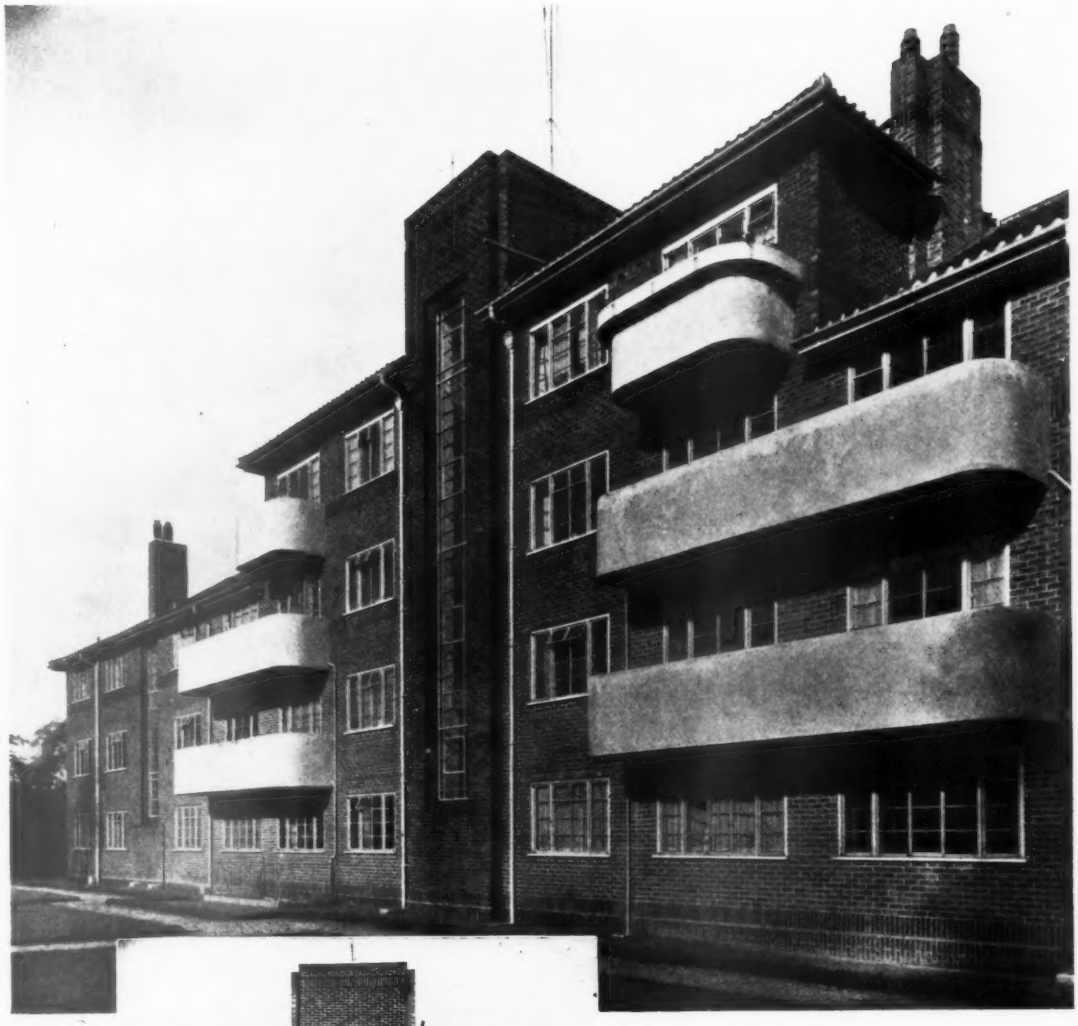

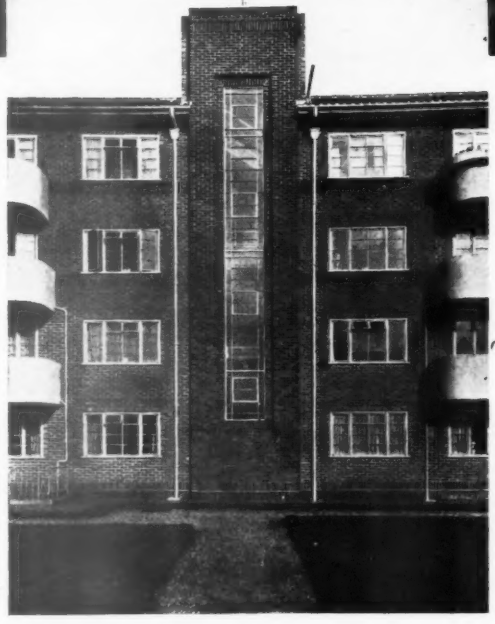

Flats at Court Farm, Epsom.
Architect: Albert C. Cowtan, A.R.I.B.A.
Contractors: Uden & Co., London.

The Facing Bricks are 'Phorpres' Rustics

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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 3, 1938. NUMBER 2250 : VOLUME 87

PRINCIPAL CONTENTS

OPENED YESTERDAY

R.I.B.A. EXHIBITION: HEALTH, SPORT AND FITNESS

Yesterday, Lord Aberdare, chairman of the National Fitness Council, opened an exhibition entitled "Health, Sport and Fitness" at the R.I.B.A., 66 Portland Place, W.1. The exhibition will remain open until March 31, and will then go on a tour of the principal cities and towns of England.

The exhibition consists of some 700 photographic enlargements, models, diagrams and plans, arranged to relate a series of "stories." It is divided into two main sections entitled "Everyday Health" and "Planning Physical Fitness."

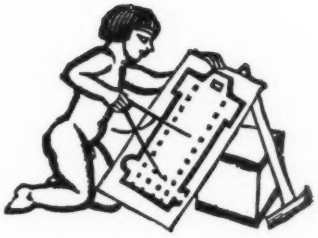
The "Everyday Health" section shows how health is secured and improvement can be made by town planning, collective health services, the provision of clean food and by healthy living and working conditions in home, school, office and factory.

The second section, entitled "Planning Physical Fitness," shows how the extensive planning requirements of the Government's National Fitness Campaign can be best and most economically met. It includes a sub-section "Physical Fitness and the Countryside" which shows how a network of sport and recreation facilities can be provided all over the country. A special sub-section is devoted entirely to children. Another sub-section illustrates the best examples from all over the world of the enormous variety of buildings designed to serve the ends of sport. Leisure and the strenuous recreations are not forgotten.

Above is one of the photographs on view at the exhibition. Further illustrations appear on pages 360-361.

LUCERNE

House off the Mühlenplatz, Lucerne. It is coloured-washed lemon, and the paintwork is grey.



THE TEE-SQUARE HOUR

"REALISM, Sir, is what is needed now among architects. Much more realism. And the first thing they ought to apply it to is the architect-designed small house."

"Why? Are they any worse than others?"

"I am talking of the present tendency for small house-owners to employ architects. It is a menace to the profession."

"Er —— Panels?"

"I am being serious. I am talking of cash."

"They don't pay, of course."

"I mean much more than that. I mean that if an architect designs small houses thoroughly he cannot remain in business at all."

"Indeed?"

"Yes, indeed. You have perhaps a few minutes to spare?"

"I'm afraid . . ."

"It will not take long. I need a pencil and a piece of paper. Now let us get to the bottom of this nonsense.

"Two months ago I was so moved by reading of how in the future every house was to be designed by a member of the R.I.B.A. that I carried out a piece of research for myself. Its results I intend to lay before you now. Are you ready?"

"I am ready."

"Well, a solicitor I once employed to scrutinize a £150 a year lease charged me £12. For this his office presumably read the lease, read 2 letters, wrote 2 letters, gave an interview of 45 minutes and took part in three telephone conversations.

"Supposing that the activities of everyone in his office—partners, clerks, typists—could be averaged into constant work and time units called *solicitor-hours*, I reckon that the units consumed on my business were —at the outside—15 *solicitor-hours*. Do you follow?"

"Um—m . . ."

"Pull yourself together. A *solicitor-hour* is an hour's work by someone *less* valuable than the chief partner and *more* valuable than the junior typist. It is an hour's work by someone *of average value* to the firm."

"I see."

"Good. My solicitor was therefore paid at the rate of 16s. per *solicitor-hour*. With this in mind I determined to analyse a small house job in a similar way. I created the *Tee-Square Hour* as the average labour unit in my office of myself, one assistant and a typist. You follow?"

"You fascinate me."

"Realism is always interesting. The job I selected was for two houses, final cost £1,250 and £1,350, 30 miles from London, built under one contract. The houses were almost identical and on adjoining sites, and the agreed fixed and inclusive fee was £160."

"Quite."

"I then averaged each labour performed in my office into its equivalent in *T.S.H.s*, thus :—

"Joint specification, 50 *T.S.H.*; each drawing, 8 *T.S.H.*; each visit to site, 5 *T.S.H.*; each interview or visit to merchants with clients, 3 *T.S.H.*; each interview with manufacturers, 1 *T.S.H.*; each letter written (disregarding letters read), ½ *T.S.H.*; telephone calls, 15 *T.S.H.* for the job. You think that fair?"

"I think it is."

"Very well. I first took the score up to the signing of the contract. It was this :—

"Specification, 1; drawings, 10; visits to site, 5; interviews with clients, 8; interviews with manufacturers, 5; letters, 44; telephone conversations, 5 *T.S.H.* Total score up to contract, 211 *T.S.H.*"

"Reasonable if clients were average."

"Then I became interested in the jobs—fatal. The post-contract score was :—

"Drawings, 29; visits to site, 26 (the builder wasn't all he might have been); interviews with clients, 24; interviews with manufacturers, 7; letters, 116; telephone conversations, 10 *T.S.H.* Total score after contract, 509 *T.S.H.*"

"Remarkable!"

"The grand total on the whole jobs was 720 *T.S.H.*, or, divided into the fees, 4s. 5d. per *T.S.H.*"

"You have a marvellous memory and great aptitude for figures."

"I have an aptitude for facts. When you have deducted from that 4s. 5d. a percentage to cover the office rent, heating, lighting and cleaning, materials, travelling, postage and wear and tear, you are left with less than half a dollar to divide up between the typist, the assistant and myself as payment for an hour's work. I believe, Sir, that realism is an ingredient of architecture. But before we make it obligatory for every cottage to be architect-designed let us make sure that architects can survive such legislation. I consider it my duty to contrive to exist. I want to be sure of my 1s. 6d. an hour."

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NOTES & TOPICS

MR. GOODHART-RENDEL AT THE A.A.

LAST week, at the A.A., Mr. Goodhart-Rendel spoke specially well—even for him—and to a full house. It would, perhaps, have been expecting too much to hope that the speeches that followed should be equally discerning and equally witty. These, however, were not without their bright moments.

*

Mr. Goodhart-Rendel's address was a statement of personal beliefs on architectural education. Inevitably it will also be regarded as the *credo* of the Director of the A.A. School. The very young may have thought it reactionary—they needn't worry—and the old were undoubtedly elated—they had better not hope too much. A good deal of nonsense has crept into modern architectural education—it is the nonsense, not the modernism that will have to go.

*

Amongst other things, Mr. Goodhart-Rendel would like to reinstate the *esquisse*. I am not sure. I remember too clearly the elaborate technique of the 6B pencil sketch—the technique of not committing oneself—which we worked out in the ateliers years ago, and I remember making the awful choice between an " H.C." or spending weeks inking in and perpetuating some fatal blunder of the en loge. It may be more important to learn to make a quick decision than to do a good design—but it is equally important that one should acquire the flexibility of mind which enables one to see a problem in a new light and change one's mind accordingly.

*

There is another point—one may admit that a good deal of irrelevant research and sociology has crept into the schools (not always as irrelevant as all that), but it is undeniable that technical requirements have grown more complex and more fundamental in that they may model the design from the start. Is a twelve-hour *esquisse* possible under these conditions? What one could do with a few formulæ for the manipulation of axes, linking of vestibules and staircases, motifs, etc., with a careful proportioning and relating of the relative tones of poché and mosaic was one thing—what one has to do with steel, concrete, light, acoustics, ventilation, etc., etc. is a different story.

*

I have not left myself space to deal with the other speeches. Mr. Davies introduced the useful word " context " into the discussion, Mr. Darcy Braddell made the speech we expect him to make, Prof. Richardson made two-and-a-half wisecracks, Mr. T. P. Bennett said that the schools did not train the architects that flat syndicates like—and was told where he got off.

PROFESSIONAL CONDUCT

In *The Times* last week there appeared the advertisement, " WANTED, brilliant young architect . . . must be real genius with a knowledge of housing and flats on the Continent and America."

*

That kind of thing prods the most unexcitable man's curiosity. What millionaire philanthropist, what firm of the poshest speculators, what shrewd pusher of some " essential " luxury gadget is looking for the guileless?

*

Almost I applied. But I ask my readers to believe it was only from a craving to know the identity of the Box Number.

*

You no doubt have a greater craving still—so have I. But I fear a list of those who applied will be unobtainable, although I presume it is no professional malpractice to describe oneself as a genius.

*

I suppose the Standing Practice Committee could not possibly have . . . ?

PERILS OF A MISSIONARY

The speculative builder has been accused before now of being insensitive. A firm of estate developers at Saffron Walden have proved themselves otherwise.

*

Mr. Clough Williams-Ellis, hot gospeller of rural England, visited that pleasant town recently. As his eloquence grew warm, he was understood to mention " bandit builders, here today and gone tomorrow, perfectly happy if they can get away with the swag . . . blowflies who replace beauty by corruption." It must have been very moving.

*

So much so that, a few days later, Mr. Williams-Ellis received a letter from the solicitors to Messrs. Bradshaw and Sears, of Broxbourne, which said that their clients were the largest estate developers then working in Saffron Walden, that many people had assumed Mr. Williams-Ellis's remarks to refer to them, and that they (the solicitors) would be glad if Mr. W.-E. would write to Messrs. B. and S. saying that such was not his intention.

*

Mr. Williams-Ellis acceded to so natural a request. Here is his letter :

I have received a letter from your solicitors referring to my recent address at the Saffron Walden Town Hall saying that :—

" It appears that many people in the neighbourhood have gained the impression from your speech that your remarks were directed against our clients, although we have no doubt that such was not your intention."

Most truthfully can I deny the imputed intention, for the very good reason that I was quite unaware of your existence, or of your building activities in the neighbourhood or, for that matter, anybody else's, as I only reached Saffron Walden on the evening of my speech, in the dark and slightly after the advertised time, and had not seen the place since leaving Cambridge, some 35 years ago.

The scene of Mr. Justice Humphreys' revolt; and Mr. Roberts' triumph.

Though I have no verbatim report of what I said, I recall speaking of "bandit builders" and "Here today and gone tomorrow speculators who settle like blowflies on some fair morsel of our countryside and clear off leaving corruption behind them and the mess they have made to the silly mugs who were stuck with their houses."

I also derided such senseless elaborations as sham half-timbered work as compared with the straight-forward simplicity now demanded by the more civilized public.

Anyone given to writing and speaking on the same subject—in this instance that of the preservation of the countryside—necessarily more or less repeats himself, and I have been saying very much what I said at Saffron Walden, though in other words, all over the country ever since the publication of my first book on the subject, "England and the Octopus," ten years ago, where again, if the words are different, the tune is very similar.

You will therefore appreciate, I hope, that my indictment was entirely general, and if it has been mistakenly and undeservedly attached to your firm in particular, I wish to express my unqualified regret.

What further disturbs me, however, is that there should be any new buildings at Saffron Walden to which my certainly severe criticisms could possibly be held to be applicable, as I was assured that it was still "relatively unspoilt" and very much as I remembered it long ago.

I was unable to check this unusual and most cheering report for myself, as the fog was so thick the morning after my lecture that I actually failed to find the station, and missed my train.

So I must still take the place's alleged happy immunity from disfigurement that is, alas, almost universal, on trust.

Should you like me publicly to express my opinion of your work I should be happy to do so with entire frankness, but only of course, after actually seeing it.

I am,

Yours faithfully,

CLOUGH WILLIAMS-ELLIS.

WAUGH AGAINST MARS

It is remarkable how right some people can be in their feelings about architecture—and oh, how wrong.

*

This thought, a deep one, is inspired by reading an article in the "House Decoration and Equipment Supplement" that came out with last week's *Country Life*. How well we know those hackneyed sentences: "... the post-war Corbusier plague that has passed over us ... horrible little architects ... volubly explaining their 'machines for living' ... mansions like half-submerged channel steamers ... concrete and glass functional architecture ... as cheerful as a surgical sterilising plant." But this time it is not a Royal Academician who is quoted, nor the gossip-columnist of the *Daily Mirror* after visiting the Mars exhibition. It is no less a person than cultured Mr. Evelyn Waugh.

*

His article is entitled "A Call to the Orders." He begins by deploring the senseless wiping out of Georgian London, and he is absolutely right; he condemns uninformed imitation of the styles ("It is impossible now to take any real delight in Elizabethan half-timber—logical and honourable as it is—because we are so sickened with the miles of shoddy imitations with which we are surrounded"), and again, of course, he is right; and to conclude his article, he insists that fanciful design must be based on knowledge of the fundamental rules (e.g. the Palladian) not on mere exuberance, and here he is so right as to have hit on the key to the Modern Movement which he despises.

*

And this is where the paradox comes in. It is order that Mr. Waugh longs for, to replace the chaos of present architecture. And he is right; that is the essential attribute of any revival of architecture.

*

But unless he is blinded by some exterior prejudice he must realize that the only serious search for architectural order in this generation has been and is being made by the disciples of the Modern Movement. He and they are at one.

*

You cannot find new order by imitating the superficialities of an old one, neither can you condemn the new by picking on its failures and the spurious imitations of it. I wonder if Mr. Waugh would think differently if he carefully examined the rest of the Supplement in which his article is printed.

THE AFFAIR AT WINCHESTER

By this time it must be but a small drop of news value which remains in the *cause célèbre* of the Judge, the Architect and the Old Hall of Winchester Castle. If it does, I think it ought to be mine.

*

"Shrammed to the marrow," in the unlikely words of *The Times*, by draughts and chilliness, Mr. Justice Humphreys "struck work" (*The Evening Standard*) and "issued an ultimatum" (*News Chronicle*). If the Court was not made habitable by the next morning he would remove the Assizes to Southampton. Mr. Roberts, County Architect, promised to do his best.

*

Mr. Roberts moved quickly. An army of workmen was, of course, mobilized—but this was rather a conventional gesture. About 40 men actually did the work. Screens, canvas false ceiling, new radiators (presumably electric) and new ventilators were provided, and on the following morning the Judge was satisfied.

*

The affair has been magnified to rival the Eden resignation but, at its smallest, it must have been a well co-ordinated architectural sideshow. A county town's resources in men and material are not too large and 22 hours was the time from client's first instructions to leaving all perfect at completion. I should like some details of the Time Schedule.

ADELPHI

A small note in the Press the other day said that modifications were being sought in the Act permitting the redevelopment of the Adelphi site. No details; save that it had been ruled that the new Bill must be treated as an opposed measure.

*

"Modifications" can mean anything. I had thought that the site was defined and the maximum height laid down in the principal Act. Possibly the Georgian Group know more about this.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

THE ARCHITECTS' DIARY

Thursday, March 3

R.I.B.A., 66 *Portland Place, W.1. Exhibition: "Health, Sport and Fitness." Until March* 31. 10 *a.m. to* 8 *p.m. (Saturdays,* 5 *p.m.).*

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C.2. Exhibition of Work by students of the Royal College of Art—arranged by the A.A. Students' Art Club. Until March* 18.

CHARTERED SURVEYORS' INSTITUTION. *Annual Dinner. At Grosvenor House, W.1.* 7.30 *p.m.*

CHADWICK TRUST LECTURE. *At* 66 *Portland Place, W.1. "The Hygiene of Prisons." By B. S. Townroe.* 5.15 *p.m.*

Monday, March 7

ROYAL SOCIETY OF ARTS, *John Street, Adelphi, W.C.2. "Gases and Metals." By Colin J. Smithells.* 8 *p.m.*

R.I.B.A., 66 *Portland Place, W.1. "Problems of a Rural Practice." By Edwin Gunn.* 8 *p.m.*

Tuesday, March 8

ROYAL SANITARY INSTITUTE, 90 *Buckingham Palace Road, S.W.1. "Human Reactions to Noise." By Lord Horder.* 5.30 *p.m.*

Wednesday, March 9

R.I.B.A., 66 *Portland Place, W.1. "Health and Welfare." By Dr. J. Graham Forbes.* 6.30 *p.m.*

ROYAL SOCIETY OF ARTS, *John Street, Adelphi, W.C.2. "Co-operation between Art Schools and Glass Manufacturers." By J. C. Vidgen-Jenks.* 8.15 *p.m.*

DOWNLAND PRESERVED

The Minister of Health has approved the Hailsham Planning Scheme No. 1, made under the Town and Country Planning Act, 1932, by the Hailsham Rural District Council, with the assistance of the East Sussex County Council.

This scheme covers an area of some 19,000 acres, and secures that approximately 12,000 acres of downland and water meadows between Eastbourne and Seaford shall be preserved against building development for all time.

SPORTS STADIUM FOR KIEV

A sports stadium, designed to seat 80,000 spectators, is being built in Kiev, capital of the Ukraine, at a cost of 27 million roubles. The site of the stadium is in the centre of the city, in an attractive hollow surrounded by hills which form a natural amphitheatre.

THE HOUSING QUESTION

Mr. Robert Bernays, M.P., the Parliamentary Secretary to the Ministry of Health, recently received a deputation from the Durham local authorities regarding the housing question in the county of Durham. Mr. R. J. Taylor, M.P., and Mr. D. Adams, M.P., accompanied the deputation.

The deputation laid before the Parliamentary Secretary the housing problem in the County of Durham and said that approximately one-third of the slum clearance programme still remained to be completed, and that the overcrowding problem was greater there than anywhere else. They suggested that the subsidy provided for in the new Housing (Financial Provisions) Bill was not adequate for the needs of the county and asked that their special position might be considered from the point of view of the number of houses still required, the amount of unemployment and the low level of wages, all of which special circumstances together made the contribution from the rates a matter of special difficulty, and owing to which it was imperative that the rents of the working-class houses provided should be well within the means of their tenants. The deputation asked whether it might be possible to meet their difficulties by amendments to the Bill. Local authorities in Durham were also much concerned about the housing of aged persons.

In reply, Mr. Bernays said that the Minister and he were greatly impressed by the splendid housing work which had been done in the County of Durham and that they appreciated the special difficulties of the county. He promised that the representations which the deputation had made would be carefully considered.

L.C.C.

In pursuance of the L.C.C.'s policy of improving the accommodation provided at its public assistance institutions, the Public Assistance Committee, at Tuesday's meeting of the Council, submitted a scheme, estimated to cost over £48,000, for the modernization of the Ladywell Institution, Lewisham.

AIR RAID PRECAUTIONS IN BUILDINGS

The Building Centre, 158 New Bond Street, W.1, is making arrangements to open as soon as possible a new section of exhibits dealing with air raid precautions in buildings.

An advisory committee, working in collaboration with the Air Raid Precautions Department, has been set up, and the section will be regarded as an official centre where information can be obtained on materials and appliances used in connection with air raid precautions in buildings. In conjunction with the section, lectures will be given from time to time on the latest developments in connection with various aspects of building practice.

Information is being collected from all parts of Europe on what is being done by way of air raid precautions in buildings, and it is proposed to form a library of data and illustrations dealing with this.

ROME SCHOLARSHIP IN ARCHITECTURE

The Faculty of Architecture of the British School at Rome has admitted the following candidates to the competition for the Rome Scholarship in Architecture, 1938 :—

E. Cahill, Manchester University ; P. Holland, London University ; T. Mellor, B.ARCH., Liverpool University ; J. Ogilvie, Edinburgh College of Art ; M. Pattrick, Architectural Association School ; A. R. Peadon, B.ARCH., King's College, Newcastle-on-Tyne ; W. L. Roworth, Edinburgh College of Art ; E. C. Scherrer, M.A.(ARCH.), A.R.I.B.A., Manchester University ; F. R. Stevenson, Edinburgh College of Art ; N. P. Thomas, Welsh School of Architecture, Cardiff ; J. T. Wilkinson, B.A., A.R.I.B.A., Sheffield University ; H. O. Williams, Welsh School of Architecture, Cardiff ; and A. B. Wylie, Edinburgh College of Art.

SOUTH WALES INSTITUTE OF ARCHITECTS

At the annual general meeting of the Central Branch of the South Wales Institute of Architects the following officers were elected for the year commencing July 1 : Chairman : Mr. Gordon H. Griffiths, L.R.I.B.A., A.M.T.P.I. Hon. Treasurer : Mr. Harry Teather, F.R.I.B.A. Hon. Secretary : Mr. W. S. Purchon, M.A., F.R.I.B.A. Executive Committee : Messrs. C. F. Jones, A.R.I.B.A., Ivor Jones, A.R.I.B.A., John Bishop, A.R.I.B.A., T. Alwyn Lloyd, F.R.I.B.A., M.T.P.I., L. R. Gower, A.R.I.B.A. Representatives of Associates and Students: Miss Joan Burford Treatt and Mr. Denis Arthur Gwilliam.

