaving London at 9.25 p.m. on Friday, June 24, arriving Glasgow 6.45 a.m. Saturday morning, and returning from Glasgow on Sunday at 10.30 p.m., arriving London (Euston) 7.15 a.m. on Monday morning. The provisional price, including fares, breakfasts Saturday and Sunday, and hotel Saturday night, is £3 5s. to A.A.S.T.A. members, £3 9s. to non-members. In addition to a visit to the Empire Exhibition, it is hoped also to arrange a motor-boat excursion to some of the beautiful scenery down the Clyde. It is hoped that a similar party to link up with the main party may be arranged from Manchester, in which case the provisional price will be £2 2s. to A.A.S.T.A. members, £2 5s. to non-members.

Applications for reservations should be made to the Secretary of the Association, 113 High Holborn, W.C.1.

The annual general meeting of the Association of Architects, Surveyors and Technical Assistants was held at Hamilton House, N.W.1, on March 19. Mr. F. J. Maynard, A.R.I.B.A. (President), occupied the chair.

Mr. Maynard, at the commencement of his address, referred to a certain other presidential address which had been delivered elsewhere at the outset of the winter session, and which had dealt, amongst others, with three subjects which were of the greatest importance to the Association. They were the standard of architectural design in public offices, the status of salaried architects, and the relationship of architecture to politics. There would be little point, he said, in attempting to adjust the focus of a picture which had been brought to a point of rather embarrassing clarity but for their belief that the Association could illumine the issue with light of a different colour. It was probable that one of the reasons for the steady increase in the employment of departmental staffs upon architectural work was the past failure on the part of private architects to work sufficiently closely in touch with both expert and elected committees, a task which was often impossible under conditions of work in private offices.

The author of the address to which he had referred, had advocated, as he understood it, the more general employment of selected private architects for the planning and design of public buildings, and side by side with this, that these "superlatively suitable designers" should be assisted by their departmental confrères, who could offer them their accumulated specialist experience, and who might, possibly, detail the more functional parts of the buildings, and even supervise their erection. The method to be adopted in selecting these superlative designers had, however, not been elaborated.

That the work of a public department lost its spirit as the size of the department doubled and trebled was often true. But the Association did not believe that this was unavoidable. In a letter recently issued to the press by the Public Relations Committee, the Association had put forward proposals designed to secure not only better conditions of employment for existing staffs, but also the further object of widening the appeal of salaried employment. To this end it wished not only to stabilize these features of salaried employment which at present rendered it attractive, but also to eliminate certain conditions which for one reason and another discouraged men of eminently suitable qualifications from entering public service.

There was a point beyond which it was impracticable for one man to control the work of an increasing number of assistants. As the work of a department developed, bad organization hampered efficiency and impaired the quality of the work. The system of small groups of seven or eight people each under the charge of a responsible architect capable of designing the major work handled by his team seemed the most likely means to eliminate staleness and to prevent excessive standardization and repetition. The system would enlist from the staffs more enthusiasm and probably more work.

In the matter of design, architects should be freed from supervision by officials who lacked training or qualifications for this duty. Men whose training, however thorough in their own departments, had been non-architectural, were apt to relegate æsthetic matters, especially in the choice of materials, to second place, and, by failing to understand the finer points of design and planning, were apt to base decisions on issues, which although important in themselves, were not incapable of revision, if by their revision a finer architectural solution might be achieved.

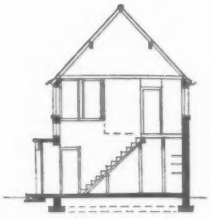
Responsible architectural assistants, whether employed in a large architectural department or in the department of an engineer or surveyor, should be allowed personal access to committees. When their schemes and jobs were under discussion, it was simply a matter of common sense that they should attend in the company of their chiefs, to enter fully into the programme as envisaged by both experts and administration, and to reply first-hand to questions which they alone might be able to answer to advantage. The architect-administrator, however competent, was not really the best person to speak for a design, which had been not only worked out by someone else but which had been conceived by another mind.

Credit for architectural work should be withheld from administrators who contributed nothing to its production, and the names of the responsible assistants (together with the name of the chief) should be given prominence comparable with their share in the work.

Mr. V. L. Nash, A.R.I.B.A., was elected president of the Association, and Messrs. R. C. Fisher, A.R.I.B.A., C. Hutton, B.ARCH. (Liverpool), C. T. Penn, A.R.I.B.A., and W. L. Vinycomb, A.R.I.B.A., vice-presidents for the coming session.

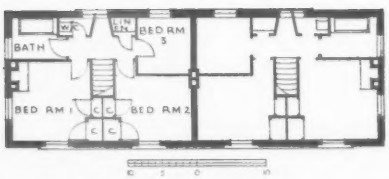
PAIR OF HOUSES, ROWLEY, SURREY

DESIGNED BY JOHN GREY

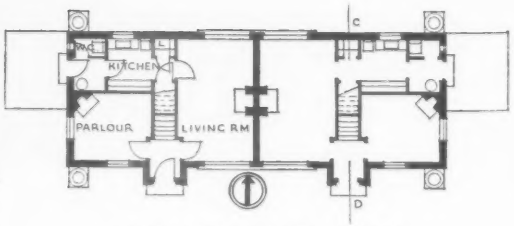


SECTION C—D

This pair of houses at Rowley, near Farnham, Surrey, are constructed of local hand-made sand-faced stock bricks, with concrete lintels, and the roof is covered with plain tiles. Metal casements are fitted.
The contract price was £1,200 the pair.
The photographs show : above, a general view of the main front ; left, a detail of one of the entrances.
For list of general and sub-contractors, see page 562.



FIRST FLOOR PLAN



GROUND FLOOR PLAN

The Architects' Journal Library of Planned Information

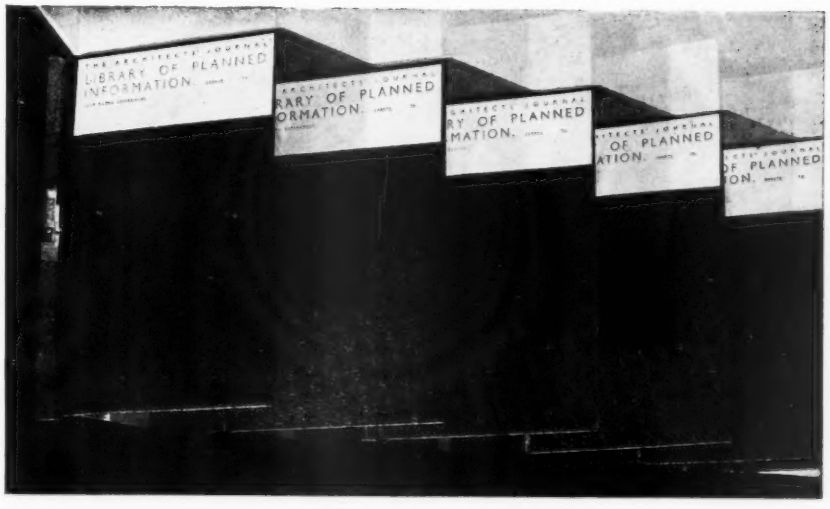
INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

613 Roofing

614 Central Heating



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

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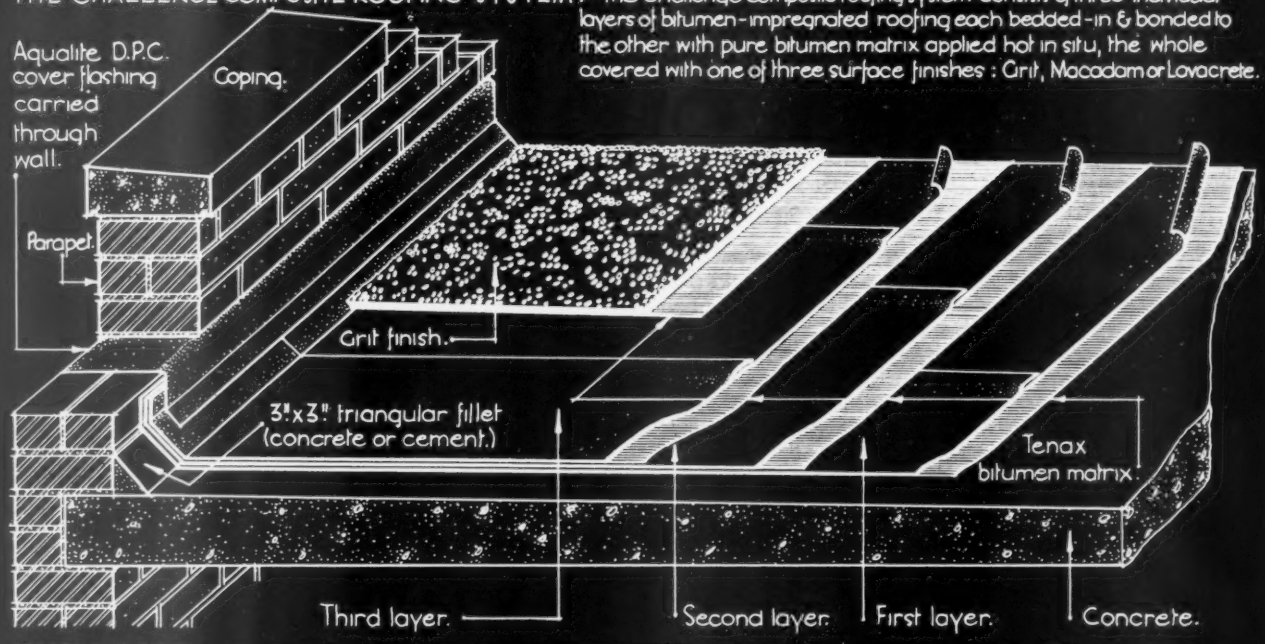
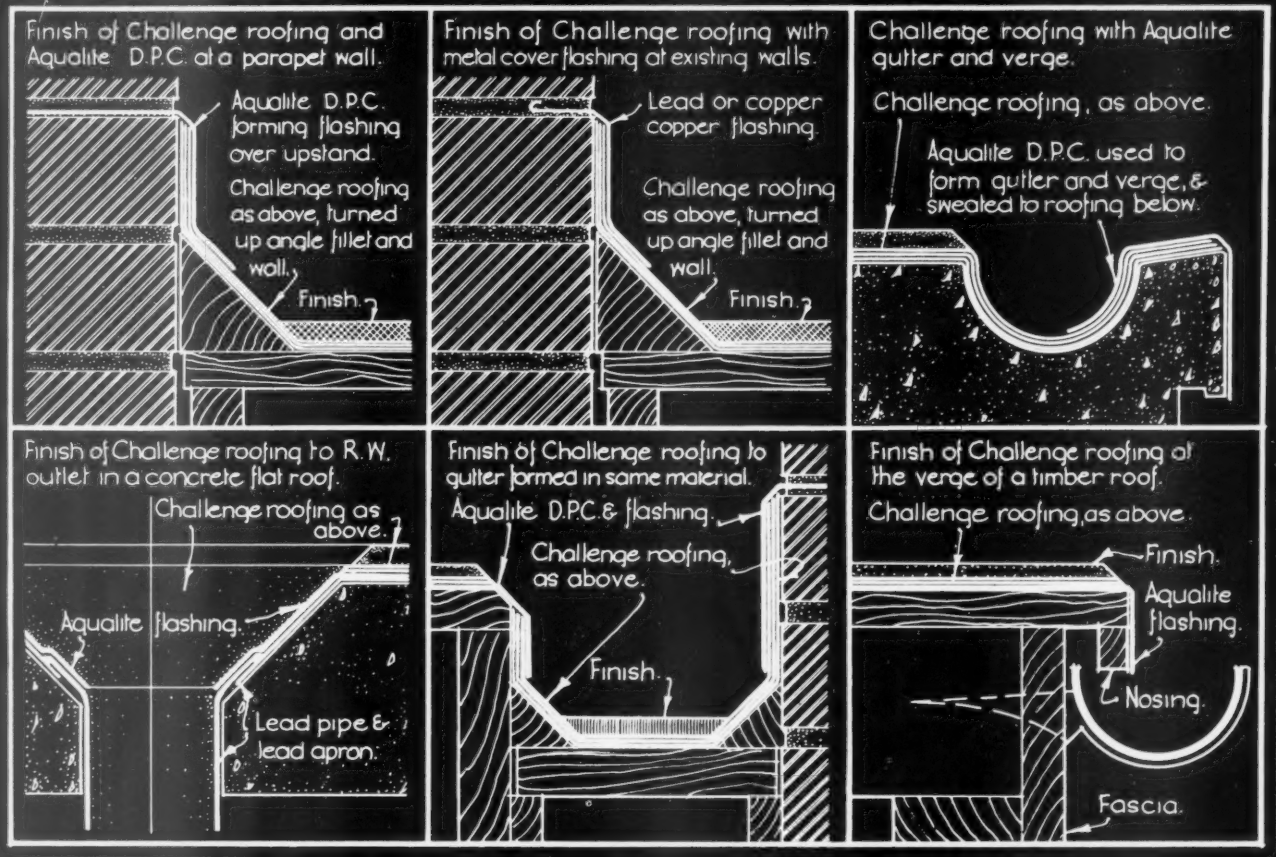
782. THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

THE CHALLENGE COMPOSITE ROOFING SYSTEM: The Challenge composite roofing system consists of three individual layers of bitumen-impregnated roofing each bedded-in & bonded to the other with pure bitumen matrix applied hot in situ, the whole covered with one of three surface finishes: Grit, Macadam or Lavacrete.



TIMBER ROOFS: When Challenge roofing is laid on boarding the first layer is nailed to the boarding (not bedded in bitumen as shown above for concrete roofs.)

SOME ROOFING DETAILS WITH CHALLENGE ROOFING & AQUALITE D.P.C. & FLASHING (Scale: 1/4 Full Size)



Information from William Briggs & Sons Ltd.

INFORMATION SHEET: ROOFING: CHALLENGE COMPOSITE ROOFING SYSTEM.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1.

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET
• 613 •
ROOFING

Product : The Challenge Composite Roofing System

The system consists of three individual layers of bitumen impregnated and bitumen covered roofing sheeting, each layer bedded and bonded to the other with a pure bitumen matrix laid hot *in situ* ; the whole covered with one of a number of alternative surface finishes. The surfaces most commonly used are : grit, macadam or Lavacrete.

The Bituminous Roofing Material :

This is a flexible material impregnated and coated on both sides with pure bitumen, scientifically blended to provide durable results.

Pure Bitumen Matrix :

This matrix is a composition designed to provide a strong adhesive to bond the layers of roofing together, and to provide an additional waterproof layer.

Laying :

On concrete roofs, the concrete, when thoroughly dry, is covered with the first layer of roofing laid throughout in hot bitumen matrix.

The second and third layers are then similarly bedded on top of one another with all joints staggered.

