THIRD REPORT OF THE GLASS AGE

TOWN PLANNING COMMITTEE

This is the third report of the Glass Age Town Planning Committee, which was convened by Pilkington Brothers Limited, and which has already suggested practical schemes for re-planning two areas in London, the Strand and Bond Street, and is now dealing with other localities. The Committee consists of

E. MAXWELL FRY, B.Arch., A.R.I.B.A.
R. FURNEAUX JORDAN, F.R.I.B.A., A.Dip.
RAYMOND McGRATH, B.Arch., A.R.I.B.A.
HOWARD ROBERTSON, F.R.I.B.A.
G. GREY WORNUM, F.R.I.B.A.
F. R. S. YORKE, A.R.I.B.A.

The third problem before the Committee was the redesigning of the East and West Cliffs at Bournemouth. After discussion, they appointed Mr. Raymond McGrath, B.Arch., A.R.I.B.A., to work out the plan that is shown on the four pages that follow.

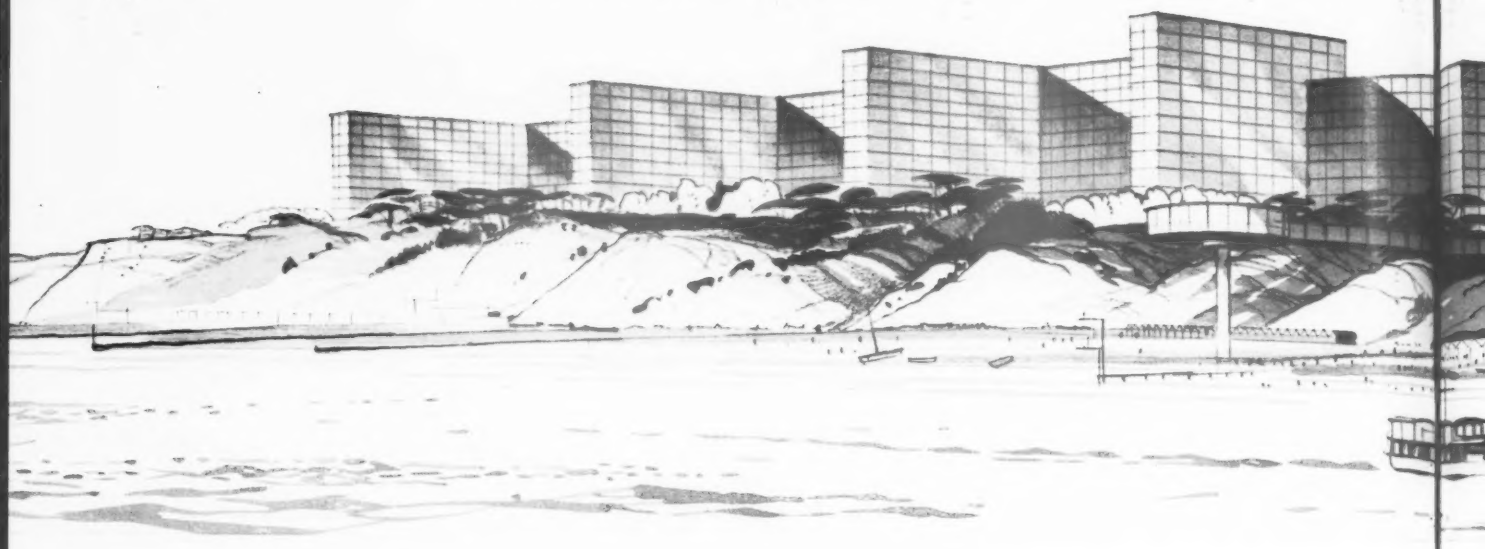
DETAILS OF SCHEME: The rebuilding of Bournemouth Front affords a good opportunity for the appropriate use of glass. The freshness of the material would add notably to the gaiety and salubrity of the resort. Briefly, this scheme for Bournemouth visualises the closing of a number of minor streets on the front and the rebuilding of existing buildings, chiefly hotels and boarding houses, on the East and West Cliffs in connected blocks located in open pleasure gardens and designed to give the maximum sea view for the maximum number of visitors.

New service roads are planned to give convenient access to all parts. The sands would be easily reached from the cliff tops by means of vertical lifts, and look-outs would connect with the higher roads.

SPECIFICATION: In the construction of the buildings almost the full gamut of glasses would be used in one way or another. The window area facing the sea would be as generous as possible with *double-glazed Polished Plate* on the exposed façades. The facing of the curtain walls of the buildings would be "VITROLITE," the site lending itself to a free use of colour, principally shell-pink, wedgwood, ivory and primrose. Solaria and other features would be glazed with "VITA" GLASS and balcony fronts would be in "GEORGIAN" WIRED GLASS. Restaurants and lounges would have sliding screens on the glare side glazed with neutral tinted plate glass. At ground level copious use would be made of INSULIGHT GLASS BRICKS and facings of TOUGHENED BLACK GLASS. Glass-and-concrete construction would be employed for the lower terrace, bathing pavilions, etc., and "VITROLITE" glass floor tiles for their paving.

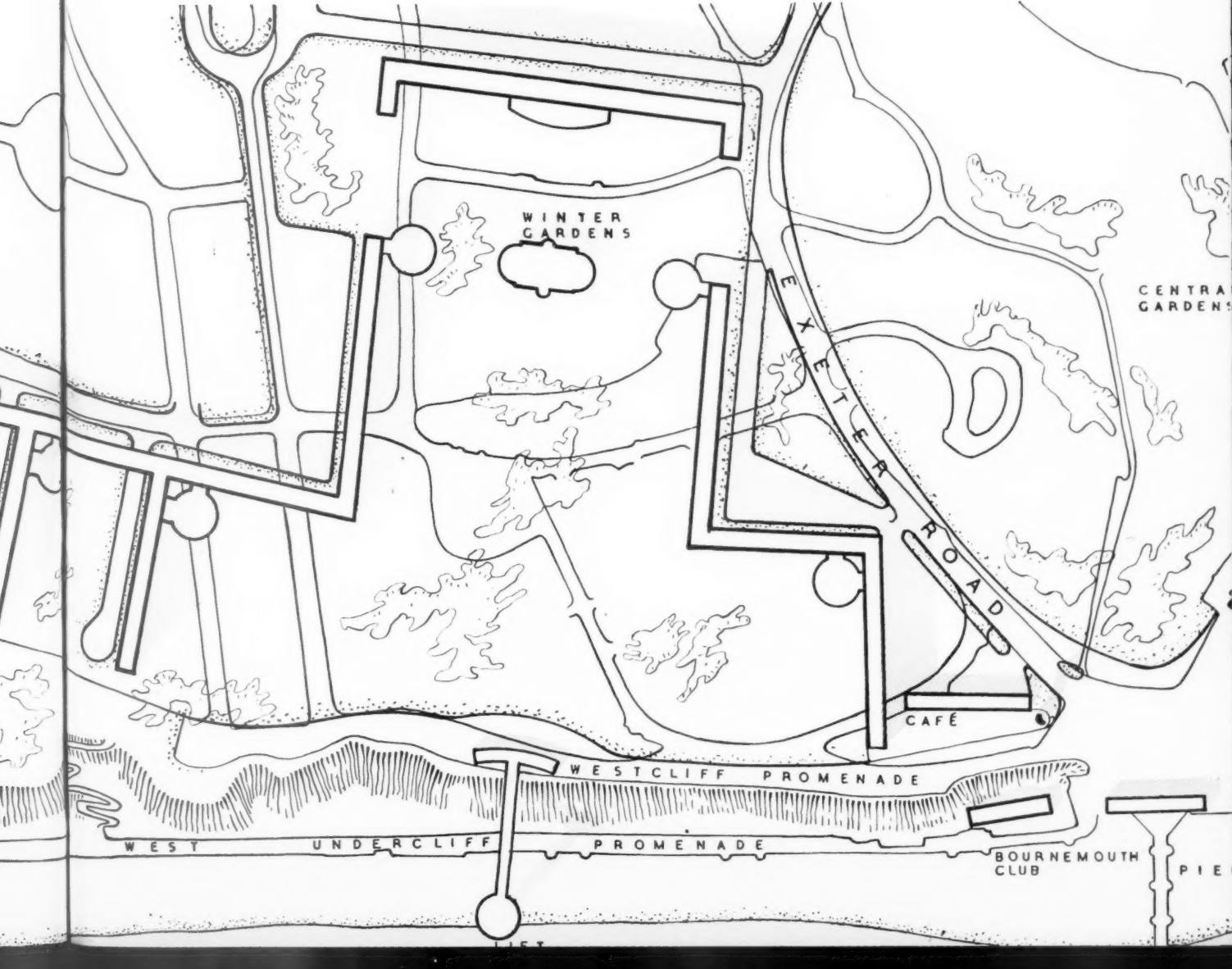
Above are views of the existing architectural growth of Bournemouth. A plan showing the relationship of the Committee's proposals to the streets as they are now, appears on the following pages, also details of other Glass Age materials.

● Issued by Pilkington Brothers Limited, St. Helens, Lancs., whose technical department is always available for consultation regarding the properties and uses of Glass in architecture.

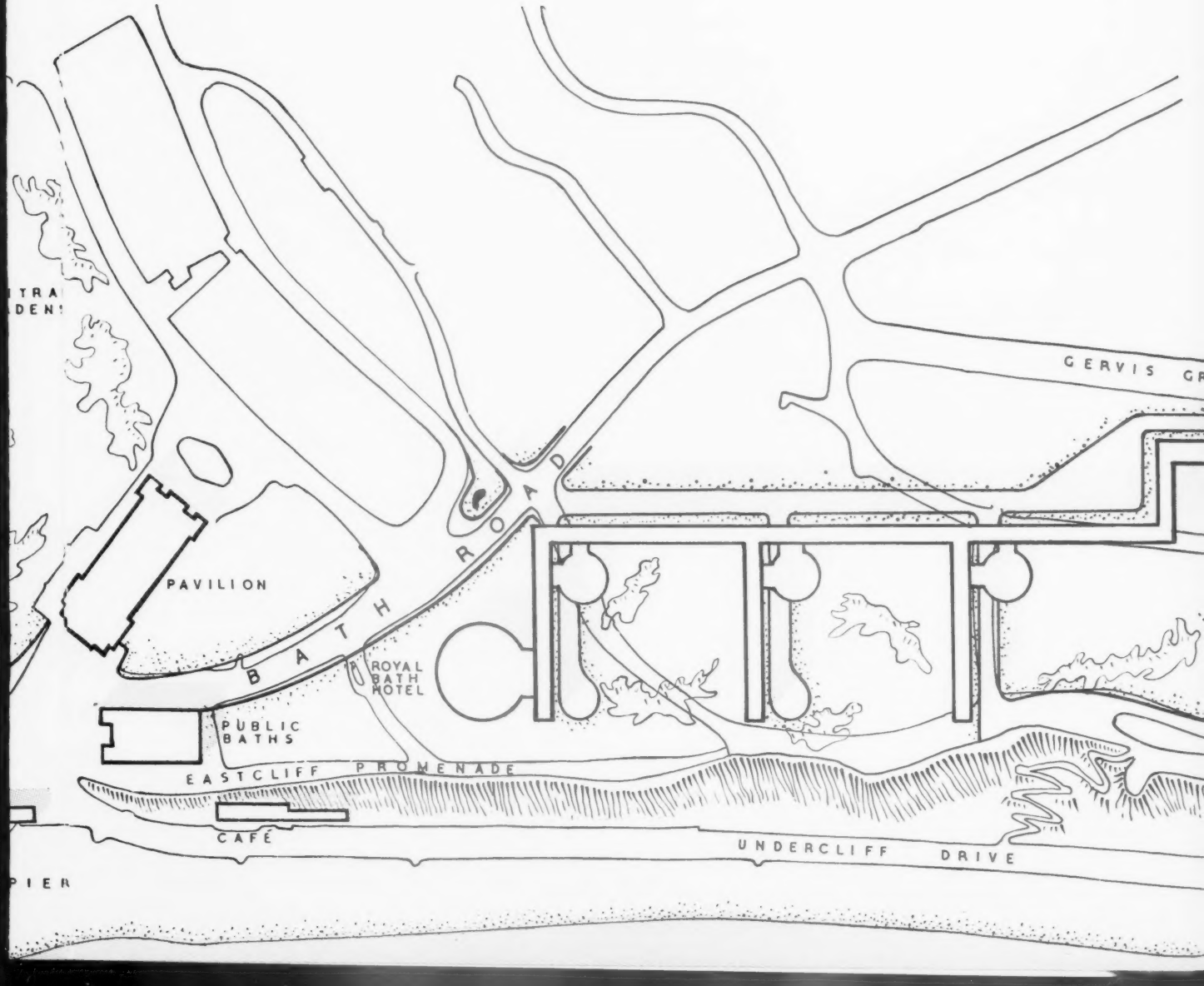


THE GLASS AGE TOWN

PLANNING COMMITTEE REDESIG



GNS THE EAST AND WEST CLIFF

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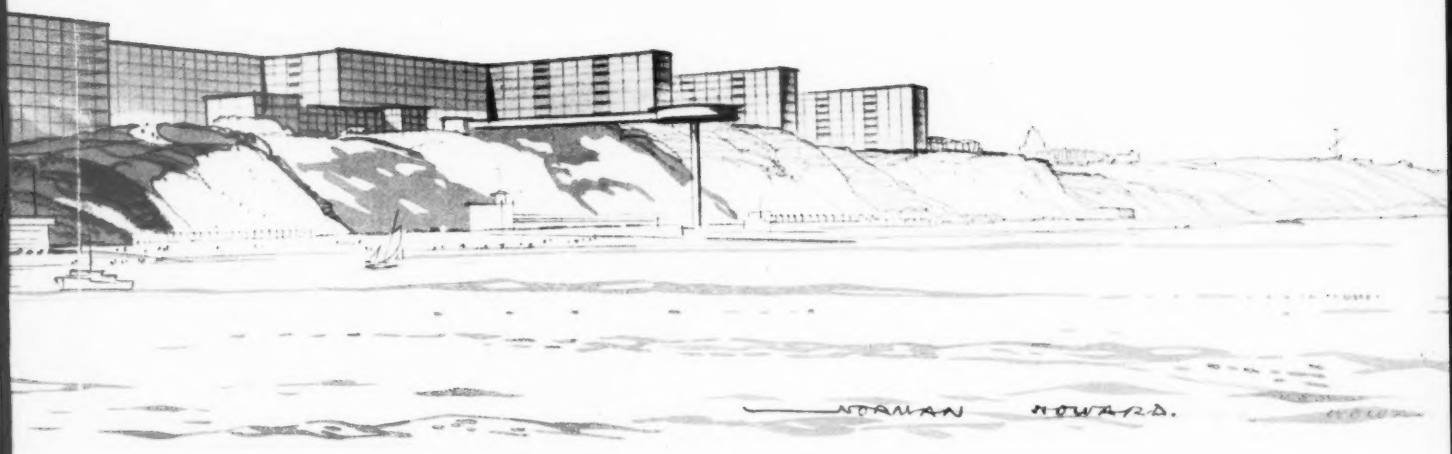
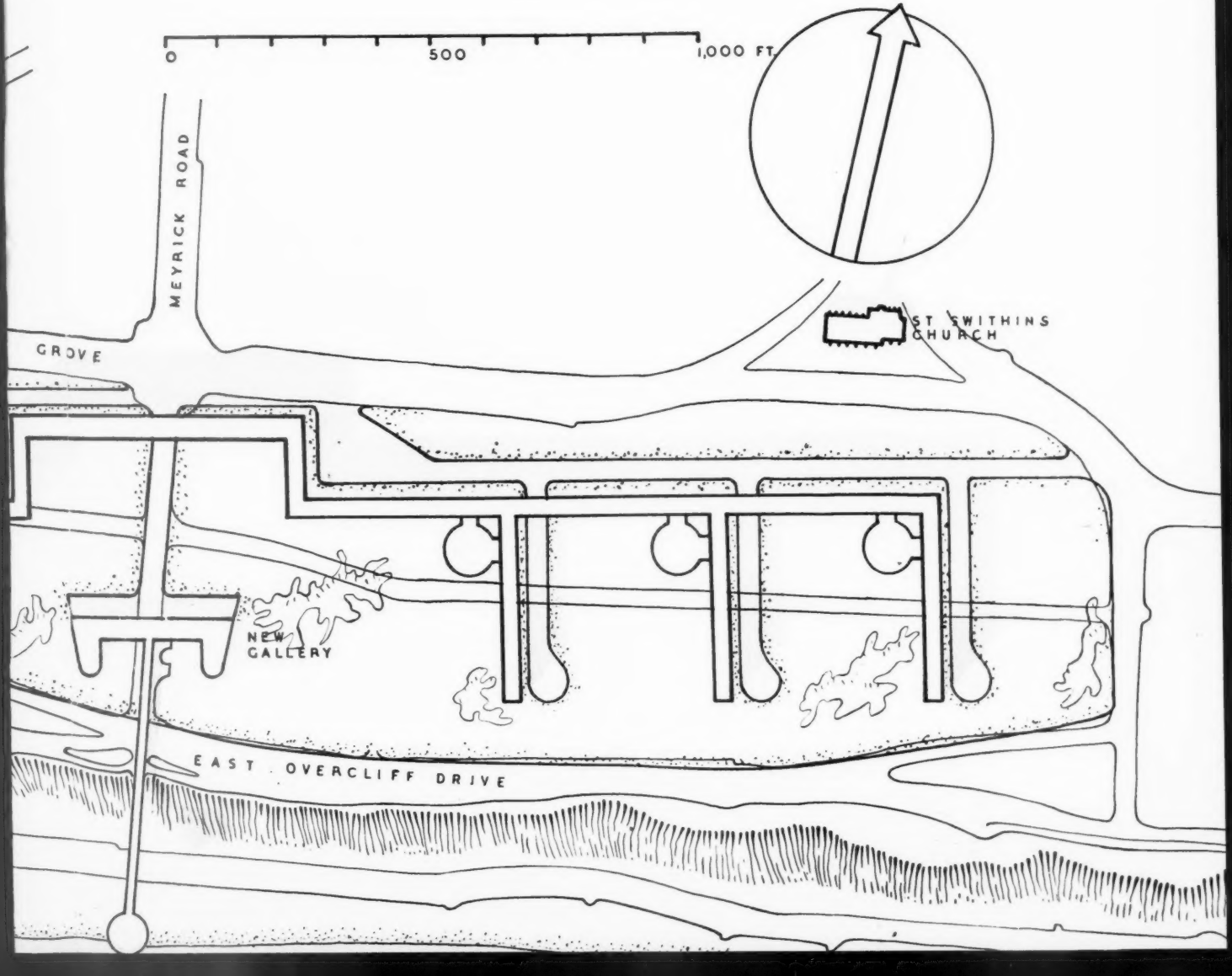


FS AT BOURNEMOUTH

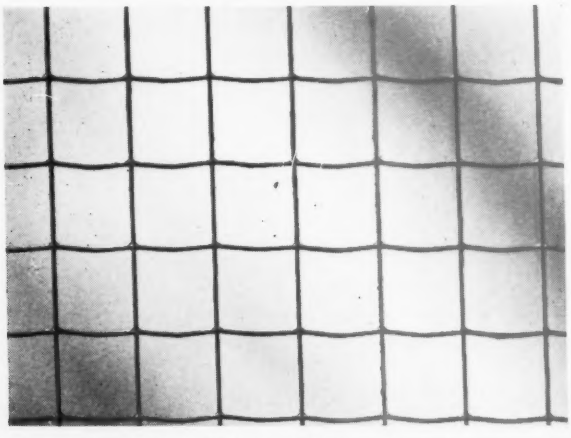


MATERIALS FOR THE GLASS AGE

These two pages show a few of the materials available for this new age of architecture in glass :—

FLAT DRAWN SHEET GLASS Flat Drawn Sheet glass is made in various thicknesses, from 18 oz. to $\frac{1}{4}''$, each can be supplied in three standard qualities : Ordinary (OQ), Selected (SQ) and Special Selected (SSQ) in usual manufacturing sizes.

HEXAGONAL WIRED GLASS A glass in which wire mesh is inserted during the process of rolling. Wired Rolled, Wired Cast and Wired Arctic are translucent glasses with a fine hexagonal wire mesh. Polished Wired is transparent with a fine hexagonal wire mesh.



GEORGIAN WIRED GLASS The mesh in Georgian wired glass is not twisted, but electrically welded. Georgian Wired Cast is a translucent glass with a $\frac{1}{2}''$ square mesh, Polished Georgian Wired is a similar transparent glass with a $\frac{1}{2}''$ square mesh.

FIGURED ROLLED AND CATHEDRAL GLASSES Rolled glasses, upon one surface of which different patterns are impressed, provide partial or complete obscurity according to pattern. These embrace—Non-formal, semi-formal, formal and diffusing patterns, $\frac{1}{8}''$, and $\frac{1}{4}''$ thick. Arctic, clear and plain cathedral glasses are also available in $\frac{3}{16}''$. Also supplied in a variety of tints.

POLISHED PLATE GLASS is made in thicknesses from $\frac{3}{16}''$ to $1\frac{1}{2}''$ in three standard qualities : GG, SG, and SQ. Tinted Polished Plate glass is available in shades of pink and green, $\frac{1}{4}''$ thick : amber and neutral tint, $\frac{3}{16}''$ thick : blue $\frac{3}{16}''$ and $\frac{1}{4}''$ thick, and $\frac{1}{4}''$ champagne.

"VITA" GLASS permanently transmits the health-giving ultra-violet rays in daylight which ordinary glass shuts out. It can be supplied in sheet or plate glass form : Cathedral "Vita" glass and Georgian wired "Vita" glass are also obtainable.

PRISMATIC GLASS A rolled glass, one surface of which consists of parallel prisms arranged so that downward light from the sky is refracted horizontally into the room. Three kinds of Prismatic glass are made : one for use when the angle of obstruction taken from the horizontal is less than 30°, one for angles between 30° and 40°, and one for angles greater than 40°.

"ARMOURPLATE" GLASS is a toughened glass made by subjecting ordinary Polished Plate glass to a special process of heating and rapid cooling which results in a glass of greatly increased mechanical strength with more resistance to impact and sudden changes of temperature. If it does break it disintegrates into small harmless pieces. It can be supplied in thicknesses from $\frac{3}{16}''$ to $1\frac{1}{4}''$. "ARMOURPLATE" glass cannot be cut or worked in any way.

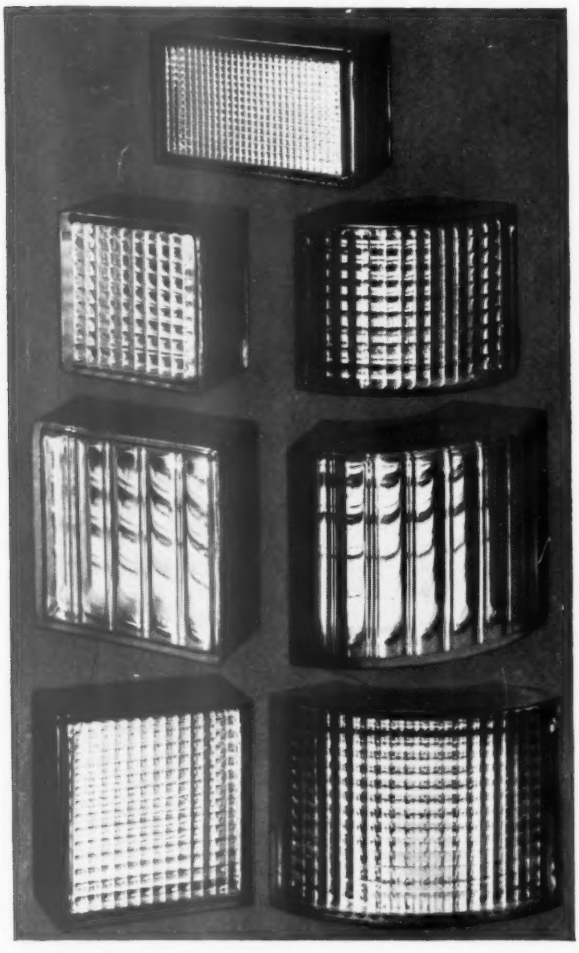
THESE ARE ALL PILKINGTON PRODUCTS

BRITISH GLASS P.B.

MATERIALS FOR THE GLASS AGE

INSULIGHT GLASS BRICKS

Below is shown the range of Insulight Glass Bricks



INSULIGHT glass bricks are available in three standard sizes, and three different patterns. Corner bricks to match are available. Ribs carried vertically or horizontally on the exterior or interior faces of the bricks vary the pattern. Because of their hollow construction, INSULIGHT glass bricks have very high insulating properties against heat and cold and they also considerably reduce the transmission of air-borne sound. Glass bricks are designed as a non load-bearing material, yet they possess ample compressive strength to support their own weight to any practical height.

BLACK TOUGHENED GLASS Black glass subjected to a similar toughening process as for "ARMOURPLATE" glass. For external use and where constant changes in temperature take place, Black Toughened glass is recommended.

"VITROLITE" is a rolled opal glass, ranging from semi-opacity to complete opacity, one surface of which is impressed with a pattern of narrow parallel ribs which provide a key for the mastic or other material with which the glass is fixed. The glass has a naturally hard, brilliant, fire-finished surface.

THICKNESSES. These are the thicknesses: Black, white and all colours are supplied $\frac{5}{16}$" and $\frac{7}{16}$" thick; white and black are also available $\frac{3}{4}$" and 1" thick.

ASHLAR SIZES. $\frac{5}{16}$" "VITROLITE" is supplied, with edges ground true in the following standard ashlar sizes: 15" × 10", 15" × 15", 18" × 12", 21" × 14".

COLOURS. "VITROLITE" is supplied in the following colours: black and white and ordinary colours — green, eggshell, wedgwood, turquoise, pearl grey, green agate, and in the special colours — ivory, shell pink, primrose, royal blue agate, walnut agate, golden agate and tango.
"VITROLITE" is also supplied in certain colours with a Fluted Rolled surface and a Matt surface.

"VITROFLEX" is mirrored or opaque glass laid on a fabric and cut into rectangular unit sections, the standard sizes being 2" × $\frac{1}{2}$", 2" × 1" and 1" square, in panels 24" square in the case of ordinary and dull grey silvered mirror and 24" × 18" in other colours. The fabric backing remains uncut and thus retains the units perfectly in position and flexible. A panel of "VITROFLEX" is thus not an assemblage of units, but a specially treated sheet of glass. It is not fragile.

• *For the third report of the Glass Age Town Planning Committee turn to the previous pages.*
Examples of Pilkington Products may be seen at The Building Centre, 158 New Bond Street, W.1.
Issued by Pilkington Brothers Limited, St. Helens, Lancs, whose technical department is always available for consultation regarding the properties and uses of Glass in architecture.
Supplies are obtainable through the usual trade channels.

• "ARMOURPLATE," "VITA" and "VITROFLEX" are the registered trade marks of Pilkington Brothers Limited.
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The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

THURSDAY, SEPTEMBER 15, 1938 NUMBER 2278 : VOLUME 88

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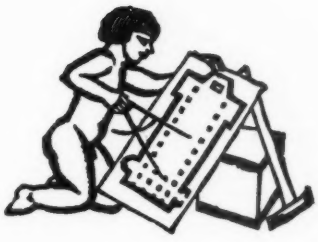
OFFICE BLOCK, OSLO

ONE of the largest office blocks built recently in Oslo, the Saga building by Gudolf Blakstad and Herman Munthe-Kaas, is finished in a rough grey-green cement stucco. The shop-windows are recessed at an angle to the pavement and the main building line, thus allowing passers-by to look in without being jostled by other pedestrians.

VILLA AT HOLMENKOLLEN, OSLO

The site of the villa falls away steeply to the south, the terrace commanding a wide view over the capital and the fjord beyond. The terrace and the lower ground floor are finished in a white cement stucco, with the handrail painted blue. The vertical weatherboarding to the house is treated with a patent weather-proofing material. An interesting feature is the special double window with a plant tank incorporated; the sloping outer window with its metal surround allows a space of nearly two feet in width for greenhouse plants and flowers. Thorleif Jensen, architect.



PRESENT ARCHITECTURAL EDUCATION

THE JOURNAL tried to explain last week the two main causes of present criticism of architectural education. The first is the conservatism which is inherent in any educational system, and of which attempted reforms are the perpetual signs of a healthy profession. The second cause is the effect on all architects, and particularly on students, of social and political factors lying outside architecture. And there can be no doubt that it is the latter—in architecture as in all other education—which are the real trouble.

Now architectural schools and the system of which they are all a part must not be rigid ; they must quietly and firmly come into line with major changes in ideas and outlooks. But equally, they must not flutter. They cannot, if they are to provide a decent basis for practising architecture, be so sensitively balanced that they tilt heavily at the smallest change of fashion in any one component of architecture. For fashions besides being often short, may be bad.

Therefore to understand whether architectural schools are finding *unnecessary* difficulty in adjusting themselves to new developments, the opposing points of view have to be stated.

It is not easy to summarize these points of view about architectural education. And it is only possible at all if extreme points of view are taken.

Today these extremes may be described as Modified Beaux Arts and Very Progressive. The believers in Beaux Arts cannot go as far as to aim at producing Paragots of the *Beloved Vagabond*, but they do still believe in virtuosity. They believe in understanding classical forms thoroughly, in the architecture of form and craftsmanship rather than colour, texture, and factory-made units ; in the architect as still much of an isolated artist ; and in five years being spent very largely on history, design and construction—with no time wasted on such things as sociology and territorial planning, which must continue to lie almost wholly outside the ordinary architect's province.

The Very Progressive view is almost the perfect antithesis of the Beaux Arts. Its exponents hold that the function of the architect is to enable every activity of every person in the country to be carried out efficiently and in pleasing surroundings. They believe that as the architect is the only social unit specifically trained to *plan*, he cannot neglect such planning problems as town and territorial planning ; that since his years as a student are the only period in which he is likely to be able to study such problems, he should do so. And they believe that, since constructional methods are daily concerned less with craftsmanship and more with mass-production, it is absurd to study more than briefly architectural forms which depended almost wholly on craftsmanship.

Between these two extremes is plenty of opportunity for compromise. Compromises are in force in every school in the country. Classes are smaller ; there is much more informal contact between staff and students; the enormous range of equipment and miscellaneous knowledge of which the architect must know something is catered for by many more outside lecturers ; and the arbitrary marking of design " projects " is decreasing. In addition, students are encouraged to work out during their course one or more problems from the beginning to the end—considering and overcoming all the difficulties they would encounter in actual practice, save the client. Under the guidance of an able master such trial schemes must be enormously instructive.

These compromises have not, however, decided to the satisfaction of opposing views the greatest problem : the allocation of time, in courses which never exceed three working years, between the different aspects of architecture. In other words, it is not yet decided whether students should learn architecture " in the small " with thoroughness and be left to work out for themselves its application to wider problems ; or whether the widest problems of architecture should be put before them, with tentative sketches of possible solutions—while immediately useful practical knowledge should be considered of less importance.

It is this problem, with its added complications of present strong feelings about politics and sociology, which must be solved.

The JOURNAL does not minimize the difficulties. If a solution is obtained it must be a compromise and will therefore be attacked. But with the range of architecture widening constantly and the period available for training remaining fixed, the schools must, sooner or later state emphatically the limits of the range which they consider they can most usefully cover for a period of five or ten years ahead.

Next week the JOURNAL will try to summarize its own idea of the range most useful both to the students and the profession.

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NOTES & TOPICS

THE PAST WEEK

POLITICS and international affairs are normally considered by the JOURNAL to lie outside its sphere of comment. Its readers are probably very glad. But there are times when it would be silly to pretend that, even for architects as architects, the most important current events are professional.

*

This last week has been one of such crucial periods. At the moment of writing—some twenty-four hours before publication—the international outlook does not look favourable. The next few days, and weeks, must remain critical ; and, one may add, for none more than architects.

