BUILDING EXHIBITION GUIDE

A CLASSIFIED LIST OF EXHIBITORS

ACOUSTIC LININGS, SOUND-PROOFERS, ETC.

Honeywill and Stein (R281)

ASBESTOS CEMENT PRODUCTS

Cellactite and British Uralite (Q274)
Turners Asbestos Cement Co. (H150)
Universal Asbestos Mfg. Co. (T304)

ASPHALTE

Limmer and Trinidad Lake Asphalte (G130)
Nat. Assoc. of Master Asphalters (72 Gal.)
Neuchatel Asphalte Co. (H159)

BRICKS, TILES AND CLAY PRODUCTS

Adamite Co. (H146)
Associated Clay Industries (T303)
Board, John, & Co. (V319)
Carter & Co. (Poole) (G133)
Clay Products Technical Bureau (83 Gal.)
Claygate Brickfields (T308)
Collier, S. & E. (F100)
Colt (London), W. H. (C40)
Colthurst, Symons & Co. (J172)
Downing, G. H., & Co. (T174)
Dunbrik (S295)
Everlasting Tile Co. (F110)
Hemel Hempstead Pat. Brick Co. (G141)
Langley (London), Ltd. (F113)
Lawrence, Thomas, and Sons (G135)
London Brick Co., Ltd. (J173)
Manor Tiles (Q277)
Marley Tile Co. (E88)
Marston Valley Brick Co. (B7)
Milton Hall Brick Co. (K192)
Moorhouse Brick, etc., Products (G120)
Nerus Brick and Tile Co. (J166)
Redhill Tile Co. (G129)
Sevenoaks Brick Works (L214)
Skey, George, & Co. (O252)
Smith, H. P. (E69/70)
Somerset Trading Co. (F103)
Stock Brick Mfrs. Assoc. (E89)
Stonehenge Bricks (K194)
Sussex Brick Co. (G138)
Thomas, Richard, & Co. (D55)
Tile Decorations (E78)
Tiledom (64 Gal.)

CEMENT AND CEMENT PRODUCTS, REINFORCEMENTS AND AGGREGATES

Adamite Co. (H146)
British Granite and Whinstone Fed. (78 Gal.)
Buckland Sand and Silica Co. (F111)
Cement and Concrete Assoc. (53 Gal.)
Cement Marketing Co. (G132)
Concrete Vibration (68 Gal.)
Crendon Concrete Co. (37 Gal.)
Durolife Compounds (E77)
Ellis, John, and Sons (D66)
Expanded Metal Co. (H144)
Isteg Steel Products (54 Gal.)
Kerner-Greenwood & Co. (C39)
King, J. A., & Co. (G137)
Lenscrete (K193)
Sal-Ferricite and Trading Co. (D64)
Sealocrete Products (21 Gal.)
Smith's Fireproof Floors (F117)
Trussed Concrete Steel Co. (Q275)
Twisteel Reinforcement (E82)

COOKING, HEATING AND HOT WATER

Ascot Gas Water Heaters (Q268)
Aga Heat (M229)
Benham and Sons (35 Gal.)
British Commercial Gas Assoc. (S292)
Brockhouse, J., & Co. (M221)
Candy & Co. (K187)
Clarkhills (O247)
Cozy Stove Co. (V312)
Crowe, G. E. W. (33 & 34 Gal.)
Eagle Range and Grate Co. (B14)
Ewart and Son (L219)
Fenlon and Son (R287)
Flavel, Sidney, & Co. (M231)
Gas Light and Coke Co. (R286)
Hopes Heating and Lighting (M230)
Hurry Water Heater Co. (L215)
Ideal Boilers and Radiators (Q272)
Jones and Attwood (K191)
Interoven Stove Co. (G127)
London and Counties Coke Assoc. (H161)
London Warming Co. (M222)
Mechanical Coal Stoker (V318)
Mitchell, W. T., & Co. (Q267)
Morris Heating Appliances (N239)
Nat. Gas. Water Heater Co. (C38)
Nautilus Fire Co. (S291)
New Geysers (S288)
Parkinson Stove Co. (Q270)
Portway, C. & Sons (M220)
Potterton, Thomas (S290)
Richard Central Heating (T310)
Smith, Samuel, and Sons (D49)
Smith and Wellstood (M224)
South Metropolitan Gas Co. (B15)
Standard Range and Foundry Co. (M226)
Stráffon & Co. (D58)
Triplex Foundry (B13 and M225)
Ure, Allan, & Co. (B12)
Warmo Heating Co. (42 Gal.)
Wood, Russell & Co. (N243)

DOMESTIC EQUIPMENT AND ELECTRICAL SUPPLIES

Abbott Bros. (Southall) (91 Gal.)
Acme Wringers (H158)
Aidas Electric (B20)
Aquamellis Engineering Co. (D59)
Belling & Co. (E74)
Berry's Electric (D62)
Birwat (89 Gal.)
British Elec. Dev. Assoc. (B19)
Centro-Vac (65 Gal.)
Craven Electric Co. (76 Gal.)
Downham & Co. (N238)
Easiwork (M228)
English Electric Co. (D63)
Express Refrigerating Co. (T311)
Fisher, M., and Sons (P256)
Fry Bros. (90 Gal.)
General Electric Co. (D61)
Greenwood and Hanson (D52)
Hawkins, L. G., & Co. (B9)
Jackson's Electric Stove Co. (E73)
Johnson, A., & Co. (London) (J168)
Kelvinator (P261)
Kitchendom (V320)
Lusty, W., & Sons (L216)
Minimax (S299)
Modern Kitchen Equipment (S289)
Moore's Modern Methods (46 Gal.)
Newmetric (90a Gal.)
Patent Tip-up Bath Co. (M223)
Peerless Kitchen Cabinets (S294)
Precision Electric (63 Gal.)
Radio Furniture Fittings (E72)
Reliance Telephone Co. (H153)
Rely-a-Bell Alarm Co. (67 Gal.)
Searsint (24 Gal.)
Smith's English Clocks (C42)
Staines Kitchen Equipment (L202)
Universal Refrigerators (92 Gal.)
Utilities (London) (O245)
Vernon, R. (M227)
Watson's Water Softeners (30 Gal.)
Wiggin, Henry, & Co. (O255)
Zeros Sales (31 Gal.)

DOORS AND DOOR FURNITURE

Ace Laminated Products (74 Gal.)
Adams, James, and Son (D51)
Adams, Robert (E91)
Bryce, White & Co. (J179)
Gliksten Doors (F107)
Hills, F. & Sons (Q276)
Mersida Veneers (D60)
Nettlefold and Sons (J177)
R.G.C. Panels (D50)
Sadd, John, and Sons (L209)
Soole & Sons (K180)
Venesta (G136)

FLOOR FINISHES

Adamite Co. (H146)
Dunlop Rubber Co. (G140)
Durity (25 Gal.)
National Flooring Co. (M234)
Noelite (E93)
North British Rubber Co. (70 Gal.)
Rubber Growers' Assoc. Inc. (J169)
Venesta Ltd. (G136)

GLASS AND PATENT GLAZING

King, J. A., & Co. (G137)
Lenscrete (K193)
London Sand Blast Dec. Glass Works (F104)
Pilkington Bros. (T307 and D44)

JOINERY AND FURNITURE

Austins of East Ham (P262)
Bamberger, Louis, and Son (K183)
Bryce, White & Co. (J179)
Compactom (T309)
Dunlop Rubber Co. (G140)
Ebner, Joseph E. (49 Gal.)
Elliott and Sons (Reading) (K188)
Globe-Wernicke Co. (T300)
Regal Cabinet Works (D57)
Rowley Gallery of Decorative Art (32 Gal.)
Sadd, John, and Sons (L209)
Sharp Bros. and Knight (R280)
Tibbenham, Fredk. (E87)

PLAN OF THE BUIL

ILDING EXHIBITION

METAL WORK AND STRUCTURAL STEEL

Bolton Gate Co. (E79)
Braby, Fredk., & Co. (D47)
Brady, G., & Co. (E80)
British Steelwork Assoc. (O251)
Jones, T. C., & Co. (K196)
Harvey, G. A., & Co. (London) (F105)
Haskins Rolling Shutters (H142)
Metal Mouldings (77 Gal.)
Sankey, Joseph, and Sons (D46)
Steel Ceilings (H160)

MISCELLANEOUS

Boston Blacking Co. (E81)
Central Chemicals (K181)
Friends Allotment Committee (19 Gal.)
Hammond Bros. and Champness (H142a)
Highways Construction (F115)
Hoenig Building System (G128)
Konkerwind (75 Gal.)
Lovell, Y. J., and Sons (E90)
Nicholson, W. T., and Clipper Co. (K185)
Ozalid Co. (J163)
Peerless Wire Fence Co. (H154)
Penfold Fencing (K182)
Rawlplug Co. (B11)
Rubber Growers' Assoc. Inc. (J169)
Schubert, H. (F116)
Templer, C. G., & Co. (J165)
Thomas and Bishop (C33)
Tuke and Bell (E85)
Webb and Foulger (K186)
Zinc Alloy Rust Proofing (N242)

PAINTS, STAINS, PRESERVATIVES—PAINT MACHINERY

Aerostyle (B16)
Carson, Walter, and Sons (L210 and 84 Gal.)
Cellon (E84)
Chiswick Products (28 Gal.)
Cimex (O253)
Cuprinol (O249)
Glasso Manufacturing Co. (43 Gal.)
Hadfields (Merton) (V317)
Imperial Chemical Industries (J175)
Kurt Erlach (20 Gal.)
Lacy-Hulbert & Co. (2 Gal.)
Leyland Paint and Varnish Co. (B6)
Nobel Chemical Finishes (J176)
Parsons, Thos., and Sons (H151)
Powell Duffryn Steam Coal Co. (K184)
Quickstryp Chemical Co. (B18)
Ronuk (G134)
Silexine (D54)
Silicate Paint Co. (F99)
Turnbridge Mfg. and Supply Co. (51 Gal.)
Turner, Charles, and Sons (N236)
Union Glue and Gelatine Co. (O254)
Wilcot (Parent) Co. (13 Gal.)

PERIODICALS AND PUBLISHERS

Architect and Building News (F101)
ARCHITECTS' JOURNAL, *Architectural Review* (F106)
Builder, The (G126)
Building (B10)
Business Directories (39 Gal.)

PLANT AND MACHINERY

A.C.E. Machinery (S293)
Allam, E. P., & Co. (R283)
Boydell, E., & Co. (R.279)
British Equipment Co. (P258)
British Oxygen Co. (E94)
British Wedge and Coupler Co. (30a. Gal.)
Camloc Tubular Scaffolding (71 Gal.)
Cayless Bros. (Battersea) (J167)
Chadwick and Shapcott (H149)
Cole, E. R. (L204)
Cooksley, A. (F112)
Danckaerts' Machinery (G123)
Dominion Machinery Co. (E75)
Drew, Clark & Co. (L213)
Easilit Blow Lamp Co. (36 Gal.)
Eclipse Rail-Track Ladder Co. (P259)
Fastnut (L201)
Felco Hoists (L207)
Flextol Engineering Co. (D53)
Fowler, John & Co. (Leeds) (L208)
Gascoigne, Geo. H., Co. (E76)
Guilliet Sons & Co. (C30)
Hart, H. (E95)
Interwood (K197)
Liner Concrete Machinery Co. (V313)
London and Midland Steel Scaffolding Co. (P265)
Mansion Motors (V317)
Marchant Bros. (D48)
Millars' Machinery Co. (P264)
Milles, R. D. (L203)
Mills Scaffold Co. (73 Gal.)
Neal, R. H., & Co. (H157)
Parker, Fredk. (R284)
Pegson (J162)
Powell and Hill (G122)
Ransomes and Rapier (C35)
Robinson, Thomas, and Son (H155)
Scaffolding (Gt. Brit.) (F96)
Sagar & Co. (A1)
Shapland and Petter (F109)
Shetack Tool Works (O250)
Slingsby, H. C. (C43)
Steel Scaffolding Co. (B8 and J170)
Stephens and Carter (P263)
Stothert and Pitt (S297)
Torrance and Sons (S298)
Trianco (F117)
Tyzack and Son (L211)
Wadkin & Co. (K195)
Wall Plug Co. (29 Gal.)
White, Thomas, and Son (F118)
Wilson Bros. (Leeds) (F114)
Winget (T306)

PLASTER, PARTITION BLOCKS AND PLASTER REINFORCEMENT

British Plaster Board (G125)
Expanded Metal Co. (H144)
Honeywill and Stein (R281)
Imperial Chemical Industries (J175)
Planet Gypsum Board Co. (E71)
Speaker, G. R., & Co. (Q273)

ROOFING AND DAMPCOURSES

Anderson, D., and Son (G131)
Callender, G. M., & Co. (E83)
Crow, F. B. (N243a)
Grant and West (L217)
Lead Industries Development Council (83 Gal.)
Ruberoid Co. (Q271)
Thomas, Richard, & Co. (D55)
Vulcanite (F97)

SANITARY FITTINGS AND PLUMBING

Adamsez, Ltd. (K190)
Claughton Bros. (N235)
Crane, Ltd. (V314)
Doulton & Co. (O248)
Knowles, John & Co. (London) (G124)
Leeds Fireclay Co. (F98)
Yorkshire Copper Works (F102)

SCHOOLS AND SOCIETIES

Army Vocational Training Centre (17 Gal.)
Brixton School of Building (26 Gal.)
Building Research Station (80 Gal.)
Hammersmith School of Building (11 Gal.)
Housing Centre, The (4-10 and 56-62 Gal.
I.A.A.S. (69 Gal.)
Kingston Technical College (1 Gal.)
National Physical Laboratory (79 Gal.)
Northern Polytechnic (14 Gal.)
Southend Arts and Crafts School (23 Gal.)
Trades Training School (18 Gal.)

STONE, MARBLE AND ARTIFICIAL STONE

Atlas Stone Co. (C36)
Maile, G., & Sons (E86)
Marb-Panels (D56)
Sheppard, A. E. (3 Gal.)
Slate Slab Products (T305)

TIMBERS, VENEERS AND PLYWOODS

Bamberger, Louis, and Son (K 183)
Canadian Government Exhibition (J171)
Colt (London), W. H. (C40)
Elliott and Sons (Reading) (K188)
Flexo Plywood Industries (T302)
Gabriel Wade and English (S296)
Gerver, N. (N237)
Mersida Veneers (D60)
Odling, Anselm, and Sons (G139)
Oliver, Wm., and Sons (A2)
Sandell, Joseph, & Co. (N241)
Thompson, Bayliss & Co. (44 Gal.)
Tibbenham, Fredk. (E87)
Venesta (G136)
Vigers, A., & Co. (16 Gal.)

WINDOWS, FOLDING PARTITIONS AND WINDOW GEAR

Crittall Manufacturing Co. (H148)
Educational Supply Association (R285)
Hope, Henry, and Sons (J178)
Ideal Window Co. (E92)
Lever, James, and Sons (52 Gal.)
Thompson, John, Beacon Windows (H156)
Williams and Williams, Ltd. (P260)

WALLBOARDS AND INSULATING MATERIALS

Anderson, C. F., and Son (K189)
Cork Insulation Co. (C37)
Lloyd, Edward, Wallboards (F108)
Masonite (H143)
Pat. Impermeable Millboard Co. (Q269)
Tentest Fibre Board Co. (H152)
Thames Board Mills (H145)
Thermocoust Products (T301)
Wood Products (J164)

BLACKPOOL PLEASURE BEACH

CAFÉ MURAL DRAWINGS

THE café of the Blackpool Pleasure Beach, which was recently altered and extended by Mr. Joseph Emberton. The mural decorations are the work of Miss Margaret Blundell.

CHURCH AT BUDAPESTH

A recently completed church in reinforced concrete, the external walls being of 11¼ in. pumice concrete in two leaves. The group includes a free-standing tower containing five rooms which are used as offices. The architect is B. Arkey of Budapesth.

BUILDING EXHIBITION

EVEN people who are old enough to know much better have been known to indulge themselves on occasion with the old and simple pastime of "let's pretend." The most cautious father of four who ever refused to move his money off deposit to anything more wobbly than a trustee security can pass away a journey most enjoyably by casting himself in a good part and a world of unlikely happenings. The Building Exhibition, in all the excitement of the first week of its biennial appearance, might seem properly remote from all such fantastic suppositions. Yet it does offer a temptation to one whose bus happens to be loitering on its journey to Kensington.

If a dictator, endowed with the whimful wholeheartedness that only seems to have been found in the pages of Gibbon, were to be in power in Britain today ; and if that omnipotent person had a taste for statistics and social analysis and closed the doors of Olympia at the height of the 1936 Building Exhibition—what would be the report of a committee of learned and painstaking men after minute examination of all that had been found inside?

It is a thought-provoking supposition. There would be rows and rows of stands, all very unlike each other. There would be builders and manufacturers, architects and social workers, authorities on building research, displays of students' drawings and models, and lastly, and probably somewhat wonderingly, the general public.

The exhibits would represent with the perfection which is always unintentional the self-expression natural to the people of Britain as it finds shape in their buildings. And the exhibitors and visitors would be a true sample of all those who are concerned with erecting and equipping those buildings.

A result so natural to us—so verging on an anti-climax after the means taken to achieve it—might not have the same effect upon an examining committee decently ignorant of the buildings common to this country.

To state that the committee would be stricken dumb with the diversity of our material resources and building methods would need no further call upon imagination. It would almost be a return to sober fact.

In Olympia would be found all the materials considered necessary for a fine house four hundred years ago—and in almost exactly the same form. The committee would also find itself able, and even encouraged, to build a house completely with materials which were all of them unknown even thirty years ago. And having heard evidence about motor cars, television, and the desire of most of the public to be up to date, the committee would wonder why builders found it necessary to carry such an extraordinary variety of stock.

The exhibitors, in answer, could only say that the public wanted it—all of it. And the public would not be able to say much; it did not know anything about building and architecture, but it knew what it liked.

Besieged by a thousand good materials, a thousand fine units of equipment, architects are today in little better position. Between local authorities, town planning restrictions, preservation societies, their clients' stipulations and their own desires, they must be strong indeed to hope for the quick emergence of any building expression which they would consider an acceptable alternative to a miscellany quite as fantastic as our statistical dictator. What does the public want in its buildings ? Nobody knows—even if so questionable a standard were to be accepted as the best of all standards.

The public wants cheapness. Surely, therefore, it would be possible to select a score of methods of producing a building today, and, by concentrating on them all the resources of the building industry, make them cheaper still. But the public doesn't like houses that look the same.

It may have heard that in its isolated houses Britain has an achievement which most of the world is apt to envy. But it has certainly never heard that in its urban architecture also this country once set another example which might be one more repaying to an over-populated island. The public will have none of that.

With a force deeper than snobbery, it likes the idea of "the country." It wants a bit of space, it wants its houses to look different, and it can't afford to pay very much.

And with all the initiative of a huge industry with at least eighteen months of profitable hard work in front of it, the Building Exhibition is trying to please its customers. The chaos of the stands may affront the architect's passion for orderliness; but stands which are nearly all working models of entirely contradictory techniques are hardly likely to be restful. There are stands for knockers of twisted wrot-iron, and stands for glass bricks. No architect has yet used these both together; until the public has chosen between them the Building Exhibition cannot be both true to contemporary building and be itself a coherent exercise in design.

But if uniformity and even coherence in the design of the stands is inadvisable, there would seem still to be a good case for some order in their layout. Building always consists of a sequence of processes, and a building exhibition would not suffer from a layout of the stands which bore that fact in mind. At present an architect who wishes to compare two types of window may have to walk the full length of the Grand Hall to do so. In retail trade, shops of the same kind both do better if they adjoin each other. The JOURNAL has said before, and says again, that the Building Exhibition would profit by acting on so well-established a truth.

The Architects' Journal
Westminster, S.W.1
Telephones: Whitehall
9212-7
Telegrams
Buildable
Parl
London

NOTES & TOPICS

NOWHERE TO SCRIBBLE

HAVE you ever scrawled the number you want on the inside of a telephone box? If so, you won't be able to any more, for Major Tryon says the damage costs too much to put right, and mirrors and parcel racks in the new boxes will leave no space to write anything.

*

A sensible idea, but is it really as good as all that? I know several places where a row of six or more boxes has its only directories strung up outside at the end of the row: no wonder people go muttering into the boxes and scrawl the number anywhere before they have time to forget it.

*

I must admit that I *have*, on occasion, even done it myself. So I'd rather have one of those washable etched glass panels instead of a mirror, and the notice "please scribble here." Or would that be asking for trouble?

AMERICAN PHILANTHROPY

Mr. Julius S. Rippel, whom my readers will possibly hear without surprise is described as being an important American business man, has been over in England for some weeks and has now returned home.

*

But there is more to it than that. Mr. Rippel is, one learns, interested in building societies and he has stated that U.S. societies are now faced with—or more literally, are now up against—a problem which, in Mr. J. S. R.'s opinion, will sooner or later become a serious one for English building societies.

*

Apparently American societies allow the purchase of a £500 house to be spread over as long a period as 25 years, and tenants frequently occupy them for 10 years and then give them up; and the building societies are finding such numbers of houses on their hands that they are facing serious losses.

*

What troubles me about this touching news item is the phrase "give them up." I may be a very ignorant person, or alternatively American building societies may be much more tender-hearted concerns than their English equivalents—but, frankly, I don't understand.

*

In Britain, so I had imagined, if one undertakes to purchase a house by bits one *can't* "give it up" until it is bought—at least not without undergoing the trivial formality of bankruptcy if one's bank balance is low and the market for houses poor.

*

The idea of "keep what you've paid for" being literally translated into terms of American architecture is really rather engaging.

*

And it's terrible to think of any building society staring ruin in the face.

BEACH HUTS AGAIN—

A correspondent who has apparently forgotten more about bathing-machines than I ever knew objects to my condemnation of beach huts on the splendidly up-to-date grounds of economics.

*

Touching lightly on the fact that beach huts are both more ornamental and more fundamentally architectural than machines, he quickly comes to the real point—the two regarded as financial investments.

*

My correspondent's sixpences (per hour) slowly vanishing whilst he waited for the horse to bring the sea to him is a thing which he can never forget.

*

So the quarter mile of splendid hardcore which always separates Astragal from deep water has at least one consolation. I am not paying hard cash for the time I take in crossing it.

THE SISTER SHIP

The *Queen Mary* is to have a sister. From now until the kind stork brings the little beauty home, some time, we hope, in Coronation year, we shall be treated to a crescendo of news-angles and confidence-talk about this £4,500,000 baby.

*

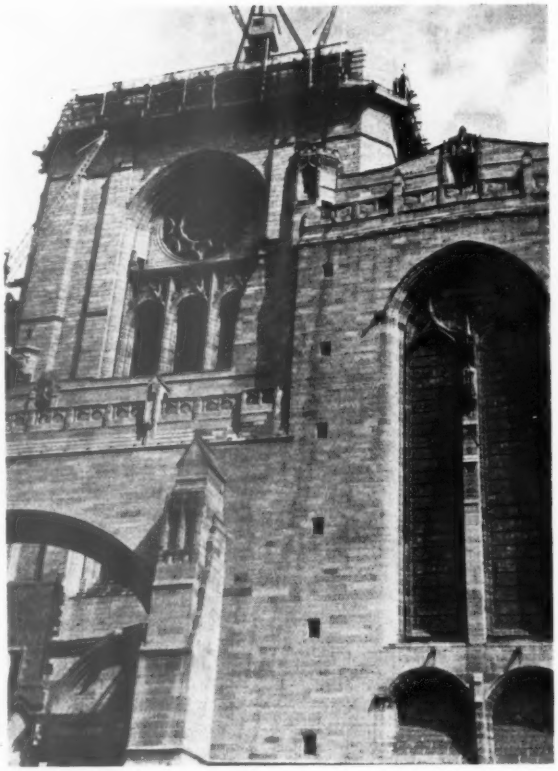
As you and I are the parents, or anyway the fairy godfather and godmother, whose privilege it will be to dash the silver spoon into the wee thing's face, dare we register the hope that in one or two respects it will *not* resemble the baby we had this year?

*

It will be the same size, we know. It may even toddle ·007 of a knot faster—result of the "recent important improvements in marine engineering" which will be incorporated in the 200,000 h.p. engines—but in making ships the advantage one has over making babies is that one can re-arrange the interior.

*

The directors of the Cunard-White Star Company will find a consensus of opinion amongst people of taste that the interior of the *Orion* is superior both in planning and in decoration to the *Queen Mary*. The aim they should set themselves is to give us in the new ship something better than the *Orion*. To achieve which it is essential that the



A progress photograph of the central crossing of Liverpool Cathedral taken recently.

non-naval architects should be allowed to co-operate with the naval architects and engineers at all stages of the production.

*

In most ships they are dragged in at the end to supervise the " decorations." The Orient Line has shown by example and result that co-operation *from the beginning* between all the parties to the final result, pays. As a fairy godfather I beg the Cunard-White Star Company to consider this very reasonable suggestion.

DR. VAUGHAN CORNISH AND CROWN LANDS

The meeting of the British Association is supposed to mark the end of the silly season; and there is always a tendency observable in the press to report the deliberations of this body in a lighthearted manner, implying that they are an appropriate finale to folly. The serious prominence given to the views of Dr. Vaughan Cornish upon rural amenities and the administration of Crown lands is a welcome change.

*

Science may bring its usual rabbits out of the research hat on this occasion—rabbits that usually turn into terrifying carnivora a few years later, with their habitat in War Offices, munition factories, and propaganda departments—but when hard common sense about the country we live in is reported, given headlines, and made much of, it shows that the press is alive to the expanding interest of the British public in keeping the land fit for heroes to look at.

*

Dr. Vaughan Cornish wants a Minister of Scenery. He wants the administration of the Crown lands to be supplied with a civilized conscience. He wants to know by what right areas of Crown lands are labelled " Private Property " to exclude the public.

*

It's good to live in a country where such questions can be asked, and where, generally speaking, they *have* to be answered. The answer takes a year or so to mature and emerge in its final legal form; but it comes. The grievance has been ventilated; and nothing happens violently, although a lot may happen gradually.

*

Dr. Vaughan Cornish lectured on strategic geography during the last war. I heard him once, and never forgot that talk. He speaks quietly; his voice has few inflexions, but its note of authority is compelling. His phrasing is unexciting but every sentence starts time-fuses in your mind, and later you find yourself in possession of all kinds of unexpected ideas about a subject; for a lot of lazy notions that you had always accepted have been exploded.

*

I remember a wicked caricature in the magazine which the battalion brought out once a month. It was by that gifted artist, Powys Evans. But that caricature did emphasize the fearless determination that shines out of Dr. Cornish. He is an unforgettable person to meet; and I hope his strictures on the great wrong that is being done to the countryside will prove unforgettable too.

" THE FIFTY-SEVEN LAMPS OF ARCHITECTURE "

A friend in Dallas, Texas (the only civilized town in the United States), sends me this :—

When I decided to build me a house
I felt just a little afraid
That plan and design were not quite in my line,
So I sought architectural aid;
And I said : " Show me, pray, something most *recherché :*
For I'm weary of hanging my hat
In an early Victorian
Pre-Montessorian,
Plain ten-by-fourteen-foot flat."

The Architect puffed at his period pipe,
As he sat in his Renaissance chair;
And he gave me a smile in the pure Gothic style,
Though he spoke with a Romanesque air.
Said he : " If your taste is not wholly debased,
The best you are certain to find
Is the later Colonial
Pseudo Baronial
G. Washingtonian style."

I thanked him politely and paid him his fee,
But sundry acquaintances cried :
" That stuff you should shun for it hasn't been done
Since Benjamin Harrison died."
And they took me direct to a new Architect
Who argued with logic compelling
For a Quasi Delsartean
Post Bonapartean
Wholly Beaux-Artean dwelling.

My downfall had started; I groped in a maze
Of tracings, transitions and trends,
And I laboured anew over prints that were blue,
With aid of my numerous friends.
But I don't knit my brow about building plans now,
For all my money is spent,
And my home's an Arcadian
Second-Crusadean
Pink-Lemonadean Tent.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

THE ARCHITECTS' DIARY

Until Wednesday, September 30th
THE BUILDING EXHIBITION, OLYMPIA. 11 *a.m. till 9 p.m.*

Monday, September 21
CROYDON SCHOOL OF ARTS AND CRAFTS. *Exhibition of Students' Work at the Adult School Hall, Park Lane, Croydon. Opening by the Mayor of Croydon, Alderman A. Peters. 5.30 p.m. Until September 26.*

Friday, September 25
INSTITUTE OF HOUSING ADMINISTRATION. *At Bristol. Annual General Meeting and Conference. Also September 26.*

Friday-Sunday, October 2
TOWN PLANNING INSTITUTE. *Eighteenth Annual Country Meeting. At Norwich. Until October 4.*

Wednesday-Saturday, October 14-17
NATIONAL SMOKE ABATEMENT SOCIETY. *Eighth Annual Conference and Smoke Abatement Exhibition. In London. Until October 17.*

Friday, October 16
LONDON SOCIETY. *Miss E. Jeffries Davis on "The Story of Bloomsbury." 5 p.m.*

Friday, October 20
ARCHITECTURAL ASSOCIATION. *Annual Exhibition of Water-colours, Etchings and other Drawings by Members. Until November 6.*

Tuesday, October 27
ARCHITECTURAL ASSOCIATION. *Presidential Address by Mr. L. H. Bucknell, F.R.I.B.A. 8 p.m.*

THE BUILDING EXHIBITION

The 1936 Building Trades Exhibition was opened yesterday by Earl Stanhope, K.G., the First Commissioner of Works. Besides having a record number of exhibitors and a great number of corporate visits being paid by societies connected with building, the exhibition is likely to achieve a record for its visitors.