Members of Council : The following were elected as the representatives of the Branch on the Council of the South Wales Institute of Architects : Messrs. E. Attree, L.R.I.B.A., L. R. Harries, R.I.B.A., Gordon H. Griffiths, L.R.I.B.A., A.M.T.P.I., Percy Thomas, O.B.E., P.P.R.I.B.A., T. Alwyn Lloyd, F.R.I.B.A., M.T.P.I., J. Williamson, A.R.I.B.A., J. A. Hallam, M.T.P.I., Howard Williams, A.R.I.B.A., John W. Bishop, A.R.I.B.A., A. J. Hayes, L. R. Gower, A.R.I.B.A., and E. A. E. Evans, A.R.I.B.A.

Representatives of Associates and Students: Miss Joan Burford Treatt and Mr. Denis Arthur Gwilliam.

OBITUARY

We regret to record the death of Mr. Wallace Austin Greenen, F.R.I.B.A., a partner in the firm of Jackson and Greenen, of Bournemouth. He was elected a Fellow of the Institute in 1930.

HOUSING ESTATE COMPETITION

The Borough of Brentford and Chiswick Corporation proposes to develop for housing (cottage upon cottage type) approximately seven acres of a disused sewage works (filter bed area). A fee of 2½ per cent. on contract price of layout and development will be paid to the architect whose services are engaged, this fee to cover items 1 to 8 and 12 under A of the R.I.B.A.'s Scale of Fees, all items under B and C of such scale and the preparation of Bills of Quantities.

Architects desirous of undertaking this work should intimate accordingly on or

before Thursday, March 10, 1938, submitting full particulars of experience in designing municipal or other housing estates. Further particulars may be obtained from Mr. John Skinner, Town Clerk, Town Hall, Chiswick, W.4.

NEW CIVIC CENTRE, BRIGHOUSE

The Brighouse Town Council has decided to go ahead with plans for the erection of a new civic hall in Wellholme Park. The resolution states that the building should follow the style of the Morecambe or Stretford Town Halls and that the total cost, including architects' fees, etc., and furnishings, shall not exceed £60,000. Competitors' designs are to be invited, and the Council offers premiums of £200, £75, and £25. The designs are to be submitted not later than May 31, 1938.

ANNOUNCEMENTS

Mr. C. W. Craske, A.I.A.A. & S., and Mr. H. H. Parker, L.R.I.B.A., have entered into partnership as architects and surveyors at 20 St. Andrew's Street, Cambridge. Telephone No. : Cambridge 2010.

Mr. G. Forsyth Lawson has opened an office in Lincoln Chambers, Banbury, Oxon, where he will be pleased to receive trade catalogues and circulars.

R.I.B.A.

ELECTION OF MEMBERS

At a recent meeting of the Council of the R.I.B.A., the following members were elected :

As Fellows (7). W. Harkess (Pulborough, Sussex) ; T. A. Page (South Shields) ; S. R. Pierce (London) ; and J. E. Shaw (Leeds). (*Overseas*). A. S. Furner (Johannesburg) ; A. J. Hobbs (Perth, Western Australia) ; and J. C. Miller (Penang, Straits Settlements).

As Associates (26). Miss M. M. Boyd (Westcliff-on-Sea) ; G. N. Coveney (Wirral, Cheshire) ; J. W. Davies (Oswestry) ; G. R. Flavel (Keston, Kent) ; Miss J. M. Fortescue (London) ; A. G. Goodair (London) ; H. J. Grose (London) ; A. G. Hanstock (Newby, near Scarborough, Yorks) ; J. Heaton (St. Helens, Lancs) ; A. H. Jenkins (London) ; G. E. Lewis (Penarth) ; Miss G. M. McKenzie (Cardiff) ; P. R. Middleton (Bournemouth) ; B. H. Peake (Banstead, Surrey) ; J. A. Rossignol (Harrow, Middlesex) ; H. Tatham (Pyrford, Surrey) ; J. H. Wade (Amersham, Bucks) ; R. R. Wilkins (Belfast) ; and W. C. Youngson (Liverpool). (*Overseas*). P. Berold (Johannesburg) ; G. W. Callander (Palmerston North, New Zealand) ; T. R. Gibson (Rose Bay, Sydney, N.S.W.) ; H. D. Margo (Johannesburg) ; J. B. Parkin (Toronto) ; J. G. Patki (Bombay) ; and S. S. Reuben (Bombay).

As Licentiates (4). C. E. Buhl (Croydon) ; F. L. Felgate (Pinner, Middlesex) ; S. J. Field (Brighton) ; and F. C. Levitt (Biggleswade, Beds).

NEWS BULLETIN

General Meeting : "Problems of a Rural Practice," by Mr. Edwin Gunn, A.R.I.B.A., on Monday next, March 7, at 8 p.m.

Health, Sport and Fitness : "Health and Welfare" is the subject of a lecture by Dr. J. Graham Forbes, F.R.C.P., on Wednesday, March 9, at 6.30 p.m. Dr. Charles Porter, M.D., B.SC., Medical Officer of Health, St. Marylebone, will be in the chair. The subject of the Informal General Meeting on Wednesday, March 16, is to be "Health, Wealth and Architecture."

Present to the Council Dinner Club : Mr. Michael Tapper is presenting to the Council Dinner Club on Monday next a silver and wood mazer, in memory of his father, the late Sir Walter Tapper. The mazer, which is the work of Omar Ramdsen, was given to Sir Walter Tapper by Sir William Orpen when he painted Sir Walter's R.I.B.A. presidential portrait.

Touring Exhibitions :

"Airports and Airways" is at the Museum Art Gallery, Botanic Gardens Park, Belfast, until March 14.

"Civic Centres" closes at the Public Library, Museum and Art Gallery, Folkestone, on March 13.

"Modern Schools" is at the Corporation Museum and Art Gallery, Newport (Mon.), until March 19.

ALFRED MAKES GOOD

OR THE PAST OF THE ARCHITECTURAL ASSISTANT

With acknowledgments to Stanley Holloway

You may 'ave 'eard tell of our Albert,
'Oom the lion consumed at the Zoo.
But the doin's of Alfred 'is brother
Is a story that very few knew.

In obscurity Alfred 'ad laboured,
An articled pupil was 'e,
Eight hours a day and nowt for it,
And four times a day brewin' tea.

Now Alfred 'ad better stuff in 'im
Than to be content with 'is lot,
There were lots of things that 'e wanted,
And precious few 'ad 'e got.

So 'e goes to 'is boss and says "Mister
"It's time I earned a few quid.
"I've slaved long enough without payment,
"And all you've said 'do' 'as bin did!"

'Is boss couldn't quite see 'is point,
"Why should I give thee a screw?
"That's worked all these years for nowt, so
"Tha can find summat better to do!"

But young Alfred's 'opes were undaunted,
'E set out to look for a job,
And 'adn't worn t'skin off 'is knuckles
When 'e got one at thirty-two bob.

Now Alfred's idea of a salary
Was at least a thousand a year,
At that rate he'd be nigh on ninety
Afore 'e was getting' owt near.

"'Owever," 'e thought, "for the time it'll do,
"Till I can give proof of my mettle,"
And continued to run t'Chief's errands
And operate teapot and t'kettle.

So Alfred grew up into man'ood,
'Ad a rise of another 'alf-crown,
At thirty four an' a tanner,
'E was still nine 'undred odd down.

'E'd 'ave to do something about it,
And pondered what best to do,
Should 'e go for 'is Institute final,
And trust that first time 'e'd get through?

When 'e 'eard that an annual subscription
Of three guineas would 'ave to be paid,
He says to 'imself, "Tha must wait lad,
"Until enough money tha's made."

So 'e goes to 'is boss all bold-like,
And asks for a ten shillin' rise,
Boss says "No, but go for a comp. lad
"'Appen tha'll win t'first prize!"

That gives Alfred a gradely idea
Which to 'im 'ad never occurred,
So 'e writes off for t'conditions
Of a comp. of which 'e 'as 'eard.

It were a town 'all or summat,
As Alfred 'ad to design,
'E worked right 'ard for many a week,
And the drawin's when finished looked fine.

The blokes as were there at t'judging,
With Alfred's attempt were impressed.
All came to t'same conclusion
That Alfred's was easy t'best.

Now when Alfred received the glad tidings
'Is 'appiness knew no bounds,
'E invited 'is pals to the local,
And stood 'em all twenty-one rounds.

T' first prize was five 'undred quid
(Paid into Alfred's account)
And a medal wi' t' Lord Mayor's 'ead on,
Set in a luvly brass mount.

So Alfred at last made 'is fortune,
And won 'imself world-wide renown,
And is only now seen in posh places
Where 'alf-a-bitter costs 'alf-a-crown.

G. M. BOON

A.A.S.T.A. ESSAY COMPETITION

THE FUTURE OF THE ARCHITECTURAL ASSISTANT

[By Ailwyn Best]

On this and the two pages following we print the essay placed second in the recent A.A.S.T.A. competition. The full award of the assessors and the essays placed first and third were published in our issue for February 17.

IN considering what the future holds for the assistant and how his position may change, it is necessary first to take stock of his present position in architectural practice. And this position now depends very largely on his employer, whether he is an individual in private practice, or a larger firm, or an entity such as a corporation or Government body. This may help us to form an idea of his function and his needs, and how in the future he may broaden the one and achieve the other.

It is immediately obvious that the assistant's problem is to a large extent the employer's also. There are today a number of tendencies affecting the profession. What these may be, and how they may affect the architect, and in turn the assistant and his status, it is the purpose of this essay to show. (The type of principal under which he works has an enormous influence in determining the destiny of the assistant.)

We may consider such reforms as are now necessary to improve the assistant's status and to give him a renewed urge to contribute of his best to the art and practice of architecture. This will enable us to judge the present trend and to foresee, so far as is possible, the kind of part the assistant will play in the practice of the future. And it must be borne in mind that we are approaching the problem primarily from the assistant's point of view.

(1) *The Present Position.*

(*a*) *Private Office.*—The assistant in the private office and his friend in the public or municipal department have this in common, that they are primarily means to an end, the end being the preparation of the contract documents. The supervision of the job and the responsibility therefor are the principal's ; this apparently simple relationship is subject to wide divergences in practice, and indeed, as we shall see, gives rise to many of the assistant's grievances at the present time.

In the private office, generally speaking, the principal has a close personal relationship with his clients and his work, and this attitude reacts immediately on the assistant. He becomes an extension of his principal's mind. He has, as a rule, very little say in questions of design or choice of materials ; the principal, if he is an architect in the true sense of the word, will settle these himself, draw the *esquisse*, and outline the special features in the specification. It is the assistant's job to translate these requirements into such drawings and information, well presented, as can form the basis of a contract : in other words, so that the job

can be built from them. It is furthermore his duty, if he is a senior, to deal with such questions as may arise during the execution of the work as will not be referred to his principal.

Now the point need not be laboured that to do this work calls for qualities of a high order. To be able to interpret a sketch satisfactorily demands intimate knowledge of the type of design and structure set forth in the sketch. It is the fact that these qualities are unrecognized outside the principal's office (and often not even there) that constitutes the deep and hidden disappointment of most of the qualified assistants today.

Not all assistants can become principals. Neither can principals do without assistants. The need here, then, is for closer co-operation in the office between principal and assistant, so that the latter may feel that his is not altogether a thankless task.

So much depends on the individual in these matters. Some are content to remain in a subordinate technical position, doing very good work at the drawing board and on the job. A few such men may, after some time, raise themselves to a partnership, their motto being *festina lente*. It is the free spirits in architecture, those men who see visions and dream dreams, and from whom, properly adapted, the art draws its life-blood, who, debarred from practising on their own for a variety of reasons, find that the assistant's career offers little hope. The wise principal, finding such an one in his office, will do all he can to give him scope. He is sometimes a more brilliant man than his employer, and well the employer knows it. Offices who can benefit by such men, and who can acknowledge their benefit, go far towards the creation of a vital architecture.

This, however, is a special plea. The type of assistant described above usually chooses an office where he can find a field for his talents. Such offices exist in plenty and, indeed, are increasing to meet the demands of present-day practice. In them, the assistant finds himself in control of a job and can exercise more imagination and find a wider field for his individual gifts. The principal, particularly in larger firms, acts more as executive, and deals more with the organization of the office. Yet we must remember (the assistant, of course, never forgets) that the job is the firm's, not the assistant's. The assistant must realise his place in office practice. As the principal is the responsible party, it is he who dictates the policy of the job. It is well to keep this point in view, for it dominates the situation in private practice as far as the assistant is concerned. If, in trying to improve their conditions, assistants generally forget this, they will be battering their heads against a wall. We will deal in a moment with the future of the private firm and how it affects the assistant.

(2) *Public Office.*—The public body offers as a whole wider scope for the assistant, but in more restricted fields. In a concern where the principals are for the most part administrators, he finds himself able to do the job himself. He may not have so varied an experience, but he has much greater say in the design and execution of the work, and this brings him a greater sense of contribution to architecture. It also carries with it a greater prospect of continuous employment for the good man, for the larger public offices, and particularly Government offices, are not so subject to market fluctuation as the private office. But it has a grave disadvantage; in a large centralised organization, live design has not the same chance of winning through, as it were, unscathed. It is more subject to general criticism, usually for reasons of local policy which may have no bearing on the architectural problem; it is more of a compromise. And yet, as we shall see, it is towards centralization, and with it specialization, that the profession as a whole is moving (and which will do much to help the assistant); and conditions in public offices give a useful indication of his possibilities in the future. One particularly brilliant and enlightened Government office may be said to be leading the way in producing vital work of a public nature which is full of promise for the future.

Tendencies

The profession then is moving towards greater centralization and specialization; men are known by their work, and the man who does good work gets asked to do more of the same kind. It is also gradually, but surely, enlarging the sphere of its influence. People are becoming more design-minded. They are thinking more of the architect as a creator of order in all social spheres—as a planner and let us hope as an agent for promoting beauty—not of the old-world cosy corner type, but a beauty in keeping with future needs. There is an enormous amount for architects to do. Indeed, if the present chaos serves but to awaken the national conscience in this direction, it will not have been wholly our loss. Our towns, our roads, our countryside—all need skilled thought and planning.

The demand for the assistant, then, will increase, provided always that the profession gets its lead from the country. And the assistant will become more of a specialist—in town-planning, in schools, in hospitals—and will need an ever-wider knowledge of his own particular province. This tendency is in full swing today, and it will intensify. With administration at the head becoming ever more complex (as it is likely to do in our already over-bureaucratised world), the assistant will have greater control over the special problems, services, finishes, lighting and planning—not so much in their choice as in their use. He will have to keep in touch with the older forms of construction (it is unlikely, for instance, that any material will ever be evolved which has the same advantages as brickwork) and be at the same time familiar with the way in which the vast mass of modern materials are handled.

Now, to do this pre-supposes a thorough training; and it goes without saying that a school training is the means *par excellence* for producing good men. This point need not be elaborated in the present year of grace. Only a school training can give the breadth of vision, the power of seeing architecture as a whole, which will enable a keen student both to decide his bent and follow it in an age of specialization, and, at the same time, keep alive to the wider issues and maintain contact with his fellow-men.

It follows from this that the majority of the assistants of the near future will be qualified men, and a good proportion of these will, in addition, have the degree or diploma of one or another of the recognized schools. What awaits these men and women, all highly trained and anxious to make their personal contribution to architecture?

We have seen the conditions which exist, broadly speaking, in private and public offices today. They have the following serious disadvantages as far as the great mass of assistants is concerned:

(1) *Insecurity.*—The assistant is here today, gone tomorrow. He comes and goes in obedience to supply and demand. Some have consolidated their positions in past years and are indispensable. How is the young assistant to do this for himself in the future among the uncertain conditions of today? He is liable to get his *congé* at any moment and for no reason given. We have already said the demand for assistants will increase under favourable conditions. What of a slump? Can he safeguard himself against unemployment which will fall with the greater severity on the increased number of assistants?

(2) *Undefined Professional Status.*—With the exception of certain public offices, who take assistants on an established basis, the architect who works for another has no status other than his qualifications if he has any. (These actually confer but little status upon him inside an office.) He has no settled place in the scheme of things. Unless and until he works his way up to a partnership, or a higher established position in his office, his position is arbitrary and undefined.

(3) *Lack of Recognition.*—He does his work, if not unhonoured, then unsung. The world at large has no knowledge of his part in the creation of a work of architecture. Surely an assistant who has had the design and control of a job very largely in his own hands, even though he may not be theoretically responsible, should have some credit, along with the contractor, foreman, and (if his claims are to be met) the quantity surveyor?—and all the more should credit be given to qualified men who are compelled to work anonymously under the direction of the Borough Surveyor or Engineer, or of certain firms not immediately connected with building.

(4) *Inadequate Remuneration.*—No unprejudiced person will claim that the rates of pay which are at present offered to even the best assistants are commensurate with the ability and technical knowledge demanded. They may be all that is possible in the present state of the profession; but it is widely felt that they are unsatisfactory and inadequate.

(5) *Self-expression.*—What avenues are there by which the assistant can give of his best? What contribution is there he can make to the progress of architecture, other than that of a mere translator of other men's ideas?

We will take these difficulties in their order and try to find possible solutions.

(1) *Insecurity.*—This is a problem that faces everyone. It is not lessened by wars and rumours of wars; by the speed and stress of modern life; by the terribly keen competition in modern business. A great deal depends on the individual. Firms, whether public or private, do not like getting rid of valuable men. More still depends on the condition, flourishing or otherwise, of the profession. Given optimum conditions, the demand for good men will be steady and high, and employment constant. The two factors tending to lessen insecurity for the assistant then are capability on his part and the need, created by good business and a state of optimism, on the part of the profession. We cannot legislate for the hard case. We cannot compel any firm to employ any assistant, unless the profession and every member of it is to be dictated to by a

central authority. Such a position is impossible. We can, however, see that the assistant is not victimized by individual caprice or preference inside an office, and we can say in what circumstances an assistant may, and may not, be dismissed ; and if there is not to be serious dissension in the profession action will have to be taken very soon on these points by the Institute, as also on the other points under discussion.

A careful census must be taken, the position analysed on the information thus obtained, and the whole question of the assistant's position kept under review in place of the present indifference*) on the part of the Institute, an indifference which was in no way modified by the President's remarks in his address. After all, the number of assistants who are qualified is increasing more and more, and being members of the Institute they have a right to feel that they can put their individual cases before a tribunal that is sympathetic, and not largely devoted, as it is at present, to the interests of the private practitioner.

This tribunal should, if it is to have real influence upon the future security of the assistant, be within the Institute and not opposed to it.

Cleavage in the profession must be avoided as far as is possible. But it must also be remembered that principals as a whole, and private practitioners in particular, will resist any such move tooth and nail, being as they are in a position of complete power over their staffs. The Institute must move with the times. An energetic campaign on behalf of the assistant is as necessary as the campaign that has been successfully sponsoring the Registration Bill. And no policy will be effective that does not bring about a change in the Institute's attitude towards its salaried members. Any other way will cause a disastrous split in the ranks of the profession.

With regard to unemployment, some form of insurance might be devised to which all had to contribute a small specified sum to cover them against the risk.

(2) *Undefined Professional Status.*—This will tend to improve as the proportion of qualified men gets larger. But in order that it shall improve, membership of the Institute must have some real meaning for the salaried man. A system of grading according to school and professional record, type of work handled, and length of service, could be adopted in place of the vague " senior " and " junior " men, with the large number who are neither ; and this would incidentally benefit the principal, for he would be able to choose the right man with greater ease. The grades would be, say, senior, Class I, Class II and junior, and would not depend on length of service only.

Each grade would have certain privileges within the office, and promotion, other things being equal, would depend on length of service. The system of grading could be elastic, so that the brilliant man would not find himself kept back.

(3) *Recognition.*—Already enlightened principals, especially in public offices, are making the assistant's name public as well as their own when a building is completed. It is to be hoped that this will become an unvarying rule where the assistant concerned has had control of the design. In fact, the description might, at times, well read, " designed by So-and-so, in the office of So-and-so," this conveying the meaning that the design was the assistant's under the general supervision (which often means little more than the approval) of the principal. And everything must be done to bring home to the world at large that it is the architect, and not the surveyor or engineer or builder, who is the qualified exponent of order as opposed to chaos.

(4) *Remuneration.*—Minimum rates of pay for the various grades mentioned above are useless if assistants cannot (*a*) be engaged at rates exceeding the minimum ; (*b*) are not granted regular and adequate increases, dependent on satisfactory service. These could be dependent on the grade, and the whole system of paying assistants, so arbitrary and confused at the present time, regularized. It could, for instance, no longer be possible for a council to engage a senior or grade I man at a grade II salary. It is hardly the place here to suggest what the rates of pay should be ; the A.A.S.T.A. has already done valuable work in this connection by laying down a minimum scale of salaries.

The reforms suggested above will go a long way towards freeing the assistant from the crushing burdens under which he, for the most part, labours ; they will fortify his self-respect and make him a true member of his profession instead of a paid hanger-on !

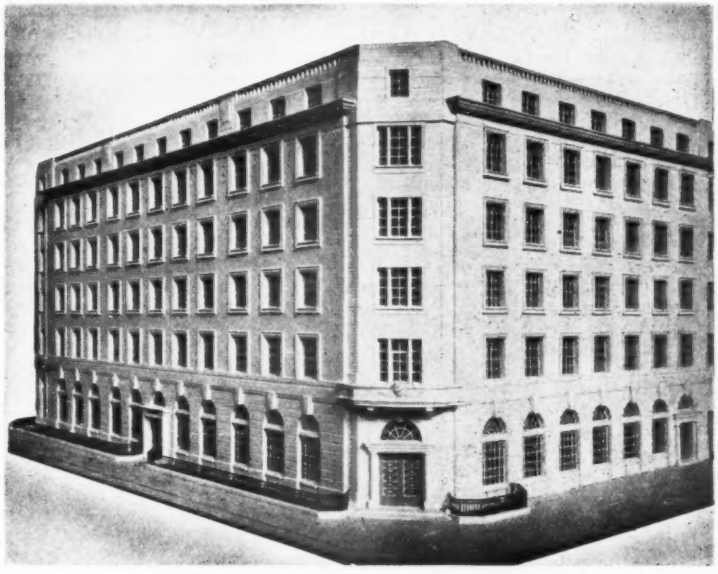
(5) *Self-expression.*—We have seen the tendency among big firms and public bodies to delegate the design of buildings to their assistants. This tendency is bound to increase. The assistant will not be slow to take advantage of it, and it should be remembered that even greater numbers are school-trained men, who understand design. It is, after all, creation that satisfies. There is a certain pleasure in producing a fine working drawing embodying other men's ideas ; but it is little compared with the thrill of designing and executing one's own job. Technical skill and practical knowledge are means to an end. Without design they are valueless, for they can give us nothing of themselves.

In passing, it must be said that one of the chief merits of the competition system is that an unknown assistant may pull off a valuable prize. This unknown man, however, for obvious reasons, stands a better chance with a jury than with a single assessor.

What of the more remote future ?

There is a tendency that has appeared within the last few years towards what may be called the " group " approach to design. Certain progressive private firms and research bodies have adopted this way of solving the current problems ; and it is in the highest degree significant that in the schools this is now an accepted method that has been found very productive. Architectural projects are now so complex that the " group " approach offers great advantages—collaboration of specialists, pooling of knowledge, a sense of partnership. Particularly is this called for in the civic design of the future that has already been touched upon. This will mean the gradual elimination of the single man and the private practice, and with it the sharp distinction between principal and assistant. There will, no doubt, be men who prefer to play a lone hand and remain as private practitioners, and, like the best of their kind today, they will exercise a fresh and live influence on the stream of architectural thought ; but the mass of work will be done by groups of men working together. This will modify the present position of the assistant by absorbing him into these groups, and as the sphere of the profession widens so will more men be drawn into active partnership in them. A watch will be kept on the number entering the schools so that the supply bears a reasonable ratio to the demand.