*

For some other livelihoods the appalling possibility of war is mitigated, in however small a degree, by the certainty of vastly increased activity or at least continuing business. Architects can count on no such palliative.

THE BUILDING EXHIBITION

Tomorrow Sir Philip Sassoon will open one more Building Exhibition, and for a fortnight a large number of architects who protest they never go near the place will be moving uneasily around it ; surprised at themselves but unable to resist looking at so many products which they will never use. Some others, not very many, will be there to look at the stands they have designed.

*

From the worldly point of view designing a stand is apt to work out worse than a £1,000 house—and we all know what that means. But once started on one it is difficult not to become a little intoxicated by release from all the usual restrictions. Thirty-three opportunities for studying architects' powers of self-discipline will be available.

THE TOMBOLA

The Architects' Benevolent Society is, one regrets to say, far more often and more effectually remembered by Mr. Greville Montgomery than by architects.

*

At Olympia, Mr. Montgomery is reminding us of our shortcomings in two ways : by a *Tombola* and a Ball.

The first, for which tickets price one guinea will be on sale at the Exhibition, is a lottery in which all subscribers get a prize. Sketches, paintings and other *objets d'art* have been, one hopes, sent in multitudes to Portland Place. What now remains is for you all to buy a ticket either from the *Tombola* stand at Olympia (where the prizes will be on view) or from the Secretary, A.B.S., at 66 Portland Place.

*

Then there is the Ball on Friday, September 23, at Olympia, from 7.30 p.m. to 1 a.m. (Dinner included), Tickets £1, or two for 35s. Mr. Montgomery is paying all expenses, so every penny of your pound goes to a cause you think of too rarely.

*

Do not let me have to mention this again.

THE FORGOTTEN DETAIL

At lunch last week I was sitting next a publicity expert, and the subject of the forthcoming Woman's Fair came up. I was told that, besides the famous Corbusier house, every " interest " of the up-to-date woman was to be represented.

*

But he also told me that when the promoters showed their first draft scheme for this exhibition to an expert organizer of such affairs, it had to be pointed out to them that no mention whatever had been made of children, or anything connected with them.

*

I understand that this pardonable oversight concerning up-to-date women has now been handsomely rectified.

TRIBUNALS

The Eastbourne Council has been worried last week over its Tribunal of Appeal—on which one J.P., one architect and one surveyor are to sit in judgment upon the appearance of such new buildings as are submitted to them.

*

The R.I.B.A. nominated Mr. J. D. Clarke, a local architect, as the architect member. But it has occurred to the Council that it is undesirable for a local practitioner to sit in judgment upon what may be the work of his " rivals."

*

Other people have also thought of this objection, but the R.I.B.A.—holding that a person with local knowledge is peculiarly suited to serve—has refused to make another nomination ; and at length the Council has reluctantly consented to the appointment.

*

There is at least this to be said for the R.I.B.A. point of view : it is no more undesirable for an Eastbourne architect to sit in judgment on Eastbourne architects, than it is for a Worthing architect to do so.

ALNWICK

Alnwick, in the centre of Northumberland, is still a town of which preservation societies can be proud. Between the gateway to the south and the castle and Lion Bridge to the north it is still almost entirely as it was—plain solid " Northumbrian traditional " of stone and stone slate and small stone-pedimented doorways.

*

There are naturally some housing schemes round about, and they are no better than elsewhere. But these did not matter very much.

*

What now matters a lot is the demolition in the town which is going on under the U.D.C.'s clearance scheme.

A perspective of the British Pavilion at the New York World's Fair to be held next year. Architects, Messrs. Stanley Hall, Easton and Robertson.

What matters still more is that the Duke of Northumberland has suggested that Mr. Thomas Sharp, now lecturer in town planning at King's College, Newcastle, should be consulted concerning the redevelopment and the future extension of the town. The Duke has also offered to pay Mr. Sharp's fees.

*

It is always rare for a man of Mr. Sharp's reputation to have it recognized locally. It is still more rare nowadays for great landowners to hold the enlightened views of architecture and town planning which were formerly almost their monopoly. Alnwick is fortunate in having both the right patron and the right planner on its doorstep.

EX-£8,000 MAN STEALS COAT

One of the attendant perils on becoming front page news is, of course, that the debit side gets as much—at least as much—publicity as the credit. And now that architects have become front page news, I suppose we mustn't mind when the erring practitioner gets his "story," and his picture, put over with as much zest by our brighter dailies as the winner of the latest comp.

*

There was a time when "Ex-£8,000 Man" would have been described simply and innocuously as a "designer." Now, however, we are even given the names of buildings of which he was the architect.

*

Particularly when the individual in question has a moderately distinguished record we may not like it. But at least it does show architecture-consciousness, I suppose, where before there was none.

NEWS STORY

In another paper on the same day, architecture hit the headlines in rather more dignified fashion.

*

MILLIONAIRE TO SELL CASTLE, said the *Express*, referring to Mr. William Randolph Hearst's reputed intention of disposing of St. Donat's Castle in Glamorgan. And underneath, the architect for its restoration some years ago, Sir Charles Allom, was given his picture in the paper equally with Miss Marion Davies, film star guest, and Mr. Hearst himself.

On the same page the *Express* also said: B.B.C. CHIEF BUYS DREAM HOME, which turned out to be none other than Mr. J. Stanley Beard's house in Hampstead being sold to the as-yet mysterious Mr. (B.B.C.) Ogilvie.

"The only thing missing from 'this house of luxury—replete with every comfort and convenience' is a radio aerial."

*

I don't know what that means, unless Mr. Ogilvie is going to listen-in without a licence.

MODERN HOMES

The recent "Modern Homes" Supplement of the *Daily Telegraph* was more ambitious, and better, than the collection of advertisements and chatty hints which the daily press turned technical too often unloads on a helpless public.

*

Contributors included Messrs. Oliver P. Bernard, Murray Easton, C. H. James and the President.

*

The latter, in a customarily impeccable contribution, maintained that the Victorian villa might be badly planned and lighted, but was also solid, spacious and perfect in sound-insulation. It ought, I thought, to have been called "Lest we forget"; it reminded us that while we proclaim our winnings on the swings, we forget too readily our losses on the roundabouts.

OTHER PRESS CUTTINGS

The new Windsor cinema near Doncaster has been built in modern red brick to harmonise with the immediate surroundings. A feature of the exterior is the unique neon sign visible at a distance of 24 miles.—*Cinema.*

*

New houses in Sussex, built of faced flint-work, are to have a current issue of a daily newspaper built in under the front door-step, to prevent future generations making mistakes.—*Daily Mirror.*

*

Callers at up-to-date houses don't pull bells, they sound electric chimes.—*Daily Telegraph.*

JOLLOP

I am now very fully informed about this substance, and the manner of its use.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

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The new Windsor cinema has been built to harmonize with the immediate surroundings. The neon sign is visible at a distance of 24 miles 425

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D.I.A. CONFERENCE

The second week-end Conference of the Design and Industries Association is to be held at Buxton from September 29 to October 2. Following is the programme:

THURSDAY, SEPTEMBER 29: Evening: Reception: Informal Reception of the Delegates by the Mayor of Buxton. 8.30—Spa Plaza Hotel.

FRIDAY, SEPTEMBER 30: Morning and Afternoon: Coach Trips: (*a*) Morning to the Sheffield Smelting Company's works (gold and silver refining) and Afternoon to Messrs. Robinson's box factory at Chesterfield. Lunch will be served in Sheffield; or (*b*) Morning to Messrs. Brocklehurst's silk mills at Macclesfield and Afternoon to Messrs. Josiah Wedgwood and Sons' pottery, Stoke-on-Trent. Lunch will be served in Stoke-on-Trent. Evening: Meeting: "Selling Good Design to the Public." Speakers: Sinclair Wood and Montague Jacobs.

SATURDAY, OCTOBER 1: Morning: Meeting: "Is Design Worth While?—The Manufacturer's Viewpoint." Afternoon, Coach Trip: Drive through the Peak District. Buxton—Taddington, Dale—Ashford—Bakewell—Haddon Hall—Rowsley—Chatsworth Park—Baslow—Froggatt Edge—Fox House—Surprise View—Hathersage—Hope—Castleton—Mam Tor—Sparrow Pit—Buxton. The Castleton Caverns will be visited. Evening: Conference Dinner (7.30 for 8). Speakers: The President, The Rt. Hon. Lord Sempill, A.F.C., The Rt. Rev. the Lord Bishop of Derby.

SUNDAY, OCTOBER 2: Morning: Discussion: D.I.A. Policy and Activities.

GENERAL POSITION OF THE BUILDING INDUSTRY

"The position of the building industry showed little change on the month," states the current issue of the *Building Industries Survey*, published by the Building Industries National Council, "the information becoming available confirming recent tendencies. The seasonal improvement this year failed to attain its usual dimensions, and a more than seasonal decline must be expected now that the predominant seasonal influences reinforce the cyclical decline. This view is confirmed by the fact that unemployment in the building industry in July showed greater increase on the year than in the previous month, and was the highest number recorded for July since 1935. The plan figures have been almost stable in recent months, the moving annual total for the last four months showing only a slight decline. It must, however, be pointed out that, judged by the standards of recent years, the figures are low, and it is worthy of particular notice that the total value of plans passed during the year ended July was the lowest for any such year since 1934.

"The stability of the plan figures as a whole has been due to the stability of housing plans. Among the non-residential categories the strong downward trend of factories and workshops persists, and plans for other buildings are now tending downward. Plans for schools and public buildings, on the other hand, show some recovery, and there was a rather surprising rise in July in plans for shops, offices and other business premises."

THE ARCHITECTS' DIARY

Friday, September 16
BUILDING EXHIBITION. *At Olympia. To be opened by Sir Philip Sassoon at 4 p.m. Until October 1.*
LONDON SOCIETY. *Visit to A.R.P. Depot, 56 Warwick Gardens, W.14, and to the Royal Geographical Society's Headquarters, Kensington Gore. 2.45 p.m.*

Monday, September 19
LONDON SOCIETY. *Visit to the new Warner Picture House, Daly's Theatre site, Leicester Square. 2.30 p.m.*

Thursday, September 22
INSTITUTE OF HOUSING. *At Norwich. Sixth Annual General Meeting and Conference. Until September 24.*

Friday, September 23
BUILDING EXHIBITION. *Olympia. Ball in aid of the Architects' Benevolent Society. 7.30 p.m.*

Saturday, September 24
LONDON SOCIETY. *Visit to Dickens' House, 48 Doughty Street, W.C.1. 3 p.m.*

Wednesday, September 28
ECCLESIOLOGICAL SOCIETY. *"French Romanesque Churches," By A. Gardner. At 6 Queen's Square, W.C.1. 8 p.m.*
CENTRAL COUNCIL FOR HEALTH EDUCATION. *Eleventh Annual Education Conference. At Glasgow. Until September 29.*

Thursday, September 29
NATIONAL SMOKE ABATEMENT SOCIETY. *Annual Conference. At Cardiff. Until October 1.*

Friday, September 30
ARCHITECTS' REGISTRATION COUNCIL. *At 68 Portland Place, W.1. 26th Ordinary Meeting.*
TOWN PLANNING INSTITUTE. *Twentieth Annual Country Meeting. At the Queen's Hotel, Leeds. Until October 3.*

THE LONDON SALON OF PHOTOGAPHY, 1938

This year's London Salon of Photography shows some of the latest advances in picture-making with a camera. With the present interest in photography the Salon will probably be a popular show this Autumn. The Exhibition opened last week at the Gallery of the Royal Society of Painters in Water Colours, 5a Pall Mall East, S.W.1. This is the twenty-ninth year that the Salon has been held in these Galleries, and it has now become an established annual function.

The members of the London Salon of Photography include the leading workers with the camera in different countries, and the object of the exhibition is the encouragement of pictorial photography of an individual and original type. Each year the members meet together in London to select the pictures that are submitted from all parts of the world. This year the entries constitute a record, and the selection of 400 prints from more than 5,000 submitted gives an idea of the standard of the display that is now on view.

The London Salon of Photography is open daily from 10 a.m. to 6 p.m., until October 8. Sundays excepted.

PROPOSED NEW SCHOOL OF ART

It is learnt that the proposed new School of Arts and Crafts, to be erected by the City Council at Wakefield, Yorkshire, is likely, as a result of discussions with the Board of Education, to be launched as a rather more moderate scheme than was at first intended. The present scheme provides for the accommodation of 600 pupils at an estimated cost of £30,000.

OBITUARY

The death has occurred of Mr. D. Salmond, F.R.I.B.A., who was formerly a partner in the firm of Messrs. Watson, Salmond and Gray, architects, Glasgow. Mr. Salmond, who was 62 years of age, had been in failing health for some time, and retired from the firm over five years ago. He was the son of the late Mr. David Salmond Salmond, well known in literary and musical circles in Glasgow and also in South Africa. Mr. Salmond himself was in South Africa for two years, and on his return to London he joined the staff of Messrs. Niven and Wigglesworth, where he met his future partner, the late John Watson, A.R.S.A.

LETTERS FROM READERS

Rural Housing

SIR,—Unsatisfactory housing conditions in rural areas have received considerable attention in the press recently. Such conditions have, indeed, frequently been quoted as a contributory cause in the drift of agricultural workers to the towns.

At the same time it is often difficult to convey through the written word or even through photographs why young married couples will not tolerate living in cottages which appear both attractive and ideally situated to the townsman.

For this reason the Housing Centre has arranged for a rural slum to be re-erected at the Building Exhibition which is to be opened at Olympia on September 16. The cottage in question has been condemned under the Housing Acts and it is of interest that the former tenants will have been moved to a new home only a few days prior to the opening of the exhibition.

A new cottage, the design of which can be taken as an example of reasonably minimum standards considering financial limitations, is to be erected in contrast to the slum. In this case great care has been taken to incorporate features which are frequently over-

looked in contemporary housing schemes, such as the provision of suitable outhouses for tools, bicycles, fuel, and so on.

A great opportunity now exists to carry out an extensive rural housing programme. New and increased subsidies are available under the Housing (Financial Provisions) Act, 1938, and many new schemes are already in hand.

The cottages should be used to bring renewed life to the villages. Except where required for stockmen or others on the farms, the new cottages should be planned to form a natural extension of the existing village. They should not be placed in outlying fields away from the community, but close to it, so that the tenants are served by local transport services and can share in such buildings as schools, shops, cinemas and libraries.

These points are also illustrated by the use of models and plans at the exhibition referred to above.

PHILIP R. RATHBONE,
Secretary, Housing Centre.

R.I.B.A.

INTERMEDIATE EXAMINATION

The following are the dates on which the forthcoming R.I.B.A. Intermediate Examination will be held: November 18, 19, 21, 22 and 24, 1938. (Last day for applications: October 18, 1938.).

EXHIBITIONS OF DESIGNS

The designs of students of schools of architecture recognized for exemption from the R.I.B.A. Final Examination will be exhibited at the R.I.B.A., 66 Portland Place, London, W.1, from September 29 to October 4, inclusive, between the hours of 10 a.m. and 8 p.m., Saturday 10 a.m. and 5 p.m. The R.I.B.A. Silver Medal for Recognized Schools of Architecture and £5 in books are awarded for the best set of drawings submitted.

The designs of students of schools of architecture recognized for exemption from the R.I.B.A. Intermediate Examination will be exhibited at the R.I.B.A. from October 11 to October 14, inclusive, between the hours of 10 a.m. and 8 p.m. The R.I.B.A. Bronze Medal for Recognized Schools of Architecture, and £5 in books are awarded for the best set of drawings submitted.

R.I.B.A. (ARCHIBALD DAWNAY) SCHOLARSHIPS

In accordance with the terms of the will of the late Sir Archibald Dawnay, the Institute has awarded three scholarships of £50 for the academical year 1938–39, one to Mr. J. R. M. Poole, of the School of Architecture, The Polytechnic, Regent Street, London, one to Mr. T. E. Fennell, of the School of Architecture, King's College, Newcastle-on-Tyne, and the third to Mr. J. B. Hall, of the School of Architecture, Edinburgh College of Art.

Mr. R. D. Hammett, of the School of Architecture, The Architectural Association, London, Mr. G. F. Horsfall, of the Liverpool School of Architecture, University of Liverpool, and Mr. N. B. Dant, of the School of Architecture, The Polytechnic, Regent Street, London, who were awarded scholarships of £50 each for the academical year 1937–38, have been granted renewals of their scholarships for the year 1938–39.

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.

THE BUILDING EXHIBITION

On pages 451-466 of this issue are reproduced reviews of some of the principal exhibits at the Building Exhibition, which opens at Olympia to-morrow. Below we print an alphabetical list of the firms whose exhibits are reviewed in this issue; the numbers in brackets indicate the page numbers.

Abraham, Robert, Ltd. (460).
Adamite Co., Ltd. (457).
Adamez, Ltd. (460).
Adams, James, and Son, Ltd. (458).
Adams, Robert, Ltd. (457).
Aerolite Ventilating Co. (461).
Aga Heat, Ltd. (460).
Aidas Electric, Ltd. (456).
Aladdin Industries, Ltd. (465).
Amplilux Lighting and Illumination Co., Ltd. (452).
Anderson, D., and Son, Ltd. (453).
Architectural Press, The (451).
Ascot Gas Water Heaters, Ltd. (460).
Atlas Stone Co., Ltd., The (461).
Austins of East Ham, Ltd. (463).
B. B. Chemical Co., Ltd. (460).
Bakelite, Ltd. (453).
Benham and Sons, Ltd. (462).
Beresford, James, and Son, Ltd. (453).
Bolton Gate Co., Ltd. (458).
Brady, G., & Co., Ltd. (460).
British Electrical Development Association, Inc., The (455).
British Plaster Board, Ltd., The (462).
British Steelwork Association (454).
British Unit Heater and Radiator Co. (465).
Broad & Co., Ltd. (466).
Brown and Tawse, Ltd. (461).
Bryce, White & Co., Ltd. (462).
Building Research Station (451).
Callender, George M., & Co., Ltd. (461).
Canadian Government Exhibition Commission, The (455).
Candy & Co., Ltd. (466).
Carter & Co., Ltd. (457).
Cashmore Art Workers (465).
Casebourne & Co. (1926), Ltd. and I.C.I. (Metals), Ltd. (452).
Cellactite and British Uralite, Ltd. (453).
Cellon, Ltd. (462).
Celotex, Ltd. (460).
Cement and Concrete Association (464).
Cement Marketing Co., Ltd., The (455).
Clark, James, and Son, Ltd. (463).
Claughton Bros., Ltd. (457).
Clay Products Technical Bureau of Great Britain (454).
Cole, E. K., Ltd. (455).
Collier, S. and E., Ltd. (458).
Colt, W. H. (London), Ltd. (452).
Colthurst, Symons & Co., Ltd. (461).
Cork Insulation Co. (462).
Crane, Ltd. (459).
Crittall Manufacturing Co., Ltd., The (462).
Crowe, G. E. W. (464).
Downham & Co. (466).
Durasteel Roofs, Ltd. (461).
Eagle Range and Grate Co., Ltd. (462).
Educational Supply Association, Ltd., The (464).
Elliott, Samuel, and Sons (Reading), Ltd. (456).
Ellis, John, and Sons, Ltd. (461).
Ewart and Sons, Ltd. (462).
Expanded Metal Co., Ltd., The (454).
Field and Palmer, Ltd. (452).
Fison, Packard and Prentice, Ltd. (464).
Flavel, Sidney, & Co., Ltd. (464).
Gabriel, Wade and English, Ltd. (462).
Gas Light and Coke Co. (460).
"Gliso" Manufacturing Co., The (464).
Gliksten Doors, Ltd. (466).
Gravity Ladders, Ltd. (456).
Greenwood and Hanson (459).
Halliday Boilers, Ltd. (452).
Harvey, G. A., & Co. (London), Ltd. (465).
Highways Construction, Ltd. (466).
Hills, F., and Sons, Ltd. (462).
Hitchins Flush Woodwork, Ltd. (465).
Hope, Henry, and Sons (462).
Horseley Bridge and Thomas Piggott, Ltd. (463).
Hunziker (Gt. Britain), Ltd. (463).
Hurry Water Heater Co. (459).
I.C.I. (Rexine), Ltd. (453).
Ide, T. and W. (465).
Interoven Stove Co., Ltd., The (452).
Jenson and Nicholson, Ltd. (461).
Johnson, A., & Co. (London), Ltd. (454).
Jones and Attwood, Ltd. (462).
Jones, T. C., & Co., Ltd. (466).
Kelvinator, Ltd. (459).
King, J. A., & Co., Ltd. (466).
Kitchendom, Ltd. (461).
Konkerwind, Ltd. (466).
Langley-London, Ltd. (464).
Lead Industries Development Council (459).
Limmer and Trinidad Lake Asphalte Co., Ltd., The (457).
Lloyd Boards, Ltd. (462).
London Brick Co., Ltd. (458).
London and Counties Coke Association (466).
London Sand Blast Decorative Glass Works, Ltd., The (466).
Marley Tile (Holding) Co., Ltd., The (464).
Marston Valley Brick Co., Ltd. (464).
Midhurst Whites, Ltd. (463).
R. D. Milles, Ltd. (464)
Modern Kitchen Equipment, Ltd. (454).
Moody, Charles P. (455).
Nautilus Fire Co., Ltd., The (454).
"Neeta" (Kitchen Furniture), Ltd. (462).
Nettlefold and Sons, Ltd. (463).
North British Rubber Co., Ltd., The (463).
Oliver, Wm., and Sons, Ltd. (459).
Parkinson Stove Co., Ltd. (459).
Parsons, Thomas, and Sons, Ltd. (454).
Patent Tip Up Bath Co. (455).
Pearson, Wm., Ltd. (455).
Penmaenmawr and Welsh Granite Co., Ltd. [(465).
Pilkington Bros., Ltd. (453).
Plaster Products (Greenhithe), Ltd. (463).
Portway and Son, Ltd. (463).
Potterton, Thos. (Heating Engineers), Ltd. (458).
Powell Duffryn Associated Collieries, Ltd. (455).
Rawlplug Co., Ltd., The (452).
Reliance Telephone Co., Ltd. (459).
Ronuk, Ltd. (465).
Ruberoid Co., Ltd., The (451).
Ryarsh Brick and Sand Co., Ltd. (465).
Sadd, John, and Sons, Ltd. (461).
Sandell, Joseph, & Co., Ltd. (458).
Sankey, Joseph, and Sons, Ltd. (455).
Sharp Bros. and Knight, Ltd. (454).
Silent Gliding Doors, Ltd. (465).
Silexine, Ltd. (458).
Smith and Wellstood, Ltd. (456).
Smith's English Clocks, Ltd. (465).
Smith's Fireproof Floors, Ltd. (457).
Somerset Trading Co., Ltd., The (465).
Speaker, G. R., & Co., Ltd. (457).
Stainless Steel Sink Co., Ltd., The (465).
Telling, W. A., Ltd. (458).
Tentest Fibre Board Co., Ltd., The (457).
Thames Board Mills, Ltd. (456).
Thermacoust Products, Ltd. (456).
Turner's Asbestos Cement Co. (452).
"Twisteel" Reinforcement, Ltd. (465).
United Steel Companies, Ltd. (454).
Universal Asbestos Manufacturing Co., Ltd., The (451).
Ure, Allan, & Co., Ltd. (465).
Venesta, Ltd. (465).
Vent-Axia, Ltd. (466).
Wiggin, Henry, & Co., Ltd. (464).
Williams and Williams, Ltd. (456).
Wood Products, Ltd. (464).
Zeros (Sales), Ltd. (464).
Zinc Development Association, Ltd. (463).

ANALYSIS OF A BUILDING

MESSRS. D. H. EVANS' STORE, OXFORD STREET

LONDON, W.1

DESIGNED BY LOUIS BLANC

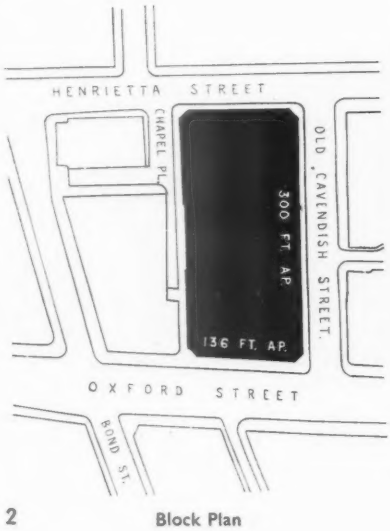
REQUIREMENTS—Store for a drapery business supplying women's and children's requirements, with departments for linen, blankets, etc. ; service sections to include hair-dressing, beauty culture; and a restaurant. The building was not to be a departmental store, as the policy was that small departments, such as rugs and china, were not required.

LIMITATIONS—Building designed to the London Building Act Amendments in which floor areas up to 40,000 sq. ft. are allowed. Special conditions of consent were given for general construction, height, and canopy over pavement. The cubic capacity of any compartment is within 500,000 cu. ft. As the L.B.A. requires a vertical compartment to be cut off from a horizontal one, the staircase and lift halls are shut off from the floors they serve. The L.C.C. would not allow the basement to be used as a selling area ; but Messrs. D. H. Evans did not in any case require to use it as such. There is no provision for the parking of cars, the plans being passed before the Town Planning Act was applied to the area.

SITE OR BLOCK PLAN—Island site stretching from Oxford Street to Henrietta Street with a frontage to Old Cavendish Street of 300 ft. and a frontage to Oxford Street of 136 ft. (2). The site, being situated amidst such stores as Selfridges, C. & A. Modes, and John Lewis, and being both in Oxford Street and close to Bond Street where the public stream must be counted in millions, is one of the finest drapery sites in the world.

BUILDING TYPE—Store buildings can be roughly divided into three types (i) English small floor compartment ; usually the result of a small house expanding and taking over adjacent premises, holes being cut through the walls to obtain access from one department to the other ; (ii) Continental open well ; floors arranged as galleries around an open well ; (iii) American open floor ; large open floors restricted only by the columns and divided up at will by the display fittings, screens, counters, etc. The D. H. Evans store is of the open floor type.

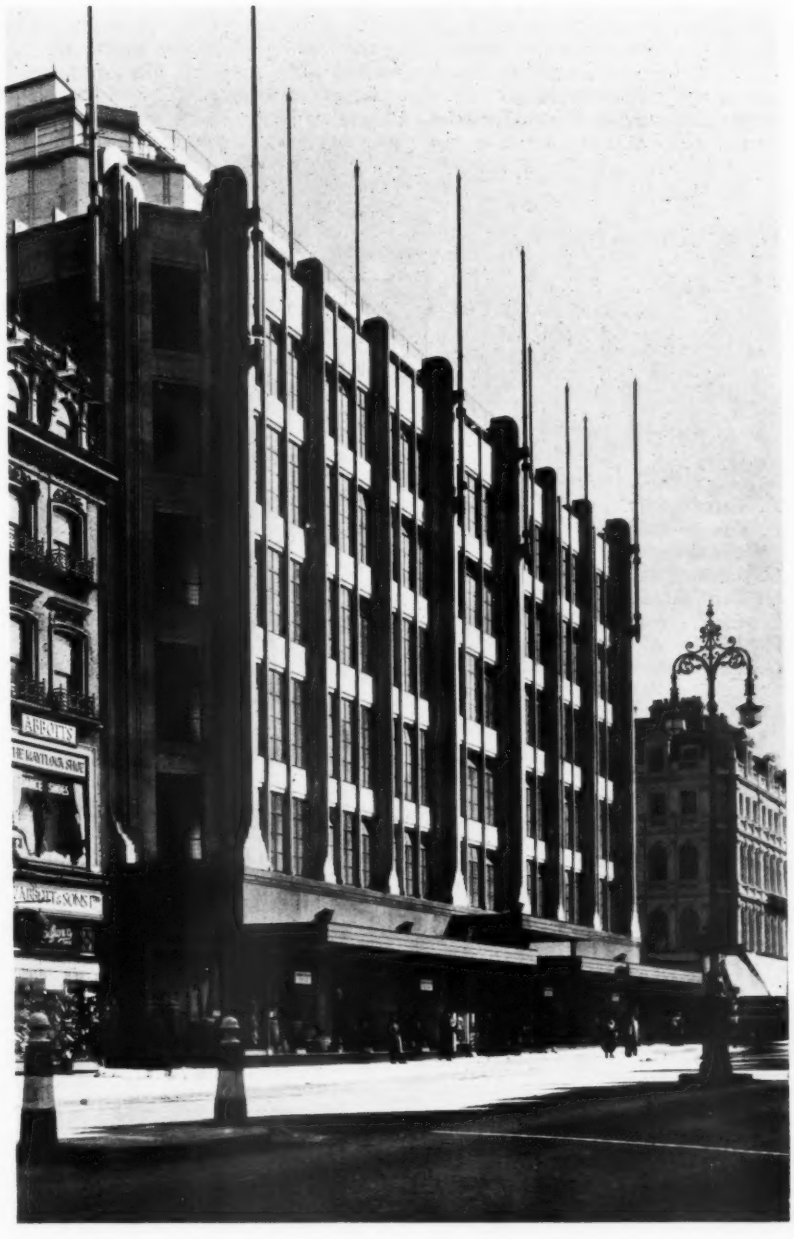
EXTERNAL FINISHES—Pavement to cill of first floor windows : polished grey granite. Canopy : glass and reinforced concrete construction, with bronze and granite fascia. First floor cill level to 80 ft. height : Portland stone. Above 80 ft. height : reconstructed Portland stone. Windows : steel-painted. Flat roofs : asphalt.



2 Block Plan

: ELEVATION TO OLD CAVENDISH STREET : 3

The survey above shows the miscellaneous assortment of buildings facing Old Cavendish St.—Messrs. D. H. Evans' original store is on the left—which were demolished and replaced by the new building shown on the facing page (1) and below (4).



4

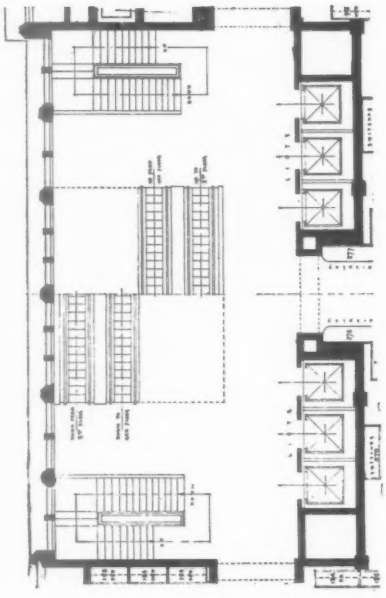
PLAN

LAYOUT AND CIRCULATION—Ground to fifth floor—public or selling space—planned as one large open area interrupted only by the columns. Basement, sub-basement, sixth and seventh floors—administrative and service—divided up into three sections. The sub-basement contains the boiler and ventilating plant. The basement contains the staff clocking-in hall, cloakrooms, lavatories, despatch, display, and fur cold storage. The seventh floor contains the lift machinery, staff rooms, and clinic.

Three main entrances only were provided, 6, as a multiplicity of entrances breaks up the selling area of the ground floor. The display windows run round the three principal elevations with a total frontage of 400 ft.

In most stores the trading value of the ground floor selling space is worth considerably more than the higher floors—with ground floor space worth, say, £20 per sq. ft., the fifth floor would only be worth £1. In order to increase the selling value of the upper floors the vertical communication is concentrated together in the form of a large hall, 5, equipped with six high-speed lifts, two escalators, and two staircases. The architectural importance of the hall, the choice of means of access, and the speed of access (1½ minutes ground to fifth floor) induces the public to visit the upper floors, thus equalizing the trading value of all the floors.