The R.I.B.A. is to have its own rooms on the first floor above the Addison Road entrance, and on Friday, September 25, a ball will be held in aid of the Architects' Benevolent Society.

Amongst the more interesting stands are those of the Building Research Station, the Housing Centre's large display including the latest developments in the "New Homes for Old" section, an exhibition of architects' drawings, and the L.C.C. School of Building stand. These sections are all in the gallery which might be forgotten amongst the attractions on the floor below.

LANCASHIRE MENTAL HOSPITAL COMPETITION: A CORRECTION

We regret that in our issue of September 3 we announced that conditions were then obtainable for the Competition for a Mental Hospital and Mental Institution at Lathom Park, Lancashire. In fact the entry for this competition closed on September 1.

It appears, however, worthy of notice that the first announcement of this competition reached the JOURNAL on August 19, too late for our issue of August 20, and was published correctly in our issue of August 27. The advertisement thus gave readers of the JOURNAL four days, of which two were Saturday and Sunday, to make up their minds whether to compete and to write for conditions.

In addition, owing to the short notice given, the *Journal* of the R.I.B.A. was unable to announce the competition at all until after the entry to it was closed, a state of affairs which may well have deprived the Lancashire Mental Hospitals Board of schemes submitted by some very experienced planners.

A NOTABLE THESIS

The *Journal* of the R.I.B.A. for September 5 publishes the majority of a thesis submitted by Mr. J. Spedan Stedman entitled "The Layout and Design of Departmental Store Fittings in Relation to their Uses." This thesis, most carefully illustrated with plans, axonometric drawings and sketch perspectives, describes the processes of all that can be called "planning for display" in relation to large departmental stores. The special needs of almost every section of a store are discussed and analysed and a large selection of alternative solutions are put forward.

The complete work, which is of exceptional merit, may be consulted in the R.I.B.A. Library.

CIVIC CENTRES EXHIBITION

The growth in the size of municipal departments since the war, and the need for their accommodation in groups of properly planned modern buildings, has decided the R.I.B.A. to send an Exhibition called "Civic Centres" on a tour of provincial cities and towns.

The exhibition is intended as a guide to the best work in municipal buildings both in this country and abroad. It will consist of more than a hundred photographic enlargements and diagrams and will show, singly and in groups, examples of municipal offices, assembly halls, law courts, museums and art galleries, and fire stations. The costs of the various buildings will be given in the catalogue. There will be a brief historical section; another section will deal with street furnishings, and a third with memorials and statuary. Aerial views will be used to illustrate the relations of Civic Centres to their towns.

The demand for this Exhibition may be gauged from the fact that twelve towns have already booked it, although no announcement has hitherto appeared in the press. It will be assembled at the R.I.B.A. Headquarters, 66 Portland Place, W.1, and though not primarily intended for Londoners, will be on view to persons interested from Friday, October 2, to Tuesday, October 6 (inclusive), from 10 a.m. to 8 p.m., Saturday, 6 p.m. It will then proceed to the following towns, in each of which it will be shown for approximately one month: Newport, Coventry, Darlington, Stoke-on-Trent, Leeds, Warrington, Derby, Birmingham, Wolverhampton, Lincoln, Kidderminster and Huddersfield. The request for the Exhibition first came from Newport and it will open there at the Corporation Museum and Art Gallery on November 12.

REPLANNING CENTRAL BRISTOL

As a memorial to King George, Bristol proposes to transform the centre of the city by covering over the floating harbour between St. Augustine's Bridge and the new Western Road bridge and making a public garden on the open space between St. Augustine's Parade and Broad Quay. The area will be known as King George V Avenue, and the scheme is expected to lead to the rebuilding of the city's centre.

TOWN PLANNING INSTITUTE

The eighteenth annual country meeting of the Town Planning Institute will be held at Norwich on October 2–4, under the chairmanship of the President, Mr. Ernest G. Allen, F.R.I.B.A.

A paper will be read by Mr. G. L. Pepler on "Planning for Town and Country," and a lecture will be given by Mr. Stanley J. Wearing on "Old Norwich Buildings."

There will also be various expeditions in the district.

THE BUILDING CENTRE

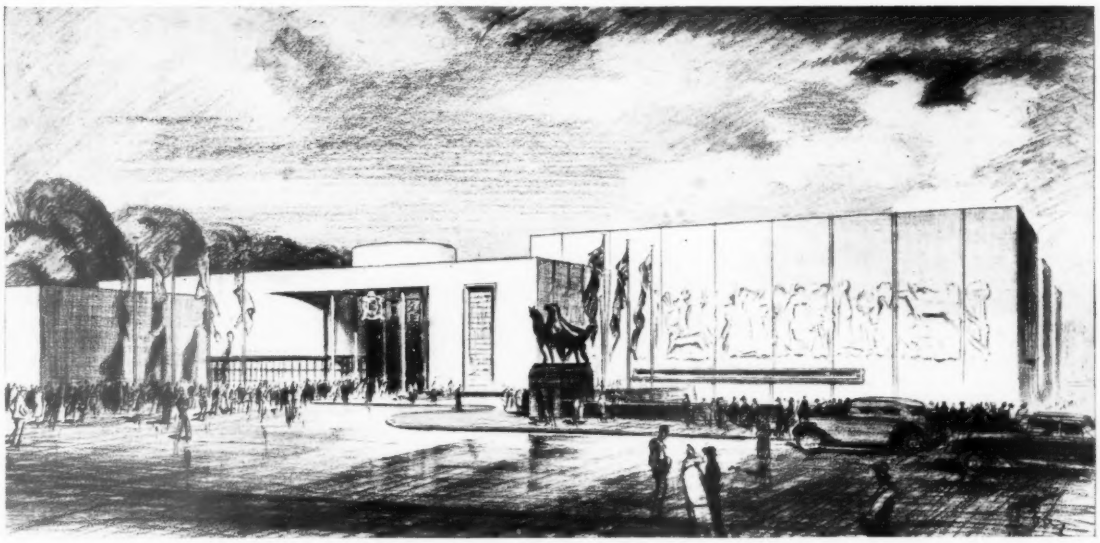
It has been decided to open the Building Centre on Wednesday evenings between 6 and 9 p.m. from the first Wednesday in October until the last Wednesday in May.

Arrangements have been made for members of the technical staff to be on duty on these evenings.

HOUSING CONFERENCE

A national housing and town planning conference is to be held at Harrogate during the week-end, November 27–30, under the auspices of the National Housing and Town Planning Council. The conference will be attended by a large number of delegates from local authorities in Great Britain, and will be addressed by Sir Kingsley Wood, the Minister of Health, and also by other prominent housing reformers and town-planning experts.

The principal subjects for discussion will be the administration of the Housing Acts



The design for the British Government Pavilion at the International Exhibition which will be held in Paris from April to October next year. The pavilion will be on the west side of the Place d'Honneur of the Exhibition, and will be on two levels connected by a spiral ramp. The architect for the pavilion is Mr. Oliver Hill.

of 1930 and 1935, the Town and Country Planning Act, 1932, and the Restriction of Ribbon Development Act, 1935. Full particulars can be obtained from Mr. John G. Martin, Secretary, National Housing and Town Planning Council, 41 Russell Square, London, W.C.1.

SMOKE ABATEMENT

The National Smoke Abatement Society of Great Britain, with the co-operation of interested Government departments and industrial associations, has organized a special exhibition which will be opened by the Minister of Health, Sir Kingsley Wood, M.P., on October 1, and will remain on view to the public at the Science Museum from October 2 to 31. The exhibition is intended to illustrate the nature and effects of the pollution of the atmosphere by coal smoke, and the scientific means now available for measuring the pollution and for reducing it.

HOUSING IN AMERICA

The *Economist* for September 5 contains an interesting comparison between British and American housing production. Some extracts are made below :—

The crucial part which building trade activity has played in British trade revival is everywhere admitted. In America, however, though the need for improved housing facilities has been no less urgent than in Great Britain, the contribution made by the building industry to trade revival has been much less conspicuous.

Two years ago, a survey of housing conditions in 64 American cities showed that, of 2,633,135 units housing a population of nearly 10 millions, some 20 per cent. of rented houses and 13 per cent. of owner-occupied houses had no indoor sanitary facilities; that 28 per cent. and 16 per cent. had no bath or shower; and that 48 per cent. were over 20 years old. A survey in the country areas revealed that four out of five rural houses had no running water; that three out of four had no gas or electricity; and that there was a need for the expenditure of $3,500 millions to put these dwellings into good condition. America's estimated requirements for slum clearance, the replacement of housing deficiencies and the abolition of overcrowding, have been put at ten million houses during the next ten years.

R.I.B.A. SCHOLARSHIPS, 1936–37

In accordance with the terms of the will of the late Sir Archibald Dawnay, the R.I.B.A. has awarded three scholarships of £50 for the academical year 1936–37, one to Mr. J. Mytton of the Birmingham School of Architecture, one to Mr. D. P. Thomas of the Liverpool School of Architecture, University of Liverpool, and the third to Mr. H. Wharfe, of the Leeds School of Architecture.

Mr. N. P. Thomas and Mr. L. W. D. Wall of the Welsh School of Architecture, The Technical College, Cardiff, who were awarded scholarships of £50 each for the academical year 1935–36, have been granted renewals of their scholarships for the year 1936–37.

The scholarships are intended to foster the advanced study of construction and the improvement generally of constructional methods and materials and their influence on design.

COMPETITIONS PENDING

BELFAST : NEW WATER OFFICES

The Belfast City and District Water Commissioners are proposing to hold a competition for new office buildings and Mr. H. Austen Hall has been appointed to act as assessor. Conditions are not yet available.

BIRMINGHAM : NEW CENTRAL TECHNICAL COLLEGE, ETC.

The Corporation of the City of Birmingham are to hold a competition for a new Central Technical College, Commercial College and School of Arts and Crafts. Mr. J. R. Adamson has been appointed to act as assessor and the premiums to be offered will be £750, £500 and £250. Conditions will be issued in the near future.

DUNDEE : COLLEGE OF ART

The Dundee Institute of Art and Technology are to hold a competition for the Duncan of Jordanstone College of Art and Mr. J. R. Leathart has been appointed to act as assessor. Conditions are not yet available.

EDMONTON : NEW TOWN HALL BUILDINGS

The Edmonton Urban District Council are proposing to hold a competition for new Town Hall buildings, and Mr. E. Berry Webber has been appointed to act as assessor. No conditions are available yet.

HACKNEY : RECONSTRUCTION OF CENTRAL BATHS

The Hackney Borough Council are proposing to hold a competition for the reconstruction of the Central Baths, and Mr. Frederick J. Horth has been nominated to act as assessor. Conditions are not yet available.

LEAMINGTON SPA : NEW POLICE AND FIRE STATIONS

The Corporation of Leamington Spa are proposing to hold a competition for new police and fire stations, and Mr. R. Norman Mackellar has been appointed to act as assessor. The competition will be open to registered architects within the area of the Birmingham and Five Counties Architectural Association. Conditions are not yet available.

SOUTH SHIELDS : ASSEMBLY HALL AND LIBRARY

The South Shields Town Council propose to hold a competition for an assembly hall and library to be erected on a site at the rear of the Town Hall. Mr. Arthur J. Hope has been appointed to act as assessor. Conditions are not yet available.

EXILES OF ARCHITECTURE

By

OSBERT LANCASTER

"BREATHES there a man with soul so dead
Who never to himself hath said
This is my own, my native land!"

How often one catches oneself murmuring these immortal lines, as with Baedeker in hand one rounds a corner in some foreign town, hot on the track of Romanesque basilica or cinquecento altarpiece, and finds oneself confronted with the gleaming slates and cock-crowned steeple of the English church, bearing mute witness to the twin virtues of the Gothic Revival and the Protestant Establishment. The fact that in nine cases out of ten these architectural ambassadors of British culture are an insult to the buildings that surround them, that their erection was undoubtedly in the worst possible taste, and that they are in no way dissimilar to a hundred churches in England that one has always been accustomed to treat with ribald mockery, cannot altogether stifle a vague feeling of friendliness in the breast of all but the most blasé cosmopolitans. Moreover, they have acquired whatever virtue attaches to the familiar seen in totally new surroundings, and one need not be a surréaliste to derive a certain pleasure, albeit not a very pure one, from the contemplation of the utterly incongruous.

It is naturally those specimens that are situated in countries whose climate and architecture differ most markedly from our own that possess in the fullest degree that quality of surprise which modern art critics have decided is among the most important of æsthetic virtues. All visitors to Florence for instance, must be familiar with the tower of St. George's, which rears its Perpendicular East Anglian head so proudly in gallant competition with Brunnelleschi's dome and Giotto's Campanile; and then again the church at Mentone, an uncompromisingly Early English structure, cannot fail to leave a deep impression on all who see it nestling among its palms beside the wine dark sea. (This church, however, is not an isolated outpost of Empire, as there are in the immediate neighbourhood several remarkable Gothic water troughs, the gift of the R.S.P.C.A., to bear it company.) However, even in countries most nearly akin to our own, the Church of England seldom fails to strike a distinctive and unmistakable architectural note. In Copenhagen, a city remarkable for the homogeneity of its architecture, the English church does full justice to its magnificent site by being built entirely in Sussex flint, a material of whose beauties the Danes might otherwise have been quite unaware. But it is not only our Church that thus staunchly refuses to make any compromise with foreign taste in architectural matters; some Government departments have been equally intransigent in their buildings abroad. Who can remain unmoved on passing Gibraltar by the happy contrast between the flat, whitewashed and almost self-consciously oriental aspect of the houses of Tangier and Algeciras, and the cottages and barracks on the Rock itself built in that coastguard cottage style that the Admiralty have made so peculiarly their own?

However, if this country has been the most active in providing examples of all that is best and most typical of its national traditions in foreign parts, others have not been altogether idle. Those who know their London will readily recall numerous buildings tucked away here and there whose national origins are easily distinguishable. I need only mention the Deutsches Evangelisches Kirche off the Brompton Road, a fine example of German Gothic as that style was understood under Wilhelm II, a house in Wilton Terrace that seems to have strayed from the neighbourhood of the Étoile, and such defiantly regional buildings as the Greek Church in Bayswater and the Mosque at Woking. Even in the depths of the country one suddenly comes across an occasional exile. At Charterhouse, for example, one of the houses was built to the designs of a homesick French housemaster from Touraine and contrives very happily, despite the fact that it is almost entirely constructed in yellow brick, to hint at the glories of Amboise on the heights of Godalming. Abroad, it is, or rather was, the Russians whose national steadfastness in architectural matters most nearly approaches our own. Few cities that can boast the glory of an English belfry are without a complementary litter of golden domes budding like warts from the upper stories of the Russian church. Alas, one is bound to admit that the nineteenth-century medievalists in Russia had a stock of colourful ornament on which to draw that put our own revivalists, confined to the comparatively sombre encaustic tile, at a sad disadvantage when it came to competitive display.

There is one class, however, who cannot be said to have pulled their weight in thus adding to the gaiety of nations, namely the diplomats. At the moment I can only recall two Embassies that bear any outward indication, other than the flag which flies above them, of the countries of which they are outposts — the British Embassy at Washington and the French Embassy in Vienna. Of the former I know nothing save that the natives are said to be very favourably impressed by its obvious expensiveness, and doubtless it is well calculated to bring a hearty breath of fresh air from the old country into the somewhat chilly atmosphere of the American capital. The latter, on the other hand, is undoubtedly the greatest masterpiece of L'Art Nouveau now existing, and no one who sees its glittering gold mosaics, shining so bravely amid the baroque but decaying glories of the Schwarzenburg Platz, can have a moment's doubt as to its provenance. In this connection it is perhaps only just to mention those finely modelled Red Indian masks that gaze so mournfully across the great plains of Hyde Park from their lofty position on the stucco façade of the American Embassy in Princes Gate.

Alas, with the dawn of internationalism has come an increased readiness to kow-tow to the artistic sensibilities of other nations, and the more recent additions to the number of British buildings abroad, such as the new churches in Madrid and Monte Carlo, show a deplorable and weak-kneed tendency to harmonize with the surrounding architecture. For my part, I cannot but hope that this is but a temporary phase and that when the time comes to erect an English place of worship at Magnetogorsk some distinctively English style, such as St. Pancras Gothic, will be chosen. In architecture, as in life, it is necessary that some should leave their country for their country's good.

CLAREVILLE COURT, KENSINGTON

DESIGNED BY G. GREY WORNUM

GENERAL PROBLEM—*A flat block in which, to achieve the necessary financial return, 23 flats had to be provided. A squash-rackets club including court, club-room and changing-rooms was desired in the basement, as well as a caretaker's flat and storage for luggage.*

SITE—*The main front was set back from Clareville Grove to allow for a forecourt and lighting area.*

The frontage line was built to on the Clareville Street front, set-backs on upper floors being due to neighbouring rights of light.

The photograph shows a general view of the principal front.

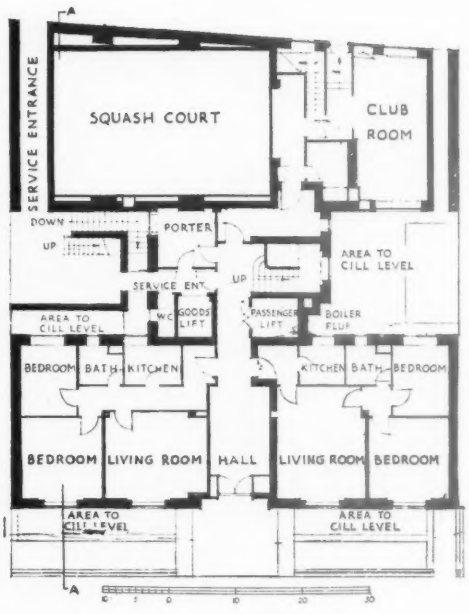
CLAREVILLE COURT, KENSINGTON: D

PLAN—*Flats are planned on both street fronts, the centre of the site being used for light wells and service stairs ; passage-ways are provided from Clareville Street to ventilate the light wells. Each floor has its own service entrance and service w.c., the service portion of the floor being cut off from the tenants. In the smaller flats corridors have been omitted, and services and bedrooms open off small lobbies. On the sixth floor is a pent-house flat with its own roof garden.*

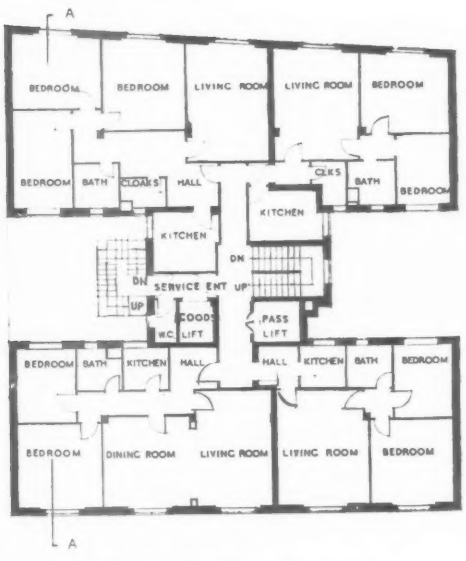
CONSTRUCTION — *Brick weight-carrying external walls and rolled steel stanchions and joists internally. Floors and roofs are of R.C. hollow tile. Partitions are of breeze blocks with 9-in. or 14-in. brick walls between flats.*

ELEVATIONS — *Buff and grey brick with Portland stone architrave to entrance. Window boxes are of lead and balustrading of wrought iron. Steel windows are used throughout.*

On the left is the squash court from the spectators' gallery on the ground floor.



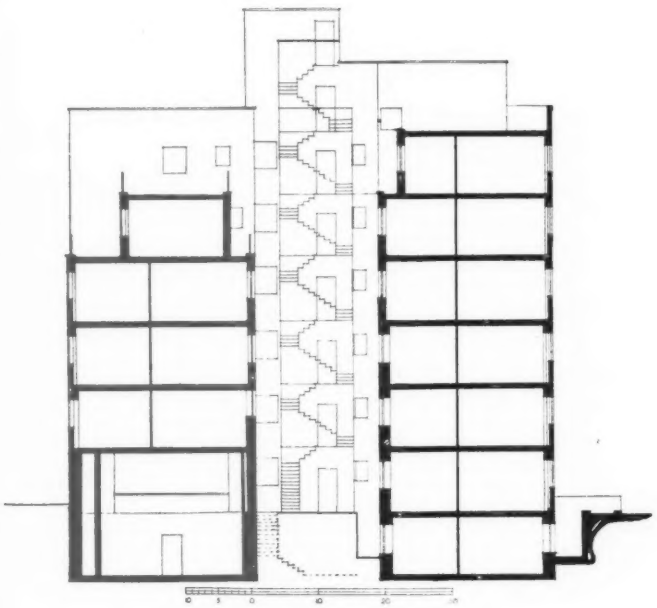
GROUND FLOOR PLAN



TYPICAL UPPER FLOOR PLAN

DESIGNED BY G. GREY WORNUM

A detail of the principal entrance.



SECTION A–A

SIXTH FLOOR PLAN

CLAREVILLE COURT, KENSINGTON

DESIGNED BY G. GREY WORNUM

DECORATION — *Corridors are finished with oak boarding and plastic paint. Entrance hall has grey tile surround and skirting. Flats have tiled cills and rubber floors in kitchen, bathroom and w.c., and living-room electric fires have grey marble surrounds. All doors are standard flush.*

SERVICES—*Living rooms and principal bedrooms are centrally heated, and every room is wired for power. Refrigerators are provided in all kitchens. Kitchens are equipped both for gas and electrical cooking. Service risers are grouped in blocks, each duct containing all services for its group.*

PRICE—£25,450 *in a single contract.*

Above is a detail of the bar in the squash-club members' room, and on the right the mural painting in the same room by Olga Lehmann.

For list of general and sub-contractors, see page 395.

FLAT BLOCK NEAR ANTWERP

DESIGNED BY LEON STYNEN

PURPOSE—*A good class flat block on the main Antwerp-Brussels road, which was designed to do away with the major disadvantages of flat life. The block stands on a site sufficiently large to prevent its being overshadowed by other buildings in the future, and has a large garden at the rear available for the tenants. Both Antwerp and Brussels are within easy reach by car. The building is set back about a hundred feet from the road to minimize traffic noises.*

PLAN—*On the ground floor of the building are five shops which it is intended should be occupied by such essential retailers as grocer, butcher and the rest. The ground floor also has a restaurant open to tenants of the flats.*

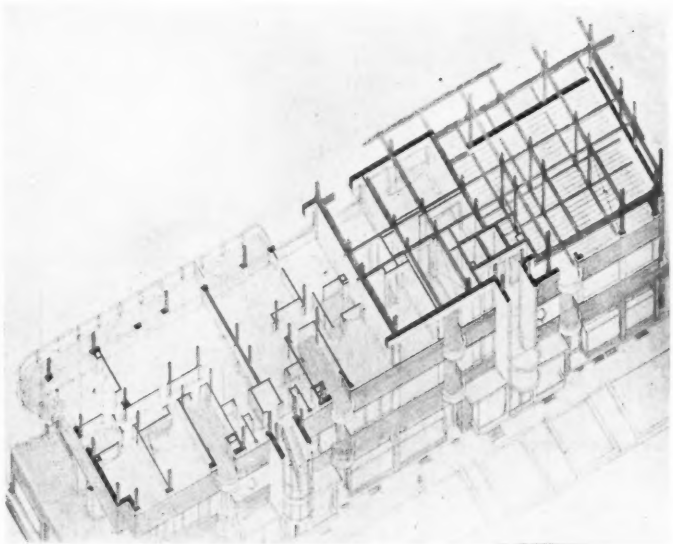
The first floor has six small flats, four of which are intended for tenants of the shops. The second, third and fourth floors all contain four large flats.

Stairways, entrances, kitchens and lavatories are planned towards the road on the north-east, the main rooms of each flat overlooking the garden. Each kitchen has a balcony adjoining.

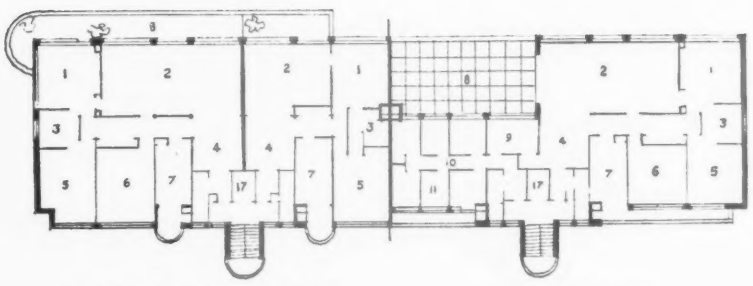
The fifth floor contains two flats and maids' bed- and bathrooms.

CONSTRUCTION—*The construction is of steel-frame on an R.C. raft foundation. Floors are of R.C. slab with battens and wood-strip flooring over and suspended ceilings below. The panel walls are of cavity construction with an outer leaf of brick and an inner one of a patent metal-stiffened building board. Cantilever staircases are of steel with sheet metal treads and landings filled with terrazzo.*

Above is the principal front of the building from the Antwerp-Brussels road. On the right is an axonometric showing the construction of the block.

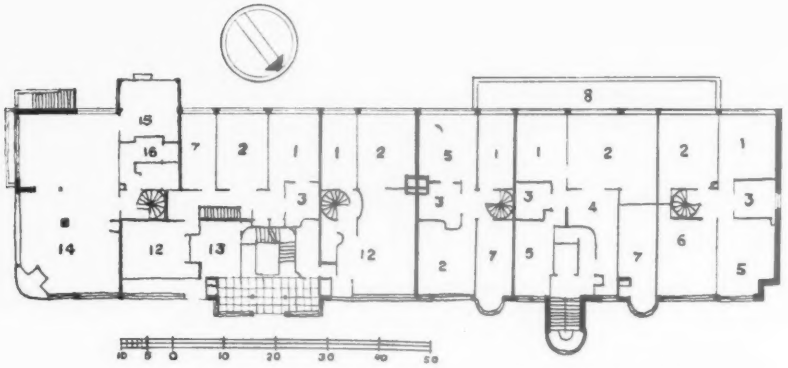


FLAT BLOCK, NEAR ANTWERP



SECOND TO FOURTH FLOORS

FIFTH FLOOR PLAN



GROUND FLOOR

FIRST FLOOR

KEY TO PLANS:

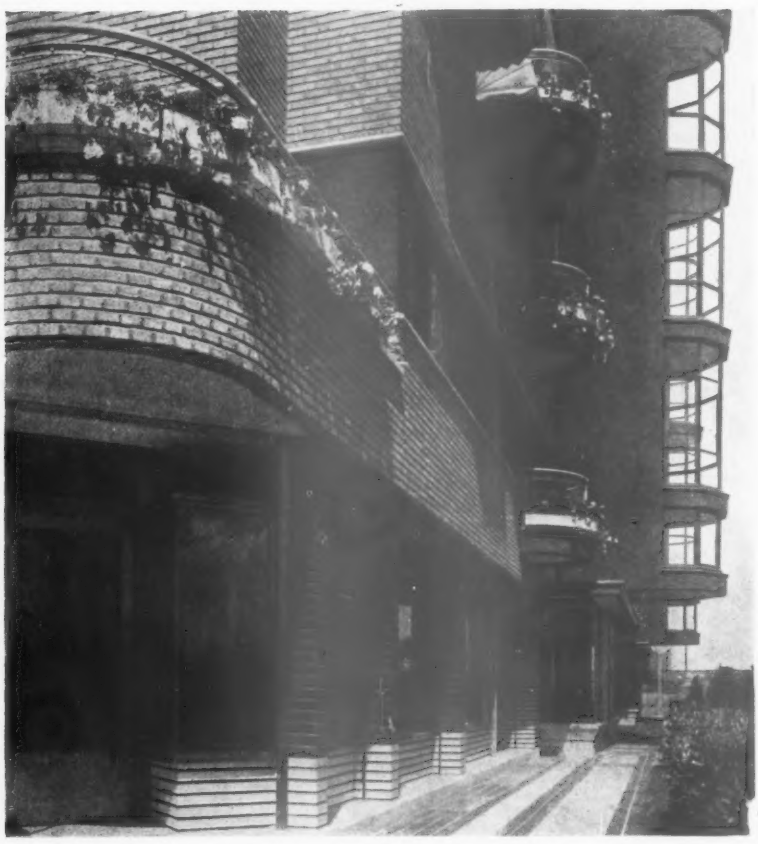
1 : Bedroom 1
2 : Living Room
3 : Bath Room
4 : Hall
5 : Bedroom 2
6 : Dining Room
7 : Kitchen
8 : Terrace
9 : Spare Room
10 : Servants' Quarters and Stores
11 : Servants' Bathroom
12 : Shop
13 : Porter
14 : Restaurant
15 : Restaurant's Kitchen
16 : Office and Store Room

Above is a photograph of the rear of the building, showing the large balconies equipped with sun blinds, which are provided to all the main living rooms.