The whole is then covered with a coating of pure bitumen matrix to receive the surface finish.

On wood roofs, the procedure is identical except that the first layer is nailed to the boarding (not bedded in bitumen as with concrete roofs) with heavy galvanized clout nails.

Surface Finishes :

Grit Finish : Is applied over the last coat of bitumen matrix after it has cooled, one ton of clean washed grit being spread hot to every 150 sq. yds. of roof to be covered.

The grit is rolled with a light roller and brushed off with a stiff broom to remove loose and insufficiently fixed particles. This grit finish, by lightening the colour of the surface, tends to insulate the roof by reflection of heat, it provides a pleasant looking gravelled surface, and it adds considerably to the weather-resisting qualities of the roofing.

Macadam surface : Is applied over the Challenge roofing to a finished thickness of ½ in., and after laying can be dusted with white spar to give a light surface colour. Macadam finish is recommended wherever the roof is subjected to moderate traffic and to withstand impact and abrasion. It also provides a fire-resisting layer over the roofing.

Lavacrete surface : Is laid *in situ* and consists of a 1½ in. layer of coarse light-weight aggregate and a top layer ½ in. thick of fine coloured aggregate.

The top coat is divided by expansion joints ½ in. deep (through to the base coat of coarse stuff) at not more than 4 ft. centre to centre both ways. Expansion joints can be spaced at shorter intervals if required to provide a tile-effect appearance.

Lavacrete weighs 85 lbs. per sq. yd. ; is 2 ins. thick finished ; can be of any colour ; provides a hard, non-cracking surface for traffic, and serves as an effective insulating medium, both resisting heat transmission and, where of light colour, reflecting solar heat.

Aqualite Damp-proof Course. Cover Flashing :

This is a bituminous flexible heavy weight material designed for d.p.c. and flashing purposes. With aid of a blow-lamp it can be turned over sharp angles and will lie permanently in position with no tendency to spring or lift. Joints can be made in Aqualite by sweating one piece to another with a blow-lamp.

Cost :

This company maintains a staff of experienced layers and undertakes the laying of their Challenge composite system in any part of the country; it does not supply the materail alone.

Estimates will be made and submitted for any job on request.

Manufacturers : William Briggs and Sons, Ltd.

Address : East Camperdown Street, Dundee

Telephone : 4167 (5 lines)

Works : Dundee, Arbroath, and Ladybank, Fife

Offices and Depots at—

London : Vauxhall Grove, S.W.8
Telephone : Reliance 2214-5

Birmingham : " Unitas House," Livery Street, 3
Telephone : 6938

Norwich : Trowse Millgate
Telephone : 2063

Glasgow : 200 Old Dumbarton Road, C.3
Telephone : Western 6801-2

Edinburgh : Murrayfield Goods Station, L.M.S. Siding
Telephone : 61233

Aberdeen : Bedford Road, Kittybrewster
Telephone : 591

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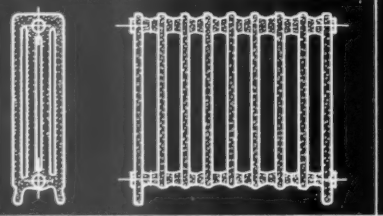
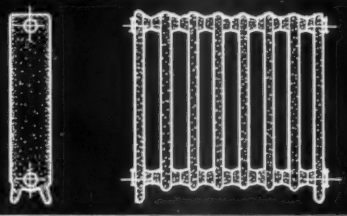
THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

TYPES AND APPROXIMATE SIZES OF HOT-WATER OR STEAM RADIATORS:



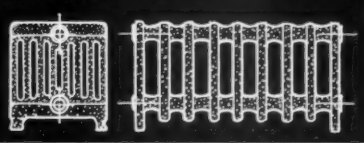
MULTI-COLUMN, GENERAL PATTERN.

APPROX. HEIGHT WITH FEET.	18"	24"	30"	36"
APPROX. HEIGHT WITHOUT FEET.	15"-16"	21"-22"	27"-28"	33"-34"
SQUARE FEET RADIATION PER SECTION.				
2col. (2½" - 3½")	·75-1	1-1·5	1-1·5	*
3col. (5½" wide.)	1·5	2.	2·5	3
4col. (5½" - 7½")	1·5-2	2-2·5	2·6-3·2	3·2-4
5col. (9½" wide.)	1·75	3·2	4	5
6col. (8½" wide.)	2-2·5	3-3·2	4·1	5



SINGLE COLUMN, HOSPITAL PATTERN.

APPROX. HEIGHT WITH FEET.	18"	24"	30"	36"
APPROX. HEIGHT WITHOUT FEET.	15"-15½"	21"-21½"	27"-27½"	33"-33½"
Narrow. (3"-3½" wide.)	·75 to 1	1 to 1·25	1·6	2·6 to 3
Medium. (5"-5¾" wide.)	1·4 to 1·5	1·75 to 2	2·2 to 2·5	2·6 to 3
Wide. (7" - 7¼" wide.)	1·7 to 1·9	2·25 to 2·5	3·0 to 3·1	3·6 to 3·7

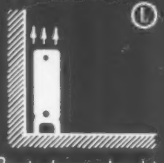


MULTI-COLUMN, WINDOW PATTERN.

Height : 13" - 13½".
Width : 13" - 13½".
Length per section : 2" - 2½".
Rad. surface per section : 2·5 - 2·6 sq. ft.

THE PLACING OF RADIATORS:

① FREE-STANDING RADIATOR.

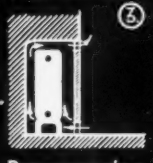


Radiators should be kept not less than 1½" clear of wall and may have a metal hood over if required.

② FREE-STANDING WITH SHELF ABOVE.

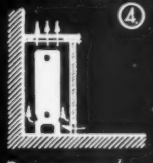
Shelf should extend 6" beyond each end of radiator with side pieces, both provided with felt backing to wall. Deflector plate is advantageous.

③ BUILT-IN WITH SOLID FRONT & AIR SLOTS.



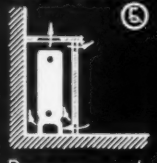
Dimensions of air inlet & outlet openings should each be not less than one sixth of the height of the radiator by approx. its length.

④ BUILT-IN WITH SOLID FRONT, TOP GRILLE & SLOT.



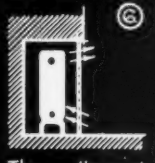
Dimensions of openings to be similar to No. 3, the free area of the outlet grille being equivalent to about 65% of the area of opening required.

⑤ BUILT-IN WITH SOLID FRONT, TOP GRILLE & FRONT SLOTS.



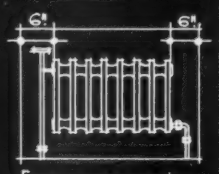
Dimensions of openings to be similar to No. 3, the combined free area of top outlets being proportioned accordingly.

⑥ BUILT-IN WITH FRONT GRILLE ONLY.



The grille must have as much clear area as possible and should be removable.

END CLEARANCES REQUIRED.



Every recessed or enclosed radiator should have 6" clear at ends (clear of bushings) for pipe connections. For other clearances see back.

BRACKETS: Any of the radiators given above can be obtained without legs, but with brackets for wall fixing.

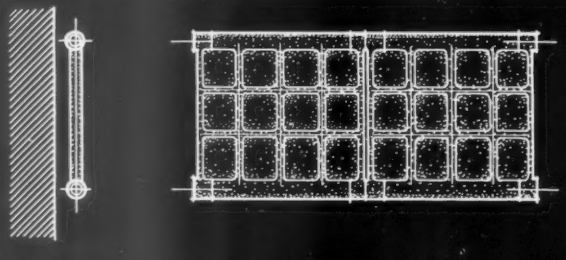
CURVED RADIATORS: Any of the radiators given above except window patterns can be assembled to a radius of 2'0" or over.

HINGED CONNECTIONS: Hospital type radiators can be fixed with hinged connections to permit rad. to swing out for easy cleaning.

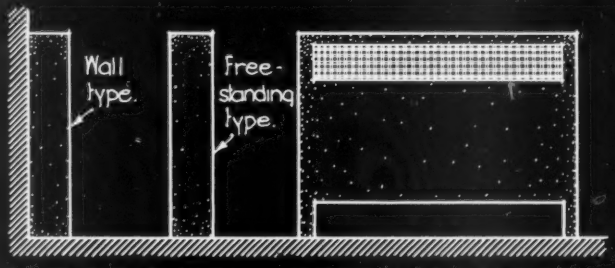
FRESH-AIR INLETS: Radiators fixed in front of fresh-air inlets should be provided with baffle plates or deflector shields.

CLEARANCES: The clear air space between a radiator & wall or enclosure should never be less than 1½". Not less than 3" should be allowed above a rad. if enclosed.

DIMENSIONS & DATA: All the figures given on this sheet are approximate only. Exact sizes vary with different makers.



SINGLE COLUMN, WALL PATTERN.
Height 30", 24", 18".
Length 16".
Thickness 2".



ENCLOSED (CONVECTION) PATTERN.
Heights 18", 24", 30", 36", 42".
Widths 3½", 5½", 7½", 10½".
Lengths in multiples of 2" from 1'0" to 4'0".

Information from The Coal Utilisation Council.

INFORMATION SHEET : CENTRAL HEATING EQUIPMENT : RADIATORS.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Oliver A. Bayne

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 614 •

CENTRAL HEATING

Subject : Radiators

General :

On this Sheet are set out various types of radiators in use for central heating, with their general dimensions and other data.

The figures given are generally representative of each type of radiator. Detailed information and exact sizes of any particular make must be obtained from the manufacturer concerned.

Single- and Multiple-Column Radiators :

Single- and multiple-column radiators consist of one or more vertical waterway columns assembled together in sections. They are provided with legs so that they can stand on the floor, or with supporting brackets for fixing to the wall. If used in conjunction with fresh-air inlets for ventilation, they should be fixed on an external wall, and provided with baffle-plates or deflector-shields, the opening of the inlets being fitted with an adjustable register to control the admission of air.

Wall-Pattern Radiators :

Wall-pattern radiators are constructed in single columns only and assembled together in sections. They are provided with supporting brackets for wall fixing and are convenient when the floor space is restricted.

Cabinet or Enclosed Radiators :

Cabinet or concealed radiators consist of a finned heating element enclosed in a casing of metal or other heat-resisting material, with openings on the underside and at the top of the front panel for the circulation of air.

The amount of heating surface required with a free standing radiator as sketch No. 1 will require to be increased under the following conditions :

As sketch	2	add	approximately	10	per cent.
,, ,,	3	,,	,,	30	,,
,, ,,	4	,,	,,	15	,,
,, ,,	5	,,	,,	15	,,
,, ,,	6	,,	,,	40	,,

Connections to Radiators :

There are three positions for the connections :

a. the flow and return may be connected at the same end of the radiator ; or

b. at the opposite ends both at the bottom ; or

c. at opposite ends, the flow at the top and the return at the bottom.

Where possible, the last-named position should be used.

Space for Connections :

Allowance must be made for the space taken by connections in all radiators which are enclosed or placed in recesses.

If the connections are both at the same end of the radiator, a space of 8 ins. should be allowed at that end.

If connections are at opposite ends of the radiator, a 6 ins. space should be provided at each end.

Clearances :

It is important that adequate space should be provided around all enclosed radiators to permit free air circulation.

The clear space behind radiators and that between them and any front enclosure should never be less than $1\frac{1}{2}$ ins.

If the radiator is enclosed at the top (with a front slot or top grille) a clear air-space of at least 3 ins. should be provided above it.

Air-Inlet and Outlet Slots :

Where a radiator is enclosed and the enclosure is provided with air-inlet and outlet slots, it is most important that the free area of the slots (exclusive of the material of any grille) should be adequate, and that they should be placed correctly. If the position is not correct or the area inadequate, the air circulation is retarded with consequent loss of efficiency in the radiator.

Air-inlet slots should, if possible, be so placed that the top of the slot is *below* the level of the bottom of the radiator (excluding the feet).

Air-outlet slots should, if possible, be so placed that the bottom of the slot is *above* the top of the radiator.

Surface Finish of Radiators :

The surface of column radiators should not be painted with bronzing liquid or metallic paints, as this causes a reduction in heat-transmission amounting to approximately 15 per cent. For this reason, and also on the score of appearance, suitable radiator paint, in conformity with the general colour scheme of the room, should be used.

Technical Service :

The British coal industry, through the engineers of the Coal Utilisation Council, provides technical service to architects and to the public generally on all problems relating to the use of coal and its derivatives for all purposes.

In addition to the staff at the head office, an engineer is attached to each branch office at the addresses given below. Additional general information is also available in various technical bulletins issued free by the Council.

Previous Sheets :

This Sheet is the fourth of the series issued by the Coal Utilisation Council, the first, second and third being Nos. 571, 582 and 603, dealing respectively with fuel storage, heating stoves, and hot-water boilers.

Issued by : The Coal Utilisation Council

Head Office and Southern Branch : Grosvenor Gardens House, Victoria, London, S.W.1
Telephone : Victoria 4366

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Telephone : Midland 3736

Eastern Branch : Alliance Chambers, 19 Horsefair Street, Leicester
Telephone : Leicester 65011

North-Eastern Branch : 38-39 Pearl Chambers, East Parade, Leeds, 1
Telephone : Leeds 23616

North-Western Branch : 38 Deansgate, Manchester, 3
Telephone : Blackfriars 4081

Scottish Branch : 81 Mitchell Street, Glasgow, C.1
Telephone : Central 146

Irish Branch : Bank of Ireland Chambers, 1-2 Westmoreland Street, Dublin
Telephone : Dublin 23034

South Wales and South-Western Branch : United Kingdom Provident Buildings, 14-16 Baldwin Street, Bristol, 1
Telephone : Bristol 24797

WORKING DETAILS : 641

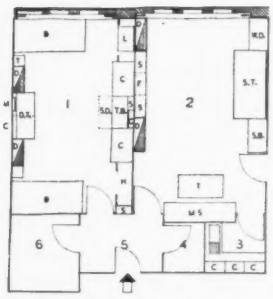
AIR-CONDITIONED FLAT • S.S. ORCADES • BRIAN O'RORKE

There are two air-conditioned flats each with its own bathroom and lavatory, entrance hall, boxroom, living-room and pantry. There is also a block of experimental cabins equipped with conditioned air.

The illustration shows the bedroom of one of the flats, and overleaf is shown the layout of one of the flats and also details of the jalousie sash windows and the grilles to the air ducts.