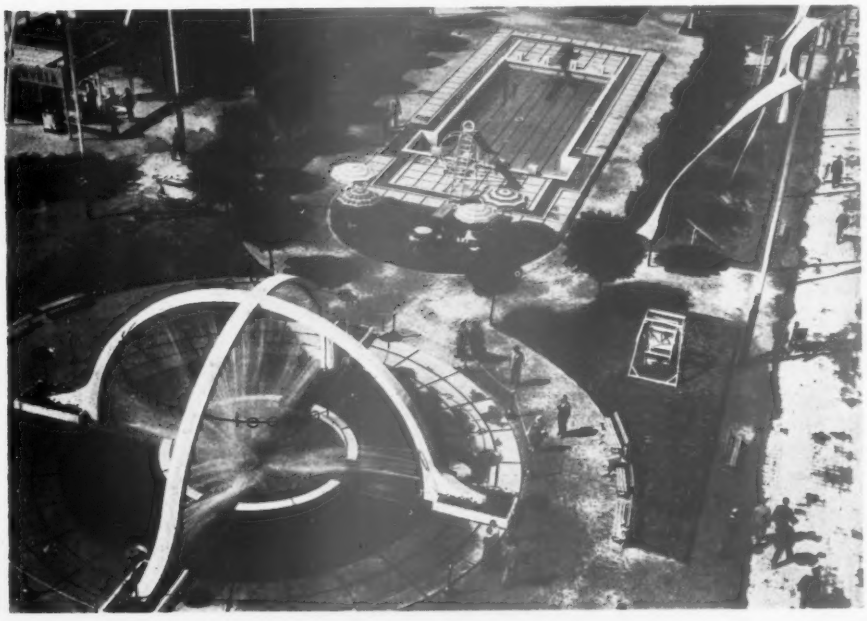
To sum up : the profession is in a transition stage. The old order is surely and rapidly changing. The future offers, on the whole, a brighter outlook for the assistant. Little, however, can be done until the representative body of the profession takes up the cause of the salaried man and the assistant. It rests with qualified salaried men generally to bring about by constant effort the changes within the Institute that will admit them, helped by the tendencies mentioned above, to the status and privileges that are rightly theirs.



Photograph of a model of a new building now in course of construction in Grosvenor Place, S.W.1. The building faces the grounds of Buckingham Palace. The architect is Mr. A. Alban H. Scott.

* It is impossible even to obtain any information as to the relative numbers of principals, salaried architects, and assistants from the R.I.B.A.

OPENED YESTERDAY AT THE R.I.B.A.:



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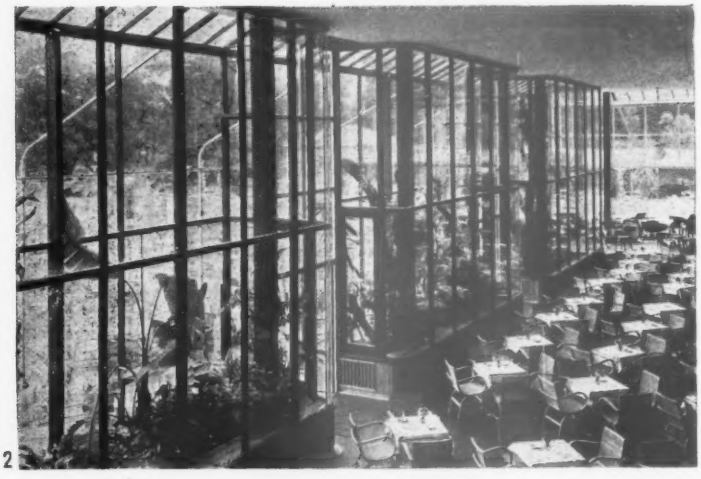
Following are some extracts from the foreword to the catalogue :

This exhibition aims at presenting a picture of the public service performed—or capable of being performed—by architecture in the field of health, sport and physical fitness, one of the great primary requirements of the human race. It does so by arguing logically from cause to effect, by expressing the need, discussing the means and finally presenting the result.

A mere display of unrelated buildings shorn of their context or without reference to their origins, would have no vital architectural interest. The æsthetic or emotional qualities of the building would remain, but most of their real significance would be lost. For the full understanding of its significance, we require not merely views of what a building looks like when completed, but also something that will tell us of its arrangement and also the why and wherefore of that arrangement.

In presenting the architecture (in its very widest sense) of Health, Sport and Fitness an attempt has been made to achieve



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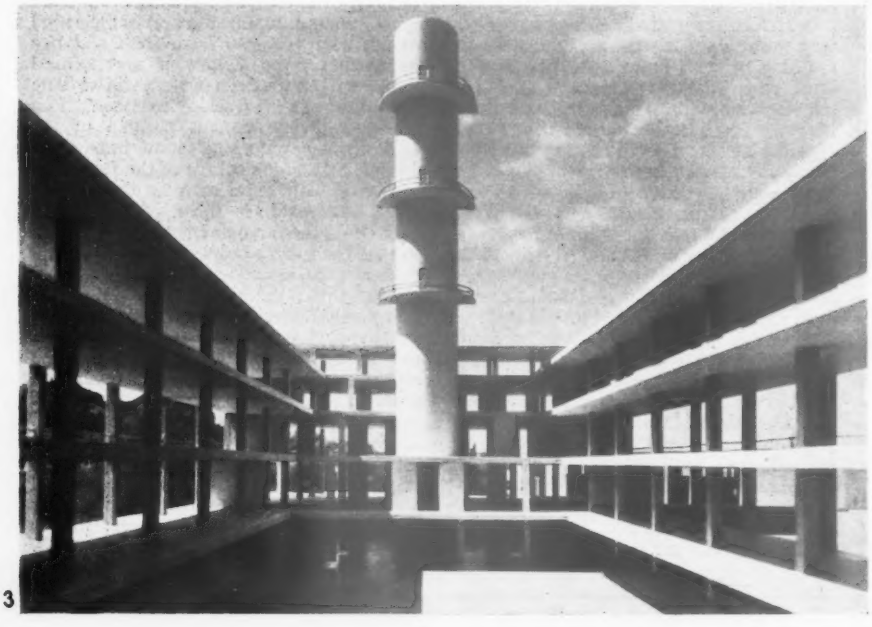

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two objectives. The first is to present the best representative examples of buildings concerned with a particular subject. The second is to clothe them in all the material with which they are normally associated. The subject is a large and important one and its ramifications are extensive ; but by careful selection the bulk has here been reduced to the reasonable survey of an hour or so. This is not an exhibition of the dry bones of building. As far as possible, all illustrations show buildings in use ; but more than that, it has been considered appropriate to include a large number of photographs of the sports themselves with men, women and children in action.

The photographs show : 1, children's swimming pool, Prague, by V. Kolator ; 2, Polo Club, Hamburg, by Bensen, Kamps and Amsinck ; 3, Balilla Stadium, Rome, by Cesare Valle ; 4, German Youth Hostel ; 5, proposed stadium, Paris, by Jacques Greber, Rob Mallet-Stevens, C. H. Pingusson and M. E. H. Rotival ; 6 and 7, two views, German Youth Hostel, another view of which is reproduced on this page.

HEALTH, SPORT AND FITNESS EXHIBITION

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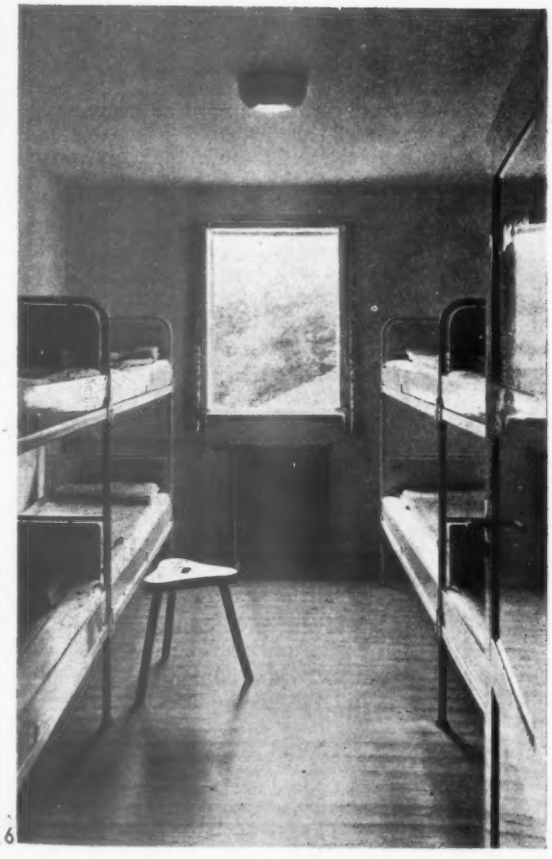

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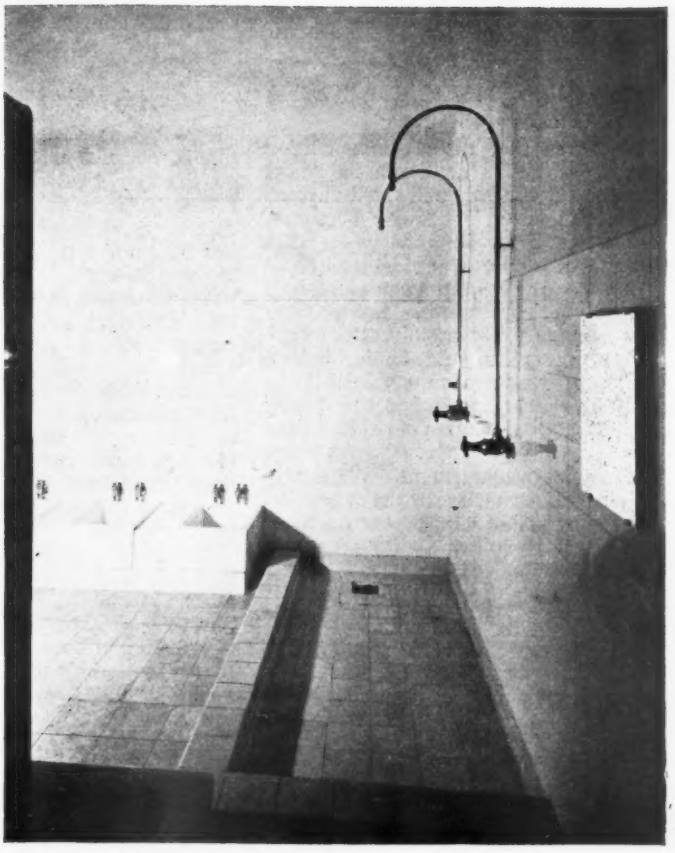

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LETTERS FROM READERS

G. V. DOWNER
MALCOLM MACTAGGART
FRANK REGAN
ARCHITECT AND R.E. OFFICER (S.R.)
W. JOHNSON
C. W. ALLEN

Lighting

SIR,—I am surprised and disturbed to note that in the article on "Senior Schools (Plan Units: Classrooms)" in your issue of 10th ult., under the sub-heading of "Artificial Lighting," it is stated that "15 to 20 foot candles are necessary on table tops." This is a gross and dangerous overstatement.

If up-to-date methods are employed to ensure a soft evenly distributed and well-diffused light free from glare or confusing shadows, it will be found that 4 or 5 foot candles are ample in most cases. It should be remembered that a foot candle represents the light given by a candle at a distance of 1 ft. An all-round intensity of 4 foot candles therefore means that there will be light equivalent to that from four candles only a foot away at every point throughout the room.

It should be obvious that such an illumination will be more than adequate for most purposes, while to have even 10, let alone the suggested 15 to 20 candles a foot away from every point throughout the room, would be most extravagant and injurious to the eyes.

What is required is a moderate intensity, such as I have suggested, illuminating all sides of every object, with no dark shadows and no direct light shining in the eyes.

G. V. DOWNER

The authors of the "Schools" articles reply as follows.—ED. A.J. :—

We agree that the recommendation made, given Mr. Downer's "soft evenly distributed and well-diffused light free from glare or confusing shadows," is a little high—in that 10-12 foot candles would be enough.

But we differ from your correspondent's other contentions. Lamps grow less efficient fairly rapidly, fittings are not always clean and Senior School children work under artificial light only for short periods. So that to say that 15-20 foot candles could be in the least degree injurious to eyesight is, we believe, an overstatement. We should be glad to learn whether the suggestion that 4 or 5 foot candles are ample is supported by other lighting experts. In our opinion it is much too low.

R.I.B.A. Council

SIR,—I am indebted to Sir Ian MacAlister for calling attention to a brace of factual errors occurring in my entry for the A.A.S.T.A. Essay Competition. The Kalendar is against me on both counts; permit me to offer my apologies to any of your readers (an offer in which, as Editor, you will no doubt wish to share) for any discomfort of which my blunders may have been the cause. I note that the Council now consists of 74 members instead of 81 members and includes a minimum of 29 Fellows against a previous minimum of 60 Fellows.

I feel, however, that when by his remark that the change in the Council occurred "on the recommendation, be it noted, of a Council which then contained a large majority of Fellows," Sir Ian is virtually saying to me, "There you are, my boy, you see what magnanimous Fellows they are, after all," a suggestion that has no business to be there is finding its way into his admonition of my unpunctualities.

Are Sir Ian's "magnanimous Fellows" (if I may call them so) so doubtful of their popularity that they do not yet care to venture upon level terms with the other members of the Institute for places on the Council? I am afraid that, in spite of all the change in numbers which has happened, the true story is still the old one: a relative handful of the members of the R.I.B.A. still wants to hold all the other members at a disadvantage.

MALCOLM MACTAGGART

Air Raid Precautions

SIR,—I was very interested to see the correspondence in your columns on the above subject. In particular, I was struck by the Editor's comment that "questions of political principle are . . . not suitable subjects for debate in these columns."

This statement is, of course, perfectly true. But can it be applied consistently? As soon as the question of Air Raid Precautions is mentioned, questions of political principle are involved. Even if the JOURNAL attempts to confine itself to discussing the adequacy or otherwise of the precautions, it is tacitly accepting the principle that Air Raid Precautions are necessary and advisable, which is both a political and an ethical principle.

Because the JOURNAL claims to be non-political, discussion of the value of Air Raid Precautions, except in terms of how they affect the architect professionally, is to be frowned on. Yet the fact that a responsible and influential technical journal accepts them at their face value is propaganda of the most powerful kind, the political significance of which must not be discounted.

Now, I suggest that the architectural profession, and therefore any periodical that professes to represent it, has a big responsibility in this matter of Air Raid Precautions. Many of our most brilliant scientists have been forced to the conclusion that the measures suggested for dealing with gas and incendiary bombs, even without the complication of high explosives, are so inadequate as to amount to little more than an attempt to lull the public into a false sense of security. Architects must know in their inner hearts that no adequate measures could conceivably be taken against the effects of high explosives, which experience in Spain and China proves, and Government spokesmen have admitted, is the first and most devastating weapon to be used in aerial warfare. The expense would be enormous. All architectural design would have to conform to the rigid requirements of war-planning. And, from the point of view of waging war, concentration on such measures would, in the words of Sir Samuel Hoare, "create a dangerous bias in the national mind for passive protection rather than for vigorous attack."

This being the case, the architect is faced with the question whether he is prepared to lend his skill and knowledge to the propagation of measures which cannot provide any real defence, but the main purpose of which commonsense, and the less guarded statements of our leading statesmen, will tell him is to get the civilian population disciplined so that panic will not hamper the offensive carried out by our bombing planes against the civilian population of the "enemy" country.

I am sure there must be many architects who are prepared to face this issue squarely, and I appeal to them to do so, in spite of the fact that it will involve questions of political and ethical principle. For it seems to me that it is largely this attempt to isolate the activities by which we gain our livelihood from such questions that is responsible for the mess the world is in today.

FRANK REGAN

[*The* JOURNAL *does not agree with the statement that it accepts A.R.P. at their face value. It believes that an architects' committee should examine a highly technical question with thoroughness and then report to the profession.*—ED., A.J.]

SIR,—My original letter on this subject was, as stated previously, to point out to architects and also surveyors, engineers, etc., the value of their co-operation in connection with the multitude of problems which arise when considering air-raid precautions.

I also suggested they might awaken

their local councils to the importance of doing something now, even those councils who are active already will welcome expert advice.

The whole of the work is purely passive. There is no question of assisting any form of savagery or debasing anyone's ideals. Rather, in my humble opinion, it is a question of defending one's ideals. Can anyone guarantee peace today? Any more than it is possible to prevent an enemy attacking us if he decides our weakness makes success likely enough. Therefore any person, architect or otherwise, who advocates the "ostrich" policy of "putting one's head in the sand" and decries air-raid precaution work is taking heavy responsibility. How could he or she answer a man or woman who has suffered through just this ignorance they are fostering?

I think the layman takes particular notice of architects' statements on such questions as air-raid precautions, and they cannot escape the onus of refusing to do their share by saying "I was actuated by the highest motives." Even if others do not blame them they will suffer pangs of self-reproach in the event of any need for precautions (which we are all praying will not arise).

The problem of the design and incorporation of air raid shelters in buildings, both old and new, and also the provision of larger public safety zones, properly equipped, is essentially the architects' and the engineers' province, as is the question of dealing with damaged services in cratered roads a problem for the surveyor and engineer.

If anyone of us can, by our actions, save the life, or lives, of our fellowmen, women and children, we shall be justified.

Is not this a constructive attitude of the highest humanitarian order?

ARCHITECT AND R.E. OFFICER (S.R.)

Elevations

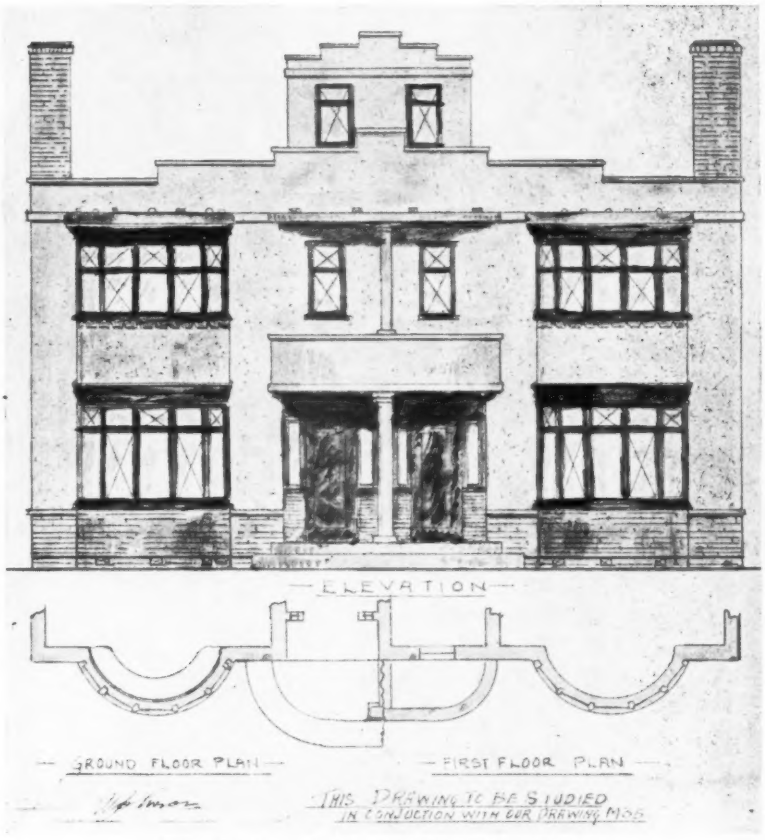
SIR,—As a regular reader of your JOURNAL, I assume you assist readers with free advice and therefore beg to ask the following:

Will you please inform me if you consider the elevations of a pair of semi-detached houses shown on the enclosed drawings, Ref. Nos. MB56, 8 and 9, are suitable for erecting in a residential district comprising £1,000 to £2,000 value property. The site is level and the houses will face west. The client wishes a flat roof, as the view from same would be an asset. The existing house on the north side is an ultra modern cubist-type design (flat roof) in white stucco facing.

I have no objection to your publishing the design in the JOURNAL, if necessary using my name. WILLIAM JOHNSON

P.S.—I should appreciate the return of plans. The reason I require only the elevations criticized is because the plan layout is to client's definite requirements.

Are the proportions correct as shown on front elevations?



The elevation referred to in Mr. Johnson's letter

Editorial Note

[Our correspondent's letter and drawings have been submitted to an architectural adviser, who sends the following reply:

To what extent is an architect justified in accepting clients' stipulations concerning the plan when the elevation is thereby affected? How much should the sensitive architect consider neighbouring property in preparing a design? These seem to be Mr. Johnson's questions.

It is, I consider, essential that clients should be warned against the consequences of rigid requirements. In these plans the entrance corridor is barely lighted at all, the front door cannot be reached from the kitchen save across the diagonal of the dining-room, there seems no means of access to the roof pavilion, and the use of some nine 8 in. by 4 in. and 7 in. by 4 in. R.S.J.s is questionable in a house of this size. Plan requirements more flexible might help not only in these points but also in the elevations.

As to elevations, Mr. Johnson's sketch of his front is piquant and arresting, but it is difficult without knowledge of the neighbouring buildings to gauge the degree of happiness with which it will blend with them. I should suggest a study of the neighbouring elevations and subsequent modification of little details like the parapet stepping and porch to ensure a tasteful harmony in Malvern Road. As to the proportions, they appear to be severely correct.]

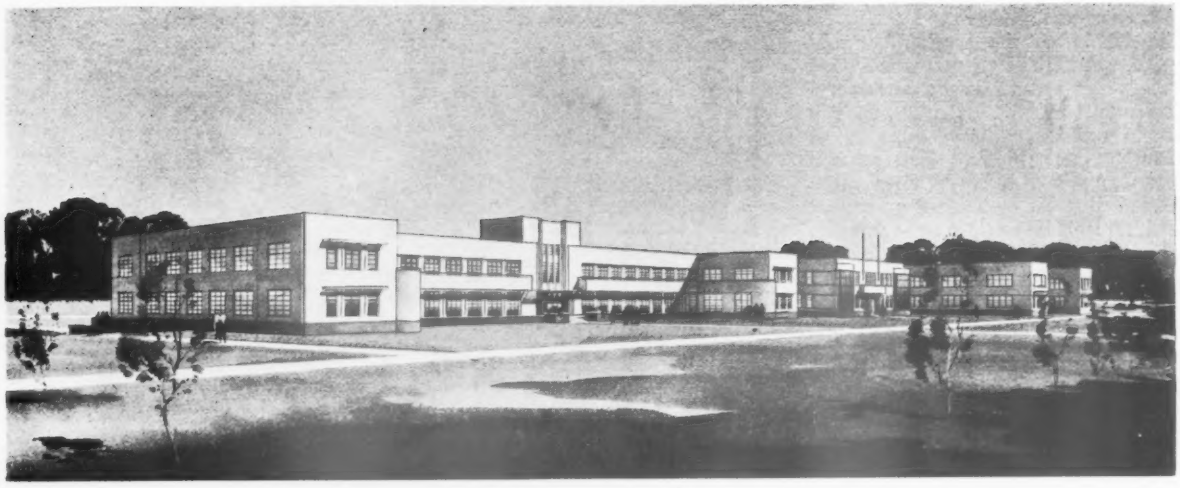
Climbable Fences

SIR,—On behalf of many harassed parents may I utter a mild protest against the growing practice of constructing staircase and roof fences of climbable patterns, with horizontal bars in ladder-like sequence tempting the young to self-destruction?

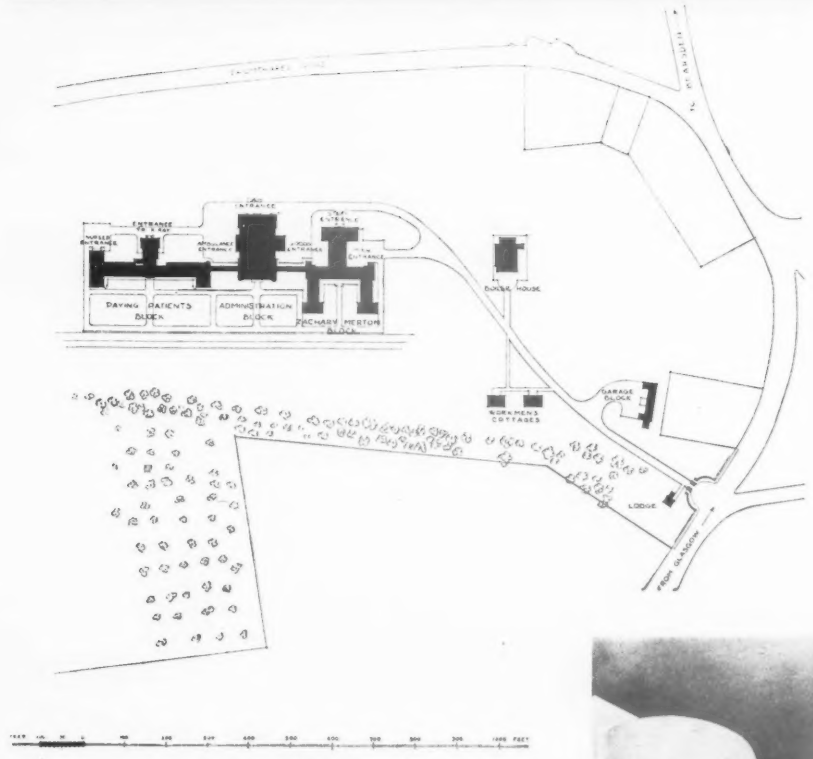
At a time when our efforts are necessarily concentrated on the production of offspring with innate "road-sense," the most convinced Lamarckian may justly resent an imperative call for the simultaneous production of "handrail-sense" merely to justify the imitative "functionalism" of modern architects.