DESIGNED BY LEON STYNEN

A detail of the south-west angle of the building. The elevations are in thin wide-jointed yellow and brown-red bricks, the ovolo architraves in yellow faience and the beam casings and recessed panels have a brown roughcast finish. Handrails are in tubular steel and balustrading in wire mesh.

FLAT BLOCK, NEAR ANTWERP



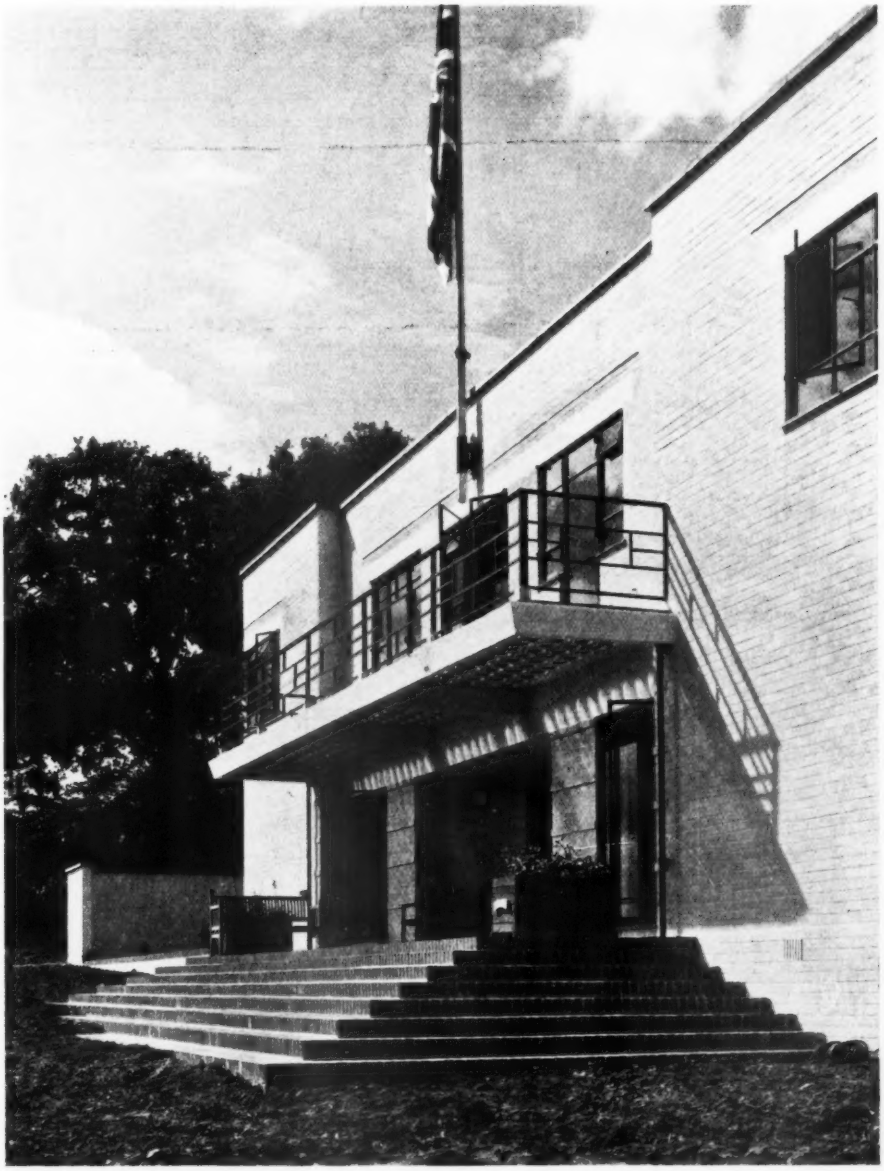
On the left is a detail of the principal front, showing the yellow faience flower boxes which are fitted round each balcony, and the shop stall boards of brickwork with deeply raked joints. Below is one of the tenants' staircases. These are of steel, with sheet metal treads and landings filled in with non-slip strips and terrazzo. The stairs are open, without risers, each nosing overlapping the inner edge of the tread below by about 3 inches. Handrails are chromium-plated, and the rails of tubular steel painted blue.

DESIGNED BY

LEON STYNEN

WORKING DETAILS : 491

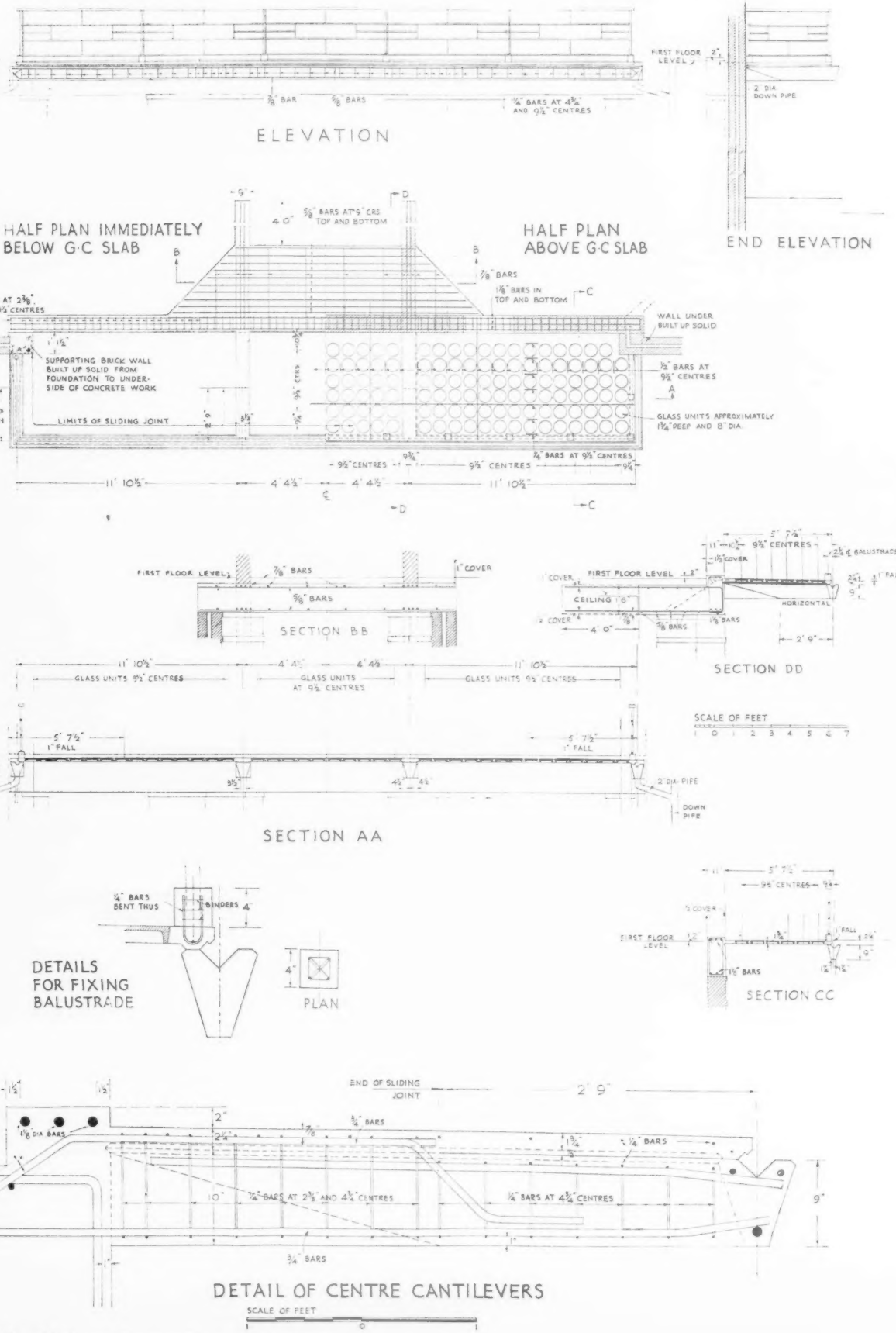
BALCONY AT HOUSE NEAR DUNMOW • SIR OWEN WILLIAMS



The photograph shows a balcony over the entrance doors of a house at Great Easton, near Dunmow, illustrated in this Journal for May 14. Messrs. Joseph were the architects for the house with Sir Owen Williams as designer of the balcony. Details are given overleaf.

WORKING DETAILS : 492

BALCONY AT HOUSE NEAR DUNMOW • SIR OWEN WILLIAMS



Details of balcony illustrated on previous page.

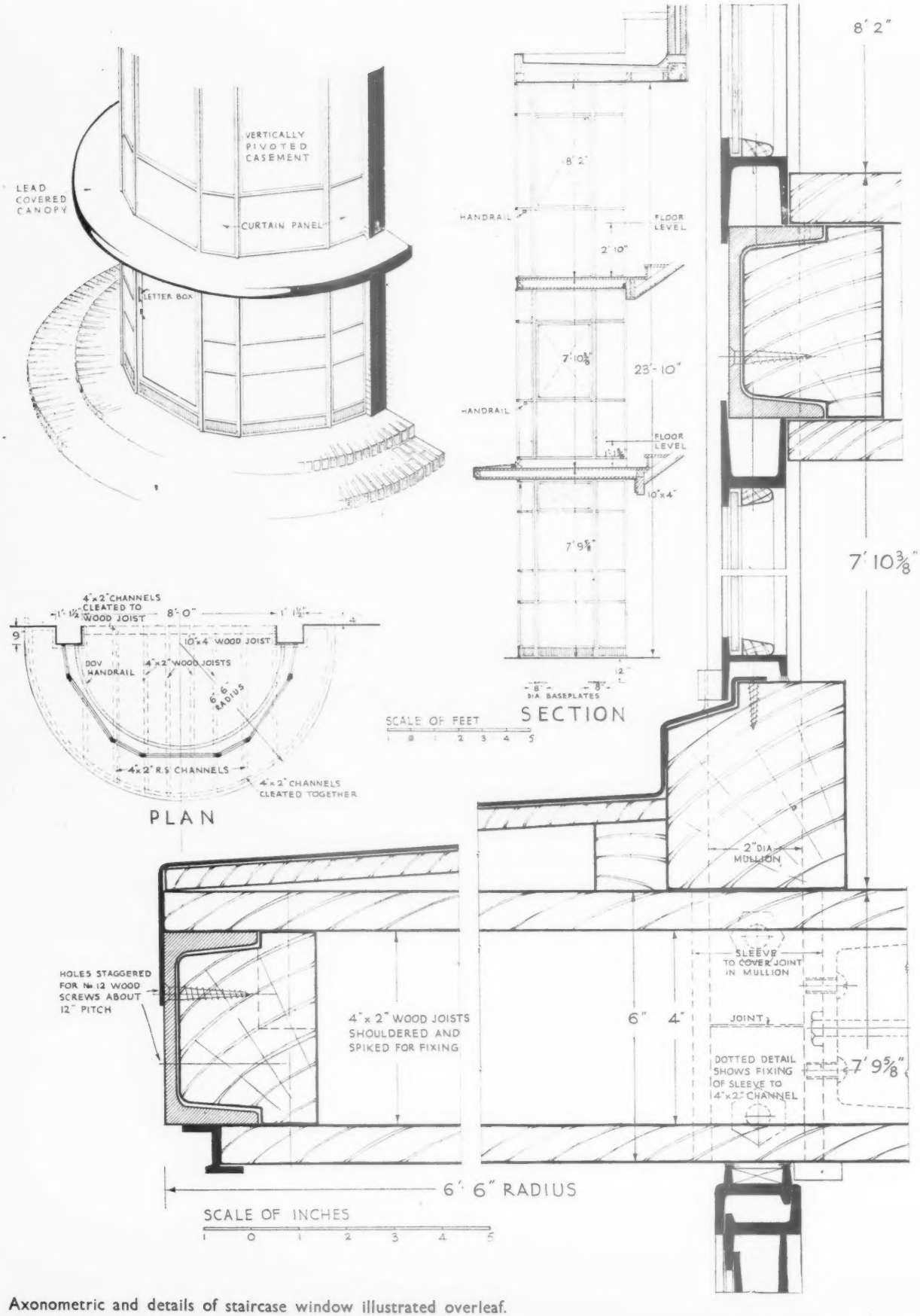
WORKING DETAILS : 493

STAIRCASE WINDOW AT HOUSE NEAR DUNMOW • MESSRS. JOSEPH

Above is shown a steel and glass window which accommodates the staircase landings within it. Details are given overleaf.

WORKING DETAILS : 494

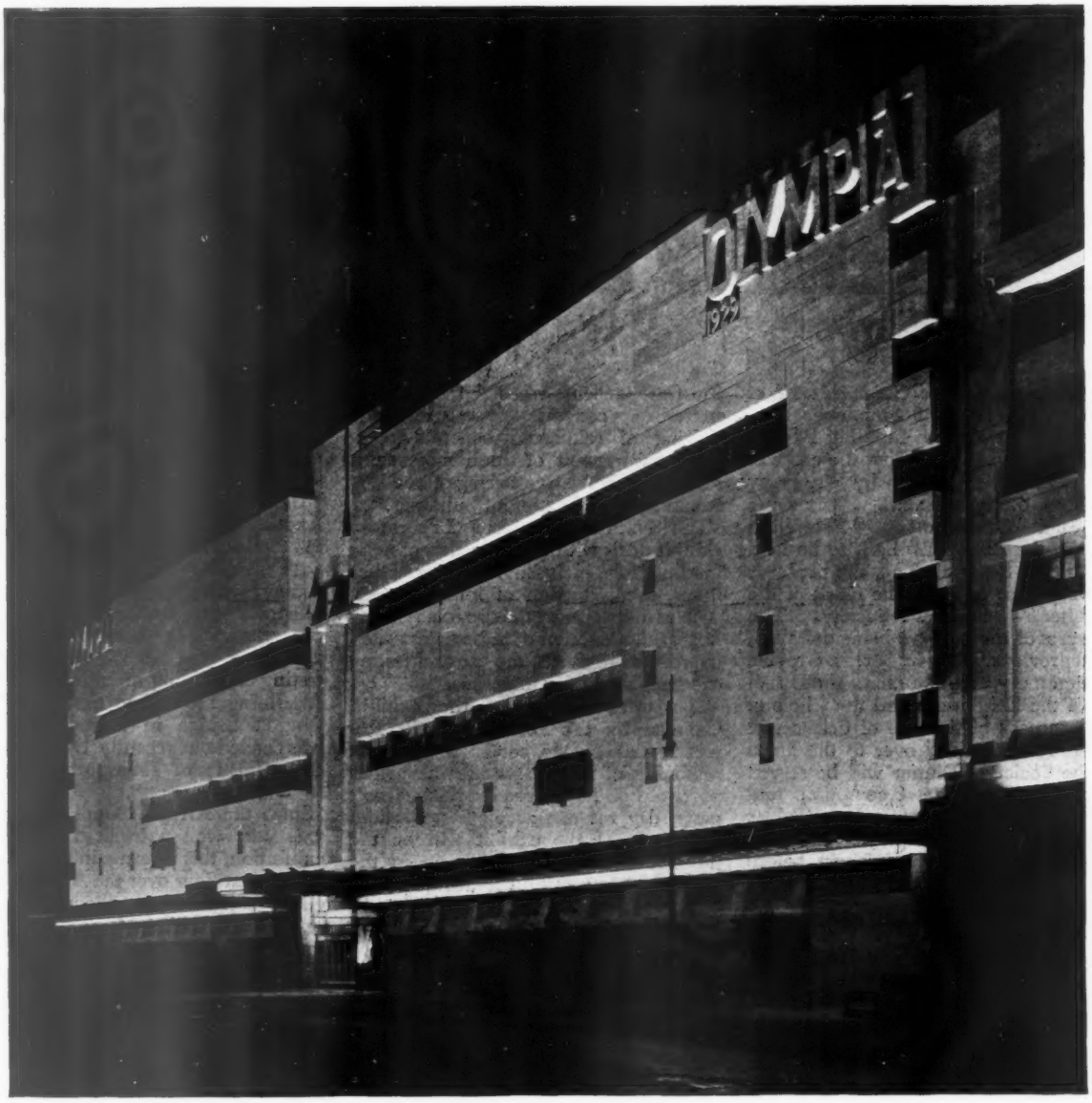
STAIRCASE WINDOW AT A HOUSE NEAR DUNMOW • MESSRS. JOSEPH



Axonometric and details of staircase window illustrated overleaf.

BUILDING EXHIBITION

SEPTEMBER 16—30



The 1936 Building Exhibition was opened yesterday in the Addison Room at Olympia by Earl Stanhope, K.G. This, our first number dealing with the Exhibition, contains a full programme of the various events and visits which have been arranged, a review of the exhibits of the Building Research Station, a selection of the more prominent architect-designed stands, and notes on the exhibits of the more prominent manufacturers. As a loose inset we also include a plan of the Exhibition, with a full classified list of exhibitors.

PRELIMINARY NOTICES

BUILDING EXHIBITION 1936

September 16—30

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Programme and Arrangements

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Earl Stanhope, K.G., who formally opened the exhibition.

Mr. Percy Thomas, O.B.E., P.R.I.B.A., who presided at the opening ceremony.

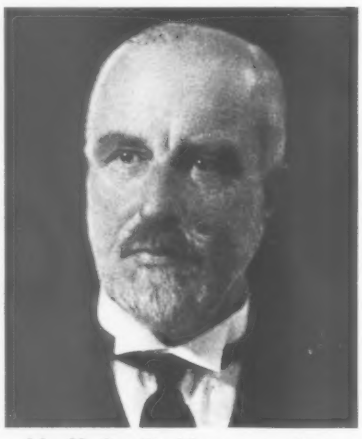
His Majesty's First Commissioner of Works, the Earl of Stanhope, K.G., opened the twentieth Building Exhibition at Olympia yesterday, the chair at the meeting being taken by Mr. Percy Thomas, O.B.E., P.R.I.B.A.

The chief social event of the Exhibition will be the Architects' Ball, to be held on Friday, September 25, the proceeds of which are to go to the funds of the Architects' Benevolent Society. The expenses of the ball are being defrayed, as in previous years, by Mr. H. Greville Montgomery, HON.A.R.I.B.A., the Director of the Exhibition, and the whole of the proceeds of the sale of tickets will therefore be handed over to the funds of the Society. Dinner will be served from 7.30 p.m. to 8.30 p.m., and dancing will continue to 1 a.m. Tables may be reserved for parties of six or more if the order is received before Wednesday, September 23. Tickets are £1 each (three for £2 5s., six for £4 10s.) and may be obtained from Mrs. Lanchester, Chairman, Social Committee, R.I.B.A., 66 Portland Place, W.1, or the Secretary, Architects' Benevolent Society.

The Department of Scientific and Industrial Research will have a large stand (Gallery Stand Nos. 79 to 82) at the Building Exhibition. Most of the work on building research carried out under the Department is done at the Building Research Station, but certain investigations, in particular work on acoustics, are carried out at the National Physical Laboratory in close collaboration with the Building Research Station, while the study of timber is the task of the Forest Products Research Laboratory. All three organizations of the Department are taking part in the Exhibition. The section of the exhibit for which the Building Research Station is responsible will illustrate recent work on plastering materials, concrete aggregates, the driving of reinforced concrete piles, the measurement of small movements in structures, the weathering of building stones and the heating of buildings.

The National Physical Laboratory exhibit deals with the reduction of noise in building including, among other items, the reduction of impact noises, such as footsteps, by the use of a floating floor, the reduction of noise transmitted by ventilating ducts, the use and testing of sound absorbing materials.

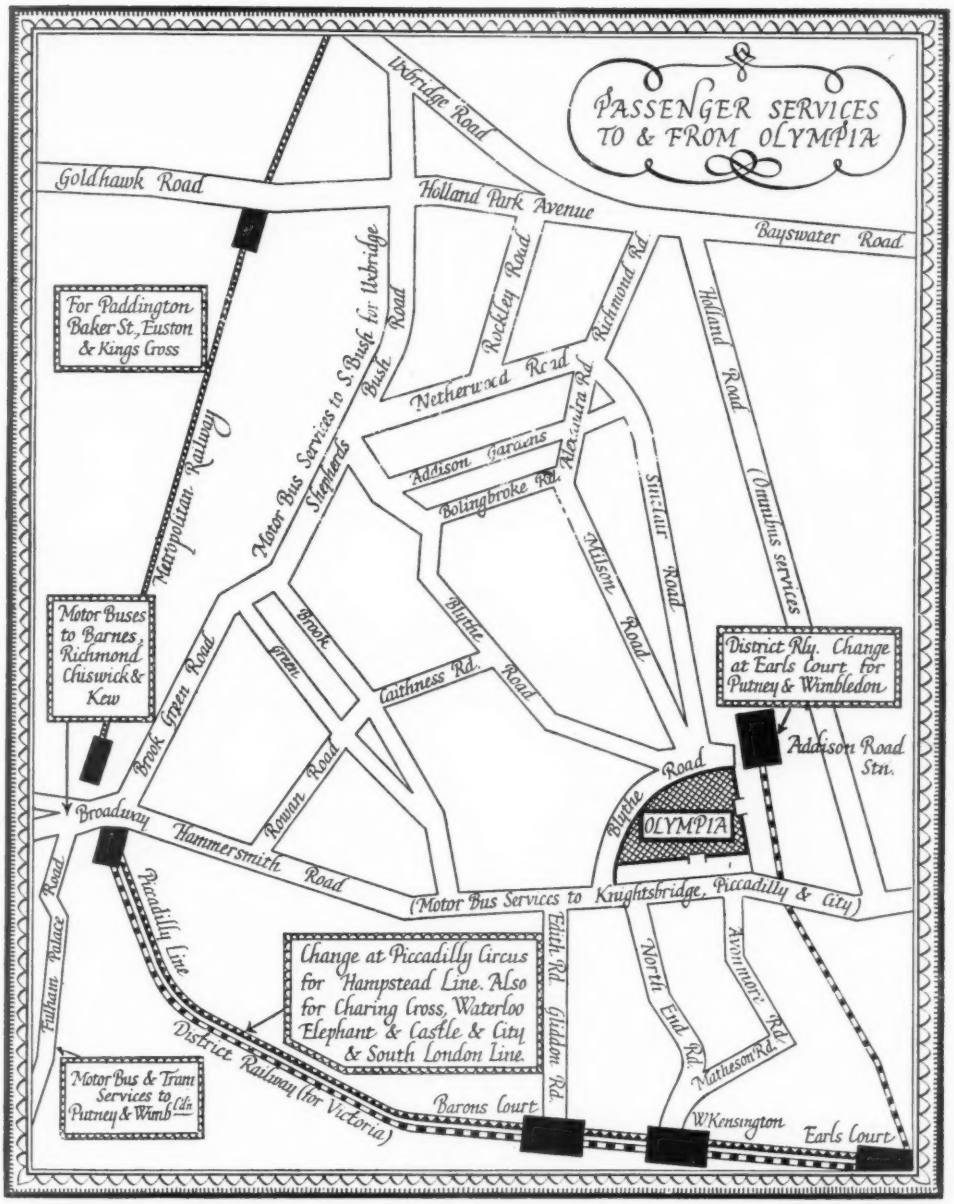
The third section of the exhibit, supplied by the Forest Products Research Laboratory, covers the correct seasoning of timber for use in various parts of buildings, woodworking, insect pests, dry rot and wood preservation. A feature of the exhibit will be the number of models shown, and in the section on architectural acoustics the visitor will be able to test for himself, by working models, the efficiency of various methods for reducing noise.



Mr. H. Greville Montgomery, Hon. A.R.I.B.A., the Director of the Exhibition.

A number of the exhibits will be illustraded by short cinema films. One of these films describes the acoustics laboratory of the National Physical Laboratory and the work done there. Another deals with the life and habits of the death-watch beetle; another with methods for the treatment of timbers with preservatives, while others illustrate the technique of building processes such as plastering. There will also be a film dealing with the fire-testing of building materials and a film describing the test to destruction of a disused bridge in Derbyshire which was carried out recently by B.R.S. and the Ministry of Transport.

Since the R.I.B.A. Club at Olympia was very well patronised at the last exhibition, this year again a large room on the first floor over the Addison Road entrance has been allocated to the R.I.B.A. as a place where members can meet their friends, make business appointments, write letters, and rest. There will be a telephone for the use of visitors to the room, and a typist will be in attendance to take down members' letters and to assist them in any business they may wish to conduct while at Olympia. Parcels and letters addressed c/o the R.I.B.A., at the Building Exhibition, will be delivered to the R.I.B.A. members' room. Light refreshments will be obtainable. As at the last Exhibition the use of the room has been extended to members of the R.I.B.A. Allied Societies, the Architectural Association, the Building Industries National Council, the Architecture Club and the Council for the Preservation of Rural England. Members should note that they can enter the room (and the Exhibition) through a private door and staircase in the Addison Road entrance hall.



Various meetings and official visits have been arranged, the programme of which is given below :—

THURSDAY, 17.—Institute of Clayworkers. Meeting.

FRIDAY, 18.—Judging of Students' Work.

SATURDAY, 19.—Incorporated British Institute of Certified Carpenters. Visit.
Lancashire Guild of Bricklayers. Visit.
Army Vocational Training Centre. Re-union.

MONDAY, 21.—Rubber Growers' Association, Inc. Meeting.
Land Agents Society. Visit.
Institution of Highway Engineers. Visit.

TUESDAY, 22.—Institution of Structural Engineers. Visit.
London Association of Master Decorators. Visit.

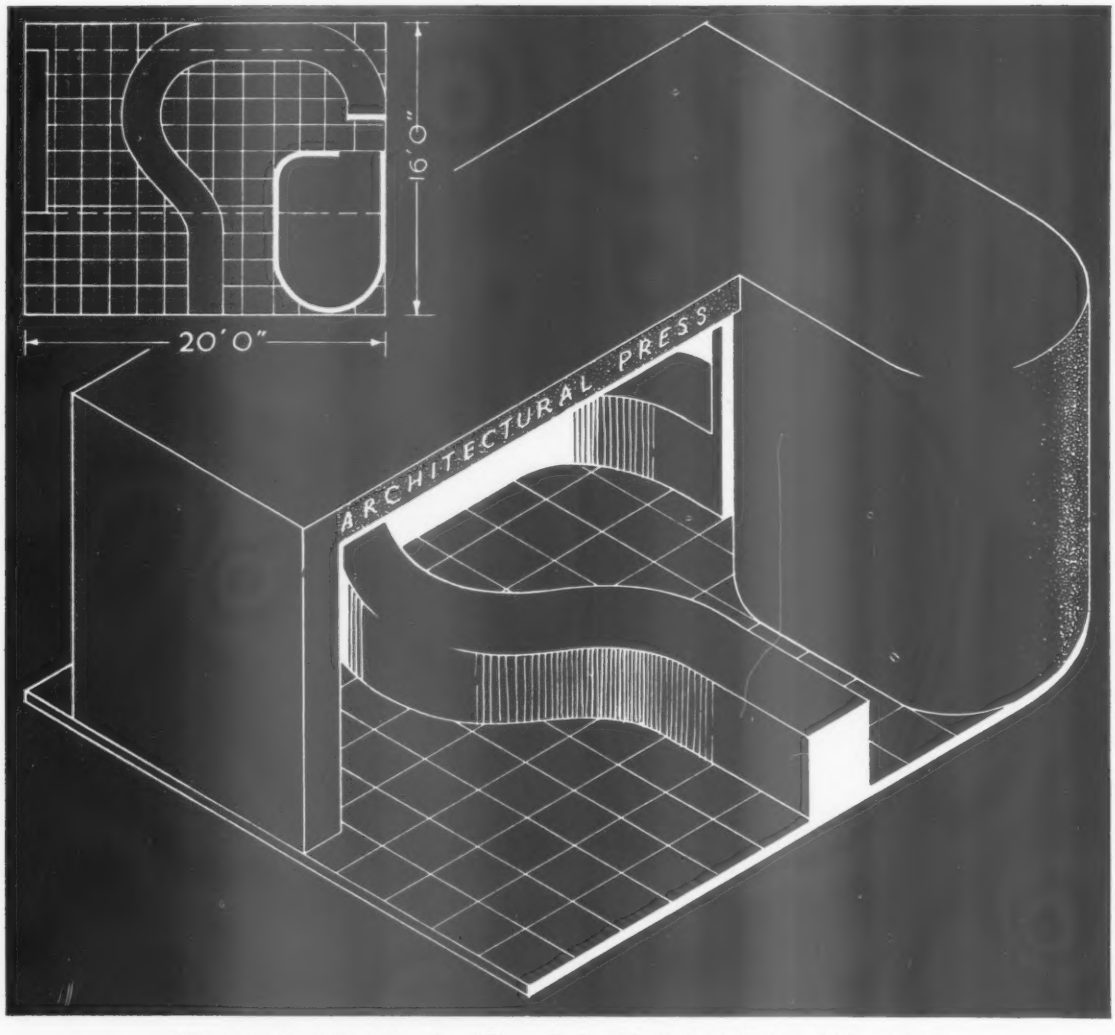
WEDNESDAY, 23.—National Federation of Clay Industries. Meeting.
Society of Estate Clerks of Works. Visit.

