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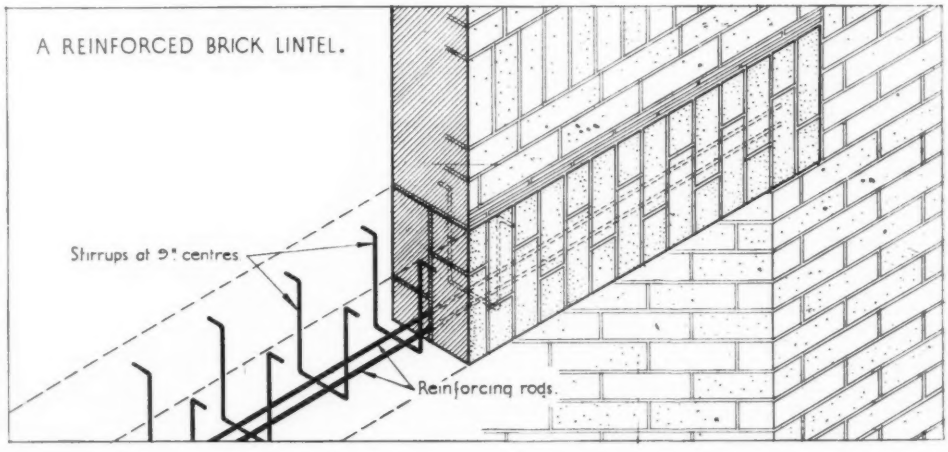
Lintel at Bexley Heath Church and Parish Rooms. Architect: P. M. Andrews, A.R.I.B.A. Contractors: Norman Wright (Builders) Ltd.

Bricks are old in the English building tradition, but the technique of brickwork is always changing and the modern technique has tremendous possibilities; some hint of future development has been given by the examples of Reinforced Brickwork already carried out in 'Phorpres' bricks.



May we send you a free copy of "Reinforced Brickwork"—a publication of the Clay Products Technical Bureau of Great Britain?

The lintel shown above is a minor example of a reinforced brickwork lintel, designed to take a particular load over a particular span. The facing bricks are 'Phorpres' Rustic facings. Either 'Phorpres' Commons or load-reducing, insulation-improving 'Phorpres' Cellulars should be used for backing.

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THE ARCHITECTS' JOURNAL

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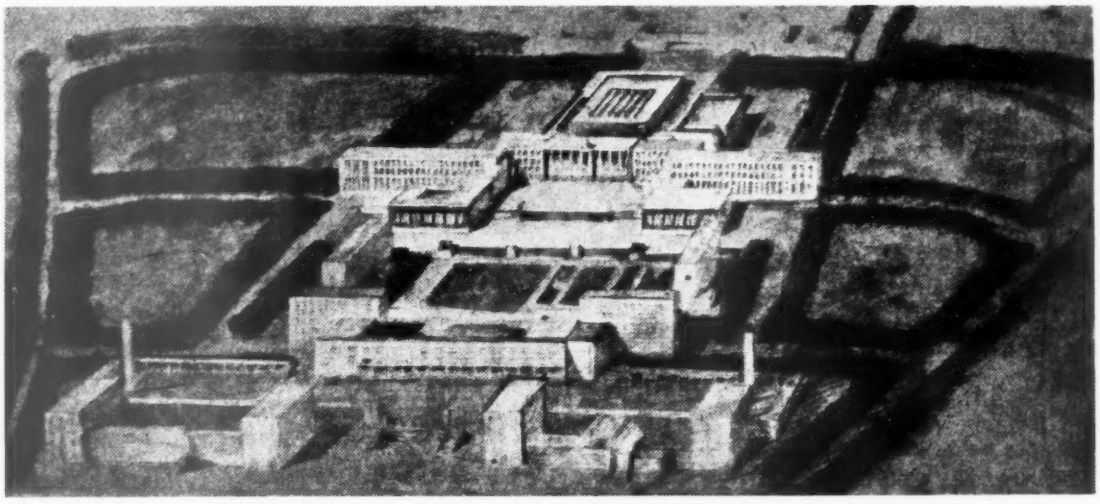
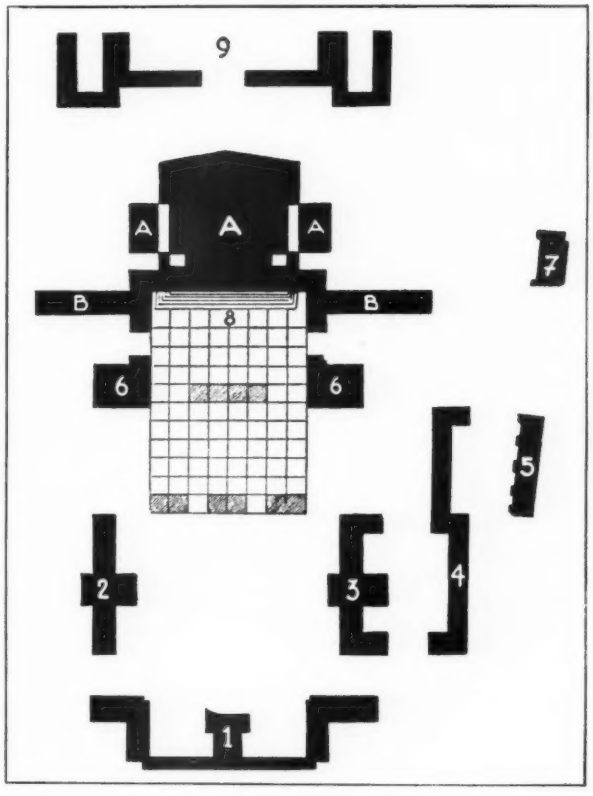
The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

THURSDAY, MARCH 17, 1938. NUMBER 2252 : VOLUME 87

PRINCIPAL CONTENTS

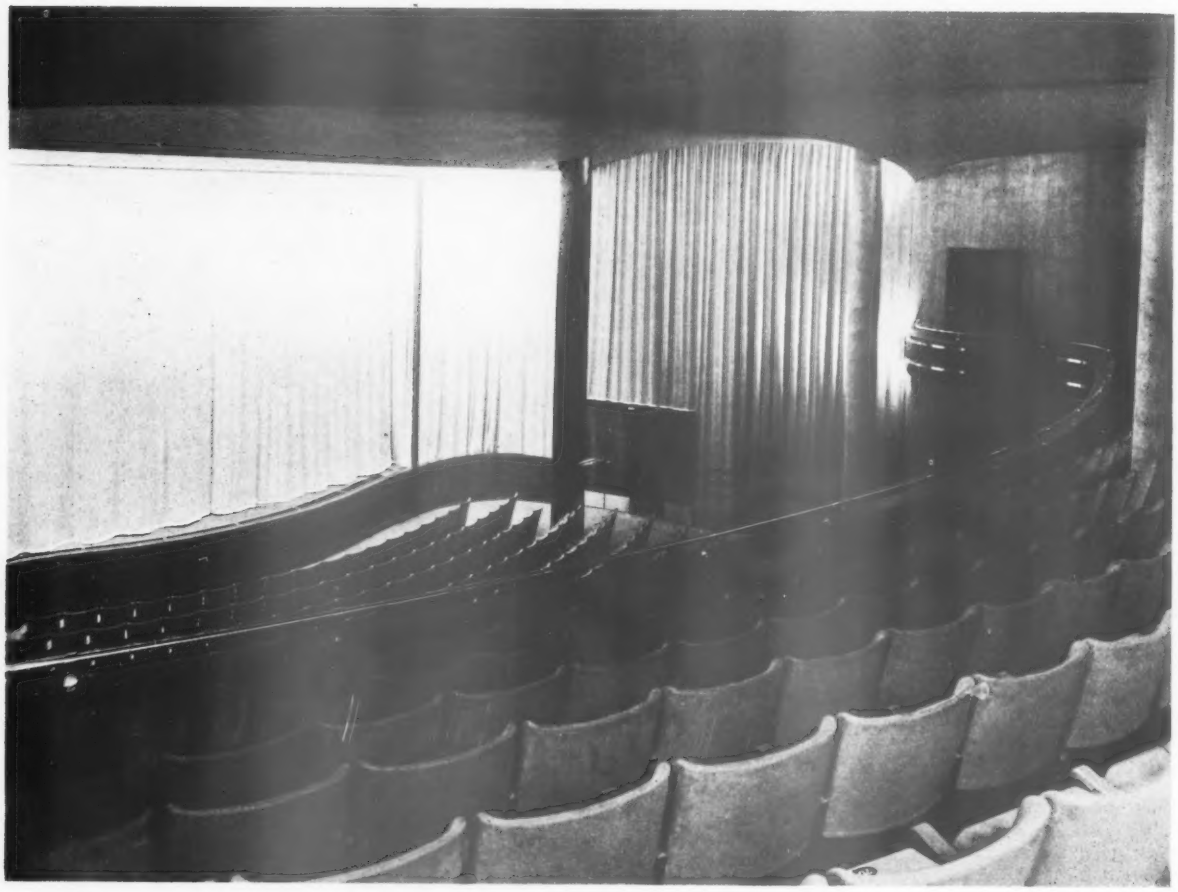
PARLIAMENT BUILDINGS, ANKARA





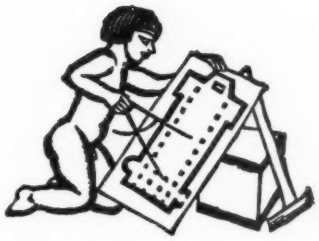
The Assessors—W. M. Dudok, Howard Robertson and Ivar Tengbom—in the competition for the new Parliament buildings for the Turkish Government at Ankara made a selection of three designs from the 28 submitted. The final choice rested with Kemel Atatark, who has chosen the design by Clemons Holzmeister, reproduced on this page.

The Parliament buildings will occupy the central portion of the governmental and municipal section of the town laid out by Professor Jansen. The disposition of the various buildings is shown in the layout plan on the right. All but the blocks 7 and 8 are in existence. The blocks are: 1, Ministry of Home Affairs; 2, the Foreign Office; 3, the Prime Minister's Department; 4, the Archives Building; 5, Residential Quarters; and 6, Buildings for the President of the Republic. Block 7, to be built, will be offices for the President. Block 8 will be the Parliament Buildings, subject of the present competition. That section marked A is the assembly salons and B the legislative offices. Block 9, already built, contains various service departments. The estimated cost of the new buildings is £650,000.



THEATRE AT STOCKHOLM

The new Rival Theatre at Stockholm designed by M. M. Lorentzen. The general wall finish is light Avodire wood and the upholstery is light blue velour. Balcony front is French walnut. A very full lighting equipment has been provided. Controlled from a keyboard, footlights, proscenium and auditorium lights can be varied over a huge range of colour combinations. The theatre is designed for both films and plays.



ALTERNATIVES AT THIRTY

THE JOURNAL tried to summarize last week the principal causes of an uneasiness which exists in the profession. In its view, although part of this tension might be a reflection of political and economic events, a great deal of it arose from internal causes, particularly from doubts concerning the present organization of architectural practice.

These doubts, in the JOURNAL's opinion, are of the first importance. And it therefore makes no excuse for enlarging on them.

In the last decade a great deal has been done to persuade the public to employ architects ; and done with success. A great deal has been done towards ensuring that those entering the profession are well qualified. And before the end of the year this higher standard will probably have been made general and permanent.

So much has been to the good. But simultaneously with consolidation and growing prestige the profession has shown signs of internal division. In part this division is between those who hold that architecture consists of individual buildings designed as individual works of art and those who consider it more widely as being closely linked with town planning. In part it is a difference between those who want old methods of practice to continue and those who don't. And partly it is caused by the number of able young men who, despite architecture's high prestige, find that interesting and responsible jobs are extremely rare.

Anyone who devotes thought to the matter can think of half a dozen other cross-cleavages, but these appear to be the chief. They are serious.

The first—the proper conception of architecture—may be left to work itself out. It is doubtful whether the last can be treated the same way.

The profession as a whole must guard standards of education and do its best to encourage the public to use architects. Having done so, being sure that the older and established men will get most of the benefit of public patronage, it ought to give some thought to the opportunities available for younger men between the ages of 28 and 38.

This at present is where things go wrong. Architectural education recognises no grades ; like legal and medical education it aims to turn out men capable, after some years as assistants, of being fully responsible architects. Architects usually take the years as assistants seriously and get varied experience. It is possible that half of those who reach the age of thirty are even then not suited for responsible positions. The remainder, though individually better at this or that branch of architecture, are ready, and expressly trained for, progressively responsible work.

Such a method of training obviously demands a profession organized in small, fully responsible units, each of which under the guidance of a principal carries out one or more schemes in every detail—interviews, correspondence, visits to site and all.

When, however, the two great fields of employment for architects are examined, one finds that they are seen to be by no means generally organized in this way.

Private firms—with many, and some of the most successful, exceptions—have three or four principals who carry out all administrative functions and for the rest of the necessary work rely entirely on half a dozen or more purely temporary assistants ; or, sometimes, on two permanent and half a dozen temporary assistants. In both cases the latter are almost automatically got rid of when work falls below a certain total volume.

For those that think private practice is on the down grade—the JOURNAL does not think this true of private practice *in some form*—divergence in it between training and practice will not seem of the first consequence. But the same state of affairs in large official departments will be regarded differently. And there is good reason for supposing that larger departments are not free from it.

In theory the large official departments, with their diversity of work and much greater chances of a steady turnover, ought to offer attractive responsible work to a very large number of young architects who generally possess democratic ideas of architecture as a social service. In practice, several of the largest official departments appear to exhibit the disadvantages of private practice, proportionately magnified.

A reasonable conception of a large department (considering architectural education today) might be of three or four senior and administrative men and twenty or thirty younger men each carrying out entirely two or three buildings with the assistance of two or three assistants. In reality, in some of the large departments the organization is very different.

Pyramids of increasing responsibility in architects', engineers' and quantity sections, with notes only exchanged at the top ; each intermediate architect doing a small bit of ten jobs instead of two thoroughly ; and a very large number of assistants who never visit the sites and have to wait a day or two days to get decisions on the most trifling points—these conditions do exist and do not encourage the better young men to enter large departments.

The JOURNAL feels certain that the profession will eventually judge private and official practice not on the æsthetic qualities of a dozen outstanding buildings, but on the average standard of each ; which in turn will depend on the enthusiasm and interest which each can obtain from younger men.

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NOTES & TOPICS

THE BRITISH ROAD

NEATLY got up, well-printed, the Ministry of Transport's analysis of road accidents for the year 1936–1937 made its bow last week. 199,062 accidents, 6,539 people killed, 230,016 injured. The boredom of repetition has by now killed all meaning in these figures. When 200 miners are killed, or 100 passengers in a railway accident, it is a national tragedy. Thirty and sixty times these figures on the roads have no meaning; and four times the population of Cambridge injured in a year get only a quarter page of London's solidest evening paper.

*

The public swallows these figures without blinking because they are tired of it all. The posturings and appeals of Ministers of Transport, the speed limits, de-restrictions, crossings and "good manners" police have achieved precisely nothing. In a baffled way the public are angry, the Government makes a gesture over Ribbon Restriction, the Ministry makes a gesture about Trunk-Roads—and that seems all that is going to happen.

*

And yet there are now 16 mechanical vehicles to each mile of road and over 500 new cars appear each day. Some time even the Ministry of Transport must try to do something. The question is: what?

*

The logical stages do not seem abstruse. To provide some long-distance traffic routes designed from the outset to offer, and *permanently to offer*, the least possible resistance to traffic flow; to ensure that in all new building schemes all roads are divided into two categories — slow-speed access routes and high-speed through routes; and finally to set about the oldest and toughest question of traffic in cities.

*

These are not impossible stages. In their beginnings they have been done a hundred times. But never have they gone further than their beginnings.

*

By-passes, new roads, ring roads, have all been planned. All have been ruined on completion by buildings erected along them. The Government has refused to face the land-owners, local authorities have either been too poor to use all the powers they have or too keen on new rateable value to decide to do so. Ministers of Transport who might have made a name by denouncing the impossibilities asked of them, have subsided into maunderings over road manners. And the public pays to the tune of 6,500 dead in a year.

*

There are now some slight signs of revolt. The County Surveyors' Society—the men who have to do the work—are preparing a report on the basis of which representations may be made to the Ministry. It is significant that the first two points in their plan should be :—

1. A certain number of entirely new roads is a necessity; the number would not be large.

2. New through roads with adequate connections to existing centres of population may prove more economical in construction and use than the widening of existing main arteries to the same standard.

*

In this proposal there is something for town planners and architects to notice. Today it is not towns, then roads. It is roads, then houses, then towns. On the roads will depend much future planning.

*

In so vital a matter it would be wise for architects in the lowest sense and magnificently encouraging in the best if they did not leave the County Surveyors by themselves in their attack on Government indifference and the grotesque ineffectiveness of the Ministry of Transport. Sooner or later the public will stand present conditions no longer. It will not be much to architects' credit if it is then and only then that they add their little bit in an exhibition of bridges and fly-over crossings.

POTTED MUSIC

The bellringers of this country are now up in arms against a new vice; for it has apparently become a habit (in parishes where there isn't enough money to restore a bell-beam), to use a loud speaker and a gramophone record, so that Triple Bob Majors and Grandsire Trebles can be potted and then used to fill in time just like the B.B.C. when a bit of the programme ends too soon.

*

This seems to me to be an abominable habit. Either the reproduction is unusually perfect, which is unlikely, or the vice is not yet widespread, for I have noticed no examples of it in my Sunday wanderings. Bellringing is a noble occupation which requires concentration, a good memory, and the ability to appreciate the beauty of mathematical permutations. Woe to the priests who merely wind a gramophone handle. Mr. Robert Byron must re-sharpen his pen.

At the R.I.B.A. Exhibition, "Health, Sport and Fitness," now being held at 66 Portland Place: left Mr. A. W. Kenyon; centre, the Duke of Gloucester; right, Mr. H. S. Goodhart-Rendel.

SEVEN DWARFS AND——

Among other features promised for the Ideal Homes Exhibition opening on April 5th, will be the House of the Seven Dwarfs.

*

Built from sketches by Walt Disney himself, it will have "a quaint thatched roof and gables, white stucco and black timbered walls, a crazy door, little shuttered windows and many other conceits."

*

From its description it sounds just the sort of thing, which, properly handled by an enterprising by-pass-builder, should prove a little gold mine.

THREE SMALL MEN

Smallest, according to the *Daily Express*, of the trio who are responsible for Glasgow Exhibition is Mr. Thomas Tait. "He stands less than 5 ft. 3 ins." in his goloshes, but he has one of the biggest bank balances of any living British Architect."

*

They had a new lot of watchmen at the exhibition gates last week, who refused him admission to the grounds. No—they were sorry. They had never heard of a Mr. Tait.

*

Probably he'd forgotten to put on his goloshes.

COVENTRY CHURCHES

The Bishop of Coventry has asked Mr. Cachemaille-Day to design a lot of new churches in the diocese, and one imagines that he has done so because he likes the churches Mr. Cachemaille-Day has already built. The Coventry Society of Architects think that some of the jobs should have gone to local men, though I do not think it has been suggested that a local man would have done the job better—that, of course, would be unprofessional.

*

The *Coventry Standard* has also taken sides with the home town, but hardly in the name of architecture, for its main fear seems to be that contracts may go to firms outside Coventry. The fight is now over, for the Bishop has refused to alter his decision. But it grieves me that architects should generally get into the news so often when they are quarrelling among themselves. The mass of the public doesn't really care very much and only gets the impression that architects are tiresome people who create wrangles about too many things.

WAUGH AT WOTTON-UNDER-EDGE

Piers Court, Stinchcombe,
Gloucestershire.
March 11.

SIR,—Six copies of your magazine cost three shillings; one of my novels costs seven-and-six. I presume from the odds you offer that you think you may be wrong. You are wrong.

My statement was plain fact. I first heard of the existence of M.A.R.S. from the London architect who has been doing some repairs for me. He sent me your horrible catalogue. I did go to the gallery when next I was in London. I did find it shut.

This is not an artificially preserved beauty spot; nor is it a predominantly agricultural district. We have been industrial here some centuries now, and there are some ugly new houses within two miles of mine. The difference is that in a hundred years they will have disappeared, and mine will still be standing.

It is encouraging of you to invite me to destroy motor cars. I do it all too often. But you touch a sore spot when you suggest that my modest property is littered with power cables. There is no service to the village, and we spend a great deal of our time trying to get it.

Two thoughts for you: (1) The population is about to decrease rapidly; (2) The Orders are getting on for two thousand years old; some older. There is no more reason to think them out of date today than in 1738.

Your obedient servant,
EVELYN WAUGH

*

A week ago they were horrible little architects. Now it's the MARS catalogue's turn. Well, Mr. Waugh isn't the only one that didn't much care for it.

*

As to Wotton-under-Edge, if Mr. Waugh is as positive as all that that *his* house will be standing in a hundred years' time and the ugly new ones won't—okay-okay. My own view is that unless influential people like Mr. Waugh take up a more realistic attitude towards contemporary building development, there are rocks, i.e. bungalows, ahead for Wotton-under-Edge. Nor, I fear, will the bungalows fall down when they hear that the Orders are two thousand years old.

*

And as to Professor Carr-Saunders, in view of the rate at which our Nazi Neighbour is annexing new Nazis (not even waiting to have them born) is it likely that the Virile British Race will allow its own output to fall below the margin of safety?

*

Anyway, the operative factor in the architectural scene is not the size of the population, but the number of families. To each family its bungalow. At present the number of families increases even though the birth-rate falls, which means less people but more bungalows. Half our trouble to-day is that our towns are doubling their area while their populations remain stationary or even decline. In the not unlikely event of a liberal-minded government demanding half-an-acre per head of population the whole of England from one shore to the other would be covered by eligible half-acre bungalow plots, leaving no land over for farms, towns, roads, Mr. Waugh or myself, except of course our half-acre.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

WATERLOO BRIDGE

At Tuesday's meeting of the L.C.C. the Highways Committee reported the receipt of a letter from the Minister of Transport stating that the Royal Fine Art Commission having examined the model and drawings illustrating the design for the new Waterloo Bridge do not desire to offer any observations upon the scheme.

BLOCK OF OFFICES TO BE BUILT IN ABINGDON STREET

A block of offices is to be built on the site of Nos. 18 to 27, Abingdon Street, S.W. The National Executive Council of the National Association of Local Government Officers, owners of Nos. 24 and 26, has decided to buy Nos. 25 and 27. The Ecclesiastical Commissioners own Nos. 18 to 23 and have already decided to rebuild. The two bodies are working in close contact. A joint architect has been appointed and the building, which will be the property of the Association and the Ecclesiastical Commissioners, will be planned as a whole.

THE REGISTRATION BILL

On Friday last a Standing Committee of the House of Commons began consideration of the Architects' Registration Bill, which seeks to restrict the use of the name "architect" to registered architects. On Friday night the Committee adjourned until Tuesday and, on that day, the Committee concluded its deliberations and the Bill was ordered to be reported, as amended, to the House. A full report of the proceedings will appear in next week's issue.

OLD WINDMILL NEAR LONDON SAVED FROM DEMOLITION

The Minister of Health has approved an Order made by the Essex County Council under Section 17 of the Town and Country Planning Act, 1932, for the Preservation from demolition of the Smock Mill, situated on the eastern outskirts of the village of Upminster. As its name suggests, the mill is a typical weatherboarded, timber-framed smock, upon a stout brick lower storey. It has a boat-shaped cap, with a fantail, and double-shutter patent sails, which have taken the place of the original cloth sails. There are two galleries, one around the cap, and the other at the first floor. The mill dates back from the end of the eighteenth or the beginning of the nineteenth century, and the late miller worked it for over forty years, following his father and grandfather as miller there.