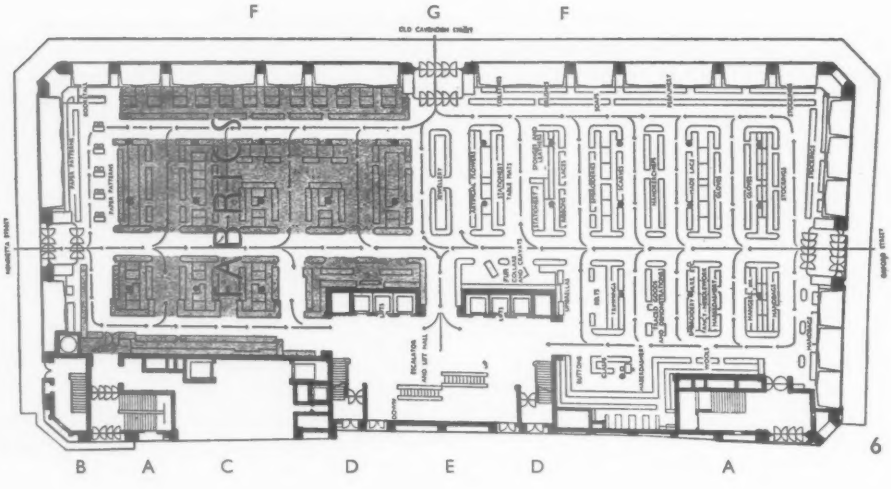
All the vertical access and services, such as main stair hall, fire stairs, and lavatories are concentrated on the least important frontage (Chapel Place). This street also contains the staff entries and loading dock. There are seven staircases, one of which acts as a direct escape from restaurant to street only.



5

GROUND FLOOR

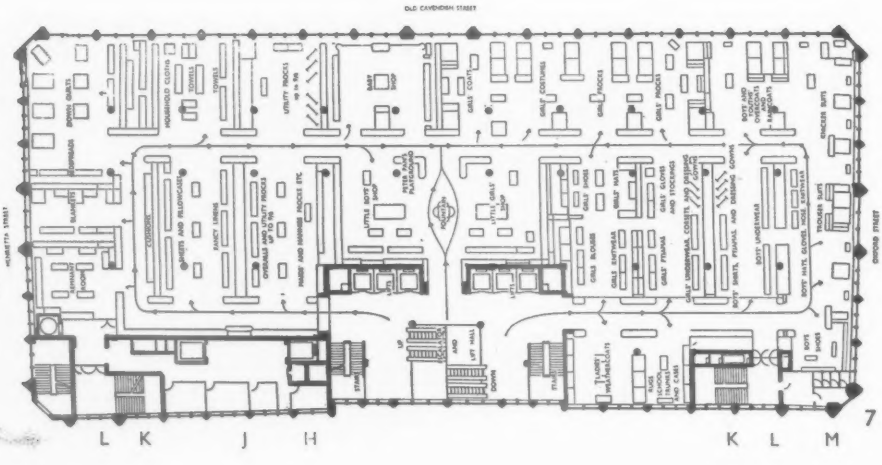
A. Escape stair.
B. Escape stair (direct from restaurant).
C. Loading dock.
D. Staff entrance.
E. Escalator and lift hall.
F. Display windows.
G. Public entrance.



6

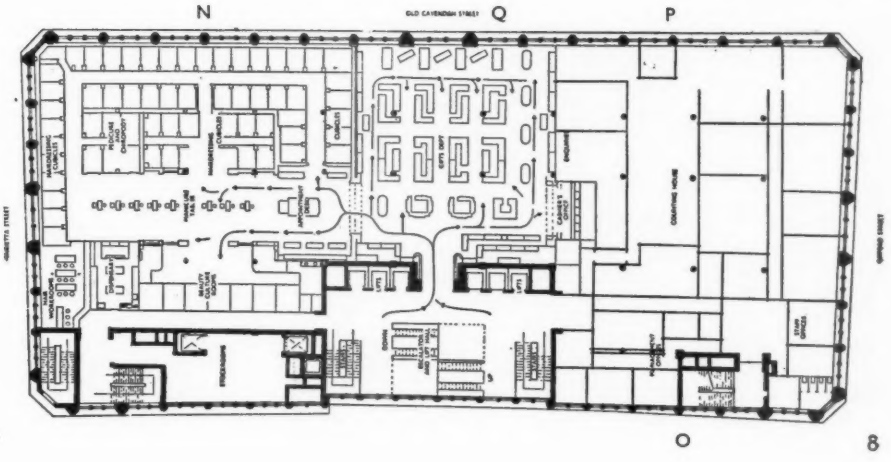
THIRD FLOOR, FIRST AND SECOND SIMILAR

H. Goods lift (2).
J. Display corridors.
K. Vent ducts.
L. Fire escape stairs.
M. Managers' lavatories.



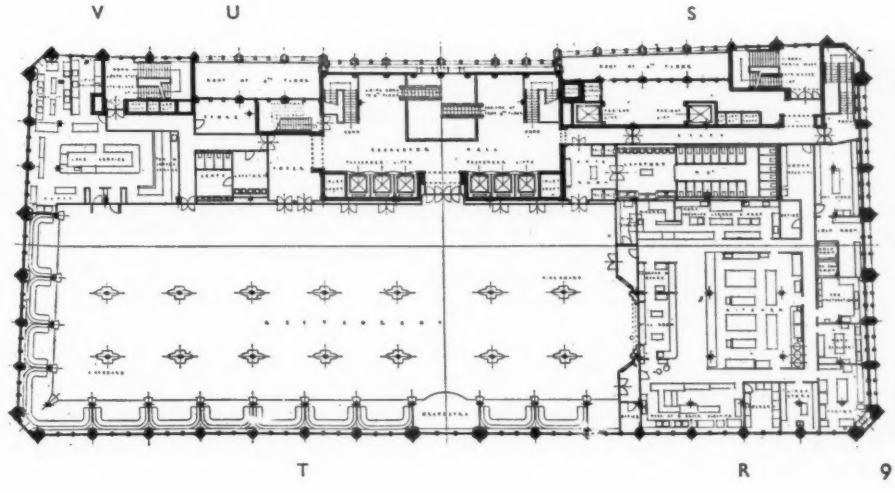
7

PLAN



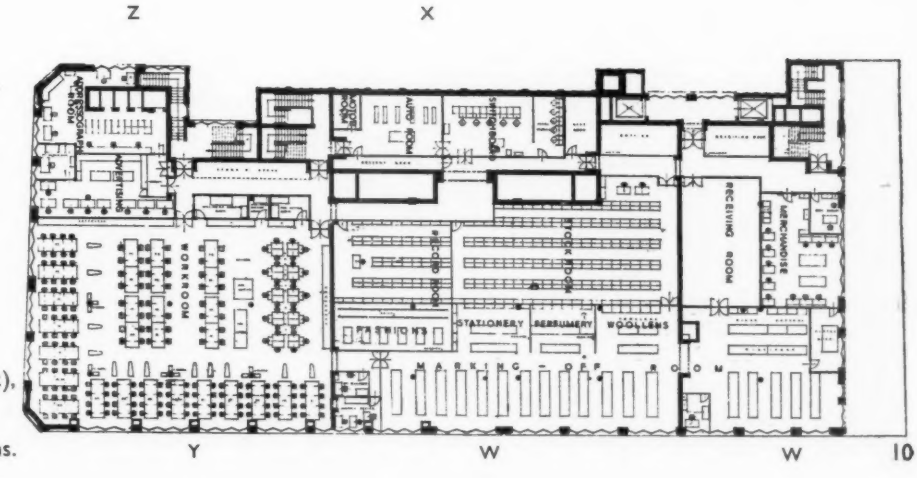
FOURTH FLOOR

N. Hairdressing department.
O. Offices—management.
P. Counting house.
Q. Gifts department.



FIFTH FLOOR

R. Kitchen.
S. Ladies' room and lavs.
T. Restaurant.
U. Male lavatories.
V. Kitchen. Cold food.



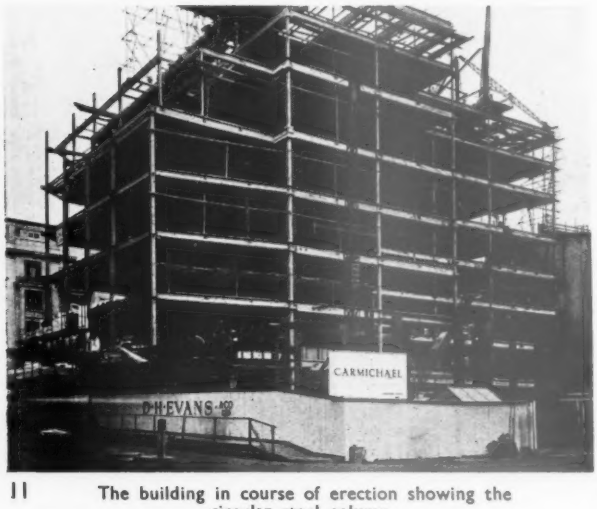
SIXTH FLOOR

W. Stock room.
X. Telephone room.
Y. Workrooms.
Z. Office—advertising.

HEIGHTS

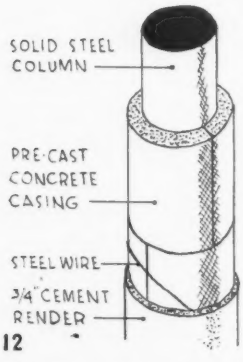
Ground to first, 15 ft.
First to second, 12 ft. 5 ins.
Second to third, 12 ft. 4 ins.
Third to fourth, 12 ft.
Fourth to fifth, 12 ft. 6 ins.
Fifth to sixth (restaurant), 14 ft. 6 ins.
Sixth to seventh, 10 ft. 10½ ins.
Seventh to soffite roof, 8 ft. 8½ ins.

CONSTRUCTION



11 The building in course of erection showing the circular steel colums.

FRAME—Steel-framed structure consisting of grillage foundations ; stanchions in external walls ; round steel columns inside building ; and R.S.J. beams.

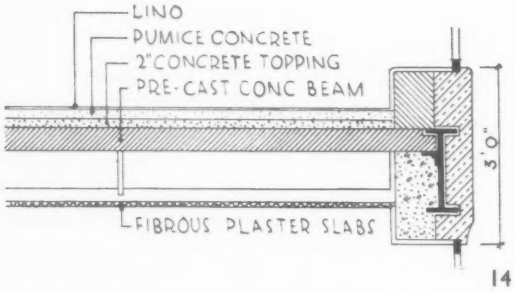


12

Columns set in simple rectangles approximate size 25 ft. by 22 ft., 30 ft., or 33 ft., 17. Steel columns were used rather than R.S.J. stanchions in order to cut down the area of support, thereby offering a minimum of obstruction to the open floors. The columns are cased in pre-cast concrete casings 2 ins. thick and about 2 ft. 6 ins. long, 12. The casings were required by the authorities to be wound with wire and rendered with ¾ in. cement.

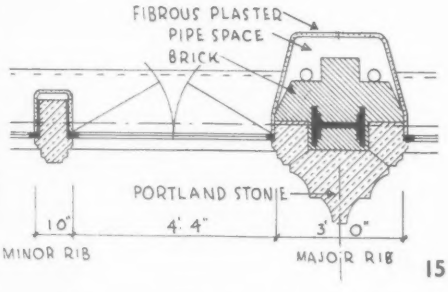
FLOORS—Patent floor construction consisting of pre-cast reinforced-concrete beams placed side by side and covered with a 2 ins. concrete topping, 13. The ends of the beams rest on angles fixed to the R.S.J. beams. The floors are covered with 2 ins. pumice concrete, ½ in. screed, and linoleum, 14.

13 Laying the pre-cast floor units.



14

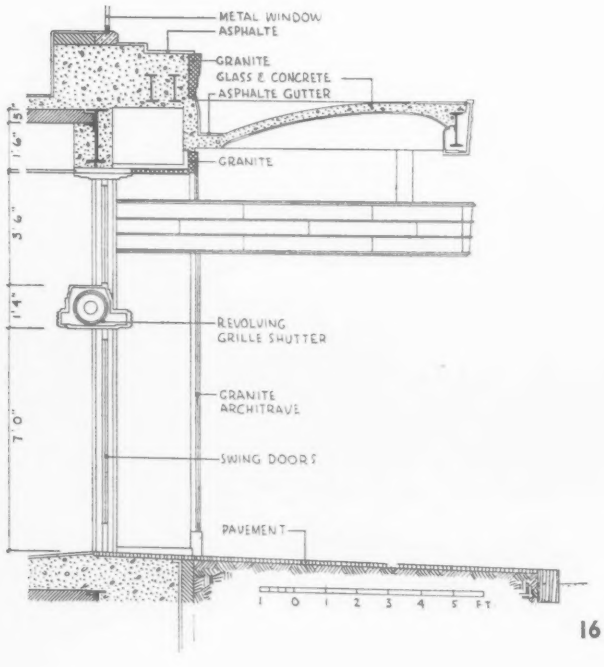
EXTERNAL WALLS—External walls consist of stanchions cased with Portland stone on the exterior and brick on the interior, between which are metal windows held in vertical Portland stone mullions, 15. Panel walls beneath windows consist of stone facing to R.S.J.'s backed with brickwork above floor level and concrete below, 14.



15

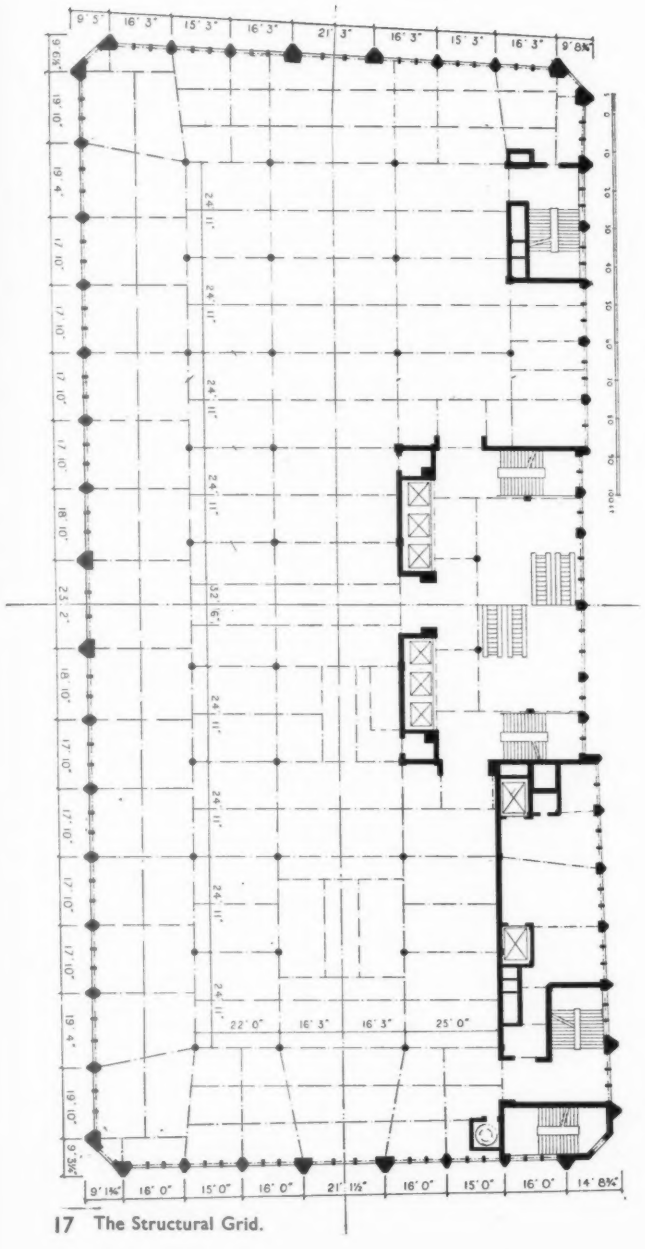
INTERNAL WALLS—Internal walls separating staircase and escalator hall from main floor area : brick. Walls surrounding vertical extract and intake ducts : brick. Partitions : breeze or glazed brick.

THE CANOPY—The canopy is of glass and concrete construction, with the front edge faced in granite slabs held in bronze beads, 16.



16

ERECTION



17 The Structural Grid.

DRY BUILDING METHODS—The building is an excellent example of modern building construction in which dry processes are superseding the traditional wet. In place of the old building methods in which the different trades carried out their operations on the site turning it into a complicated "builder's yard," the major operations are erection only ; the actual fabrication of the component parts of the building taking place in various parts of the country.

FACTORY FABRICATION—In this building the steelwork was fabricated at Silvertown ; the stonework quarried and hewn to exact sizes at Portland ; the reconstructed stone at Leicester ; the windows were built at Chester ; and the floors and column casings at Twickenham and Waltham Abbey.

PROGRESS—The building was erected in two sections and considerable difficulties were experienced through a running stream 20 ft. below Oxford Street, and the necessity for carrying on Messrs. Evans' business in the existing building on the Oxford Street side of the site, 3, while the building operations were going on. The building was erected in two sections, north and south, and in spite of the restrictions the whole 4,600,000 cu. ft. was erected in nineteen months. Some idea of the speed of erection can be gathered from the pictures below, 18, 19, 20.

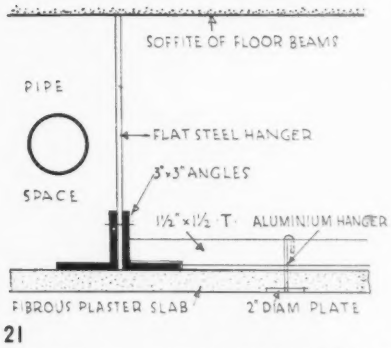
18 August 4th.

19 September 15th.

20 October 12th.

SERVICES

DUCTS—The whole of the pipework is contained within the building. The main service pipes are contained in vertical brick ducts. Ventilating intake and extract vertical ducts are of brick



21

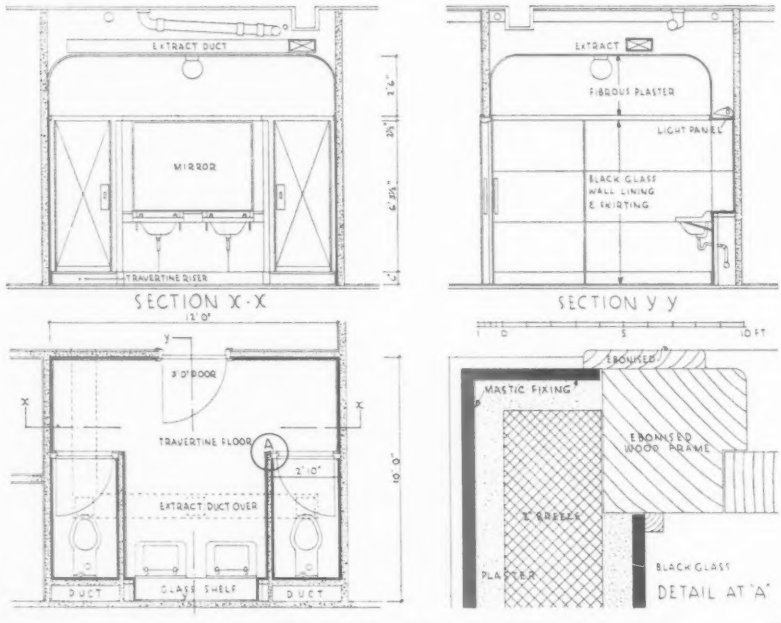
construction equipped with iron landings and ladders. Rainwater and similar pipes are contained in the spaces between the main piers and the fibrous plaster casings, 15. Horizontal runs of heating, sprinkler, pipes and electrical conduit are suspended from the floors and sealed off by suspended ceilings. These ceilings consist of a light steel framework brought on to the job in fabricated sections and bolted to the structural floors, 21. The fibrous plaster slabs are fixed to the framework by circular aluminium plates screwed to aluminium hangers.

HEATING — Steam-heating by three hand-fired boilers, two of which were taken from the old building.

From the boilers steam services are carried to hot water heating calorifiers, hot air heaters, kitchens, and booster heaters in the main intake air shafts.

A continuous range of ceiling panels about 4 ft. wide are run round the building adjacent to the windows to reduce heat losses from the glass areas. These ceiling panels consist of steel coils embedded in the suspended ceilings.

VENTILATION—Air is filtered, washed, and heated by the air-conditioning plant in the sub-basement. The air passes through vertical and horizontal ducts to four outlet gratings on each floor, situated on the Chapel Place side of the building, and then circulates through the rooms to pass out through the doors and windows. Outlet gratings are equipped with thermostatically controlled booster heaters.



Detail of Board Room Lavatory, fourth floor. 23

Extract fans situated on the roof draw off the air from the basement, lavatories, 23, and kitchen.

ELECTRICAL—Transformer room situated in the basement. Fuse and distribution boards situated on each floor. Ceilings and floors wired on the grid system so that there is an electric point every 4 or 5 ft. Floodlights are fixed to the canopy over the pavement for external floodlighting.

Secondary lighting is provided throughout the building, the current being supplied through a motor generator continuously running on the primary supply, with a battery for operation in the event of the primary supply failing.

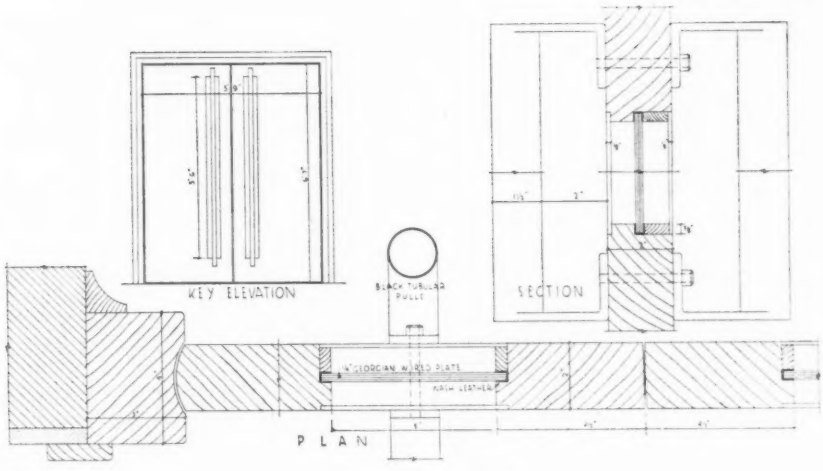
FIRE FIGHTING—Sprinkler equipment is provided to each floor. The horizontal pipes, which are contained in the false ceilings, are fed from a high-pressure main ; or, alternatively, either from a low-pressure main equipped with a booster pump, or a low-pressure tank in sub-basement with booster pump.

Automatic fire alarms are connected to a central indicator board and to the Fire Brigade stations.

PLUMBING—Cold water storage consists of three 3,800-gallon tanks situated on the roof. Plumbing is to standard two-pipe practice, all pipes being contained inside ducts, 23.

Staff Lavatory, basement. 22

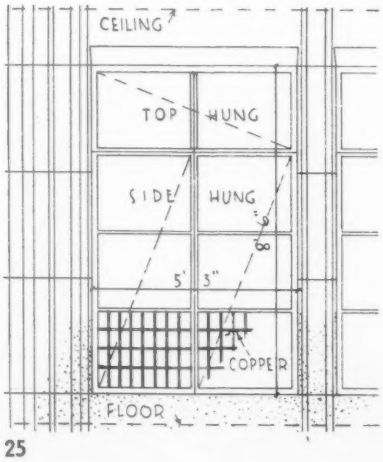
EQUIPMENT



24 Standard Door Detail.

DOORS—The standard doors are flush, oak-faced, hollow core except to staircase, which are solid core. All have a 5 ins. wide clear Georgian wired glass panel, 24. Synthetic covered steel handles protect the glass from trolleys pushed about by the staff. Double-action floor springs. The entrance doors are of teak; and roller shutters are provided to the loading dock and parcel chutes.

WINDOWS—Heavy section steel windows glazed with copper and glass in small squares, 25. Top-hung top lights



25

are gear-operated. Side-hung bottom lights equipped with safety chain open for window-cleaners only.

SANITARY FITTINGS—W.c. pans fit tight against the wall at back, 23. Cisterns contained in ducts except to staff lavatories, where open flushing troughs are installed. Staff lavatories in ranges discharge over open waste-trough, 22.

CLOCKS—Combined electric clock and staff indicator system. The clock gives Greenwich time and its face serves as an indicator under control from the telephone operating room. Each individual clock has a circular cellulosed dial with the figures cut out and backed by dark glass. Behind each numeral on the clock face is a compartment equipped with a light bulb. By using the hour numerals from 1 to 9 and the "0" of 10 it is possible to light up combinations of figures, such as 126, lighting three numbers consecutively in the right order. Numbers are allocated to members of the staff, and when their number appears on the clock dial they know that they are required and go to the nearest intercommunication telephone. The system obviates telephone congestion and messengers.

LIFTS—Six passenger lifts, speed 400 ft. per minute. Regulated by attendants. Fitted with automatic levelling and power-operated gates and doors controlled by single lever or key.

Cars constructed of pressed steel cellulosed, sizes 5 ft. 3 ins. wide by 6 ft. 6 ins. deep by 7 ft. 6 ins. high, with 4 ft. 6 ins. openings.

Service lifts. Speed 225 ft. per minute. Carrying load 5,000 lbs. Doors, sheet steel.

The lifts carry 6,000 people per day.

ESCALATORS—Serving six floors. Arranged in pairs, two up and two down, 5, 26. 35 deg. pitch. 3 ft. wide inside. 12 ins. treads. Speed 100 ft. per minute.

The "Up" escalator at ground floor level. 26

FINISHES

26 Fashion Display Corridor, 1st Floor

Fancy Goods Department, 4th Floor 28

PUBLIC FLOOR—Floors : teak strip or carpet to ground floor. Remaining floors : battleship lino cemented to screed, with carpet finish. Walls : plastered and distempered or painted. Columns : faced with pre-cast fibrous plaster slabs. Ceilings : fibrous plaster slabs.

LIFT AND ESCALATOR HALL — Floors : cork. Walls : Travertine marble and glass and metal screens. Ceilings : serrated plaster to reduce noise, 26. Staircase : cork treads and risers, balustrades of rough cast glass held in cellulosed iron frames, bronze handrails. Escalators : casings lined with glass wool to reduce noise, and finished in cork and bronze.

RESTAURANT — Floor : carpet on linoleum. Walls : panelled in pink mirror, sycamore, and bird's eye maple.

OFFICES—Floors : 3.3 mm. lino. Walls and ceilings : plaster, distempered. Pressed steel glazed partitions stove enamelled finish. Managers' offices have Indian white mahogany panelling and carpeted floor.

LAVATORIES—Public and directors' lavatories : Travertine slab floors ; black or yellow opaque glass wall linings. Staff : tiled floors and walls ; glazed brick partitions. All ceilings are plaster painted.

Drapery Department, 3rd Floor

27

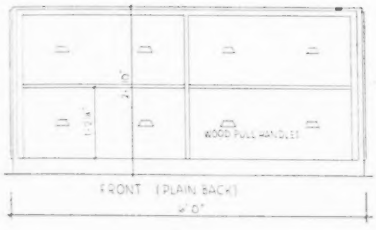
Fashion Department, 1st Floor

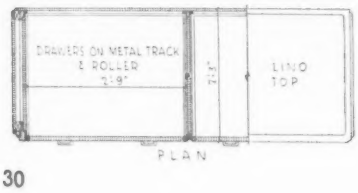
29

SHOP FITTING

There must be no rigidity in the planning of the store equipment as it is impossible to tell how fashions will change ; for example, a lace department which is popular one year may decline and be partially taken over by another more popular one. Therefore in D. H. Evans' store the counters, display cases, and similar fittings were designed so that they might be easily moved about and put together to form a variety of departments. This necessity for flexibility also demanded that the counters and display cases should be of light construction instead of the old heavy mahogany or teak type. For the most part the fittings are constructed in blockboard and gaboon mahogany ply, distempered and finally French-polished. Typical examples are shown on this page and are as follows :—30. Drawer fitting for boys' flannel trousers, shorts, etc. 31. Packing bench. 32, 33. Typical counters. 34. Hanging for blouse and skirt department. 35. Open locker fitting for jumpers, cardigans, and bathing suits. 36. Cheval mirror. 37. Constructional detail of typical hanging case.

The general contractors were James Carmichael (Contractors), Ltd. For list of sub-contractors, see page 467.





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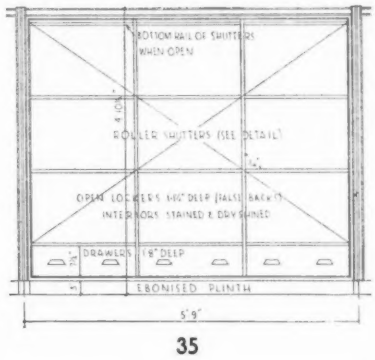

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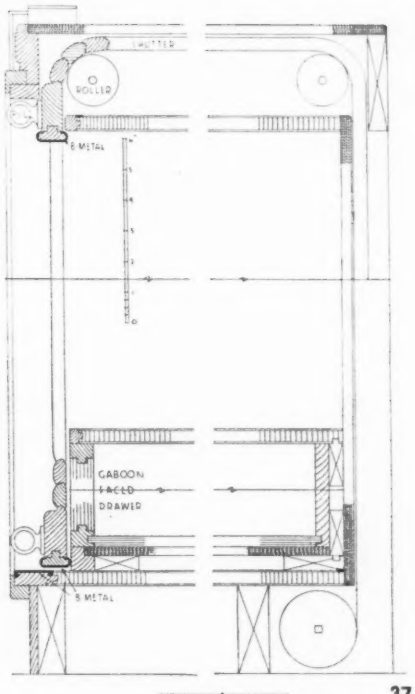

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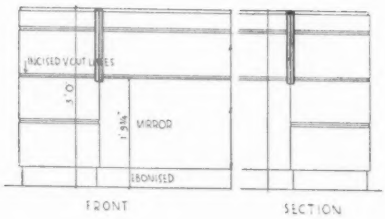

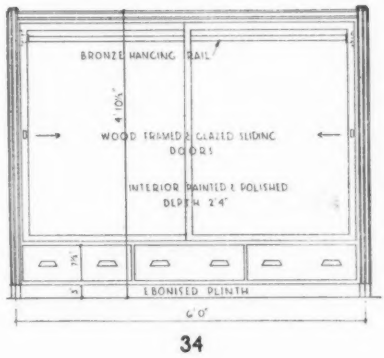

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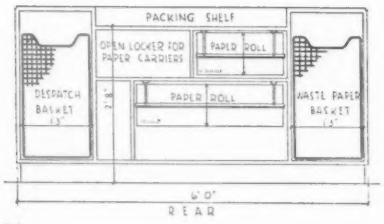

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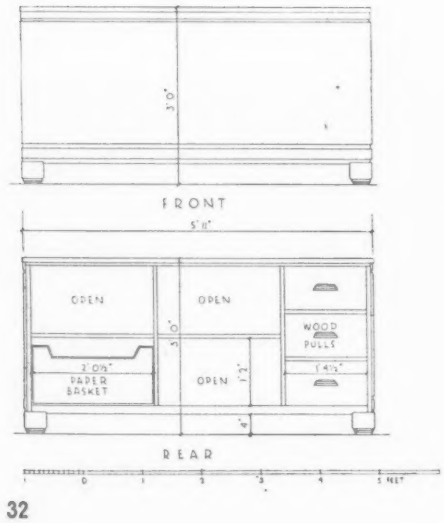

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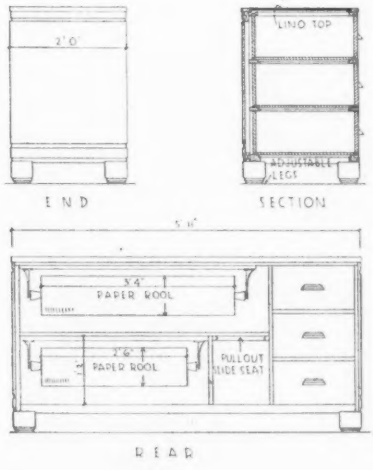

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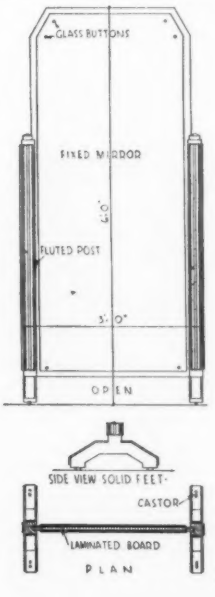

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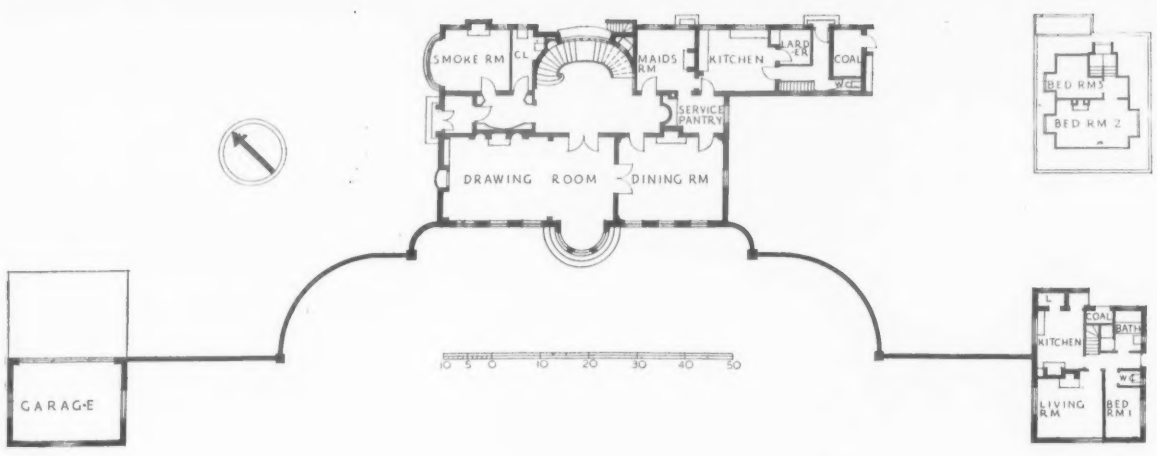
HOUSE AT TETTENHALL, STAFFS



GROUND FLOOR PLAN AND PLAN OVER LODGE

REQUIREMENTS — *A house with a reasonably large hall and convenient for entertainment; living rooms facing south-west; a smoking room facing west, arranged so as to be used for interviews without disturbing the remainder of the house; kitchen quarters in a separate unit but arranged to avoid corridors.*

Above is a general view of the principal front.