THURSDAY, 24.—Visit of Lord Mayor and Sheriffs.
Southern Counties Federation of Building Trades Employers. Visit.

FRIDAY, 25.—Electrical Association for Women (London Branch). Visit.
Architects' Ball. 8 p.m.
West Essex Chapter of Architects. Visit.

SATURDAY, 26.—Incorporated Clerks of Works Association of Great Britain. Visit.
Chartered Surveyors' Institution. Visit.

MONDAY, 28.—South Eastern Federation of the Brick Trade. Meeting.
Ballast Sand and Allied Trades Association. Meeting.
London Master Builders' Association. Visit.



The Architectural Press (Stand 106 F). Designed by F. R. S. Yorke and Marcel Breuer.

EXHIBITION NOTES

The Directors of the Architectural Press extend an invitation to all architects and others interested to visit their stand at the Building Exhibition (No. 106, Row F). The designers are F. R. S. Yorke and Marcel Breuer, and on the stand will be displayed for examination a wide selection of Architectural Press publications, including *The Architects' Journal*, *The Architectural Review*, *Specification*, the *Library of Planned Information*, books on domestic architecture such as Yorke's *Modern House* and Nathaniel Lloyd's *History of the English House*, books on colour such as *Colour Designs for Modern Interiors*, practical books like *The Information Book of Sir John Burnet, Tait and Lorne*, amusing and yet useful books like *The Honeywood File* and the *Shell series of County Guides*, and many others on architectural and kindred subjects.

Stand No. 132 G, designed by Messrs. Henry Tanner for the Cement Marketing Co., Ltd., fills an island site, and is devoted to illustrating a few of the many uses of the products supplied by the Cement Marketing Co., Ltd. Blue Circle portland cement and "Ferrocrete," rapid-hardening portland cement are not featured except by name display, and the exhibit is intended to convey the idea of colourful decoration rather than structural strength. "Snowcrete" Mixture and "Cullamix" have long passed the introductory stage but, as with concrete for general purposes, new uses are continually being found.

Polished tiles for walls and floors, "Cullamix" Art Tiles, polished "Cullamix" slabs of thin sections for facing brick structures, polished slabs for serving as facing and shuttering for the exterior of concrete structures, rendering of various textures—these in their wide range of colours have been incorporated in a stand with a 32-ft. pylon surmounted by a blue circle.

By special walls, pre-cast units and wall sections the more general uses are demonstrated of other of the Company's products.

Demonstrations of lead working, jointing and bending pipes and lead burning are being given on the Lead Development Council's stand by a plumber working at a bench. There are also two full-sized sections through roofs showing different methods of flashing against a brick wall, and another model shows a lead flat roof, its finish at the edge and against a wall. Large diagrams show the various ways of forming lead rolls, and a series of specimens above show good practice in pipe work.

A complete plumbing unit serving two lavatory basins is also shown, and a number of photographs illustrate how plumbing should be enclosed in proper casings for protection, cleanliness and good appearance.

There are two flower boxes shown—one, a wood box, lined and faced with milled sheet lead and decorated with a broad burnt seam, and the other a fine decorative cast-lead box. A large cast-lead rainwater head is shown in contrast to a small modern head formed of sheet lead.

A series of photographs show various stages in the production of lead and a few of the finished lead products, and opposite them a full series of Information Sheets

gives information on lead in building work. On the stand are a number of small decorated pots and ornaments, finely tooled and with lead-burned work used as a decoration—a good demonstration of the relationship between material, craftsman and decorative style.

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An interesting feature of the London Brick Co., Ltd.'s exhibit (Stand 173 J) is the demonstration of reinforced brickwork provided by the two cantilevered hoods projecting five feet from the central brick work; no special bricks are used, the reinforcement being laid simply in the mortar joints. The stand has been designed by Mr. J. R. Leathart. The central brickwork is built in "Phorpres" Rustic Cellular bricks, the front and rear edges being sectioned to show the multi-cell effect obtained. A forward extension of the brickwork provides a counter upon which are displayed individual samples of the Company's various products and photographs illustrating the process of their manufacture and examples of their use.

"Phorpres" White facing bricks, hollow partition and floor blocks, "Grip" reinforced partition bricks, and roofing tiles are built into the pavilion. A small panel of experimental sand-faced bricks indicates the lines along which the Company is working to produce an alternative to the "Phorpres" Rustic brick.

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The exhibit on the London Sand Blast stand (No. 104 F) is an example of the latest glazing material; a new product called Treta glass is especially suited for large areas where a textured glass is needed and clear glazing not quite suitable, there being plenty of instances where this difference is justifiable, such as in the larger stores and public buildings and restaurants, for such things as staircase windows or large screens. The advantage of this glass over the pressed glass which is usually employed for this purpose is the simplicity of glazing and the large sizes obtainable. The example shown is 8 ft. high by 4 ft. wide. Different and more complicated designs can be achieved by the same means, and one is shown in two smaller works in the adjacent screens.

A particularly high standard of wheel engraving is shown in two panels which approach very closely to the Swedish tradition, and are used architecturally in door panels or window mirrors, etc. The rest of the stand is given up to the usual media of the glass craftsman—numerous examples of brilliant cutting, acid embossing, fired ceramic colours and sandblasting.

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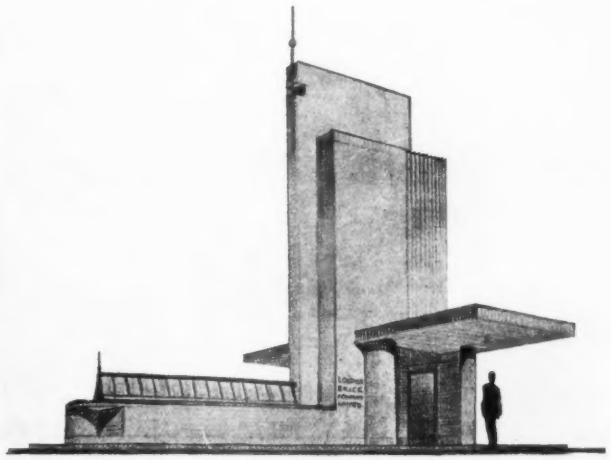
The exhibit of W. H. Colt (London), Ltd. (Stand No. 40 C) is to display the various uses of Colt Canadian cedar-wood tiles (known in Canada as shingles). It has been designed by Mr. Joseph Emberton, and consists of a large main roof finishing in a mansard and containing a dormer window and a swept eyebrow dormer. A low circular wall built of Colt tiles runs from the main exhibit, and carries a number of large photographs and finishes framed in a neon sign. A pillar on the right supports



The London Brick Company, Ltd. (Stand 173 J). Designed by J. R. Leathart, F.R.I.B.A.

frames containing 32 photographs of various jobs carried out with Colt tiles.

The back of the exhibit consists of a brick built recessed bay window showing the use of the tiles in tile hanging below bays and in gables. The sides of the stand demonstrate the use of these tiles as a cure for damp walls.

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Rubber plastic material, which can be put to a remarkably wide variety of uses, is shown in Messrs. Dunlop's display on Stand 140 G. Semtex rubber plastic has great durability, is waterproof, non-cracking, flexible, sound and vibration absorbing, and is exhibited in various forms. Included in the display are rubber floorings of all types and in a full range of colours. These floors, which have great durability, are silent to the tread and can be produced in colour and design to harmonize with any scheme of decoration.

Rubber accessories to the building trade—tap washers, bath plugs, door steps, seat buffers, table mats, rubber sheeting, chair pads and soap trays—are also shown, together with such industrial rubber equipment as transmission and conveyor belting, hosepipes, etc.

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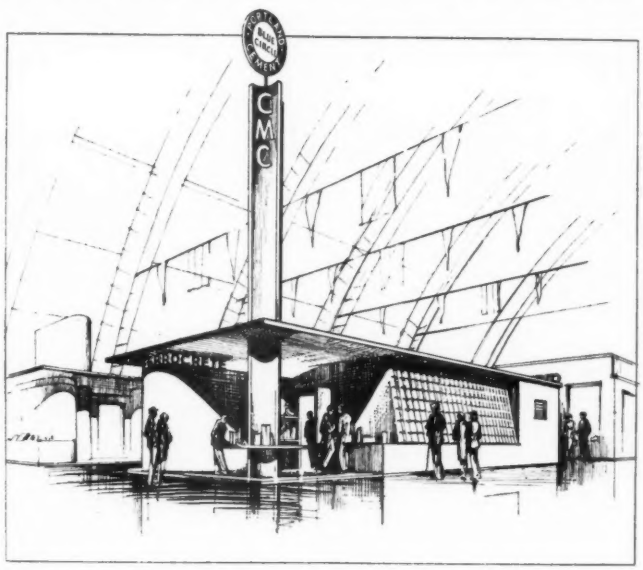
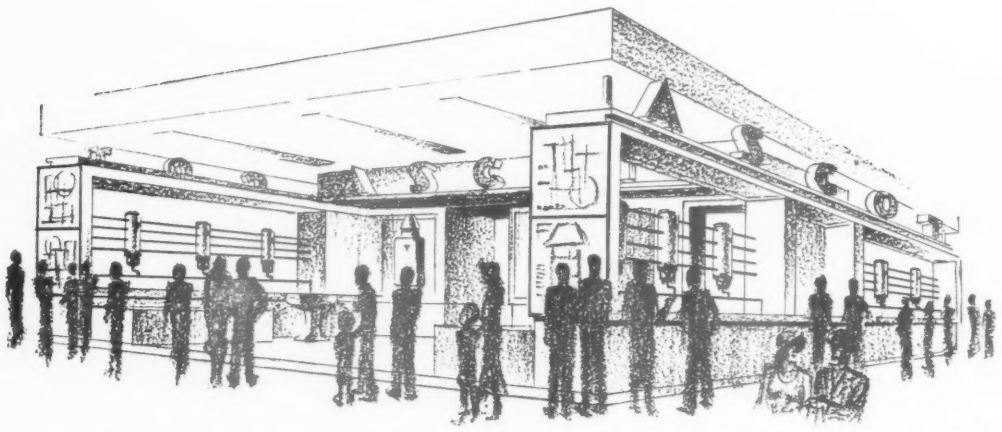
Since Messrs. Carter & Co., Ltd., have decided to exhibit only a selected few of the range of products made, the design of the stand (No. 133 G) resolved itself into a series of large vertical planes arranged to display the tiles concerned. These planes form the four faces of a tower which is the main body of the stand and the lesser planes for the smaller tiles are arranged round a slightly raised and covered terrace. The forecourt is enclosed by low tiled walls forming flower-boxes, and the floors are used to show designs in mosaic. The stand has been designed by Oscar A. Bayne.



The Cement Marketing Company (Stand 132 G). Designed by Messrs. Henry Tanner.



Ascot Gas Water-Heaters, Ltd. (Stand No. 268 Q). The competition design by Mr. Rodney Thomas, A.R.I.B.A.

The limited space available makes it impossible for Fredk. Braby & Co., Ltd., to exhibit the whole of their range of manufactures on Stand 47 D, but samples of Braby Eclipse high-grade metal windows, pressed steel stairs, flooring and metal faced plywood are on view.

Special attention is drawn to the new patent Eclipse worm-wheel pivot gear, which entirely dispenses with rods, brackets and arms, also to the new patent collapsible hopper ventilators.

Samples of wrought-steel gutters, down pipes, chimney tops and ventilators are also shown, special emphasis being laid on the down draught ventilators, either galvanized or enamelled, which are suitable for housing schemes.

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The chief features of Messrs. D. Anderson and Son, Ltd.'s stand (No. 131 G) are Stoniflex plaster board and several systems of flat roof coverings.

Stoniflex plaster board is a new product introduced by this firm since the last Building Trades Exhibition, and has already been widely used. It forms a good base for plaster; is non-buckling, non-cracking; saves time in application and enables the plasterer to complete a ceiling from the bare joists in one day without impairing either strength or finish.

The various flat roof covering systems are demonstrated by sections of roofs showing the method of building up the covering. The floor of the stand is completely covered with Thermotile, from which may be seen the suitability of this method of covering for flat roofs which are to be used for traffic, recreation, or sun-bathing. Thermotile has been tested and reported on by the Building Research Station, and copies of the report can be obtained on the stand. In addition, there is a display of the firm's Red Hand roofings and dampcourses.

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On Stand 229 M a full range of Aga heat-storage cookers is exhibited. New improved models from £35 provide equipment for most types of house. There are also two new units for large catering requirements; model 98 has twin fire units and an extra large oven; model 25/30 is an entirely new unit for frying, grilling and boiling. The new Aga boilers for domestic hot water are also on show.

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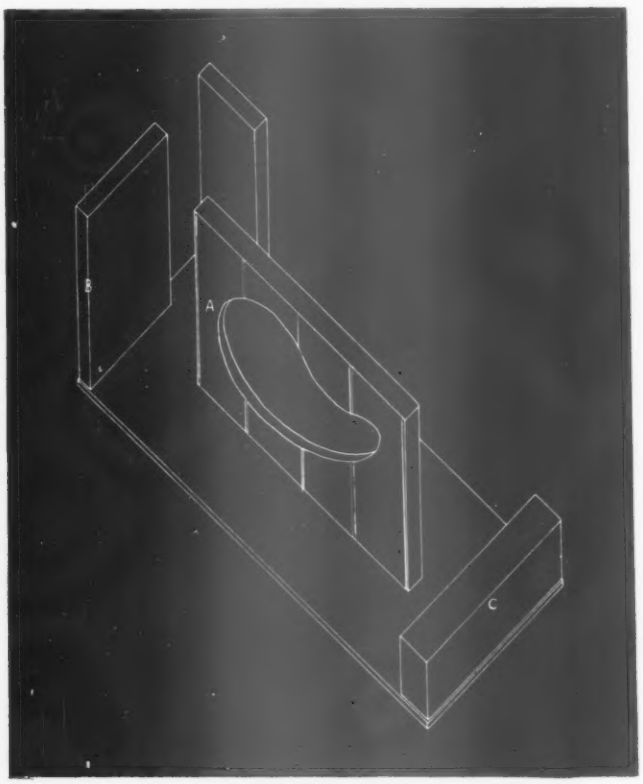
On Stand 91 E, Messrs. Robert Adams, Ltd., are showing their new improved Victor door springs and hinges, shallow, watertight and oil-proof, for all double- and single-action doors.

Improved ventilating gearing for single sashes or long ranges of sashes, including rolling bar, tension rod (for long and very heavy ranges of lights). Link motion and twin screw types operated by gear-box and handle, lever action, chain, cord or portable rod are also shown, with a wide variety of locks and latches, casement bolts and fittings, reversible window fittings, kicking plates, handrails, name plates and letters.

●

Although rubber in some form or another already touches every branch of constructional work, recent advances in rubber technology are providing further directions in which the product can be usefully applied.

In order to demonstrate these applications in the most effective manner a series of rooms has been erected on the stand (No. 169 J) of the Rubber Growers' Association; here the newer and more important uses will be included. Rubber



Wood Products, Ltd. (Stand 164 J). Designed by F. R. S. Yorke and Marcel Breuer.

coverings for floors are finding increasing employment, and these are likely still further to be extended now that plastic materials with mosaic or terrazzo patterns or compositions containing marble or cork chippings can be supplied. There is also the rubber-treated carpet which prevents ravelling and presents a non-skid surface to the floor. Rubber roofing materials and rubber paints are now obtainable, and the stand is treated throughout with this paint.

Another interesting development is the use of sheets of rubber for providing a satisfactory key on concrete surfaces for the final finishing coat. A model will demonstrate this application of rubber sheets, which, in practice, can be used repeatedly. The sheets can also be employed when any roughened surface on the concrete is required.

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The stand of the Adamite Co., Ltd. (Nos. 146 and 147 H) has been designed by Mr. Harold Davies, A.I.A.A., to show the Adamite materials and Burwell white bricks as far as possible as they would be used in practice.

The main feature of the stand is a modelled concrete frieze constructed by Messrs. E. J. and A. T. Bradford. This frieze is modelled directly in Adamite mixture, a mixture with no colour in the cement, the material being gauged with water in the usual way and applied to the background by means of small trowels; the shaping of each portion is done while the material is in a plastic condition, the various colours being gauged and applied separately. The whole provides a composition of colour in permanent materials without any surface colouring or painting.

This frieze, together with the ornamental pool, is waterproofed with Colemanoid—a liquid integral waterproofer containing no solids—which not only permanently waterproofs, but also increases the strength of the concrete. Another interesting Colemanoid exhibit is a small section cut out from a garage floor after five years' hard wear.

Adamite mixture, consisting of pure white Atlas White portland cement and coloured sand graded so as to form a dense stucco mix, is also used on the walls of the office and of the special exhibition table, on the top of which can be seen the range of colours in which the mixture is supplied.

The floor in front of the ornamental pool and the three sets of steps leading up to it, which were carried out by Messrs. Diespeker & Co., Ltd., in Atlas White terrazzo, are rendered non-slip by the incorporation of Alundum non-slip tiles, mosaics and aggregates in a few of the nine colours in which Alundum is supplied.

The hardwood floor on the front half of the stand is secured by the use of Bull-Dog floor clips—a section being cut away to show the method of construction.

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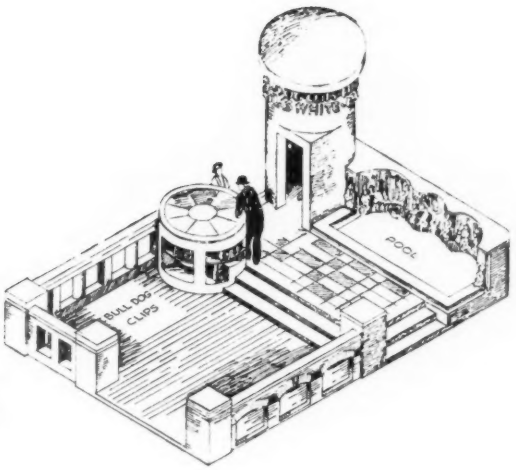
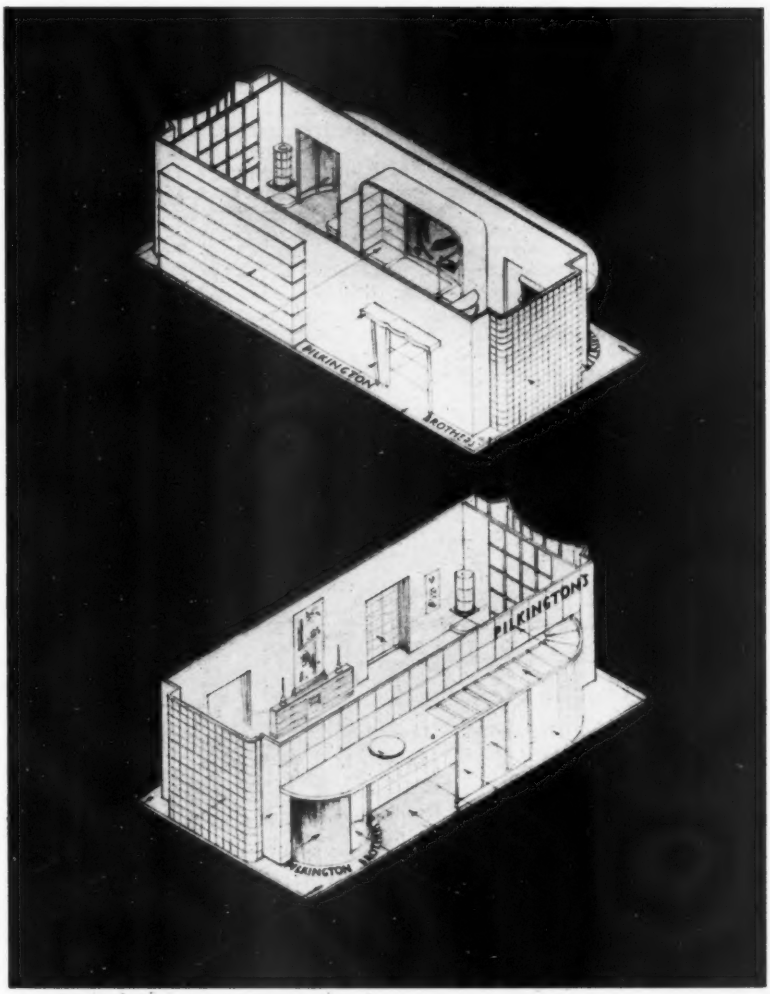
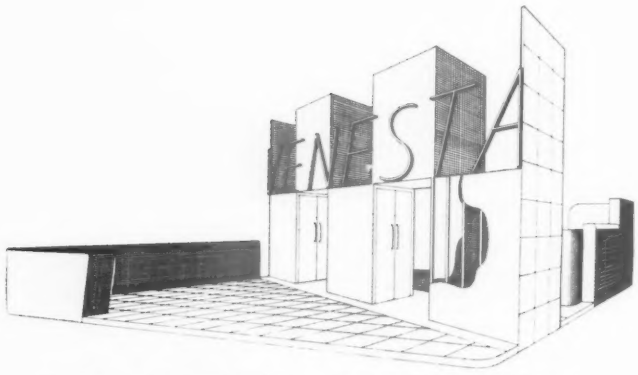
On Stand No. 271 Q of the Ruberoid Co. are many forms of roofing, ranging from the standard Ruberoid to the insulated steel roof, which has already been employed on cinemas, large factory buildings and aerodromes. The range of permanent roofing specifications includes the "built-up" system of two or more layers of Ruberoid with either a plain or grit finish, Rubercrete, Ruco-Ruberoid and Ruberdal.



The Adamite Co., Ltd. (Stand 146 and 147 H). Designed by Harold Davies.



Pilkington Brothers, Ltd. (Stand 307 T). Designed by Kenneth Cheesman.



Venesta, Ltd. (Stand 136 G). Designed by R. D. Russell.

Each of these roofings is shown as a full-scale model giving actual sections of the materials used; these models include a section of a Belfast Truss and a large area of steel deck constructed as a roof to part of the stand.

Among the other products are Ruberoid Solka roofing, a practically untearable sheet roofing, Ruberoid and Pluvex damp-courses, the recently introduced Astos 100 per cent. mineral dampcourse, Zylex slaters' felt for lining under slates and tiles, and many other products.

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The stand (No. 39 C) of Messrs. Kerner-Greenwood & Co., Ltd., is simplified by the fact that the whole of the space is given up to the exhibition of one product—Pudlo cement waterproofer.

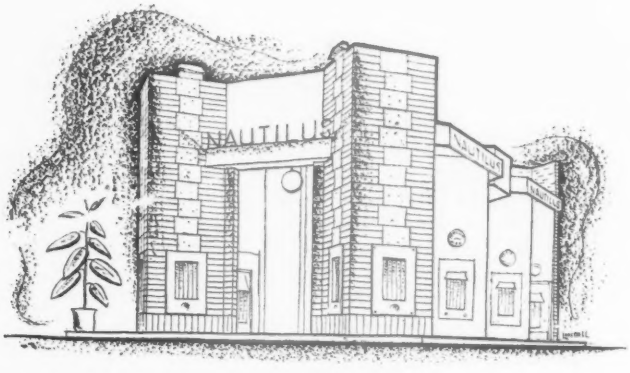
Specimens of cement mixtures made impervious with this powder are subjected to severe tests, and the various pieces of apparatus, specially designed for the purpose of these tests, are themselves ingenious and interesting. On one of these machines a cylinder composed of two parts of standard sand to one of portland cement, with the addition of Pudlo, is subjected to a water pressure of 300 lbs. per sq. in., and this test is maintained during the whole period of the exhibition. Another machine imposes a recurring water-hammer test, amounting to 70 lbs., over the surface of waterproofed cement mortar discs of 3 ins. diameter and only $\frac{5}{8}$ in. thick.

Messrs. Allan Ure & Co., Ltd., are exhibiting (on Stand No. 12 B) the Ure Back-to-Back grate. This grate is fixed in two adjoining rooms with a single fire and chimney. In the living room there is an open fire grate; in the kitchenette, next door, the same fire provides a cooking oven and boiling hotplate, together with hot water for domestic purposes.

The firm is also exhibiting its latest development, the Hatchway Ure which introduces a combined serving hatch and hot closet between the living room and kitchenette. This hatchway not only provides direct access between the two apartments but also a hot closet where food can be kept at any temperature and tableware heated. The doors are so designed that they can be opened and closed without interfering with any of the cooking utensils on the hotplate.

●

Stand No. 274 Q, for Cellactite and British Uralite, Ltd., shows asbestos-protected metal roofing and roof ventilators in natural forms, colours, etc. Cellactite is unbreakable as well as incorrodible, and combines many of the advantages wanted in modern roofing. It is a good insulator, light in weight, easily and quickly fixed, and carries over wide purlin intervals without the necessity for intermediate support. Ventilators are uniform in material and guaranteed permanent with the sheeting.



The Nautilus Fire Company Ltd. (Stand 291 S). Designed by Ian Jeffcott.

Urastone incorrodible flue pipes, fittings and ducting are shown, including a new expression of the material in enamelled form for matching coloured surfaces on modern gas and slow-combustion appliances. Other products include Asbestone (asbestos-cement) corrugated and flat sheets and sundries.

●

Messrs. Samuel Elliott and Sons (Reading), Ltd., show on Stand 188 K a Tudor panelled room with oak beams and panelling, with varied detail of mouldings and figured panels, an effect of age being obtained by a special treatment and colour. The exterior of this room has some half-timbered work.

There is also a modern panelled room in Australian walnut, maple burr panels and macassar crossbanding, with panels of birds-eye maple in the cornice. A very rich effect has been obtained by using veneers picked specially for "shimmer."

Various flush doors in hard and soft woods are also shown.

●

The Esavian stand (No. 285 R) is designed in the modern manner and shows a number of the Esavian products. A special feature of the stand is the set of Esavian aero-shed doors 20 ft. high and 12 ft. 6 ins. wide, fitted with electrically operated winding gear; similar doors 32 ft. high and 35 ft. high have been fitted at Filton and Speke aerodromes. Fitted in the column supporting these doors is an electrically working model showing the doors in operation.

On one side is a Maxlite folding and sliding window 18 ft. long. shown with a curved end. On the opposite side is a set of loggia doors, with a special cill track suitable for use in hospitals, allowing for beds to be easily wheeled out, while the cill is weatherproof when the doors are extended.

Adjoining this loggia door is a set of Esaround garage doors. At the end is fixed a set of Esavian folding doors suitable for a lounge, with flush walnut leaves; these are so made that they can fold into a recess with a door which entirely encloses the Esavian doors when folded back.

●

Messrs. Sidney Flavel & Co., Ltd., are showing, on Stand No. 231 M, gas heating and cooking appliances of all types, modern specifications and treatments ranging from inexpensive to de luxe designs. The wall-type gas fires and radiant-panel gas heaters have simplified building-in facilities, and lend themselves to combination with tiles or marble, or with a cast iron plaque. Metro gas-ignited coke fires in the several forms available supply an easily fitted, clean, and economical system of heating, and the fire fronts are available blacked, porcelain enamelled, or chromium plated. The Elf is a new cooker of light weight, but full capacity design, arranged to hang on a wall bracket and at £3 19s. 6d. is an attractive appliance for a flat or maisonnette.

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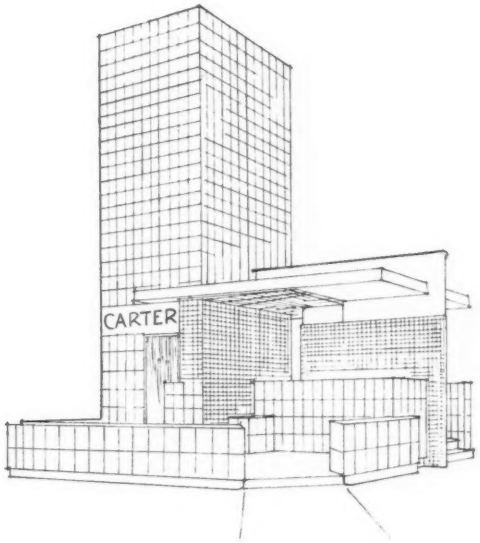
The stand (No. 150 H) of Messrs. Turners Asbestos Cement Co. is designed as a background for asbestos-cement building products. The idea is to demonstrate the progress made in the development of

asbestos-cement building products of all kinds. There is shown the notorious "Pink Diagonal Asbestos-Cement Slate," the war-time product which so severely handicapped the development of asbestos-cement as a slating material. It is demonstrated how, from this beginning, progress has been made until to-day the builder has at his disposal a wide range of "Poilite" Newtone asbestos-cement slates. There are flat sheets which in their latest form have been given double thickness which provides an air-space containing a reinforcement of corrugated asbestos-cement sheeting. There are also Turnall Trafford tiles, an industrial roofing obtainable in lengths up to 10 ft. and also in a metal-reinforced form; the reinforcement consisting of a wire mesh embedded in the sheet during manufacture and giving to it added strength and resistance to impact.