It is of interest to note that this windmill, one of the few which still remain standing near London, is the first to be brought under the protection of the Section. With the exception of Terling Mill, it is the last perfect example of its kind in the County of Essex.

THE ARCHITECTS' DIARY

Thursday, March 17

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. Exhibition of Work by Students of the Royal College of Arts—arranged by the A.A. Students' Art Club. Until March 18.*

SOCIETIES OF ANTIQUARIES, *Burlington House, Piccadilly, W.1. "Excavations at Clarendon Palace." By Dr. Tancred Borenius and John Charlton. 8.30 p.m.*

Friday, March 18

BRITISH ELECTRICAL DEVELOPMENT ASSOCIATION. *Annual luncheon. At the Savoy Hotel, W.C. 1 p.m.*

LONDON SOCIETY. *At the Royal Society of Arts, John Street, Adelphi, W.C.2. "The History and Achievements of the Royal Society of Arts." By K. W. Luckhurst. 5 p.m.*

REIMANN SCHOOL, 4-10 *Regency Street, S.W.1. "Pictorial Composition." By Iain Macnab. 8 p.m.*

Monday, March 21

R.I.B.A., 66 *Portland Place, W.1. "Speculative House-Building." By Stanley C. Ramsey. 8 p.m.*

Tuesday, March 22

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C. An evening arranged by the A.A. Students' Committee.*

HOUSING CENTRE, 13 *Suffolk Street, S.W.1. "Housing in Leeds." By R. A. H. Livett. 1 p.m.*

Wednesday, March 23

R.I.B.A., 66 *Portland Place, W.1. "Organizing Sport." By W. W. Wakefield. 6.30 p.m.*

LONDON SOCIETY. *Visit to the new headquarters of the London Fire Brigade, Albert Embankment, S.E.1. 3 p.m.*

B.I.F. ATTENDANCES

The total number of visitors to the British Industries Fair was 380,877, an increase of 4,830 over the figure for the previous year.

23-STOREY BUILDING FOR LEEDS

The Leeds Corporation Improvements Committee has deferred consideration of the plans for a 23-storey building proposed to be built in Leeds. The top of the flagstaff surmounting the proposed building would be 370 feet above the ground. The site would exceed 3,000 square yards, with a frontage of 86 feet in Briggate, and of about 70 feet in Trinity Street.

The flat roof would be 255 feet above Briggate, and from this roof would rise in the centre a 55 ft. tower.

COMING TO TOWN: HOUSE OF THE SEVEN DWARFS

Shortly before Walt Disney's first full-length technicolour picture "Snow White and the Seven Dwarfs" was shown to the press, several critics predicted that it would not be a box-office success. But these critics did not realize that the quality of the film, plus the publicity "angle" exploited by the "Exploitation" Department of the company responsible for its distribution in this country, would result in record-breaking business at the box-office. That the film has captured public interest is evident by the fact that the "House of the Seven Dwarfs" is to be built at the Ideal Home Exhibition, opening at Olympia on April 5. The promoters of the exhibition state:

It will be built from sketches by Walt Disney, and it will be seen with its quaint thatched roof and gables, its white stucco and black timbered walls, its crazy door and little shuttered windows and many other quaint conceits just as the artist has shown it in the picture.

It will be found a strange place inside, with pillars twisted rather like barley sugar, each of them with an owl's face solemnly staring down at you, owls' faces on the cupboards, and stairs with owls' heads carved on them. In the living room there will be a witch's cauldron, and in the music room a reed organ such as that to which the Dwarfs dance.

MR. ROBERTSON TO VISIT AMERICA

Mr. Howard Robertson is to leave for America on the "Normandie" on March 23 to visit the site of the British Pavilion to be built at the New York World Fair. He will be accompanied by Sir Louis Beale, Commissioner General of the Exhibition.

The firm of Stanley Hall and Easton and Robertson was recently appointed by the Department of Overseas Trades to design the Pavilion.

CONFERENCE IN GLASGOW

A town planning conference, followed by a tour of Scotland, to be held at Whitsuntide, is now being arranged by the Garden Cities and Town Planning Association. The conference will begin at Glasgow on June 3 in the grounds of the Empire Exhibition and will run until the morning of Monday, June 6. In the afternoon the tour will commence and the places to be visited include Aberdeen, Kincorth, Dundee, Dunfermline, and Edinburgh. The tour will conclude on June 9.

Full details are obtainable from the Secretary of the Association, 13 Suffolk Street, S.W.1.

SOUTH LONDON EXHIBITION

Yesterday, the Lord Mayor of London visited the Crystal Palace to open the seventh South London Exhibition. This is the first occasion since the disastrous fire on November 30, 1936, that the Crystal Palace has been used as an exhibition centre.

The exhibition is being held on the Firework Terrace.

WAGE INCREASE

About 90,000 building trade operatives will receive increases in wages as the result of a conference in Glasgow last week of the Scottish National Joint Council for the Building Industry. It was agreed to advance the wage rates of tradesmen by ½d. per hour, with a proportionate increase to labourers, as from April 1.

AN ARCHITECT'S WILL

Mr. Alan E. Munby, F.R.I.B.A., left £21,262 (net personalty, £20,545).

ON THE AIR

Friday, March 18. Midland Programme. 8.25 p.m. "What Industry Offers Your Child—The Building and Construction Trades." A discussion between P. Sargant Florence and Richard Coppock, Secretary of the National Building Trades Operatives.

Saturday, March 19. Regional Programme. 8.40 p.m. Conversation in the Train. "Is Art Any Use?"

CHANGE OF ADDRESS

From March 21, the address of Mr. Alex. F. French, L.R.I.B.A., will be: Halifax House, 1-2 St. Augustine's Parade, Bristol, 1. Telephone No.: 23518.

NEW COMPETITIONS

Conditions of two new limited competitions have just been issued. They are:—

1: New Council Offices, Adwick-le-Street, for the Adwick-le-Street U.D.C. (Open to architects whose offices are situated in the West Riding of York). Assessor: Mr. John C. Procter, M.C., F.R.I.B.A. Premiums: First, £50; second, £40; third, £30. Last day for questions: April 23. Last day for submission of designs: August 30. Conditions are obtainable from Mr. C. R. Marshall, Clerk to the Adwick-le-street, Bank Chambers, High Street, Doncaster. Deposit: £1 1s.

2: Cottages to be built in rural areas, for the Department of Health for Scotland, in conjunction with the Royal Incorporation of Architects in Scotland. (Open to architects practising in Scotland.) The competition is divided into five sections, and competitors may submit designs in one or all of the sections, as follows: (1) Three-apartment single-storey cottage; (2) Four-apartment, single-storey cottage; (3) Three-apartment double-storey cottage; (4) Four-apartment, double-storey cottage; (5) Block of two four-apartment cottages. Assessors: Messrs. Charles G. Souter, F.R.I.B.A., F. C. Mears, A.R.S.A., F.R.I.B.A., and John Wilson, F.R.I.B.A. A premium of £75 is offered for the winning design in each of the five sections. Last day for questions: April 4. Last day for submission of designs: May 14. Conditions may be obtained on application to the Secretary, Department of Health for Scotland, 125 George Street, Edinburgh, 2.

EXHIBITIONS

[*By D. COSENS*]

IN spite of a conviction that an architect's real interest in art must inevitably lie in the parallel work that painters and sculptors are doing today, in today's idiom, it is nevertheless pleasant occasionally to bury one's head in the safe and reassuring sands of the past, and, forgetting the dangers inherent in the attitude, to consider only those things to which time, and the consciousness of its quick passing, tend to give an affectionate immunity from criticism. At 45 Park Lane Sir Philip Sassoon has gathered together an exhibition of "Old London" (roughly speaking, eighteenth-century London) in aid of the Royal Northern Hospital, and the illusion of a calm and dignified past is greatly helped by its appropriate setting in his house. In the London we are shown here Canaletto transforms the Thames with the warmth and colour of Venice, Stubbs immortalizes the Duke of Richmond's race-horses, and Wilson paints St. George's Hospital and the Foundling Hospital surrounded by fields. And although we may be well aware that what we see is but one charmingly idealized facet of eighteenth century London, a faint nostalgia is inevitable for a city that had an ordered dignity, many open spaces, and a beautiful water front—a city that was still a unit.

Of the paintings in this exhibition the two magnificent views of the Thames by Canaletto (17 and 21) repay, alone, the five-shilling entrance fee. These are not, perhaps, quite equal to his Venetian work, but they are very fine examples indeed (particularly 17) of the work of one of the greatest painters of architectural subjects. Many of the other paintings are clearly imitative, with greater or less success, and it is interesting to compare the whole composition and treatment of Samuel Scott's "View of the Thames" (175 or 225) with Canaletto's. Loan exhibitions of this type should be encouraged, for it is only on these rare occasions that paintings in private ownership can be seen. How much is still hidden, perhaps unrecognized, in our great country houses?

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Christopher Wood was an excellent draughtsman and a very versatile painter with a good sense of pattern and colour. Remembering the brilliant and unfulfilled promise of so many it is hard to say how far or in what direction he might have developed, but he was undoubtedly one of the most talented young painters of his generation. The Redfern Gallery have arranged, and are holding at the New Burlington Galleries, an exhibition of his complete works. Apparently the decision to include all was arrived at after some debate and the result, though extremely interesting as a survey, is perhaps rather hard on the painter. For though the standard throughout is surprisingly high, no man at the age of twenty-nine can have wished for the inclusion of everything he ever painted, nor would an artist of Christopher Wood's sensibility have cared for the sometimes undiscriminating admiration that is the fate of those who die young and tragically. His most typically successful paintings are those of Cornwall and Brittany, and he is very skilful in contrasting the shapes of ships and sails against the hard outlines of quayside and wharf in the uncertain light of a squally day. That is the Christopher Wood with whom we are all familiar. But the really interesting painter who might have developed out of the mass of experiments and influences is the one who, in such paintings as "The Yellow Man" (108), is becoming more than the recorder of a particular type of landscape. These few surreal paintings justify more than all the rest the somewhat extravagant claims so often made for the artist.

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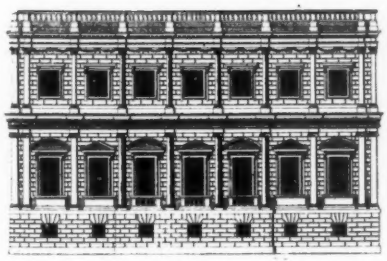
"Old London" Loan Exhibition. 45 Park Lane. Until April 10.

Exhibition of the Complete Works of Christopher Wood. New Burlington Galleries, 5 Burlington Gardens. Until April 2.

THIS ARSHETECTURE

From the catalogue to "Dudley Zoo."



SWING BACK TO REPRO

[*By JOHN GLOAG*]

REACTION—how most of us shudder at the word, whether it is concerned with art or politics or economics. There are apologists who insist on putting "healthy" in front of it; but is there such a thing as "healthy reaction"? Was the reaction against the florid liberties of "New Art" which distinguished the opening decade of this century "healthy"? Rather was it a gesture of despair. People fell back with a thankful sigh into the past, surrounded their lives with the gracious adornments of the eighteenth century, bought antique furniture, genuine and spurious, and called it a day.

There was something violent, undisciplined and morally intimidating about "New Art." It shook people up; rattled their ideas about, and bemused them with such a raw assortment of uncertainties, that only by clinging to history could they be sure of anything. The result was period furnishing and interior decoration, about which architects were expected to know little or nothing, for the fashionable decorators of that time kindly saw to it that the architect was described as "excellent for the *outside*" but apt to be heavy-handed within. "He can't forget that he isn't dealing with stone," was a favourite opening gambit in the game of disparagement; and the decorators and antique dealers got away with it, and until after the war the architect was further than ever from realising his real, far-reaching responsibility for everything concerned with design, the responsibility he had carried so splendidly in the seventeenth and eighteenth centuries.

Unfortunately, that decorator's crack about the architect's inability to forget he was dealing with stone, when he was concerned with the more delicate and malleable materials of interior architecture, was not wholly untrue. There were exceptions, of course; but the architect was not always at his best when practising interior decoration. Maybe because he was brought into violent contact with his client's taste (or, as he might put it, his client's *prejudices*); but it was a side of the architectural profession which did demand the most delicate adjustment of a designer's preconceived ideas, and often required the

violation of quite sacred beliefs about form and colour. But, fortunately, we've grown out of a lot of that. The architect, particularly the modernist left-wing architect, has staged a comeback; and for over a decade he has been in charge of the whole bag of tricks for living in: outside, inside, mechanism, furniture, fabrics—why, the client in the grip of such masterful competence can hardly call his (or her) taste his own. The decorator likes to call himself an "interior architect" now, and the process of frightening the homemakers of old England is about to be repeated. New Art scared 'em stiff in the 1900–1910 period: is modernism and the rather arid morality about the shape and function of things that goes with it going to scare them all over again? To use the phrase of the head of a big progressive department in a big progressive firm in the North, is there going to be a "swing back to repro"?

"Repro" or "reproduction-stuff" means reaction in furnishing. Reaction against, I fear, all those cool, clean, sweet things that have put frowsty old English comfort where it belongs; those bones of shining metal, those vast upholstered chairs that were also tables and almost beds, that, in the glittering phrase of Chermayeff, "clustered like a flock of elephants converging upon a glow-worm"—the glow-worm being the thin red line of an electric fire: all those triumphs of functionalism, the attenuated or inflated children of modernism, are threatened by reaction.

"Swing back to repro" does not mean today what it meant when the Edwardian dealer and decorator were promising a nice, safe shelter from the lashing octopus-antics of New Art. No, no—we aren't in for good old period stuff, nicely dolled-up and correct in all details. We are about to enter a phase of what is called, or will be called, "Adaptation." We shall find old shapes embarrassingly tricked out with new colours, and placed against the monastic background of the modern apartment. Possibly, and brooding with an air of immense calm, aloof, pathological, superdimensional, we shall see some modern painting—the sole mural embellishment of this strange assembly from the past. Imagine this virile surrealist creation, this tattered thing of clay and canvas, discarded silver-paper, egg-shells, cork and broken glass, dominating a room full of heavily-carved Charles II chairs, painted pale emerald green and upholstered in yellow rubber.

We are in for such mixtures (and they *could* be quite entertaining and agreeable); we are in for a "swing back to repro" in furnishing; we are in for a new complication in taste, a new obstacle in the development of contemporary architecture, unless—but maybe that is expecting too much. Unless—one hardly likes to proceed, but we'll find the public turning its back on modernism altogether unless the Puritan elements in design are uprooted and a little fun and excitement and humanity introduced. Meanwhile, a danger exists. This "swing back to repro" which is beginning will lead us if we aren't watchful back to the dealer, the period decorator, and that arch-enemy of decent contemporary design, the collector.

R.I.B.A.

NEWS BULLETIN

General Meeting.—"Speculative House-Building," by Mr. Stanley C. Ramsey, F.R.I.B.A., on Monday, March 21, at 8 p.m. Mr. Ramsey is an acknowledged expert on his subject, and his paper is attracting several guests prominent in the building society and house building worlds. These include Sir Harold Bellman, who will move the vote of thanks to Mr. Ramsey, Sir Jonah Walker-Smith, Dr. Albert Mansbridge, Mr. John Laing, Mr. Norman E. Waites and Mr. John Fox, who is Chief Registrar of Friendly Societies.

Health, Sport and Fitness.—The Exhibition has already proved one of the best that the Exhibition Sub-Committee has yet produced. H.R.H. the Duke of Gloucester showed great interest in it when he inspected it on March 10. Demands for provincial bookings have been unusually heavy. It will be on view in Bristol at the Art Gallery during the British Architects' Conference in June. Mr. W. W. Wakefield, M.P., is to speak on "Organizing Sport" at the R.I.B.A. on Wednesday next, March 23, at 6.30 p.m.

Touring Exhibitions.—"Modern Schools" opens at the Public Museum and Art Gallery, Hereford, on Monday next, March 21.

"Airports and Airways" will open at the Museum and Art Gallery, Derby, on Friday, March 25.

"Civic Centres" opens on April 2 at the Public Libraries, Museums and Fine Art Galleries, Brighton.

THE R.I.B.A. AND ITS MEMBERS

The R.I.B.A. Council has issued the following statement:—

In view of the correspondence which followed the President's inaugural address, the Council of the R.I.B.A. thinks it desirable to re-affirm the policy of the Institute in respect of the initiation and carrying-out of building schemes, with particular reference to the employment of architects by public and other bodies.

The professional practice of architecture has changed much in the present century in conformity with, and probably because of, the changes in our general social system, the control of which is outside the scope of the R.I.B.A. Government departments, county and borough councils, railway companies, great commercial combines such as banks and breweries, are setting up architectural departments of their own which are doing the work formerly carried out for the most part by the private practitioner.

This system is extending and is becoming, by reason of the opportunities it provides, an appropriate channel for the production of buildings of the highest quality.

It is, therefore, of the utmost importance that the professional training and qualification of the official architect should be of the highest standard; and it should here be stated that the R.I.B.A. recognizes no difference between those members who occupy official positions and those who do not. Their status within the Institute is the same and no distinction whatever is made between private and official members. It is hoped that the recent establishment of an Official Architects' Committee will do much to further the interests of official members and induce them to take a greater share in the work of the Institute with a view to closer co-operation between all members.

It is in the public interest that an ever-increasing amount of the building work done in the country shall be designed by qualified architects, whether official or private. The statutory responsibilities of public bodies in connection with Town and Country Planning, Restriction of Ribbon Development and other Acts, are now such that constant advice by qualified architects is essential in the interests of the community.

There is no desire on the part of the Institute to suggest any encroachment on the legitimate spheres of the engineer or surveyor, nor competition with them in what are obviously their appropriate duties; but it cannot be denied that in both private and official building work too many schemes are initiated and too many buildings are still undertaken by men untrained in the all-important matters of planning and architectural design.

By reason of their training architects are the professional men best qualified to act as co-ordinators, and are therefore the right persons to hold major responsibilities in schemes in which architectural considerations are of primary importance.

In cases where the principal officer responsible to an authority is an engineer or surveyor, acknowledgment of the actual designer of a building should be made. This practice is followed in many architectural departments where official architects of high standing are the responsible officers, but should be extended.

In the design of great national or civic buildings or where a building is to be a national heritage, the choice of the designer should be made from as wide a field as possible in order to secure the finest result. The Institute favours the principle of competitions which has produced many fine buildings in the past.

Much may be done to increase the public appreciation of architecture by closer co-operation between all architects in any district. Only a comparatively small percentage of building work is designed by architects, and there remains a large field still untouched. Official architects are able to influence public opinion through county and municipal authorities towards the desirability of buildings of all kinds being designed by men trained for that purpose: and the Council urges all official members and all private members to work together, when the occasion arises, for the betterment of building and the consequent public benefit.

ELECTION OF MEMBERS

The following members were elected at a Council meeting held on March 7:—

As Hon. Associates (6).—Messrs. T. Barron (Glasgow); J. E. Barton (Bristol); Sir J. Forsdyke (London); Mrs. M. Quennell (London); Sir E. D. Simon (Manchester); and Mr. R. J. Whistler (London).

As Fellows (7).—Messrs. E. W. Banfield (London); S. E. Dykes Bower (Quendon, Essex); O. H. Leicester (London); P. V. Mauger (London); R. Ross (Glasgow); A. Hick (Hull); and W. H. Marten (Leeds).

As Associates (11).—Messrs. P. M. Alexander (Timperley, Cheshire); I. S. Gavin (Edinburgh); J. H. Glover (Edinburgh); A. P. Jones (Liverpool); A. W. Jones (Knutsford, Cheshire); P. L. Joseph (London); K. A. Lloyd (Oaken, Staffs.); K. Morton (Sheffield); D. M. Pate (London); N. E. Tarbolton (Birmingham); and A. W. Walker (London).

As Licentiates (5).—Messrs. R. G. Bospidnick (London); J. T. Gray (London); D. W. Joel (Croydon); N. Pyman (Leeds) and E. G. Stevens (London).

PUBLIC HOUSE, HAYES, MIDDLESEX

DESIGNED BY H. REGINALD ROSS

SITE—*The "Adam and Eve" Public House, Uxbridge Road, Hayes, Middlesex.*

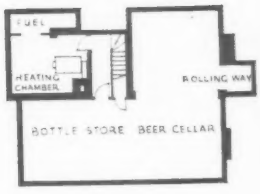
CONSTRUCTION — *External walls are solid brickwork, chiefly 13½ ins. thick, the recessed portions 9 ins. The facings are 2-in. Bedford greys, laid five courses to a foot, certain portions being rusticated. It was considered permissible to use 9-in. solid walls in view of the considerable overhang of the eaves, some 2 ft. 6 ins., and the fact that all 9-in. work is recessed back from the main face. In practice no trouble has arisen. A certain amount of steel has been used internally, but generally the walls are weight-bearing. The 30° roof is covered with boarding and felt, and "under and over" Spanish pattern hand-made tiles. A specially made galvanized box section gutter was designed and incorporated in the roof slope. It is practically invisible. The stone feature is in Clipsham stone, and the panel over the door is in artificial stone. The panel was designed by Miss Gertrude Hermes. The sign has been executed in armoured glass by Cosmo Clark.*

The photographs show two views of the main front.

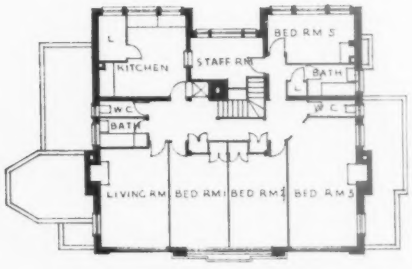
PUBLIC HOUSE, HAYES, MIDDLESEX:

PLAN — *In view of the comparatively small size of the public house a private bar was not considered necessary, and the extra space was used to provide a large saloon lounge and public bar. In the lounge is a recess, with an open fire, and with seating space for customers. Similarly the public bar has its open fire in the least congested part of the room well away from the entrance doors and from dart players, for whom an annexe is provided. In the club room also is an open fire. The house is designed so that both bars can be extended into the dining room and the club room, both of which could be accommodated in new one-storey extensions into the garden.*

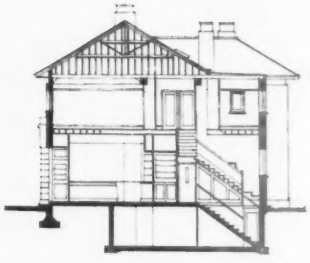
The photograph is of the entrance to the saloon bar.