WORKING DETAILS : 642

AIR-CONDITIONED FLAT • S.S. ORCADES • BRIAN O'RORKE

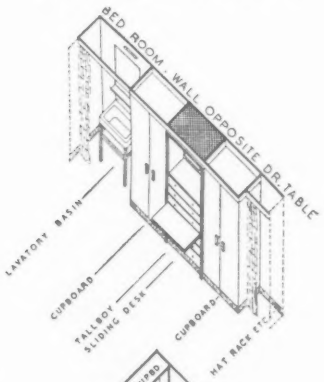


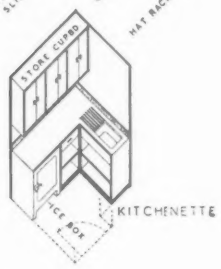
KEY PLAN OF FLAT
1 0 1 5 10 15 20 FEET

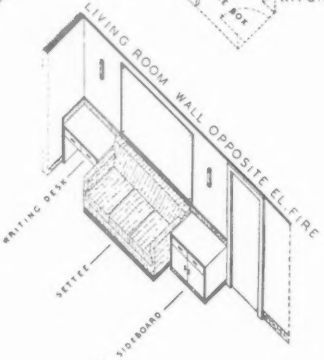
1 BED ROOM
2 LIVING ROOM
3 KITCHENETTE
4 TRUNK STORE
5 LOBBY
6 BATH ROOM

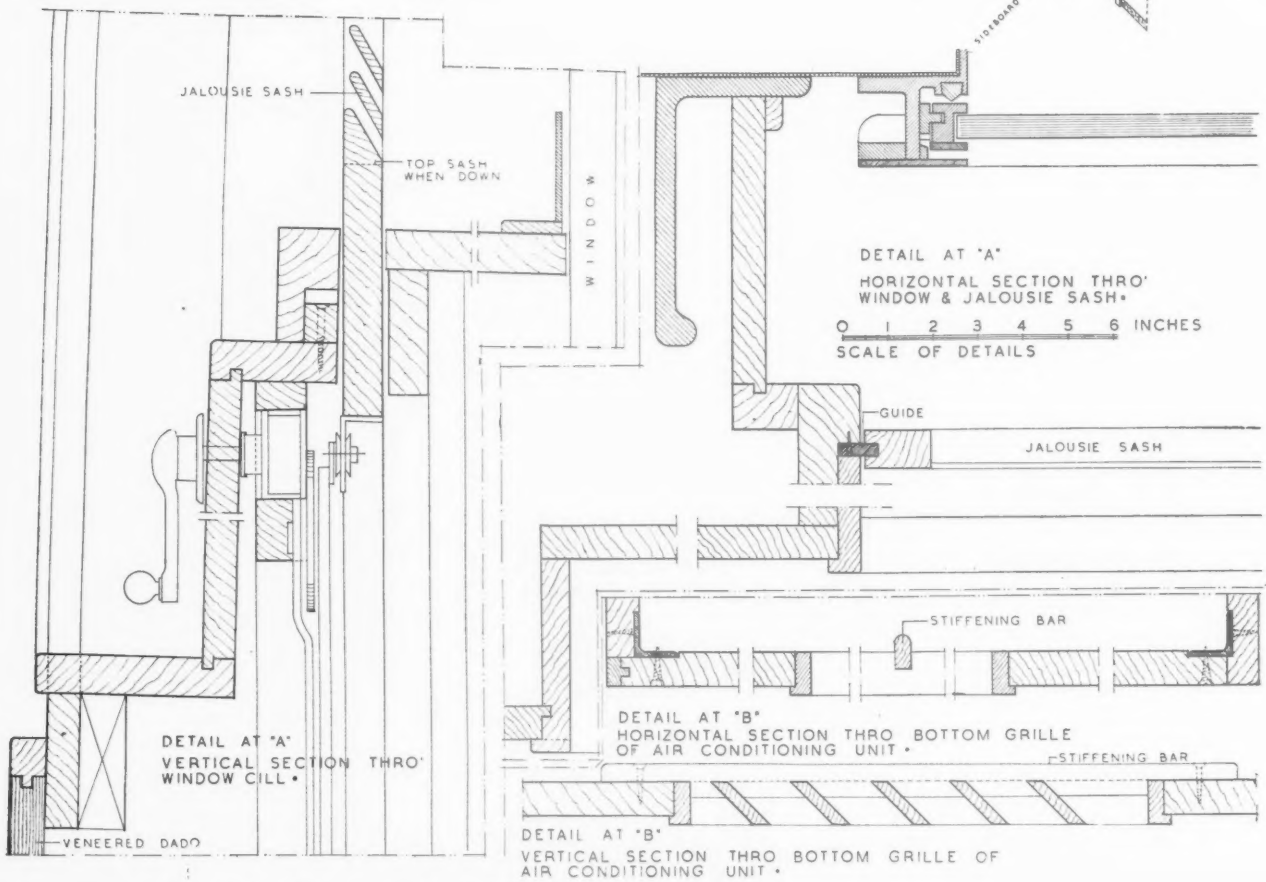
B BED
T TABLE
D AIR DELIVERY TRUNK
DT DRESSING TABLE
M MIRROR
C CUPBOARD
L LAVATORY BASIN
TB TALLBOY
S SHELVES
H HAT RACK & HOOKS
F EL FIRE
WD. WRITING DESK
ST SETTEE
SB SIDEBOARD
MS MOVABLE SETTEE
SD SLIDING DESK

AXONOMETRIC OF WHOLE OF FLAT
1 0 1 5 10 15 20 FEET





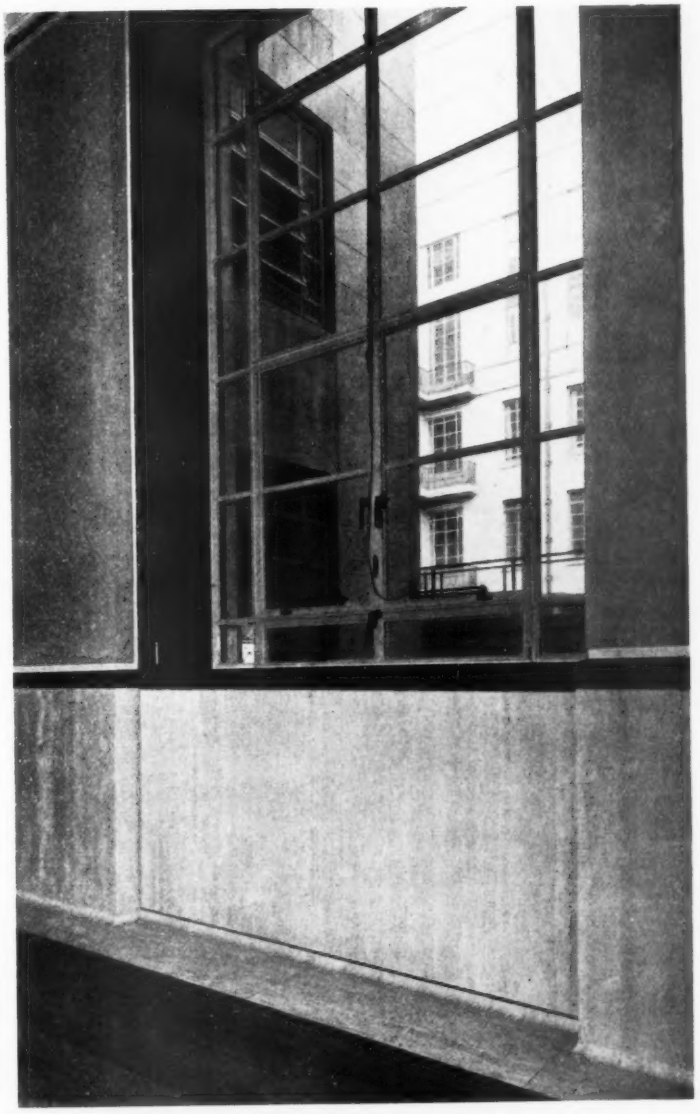




Axonometric and details of the air-conditioned flat illustrated overleaf.

WORKING DETAILS : 643

HEATING • SENATE HOUSE, LONDON UNIVERSITY • CHARLES HOLDEN

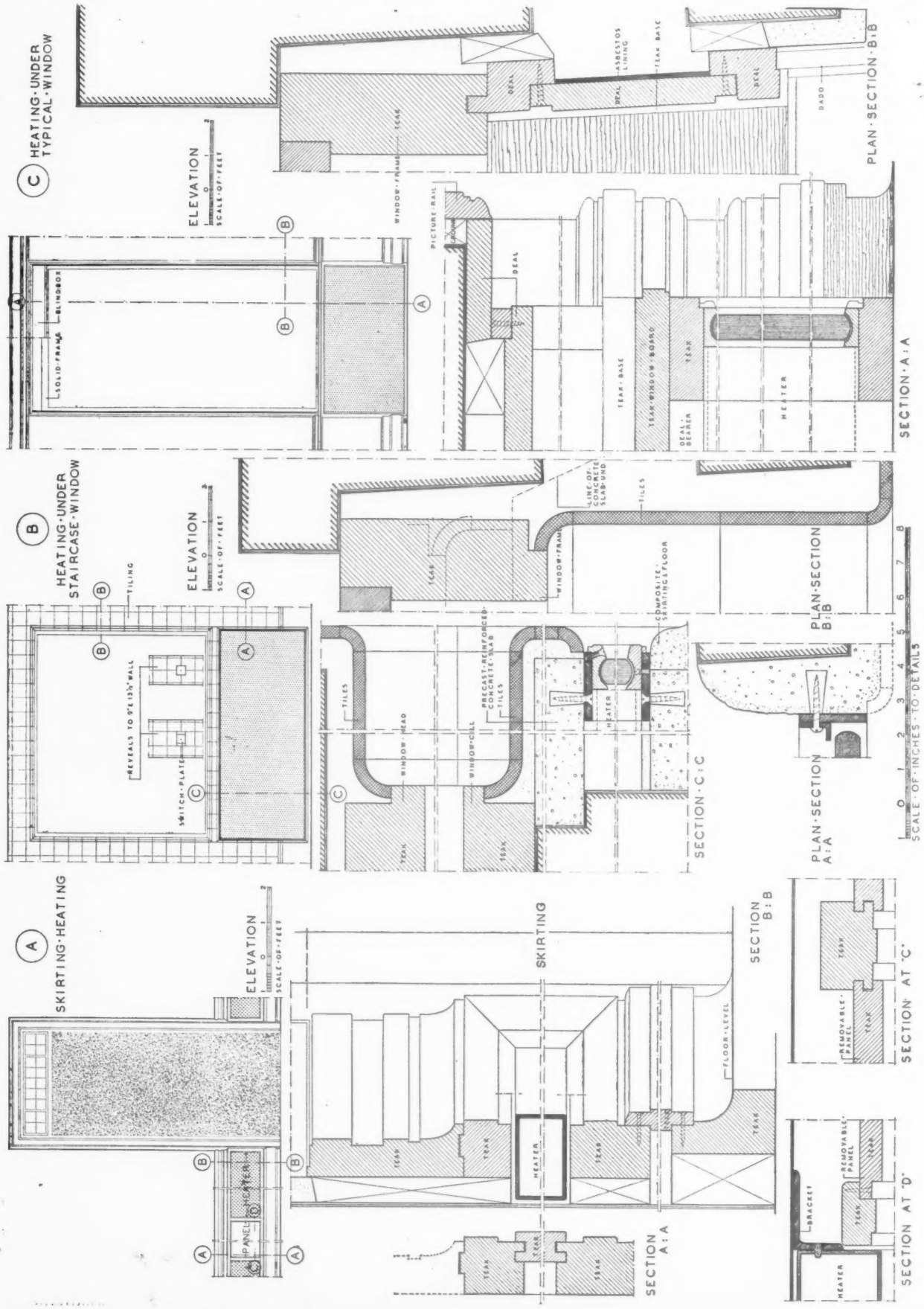


Dry electric heating is installed throughout the Senate House and is supplied from behind marble panels either in the dadoes or beneath the windows.

Overleaf are shown details of three typical heating units, two being window panels and one a dado panel.

WORKING DETAILS : 644

HEATING • SENATE HOUSE, LONDON UNIVERSITY • CHARLES HOLDEN



Details of the heating illustrated overleaf.

LITERATURE

SHOPS

[*By D. COSENS*]

Smaller Retail Shops. By Bryan and Norman Westwood. London: The Architectural Press. Price 10s. 6d.

IT does not fall to the lot of every architect to design even small shops, but if it should, so much special knowledge is needed that he might well spend some months in careful research before sitting down to his drawing-board. Which is not to say that he always does so—there is considerable evidence to the contrary—but successful shop design is not, as is sometimes supposed, arrived at by the felicitous application of a snappy front on to an out-of-date plan, nor will sales necessarily be increased by the arbitrary choice of an apparently strategic site. In *Smaller Retail Shops* Bryan and Norman Westwood prove this very conclusively, and at the same time they offer many solutions to difficulties in contemporary planning. Their series of articles in this JOURNAL last year will be remembered. These they have now revised and amplified and published in book form, and it would seem that, at any rate for some years to come, architects have been provided with a book of reference. They start with an important section on choice of site in relation to possible sales returns, and these chapters should be noted, for they contain information without which all subsequent steps in shop design, however well carried out, may be unsuccessful. The rest of the book deals exhaustively with general lay-out, access, lighting, costs and finish, and each of these sections is accompanied by diagrams showing possible alternatives, dimensions where such are likely to be helpful, and excellent illustrations of recently-built small shops.

In looking through these illustrations a very interesting phenomenon will be noticed—the general acceptance of a modern treatment by a public who normally blench at the idea, and who in domestic and civic architecture invariably insist on the customary pseudo-academic. Here the battle of the styles has not been fought and "modern" in shop design is almost universally accepted as the hall-mark of success. It may be good or it may be the shoddiest arrangement of chromium picked out in neon, but apparently it sells.

In the case of the small shop elevational design is controlled by fashion, not by function. This is the architecture of façade. An excellently planned shop may exist behind this façade, but of this there is no outward evidence, and the architect is free to exploit to the utmost the commercial potentialities of his few yards of frontage, quite unhampered by interior requirements or the age-old inevitable inter-relation of elevation and plan. This façade design is something new in serious architecture. Outside Hollywood buildings have always been visualized in three dimensions. Elevation has been the expression of internal arrangement. But the small shopfront of today, applied to the larger building to which it often bears little or no relation suggests, and is intended to suggest, only a certain prosperity and the product it displays.

The authors of *Smaller Retail Shops* deal in a straightforward and helpful way with existing conditions, and this question of individual, haphazard design, or the ordered planning of our streets, is perhaps beyond the scope or intention of their book. But it is a problem which sooner or later architects will have to face, for we cannot indefinitely carve a series of bright, insistent, and completely unrelated little caves out of the bases of our shabby old street blocks. Ultimately, if good taste is ever to prevail in the world again, we shall tire of this disorder.

THE GARDEN

[*By E. H. W. ATKINSON*]

The English Garden. By Ralph Dutton. London: B. T. Batsford. Price 7s. 6d. net.