In addition to the building materials there are Everite asbestos-cement pressure pipes for gas and water. These have now been adopted by reputable authorities in all parts of the world, owing to their advantages in being immune from corrosion, incrustation and electrolysis. In their latest form these pipes are now available from 18 ins. diameter down to 1½ ins. diameter—the smallest yet made.



Carter & Co., Ltd. (Stand 133 G). Designed by Oscar A. Bayne.

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Messrs. Williams and Williams, Ltd., are exhibiting on Stand No. 260 P a full range of metal windows and doors, including interesting examples of standard windows inserted into wooden frames, and also built direct into cavity walls; standard open-in doors, standard factory (or commercial) sash windows, standard school windows, horizontal bar type and curved-on-plan windows. Various methods of coupling metal windows and doors are shown, and also an example of a window rustproofed by the Parkerizing process.

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Nettlefold and Sons, Ltd.'s Stand (No. 117 J) shows the trend of modern design in connection with door fittings, and in particular the use of colour. As well as new patterns in stainless steel, silver bronze and other metals, they are showing a wide range of pull and lever handles, door knobs, etc., embodying the decorative use of leather and brilliantly polished synthetic materials, all of which can be supplied in a practically limitless range of shades. The pull handles can be supplied with a new patented secret fixing device, quickly fixed, without any visible screws.

A new thumb-pull handle solves the problem of the designer who wishes to use pull handles on flush doors; a light pressure of the thumb on the top of the pull handle operates the live bolt of an ordinary lock or latch. The improved Guardian XXX lock provides an alternative solution of the same problem. With this easily fitted tubular lock, any type of door handle can be fixed independently of the lock, as the door can be pulled or pushed open and shut. By an ingenious arrangement whereby the dead bolt is shot through the live bolt, the composition bolt is held firmly in a composition striking plate, thus eliminating rattle and deadening any noise when the door is opened or shut.

Thames Board Mills, Ltd. (Stand 145 H).

On Stand No. 272 Q Messrs. Ideal Boilers and Radiators, Ltd., are showing a selection of boilers for heating and hot water supply, and also various examples of radiators, Rayrads and towel rails. Particular stress is laid upon the question of central heating in the smaller residence, and examples of suitable radiators are exhibited. For larger installations there are the magazine and Britannia boilers, whilst for gas burning there is a gas boiler. Demonstrations are also being given of full-way copper fittings.

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The Stand of Thames Board Mills, Ltd. (No. 145 H), is made entirely of $\frac{3}{16}$ in. Essex board, and is a good demonstration of the application, decoration and possibilities of this popular material. The Stand is designed to bring out the various qualities of the material, for the board is strong and tough, and being highly compressed, is very rigid compared with its thickness.

The board can be cut with a saw, knife or chisel, is quickly adapted, and takes a curve easily; it is specially sized throughout its entire substance to take paint economically—one coat of water paint or distemper is usually sufficient for ordinary purposes.

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Stand 179 J. for Bryce, White & Co., Ltd., was designed to show as many Brycite products as is practicable in surroundings harmonious with their use; particular attention is drawn to the oak floor. The range of Columbian pine redwood and oak doors shown is almost complete, and flush doors are shown in oak, teak, Columbian pine, as well as beech and birch, and in several forms of construction.

Scale models of Brycite kitchen cabinets are also shown, designed to give ample storage capacity.

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Stand No. 151 H, for Messrs. Thos. Parsons and Sons, Ltd., is built on modern lines, the interior of which is in the form of a large room devoted to the exhibition of modern forms of decoration, in which demonstrations in the use of Parso-Glaze scumbling paint, and Water-Tex plastic paint will be given at various times daily.

"Twisteel" Reinforcement, Ltd., are showing on Stand No. 82 E, a large range of samples of "Twisteel" high-tensile steel square-mesh fabric, as used for roads, ground floors and rectangular panel floors, together with samples of longitudinal mesh as used in suspended floors, walls, etc.

A complete range of twisted bars is shown with particulars of tensile and adhesion tests to indicate the high tensile qualities of Twisteel and the high unit adhesion obtained by means of the spiral surface of the bar. Actual test specimens are shown illustrating the type of fracture produced.

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The Silicate Paint Company are showing on Stand 99 F a room in which the ceiling and friezes are decorated with ivory white Duresco and the walls in separate colour schemes of ivy green, lilac, china pink and buttercup, the woodwork throughout being treated with ivory white Silpaco flat oil paint.

On the outside are displayed the five winning panels of the recent Duresco competition, and at the end of the stand there is a case of screens showing the 34 stock Duresco colours.

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On a stand (No. 74 Gallery) designed by Mr. Frank Scarlett, the Ace Laminated Products Company are showing Ace solid and semi-solid laminated flush doors, with sections showing the special construction and lipping strips. Face veneers of Empire and foreign timbers are shown on the finished doors, and the firm is also showing small laminated tables and cabinets in figured birch.

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On Stand No. 14 B, the Eagle range and grate display includes several combination grates. The capacious N.C.11 model, fitted with gas burner for lighting, is shown at work, and the coke-burning C.B.21 is also demonstrated in operation. With the compact Bijou models is shown the B.5 portable grate, which needs no building in, and can be placed anywhere a flue outlet is available.

In the Two-Room grate, exhibited in grey mottled enamel with tiled surround, the fire in the barless grate in one room provides extensive cooking facilities in the next room and at the same time heats a boiler supplying hot water for domestic requirements.

For boarding-houses and other large establishments, there are the Eagle premier and continental ranges, specially designed for cooking on a large scale. These models are finished in Eagle enamel, which is exceptionally easy to keep clean.

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Messrs. A. Johnson & Co. (London), Ltd., are showing, on Stand No. 168 J, a selection of Savestane stainless steel Synk-units; models are obtainable ranging from the kitchenette to the hotel kitchen, and where necessary they can also be made to individual requirements so that maximum advantage can be taken of space available. These units are hygienic, will stand any amount of rough wear, never need to be replaced, and retain their first appearance simply by wiping over with warm water and soap only.

Savestane stainless steel cabinet and table tops are also available.

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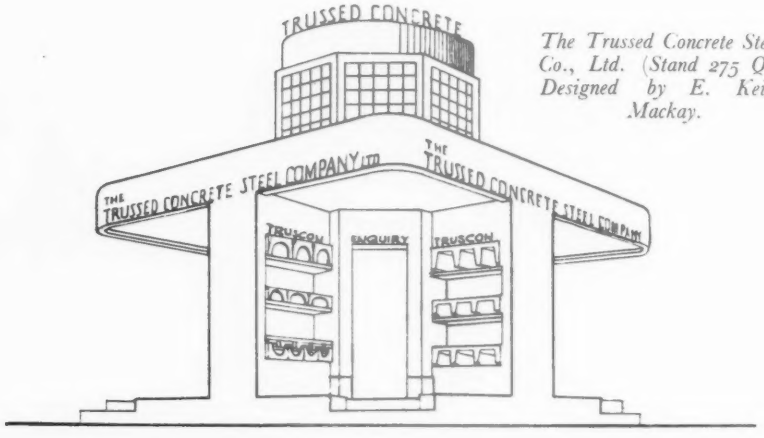
The Tentest Fibre Board Co.'s principal exhibit on Stand 152 H demonstrates two methods of fixing their board to steel frame buildings. The methods shown have been developed after much experiment and provide a rapid and efficient fixing, of light weight, adaptable to new and old constructions.

The first method is adaptable to both new and existing factories and consists of the Tentest adjustable metal fixing, which provides exterior or interior linings to roofs and walls of steel frame buildings with a means of attachment requiring no drilling on site. The attachment is designed to be adjustable to meet the edges of the Tentest sheets, either by opening up or closing in, and so carries the sheets where the framework is not necessarily in alignment, but in the same plane. The fixing is built up of special steel section, supplied in lengths up to 12 ft. for standard purposes, but is designed to be supported at approximately 6 ft. centres on straight work. This section is held in place by steel clips which, whilst forming a frictional grip on suitable grounds or principals, allow for directional adjustment in one plane before the final tightening of the holding bolt. The Tentest is then fixed to the metal grounds with Parker-Kalon screws.

The second method is used in new construction and provides a means of holding the sheets between the back of the purlins in steel frame buildings and the outer roof covering. A light steel T strip with the edges of the T cupped provides the necessary fixing at the joints between adjacent sheets. These strips lie on top of the purlins at right angles to their direction and have the cupped portion flattened out to fit snugly on top of the purlin. The tail of the T lies between the sheets with the head forming a support for their edges. No nails or screws are necessary.

Several methods of fixing Tentest by means of adhesive are shown and V joints and groove cutting are demonstrated with the special tool which can be lent to contractors when required. Various methods of joint treatment are illustrated, and models of sound-deadening methods for floors and ceilings are also shown.



The Trussed Concrete Steel Co., Ltd. (Stand 275 Q). Designed by E. Keith Mackay.

The exhibits of the Expanded Metal Co. Ltd., on Stand 144H, consist of specimens of various meshes and weights of Expamet expanded steel.

Expamet expanded steel of the larger meshes is used chiefly as reinforcement for all forms of concrete and fire-resistant construction; and the smaller meshes in many other ways, such as open meshwork for partitions, shop-divisions, fencing, flooring, etc.; guards for machinery, windows, trees, etc., or baskets for litter.

"BB" expanded metal lathing can be used for practically any type of plaster construction; it affords a level and rigid meshwork surface to which plaster can be applied quickly and easily: the strands and small diamond shaped meshes holding the plaster in a strong grip; the meshes allow enough plaster to pass through them to form, on the reverse side, a good key.

Ribmet is a ribbed metal lathing, and affords a good ground for plaster in ceilings or partitions, where the bearers are too far apart for plain sheet lathing; it is also useful as a combined permanent centering and reinforcement for concrete flooring or roofing.

•

Stand No. 108 F has been designed to show the adaptability of Lloyd hardboards to curved surfaces and the tones and characteristics of the various boards. The carved wallboard panel, executed by C. W. Glover, shows the possibility of surface decoration without impairing the natural qualities of the board, particularly its acoustical absorption.

All counter tops are $\frac{3}{16}$-in. super hardboard, demonstrating the qualities of the board when used in positions requiring hard-wearing surfaces. The flooring is also carried out in super hardboard and illustrates another use for these boards; varied designs may be obtained by combining brown and black squares.

A Lloyd-Kemsley flush door is used at the entrance to the office. Other treatments obtainable are shown on the stand, also the use of boards for furniture, marine work or coach building.

Lloyd board as permanent shuttering to reinforced concrete walling and floors is also illustrated, as well as the utilization of bituminous board in flat insulated roofs having maximum possible heat reflectivity.

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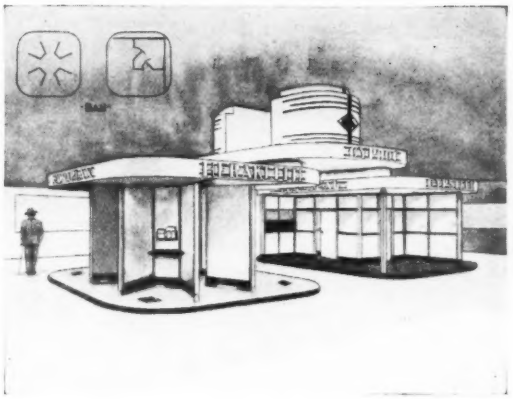
On Stand 142 H, Messrs. Haskins, Ltd., are showing a pair of steel fire doors, hinged type, to pass L.C.C. requirements, a rolling portcullis, brickbond design, with samples of other types, showing diamond, V-shape and staggered designs, enclosure surrounds in wrought iron, with wirework for lift-wells, stairs, etc., one flight fire-stairs, with cast-iron treads and wrought-iron balustrading, as well as many other types of rolling shutters and collapsible gates.

•

Stand No. 84 E, for Cellon, Ltd., shows synthetic primers for wood, steelwork and metal generally, brickwork both plain and rendered, new and old asbestos, and plaster. These materials allow the building up of very smooth adhesive groundwork on both new and old surfaces, giving a final finish with the gloss finish, which is remarkably hard whilst extremely elastic, with very tenacious adhesion; specimens of this gloss finish will be shown demonstrating these properties.



Honeywill and Stein, Ltd. (Stands 281 and 282 R)

Another feature is the display of Cerrux gloss finish in which the basic stainer is the new Monastral Fast True Blue yielding clear tints of unusual brilliance in colour. Cerrux Fast Yellow W. 89B in conjunction with this blue also provides a range of fast greens. As a stainer with white, this yellow ensures pastel shades which are resistant to fading in the strongest light. "Cerric" cellulose and bronzing finishes will also be displayed.

•

The exhibit of the British Oxygen Company (Stand 94 E) is set out to show the utility of oxygen and dissolved acetylene in the building trades. Actual equipment on view to demonstrate the value of these gases includes welding, cutting and leadburning plant, oxygen cutting machines, and flarelights. In addition, a comprehensive selection of welding and hardfacing materials is available for inspection and test, as well as specimens of work done with the aid of the equipment. Demonstrators, who are all experts in their particular fields, are at hand to show visitors the operation or technique of any oxy-acetylene application of interest.

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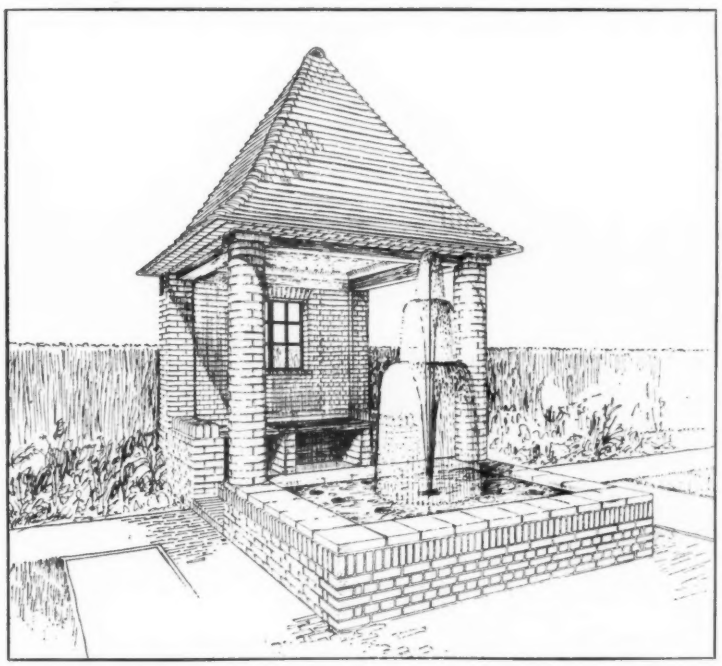
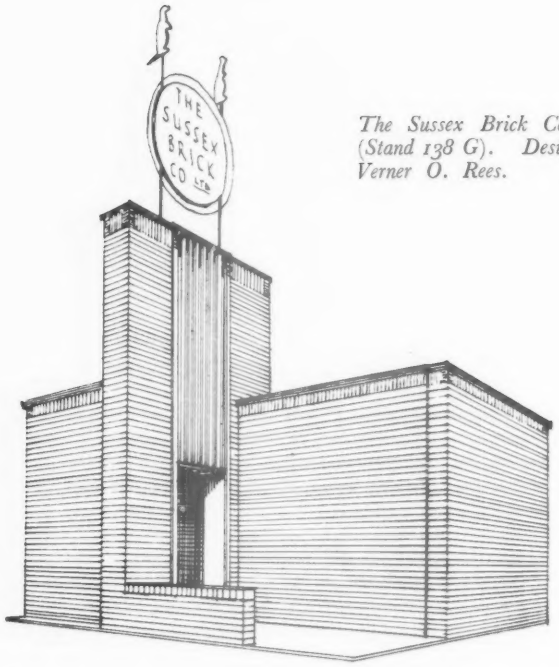
The stand (No. 164 J) for Messrs. Wood Products, Ltd., is designed by F. R. S. Yorke and Marcel Breuer, and shows Ensonit, Ensowal, Ensoflex and Tufbord.

Ensonit is a $\frac{7}{16}$ in. thick insulating and building board manufactured with a glazed or matt surface. Ensoflex is a flexible wallboard which, being manufactured in rolls up to 10 ft. wide, by 75 ft. long, makes it possible to cover practically any one wall in one piece without joints. Incorporated in the stand is a wall



S. and E. Collier, Ltd. (Stand 100 F). Designed by Albert J. Thomas.



The Sussex Brick Co., Ltd. (Stand 138 G). Designed by Verner O. Rees.

constructed with Grovebury lime-sand bricks, covered with Ensoflex; this is to demonstrate the possibilities of this material by showing how plastering can be eliminated entirely. Where this type of construction is used there need never be any question of repairing and making good damaged plaster, and such walls should stand up to any amount of rough treatment without being destroyed.

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The exhibit of Messrs. Hope's Heating and Lighting, Ltd., (Stand No. 230 M) consists of a working central heating and hot-water plant demonstrating the use of Hope's fully automatic coal-fired motor stoker. Several enlarged photographs also show installations of this firm's automatic mechanical stokers, which are specially designed for heavy duty to give the highest thermal efficiency, to reduce the cost of fuel and prevent smoke nuisance. Several of their oil burners are also on exhibition, and qualified engineers are in charge to give information on heating and hot-water supply for private houses, public buildings, institutions, etc., and also for steam-raising in connection with large works.

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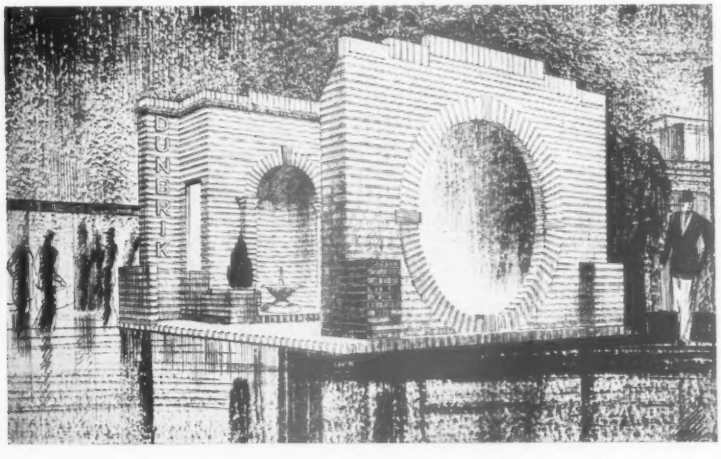
Messrs. Hammond and Champness, Ltd., (Stand No. 142 H) are showing an H. & C. standard "Super-Silent" electric passenger lift, running in a steel tower and fitted with three-floor automatic push-button control, illuminated landing indicators, and automatic car lighting. A specimen lift car in pollard oak and sycamore, one H. & C. standard electric service lift, fitted with three-floor automatic push-button control, as well as two types of lift arranged for hand power.



Dunbrik, Ltd. (Stand 295 S). Designed by C. W. Glover and Partners.

On Stand No. 178 J, Messrs. Henry Hope and Sons, Ltd., are showing metal windows and doors embodying the latest developments in design and manufacture; special windows for hospitals and schools, general housing and clearance schemes; and examples of pressed steel sub-frames for doors and windows, with patent cavity sub-frames, shown by means of full size models. Of special interest are an example of the double sound-resisting windows as lately installed in the Berkeley and Savoy hotels and one of the silver bronze windows as made for all the principal rooms in the R.M.S. "Queen Mary."

A working example of this firm's electrically controlled continuous opening light ventilating gear for factories, engineering shops, etc., is built into the main exhibit, as are also examples of their patent sliding and folding window and pressed steel door frames.

•

The stand of Messrs. Radio Furniture and Fittings, Ltd. (No. 72 E) is devoted to equipment for the distribution of music, speech, radio and television signals in buildings such as flats, hotels, hospitals, and large private houses. The principal exhibits include equipment for communal aerial systems, both of the amplified and direct distribution types, typical amplifiers and fittings being shown; there is also standard equipment for a 4-programme relay service.

As an example of multiline self-contained installations for hotels, a 3-programme equipment is shown, housed in a cabinet which incorporates an automatic record changer and provision for relaying orchestras or bands. The display is completed by a wide range of "built-in" type wall panels housing loudspeakers for use on the various types of relay systems, or alternatively receivers, clock or ozonair apparatus.

•

John Sadd and Sons, Ltd. (No. 209 L) show their Ti-foon patented weatherproof casement window, which is free from external weather shields and retains the neatness of the ordinary casement, its weatherproofness being due to an ingenious arrangement of interior grooves. A range of Don flush doors completes the exhibit.

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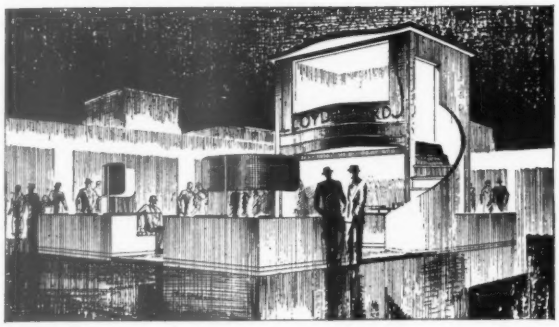
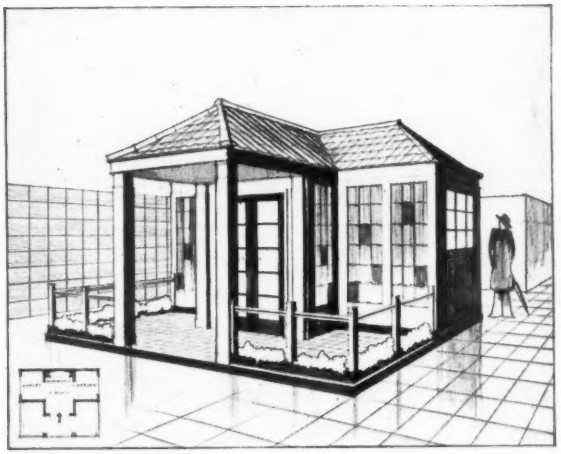
The Boston Blacking Co., Ltd. (Stand 81 E), are showing Bostik adhesives and sealing compounds, and in particular are displaying their use for curing damp walls, fixing rubber flooring and linoleum to all kinds of floors and particularly to concrete in direct contact with subsoil, and fixing wall boards by adhesion. Bostik adhesives, which have been on the market now for just over 12 months, were submitted to tests over a period of about five years before they were marketed. They are waterproof; the adhesive retains its resiliency and it does not dry up or flake and powder. They are used for fixing all kinds of floor covering including rubber and linoleum, fixing wall covers such as fibre board and decorative glass, and their waterproof quality ensures that they act as a resistance to damp.





Above: Edward Lloyd Wallboards, Ltd. (Stand 108 F). Designed by C. W. Glover and Partners. Right: the Redhill Tile Co., Ltd. (Stand G 129). Designed by Unsworth, Goulder and Bostock.

The stand (No. 275 Q) for the Trussed Concrete Steel Co., Ltd., is established as an advisory bureau on all phases of reinforced concrete engineering design and construction where technical information can be obtained from specialists. It comprises an exhibition of scale models of reinforced concrete structures and assembled reinforcement; photographs of completed buildings and others in progress; samples of finishes and treatments in concrete.

Full size sections of the Truscon *in situ* floor with removable steel forms, together with the two types of precast floors, with various floor and ceiling finishes incorporated. Samples of Solcheck roofing slabs, designed to insulate buildings with flat roofs against heat, are displayed, and there is also an exhibit of full-size sections of Hy-Rib arched floors, flat slab floors, partitions, etc., with sections of suspended ceilings showing hanger and flat construction.

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Messrs. G. A. Harvey & Co. (London), Ltd., are showing on Stand No. 105 F an office manufactured from Harvey steel partitioning double-cased and with sound insulating material; in addition to being hygienic, fire-resisting, proof against rot and vermin, Harvey steel office and stores equipment possesses the advantage that it can be erected by unskilled labour and dismantled at any time and re-erected without any depreciation. No fixing to wall or ceiling is necessary.

Another interesting exhibit on this stand is Harcopatent Metalace; this is a recent achievement in wire weaving. In ordinary weaving, whether of wire, cotton or silk, the strands run at right-angles to each other. Now, by means of machinery which Messrs. Harvey have built, additional strands are incorporated diagonally, with the result that woven designs of a highly ornamental character can be produced.

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The stand of the Zinc Alloy Rust Proofing Co., Ltd. (No. 242 N) serves as a technical information bureau where full particulars and prices for the rust-proofing of architectural ironwork of all kinds will be obtainable. There will be on view various samples of iron fittings which have been rust-proofed by the Sherardizing process, including casements, door furniture, hinges, electrical conduits, ornamental ironwork, and a wide range of builders' ironmongery. The exhibit will also include specimens demonstrating the exceptionally long life of Sherardizing under exposed conditions.

The Zinc Alloy Rust Proofing Co., Ltd., does not manufacture any of the articles shown, but simply undertakes the rust-proofing for the actual makers, and many other exhibitors will have samples of their own products which have been Sherardized on view on their own stands.

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On Stand 98 F the Leeds Fireclay Co., Ltd., are showing, in addition to their well-known range of products of Burmantofts faience, Imperial Porcelain sanitary ware, and glazed bricks and tiles, a large range of Brytex texture finishes. These are a development from the Leftex matt texture finishes which were put on the market some two years ago, and in response to a considerable number of requests this firm has been experimenting for some time to obtain these with a bright glaze, which will now be shown for the first time at the exhibition under the name of "Brytex."

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The British Electrical Development Association's stand (No. B 19) will consist for the most part of an information and enquiry bureau, supplemented by large-scale plans of electric kitchens and diagrams showing important economic and hygienic influences of domestic electrification. Expert staff will be available to give visitors any information required in regard to the installation and use of electricity for lighting, heating, water heating, cooking, cleaning, ventilating and other purposes in all types of buildings—domestic, commercial, industrial, entertainment, etc.

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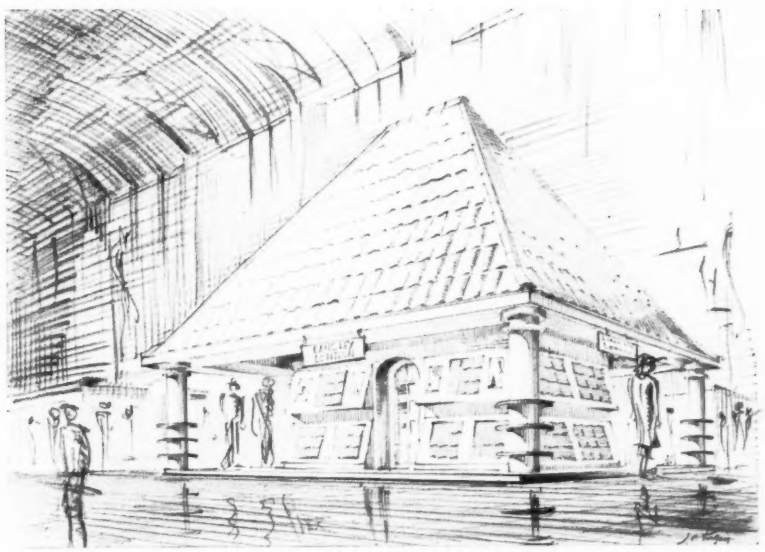
On Stand No. 215 L the Hurry Water Heater Co. are showing a series of water heaters suitable for every condition of water supply; the exhibit includes circulators and storage heaters of various types made of Monel Metal, a natural alloy that cannot rust and is highly resistant to all forms of



Langley London Ltd. (Stand 113 F). Designed by J. P. Tingay.

water corrosion. Several types of heater will be shown in operation, and different methods of installation will be demonstrated.

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Smith and Wellstood, Ltd. (Stand No. 224 M) have a large display of their Esse heat-storage cookers, already well known for their low fuel consumption, perfect cleanliness and good cooking qualities.

A new heating stove, the B. J. Esse, has advantages over this firm's Esse anthracite stoves, in that there are no front bars to perish, nor can the outer enamelled surface be blistered ; there is a 10 per cent. greater efficiency over the older form of stove. The outer casing of the stove was designed in the studios of Betty Joel, Ltd. Cooking ranges, coal coppers and mantel registers for housing schemes are also displayed.

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A plastic rubber basis and a combined rubber stair nosing, tread and riser are the two main exhibits of The North British Rubber Co., Ltd., on Stand 70, Gallery. The plastic basis enables rubber floors to be laid on any surface, even where damp is present, in fact a very efficient damp course is formed by its use. The old troubles of rubber floors—rising and creeping—are also overcome by this method of laying. The stair tread, nosing and riser, moulded and vulcanised into one piece, is obviously of use for all public buildings. There is no fear of slipping, the nosing cannot break away, and the whole forms an extremely strong stair covering that will withstand the hardest wear.