C. W. ALLEN

AUXILIARY HOSPITAL AND



DESIGNED BY JAMES MILLER AND SON



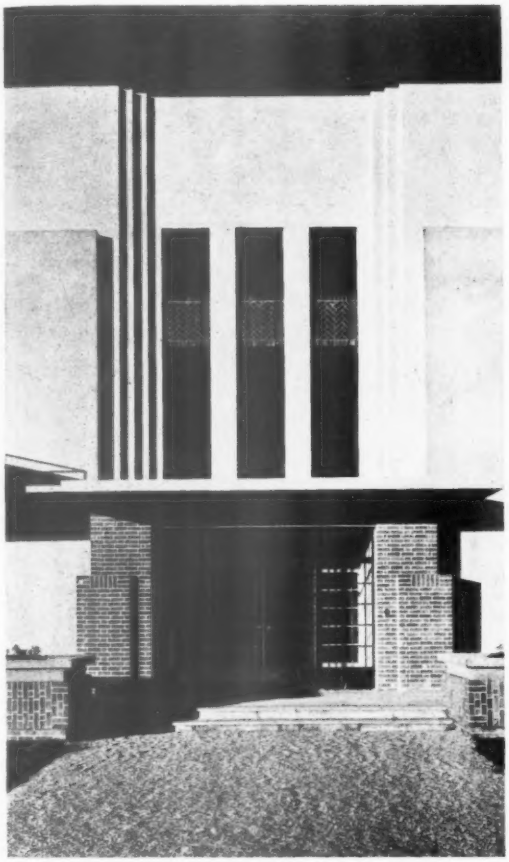
SITE PLAN

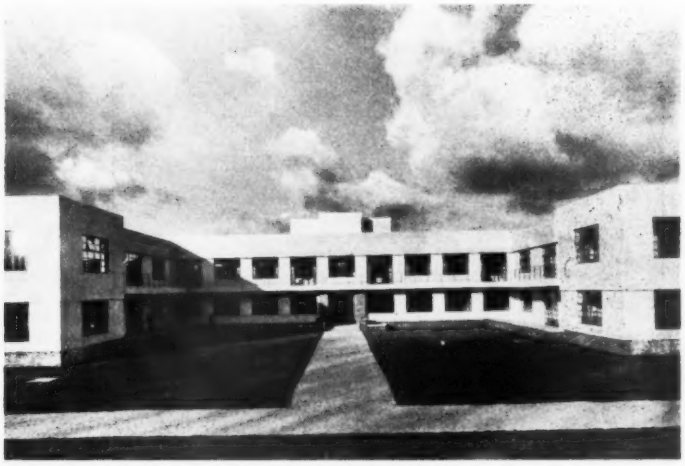
GENERAL PROBLEM—*Auxiliary hospital for paying patients, and Zachary Merton Convalescent Home at Canniesburn, for the Glasgow Royal Infirmary. The hospital contains 66 beds, arranged as follows : 46 single rooms or wards, two 2-bed rooms and four 4-bed rooms, and includes operating theatre and electrical department. In the convalescent home there are four large wards with 16 patients in each and four 4-bed wards, making the total accommodation 80. Four cottages, each with four rooms and kitchen, have been built for employees on the south side of the site.*

SITE—*An elevated plateau 200 ft. above sea-level, falling away on the north, east and west, and commanding views of the valley of the Clyde, the Campsie Hills, and surrounding country. On the south the site is comparatively level and is fringed by trees. The grounds covering 55 acres are to be laid out with flower-beds and walks.*

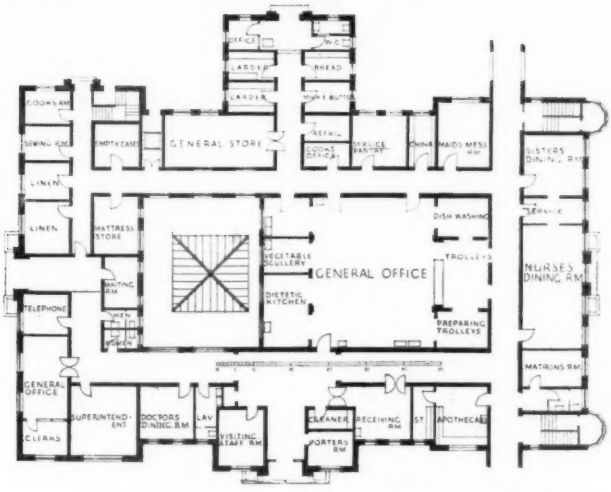
The photographs show : above, the architects' perspective of the south front of the complete scheme ; right, the south front of the administration block.

CONVALESCENT HOME, CANNIESBURN

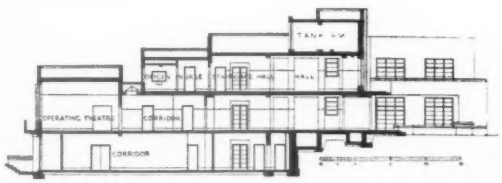




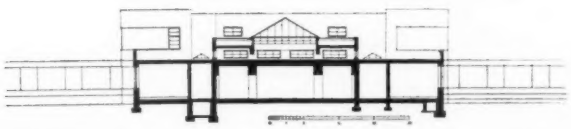
The photographs show : above, the south entrance to the paying patients' block ; right, the south front of the convalescent block.



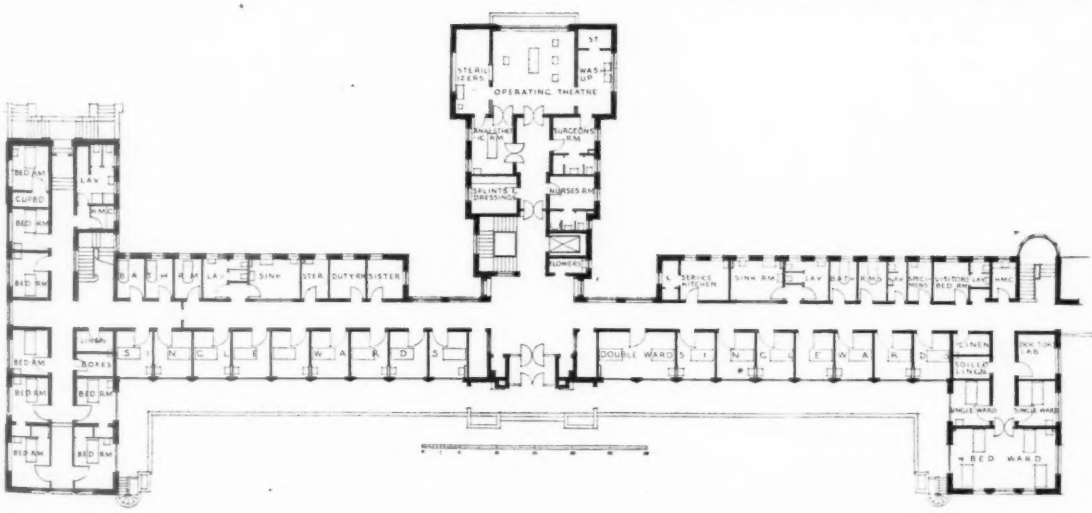
ADMINISTRATION BLOCK: PLAN



PAYING PATIENTS' BLOCK: SECTION

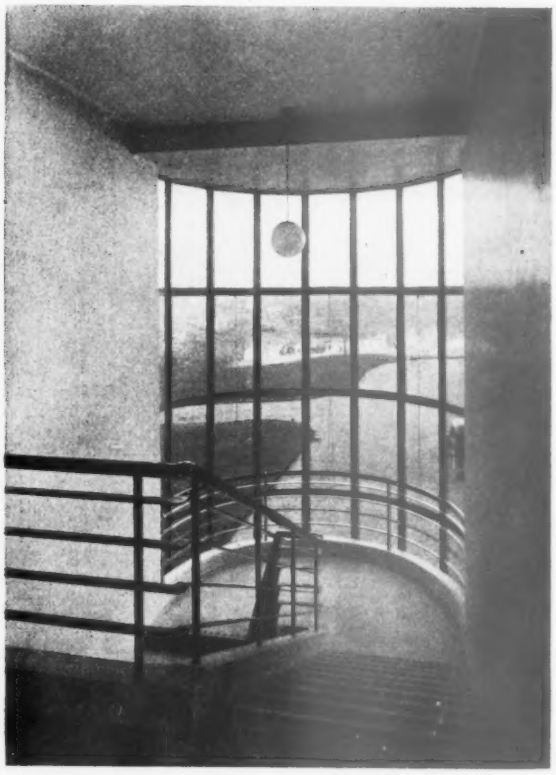


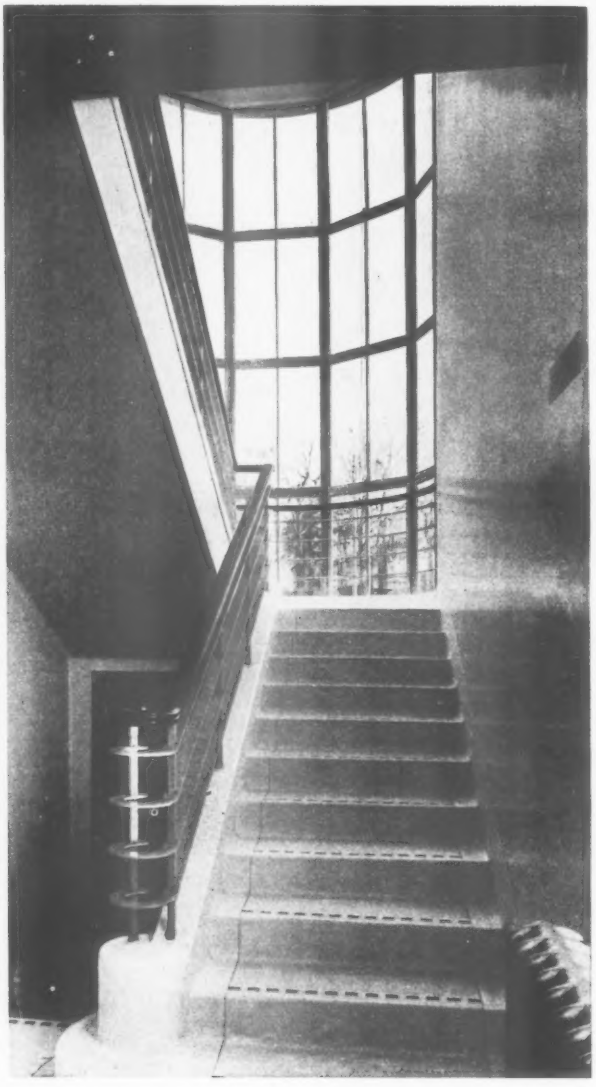
ADMINISTRATION BLOCK: SECTION THROUGH KITCHEN



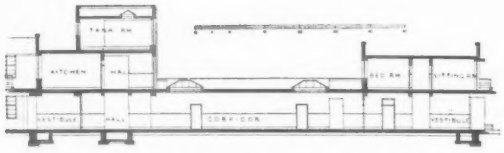
PAYING PATIENTS' BLOCK: GROUND FLOOR PLAN

AUXILIARY HOSPITAL AND





CONVALESCENT BLOCK: PLAN



CONVALESCENT BLOCK: SECTION

The photographs show : left, side staircase in paying-patients' block ; right, side staircase in administration block.

CONVALESCENT HOME, CANNIESBURN

DESIGNED BY JAMES MILLER AND SON

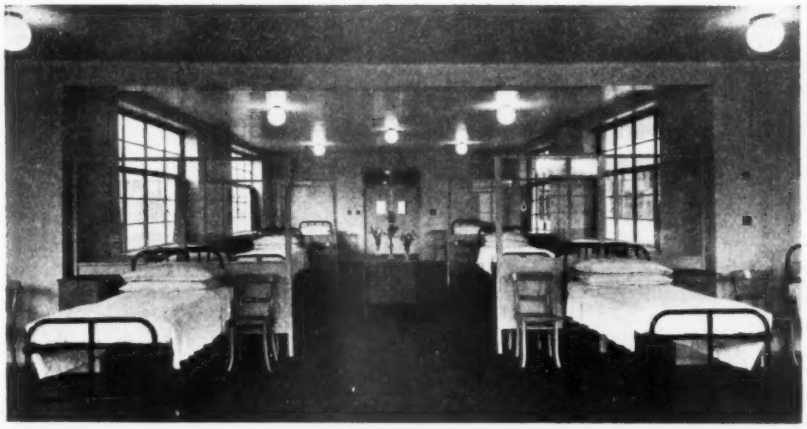
PLAN—*All the patients' wards and bedrooms in the auxiliary hospital are on the south side and open on to verandas, the floors being level so that beds can be wheeled out during fine weather. In the convalescent home also the patients can be wheeled on to the verandas. On the upper floor of the administration block are accommodated the matron, two resident doctors, and the senior members of the administrative staff. For the maid-servant staff fifteen rooms and a sitting-room are provided.*

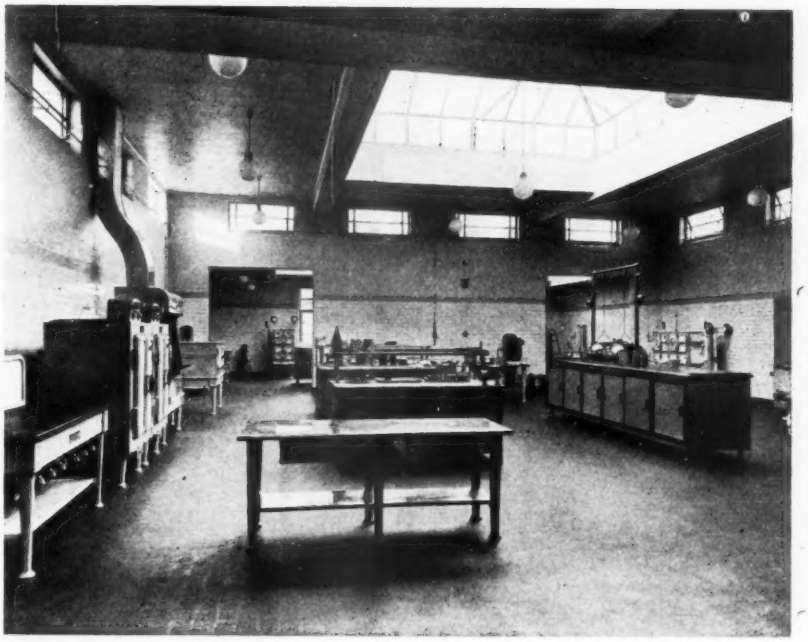
INTERNAL FINISHES—*The floors of the wards and patients' bedrooms are linoleum, and the walls are painted soft shades of blue, yellow or green; the theatre floor is rubber; the walls terrazzo. In the convalescent home the ward floors are polished wood, and each bed is separated from the next by glass and metal screens.*

SERVICES—*The operating theatre is fitted with a lamp which centres its rays on the operating area of the patient without shadows. Double-glazed casements provide against cold air impinging on the patients and can be opened to flush the theatre with fresh air between operations. A light-proof blind, operated by an electric motor, is also provided. In the oxygen chamber, for the treatment of acute lung diseases, the oxygen and the atmosphere can be gauged and regulated and the air washed and filtered by an anemostal system. Provision is also made for laying on steam for the treatment of lung diseases requiring a moist atmosphere. Food is conveyed from the main and dietetic kitchens on electrically-heated food trolleys. Two Lancashire boilers with induced draught, situated in the power-house, provide heating, hot water and steam for the whole of the buildings. Patients' rooms and wards are heated by radiators.*

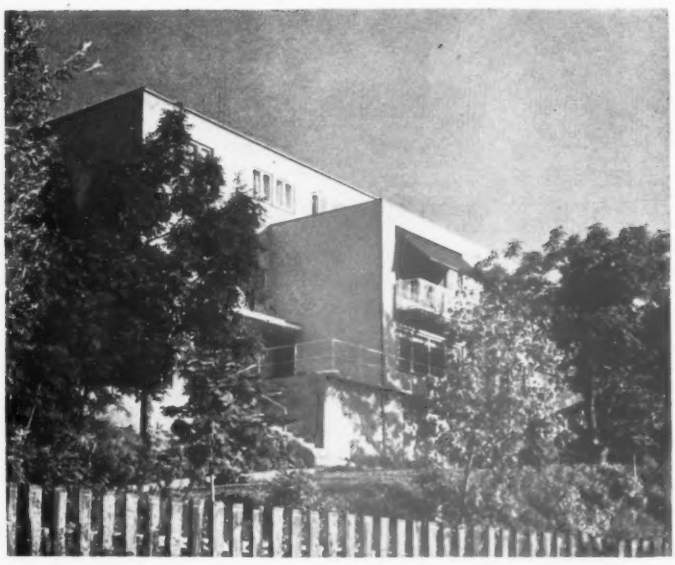
The photographs show: top, sixteen-bed ward in the convalescent block; centre, four-bed ward in paying-patients' block; right, the general kitchen in the administration block.

For list of general and sub-contractors, see page 386.

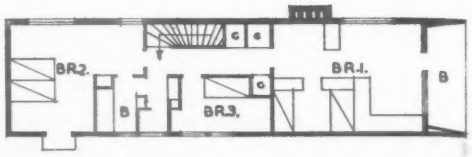




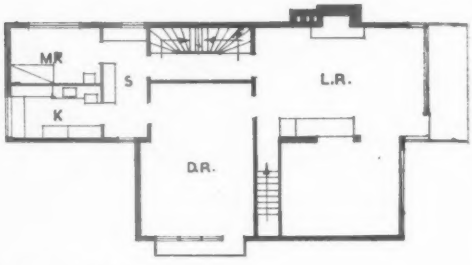
HOUSE AT VINDEREN, NEAR OSLO



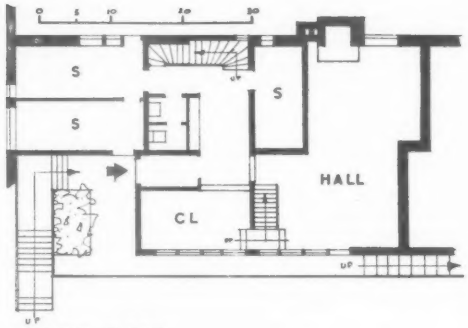
DESIGNED BY ARNE KORSMO



SECOND FLOOR



FIRST FLOOR



GROUND FLOOR

Except for the terrace and lower ground floor the house is of timber construction. Externally it is finished with vertical boarding in narrow widths, the joints being covered with fillets. The coping and flashing are in copper. The colour-scheme is cream-coloured walls with bright blue sun blinds.

LAW REPORT

LIABILITY—COURT OF APPEAL ORDERS NEW TRIAL

Stevens v. *Economic House Builders, Ltd.—Court of Appeal. Before Lords Justices Greer and MacKinnon and Mr. Justice Bennett.*

A NEW trial was ordered by the Court of an action unsuccessfully brought last April by Mr. George Stevens, a carpenter, of 22 Crichton Street, Wandsworth Road, S.W., against Economic House Builders, Ltd., of Elm Lodge, Golders Green Road.

In the action, which was heard in the King's Bench Division, Mr. Stevens had claimed damages in respect of personal injuries. His case was that in February, 1936, he was engaged on work in connection with a block of flats which were then in course of erection at Elm Lodge. He was employed by a company called Caxton Floors, Ltd. Economic House Builders, Ltd., were the main contractors for the erection of the flats and Mr. Stevens alleged that while he was working on a scaffolding erected by them the end of a platform collapsed and he was thrown to the ground. He suffered from concussion and, among other things, received an injury to the spine.

It was stated that Mr. Stevens, who is aged fifty-three, had only been on the job three days when the accident happened. He pleaded that Economic House Builders, Ltd., had been guilty of negligence and breach of statutory duty.

In their defence to the action, Economic House Builders, Ltd., agreed that they erected the scaffolding, but denied that they erected the platform on which Mr. Stevens was standing when the accident occurred. They pleaded that they owed no duty to Mr. Stevens, who was not employed by them, and further that there was no negligence or breach of statutory duty by them. They also contended that Mr. Stevens caused—or contributed to cause—the accident, it being alleged that he himself erected the working platform on which he was standing when the accident happened.

At the close of the case for Mr. Stevens, Mr. Justice Macnaughten upheld a submission by counsel for Economic House Builders, Ltd., that there was no evidence of negligence to go to the jury. The Judge directed the jury to return a verdict for Economic House Builders, Ltd., which they accordingly did.

Mr. Stevens now appealed, it being contended that Mr. Justice Macnaughten was wrong in withdrawing the case from the jury, and the High Court of Appeal, which consisted of Lords Justices Greer and MacKinnon and Mr. Justice Bennett, upheld the contention.

Lord Justice Greer, giving judgment, said it was a regrettable case, because the only remedy the Appeal Court could give was a new trial. In his view Mr. Justice Macnaughten wrongly thought that there was no evidence of negligence on the part of Economic House Builders, Ltd., fit to be left to the jury. There was, in Lord Justice Greer's opinion, some evidence which Mr. Justice Macnaughten was not justified in withholding from the jury. It was evidence fit to be left to the jury from which they might have inferred that Economic House Builders, Ltd., were negligent.

Mr. Stevens' appeal would therefore be allowed and a new trial ordered on the ground that Mr. Justice Macnaughten was wrong in withholding the case from the jury.

Lord Justice MacKinnon and Mr. Justice Bennett agreed.

Mr. Comyns Carr, K.C., was counsel for Mr. Stevens, and Mr. Russel Vick, K.C., represented Economic House Builders, Ltd.

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Students' Competitions

The Council of the York and East Yorkshire Architectural Society has recently awarded the prizes offered for competition among their student members.

The Measured Drawings Competition Prize, for the best set of measured drawings of work of merit prior to 1800, was gained by Mr. W. Garner, Hull, for representation of parts of St. Mary's and the Minster, Beverley, East Yorks. The Council also awarded a Special Prize to Mr. R. E. Burley in this section, for the excellence of his set of drawings of traditional brick architecture in the district.

The Design Prize for an island block of kiosks, suitable for a main railway station, was strongly competed for, it was won by Mr. A. K. Bray, of Hull.

The Special Prizes for measured drawings of cottages and small houses prior to 1830, possessing architectural character, was not awarded; a consolation prize was given in this section to Mr. T. A. Baldwin.

The Llewellyn Kitchen Prize to the student submitting the best work in any or all of the above competitions was gained by Mr. W. Garner.

The Travelling Scholarship, value £30, was further awarded to Mr. W. Garner for his selection of three years' work. The set submitted by Mr. H. M. Tardrew was highly commended.

The Architects' Journal Library of Planned Information

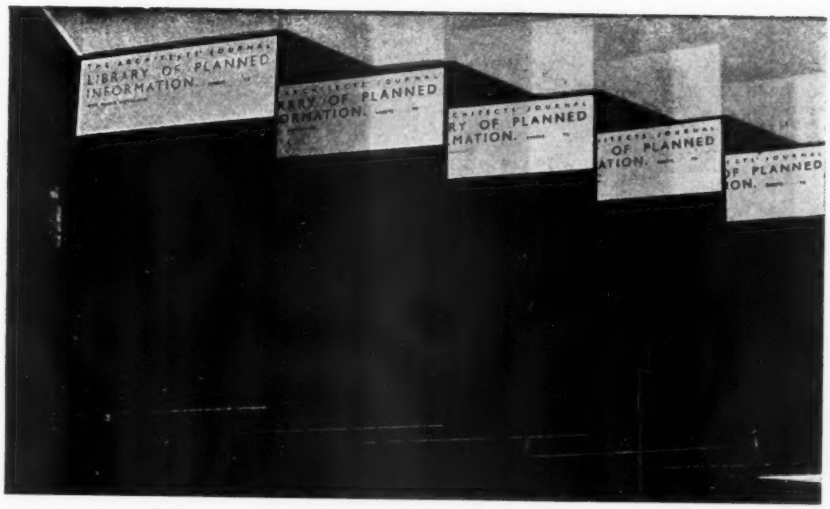
INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

605 Insulation and Protection of Buildings

606 Heating Equipment



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.