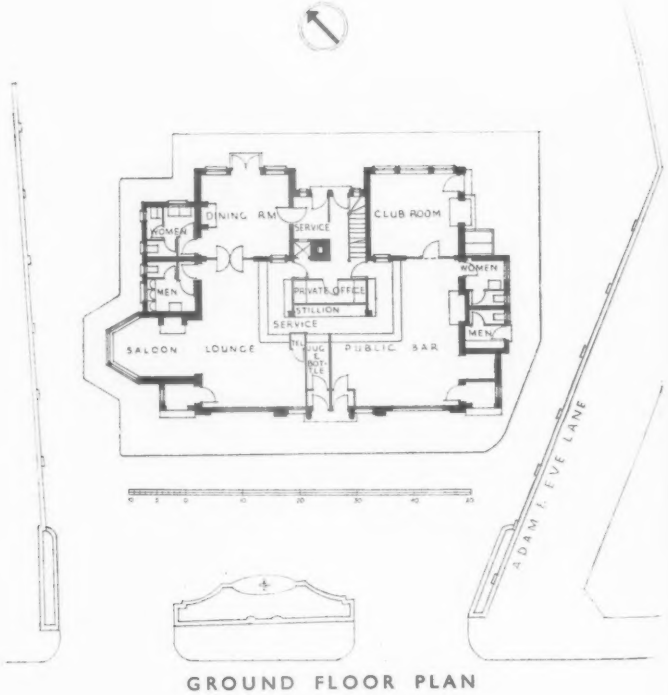
BASEMENT PLAN



FIRST FLOOR PLAN



SECTION



GROUND FLOOR PLAN

DESIGNED BY H. REGINALD ROSS

INTERNAL FINISH—*The internal flush panelled doors are mainly teak, with teak frames and Australian walnut architraves. The decorative glass panels in these doors and the sandblasted frieze to the stillion are by Cosmo Clark. Dadoes are mostly veneered in two heights with Australian walnut and Indian laurel, with Australian walnut capping and sunk teak skirtings. The dado panelling to the public bar and clubroom is in selected Columbian pine sheets. The stillion is mainly in teak with Australian walnut capping and columns. Cornices are fibrous plaster, and floor finishings cork carpet in the saloon and hardwood strip elsewhere.*

SERVICES—*Mechanical ventilation is used, although natural cross ventilation in very hot weather can be obtained by opening the dining room and club room doors. Additional heating to that provided by the open fires is obtained by radiators fed by a boiler in the basement.*

COST—*Contract price £9,841 18s. 6d. (final cost). Price per foot cube 2s. 6d.*

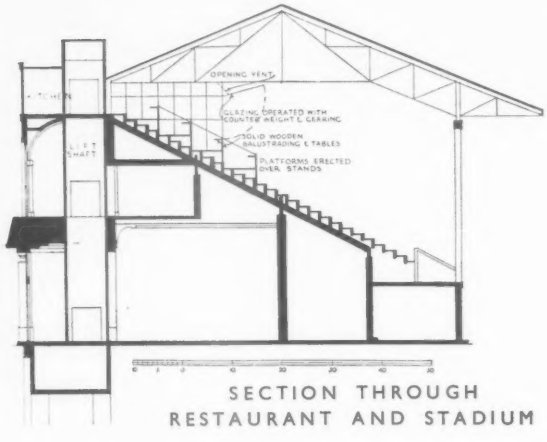
For list of general and sub-contractors see page 470.

The photographs show: above, the counter in the saloon bar; left, the dart players' recess in the public bar; right, the glass panels in the doors of the lavatories.

REMOVABLE RESTAURANT, WEMBLEY STADIUM:

GENERAL PROBLEM—*Restaurant on the terraces of the stadium to enable patrons to dine and at the same time see dog racing, speedway and other events. Special conditions were : The outside walls of the restaurant should permit an unimpeded view of the arena ; that the outside walls could be removed to provide an open air restaurant; and that the restaurant to be such as to permit its complete removal and replacement in a short space of time to enable the restoration of the terraces for such events as the F.A. Cup Final.*

The photographs show : above, a general view in the restaurant ; left, a detail at the top of the centre gangway.

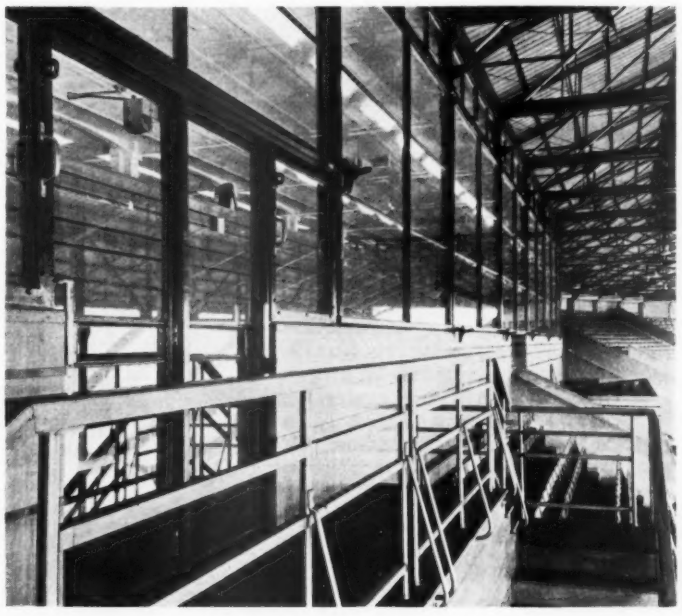


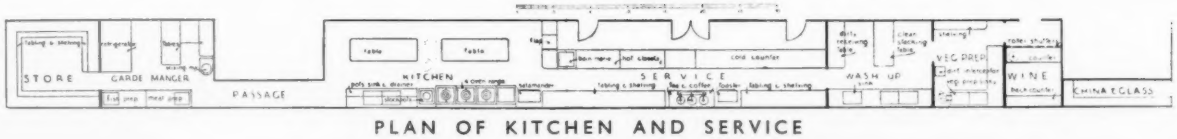
SECTION THROUGH RESTAURANT AND STADIUM

DESIGNED BY SIR E. OWEN WILLIAMS, K.B.E.

CONSTRUCTION—*The three sides of the restaurant, facing the arena, are constructed in large panels of plate glass framed in metal. The front is designed in a series of opening windows each about 14 ft. long and 9 ft. deep and each pivoted at the head to open outwards by wire cables, attached to the lower edge of the windows. The cables pass up to the roof above the ceiling, via a series of pulleys to winding gears in the kitchen. This arrangement, in addition to making possible open air conditions, enables the windows to be lifted up out of the way when the restaurant is to be dismantled. To enable the restaurant to be dismantled and replaced, the uprights to the opening windows, the end screens, the continuous barriers supporting the tables, the suspended flooring and the gangways have been designed in convenient sections with suitable joints. Lighting is from the ceiling and is arranged to permit dimming just before the commencement of an event to practically a complete black-out during the event. The floors, with exception of the promenade at the back of the restaurant, which is laid in cork floor tiling, are carpeted. Joinery work is in solid or veneered teak.*

PLAN—*The restaurant is approximately 170 ft. long and 30 ft. wide and is situated at the top of the terracing between the two towers on the north side of the stadium. The main access is by a lift adjacent to the west tower having a maximum capacity of 30 persons. The restaurant accommodates 250 persons. It is in three tiers, each at a different level, so as to maintain, and not interfere with, the "eye line." Each tier is accessible by a central gangway and one at each end. Tables at definite intervals are attached to continuous barriers on the drop between each tier. They seat four in such a way that each person faces the arena.*

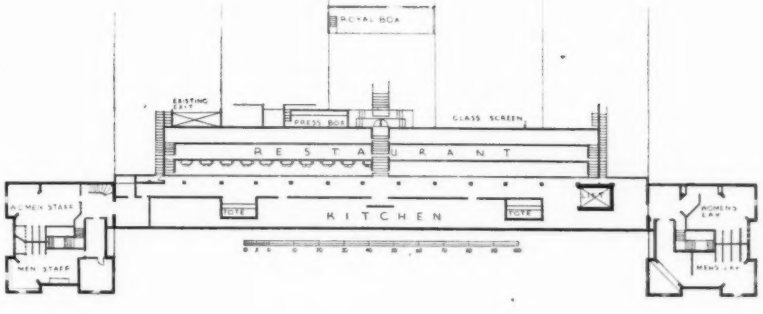




PLAN OF KITCHEN AND SERVICE

The photographs show: top, the entrance to the restaurant from the terraces; above, looking towards the lift on the promenade; and a view of the restaurant from the stadium.

For list of general and sub-contractors see page 470.



PLAN OF RESTAURANT

LETTERS *FROM* READERS

Lighting

SIR,—In your issue for March 3 the authors of the schools article ask for the evidence of experts on the intensities of illumination desirable. The response has apparently come from those interested in the sale of lighting fittings who might be suspected of bias in favour of more or larger fittings, though it is true that Mr. Toner quotes the Illuminating Engineering Society as an impartial body. Their figure, however, is only 5 to 10 foot-candles, which is nearer Mr. Downer's figure than the authors' original one.

Other impartial sources of information are the reports of the Department of Scientific and Industrial Research and of the Medical Research Council. These give little support to the demand for high intensities. Technical Paper No. 7 of the former body concluded "that the provision for natural lighting at any point in a clerical office may be regarded as adequate when the daylight factor at that point is equal to or exceeds 0·2 per cent." This figure corresponds to an illumination of 1 foot-candle under the standard average conditions of sky brightness. A more important conclusion is that the minimum satisfactory intensity is not an absolute value, but a relative one, being higher on bright days, i.e., when the window outlook is brighter. A later report, No. 19, covers tests on 17 typists and concludes that 5 foot-candles is nearer the desirable minimum, though the conclusions are probably biased by one abnormal case who required 20 ft. candles, perhaps because of defective eyesight. Consider the daylight conditions from another angle. A classroom 25 ft. by 20 ft. by 10 ft. high would be considered almsot ideal if the whole of one long side were window. Under these conditions the intensity on a desk on the opposite side of the room would be about 10 foot-candles with average dull sky outside. There are few classrooms which come up to this standard.

Other reports of these bodies dealing with artificial lighting suggest that beyond 5 foot-candles the increase in acuity is relatively small for very great increase in intensity, and it is quite possible that the increased acuity may be gained at the expense of increased eye-strain. Mr. Allom's references to outside conditions are not valid. We do not study white paper of high reflection factor in bright sunshine.

If intensities of the order quoted above are satisfactory by daylight why demand higher intensities of artificial light?

The truth is probably that the demand for higher intensities arises out of unsatisfactory methods of artificial lighting. Natural illumination is comfortable because there are no great differences of contrast. Even the source—the sky—is of much lower brightness than any lighting fitting. The eye adapts itself easily to the general level and is not strained by large contrasts. In artificial light the source can never be as soft as the sky since it is necessarily limited in area to the size of the room; the ceiling, for example, in indirect lighting. With direct fittings, the source is a point of much greater brilliance than the rest of the room, and the brighter it is the greater intensity is needed to see other objects in the field against its glare, so creating a vicious circle.

Although the authors advocate shadowless lighting, they show in the illustrations small concentrated direct fittings which are anything but shadowless and must be a source of considerable glare. As a contrast to this, the visual field probably includes a large window without curtains which at night is dead black. It is these conditions of excessive contrast rather than the absolute intensity which do damage to the eyes, and it is these conditions which the average Education Committee sets up because these are the cheapest means of obtaining the intensities they are told they require. What is really needed are better methods of producing the light from large surfaces of low brightness such as by panel or indirect lighting. At the same time contrast should be reduced by drawing light-coloured curtains over the black window at night and, if necessary, by adopting the yellow blackboard also. The eye can then accommodate itself to the general level as it is designed to do.

Without improvement of method, increase of intensity only may have the harmful consequences Mr. Downer fears. If the architects can lead the schools away from the violent contrasts of the present methods of artificial lighting by opal bowls, etc., to indirect or panel lighting, they will do more service to the eyes of the rising generation than by advocating higher intensities.

T. N. RILEY,
Director

T. N. RILEY
(Director, G.V.D. Illuminators, Ltd.)

READER

SIR,—It is difficult to understand why Mr. G. V. Downer considers that "4 to 5 foot-candles" will be found ample in most cases for school lighting. From my own practical experience—working for long hours by artificial light at work which often involves reading matter printed in small type—I should think 8 foot-candles would be nearer the standard to be arrived at.

I have before me a booklet issued some years ago by the Lighting Service Bureau, and under the heading "Schools" the following figures are given:—

	Foot-candles	
	Recommended	Under some conditions
Blackboards ..	6	4–8
Class-rooms ..	8	5–10
Corridors ..	3	2–4
Drawing ..	15	10–20
Manual training	10	6–12
Sewing rooms ..	15	10–20
Lecture theatre ..	5	4–8

It will be seen that Mr. Downer's standard of 5 foot-candles is only allowed "under some conditions" as the minimum for class-rooms and that for certain work (drawing and sewing) the 15 foot-candle standard of the authors of the schools article is recommended.

Possibly general office work may be considered as being on all fours with school work, and here it is interesting to note that the standard recommended in the booklet referred to for both general office work and typing and bookkeeping rooms is 8 foot-candles, with a variant "under some conditions" of 6–12.

In this connection it would be interesting to have some statistics as to the number of people who have had to take to glasses as the result of the substitution of flood lighting for individual lighting points in some of the large offices, both public and private.

"READER"

Salop School Competition?

The Schools Reorganization Sub-Committee recently reported to the Shrewsbury Education Committee that it was anticipated the Board of Education would very soon intimate its approval in principle of the programme of educational development of which the proposed Broom Hall Senior School, to cost approximately £55,000, is a part, states *The Midland Counties Express*.

On the question of appointing an architect, the best course was to throw the matter open to a competition on terms approved by the R.I.B.A. Three prizes were suggested, and it was thought probable the first would be £500, but, on the other hand, it was usual to elect the winner as architect for the scheme, and in this event the amount of the prize money would merge into his fee as architect.

Mr. A. E. White said it was a very specialized business and the Council would probably save money by inviting competition.

The Architects' Journal Library of Planned Information

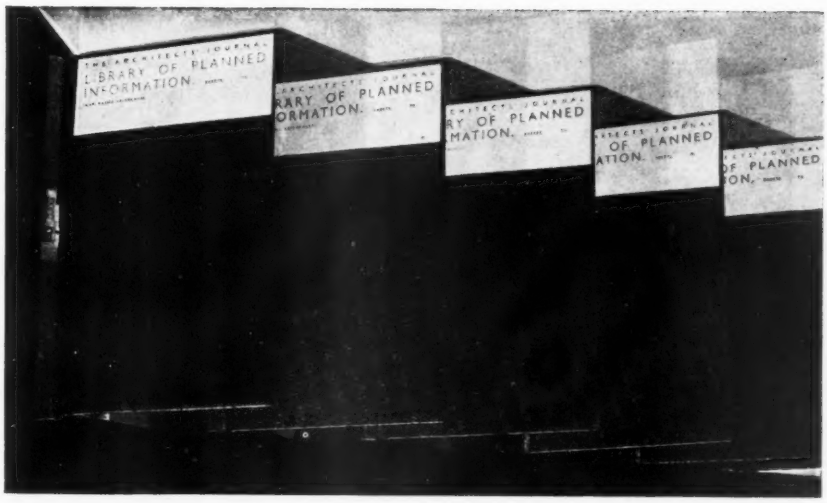
INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

609 Fireplaces

610 Weatherings—I



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
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517 : Cycle Parks
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519 : Kitchen Equipment
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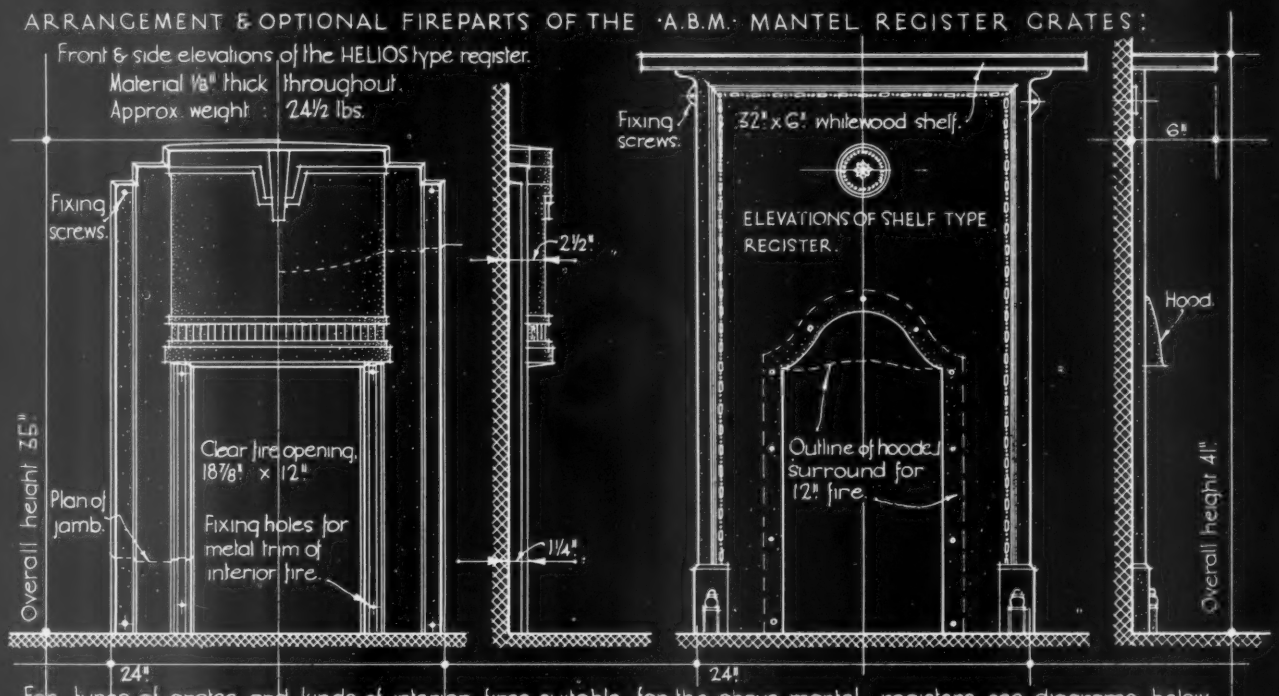
522 : Reinforced Asbestos-Cement Roofing Tiles
523 : Poison Gas Precautions
524 : Kitchen Equipment
525 : Metal Reinforced Asbestos Cement
526 : Leadwork to Photographic Developing Tanks
527 : Asbestos-Cement Corrugated Sheets
528 : Cycle Parks
529 : Kitchen Equipment
530 : Asbestos-Cement Corrugated 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
605 : Insulation and Protection of Buildings
606 : Heating Equipment
607 : The Equipment of Buildings
608 : Water Heating

761.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

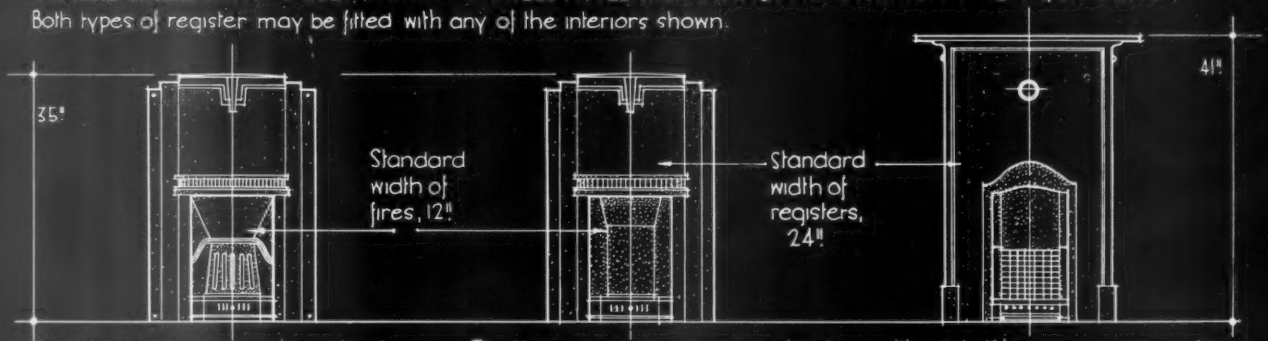
ARRANGEMENT & OPTIONAL FIREPARTS OF THE 'A.B.M.' MANTEL REGISTER GRATES :



For types of grates and kinds of interior fires suitable for the above mantel registers, see diagrams below.

TYPICAL DIAGRAMMATIC ELEVATIONS OF MANTELS FITTED WITH STANDARD INTERIOR FIRE EQUIPMENT :

Both types of register may be fitted with any of the interiors shown.

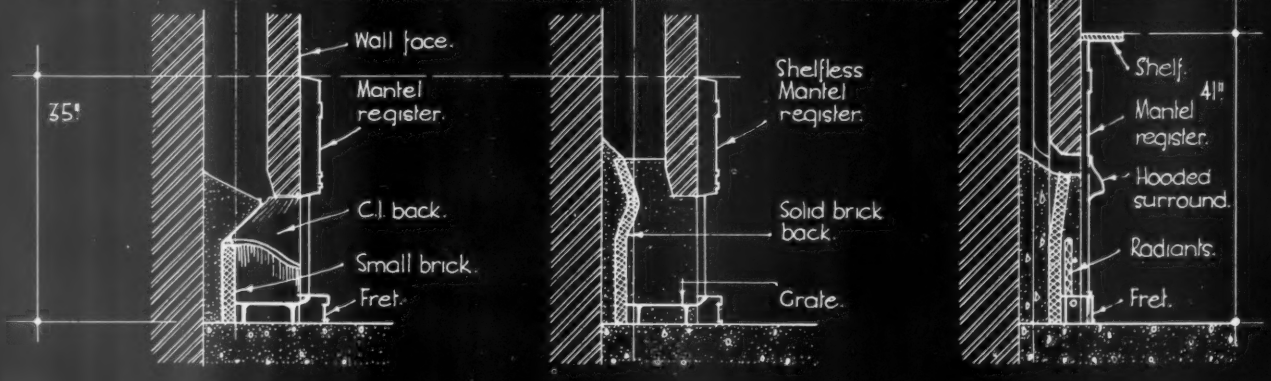


The Helios mantel register shown fitted with C.I. back, small brick & A.B.M. fret.

The Helios mantel register shown fitted with A.B.M. solid brick back & A.B.M. fret.

Wood shelf type register shown fitted with A.B.M. 7-radiant gas fire fitment.

TYPICAL DIAGRAMMATIC SECTIONS OF THE ABOVE MANTELS SHOWING CONSTRUCTION OF INTERIOR FIRES.



Information from the Associated Builders' Merchants Ltd

INFORMATION SHEET : CAST IRON MANTEL REGISTER GRATES.

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

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 609 •

FIREPLACES

Product : Cast Iron Mantel Register Grates

General :

On this Sheet are shown two types of standardised mantel registers to hold fitted-in coal or gas fires. Both the shelfless Helios type and the shelved register are of approximately $\frac{1}{8}$ in. material throughout, and are provided with countersunk holes at suitable points for screw plug fixings. Both registers have fire openings 12-in. wide and can be fitted with any of the standardised A.B.M. coal or gas burning fireparts.

Shelfless Registers :

The Helios type register is 35 ins. overall height, and is intended for use where a projecting shelf is not required. The jambs are recessed at the fire opening as indicated on plan and are provided at top and bottom with holes for attaching the cast iron cover uprights of the particular kind of interior grate to be fitted. The portion above the opening is curved on plan and finished at the head with a sloping top as shown.

Shelf Registers :

This type stands higher than the Helios, and is fitted with a 6-in. wide whitewood painted shelf at the top. The fire opening of this model has a hooded cast iron frame, behind which may be placed any kind of A.B.M. standard fire equipment shown in the diagrams.

Previous Sheets :

Sheets already published dealing with A.B.M. products are Nos. 540, 555, 558, 562, 566, 570, 574, 579, 591, 597 and 601.

Standardised Design :

The Associated Builders' Merchants is a non-trading organisation devoted to the standardisation of the design of building materials and equipment. Materials and equipment made by a number of manufacturers are stamped with the following symbol indicating that they conform to the standard of design and quality laid down.

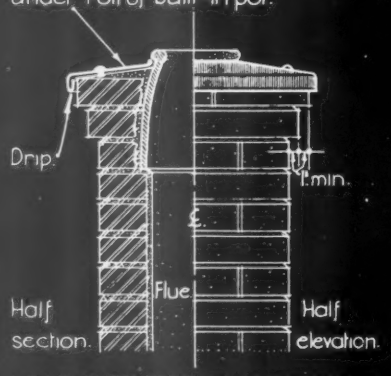
Issued by : The Associated Builders' Merchants, Ltd.