DESIGNED BY A. T. AND BERTRAM BUTLER

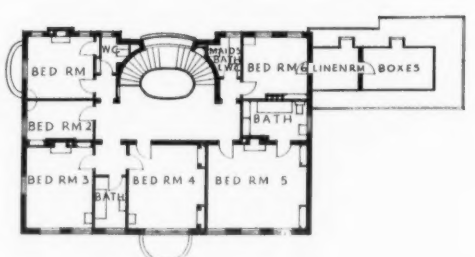
SITE—*Flat, generous in size and without restrictions. The house stands 150 yards from the main road to the south-west of the site.*

PLAN—*Largely controlled by the clients' principal requirements, and by the symmetry of the main front.*

CONSTRUCTION—*14-in. brick on main front, 11-in. hollow elsewhere. Joisted floors save in kitchen wing. Roof is of Westmoreland slates, underfelted. Facing bricks Dutch brown, hand-made and sand-faced. Wood sash windows.*

Round-headed windows have decorative plaster panels over. Cornice is plaster and copings, vases and steps are of stone.

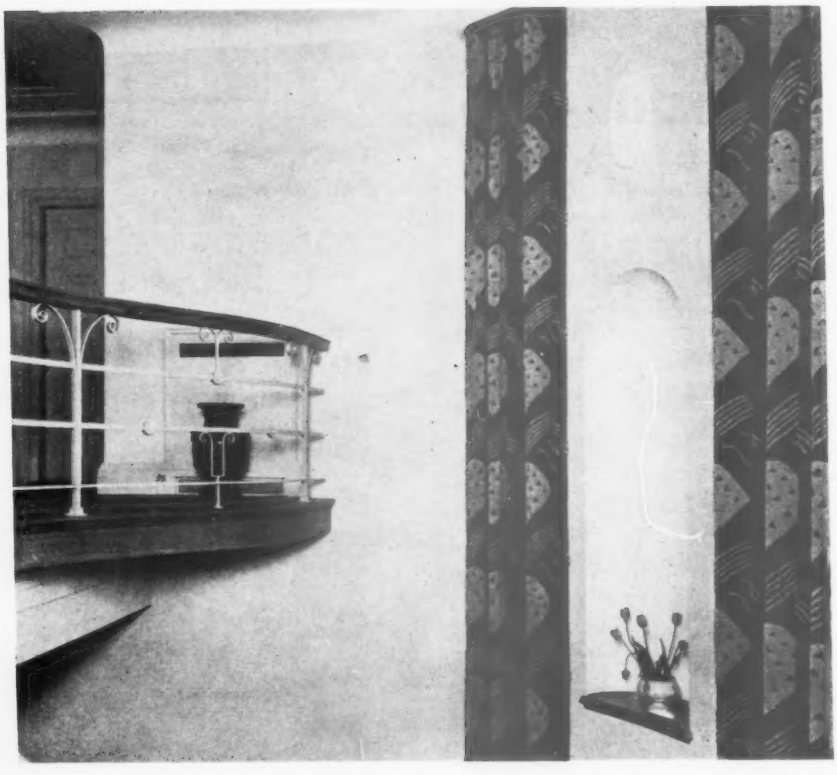
Above is a detail of the main front.

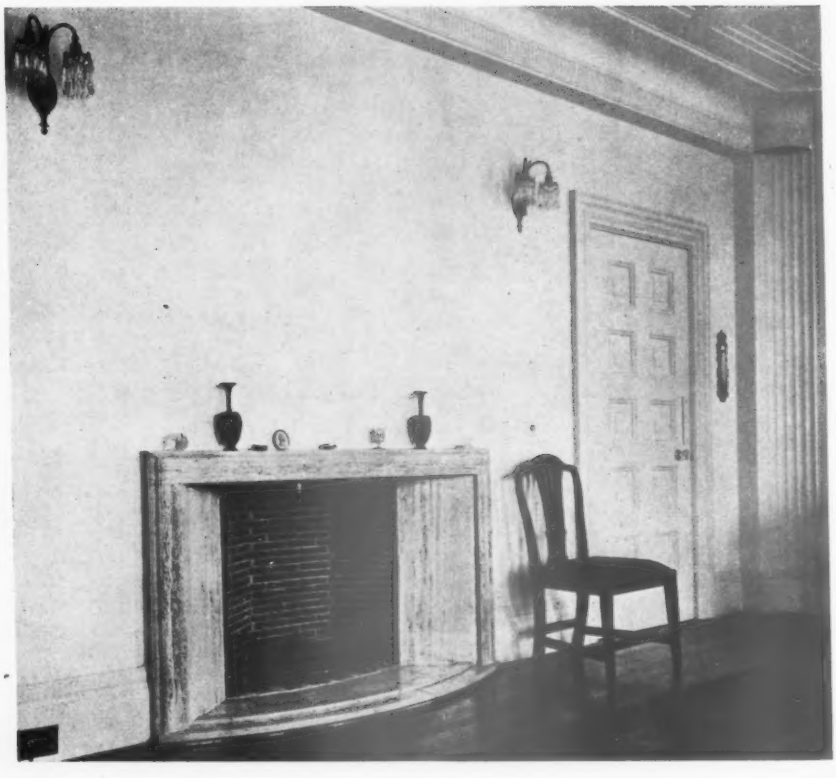


FIRST FLOOR PLAN

HOUSE AT TETTENHALL, STAFFS

DESIGNED BY A. T. AND BERTRAM BUTLER





INTERNAL FINISHES — *Floors and staircase are of English oak. Doors are generally of deal with glass door furniture. Decorative scheme in living rooms is in low-relief plaster. Marble fireplaces were designed by the architects.*

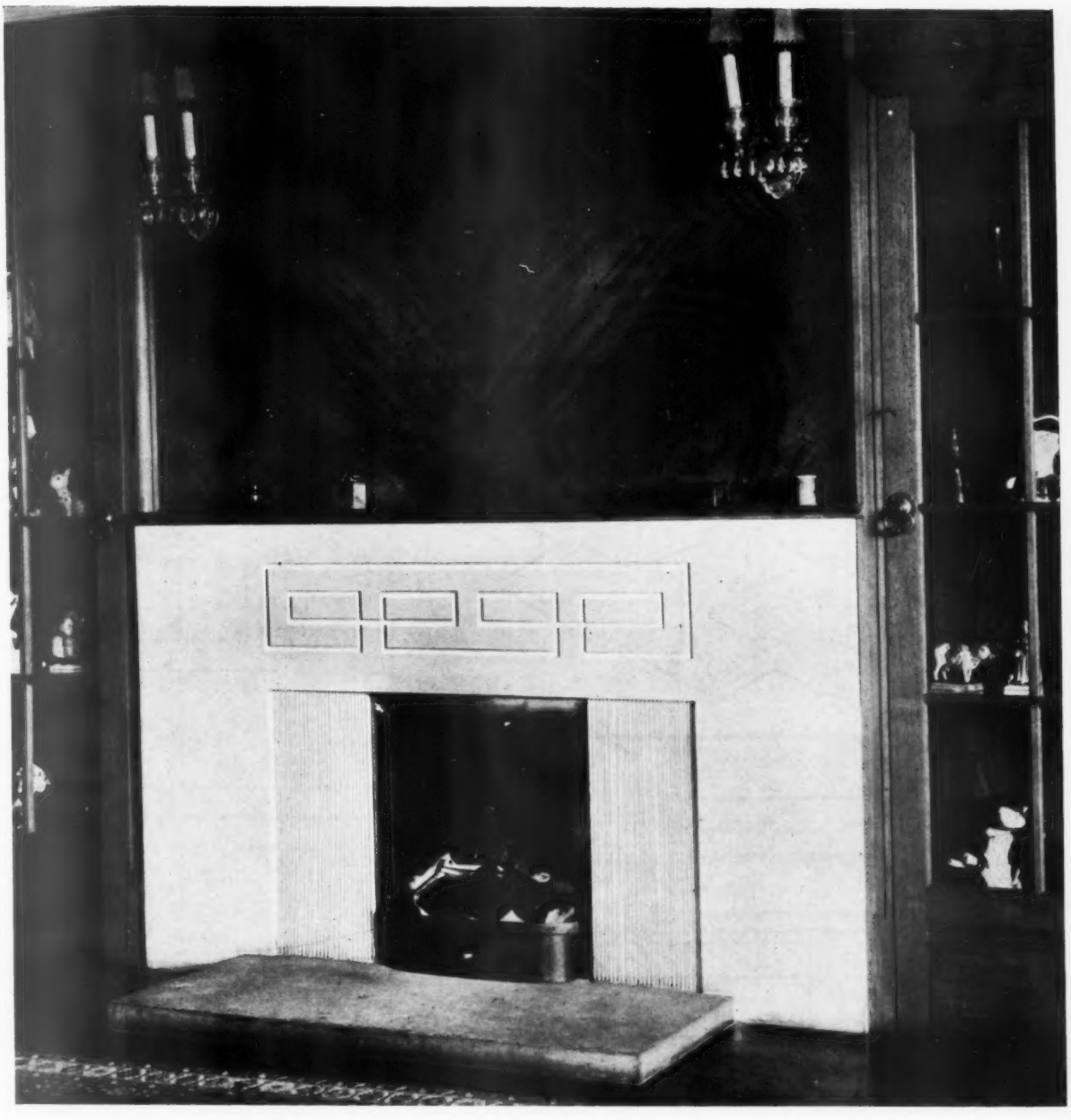
SERVICES — *Concealed radiators below windows and patent slow-combustion fully insulated cooker in kitchen.*

Top, a detail of the staircase balustrade and half-landing window. Left, the dining room fireplace in marble and brick.

The general contractors were. Henry Willcock & Co. For list of sub-contractors *see page 467.*

WORKING DETAILS : 683

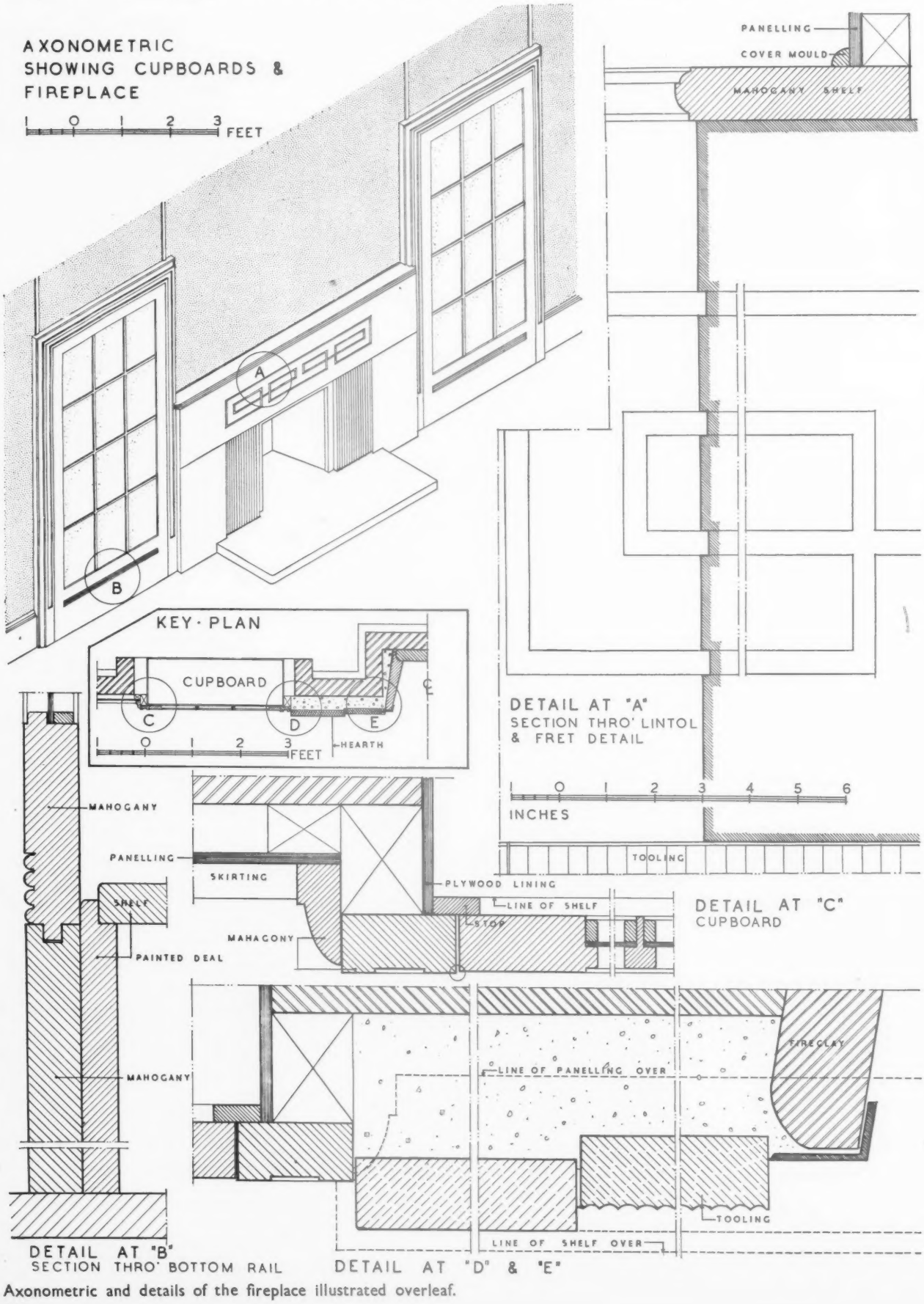
FIREPLACE • HOUSE AT STOW-ON-THE-WOLD, GLOUCESTERSHIRE • JOHN GREY



The fireplace and cupboards illustrated are in the drawing room, a recent addition to an existing building. The fireplace and hearth are in Cotswold stone, while the surrounding panelling and cupboards are in light mahogany, left unpolished. Details are shown overleaf.

WORKING DETAILS : 684

FIREPLACE • HOUSE AT STOW-ON-THE-WOLD, GLOUCESTERSHIRE • JOHN GREY



Axonometric and details of the fireplace illustrated overleaf.

The Architects' Journal Library of Planned Information

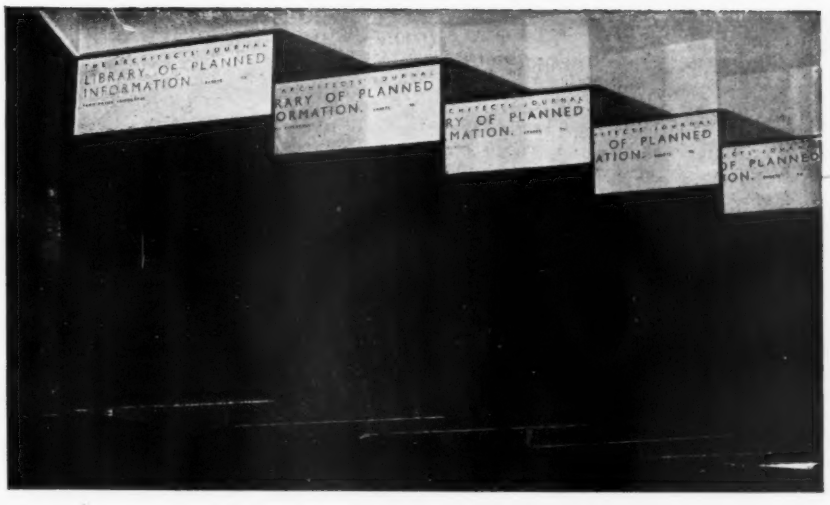
INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

661 Aluminium

662 Sound Resistance



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

Sheets issued since Index :

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

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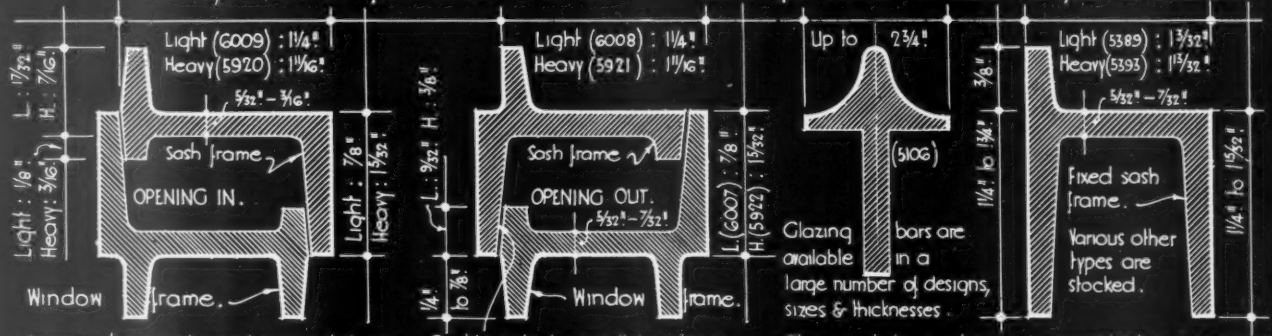
STANDARD SOLID EXTRUDED ALUMINIUM SECTIONS FOR CASEMENT WINDOWS, FIXED LIGHTS, & MUNTINS

Diagrams give main dimensions of most commonly used types of light and heavy casement sections.

Note: The choice of aluminium alloy and the heat treatment depends upon the purpose for which the section is used, and the size of the window to be built. Catalogue section numbers are given in brackets.



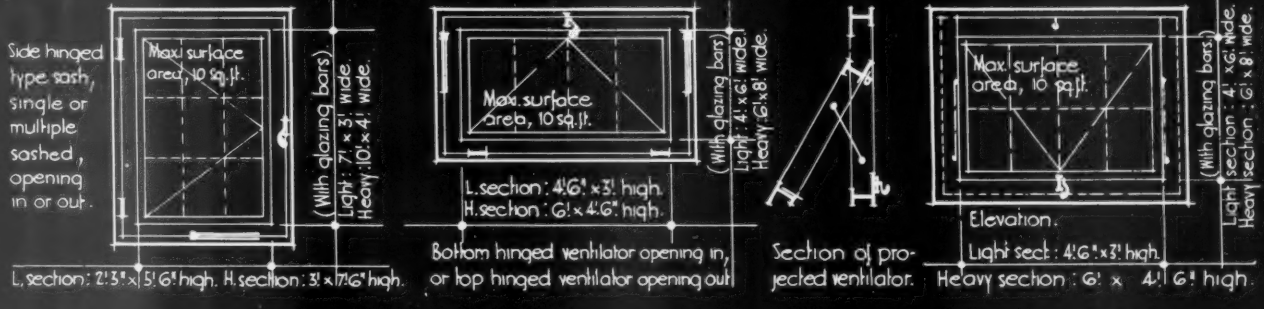
Glass may be fixed by mastic cement glazing or extruded aluminium beads of various types.

Double or triple, parallel or taper weathering contacts may be used

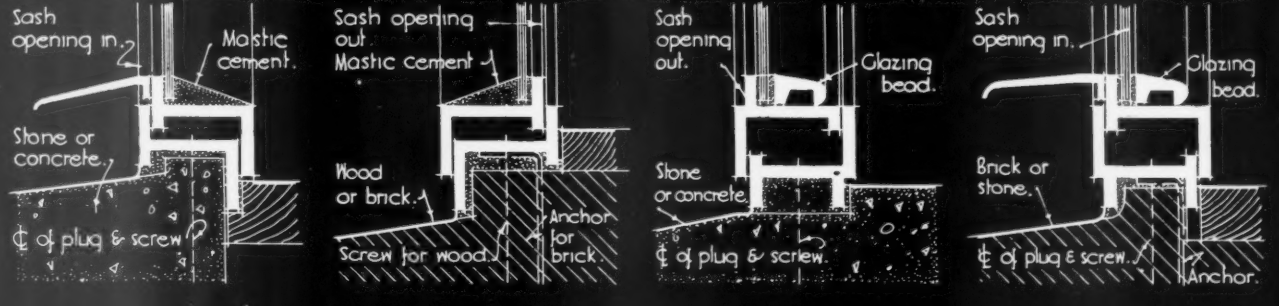
Glazing rebates may be plain, grooved for beads or mastic, or finned. Weather bars may be integral or attached.

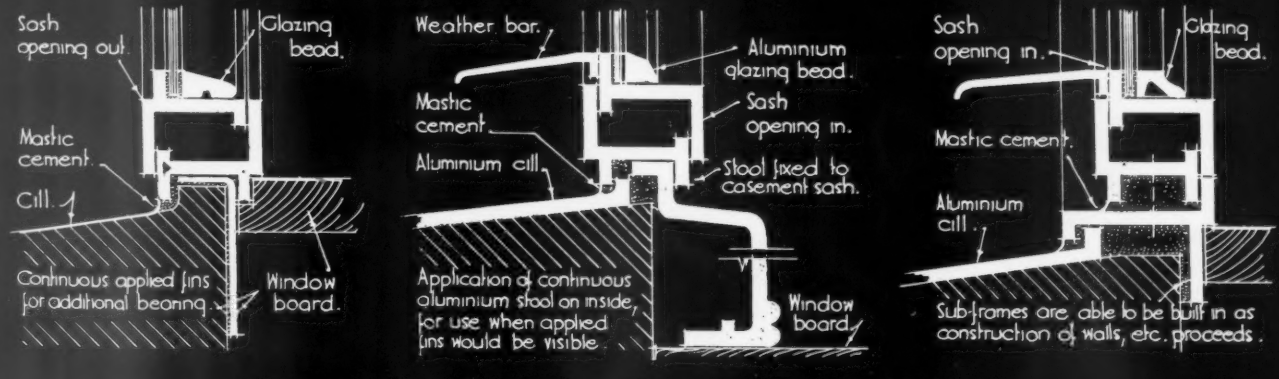
DIAGRAMS SHOWING APPROX. MAX. SIZES OF OPENING SASHES BUILT UP WITH THE STANDARD SECTIONS SHOWN ABOVE.

Dimensions are given as glass sizes, and 1/16" clearance should be allowed in all sash frame rebates.



½ F.S. CILL DIAGRAMS SHOWING TYPICAL ERECTION OF DIRECTLY SET ALUMINIUM CASEMENT WINDOWS:





Information from the Northern Aluminium Company Limited.

INFORMATION SHEET: ALUMINIUM: No 6: SETTING OUT & ASSEMBLY OF CASEMENT WINDOWS

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1

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INFORMATION SHEET

• 661 •

ALUMINIUM

General :
This is the sixth of a series of Sheets dealing with the architectural uses of aluminium, and deals briefly with some of the commoner casement and industrial window sections, together with their setting out and possible assemblies. Dies are stocked for a great variety of other standard and special shapes in numerous sizes, while glazing and weather bars, glazing beads and other members are also available. A full classification of all parts is included in the Noral Handbook, Section C.

Alloys :
Solid aluminium sections for this type of window work are usually extruded from N.A. 33S alloy, not heat-treated, and from N.A. 51S or N.A. 50S heat-treated alloys. The particular choice and the degree of heat treatment or hardening process depends on the required strength of the section, that is, upon the purpose for which the section is used and on the size of the window to be built. As a general rule, sections which are in movable contact with each other should be of the same alloy.

Design :
Solid extruded aluminium sections for casement frames should never be less than ⅛ in. thick, and for the simplest window types both the sash and the window frames may be of the same section. For use in smaller rebates, or on subframes, cut stone, etc., three-style frames, having equal length projecting legs on the window frame member are recommended. Frames for fixed lights should have the same masonry and sight lines as other types, and this usually necessitates the same outline as that occurring when fixed and ventilating units are combined.

Sub-frames :
As aluminium frames are generally fixed in position after the rough trades are finished, and not as the wall construction proceeds, it is good practice to build in sub-frames wherever possible, and thus ensure a maximum of tightness. The sub-frames may be single or double rebated and of almost any shape.

Mullions and Transoms :
Mullions and transoms forming the main divisions in very large windows and serving to support opening sashes and fanlights, are formed of special shaped aluminium sections. Such sections are usually single extruded shapes, but in the case of very large unsupported lengths more than one extruded section may be used to form a boxed-up mullion or transom. The exact shape and dimensions of such bars depend upon the spans involved and the conditions of service. Advice on the subject will be given by the Company's Advisory Department upon application, and recommendations made with regard to the aluminium alloy most suitable for the particular work in hand, heat treatment, finish, etc. In general, however, it may be taken that the size of transoms or mullions in aluminium are usually approximately 20 per cent. larger than similar sections in steel.

Divisions :
Provision for the meeting of pairs of sashes and for meeting rails, mullion and transom bars, etc., is made by the manufacture of various T and Z-shaped sections. Tools for raised weather stops, weather bars and reinforcing members are also stocked. The increased sizes given for opening sashes when these are sub-divided by glazing bars as indicated, are based on a maximum pane size of 20 ins. by 16 ins.

Glazing Requirements :
Integrally extruded glazing rebates are usual, about ⅜ in. deep, and the glass is best applied from the inside. Mastic cement may be used for fixing the glass in position, although a better job is obtained by using any one of a large variety of extruded aluminium beads, these being screwed to the sash frame. Muntins or astragal bars are commonly T-shaped, at least ⅛ in. thick and of various face widths. Frames for double glazing may be built up of standard parts, or sashes used in which provision for this is already made.

Weathering :
Weathering contacts should never be less than ¼ in. in width, and may be of the parallel or tapering type. Contact clearances should be less than .031 in. when the ventilators are locked, while all meeting surfaces should be truly parallel. Provision for metal to felt contacts can be made. Weather bars and drip sections of numerous types may be integrally extruded or separately attached. Condensed water may be drained to the exterior by means of specially shaped frame members, or grooved glazing-beads and drilled frames, or by fins applied to the frames.

Articulation :
Aluminium frames are suitable for all types of articulation, including hinged, pivoted and projecting casements. Ventilating and fixed units may, of course, be combined in the usual manner.

Assembly :
The joints of window and sash frames are normally welded solid along the entire lines of intersection, in full depth and in full width across all faces. The joints of window frames however, instead of being continuously welded, may be milled to a hair line, tenoned and riveted and then welded on the unexposed side. Glazing bar intersections are interlocked and/or welded while the ends are coped or mitred on the face and the joints welded or riveted. If applied sections are used they should be riveted to the frames at points not more than 4 ins. apart and coped to intersecting cross frame members. The joints should be welded solid after the cross frame members have been coped and welded to the frame members supporting the applied sections. Joints of sub-frames at corners, mullions and transoms are assembled similarly to those of sash and window frames, and welded on the unexposed side. Drilling and tapping of all members for the actual fixing requirements must be done at the factory.

Hardware :
The aluminium hardware used for casements is similar to that used for windows of other metals or of wood, and is similarly applied.
All hardware, however, should be designed in such a way that when the various parts of a fitting are assembled there will be no friction contacts of aluminium on aluminium. This may be accomplished by the use of washers, bushings, pivot pins, wedge plates, etc., of stainless steel, cadmium plated steel, or moulded plastics such as bakelite.

Erection :
Aluminium window frames should provide a continuous flat bearing on the wall sides at the opening, and continuous fins should be provided for additional stability if sufficient bearing by the frames is not obtainable.
In addition, anchors spaced not more than 4 ft. apart and securely fixed to the jambs should be built into brick, concrete, and similar constructions, while screws are normally used for fixing in stone, wood or steel trimmed openings. In all cases, mastic cement is used for the actual setting and sealing, large spaces behind the frames being blocked up with wood fillers in the usual way.
Examples of settings needing the use of fins, stools and sub-frames are given overleaf. Fins and sub-frames may be screwed or built-in to the wall construction, and stools may be screwed or provided with fixing anchors as previously described. Window frames are screwed to sub-frames at 24-in. centres and set in mastic cement.

Finish :
Exposed surfaces, except hardware, are usually left in natural colour and are generally protected by means of the electro-chemical anodic process in which special finishes are available to suit individual requirements or severe atmospheric conditions. Choice may be had of polished finish or several types of matt finishes for unexposed positions. All surfaces of window frames should be further protected before delivery by means of a coating of vaseline or lanoline which penetrates and seals the slightly porous oxide coating produced by the anodic process. This coating should be capable of protecting the aluminium during erection against stains, discoloration, abrasion in cleaning or other surface injury.

Maintenance :
The natural accumulation of dirt and grime on metal windows causes, with aluminium, a gradual darkening in colour. The original condition of any special finishes applied to this type of window, however, may be restored by using a harmless cleaning solution, such as a mixture of methylated spirits and whiting, and sealing afterwards with a thin coating of vaseline, lanoline, or waxy compound such as a good quality furniture polish.

Cost :
The cost of aluminium windows is primarily dependent upon the type and also upon such secondary considerations as type of alloy, finish and transport facilities. In general, the more complicated the window and the greater the number of opening portions, the cheaper will be the windows compared with steel. For complicated windows the cost will be approximately 200 per cent. of a similar structure in steel, and for simple types of windows with few opening portions, the difference will be somewhat greater.

Previous Sheets :
Previous sheets of this series dealing with the architectural uses of aluminium are Nos. 492, 501, 504, 505 and 510.

Issued by : The Northern Aluminium Co., Ltd.
Address : Bush House, Aldwych, London, W.C.2
Telephone : Temple Bar 8844

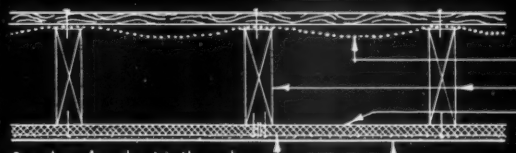
819.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

THERMACOUST SLABS USED FOR THE CONSTRUCTION OF SOUND-RESISTING WOOD FLOORS:

THERMACOUST SOFFIT NAILED DIRECT TO FLOOR JOISTS.

A.



NOTE·A· for resistance to structure borne sound, felt, glass silk or other suitable layer may be inserted below the flooring.

Wooden floor joists.

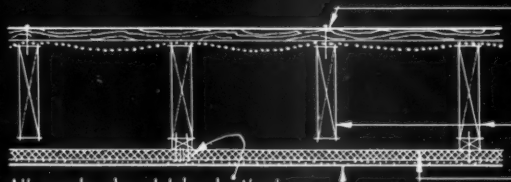
Thermacoust slabs.