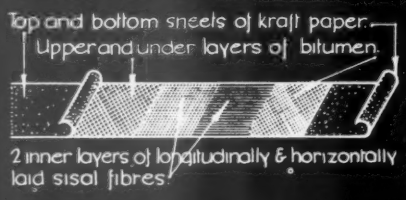
Sheets Issued since Index :

501 : Aluminium
502 : Fixing Blocks
503 : Approximate Estimating—XII
504 : Aluminium
505 : Aluminium
506 : Approximate Estimating—XIII
507 : Plumbing : Jointing of Copper Pipe
508 : Roofing—Valley Flashings
509 : The Equipment of Buildings
510 : Aluminium
511 : Elementary Schools—II
512 : School Lighting
513 : Approximate Estimating—XIV
514 : Air Conditioning
515 : Insulation of Buildings
516 : Cycle Parks
517 : Cycle Parks
518 : Plumbing Systems—II
519 : Kitchen Equipment
520 : Roofing—Flashings
521 : Motor Cycle Parks
522 : Reinforced Asbestos-Cement Roofing Tiles
523 : Poison Gas Precautions
524 : Kitchen Equipment
525 : Metal Reinforced Asbestos Cement
526 : Leadwork to Photographic Developing Tanks
527 : Asbestos-Cement Corrugated Sheets
528 : Cycle Parks
529 : Kitchen Equipment
530 : Asbestos-Cement Corrugated Sheets
531 : Plumbing
532 : Roofing—Flashings
533 : Asbestos-Cement Corrugated Sheets
534 : Insulation of Buildings
535 : The Equipment of Buildings
536 : Asbestos-Cement Ventilators
537 : Slate Window Cills, etc.
538 : Petroleum Storage
539 : Linoleum
540 : Plumbing
541 : Linoleum
542 : Garage Equipment
543 : The Equipment of Buildings
544 : Sheet Leadwork
545 : Elementary Schools—III
546 : Elementary Schools—IV
547 : U.S.A. Plumbing—III
548 : Wallboards
549 : Elementary Schools—V
550 : Elementary Schools—VI
551 : U.S.A. Plumbing—IV
552 : Sheet Leadwork
553 : Kitchen Equipment
554 : Burnt Clay Roofing Tiles
555 : A.B.M. Draining Boards
556 : Kitchen Equipment
557 : Asbestos-Cement Roofing
558 : A.B.M. Rainwater Pipes
559 : Flashing
560 : Kitchen Equipment
561 : Asbestos-Cement Roofing
562 : A.B.M. Rainwater Gutters and Fittings
563 : Asbestos-Cement Roofing
564 : The Equipment of Buildings
565 : Air Conditioning
566 : A.B.M. Rainwater Gutters and Fittings
567 : Plywood—I
568 : Leadwork
569 : Gas Cookers
570 : A.B.M. Moulded Gutters and Fittings
571 : Fuel Storage—I
572 : Electrical Equipment
573 : Wallboard and Insulating Board
574 : Sanitary Equipment
575 : Plywood—II
576 : Plumbing
577 : Leadwork
578 : Plumbing
579 : Sanitary Equipment
580 : Condensation in Industrial Buildings
581 : The Equipment of Buildings
582 : Heating Stoves Burning Solid Fuel—II
583 : Plumbing
584 : Free Standing Gas Panel Heaters
585 : Leadwork
586 : Brickwork
587 : Flush Doors
588 : Roof, Floor and Wall Tiling
589 : Automatic Stokers
590 : Heating
591 : Sanitary Equipment
592 : The Equipment of Buildings
593 : Electric Lighting
594 : Sheet Leadwork
595 : Reinforced Brickwork
596 : Gas Heating Equipment
597 : Sanitary Castings
598 : Heating Equipment
599 : Heating (Electrical)
600 : Sewage Disposal
601 : Sanitary Equipment
602 : Enamel Paints
603 : Hot Water Boilers—III
604 : Gas Cookers

752. THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

DETAILS SHOWING TYPICAL APPLICATION OF "SISALKRAFT" WATERPROOF & AIRTIGHT BUILDING PAPER :

DETAILED CONSTRUCTION & QUALITIES AVAILABLE : NOTE : The approximate weight of the paper is ½ lb. per sq. yd.

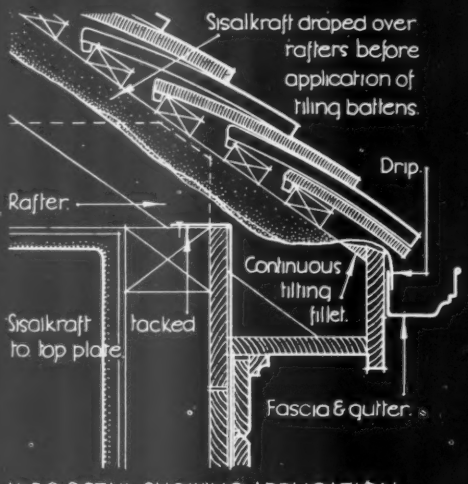


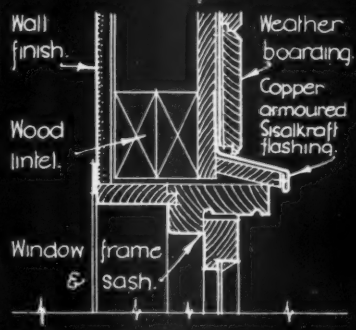
(A) TREATED QUALITY :

This quality is treated to resist dry rot, mildew or fungus in situations temporary or permanent, where the paper is exposed to dank or moisture-laden air. Recommended for built-in permanent protection to integral parts of floor, wall or roof construction.

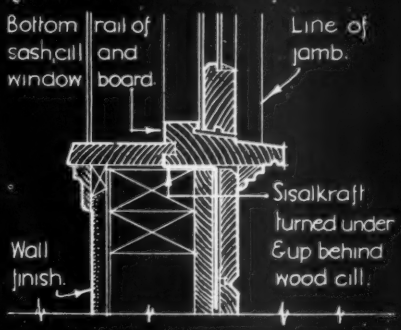
(B) STANDARD QUALITY :

For all general protective uses such as temporary cover of building works, bond breaking and exposed covering work in place of tarpaulins, closing-in ends and temporary partitions etc.



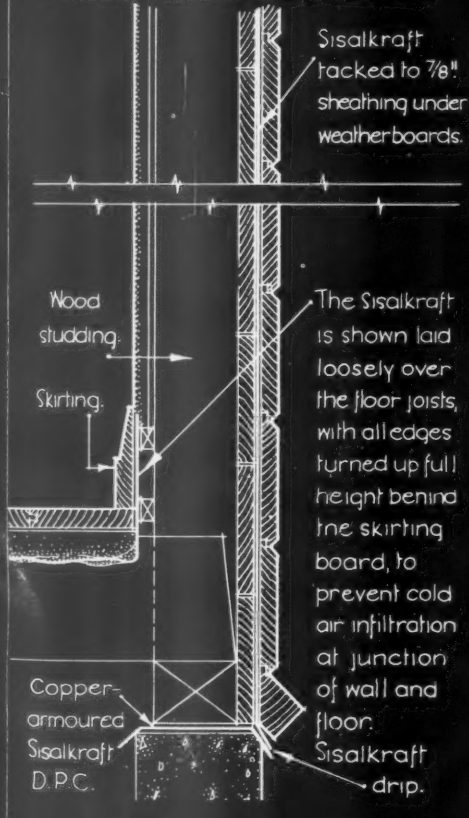


DETAIL AT WINDOW HEAD.

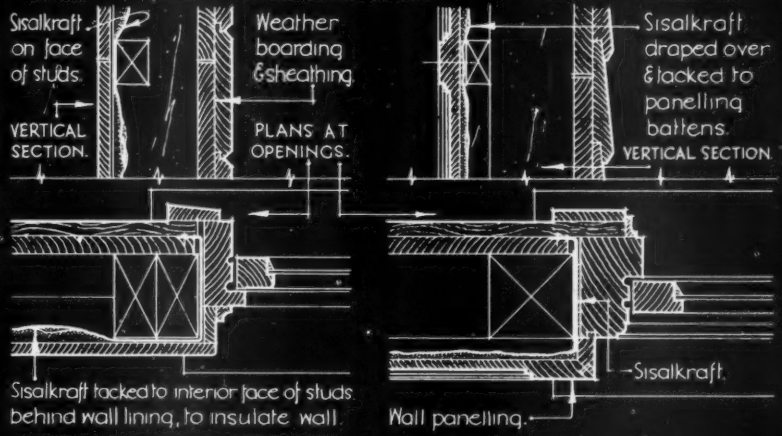


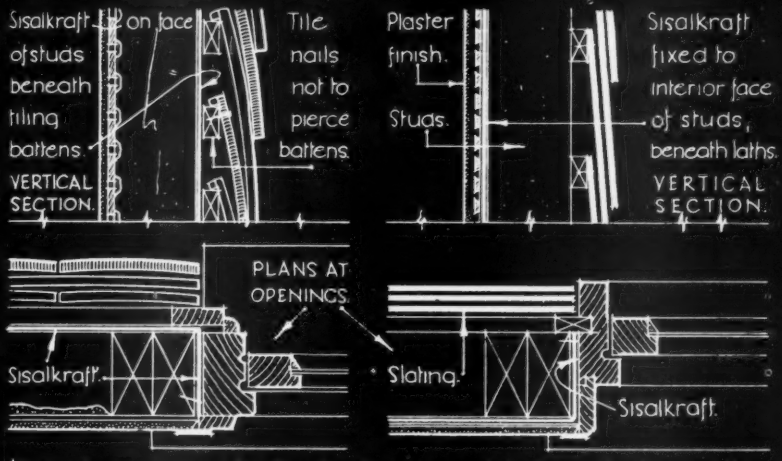
DETAIL AT WINDOW CILL.

⅛ F.S. DETAIL SHOWING APPLICATION OF SISALKRAFT TO ROOF, WALLS & FLOOR OF TIMBER FRAMED STRUCTURE.



VARIOUS METHODS OF INSULATING DIFFERENT TYPES OF WALLING :





Alternative positions for Sisalkraft in tile or slate hung timber walls.

Information from J. H. Sankey & Son Ltd.

INFORMATION SHEET : WATERPROOF AND AIRTIGHT LAMINATED BUILDING PAPER : No. 1.

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

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 605 •

INSULATION AND PROTECTION OF BUILDINGS

Product : Sisalkraft Building Paper, No. 1

Description :

This Sheet shows some of the common uses of Sisalkraft waterproof and airtight building paper when applied to timber-framed structures : a later Sheet will deal with the application of the paper to concrete and other masonry forms.

The material consists of 6-ply laminated construction, doubly reinforced at the centre by two crossed layers of Sisal fibres. The fibres are totally enclosed by two layers of bitumen, which in turn are faced with tough kraft paper on either side to form the finished product.

Grades :

Two main grades or qualities are manufactured as enumerated overleaf, and these are both pliable and almost untearable. The approximate thickness of the paper is 1/64th of an inch, and the weight ½ lb. per square yard. Special qualities available comprise :

(i) Sixty-sixty grade, having increased strength and thickness.
(ii) Copper armoured grade, suitable for dampcourses, flashings, etc.
(iii) 1-R-44, a special grade for protection of concrete poured on acid or porous subsoils.

Uses :

Standard Sisalkraft may be used for all temporary or permanent protective purposes, such as a substitute for canvas or tarpaulin, wind screens ; interior or exterior cover for building materials and finished walls and floors, drop cloths, etc. It also may be built-in to any form of construction to protect and insulate various parts of the structure in the normal way. Common uses for the standard and treated qualities are set out on the face of the Sheet.

The treated grade may be successfully used as a precaution against rising damp under parquet or hardwood floors, linoleum and carpet, etc., and is recommended for all built-in permanent uses.

Timber Framings :

The typical details given are intended to illustrate possible arrangements of the paper in relation to the various parts of timber-framed structures. When applied to walls, the Sisalkraft strips are run vertically, the joints being lapped 4" at the studs if the material is applied direct to these, and 3" if applied over boarding or other flat surfaces. A 3" lapped joint should also be used when laying beneath finished flooring, or between rough and finished floor boards.

Tile Hanging :

If the material is used in the walls directly behind the battens of externally hung tiles or slates, it is important to specify a tile or slate fixing nail of such length that the battens will not be pierced at their back faces, as projecting nail points in this event would in time materially damage the Sisalkraft spanning between the studs. In the same details it will be noticed that when the paper is used directly behind the laths internally, a considerable saving in plastering material is achieved by virtue of the resistance of the Sisalkraft to the undue entry of plaster between laths.

Openings :

In general, it will be found easier and more efficient to trim around openings in walls by means of separate strips, the main wall strips being tacked to the trimming members, and the outward or inward turning pieces lapped 2" over them before being dressed into the reveals or frames.

Prices :

The following table sets out the prices and areas of the various width rolls available :—

Roll	Width	Length	Area	Price per Roll
	ft.	yds.	sq. yds.	
"A"	3	25	25	10/5
"B"	3	55½	55½	23/2
"C"	4	100	133	55/5
"D"	5	100	166	69/2
"E"	6	100	200	83/4
"F"	7	100	233	97/1

It will be seen that the cost is 5d. per square yard nett, ex stock, carriage forward, but for quantities of 1,000 square yards and over the Company pays the carriage. The 1-R-44 (subsoil) grade is available in suitable rolls each 200 yards long, priced at 2½d. per square yard.

Issued by : J. H. Sankey & Son, Ltd.

Address : Aldwych House, Aldwych, London, W.C.2

Telephone : Holborn 6949 (14 lines)

729.

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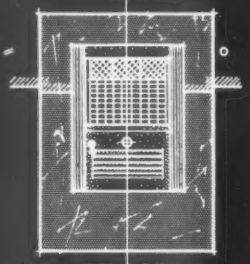
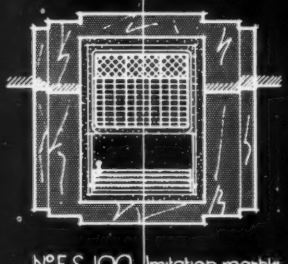
DIAGRAMMATIC ELEVATIONS & PLANS OF STANDARD SURROUNDS FOR 'SUNSQUARE' & HIGH BEAM GAS FIRES.

(A) Surrounds for self-lighting wall models.



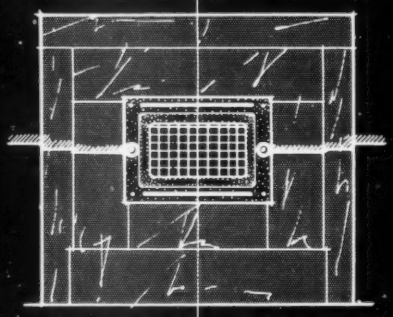
N°F.S.107. Imitation marble.

This surround is available in special sizes to suit requirements.



N°F.S.100. Imitation marble.

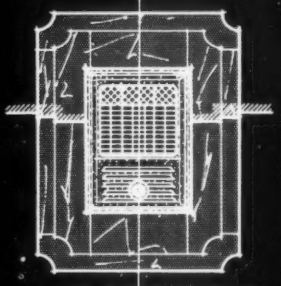
	7 Rad.	9 Rad.
Overall width.	32"	32"
Overall height.	30"	30"
Overall depth.	1"	1"



NAUTILUS SETTING N°G575.

Marble or Nautilus Merible.

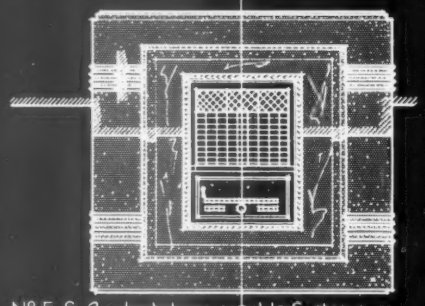
Width 3'9", Height 3'5⅝", overall.



NAUTILUS SETTING N°G582.

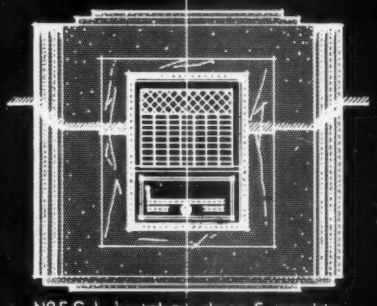
Marble or Nautilus Merible.

2'5" wide, 3'1" high, 1½" deep.



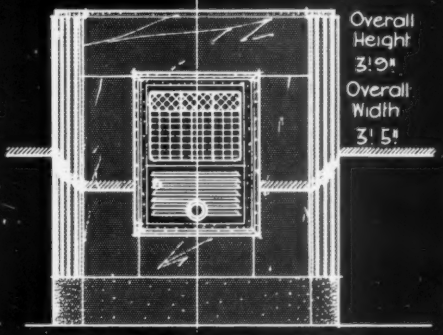
N° F. S. 2. Imitation marble & stone.

Overall width.	43½"	43½"	7 Rad.
Overall height.	40½"	40½"	&
Overall depth.	5"	5"	9 Rad.



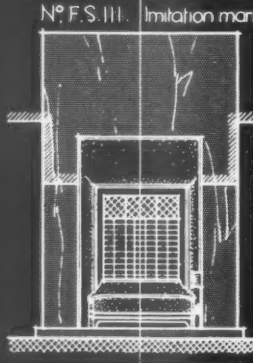
N°F.S.1. Imitation stone & marble.

Overall width.	44"	44"	7 Rad.
Overall height.	40"	40"	&
Overall depth.	5"	5"	9 Rad.



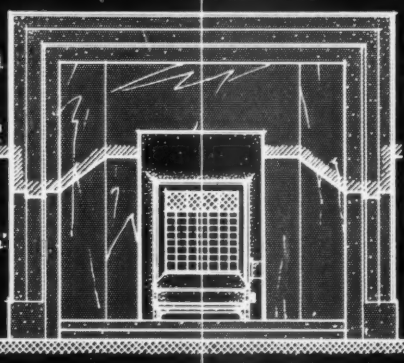
NAUTILUS SETTING N°G579. Marble or Nautilus Merible.

(B) TYPES OF SURROUND FOR HIGH BEAM SELF-LIGHTING FLOOR MODELS.



N°F.S.111. Imitation marble on pressed steel.

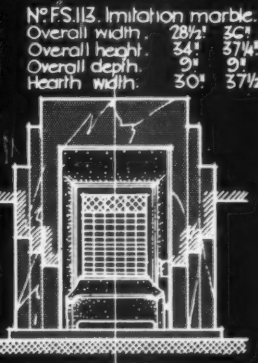
	6 & 7 Rad.	9 Rad.
Over. width.	28"	35"
Over. height.	43½"	43½"
Over. depth.	9"	9"
Hearth width.	29½"	36½"



N° F. S. 13. Finish: Imitation marble on pressed steel.

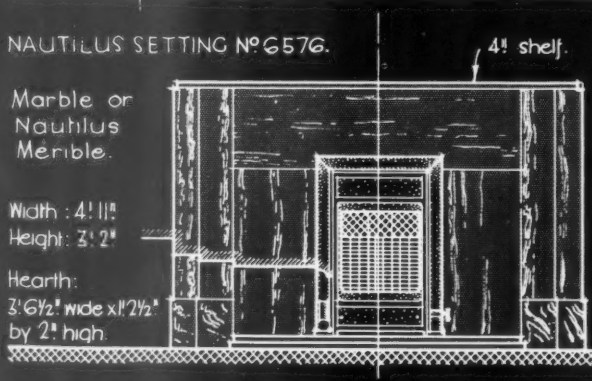
7 & 9 Rad.

Over. width.	55"
Over. height.	46½"
Over. depth.	5¾"
Hearth width.	41"
Hearth proj'd.	15"



N°F.S.113. Imitation marble.

Overall width.	28½"	36"
Overall height.	34"	37¼"
Overall depth.	9"	9"
Hearth width.	30"	37½"

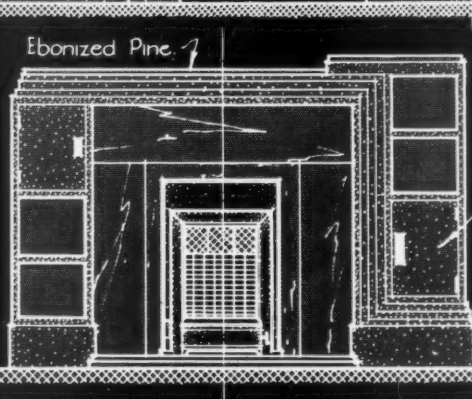


NAUTILUS SETTING N°G576.

Marble or Nautilus Merible.

Width: 4'11"
Height: 3'2"

Hearth: 3'6½" wide x 1'2½" by 2" high.



NAUTILUS SETTING N°G581.

Width: 5'5"
Height: 3'8½"

Painted Pine.

Interior of Marble or Nautilus Merible.

Hearth: 3'11½" x 13¾" x 2" high.

Information from Radiation Ltd.

INFORMATION SHEET: TYPES OF SURROUND FOR BUILT-IN WALL AND FLOOR GAS FIRES.

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 • Basil A. Taylor

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 606 •

HEATING EQUIPMENT

Product: High "Beam" and "Sunsquare" Gas Fire Surrounds

Gas Fires:

The High "Beam" gas fires incorporated in the surrounds shown on this Sheet, are obtainable in a variety of designs and sizes to suit both wall and floor fixing. All models are supplied with self-lighting gas taps, while the radiants of all High "Beam" models are composed of special vertical members in conjunction with curved upper or "scrubber" radiants, giving greater radiant efficiency than normally possible. With this new type of heating element there is no blank space at the top of the radiants, the whole of the fire opening being occupied.

Wall models:

The built-in wall types of grate are designed without projecting canopies or fenders, and may be installed without any special surround, as shown on previous Information Sheet No. 346. Most of the designs are available with 7, 9, or 12 radiants, with corresponding variations in the sizes of the surround. All High "Beam" grates having more than seven radiants are provided with a Duplex burner with tap, by means of which the whole or centre only of the fire may be used.

Floor models:

All grates for floor models, except Nautilus setting No. 6576, have projecting fender pieces, and may be fixed with or without the surrounds indicated. The usual number of radiants is five, six, seven or nine, and alternative Duplex burner and tap are available on grates having nine or more elements. Pedestral boiling burners can be supplied with this type of grate at slight extra cost.

Finishes:

Most of the grates are obtainable in a variety of finishes, including eggshell black or coloured paint, and imitation metal lacquers. A slight extra charge is made for gold or silver paint colourings.

Gas supply:

A $\frac{1}{2}$ in. iron gas pipe or equivalent is recommended for the gas supply when preparing the recess, and from this a $\frac{1}{4}$ in. lead (in brass or chromium finish pipe) for 5- or 7-radiant fires, and a $\frac{3}{8}$ in. lead for 9- and 12-radiant fires where the length of lead does not exceed 2 to 3 ft. The gas consumption of the fires is 1,750 B.T.U.-hour per radiant, i.e. $3\frac{1}{2}$ cub. ft.-hour per radiant of 500 B.T.U.-cub. ft. gas.

Heating capacity:

Under average conditions the five-radiant models are suitable for rooms up to 75 sq. ft. area, seven-radiant models for areas between 75 and 145 sq. ft., nine-radiant models for areas between 145 and 225 sq. ft., and twelve-radiant models for areas between 225 and 340 sq. ft.

Surrounds:

The "F.S." (High "Beam") surrounds shown are produced by a special process, the facsimile marble veinings being available in six different reproductions as well as in black. Surrounds can also be obtained in a variety of facsimile hammered metal finishes, and a large number of highly-polished and heat-resisting Sunsheen lacquer colourings.

The Nautilus settings are each obtainable in a variety of coloured marbles, including Swedish greens, Belgian black, Botticino, Napoleon, Trani, Lunel Rubane, Cedar Onyx, etc. Alternatively, high grade coloured finishes in Nautilus Merible marbles are available.

Prices:

Further details and prices can be obtained on application to John Wright & Co., Ltd., Essex Works, Aston, Birmingham. Telephone: Birmingham, East 1580. London Showrooms: 19 and 21 Queen Victoria Street, E.C.4. Telephone: City 6313, or to the Nautilus Fire Co., Ltd. (Proprietors: The Davis Gas Stove Co., Ltd.), 7 Stratford Place, Oxford Street, London, W.1. Telephone: Mayfair 6462 (six lines).

Issued by: Radiation, Ltd.