THIS excellent book, Mr. Dutton's second contribution to the British Heritage Series—the first was on the country house—divides the history of the English garden into periods when sustenance, symmetry, and the return to nature were in turn the chief formative principles. It is all very logical and convenient, and, since Mr. Dutton has an agreeable style of writing, very readable as well. To modify a phrase that was first coined about a less learned author, it is impossible not to be impressed by his erudition. His history is admirably told.

With few imports have the English been on the whole so successful at assimilation and naturalization as with ideas for gardening; few of their exports—as witness the Englische Garten or the Jardin Anglais—have been on the whole so infelicitous. But we have made the landscape and romantic style quite indisputably our own. On this ground Mr. Dutton has a generous word for Lancelot ("Capability") Brown, who made hay of many formal gardens, but who commanded and influenced the planting of what must have run to some millions of trees a hundred and fifty to two hundred years ago. Many of these trees, as Mr. Dutton observes, are now passing their prime, and it would have been as well if the publicity that urged tree-planting as part of the commemoration of the Coronation had laid at least as much stress on the introduction of young trees to give vitality to mature parks as on planting in new places. As to that, Mr. Dutton has the pertinent remark that "'Amenity planting,' as it is officially termed, seems to follow at present a similar trend to the population; infinite care is devoted to the preservation of veterans and little to the production of new life to take their place."

The need for new trees will be the more urgent if, as Mr. Dutton prophesies, the acres enclosed during late Victorian and Edwardian days are to be allowed to revert to parkland, and attention is to be concentrated on the immediate surroundings of houses, where flowering shrubs, with their labour-saving merits, will continue to increase in popularity, while carpet-bedding and "that essentially English production" the herbaceous border will be reserved for those able to pay for their upkeep.

Mr. Dutton notes that, architecturally, garden design seems to be almost at a standstill, but he has a sympathetic word about the modern style of domestic architecture into which a hint of a reasonable belief about the future may be read. "The modern style of building has not yet been very cordially welcomed to the English countryside, and its possibility as applied to gardens thus remains an unknown quantity, but it seems probable that, as this manner becomes adjusted to the English taste, country houses will be more freely built and the close unity between house and garden, which is an essential characteristic of this style, will produce striking results." Mr. Dutton is rather more guarded over that than he need be. He could substitute "is clear" for "seems probable" without doing any violence to likelihood.

One does not pretend to be able to catch Mr. Dutton out on his facts, but the story on page 116 about two sisters, one of whom wanted a tower and the other a spire, who raised a building with both features, belongs, if one's memory serves, not to "an eccentric building near Ormskirk," but to the very parish church in the middle of that Lancashire market town.

However, that is a small matter. Mr. Dutton's book is illustrated by some 150 very fine photographs, mainly by Mr. Will F. Taylor, and other illustrations; they are excellent.

LAXTON'S

Laxton's Builders' Price Book, 1938. London: Kelly's Directories, Ltd. Price 10s. 6d. (post free).

THE 1938 edition of Laxton's Builders' Price Book, which is the 121st edition of that work, has just been published.

The great value of this publication is that it combines in one book a great deal of

information which could otherwise only be obtained from a variety of sources. Apart from the prices given, the book is of great value to architects and contractors, as it contains particulars of the various sources of supply of materials, etc., and enables comparison to be made between alternative materials and methods of construction. By means of the various analyses and other data the prices can be adjusted to suit varying localities and conditions.

In view of the large amount of inferior timber imported it is more than ever important to specify suitable brands. The Timber Marks Section has again been revised to give up-to-date and helpful information on this subject. Those anxious to support Empire products will find that comparative prices are given of a large number of Empire timbers suitable for structural or decorative purposes.

The book is divided into Trade Sections covering all branches, and all items are listed in a very full index. The tables and memoranda section give the weights of many building materials and other useful data and mathematical tables. The chapter entitled Legal Notes and Memoranda has been thoroughly revised and brought up to date in conformity with the latest decisions in the Courts.

The blue pages ("List of Proprietary Articles and Trade Names") will be found invaluable to those who require the names or addresses or telephone numbers of the makers of proprietary articles and building products made under trade names. This section has been revised and extended for this edition.

This edition contains the standard rates of wages for the building trades of England and Wales, including regradings which came into force on February 1, 1938. A comparative table is also given showing the principal variations in wages and materials during the past five years.

LAW REPORTS

LIABILITY FOR A WALL THAT COLLAPSED

Upjohn v. *The Seymour Estates, Ltd., and others.—King's Bench Division.—Mr. Justice Goddard*

THIS was an action by Mr. Geo. Henry Upjohn, a tailor, of Camden Road, St. Pancras, against The Seymour Estates, Ltd., of Broad Street House, Old Broad Street, E.C., and Messrs. Joseph, Stanley Wilfred, Harold Joseph, and Leonard Beaumont Seymour, claiming damages alleging that the defendants had wrongfully entered his premises, 94 Camden Road, St. Pancras, and trespassed upon and interfered with the party wall between Nos. 94 and 92 Camden Road.

The defendants, who were described as builders, were said to be directors of Seymour Estates, Ltd., and owners of premises adjoining No. 94 Camden Road, which was a freehold shop and house.

Mr. Upjohn pleaded that the defendants, who were clearing the site next to his property to erect a new block of buildings, were negligent because they did not take the necessary precautions to "shore" the party wall. The result was, he alleged, that part of the wall collapsed and a "dangerous structure" notice was served on him.

It was stated by counsel for Mr. Upjohn that after the party wall collapsed Mr. Upjohn was forced to live in a shed at the back of his garden. His claim included a sum in respect of special damages. Furthermore, cracks had appeared in the front wall of Mr. Upjohn's property, which would call for a certain estimated expenditure.

The defendants agreed that the party wall caved in, but disputed that they had removed its supports.

They denied, also, in their defence to the action, that they had acted in any way negligently or improperly. It was further pleaded that they had carried out repair work satisfactorily under supervision.

His lordship, in the course of his judgment, said he thought the defendants did not trespass upon Mr. Upjohn's party wall, but Mr. Upjohn was entitled to support from their premises. That support was withdrawn and caused damage to Mr. Upjohn, who was entitled to such damage as could be proved to have resulted from the withdrawal and also in connection with damage to his stock. But Mr. Upjohn was not entitled to damage resulting from untimely delay on his part in not protecting his stock or in remedying the damage to his premises.

The parties had asked that the damages might be assessed by an official referee, continued his lordship, and he directed accordingly. He hoped, however, that some arrangement would be come to which would avoid further expense. He strongly advised the parties to come to an arrangement.

There would be judgment for Mr. Upjohn for damages to be assessed, and Mr. Upjohn would have the costs of the action.

Judgment was entered accordingly.

LIABILITY FOR BREACH OF COVENANT

Duke of Westminster v. *Duncombe.—Official Referees' Court. Before His Honour T. Eastham,* K.C.

THIS was an action by the Duke of Westminster against Miss Emily Katherine Louisa Duncombe, of Ashwell, Oakham, Rutland, to recover damages for breach of covenant to repair 48 Brook Street, under a lease of October, 1863.

It appeared that in 1931, Miss Duncombe entered into a reversionary lease, with an under lessee of part of the premises, for a term of 53 years, beginning in June, 1939, the date on which the lease to the defendant would expire. Under the reversionary lease the lessee agreed to make a capital cash payment of £4,410, to pay an increased rent, repair and keep in repair the premises, and yield them up in good repair at the end of the lease, and to make certain structural alterations.

Plaintiff's case was that, in 1936, during the term granted to the defendant, the premises were in need of repair, and the usual dilapidation notices were served. Defendant failed to comply with the notice and plaintiff brought his action, alleging that the value of the reversion had been damaged by reason of the breach of covenant, and contending that the terms of the reversionary lease could not be taken into account in assessing damages.

Defendant's reply was that, though there had been a breach of covenant, there was, in fact, no injury to the reversion as there was no loss in fact to the plaintiff, because the rent reserved by the reversionary lease was unaffected by the condition of the premises.

His honour, in giving judgment, said in the authorities he was bound to hold that the terms of the reversionary lease must be disregarded. He therefore came to the conclusion that he must hold that the terms of the reversionary lease, other than those relating to the structural alterations, could not be taken into account in assessing the damages. He gave judgment for the plaintiff for £320 damages, with costs. He granted a stay of execution with a view to an appeal.

PURCHASE OF COMPLETED HOUSE—NO IMPLIED WARRANTY

Hoskins v. *Woodham.—King's Bench Division. Before Mr. Justice Macnaghten*

THIS action concerned a house on a building estate at Enfield.

The plaintiff in the suit was Mr. Henry John Hoskins, of Brookside Gardens, Turkey Street, Enfield. He claimed damages for alleged breach of contract and warranty from Mr. Charles George Woodham, a builder, of "Paragon," Cuffley Hill Road, Cuffley.

The case for Mr. Hoskins was that he bought a house on a building estate known as Brookside Gardens, Turkey Street, Enfield, which was being developed by Mr. Woodham. It was contended that it was an implied term of the contract of purchase that the house should be reasonably fit for use as a dwelling-house, that the materials used in its construction would be suitable and proper, and that the work would be carried out in an efficient manner. After Mr. Hoskins had gone into occupation he found that dampness appeared, due, he alleged, to defects in connection with the construction of the house.

Mr. Woodham, in his defence to the suit, denied that the terms alleged by Mr. Hoskins were implied in the contract. It was further denied that the house was not reasonably fit to be used as a dwelling-house or that the materials used in its construction were not suitable and proper. It was denied, too, that the work had not been carried out in an efficient manner.

Mr. Gilbert J. Paull was counsel for Mr. Hoskins. Mr. H. G. Garland appeared for Mr. Woodham.

Mr. Paull, in opening the case, explained that Mr. Hoskins bought his house from Mr. Woodham in March, 1936, for £695. In the following autumn dampness appeared on the ground floors which, as winter came on, got worse. A wet film was cast over the furniture. When an examination was made, said counsel, it was found that there was no air space between the floor boards and the concrete "float" on which the house was built. It appeared that beams had been let into the concrete till they were flush with the surface, sheets of supposedly waterproof felt laid on the concrete, and the floor boards nailed to the beams.

It was alleged that because of the way in which the floors were constructed they became very damp and would have to be relaid. It was also alleged that the concrete was not so thick as it should have been.

Mr. Woodham, however, denied that the floors were not properly constructed and also contended that the construction conformed with the by-laws. The dampness, he suggested, arose from condensation and the use of linoleum.

Evidence was called in support of the case for Mr. Hoskins.

Mr. Charles M. Varney, building inspector for the Enfield Council, called as a witness for the defence, gave evidence to the effect that the construction of the floors complied with the by-laws. He saw nothing that called for his interference.

Mr. Walter William Chappell, of Farr Road, Enfield, a builder's manager, told the court that he supervised the building of the house, which conformed with the by-laws in every way.

Mr. C. V. Cable, a Cuffley architect and surveyor, said that in his view any damp there was on the floors had not come from below.

Evidence for the defence was also given by a quantity surveyor, who stated that the waterproof sheeting placed by the builder under the floors was of the kind used in thousands of houses on building estates.

It had to be remembered, he added, that the particular house in question was a cheap one. But the floor was of the usual kind accepted by the Ministry of Health.

Mr. Garland, addressing his lordship, submitted that the question of an implied warranty did not arise as the purchase was of a completed house.

Mr. Paull, however, contended that an implied warranty of fitness could be assumed when a house was bought from a builder on a building estate.

His lordship, giving judgment, remarked that he had no hesitation in saying that the damp came from below the floor boards. He thought that Mr. Hoskins was right in his contention that the floor did not comply strictly with the letter of the by-law, although it might comply with the by-law as interpreted by the Ministry of Health and the local authorities.

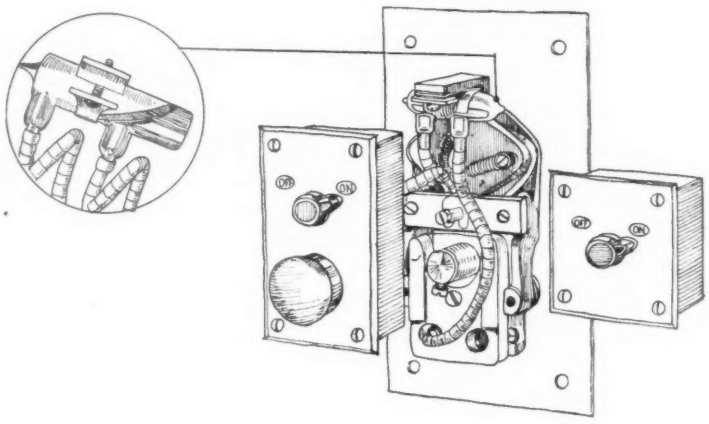
After explaining that the house was built for Mr. Woodham by a building corporation, his lordship said he did not think it was necessary for him to decide how the damp got through the floors. It might have been because the concrete was not thick enough or because the

felt was not impervious or it might have been a combination of circumstances.

Mr. Hoskins could not succeed in his action because it had already been legally decided that in the sale of a completed house, duly executed, there was no implied warranty that the house would be fit for habitation.

It had been argued on Mr. Hoskins's behalf that with the advent of building estates the law should be otherwise construed. The sale of houses, however, was not a new practice and there was no legal authority which entitled Mr. Hoskins successfully to claim implied warranty in the sale of a completed house. There must therefore be judgment for Mr. Woodham.

Judgment was accordingly entered for Mr. Woodham, with costs against Mr. Hoskins.