Address : Peters Hill, Upper Thames Street, E.C.4

787. THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

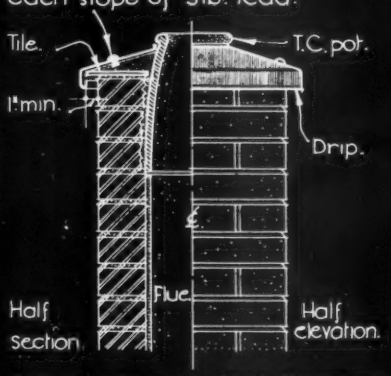
STYLES OF LEAD WEATHERINGS TO PROTECT THE TOPS OF TYPICAL CHIMNEY STACKS :

5lb. lead weathering turned up under roll of built-in pot.



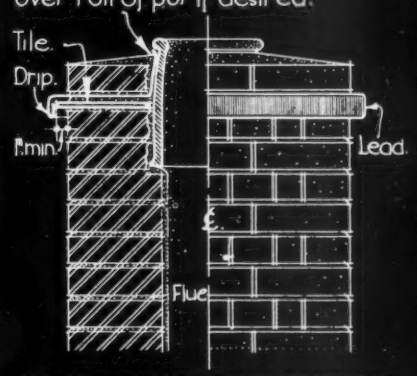
LEAD COVERED FLAUNCHING TO A CORBELLED STACK.

Two cast lead fixing dots to each slope of 5lb. lead.



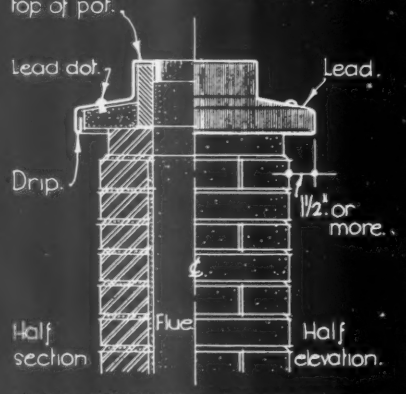
A SUITABLE WEATHERING FOR A FLUSH-SIDED STACK.

The 5lb. lead may be continued over roll of pot if desired.



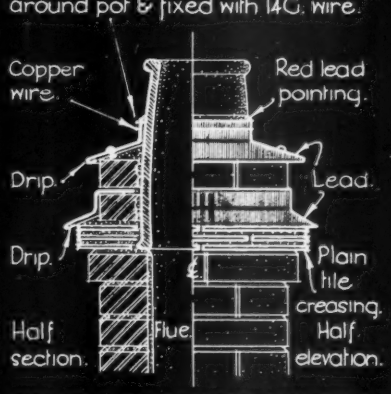
AN ALTERNATIVE WEATHERING TO A FLUSH-SIDED STACK.

5lb. lead weathering turned into top of pot.



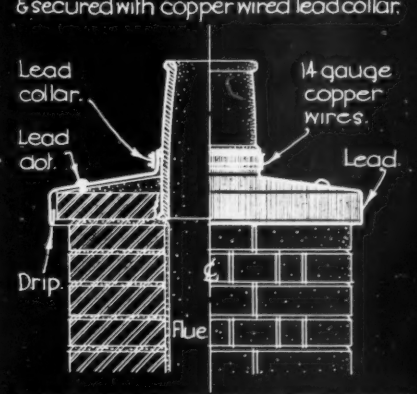
LEAD COVERED CEMENT CAPPING TO A RECESSED STACK.

Upper 5lb. lead weathering dressed around pot & fixed with 14G. wire.



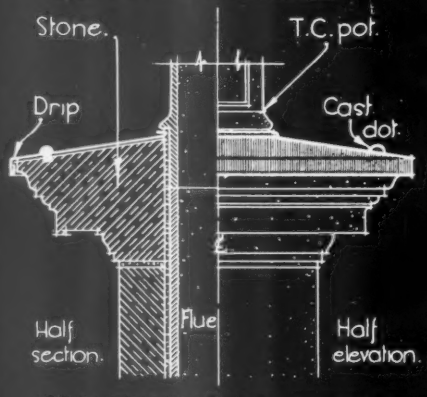
DOUBLE WEATHERINGS TO A TILE CREASED & FLAUNCHED STACK.

5lb. lead weathering dressed up pot & secured with copper wired lead collar.



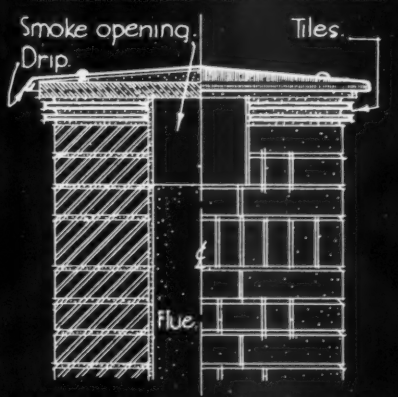
SHEATHED WEATHERING TO A STACK WITH AN OUTSTANDING TERMINAL.

5lb. lead weathering held down by dots at about 2'6" c'rs. on long stacks.



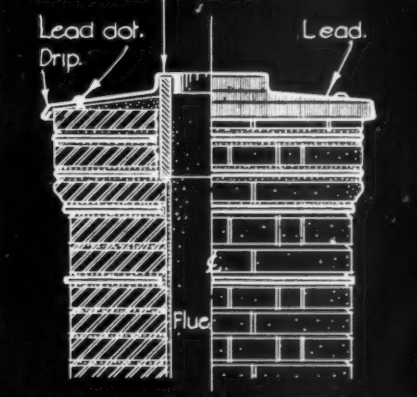
WEATHERING TO THE CORNICE BLOCK OF A STONE STACK.

5lb. lead weathering over flaunched head stone held down by cast dots at sides.



WEATHERING TO A STONE, TILE & BRICK CHIMNEY HOOD.

5lb. lead fixed with dots and dressed into top of short T.C. pot..



WEATHERING TO A 2½ BRICK & TILE MOULDED CAPITAL TYPE STACK.

Information from Lead Industries Development Council.

INFORMATION SHEET : LEAD SHEET WEATHERINGS TO CHIMNEY TOPS: N°45.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Oscar R. Bayne.

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INFORMATION SHEET

• 610 •

WEATHERINGS—I

Subject : Sheet Lead Weatherings to Chimney Tops

General :

This Sheet is the first of a group devoted to the subject of weather protection of various architectural features of buildings, and deals specifically with chimney tops. The use of sheet lead for this purpose enables particular advantage to be taken of the tractability of this material for the complex shapes likely to be required.

It does not cause staining of adjacent materials in the event of drips, or give rise to chemical action on other normal building materials.

Chimney Stacks :

In most cases it is not considered necessary to protect the outside of chimneys in this country, although such protection is common practice on the Continent. Reliance is usually placed on the efficiency of adequate damp-proof courses placed at or about roof level.

There are occasions, however, when it is essential to provide some protection to the actual masonry of which the chimney is constructed or with which it is faced. In faced work especially decay of natural or artificial stone can only take place when water is present, while most forms of decay arise from, or are accelerated by, the presence of atmospheric pollution derived from the burning of coal. Certain limestones, for example, are particularly prone to this combined attack.

It is obvious, therefore, that a cornice or moulding on the top of a chimney is exposed to the most severe conditions, and will inevitably disintegrate unless proper precautions are taken. The wide overhang of classic capped stone stacks requires particular attention in this matter.

With regard to the more common stacks, in which the ordinary flaunching of chimney pots is carried out in cement mortar, the entry of water through the eventual cracking of the flaunching is the main cause of disintegration. Thus, frost action within the body of the stack occurs, particularly if the chimney is thin walled or not in regular use, and gradual twisting and dislodgment of masonry is unavoidable. Any brick or stone chimney, flaunched or not, is liable to frost cracks and disintegration on the top unless water percolation and freezing is guarded against, but frost can have no action on a dry stack.

Drips :

Old-fashioned chimneys finished with a more or less classic moulding are automatically provided with a drip. All other chimney tops should have proper drips to prevent streaking, although in the case of the plainer type of head, these cannot always be provided in an adequate and satisfactory manner. In the examples of heads given, drips are obtained by means of simple stiffening welts to the outer edges of the lead weatherings.

Fixings :

Lead weatherings may be held down in a variety of ways. Although the top edges may be turned into the top of low chimney tops where these are used, the practice is not to be recommended for flues which require regular sweeping. Red lead pointing and 14-gauge copper binding may be resorted to for weatherings around highly projecting pots, while close dressing of the lead into the recess beneath the lip of sunk pots forms a reasonably protected finish. Soldered cast lead dots having dovetail bases should be used along the outer edges of the lead on large stacks, these being spaced at about 2 ft. 6 in. centres.

Contacts :

Where lead is to be bedded directly into fresh Portland cement, concrete, or mortar, it should be coated on both sides with a bituminous paint. This will prevent any risk of corrosive attack by the free alkalis invariably present in Portland cement during and shortly after setting.

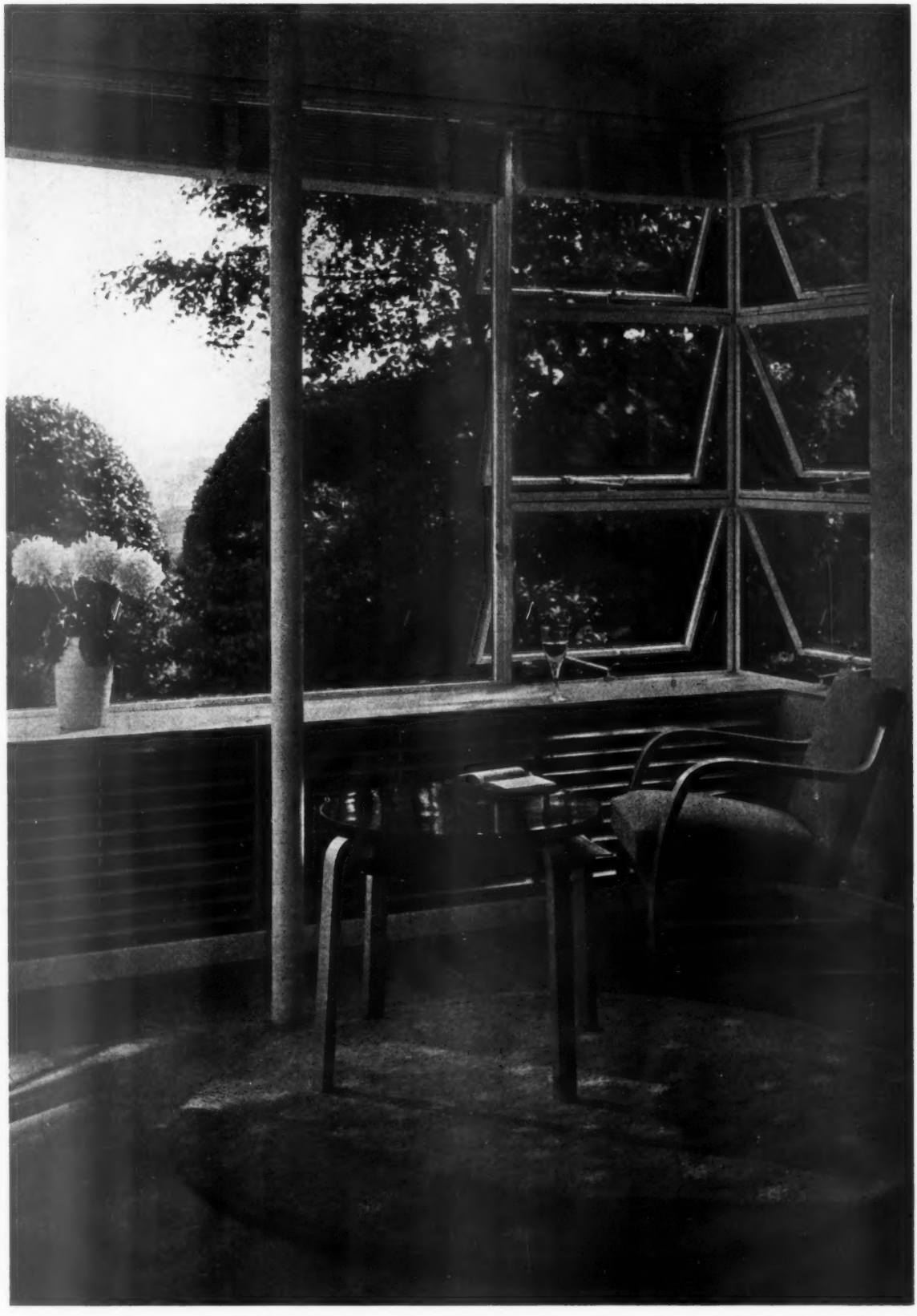
Issued by : The Lead Industries Development Council

Address : Rex House, 38 King William Street, E.C.4

Telephone : Mansion House 2855 (3 lines)

WORKING DETAILS : 637

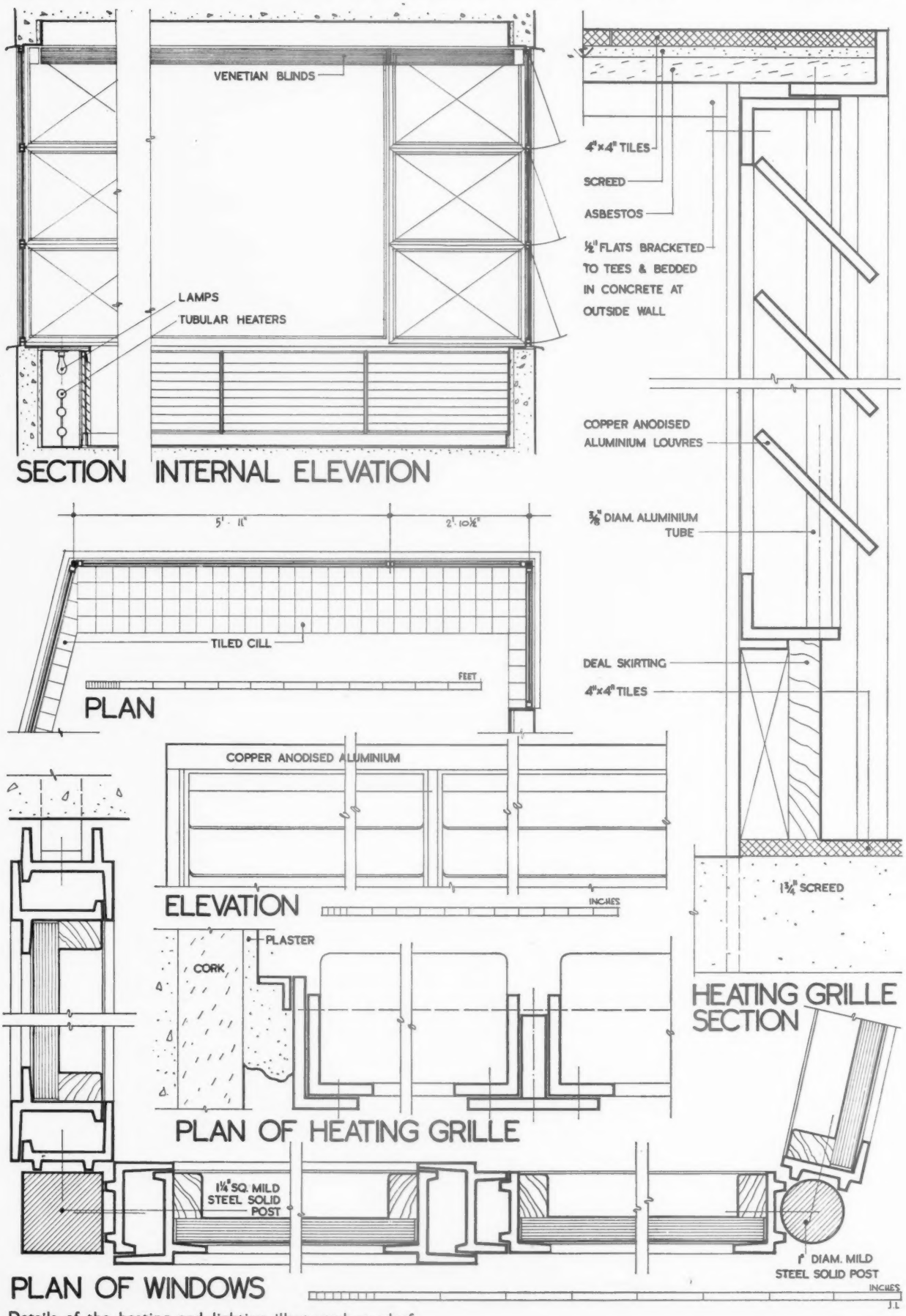
HEATING AND LIGHTING • SUN ROOM, HOUSE AT KINGSTON, SURREY • E. MAXWELL FRY



The electric convection heater runs under the windows of the sun room, and also acts as the source of light. It consists of three tubular heaters and a row of electric lamps, placed behind a grille of copper anodized aluminium louvres. Details are shown overleaf.

WORKING DETAILS : 638

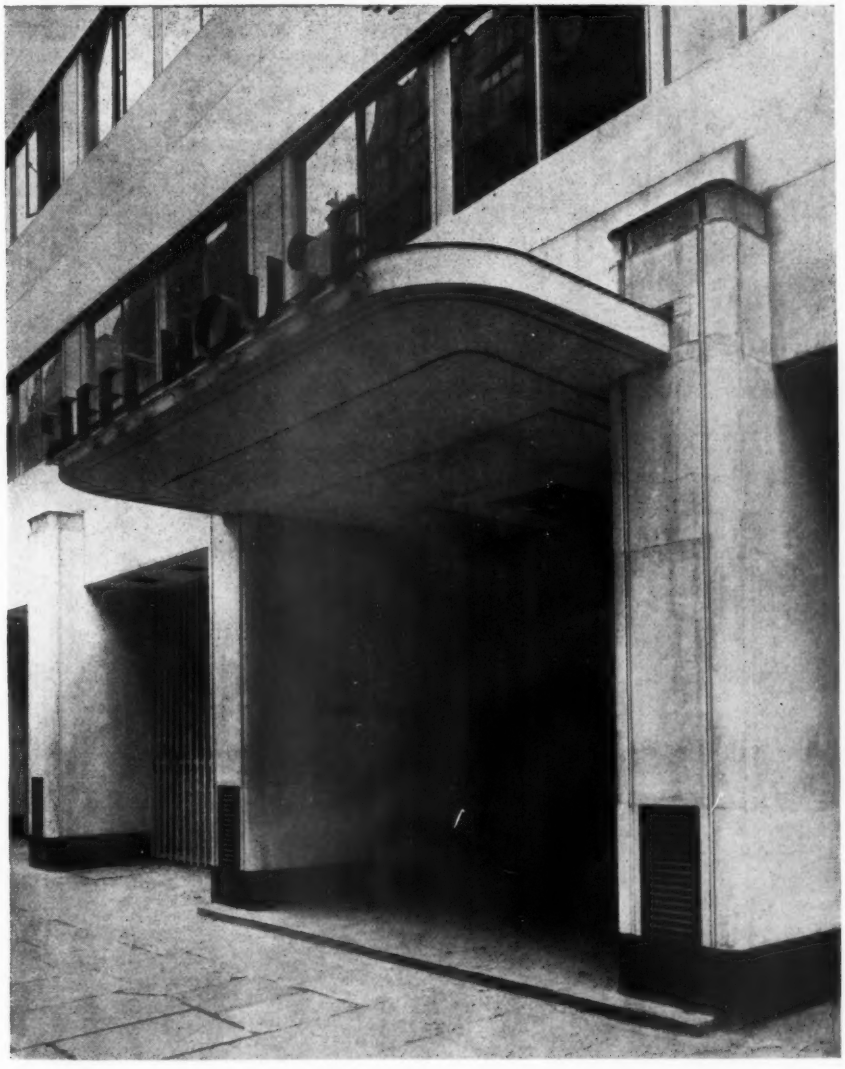
HEATING AND LIGHTING • SUN ROOM, HOUSE AT KINGSTON, SURREY • E. MAXWELL FRY



Details of the heating and lighting illustrated overleaf.

WORKING DETAILS : 639

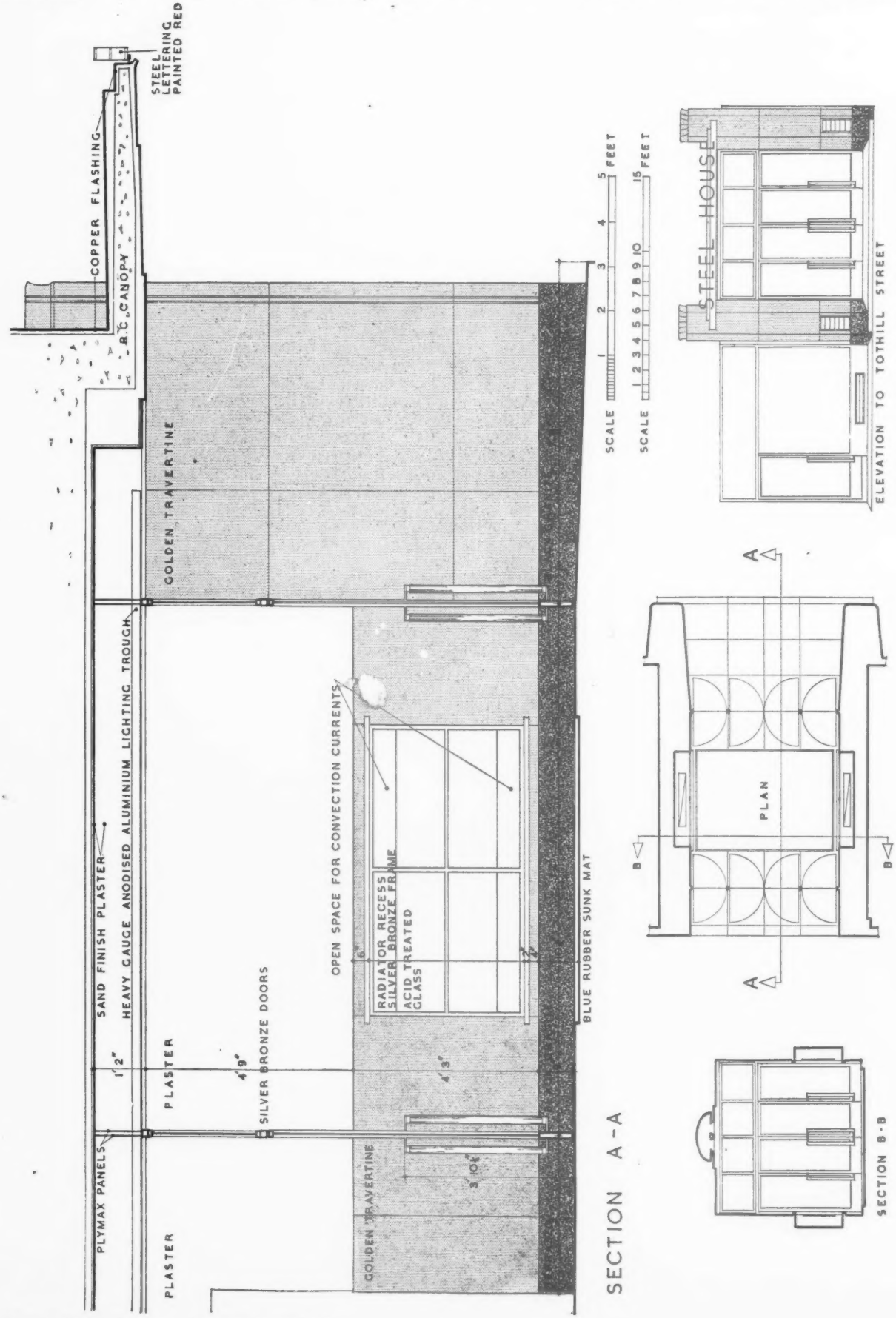
ENTRANCE • STEEL HOUSE, TOTHILL STREET, S.W. • SIR JOHN BURNET, TAIT AND LORNE



The entrance hall is finished in travertine marble with black granite plinth. The main entrance and vestibule doors are in steel, with silver bronze finish. Lighting in the entrance hall is indirect from anodized aluminium troughs. A reinforced concrete canopy projects over the pavement, with lettering along the front in steel, painted red. Details are shown overleaf.