Similar finish both sides for a stud partition.

Plaster ceiling finish in one or more coats.

THERMACOUST SOFFIT PARTLY ISOLATED FROM STRUCTURAL FLOOR.

B.



The floor boards should be nailed only to those alternate joists not connected to the ceiling.

Wooden floor joists.

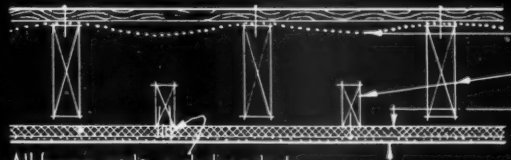
Thermacoust slabs on continuous wood battens.

All joints should be butted and 4" jute scrimmed.

Plaster ceiling, 1 or more coats.

THERMACOUST SOFFIT COMPLETELY ISOLATED FROM STRUCTURAL FLOOR. Stud partition may have similar principle.

C.



See Note·A· above.

Staggered timber joists.

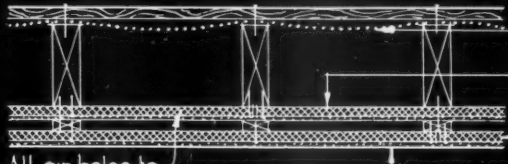
Thermacoust slabs nailed to filler joists.

All fixing nails wide-headed galv., spaced 6" c.to c.

Plaster ceiling as above.

DOUBLE THERMACOUST SOFFIT WITH AIR SPACE BETWEEN SLABS.

D.



See Note·A· above.

5/8" Plaster-faced Thermacoust.

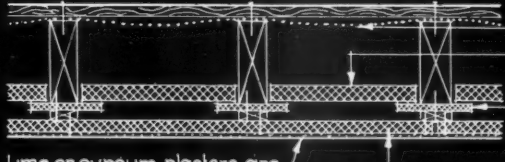
Thermacoust slabs nailed to continuous wood battens.

All air holes to be stopped.

Plaster ceiling as above.

DOUBLE THERMACOUST SOFFIT WITH FLOATING LAYER ABOVE AIR SPACE.

E.



See Note·A· above.

1½" Thermacoust slabs.

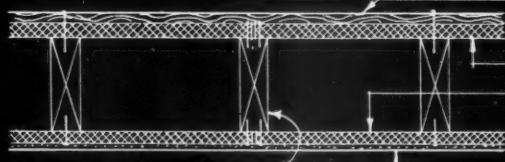
½" continuous Thermacoust pads nailed to joists.

Lime or gypsum plasters are preferable to cement mixes.

Thermacoust slabs nailed to wood battens on pads.

THERMACOUST SLABS FIXED ABOVE AND BELOW THE STRUCTURAL FLOOR.

F.



Cement screed, or floor boards nailed through heavy duty Thermacoust slabs.

Thermacoust slabs nailed direct to wood floor joists.

For max. centres of joists see notes overleaf.

Plaster ceiling finish in one or more coats.

Information from Thermacoust Products Limited.

INFORMATION SHEET : CONSTRUCTIONAL USES OF WOOD WOOL FIBRE BUILDING SLABS: No 2.

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

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 662 •

SOUND RESISTANCE

Subject : Thermacoust Air Space Construction —Floors

General :

This is the second of a series of Sheets showing the various constructional uses of Thermacoust building slabs, and deals with their use in minimising the passage of sound through wood-framed floors and partitions.

By virtue of its sound-absorbing upper surface, Thermacoust provides a high resistance to air-borne sound, and prevents cavity resonance occurring within the floor.

Structure-borne sound may be reduced by capping each joist throughout its length with thick hair felt or glass silk, or by draping such materials continuously over the joists as is shown on this Sheet by dotted line ; see note A at the top.

Material :

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

An excellent key is provided for either plaster or concrete, and condensation and cracking in the finished plaster work are reduced to a minimum. All thicknesses of slab are readily cut with an ordinary hand-saw.

Sound Absorption :

The following table sets out the sound absorption coefficients of Thermacoust slabs, 1" in thickness, for sound frequencies ranging between 250 and 2,000 cycles per second :—

Cycles per second	250	500	1,000	2,000
Absorption Coefficient	0.30	0.60	0.80	0.60

Fixing :

The slabs are nailed to timber joists or framing with wide-headed galvanized nails, spaced not more than 6" centre to centre across the slab width and driven flush with, but not deeper than, the face of the slab.

The standard full-size slabs are 7' 0" by 1' 11⅛", giving a cover of 1½ square yards, and they are fixed across the joists or studs with the butt joint between lengths occurring centrally on the joist. Joints between long edges of slabs are butted but not nailed. All joints should be scrimmed to prevent risk of pattern staining and as a precaution against timber movement.

The maximum spacing of the joists to suit different thicknesses of slab should be as follows :—

Slabs—½" thick ... Joists—16" centre to centre
" ¾" " ... " 21" " " "
" 1" " ... " 28" " " "
" 1½" " ... " 32" " " "

Plastering :

The plastering may be carried out in one or more coats. For single coat work any of the recognized gypsum setting plasters are recommended. For finishes comprising more than one coat, any of the ordinary ceiling and wall mixes may be used, but cement mixes should not be strong. Cement mixes should be avoided on ceilings.

Weights and Prices :

	STANDARD SLABS									HEAVY DUTY	
Thickness	½"	¾"	1"	1½"	2"	2½"	3"	4"	5"	1½"	2"
Price per yard (ex Works)	1/3	1/6	1/9	2/3	2/9	3/3	3/9	4/7	5/6	2/9	3/3
Weight per slab in lbs.	20	29	33	44	56	68	80	95	110	50	67
Weight per square yard in lbs. ...	14	19	22	29	37	45	53	63	73	33	44
Number of slabs per ton	112	79	67	50	40	34	28	24	20	45	54
Square yards per ton	168	118	100	75	60	50	42	36	30	68	52

The cost of carriage is additional, depending on quantity of slabs and travelling distance. Slabs made for acoustic purposes and to special shape are subject to individual quotation.

Scrim :

Any of the usual scrim materials may be used to cover the joints, but jute scrim 4" wide is supplied by the company in 100-yard rolls at 2/6 per roll, sufficient for 50 square yards of Thermacoust.

Nails :

Wide-headed galvanized nails must be used ; they may be of any make, or they may be obtained from the company in 14-lb. bags at 6d. per lb.

Nails per pound : 2" nails—90
(approx.) 1¾" nails—100

Nails required :
Joists at 14" C. to C.—23 nails per square yard
" 21" C. to C.—17 " "
" 28" C. to C.—14 " "
" 32" C. to C.—10 " "

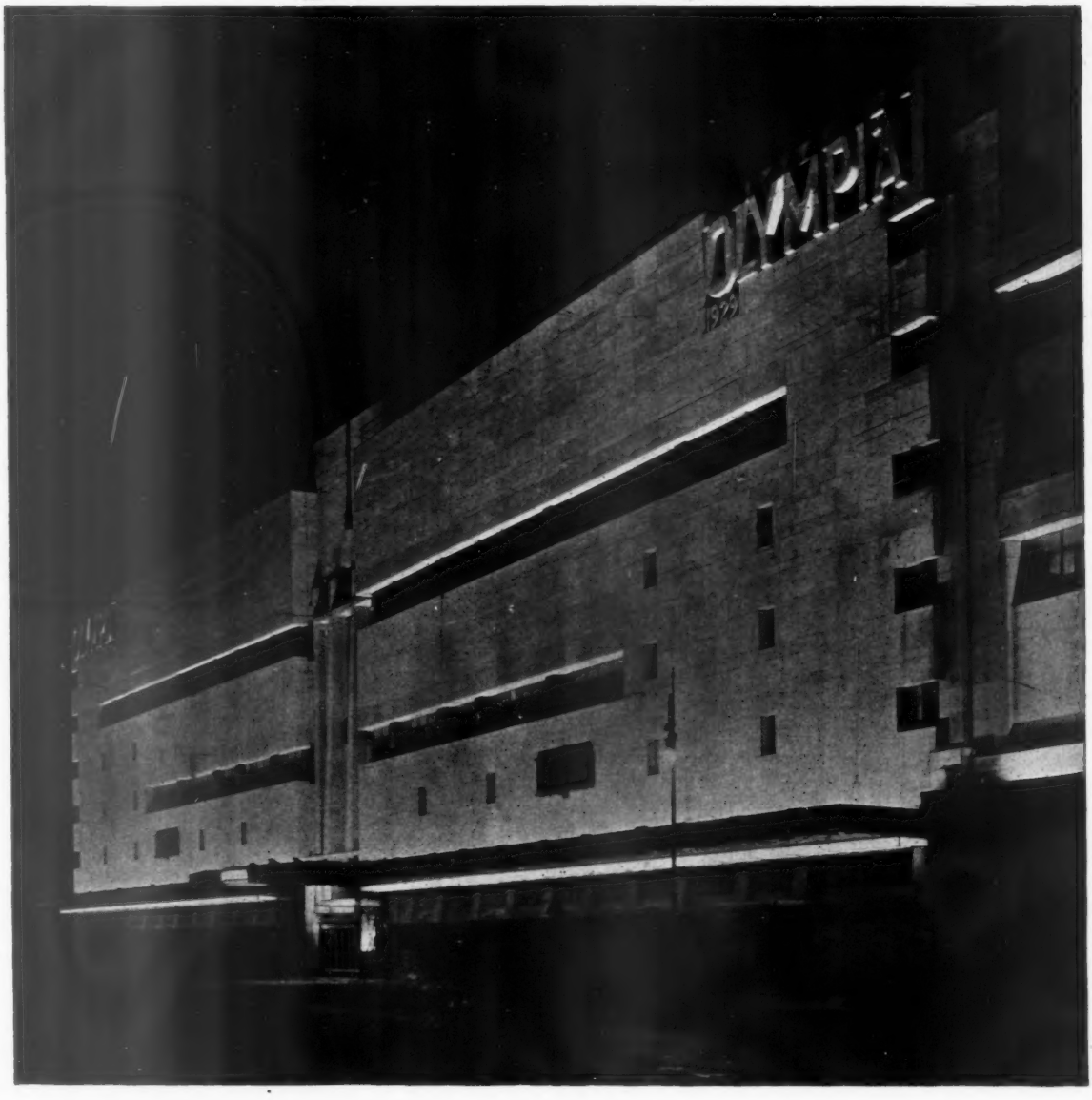
Previous Sheets :

The first Sheet of this series is No. 658, dealing with solid, non-bearing Thermacoust partitions.

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

BUILDING EXHIBITION

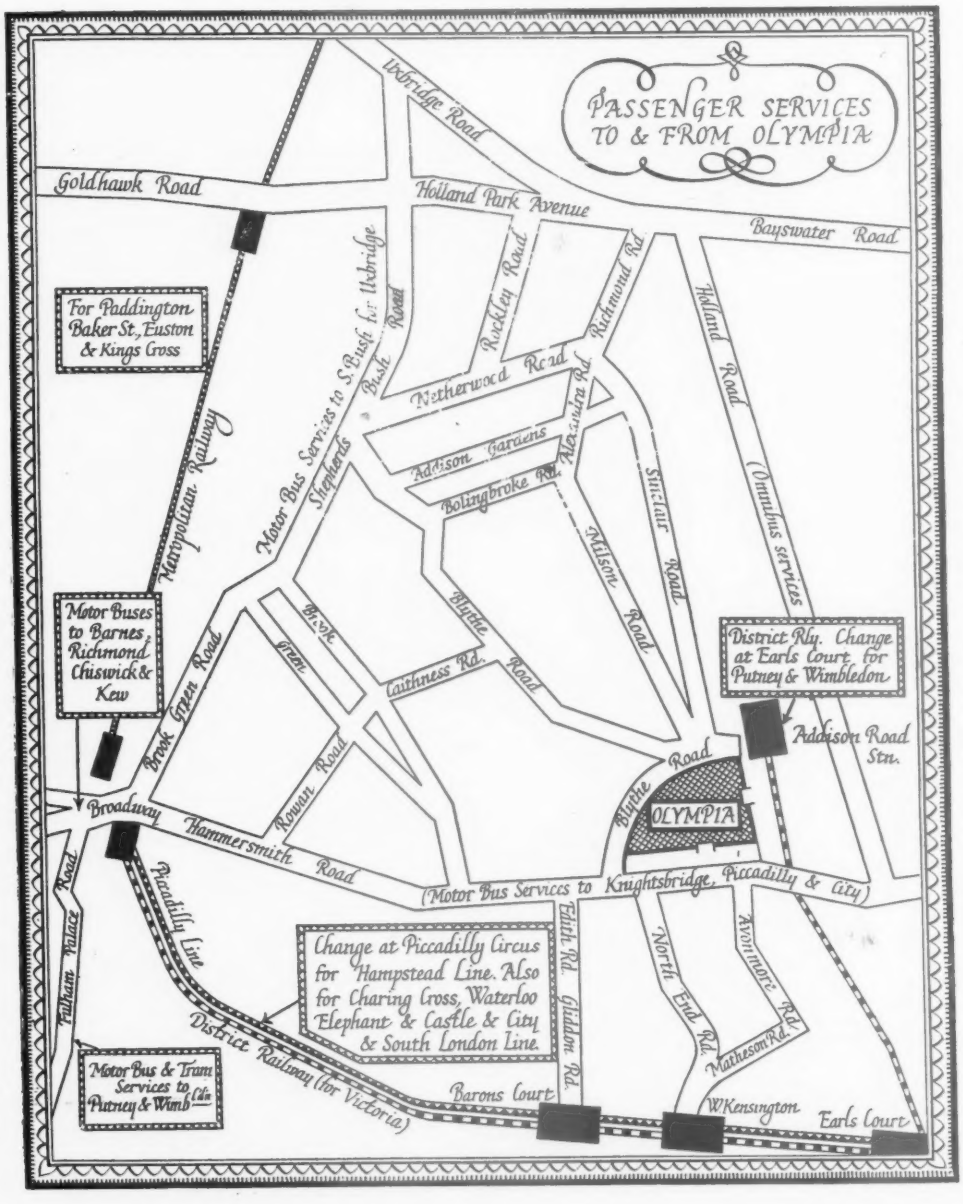
OLYMPIA: SEPTEMBER 16 — OCTOBER 1



The 1938 Building Exhibition is to be opened tomorrow in the Addison Room at Olympia by Sir Philip Sassoon, First Commissioner of Works. This, our first number dealing with the Exhibition, contains a map showing the passenger services to and from Olympia, a review of the exhibits of the Building Research Station, notes on the exhibits of the more prominent manufacturers and drawings and photographs of some of the stands. As a loose inset we also include a plan of the Exhibition, with a classified list of all exhibitors.

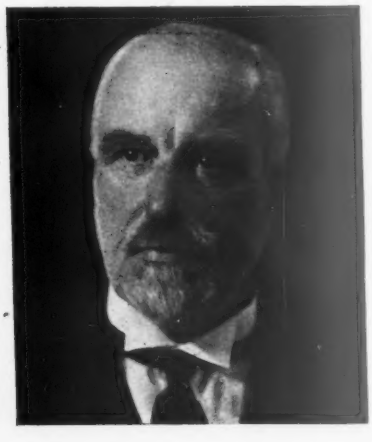
PRELIMINARY NOTICES

G



MEETING AND VISITS DURING SEPTEMBER

16.—Opening Ceremony. 4 p.m.
17.—National Association of Clayworks Managers. Meeting. 12 noon.
17.—Association of Architects, Surveyors and Technical Assistants. Visit. 5 p.m.
17.—Incorporated Clerks of Works Association. Visit. 5 p.m.
17.—London Association of Builders' Foremen and Clerks of Works. Visit. 5 p.m.
19.—Judging of Students' Work. 2.30 p.m.
20.—London Association of Master Decorators. Visit. 5 p.m.
20.—Incorporated Institute of British Decorators. Visit and Tea. 5 p.m.
21.—London Master Builders' Association. Visit. 4.30 p.m.
21.—Society of Estate Clerks of Works. Visit and Tea. 4.30 p.m.
23.—Architects' Ball. 7.30 p.m.
24.—Incorporated British Institute of Certified Carpenters. Visit. 5 p.m.
24.—Guild of Bricklayers. Visit.
26.—Institution of Structural Engineers. Visit and Luncheon. 1 p.m.
27.—Institute of Clayworkers. Annual Meeting. 11.45 a.m.
28.—Southern Counties Federation of Building Trades Employers. Visit. 1 p.m.
28.—English Joinery Manufacturers' Association. Meeting. 2 p.m.
28.—Ballast, Sand and Allied Trades Association. Meeting. 2.45 p.m.
28.—National Federation of Clay Industries. Meeting. 10 a.m.
29.—Electrical Association for Women (London Branch) Visit. 5 p.m.
29.—Lead Industries Development Council. Meeting. 10 a.m.



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

Right, Sir Philip Sassoon, First Commissioner of Works, who is to open the Exhibition at 4 p.m. tomorrow. Mr. H. S. Goodhart Rendel, P.R.I.B.A., will preside; [and a vote of thanks will be proposed and seconded, respectively, by Alderman W. H. Birch, J.P., and Mr. George Hicks, M.P.

BUILDING EXHIBITION GUIDE

A CLASSIFIED LIST OF EXHIBITORS

ADVERTISING NOVELTIES
Harper & Co., Ltd., D. (433 Gal.)

AIR CONDITIONING EQUIPMENT
Kelvinator, Ltd. (287P)
Vent-Axia, Ltd. (272O)
Utilities (London), Ltd. (271O)

ALLOTMENT GARDENS
Society of Friends (392, 394 Gal.)

ANTI-SYPHON TRAPS
Greenwood and Hanson (57D)

ARCHITECTS AND SURVEYORS
Incorporated Association of Architects and Surveyors (397, 399 Gal.)

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MARS Group (411–416 Gal.)

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Adams and Son, Ltd., James (56D)
Adams, Robert, Ltd. (104E)
Bolton Gate Co. (55D)
Brown and Tawse, Ltd. (334T)
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Claughton Bros., Ltd. (260N)
Crittall Manufacturing Co., Ltd., The (167H)
Harvey & Co. (London), Ltd. (118F)
Hope and Sons, Ltd., Henry (201–2J)
Nettlefold and Sons, Ltd. (200J)
Sankey and Sons, Ltd., Joseph (51D)
Stainless Steel Sink Co., Ltd. (339T)
Vitreflex, Ltd. (305Q)
Wiggin & Co., Ltd., Henry (274O)
Williams and Williams, Ltd. (193J)
Zinc Alloy Rust Proofing Co., Ltd. (267N)

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Parker, Ltd., Frederick (313R)
Scoffin and Willmott, Ltd. (74D)
Slingsby, H. C. (48C)
Stephens and Carter, Ltd. (289, 290P)
Winget, Ltd. (335T)

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Ascot Gas Water Heaters, Ltd. (292P)
Candy & Co., Ltd. (160G)
Clarkhills, Ltd. (273O)
Colourcraft Enamellers, Ltd. (143G)
Clarkhills, Ltd. (273O)
Downham & Co. (263N)
Ewart and Son, Ltd. (296Q)
Gas Light and Coke Co. (315, 316R)
" Hurry " Water Heater Co., The (240L)
Ideal Boilers and Radiators, Ltd. (300Q)
Kandya, Ltd. (8B)
London Sand Blast Decorative Glass Works, Ltd. (117F)
Marbolex Products, Ltd. (400 Gal.)
Mitchell & Co., Ltd., W. T. (295Q)
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National Enamels, Ltd. (21B)
Nautilus Fire Co., Ltd., The (320S)
New Geysers (1931), Ltd. (317R)
Patent Tip-up Bath Co. (249M)
Peerless Kitchen Cabinets, Ltd. (323S)
Peglers, Ltd. (132F)
Sankey and Sons, Ltd., Joseph (51D)

BELLS
Gillett and Johnston, Ltd. (79, 80E)

BELTS, BELT FASTENERS AND TREATMENT
Clough (Croydon), Ltd. (218K)
Grant & West, Ltd. (243L)
Nicholson and Clipper Co., Ltd., W. T. (208K)
Templer & Co., C. G. (185J)
Thomas and Bishop, Ltd. (37C)

BENDING MACHINERY
Hilmor, Ltd. (181H)
Kennedy, Wm. (46C)

BLOW LAMPS
" Easilit " Blow Lamp Co., Ltd. (364 Gal.)

BOILERS, RANGES, STOVES, GRATES, GEYSERS, KITCHENERS, RADIATORS AND HEATING APPARATUS GENERALLY
Aga Heat, Ltd. (255M)
Aladdin Industries, Ltd. (253M)
Ascot Gas Water Heaters, Ltd. (292P)
Barker and Turner, Ltd. (283P)
Benham and Sons, Ltd. (23B)
British Unit Heater and Radiator Co., The (65D)
Clarkhills, Ltd. (273O)
Crane, Ltd. (291P)
Cozy Stove Co., Ltd., The (248M)
Dryco-Rensec, Ltd. (257M)
Dyson, Ltd., J. and J. (93E)
Eagle Range and Grate Co., Ltd. (14B)
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Ewart and Son, Ltd. (296Q)
Flavel & Co., Sidney (256M)
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Halliday Boilers, Ltd. (247M)
" Hurry " Water Heater Co., The (240L)
Hydran Products, Ltd., (404 Gal.)
Ideal Boilers and Radiators, Ltd. (300Q)
Interoven Stove Co., Ltd. (174H)
Jones and Attwood, Ltd. (35C)
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Nautilus Fire Co., Ltd., The (320S)
New Geysers (1931), Ltd. (317R)
Parkinson Stove Co., Ltd., The (298Q)
Patent Tip-up Bath Co., The (249M)
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Steel Radiators, Ltd. (269M)
Triplex Foundry, Ltd. (13B and 251M)
Ure, Allan & Co., Ltd. (12B)
Yorkshire Copper Works, Ltd., The (115F)

BOOKS
" Architect and Building News," The (114F)
Architectural Press Ltd., The (119F)
Builder, Ltd., The (265N, 110F)
Business Dictionaries, Ltd. (442 Gal.)
Compendium Publishing Co., The (50D)
" Illustrated Carpenter and Builder " (268N)
Moore's Modern Methods, Ltd. (437 Gal.)
New Era Publishing Co., Ltd., The (214L)
Standard Catalogue Co., Ltd., The (38C)
Waverley Book Co., Ltd. (427 Gal.)

BRICKS AND TILES (OTHER THAN CLAY)
McCarthy and Sons, Ltd., M. (135G)
Midhurst Whites, Ltd. (67D)
Ryarsh Brick and Sand Co., Ltd. (95E)
Uxbridge Flint Bricks Hunziker (Gt. Britain), Ltd. (337T)

BRICKS, TILES, FINIALS, TERRA COTTA, FAIENCE, SANITARY PIPES AND CLAY GOODS GENERALLY
Adamsez, Ltd. (213K)
Associated Clay Industries, Ltd. (53D)
Board & Co., Ltd., John (49D)
Broad & Co., Ltd. (328S)
Candy & Co., Ltd. (160G)
Carter & Co., Ltd. (197J)
Cement Marketing Co., Ltd., The (152G)
Collier, Ltd., S. and E. (113F)
Colthurst, Symons & Co., Ltd. (194J)
Dorking Brick Co., Ltd. (157G)
Downing & Co., Ltd., G. H. (245L)
Dyson, Ltd., J. and J. (93E)
Fison, Packard and Prentice, Ltd. (59D)
Langley London, Ltd. (310R)
Lawrence and Sons, Thomas (Bracknell), Ltd. (154G)
London Brick Co., Ltd. (195, 196J)
Major, Ltd., H. J. and C. (105E)
Marston Valley Brick Co., Ltd. (311R)
Milton Hall (Southend) Brick Co., Ltd. (206K)
Somerset Trading Co., Ltd., The (116F)
Stock Brick Manufacturers' Association (102E)
Sussex Brick Co., Ltd., The (157G)

BRUSHES AND BROOMS
United London Workshops for the Blind (431 Gal.)

BUILDING COUNCIL
National House Builders' Registration Council (33C)

BUNGALOWS
Colt, W. H. (London), Ltd. (45C)
Gabriel, Wade and English, Ltd. (214K)

CEMENTS
Adamite Co., Ltd., The (165, 166H)
Associated Portland Cement Manufacturers, Ltd., The (152G)
British Portland Cement Manufacturers, Ltd. (152G)
Cement and Concrete Association (429 Gal.)
Cement Marketing Co., Ltd., The (152G)
Imperial Chemical Industries, Ltd. (198J)

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Aerolete Ventilating Co. (387 Gal.)
Konkerwind, Ltd. (443 Gal.)

CHURCH FURNITURE
Maile and Son, Ltd., G. (99E)

CLAY
Clay Products Technical Bureau of Gt. Britain (365 Gal.)

CLOCKS
Smith's English Clocks, Ltd. (47C)

COKE
London and Counties Coke Association (15B)

CONCRETE PRODUCTS, MACHINERY AND PLANT
Abraham, Ltd., R. (130F)
A.C.E. Machinery, Ltd. (321S)
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Atlas Stone Co., Ltd. (41C)
Benford, Ltd. (306R)
Buckland Sand and Silica Co., Ltd. (124F)
Cement Marketing Co., Ltd., The (152G)
Cole, Ltd., E. R. (107E)
Ellis and Sons, Ltd., John (6B)
Expanded Metal Co., Ltd., The (163H)
Fowler & Co. (Leeds), Ltd., John (232, 233L)
Imperial Chemical Industries, Ltd. (198J)
Kennedy, Wm. (46C)
King & Co., J. A. (King Fireproofing) (156G)
Lee Magnum Engineering Works (258M)
Liner Concrete Machinery Co., The (343, 344V)
Marley Tile (Holding) Co., Ltd. (100, 101E)
Millars' Machinery Co., Ltd. (342V)
Monro, Ltd., Geo. (133F)
Neal & Co., Ltd., R. H. (176H)
" Noelite," Ltd. (106E)
Parker, Ltd., Frederick (313R)
Pegson, Ltd. (179H)
Penfold Fencing, Ltd. (205K)
Penmaenmawr and Welsh Granite Co., Ltd. (353–355 Gal.)
Powhill, Ltd. (68D)
Ransomes and Rapier, Ltd. (39, 40C)
Redhill Tile Co., Ltd. (149G)
Sankey and Sons, Ltd., Joseph (51D)
Sealocrete Products, Ltd. (382 Gal.)
Selby Concrete Co., Ltd. (409 Gal.)
Smith's Fireproof Floors, Ltd. (126F)
Stothert and Pitt, Ltd. (327S)
" Trianco," Ltd. (126F)
Turners Asbestos Cement Co., Ltd. (169, 170H)
" Twisteel " Reinforcement, Ltd. (98E)
Winget, Ltd. (335T)

COPPER
Harvey & Co. (London), Ltd., G. A. (118F)
Imperial Chemical Industries, Ltd. (198J)
Yorkshire Copper Works, Ltd., The (115F)

COVERS AND FRAMES
Dover Engineering Works, Ltd., The (128, 129F)

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Harvey & Co. (London), Ltd., G. A. (118F)
Konkerwind, Ltd. (443 Gal.)

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Adamite Co., Ltd., The (165, 166H)
Anderson and Son, Ltd., D. (151G)
Brown and Tawse, Ltd. (334T)
Callender & Co., Ltd., G. M. (96E)
Dryco-Rensec, Ltd. (257M)
Durolife Compounds, Ltd. (91E)
Field and Palmer, Ltd. (434 Gal.)
Glasso Manufacturing Co. (440 Gal.)
Highways Construction, Ltd. (87E)
Imperial Chemical Industries, Ltd. (198J)
Jenson and Nicholson, Ltd. (275O)
Limmer and Trinidad Lake Asphalt Co., Ltd., The (150G)
Neuchatel Asphalte Co., Ltd., The (178H)
Powell Duffryn Associated Collieries, Ltd., The (207K)
Ruberoid Co., Ltd., The (299G)
Sal-Ferricite and Trading Co., Ltd. (184J)
Sealocrete Products, Ltd. (282 Gal.)
T.S.W., Ltd. (368 Gal.)

DOOR FURNITURE AND FITTINGS, ETC.
Adams and Son, Ltd., James (56D)
Adams, Robert (Victor), Ltd. (104E)
Bakelite, Ltd. (304Q)
Colt (London), Ltd., W. H. (45C)
Crittall Manufacturing Co., Ltd., The (167H)
Moody, Chas. P. (371 Gal.)
Nettlefold and Sons, Ltd. (200J)
Stainless Steel Sink Co., Ltd. (339T)

DOORS (PRESSED STEEL)
Hope and Sons, Ltd., Henry (201, 202J)
Sankey and Sons, Ltd., Joseph (51G)

DOORS (WOOD)
Austins of East Ham, Ltd. (288 P)
Baker, Walter F. (252M)

Bryce, White & Co., Ltd. (161H)
Educational Supply Association, Ltd., The (314R)
Elliott and Sons (Reading), Ltd., S. (210K)
Gerver, N. (262N)
Gliksten Doors, Ltd. (112F)
Greenman, M. H. (340T)
Hills and Sons, Ltd., F. (286P)
Hitchins Flush Woodwork, Ltd. (341V)
Jennings (Bristol), Ltd. (19B)
Lloyd Boards, Ltd. (121F)
Masonite, Ltd. (162H)
Oliver and Sons, Ltd., Wm. (2, 3, 4A)
Sandell & Co., Ltd., Joseph (266N)
Sankey and Sons, Ltd., Joseph (51D)
Shapland and Petter, Ltd. (122F)
Sharp Bros. and Knight, Ltd. (309R)
Silent Gliding Doors, Ltd. (338T)
Soole and Son, Ltd. (203K)

DRAIN CLEARING MACHINES
Hart, H. (108E)

DRAUGHT EXCLUDERS
Chamberlin Weatherstrips, Ltd. (330T)
Superhermit (London), Ltd. (401 Gal.)

DRAWING OFFICE EQUIPMENT
Globe-Wernicke Co., Ltd. (329T)
Harvey & Co. (London), Ltd., G. A. (118F)
Norton and Gregory, Ltd. (407 Gal.)
Ozalid Co., Ltd. (183J)
" Steeletta " (438 Gal.)

ELECTRICAL APPARATUS, HEATERS AND FITTINGS
Aidas Electric, Ltd. (146G)
Amplilux Lighting and Illumination Co., Ltd. (347V)
Belling & Co. (145G)
Berry's Electric, Ltd. (144G)
Bray & Co., Ltd., Geo. (141G)
British Electrical Development Association, Inc. (148G)
Cole, Ltd., E. K. (147G)
Hotpoint Electric Appliance Co., Ltd. (177H)
Jackson Electric Stove Co., Ltd., The (142G)
Premier Electric Heaters, Ltd. (143G)
Simplex Electric Co., Ltd. (127 F)

ENGINEERING
British Institute of Engineering Technology (381 Gal.)

ENTRANCE GATES
Gabriel, Wade and English, Ltd. (214K)
Penfold Fencing, Ltd. (205K)

EXCAVATORS
Neal & Co., Ltd., R. H. (176H)
Ransomes and Rapier, Ltd. (39, 40C)
Ruston-Bucyrus, Ltd. (134F)

FENCING
Gabriel, Wade and English, Ltd. (214K)
Penfold Fencing, Ltd. (205K)

FIRE EXTINGUISHING AND PREVENTION
Minimax, Ltd. (307R)

FLOORS, FIRE-RESISTING MATERIALS AND TREATMENT
Adamite Co., Ltd., The (165, 166H)
Beresford and Son, Ltd., Jas. (216K)
Central Chemicals, Ltd. (204K)
Cork Insulation Co., Ltd. (44C)
Elliott and Sons (Reading), Ltd., S. (210K)
Expanded Metal Co., Ltd. (163H)
Gerver, N. (262N)
King & Co., J. A. (King Fireproofing) (156G)
Langley London, Ltd. (310R)
Lloyd Boards, Ltd. (121F)
Masonite, Ltd. (162H)
Morris, M. A., Ltd. (322T)
National Flooring Co., Ltd., The (259M)
Rollnick and Gordon, Ltd. (403 Gal.)
Ronuk, Ltd. (153G)
Smith's Fireproof Floors, Ltd. (126F)
" Twisteel " Reinforcement, Ltd. (98E)
Vigers, Sons & Co., Ltd. (402 Gal.)