TRADE NOTES

[EDITED BY PHILIP SCHOLBERG]

Sparkless Switches

A NOTE appeared in these columns last week about the danger of explosions in operating theatres, where it was stated on the authority of two experts that the chief danger, so far as the architect was concerned, lay in switches and sockets at floor level, with an additional danger in foot switches, which naturally tend to be fairly near the operating table and are therefore more likely to be in the immediate path of explosive anæsthetic mixtures. It was also stated that a height of 3 ft. or 4 ft. from the floor was enough to make explosions very unlikely, but if anybody is still worried by this danger it is perhaps worth mentioning that Walsalls make a series of sparkless switches specially for hospital use. These switches are an adaptation of the ordinary mercury make and break with the mercury in a sealed vessel with electrodes at each end, the whole assembly being tilted so that the mercury all runs to one end and so breaks the circuit, but when the vessel is horizontal the mercury provides electrical contact between the two electrodes and the switch is "on." The operating movement is not up and down like the ordinary switch dolly, but a rotary one like a cooker switch, though the movement is much smaller and lighter. Wiring and fixing is the same as for an ordinary switch. Five and fifteen ampere sizes are available and there is also a range of interlocking switch plugs, the interlocking feature being, of course, essential, for there is no point in making a sparkless switch if it is still possible to cause sparks by withdrawing the plug when the switch is still on. Prices are fairly high, 9s. 4d. for a five-ampere switch, but it may be worth it for the sake of one's peace of mind, and it does quite definitely mean that all switches can be exactly where they are needed with no limitations about placing them where they will be out of the way of explosive mixtures. Walsalls, by the way, have also made some flameproof foot switches for use at University College Hospital.—(*Walsall Conduits, Ltd., Excelsior Works, West Bromwich.*)

Home Grown Timber

It is not often that a purely propaganda booklet is worth reading with any great care, but John Sadd, of Maldon, has recently issued a particularly good effort. A good deal of it rather naturally consists of pretty pictures, but there is a lot of useful information as well, the whole story of the production of English hardwoods being briefly told in a few pages, after which comes a series of notes on the more usual woods, from acacia to yew. These notes are sensibly done in that they not only give the uses for each kind of timber, but they explain how it is grown and *why* it is suitable for its particular purpose—a much better method than the usual categorical pronouncements. At the end of the booklet there is an excellent table of comparative costs giving the sizes usually available and the price ratio compared with through and through sawn white oak as a basis. This is just the sort of information the architect needs, but I have never seen it set out so clearly before. The table is reproduced below, as it seems well worth keeping somewhere handy, for it should be a great help when estimates for purpose made furniture turn out to be higher than one had thought.—(*John Sadd and Sons, Ltd., Maldon, Essex.*)

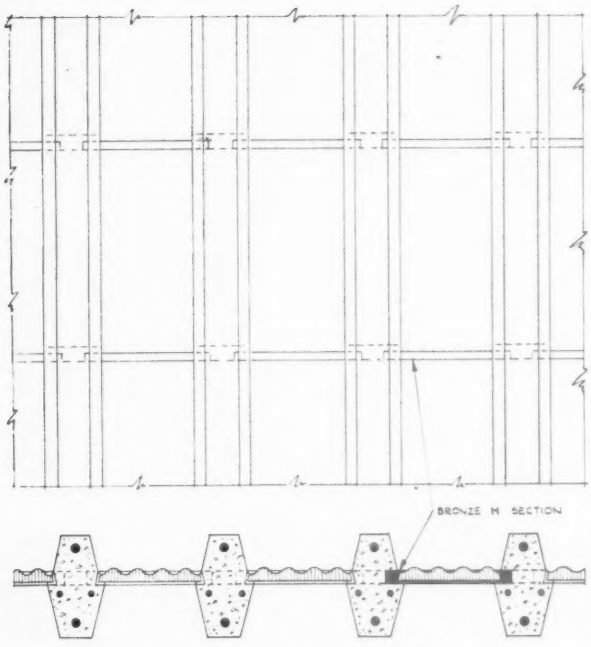
Glass-Concrete Windows

Glass-concrete staircase windows with mullions and transoms have been used for a good many years, but there is a tendency nowadays to build in glass bricks or to leave out the transoms and retain the mullions only, so as to give a more markedly vertical effect to the window. The mullions are generally precast and rebated to take the lenses, which are fixed after the mullions are in place. This system works well enough as long as the window is not too tall, but there comes a time when the total weight of the lenses is quite considerable, and whatever type of mastic or putty is used for fixing, a fair percentage of this weight must be transmitted to the bottom courses, quite apart from the difficulty of replacing broken lenses. King's, who were experts at this sort of construction long before most of us took an interest in such things, have recently introduced a patented form of construction in which the mullions are precast in the usual way, but are slotted sideways to receive bronze H

	Sizes Usually Available			Comparative prices
	Thickness in inches	Width in inches	Length in feet	
Acacia	2—4	6—12	6—14	Equal
Alder	2—5	6—12	8—16	33⅓% less
Ash	1—6	6—24	8—24	Equal
Beech	1—6	10—24	6—14	33⅓% less
Cedar	½—6	8—42	6—16	25% less
Cherry	1—10	8—16	6—12	25% less
Chestnut, Sweet	1—4	10—24	8—16	20% less
Chestnut, Horse	4—6	10—20	8—15	40% less
Elm	¾—6	12—30	10—20	33⅓% less
Hornbeam	2—6	8—16	6—12	15% less
Lime	2—6	10—24	8—16	40% less
Maple	1—4	10—18	6—10	Equal
Oak, White, T. & T.	⅝—8	10—24	8—24	Basis
Oak, White, Q.S.	⅜—12	6—12	6—12	100% higher
Oak, Brown	1—6	6—20	6—12	50% higher
Pear	1—4	6—12	6—8	Equal
Plane	1—4	10—24	6—16	20% less
Poplar	1—4	12—40	6—24	40% less
Sycamore	1—6	10—20	6—16	50% higher
Walnut	2—4	10—30	6—10	100% higher
Yew	1—6	6—12	5—10	Equal

COMPARATIVE PRICES

The table does not attempt to give actual prices, but the usual price ratio of the different woods. White oak, through and through sawn, is taken as a basis, as the market price can easily be found.



Elevation and section of J. A. King's glass-concrete window showing position of H-section bronze bars.

members which carry the lenses, so that the weight of the lenses is transmitted to the mullions. The permissible height of the window is thus more or less unlimited. Mullions are spaced at 9 or 12 ins. centres when the heavier lenses are used, but this figure can be increased to 2 ft. if the glazing is to be carried out in ordinary sheet glass. One of those sensible ideas which somebody ought to have thought of long ago.—(*J. A. King & Co., Ltd., 181 Queen Victoria Street, London, E.C.4.*)

Specifications for Asphalt

The Natural Asphalte Mine-Owners and Manufacturers Council has just produced two more specifications for use when asphalt is adopted for purposes other than roofing. Specification A is intended to be used for all roofing work, and of the new ones B is for all dampcoursing, tanking and waterproofing, while C is for all normal flooring and paving purposes. Both these two later specifications employ lake asphalt and the natural rock asphalt is thus confined to roofing work, though it can, of course, be used in either of the other two specifications if it is considered essential. These new specifications have been adopted so that the asphalt used shall be most suitable for the purpose in hand, and at the same time there should be a saving in cost. In order that it shall be possible to make certain that the right kind of asphalt is being used on the job the blocks will carry a distinguishing letter in addition to the usual trade mark : R for roofing, D for dampcoursing, and F for flooring and paving. Simple and straightforward even though it does look like the Young Builder's Alphabet when you see it in print. Copies of these specifications can be obtained from the Council, the reference number of the publication being AC21—1938.—(*The Natural Asphalte Mine-Owners and Manufacturers Council, Terminal House, Victoria, London, S.W.1.*)

Concrete for Factories

A new publication from the Cement and Concrete Association deals with modern factories in concrete. After a short introduction the rest of the booklet consists of a dozen or so pages of photographs of concrete factories of all kinds, varying from Dr. Faber's grain silos for Messrs. Spillers at Avonmouth, to a chemical factory near Athens. While there is much to be said for concrete as a material for factories this publication would have been of even greater value if plans of the different buildings had been given, but, apart from the general statement that in some processes the column spacing may have to be as much as 30 or 40 ft., little or nothing is said to explain what is happening. Propaganda associations must realize that, faced with a photograph, the architect thinks what is it, where is it, who designed it, and what is it *for*? The last question is the most important and a plan tells more of the story than any amount of words and is the natural language of the architect anyway. Compare this booklet with the John Sadd one referred to above, and it is easy to see which method is right : to make a mistake like this once is forgivable, but the same criticisms could be applied to a similar booklet on schools issued a few weeks ago by the same organization.—(*The Cement and Concrete Association, 52 Grosvenor Gardens, London, S.W.1.*)

New Fabrics

Gordon Russell has got out some new fabrics : nine of them to be precise. Six of them I like very much and the remaining three would be very good in the sort of rooms I do not happen to like at all. But fabric design is an intensely personal matter and it is impossible to say fairer than this of a range in which so much is good and nothing is bad as long as you put it in the right room. At the bottom of the scale is a cretonne at 2s. 6d. a yard, 31 ins. wide, at the other a handwoven material 42 ins. wide at 18s. 6d. This has a series of coral whatnots on a buff or porridge coloured ground with horizontal bands of blobs. I see that what I call whatnots Mr. Russell calls tufts, but we're both of us wrong probably, and since description is impossible the only thing to do is to go and see for yourself or write for the leaflet, which gives quite a good idea of the colours.—(*Gordon Russell, Ltd., 40 Wigmore Street, London, W.1.*)

Partnership

Mr. H. H. Parker, L.R.I.B.A., formerly of 14 St. John's Street, Cambridge, has entered into partnership with Mr. C. W. Craske, A.I.A.A. & S., and the style and address of the firm is now Craske and Parker, Architects and Surveyors, 20 St. Andrew's Street, Cambridge. Telephone 2010.

An exhibition of Art Thermolux is now being held at James Clark and Son's Showrooms, Glasshill Street, London, S.E.1. Above is a view of one of the exhibits—a window with coloured designs woven in spun glass. "The Cricketers" is the theme of the panel. The foreground is in a delicate shade of green, with an attractive blue sky. Art Thermolux, as this new kind of glass is known, consists of a spun glass interlayer hermetically sealed between two sheets of glass.

Copies of the loose supplement containing the labour rates for the principal towns and districts throughout the country can be obtained from the JOURNAL, price 2d. to cover postage.

PRICES

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 (published last week).
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.

On the following pages appears Prices of Materials—Part 2, with the prices, last published on March 3, brought up to date.

Immediately below, Messrs. Davis and Belfield mention the principal changes which have occurred in the last month. Similar notes, and the deductions that may be drawn from them, will be published on this page each month.

NOTES ON PRICE CHANGES

The condition of the Timber market remains easier as stated last month, and prices of timber generally have fallen slightly.

The rates for labour in Scotland as published on February 24 will be increased by ½d. per hour for craftsmen and ¼d. per hour for labourers from April 1 next.

The other changes in the prices of this section are marked in the lists and do not appear to be of any special significance.

O. A. DAVIS, P.A.S.I.

PART 2

Prices vary according to quality and the quantity ordered.

Those given below are average market prices and include delivery in the London area, except where otherwise stated, but do not include overhead charges and profit.

CURRENT MARKET PRICES OF MATERIALS

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

JOINER

Prices are for standards in one delivery; when less than a standard is required, or special lengths, add £1 per standard

Joinery Timber

			Per standard £ s. d.	Per foot cube £ s. d.
3″ × 9″ Scantling	2nd	Archangel	41 10 0	5 0½
✱3″ × 9″ ,,	3rd	, ...	30 10 0	3 8½
2″ × 9″ ,,	2nd	,, ...	47 10 0	5 9¼
●2″ × 9″ ,,	3rd	,, ...	31 0 0	3 9¼
✱3″ × 8″ ,,	2nd	,, ...	33 0 0	4 0
✱3″ × 8″ ,,	3rd	,, ...	25 10 0	3 1¼
✱2″ × 8″ ,,	2nd	,, ...	35 0 0	4 3
✱2″ × 8″ ,,	3rd	,, ...	25 10 0	3 1¼
✱3″ × 7″ ,,	2nd	,, ...	32 0 0	3 10¾
✱3″ × 7″ ,,	3rd	,, ...	25 0 0	3 0½
✱2″ × 7″ ,,	2nd	,, ...	35 0 0	4 3
2″ × 7″ ,,	3rd	,, ...	25 10 0	3 1¼
✱2″ × 6″ ,,	u/s	,, ...	25 0 0	3 0½
1½″×11″ ,,	3rd	,, ...	40 0 0	4 10¼
1½″× 9″ ,,	u/s	,, ...	36 0 0	4 4½
✱1″ × 0″ ,,	2nd	,, ...	47 0 0	5 8½
✱1″ × 9″ ,,	3rd	,, ...	36 10 0	4 5¼
1″ ×11″ ,,	2nd	,, ...	49 0 0	5 11½
1″ ×11″ ,,	3rd	,, ...	41 0 0	4 11¾
✱1¼ × 9″ ,,	2nd	,, ...	47 0 0	5 8½
1¼″× 9″ ,,	3rd	,, ...	36 10 0	4 5¼
1¼″×11″ ,,	2nd	,, ...	49 10 0	6 0
1¼″×11″ ,,	3rd	,, ...	41 0 0	4 11¾

● **Items marked thus have risen since March 3rd.**

JOINER—(*continued*)

Flooring

		⅞″	1″	1¼
Yellow deal, plain edge in batten widths ..	per square	20/9	24/6	31/–
Ditto, T. & G.	per square	21/3	25/–	31/6
✱T. & G. rift sawn B.C. pine in 4″ widths ..	per square		32/6	
✱T. & G. random grain, in 4″ widths	per square		21/–	

Wall Linings

Deal Match Boarding :—

1″×6″ T.G.B.	per square	25/–
1″×4½″ T.G.V.	per square	24/–
¾″×6″ T.G.B.	per square	20/–
✱¾″×4½″ T.G.V.	per square	18/6
⅝″×6″ T.G.B.	per square	16/9
✱⅝″×4½″ T.G.V.	per square	16/–
½″×4½″ T.G.V.	per square	13/3

Asbestos-Cement :—

5/32″ Semi-compressed flat building sheets, grey	per yard super	1/4½
3/16″ Ditto	per yard super	1/5½
¼″ Ditto	per yard super	2/1
¼″ Metal reinforced flat building sheets	per yard super	3/2½

Prices are for orders of less than 1 ton.

✱ **Items marked thus have fallen since March 3rd.**

CURRENT PRICES

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

JOINER AND STEEL AND IRONWORKER

JOINER—(*continued*)

Wall Boards :—

Asbestos-cement wall board (in sheets 8′ 0″ × 4′ 0″ only)	per foot super			–/2¾
Asbestos-cement stipple glazed sheets (in sheets 8′ 0″ × 4′ 0″ only)	per yard super			7/6
Ditto, plain white glazed sheets (in sheets 8′ 0″ × 4′ 0″ only)	per yard super			8/6
Marble glazed sheets (in sheets 8′ 0″ × 4′ 0″ and 4′ 0″ × 4′ 0″)	per yard super			7/6

	300 yards.	300–1,000 yards.	1,000–2,000 yards.
½″ Fibre board	2/–	1/10½	1/9

		25–75 yards	150–300 yards	Over 600 yards
⅜″ Fireproof plaster board	per yard super	2/–	1/8	1/4
¼″ Ditto	per yard super	1/10	1/6	1/2
Joint tape (approx. 250 feet run)	per roll	..	..	1/6
Joint filler	per lb.	..	..	–/4

Plywoods :—

	4 m/m	5 m/m	6 m/m	9 m/m	12½m/m
Birch (A) per square	22/–	26/6	30/–	42/6	45/–
„ (B) per square	18/–	19/–	—	—	—
Japanese figured oak (A.A.) per square	33/6	37/–	38/6	65/–	—
Austrian oak, figured one side (A.A.) per square	—	71/6	77/6	99/6	117/6
Australian walnut, finely figured one side (boards 72″ × 36″) per square			¼″ 67/6	⅜″ 85/–	
Sycamore, figured one side (ditto) per square			75/–	85/–	
Honduras mahogany, figured one side (ditto) per square			75/–	—	
Honduras mahogany, finely figured (boards 84″ × 36″) per square			125/–	—	

Prices are for complete bundles.