Address: 15 Grosvenor Place, London, S.W.1

Telephone: Sloane 7101

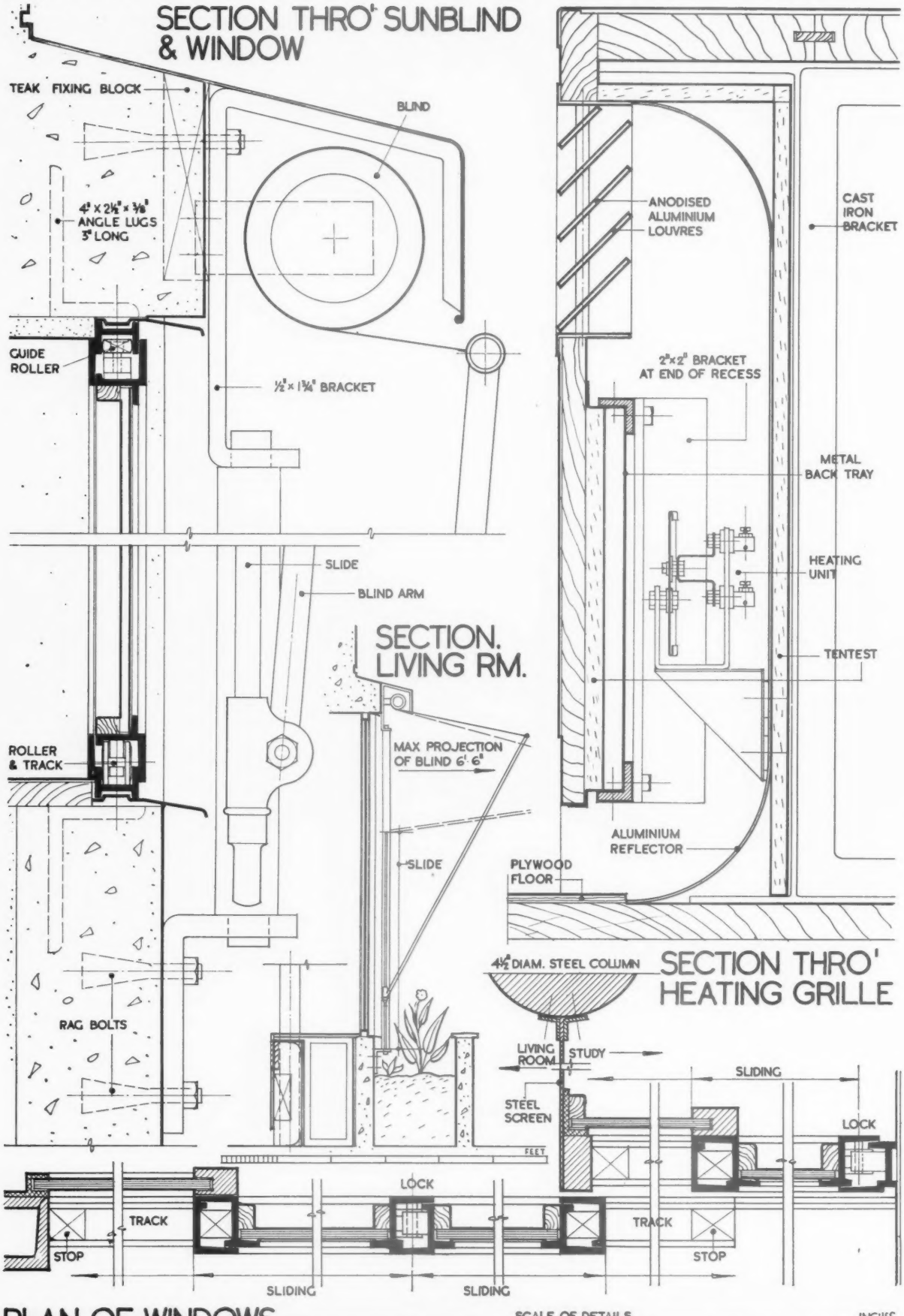
WORKING DETAILS : 633

SLIDING WINDOW AND HEATING • HOUSE AT KINGSTON, SURREY • E. MAXWELL FRY

The sliding windows shown are in the living room. Externally, a sunblind runs the whole length of the windows; there is also a reinforced concrete flower box. Internally, specially designed electric convection heaters occur below window level. Details are shown overleaf.

WORKING DETAILS : 634

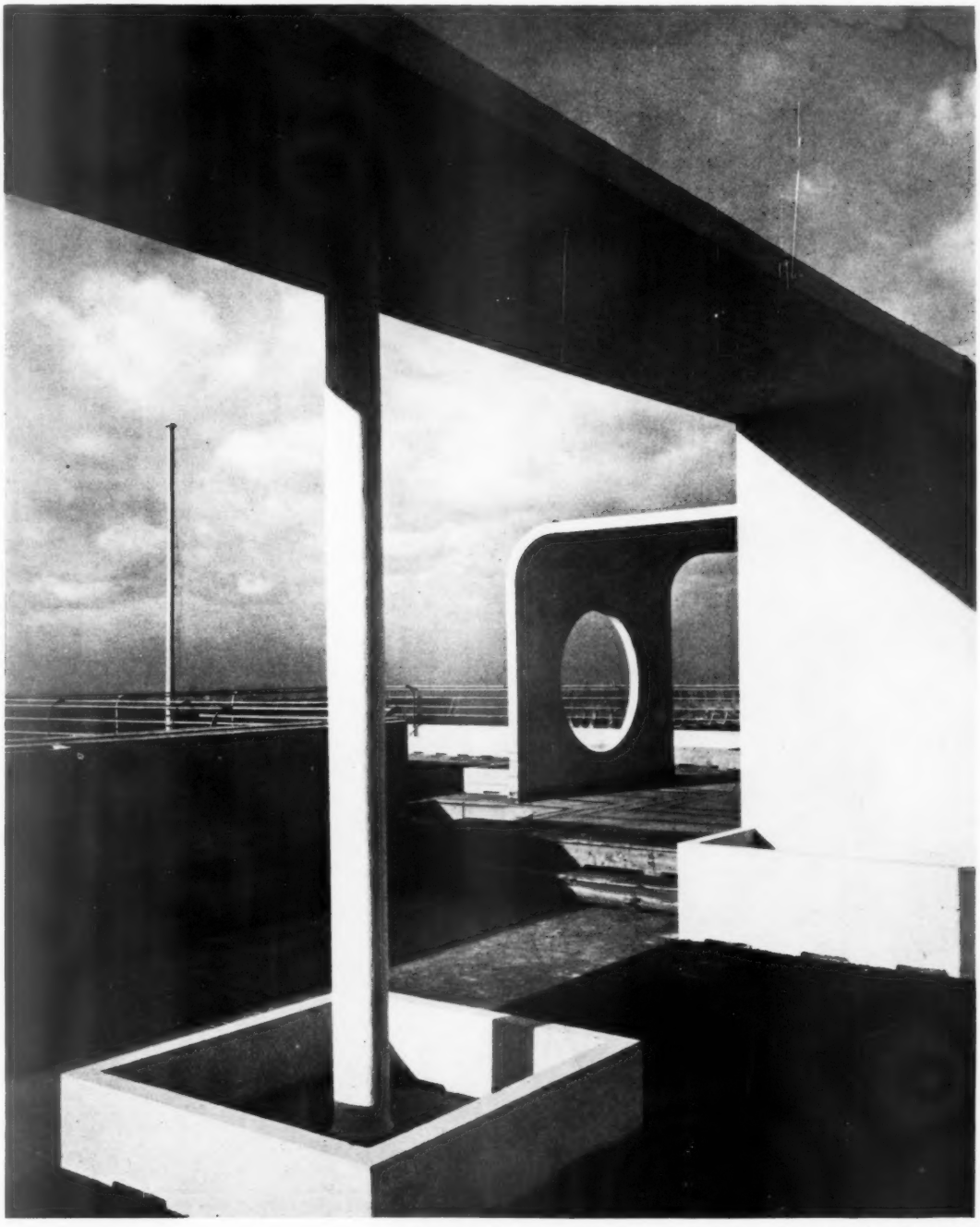
SLIDING WINDOW AND HEATING • HOUSE AT KINGSTON, SURREY • E. MAXWELL FRY



Details of the sliding window and heating illustrated overleaf.

WORKING DETAILS : 635

ROOF CONSTRUCTION • PULLMAN COURT, STREATHAM, S.W. • FREDERICK GIBBERD

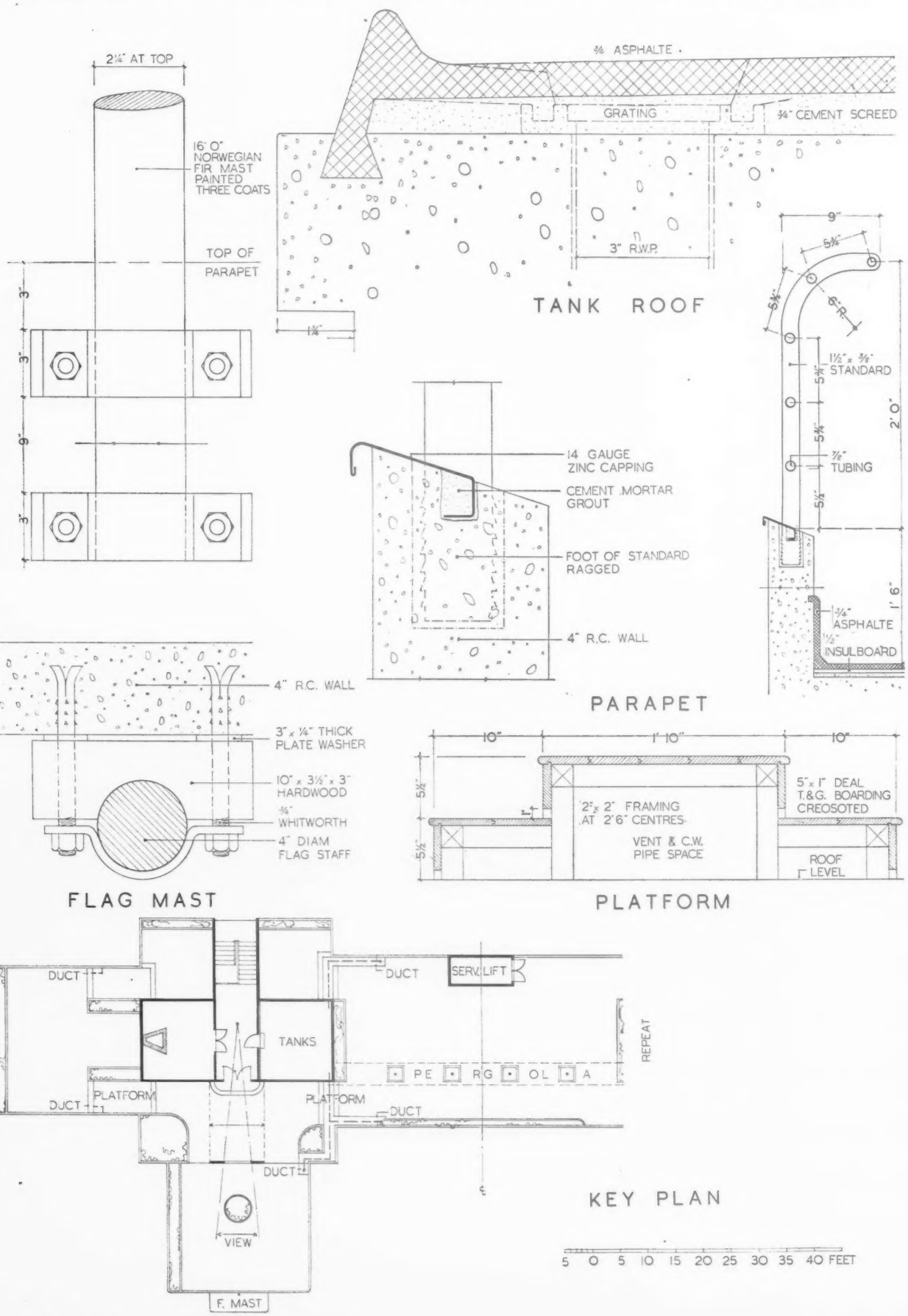


The roof construction shown is at roof garden level of the seven-storey block of flats. There are two staircase blocks with tank rooms flanking the exits to the roof garden. A reinforced concrete pergola links the two staircase blocks, and there is a service lift from the kitchens below.

Roof construction is asphalt and sound insulating fibre-board on concrete. Stepped wooden platforms, with pipe space under, occur either side of the exits.

WORKING DETAILS : 636

ROOF CONSTRUCTION • PULLMAN COURT, STREATHAM, S.W. • FREDERICK GIBBERD



Details of the roof construction illustrated overleaf.

The Architects' Journal Library of Planning

SCHOOLS

Senior Schools

PLAN UNITS : HOUSECRAFT ROOMS

ONE of the most promising features of new Senior Schools is the housecraft department, where girls are taught housekeeping and the fundamentals of dietetics. Intelligent teaching of housecraft in well-equipped rooms should have an immediate result in thousands of low-income homes.

Housecraft rooms should be planned in connection with an independent service entrance. To simplify deliveries of food it is advisable to plan the school kitchen or canteen adjacent if meals are provided, but teaching rooms must not be used as kitchen or servery for the school dining room.

Rooms for cookery and laundry will be used exclusively for these purposes and their plan shape should be derived directly from the setting out of equipment in correct sequence, with ample space for movement. To quote the Board of Education : "It must be remembered that owing to the nature of the work, overcrowding, collisions, cross traffic, lack of light or ventilation, may be a positive source of danger to the pupils."

The addition of a few smaller rooms in the form of a model house or flat is a distinct advantage. Girls can then be taught the care of living room, bedroom, bathroom, w.c. When this accommodation is provided, the Board recommends that it should "serve a genuine purpose in the life of the school" so that its upkeep becomes a matter of real interest. Sometimes, for a more intensive course, a separate house is built or rented and may be integrated with the school by using it as headquarters, for instance, of a school club.

Size.

Minimum accommodation required is :

3-stream girls' :
2 rooms for cookery and laundry, 750 feet.
1 room for needlework,* 700 feet.

3-stream mixed :
1 room for cookery and laundry, 750 feet.
1 room for needlework, 520 feet.

2-stream girls' :
2 rooms for cookery and laundry, 750 feet.
1 room for needlework, 520 feet.

2-stream mixed :
1 room for cookery and laundry, 750 feet.
1 room for needlework, 520 feet.

1-stream girls' :
1 room for cookery and laundry, 750 feet.
1 room for crafts and needlework, 700 feet.

1-stream mixed :
1 room for cookery, laundry and needlework, 900 feet.

* The needlework room counts as one of the practical rooms.

General view of the girls' housecraft room at Bottisham village college. Architect, S. E. Urwin.

These figures must be taken as absolute minima. They allow for a half-class of 20 to be taken at one time.

Height of rooms should be 11 ft. to 12 ft. 6 ins.

Storage

There should be a small larder and dry goods store, a drying room (50–70 sq. ft.), ample storage for china and household implements in connection with work tables, cookers and sinks.

Windows

A full supply of morning and midday sun should be allowed to enter the rooms, but shades should be provided for hot weather.

There should be maximum window area on the two long sides from ceiling to within 3 ft. 6 ins. or 3 ft. of the floor. Windows should be at least 75 per cent. opening. Hopper types are most efficient. When there is corridor access on one long side, borrowed light through fixed frosted windows is helpful. Windows above corridor roof can be made to open for cross ventilation.

Artificial Lighting

As in practical rooms and classrooms: 12–15 ft. candles are necessary in cooking and laundry rooms, 15 ft. candles in needlework rooms.

Heating

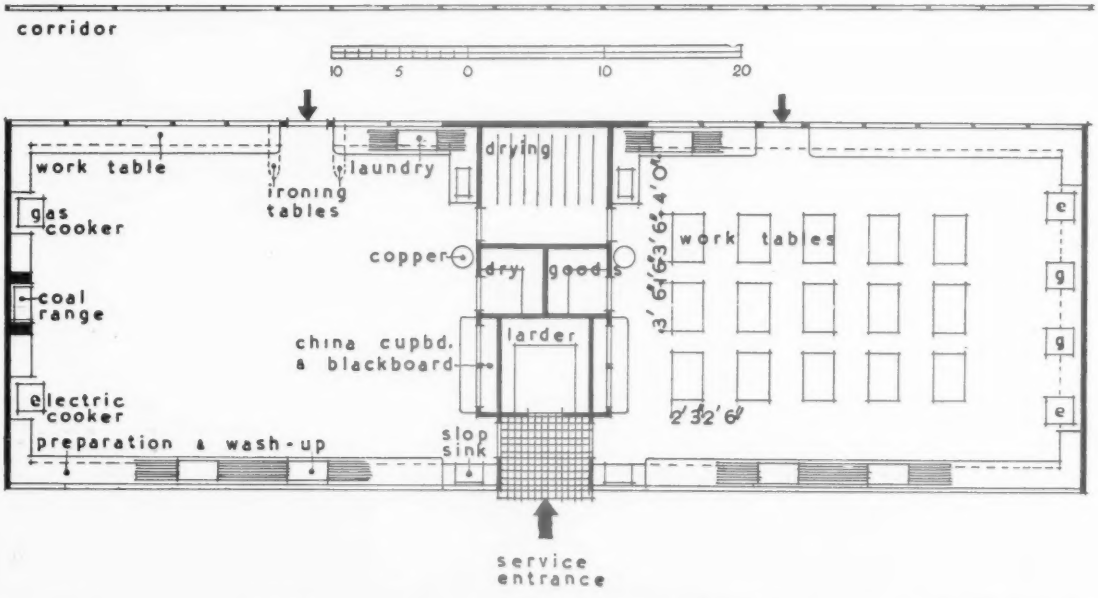
Thermostatic control is particularly important in housecraft rooms. If ordinary radiators are used they should be carefully placed for convection efficiency and for least possible interference with equipment. Built-in wall or ceiling radiant heating is most suitable.

Ventilation

Natural cross ventilation is very important. Efficient cowl extractors should be fixed over cookers in order to reduce leakage of cooking odours.

Floor Finishes

Floors have to be kept scrupulously clean with minimum labour. The only really practical alternatives seem to be small, close-jointed, medium-glazed tiles, and good quality, hard-wearing linoleum. Tiles are non-resilient, inclined to be slippery when wet, and cold. At the same time they have a long life and can be washed clean very easily. Linoleum, especially in plain unpatterned colours which should regretfully be avoided, is inclined to show marks easily and wears out after two or three years of hard wear, but it is a close second to tiles in



Diagrammatic plan of housecraft rooms for a 3-stream girls' Senior School. Facilities for cooking and laundry have to be provided in each room. In one room is shown the chief equipment arranged in normal sequence, in the other is shown the spacing of individual work tables. The rooms, each 850 sq. ft., are planned for half classes of 20 girls.

Another view of Bottisham's housecraft room showing layout of sinks, benches, radiators and cupboards.

SCHOOLS

ease of cleaning and can be replaced without great expense. Surfaces liable to show stains and collect grit should be avoided. A coved skirting of tiles is in any case a great asset.

Wall and Ceiling Finishes

Walls should be lined with tiles (or alternatively linoleum) to a height of 1 ft. 6 ins. to 2 ft. above sinks, cookers and work tables, so that splashes can be readily cleaned off. Above this level walls and ceilings finished in medium-glaze paint are suitable. Distemper should be avoided. Cool colours and a general effect of light are advisable.

Furniture and Equipment for Cookery and Laundry

Coal range with one or two ovens and hot water cylinder. In one room only where two rooms are provided. Can be dispensed with in new-planned areas where electricity and gas are almost exclusively used.

Gas and electric stoves. Four good working ovens in each room. Proportions of gas and electric ovens decided according to district.

Domestic boiler. Operated by gas or electricity. Capacity, 12 gallons. Fitted with tap and wooden lid.

One electric washer. Optional.

Two sinks, with draining boards, 3 ft. by 1 ft. by 10 ins. Hot and cold water.

One floor sink, in another part of the room.

Refrigerator. Necessary in one room only. Must no longer be considered a luxury product.

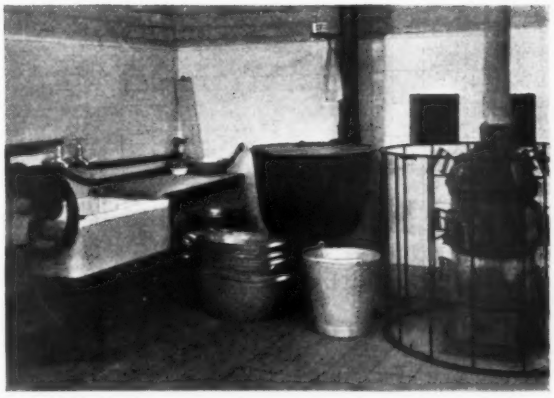
Electric irons. Points for 5–10 irons arranged in ceiling unless safely placed to avoid tripping.

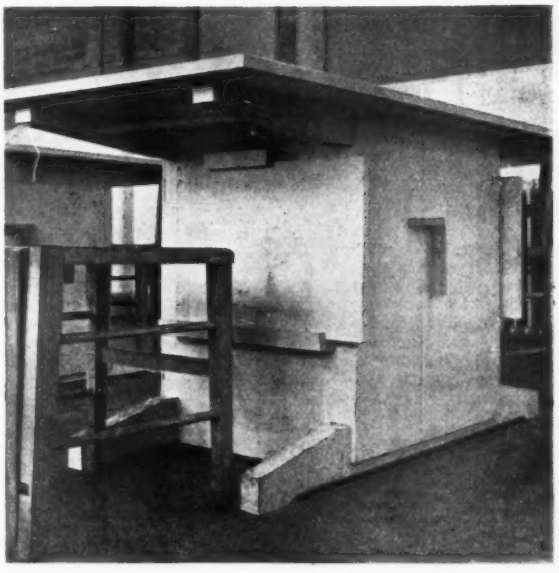
Gas or flat irons. Points for 5–10 gas irons or a gas heater large enough to take 30 irons.

Drying facilities. Racks in a special drying cupboard or electric drying cabinet. In addition, provision for outdoor drying is an advantage, even if on a balcony.

Two ironing tables. To fold against wall, 1 ft. 9 ins. deep. (Individual work tables are also used for ironing during laundry classes.)

Tables. Movable tables at least 5 ft. 6 ins. by 2 ft. 6 ins. to provide adequate working space on each side.





Fitted with drawers to take utensils for general work of each girl.

Seats. Stools are most suitable, preferably of nesting type to be easily stowed away.

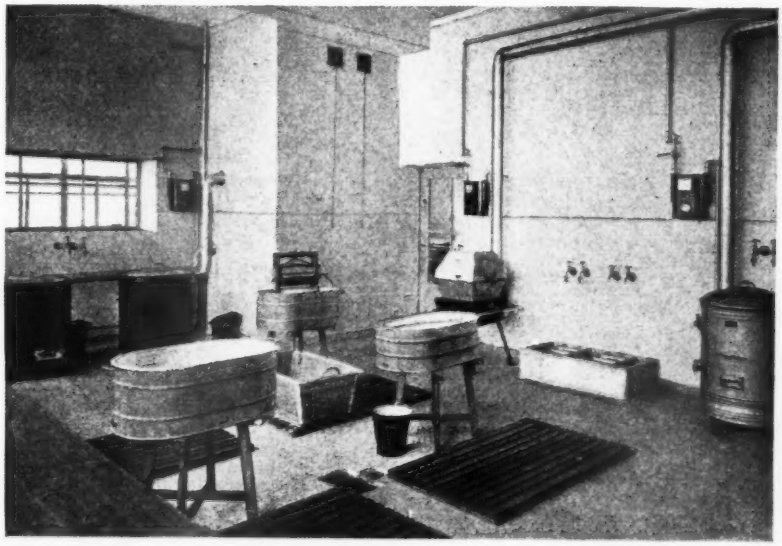
Blackboard. 6 ft. by 3 ft. May be in two parts, hinged to form cupboard doors.

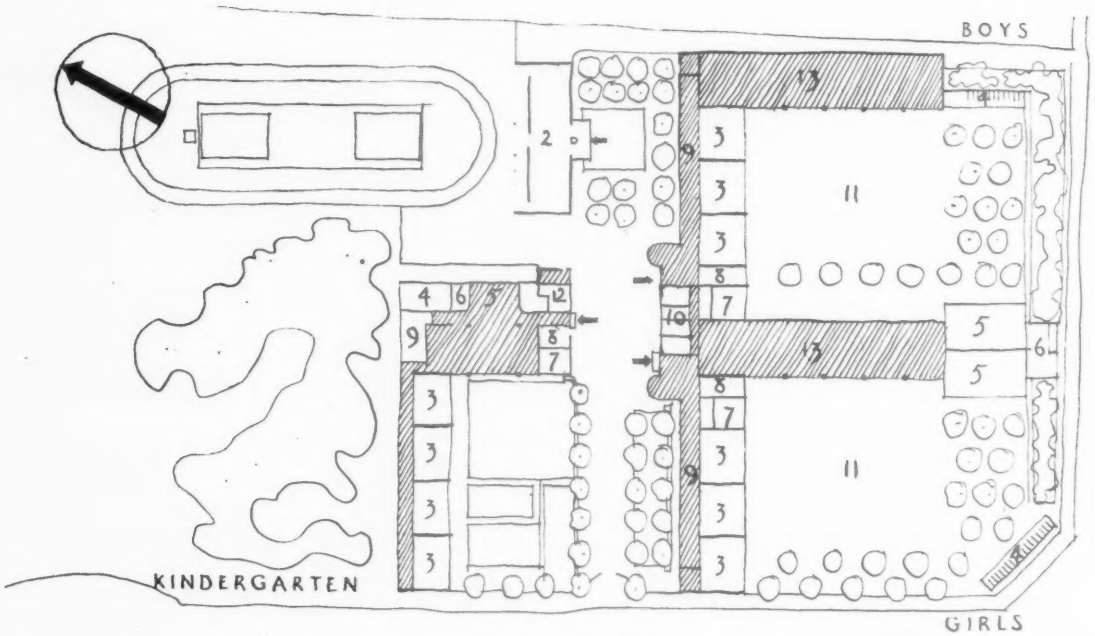
Small bookshelf.

Top: Ironing-stove and washing equipment in a recess in a recent school.

Centre: Close-up of one of the tables shown on page 79. Dimensions, 5 ft. 6 ins. × 2 ft. 6 ins. × 2 ft. 6 ins. high. Note slot for baking board under table.

Right: Electric laundry in a modern German school.