WORKING DETAILS : 640

ENTRANCE • STEEL HOUSE, TOTHILL STREET, S.W. • SIR JOHN BURNET, TAIT AND LORNE



Details of the entrance illustrated overleaf.

SCHOOLS

Senior Schools

PLAN UNITS : COATROOMS, LAVATORIES, W.C.s

THE planning of these units in new schools is now undergoing reconsideration. It is a problem inseparably entangled with layout and circulation; and for the moment the disadvantages of the more usual methods are more obvious than a perfect solution. The Board of Education only states that the drawbacks of concentrated coatrooms are great and that it is prepared to consider separate coatrooms for each classroom or other dispersed methods.

The authors believe that such subdivisions of coatrooms would not alone solve the problem.

In larger schools, containing 200 children and upwards, the coatrooms, lavatories, w.c.s and drinking-points are all part of the same question; if coatrooms are to be divided one must also consider dividing the others.

With better sanitary accommodation, better ventilation and children properly trained in early years there is no reason why sanitary accommodation should not be disposed throughout large schools in accordance with its use by the children.

This use is :

Before school hours : Moderate use of lavatories; moderate use of w.c.s and urinals.

During school hours : Occasional use of w.c.s and urinals.

Before and after play periods : Heavy use of w.c.s and urinals. Slight use of lavatories. Heavy use of drinking water.

Before and after gym. and games : Heavy use of w.c.s and urinals. Heavy use of drinking water. Heavy use of lavatories *if no special shower and washing accommodation is provided.*

After school hours : Slight use of all sanitary facilities.

From this incidence of use two conclusions can be drawn :

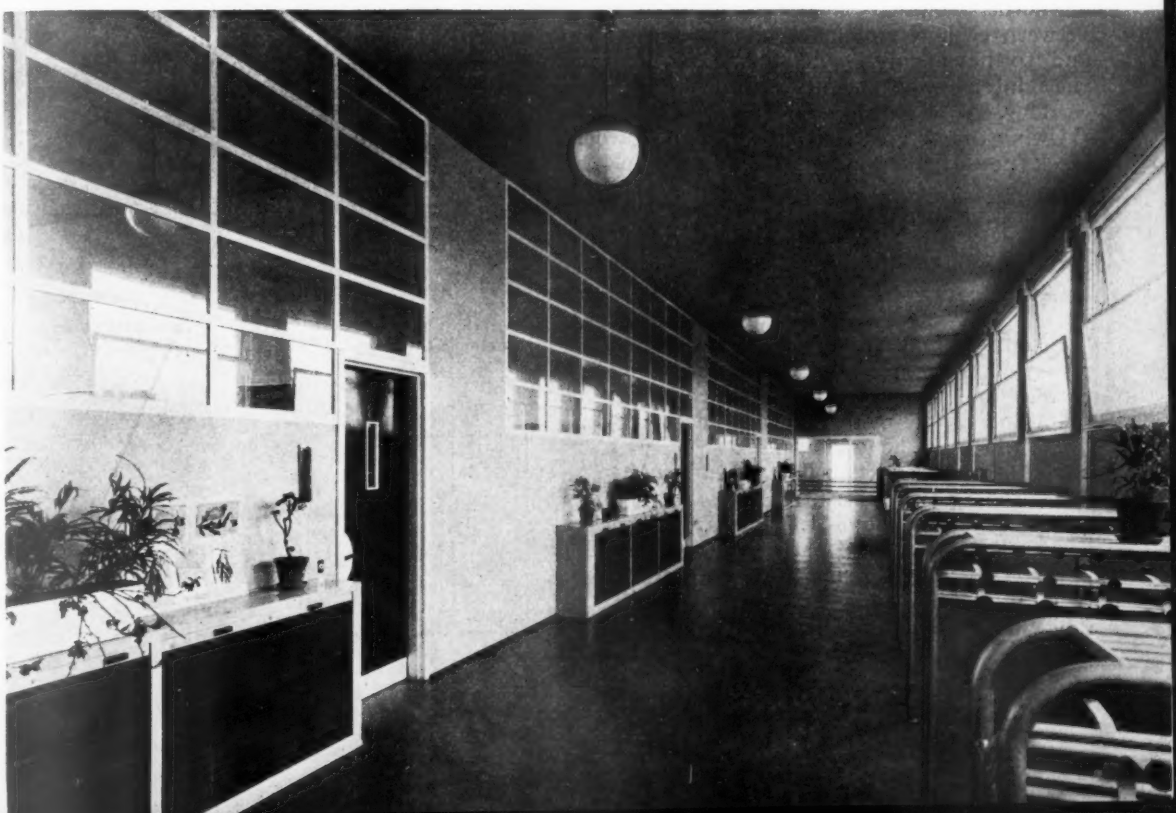
(1) The bulk of lavatory basins may adjoin the coatrooms, but only a small proportion of w.c.s and urinals is needed near teaching accommodation.

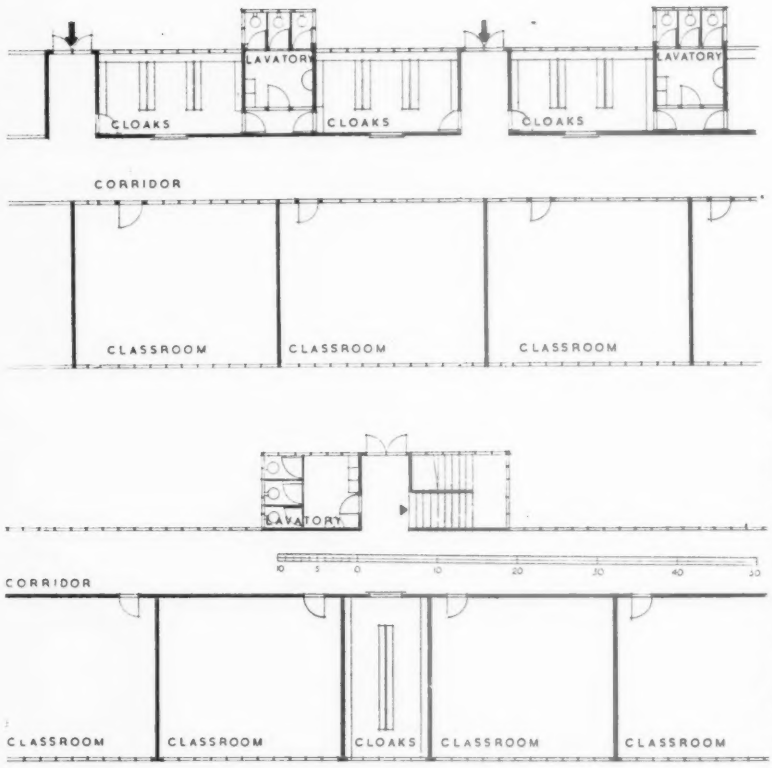
(2) The bulk of w.c.s and urinals should be near playgrounds, gym. and playing fields.

In Senior Schools therefore congestion in coatrooms could be avoided by using several smaller units, each with entrance, coatroom, lavatory, 2 or 3 w.c.s and urinals, instead of the single or double large units now common.

With the more openly planned type of school n being built an adaptation of the continental type of coatroom is the easiest way of providing these smaller units—as shown in the accompanying sketch. This solution is simplified by the long line of classrooms facing south-east which is now common.

A pleasing example of a corridor coatroom in France. This method's advantage is that it does away with much congestion ; its disadvantages are an untidy appearance in practice and in wet weather, a stuffy smell. It is questionable whether such coatrooms are suitable for use in Britain without glass screens.





Top, a plan showing repeating coatroom and entrance units extending along the north-west side of the main classroom corridor. The lavatories and w.c.s are intended to be for " emergency " use only—the main sanitary accommodation being placed near the gym. and playgrounds. Clerestory lighting would be provided to the corridor over the coatrooms. Congestion in isolated coatrooms would thus be avoided.

Left, another possible arrangement of coatrooms and entrances, each serving two classes. This arrangement is possibly the best of all save that the length of the classroom wing in a single-floor school would be considerable ; and if the classrooms are placed on two floors, ground floor cross-ventilation becomes complex.

Its disadvantages should not, however, be overlooked. Shutting in the main corridor is always questionable, and if the coatrooms are divided from the corridor only by wire grilles an untidy appearance and, in wet weather, a stuffy smell are almost unavoidable.

If this method is adopted good top-lighting and ventilation in the corridor and a wired obscured glass partition between corridor and coatrooms (possibly protected by wire mesh) seem necessary. Given these the method could be successful.

Another solution is to place a coatroom between each classroom or alternate classroom and to have only each unit's lavatory and w.c.s interrupting the north-west light to the corridor.

Owing to the greater length of the classroom block needed this method almost compels a two-floored classroom block. Apart from this and possible drippings on stairs in really wet weather it is likely to be the best solution of all.

Coatrooms

Essential equipment is minimum of 11 ins. run of hanging space per child, comprising peg or rack for hats, space for shoulder hanger for coats and a wire-mesh or other boot rack, the top of which can be used as a seat.

The best layout has usually been found to be metal tubing at 5-ft. centres at right angles to window wall with a 5-ft. gangway on one or both sides of racks. Heating runs are usually placed at floor level, but it is better to place them just below the seats so as to avoid too rapid drying of wet leather.

Drying Rooms

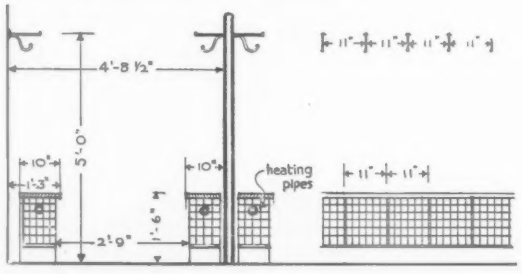
In large Senior Schools, in all rural schools, where children may have to come from some distance, the ordinary coatroom heating runs cannot be relied on for the drying of coats, and at least one drying-room (which can also be used for drying games' clothes) should be provided. In larger mixed schools two drying-rooms will be necessary.

In schools having changing-rooms, the drying-rooms might adjoin these. Otherwise the drying-rooms should be near the main coatroom accommodation and not adjoining the boiler chamber or in other places with difficult access.

The drying-rooms should have tightly-fitting doors and good ventilation.

A size of 100 sq. ft. for each 150 children should be aimed at. Pull-out horses with wire

Dimensions of Senior School coatrails and seats measured from an example that works well in practice.



SCHOOLS

hangers for coats, wire trays for boots, and heating coils between horses is a most convenient layout.

Lavatories

It is now becoming generally realized by educational authorities that habits of personal cleanliness cannot be properly encouraged in children if washing accommodation in schools is inadequate.. For this purpose lavatories of sufficient size, clean and bright in appearance, plenty of hot water, towels and soap are necessary; and even in schools built five years ago these are far too often lacking.

Lavatories should not form part of coat-rooms, and should also be separated from w.c.s and urinals, save in " emergency " accommodation of 2 w.c.s and 2 basins.

The Board of Education recommends a minimum of 12 basins for the first 100 children and 4 for each additional 100. Heights of basins are 28–30 ins. Basins can be fixed in double or single ranges and average 17 ins. by 20 ins.

Both troughs and sprays and circular washing fountains are now common. The sketch shows the dimensions of a fountain.

In each lavatory a small sink (about 14 ins. by 9 ins.) for filling jugs and washing inkpots is desirable.

A drinking fountain should also be provided. Low-pressure push-button types with shielded orifice are now obtainable for fixing to walls and throw a jet high enough for drinking, but offering no encouragement to squirting.

W.C.s and Urinals

The improvement in early training of children and in the sanitary equipment provided in schools makes it no longer necessary for the w.c.s and urinals (referred to as " Offices " in official publications) to be grouped at a distance from the main buildings.

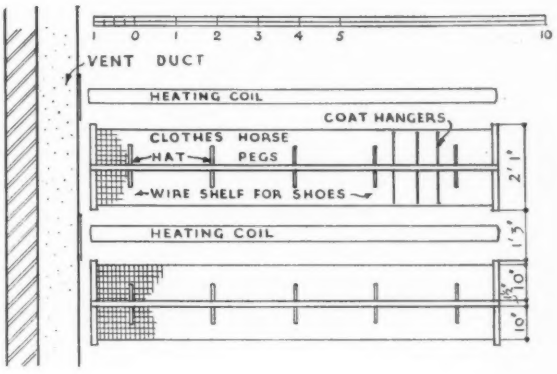
Since the heaviest use takes place before and after physical exercise, it is best for the bulk of the accommodation to be within easy reach of gym., playgrounds and playing fields. But if this is done by means of a detached or semi-detached block or blocks, supplementary accommodation should be provided in the main building for use during school hours. For a 240 mixed school two such " emergency " units, each of 2 w.c.s (or 1 w.c. and 3 urinals) and 2 lavatory basins would be sufficient. If these smaller units adjoined the main lavatories near the coatrooms, the lavatory basins would not be necessary.

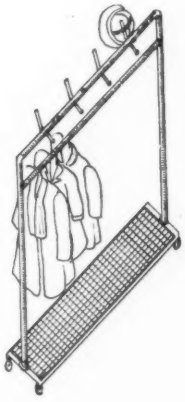
In the main blocks of w.c.s a few lavatory basins (with soap, towels and hot water) should also be provided.

The w.c.s should be well lighted and ventilated, made to look bright and clean, and kept so. W.c.s of even recently built schools too often look as though the teachers made no effort to train the children in this matter.

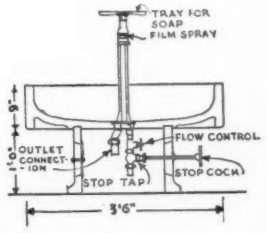
The Board of Education recommendations for Senior School sanitary accommodation are :—

Boys : 4 w.c.s and 10 ft. run of urinals for





Above, spacing of pipes and pull-out drying horses in a drying-room. Such a room would be suitable for coats and games clothes. On the right is a sketch of one of the horses.



Dimensions and photograph of washing fountains which are being increasingly used in Senior Schools. Water may be either hand or foot controlled.

first 100 and 3 w.c.s and 10 ft. run of urinals for each additional hundred.

Girls: 6 w.c.s for first 100 and 4 w.c.s for each additional 100.

The size of the closets is about 2 ft. 6 ins. by 4 ft. 6 ins. Doors should stop 6 ins. short of the floor and not be more than 6 ft. in overall height.

Windows and Ventilation

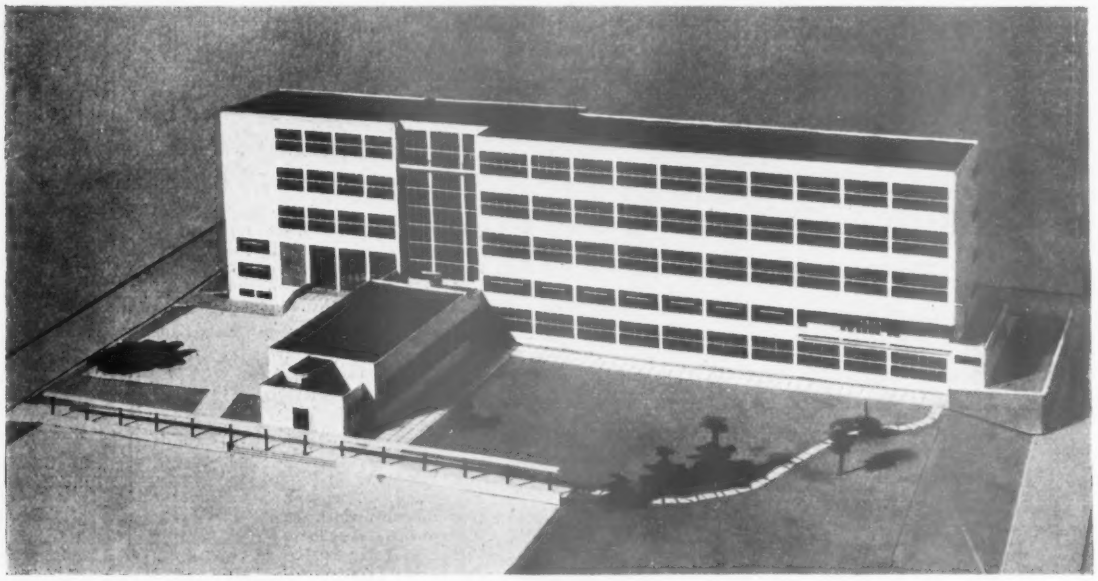
Coatrooms, lavatories and w.c.s should all be well lighted. Continuous windows from 2 ft. 6 ins. above floor are suitable for coatrooms and continuous high level windows for w.c.s and lavatories.

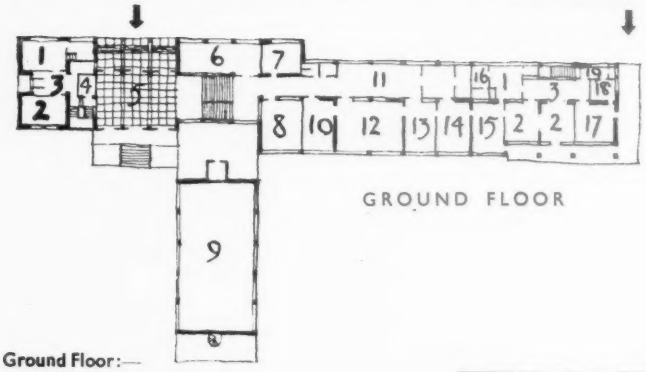
If cross ventilation is unobtainable efficient extract roof-ventilators are needed, and are always desirable in coatrooms.

Artificial Lighting. About 5 foot-candles should be provided. Each row of coats and each w.c. should be properly lighted. Ceiling fittings too often leave end rows or closets in shadow.

Heating. The coils in coat racks will usually keep the temperature reasonable in coatrooms. A radiator or ceiling panel in the lavatories is very desirable.

Finishes. Should be bright and hard and washable up to 6 ft. from floor. Tiles, asphalt, terrazzo composition or concrete are all suitable, although the first three are rather expensive. Composition floor, painted cement dado and colour-washed upper walls and ceilings can be done reasonably. Metal trim to w.c. doors, with metal-faced plywood doors and partitions take up less space than rendered brick and wooden doors at much the same cost.

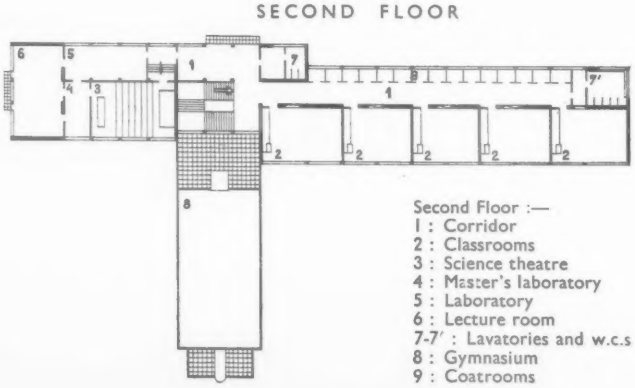




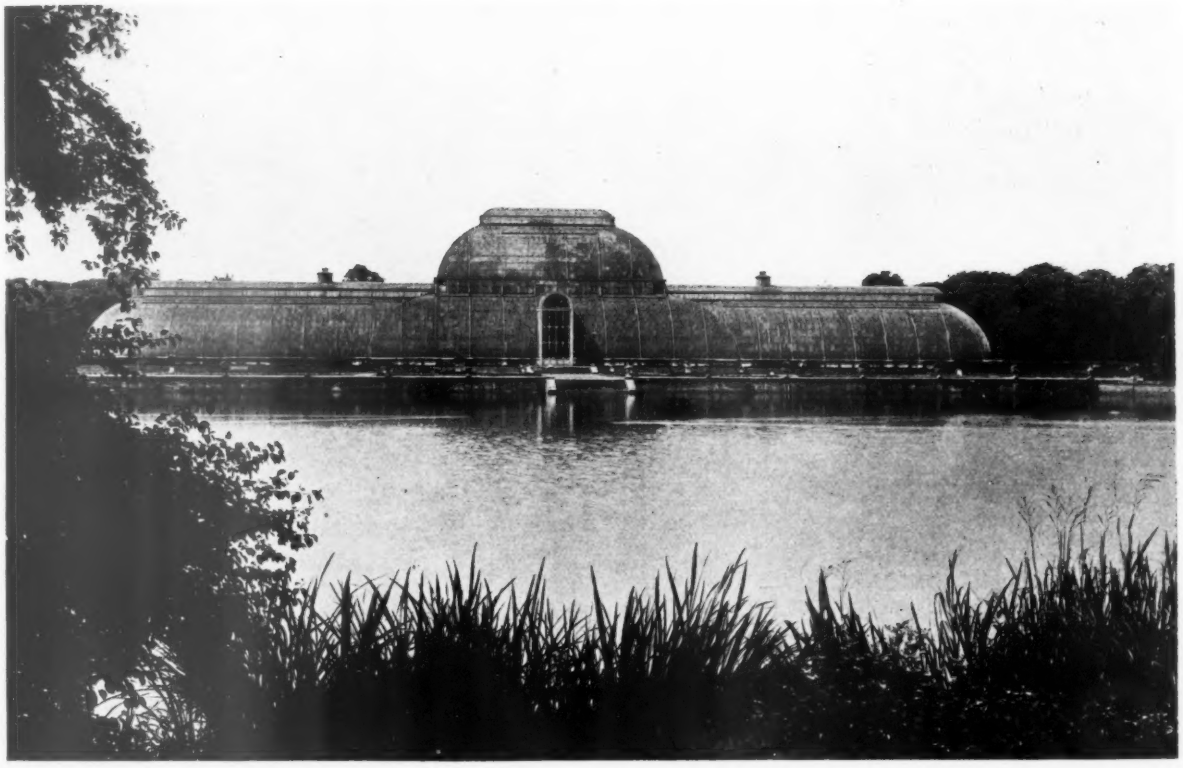
Senior School at Prague, by Josef Vaclavik and Bohumil Knezek. An example of the vertical building type which is still common abroad. Apart from this disadvantage the plan has some very interesting points. Notice the corridor coatrooms.

Ground Floor:—

1 : Kitchen
2 : Lounge
3 : Lobby
4 : Porter
5 : Entrance hall
6 : Library
7 : Lavatory and w.c.s
8 : Waiting
9 : Gymnasium
10 : Study
11 : Lobby and display
12 : Senior class
13 : Secretary
14 : Headmaster
15 : Dining
16 : Service
17 : Bedroom
18, 19 : Bathroom



Second Floor :—
1 : Corridor
2 : Classrooms
3 : Science theatre
4 : Master's laboratory
5 : Laboratory
6 : Lecture room
7-7′ : Lavatories and w.c.s
8 : Gymnasium
9 : Coatrooms



The Palm House at Kew, by Decimus Burton and Richard Turner, started in 1844. It was originally glazed with pale yellow-green glass because this was thought to intercept harmful "yellow" light and also because it was difficult to shade the plants in so large a building. It is now clear-glazed. From Glass.

LITERATURE

GLASS

[*By BRYAN WESTWOOD*]

Glass in Architecture and Decoration. By Raymond McGrath and A. C. Frost. Architectural Press. Price £3 3s.

I CANNOT help feeling a great sense of diffidence in setting out to review such a work as this. It has been compiled with a thoroughness which the most erudite German authors might envy, and I understand that its 650-odd pages have taken nearly five years to prepare.