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On Stand No. 276 Q, F. Hills and Sons are exhibiting two new flush doors—the Aristocrat and the Trafford. The core of the former is built up of nine laminations, and the whole is fused together with bakelite under pressure. The veneers are later pressed on, and these are done to special requirements, owing to the high cost of the door. Owing to its construction and the special method of bonding with bakelite it is impossible for door to warp or twist, or show any ripples in the veneer.

The Trafford, which is also being shown for the first time, is a semi-solid flush door.

A full range of Clymax flush doors is also being shown.

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Imperial Chemical Industries have two stands at the Exhibition; one, No. 175 J, representing, jointly, Casebourne & Co. (1926), Ltd., I.C.I. (Lime), Ltd., I.C.I. Metals, Ltd., and I.C.I. (General Chemicals), Ltd., and the other (No. 176 J) showing the products of Nobel Chemical Finishes, Ltd. On Stand 175 J, the new Casebourne's Fine Aggregate Walling is shown for the first time. This consists of a coloured aggregate incorporated in a coloured binder, and it is shown in a variety of the effects obtainable by mixing various proportions of the aggregates with the binder. The doorways and wings of all the alcoves are built with the Pioneer partition block, a cellular anhydrite block with good heat- and sound-insulating properties. The use of "Pioneer" baseboard, a strong plaster baseboard of improved type, is also shown in various alcoves.

The non-ferrous metals exhibit is shown in a three-sided alcove, the back wall of which is covered with panels of plywood faced with copper, brass and cupro-nickel, illustrating the decorative uses of these materials. Copper tubes for domestic and gas services are shown, together with their appropriate fittings, and a practical illustration of the suitability of copper for roofing purposes is provided by the roof of the alcove. "Rexine" leathercloth for hangings and wall coverings is illustrated in various parts of the stand.

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The stand of Nobel Chemical Finishes, Ltd., 176 J, is painted in various shades of "Dulux," and shows the flat, eggshell and glossy finishes, whilst in addition, "Petrumite" Imitation Stone paint will be shown as applied to many parts of the stand. Actual exposure panels illustrating the relative durability of various finishes are shown, and working models demonstrate adhesion and flexibility tests.

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Joseph Sankey and Sons, Ltd. (D 46), have a display of metal trims, including pressed steel door frames, skirtings, window cills and window reveals. Their pressed steel flush and panelled doors are specially worth seeing. These steel doors are intended to be used with pressed steel frames fitted with rubber buffers and form a very silent combination. The doors are of the usual thicknesses of 1½ ins. to 2 ins., and are fitted with loose pin hinges and a special adjustment at the bottom to accommodate any floor covering from linoleum to the thickest carpet.

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Messrs. Pilkington Brothers have two stands, Nos. 44, row D, and 307, row T, the latter for the exclusive display of "Armourplate" and toughened glass. The toughened glass is available in a range of twelve tints, and is heat-resisting. It is about ⅛ in. thick, and can be supplied in the size 24 ins. by 18 ins.

Messrs. Pilkington's main stand shows "Insulight" glass bricks. The bricks are hollow and the internal space is a partial vacuum, thus giving insulation against sound, heat and cold. It is sealed with metal and the mortar bearing surfaces are coated with a special gritty material which ensures a high degree of bond between the mortar and the glass. The amount of light transmitted by the various patterns varies from 73.4 per cent. to 84 per cent., and owing to the surface variations this is exceptionally well diffused.

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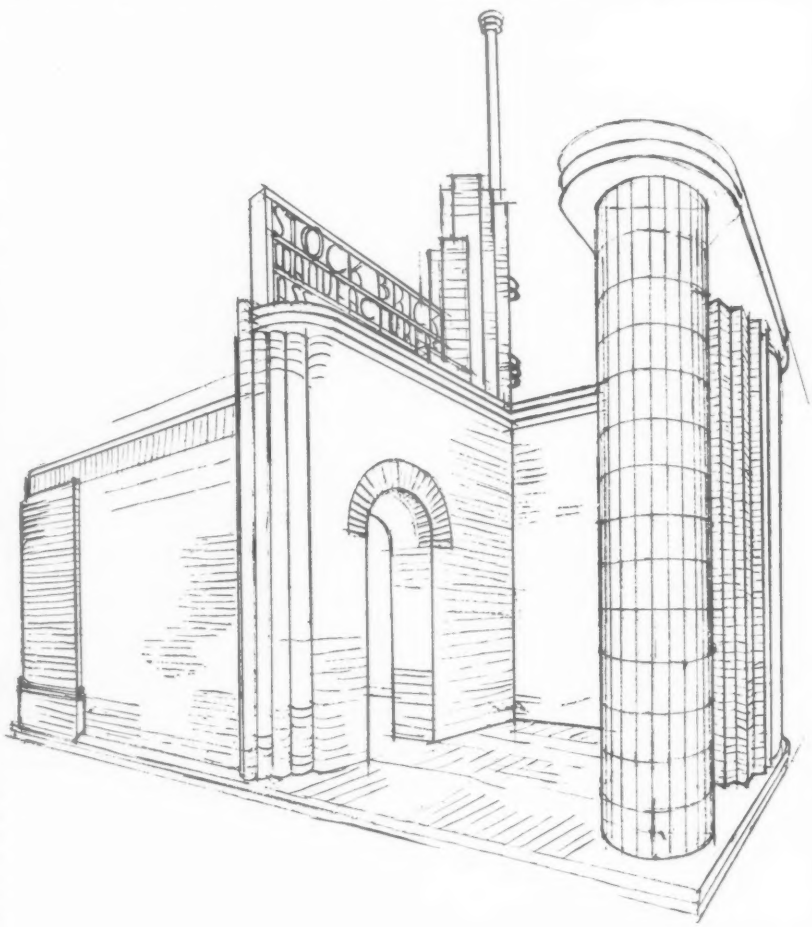
Messrs. C. F. Anderson and Son (189 K) supply information and samples concerning



most types of composition board for interior and exterior panelling, and sound and thermal insulation. Stocks of the undermentioned boards are always held by this firm: Asbestos; Celotex; Essex; Ensonit; Ensoflex; Gyproc; Insulite; Insulwood; Lloyd; Masonite; Paramount; Sundeala; Tentest; Thermotex.

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Messrs. G. R. Speaker & Co.'s stand is constructed with their "Eonit" patent pumice partition blocks, showing the best method of erection, and containing panels demonstrating the economical use of various types of plaster in one-coat work. The weight of a finished partition of 3 in. "Eonit" blocks plastered each side one coat is only approximately 12½ lbs. per sq. ft. Bulk samples are available for inspection in all thicknesses to show the various features.

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The stand of the Somerset Trading Co. shows panels of their roofing tiles, made from Bridgwater clay.

Machine-made tiles are the Nos. 13 and 15, together with the later pattern No. 4.

Hand-made tiles are the No. 11—Double Roman tiles, used a lot by the L.C.C. on their slum clearance schemes. Pantiles in various colours and textures, and two patterns of "over-and-under" tiles, namely, the "Abbey" and the "Broomhall."

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For the 1936 exhibition the British Gas Federation and the Gas Light and Coke Company are each taking stands. The Federation stand (No. 292 S) is devoted entirely to gas refrigeration; every model from the small 1s. 8d. a week one to the large hotel size, as well as the built-in style which appeal specially to builders, are shown on this stand.

The other, Gas Light and Coke Company stand (No. 286 R), deals with appliances generally. It has a special information bureau for builders with specialists in attendance. There is also a large range of the latest types of enamelled gas cooker.

•

The stand (No. 66-68 D) of Messrs. John Ellis and Son includes a number of exhibits of Barrafino, made up in different forms. This material has an exceedingly high finish which is retained after continued exposure to the weather. It is suitable for wall linings, shop fronts and fascia work, and is supplied in precast panels ¾ in. thick.

On the right-hand side of the office the whole of the space is devoted to a display of Emalux, which is a new wall finish giving a glass-hard surface at a comparatively small cost. The cost of this material is approximately half the cost of tiling, and it can be applied to any of the following surfaces: brickwork, cement rendering, plaster, steel and glass. Samples on the back wall give an indication of the type of colours and finishes that are available, but almost any tone of colour can be obtained by mixing the standard colours. This material is applied to the walls *in situ*, and the resulting surface is free from any joints.

On this portion of the stand are also a number of exhibits of Ellcem—a special cement which is used in connection with Emalux as an insulating coat where the latter is to be applied to plaster, metals, glass or wood.

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Smith's Fireproof Floors, Ltd., are exhibiting their concrete floor on Stand 117, row F. This floor employs a system of two-way reinforcement, which is claimed to withstand heavy point loads and resist surface and ceiling cracking. On a stand of two storeys examples are shown of the application of the floor to roof and balcony, as well as normal floor construction.

From the front, the central feature of the stand, which is built of reinforced concrete, is a dog-leg staircase leading to the first floor. Here opportunity is provided for the inspection of the unique system of steel telescopic centering, a special feature which increases the rate of floor construction without causing obstruction beneath.

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The main floor of the Canadian Section (Stand No. 171 J) is laid in birch, maple and Douglas fir prepared flooring, and examples are shown of decorative treatment of walls with Canadian curly birch. The main feature of the display is a roof truss built of Douglas fir with a span of approximately 40 ft. Displays of the following export timbers are also shown: white pine, western white pine, red pine, jack pine, sitka spruce, Canadian spruce, eastern hemlock, western hemlock, Douglas fir, western red cedar, aspen poplar, white (paper) birch, yellow birch, white elm, rock elm, sugar maple, basswood.

The Timber Commissioner for Eastern Canada also has a display of Eastern Canadian timbers, which have many uses, from railway coaches to dowels and toys; this exhibit demonstrates their adaptability for house building.

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An imposing stand, No. 269 Q, is shown by The Patent Impermeable Millboard Co., Ltd., the manufacturers of the building and insulating boards, Sundeala and Insulwood.

Insulwood is highly waterproofed, ½ in. thick, and is shown in various methods of practical application. The new design of grooving and overlaying board is demonstrated by the ceiling on view. Joints are hidden by V grooving.

Sundeala hardboards are also shown and the extra hard density of these products is useful where extra hard wear and tear is required.

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The stand of the Hemel Hempstead Patent Brick Co., Ltd. (No. 141 G), is held jointly with their associate company the Coronet Brick Co., Ltd.

They are exhibiting various types of Hempstead hollow clay partition blocks, which are fire-resisting and sound-proof, and into which nails and screws can be securely driven.

The exhibits of the Coronet Brick Co., Ltd., include their hand-made and machine-made facing bricks and roofing tiles in an extensive range of colours, chimney pots, ridges, finials, copings, quarries.

At the stand of the Limmer and Trinidad Lake Asphalt Co., Ltd. (No. 130 G), attention is drawn by a series of constructional models illustrating the latest principles in asphalt construction in relation both to the protection of asphalt surfaces and heat insulation.

The latest up-to-date diagrams and brochures are available—the main feature being a series of enlarged photographs with the origin, manufacture and application of the various materials and grades of Trinidad mastic asphalt.

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On Stand No. 37 C, the Cork Insulation Co., Ltd., are showing Eldorado cork tile flooring in a variety of designs in conjunction with coved skirting and cork tile dado work, cork tile staircase finishing, which is very extensively used for hospitals, offices, residences, flats, and compressed cork slab for insulation purposes.

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The Richard system of central heating is represented on Stand No. 310 T by two heating units and radiators of various sizes. The system, which operates from the ordinary gas supply, makes interesting departures from usual practice and numerous advantages are claimed for it. Probably its most distinctive feature is the small volume of water used, approximately one-sixth of the normal; less heat is required to raise the water to any given temperature, consequently running costs are low. The whole of the water is quickly heated, with the result that radiators are hot within 15 to 20 minutes. Thermostatic control is provided to maintain an even temperature at any desired level.

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A built-up exhibit of Nautilus economy gas flues shows (on Stand No. 291 S) how easily the concrete blocks bond in with brickwork and how they save space and simplify construction. The flexibility of the Nautilus system is of special interest for large blocks of flats; Nautilus flues provide satisfactory ventilation in rooms that would otherwise be flueless and, therefore, not properly ventilated, and they give a choice of heating media without incurring the cost of brick stacks and projecting chimney-breasts.

The domestic coke boiler and the Nautilus slow-combustion coke stove are displayed in a variety of enamelled finishes. The boiler is installed in a kitchen recess side by side with an enamelled New World gas cooker (Radiation, Ltd.) to match—an attractive labour-saving combination. Nearby is the usual exhibit of Davis geysers. The stand has been designed by Mr. Ian Jeffcott.

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As on previous occasions at this exhibition, the G.E.C. display (No. 61 D) covers a wide application of domestic electrical material. Certain novel features can be seen in the home series range of G.E.C. cookers, such as coloured finishes and a new development in 4-heat hotplate control, which solves the simmering problem. New and improved types of G.E.C. thermal storage water heaters, as well as convector air heaters, are also shown—and in view of the stricter enforcement this year of the regulations laid down in the new

Shop Act for the health of the shop workers, the electrical heaters referred to at once commend themselves as specially suitable for shops and offices, etc., where wall space is restricted.

A wide range of G.E.C. portable electric fires and inset fires, with appropriate surrounds, will also be staged. Considerable space is devoted to installation material of every kind, and a centre piece in this section is a working switchboard controlling the lighting and power load on the stand. The most modern methods of employing Osram architectural lamps for internal and external illumination, and the Cleora colour lighting, etc., are shown.

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The stand of the British Steelwork Association (No. 251 O) is primarily devoted to the demonstration of sheet steel units in building construction, such as steel window sub-frames, door frames, skirting boards, etc. A model of working-class flats is exhibited, the design of which is based upon the recommendations of the Council for Research on Housing Construction. It illustrates the systematic erection of prefabricated units, the dry building technique on a steel frame, and shows alternative exterior finishes.

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Last year Messrs. Honeywill and Stein had one stand; this year they have two stands (Nos. 281 and 282 R)—not altogether unlike last year's in appearance, linked at the top by an H. & S. symbol. The floors of these are raised a few inches from the ground. One stand is floored in 1 in. by 3 in. T. & G. Canadian birch, and the other in 1 in. by 3 in. select quartered white American oak strip flooring, while the Gypstele unit system of construction is used for the walls, and the Tri-seal system of suspended ceiling construction for the ceilings. The firm is exhibiting their well-known range of plasterboards, Dekoosto acoustic plaster and Heraklith insulating slabs.

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George M. Callender & Co., Ltd. (Stand No. 83 E) are showing their air-insulated flat roof covering—the latest development in flat roof insulation. The system consists of Veribest multiple roofing covered with open-jointed mobile cement slabs 1¼ in. thick, supported on Rezilia bituminous pads ¾ in. thick. The cavity thus formed between waterproofing and slabs facilitates rapid drainage of rainwater, and ensures maximum insulation against heat and noise; the aspect of the finished roof is particularly clean and agreeable, and always free from puddles. If necessary, the mobile slabs may be lifted at any time and at any spot, and the waterproofing medium examined without the slightest difficulty or loss of time. The end portion of the stand is arranged as a section of a flat roof showing the air-insulated covering and the method of finishing at parapet walls with patent skirting. A range of dampcourses, felts and insulating papers completes the exhibit.

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Messrs. Rely-a-Bell are showing on Stand No. 67, Gallery, a range of burglar alarms, embodying the several Rely-a-Bell patents, and collapsible window grilles for automatic prevention of "smash-and-grab" raids on shops, but also applicable to private house windows and general use.

As these window grilles work as easily and naturally as ordinary house blinds they can be fitted in any position, and whether for private house use or for shop windows, when not required in the protective position they can be right out of sight.

There is also a display of locks for doors and windows, particularly designed to meet insurance requirements, and amongst them there is one specially designed for wood and iron casement windows, the particular feature being that it locks automatically with the closing of the window, the key only being used for opening the window.

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The Venesta, Ltd., stand (No. 136 G) has been designed to show the practical use of plywood and Plymax, the metal-faced plywood, in the building industry. Ten large surfaces on the outside of the stand show various methods of fixing and finishing plywood panelling; on some of the panels wood has been cut away to show methods of fixing. All the woods in this section have been chosen as examples of interesting and light-reflecting wall surfaces. Other examples of decorative plywood are shown on a turntable, and a curved wall of Rio rosewood at one end of the stand demonstrates the use of bent plywood.

Ornamental Plymax is used on the upper parts of the stand. This material is also shown in use as a ceiling, cellulosed ivory white, a counter-top, a stanchion casing, a complete dressing cubicle, and, using lead, as a protector against X-rays. Australian walnut and European oak plywood, laid down in squares, have been used for the flooring.

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Dunbrik, Ltd. (Stand No. 295 S) have decided, in view of the limitations of the site, that their stand should be designed as a small court, approached through a complete ring of gauged brickwork designed upon eastern lines; the back screen with niche of purpose made Dunbrik illustrates the versatility of this product.

The paving bricks used on the floor of the stand show a few of the possibilities in this connection, the major portion of the paving being in standards with the name Dunbrik picked out in coloured facings.

Owing to the necessity of preserving, as far as possible, an harmonious ensemble, it has not been possible to build into the stand a complete range of colours, but these, together with the specimen specials, are separately shown. The stand has been designed by Messrs. C. W. Glover and Partners.

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The Concrete Vibration, Ltd., exhibit (Stand No. 68, Gallery) consists of pneumatic and electric vibrators with accessories; in the pneumatic vibrators, three sizes are shown with 30 mm., 45 mm., and 60 mm. pistons, the corresponding number of shocks ranging from 9,350 to 5,400 per minute.

There are also various accessories for use with pneumatic vibrators.

Electric vibrators are on view in eight sizes, ranging from 40 watts to 800 watts, giving 6,000 shocks per minute, with the necessary transformers. The electric vibrators work at a pressure of 37 volts to ensure safety to the employees. Various clamps suitable for the vibrators are also shown and amongst other appliances a Vibropil (small type) as used for surface vibration.

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A representative selection of sanitary fittings by Messrs. Doulton & Co., Ltd., is exhibited on Stand No. 248O, together with a variety of stoneware drainage and sewerage appliances. Undoubtedly the demand for coloured bathrooms is increasing, and Messrs. Doulton have a wide range of colours to offer. Amber is the colour chosen to demonstrate the quality and finish of their products, and a complete bathroom in this colour is shown.

Also of interest is a white bathroom incorporating the Universal bath. Hitherto it has been necessary to produce different baths to suit exposed, corner or recessed positions. To remedy this, the "Universal" is designed with a continuous raised flat rim all round the top edge. This rim will take tiling and also serves to enhance the appearance of the bath when installed. A modern Compact w.c. suite and a pedestal lavatory complete this inexpensive and serviceable bathroom.

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The Marley Tile (Holding) Co., Ltd., are showing on Stand No. 88 E a replica of a Kentish coast house, showing the cross-cambered tiles, which have proved such a success. Also introducing Cubana, Ludlow, Mendip, Roman and Pantiles. A full range of colours is shown.

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The stand (No. 268 Q) of Ascot Gas Water Heaters, Ltd., is the result of a competition and was won by Mr. Rodney Thomas, A.R.I.B.A. The stand will contain working models of all the Ascot types displayed to harmonize with the general design, with technical displays to illustrate in the clearest manner the working of the system.

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Four city companies have offered prizes for finished work shown at the Exhibition by students of the technical schools. The prizes and their donors are as follows :—

The Worshipful Company of Tylers and Bricklayers—£5 5s. for the best piece of finished brickwork; also diplomas.

The Worshipful Company of Masons—£5 5s. and a silver medal for the best finished work in connection with Masonry.

The Worshipful Company of Pewterers—£20 for the best exhibits of plumbing, and £5 for the best work exhibited by a competitor from the Army Vocational Training Centre, Aldershot.

The Worshipful Company of Painters—£5 5s. for the best work in graining and marbling.

The promoters of the Building Exhibition —Four prizes to the value of £5 each.

Judging will take place on Saturday, September 18, at 2.30 p.m.

THE BUILDINGS ILLUSTRATED

CLAREVILLE COURT, KENSINGTON, W. (pages 367-370). The general contractors were Sir Lindsay Parkinson & Co., Ltd. The principal sub-contractors and suppliers included :—Goodman Price, Ltd., demolition; Willment Bros., excavation; Furness Shipbuilding Co., constructional steelwork ; Attoc Blocks, Ltd., structural floors; Ellis (Kensington), Ltd., plumbing and drainage; Crittall Manufacturing Co., Ltd., steel windows; Bennie Lifts, Ltd., lifts; Bickley Co., Ltd., squash courts; George Jennings (Lambeth), Ltd., faience ware and sanitary goods; W. T. Wright & Co., Ltd., facing bricks; Richard Crittall & Co., Ltd., heating; Shapland and Petter, Ltd., joinery; Peerless Kitchen Cabinets, Ltd., kitchen equipment; Electrolux, Ltd., refrigerators; Pemberton and Sturgess (Gt. Britain), Ltd., electric wiring; Brompton and Kensington Electricity Supply Co., Ltd., electric fires; Cashmore Art Workers, Ltd., ironwork and metal doors; Taylor Pearse & Co., door furniture; Fenning & Co., Ltd., marble; C. A. and A. W. Haward, Ltd., iron stairs; Lustray Products, light fittings; C. and T. Painters, Ltd., paintwork.

HOUSE AT HOLMBURY ST. MARY. We regret that the name of Joseph Freeman, Sons & Co., Ltd., was omitted from the list of contractors in last week's issue. They supplied the "Cementone" used for the exterior cement rendering and for the internal plaster and finishing to woodwork.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICT (15 miles radius)

TEDDINGTON. *Flats.* Sanction is being sought by Mr. Dudley G. Marsh for permission to erect 48 flats in three blocks on the site of "Bucklands" and the rear of "Broom Warren," Broom Road, and to lay out the remainder of the "Bucklands" site as a private sports ground at Teddington.

EASTERN COUNTIES

NORFOLK. *Extensions.* The Board of Education has approved plans by the Norfolk Education Committee for extensions, alterations and improvements at East Dereham High School.

NORFOLK. Norfolk Education Committee has arranged that this year's work shall proceed in the following order : Hellesdon Central School, Thorpe St. Andrew Central School, Sprowston Central School, Fakenham Secondary School, East Dereham High School, Old Buckenham Area School, Upwell Central School, Thetford Boys' Grammar School and Diss Secondary School.

SOUTHEND. *Alterations and Additions.* Southend Corporation has accepted the tender of Messrs, I. Atkinson and Son, £3,698 10s. 3d., for alterations and additions at Rochford House.

SUFFOLK. East Suffolk Education Committee has acquired land in Castle Lane, Beccles, for the erection of a school.

SUFFOLK. Mr. E. W. Chaplin is to develop an estate at Bradwell, East Suffolk.

SUFFOLK. Messrs. E. G. Clarke and Son are to erect a granary at Framlingham.

SUFFOLK. Plans passed at Shotley for a telephone exchange, for H.M. Office of Works.

SOUTHERN COUNTIES

EASTBOURNE. *Milk Bottling Depot.* The Minister of Health has allowed the appeal by Messrs. C. F. Simmons and Sons, Ltd., against the refusal of the Eastbourne Corporation to grant permission for the erection of a milk bottling depot in Waterworks Road, and has granted permission for the erection of the depot subject to the approval of plans by the Council.

EASTBOURNE. *Houses.* The Albemarle Estate Company proposes to purchase land at Highfield Estate, Eastbourne, and erect Dyke construction houses for the working classes.

EASTBOURNE. *Houses.* Eastbourne Corporation is seeking sanction to borrow £14,890 for the erection of 34 houses in Lottbridge Drive.

EASTBOURNE. *Additions.* Eastbourne Corporation is seeking sanction to borrow £1,800 for the construction of two additional classrooms at Hampden Park Council School.

FOLKESTONE. Kent Education Committee is acquiring premises for extensions at the Folkestone County School for Girls.

KENT. *Elementary School.* Kent Education Committee is to acquire an elementary school site at Riverhead.

KENT. *Central School.* Kent Education Committee has purchased a site at Otford for the erection of a central school.

KENT. *Swimming Bath.* Kent Education Committee is to construct a swimming bath at the boys' county school, Gravesend, at a cost of £2,000.

KENT. *Infants' School.* Kent Education Committee is to erect a semi-permanent infants' school in Elmstead Lane, Mottingham.

KENT. *Elementary School.* Kent Education Committee has acquired a site near Glenhurst Road, Bexley Village, for the erection of an elementary school.

NEWPORT (I. OF W.). *Houses, etc.* Plans passed by Newport (I. of W.) Corporation :—House, Fairlee Road, for Mr. F. Chiverton; bungalow, East Cowes Road, for Mr. S. W. Wendes; bungalow, Cowes Road, for Mr. G. W. F. Eves; bungalow, Cowes Road, for Mr. G. R. Mullin; bungalow, Medina Avenue, for Mr. W. C. Smith; bungalow, Noke Common, for Mr. W. B. Sprake; house, Nodgham Lane, for Messrs. Stratton and Millgate; two houses, College Road, for Mr. F. A. Drayton; two houses, Cross Lane, for Mr. F. A. Kennedy; house, Wootton New Road, for Mr. J. R. Southin; house, Staplers Hill estate, for Mr. H. G. Gear; house, Palmers Road, for Mr. W. L. Gibbs.

PORTSMOUTH. Portsmouth Corporation has acquired a site in Wymering Lane for the erection of an elementary school.

PORTSMOUTH. Plans passed by Portsmouth Corporation : Warehouse, Goldsmith Avenue, Messrs. Elder and Fyffes; church and class rooms, Tangier Road, Trustees, Copnor Baptist Tabernacle; shops, Commercial Road, Messrs. John Lay & Co.; workshop, Victoria Road North, Portsmouth Association for Deaf and Dumb; extension of showrooms, London Road, Mr. A. A. Jacobs; three bungalows, South Road, Drayton, Messrs. Cortis and Hankins; additions and alterations, Meadow Street and Commercial Road, Messrs. Marks and Spencer; office buildings, Kings Terrace, Messrs. Bailey and White, Ltd.; 34 houses, Court Lane, Mr. J. C, Nicholls; ten bungalows, Lower Farlington Road, Messrs. Brown and Fuller; additions, St. Mary's Convent, Commercial Road, Messrs. Marchetti, Ltd.; additions to factory, Nancy Road, Messrs. John Palmer, Ltd.; vicarage and church hall, St. Phillip's Church, Hawthorn Crescent, Portsmouth Diocesan Board; 16 houses, Court Lane, Cosham, Mr. P. Freer; 19 flats, Clarendon Road, Southsea, Mr. S. Samuels; 14 bungalows, Pamela Avenue, Paulsgrove, Messrs. MacDermott Bros.; two flats, Cedar Grove, Copnor, Mr. V. Dye.

PORTSMOUTH. Portsmouth Corporation recommends the tender of Messrs. Jno. Croad, Ltd., £8,854, for the reconstruction of the Camber Shipyard.

PORTSMOUTH. Mr. R. A. Thomas, architect, is to develop the site of the Norfolk Nurseries, Havant Road, Portsmouth, by the erection of four business premises and a block of 15 flats.

MIDLAND COUNTIES

DERBYSHIRE. Ossett Education Committee has acquired land off Station Road, for the erection of a senior school.

DERBYSHIRE. *Small Holdings.* Derbyshire C.C. has purchased a farm near Bolsover for £10,455 for the provision of small holdings.

NOTTINGHAM. *Elementary Schools.* Nottingham Education Committee is to erect elementary schools in the Bilborough area at a cost of £73,078.

SHROPSHIRE. *Extensions.* Shropshire Education Committee has approved plans for alterations and extensions at Market Drayton grammar school.

SHROPSHIRE. *Alterations.* Shropshire Education Committee is to prepare plans for improvements at Newport Girls' High School.

NORTHERN COUNTIES

BLACKPOOL. *Bus Garage.* Blackpool Corporation Transport Committee has acquired property in connection with the erection of the proposed bus garage at Talbot Road.

BLACKPOOL. *Gas Works.* Blackpool Corporation has arranged for the members of the Highways Committee to inspect the present site for the proposed gas works and also the suggested alternative site at Great Marton, Moss Side.

BOOTLE. Plans passed by Bootle Corporation : Presbytery at St. Robert Bellarmine's Church, Orrell, Rev. R. Coupe; five shops and one store at rear corner of Orrell Road and Harris Drive, Willerbrook Estates, Ltd.; alterations at Newall's Wire Works, Linacre Lane, Messrs. Vernon & Co.; transport depot in Regent Road, Messrs. Garlick, Burrell and Edwards; church at corner of Fernhill Road and Earl Road, Rev. J. Foley.

CARLISLE. *Houses.* Carlisle Corporation has passed an estate plan from Mr. E. J. Hill for the erection of houses on the Croft Estate, Warwick Road, Botcherby.

ECCLES, *Houses, etc.* Plans passed by Eccles Corporation :—Six houses, Trafford Road, Mr. J. W. France; 16 houses, Gee Lane, William Estates, Ltd.; garage and store, Albert Street, Messrs. L. Brittain, Ltd.

SCARBOROUGH. *Court House, etc.* At Scarborough Watch Committee the chairman reported in regard to the question of reconstructing the present Court House and police buildings, and it was agreed to confer with the managers of St. Mary's Church of England schools, with regard to the proposed acquisition of such schools as may be required, in connection with the suggested reconstruction of such Court House and police buildings.