FURNITURE
Globe-Wernicke Co., Ltd., The (329T)
Maile & Son, Ltd., G. (99E)
Rowley Gallery, The (390 Gal.)

GARAGES AND FITTINGS
Bolton Gate Co. (55D)
Brady & Co., G. (54D)
Educational Supply Association, Ltd. (314R)
King, Ltd., Geo. W. (405 Gal.)
Moody, C. P. (371 Gal.)
Silent Gilding Doors, Ltd. (338T)

GARDEN DESIGN AND ORNAMENTS
Gabriel Wade and English, Ltd. (214K)
Maile and Son, Ltd., G. (99E)
" Noelite," Ltd. (106E)
Sheppard, A. E. (435 Gal.)

GATES (COLLAPSIBLE), ETC.
Bolton Gate Co. (55D)
Brady & Co., G. (54D)

GLASS
Amplilux Lighting and Illumination Co., Ltd. (347V)
Boss and Sons, Ltd., C. (241L)
Clark and Son, Ltd., James (303Q)
Ide, T. & W. (325S)
King & Co., J. A. (King Fireproofing) (156G)
London Sand Blast Decorative Glass Works, Ltd., The (117F)
Maile and Son, Ltd., G (99E)
Pilkington Bros., Ltd. (111F, 348E, 336T)

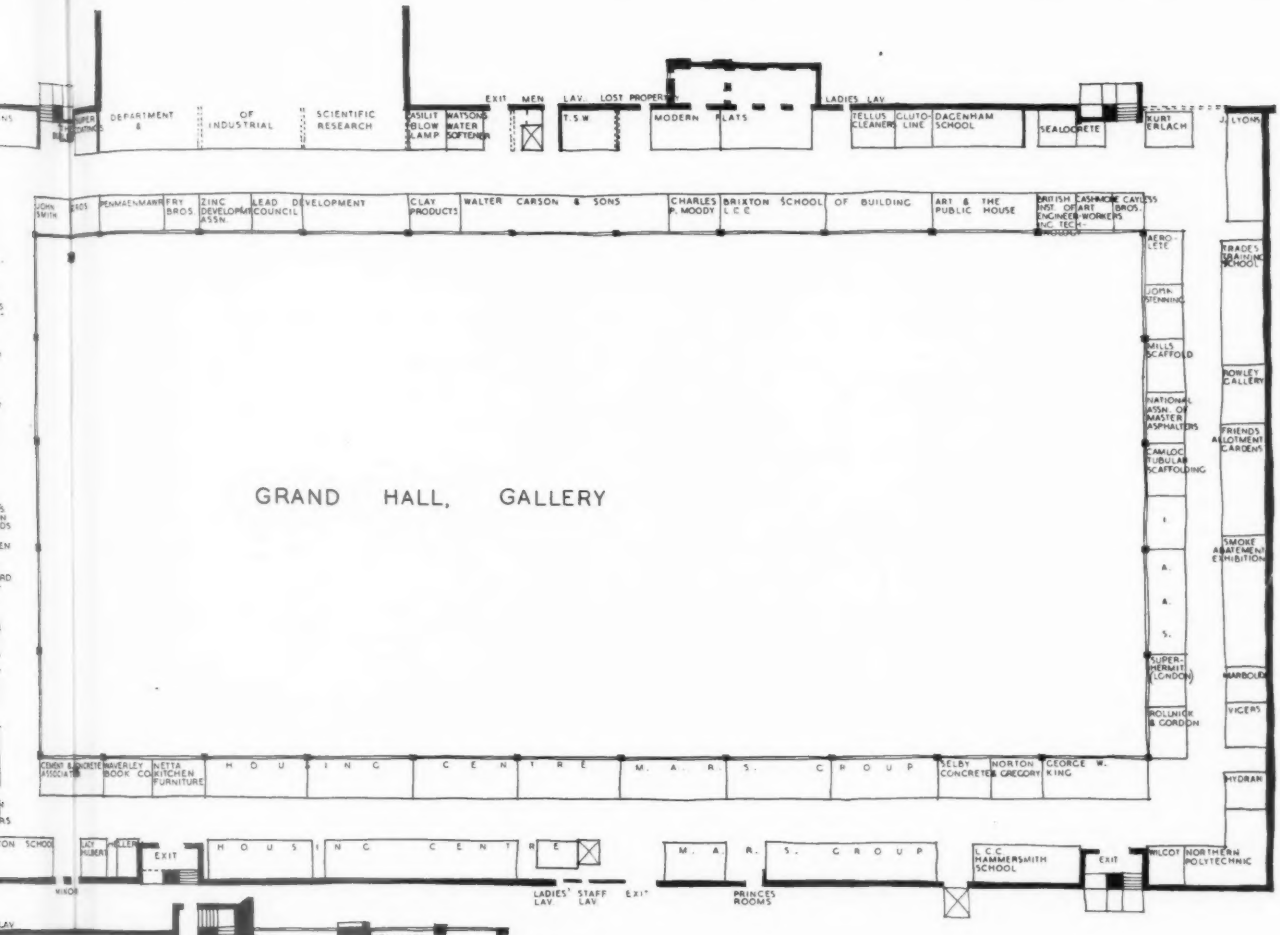
GLAZING
Boss and Sons, Ltd., C. (241L)
Clark and Son, Ltd., James (303Q)
Ide, T. & W. (325S)
King & Co., Ltd., J. A. (156G)
London Sand Blast Decorative Glass Works, Ltd. (117F)
Pilkington Bros., Ltd. (111F, 348V, 336T)

GLUES, ADHESIVES, PASTES, ETC.
Central Chemicals, Ltd. (204K)

Supplement to THE ARCHITECTS' JOURNAL for September 15, 1938

PLAN OF THE BUI

UILDING EXHIBITION



Glutoline Co. (376 Gal.)
Kirkwood, Craig & Co., Ltd. (17B)
Ozalid Co., Ltd. (183J)
T.S.W., Ltd. (368 Gal.)
Union Glue and Gelatine Co., Ltd. (280O)

GRANITE
Penmaenmawr and Welsh Granite Co., Ltd. (353–355 Gal.)

HARDWOODS, SOFTWOODS, CARVING, COMPO-BOARDS, JOINERY AND MOULDINGS, PLYWOODS, PANELLING, PARQUETRY, PARTITIONS, VENEERS, ETC.
Austins of East Ham, Ltd. (288P)
Baker, Walter F. (252M)
Bamberger and Sons, Louis (238L)
British Plaster Board, Ltd., The (211, 212K)
Bryce, White & Co., Ltd. (161H)
Canadian Government Exhibition Commission, The (192J)
Celotex, Ltd. (9B)
Educational Supply Association, Ltd. (314R)
Elliott and Son (Reading), Ltd., S. (210K)
Fisher and Sons, Ltd., M. (282P)
Gabriel, Wade and English, Ltd. (214K)
Gerver, N. (262N)
Gliksten Doors, Ltd. (112F)
Greenman, M. H. (340T)
Hills & Sons, Ltd., F. (286P)
Hitchins Flush Woodwork, Ltd. (341V)
Imperial Chemical Industries, Ltd. (198J)
Jennings (Bristol), Ltd. (19B)
Lloyd Boards, Ltd. (121F)
Masonite, Ltd. (162H)
Meyer, Ltd., Montague L. (234L)
Morris, Ltd., M. A. (332T)
National Flooring Co., Ltd., The (259M)
Oliver and Sons, Ltd., Wm. (2, 3, 4A)
Planet Gypsum Board Co., Ltd., The (92E)
Sadd and Sons, Ltd., John (120F)
Sandell & Co., Ltd., Joseph (266N)
Shapland and Petter, Ltd. (122F)
Sharp Bros. and Knight, Ltd. (309R)
Soole and Son, Ltd. (203K)
Speaker & Co., Ltd., G. R. (301Q)
Stenning and Son, Ltd., John (389 Gal)
Tentest Fibre Board Co., Ltd. (172H)
Thames Board Mills, Ltd. (164H)
Venesta, Ltd. (155G)
Vigers, Sons & Co., Ltd., A. (402 Gal.)
Wood Products, Ltd. (60D)

HEATING APPARATUS
(See Boilers, Ranges, etc.)

HOUSING
New Homes for Old (417, 424 Gal.)
Unit Flat (370, 372 Gal.)

INSECTICIDES AND FUMIGATORS
Cimex, Ltd. (279O)

IRONWORK, ORNAMENTAL
(See Art Metal Work)

JOINERY AND MOULDINGS
(See Hardwoods, etc.)

JOURNALS (TRADE) AND PUBLICATIONS
"Architect and Building News," The (114F)
"Architects' Journal," The (119F)
"Architectural Design and Construction" (38C)
"Architectural Review" (119F)
"Builder," The (110F, 265N, 350A, Gal.)
"Building" (10B)
"Building Industries" (229L)
Business Dictionaries, Ltd. (442 Gal.)
Compendium Publishing Co., The (50D)
"Illustrated Carpenter and Builder" (268N)
New Era Publishing Co., Ltd., The (244L)
"Official Architect" (346V)
"Specification" (119F)
Standard Catalogue Co., Ltd., The (38C)
"Wood" (10B)

KITCHEN AND SCULLERY EQUIPMENT
Benham and Sons, Ltd. (23B)
Easiwork, Ltd. (254M)
Fisher and Sons, Ltd., M. (282P)
Hotpoint Electric Appliance Co., Ltd. (177H)
Johnson & Co. (London), Ltd., A. (36C)
Kandya, Ltd. (8B)
Kelvinator, Ltd. (287P)
Kitchendom, Ltd. (270O)
Lusty and Sons, Ltd., W. (242L)
Modern Kitchen Equipment, The (318S)
National Enamels, Ltd. (21B)
"Neeta" Kitchen Furniture, Ltd. (425 Gal.)
Peerless Kitchen Cabinets, Ltd. (323S)
Sankey and Sons, Ltd., Joseph (51D)
Sparrow, Simmons and Sons, Ltd. (217K)
Stainless Steel Sink Co., Ltd. (339T)
Staines Kitchen Equipment Co., Ltd. (230L)
Wiggin & Co., Ltd., Henry (274O)

LADDERS, LADDER BRACKETS, CRIPPLES, ETC.
Cayless Bros. (Battersea) (34C)
Drew, Clark & Co. (239L)
Eclipse Rail Track Ladder Co., Ltd., The (285P)
Gravity Ladders, Ltd. (226L)
Langton, H. S. (20B)
Milles, Ltd., R. D. (227L)
Slingsby, H. C. (48C)
Stephens and Carter, Ltd. (289, 290P)

LATHING
Adamite Co., Ltd., The (165, 166H)
Expanded Metal Co., Ltd., The (163H)

LEAD
Claughton Bros., Ltd. (260N)
Lead Industries Development Council (361, 363 Gal.)

LIFTS, CRANES, HOISTS, CONVEYORS, ETC.
A.C.E. Machinery, Ltd. (321, 322S)
Allam & Co., Ltd., E. P. (312R)
Boydell & Co., Ltd. E. (308R)
Brady & Co., Ltd., G. (54D)
Felco Hoists, Ltd. (231 L)
Fowler & Co. (Leeds), Ltd., John (232, 233L)
Jones & Co., Ltd., T. C. (221K)
King, Ltd., Geo. W. (405 Gal.)
Liner Concrete Machinery Co., Ltd., The (343, 344V)
Neal & Co., Ltd., R. H. (176H)
Parker, Ltd., Frederick (313R)
Powhill, Ltd. (68D)
Ransomes and Rapier, Ltd. (39, 40C)
Stothert and Pitt, Ltd. (327S)

LIGHTING
Amplilux Lighting and Illumination Co., Ltd. (347V)
British Electrical Development Association, Inc. (148G)
Gas Light and Coke Co. (315, 316R)

LIME
Imperial Chemical Industries, Ltd. (198J)

MARBLES MOSAICS
Odling, Anselm and Sons, Ltd. (158G)

METAL CASEMENTS
(See Windows and Fittings)

METAL TRIM, ETC.
Harvey & Co. (London), Ltd., G. A. (118F)
Sankey and Sons, Ltd., Joseph (51D)

PAINT BRUSHES, ETC.
Chadwick and Shapcott, Ltd. (168H)
Leng and Sons, C. H. (123F)

PAINT MILLS, MIXERS, ETC.
Marchant Bros., Ltd. (43C)
Torrance and Sons, Ltd. (326S)

PAINT REMOVERS
Quickstryp Chemical Co., Ltd. (18B)
Skarsten Manufacturing Co. (436 Gal.)
Wilcot (Parent) Co., Ltd. (408 Gal.)

PAINTS, VARNISHES, ENAMELS, DISTEMPERS, STAINS, ETC.
Anderson and Son, Ltd., D. (151G)
Callender & Co., Ltd., G. M. (96E)
Carson and Sons, Ltd., Walter (235L)
Cellon, Ltd. (103E)
Glazebrooks, Ltd. (284P)
Hadfields (Merton), Ltd. (345V)
Imperial Chemical Industries, Ltd. (198J)
Jenson and Nicholson Ltd. (275O)
Marbolex Products, Ltd. (400 Gal.)
Ozalid Co., Ltd. (183 J)
Pabrit Paints, Ltd. (439 Gal.)
Parsons and Sons, Ltd., Thos. (171H)
Pearson, Ltd., Wm. (186J)
Powell Duffryn Associated Collieries, Ltd. (207K)
Ronuk, Ltd. (153G)
Ruberoid Co., Ltd., The (299Q)
Salter Paint and Colour Co., Ltd. (281O)
Silexine, Ltd. (52D)
Steel & Co., Ltd. J. M. (137G)
Super-Coatings (Holdings), Ltd. (350 Gal.)
Turnbridge Manufacturing and Supply Co., Ltd., The (432 Gal.)
Turner and Son, Ltd., Charles (215K)

PARTITIONS (OTHER THAN WOOD)
British Plaster Board, Ltd. (211, 212K)
Cellactite and British Uralite, Ltd. (302Q)
Celotex, Ltd. (9B)
Crittall Manufacturing Co., Ltd., The (167H)
Expanded Metal Co., Ltd., The (163H)
Honeywill and Stein, Ltd. (22B)
Imperial Chemical Industries, Ltd. (198J)
King & Co., J. A. (King Fireproofing) (156G)
Lloyd Boards, Ltd. (121F)
Plaster Products (Greenhithe), Ltd. (7B)
Sankey and Sons, Ltd., Joseph (51D)
Speaker & Co., Ltd., G. R. (301Q)
Tentest Fibre Board Co., Ltd. (172H)
Thames Board Mills, Ltd. (164H)
Thermocoust Products, Ltd. (97E)
Turners Asbestos Cement Co. (169, 170H)
Universal Asbestos Manufacturing Co., Ltd., The (333T)

PASTES, CEMENTS AND ADHESIVES
B.B. Chemical Co., Ltd. (94E)
Kirkwood Craig & Co., Ltd. (17B)

PAVEMENT LIGHTS
King & Co., Ltd., J. A. (156G)

PHOTOGRAPHERS
Tella Co., Ltd., The (228L)

PLASTER AND PLASTERING
British Plaster Board, Ltd. (211, 212K)
Imperial Chemical Industries, Ltd. (198J)
Planet Gypsum Board Co., Ltd. (92E)
Plaster Products (Greenhithe), Ltd. (7B)
Telling, Ltd., W. A. (22, 25C, 66D, 90E)

PLUGS FOR WALLS
Rawlplug Co., Ltd., The (11B)

POLISHES
Kirkwood Craig & Co., Ltd. (17B)
Ronuk, Ltd. (153G)

POLISHING MACHINERY AND PLANT
Crockatt and Son, Ltd., W. (63D)
Ronuk, Ltd. (153G)

PUBLIC HOUSE DESIGN
Whitbread & Co., Ltd. (377, 379 Gal.)

PUMPS AND PUMPING PLANT
Aerostyle, Ltd. (16B)
Beresford and Son, Ltd., James (216K)
Fowler & Co. (Leeds), Ltd., John (232, 233L)
Jones & Co., Ltd., T. C. (221K)
Lacy-Hulbert & Co., Ltd. (428 Gal.)
Liner Concrete Machinery Co., The (343, 344V)
Millars' Machinery Co., Ltd. (342V)
Neal & Co., Ltd. R. H. (176H)
Pegson, Ltd. (179H)
Ransomes and Rapier, Ltd. (39, 40C)
Winget, Ltd. (335T)

RAINWATER PIPES (METAL)
Vitreflex, Ltd. (305Q)

REFRIGERATORS
Easiwork, Ltd. (254M, 370, 372 Gal.)
Gas, Light and Coke Co., (315, 316R)
Kelvinator, Ltd. (287P)
Kitchendom, Ltd. (270O)
Konkerwind, Ltd. (443 Gal.)
Utilities (London,) Ltd. (271O)
Zeros (Sales), Ltd. (351 Gal.)

REVOLVING SHUTTERS
Bolton Gate Co. (55D)
Brady & Co., Ltd., G. (54D)

ROOFING MATERIALS
Anderson and Son, Ltd., D. (151G)
Atlas Stone Co., Ltd. (41C)
Callender & Co., Ltd., G. M. (96E)
Cellactite and British Uralite, Ltd. (302Q)
Colt (London), Ltd., W. H. (45C)
Cork Insulation Co., Ltd. (44C)
Durolite Compounds, Ltd. (91E)
Durasteel Roofs, Ltd. (331T)
Expanded Metal Co., Ltd., The (163H)
Field and Palmer, Ltd. (434 Gal.)
Gabriel, Wade and English, Ltd. (214K)
Harvey & Co. (London), Ltd., G. A. (118F)
Highways Construction, Ltd. (69D, 87E)
Horseley Bridge and Thomas Piggott, Ltd. (72, 73D)
King & Co., J. A. (King Fireproofing) (156G)
King Fireproofing (J. A. King & Co.) (156G)
Limmer and Trinidad LakeAsphalt Co., Ltd. The (150G)
Marley Tile (Holding) Co., Ltd., The (100, 101E)
Redhill Tile Co., Ltd. (149G)
Ruberoid Co., Ltd., The (299Q)
Speaker & Co., Ltd., G. R. (301Q)
Turners Asbestos Cement Co. (169, 170H)
Universal Asbestos Manufacturing Co., Ltd., The (333T)

RUBBER
North British Rubber Co., Ltd. (159G)

SAND
Buckland Sand and Silica Co., Ltd. (124F)

SCAFFOLDING APPLIANCES AND ACCESSORIES
A.C.E. Machinery, Ltd. (321, 322S)
Camloc Tubular Scaffolding, Ltd. (395 Gal.)
Cayless Bros. (Battersea) (34C)
Drew, Clark & Co. (239L)
Gascoigne Co., Ltd., Geo. H. (64D)
London and Midland Steel Scaffolding Co., Ltd., The (293, 294P)
Mills Scaffolding Co., Ltd. (391 Gal.)
Scaffolding (Great Britain), Ltd. (109F)
Smith & Co. (London, E.), Ltd., John (349 Gal.)
Steel Scaffolding Co., Ltd., The (191J)
Stephens and Carter, Ltd. (289, 290P)
Universal Metal Furring and Lathing Co., Ltd., The (25B)
Warrington Tube Co., Ltd. (7aB)

SCREENS
Harvey & Co. (London), Ltd., G. A. (118F)

SCULPTURE
Maile and Son, Ltd., G. (99E)

SHELTERS (COLLAPSIBLE), ETC.
Marquees, Ltd. (348aV)
Smith & Co. (London, E.), Ltd., John (349 Gal.)

SHERARDIZING
Zinc-Alloy Rust Proofing Co., Ltd. (267N)

SHINGLES
Colt (London), Ltd., W. H. (45C)
Gabriel, Wade and English, Ltd. (214K)

SIGNS
London Sand Blast Decorative Glass Works, Ltd. (117F)
Maile and Son, Ltd., G. (99E)

SOLDER
Grant and West, Ltd. (243L)
Thomas and Bishop Ltd. (37C)

SPONGES
United Sponge Co., The (224L)

SPRAYING PLANT
Aerostyle, Ltd. (16B)
Kurt Erlach, Ltd. (384 Gal.)
Lacy-Hulbert & Co., Ltd. (428 Gal.)

STEEL
Bigwood and Son, Ltd., J. (71D)
British Steelwork Association (278O)
Brown and Tawse, Ltd. (334T)
Durasteel Roofs, Ltd. (331T)
Horseley Bridge and Thomas Piggott, Ltd. (72, 73D)
Pressed Steel Co., Ltd. (139G)
Sankey & Sons, Ltd., Joseph (51D)
Twisteel Reinforcement, Ltd. (98E)
United Steel Companies, Ltd. (209K)
Young & Co., Ltd., H. (277O)

STENCILS
Heller and Sons (426 Gal.)

STONE
Poultney's (Granite, Sand and Ballast Co., Ltd.) (24B)

STONE PRESERVATION
King & Co., J. A. (156 G)

STUDENTS' FINISHED WORK
Brixton School of Building (373, 375 Gal.)
Hammersmith School of Building and Arts and Crafts (410 Gal)
Kingston Technical College and School of Art (430 Gal.)
Northern Polytechnic Department of Architecture, Surveying and Building (406 Gal.)
South East Essex Technical College (378-380 Gal.)
Trades Training School of the Worshipful Company of Carpenters (388, 390, Gal.)

SUN BLINDS
Irving & Co. (62D)
Marquees, Ltd. (348aV)

TARPAULINS
Smith & Co. (London, E.), Ltd., John (349 Gal.)

TELEPHONES
Dictograph Telephones, Ltd. (261N)
Reliance Telephone Co., Ltd., The (173H)

TIP WAGONS, TRUCKS, BARROWS, VANS, CARTS, VEHICLES, CONVEYORS, ETC.
Allan Taylor (Motors), Ltd. (77D)
Cayless Bros. (Battersea) (34C)
Drew, Clark & Co. (239L)
Slingsby, H. C. (48C)
Stephens and Carter, Ltd. (289, 290P)
Scoffin and Willmott, Ltd. (74D)

TOOLS
Barrus, Ltd., E. P. (31C)
British Equipment Co., Ltd. (190J)
Cole, Ltd., E. R. (107E)
Fastnut (225L)
Flextol Engineering Co., Ltd. (61D)
Jones & Co., Ltd., T. C. (221K)
Mansions Motor Co., Ltd. (324S)
Midland Saw and Tool Co., Ltd., The (188J)
Monro, Ltd., Geo. (133F)
Nicholson and Clipper Co., Ltd., W. T. (208K)
"Shetack" Tool Works, Ltd., The (276O)
Skarsten Manufacturing Co. (436 Gal)
Tyzack and Son, Ltd., S. (236–237L)

TUBES
Brown and Tawse, Ltd. (334T)

VACUUM CLEANERS
Tellus Super Vacuum Cleaner, Ltd. (374 Gal.)

VALVES
Evans & Co., F. H. (5B)

VENTILATORS
Aerolete Ventilating Co. (387 Gal.)
Cellactite and British Uralite, Ltd. (302Q)
Harvey & Co. (London), Ltd., G. A. (118F)
Hope and Sons, Ltd., Henry (201, 202J)
Utilities (London), Ltd. (271O)

WALL HANGINGS
I.C.I. Rexine, Ltd. (199J)
Joyce and Sons, Ltd., W. N. (58D)

WASHING MACHINES AND WRINGERS
Barker and Turner, Ltd. (283P)
Beatty Bros. (140 G)
Easiwork, Ltd. (254 M)
Hotpoint Electric Appliance Co., Ltd. (177H)
Staines Kitchen Equipment Co., Ltd. (230L)

WATER OVERFLOW PREVENTION
Ever-Float Co., Ltd. (441 Gallery)

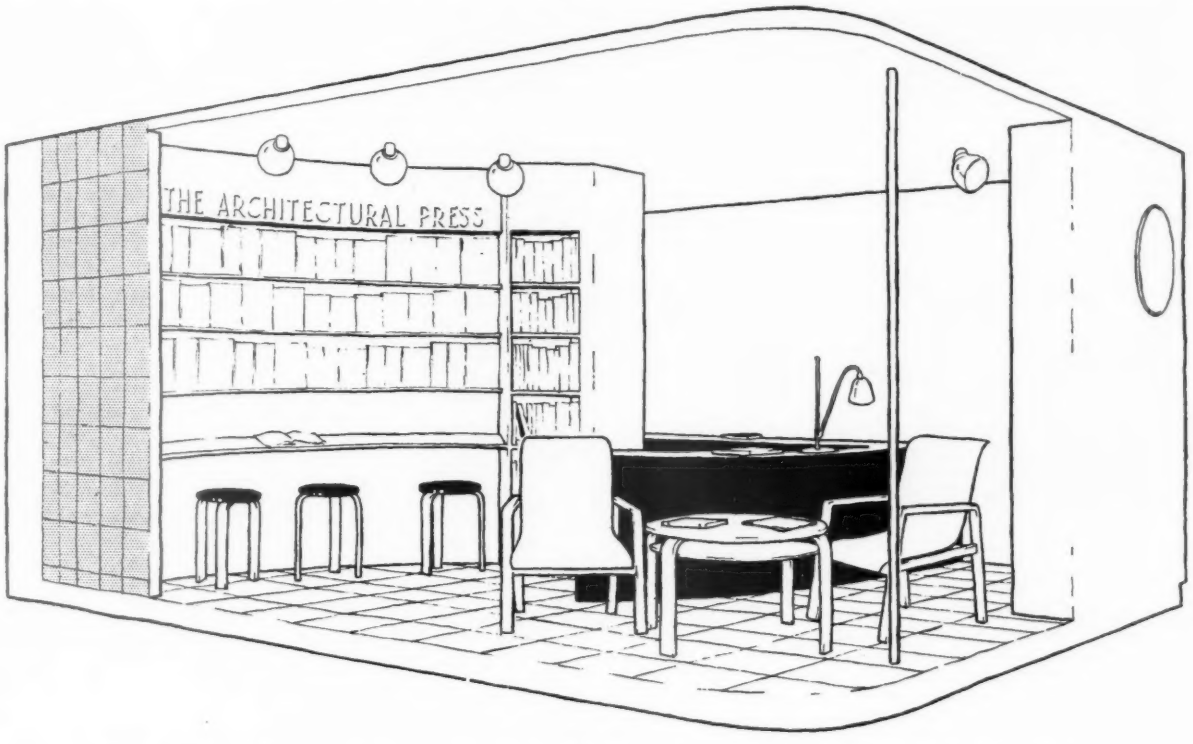
WATER SOFTENERS
Fry Bros., Ltd. (357 Gal.)
Watsons Water Softeners, Ltd. (366 Gal.)

WELDING
Jones & Co., Ltd., T. C. (221K)

WINDOWS AND FITTINGS
Austins of East Ham, Ltd. (288P)
Crittall Manufacturing Co., Ltd., The (167H)
Educational Supply Association, Ltd. (314R)
Harvey & Co. (London), Ltd., G. A. (118F)
Hope and Sons, Ltd., H. (201, 202J)
King, Ltd., Geo. W. (405 Gal.)
London Sand Blast Decorative Glass Works, Ltd. (117F)
Nettlefold and Sons, Ltd. (200J)
Sadd and Sons, Ltd., John (120F)
Sankey and Sons, Ltd., Joseph (51D)
Sharp Bros. and Knight, Ltd. (309R)
Williams and Williams, Ltd. (193J)

WOODWORKING MACHINERY
Brookman, Ltd., R. S. (182 J)
Cooksley, A. (125F)
Darckaert's Woodworking Machinery, Ltd. (138G)
Dominion Machinery Co., Ltd. (70D)
Interwood, Ltd. (222, 223K)
Kirchner & Co. (London), Ltd. (136G)
Liner Concrete Machinery Co., The (343, 344V)
Midland Saw and Tool Co., Ltd., The (188J)
Robinson & Son, Ltd., Thomas (175H 187J,)
Sagar & Co., Ltd., J. (1A)
Schubert, Ltd., H. (131F)
Tyzack and Son, Ltd., S. (236, 237L)
Wadkin, Ltd. (219, 220K)
White and Sons, Ltd., Thos. (26, 27, 28, 29 and 30C)
Wilson Bros. (Leeds), Ltd. (32C)

ZINC
Zinc Development Association, Ltd. (359 Gal.)



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EXHIBITION NOTES

THE ARCHITECTURAL PRESS

THE directors of the Architectural Press extend an invitation to all architects and others interested to visit their stand (No. 119 F), which has been designed by Mr. H. Myles Wright, in association with Mr. G. Brian Herbert. The stand has four main components : a curved display and reading-desk at which books and periodicals can be examined ; a counter and selling space ; an upright bookcase; and a small office. The principal material is fireproofed plywood, finished in white, powder blue, and black. Lettering and steel columns are in coral, the floor of birch ply, counter-tops of white linoleum, and dove-grey curtaining.

The display consists of current and special issues of the *Architectural Review* and the *Architects' Journal ;* of *Specification ;* of all volumes of *Information Sheets ;* and of all the books published by the Architectural Press.

BUILDING RESEARCH STATION

Some of the recent research work on subjects of interest to those engaged in the building and allied industries is illustrated by working demonstrations, models, and cinematograph films on the stand (even Nos. from 352–362 Gal.) of the Department of Scientific and Industrial Research. The exhibits represent some of the more important current investigations in the laboratories of the Building Research Station, Watford ; the Forest Products Research Laboratory, Princes Risborough ; the National Physical Laboratory, Teddington ; the British Non-ferrous Metals Research Association, London ; and the Paint Research Station of the Research Association of British Paint, Colour and Varnish Manufacturers, Teddington. While it is not possible to cover all the building problems on which the Department is engaged, the exhibit is of a most comprehensive character, and each item, while not necessarily embracing the whole field of work done on the particular problem, will most certainly assist in the solution of some of the difficulties confronting the builder. The exhibits are further explained by free pamphlets, and help and advice can be obtained from research workers, some of whom will be in attendance on the stand. Literature is available for reference and purchase.

UNIVERSAL ASBESTOS MANUFACTURING CO., LTD.

The stand (No. 333 T) of the Universal Asbestos Manufacturing Co., Ltd., is entirely devoted to a display of Handcraft asbestos-cement materials which include Super-six corrugated and standard 3-in. corrugated sheets, Twin-Twelve sheets and Watford Handcraft tiles and sheets. These, together with asbestos-cement diagonal and rectangular pattern slates and pantiles, are available in a large range of colours.

Special features of the exhibit include Handcraft metal reinforced asbestos-cement decking and reinforced asbestos-cement troughing for flat and semi-flat roofs. Full details of tests relating to these products are available on the stand.

The latest product which is making its first appearance on the stand is the Handcraft double roofing sheets, which are suitable for aeroplane hangars, halls, factory buildings, etc., where avoidance of heat loss is important. Handcraft asbestos-cement rainwater pipes and soil goods are also shown in addition to a range of flue pipes and fittings and ventilators.

THE RUBEROID CO., LTD.

From the centre of the Ruberoid stand (No. 299 Q) the underside of the Ruberoid insulated roof can be examined. The underside is divided to show the standard and flush soffits. A staircase is provided for inspecting the top side of the roof which shows two finishes (1) Ruberoid built-up roof, (2) Ruberdal roof. A gallery of photographs is shown round this roof illustrating a few of the many important contracts the firm have carried out.

One of the interesting exhibits on this stand is a model showing Astos Membrane dampcoursing for basements, subways, reservoirs, swimming pools, tunnels, etc. This dampcoursing is built up on the site with

Model of the stand (No. 169-170 H) of Turners Asbestos Cement Co.

three layers of Astos felt bonded together with hot compound and taken as a continuous sheet through the vertical and horizontal. Lap joints are made, and where these occur, they are staggered. This form of dampcoursing is unaffected by normal settlement and will not crack.