Blockboards :—

Alder :—

Thickness	Boards 60″ × 183″	Boards 72″ × 183″
½″ per square	67/–	73/6
⅝″ per square	76/–	83/6
¾″ per square	83/3	91/3
⅞″ per square	87/3	96/3
1″ per square	100/6	110/6
1¼″ per square	122/–	134/–
1½″ per square	128/–	140/–
1¾″ per square	160/9	169/9

Birch :—

Thickness	Boards 54″ × 72″	Boards 60″ × 140″
½″ per square	50/3	52/9
⅝″ per square	57/3	60/3
¾″ per square	63/3	67/–
⅞″ per square	68/–	71/3
1″ per square	75/–	77/9

Prices are for complete bundles.

Hardwoods

Joinery Quality.

English oak	per foot cube	15/–
American oak (plain)	per foot cube	10/–
„ „ (quartered)	per foot cube	12/–
Australian Silky Oak (plain)	per foot cube	11/–
„ „ „ (quartered)	per foot cube	12/6
Walnut, European	per foot cube	18/–
Teak, Rangoon	per foot cube	15/–
*„ African	per foot cube	12/–

*** Items marked thus have fallen since March 3rd.**

JOINER—(*continued*)

Mahogany, Honduras	per foot cube	14/–
American whitewood	per foot cube	10/–
Birch	per foot cube	8/–
Cedar (aromatic)	per foot cube	16/–
Japanese oak (plain)	per foot cube	11/–
„ „ (quartered)	per foot cube	13/–
Austrian oak (plain)	per foot cube	12/–
„ „ (quartered)	per foot cube	16/–

Sundries

Slaters or sarking felt	per yard run	–/6
Roofing felt	per yard run	–/8
Bituminous hair felt	per roll	33/–

All rolls 25 yards long by 32″ wide.

Cork slabs, 1″ thick (3′ 0″ × 1′ 0″)	per foot super	–/4¼
„ 2″ thick (3′ 0″ × 1′ 0″)	per foot super	–/7½
Slagwool	per cwt. (approx.)	12/–
Building paper in rolls of 100 yards, 1-ply, 60″ wide (B.I.80 and L.G.I.80)	per roll	67/6
Ditto, 2-ply, 60″ wide (B.I.80)	per roll	135/–
Ditto, 2-ply, 60″ wide (B.I.20)	per roll	202/6

"Cabots" Quilt :—(Ex Works Twelve roll lots delivered carr. free.)

Double ply	per roll	42/–	per half roll	23/6

All rolls 28 yards long by 36″ wide. Special terms for quantities.

Cut steel clasp nails, 1″	per cwt.	33/6	4″ per cwt.	23/6
„ „ floor brads, 2″	„	22/9	3″ per cwt.	21/9
Bright oval wire nails 1″	„	35/9	4″ per cwt.	23/6
Scotch glue	per cwt.			60/–

Floor Clips :—

	£	s.	d.
One leg floor clip per 1,000	8	8	0
2″ short leg floor clip per 1,000	8	8	0
2″ Regular floor clip per 1,000	8	15	0
3″ „ „ per 1,000	9	0	0
2″ Regular ceiling clip per 1,000	8	15	0
Single leg ceiling clip (7½″) per 1,000	10	10	0

Special terms for quantities.

STEEL AND IRONWORKER

Steelwork

		£	s.	d.
Basis price for rolled steel joists sections 5″ × 3″ to 16″ × 6″, in 10 ft. to 50 ft. lengths	per ton	15	0	0
Extras on above for :—				
9″ × 7″ Section	per ton	0	5	0
4″ × 3″, 5″ × 2½″, 10″ × 8″, 12″ × 8″, 14″ × 8″ and 16″ × 8″ to 20″ × 7½″ sections inclusive	per ton	0	10	0
3″ × 1½″, 3″ × 3″, 4″ × 1¾″, 4¾″ × 1¾″ and 24″ × 7½″ sections	per ton	1	0	0
Channels, angles and tees	per ton	16	0	0
Mild steel plates	per ton	16	0	0
Screw bolts	per ton	25	0	0

Fabricated Steelwork

	£	s.	d.
Joists cut and fitted per ton	19	0	0
Stanchions, ordinary sections with riveted caps and bases per ton	20	0	0
Stanchions, compound per ton	20	10	0
Girders per ton	20	0	0
Framed roof trusses, average span per ton	23	0	0

The above prices are ex mills ordered well in advance of delivery. Prices ex London stock are considerably higher, and definite quotations should be obtained.

Prime Galvanized Corrugated Iron Sheets

(Ex London Stocks)

	10 cwt. lots £ s. d.	Less quantity £ s. d.
4 to 9 fts. 18 or 20 gauge, 8/3″ corrugations per ton	20 0 0	21 0 0
10 fts. 18 or 20 gauge, 8/3″ corrugations	20 10 0	21 10 0
4 to 9 fts. 22 or 24 gauge, 8/3″ corrugations per ton	20 10 0	21 10 0
10 fts. 22 or 24 gauge, 8/3″ corrugations	21 0 0	22 0 0
4 to 8 fts. 26 gauge, 8/3″ corrugations	21 15 0	22 15 0
9 fts. 26 gauge, 8/3″ corrugations	22 5 0	23 5 0
10 fts. 26 gauge, 8/3″ corrugations	22 15 0	23 15 0

CURRENT PRICES

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

PLASTERER, PLUMBER AND INTERNAL PLUMBER

PLASTERER

Plaster and Cement

	1-ton loads	5-ton loads	
Sirapite (coarse) .. .. per ton	70/–	64/–	
,, (fine) .. .. .. per ton	78/–	—	
Victorite No. 1 .. .. per ton	85/–	78/6	6-ton loads
,, No. 2 or non sweat per ton	80/–	73/6	
Thistle (browning, haired and pink finish) .. .. .. per ton	70/–	64/–	
Thistle (fine) .. .. .. per ton	78/–	—	
Pink plaster .. .. .. per ton	66/–	—	
White plaster .. .. .. per ton	78/–	—	
Keene's pink .. .. .. per ton	112 6	—	
Keene's white .. .. .. per ton	117/6	—	
Super Carbo .. .. .. per ton	—	47/6	4-ton loads
Carbo-setting .. .. .. per ton	—	57/6	

	1 ton upwards £ s. d.
Cullamix No. 2 cream (rendering mixture) .. per ton	5 10 0
,, No. 3 cream ,, ,, .. per ton	5 10 0
Snowcrete mixture ,, ,, .. per ton	5 5 0

Sundries

Sharp washed sand	per yard cube	8/–
Cow hair	per cwt.	35/–
Goat's hair	per cwt.	55/–
$\frac{3}{16}$″ laths	per bundle	2/–
$\frac{1}{4}$″ laths	per bundle	2/4½
Expanded metal lathing, 9′ 0″ × 2′ 0″ $\frac{3}{8}$″ mesh × 26 gauge	per yard super	–/11
Lath nails (galvanised) 1¼″ × 14 gauge	per cwt.	44/6
,, (bright wire) ,, ,,	per cwt.	27/–

		Less than 150 yds.	Less than 300 yds.	Over 300 yds.
$\frac{3}{8}$″ Plaster board ..	per yard super	1/–	–/11	–/10
1¼″ Galvanized nails ..	per lb.	–/5		
Scrim cloth in 100-yard rolls	per roll	2/3		

Wall Tiles

Commercial quality.		
Ivory, white, etc., glazed 6″ × 6″ × $\frac{3}{8}$″ ..	per yard super	9/9
Angle beads (1½″ wide)	per yard run	1/2¾
,, ,, (1″ ,,)	per yard run	–/10
Rounded edge tiles	per yard run	2/6½
✱Coloured enamelled bright glazed, 6″ × 6″ × $\frac{3}{8}$″	per yard super	14/3
Angle beads (1½″ wide)	per yard run	1/4¾
,, ,, (1″ ,,)	per yard run	–/11¼
✱Rounded edge tiles	per yard run	2/7
✱Eggshell gloss enamelled, 6″ × 6″ × $\frac{3}{8}$″	per yard super	15/–
Angle beads (1½″ wide)	per yard run	1/7½
,, ,, (1″ ,,)	per yard run	1/0¾
✱Rounded edge tiles	per yard run	2/8½

PLUMBER

Lead

●3½ lbs. and upwards milled sheet lead in quantities of 5 cwts. and upwards	per cwt.	23/6
Add if cut to sizes	per cwt.	3/–
Lead ternary alloy, No. 2 quality extra over sheet lead	per cwt.	7/–
●Allowance for old lead delivered to merchant	per cwt.	13/3

Cast Iron Rainwater Goods (Painted or Unpainted)

The following prices for rainwater pipes and gutters are subject to 20 per cent. trade discount, and the prices of the fittings are subject to 5 per cent. and 20 per cent. trade discount.

Rainwater Pipes

	2″	2½″	3″	3½″	4″	4½″	5″	6″
Round pipes per yard	2/8½	2/9¾	3/7¾	4/0¾	4/9½	6/1¾	7/2¼	9/2
Shorts, 2′ 0″, 3′ 0″ and 4′ 0″ extra per yard	–/3¾	–/3¾	–/3¾	–/3¾	–/3¾	–/5	–/5	–/5
Bends .. .. each	1/9	2/–	2/6	3/–	3/7	5/–	6/6	8/5
Offsets 4½″ and 6″ projection .. each	2/2	2/8	3/–	3/5	4/4	6/3	7/6	9/10
Offsets, 9″ projection each	2/10	3/2	3/9	4/8	5/7	7/6	8/10	11/2
Branches, single each	2/7	3/1	3/9	4/4	5/3	7/6	8/5	13/1
Shoes .. .. each	1/6	1/9	2/–	2/8	3/–	4/4	5/5	7/6

● Items marked thus have risen since March 3rd.

PLUMBER—(*continued*)

Square and rectangular pipes.		
3″ × 3″	per yard	6/9½
3½″ × 3½″	per yard	8/4
4″ × 2″ or 2½″	per yard	7/4¾
4″ × 3″	per yard	7/4¾
4″ × 4″	per yard	9/0¾
4½″ × 3″	per yard	8/5¼
5″ × 3″ or 3½″	per yard	9/7

Gutters

	3″	3½″	4″	4½″	5″	6″
Half round gutters per yard	1/9½	2/1	2/1	2/2½	2/4¾	3/7¾
Shorts 2′ 0″, 3′ 0″ and 4′ 0″ extra per yard	–/2½	–/2½	–/2½	–/2½	–/3¾	–/3¾
Angles and nozzle pieces each	1/5	1/7	1/9	2/–	2/2	3/1
Stop ends .. .. each	–/5	–/5	–/7½	–/9	–/10½	1/–
Ogee gutters per yard	2/1	2/3½	2/4¾	2/6	2/9¾	3/10½
Straight back and shorts 2′ 0″, 3′ 0″ and 4′ 0″ extra .. per yard	–/2½	–/2½	–/2½	–/2½	–/3¾	–/3¾
Angles and nozzle pieces each	1/11	1/11	2/–	2/4	2/8	3/3
Stop ends .. .. each	–/6	–/7½	–/9	–/10½	1/–	1/3

Mild Steel Rainwater Goods

The following prices should be increased by 10 per cent. and are subject to 7½ per cent. trade discount.

24 Gauge rainwater slip jointed pipes.

	2″	2½″	3″	3½″	4″
Galvanized round pipes with ears per 6′ 0″	2/7½	3/1½	3/9	4/3	4/9
Painted round pipes with ears per 6′ 0″	2/7½	3/–	3/4½	3/10½	4/3
Painted or galvanized short lengths with ears, extra each	–/6	–/6	–/6	–/6	–/6

18 Gauge Gutters.

	3″	3½″	4″	4½″	5″	6″
Galvanized half round gutters per 6′ 0″	2/–	2/3	2/4½	2/9	3/–	3/7½
Painted half round gutters per 6′ 0″	1/6	1/9	2/–	2/3	2/6	3/–
Painted or galvanized short lengths extra each	3	3	3	3	3	3

Asbestos-Cement Rainwater Goods

The following prices are subject to 12½ per cent. trade discount.

Rainwater pipes.

Prices are for 6′ 0″ lengths, and 10′ 0″ lengths in 2″, 2½″ and 3″ diameters. Short lengths up to 2′ 0″ are charged as one yard. From 2′ 0″ to 4′ 0″ charged as 1½ yards. From 4′ 0″ to 6′ 0″ charged as 2 yards. Over 6′ 0″ charged as 10′ 0″.

Round pipes.		
2″	per yard run	1/8
2½″	per yard run	1/10½
3″	per yard run	2/3
3½″	per yard run	2/8
4″	per yard run	3/1
4½″	per yard run	4/5
5″	per yard run	5/3
6″	per yard run	6/6

Gutters.

Short lengths of gutter up to 2′ 0″ charged as 1 yard; from 2′ 0″ to 4′ 0″ as 1½ yards, and over 4′ 0″ as 2 yards.

	3″	4″	4½″	5″	6″	8″
Half round gutters per yard run	1/2¼	1/5	1/6	1/9	2/5	3/–
Ogee gutters per yard run	—	1/9	1/10½	2/3	2/9	3/7

INTERNAL PLUMBER

●Lead pipe in coils, 5 cwts. and upwards	per cwt.	23/–
●Lead soil pipe	per cwt.	26/–
Add if ribbon marked	per cwt.	–/3
Lead ternary alloy, No. 2 quality extra over lead pipe	per cwt.	7/–
✱Plumber's solder	per cwt.	88/–
✱Tinman's solder	per cwt.	111/–

Drawn lead traps with brass screw eye, 6 lbs.

		1″	1¼″	1½″	2″
S. trap	each	1/8	1/11	✱2/4	3/4
P. trap	each	1/5	1/7	✱1/11	2/9
Extra for 3″ deep seal	each	6	6	6	6

✱ Items marked thus have fallen since March 3rd.

CURRENT PRICES

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

INTERNAL PLUMBER

INTERNAL PLUMBER—(*continued*)

Screwed and Socketed Steel Tubes and Fittings for Gas, Water and Steam, etc.