As a layman in glass I will confine my remarks to points which have particularly interested me. In all its sections —History of the Making of Glass ; Glass in Architecture ; Glass in Decoration ; The Nature and Properties of Glass ; and the Appendix on working glass—the book is much more than a record of facts. In glancing at the list of contents one might be excused a resolution to skip on seeing, for instance, that "the making of glass" alone occupies 85 of these large pages. When one starts to read it is found that the making of glass is described in relation to a changing historical background, starting with the Mediterranean civilizations and continuing to the present day. There is a thorough section on the Surrey-Sussex glassworks ; there are reproductions of engravings showing the tools used and the methods adopted, and a magnificent set of photographs. These photographs by Stewart Bale, Hazen Size and others, are masterpieces of pictorial photography, quite apart from their excellence as vivid representations of the processes described in the text. (*See* Nos. 6, 28 and 42.)

The development of technique and its effect on architecture is cleverly worked out. The background of political events, taxes on glass, and the rest are outlined ; and their reactions on the glass industry demonstrated. The treatment of the Victorian period and the description of the "Great Victorian Way," etc., makes one feel that nowadays, for all our pride in technical achievements, we are rather timid.

From the portentous glass houses of the Victorian period the authors come to an examination of shopfronts under the marginal heading of "Glass for a Nation of Shopkeepers." The discussion of early shopfronts and arcades is thorough, and the idea, new to me, of the large store as the ultimate development of the arcade is here expressed. The authors instance the New York stores through which the shopper can walk parallel to the street as one would through an arcade.

After some paragraphs on the window, in the narrow sense of the word, and notes on pavings, wall linings and other detailed uses of glass, there is the statement :—

"Glass in architecture has been dealt with from a convenient historical angle, but the variety of modern glasses as well as the number and complexity of modern types of buildings, makes it necessary to adopt a different plan of approach. It remains therefore to consider the uses of glass in modern architecture according to the physical properties of the material. . . ."

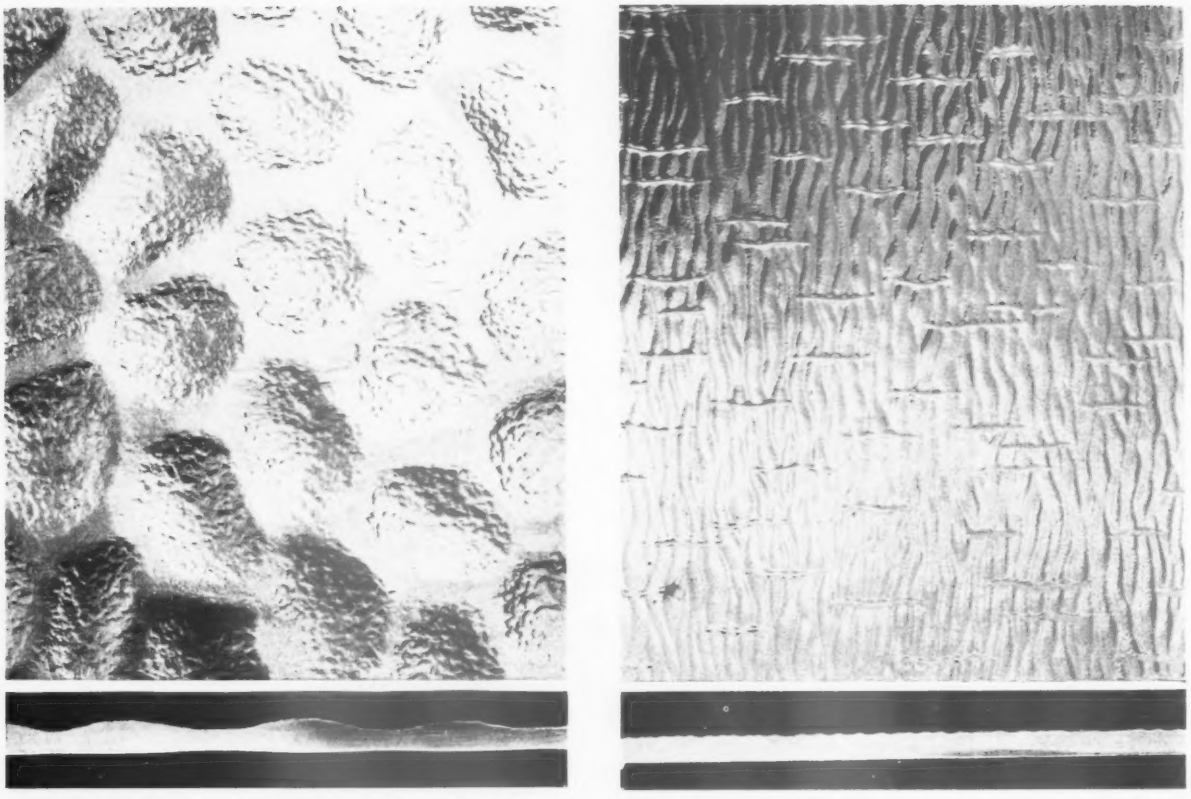
And the composition, physical qualities and manufacture are dealt with in great detail.

The "Glass in Architecture" section has over a hundred large photographs which would make a fine book in themselves. They include pictures of the Crystal Palace, and Chatsworth, and the famous "Galerie des Machines" as well as much modern work, including unexpected but important examples, such as a fine photograph of the Mersey Tunnel, showing the glass wall-lining.

At the beginning of the next section, "Glass in Decoration," the authors refer to the modernity of the Romans and go on to say :—

"In fact for any further development of the use of glass one may skip the next sixteen or seventeen hundred years and look little further than the present day."

This emphatic statement, however, does not stop them dealing with



Left, Grapene and, right, Maxine obscured glass. Two of the examples of glass types in Glass. *A full-size photograph of the glass in section appears below each type.*

minor developments in that period to the extent of 25 pages.

The description and illustrations of the various decorative treatments of glass—sandblasting, etching and brilliant cutting, etc., I think is the best part of the book. One cannot help being struck by the obvious familiarity of McGrath with his material. There are numerous small observations which would only be made by one who had not only studied, but had also used the variety of processes described. In the photographs that follow I particularly liked the picture No. 209 by Studio Sun. This is a close-up of a brilliant cutting-wheel which in itself says all there is to say about brilliant cutting.

Section IV—"The Nature and Properties of Glass" is written by H. Beckett, B.Sc., of the Building Research Station. It is a model of this type of writing. Although it forms an important part of a complete work on glass, I think it might, with advantage to the work as a whole, have taken the form of a second volume. It deals with the physical properties of glass in a most exhaustive manner. It is illustrated with a series of pictures showing the concealing power of glasses, and another series showing plane sections of a beam of light before and after transmission through various types of glass. Other photos show the effect of impact on glass, and there are micro-photos of the structure of opal glass.

The last section of the book is called "Appendix." It contains full-size photographs of the great majority of British glasses, together with their characteristics and manufacturing sizes.

Turning once more to the book as a whole, there is one criticism of its presentation I should like to make. I think the text suffers to a certain extent from a lack of proper subdivisions. I do not think the marginal headings are sufficient for easy reference to the whole of the information on any particular aspect.

The text is amplified with interesting quotations from all kinds of authorities, not forgetting the ubiquitous Le Corbusier. Finally, it is so clearly and interestingly written that it is not only a "Monumental Work" in the best sense of the expression, but good reading.

PERIODICALS

FEBRUARY ANTHOLOGY

AMERICA

Architectural Forum

(Monthly, $1.00. 135 East 42nd Street, New York)

FEBRUARY. A good house in Delaware by V. and S. Hornsey, several pages of illustrations with good plans and some constructional details; a beauty products factory in Illinois; two schools by N. W. Overstreet and A. H. Town; two branches for the Chase National Bank by Reinhard and Hofmeister—two clean designs which come as a pleasant relief after typical London banks; the planning of furniture shops; notes on prefabrication (about 1,000 prefabricated houses were built in America last year).

Architectural Record

(Monthly, 50 cents. 115 West 40th Street, New York)

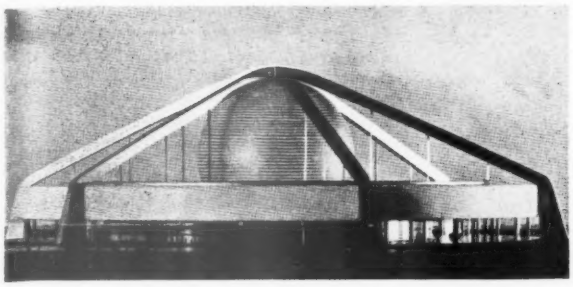
February. A fairly large private house in Chicago by George F. Keck, a well thought out job in which the designer has been allowed an exceptionally free hand, from site to fabrics; a sports pavilion and grandstand in Michigan by Giffels and Vallet; the U.S. Government exhibit for the World's Fair, designed by Alfred Clauss; the planning of consulting rooms for doctors either as part of a residence or as separate buildings—four pages of notes by Norman N. Rice followed by various examples of executed work; six pages on health centres by Frank K. Safford; the relationship of planning and air-conditioning, an informative article by Warren Canney; the month's Building Types section deals with retail shops, planning, lighting and air-conditioning.

FRANCE

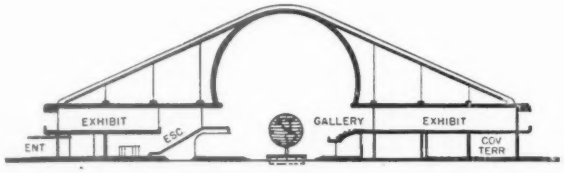
La Technique des Travaux

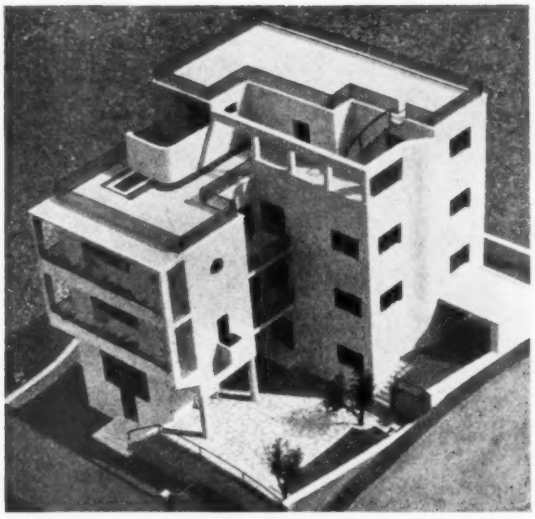
(Monthly, 10 frs. 54 Rue de Clichy, Paris 9e)

February. Modernization of a bar and brasserie in a Brussels hotel, by Maurice



Section and elevation of the proposed U.S. Government building for the 1939 World's Fair, Alfred Clauss, architect. [From the "Architectural Record."]





A double villa on a hill in Rome, by Mario Paniconi and Emilio Pediconi. [From "Architettura."]

Gridaine; a hotel at Lisieux (bedrooms for 2,000) by Charles Labro and Son; a large covered stadium at Hershey (Pennsylvania) roofed on the Zeiss-Dywidag system

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GERMANY

Baukunst und Städtebau

(Monthly, 1 m. 90. Bauwelt Verlag, Charlottenstrasse 6, Berlin, S.W.68)

February. Two Air Ministry buildings, in Kiel and Königsberg, by Professor Ernst Sagebiel; recent building in Italy—an illustrated article by Otto Völckers; country houses by Hermann Werner; houses by Karl Preus, Hans Buschow and Fritz Glantz.

Baumeister

(Monthly, 3 m. Georg Callwey, Finkenstrasse 2, Munich)

February. Country houses; a school at Obernzell by Heinrich Wurm; houses in the Saar by Rudolf Krüger; rural housing for workers in East Prussia by Franz Witwar—photographs and plans.

Bauwelt

(Weekly, 90 pf. Bauwelt Verlag, Charlottenstrasse 6, Berlin, S.W.68)

February 3. Recent building in Italy, an illustrated article by Otto Völckers; an article by Friedrich Paulsen on the new re-planning schemes for Berlin.

February 10. Gas defence notes; alterations and additions to a hotel in Cologne by Peter Nöcker, and a country house by the same architect.

February 17. The spanning of door and window openings; three small houses by Wilhelm Gumberz.

February 24. Buildings for religious orders in Frankfurt; a war memorial by Hermann Senf; competition for a bridge over the Havel near Berlin, won by Friedrich Tamms.

Deutsche Bauzeitung

(Weekly, 3 m. 40 per month. Beuthstrasse 6–8, Berlin, S.W.19)

February 2. Some details of the twelve-year plan for the re-planning of Berlin; proposed buildings works exhibited at the Munich architecture exhibition.

February 9. Further data on Berlin's twelve-year plan; notes on the treatment of wood with preservatives.

February 16. Competition for an office block in Duisburg, won by P. W. Stang; petrol station layouts.

February 23. A flat block in Düsseldorf. Buildings Supplement. Various jobs built under the Nazi regime and a review of the first few years' work of the Hitler Youth, by Heinrich Hartmann.

Innen Dekoration

(Monthly, 2 m. 50. Alexander Koch, Neckarstrasse 121, Stuttgart)

February. Fourteen pages of photographs of the Führer's country house at Berchtesgaden; interiors of the German Embassy in London; interiors for his own house by Kurt Schwarze.

Moderne Bauformen

(Monthly, 3 m. Julius Hoffmann, Paulinenstrasse 44, Stuttgart)

February. The fourth instalment of an article on the planning and planting of gardens, this one dealing with irregularly-shaped plots; five single-family houses by Heinrich Bartmann; examples of furniture designed by Hans Hartl; petrol stations, car parks and garages—examples from America, England (Stewart and Ardern), and Germany.

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HOLLAND

Bouwkundig Weekblad Architectura

(Weekly, 15 fl. per annum. Weteringshans 102, Amsterdam)

February 5. The work of Ragnar Ostberg—an illustrated article dealing with the crematorium at Helsingborg.

February 12. A large flat block in Amsterdam by J. Dunnebier.

February 19. The work of Harry Koolen.

February 26. Covered tennis courts at Ostersund and Alvik, reproduced from *Byggmästaren*.

The main hall of Herr Hitler's house at Berchtesgaden. [From "Innen Dekoration."]

A timber house in Reigoldswil, by R. Preiswerk. [From "Werk's" timber number.]

de 8 en opbouw

(Fortnightly, 30 cents. Amstel 22, Amsterdam C.)

February 12. A review of a recent exhibition of modern furniture, mostly very good.

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ITALY

Architettura

(Monthly, 18 lire. Via Palermo 10, Milan 1)

January. A house on a hill near Rome by Mario Paniconi and Emilio Pediconi—many photographs and good drawings; a restaurant at Genoa by Mario Labò; typical examples of colonial building types.

Rassegna di Architettura

(Monthly, 15 lire. Via Podgora 9, Milan 105)

December. Arabian architecture in Libya; a hospital near Lucca by Angelo Bordoni; the Italian navigation companies' pavilion at Paris; furniture by Paolo Buffa.

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SWEDEN

Byggmästaren

(Weekly, 20 kr. per annum. Kungsgatan 32, Stockholm.)

No. 4. Two schools, one in Gothenburg, one in Hagalund.

No. 5. Results of a competition for a new town hall at Malmo, won by Stoltz and Almquist.

Form

(10 issues per annum, 10 kr. Nybrogatan 7, Stockholm)

No. 1. Finnish-Swedish handicrafts, article by Kurt Ekholm; recent furniture designs.

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SWITZERLAND

Schweizerische Bauzeitung

(Weekly, 1 fr. Dianastrasse 121, Zürich)

February 5. The Stuyvenburg Hospital in Amsterdam, built to a most peculiar symmetrical plan in 1882–85.

February 12. New machine rooms and wind tunnel for the institute for aerodynamics, Zürich, by J. Ackeret; book reviews.

February 19. Further details of the aerodynamical laboratory; three houses by P. Mariotta, and two by M. Chiattone.

February 26. Competition for a church at Aarun, won by W. Studer.

Werk

(Monthly, 3 m. 50. Muhlebachstrasse 59, Zürich)

February. A timber number, individual houses of all types traditional and modern, working-class housing, little on construction.

SOCIETIES AND INSTITUTIONS

LIVERPOOL ARCHITECTURAL SOCIETY

The annual dinner of the above Society was held at the Adelphi Hotel, Liverpool, recently, under the chairmanship of Mr. B. M. Ward, F.R.I.B.A. (President).

Proposing the toast of the Society, Mr. H. S. Goodhart-Rendel, P.R.I.B.A., referred to three objects which claimed the support of architects as educationists — travelling exhibitions, the Registration Bill before Parliament, and the competitive system.

The crowning object of all architectural societies, he said, could be compressed into one word—education. By that he meant education of their patrons, the public, that they might require the best from architects; education of architects themselves in order that they might be able to "give the best," and education of the students who would succeed, and, they hoped, surpass them.

Referring to the Institute's touring exhibition, Mr. Goodhart-Rendel said that over 200,000 people had attended it last year, and he thought he was justified in assuming that most of those who attended "went out a little wiser than they went in." The Registration Bill, when it became law, would also be in a sense educational. The promoters wished to secure that in future all those who took other people's money for designing and superintending building works —in other words, who made a profession of architecture—should have proved by passing an adequate examination that they had qualified to do so. Mere examination could not, of course, prove permanent competence, but it could eliminate those whose incompetence was beyond doubt. The examination standard required by the Architects' Registration Council was that required also by the R.I.B.A., and no relaxation of it would be tolerable in the public interest.

During the evening, Mr. Goodhart-Rendel presented Mr. Herbert J. Rowse with the bronze medal and diploma awarded by the R.I.B.A. to the architect of the building of most outstanding merit in the province of the Liverpool Architectural Society and its branches during the past five years—the Mersey Tunnel ventilating tower at Woodside. A replica and plaque for attachment to the building was handed to Councillor G. S. Prentice, deputy chairman of the Mersey Tunnel Joint Committee.

GABO ON "SCULPTURE AND ARCHITECTURE"

Navin Gabo, co-creator of the Constructive movement in art, was the speaker at a large meeting arranged by the students of the Architectural Association School on February 17. This was the first time that an authoritative statement of the aims of the movement had been heard in the A.A., and towards the end, Mr. John Summerson started an argument which may form the basis of another debate.

The lecture was illustrated by slides, which covered the ground in a whirlwind series of leaps from the Egyptian to the early industrial civilization. But Mr. Gabo mainly concentrated on the more obscure periods before and since, and making it clear that the Constructive idea today embodied by far the most vital and realistic approach matters of design.

Points from the Speech:

Architecture and Sculpture, both acting in the same medium and often inspired by the same content, are inseparably linked throughout history.

Architecture is a relatively recent achievement, and did not exist until man first built a tent. Caves were not architecture.

Sculpture did not exist until man first built up a piece of stone or wood in a shape conceived by his mind. Natural fetishes were not sculpture.

Both satisfy a daily necessity, and were fashioned in the same way.

In time, man achieved geometry, and through it the Egyptian civilization achieved the first complete architecture. In the pyramids, fulfilling both a structural and a spiritual need, architecture was completely identified with sculpture. The cube, the sphere, the cylinder, the cone, pure creations of the mind, remain the basis right up to now.

Greek; Romanesque; Gothic; Renaissance. Much as these differ, the conception of volume and space is a common characteristic. The designer considered a volume as something into which he had to force his creations. The thousand-year-old permanence of this approach was due to the old conception of the Universe. The change in this has been fundamental. Architecture and Sculpture must have equally new foundations, not merely a formal change of a fundamentally old conception.

Constructive architecture is not a formalistic enterprise making a design fit a chosen volume, but aims to be the organic achievement of human life projected out from an inner point.

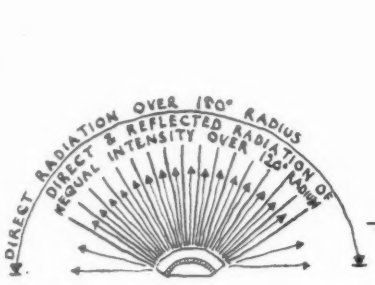
A constructive sculptor, similarly, does not force his image into a given and static scheme, but materializes the images of his inner impulses, projected outwards from a point in space.

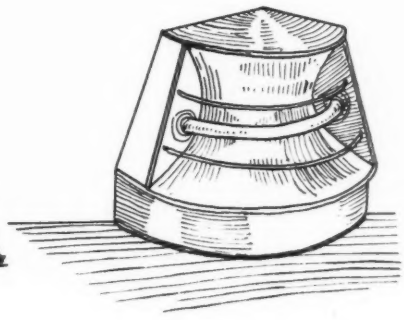
In each case, the image is the result, and not the point of departure of its creative impulses.

Mr. J. M. Holmes asked whether the sculpture would be ultimately absorbed by and embodied in the building. Mr. Gabo replied that it would be wrong to design a building like a sculpture, but that a building must be an organic expression of what it is for.

Mr. John Summerson said that historical analogy was misleading since the present situation was without precedent. For the last hundred years, engineering and intuition had arrived at two extremes, with architecture somewhere between. For the architect, the problem was hardly precise enough for a functional solution. So he tended towards the intuitive. Rarely, some phenomenon bridged the gap between artist and scientist (e.g. le Corbusier), and created new forms, but usually the artist (particularly the abstract artist) had to be the research worker and spearhead of our tradition of form.

Mr. Gabo replied that this discrepancy was unfortunate and unprecedented. There was no reason why the non-creative architect should exist any more than the non-creative artist.





TRADE NOTES

[*EDITED BY PHILIP SCHOLBERG*]

Electric Heaters

APART altogether from its pleasant appearance, there are many things in favour of the parabolic reflector type of electric fire. A fair percentage of the total heat is probably convected, and there is a high intensity zone of direct and reflected radiant heat at about knee level. The ends of the parabolic trough, however, are not splayed at a very wide angle, so that unless you are sitting almost directly in front of the fire the sensation of warmth may be rather meagre. On these grounds it seems quite a reasonable idea to make the reflector curved on plan so that the angle of reflected radiation is increased from 90 to 120 degrees, the angle of direct radiation being increased to 180 degrees, as the curve of the heating element brings it out beyond the face of the splayed ends. A fire made on these lines has recently been introduced by a London firm. The drawing at the head of these notes shows the Junior 1 kilowatt model and the diagram gives an approximate plan of the reflector to demonstrate how the large radiation angle is obtained. The price of these fires varies from 35s. for the junior to £5 5s. for the larger types, which have a total loading of 2¾ kilowatts, with the usual two-heat control.—(*The Limit Engineering Co., Ltd., 14 Windsor Street, London, N.1.*)

Sample Door Display

About a fortnight ago I was confronted, in the Venesta showrooms, with what seems to me to be quite the best way of showing doors ever employed. For years the standard method has been to use a central stalk with the doors radiating from it, much after the fashion of those post card displays in country post offices, so often twiddled round abruptly by a third person just when you have selected a particularly enchanting view of the local pier. The new method, evolved by Messrs. G. A. Jellicoe and Partners, is neat, enables a maximum number of doors to be stored in a minimum of space, and also allows them to be displayed easily. The idea is really quite simple, but it has been very thoroughly worked out, and there is no reason why it should be anything but satisfactory in use.