TURNERS ASBESTOS CEMENT CO.

The letters of the monogram of this company—T.A.C.—are the motif of the stand (No. 169-170 H) as will be seen from the photograph of the model reproduced on this page. The stand covers an area 70 ft. by 20 ft., and the height of the "T" is 20 ft. The wall space of the letter "T" is devoted to a display of asbestos-cement products, such as Trafford tiles and sheets. The "A" is used for the display of decorated sheets. The office is concealed here. The letter "C" is used for the display of asbestos-cement pipes and moulded goods.

The stand is constructed of the various asbestos-cement products and materials made by Turners Asbestos Cement Company (branch of Turner and Newall, Ltd.) at their factories at Trafford Park, Widnes, Erith and Dalmuir. Roofings of every description of asbestos-cement are shown; these range from Turnall Trafford tiles to the Poilite Newtone asbestos-cement slates. There is a full range of asbestos-cement sheets for interior decoration; these emphasize the rapid strides which have been made in this development recently. A special section is devoted to the various asbestos-cement materials most suitable for A.R.P. work. Everite asbestos-cement rainwater goods, soil pipes and fittings, ventilators, ducting, cable conduits, pressure pipes for gas and water, are shown in many cases side by side with photographs of actual installations.

THE AMPLILUX LIGHTING AND ILLUMINATION CO., LTD.

The chief feature of the exhibit of the Amplilux Lighting and Illumination Co., Ltd. (stand No. 347 V) is the Amplilux Prismatic Bell, an entirely new form of unit which gives the downward intensity expected from a direct industrial unit, with the additional advantage that it is made of material which never loses its reflective efficiency, and it also provides ceiling light instead of the gloom frequently found in the upper part of industrial premises. A new development, shown now for the first time, consists of three small prismatic bells attached by arms to a central hexagonal stem. With the mouth of the bell downwards, a very bright illumination is given on the working plane, plus an adequate ceiling light. The novel feature in the unit, however, is that the three bells and their arms can be reversed on the same stem, so as to throw an intense light on to the ceiling. A certain amount of light which is still diffused downwards combines with the strong reflected ceiling light to produce an even, shadowless illumination at a very moderate cost. Another new production is a prismatic ring, combined with a vitreous enamelled reflector, for lamps of 500-1,000 watts.

W. H. COLT (LONDON), LTD.

The exhibit of W. H. Colt (London), Ltd. (stand No. 45 C) displays the various uses of Colt Canadian cedar wood tiles or shingles. The stand has been specially designed by Mr. Oliver P. Bernard, and consists of a full-size section of roof designed to permit a close inspection of the tiling and the economical roof sub-structure supporting it. A dormer window is included in the roof showing in detail the method of forming valleys, verges and ridges, also the effect obtained by tile hanging the cheeks and the gable over the dormer window. Other exhibits include: a large-scale model house showing various effects which may be obtained on roofs and walls; panels of naturally weathered tiles and numerous photographic examples of buildings roofed with Colt Canadian cedar wood tiles.

RAWLPLUG CO., LTD.

The Rawlplug Co., Ltd., are showing, for the first time, a new type of fixing anchor which will be marketed as the Rawlplug Screw Anchor. This fixing is a metal flanged plug which has been designed to supply a demand for an anchor which is made of metal and would resist climatic conditions and overcome prejudice against non-metallic fixings. It is not intended that this fixing should supersede the fibre Rawlplug, but it will answer many problems that have previously caused trouble through the fixing having been pushed too far into the hole. The stand No. is B.11.

HALLIDAY BOILERS, LTD.

A new water heater of the multi-point type which is automatic is being featured by Messrs. Halliday Boilers, Ltd., on stand No. 247 M. They are also showing a new tea-making or boiling water boiler, which sells at £16 complete, and all their usual products, including the Halliday Circulating boiler.

FIELD AND PALMER, LTD.

The exhibits of Messrs. Field and Palmer, Ltd., on stand No. 434 Gal., include Fi-Pa-Crete insulated roofing; rock asphalt covered with 12-in. asbestos tiles; composite asphalt; Macflex roofing; Pebble Crete roofing; Castile roofing; and dampcourses.

INTEROVEN STOVE CO.

The exhibits on view on the stand (No. 174 H) of the Interoven Stove Co. include: Super and Selfix Interoven convertible cooking and heating stoves (Pascall's patents), for economical cooking and hot-water supply; Cheerio wrought steel domestic boilers with sliding door for open or closed fire and with shaking bottom grate made in various finishes; Hudeal wrought steel boilers; Homer and Homcrette super-grate back boilers; wrought steel boilers of all kinds for ranges, etc.; and Warmo odourless oil radiator and Ottest heaters.

A special feature of the exhibit is the display of the Centro-Vac central cleaning system. This built-in vacuum cleaning system is specially designed for use in private houses and flats. It dispenses with the use of the portable cleaner and has a small but powerful suction unit placed in a cupboard under the stairs, in the garage or some other out of the way place, and is connected to entry points placed in the floor or skirting of every room of the house. It is only necessary for the flexible hose fitted with cleaning tool, to be plugged in at any one of these entry points for all dirt and dust to be removed and carried away through the tubing to the central container, from which it can be conveniently emptied. The cost of running the outfit is said to be no more than that for running a portable cleaner.

CASEBOURNE & CO. (1926), LTD., and I.C.I. (METALS), LTD.

The I.C.I. exhibit exemplifies some of the many uses of I.C.I. products in the building trade. The main feature of the stand (No. 198 J) is a number of panels finished in Decranite, a new surfacing material which gives a decorative effect for interior walls. Its manipulation constitutes a new craft, employing specially fine aggregates mixed with a binder. It is a special type of anhydrite plaster, applied by normal methods of trowelling. The decoration lies within the plaster, just under the surface and right through the mass. An extremely thin top film of binder, left by the trowel, can be swiftly removed by a simple abrasive operation thus exposing the decoration.

Visitors are able to see a new technique for building solid partitions dry so that

they may easily be dismantled and re-erected. This is done by means of Pioneer blocks in conjunction with light steel framing wallboard being screwed or stuck direct on to the blocks to give the final surface.

The use of Pioneer blocks in conjunction with reinforced-concrete has been adopted extensively in R.A.F. work during the past two years and this is demonstrated by panels in which reinforced concrete has been cast against Pioneer blocks laid in the shuttering. This has proved a very effective way of introducing heat insulating material during the construction of concrete walls.

In the construction of the stand many I.C.I. products have been used, including the Pioneer blocks, plasters, cements and wallboards; Faspite plasters; Steelcrete rapid-hardening Portland cements, and Limbux Hydrated Buxton Lime. The stand is decorated with paint manufactured by Nobel Chemical Finishes, Ltd., Dulux white enamel and Beldec oil emulsion paint being displayed on a variety of surfaces.

I.C.I. REXINE, LTD.

Messrs I. C. I. Rexine, Ltd., have a stand (No. 199 J) at the Exhibition for the first time this year to demonstrate the fact that Mural Rexine can now be used for almost any decorative scheme. This durable, washable material is available in practically every conceivable tint, in plain, satin and a variety of embossed surfaces, and in colour combinations with decorative designs and moulding lines. Mural Rexine can be supplied with the surface finish of a glazed tile; of a finely ribbed silk with jaspé, moiré or design effects; and in a range of patterns and colours previously associated only with fabrics, wallpaper or marble.

Tinted gold and silver Rexine has been used for the exterior of the stand and the mouldings, carried out with gold and silver bands. Various types of decorative schemes are displayed on the stand.

JAMES BERESFORD AND SON, LTD.

This stand (No. 216 K) features the Beresford-Stork and Beresford-Garvens pumps and builders' hardware, comprising the Douglas overhead door closer, floor springs, door checks and fittings. Examples of Beresford-Stork patent centrifugal self-priming pumps for shallow wells and Beresford-Garvens patent submersible pumps for deep wells or boreholes are shown along with a Beresford-Stork light trailer fire-fighting pumping unit as supplied for A.R.P. work. Beresford Corona hand pumps are also on view.

D. ANDERSON AND SON, LTD.

In addition to the many brands of roofing and lining felts and dampcourses manufactured by this firm, one of the chief features of the stand (No. 151 G) is a flat roof demonstrating a new flat roof construction. This is Besdek roofing, which can be used for either flat or sloping roofs. Each unit consists of a sheet of corrugated asbestos, to which is securely fastened a flat sheet of the same material. Longitudinally in the corrugations is placed a reinforcing steel rod, and the corrugations are then filled with pumice cement, leaving a level surface on the sheet. Sheets are laid with the flat asbestos sheet downwards, giving a surface inside the building which is suitable either for direct decorating or for plastering. Joints are butted both ends and sides, the reinforcing bars interlocking at each end joint, and the whole made weatherproof by one of Anderson's roof coverings—Durok, Macasfelt, or Thermotile. Sheets are 3 ft. wide by 8 ft. long, and are supported only at the ends. It is claimed that this is one of the strongest flat roof decking sheets on the market. Sections of flat roofs covered with Thermotile and Macasfelt systems are also on view. Silver Seal plaster board is also shown.

BAKELITE, LTD.

A perspective of the Bakelite stand (No. 304 Q) is reproduced on this page. The main vertical column, display counters, wall surfaces and specimen doors are all finished with Bakelite veneer, and a delicate shade of blue has been adopted for the main colour scheme. The stand has a low two-tier display counter containing various examples of mouldings produced from Bakelite materials; and five panels of the shape and size of doors illustrating the applications of Bakelite laminated material. One panel carries a tiled design, another embodying an attractive inlay scheme, while others are mounted with specimen splashbacks, telephone backboards, etc. The rear portion of the stand is devoted to coloured illustrations of various interiors which have been treated with Bakelite veneers. The resistance of Bakelite decorative materials to the effects of heat, moisture and alcohol is demonstrated by an animated display on one of the exterior side walls. Other exhibits indicate the use of Bakelite resinoid as a base for paints and varnishes, while the new blisterproof veneers and the latest plywood adhesive—Bakelite Plybond—are also featured.

PILKINGTON BROTHERS, LTD.

Pilkington Brothers, Ltd., have three stands at the Building Exhibition. They are: General glass stand, No. 336 T, National Hall; Armoured glass stand, No. 111 F, Grand Hall; Double-glazing stand, No. 348 V, National Hall.

Details of the stands are as follows: *General glass stand* (*main stand*). This stand has been designed to illustrate some of the more recent uses of glass and newer methods of glass construction. Special features of the stand include: A staircase with Armourplate glass treads, glass balustrade, and hand-rail; an upper gallery floor formed of pre-cast slabs of glass lenses; Vitrolite, silvered glass floor tiles and clear glass tiles, laid in coloured cement; mirror used on a large scale to increase the apparent size of the interior; an improved method of fixing glass dome lights; sliding panels showing colour schemes in plain, agate, and fluted Vitrolite; a new decorative lighting effect on glass; and a full range of structural, decorative and illuminated glasses in sample form.

In certain cases it is necessary to have a mirror with a front surface reflection; the latest method of producing this is by the deposition of aluminium, or other metals, under high vacuum, and samples of this new product will also be on view.

Armoured glass stand. A feature of this stand is Armourlight glass, which is being shown for the first time. This is a development of the Armourplate process, whereby moulded and blown glass can be toughened. Armourlight is claimed to resist blast pressure, impact and thermal shock, and its uses include well glasses for flameproof fittings, floodlight glasses, insulators, etc. A wide range of Armourplate and toughened flat glasses will also be shown on this stand.

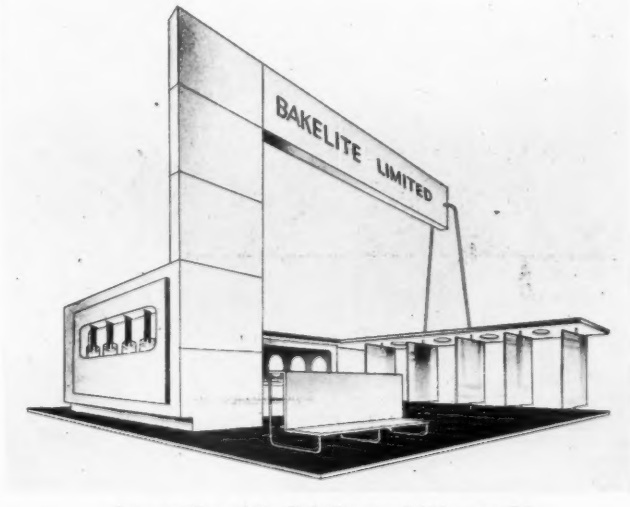
Double-glazing stand. This stand is devoted to double glazing and sound insulation.

CELLACTITE AND BRITISH URALITE, LTD.

Asbestos protected metal in the form of roofing and roof ventilators is displayed in service size and application by Cellactite and British Uralite, Ltd. (Stand No. 302 Q). Data on performance of ventilators in a variety of atmospheric and other conditions is available.

Incorrosible pipes and fittings used by gas undertakings and the makers of heating appliances are shown, together with interesting examples of the material as used for fume-ducting, air-conditioning plants, etc.

The new wallboard composed of asbestos and diatomaceous earth, and representing a new development in this trade, is included in the exhibit. Kimoloboard is a



A perspective of the Bakelite stand (No. 304 Q).

fireproof product, having B.S.I. status for incombustibility. Kimoloboard can be used for A.R.P. work, the material has by public demonstration, been proved to stop the passage of burning Thermite, an incendiary which melts through steel practically on contact. Kimoloboard stops Thermite and is therefore capable of confining the fire to its source.

On view also is asbestos-cement in the form of flat corrugated sheets and various sundries.

MODERN KITCHEN EQUIPMENTS, LTD.

A complete range of kitchen cabinets, built-in kitchen furniture, bathroom cabinets, sink units and also a special combined sink unit and electric dish-washing machine are being shown by Modern Kitchen Equipments, Ltd., on stand No. 318 S.

CLAY PRODUCTS TECHNICAL BUREAU

The stand (No. 365 Gal.) of the Clay Products Technical Bureau takes the form of an information bureau—in effect, a branch at the exhibition of the actual Clay Products Technical Bureau itself. There is a photographic display of typical brick and tile work in recent building, and the comprehensive technical literature prepared and published by the bureau is available.

THE EXPANDED METAL CO., LTD.

The above company's exhibit (stand No. 163 H) consists of specimens of Expamet expanded metal products. Expamet expanded steel of the larger meshes is used chiefly as reinforcement for all forms of concrete and fire-resisting construction; and the smaller meshes in many other ways, such as open meshwork for partitions, shop-divisions, fencing, flooring; guards for machinery, windows, trees; baskets for litter, waste paper, letters; lockers for clothes, tools; screens for filters, ventilators. 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 the small diamond-shaped meshes hold the plaster in a strong grip; the meshes are large enough to allow sufficient plaster to pass through them to form, on the reverse side, a perfect "key." Ribmet, a ribbed metal lathing, is particularly useful as a combined permanent centering and reinforcement for concrete flooring, roofing, etc.

There is a model on view which incorporates Expamet expanded metal products in relation to their respective applications in building construction, also a number of photographs of recent works in which Expamet expanded metal products have been used.

A. JOHNSON & CO.

On the stand (No. 36 C) of A. Johnson & Co. are displayed various types of Savestane stainless steel Synkunits, sinks, and table tops. These Synkunits, consisting of sink bowl and draining-board constructed from one stainless steel sheet, can be made in practically any shape or size to fit all types of kitchens. The material used is extremely strong and will stand up to any amount of hard wear. In addition it is claimed to be absolutely impervious to food acids.

Apart from the ordinary sink and draining-board unit, an interesting exhibit on view is the unit comprising combination sinks, one of these bowls being used for washing vegetables, knives and forks, etc., and rinsing, whilst the larger bowl is used for washing-up. All these units are supplied with a satin finish which renders scratches almost invisible.

UNITED STEEL COMPANIES, LTD.

Silver Fox stainless steel is exhibited on the above firm's stand (No. 209 K) in the form of sheets and strip, bar and wire, made throughout in their new factory at Stocksbridge, Sheffield. The easy working properties and finish of this material are shown by the display of household equipment, including fireplaces and accessories by various manufacturers, an interesting demonstration of Leizure sinks, and representative samples of Semprax cast stainless household fittings.

THOS. PARSONS AND SONS, LTD.

Examples of the finishes produced by the following enamels and paints are displayed by Messrs. Thomas Parsons and Sons, Ltd., on stand No. 171 H: Endelline enamel, Endelflat enamel, Lacreite enamel, Halftime enamel, Parsolac synthetic finish, Gloss paint, Unicote flat oil paint, Parsoglaze, Water Tex, Parlyte water paint, Parso-stain, Parso-stone, Corktex, Chexrot, Rust-eeter, etc.

THE NAUTILUS FIRE CO., LTD.

Chief among the items of interest on the Nautilus stand (No. 320 S) is the new Nautilus flue block which makes its first appearance. Improved features now enable the insides of the flues to be kept clear of mortar fangs. New types of block have been added that greatly increase the scope of usefulness of Nautilus flues. Also on the stand is a range of plaques of modern design in marble, Merible—an inexpensive Welsh slate product finished in a range of attractive colours—and cast iron, suitable for the Panella gas fire. Two recent additions to the Panella series of fires are shown—the "K" and the "L," in which the fire and plaque are designed as one unit. A mantel setting contains the well-known Nautilus coal fire, while Nautilus domestic coke boilers, in porcelain enamelled finishes, are displayed alongside enamelled New World gas cookers (Radiation, Ltd.) to illustrate how they fit into an ordinary kitchen recess even when there is little room to spare. To complete the display there is a selection of instantaneous water heaters, including the new radiation types.

SHARP BROS. AND KNIGHT, LTD.

There is a wide range of general joinery exhibited on the stand (No. 309 R) of Messrs. Sharp Bros. and Knight, Ltd. The principal feature is a flight of oak stairs. The office is constructed with S.B.K. Standard and Stormproof joinery, including a circular bay window of the Burton Range type; the interior of the office is panelled in oak and Columbian pine. A special display is made of Enjo doors, which are made from kiln-dried red deal or Columbian pine. Flush doors in various finishings, Stormproof casement windows and samples of the firm's range of gates, cupboard fronts, dressers, etc., are also exhibited. Besides manufacturing Standard and Stormproof joinery the larger portion of the company's works is devoted to the manufacture of joinery in soft and hard woods to special designs, and details for flats, offices, schools, banks, public institutions, etc.

BRITISH STEELWORK ASSOCIATION.

The British Steelwork Association (stand No. 278 O) displays structural steelwork and sheet steel for air raid protection. Models show independent shelters protected against gas, splinters and blast; also suggestions for low-cost basement shelters in existing buildings. Literature on structural steelwork is available

A perspective, by E. H. Sadler, of the stand (No. 365 Gal.) of the Clay Products Technical Bureau.

and also on sheet steel (i.e. on galvanized corrugated sheet steel and dovetail sheet steel) for the building industry. Particulars can be obtained of the new quality of galvanized sheets—the 175 quality—designed to give long life at low cost.

CEMENT MARKETING CO., LTD.

Coloured concrete is the principal feature of the Cement Marketing Co., Ltd.'s stand (No. 152 G), and the various types of surface finish which can be obtained by the different gradings of Cullamix and Snowcrete mixture are displayed.

Since the previous exhibition, stippled Cullamix has been considerably developed, and of particular interest are the examples which show how this brush-applied finish can be used for both external and internal decorative schemes.

In addition to the finishes incorporated in the stand, demonstrations will be carried out throughout the exhibition to show how the different textures are produced.

All the Blue Circle products are shown in one form or another: Blue Circle Portland cement; Ferrocrete, rapid-hardening Portland cement; Snowcrete, British white Portland cement; Hydralime, scientifically hydrated lime; Aquacrete, water-repellent Portland cement; S.D. stock bricks; Mastic elastic jointing material, etc.

WILLIAM PEARSON, LTD.

A new decorative wall finish (Pirum 505)—which although mixed with water only and applied like a distemper—displays a washable finish resembling flat oil paint, is being shown by Messrs. William Pearson, Ltd., on stand No. 186 J. This wall finish is suitable for decorating both "new" and old plasters, cement renders, concrete, etc., to which it can be applied immediately they are "hand" dry without flaking and powdering. Important economic factors are that neither petrifying liquid nor priming coat is ever required and drying is sufficiently rapid to permit two-coat work to be carried out in a single day. Pirum 505 is available in all usual pastel tints and all shades remain resistant to alkalies. It is also made in a special quality for exterior work and is suitable for the decoration of cement-render, plaster (shuttered), concrete, brick, and stone surfaces, tiles and asbestos sheets.

E. K. COLE, LTD.

Messrs. E. K. Cole, Ltd., are showing, on stand No. 107 E, a range of Thermovent convection heaters. Three types are on view: inset, portable and steel-cased floor-standing types.

POWELL DUFFRYN ASSOCIATED COLLIERIES, LTD.

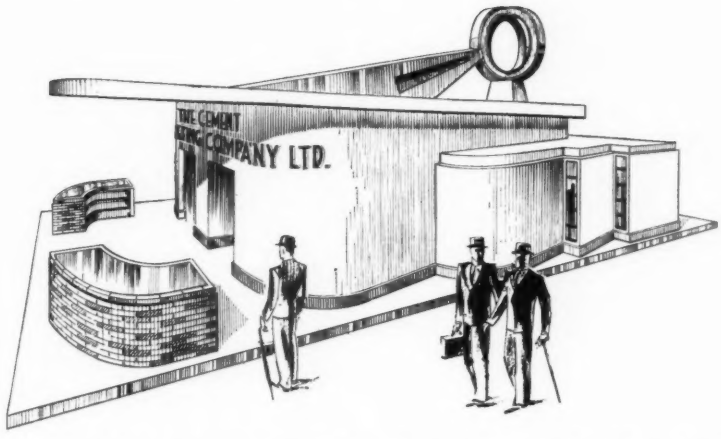
Powell Duffryn Associated Collieries, Ltd., are demonstrating (on stand No. 207 K) the practical application of their proprietary by-products, Presotim, Synthaprufe, Presomet and Synthacold.

Presotim (decorative wood preservative) can be used to ensure protection against the ill-effects of damp, dry rot, the death watch beetle and other forms of insect and fungoid attack. The comprehensive range of colours in which Presotim is manufactured makes it possible as a decorative medium; a colourless Presotim is available for restoration work in mansions, churches, etc. The exhibit consists of panels of various woods treated with various colours and finished to show the effect of wax and french polishing over Presotim.

Synthaprufe (liquid waterproofing and jointing material) is primarily used for curing damp walls and leaking roofs. The exhibits relating to this product consist of a series of brick walls showing different applications of Synthaprufe for different purposes; and of flooring laid with wood blocks and lino fixed with Synthaprufe.

Another exhibit shows the application of *Presomet* (rust-resisting paint) for treating rainwater pipes, gutters, gullies, etc.

The distributors for these by-products are Messrs. Stephenson Clarke and Associated Companies, Ltd. (Aberdare House, Cardiff).



A drawing of the stand (No. 152 G) of the Cement Marketing Co. The architect is Oliver P. Bernard.

JOSEPH SANKEY AND SONS, LTD.

The stand (No. 51 D) of Messrs. Joseph Sankey and Sons, Ltd., again shows their range of all metal work applicable to the building trade. Their already large range of steel radiators and heating panels has been extended, and some examples of latest designs in their natural setting are on view. In addition, they are showing a full range of metal trim, especially exhibits of their steel door frames.

CHARLES P. MOODY

Charles P. Moody shows (stand No. 371 Gal.) his Chasmood British-made solid vulcan fibre sliders and track for cupboard doors, drawers, etc., which are suitable for hospitals, schools, public buildings, gas mask storage cupboards, etc. Other exhibits include the Dictator door closer, suitable for almost any weight door, one pattern for right- or left-hand, supplied chromium plated or bronze: the Perkeo ball-bearing sliding door gear for high class single and double doors, which are supplied in sets complete with buffers and floor guide, and screws stocked for doors from 1 ft. 6 ins. to 6 ft. 6 ins. wide, with carrying capacity from 100 lb. to 350 lb.; the Renova ball-bearing sliding door gear, operating on much the same principle, made in three sizes with carrying capacity from 70 lb. to 100 lb., for doors from 2 ft. to 3 ft. 6 ins. wide; the standard Dorma sliding door gear, a lighter gear made in three sizes for doors from 1 ft. 6 ins. to 4 ft. 6 ins., with a carrying capacity from 112 lb., made from heavy gauge steel track with independent carrier brackets, run on ball races; patent aluminium self-facing shelf and counter edging and floor skirting; Dorma ball-bearing sheaves and coppered track for cupboards; spring hinges; door springs; Dormit light metal channel with fibre base for frameless glass doors.

CANADIAN GOVERNMENT EXHIBITION COMMISSION

A bungalow, 24 ft. by 18 ft., forms the stand (No. 192 J) of the Canadian Government Exhibition Commission. There are no partitions and the visitor can see at a glance the great variety of Canada's timbers. The following materials have been used for the construction of the bungalow: Eastern Canadian spruce for the studding and rafters; cedar tiles for the exterior walls and roof; and Eastern Canadian birch and spruce for the flooring.

THE PATENT TIP-UP BATH CO.

Stand No. 249 M (the Patent Tip-up Bath Co.) contains a series of full length baths (with all-metal wastes for standard fixing) hinged to tip up in a vertical position and occupy only 20 in. square floor space when not in use. These baths are suitable for flats, "conversions" and "reconditioning" of older houses, and for all limited spaces.

BRITISH ELECTRICAL DEVELOPMENT ASSOCIATION, INC.

The E.D.A. stand (No. 148 G) which forms a gateway to the Electrical Section, consists of two tall pylons surmounted by a fascia forming the entrance. The interior is divided into sections, each section being devoted to the use of electricity in the design and construction of modern buildings, and illustrating the latest types of

installation and floor duct systems, planning of electrical kitchens and bathrooms, efficient and economical schemes of lighting and heating and affording a complete service to architects and builders. Large photographs form the decoration on the exterior walls.

Other exhibitors in the Electrical Section organized by the British Electrical Development Association include : Aidas Electric, Ltd., Belling & Co., Ltd., Berry's Electric, Ltd., Beatty Bros., George Bray & Co., Ltd., E. K. Cole, Ltd., Hotpoint Electric Appliance Co., Ltd., Jackson Electric Stove Co., Ltd., Premier Electric Heaters, Ltd., Pressed Steel Co., Ltd., Simplex Electric Co., Ltd.

AIDAS ELECTRIC, LTD.

The exhibit of Messrs. Aidas Electric, Ltd., on stand No. 146 G, shows all types of Sadia electric water-heating equipment, including Sadia storage type water heaters for both sink and bathroom supply ; Aidas immersion heating groups ; top entry circulators ; side entry circulators ; Spirod immersion heaters ; and external circulating pipes.

Included in the exhibit are samples of the new flat 3-gallon heater which is finished in white enamel, with chromium-plated fittings, a swivel outlet spout and J.C.S.W.R. tap being included.

SMITH AND WELLSTOOD, LTD.

The principal feature of Messrs. Smith and Wellstood, Ltd. (stand No. 250 M) is the New Sun heater, specially designed for factories, commercial garages and other spacious buildings. Simplicity of installation is paramount, for the expense of piping systems is avoided by the fitting of these New Sun heaters, available in various sizes to heat up to 100,000 cu. ft. Erected in a few hours the New Sun is constructed somewhat on the lines of the Esse heating stoves, in that heat from the fuel encircles the interior of the heaters to give a maximum calorific radiation without waste of heat up the chimney.

Thus this continuous-burning stove heats the entire premises by warm air circulation, although there is no dried atmosphere, for a humidifier is built into the heater. The outer jacket prevents workmen in the immediate vicinity of the heater experiencing undue warmth. Any solid fuel, including coke, can be burned, but anthracite is recommended, as it gives greater efficiency at lower cost, and takes up less storage. Other exhibits include Esse heating stoves for domestic purposes. Columbian cookers, portable boilers and ranges for housing schemes and Esse cookers.

THAMES BOARD MILLS, LTD.

On their usual island site (stand 164 H) near the Addison Road entrance, Thames Board Mills, Ltd., are showing the various applications of Essex Board. This wallboard is made from tough wood fibres which are highly compressed to form plies of board, and these plies are subsequently combined to make the $\frac{3}{16}$ in. and $\frac{1}{4}$ in. thick material. The resulting board is rigid and possesses great tensile strength compared with thickness.

The stand has been designed to illustrate some of the various applications of Essex board. The board is, of course, a panelling material and the interior of the stand shows

A model of the stand (No. 164 H) of the Thames Board Mills, Ltd.

how it is used for this work. One room has been panelled with the board running horizontally, joins coming at picture and chair rails. By this means vertical cover strips, except at corners, are avoided. A series of small models depict several other uses, including those in factories, garages, attics, shops, restaurants, etc.

SAMUEL ELLIOTT AND SONS (READING), LTD.

The stand (No. 210 K) of Messrs. Samuel Elliott and Sons (Reading), Ltd., contains a Tudor panelled room with oak beams and panelling, showing varied detail of mouldings and well-figured panels ; modern panelled room in Australian walnut, maple burr panels, Macassar crossbanding ; panels of birdseye maple in cornice ; flush doors of high-class joiner-made construction, veneered in various woods or finishes (including the latest solid laminated type guaranteed not to cast) ; semi-flush doors, with an almost flush surface combined with solid framed and wedged exposed framing surrounding one large panel ; period mouldings ; parquet floors ; and samples of panelling and veneered work in various hardwoods.

GRAVITY LADDERS, LTD.

The Gravity Loft Ladder is being featured on stand No. 226 L. This ladder can be suspended from a steel frame in the attic, over the trapdoor, and operated by a single cord in the passage below. When the ladder is required, a pull on the cord raises the trapdoor to an almost vertical position, and the ladder automatically extends through the opening and reaches the floor below, where it may be pulled slightly forward to make an angle for easy ascent, according to the headroom afforded by the opening. The ladder is made entirely of steel, self-adjusting, and standard to all storey heights up to 9 ft., it requires no structural alteration and no measurements need be taken, whilst the only visible signs of its presence when in the " closed " position is the single release cord.

On the same stand is shown the Packaway portable ladder, which is adaptable for any use to which a ladder can be put. As its name indicates, it packs away in a very small space, 12 ins. by 9 ins. by 8 ins., but extends by the use of two small handles to about 10 ft., forming a rigid and strong ladder for domestic or outside use.

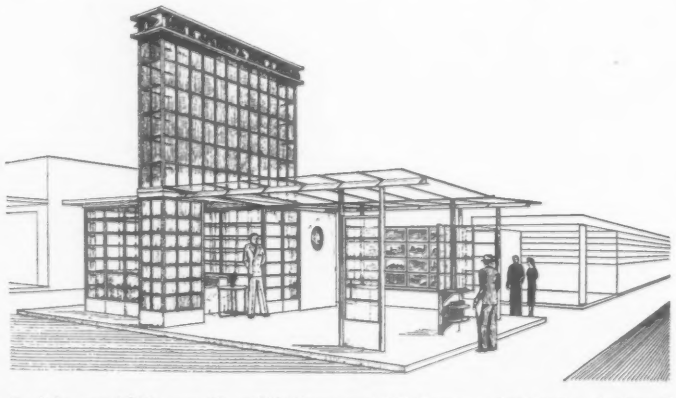
THERMACOUST PRODUCTS, LTD.

Thermacoust, which is being shown by Thermacoust Products, Ltd., on stand No. 97 E, is manufactured in England from wood wool fibre cemented together under pressure. The standard size of the slab is 7 ft. by $23\frac{1}{8}$ ins. ($1\frac{1}{2}$ yds. super). Thickness from $\frac{1}{2}$ in. to 5 ins. Thermacoust possesses, it is claimed, high fire resistance, high thermal resistance, and excellent sound absorption ; it is used for thermal resistance, sound resistance, acoustical correction, permanent shuttering and free-standing partitions. It may also be used structurally to replace timber on flat joist roofs. Thermacoust may be cut and chased with ordinary tools.