Tubes.		½″	¾″	1″	1¼″	1½″	2″
Tubes 2 ft. long and over	per ft.	–/5½	–/6¾	–/9¼	1/1	1/4½	1/10
Pieces 12″ to 23½″ long	each	1/1	1/5	1/11	2/8	3/4	4/9
Bends	each	–/11	1/2	1/7½	2/7½	3/2	5/2
Fittings.							
Elbows, square ..	each	1/1	1/3	1/6	2/2	2/7	4/3
Elbows, round ..	each	1/2	1/5	1/8	2/4	2/10	4/8
Tees	each	1/3	1/7	1/10	2/6	3/1	5/1
Crosses	each	2/9	3/3	4/1	5/6	6/7	10/6
Sockets, plain ..	each	–/4	–/5	–/6	–/8	–/10½	1/3
Sockets, diminished	each	–/6	–/7	–/9	1/–	1/4	2/–
Flanges	each	1/–	1/2	1/4	1/9	2/–	2/9
Caps	each	–/5	–/6	–/8	1/–	1/3	2/–
Plugs	each	–/4	–/5	–/6	–/8	–/10	1/3

Fittings and flanges and tubes ordered in long random lengths are subject to the following trade discounts.

	Tubes	Fittings	Flanges
Gas	62½%	53⅜%	57½%
Water	58¾%	50%	52½%
Steam	56¼%	46¼%	47½%
Galvanized gas	53¾%	46¼%	47½%
,, water ..	48¾%	42½%	42½%
,, steam	43¾%	38¾%	37½%

Brasswork. Best Quality

	½″	¾″	1″
Chromium plated screw-down bibcocks, screwed for iron .. per dozen	34/6	56/3	99/–
Ditto, with screw ferrule .. per dozen	43/–	67/3	105/6
Ditto, with capstan head lettered. screwed for iron .. per dozen	40/6	62/3	108/–
Ditto, with screw ferrule .. per dozen	49/–	73/3	124/6

	Brass Screwdown Stop Cocks with Unions both Ends	Brass Screwdown Stop Cocks with Screwed Ends	Brass Screwdown Stop Cocks with Male Screwed End and Iron Unions
½″ .. .. per dozen	37/6	43/–	35/–
¾″ .. .. per dozen	59/–	65/–	54/–
1″ .. .. per dozen	90/–	97/6	84/–
1¼″ .. .. .. each	12/9	13/6	12/–
1½″ .. .. .. each	20/6	21/6	19/–
2″ .. .. .. each	39/9	41/3	37/6

	½″	¾″	1″
Portsmouth pattern ball valve for low pressure, screwed for iron .. each	✱3/7	✱5/5	●11/3
Ditto, with flynut and union .. each	✱4/3	✱6/3	●12/9
High pressure ditto, screwed for iron each	✱3/7	✱5/5	✱11/3
Ditto, with flynut and union .. each	✱4/3	✱6/3	●12/9

	2″	2½″	3″	4″
✱Socket thimble sloping shoulder per dozen	10/–	13/–	15/9	22/3
	1½″	2″	2½″	3″
✱Flanged ferrule thimble per dozen	7/9	9/–	13/6	16/–

	½″	¾″	1″	1¼″	1½″	2″
Union joints for lead and iron .. per dozen	7/6	10/3	14/–	26/–	42/6	92/–
Single nut short boiler screws .. per dozen	6/–	9/–	✱14/3	21/–	33/–	60/–
Double nut boiler screws per dozen	✱8/3	✱ 9/9	15/–	✱22/6	✱43/6	69/–

Belfast sink wastes stamped brass with brass plug diameter of outlet 2″ .. .. per dozen 18/–

Galvanized Mild Steel Open Top Cisterns riveted with internal angle iron at top and corner plates

The following prices are subject to 20 per cent. trade discount :—

	14-gauge £ s. d.	12-gauge £ s. d.	⅜″ plate £ s. d.	⅝″ plate £ s. d.
50 gallon capacity each	2 5 11	2 14 5	3 1 7	7 0 8
100 ,, each	3 8 9	4 2 11	4 16 9	9 10 8
200 ,, each	6 6 9	6 19 5	7 18 3	13 1 0
500 ,, each	12 6 0	13 16 1	15 16 3	22 6 9
1,000 ,, each	—	21 9 4	24 19 5	34 15 4

INTERNAL PLUMBER—(*continued*)

Galvanized Hot Water Tanks, fitted with handhole cover.

The following prices are subject to 20 per cent. trade discount :—

Capacity	16-gauge tested to a pressure of 1 lb. per sq. inch = 1½ ft. head of water £ s. d.	14-gauge tested to a pressure of 3 lbs. per sq. inch = 4½ ft. head of water £ s. d.	12-gauge tested to a pressure of 7½ lbs. per sq. inch = 10 ft. head of water £ s. d.	⅛″ plate tested to a pressure of 10 lbs. per sq. inch = 15 ft. head of water £ s. d.
20 gallons each	2 0 3	2 3 11	2 7 8	2 12 9
40 ,, each		3 1 7	3 9 0	3 16 8
		Tested to a pressure of 5 lbs. per sq. inch = 7½ ft. head of water	Tested to a pressure of 7½ lbs. per sq. inch = 10 ft. head of water	
60 ,, each		4 19 3		5 5 5
80 ,, each				7 5 7
100 ,, each				8 4 5

Screwed flanges or bosses

½″	¾″	1″	1¼″	1½″	1¾″	2″	2¼″	
1/8	2/–	2/4	2/11	3/4	3/9	4/8	6/9	Extra per flange or boss.
2¼″	3″	3½″	4″	4½″	5″	6″		
8/4	14/3	16/9	19/3	26/11	30/1	45/1		

Galvanized Hot Water Cylinders, Mild Steel Riveted throughout, without Manhole, with usual number of flanges

The following prices are subject to 20 per cent. trade discount :

Capacity	16-gauge tested to 5 lbs. pressure = 10 ft. head of water £ s. d.	14-gauge tested to 15 lbs. pressure = 30 ft. head of water £ s. d.	12-gauge tested to 20 lbs. pressure = 40 ft. head of water £ s. d.	⅛″ plate tested to 25 lbs. pressure = 50 ft. head of water £ s. d.
20 gallons each	1 18 7	2 2 8	2 8 4	2 15 4
40 ,, each	2 10 11	2 16 8	3 6 1	3 15 0
65 ,, each		4 8 7	5 1 8	5 16 1
75 ,, each		5 1 7	5 15 0	6 11 4
85 ,, each			6 10 8	7 11 9
100 ,, each				8 2 5

Cast Iron Soil Pipes and Connections, L.C.C. 3/16″ metal.

The following prices for soil pipes are subject to 20% Trade Discount, and the prices of the fittings are subject to 20% and 5% Trade Discount.

	2″	2½″	3″	3½″	4″	5″ ¼″ metal	6″ ¼″ metal
Minimum weights in lbs. per 6′ 0″ length	24	30	35	41	46	78	92
Pipes coated or uncoated per yard run	3/10½	4/0¾	4/5¾	5/–	5/8¾	11/8	14/0¾
Double sockets extra each	–/11¼	–/11¼	–/11¼	–/11¼	–/11¼	1/0½	1/0½
Short lengths extra 2′, 3′ and 4′ per yard run	–/3¾	–/3¾	–/3¾	–/3¾	–/3¾	–/5	–/5
Single spigot branch cast on pipe .. .. each	4/3	4/5	4/7	4/9	4/11	7/6	9/3
Single socket branch cast on pipe .. .. each	10/9	11/–	11/3	11/6	11/9	16/–	19/–
Bends, standard angles each	3/1	3/5	3/9	4/8	5/3	9/4	12/9
Large radius bends each	4/–	4/4	5/–	6/–	7/–	13/–	16/9
Inspection bends raised flange door, 4 gunmetal bolts .. .. each	16/1	16/11	17/9	18/8	19/3	31/10	36/6
Swannecks 4½″ and 6″ projection .. .. each	3/9	4/4	5/11	6/10	7/11	14/11	20/1
9″ ditto .. .. each	5/–	5/7	6/10	7/11	9/4	17/1	22/10
12″ ditto .. .. each	5/11	6/10	7/11	9/8	10/7	19/1	27/1
Single branch with two sockets. T. pieces. T. pieces diminishing two sockets, inverted two sockets. Parallel branch pieces not exceeding 6″ centres. Y pieces. Anti-syphon branches with curved arm.	3/9	4/8	5/7	6/6 each	7/6	15/10	21/8
	4/10	5/11	6/10	7/11 each	8/11	—	—
Double branch pieces, three sockets .. .. each	5/11	7/–	7/11	9/–	10/3	20/3	27/3
Inspection branch pieces double oval access door, 2 gunmetal screws each	12/11	14/–	14/11	16/6	17/9	29/2	36/2
Long branch pieces each	5/–	6/–	7/3	8/6	9/9	19/–	25/·

CURRENT PRICES

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

COPPERSMITH AND ZINCWORKER, GLAZIER AND PAINTER

COPPERSMITH AND ZINC WORKER

Copper

Hot rolled copper sheeting in 1 cwt. lots, all gauges to 24 wire gauge	per lb.	-/9½
● Copper tube, seamless solid drawn	per lb.	1/0½
Copper wire 10 and 12 gauge	per lb.	-/9
Copper nails, 1″ and up	per lb.	-/10

Fittings for Copper Tubes

Compression Type:	½″	¾″	1″	1¼″	1½″	2″	2½″
Straight coupling each	1/1½	1/4¾	2/0¾	2/8	3/9¾	5/7¾	14/–
Obtuse elbow each	1/10¼	2/2½	3/3	4/1½	7/1½	10/5¾	—
Tees each	2/1½	2/5½	4/–	5/9½	9/3	13/1½	19/3½
Crosses each	3/–	3/4¾	5/2¼	6/3¾	10/11¼	15/3	26/4¾
Reducing coupling each	—	1/4¾	2/0¾	2/8	3/9¾	5/7¾	14/–
Bends each	1/7¼	1/11¼	2/11	3/8¾	6/7¼	9/10¾	14/1
Brass stop cocks each	3/11½	5/10¾	8/7¼	15/11¾	22/3¾	37/8¾	—

Extra for Polishing 25%; Chromium plating 50%; Nickel plating and polishing 50%.

Capillary Type							
Straight coupling each	-/7¼	-/10¼	1/3¾	1/8½	2/3¾	3/4½	5/9
45° elbow each	1/3¾	1/8½	2/4½	3/2	4/9	7/1½	11/1
Tees each	1/5½	1/7¾	2/8	3/11½	5/7¼	8/3¾	12/8
Crosses each	1/10½	2/0½	3/4½	4/9	7/2¼	10/6	18/2½
Reducing coupling each	—	-/6¼	-/8¾	1/0¾	1/7	2/9¼	4/4¼
Bends each	1/7	1/11	2/9¼	3/9¼	5/11¼	8/3¾	11/10½
Pillar tap connection each	1/–	1/5½					

Extras for Polishing 15%; Chromium plating 40%; Nickel plating 27½%

Zinc

	Quantities of less than 3 cwts.	Quantities of more than 3 cwts.	Quantities of more than 5 cwts.
● Sheet zinc, 10 gauge and up per cwt.	32/6	32/–	31/6
		5 sheets and under	12 sheets
8 gauge zinc safe hole perforated sheets, size 8′ 0″ × 3′ 0″ per sheet		4/10¾	4/1¾
7 gauge ditto per sheet		4/4	3/8¼
6 gauge ditto per sheet		3/10½	3/4

GLAZIER

Sheet Glass cut to size (ordinary glazing quality)

		In squares not exceeding 2 ft.	4 ft.	5 ft.	Over 6 ft.
18 oz. clear sheet	per foot super	-/2¼	-/2¾	-/3	-/3¼
24 oz. ditto	per foot super	-/2¾	-/3¾	-/4	-/4⅜
32 oz. ditto	per foot super	-/4½	-/6⅜	-/7½	-/8½
Obscured sheet glass net extra		-/1½	-/1½	-/1½	-/1½
⅛″ figured rolled glass, white	per foot super	-/6½			
⅛″ ditto, normal tints	per foot super	-/9½			
Hammered, doubled rolled, Cathedral white	per foot super	-/6			
Ditto, normal tints	per foot super	-/8½			

Thick Drawn Sheet Glass cut to size

		In squares not exceeding 1 ft.	2 ft.	3 ft.	4 ft.	6 ft.	8 ft.
3/16″ thick	per foot super	-/9	-/11	1/–	1/2	1/3	1/4
¼″ thick	per foot super	-/11	1/–	1/3	1/5	1/7	1/9

		In squares not exceeding 12 ft.	20 ft.	45 ft.	65 ft.	90 ft.	100 ft.
3/16″ thick	per foot super	1/6	1/7	1/9	—	—	—
¼″ thick	per foot super	1/10	2/2	2/4	2/8	3/–	3/–

For selected glazing quality add 10 per cent. to the above prices.

British or Foreign Polished Plate Glass cut to size

Ordinary ¼″ Substance		Glazing for Glazing Purposes	Selected Glazing Quality	Silvering Quality
In Plates not exceeding				
1 ft. super	per foot super	1/–	1/3	1/7
2 ,,	per foot super	1/4	1/6	1/10
3 ,,	per foot super	1/10	2/1	2/6
4 ,,	per foot super	2/6	2/9	3/2
6 ,,	per foot super	2/10	3/–	3/6
8 ,,	per foot super	2/11	3/4	3/8
12 ,,	per foot super	3/1	3/8	3/11
20 ,,	per foot super	3/1	3/9	4/1
45 ,,	per foot super	3/3	4/–	4/4
65 ,,	per foot super	3/7	4/3	4/11

● Items marked thus have risen since March 3rd.

GLAZIER—(*continued*)

British or Foreign Polished Plate Glass cut to size—(contd.)

Ordinary ¼″ Substance		Glazing for Glazing Purposes	Selected Glazing Quality	Silvering Quality
In Plates not exceeding				
90 ft. super	per foot super	3/11	4/8	5/1
100 ,,	per foot super	4/–	4/10	5/4

Plates exceeding 100 ft. super or 160 in. long, or 104 in. wide, at higher prices.

The usual thickness of polished plate glass is about ¼″, but if required of special thickness for glazing purposes, add to the above for :—

		Plates up to and including 4 ft. super	All plates over 4 ft. super
⅛″ to 5/32″	per foot super	-/2	-/4
⅛″ to 3/16″ exact	per foot super	-/2	-/3
3/16″	per foot super	No extra	-/1½
¼″ bare	per foot super	,,	-/1¾
¼″ exact	per foot super	-/2	-/2
5/16″ to ⅜″	per foot super	No extra	-/4½
⅜″ exact	per foot super	-/2	-/6

Special quotations should be obtained for other qualities and thicker substances.