SCARBOROUGH. *Houses, etc.* Plans passed by Scarborough Corporation : Factory, Seamer Road, Messrs. Jones and Rickaby; two houses, Filey Road, Messrs. Marsden, Builders, Ltd.; two houses, Scalby Road, Mr. F. Baker; two houses, Scalby Road, Messrs. Watson and Ritson; two houses, Scardale Crescent, Messrs. J. Petch and Son; two houses, Harley Street, Mr. C. J. Wilson; 24 flats, King Street, Messrs. Catlins Arcadia, Ltd.

SCARBOROUGH. *Telephone Exchange.* Scarborough Corporation has sold to H.M. Office of Works, land adjoining Northway, for a new telephone exchange.

SHEFFIELD. *Development.* Messrs. Fowler and Marshall are to develop the Bowstead estate, Handsworth Road, Sheffield.

STALYBRIDGE. *Open-air School.* Stalybridge Education Committee is considering the provision of an open-air school, and is to inspect such a school at Stretford.

STALYBRIDGE. *Houses, etc.* Plans passed by Stalybridge Corporation :— Alterations, Highfield House, for Stamford Park Joint Committee; sub-station, Wood End Lane, for Electricity Board; two houses, Spring Bank, for Miss A. Mellor.

RATES OF WAGES

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

			I s. d.	II s. d.
A_1	ABERDARE ...	S. Wales & M.	1 5½	1 1½
A	Aberdeen ...	Scotland	1 6½	1 2
A_1	Abergavenny ...	S. Wales & M.	1 6	1 1½
A_2	Abingdon ...	S. Counties	1 5	1 0½
A	Accrington ...	N.W. Counties	1 6½	1 2
A_2	Addlestone ...	S. Counties	1 5	1 0½
A	Adlington ...	N.W. Counties	1 6½	1 2
A	Airdrie ...	Scotland	*1 6½	1 2
C	Aldeburgh ...	E. Counties	1 2½	11
A	Altrincham ...	N.W. Counties	1 6½	1 2
B_2	Appleby ...	N.W. Counties	1 3	11½
A	Ashton-under-Lyne	N.W. Counties	1 6½	1 2
B_1	Aylesbury ...	S. Counties	1 4	1 0
B_1	BANBURY ...	S. Counties	1 4	1 0
B_1	Bangor ...	N.W. Counties	1 4	1 0
A_2	Barnard Castle	N.E. Coast	1 5	1 0½
A	Barnsley ...	Yorkshire	1 6½	1 2
B	Barnstaple ...	S.W. Counties	1 4½	1 0½
A	Barrow ...	N.W. Counties	1 6½	1 2
A	Barry	S. Wales & M.	1 6½	1 2
B_1	Basingstoke ...	S.W. Counties	1 4	1 0
A_2	Bath	S.W. Counties	1 5½	1 1½
A	Batley ...	Yorkshire	1 6½	1 2
A_2	Bedford ...	E. Counties	1 5½	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 5½	1 1½
A_2	Bewdley ...	Mid. Counties	1 5½	1 1½
P_2	Bicester ...	S. Counties	1 3	11½
	Birkenhead ...	N.W. Counties	*1 7½	1 2½
A	Birmingham ...	Mid. Counties	1 6	1 2
A_1	Bishop Auckland	N.E. Coast	1 6	1 1½
A	Blackburn ...	N.W. Counties	1 6½	1 2
A	Blackpool ...	N.W. Counties	1 6½	1 2
A	Blyth	N.E. Coast	1 6½	1 2
B_1	Bognor ...	S. Counties	1 4	1 0
A	Bolton ...	N.W. Counties	1 6½	1 2
A_2	Boston ...	Mid. Counties	1 5	1 0½
A_2	Bournemouth...	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 3½	11½
A	Bradford ...	Yorkshire	1 6½	1 2
A_1	Brentwood ...	E. Counties	1 6	1 1½
A	Bridgend ...	S. Wales & M.	1 6½	1 2
B	Bridgwater ...	S.W. Counties	1 4½	1 0½
A_1	Bridlington ...	Yorkshire	1 6	1 1½
A	Brighouse ...	Yorkshire	1 6½	1 2
A_2	Brighton ...	S. Counties	1 5½	1 1½
A	Bristol ...	S.W. Counties	1 6½	1 2
B	Brixham ...	S.W. Counties	1 3½	11½
A	Bromsgrove ...	Mid. Counties	1 5½	1 1½
B	Bromyard ...	Mid. Counties	1 3	11½
A	Burnley ...	N.W. Counties	1 6½	1 2
A	Burslem ...	Mid. Counties	1 6½	1 2
A	Burton-on-Trent	Mid. Counties	1 6½	1 2
A	Bury	N.W. Counties	1 6½	1 2
A	Buxton ...	N.W. Counties	1 6	1 1½
A_1	CAMBRIDGE	E. Counties	1 6	1 1½
B_1	Canterbury ...	S. Counties	1 4	1 0
A	Cardiff ...	S. Wales & M.	1 6½	1 2
A	Carlisle ...	N.W. Counties	1 6½	1 2
B	Carmarthen ...	S. Wales & M.	1 4½	1 0½
B	Carnarvon ...	N.W. Counties	1 4½	1 0½
A	Carnforth ...	N.W. Counties	1 6½	1 2
A	Castleford ...	Yorkshire	1 6½	1 2
A_2	Chatham ...	S. Counties	1 5	1 0½
A	Chelmsford ...	E. Counties	1 5	1 0½
A	Cheltenham ...	S.W. Counties	1 5	1 0½
A	Chester ...	N.W. Counties	1 6½	1 2
A	Chesterfield ...	Mid. Counties	1 6½	1 2
B_1	Chichester ...	S. Counties	1 4	1 0
A	Chorley ...	N.W. Counties	1 6½	1 2
B_1	Cirencester ...	S. Counties	1 4	1 0
A	Clitheroe ...	N.W. Counties	1 6½	1 2
A	Clydebank ...	Scotland	1 6½	1 2
A	Coalville ...	Mid. Counties	1 6½	1 2
A_2	Colchester ...	E. Counties	1 5½	1 1½
A	Colne	N.W. Counties	1 6	1 1½
A_2	Colwyn Bay ...	N.W. Counties	1 5½	1 1½
A_1	Consett ...	N.E. Coast	1 6	1 1½
A_2	Conway ...	N.W. Counties	1 5½	1 1½
A	Coventry ...	Mid. Counties	1 6½	1 2
A_2	Crewe	N.W. Counties	1 5½	1 1½
A	Cumberland ...	N.W. Counties	1 5	1 0½
A	DARLINGTON	N.E. Coast	1 6½	1 2
A	Darwen ...	N.W. Counties	1 6½	1 2
B	Deal	S. Counties	1 4	1 0
A_2	Denbigh ...	N.W. Counties	1 5	1 0½
A	Derby	Mid. Counties	1 6½	1 2
A	Dewsbury ...	Yorkshire	1 6½	1 2
B	Didcot ...	S. Counties	1 4½	1 0½
A	Doncaster ...	Yorkshire	1 6½	1 2
B_1	Dorchester ...	S.W. Counties	1 4	1 0
A	Driffield ...	Yorkshire	1 5	1 0½
A_2	Droitwich ...	Mid. Counties	1 5½	1 1½
A	Dudley ...	Mid. Counties	1 6½	1 2
A_2	Dumfries ...	Scotland	1 6	1 1½
A	Dundee ...	Scotland	1 6½	1 2
A	Durham ...	N.E. Coast	1 6½	1 2
A_2	EASTBOURNE ...	S. Counties	1 5½	1 1½
A_1	Ebbw Vale ...	S. Wales & M.	1 6	1 1½
A	Edinburgh ...	Scotland	1 6½	1 2
A_2	Exeter ...	S.W. Counties	*1 5½	1 1½
B	Exmouth ...	S.W. Counties	1 4½	1 0½
A_2	FELIXSTOWE	E. Counties	1 5	1 0½
A	Filey	Yorkshire	1 5	1 0½
A	Fleetwood ...	N.W. Counties	1 6½	1 2
B_1	Folkestone ...	S. Counties	1 4	1 0
A	Frodsham ...	N.W. Counties	1 6½	1 2
B_2	Frome ...	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 6½	1 2
B	Gillingham ...	S. Counties	1 4½	1 0½
A_1	Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1 6	1 1½
A	Glasgow ...	Scotland	1 7	1 2½
A_2	Gloucester ...	S.W. Counties	1 5½	1 1½
A_2	Goole ...	Yorkshire	1 5½	1 1½
A_2	Gosport ...	S. Counties	1 5½	1 1½
A_2	Grantham ...	Mid. Counties	1 5	1 0½
A_2	Gravesend ...	S. Counties	1 6	1 1½
A_1	Greenock ...	Scotland	*1 6½	1 2
A	Grimsby ...	Mid. Counties	1 6½	1 2
B	Guildford ...	S. Counties	1 4½	1 0½
A	HALIFAX ...	Yorkshire	1 6½	1 2
A	Hanley ...	Mid. Counties	1 6½	1 2
A	Harrogate ...	Yorkshire	1 6½	1 2
A	Hartlepools ...	N.E. Coast	1 6½	1 2
B	Harwich ...	E. Counties	1 4½	1 0½
B_1	Hastings ...	S. Counties	1 4	1 0
A_2	Hatfield ...	S. Counties	1 5½	1 1½
B	Hereford ...	S.W. Counties	1 4½	1 0½
A_2	Hertford ...	E. Counties	1 5½	1 1½
A	Heysham ...	N.W. Counties	1 6½	1 2
A	Howden ...	N.E. Coast	1 6½	1 2
A	Huddersfield ...	Yorkshire	1 6½	1 2
A	Hull	Yorkshire	1 6½	1 2
A	ILKLEY ...	Yorkshire	1 6½	1 2
A	Immingham ...	Mid. Counties	1 6½	1 2
A_2	Ipswich ...	E. Counties	1 5½	1 1½
B_2	Isle of Wight ...	S. Counties	1 4½	1 0½
A	JARROW ...	N.E. Coast	1 6½	1 2
A	KEIGHLEY ...	Yorkshire	1 6½	1 2
A_2	Kendal ...	N.W. Counties	1 5	1 0½
A_2	Keswick ...	N.W. Counties	1 5	1 0½
A_1	Kettering ...	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 5½	1 1½
B_1	King's Lynn ...	E. Counties	1 4	1 0
A	LANCASTER ...	N.W. Counties	1 6½	1 2
A_1	Leamington ...	Mid. Counties	1 6	1 1½
A	Leeds	Yorkshire	1 6½	1 2
A	Leek	Mid. Counties	1 6½	1 2
A	Leicester ...	Mid. Counties	1 6½	1 2
A	Leigh	N.W. Counties	1 6½	1 2
B	Lewes	S. Counties	1 3	11½
A_2	Lichfield ...	Mid. Counties	1 5½	1 1½
A	Lincoln ...	Mid. Counties	1 6½	1 2
	Liverpool ...	N.W. Counties	*1 8	1 3
A_2	Llandudno ...	N.W. Counties	1 5½	1 1½
A	Llanelly ...	S. Wales & M.	1 6½	1 2
	London (12-miles radius)		1 8	1 3
	Do. (12-15 miles radius)		1 7½	1 2½
A	Long Eaton ...	Mid. Counties	1 6½	1 2
A	Loughborough	Mid. Counties	1 6½	1 2
A_1	Luton	E. Counties	1 6	1 1½
A	Lytham ...	N.W. Counties	1 6½	1 2
A_1	MACCLESFIELD	N.W. Counties	1 6	1 1½
A_2	Maidstone ...	S. Counties	1 5	1 0½
A_2	Malvern ...	Mid. Counties	1 5	1 0½
A	Manchester ...	N.W. Counties	1 6½	1 2
A	Mansfield ...	Mid. Counties	1 6½	1 2
B_1	Margate ...	S. Counties	1 4	1 0
A	Matlock ...	Mid. Counties	1 5	1 0½
A_1	Merthyr ...	S. Wales & M.	1 6	1 1½
A	Middlesbrough	N.E. Coast	1 6½	1 2
A_2	Middlewich ...	N.W. Counties	1 5½	1 1½
B_2	Minehead ...	S.W. Counties	1 3½	11½
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 3½	11½
A	Morecambe ...	N.W. Counties	1 6½	1 2
A_2	NANTWICH ...	N.W. Counties	1 5½	1 1½
A	Neath	S. Wales & M.	1 6½	1 2
A	Nelson ...	N.W. Counties	1 6½	1 2
A	Newcastle ...	N.E. Coast	1 6½	1 2
A	Newport ...	S. Wales & M.	1 6½	1 2
A	Normanton ...	Yorkshire	1 6½	1 2
A	Northampton...	Mid. Counties	1 6½	1 2
A	North Shields...	N.E. Coast	1 6½	1 2
A	North Staffs ...	Mid. Counties	1 6½	1 2
A_1	Norwich ...	E. Counties	1 6	1 1½
A	Nottingham ...	Mid. Counties	1 6½	1 2
A	Nuneaton ...	Mid. Counties	1 6½	1 2
A	OAKHAM ...	Mid. Counties	1 5	1 0½
A	Oldham ...	N.W. Counties	1 6½	1 2
A_2	Oswestry ...	N.W. Counties	1 5	1 0½
A_1	Oxford ...	S. Counties	1 6	1 1½
A	PAISLEY ...	Scotland	*1 6½	1 2
B_2	Pembroke ...	S. Wales & M.	1 3	11½
A	Perth	Scotland	*1 6½	1 2
A_1	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ...	S.W. Counties	*1 6½	1 2
A	Pontefract ...	Yorkshire	1 6½	1 2
A_1	Pontypridd ...	S. Wales & M.	1 6	1 1½
A_2	Portsmouth ...	S. Counties	1 5½	1 1½
A	Preston ...	N.W. Counties	1 6½	1 2
A	QUEENSFERRY	N.W. Counties	1 6½	1 2
A_2	READING ...	S. Counties	1 5½	1 1½
B	Reigate ...	S. Counties	1 4½	1 0½
A	Retford ...	Mid. Counties	1 5	1 0½
A_1	Rhondda Valley	S. Wales & M.	1 6	1 1½
A	Ripon	Yorkshire	1 5	1 0½
A	Rochdale ...	N.W. Counties	1 6½	1 2
B	Rochester ...	S. Counties	1 4½	1 0½
A_1	Ruabon ...	N.W. Counties	1 6	1 1½
A	Rugby ...	Mid. Counties	1 6½	1 2
A_2	Rugeley ...	Mid. Counties	1 5½	1 1½
A	Runcorn ...	N.W. Counties	1 6½	1 2
A_1	ST. ALBANS ...	E. Counties	1 6	1 1½
A	St. Helens ...	N.W. Counties	1 6½	1 2
B_2	Salisbury ...	S.W. Counties	1 3½	11½
A_1	Scarborough ...	Yorkshire	1 6	1 1½
A	Scunthorpe ...	Mid. Counties	1 6½	1 2
A	Sheffield ...	Yorkshire	1 6½	1 2
A	Shipley ...	Yorkshire	1 6½	1 2
A_2	Shrewsbury ...	Mid. Counties	1 5½	1 1½
A_2	Skipton ...	Yorkshire	1 5½	1 1½
A_2	Slough ...	S. Counties	1 5½	1 1½
A_1	Solihull ...	Mid. Counties	1 6	1 1½
A_2	Southampton ...	S. Counties	1 5½	1 1½
A_1	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ...	N.W. Counties	1 6½	1 2
A	S. Shields ...	N.E. Coast	1 6½	1 2
A_1	Stafford ...	Mid. Counties	1 6	1 1½
A	Stirling ...	Scotland	1 7	1 2½
A	Stockport ...	N.W. Counties	1 6½	1 2
A	Stockton-on-Tees	N.E. Coast	1 6½	1 2
A	Stoke-on-Trent	Mid. Counties	1 6½	1 2
B	Stroud ...	S.W. Counties	1 4½	1 0½
A	Sunderland ...	N.E. Coast	1 5½	1 2
A	Swansea ...	S. Wales & M.	1 6½	1 2
A	Swindon ...	S.W. Counties	1 5	1 0½
A_1	TAMWORTH ...	N.W. Counties	1 6	1 1½
B	Taunton ...	S.W. Counties	1 4½	1 0½
A	Teesside Dist....	N.E. Counties	1 6½	1 2
A_2	Teignmouth ...	S.W. Coast	1 5½	1 1½
A	Todmorden ...	Yorkshire	1 6½	1 2
A_1	Torquay ...	S.W. Counties	1 6	1 1½
B_2	Truro	S.W. Counties	1 3½	11½
A_2	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ...	Mid. Counties	1 6½	1 2
A	Tyne District	N.E. Coast	1 6½	1 2
A	WAKEFIELD	Yorkshire	1 6½	1 2
A	Walsall ...	Mid. Counties	1 6½	1 2
A	Warrington ...	N.W. Counties	1 6½	1 2
A_1	Warwick ...	Mid. Counties	1 6	1 1½
A_1	Wellingborough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 6½	1 2
A_2	Weston-s.-Mare	W. Counties	1 5½	1 1½
A_2	Whitby ...	Yorkshire	1 5½	1 1½
A	Widnes ...	N.W. Counties	1 6½	1 2
A	Wigan ...	N.W. Counties	1 6½	1 2
B	Winchester ...	S. Counties	1 4½	1 0½
A_2	Windsor ...	S. Counties	1 5½	1 0½
A	Wolverhampton	Mid. Counties	1 6½	1 2
A_2	Worcester ...	Mid. Counties	1 5½	1 1½
A_2	Worksop ...	Yorkshire	1 5	1 0½
A_1	Wrexham ...	N.W. Counties	1 6	1 1½
A	Wycombe ...	S. Counties	1 5	1 0½
B	YARMOUTH ...	E. Counties	1 4½	1 0½
B	Yeovil ...	S.W. Counties	1 4½	1 0½
A	York	Yorkshire	1 6½	1 2

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

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

CURRENT PRICES

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

WAGES

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

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	"	1	16	6
Hydrated Lime	"	3	0	9
Portland Cement, in 4-ton lots (d/d site, including Paper Bags)	"	1	19	0
Rapid Hardening Cement, in 4-ton lots (d/d site, including Paper Bags)	"	2	5	0
White Portland Cement, in 1-ton lots	"	8	15	0
Thames Ballast	per Y.C.		6	6
¾" Crushed Ballast	"		7	0
Building Sand	"		7	6
Washed Sand	"		8	6
2" Broken Brick	"		8	0
¾" " "	"		10	3
Pan Breeze	"		6	6
Coke Breeze	"		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

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

BRICKLAYER

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

MASON

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

SLATER AND TILER

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

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

CARPENTER AND JOINER

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

Plywood, per ft. sup.

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

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings

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

		¼"	⅜"	½"	¾"	1"
Tubes, 2'–14' long	per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"–23" long	each	10	1/1	1/11	2/8	4/9
" 3"–11½" long	"	7	9	1/3	1/8	3/–
Long screws, 12"–23½" long	"	11	1/3	2/2	2/10	5/3
" " 3" M–½" long	"	8	10	1/5	1/11	3/6
Bends	"	8	11	1/7½	2/7½	5/2
Springs not socketed	"	5	7	1/1½	1/11½	3/11
Socket unions	"	2/–	3/–	5/6	6/9	10/–
Elbows, square	"	10	1/1	1/6	2/2	4/3
Tees	"	1/–	1/3	1/10	2/6	5/1
Crosses	"	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	"	3	4	6	8	1/3
Diminished sockets	"	4	6	9	1/–	2/–
Flanges	"	9	1/–	1/4	1/9	2/9
Caps	"	3½	5	8	1/–	2/–
Backnuts	"	2	3	5	6	1/1
Iron main cocks	"	1/6	2/3	4/2	5/4	11/6
" with brass plugs	"	—	4/–	7/6	10/–	21/–

Discounts	Per cent.		Per cent.
TUBES.			
Gas	65	Galvanized gas	52½
Water	61½	" water	47½
Steam	57½	" steam	42½
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	" water	42½
Steam	47½	" steam	37½

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

SMITH AND FOUNDER—*continued*

		s.	d.
Mild steel reinforcing rods, ¾"	cwt.	9	6
" " ⅝"	"	9	6
" " 1"	"	9	6
" " 1¼"	"	9	6
" " 1½"	"	9	6
" " ¾"	"	4	6

		s.	d.	s.	d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		8		10
Shoes	each	2	0	3	0
Anti-splash shoes	"	4	6	8	0
Boots	"	3	0	4	0
Bends	"	2	7	3	9
" with access door	"		—	6	3
Heads	"	4	0	5	0
Swan-necks up to 9" offsets	"	3	9	6	0
Plinth bends, 4½" to 6"	"	3	9	5	3
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		6
Angles	"	1	7	1	11
Obtuse angles	"	2	0	2	6
Outlets	"	1	9	2	3

PLUMBER

		s.	d.
Lead, milled sheets	cwt.	24	6
" drawn pipes	"	24	6
" soil pipe	"	30	0
" scrap	"	16	0
Solder, plumbers'	lb.		9½
" fine do.	"	1	0
Copper, sheet	"		8½
" tubes	"		11

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

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	5	0
Plaster, Coarse	"	2	10	0
" fine	"	4	15	0
Hydrated lime	"	3	0	9
Sirapite	"	3	6	0
Keene's cement	"	5	0	0
Gothite Plaster	"	3	6	0
Pioneer Plaster	"	3	6	0
Thistle plaster	"	3	6	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
" rent	"		3	9
Lath nails	lb.			3

GLAZIER

		s.	d.	s.	d.
Sheet glass, 21 oz., squares n/e 2 ft.	s. F.S.				2½
" " 26 oz. " "	"				3
Flemish, Arctic, Figures (white)*	"				7
Blazoned glasses	"			2	6
Reeded: Cross Reeded	"				11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite	"				6
Crown sheet glass (n/e 12" × 10")	"			2	0
Flashed opals (white and coloured)	"	1	0 and	2	0
¼" rough cast; rolled plate	"				5½
¼" wired cast; wired rolled	"				9½
¼" Georgian wired cast	"				11
¼" Polished plate, n/e 1 ft.	"		†10 to	‡1	1
" " 2	"	†1	2 "	‡1	4
" " 4	"	†2	3 "	‡2	6
" " 8	"	†2	9 "	‡3	2
" " 20	"	†3	1 "	‡3	9
" " 45	"	†3	3 "	‡4	0
" " 100	"	†4	0 "	‡4	10
Vita glass, sheet, n/e 1 ft.	"			1	0
" " " 2 ft.	"			1	3
" " " over 2 ft.	"			1	9
" " plate, n/e 1 ft.	"			1	6
" " " 2 ft.	"			3	0
" " " 5 ft.	"			4	0
" " " 7 ft.	"			5	0
" " " 15 ft.	"			6	0
" " " over 15 ft.	"			7	6
"Calorex" sheet 21 oz., and 32 oz.	"	2	6 and	3	6
" rough cast ¼" and ½"	"			8¼ "	1 0
Putty, linseed oil	lb.				3

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

PAINTER

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

CURRENT PRICES FOR MEASURED WORK

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

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

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

BRICKLAYER		£ s. d.
Brickwork, Flettons in lime mortar	Per Rod	26 10 0
„ „ in cement	„	27 12 6
„ Stocks in cement	„	34 0 0
„ Blues in cement	„	50 0 0
Extra only for circular on plan	„	2 0 0
„ backing to masonry	„	1 10 0
„ raising on old walls	„	2 0 0
„ underpinning	„	5 10 0½
Fair Face and pointing internally	F.S.	1½
Extra over fletton brickwork for picked stock facings and pointing	„	8
„ „ „ red brick facings and pointing	„	11
„ „ „ blue brick facings and pointing	„	1 4
„ „ „ glazed brick facings and pointing	„	3 6
Tuck pointing	„	7½
Weather pointing in cement	„	3
Slate dampcourse	„	10
Vertical dampcourse	„	1 1

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

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

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

CARPENTER AND JOINER		£ s. d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2 2 6
Shuttering to sides and soffits of beams	F.S.	7
„ to stanchions	„	7
„ to staircases	„	1 6
Fir and fixing in wall plates, lintols, etc.	F.C.	3 9
Fir framed in floors	„	4 6
„ „ roofs	„	6 6
„ „ trusses	„	7 6
„ „ partitions	„	8 6
¾″ deal sawn boarding and fixing to joists	Sqr.	1 14 6
1″ „ „ „ „ „	„	1 17 6
1¼″ „ „ „ „ „	„	2 3 0
1½″ „ „ „ „ „	„	2 9 6
1½ × 2″ fir battening for Countess slating	„	9 6
Do., for 4″ gauge tiling	„	12 0
Stout feather-edged tilting fillet	F.R.	4½
Patent inodorous felt, 1 ply	Y.S.	2 3
„ „ „ 2 „	„	2 9
„ „ „ 3 „	„	3 3
Stout herringbone strutting to 9″ joists	F.R.	10½
1″ deal gutter boards and bearers	F.S.	1 2
1½″ „ „ „	„	1 6
2″ deal wrought rounded roll	F.R.	8
1″ deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2 1 0
1¼″ do.	„	2 10 0
1½″ do.	„	2 17 8
1″ deal moulded skirting fixed on, and including grounds plugged to wall	F.S.	1 6
1¼″ do.	„	1 9

CARPENTER AND JOINER—*continued*		s. d.
1¼″ deal moulded sashes of average size	F.S.	1 9½
2″ „ „ „ „ „	„	1 11½
1¼″ deal cased frames double hung, of 6″ × 3″ oak sills, 1¼″ pulley stiles, 1¼″ heads, 1″ inside and outside linings, ¾″ parting beads, and with brass faced axle pulleys, etc., fixed complete	„	3 7
2″ „ „ „ „ „	„	3 10
Extra only for moulded horns	Each	6
1¼″ deal four-panel square, both sides, door	F.S.	2 0
2″ „ „ „ „ „	„	2 8
1¼″ „ but moulded both sides	„	2 4
2″ „ „ „ „ „	„	3 0
4″ × 3″ deal, rebated and moulded frames	F.R.	1 0
4½″ × 3½″ „ „ „ „	„	1 4
1¼″ deal tongued and moulded window board, on and including deal bearers	F.S.	1 9
1¼″ deal treads, 1″ risers in staircases, and tongued and grooved together on and including strong fir carriages	„	2 6
1¼″ deal moulded wall strings	„	2 1
1½″ „ outer strings	„	2 4
Ends of treads and risers housed to string	Each	1 9
3″ × 2″ deal moulded handrail	F.R.	1 3
1″ × 1″ deal balusters and housing each end	Each	2 0
1½″ × 1½″ „ „ „	„	2 9
3″ × 3″ deal wrought framed newels	F.R.	1 3
Extra only for newel caps	Each	6 0
Do., pendants	„	6 0

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

PLUMBER		£ s. d.
Milled lead and labour in flats	cwt.	1 18 6
Do. in flashings	„	2 2 0
Do. in covering to turrets	„	2 7 6
Do. in soakers	„	1 13 3
Labour to welted edge	F.R.	3½
Open copper nailing	„	3
Close „ „	„	4

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

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

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

GLAZIER		s. d.
21 oz. sheet glass and glazing with putty	F.S.	6½
26 oz. do. and do.	„	7½
Flemish, Arctic Figured (white) and glazing with putty	„	1 1
Cathedral glass and do.	„	1 2
Glazing only, British polished plate	„	7
Extra, only if in beds	„	2
Washleather	F.R.	4

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

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TYPICAL APPLICATION DETAILS OF · TURNALL · ASBESTOS REINFORCED ALUMINIUM FOIL :

NOTE : Turnall Asbestos Reinforced Aluminium Foil has asbestos paper or asbestos felt as a permanent and durable base to support two layers of aluminium foil, one on either surface, fixed by means of a bitumen adhesive.
For properties of aluminium foil, see Information Sheet No. 1. of this series.

1. APPLICATION OF FOIL TO PITCHED ROOFS :

METHOD · A · (Heat Transmission - 0 · 23 B.T.U's)
Insulating foil lapped between purlins, and laid on 2" x 2" continuous battens & tacked thereto.
Purlins spaced at 4'0" centres.
Lap.
2" x 2" continuous battens spaced at 2'0" centres.
Trafford tiles or Everite Big-six Corrugated sheets.
Poilite 'AC' flat building sheets.

METHOD · B · (Heat Transmission - 0 · 29 B.T.U's)
Insulating foil on felt between battens and rafters, with bottom end tacked over battens, and top end tacked under battens.
Battens.
Slates.
Foil draped over rafters along roof.
Rafters spaced to suit roof requirements.

METHOD · C · (Heat Transmission - 0 · 20 B.T.U's)
Insulating foil draped over ceiling joists & fixed thereto by flat headed tin tacks.
Slates.
2" x 3/4" Battens
Rafters.
Planks as required for walking.
Joists.
Ceiling board or plaster.
Foil draped over joists
Finished wall face.