Plan project for a school at Villejuif, showing characteristic French talent. The separate departments—maternelle, filles, garçons—are planned as three sun-trap Ls, main entrances and administrative offices linking them together in the centre. Strict segregation of sexes in the senior departments—except, apparently, in the art room on the top floor. Architects, Aillaud and Tschumi.

KEYS.

GROUND FLOOR PLAN

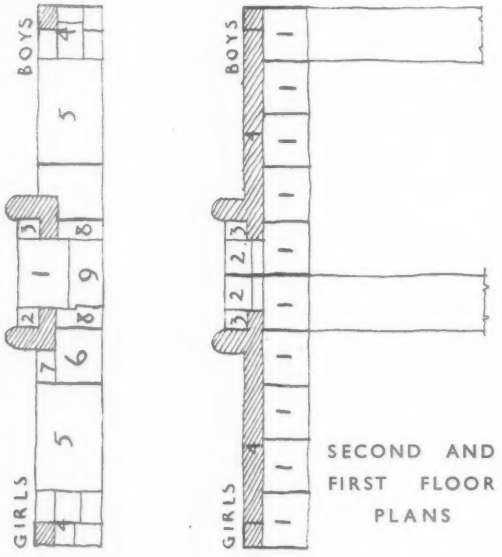
1 Playing fields
2 Showers
3 Classroom
4 Lavatory
5 Dining room
6 Kitchen
7 Head Teacher
8 Waiting space
9 Cloaks
10 Porter's flat
11 Playground
12 Doctor
13 Covered play space

FIRST FLOOR PLAN

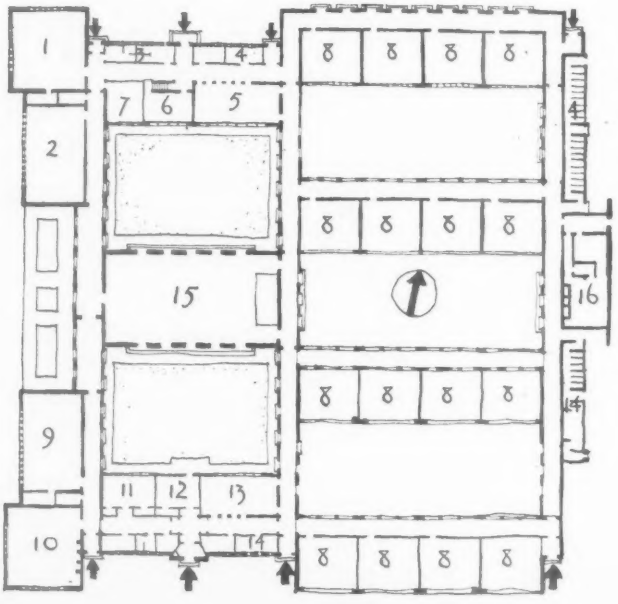
1 Classroom
2 Common room
3 Lavatory
4 Lockers

SECOND FLOOR PLAN

1 Art room
2 Models
3 Projection room
4 Head Teacher's flat
5 Roof garden
6 Enquiry office
7 Manager
8 Waiting room
9 Clinic



SECOND AND FIRST FLOOR PLANS



KEY.

1 Art room.
2 Science room.
3 Staff lavatories.
4 Girls' lavatories.
5 Girls' cloaks.
6 Female Staff room.
7 Male Staff room.
8 Class-rooms.
9 Woodwork room.
10 Housecraft room.
11 Medical inspection.
12 Headmaster.
13 Boys' cloaks.
14 Boys' lavatory.
15 Assembly hall.
16 Heating chamber.

Interesting planning of a single-storey Senior School for 800 boys and girls in Belfast. Symmetrical balance hampers the plan, but a fairly open effect has been achieved on a restricted site. Such close grouping of classroom units is only possible in a single-storey building. (Compare type F, parallel series, under *classrooms*.) Architect, R. S. Wilshere.

L I T E R A T U R E

MORE GARDENS

[*By D. COSENS*]

Gardens of Europe. By G. A. Jellicoe. Blackie & Son. Price 12s. 6d.

FROM time to time Mr. Jellicoe surveys, in a somewhat haphazard way, the gardens of Europe, alighting gracefully, but without apparent connection of thought, now here and now there. When the gardens of his choice are invariably so charming it would perhaps be captious to ask that out of his great knowledge of the subject he should one day give a brief outline of their history, or, more important still, some guidance to those who, in building their brave new world, still flounder helplessly between a mixture of styles and prejudices when it comes to laying out the garden.

For, somewhere towards the end of the last century, after a slow decline through romanticism, the tradition of gardening in England finally collapsed in an ill-considered muddle of shrubs and pergolas. It has not recovered. Today, neither the formal design of the renaissance garden, the planned décor of the early eighteenth century, nor the landscape garden of Brown and Repton, so particularly suited to this climate, is considered in planning. And they have no successor. Sometimes we get a strange hotch-potch of all three, but generally, the garden is thought of only as a place in which to grow things. The greater the profusion of promiscuous vegetation the better the garden, and the idea of laying out the available space with restraint, as a setting for the modern house, is rare—so rare that it can hardly be regarded as the revival of a tradition.

The time has come for some drastic revision of aim, for it seems unlikely that the type of garden illustrated by Mr. Jellicoe in his "Gardens of Europe" will remain with us very much longer, except as a museum piece. The individual patch may survive for another generation or two, but it would seem that the day of the much discussed green belts round cities, and of communal open spaces to serve large blocks of flats or housing schemes is rapidly approaching. And these will be as appropriate a background to this age as were the courts and fountains, ruins and vistas to those before it. Future kind-hearted Lansburys will perhaps plan for us parks of recreation, with swimming pools, playing fields and shady bits, but it is because deep æsthetic sensibilities do not invariably go with kind hearts, or flourish under municipal management, that we would again implore Mr. Jellicoe to assemble all his knowledge of gardens, and turn his attention to the immediate problem. For the photographs and comments of "Gardens of Europe" are at the best forlorn memories, Rex Whistler backcloths for a vanished magnificence, the stage after the play is over.

Mr. Jellicoe gives a brief, though somewhat disconnected, account of the various influences in garden design, but his book would have gained greatly in coherence had this been its main theme. In the section devoted to English and Scottish gardens, he touches on the medieval enclosed garden, on Dutch influences, on the early Italian work at Hampton Court, and the later spread of Italian ideas due to the popularity of travel in the seventeenth century, and on park and landscape gardening. In the French section he points out the great differences in planning owing to the fact that these gardens were designed to a completely different scale as calculated décor for the entertainment of large numbers of people. Later, in Italy, he gives some outline of the gardens of the renaissance. His approach to the subject is, on the whole, too sentimental, and the many anecdotes, though relevant, rather superficial. One would wish that "Gardens of Europe" had been either history, some record of the ambitions these great gardens were designed to gratify, or a detached survey of the layout and general development of gardens. But because, more than any other architect, Mr. Jellicoe knows what the gardens of every generation have been in relation to its architecture, he *can* give us something for today—may we hope that next time . . . ?

SUFFOLK CHURCHES

Suffolk Churches and their Treasures. By G. H. Munro Cautley, A.R.I.B.A. Batsford. Price £1 1s.

SO many books have already been written about the churches that it may be questioned whether more are needed ; even if the churches of East Anglia are outstanding, and many of the best examples are in Suffolk.

Mr. Cautley has a proper veneration for antiquity and had also the inclination and energy to record in book form the results of his labours. In his capacity of Surveyor for the Diocese of St. Edmundsbury and Ipswich for a number of years he has had ample opportunities for studying the Suffolk churches.

The first part of the book is arranged in sections, and, in addition to the main structure, towers, bells, porches and all the smaller details are described in sequence.

The section on the destruction of church fittings is perhaps the best. Its exceptional interest lies in the fact that the information it contains is more complete than that of other authorities.

The last part of the book is an alphabetical list of the churches in the county which would seem to be of medieval foundation, with a description of each of them. The author refers to a fall of 21 ins. in the floor of one church from east to west. He probably does not know that this same fall proved such a temptation to three small girls, who were sent to help in the Harvest Festival decorations, that they were discovered rolling melons and pumpkins down the slope from the chancel to the font.

G. E. C.

LECTURE BY

H. S. GOODHART-RENDEL

THE TRAINING OF AN ARCHITECT

Following are some extracts from the address given by Mr. H. S. Goodhart-Rendel at the Architectural Association last week.

THE principle that I shall put first in my *credo* is that everything taught in an architectural school should be taught from an architectural standpoint. The engineering, the constructing, the town planning, the decoration, the drawing taught must be architectural engineering, architectural construction, architectural town planning, architectural decoration, architectural drawing. Now, how exactly does this adjective "architectural" qualify the nouns to which it is attached? It puts the soul into the body, it gives to these activities—engineering, construction, and the rest—the quality that Sir Henry Wotton called "delight."

My second grand principle is that designing is best learnt by means of designing, and that, once a student has learnt to draw, he should be making some design or other all the time. This is the French practice, and has prevailed everywhere over the older methods of tracing, sketching and measuring with an occasional design subject as a treat. A rider to the principle is that the designing should be educational designing, a series of tasks chosen not for their entertainment value, nor for their topical interest, but for their concentration upon particular problems and difficulties that a student must successively solve and surmount. Entertainment value is a good thing, like jam round powder, but the powder must be there. Topical interest is a desirable part of entertainment value, but if exaggerated is apt to clog up the student's mind with a good many things that take his off his work. It is also apt to encourage untimely and time-wasting research.

I have said that a student should be making some design or other all the time *once he has learnt to draw*. By that provision I mean a good deal. The power of expression by means of

drawing is a thing, certainly, that we must keep on learning all our lives, but there is a groundwork of facility that must be definitely acquired before the time comes for any exercise of invention whatever. In the days when architectural style was built up of forms now popular only in Moscow, the arranging of those forms into patterns was a valuable method of combining drawing practice with a little amusement. Moreover, knowledge was acquired of forms that were likely to be chosen later by the student as his means of self-expression. I am inclined to believe myself that without a considerable power of appreciating those forms, those forms that so long were the architectural symbols of our civilization, a man cannot understand the Europe of the past well enough to be a responsible citizen of the Europe of the future; but in days when their general re-use seems improbable, the old study of the orders would undoubtedly involve some effort that was wasted. The power of appreciating them can be learnt by looking at and by measuring buildings in which they occur. For the drawing practice gained by *compositions* other materials can be found, provided those materials are familiar and unvarying enough for the right and wrong in outlines and shadows to be easily recognized.

While the student is learning to draw in order that he may be ready to design, he must be learning about the building materials and processes with which he is to learn to construct. The more elementary instruction in materials and processes can be interwoven with architectural history the better. True architectural history is concerned not with fashions and dates, but with how different men have used different building stuff in different places at different times. To know this history is to be able to see aright the materials, the men and the machine that await our bidding when we become fit to use them to see how we and they differ from those of the past and how that difference should emerge in the nature of our work.

And now, having said what I believe about preliminary studies, I come to the moment when original designing begins. As you will already have gathered I think this moment should not in an ideal course of training come too early, but I have kept an open mind as to the admissibility of recreational design subjects into the period properly given to elements of technique. (I have kept my mind open, I say, but I confess that it is now closing against this.)

The programmes upon which designs are to be based must always embody typical rather than exceptional problems. Practice in solving typical problems brings by itself the power of dealing with those that are exceptional, whereas practice in solving one exceptional problem teaches the student very little of how to deal with another. In writing a programme it is perfectly legitimate to presuppose a limited site, a particular method of construction, or an arbitrary selection of materials. Such things ensure that the student gets the kind of experience the programme is designed to give him. It is not legitimate, however, to limit the site, to prescribe the construction or materials in such a way that only by the use of ingenuity can the problem be solved at all, since this is to reduce a design to a puzzle in which a preliminary bad shot may tie a student to an *esquisse* heartbreaking both to himself and to his master.

Confronted with a programme, either in school or in subsequent practice, the student's or architect's first object must be to extract its essential demands and arrive quickly at a satisfactory way of providing them. The power of doing this is not only indispensable to an architect in practice, whose employer is generally in a hurry for a sketch design and justifiably impatient if his architect afterwards asks leave to change it radically, but it is indispensable also for his own sake to any artist who would not waste his energy in hesitation and havering. Indeed, to decide promptly and justly upon the main lines of a design is almost the most important thing a school can teach.

The irrevocability of the main lines laid down in an *esquisse* is necessary on two accounts, one of which is implied in what I have said of the *esquisse's* purpose. If you wish to teach people to make quick and reasonable decisions, you must ensure the quickness by limiting the time for them, and do what you can to ensure the reasonableness by allowing those who make the decisions to take their consequences. This disciplinary instruction might perhaps be imparted in some other way although I do not think that way has yet been found. The more important advantage of the irrevocable *esquisse*, however, cannot be obtained by any alternative. This advantage is the liberty that can be allowed to students, each with his own *esquisse* as his charter of independence, to help each other as much as they choose in the subsequent process of study.

The necessity that students should be constantly learning from each other as well as from the teaching staff is the third main article in the *credo* I am putting before you tonight, and it is one that I hold with the utmost conviction. I regret very deeply that many English architectural *curricula* should still be infected with the notion that designs should be treated like answers to an examination paper in which cribbing is dishonourable. Any jury worth its salt can see from a design that is accompanied by a properly executed *esquisse* what the author of that design is worth, no matter how many jewels he may have borrowed for his design's presentation at court. Moreover, the stupid man always borrows the wrong things, and in the result stands self-convicted.

The method of co-operating upon a large subject in organized groups introduces quite another principle, and also a large number of dangers which without invalidating it require that it be examined with caution. In this method MM. et Mesdemoiselles A, B, C, D and E receive—or even themselves concoct—a programme at which each has a shot in an *esquisse*. The best *esquisse* is chosen by the master, or agreed upon by the group with his approval; and the problem is then divided between the group's members, each becoming, for his own share, a specialist. Common discussion of the problem as a whole continues among the members during their several labours. I imagine that some rather than all of them combine for the final labour of presentation.

I have said that a competent jury, given adequate *esquisses*, ought not to find its task complicated by the help students have given each other, and this I believe to be true even in the most closely contested competitions for prizes. In the ordinary work of the school, in that work in which students are marked in order to measure their progress against a standard, small injustices—even if there were any—would average out, and in any case would be unimportant in comparison with the advantages of mutual help given and received. In competitions one student has to be pronounced the winner of a race, and the responsibility of a jury is greater; but I still believe that if the system of mutual assistance in design leads to an unfair award the blame should rest upon the jury and not upon the system.

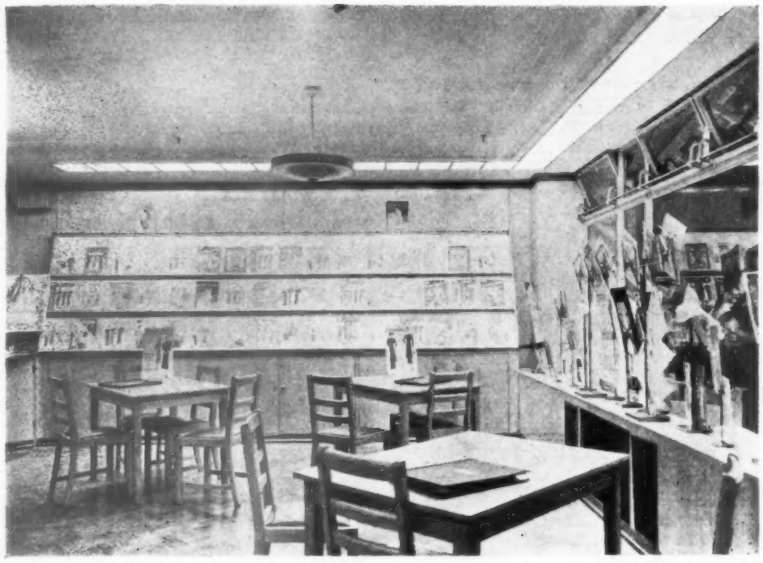
The way in which a design is studied in the second stage of its creation is a thing the teaching staff must inculcate and supervise. In my address to students at the Institute the other night I outlined how I believe a subject should be first tackled, and procedure during the subsequent stages should be very much the same. The main ingredients are first thrown into the bowl, and secondary ingredients are stirred in successively. You will know from what I have already said that I hold any necessity of preliminary research to be a damning indictment against a programme; all that the student needs to know in order to get quickly off the mark with his *esquisse* ought to be contained in that programme so as to carry him easily to the stage when he can tell what is and what is not necessary for him to find out. Research, in short, would only be undertaken when the designing sticks without it, and it is the programme-setter's duty to see that this moment does not arrive too soon.

Skill in architectural draughtsmanship is always remarkable in England, although the tendency to follow every new fashion has prevented the building up of any convention that would keep drawing in its place as a means rather than an end. I am afraid that I think much of our architecture today to be paper architecture in which the builder with his brutal realism in three dimensions has destroyed the charming pattern-making in two dimensions that has been supplied to him as working drawings. In the work of the photographer the pattern-work sometimes comes into its own again, so perhaps we should regard the building itself merely as something that has to happen on the way to what seems to be the goal of people who draw like this—the camera.

The final rendering of a design should present it in the form easiest for others to read, and must not distract the eye in any way from essentials. In my youth the chief danger of doing this lay in over-elaboration: now it seems to me to lie in oddity, and always the tendency persists of forgetting that the jury's business is not to look at the drawings, but to look through the drawings at the design. The best designers always know how to show their projects clearly and unaffectedly; and the only reason why I do not counsel juries to mark down severely all drawings needlessly hard to read is the merciful reason that students who make those drawings seldom have many marks to spare. A certain amount of drawing for drawing's sake seems to me appropriate in the more important student competitions, provided the body be worthy of the clothing, which in most of the beautifully presented designs submitted this year for the Victory scholarship and the Tite prize it certainly was not. A design that deserves to win in such a competition will seldom be deprived of its deserts for having been too simply presented.

It cannot be too strongly emphasized that the power-house of an architectural school is the studio, that in the studio is the great educational machine for which all other school activities, lectures, visits, art-class, and perhaps even indirectly the pantomime, supply the necessary fuel. The very many special subjects an architect must know a student must learn, and just as in the architect's practice the use of special knowledge will be interwoven with the process of designing, so for the student must the acquisition of special knowledge be interwoven with his constant designing exercise in the studio. The ideal in all training, according to my view, is that for each thing that must be learned an appetite should be created by some experience that makes it inconvenient not to know it.

The difficulty of making lectures and visits synchronise with the times when studio work requires them is one that has never been completely surmounted, and I think that the best we can hope to achieve is that information should never come too late. If it comes too soon, the student, even though his appetite may not welcome it, must store it, as the sheep or camel stores its food, until it shall be needed. The problem of relating the lecture-room with the studio was easier in old days than it is now, owing to the less quantity of special knowledge that was then thought needful for an architect, and I am not sure that we have not made some of our present embarrassment gratuitously by expecting him now to know more than he should. In most subjects upon which an architect must always consult a specialist the student need be taught no more than will enable him to choose a specialist well, to give him his proper scope, and to check the quality of his work. This is a good deal, but it is less than examinations—those unavoidable nuisances in education—tend to require. In the mid-nineteenth century art-and-crafty people used to say that the proper school for architecture was the builder's yard, and a large number of earnest young men learnt to be bad jacks of all trades with the idea that they were learning architecture. As a result, they learnt more than they needed as architects, but much, much less than they needed to be decent workmen in any one branch of building. I think that the same danger exists in another form today.



TRADE NOTES

[BY PHILIP SCHOLBERG]

Built-in Lighting

THE mention of a prismatic light fitting in these columns a fortnight ago reminds me that you can do practically anything you like with prisms, provided only that you know exactly what you want to do, for the laws of refraction and reflection are perfectly well understood and you can deflect or twist a light beam almost anywhere you like. Since they were first announced, Holophane's Controlens plates have been slightly modified, and are now available as a concentrating type for lighting such things as shop counters, office desks or show windows, an intensive type to give the somewhat greater spread necessary for the general lighting of interiors, and a square dished fitting some 2¾ ins. deep with the intensive plate at the bottom and with diffusing side panels to give direct light to the ceiling and side walls. There are also two other dished fittings circular instead of square on plan.

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The flat units can be flush, semi-recessed, or used as surface fittings, the catalogue showing typical sections and distribution curves. While the choice of the appropriate fitting depends very largely on the ceiling height and the possibility or otherwise of building in, there is a good deal to be said in favour of the semi-recessed type, for a flush fitting nearly always seems to have a dark patch round it on the ceiling (largely because the fitting itself is so much brighter), and the side panels of the dished type give that little extra bit of illumination to make the ceiling look uniform. If used in a continuous strip the flush type looks particularly well, and the photograph at the head of these notes shows a pattern shop with display racks for periodicals lighted by this method, the Controlens plates being here of the concentrating type.

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One further point is perhaps worth mentioning. Holophanes have been making prismatic units for forty odd years, and in that time they have naturally evolved a good many designs for different purposes: the prism angle gives control of the light, but the angles are naturally dependent on the position of the light source. No adjustment for the lampholders is provided, as each fitting is designed for a lamp of one particular wattage and for no other size. Put a 60-watt lamp in a 100-watt fitting and you will certainly save some current, but you will also shift the position of the light source and the fitting will do none of the things it was originally meant to do.—(*Holophane, Ltd., Elverton Street, Vincent Square, London, S.W.1.*)

Flushing Valves

There is nothing very new about the idea of flushing valves instead of cisterns, but the fact remains that they are frowned upon by a good many water authorities, including, I believe, the Metropolitan Water Board. Among architects there exists a suspicion that these valves are not always perfectly reliable, and although I know some quite satisfactory installations, I also know of one (in a hard water district) where a small hammer is always kept hanging from the valve, which nearly always needs a good clout to make it close properly. In an attempt to overcome these troubles, which seem to be due mainly to an accumulation of lime or "foreign bodies" generally, Peglers have recently introduced a new type in which the main feature of the design is that the dashpot which cuts off the flow is completely isolated from the flushing water, and is actually filled and sealed before leaving the manufacturers' works.

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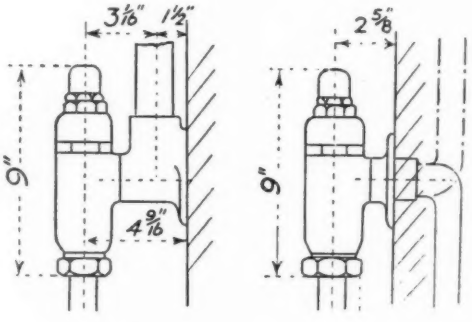
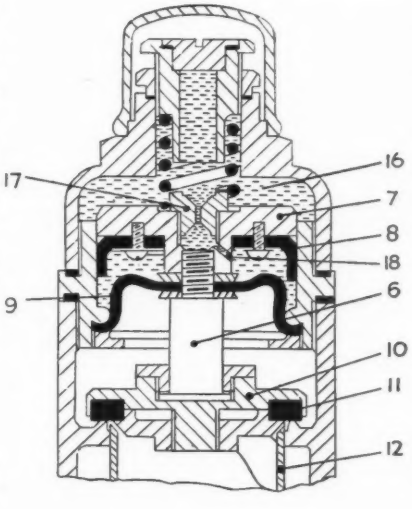
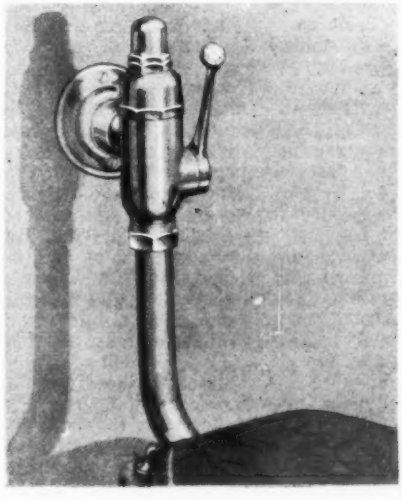
The method of operation is really quite simple (see section). The operating lever is pulled down, and this raises the valve (10), and via the spindle (6) the plunger (7) as well. This plunger is housed in the dashpot (16), which is filled with clean water and the bottom of the dashpot is formed by the sealing diaphragm (9) which permanently retains the clean water and isolates it from the flushing water. When the plunger (7) is raised, the sealed water in the dashpot



Overall dimensions, and below, section of Pegler's new flushing valve; for explanation of figure numbers see text.





is forced past the plunger washer (8) to the underside of the plunger. On release, the operating lever is returned to its original position by the action of the return spring, and the sleeve (12) is lowered with it. This releases the flushing water and the length of the flush is governed by the time taken for the valve to return to its seating. The rate of closing is controlled by the size of the bye-pass (18) through which the sealed water returns to the upper side of the plunger.