Silvering

	Ordinary Quality on Polished Plate, Thick Drawn Sheet Patent Sheet and Plain Sheet	On Embossed or Decorative Work
12 ft. super or 90 in. long per ft. super	9d.	1/4
20 ft. ,, or 100 in. long per ft. super	10d.	1/4
45 ft. super } or 110 in. long per ft. super	1/–	1/5
50 ft. ,, }	1/0½	1/6
55 ft. ,, } or 120 in. long per ft. super	1/1	1/6½
60 ft. ,, }	1/1½	1/7
65 ft. ,, } or 130 in. long per ft. super	1/2	1/8
70 ft. ,, }	1/3	1/9½
75 ft. ,, } or 140 in. long per ft. super	1/4	1/11
80 ft. ,, }	1/5	2/0½
85 ft. ,, } or 150 in. long per ft. super	1/8	2/5
90 ft. ,, }	1/11	2/9½
95 ft. ,, } or 160 in. long per ft. super	2/2	3/2
100 ft. ,, }	2/5	3/8

For silvering on fluted sheet, figured rolled and cathedral, add 4d. a foot to the prices set out in the first column for polished plate, etc.

Silvering bent glass, double or more, according to bend.

For plates over 100 ft. super, add 3d. per ft. super for every 5 ft. or part of same.

Plates over 160 in. long at special rates.

Stripping for re-silvering, add 8d. per ft. super.

Wired Glass Cut to Sizes

¼ in. Georgian rough cast	per ft. super	10d.			
	In squares not exceeding	1 ft.	2 ft.	3 ft.	4 ft.
¼-in. Georgian polished plate	per ft. super	2/6	2/8	2/10	3/2
		8 ft.	12 ft.	20 ft.	30 ft.
¼-in. Georgian polished plate	per ft. super	3/8	3/10	4/2	4/6

Supplied in sizes up to 110 in. long and up to 36 in. wide.

For cutting to allow for wires in adjacent pieces to be "lined up," add 4d. per foot super.

PAINTER

White ceiling distemper	per cwt.	12/6
Washable distemper	per cwt.	60/–
Petrifying liquid	per gallon	4/6
● Ready mixed white lead paint (best) 5-cwt. lots, in 14 lb. tins	per cwt.	70/–
White enamel	per gallon	25/–
Aluminium paint	per gallon	20/–
● Stiff white lead, genuine English stack process, 1-ton lots, in 1-cwt. kegs	per ton	49/6
Driers	per cwt.	36/–
Linseed oil raw (5-gallon drums)	per gallon	3/1
,, boiled ,, ,,	per gallon	3/10
French polish	per gallon	11/6
Knotting	per gallon	16/–
Oil stain	per gallon	12/–
Varnish, oak	per gallon	10/–
,, copal	per gallon	16/–
,, flat	per gallon	20/–
✱ Turpentine, genuine American 5-gallon lots	per gallon	3/7
Creosote, 1-gallon lots	per gallon	1/4
Putty	per cwt.	12/6
Size	per firkin	3/6
Best English quality gold leaf, 23 carat	per book	2/4½
Extra thick, ditto	per book	3/6

✱ Items marked thus have fallen since March 3rd.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

BETHNAL GREEN. *Tenements.* The L.C.C. is to clear and redevelop the Herald Street area, Bethnal Green, by the erection of tenements at a cost of £89,000.

DEPTFORD. *Flats.* The L.C.C. is to erect further flats on the Addey Street area, Deptford, at a cost of £68,200.

DEPTFORD. *Rehousing.* The L.C.C. is to clear an area in the vicinity of Grove Street, Deptford, and provide rehousing at a cost of £104,000.

LEYTON. *School Extensions.* The Leyton Education Committee is to enlarge the Rinkholt school at a cost of £30,929.

STOKE NEWINGTON. *Factory, etc.* Plans passed by the Stoke Newington B.C. : Factory, Manley Court ; maternity hospital, 79-83 Lordship Road ; five-storey flats, Kennaway Hall site, Stoke Newington, Church Street.

WESTMINSTER. *Offices, etc.* Plans submitted to the Westminster City Council : Shops and offices, 11 Bruton Street and 25 South Bruton Mews ; offices, Rochester Row and Vincent Square ; flats, Kingston House, Kensington Road ; flats, 41-49 Hill Street ; offices, shops, ballroom and reception rooms, 1 and 2 and 5-8 Chesterfield Gardens ; shops and offices, 26-28 Old Burlington Street and 28-30 Cork Street ; offices, Ebury Bridge Road, Pimlico Road and Ranelagh Grove ; offices, cinema, shops, etc., Regent Street, Carlton Street and St. Alban's Street.

PROVINCES

ABINGDON. *School Extensions.* The Berks Education Committee has approved plans for extensions at Abingdon C.E. Senior School, at a cost of £3,000.

ANDOVER. *School.* The Hampshire Education Committee has purchased a site on the western side of Andover for a junior school.

BARKINGSIDE. *School.* The Executive Committee of Dr. Barnardo's Homes is to erect a senior school at an estimated cost of about £20,000 in the grounds of the Girls' Village Home, Barkingside.

BEDLINGTONSHIRE. *Houses.* The Bedlingtonshire U.D.C. is to erect 206 houses on the Guide Post and Scorland Gate estates at a cost of £69,432.

BENFLEET. *School.* The Essex Education Committee has approved plans for the erection of a senior school at Benfleet, at an estimated cost of £48,093.

BIRMINGHAM. *School.* The Birmingham Education Committee is to erect a school at Hatchford Brook, Sheldon, at a cost of £41,200.

BIRMINGHAM. *Houses.* The Birmingham Corporation is to erect 342 dwellings on the Quinton Estate at a cost of £156,675.

BIRMINGHAM. *Houses.* The Birmingham Corporation is to erect 154 houses in College Road, The Ridgway and Gipsy Lane, Erdington, at a total estimated cost of £60,453.

BIRMINGHAM. *School.* The Birmingham Corporation has obtained a site for a nursery school and school clinic on the Lea Hall Housing Estate.

BIRMINGHAM. *Branch Library.* The Birmingham Corporation has obtained sanction for a loan of £13,743 for the erection of a branch library at South Yardley.

BLACKPOOL. *Houses.* Plans passed by the Blackpool Corporation : Houses, Walpole Avenue, South Shore Estate, Whitaker and Gardner ; 16 houses, Westby Avenue, I. Fletcher, Ltd. ; 12 houses, Bispham Road, R. Fielding and Son.

BRADFORD. *Houses.* The Bradford Corporation has approved plans by the city architect for the erection of 99 houses on the Broomfields area.

BRISTOL. *School.* The Bristol Education Committee has acquired a site for the erection of an elementary school at Bishopsworth Lane.

BRISTOL. *Garage.* The Bristol Corporation is to construct a central garage in Albert Road at a cost of £51,000.

CARLISLE. *Hall.* The Carlisle Corporation has approved plans for the erection of a community hall in Heysham Park, at a cost of £10,000.

CATERHAM. *Houses, etc.* Plans passed by the Caterham U.D.C. : 27 houses, Farleigh Road, Warlingham, Sinden, Tompkins and King ; eight bungalows, Ninehams Close, Mr. A. Wheal.

CHELTENHAM. *Houses.* Plans passed by the Cheltenham Corporation : 16 houses, Brooklyn Road, A. E. Marshall and Sons ; 21 houses, Brooklyn Road, Pye Bros. ; 52 houses, Brooklyn Road, Western Estates, Ltd. ; 12 houses, Gotherington Road, Bishops Cleeve, Colonnade Estate Agency.

DAVYHULME. *School.* The Lancashire Education Committee is to erect a junior school at Davyhulme, at a cost of £22,811.

DUDLEY. *Flats.* The Dudley Corporation is to erect 84 flats on the Pitfield Row clearance area.

DUDLEY. *Houses.* Plans passed by the Dudley Corporation : Eight houses, Peartree Lane, for Mr. A. Willetts ; 19 houses, Halesowen Road, for Mr. B. Jones.

ECKINGTON. *Houses.* The Chesterfield R.D.C. is to erect 130 houses in Setcup Lane, Eckington, at a cost of £46,692.

FARINGDON. *School Extensions.* The Berks Education Committee is to enlarge the Faringdon County Girls' School, at a cost of £8,000.

HALESOWEN. *Houses.* The Halesowen Corporation is to erect 162 houses on the Hasbury Farm estate at a cost of £55,120.

HOVE. *Flats.* The Hove Corporation recommends the erection of flats in Bellingham Crescent, at a cost of £4,320.

HOVE. *Flats.* Plans submitted to the Hove Corporation : 54 flats, Grand Avenue, Messrs. Murrell and Pigott, for the South Farm Road Co., Ltd.

IPSWICH. *School.* The Ipswich Education Committee has obtained sanction to borrow £21,650 for the erection of a junior school in Cliff Lane.

KINGSTON. *Hospital Extensions.* The Surrey C.C. has approved plans for the improvement and extension of the Kingston County Hospital, involving a total estimated expenditure of £608,285, and expenditure of not exceeding £213,620 to be voted in connection with the execution of the first part of the scheme.

LANGFORD LANE. *Casual Wards.* The Berks, Bucks and Oxon Joint Vagrancy Committee is to provide new casual wards at Langford Lane, near Oxford, at a cost of £29,000.

NORTHAMPTON. *Children's Homes.* The Northampton Corporation is to erect children's homes on the St. David's Estate, at a cost of £4,725.

NORTHAMPTON. *Houses.* Plans passed by the Northampton Corporation : 45 houses, Norton Road, etc., Chowns, Ltd. ; 16 houses, Parkfield Avenue, Acme Building Co. ; six houses, Moulton Lane, Moulton, Brixworth R.D.C.

PADIHAM. *School.* The Lancashire Education Committee has purchased land at Padiham for a senior school.

PLYMOUTH. *Houses, etc.* The Plymouth Corporation is to erect 106 houses and 10 flats on the St. Peter's Park estate at a cost of £51,355, and 36 flats and three shops on the Stonehouse estate at a cost of £25,000.

PORTSMOUTH. *Houses.* The Portsmouth Corporation is to erect 148 houses on the Wymering estate at a cost of £66,066.

SOUTH SHIELDS. *School.* The South Shields Education Committee is to secure land at Harton for a proposed junior and infants' school.

SUTTON COLDFIELD. *Schools.* The Sutton Coldfield Education Committee has approved plans for the Holland Road senior schools, at a cost of £50,020.

SUTTON COLDFIELD. *Houses.* Plans passed by the Sutton Coldfield Corporation : 11 houses, Chester Road, Mr. L. Cohen ; nine houses, Clifton Road and Maple Road, Mr. J. Salt ; 10 houses, Darnick Road, Mr. R. W. Stanton ; nine houses, Geo. Frederick Road, Mr. E. H. Scott ; six houses, Lower Queen Street, Newman & Co. ; 14 houses, Slade Road, Mr. R. T. Rix ; 28 houses, Willmott Road, Mr. A. Walker ; 10 houses, Darnick Road, Mr. F. H. Wilkinson.

SWALLOWFIELD. *School.* The Berks Education Committee has approved a proposal to erect a C.E. senior school for about 240 children at Swallowfield, at a cost of £14,451.

SWINDON. *Houses.* Plans passed by the Swindon Corporation : 36 houses, Devon Road, E. H. Bradley and Sons ; eight houses, Upham Road, Colbornes Estates, Ltd.

WALLSEND. *School.* The Wallsend Education Committee has purchased a site at High Farm, for the erection of a school.

WEST WICKHAM. *School.* The Beckenham Education Committee is to erect a school for 400 at West Wickham.

WILLENHALL. *Baths.* The Willenhall U.D.C. is to erect baths at a cost of £23,100.

WOLVERHAMPTON. *Houses.* Plans passed by the Wolverhampton Corporation : 54 houses, Northfield Grove, Mr. W. Vaughan ; 100 houses, Rake Gate Farm Estate, Oxley Moor Road, A. M. Griffiths and Son, Ltd. ; 27 houses, Bhylls Farm Estate, Silcostyle Estates, Ltd. ; 14 houses, Oxley Moor Road, Mr. E. A. Colman ; 20 houses, Green Lane, Aldersley, Mr. W. Winsper.

WOLVERHAMPTON. *Technical College Extensions.* The Wolverhampton Education Committee is to enlarge the technical college at a cost of £18,700.

WOLVERHAMPTON. *School Extensions.* The Wolverhampton Corporation is to extend and improve the School Street depot at a cost of £8,000.

WOLVERHAMPTON. *Slum Clearance.* The Wolverhampton Corporation is to reconstruct slum areas at a cost of £109,950.

WREXHAM. *School Extensions.* The Denbighshire Education Committee is to enlarge the Wrexham girls' school at a cost of £33,294.

YARDLEY. *School.* The Birmingham Education Committee is to erect a school in Ridpool Road, Yardley, at an estimated cost of £38,350.

YORK. *Houses.* Plans passed by the York Corporation : 13 houses, Park Street, Sorrell and Scaife, Ltd. ; cinema, Hull Road, Mr. E. Sherry (disproved) ; six houses, Green Lane Estate, Mr. J. Greenwood ; six houses, Beckfield Lane, Ainsty Building Estates.

THE BUILDINGS ILLUSTRATED

ELLINGTON COURT, SOUTHGATE (pages 532–540). Architect : Frederick Gibberd. The general contractors were Alexander Wells, Ltd., and the sub-contractors and suppliers included : H. Atkins, demolition ; Helical Bar and Engineering Co., Ltd., reinforced concrete ; John Gillam, bricks ; Liverpool Artificial Stone Co., artificial stone ; Patent Impermeable Millboard Co., Ltd., insulating materials ; Permanite, Ltd., special roofings ; Hond and Langer, Ltd., glazing ; Hyman (Flooring), Ltd., linoleum ; R.I.W. Protective Products Co., Ltd., waterproof materials ; Messrs. Brockhouse Heater Co., Ltd., "Thermidair" heaters ; H. J. Sawyer and Son, plumbing ; Henry Wiggin & Co., Ltd., Monel metal sinks ; Broad & Co., Ltd., sanitary fittings ; W. N. Froy and Sons, Ltd., Paule and Moore, C. F. Anderson and Son, Ltd., C. and J. Allgood, Ltd., ironmongery ; Williams and Williams, casements ; H. J. R. Hitchens Bros., plastering ; Welmer and Sons, staircase balustrades ; Guaranteed Door Manufacturers, doors ; John G. Austin (Ilford), Ltd., door frames ; "Hygena" Cabinets Co., Ltd., kitchen fittings ; M. and R. Moore, Ltd., fireplaces ; Parkinsons (Wall Tiling), Ltd., tiling ; T. and R. Williamson, Ltd., paint and distemper ; H. S. Hayward, decorations ; Bowman Bros., Ltd., furniture.

COTTAGES AT ROWLEY (page 542). Architect : John Grey. The general contractor was Charles Schrub and the sub-contractors and suppliers included : Davis, Bennett & Co., sanitary fittings ; Crittalls Manufacturing Co., windows.