2. APPLICATION OF FOIL TO TIMBER FRAMED WALLS :

METHOD · A · External covering.
NOTE : Foil is required with G.I. or Asbestos Cement Sheeting or any cement rendered stucco wall.
Foil to run horizontally, and tacked to face of studs.
Nogging pieces.
HEAT TRANSMISSION 0 · 20 to 0 · 23 B.T.U's. (depending on boarding and plaster used.)
Lath & plaster, wallboard, ply, glass, etc.
PLAN.

METHOD · B · External covering.
Foil to run horizontally and tacked to face of studs.
Lath & plaster, wallboard, ply, glass, etc.
PLAN.

3. APPLICATION OF FOIL TO CONCRETE, HOLLOW TILE, OR PRECAST BEAM FLOORS :

Foil is held by floor nailing to battens.
Floor clips.
Foil.
Structural floor.
Ceiling finish.

4. ISOMETRIC DETAILS SHOWING THE APPLICATION OF FOIL TO OTHER TYPES OF WALLS :

Battens (not required for foil) spaced to suit wallboard or other lining.
1'6" to 2'0"
1'6" to 2'0"
2'0"
Internal lining.
Foil.
Foil applied to brick or concrete external walls on 2" x 1/2" battens.
INSULATION TO CONCRETE OR BRICK WALL :

Foil.
1/2" Air spaces.
2'0"
2'0"
SECTION.
Foil.
Battens.
Depending on wallboard or other lining used.
ALTERNATIVE SECTION.

Corrugated sheeting.
Foil.
Vertical battens at 2'0" centres to take wallboard.
Wallboard lining.
Post.
Foil applied to corrugated sheeting on horizontal rails at 4'0" centres.

Corrugated sheeting.
Horizontal rails.
Vertical battens.
Foil.
Inner lining.
SECTION.

Lap of foil.
PLAN :
CONSTRUCTION WITH POSTS AT 8'0" CENTRES APPROXIMATELY.

Information from Turners Asbestos Cement Co. Branch of Turner & Newall Ltd.

(2)

INFORMATION SHEET : ASBESTOS REINFORCED ALUMINIUM INSULATING FOIL.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON. WC1. Oscar A. Bayne.

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INFORMATION SHEET

• 406 •

ASBESTOS ALUMINIUM FOIL

Product: "Turnall" Asbestos-Reinforced Aluminium Foil.

This is the second of two Sheets dealing with asbestos-reinforced aluminium foil.

The first Sheet set out the properties of the foil, and this Sheet is devoted to details showing the application of the foil for different purposes and to different forms of construction.

Report on the Heat Transmission through a Composite Panel :

Issued by the National Physical Laboratory, Teddington.

The panel was constructed of asbestos wallboard, asbestos-cement sheet with a diaphragm of aluminium foil reinforced with Serval asbestos felt. It measured approximately 36 ins. by 36 ins. by 1½ ins.

For the purposes of the test, thermo-couples were attached to various positions on the faces of the specimen, which was then placed vertically against an electrically heated plate of the same dimensions.

The apparatus was backed and surrounded by slab cork.

The heat transmitted by the wall section was obtained from the electrical energy dissipated in the heating coil of the plate, a correction being applied for the heat conducted through the cork. The following table gives the result obtained in two sets of units and applies to a cold face temperature of 22° C. (72° F.) and a hot face temperature of 38° C. (100° F.).

Cold face Temperature		Hot face Temperature		Heat transmission	
				Gram-calories per sq. cm. per second for 1° C. temperature difference between faces	B.T.U.'s per sq. ft. per hr. for 1° F. temperature difference between faces
°C.	°F.	°C.	°F.		
22	72	38	100	0.000034	0.25

The practical result of conductance of 0·25 as shown in the foregoing test for a panel 1½ ins. thick is shown in theory as follows :—

	Heat Resistance Surface to Surface
¼ in. Asbestos wallboard	0·45 hours
½ in. air space	1·05 hours
"Turnall" asbestos-reinforced aluminium.	
Foil reflectivity of surface	0·75 hours
,, non-emissivity of surface	0·65 hours
½ in. air space	1·05 hours
¼ in. asbestos sheet	0·05 hours
	4·00 hours

It will be seen that two ½-in. air spaces separated by Turnall asbestos-reinforced aluminium foil gives 3·5 hours resistance.

The above results are confirmed by tests which are to be seen at the Building Centre, 158 New Bond Street, London, W.1 ; these show that the heat resistance of the panel made of two asbestos sheets 1 in. apart, but containing two ½-in. air spaces divided by Turnall asbestos-reinforced aluminium foil, is slightly better than the heat resistance of a panel of two asbestos sheets 1 in. apart but containing 1 in. slab cork.

Turnall asbestos-reinforced aluminium foil, by virtue of its reflectivity on one surface and non-emissivity on the other, has a heat resistance of 1·4 hours under most conditions, and each air space on either side has a heat resistance of slightly over one hour. Approximate calculations of the efficiency of foil can thus be made within certain limits.

The Building Research Report, 1933, page 95, gives the following data :—

Roof	*Air to air transmission in B.T.U.'s per sq. ft. per hr. per F. diff. in temp.*
1. Corrugated asbestos cement ...	1·41
2. Ditto, with aluminium-faced plywood lining	0·31
3. Ditto, with single sheet of Aluminium foil	0·39
4. Ditto, with two sheets of aluminium foil	0·19
By calculation, using the National Physical Laboratory test :—	
(*a*) Asbestos-cement outer sheet or Trafford tile with ½-in. air space, Turnall asbestos foil, another ½-in. air space and then an asbestos-cement inner sheet ...	0·23
(*b*) 4½-in. brickwork, ½-in. air space, Turnall asbestos foil, ½-in. air space with inner lining of an asbestos-cement sheet	0·19

Method 1A on the Sheet shows how (*a*) is fixed : this method of roofing is most economical, the capital cost of fuel for heating being taken into consideration.

The following gives comparable air to air transmission figures for various roofs and walls :—

(*c*) Slates only on battens and rafters ...	1·00
(*d*) Slates on 1-in. T. and G. boards and felt	0·56
(*e*) Slates on battens with aluminium foil on felt between the battens and rafters (see method 1B)	0·29
(*f*) Slates on battens, without boarding, but with plaster ceiling below ceiling joists	0·41
(*g*) As in (*f*) but add foil above the ceiling joists (see Method 1C)	0·20
Thus by adding foil in this type of construction the heat loss is halved.	
(*h*) By adding foil below the slates as in (*e*) without boarding and spreading foil over the ceiling joists as in (*g*)	0·13
(*i*) 6-in. concrete flat roof with built up roofings	0·64
Walls :	
(*j*) 4½-in. brick wall	0·60
(*k*) 9-in. brick wall	0·39
Cavity wall—10½ ins.	0·29
(*l*) 14-in. brick wall—solid	0·29
(*m*) Corrugated asbestos-cement outer covering, air space, foil, air space and inner lining of asbestos cement or plaster	0·23

Durability Test :

Two Turnall asbestos-reinforced aluminium foil sheets were exposed in the open air to all weather conditions for a period of three months. Part of each sheet was under the soil, while the upper part was in contact with growing vegetation. At the end of this period there was no evidence of tarnishing of the metallic surface in either part, and the aluminium foil had everywhere remained firmly attached to the reinforcing layer.

Information from : Turners Asbestos Cement Co., Branch of Turner and Newall, Ltd.

Address (Head Office) : Trafford Park, Manchester, 17
Telephone : Trafford Park 2181 (8 lines).

London Office : Asbestos House, Southwark Street, S.E.1
Telephone : Waterloo 4041

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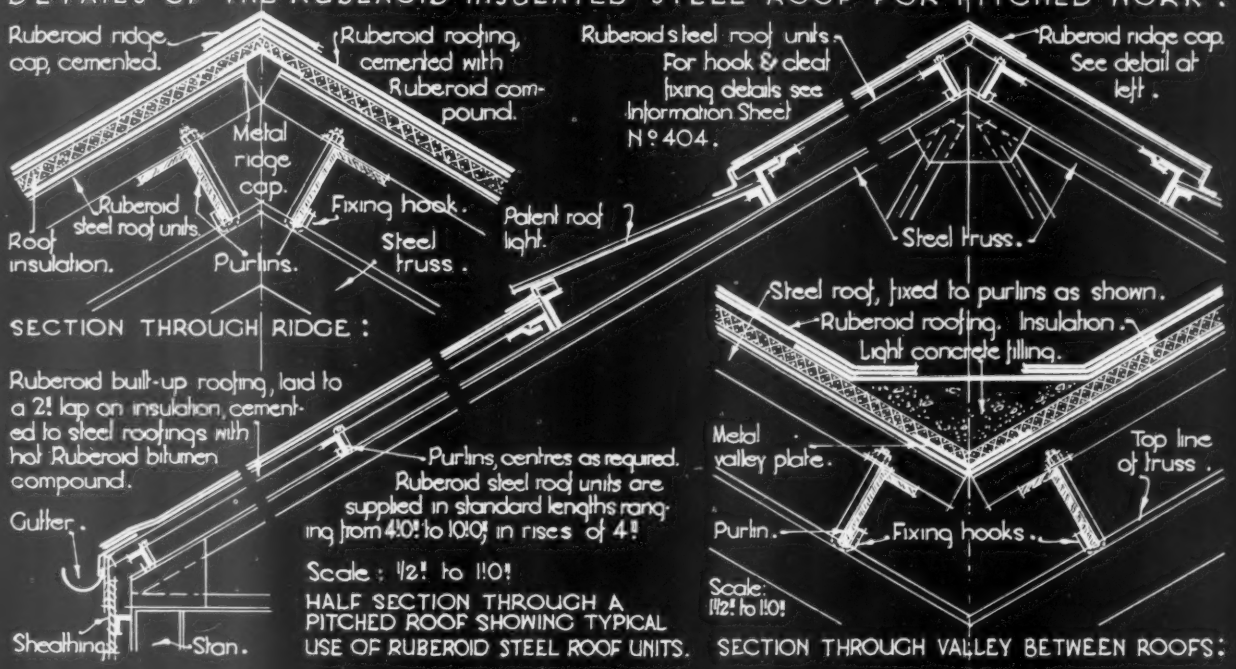
DETAILS OF THE RUBEROID INSULATED STEEL ROOF FOR PITCHED WORK:



SECTION THROUGH RIDGE:

Ruberoid built-up roofing, laid to a 2" lap on insulation, cemented to steel roofings with hot Ruberoid bitumen compound.

Purlins, centres as required. Ruberoid steel roof units are supplied in standard lengths ranging from 4'0" to 10'0", in rises of 4".

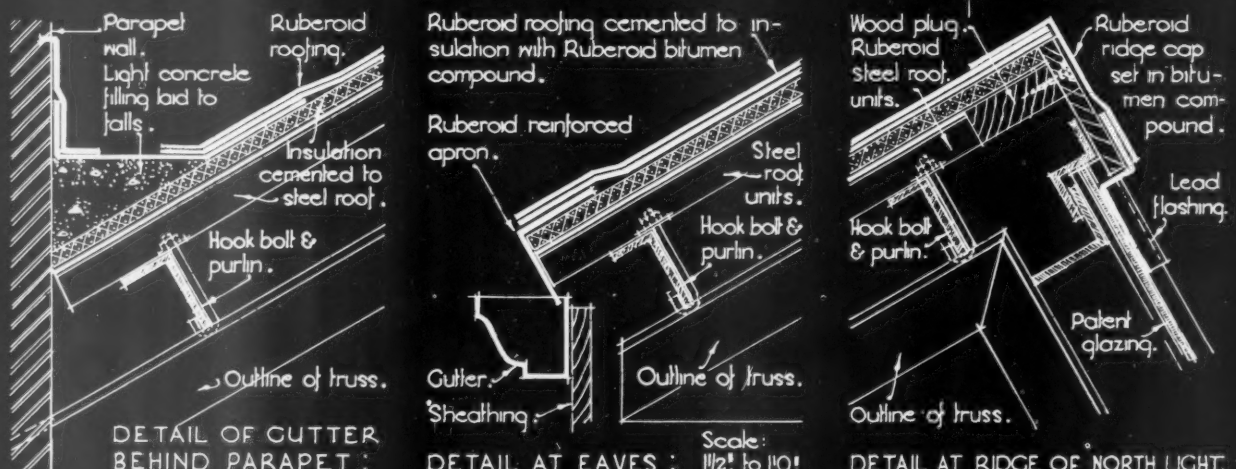
Gutter.

Sheathing. Stan.

Scale: ½" to 1'0"

HALF SECTION THROUGH A PITCHED ROOF SHOWING TYPICAL USE OF RUBEROID STEEL ROOF UNITS.

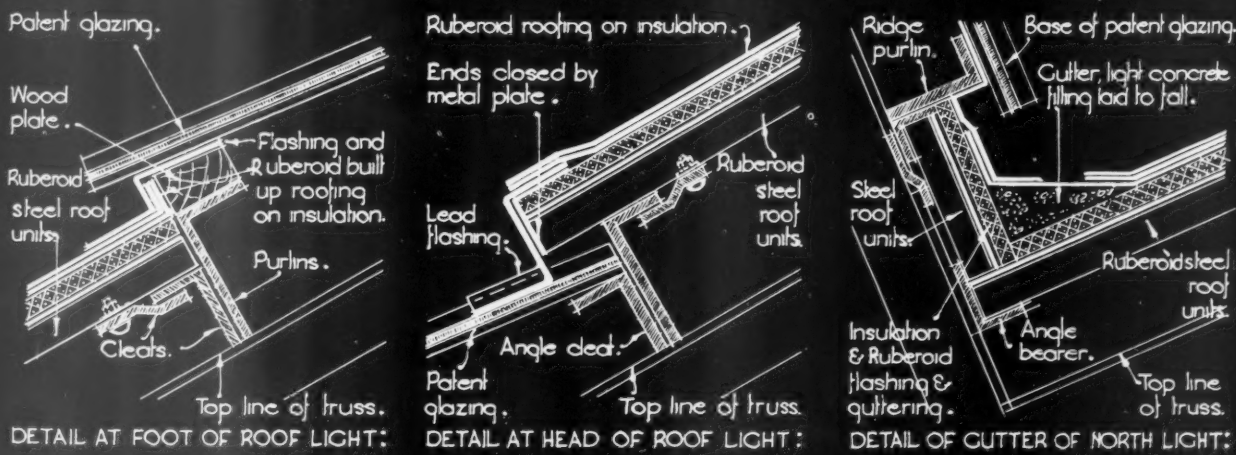
SECTION THROUGH VALLEY BETWEEN ROOFS:



DETAIL OF GUTTER BEHIND PARAPET:

DETAIL AT EAVES: Scale: 1½" to 1'0"

DETAIL AT RIDGE OF NORTH LIGHT.



DETAIL AT FOOT OF ROOF LIGHT:

DETAIL AT HEAD OF ROOF LIGHT:

DETAIL OF GUTTER OF NORTH LIGHT:

Information from The Ruberoid Co. Ltd.

INFORMATION SHEET: LIGHT GAUGE PRESSED STEEL ROOFING • N° 2 •

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDF RD SQUARE LONDON WC1 • Oscar A. Bayes.

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INFORMATION SHEET
• 407 •
ROOFING

Product : The Ruberoid Insulated Steel Roof

This is the second of two Sheets devoted to the Ruberoid Insulated Steel Roof. The first Sheet (No.404) set out details of the standardized steel units of which the roof is built up together with details of their application to flat roof work.

This Sheet sets out various details of the application of the units to pitched roofs.

Insulation :
The provision of insulation against heat and sound is a factor of importance in modern buildings which calls for a method of construction and insulation together giving maximum efficiency with a minimum deadweight.

In the Ruberoid Insulated Steel Roof the insulating material is protected from moisture absorption on the inside by the steel roof deck and on the outside by the Ruberoid Built-up Roofing.

Heat Loss :
The insulation value of a roof has a direct bearing upon the size of the heating plant required for a building and upon the fuel consumption. The saving in fuel obtained by using an insulated roof instead of an uninsulated roof can be calculated and may be as much as £9 per annum per 1,000 sq. ft. of roof area.

Comparison of Weight-Efficiency Factors :
The following chart has been prepared to show the weights and thicknesses of various roof constructions required to give equal heat transmission resistance to that provided by the Ruberoid Insulated Steel Roof.

Fixings :
The bolts, cleats, or screws required to secure the deck to the roof members are housed in the channels of the roof deck units. Neither the insulating material nor the weatherproof roofing material are therefore penetrated at any point.

Economy :
Speed of erection, lightness of weight, and the standardization of units ensure that the maximum economy can be achieved in production, erection and labour.

Catalogue :
Catalogue No. 305 issued by the Manufacturers gives fuller details and is available on request

Previous Sheets :
Information Sheet No. 404 has already been published on the Ruberoid Insulated Steel Roof. Dampcoursing is covered by Information Sheets Nos. 267, 304 and 402 from particulars also supplied by the Manufacturers.

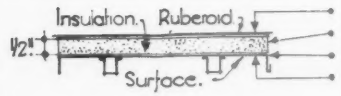
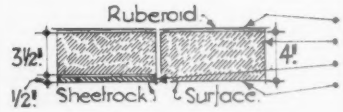
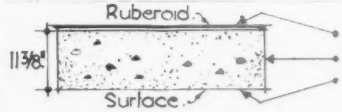
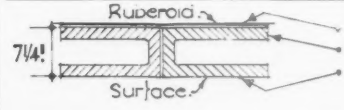
Manufacturers : The Ruberoid Co., Ltd.
Address : Lincoln House, 296/302 High Holborn, W.C.1
Telephone : Holborn 9501

Branches :
Birmingham : 66½ Corporation Street
Telephone : Central 2079

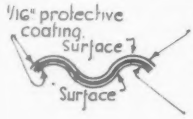
HEAT TRANSMISSION VALUE OF RUBEROID INSULATED STEEL ROOF COMPARED WITH OTHER FORMS OF ROOF CONSTRUCTION

R = Resistance of various roof components to transfer of heat.

C = Conductivity is the measure of heat flow = B.T.U. per hour per sq. ft. per Degree F = $\frac{1}{\text{Resistance}}$

1	2 Type of Roof	"R" Resistance of Combined Components of Roof	"C" Conductivity of Complete Roof as Shown	Resistance of 1 in. of Deck Material	Weight per sq. ft. (lbs.)	
					1 in. of Deck Material	for Thickness as Shown in Column 2
RUBEROID INSULATED STEEL ROOF		·54 1·51 ·00 ·67 2·72	·368 B.T.U.	½" INSUL. 1·51		5
YELLOW PINE DRESSED AND MATCHED		·54 1·51 ·67 2·72	·368 B.T.U.	·957 SOLID WOOD NO CRACKS	4	10
GYPSUM WITH 15% WOOD FIBRE		·54 1·33 ·18 ·67 2·72	·368 B.T.U.	·38	5·5	22
CONCRETE POURED OR PRECAST (DRIED 6 Mo.)		·54 1·51 ·67 2·72	·368 B.T.U.	·133	11	125
HOLLOW TILE		·54 1·51 ·67 2·72	·368 B.T.U.	·21	9	65

COMPARISON OF PLAIN AND PROTECTED METAL

PLAIN CORRUGATED STEEL		"R" ·25 ·00 ·67 ·92 – 25% = ·69	PROTECTED METAL		"R" ·25 ·023 ·000 ·023 ·67 ·966 – 25% = ·725

25 per cent. deducted from corrugated material resistances are for flat sheets.
Ruberoid considered ¼ in. thick with resistance ·67 per in. of thickness.
Top surface resistance ·28 plus ·26 for ¼-in. Ruberoid = ·54.
Cracks in wood deck have been considered in computation 30 per cent. deducted.
Precast cement tile 1⅜ in. thick.
All data taken from " Heating and Ventilating Engineers " handbook.

Manchester : 33 Blackfriars Street
Telephone : Blackfriars 3001
Newcastle-on-Tyne : 3 St. Nicholas Buildings
Telephone : Newcastle 25958
Edinburgh : Caroline Park, West Shore Road, Granton
Telephone : Granton 84041.
Dublin : 1 Aston Place
Telephone : Dublin 23107
Belfast : 31 Corporation Street
Telephone : Belfast 26808

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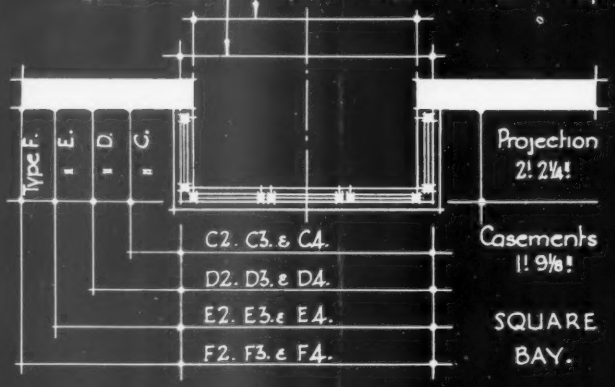
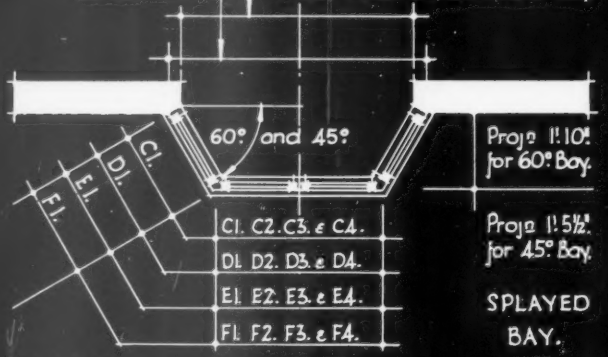
STANDARD SIZES FOR TI-FOON BAY WINDOWS :

Bays are made in heights Type C. D. E. & F. to match Standard Casements. Type C. is casement only. Types D. E. & F. have fanlights. For corresponding heights of reference letters see previous Information Sheet.

No. of lights on front. . . .	2.	3.	4.	for
Inside width →	3' 6½"	5' 4⅞"	7' 3¼"	square
Outside width	4' 2"	6' 0⅝"	7' 10¾"	Bay.

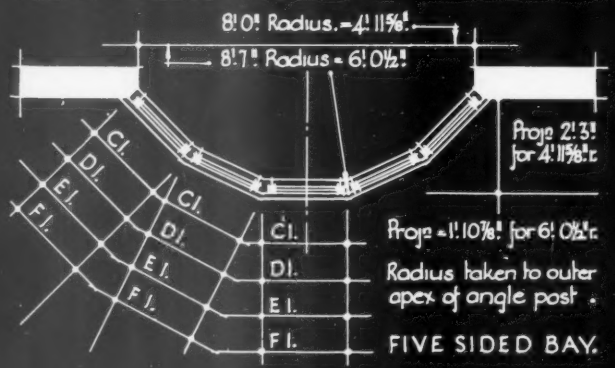


No. of lights on front. . . .	1.	2.	3.	4.	for
Inside width. →	4' 7"	6' 5¼"	8' 3½"	10' 2"	45°
Outside width.	5' 0¼"	6' 10½"	8' 8¾"	10' 7¼"	Bay.



No. of lights on front. . . .	1.	2.	3.	4.	for
Inside width. . . .	3' 9"	5' 7¼"	7' 5¾"	9' 4"	60°
Outside width. . . .	4' 3½"	6' 1¾"	8' 0¼"	9' 10½"	Bay.

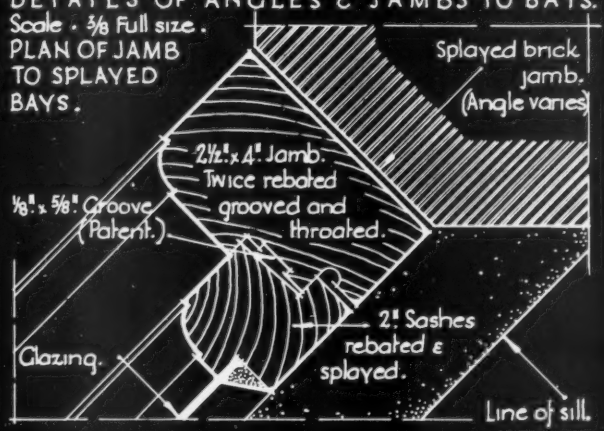
Standard sills are straight faced. Sills can be made circular on the outside if required. Casements 1' 9¼" wide.



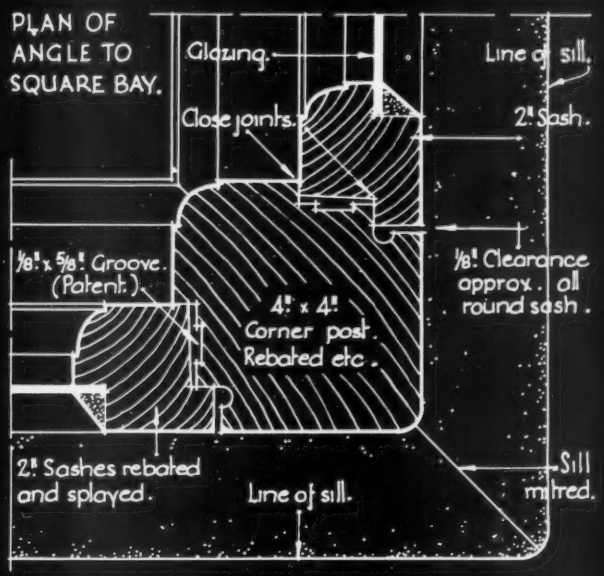
DETAILS OF ANGLES & JAMBS TO BAYS.

Scale · ⅜ Full size.

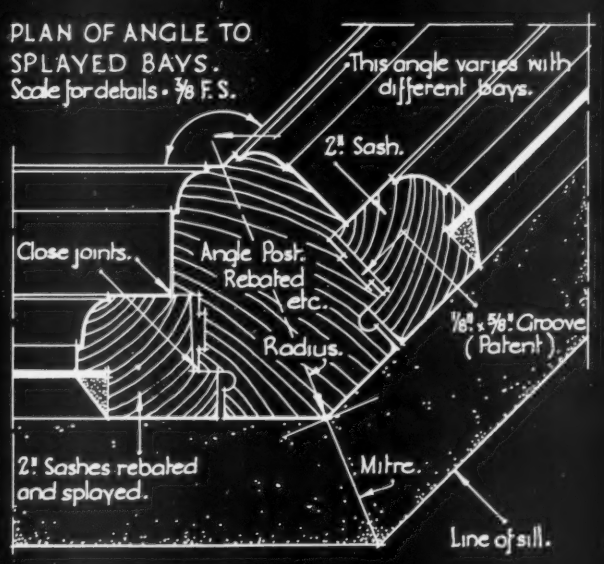
PLAN OF JAMB TO SPLAYED BAYS.



PLAN OF ANGLE TO SQUARE BAY.



PLAN OF ANGLE TO SPLAYED BAYS.
Scale for details · ⅜ F.S.



Information from John Sadd & Sons Ltd.

INFORMATION SHEET : DETAILS OF TI-FOON PATENT WEATHERPROOF WINDOWS : No 2.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS. ONE MONTAGUE PLACE. BEDFORD SQUARE LONDON WC1. Grace A. Bayes.

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INFORMATION SHEET

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JOINERY

Product : " Ti-Foon " Casement Windows

The drawings given on this Sheet show the details and standard sizes of the Ti-Foon Patent casement window. These windows are also manufactured to any size required. It will be seen from the details that the patent design incorporates a series of special rebates, grooves and channels between sash and frame arranged to provide a completely weather-proof window, draught-proof yet without any possibility of binding occurring between the sash and the frame.

Hinges :

It should be noticed that the sash being flush with the outside of the frame, ordinary butts may be used. Steel butts are supplied as standard, but any of the usual types available in bronze, or other materials can be supplied if required. Unless required otherwise 50 per cent. sashes are hung.

Timber :

Standard Ti-Foon windows are manufactured from Best Yellow Deal and they may be obtained to order in Western Red Cedar, Columbia Pine, Teak, Oak, etc.

Details Shown :

The details given in this Sheet show the window in position in a wall. It should be noted that the standard window does not include cover moulds to plaster, window board, or weather bar. These items are supplied to order. Ovolo mouldings are shown, but any other type may be adopted.

Glazing Bars :

Standard windows are manufactured without glazing bars ; bars are fitted as required to order.

Priming :

Windows can be supplied primed with one coat of red lead priming.

Prices :

Schedule of current prices can be obtained upon application.

The previous Sheet in this series was No. 405.

Manufacturers :	John Sadd and Sons, Ltd.
Address :	" Don " Joinery Works, Maldon, Essex.
Telephone :	Maldon 131 (3 lines)
Address :	108 Sentinel House, Southampton Row, London, W.C.1
Telephone :	Holborn 9200
Address :	Grainger Road, Southend-on-Sea
Telephone :	Southend, Marine 6607 (2 lines)
Address :	Station Works, Clacton-on-Sea
Telephone :	Clacton 1096 (2 lines)
Address :	Jersey Gardens, Wickford
Telephone :	Wickford 130
Address :	Sutton's Lane, Hornchurch
Telephone :	Hornchurch 789 (2 lines)
Address :	Baddow Road, Chelmsford
Telephone :	Chelmsford 3411 (2 lines)