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The other interesting feature of this valve is that it will work with as low a head of water as 7 ft. Two models are available, arranged for external or concealed supply pipes, and the overall dimensions of these are shown in the sketch on page 385 : the flush can be set at either two or three gallons. Finish is chromium plate, and the price is £6.—(*Peglers, Ltd., Belmont Works, Doncaster.*)

Thermometers and the Factory Act

The new Factory Act, which comes into force on July 1, specifies 60 degrees as a reasonable temperature for workrooms where the work is done sitting and does not involve serious physical effort. While the Fahrenheit scale is presumably implied, the Act says nothing specific on this point, so it is probably open to the enterprising manufacturer to evolve his own scale if he wants to, though the hurried adoption of Réaumur or Centigrade will not, I fear, succeed in cheating the Act. There is, however, another provision, which is that "at least one thermometer shall be provided and maintained in a suitable position in every such workroom." So far I have only met one firm of thermometer manufacturers trying to profit from this new ruling, and they have just sent me a folder showing several types varying in size and price from 4s. 6d. to £8, the latter being a large affair with an 18-in. dial "for entrance halls, advertising, etc."

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Since these thermometers use a bi-metal helix and a needle rotating over a scale, they are easier to read than the mercury or alcohol types, but I imagine that most works managers will just send a boy round to the local ironmonger for something not more than 1s.—(*The British Rototherm Co., Ltd., Merton Abbey, London, S.W.19.*)

Lift Calculations Simplified

From time to time I have been sent those little folders (generally with maps of England on them) with cut out windows and figures to show you how far it is from one town to another when you slide a sheet of card about underneath. Quite jolly toys, amusing enough to look at for a few minutes, but the waste-paper basket is their real place. Not so the same sort of thing applied to lift calculations : Marryat and Scott have just produced what they call a calculating rule on these lines, and, for anyone who is concerned with what sort of lifts to have where, it should be really useful. Starting with the number of persons the car is to hold you get the car and shaft sizes for all types of single and double entrance car, the load imposed on the building (whether the winding engine is at the top or the bottom of the shaft) and the number of people removable from the building per hour at different lift speeds. Or, of course, you can work it all the other way round if any of the other factors are already fixed.

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And the other side of the rule gives you the same sort of information for hospital, motor car, goods and service lifts. Obviously a device of this kind cannot tell you the whole story—lift design is not as simple as that—but if you have got an office or a flat block with x floors you can easily find the essential lift shaft areas and the differences, for instance, between two ten-passenger and three five-passenger lifts, and a whole lot of other information difficult to get hold of in the ordinary way. A sensible piece of propaganda which shows a real understanding of the architect's point of view.—(*Marryat and Scott, Ltd., 75 Clerkenwell Road, London, E.C.1.*)

Manufacturer's Item

We are informed by Nobles and Hoare, Ltd., of the opening of their new depot at 16 Top Mills, Dewsbury Road, Leeds. The depot is in charge of Mr. E. A. P. Lawson, the Northern Area Manager, who has been with the firm for many years and has had vast experience in the paint and varnish world.

IN PARLIAMENT

COLONEL NATHAN asked the Minister of Health whether he would state the average prices of non-parlour houses, excluding flats and houses specially erected for aged persons, provided by local authorities in England and Wales, for each quarter in the years 1935, 1936, and 1937, respectively.

Mr. Bernays said that the following statement gave the particulars desired so far as they were available. The figures related to contracts let and direct labour schemes commenced by local authorities in England and Wales (other than the London County Council) :—

Year	Average cost* of non-parlour houses, excluding flats and houses specially erected for aged persons, provided in the quarter ending			
	March 31	June 30	Sept. 30	Dec. 31
	£	£	£	£
1935..	295	302	299	309
1936..	307	310	311	327
1937..	342	361	362	364

* Including the cost of paths, drains and fences, but excluding the cost of land, roads, sewers and architects' fees.

Colonel Nathan asked the Minister of Health whether he could state the total number of dwellings of suitable types erected by local authorities for elderly persons under the various Housing Acts ; and whether it was his intention to encourage local authorities to erect such dwellings under the provisions of the Housing Bill now before Parliament.

Mr. Bernays said that by the end of last month his right hon. Friend had approved the provision by local authorities of approximately 29,600 dwellings of the type to which the hon. and gallant Member referred. His right hon. Friend would continue to encourage the provision of such houses by local authorities with the assistance to be afforded under the Housing Bill now before Parliament.

Mr. Mander asked the Minister of Health whether, in view of the fact that there were still 500 local authorities in whose areas the Town Planning Act was inoperative, covering two-fifths of the acreage of England and Wales, he would consider the advisability of arranging that local inquiries should be held in all suitable areas where a planning resolution had not been passed, and, in particular, that he should exercise his authority under Section 36 (1) of the Act to ensure that planning schemes were prepared immediately for all areas of outstanding landscape beauty in coastal, moorland, and mountain districts, especially in those areas considered suitable as national parks.

Sir K. Wood said that the number of local authorities in whose areas a planning scheme was not either approved or in course of preparation was 330, but the extent of planning control was increasing by an average of 150,000 acres per month. The following areas tentatively suggested by the National Parks Committee were already wholly or mainly under planning :—Lake District, Peak District, Pembrokeshire Coast, Forest of Bowland, The Broads, Cannock Chase, South Downs, Forest of Dean, Dovedale, and the Cornish Coast and the Wye Valley were partly under control.

He hoped that the Joint Executive Committee which had been formed for Snowdonia would shortly pass a planning resolution. The Northumberland County Council was calling a conference for the county in April to consider the planning of the Scottish Border.

In view of this progress he doubted whether it would be wise to take action on the lines suggested by the hon. Member, but he would always be willing to investigate any reports he might make regarding a particular area.

Mr. Craven-Ellis asked the Minister of Health whether, in view of the injustice arising out of the method of assessing compensation for slum clearance under the Housing Act, 1936, to thrifty people who years ago acquired with their small savings a few houses, he proposed to amend the compensation clauses.

Sir K. Wood said that Parliament had on several occasions affirmed the principle that the proper basis of compensation for houses found unfit for human habitation was site value, and this decision was again endorsed after full discussion during the passage of the Housing Bill of 1935. Certain amendments of the law were then made with a view to mitigating hardship, and in the circumstances, as at present advised, he did not contemplate further amendment of the law in this respect.

Mr. Hutchinson asked the Minister of Health whether he proposed to institute the investigation into the allegation that hardship was likely to arise from the coming into operation of the new valuation lists suggested by the Central Valuation Committee in their letter to him of February 12, 1938 ; and what form this investigation would take.

Sir K. Wood said he proposed to arrange for an investigation but he was not yet in a position to announce the form it would take.

THE BUILDINGS ILLUSTRATED

GLASGOW ROYAL INFIRMARY, AUXILIARY HOSPITAL AND ZACHARY MERTON CONVALESCENT HOME, CANNIESBURN (pages 364-367). Architects : James Miller and Son. The sub-contractors included the following : John Paterson and Son, Ltd., excavator, etc. ; John Cochrane & Co., Ltd., carpenter, etc. ; Henry Hope and Sons, metal casements ; City Glass Co., Ltd., glazier work ; A. Mackenzie Ross, roof tiler work ; George Rome & Co. (Glasgow), Ltd., plaster, etc. ; Toffolo Jackson & Co., tile and terrazzo ; Rowan and Boden, Ltd., floor covering ; John Burns, Jr., painter work ; Archd. Low and Sons, Ltd., plumbing, gasfitting and cast-iron storage tanks ; Drysdale & Co., Ltd., two pumps ; Waygood-Otis, Ltd., lift in paying patients' block; A. and P. Stevens, Ltd., lift in Zachary Merton block ; Redpath, Brown & Co., Ltd., two steel tubular flagpoles ; Meldrums, Ltd., special No. 7A Meldrum steel-cased destructor ; Ruud & Co., Ltd., Alliott & Paton improved high-pressure steam disinfector ; Ashwell and Nesbit, Ltd., connecting steam and condense arrangement to utensil washed in administrative block, etc., connecting steam and condense arrangement to steriliser in administrative block, and garage and greenhouse heating.

PRICES

The complete series of prices will consist 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 February 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 demand for Fabricated Steelwork is now not as great as it was and prices have fallen accordingly. Conditions in the Steel Market are now more stable and no large fluctuations are expected in the near future.

The condition of the Timber Market is also slightly easier. The increase in certain prices is due to shortage of these particular scantlings owing to Scandinavian imports at this time of the year being very small. This is a seasonal fluctuation only and may be expected to last until the end of April.

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 prices and include delivery in the London area except where otherwise stated.

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 ,, ...	31 0 0	3 9¼
2″ × 9″ ,,	2nd ,, ...	47 10 0	5 9½
2″ × 9″ ,,	3rd ,, ...	29 0 0	3 6¼
3″ × 8″ ,,	2nd ,, ...	34 0 0	4 1½
3″ × 8″ ,,	3rd ,, ...	26 10 0	3 2½
2″ × 8″ ,,	2nd ,, ...	40 0 0	4 10¼
2″ × 8″ ,,	3rd ,, ...	26 10 0	3 2½
●3″ × 7″ ,,	2nd ,, ...	32 10 0	3 11½
●3″ × 7″ ,,	3rd ,, ...	26 10 0	3 2¾
2″ × 7″ ,,	2nd ,, ...	40 0 0	4 10¼
2″ × 7″ ,,	3rd ,, ...	25 10 0	3 1
●2″ × 6″ ,,	u/s ,, ...	25 10 0	3 1
●1½″×11″ ,,	3rd ,, ...	40 0 0	4 10¼
●1½″× 9″ ,,	u/s ,, ...	36 0 0	4 4½
●1″ × 9″ ,,	2nd ,, ...	48 0 0	5 9¾
●1″ × 9″ ,,	3rd ,, ...	37 10 0	4 6
✱1″ ×11″ ,,	2nd ,, ...	49 0 0	5 11½
●1″ ×11″ ,,	3rd ,, ...	41 0 0	4 11¾
●1¼ × 9″ ,,	2nd ,, ...	47 10 0	5 9½
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 February 3rd.**

JOINER—(*continued*)

Flooring

		7/8″	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		33/–	
T. & G. random grain, in 4″ widths	per square		22/–	

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	19/–
●⅝″×6″ T.G.B.	per square	16/9
●⅝″×4½″ T.G.V.	per square	16/3
●½″×4½″ T.G.V.	per square	13/3

Asbestos-Cement :—

5/32″ Semi-compressed flat building sheets, grey	per yard super	1/4¾
3/16″ Ditto	per yard super	1/5¼
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 February 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.
✱¼″ 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
½″ 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″
¼″ per square	67/–	73/6
⅜″ per square	76/–	83/6
½″ per square	83/3	91/3
¾″ 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″
¼″ per square	50/3	52/9
⅜″ per square	57/3	60/3
½″ per square	63/3	67/–
¾″ 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	13/–

● **Items marked thus have risen since February 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	–/4½
„ 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

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

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	6-ton loads
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	4-ton loads

		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
1½″ 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	14/9
Angle beads (1½″ wide)	per yard run	1/4¾
,, ,, (1″ ,,)	per yard run	–/11¼
Rounded edge tiles	per yard run	2/8½
Eggshell gloss enamelled, 6″ × 6″ × $\frac{3}{8}$″	per yard super	16/3
Angle beads (1½″ wide)	per yard run	1/7¼
,, ,, (1″ ,,)	per yard run	1/0¾
Rounded edge tiles	per yard run	2/10½

PLUMBER

Lead

✱3½ lbs. and upwards milled sheet lead in quantities of 5 cwts. and upwards	per cwt.	23/–
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.	12/9

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 February 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	1/9¼	2/1	2/1	2/2½	2/4½	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.	22/6
✱Lead soil pipe	per cwt.	25/6
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.	89/–
Tinman's solder	per cwt.	115/–

Drawn lead traps with brass screw eye, 6 lbs.

		1″	1¼″	1½″	2″
S. trap	each	1/8	1/11	2/5	3/6
P. trap	each	1/5	1/7	2/–	2/10
Extra for 3″ deep seal	each	6	6	6	6

✱ Items marked thus have fallen since February 3rd.

CURRENT PRICES

INTERNAL PLUMBER

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

INTERNAL PLUMBER—(*continued*)

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

		½″	¾″	1″	1¼″	1½″	2″
Tubes.							
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%	53⅓%	57½%
Water	58⅓%	50%	52½%
Steam	56¼%	46⅔%	47½%
Galvanized gas	53¾%	46⅔%	47½%
,, water ..	48¾%	42½%	42½%
,, steam	43¾%	38⅔%	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	3/10	6/1	10/6
Ditto, with flynut and union ..	each	4/6	7/2	12/–
High pressure ditto, screwed for iron	each	3/10	6/1	12/6
Ditto, with flynut and union ..	each	4/6	7/2	12/–

		2″	2½″	3″	4″
Socket thimble sloping shoulder	per dozen	11/–	14/–	16/6	23/6
		1½″	2″	2½″	3″
Flanged ferrule thimble ..	per dozen	8/6	9/6	14/6	17/–

		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/–	14/6	21/–	33/–	60/–
Double nut boiler screws	per dozen	8/6	10/–	15/–	23/–	44/–	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.	⅛″ plate £ s. d.	⅜″ 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. $\frac{3}{16}$″ 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.	3/9	4/8	5/7	6/6 each	7/6	15/10	21/8
Parallel branch pieces not exceeding 6″ centres. Y pieces. Anti-syphon branches with curved arm.	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.	1/0¼
✱Copper wire 10 and 12 gauge .. .. .. per lb.	–/9
Copper nails, 1″ and up .. .. per lb.	–/10

Fittings for Copper Tubes

Compression Type :	⅜″	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	5/7½	8/3¾	12/8
Crosses .. each	1/10¼	2/0½	3/4½	4/9	7/2¼	10/6	18/2½
Reducing coupling each	—	6¼	8¾	1/0¾	1/7	2/9½	4/4½
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.	31/6	31/–	30/6
		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 In Plates not exceeding	Glazing for Glazing Purposes	Selected Glazing Quality	Silvering Quality
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 February 3rd.**

GLAZIER—(*continued*)

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

Ordinary ¼″ Substance In Plates not exceeding	Glazing for Glazing Purposes	Selected Glazing Quality	Silvering Quality
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.	69/–	
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	48/6	
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	3/7½	
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 February 3rd.**

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

CROYDON. *Hospital Extension.* The Croydon Corporation has prepared a revised estimate for extensions at Warlingham Park Hospital, at a cost of £230,954.

CROYDON. *Houses.* Plans passed by the Croydon Corporation: 11 houses, Beulah Hill, Upper Norwood, W. Seymour & Co.; 152 maisonettes, "Parkfield," Wickham Road, F. W. Woolgar & Co.

CROYDON. *School of Art.* The Croydon Education Committee is to adapt premises at Fairfield for School of Art purposes, at a cost of £3,275.

EALING. *Flats, etc.* Plans passed by the Ealing Corporation: 65 houses, Islip Manor Road, Chelmik Bros.; 80 flats, Welland Gardens, and 12 flats, Western Avenue, R. Lancaster and Sons; block of 12 flats, Oldfield Lane, Mr. R. G. Cox; 11 flats, Woodville Road, Mr. S. H. West; nine shops with maisonettes over, Greenford Road, Warwick Estates, Ltd.; 24 flats, Ruislip Road, The Phœnix Development Co., Ltd.; 180 houses, Edward Road, etc., T. F. Nash Construction, Ltd.; flats, Oldfield Lane, Mr. F. H. Shearley; 12 shops, Church Road, Evans Bros.

EALING. *Library Extension.* The Ealing Corporation is to extend the central library, at a cost of £2,000.

FARNHAM. *School.* The Surrey Education Committee is to acquire a site in Buller Road, Farnham, for the erection of a central school.

HAMMERSMITH. *Rehousing.* The L.C.C. is to re-develop the Queen Street area, Hammersmith, and provide rehousing at a cost of £218,000.

KENSINGTON. *Clinic.* The L.C.C. is to erect a clinic at St. Mary Abbots Hospital, Kensington, at a cost of £4,880.

LEWISHAM. *Institution Modernization.* The L.C.C. is to modernize the Ladywell institution, Lewisham, at a cost of £48,000.

LONDON. *Improvement to Institutions.* The L.C.C. is to improve various institutions, at a cost of £24,315.

MARYLEBONE. *Electricity Department.* The Marylebone B.C. is to erect premises for the electricity department on the Emmanuel school site, at a cost of £11,979.

PADDINGTON. *Swimming Pool.* The Paddington B.C. is considering a scheme for a swimming pool, etc., at the recreation ground, at a cost of £14,650.

PADDINGTON. *Flats.* Plans passed by the Paddington B.C.: Block of flats, 100-103 Lancaster Gate, Howard Leicester and Partners; block of flats and underground garages, 75-89, Lancaster Gate, Mr. W. S. Grice.

POPLAR. *Flats.* The L.C.C. is to erect over 400 flats in Devas Street, Poplar, at a cost of £240,000.

POPLAR. *Mortuary Alterations.* The Poplar B.C. is to modernize the mortuary and instal refrigerating chambers at Cottage Street, at an estimated cost of £4,294.

SOUTHGATE. *Flats, etc.* Plans passed by the Southgate Corporation: 28 flats, The Poplars, Bramley Road, Mr. G. Turner; eight flats, Avenue Road, Mr. H. A. Nash; 14 shops with 14 maisonettes over, and three shops, Chase Side, Marshall and Tweedy; 10 houses, Leys Gardens, Mr. C. W. Newman; 18 houses, Lakenheath, Mr. C. E. O. Ward; 22 houses, Corri Avenue, Bolton and Fifield, Ltd.

SOUTHWARK. *Rehousing.* The L.C.C. is to clear the Brandon Street area, Southwark, and provide rehousing, at a cost of £30,000.

TOTTENHAM AND SOUTHGATE. *Hospital Extensions.* The Tottenham and Southgate Corporations have approved a scheme for isolation hospital extensions, at a cost of £174,083.

PROVINCES

ASCOT. *Hospital Extension.* The L.C.C. is to enlarge the Heatherwood Hospital, Ascot, at a cost of £4,700.

BACUP. *School Extensions.* The Lancashire Education Committee is to erect extensions at the Bacup Grammar school, at a cost of £13,619.

BIRKENHEAD. *Tenements.* The Birkenhead Corporation has approved plans by the borough surveyor for the erection of two blocks of three-storey tenements on the land in Quigley Street.

BIRMINGHAM. *Infirmary Enlargements.* The Birmingham Corporation is to enlarge the infirmary at a cost of £95,000.

BIRMINGHAM. *Housing.* The Birmingham Corporation has purchased 34 acres on the Quinton Estate for housing purposes.

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

BIRMINGHAM. *Police Station.* The Birmingham Corporation has obtained sanction to borrow £14,126 for the erection of a police station.

BOLTON. *Houses.* Plans passed by the Bolton Corporation: 10 houses, Hill Cot Road, Mr. W. G. McConnell; 12 houses, Stoneyhurst Avenue, F. and H. Douglas.

CHELMSFORD. *Houses, etc.* Plans passed by the Chelmsford Corporation: 14 houses, Broomfield Road, Mr. A. J. Wells; seven shops and flats, Wood Street, Mr. C. H. Cockrill.

CLITHEROE: *School Enlargement.* The Lancashire Education Committee is to enlarge the Clitheroe Grammar School at a cost of £22,852.

COVENTRY: *School Department.* The Coventry Education Committee is to erect an infants' department at Whoberley Council School, at a cost of £18,538.

DURHAM. *Cinema.* Birtley Cinema, Ltd., is to erect a cinema in Edwards Road, Birtley, co. Durham.

DURHAM. *Repair Depot.* The Durham County Council is to provide a central repair depot at Framwellgate Moor, at a cost of £25,584.

DURHAM. *Cinema.* A cinema is to be erected by Southgate Cinemas, Ltd., in Speculation Place, Sunderland Road, New Washington, co. Durham.

DURHAM. *Cinema.* Mr. R. W. Smith is to erect a cinema in The Avenue, Wheatley Hill, co. Durham.

ELLESMERE PORT. *Municipal Offices.* The Ellesmere Port U.D.C. is to erect new municipal offices.

ELY. *Cinema.* The Ely Cinema Co. is preparing plans for the erection of a cinema on a site recently acquired in Ely.

EXETER. *Swimming Baths.* The Exeter Corporation has approved amended plans for the new swimming baths, in Heavitree Road, at a cost of £39,500.

FARNHAM. *Housing.* The Surrey C.C. is to erect a group of homes with ancillary accommodation on the site of the Farnham Institution for the accommodation of approximately 100 aged and infirm inmates, at a cost of £34,000.

FLEETWOOD. *School.* The Lancashire Education Committee is to erect a junior school at Fleetwood Flakefleet, at a cost of £31,308.

FLEETWOOD. *School Enlargement.* The Lancashire Education Committee is to enlarge the Fleetwood Grammar School at a cost of £18,618.

GREAT HARWOOD. *School Enlargement.* The Lancashire Education Committee is to enlarge the Great Harwood School, at a cost of £16,746.

GUILDFORD. *Market Extensions.* The Guildford Corporation has prepared a revised scheme for market extensions, at a cost of £25,200.

GUILDFORD. *Hospital Alterations.* The Surrey C.C. is to complete the scheme of alterations and improvements to the Warren Road Hospital, Guildford, at an additional estimated cost of £8,250.

HULL. *School, etc.* The Hull Education Committee has approved plans of the nursery school proposed to be erected on the Fifth Avenue school site, and of the infants' senior and junior departments, of the Hopewell Road school.

HULL. *School Swimming Pool.* The Hull Education Committee has approved plans for the inclusion of a swimming bath at the new Grammar School, at an estimated cost of £14,500.

HULL. *Cinema, etc.* Plans passed by the Hull Corporation: Five shops and cinema, Calvert Lane and Springhead Road, Priory Cinemas, Ltd.

ISLE OF ELY. *Police Houses.* The Isle of Ely C.C. has approved plans by the county architect of the police houses proposed to be erected on the sites acquired at Boyce's Lane and Sutton Road, Wisbech.

KEIGHLEY. *Houses.* Plans passed by the Keighley Corporation: Eleven houses, Oakworth Road, Hird Bros. & Co.

KENLEY. *Flats.* Mr. R. J. Sargeant is to erect ten blocks of four flats on the Garston House site, Godstone Road, Kenley, Surrey.

LEEDS. *Tenements.* The Leeds Corporation has approved a scheme for the development of the cleared site of the Camp Field Unhealthy Area by the erection thereon of 80 tenement flats.

LEEDS. *School.* The Leeds Education Committee is to erect a school on the Belle Isle Housing Estate.

LEEDS. *Ice Rink.* The Leeds Corporation is to provide an ice rink in the new central baths.

LIVERPOOL. *School.* The Liverpool Education Committee is to erect a senior school in Stanley Park, at a cost of £52,882.

LYTHAM ST. ANNES. *School Enlargement.* The Lancashire Education Committee is to enlarge the Lytham St. Annes technical school, at a cost of £28,555.

MAGHULL. *School.* The Lancashire Education Committee is to erect a senior school at Maghull at a cost of £27,220.

MAIDSTONE. *Sessions House Extensions.* The Kent C.C. has obtained sanction to borrow £32,057 for extensions at the sessions house, Maidstone.

MANCHESTER. *Houses.* The Manchester Corporation is to erect 54 houses at Withington (Old Moat Lane) Housing Estate, and 586 houses at Wythenshawe (Peel Hall) Housing Estate, at a cost of £228,275.

MANCHESTER. *School Enlargement.* The Manchester Education Committee is to enlarge Chorlton High School for Boys, at a cost of £16,263.

MANCHESTER. *Housing.* The Manchester Corporation has purchased land in the Hulme Clearance area for re-housing, at a cost of £57,000.

MANSFIELD. *School Enlargement.* The managers of St. Phillip's R.C. School, Mansfield, are to enlarge the school, at a cost of £4,000.

MURTON. *Cinema.* The Murton Empire Picture Co., Ltd., is to erect a cinema in Coronation Street, Murton, co. Durham.

NEWTON-IN-MAKERFIELD. *School.* The Lancashire Education Committee is to erect a junior school at Newton-in-Makerfield, at a cost of £23,115.

PAIGNTON. *Bungalows.* Plans passed by the Paignton U.D.C.: 43 bungalows, Colley End Road, for Messrs. Coombe and Sons.

PORTSMOUTH. *School.* The Portsmouth Education Committee has acquired a site at Wymering for an elementary school.

PRESTWICH. *School.* The Lancashire Education Committee has acquired a site at Prestwich for the R.C. senior school.

SHIPLEY. *Houses.* Plans passed by the Shipley U.D.C.: 14 houses, Grosvenor Road, and eight houses, Trenance Drive, Mr. H. Chippendale.

SOLIHULL. *School.* The Warwickshire Education Committee has obtained a site at Solihull for a junior and infants' school.

WEYMOUTH. *Houses, etc.* Plans passed by the Weymouth Corporation: six houses, Hardy's Avenue, Mr. J. Hardy; six houses, Broadmeadow Estate, Wyke Regis, Mr. J. Burt 90 houses, Victoria Street, and block of eight flats, Goldcroft Estate, Mr. R. W. Vine.