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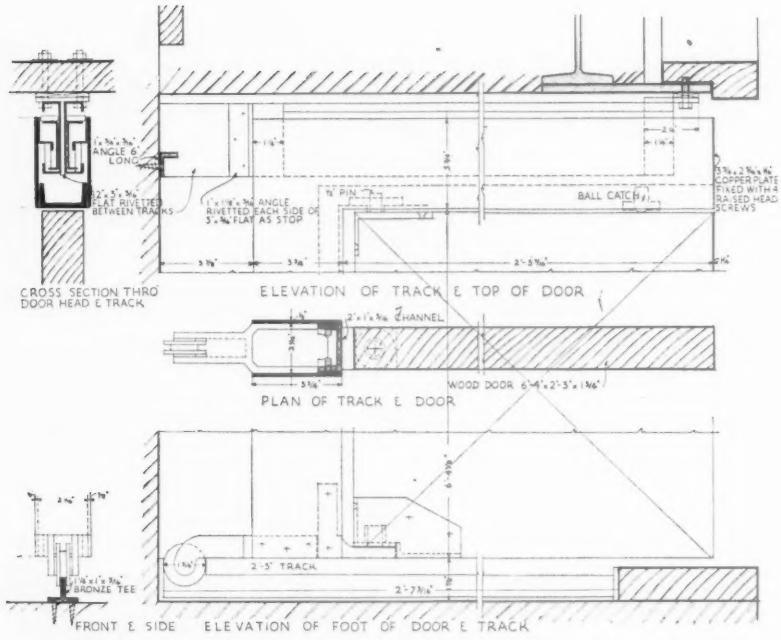
In order to save space, the doors are made up with different sample finishes on each face, and the problem, of course, is to store these doors neatly and at the same time to allow both sides of them to be equally easily shown. The photograph on this page shows the doors stowed away, with labels on the front edge showing the finish on each side; the drawing overleaf shows how the doors are hung so that either face can be examined. The hanging frame is built up of steel channel and is to all intents and purposes half a steel door frame with the lintol running in a sliding track and the heel of the hanging style on a floor track to keep the whole assembly steady. The door is kept parallel to the frame by an ordinary ball catch in the lintol, and the whole assembly can be slid bodily forwards until the door is clear of its neighbours, when it can be swung either way through a right angle until it is parallel with the wall. Then you take three paces back and admire it. The architects deserve a good deal of credit for having worked this idea out so thoroughly: doors are fairly heavy things and the twisting load on the head of the hanging frame must be quite considerable, so that it would have been very easy to make the whole thing too light. In actual practice the doors slide smoothly and easily, and there is an agreeable feeling of solidity about the complete fitting.—(*Venesta, Ltd., Vintry House, Queen Street Place, London, E.C.4.*)

Air Curtains for Draught Prevention

Anyone who attended Mr. J. D. Bernal's extremely imaginative and stimulating lecture to an A.A. Students' meeting, may remember that he referred to the draught deflectors used on certain French locomotives, so arranged in front of the cab windows that at any reasonable speed the draught was deflected *across* the window opening and carried all smuts and rain with it, and did this so well that the windows did not have to be fitted with any glass at all. On these grounds he suggested that windows might in future consist of plain unglazed openings in the wall with a forced air blast across the opening to stop draughts and rain. According to the *Architectural Record*, this method has been applied to doors in the Olds Motor Works at Lansing, Michigan, a job where it was found very difficult to maintain a reasonable temperature near doorways because the doors were being almost continuously opened and closed. This problem was solved by using a unit heater and fan mounted over the opening, baffles directing the warmed air vertically downwards over the whole width of the opening, and thus acting as a door seal. The device is said to work quite well in practice, for the warm air shuts off most of the cold outside

Sample doors in the Venesta showrooms: a drawing overleaf shows how the doors are hung so that they can be easily displayed.



Drawing showing how the Venesta sample doors are hung. See note overleaf.

air and mixes with any that filters through the air curtain. Operating costs are about 22 cents an hour, this figure including the steam for the heating coils and the current for the electrically-driven fan.

Design Copyrighting

I do not know whether many architects find that their designs are borrowed by other people who haven't too much conscience, but I can think of one or two cases where an enterprising firm has done the spade work with a fairly reasonable piece of contemporary design and then a bigger firm has produced an only slightly modified version of the same thing and scooped a good deal of business which it cannot honestly be said to have deserved. From time to time one sees catalogues with the phrase " Registered Design " under some particularly original piece of design, but the legal value of this, I suspect, is rather doubtful, and I take it to mean " Don't copy this *too* exactly or we may be able to make some trouble for you." And anyway it seems likely that a minor modification would enable one to plead that the same thing was really different.

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Apparently the United States suffer from the pirating of designs in the textile industry, and an enterprising man called Byron G. Moon has evolved a method for getting over it. Briefly, he has discovered that, since most music is copyright, fabric designs inspired by that particular composition are also copyright. With commendable speed Mr. Moon's company concluded an agreement with the Music Publishers Protective Association and has thus obtained exclusive rights in 300,000 copyrighted songs, " the songs to be used as a source for design purposes only." And the fabric, glass, paper, pottery and carpet manufacturers seem to be all applying for licences. Would the same system work in this country? Without any legal knowledge I cannot tell, but I should think that some system of this kind might be quite popular. Most manufacturing firms of equal size are fairly friendly, and keep off each other's preserves by mutual agreement, having realised that it saves trouble in the long run ; but I can think of at least two small firms who would probably have welcomed something like this. The expense of fighting a case on these lines might be very high, and the wide adoption of the system might lead mainly to more fees for the bar and more humour from the bench. But anyone who feels strongly about it might find this method worth investigating.

A New Monthly

The Temple Press has just started a new monthly publication with the title of *Light Metals*. While it is mainly of interest to metallurgists and other people concerned with the production and use of light metals and their alloys, much of it is not altogether outside the province of the architect, for in the first number there is an article on extruded sections and the impression of patterns upon aluminium, with plenty of notes on items of general interest.—(*The Temple Press, Ltd., 5-17 Rosebery Avenue, London, E.C.1.*)

Manufacturers' Items

The Walpamur Co., Ltd., have just issued their 1938 price list and catalogue. Copies are obtainable on application to the firm at 35-36 Rathbone Place, Oxford Street, W.1.

●

Turners Asbestos Cement Co., of Trafford Park, Manchester, have sent us a copy of their leaflet devoted to siluminite asbestos electrical insulating and arc resisting mouldings.

●

On February 18 the new works of Gyros Products, Ltd., at Shieldhall, Glasgow, were formally opened. In a brochure issued at the opening ceremony it is stated that " these works are the second of their type erected by the firm in Great Britain; due to the expansion in sales it was found necessary to increase the productive capacity of the Rochester Works on two occasions, and as the demand for Gyproc wallboard and its allied products steadily increased, especially in Scotland and the North of England, it was decided to erect new works in Glasgow."

The new administrative and factory buildings for Steel Ceilings, Ltd., at Hayes, Middlesex, were opened recently by Sir Harold Bellman. The administrative buildings are steel framed with ordinary structural sections, but welded together instead of bolted. The external walls are brick filling between the steel frame. Flat roofs are formed with " Lewis " dovetailed steel parallel units, the longest span being 39 ft. The ceilings are of steel, showing the various patterns produced by the firm.

It is claimed that the factory structure is an advance in steel construction and is possibly the largest welded steel building of its type in the country. The architect is Mr. H. V. Milnes Emerson, A.R.I.B.A., with Mr. Robert Lutyens, F.I.A.A., as associated architect and Mr. Cyril Helsby as consulting engineer.

●

Mr. John Corfield was the recipient recently of a gold half-hunter watch, which was presented to him by the directors and staff of Higgs and Hill, Ltd., upon his retirement on pension, after 55 years' service. Mr. Corfield was a general foreman well-known to many of the leading architects and surveyors of the day, as well as to a large number of merchants and specialists.

●

Messrs. Docker Brothers ask us to point out that through a misunderstanding the photograph of the Concourse at Leeds, included in their advertisement in our last issue, was published without the architect's sanction, and was taken while the work was in an unfinished condition, consequently giving an incomplete idea of the character of this building.

THE BUILDINGS ILLUSTRATED

"ADAM AND EVE," HAYES (pages 445-447). Architect: H. Reginald Ross. The general contractors were Fuller, Smith and Turner, Ltd., who were also responsible for the demolition, excavation, foundations, reinforced concrete and partitions. The sub-contractors and suppliers included: Salter, Edwards, Ltd., asphalt; W. Benfield and Sons, stone; A. J. Bridle, Ltd., structural steel; A. H. Herbert & Co., Ltd., bricks, tiles and roofing felt; Standard Wall Paper Co., Ltd., and Pugh Brothers, glass; Armstrong Cork Co., Ltd., patent flooring; Young, Austen and Young Co., Ltd., central heating and ventilation; Ideal Boilers and Radiators, " Ideal " Britannia 1 K Series 5 boilers; Sidney Hellyar, Ltd., electric wiring; Merchant Adventurers of London, Ltd., and General Electric Co., electric light fixtures; F. H. Handover, plumbing; W. N. Froy and Sons, Ltd., sanitary fittings, mantels, stoves and grates; Yannedis & Co., Ltd., door furniture; Williams and Williams, Ltd., casements; Bostwick Gate Co., Ltd., folding gates; W. Mustoe and Sons, plaster and decorative plaster; Garton and Thorne, Ltd., metalwork; J. P. White and Sons, Ltd., joinery; Empire Stone Co., Ltd., stonework; Tweedy & Co., shrubs and trees; Rickmansworth and Uxbridge Valley Water Co., water supply; Cosmo Clark, and Miss Constance Hermes, signs.

NEW RESTAURANT—WEMBLEY STADIUM. By Sir E. Owen Williams (pages 448-449). The general contractors were W. C. French, Ltd., and the sub-contractors and suppliers included: The Armstrong Cork Co., cork flooring; The Belgrave Electric Co., ceiling light fitting; Carter & Co., Ltd., tiling; Joseph Chater and Sons, Ltd., sanitary fittings; James Combe and Son, Ltd., heating and electrical work; Crittall Manufacturing Co., Ltd., glazing; Richard Crittall & Co., Ltd., kitchen equipment; Etchells, Congdon and Muir, Ltd., lift manufacturers; Golding and Truelove, steelwork; George Hammer & Co., Ltd., joinery; Hampton and Sons, Ltd., carpeting; Totalisators, Ltd., totes; Turners Asbestos Cement Co., Ltd., suspended ceilings; Richard Whittington & Co., Ltd., plumbing.

PRICES

With the section published this week the JOURNAL's Prices Supplement is completed for the second time. Next week the Current Prices for Materials, Part I, will be altered according to quotations for each item which are now being obtained, and in the following three weeks Measured Rates and Approximate Estimates will be re-calculated to conform to the new price for materials.

★ *ANSWERS TO QUESTIONS*

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

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

1. Current Market Prices of Materials, Part I (published on February 24).
2. Current Market Prices of Materials, Part II (published on March 3).
3. Current Prices for Measured Work, Part I (published last week).
4. A.—Current Prices for Measured Work, Part II.
   B.—Prices for Approximate Estimates.

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

PART 4

CURRENT PRICES FOR MEASURED WORK—II

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

JOINER

Deal Flooring

		1″	1¼″
●Plain edge flooring in batten widths	per square	39/2	48/–
●Ditto tongued and grooved ditto ..	per square	42/10	52/1

Wood Block Flooring, laid herringbone, 100 *yards and up*

D.G. and T.G. kiln dried, 2 block border, laid in hot mastic composition on cement screed, including 2 feet run of straight cutting per yard super, and wax polishing at time of laying.

		1″ nominal	1¼″ nominal
Mahoborn teak	per yard super	13/11	18/4½
Canadian Maple	per yard super	11/6	13/8
25–30 per cent. quart Austrian Oak	per yard super	12/10	16/–
Plain American Oak (no selection made for sap) ..	per yard super	11/8	—
Gurjun	per yard super	12/7	14/9
Pitch Pine (50% rift sawn)	per yard super	11/10	13/8
Ditto (100% ditto)	per yard super	13/1½	15/6
British Columbian Pine ..	per yard super	10/–	11/6
Kara Sea Deal, 100 per cent. rift sawn	per yard super	9/9	10/6
Jarrah	per yard super	13/–	15/3
Additional straight cutting	5½d. per foot run		

● **Items marked thus have risen since February 17.**

JOINER—(*continued*)

Secret Nailed Tongued and Grooved Strip Flooring, fully Desiccated, including Polishing

		1″ nominal £ s. d.	1¼″ nominal £ s. d.
Austrian Wainscot Oak ..	per square	8 18 6	10 12 7
Plain Japanese Oak ..	per square	7 10 8	9 2 2
Plain American Oak ..	per square	7 7 0	9 3 9
Pitch Pine	per square	7 0 6	8 15 7
British Columbian Pine ..	per square	4 14 6	5 7 7
Canadian Maple	per square	6 19 1	8 10 7
Mahoborn Teak	per square	6 19 1	8 10 7
English Oak	per square	10 4 9	12 15 11
Gurjun	per square	6 19 1	8 10 7
Jarrah	per square	6 13 10	8 6 5

Wall Linings

⅝″ Deal tongued and grooved V-jointed Matching in narrow widths	per square	33/4
¼″ (6 mm.) Birch (A) Plywood and fixing to walls	per square	46/6
5/16″ Asbestos cement sheets butt jointed	per foot super	–/3¾
✱½″ Fibre board and fixing to walls	per yard super	2 11
Deal battens as ground plugged to brickwork	per foot super	–/1½
1½″ × ⅜″ wrot and chamfered fillets ..	per foot run	–/1½
2″ × ½″ wrot and moulded ditto	per foot run	–/1¾

✱ **Items marked thus have fallen since February 17.**

CURRENT PRICES

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

JOINER, IRONMONGER AND STEEL AND IRONWORKER

JOINER—(*continued*)

Skirtings

	Deal	Austrian Oak
✱1″ chamfered or moulded 4″ high, fixed to and including grounds and backings planted on per foot run	–/3½	–/7¾
Add for plugging to brickwork .. per foot run	–/0½	–/0¾

Fitted ends on hardwood price as 4″ of skirtings, mitres as 6″.
Fitted ends, etc., on deal skirting included in price per foot run.

Casements and Fanlights

	1½″	2″
Deal moulded sashes divided into squares with glazing bars .. .. per foot super	1/4½	1/5½
Add for hanging casements (butts measured separately) .. .. each	1/9	2/–

Cased Frames and Sashes

Deal cased sashed frame, including 2″ double hung sashes, with 6″ × 3″ Oak cill and brass axle pulleys, sash line and weights, average 15 feet super .. per foot super	3/9

Doors in Deal

	¾″	1″	1¼″
Matchboarded, ledged and braced door per foot super	1/–	1/2	1/4
	1½″	1¾″	2″
Framed, ledged and braced door, filled in with matchboarding .. per foot super	1/5	1/9	1/10
Ditto garage doors, ... per foot super			1/7
			4-panel
1½″ square framed, both sides .. per foot super			1/7
2″ ditto .. .. per foot super			1/9
1½″ ditto bead butt panels one side, but square the other per foot super			1/9
2″ ditto, ditto .. .. per foot super			1/11
1½″ moulded both sides .. .. per foot super			1/10
2″ ditto .. .. per foot super			2/–
For fixing only p.c. doors allow .. per foot super			–/2½

Hardwood doors two-and-a-half times as much as deal.

Deal glazing beads, mitred and bradded per foot run	–/1½
Ditto and fixed with brass cups and screws per foot run	–/3

Window and Door Linings

	1″	1¼″	1½″
Deal linings, 6″ wide, tongued at angles and planted on including backings per foot run	–/6¼	–/7	–/8
✱Add for plugging to wall per foot run	–/0½	–/0½	–/0½
Add for rebating .. .. .. per foot run	–/0½	–/0½	–/0½
Add for ½″ × 2″ Deal stop planted on per foot run	–/1½	–/1½	–/1½
Deal window board 9″ wide, with rounded nosing, tongued at back and on and including bearers plugged to brickwork.. per foot run	–/10	–/11	1/1
¾″ Deal scotia mould .. .. per foot run		–/1½	
Oak linings 6″ wide tongued at angles and planted on including backings per foot run	●1/2½	✱1/4½	✱1/7½
Add for plugging to brickwork .. per foot run	–/1	–/1	–/1
Add for rebating .. .. .. per foot run	–/1	–/1	–/1
●Add for ¼″ × 2″ Oak stop planted on per foot run	–/3½	–/3½	–/3½
●Oak window board 9″ wide, with rounded nosing tongued at back and on and including bearers plugged to brickwork.. per foot run	1/10	2/1	
¾″ Oak scotia mould .. .. per foot run		–/3½	

Window and Door Frames

	Deal	Austrian Oak
✱4″ × 3″ door frames .. .. per foot run	–/10	2/0½
●4″ × 3″ window frames .. .. per foot run	1/–	2/4½
✱4″ × 3″ transomes and mullions per foot run	1/3½	2/11½
6″ × 3″ door cill, sunk weathered twice throated and grooved for water bar (measured separately) per foot run	—	3/9
6″ × 3″ window ditto .. .. per foot run	—	3/1
Add or deduct for variation in sectional area per square inch .. .. .. per foot run	–/0½	–/1½
Add for each labour, for chamfer, bead or rebate, etc. .. .. per foot run	–/0½	–/1
Add for each moulding .. .. per foot run	–/0¾	–/1½

Architraves

	Deal	Oak
✱1″ × 3″ chamfered or moulded architraves, including mitres on softwood, planted on per foot run	–/3	–/7¼

Mitred angles on oak price as 6″ of architrave.

✱Add for plugging to brickwork.. per foot run	–/0½	–/0¾
Add for narrow splayed grounds .. per foot run	–/1½	–/1½

● **Items marked thus have risen since February 17.**

JOINER—(*continued*)

Shelving

	Deal	Oak
Slat shelving of 1″ × 2″ spaced ¾″ apart per foot super	–/9	—
●1″ shelving.. .. .. per foot super	–/10	2/2
●1¼″ ditto .. .. .. per foot super	–/11½	2/6
●1″ cross-tongued shelving per foot super	1/–	2/6
●1¼″ ditto .. .. .. per foot super	1/1½	2/10
✱1″ × 2″ chamfered bearers planted on per foot run	–/2¼	–/5½
✱Add if bearers plugged to brickwork per foot run	–/0½	–/0¾

Teak Draining Boards and Twice Oiling

1¼″ Moulmein cross-tongued fluted draining board fixed to slight falls .. .. .. per foot super	3/9
½″ × 2″ rounded rim bedded in white lead and screwed to edge of draining board .. .. .. per foot run	–/5
½″ × 4″ rounded skirting fillet ditto.. .. per foot run	–/9

Staircases

	Deal	Oak
1½″ treads and 1″ risers .. per foot super	2/–	5/–
2″ strings, fixed .. .. .. per foot run	1/10	4/7
Housing treads and risers to strings .. each	–/9	1/6
3″ × 2½″ French polished moulded handrail per foot run	—	2/6
1¼″ × 1¼″ square balusters 2′ 6″ long .. each	–/10	2/–
4″ × 4″ Newels with chamfered edges and fixing per foot run	1/4	3/4

IRONMONGER

Fixing only

4″ Butt hinges to softwood .. .. .. per pair	1/–
4″ ditto to hardwood .. .. .. per pair	1/4
16″ T. hinges to softwood .. .. .. per pair	1/6
48″ Collinges patent gate hinges to softwood per pair	7/6

	Softwood	Hardwood
6″ Cabin hooks .. .. .. each	–/7½	–/10
Hat and coat hooks .. .. .. each	–/3	–/4
Cupboard knobs .. .. .. each	–/3	–/4
Night latches .. .. each	1/6	2/–
Thumb latches .. .. .. each	1/6	2/–
Letter plate and knocker, including perforation in door .. .. each	2/6	3/4
Barrel or tower bolts .. .. .. each	–/10	1/1
Flush bolts .. .. each	1/6	2/–
Rim locks and furniture .. .. each	2/–	2/8
Mortice ditto .. .. each	3/–	4/–
Rebated ditto .. .. each	3/6	4/8
Grip handles .. .. each	–/6	–/8
Cupboard locks .. .. .. each	1/–	1/4
Spring catches .. .. each	–/10½	1/1½
Casement fastener .. .. .. each	1/–	1/4
Ditto stays .. .. each	–/10	1/1
Sash fastener .. .. each	–/8	–/11

STEEL AND IRONWORKER

(For Rainwater Goods—*see* " Plumber.")

Steelwork

	£ s. d.
Basis for plain rolled steel joists .. per ton	18 7 6

Fabricated Steelwork

	£ s. d.
✱Joists cut and fitted .. .. .. per ton	22 11 6
✱Stanchions, ordinary sections with riveted caps and bases .. .. per ton	23 12 6
✱Stanchions, compound .. .. per ton	24 3 0
✱Girders, ditto .. .. per ton	23 12 6
Framed roof trusses, average span .. per ton	28 7 0

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

Wrot Iron Work

Simple balusters and handrail fixed (excluding mortices, etc.) .. .. per cwt.	56/–
Bolts and nuts fitted .. .. per cwt.	35/–

Galvanized Corrugated Sheeting

	20 B.G.	22 B.G.
Sheeting in 3″ corrugations and fixing on wood framing with screws and galvanized embossed curved washers including laps .. per square	56/–	49/–
Ditto fixed to steel framing .. per square	63/4	56/8

✱ **Items marked thus have fallen since February 17.**

CURRENT PRICES

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

PLASTERER, EXTERNAL AND INTERNAL PLUMBER

PLASTERER

Lime and Sirapite Plastering

	Per yard super	In narrow widths per foot super
Expanded metal lathing	1/8	–/3
1″ × 3/16″ sawn laths	–/9	–/1½
Render and set in lime and hair	1/8	–/3½
Render, float and set in lime and hair	2/–	–/3¾
Plaster, float and set ditto on lathing (measured separately)	2/1½	–/4
Render and set with Sirapite	1/9½	–/3½
Plaster, float and set ditto on lathing (measured separately)	2/3	–/4
Skimming coat Sirapite	1/5½	
⅜″ thick plaster board fixed including covering joints with scrim cloth	2/–	

Keenes

	Per yard super	In narrow widths per foot super
Cement plain face on and including a backing of Portland cement and sand	2/6	–/5

Mouldings and Labours

		Lime and Sirapite	Keenes
Plain cornices and mouldings 6″ girth	per foot run	–/9½	–/11
Labour arris, quirk or throat	per foot run	–/1½	–/1½
Ditto rounded angle	per foot run	–/2	–/2
Ditto staff bead	per foot run	—	–/7½

Mitres price as 12″ of moulding, stopped ends as 6″, and rounded angles as 18″.

Portland Cement and Sand (1 : 3)

		½″	¾″
Screeds to floors for wood or tiles	per yard super	1/2½	1/4
Screeds for tiling, etc., on walls	per yard super	1/4	1/6
Renderings to walls—one coat float finish	per yard super	1/6	1/8
Plainface	per yard super	1/10	2/–

Coloured Cement Plainface

Cullamix No. 2 or 3 cream, on and including water repellent cement and sand backing	per yard super 3/10
Snowcrete mixture on and including ditto	per yard super 3/10
Snowcrete and white silica sand on and including ditto	per yard super 3/6

For raking out joints of brickwork, keyed bricks or hacking face of concrete, to form key for plastering, see "Bricklayer."

Wall Tiles, Commercial Quality

6″ × 6″ × ⅜″ ivory or white	per yard super	16/–
Extra for rounded edge tiles	per yard run	1/5
6″ × 6″ × ⅜″ coloured enamel bright glazed	per yard super	21/9
Extra for rounded edge tiles	per yard run	–/8¼
6″ × 6″ × ⅜″ eggshell gloss enamelled	per yard super	23/4
Extra for rounded edge tiles	per yard run	–/7¼

EXTERNAL PLUMBER

Lead

	Flats	Gutters, Flashings, etc.	Stepped Flashings	Soakers cut to size
✱Milled sheet lead and labour per cwt.	39/6	40/7	41/8½	34/4
Bedding edges in white lead			per foot run	–/2
Lead wedgings to flashings			per foot run	–/1½
Ditto to stepped flashings			per foot run	–/2
Dressing 6-lb. lead over glass and glazing bars			per foot run	–/3½
Copper nailing			per foot run	–/1½
Close ditto			per foot run	–/2
Bossed ends to rolls			each	–/7½
Extra labour dressing through shoots and into rainwater heads			each	3/–
Ditto to cesspools, including extra solder			each	5/3

Cast Iron Rainwater Goods

Rainwater Pipes fixed to brickwork.

		3″	4″
Round pipes	per foot run	1/5½	1/9
Extra for bends	each	2/2	2/10
Ditto 6″ offset	each	2/4	2/10
Ditto single branches	each	2/7	3/1
Ditto shoes	each	1/7	2/2
		3½″×3½″	4″×3″
Square and rectangular pipes	per foot run	3/2	2/10
Extra for elbows	each	4/11	3/6
Ditto single branches	each	5/9	5/4
Ditto shoes	each	4/8	4/3

EXTERNAL PLUMBER—(*continued*)

Gutters fixed to fascia.

		4″	5″	6″
Half-round gutters	per foot run	1/–	1/2½	1/8½
Extra for angles	each	1/9	2/–	2/3
Ditto nozzles	each	1/7	1/10	2/5
Ditto stop ends	each	1/–	1/3	1/4½
O'Gee gutters	per foot run	1/1½	1/4	1/9½
Extra for angles	each	1/9½	2/3	2/4
Ditto nozzles	each	1/8	2/3	2/8
Ditto stop ends	each	1/1½	1/4½	1/7½

INTERNAL PLUMBER

Lead Pipes

Service.

		½″	¾″	1″	1¼″
✱Pipes laid in trenches	per foot run	–/10¾	1/2½	1/8¾	2/4½
Add if fixed on walls	per foot run	–/2	–/3	–/4	–/5
Ditto if in short lengths	per foot run	–/1	–/1	–/1½	–/2
		1½″	2″	2½″	3″
✱Pipes laid in trenches	per foot run	3/–	4/–	—	—
Add if fixed on walls	per foot run	–/6	–/8	—	—
Ditto if in short lengths	per foot run	–/3	–/4	—	—

Distributing.

		½″	¾″	1″	1¼″
✱Cold water pipes fixed to walls	per foot run	–/10¾	1/2¾	1/8½	2/3
Add if in short lengths	per foot run	–/1	–/1	–/1½	–/2
✱Cold water pipes fixed to walls	per foot run	1½″ 2/9½	2″ 3/7½	2½″ —	3″ —
Add if in short lengths	per foot run	–/3	–/4	—	—

Flushing and Warning.

		½″	¾″	1″	1¼″
✱Waste and overflow pipes fixed in short lengths	per foot run	–/8¾	–/11	1/2	1/5
✱Waste and overflow pipes fixed in short lengths	per foot run	1½″ 1/10	2″ 2/5½	2½″ —	3″ —

Soil and Ventilating.

		3½″	4″	4½″
✱Pipes fixed, including lead tacks	per foot run	5/3	5/10	6/8½

		1½″	2″	2½″	3″	3½″	4″	4½″
Bends	each	1/6	2/–	2/9	3/9	4/3	4/6	5/6
Soldered joints to fittings	each	½″ 2/1½	¾″ 2/4	1″ 2/7	1¼″ 2/9	1½″ 3/–	2″ 3/5	
Soldered branch joints (price as largest branch)	each	½″ 2/3½	¾″ 2/6	1″ 2/9	1¼″ 3/–	1½″ 3/3		
Soldered branch joints (price as largest branch)	each	2″ 3/8	2½″ 4/–	3″ 4/6	4″ 5/–	4½″ 6/6		
Wrap small pipes with hair felt	per foot run	–/6						

Drawn Lead Traps

		1¼″	1½″ 3″ deep seal	1½″	1½″ 3″ deep seal	2″	2″ 3″ deep seal
P. Traps 6 lb. with cleaning eye and two soldered joints	each	7/1	7/7½	8/3	8/9½	9/8	10/2½
S. ditto	each	7/6	8/0½	8/8	9/2½	10/4	10/10½

Brasswork (*Best Quality*)

		½″	¾″	1″
Brass screwdown stop cocks including two soldered joints	each	7/6	9/9	13/1
Ditto, including two red lead joints for iron	each	5/8	7/10	11/–
Ditto, including one soldered and one red lead joint	each	6/1	8/1	11/2
High pressure Portsmouth pattern ball valve with flynut and union and one soldered joint	each	8/5	11/7	17/2
Ditto, including red lead joint for iron	each	6/5	9/2	16/8

		2″	4″
Brass thimble and soldered and cement joints	each	5/–	9/5
Ditto, with solder and caulked lead joints	each	6/–	11/2

Fixing Only (*Connections to Pipes measured separately*)

24″ × 18″ × 6″ sinks including taps, etc., and pair of brackets cut and pinned to brickwork	each 6/–
24″ × 18″ lavatory basins ditto	each 6/6
W.C. suite comprising pan and trap, seat, W.W.P. and brackets	each 10/6
Baths, including taps, etc., and setting in position	each 10/6

✱ **Items marked thus have fallen since February 17.**

CURRENT PRICES

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

INTERNAL PLUMBER, GLAZIER AND PAINTER

INTERNAL PLUMBER—(*continued*)

Screwed and Socketed Galvanized Steam Quality Steel Tubes and Fittings

Pipes up to and including 1½″ include short running lengths, sockets, connectors, elbows, bends, fire bends; Tees and Diminishing Pieces enumerated.

Distributing.

	½″	¾″	1″	1¼″	1½″	2″
Pipes fixed to walls per foot run	–/10	1/–	1/4	1/10	2/4	3/–
Ditto in short lengths, fittings, etc., measured separately per foot run	–/10	1/–	1/4	1/10	2/4	3/–
Extra for						
Firebends .. .. .. each	–/4	–/6	–/9	1/3	1/6	2/–
Bends .. .. .. each	1/2	1/5	1/9	2/6	3/1	4/9
Round elbows .. .. each	1/5	1/8	2/–	2/4	2/10	4/4
Square ditto .. .. each	1/5	1/8	1/11	2/3	2/8	4/1
Tees .. .. .. each	1/6	1/10	2/1	2/9	3/1	4/8
Crosses .. .. .. each	2/9	3/2	3/10	5/–	6/–	9/1
Diminishing pieces .. each	–/10	–/11	1/2	1/6	1/11	2/8
Caps .. .. .. each	–/7	–/8	–/10	1/–	1/5	1/9
Plugs .. .. .. each	–/6	–/6	–/8	–/11	1/4	1/8

Cast Iron Waste, Soil and Vent Pipes

	2″	3″	4″	5″	6″
L.C.C. pipes in 6′ 0″ lengths fixed to brickwork .. per foot run	1/10	2/–	2/5	4/5	5/4
Extra for bends .. .. each	5/3	6/1	7/10	11/–	14/9
Ditto single branches .. each	6/5	8/2	11/–	17/6	23/6
Ditto swannecks 6″ projection each	6/1	8/9	11/1	16/1	22/–
Extra for access door or any fitting .. .. .. each	6/9	6/9	7/3	8/6	8/6

Zincworker

	13 G.	14 G.	15 G.	16 G.
Rolled sheet zinc on flats per foot super	–/7½	–/8	–/9	–/9½
Ditto in gutters, cover flashings, etc. per foot super	–/8¼	–/8½	–/9½	–/10¼
Ditto in stepped flashings per foot super	–/10½	–/11	1/–	1/0½
Labour and risk dressing over glass per foot run	–/4¼	–/4¼	–/4¼	–/4¼
Capped ends to rolls .. .. each	–/2¼	–/2¼	–/2¼	–/2¼
Extra labour to cesspools .. each	2/7½	2/7½	3/2	3/2

Copperworker

Distributing.

	½″	¾″	1″	1¼″	1½″	2″
Solid drawn copper tube fixed to walls .. .. per foot run	–/9	1/–	1/5½	1/10	2/3	3/3
Add if in short lengths per foot run	–/0¾	–/0¾	–/1	–/1½	–/2	–/2¼

Fittings for copper tubes

		½″	¾″	1″	1¼″	1½″	2″
Compression type							
Straight couplings .. each		1/10	2/2	3/–	3/9	5/1	7/3
Obtuse elbows .. .. ,,		2/8	3/2	4/5	5/6	8/10	12/7
Tees .. .. .. ,,		3/1	3/6½	5/4	7/4½	11/3	15/7
Crosses .. .. .. ,,		4/1½	4/8	5/8½	8/–	13/2	18/–
Reducing coupling .. ,,		—	2/2	3/–	3/9	5/1	7/3
Bends .. .. .. ,,		2/5	2/10½	3/1	5/–	8/3	11/11
Brass stopcocks .. .. ,,		5/6	7/10	11/–	19/3	26/6	43/6
Capillary type							
Straight coupling .. each		1/6	1/11	2/7	3/3	4/1	5/4½
45° Elbow .. .. ,,		2/4	2/11½	3/10½	4/11	6/10	9/7
Tees .. .. .. ,,		2/7	3/–	4/3	5/10	7/10	11/–
Crosses .. .. .. ,,		3/1	3/6	5/1½	6/10	9/8	13/5
Reducing coupling .. ,,		—	1/7	2/–	2/6	3/3	4/8
Bends .. .. .. ,,		2/8	3/2	4/3	5/7	8/1	10/11
Pillar tap connections .. ,,		1/11	2/6				

	24 G.	23 G.
Rolled sheet copper on flats ..per foot super	1/7	1/9
Ditto in gutters, cover flashings, etc. per foot super	1/8	1/10
Ditto in stepped flashings .. ..per foot super	2/1½	2/4½
Labour and risk dressing over glass per foot run	–/4½	–/4½
Capped ends to rolls .. .. .. each	–/3¼	–/3¼
Extra labour to cesspools .. .. .. each	3/8	3/8

GLAZIER

Sheet Glass (Ordinary Glazing Quality)

18 oz. clear sheet and glazing to wood, sprigged and with back and front putties, to all normal sizes not exceeding 60″ in length or 40″ wide .. .. ..per foot super	–/6¼
24 oz. ditto .. ..per foot super	–/7¾
32 oz. ditto .. ..per foot super	1/0½

GLAZIER—(*continued*)

Obscured ground sheet glass, net extra to above prices per foot super	–/1¾
⅛″ figured rolled white glass and glazing to wood with beads (measured separately) .. ..per foot super	–/10½
Ditto, normal tints, ditto .. .. ..per foot super	1/2¾
Hammered double rolled cathedral white ditto per foot super	–/10
Ditto, normal tints, ditto .. .. ..per foot super	1/1¾
Add for glazing into metal frames (ordinary rebates) per foot super	–/1½
Ditto, metal sashes with ferroput .. ..per foot super	–/2½
Ditto, solid metal casements and screw beads per foot super	–/2¾
Wash leather strip or similar material and bedding edge of glass .. .. per foot run	–/3¼

Glazing only thick drawn sheet glass, polished plate or wire polished plate for all normal sizes. (For prices of glass see materials section and add profit, say 10 per cent.) per foot super 6¼d.

PAINTER

Painting, Whitening and Distempering (on new Plastered Walls)

Twice distempering white	per yard super	–/5
Ditto, in common colours	per yard super	–/7
Add for stippling	per yard super	–/2
✱Preparing and painting three coats of paint	per yard super	1/9

Preparing and Painting Two Coats of Oil Colour on Ironwork after fixing

General surfaces	per yard super	1/1½
Perforated landings and staircases both sides (one side measured)	per yard super	2/6
Pipes, bars, balusters, etc., not exceeding 3″ girth	per yard run	–/1¾
Metal Window Frames	per yard run	–/2¾
Eaves gutters	per yard run	–/7½
2″ Rainwater pipes	per yard run	–/3
4″ ditto	per yard run	–/6
Squares one side	per dozen	1/9
Large ditto	per dozen	2/3
Extra large ditto	per dozen	3/–
Edges of casements	each	–/3

Painting on New Woodwork

		Knot, prime, stop and paint three coats oil colour	Add or deduct for each coat more or less
✱General surfaces	per yard super	2/–	–/6
Fascias and soffites	per yard super	2/6	–/7½
Fillets, skirtings, etc., not exceeding 3″ girth	per yard run	–/3	–/0¾
Ditto, not exceeding 6″	,, ,, ,,	–/5½	–/1¼
Ditto, not exceeding 9″	,, ,, ,,	–/7	–/1¾
Ditto, not exceeding 12″	,, ,, ,,	–/9	–/2
Squares one side	per dozen	3/6	–/9
Large ditto	,, ,,	4/6	1/–
Extra large ditto	,, ,,	6/–	1/4
Edges of casements ..	each	–/6	–/1½

Sundries

Twice creosoting woodwork	per yard super –/6
Twice limewhiting brickwork ..	per yard super –/4

		Sizing	Staining	Once Varnish
General surfaces ..	per yard super	–/2	–/4½	–/6
Wax polishing	per foot super			–/4½
Body in and French polish on hardwood surfaces	per foot super			1/–

Writing

Plain letters or figures, two coats, 2″ to 12″ letters per dozen inches in height	1/10½
Ditto, shaded	2/6
Plain gold, 2″ to 12″ letters	2/6
Ditto, 12″ to 24″	3/9

Gilding

		Single Gold	Double Gold
Preparing and gilding in best oil gold	per foot super	5/3	8/4
Ditto in matt or burnished gold	per foot super	7/4	11/6

Paperhanging

Pasting and hanging only.

		On walls	On ceilings
Preparing new plastered walls for papering	per piece (60 feet super)	1/4	1/5½
Plain lining paper ..	,, ,, ,, ,,	1/4	1/8
Common printed papers	,, ,, ,, ,,	2/–	2/6

✱ **Items marked thus have fallen since February 17.**

APPROXIMATE ESTIMATES

ON this and the three following pages the JOURNAL's section of Approximate Estimates is published for the second time.

There is nothing revolutionary about the idea—its usefulness lies in its efficiency as a time-saver in calculating the approximate price of work to which the cubing system cannot be applied.

In brief, an Approximate Estimate in considering a roof, converts the several units of pricing involved into a common unit of price per square yard, and then adjusts the price to cover sundry labours. By this means several stages of calculation are saved by the estimator in a hurry.

The Estimates published this week cover many of the items for which prices are continually needed. The descriptions in some cases have been made fuller than those published on February 17 and some new items included. It is intended to retain all these and vary their prices with Current Rates; but from time to time new items will be added until all units of structure and equipment are covered to which the system can reliably be applied.

• ***The following composite prices are for work executed complete and should be used for the preparation of Approximate Estimates only.***

FOUNDATIONS

		Thickness of walls 9″	11″ Hollow	13½″
• Excavation in clay soil for foundations 2′ 6″ deep to walls, including stock brickwork in second stocks cement mortar 1 : 3 up to 6″ above ground and horizontal double slate damp-proof course with external facings p.c. 100/– and pointing	*per yard run*	25/1	28/3	35/4
• Ditto, in ordinary soil ditto	*per yard run*	23/10	27/1	33/9

EXTERNAL WALLS

• External walls in Fletton brickwork in cement mortar 1 : 3 including three coat lime plaster and twice distempering one side and facings p.c. 100/– in Flemish bond, joints raked out and pointed with a neat struck weathered joint, the other	*per yard super*	19/4	19/3	24/9
• Ditto, including Keenes cement plain-face and three coats oil colour one side and ditto	*per yard super*	21/–	20/9	26/5
• Ditto, including internal fair face, flush jointed one side and ditto	*per yard super*	17/7½	17/4½	23/0½
• For variation of 10/– per m. in p.c. of facings in Flemish bond (stretcher in cavity work)	*per yard super*	–/9	–/6¾	–/9

APPROXIMATE ESTIMATES—(*continued*)

INTERNAL WALLS AND PARTITIONS

		2″	3″	4½″	9″
• Breeze partitions set in cement mortar or Fletton brick walls and including three coat lime plaster and twice distempering both sides	*per yard super*	9 11	11 1	11 1	16 7
• Ditto, built fair and flush jointed both sides	*per yard super*	—	—	7 8½	13 2
• Ditto, including Keenes cement plain-face and three coats oil colour both sides	*per yard super*	13 3	14 5	14 6	19 11

GROUND FLOORS

• Solid ground floor construction including 9″ excavation, 4″ bed of hardcore, 6″ concrete 6 : 1 surface bed, finished with 1½″ granolithic paving trowelled smooth	*per yard super*	9 10
• Ditto, finished with ¾″ cement and sand 1 : 3 screed and wood block flooring or paving p.c. 10/– yard	*per yard super*	18 2
• Ditto, finished with 2″ × 2″ sawn floor fillets and floor clips and 1″ deal tongued and grooved flooring, batten widths	*per yard super*	12 11½
• Ditto, finished with floor fillets as before and 1″ (nominal) oak tongued and grooved narrow widths strip flooring polished at time of laying	*per yard super*	25 2½
• Sleeper wall ground floor construction, including 15″ excavation, 4″ bed of hardcore, 6″ concrete 6 : 1 surface bed, sleeper walls 12″ high, built honeycomb, 4½″ slate damp-proof course 4½″ × 3″ fir plate, and 4″ × 2″ sleeper joists and 1″ deal tongued and grooved flooring in batten widths	*per yard super*	15 3
• Ditto, with 1″ nominal oak tongued and grooved narrow widths strip flooring polished at time of laying	*per yard super*	27 6

UPPER FLOORS

		With 7″ Joists	With 9″ Joists	With 11″ Joists
• Wood construction including 2″ fir joists on 4″ × 3″ fir plates and herring-bone strutting with three coat lime plaster and twice distempering white to soffite and 1″ deal tongued and grooved flooring in batten widths	*per yard super*	12/–	13 2	14 3
• Ditto, with 1″ nominal oak tongued and grooved narrow widths strip flooring polished at time of laying	*per yard super*	24 3	25 5	26 6
• 5″ thick concrete 4 : 2 : 1 reinforced with fabric suitable at 13′ 0″ spans for carrying ¾ cwt. per ft. super, with two coat lime plaster and twice distempering white to soffite and 1″ Kara Sea deal 100 per cent. rift sawn block flooring wax polished at time of laying ...	*per yard super*			25 7
• Ditto, with 1″ nominal 25/30 per cent. quartered Austrian oak block flooring polished at time of laying	*per yard super*			28 8

APPROXIMATE ESTIMATES—(*continued*)

FLAT ROOFS

		Using 7″ Joists	*Using 9″ Joists*	*Using 11″ Joists*
● Wood construction including 2″ fir joists on 4″ × 3″ fir plates and herring-bone strutting with three coat lime plaster and twice distempering white to soffite and best natural rock asphalt roof finish ...	*per yard super*	18/5	19/5	20/6
● 5″ Thick concrete 4 : 2 : 1 reinforced with fabric (suitable at 13′ 0″ span for carrying 40 lbs. per ft. super) with two coat lime plaster and twice distempering white ditto	*per yard super*	22/7		

PITCHED ROOFS

● Bangor Countess 20″ × 10″ slating, laid to 3″ lap fixed with zinc nails, including 2″ × 1″ battens, ¾″ roof boarding and 4″ × 2″ rafters (measured on slope)	*per yard super*	13/1
● Westmorland Random green slates No. 1 best 24″ to 12″ long proportionate widths ditto	*per yard super*	17/2
● Machine-made tiles 10½″ × 6½″ laid to a 4″ gauge, fourth course nailed with galvanized nails ditto	*per yard super*	11/6
● Hand-made sand faced tiles ditto ditto	*per yard super*	12/3
● Slate ridges, including cuttings and 1½″ × 9″ deal ridge	*per yard run*	9/10½
● Half-round ridge tile ditto	*per yard run*	7/7
● Slate hips, including cuttings, lead soakers, and 1½″ × 11″ deal hips	*per yard run*	12/5½
● Hip tiles, including cuttings and 1½″ × 11″ deal hips	*per yard run*	14/–
● Lead valley gutter to slated roof, including cuttings and 1½″ × 11″ deal hips	*per yard run*	18/5
● Purpose-made valley tiles, including cuttings and 1½″ × 11″ deal hips	*per yard run*	13/7

DOORS

		Partitions or Walls				
		2″	3″	4½″	9″	13½″
● 2″ flush door p.c. 29/– 2′ 6″ × 6′ 6″, including deal frames or linings, ironmongery p.c. 15/– and simple architraves both sides, all painted	each	100/–	101/5	96/3	100/10½	106/10½

WINDOWS

Prices are for normal size, including suitable ironmongery, glazing with clear sheet glass and painting.

● Standard metal casements with fixed lights	*per foot super*	2/8½
● Ditto, with 50 per cent. opening lights	*per foot super*	3/10
● Standard metal casements in wood frames with fixed lights	*per foot super*	4/2
● Ditto, with 50 per cent. opening lights	*per foot super*	4/10
● Standard industrial type sashes with fixed lights	*per foot super*	2/2½
● Ditto, with 33⅓ per cent. opening lights	*per foot super*	3/2
● Solid deal frames and 2″ casements	*per foot super*	5/0½
● Deal cased frames and double hung sashes	*per foot super*	4/10½

APPROXIMATE ESTIMATES—*(continued)*

STAIRCASES

• Deal 9′ 0″ high, including half space landing, newels, balusters and handrail	*each*	£23	10 0
• Austrian oak ditto	*each*	£44	5 0
• Precast concrete ditto	*each*	£32	15 0

DRAINS

		Ordinary Soil	*Clay Soil*
• Manhole, 2′ 3″ × 1′ 6″ × 2′ 0″ deep, including excavation, 6″ (6 : 1) concrete bottom, one brick sides 3rd stocks in cement mortar with brown glazed half-round straight main channel and one brown glazed branch channel, including benching, sides rendered in cement and sand (1 : 3) and a 24″ × 18″ black single seal cast iron manhole cover and frame, weight 0 cwts. 3 qrs. 0 lbs.	*each*	£3 12 6	£3 15 6
• Manhole 2′ 3″ × 3′ 9″ × 4′ 0″ deep ditto including six branches	*each*	£7 2 0	£7 6 6

		Clay Soil		*Ordinary Soil*	
		4″	6″	4″	6″
• British standard quality stoneware drain pipes laid on and including 6″ thick concrete bed flaunched up both sides of pipe and excavating average 2′ 6″ deep	*per foot run*	2/5	3/0½	2/3	2/10½
• Ditto, but excavating 4′ 0″ deep	*per foot run*	4/1½	4/9	3/7½	4/3
• Cast iron drain pipes in 9′ lengths and laying in trench including 6″ concrete bed and excavating average 2′ 6″ deep	*per foot run*	4/8	6/6½	4/6	6/4½
• Ditto, average 4′ 0″ deep	*per foot run*	6/4½	8/3	5/10½	7/9

PATHS AND DRIVES

• 2″ finished gravel paths, including 6″ excavation and 4″ bed of hardcore and edging boards	*per yard super*	5/3
• 7½″ finished gravel drive, including 6″ excavation, 6″ bed of hardcore and edging boards	*per yard super*	6/9
• 2½″ Tarmacadam drive including ditto	*per yard super*	7/10

FENCES

• Cleft chestnut pale fence 4′ 0″ high	*per foot run*	–/10
• Deal weather boards, including posts, arris rails and gravel boards creosoted, 5′ 0″ high	*per foot run*	2/9½
• Ditto, in English oak throughout	*per foot run*	3/10½

The four sections on PRICES published in the issues of February 24, March 3, 10 and this week, together complete the PRICES SUPPLEMENT. Next week the FIRST SECTION—PRICES OF MATERIALS, PART 1—will be repeated with items revised according to market quotations.