WILLIAMS AND WILLIAMS, LTD.

The firm's products permit of considerable use as constructional portions of an exhibition stand (No. 193 J) and the architect has taken advantage of these opportunities. The dominating oblong tower (built up to the exhibition maximum of 20 ft. high) is somewhat reminiscent of the Empire Exhibition entrance tower in miniature. It is constructed with tubular metal corner uprights filled in with Williams and Williams' standard factory windows of various types, glazed " obscure glass " and lit internally by coloured lights.

The larger portion of the stand is open to visitors on three sides and is roofed with patent glazing, using the firm's non-ferrous



A sketch of the stand (No. 193 J) of Williams and Williams. Architect : Andrew L. Gray.

aluminium glazing bar. In this open portion of the stand the exhibits comprise two of the firm's metal doors—one a 2 ft. 6 ins. by 6 ft. 6 ins. door with large glazing, another of the same size with square panes, each hung from a standard tubular metal post — and a centre shelf for literature, photos of the firm's installations, etc. Here, again, the main uprights are of standard tubular metal posts and the frame for the photographs is composed of a 6 ft. by 6½ ins. by 4 ft. standard metal window. As end pieces to the shelf are 1 ft. 8 ins. by 4 ft. standard windows of six types, i.e. no glazing bars, square panes, sub-light type, horizontal bar type, leaded lights and fanlight with small glazing.

The enclosed portions of the stand (a reception lounge and an office) exhibit, in actual positions, sliding and folding doors with external track, sliding and folding windows with concealed track, horizontal bar type windows for both domestic and industrial use and standard factory windows. All the built-in windows have aluminium patented combined pelmet and curtain rail.

LIMMER AND TRINIDAD LAKE ASPHALT CO., LTD.

On the stand (No. 150 G) of the Limmer and Trinidad Lake Asphalt Co., Ltd., there is a series of constructional models illustrating the latest principles in asphalt construction.

The main feature of the stand is a large canvas depicting the "Cavalcade" of Trinidad Lake Asphalt. This mural measuring 15 ft. by 3 ft., covers the Trinidad asphalt industry from the discovery of the asphalt lake by Sir Walter Raleigh in 1595 to its present uses for building and highway construction.

SMITH'S FIREPROOF FLOORS, LTD.

The system shown on this stand (No. 126 F) consists of patent hollow concrete blocks with blind ends, placed in pairs, permitting the use of correctly designed reinforcement in both directions to support all types of loading. The floors are suitable for long or short spans, and, while being of themselves light in weight, are capable of supporting extremely heavy point loads. The hollow concrete blocks are machine-made and provide for a true and continuous soffit with an excellent natural key, which effects substantial economy in plaster.

The first floor of the stand shows a typical floor with two cantilevers with a projection of 7 ft. each. A portion of the floor has been left incomplete in order clearly to illustrate the method of construction.

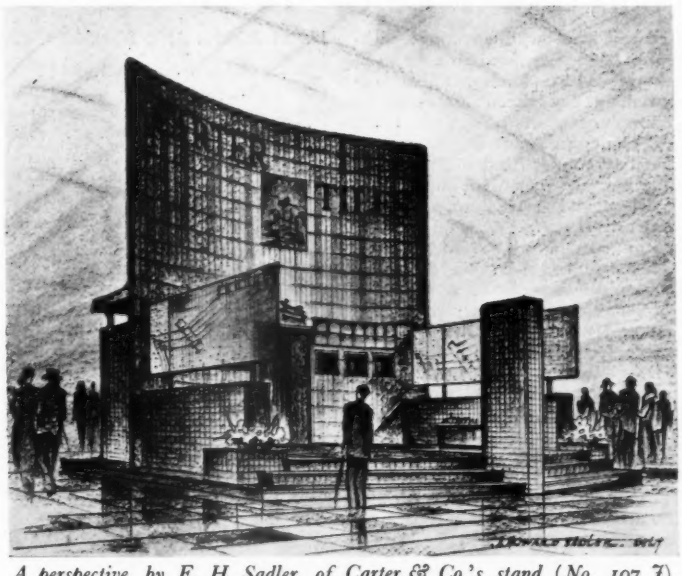
The patent steel telescopic centres, upon which Smith's fireproof floors are constructed, are shown on the stand under a portion of the finished floor. Models of the centres are also shown on the stand.

ADAMITE CO., LTD.

The Adamite Co.'s stand (No. 165, 166 H) has been designed by Mr. Harold Davies as a background for the exhibition of the firm's products. The exhibit is divided into six parts, and each part is confined to one product or group of products. Exhibit 1 is devoted to Alundum non-slip products and the other exhibits are: Atlas White Portland cement and Adamite Mixture; Bull Dog floor and ceiling clips; Colemanoid No. 1 liquid integral waterproofer and hardener, and Colemanoid No. 3 liquid surface hardener; Redalon liquid, Grade A and Grade B; Ellicem tenacious cement paint.

CARTER & CO.

The stand (No. 197 J) of Messrs. Carter & Co., is both a display of Carter tiles and a demonstration of Carter tiling. It takes the form of a curved screen wall flanked by dwarf walls and display screens enclosing a forecourt. The curved wall is faced with frostproof tiles, unit faience and glazed tiles for interior use, and is inset at eye-level with a series of display cabinets containing models of typical applications of Carter tiles—a kitchen, a bathroom, a bathing pool, a bar, and entrance halls to flats and offices. All wall surfaces are tiled, and the forecourt is laid out to display various non-slip floor tiles, a new pentagonal mosaic and a variety of step nosings and treads. The full colour range of all products is exhibited, together with numerous photographs of typical Carter tiling in recent work.



A perspective, by E. H. Sadler, of Carter & Co.'s stand (No. 197 J), designed by Oscar A. Bayne.

CLAUGHTON BROS., LTD.

On stand No. 260 N Messrs. Claughton Bros., Ltd., show: Japkap and Niagara high-level syphonic flushing cisterns, in tanks of various designs and finishes, comprising wood lead-lined, copper-lined, fireclay and cast iron; Japite moulded composition flushing cisterns; Japkap low-level syphonic flushing cisterns; Japkap syphon fittings with patent-operating gear for low-level tanks; also Japkap syphon fittings for high-level tanks. Other exhibits include: drawn-lead traps, bends, offsets and rainwater pipes; drawn-lead traps with solderless connections; drawn-lead resealing traps and deep seal traps; and all types of plumbers' die-cast lead work.

G. R. SPEAKER & CO., LTD.

This stand (No. 301 Q) is constructed with Speakers' Eonit patent pumice partition blocks showing the correct method of erection. Eonit pumice lintels have been incorporated, together with Eonit for the insulation of flat roofing. Bulk samples, in all thicknesses, are available for inspection, and specimens of the Eonit aggregate are exhibited. Also on view is a full range of Speakers' Eternit. The asbestos-cement Wall panels show the various colours and patterns of straight cover slating and diagonal tiling.

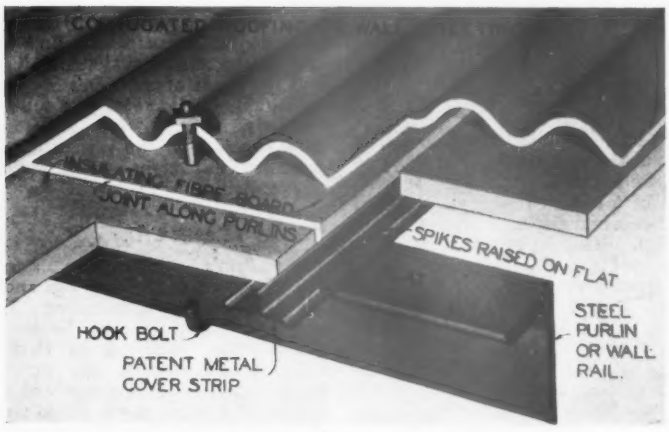
ROBERT ADAMS, LTD.

This firm's exhibits (on stand No. 104 E) consist of door springs and hinges for all requirements, including: The new improved patent No. 21 Sceptre Victor double action and No. 31 Gem Victor single action shallow box floor spring hinges, with patented water and oil-tight devices and silent check action; the No. 336 Crown Victor improved pattern double action and No. 351 London Victor single action floor spring hinges (oil check) silent closing, with patent watertight and oilproof devices; the No. 240 Cushion Victor patent double action and the No. 242 City Victor single action improved patent (and shallow) floor spring hinges with pneumatic silent check action; the No. 53 Vicadam silent closing check action butt spring hinge for single action doors; the Victor (R.A.V.) overhead door spring with oil check action; the Empress Victor overhead pneumatic silent-closing door spring, reversible and adaptable for front or back of doors; the Victor patent silent self-closing door gear for lifts and other single-action doors; and the improved ventilating gearing for single sashes and ranges of sashes in any length.

TENTEST FIBRE BOARD CO., LTD.

The TenTest Fibre Board Co., Ltd., are showing (on stand 172 H), in addition to their insulating board, the various new methods which they have developed for the fixing of fibre boards, plaster boards or similar materials, which are of particular value in relation to steel-framed buildings. The chief points of interest are as follows:

(1) Metal Cover Strip, which provides a fixing for insulating fibre board beneath



A diagram of a "TenTest" metal cover strip, showing how it is fixed in position and leaves the floor clear of scaffolding. (See note below.)

corrugated roof and wall coverings without the use of timber, nails or screws. (2) Adjustable Metal Fixing. This provides extremely lightweight framing to carry ceilings or wall linings of sheet material. The framing, which is a light steel channel section, is fixed to the framework of the building by special clips which eliminate drilling of the structure, the lining being afterwards fixed to the metal framing by means of special self-tapping screws. (3) Box Section Steel Partition Framing. This provides an incombustible partition framing of very light weight, which can be dismantled and re-erected without waste. (4) Box Section Steel Joist. Designed to provide light-weight framing for the reception of ceilings of sheet material, spanning up to 12 ft. without intermediate support. (5) Inkley Friction Clip. A device for fixing plaster board or other rigid sheet material to steel purlins and the like. The clips can be fixed to the sheets on the ground, no access is required to the back of the work, and any sheet can be easily removed and re-erected.

The new TenTest Hardboard is also on show and the latest technical information on structural insulation is available.

SILEXINE, LTD.

Messrs. Silexine, Ltd., are exhibiting, on stand No. 52 D, their Silexine stone paint. One of its main features is that it can be applied direct on to new cement and concrete work in one coat, both externally and internally. Silexine can also be applied direct on to new or old brickwork, asbestos, plaster and other surfaces.

S. AND E. COLLIER, LTD.

Messrs. Collier's stand (113 F) has been planned in the form of a rectangular pavilion. Built on a dark brick base, the walls are variously treated, and the pitched roof is covered with sand-faced pantiles. The stand is 16 ft. long and 13 ft. wide, and the narrow end faces the main gangway. The central features of this elevation is a three-light transomed window which illustrates the use of moulded bricks for mullions, jambs, lintols and cills. This window is flanked by two recessed panels of tile hanging.

The entrance is at the side, and is in the form of an arched opening which is also flanked by panels.

JAMES ADAMS AND SON, LTD.

James Adams and Son, Ltd., are again exhibiting, on stand No. 56 D, the Slave patent pneumatic check door springs, both in double and single action. A complete range of the firm's door springs is on view; also the Fam panic bolt, and lunch and milk bar seats in which the firm has specialized during recent years.

JOSEPH SANDELL CO., LTD.

The exhibit of the above firm, on stand No. 266 N, includes the following products: eight designs of English made and imported oak front doors; several patterns from the firm's stock of British Columbian internal and external doors; external (front and back) doors in Swedish redwood; flush doors in Australian walnut, mahogany, oak and beech. A special feature on view is a fire-resisting flush door rendered gas proof by a special edging.

LONDON BRICK CO.

The principal feature of the stand (No. 195-6 J) of the London Brick Co. is a series of ten panels carrying a 60 ft. beam in reinforced brickwork. Each panel is constructed in one of the various Phorpres products. One panel displays tile-hanging and another Phorpres Grip partition blocks, and the other eight the various types of Phorpres brick—commons, keyed commons, cellular commons, rustic facings, cellular rustics, sandfaced facings, sandfaced whites and white facings. The sandfaced white is a new Phorpres product. Hollow block flooring, partition blocks, agricultural drainpipes, granite chippings, etc., are also exhibited.

Photographs of representative work in the materials exhibited are displayed on demonstration panels and on a screen along the reinforced brick beam. The brick-built office on the stand is lined with Phorpres facings and shows further examples of hollow block floor and partition construction. On the back of this office is a large chart of the standard special shapes of Phorpres bricks.

BOLTON GATE CO., LTD.

The above firm are featuring, on stand No. 55 D, a new flat plated shutter gate, constituting a number of 16 gauge mild steel panels, of all which are interlocked. A feature of construction is the silent movement. Both for opening and closing, the action is similar for the two, three or four-speed doors. Another new feature is the Upward lifting bar counter gate, constructed from $\frac{1}{2}$-in. light-section steel pickets with $\frac{1}{2}$-in. by $\frac{1}{8}$-in. lattice bars so arranged that pickets do not exceed $3\frac{1}{2}$ in. centres.

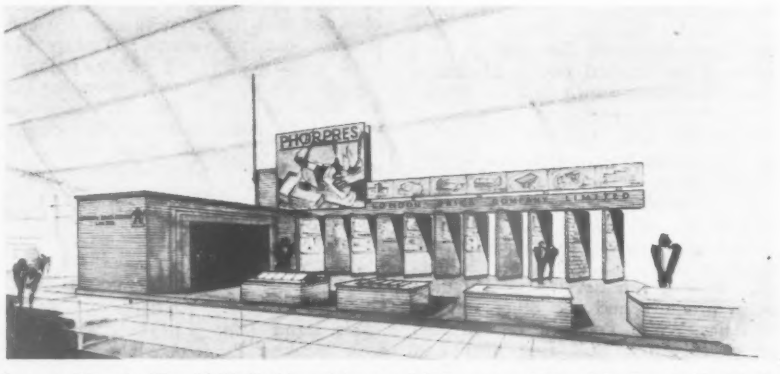
A third exhibit is the Bolton Mid-bar collapsible gate. The mid bars are arranged with four twists to ensure the greatest possible strength, and descend into the bottom channel track with the extension of the gate, thus preventing a foot being pushed through.

W. A. TELLING, LTD.

The stand of Messrs. W. A. Telling, Ltd. (No. 66 D), has been designed to show the many possibilities for the use of plaster, both solid and fibrous. Various materials associated with plastering are exhibited on the stand by firms who have been associated with Messrs. W. A. Telling, Ltd., on many contracts.

THOMAS POTTERTON (HEATING ENGINEERS), LTD.

Hot water supply and central heating for household and industrial purposes, with all types of fuel are shown by Messrs. Thomas Potterton (Heating Engineers), Ltd., on stand No. 319 S. Working examples of automatic gas-fired thermal storage water heater are also on view and other exhibits



A perspective, by Harold H. Smith, of the stand (No. 195-196 J) of the London Brick Co.

include : Gas-fired central heating installations ; Empire and Emperor heaters ; Emperor thermal storage sets and multiple units for bulk supply ; Rex and Victor gas-fired central heating boilers for low-pressure hot water heating with remote-control thermostats, and their various uses are demonstrated by working systems.

KELVINATOR, LTD.

On stand No. 287 P, Kelvinator, Ltd., have a display, comprising domestic or household refrigerators from 2½ to 13 cu. ft. food storage capacity, and special combination models for small houses and flats (sink units, and combination kitchen cabinets, etc.) ; self-contained room coolers (for use in restaurants, bars, shops, offices, factories, etc.) ; floor type air conditioning units, and Freon condensing unit (refrigerating machine).

CRANE, LTD.

Since the last exhibition, Messrs. Crane, Ltd., have added to their list of boilers the No. 4 size Whitehall boiler, capable of duties up to 1½ million B.T.U. per hour. Another new product recently marketed is the new Carlton boiler of a similar range of duties to the present No. 0 Carlton. Also on view is the Ipswich domestic boiler, sizes 00 and 01. This Ipswich boiler range has been augmented by a No. 3 Boiler rated at 50,000 B.T.U. per hour. The firm's stand No. is 291 P.

RELIANCE TELEPHONE CO., LTD.

On the stand (No. 173 H) of the Reliance Telephone Co., Ltd. (a subsidiary of the General Electric Co., Ltd.), visitors are able to see under working conditions, every type of telephone and indicator system, from the simple push button type instrument with or without loudspeaking facilities, to the most comprehensive G.E.C. automatic exchange.

An outstanding feature is the new Reliance automatic loudspeaking master station, which can be used in connection with standard automatic exchanges. The main advantages offered by this new instrument are : (1) it leaves both hands free while telephoning ; (2) it obviates the necessity of dialling ; (3) there is no possibility of listening-in or overhearing ; (4) it requires only a twin wire, no matter how many instruments are incorporated.

LEAD INDUSTRIES DEVELOPMENT COUNCIL

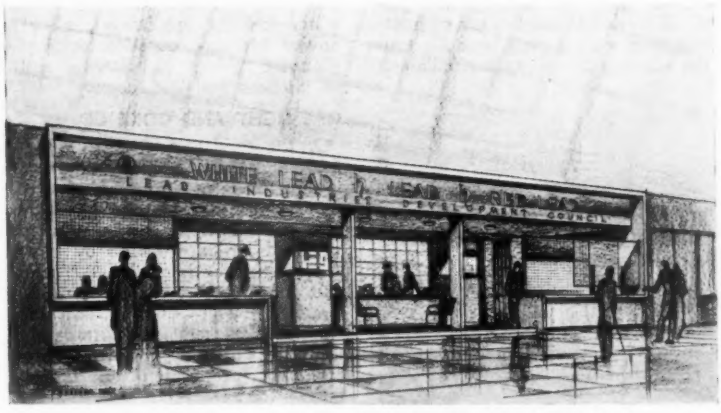
The stand (Nos. 361 and 363 Gal.) of the above Council is designed to display and demonstrate the various uses and advantages of Lead Sheet and Pipe, on the one hand, and of Red Lead and White Lead on the other, and is planned accordingly, the demonstration counter, specimen counters, office, display racks, film projectors, etc., for each being disposed symmetrically on either side of the enquiry desk.

At the demonstration counters skilled craftsmen will give practical demonstrations of plumbing, leadburning, painting, etc. In front of the painters' counter is a plate-glass screen of colourless glass on which the painters will demonstrate the tintability and colour-adjustment for which White Lead paints are so well known.

Two small cinema projectors will continuously show films of painting and work in lead.

A large photographic display illustrates the manufacture of Red Lead, White Lead, Sheet Lead and Lead Pipe, as well as their application in building generally and in special practice, as in electrical and chemical constructions.

The various publications of the Council —a comprehensive range of information sheets, technical bulletins, booklets and other literature—may be obtained at the stand.



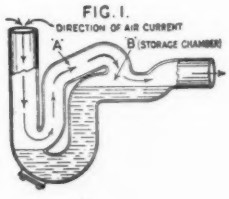
A perspective, by E. Sadler, of the stand (Nos. 361 and 363 Gal.) of the Lead Industries Development Council.

GREENWOOD AND HANSON

Greenwood and Hanson are showing, on stand No. 57 D, the Greenwood Antivak traps—Senior, Junior and Bath patterns—which are, they claim, the only anti-siphon traps of even bore throughout. These traps assure a safe water seal without complicated anti-siphon pipes, greatly simplifying and reducing the cost of sanitary equipment. The even bore does not retard discharges and consequently allows of the full self-cleansing flush through the waste pipes.

The efficiency of Greenwood Antivak traps will be continuously demonstrated by means of a special apparatus and glass traps.

The latest additions, of which samples are on view, include recessed outlets with compression joints for connecting to copper waste pipes—also overflow connections to their well-known "Bath" trap. Diagrammatic functioning of the Greenwood Antivak "Senior" trap is shown in Figs. 1 and 2 in previous column.



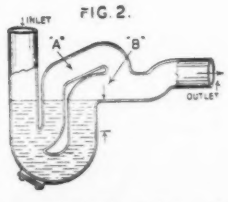


Figure 1. Siphonic action taking place.
Figure 2. After strong siphonic action. See note above.

HURRY WATER HEATER CO.

The exhibit of the Hurry Water Heater Co. on stand No. 240 L comprises the following : (1) water heaters for every domestic purpose—automatic (thermostat controlled) heaters for circulatory systems for alternative use with coal or coke heated boilers, or as sole means of water heating ; (2) combination (hot water) storage and heater units in several capacities ; (3) domestic wash boilers, including the modern enamelled square types; (4) dual-purpose wash boilers—an economical method of providing hot water for baths ; (5) the new patent Two-in-One tank, in which the ball-valved (cold water) feed tank is incorporated with the (hot water) storage tank, in an all-copper unit.

WILLIAM OLIVER AND SONS, LTD.

Messrs. William Oliver and Sons, Ltd., are exhibiting on three stands (Nos. 2, 3 and 4 A) the following products : Austrian wainscot oak, both in billet cut wood and square-edged, Burmah and African teak, Honduras and African mahogany, various kinds of walnut (English, French, Mansonian, etc.), and will also have a magnificent stack of prime English oak, which is now required by so many architects for high-class work.

PARKINSON STOVE CO.

The chief feature on the Parkinson Stove Co.'s stand (No. 298 Q) is the Renown gas cooker. This cooker is made in two sizes : Mark 1 for the large kitchen, Mark 2 for the smaller kitchen. Incorporated in the stand is a model kitchen. A recent addition to the Parkinson range of cookers is the Crown, smooth-sided cooker, finished in grey mottled enamel, with white porcelain enamelled door and cover which completely conceals the hotplate and grilling chamber when not in use. A full range of built-in fires is also shown, including the Panno, Welwyn and Curvex fires. The water heaters on view include the Klan single point geyser, the type 81 sink water heater, the Multi-point and a new circulator. This circulator is a compact appliance, fitting easily on to the kitchen wall, and can be used independently or in

conjunction with an existing hot-water system. A working model of the circulator in conjunction with a glass tank illustrates how the water is heated as it circulates.

The Renown gas cooker on view on the stand (No. 298 Q) of the Parkinson Stove Co.

CELOTEX, LTD.

Exhibits shown on the stand (No. 9 B) of Celotex, Ltd., range from the well-known Celotex hard boards, including a special new panel board with widespread possibilities in decorative and constructional work, to Acousti-Celotex sound-absorbing tiles. The new British-made Flexcell expansion joints and Sapolite sealing emulsion are also on view.

Throughout the exhibition a series of demonstrations of acoustical treatment in manufacture will take place in two specially constructed rooms, and a staff of specialists is available to offer advice on sound control and the application of cane fibre products in all types of building, architectural and engineering work.

ASCOT GAS WATER HEATERS, LTD.

The stand (No. 292 P) of the Ascot Gas Water Heaters, Ltd., has been designed by Mr. Rodney Thomas (B. Ineson, assistant), who has concentrated entirely on the display of the scientific side of their heaters.

The stand is a double one, with a gangway running between the two halves. On one part, the heaters are displayed on a screen of synthetic glass, the supply and installation pipes being taken through the screen and continued down the other side. This leaves all the plumbing details, hitherto carefully concealed from the public eye, clearly visible.

The other half of the stand contains sectional models, also working, and a heater made entirely of glass, showing the internal design of a multi-point heater, NEA 32 ; a portion of this stand is devoted to Ascot's new venture, the Architects' Service Department. This department will place at the service of architects and builders a technical staff of experts, who will readily be able to answer all enquiries on the specification, installation, flueing and pipework in relation to all Ascot gas water heating appliances ; also, to give advice on any question arising out of planning special installations and design of kitchens and bathrooms.

GAS LIGHT AND COKE CO.

On the stand (No. 315, 316 R) of the Gas Light and Coke Company hot water heating is illustrated by alternative installations in modern flats and houses. A feature of the refrigeration display is a built-in model as a standard larder provided by the builder. A special offer is made of gas-coke fires, and in carcassing and equipment of new houses. The cooking section shows enamelled cookers with automatic control. Central heating by gas is shown to be an economic proposition on the two-part tariff.

AGA·HEAT, LTD.

A new low-price four-oven Aga cooker for domestic use is on view on the stand (No. 255 M) of Messrs. Aga Heat, Ltd. This cooker has a guaranteed limited fuel consumption. There are also on view the Aga boilers for domestic hot water. Two types are available—one is an open-fire boiler for kitchen heating, and the other is an automatic boiler incorporating several special features. It is provided with a draught stabilizer and an automatic thermostat to control the heat and prevent clinker. A hopper and specially designed grate avoid the need for constant fuelling and riddling.

ADAMSEZ, LTD.

Messrs. Adamsez, Ltd., are exhibiting, on stand No. 213 K, a wide range of fireclay sanitary ware suitable for use in schools, hospitals and factories.

B.B. CHEMICAL CO., LTD.

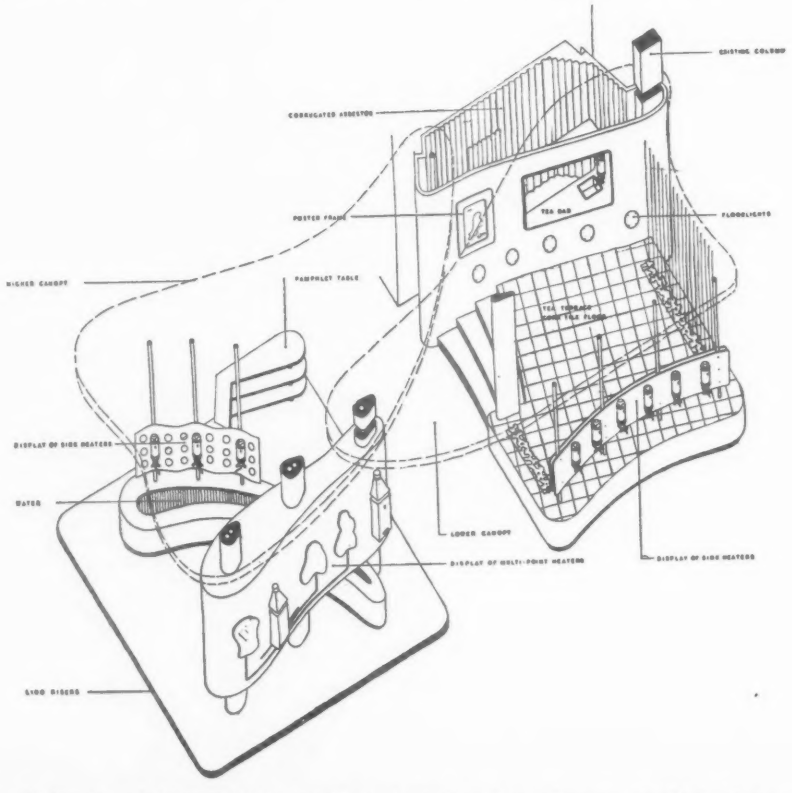
The main uses of Bostik industrial adhesives demonstrated on the stand (No. 94 E) of Messrs. B.B. Chemical Co., Ltd., are : sealing metal window frames to masonry (a water-resisting seal between metal frames and brickwork, stone, concrete, etc.) ; floor covering (linoleum, rubber and similar materials can be stuck to all types of floors, the grade varying according to materials and conditions) ; wall covering (Bostik cements are used to stick insulation boards and hardboards to all types of walls). Information sheets describing the different grades of Bostick cements and their uses may be obtained from the stand.

G. BRADY & CO., LTD.

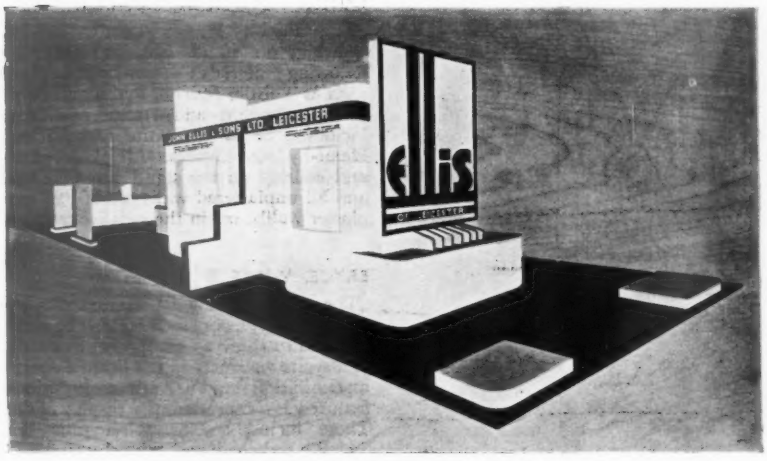
Roller shutters and lifts form the principal exhibit of Messrs. G. Brady & Co., Ltd. (stand No. 54 D). The exhibits include an electrically operated Colossus lath patent wood rolling shutter with large windows for observation and natural light ; a set of garage shutters, hand-operated ; a steel revolving shutter with machine-cut gears ; and various types of shutters for a variety of uses. Lifts—hand-power and electric—form a considerable part of this firm's activities, and an automatically self-sustaining hand-power lift which dispenses with the use of a separate brake rope, is a working exhibit.

ROBERT ABRAHAM, LTD.

The exhibits of this firm include Hardrow sand-faced concrete roofing slates in natural colours ; hip and valley tiles ; ridging, specials for mansards, radius and angle tiles, etc. The stand No. is 130 F.



A drawing of the stand (No. 292 P) of Ascot Gas Water Heaters. Architect, Rodney Thomas (Assistant, B. Ineson).



The stand (No. 6 B) of John Ellis and Sons, Ltd.

JOHN ELLIS AND SONS, LTD.

The stand (No. 6 B) of Messrs. John Ellis and Sons is intended as a background for the products to be displayed. It is made in two sections, one dealing with Emalux wall finish and the other with reconstructed stone, paving and kerbs. The first exhibit consists of four large vertical panels treated with Emalux glazed wall finish on both sides, giving an indication of the colour range obtainable. In addition to these panels there is a section of brick wall showing a terrazzo cove at the bottom, Emalux glazed wall finish, with a moulded band of contrasting colour, and further Emalux above. This exhibit also shows in section the brickwork, the screed and the Emalux, which indicates the method of application on screed walls. In addition, there are stocks of small samples of Emalux which give further details of the colour range available.

The stone exhibit consists of two examples —at one corner of the stand, base, column and carved cap, executed in reconstructed Portland stone ; the column being cut so as to reduce the overall height. This indicates the surface texture obtainable on the stone finish and carved work. At the other corner of the stand a portion of a pediment is shown in reconstructed Clipsham. In addition to this there are examples of various other stone samples that are available, and a range of graded samples of natural stone from which the various reconstructed stones are made.

AEROLETE VENTILATING CO.

Exhibits on the stand (No. 387 Gal.) of the above firm include ventilators and flue terminals, chimney pots in all sizes, imperishable tallboys, and asbestos cement roof ventilators.

COLTHURST SYMONS & CO.

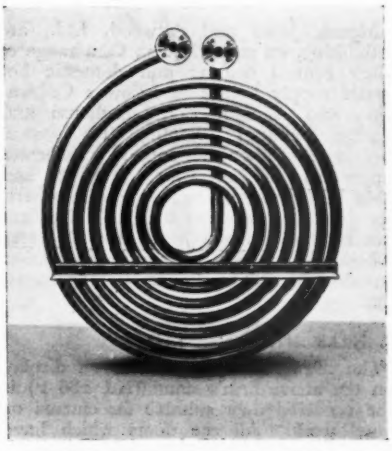
Messrs. Colthurst Symons are showing a full range of their Bridgwater clay handmade tiles. Standard types are Double Roman, Spanish and Italian tiles, as well as the development of the Roman tile called the Reynardo.

Two special displays are the Bambino, a miniature Italian tile, and the Lido, a tile cone-shaped in section and very suitable for mansard or other exposed position. All tiles are shown plain-finished and in a number of glazes.

The main roof of the stand (No. 194 J) is covered with sky-blue glazed Lido and Reynardo tiles, and the doorway roof with Thunder Blue glazed Bambino tiles.

BROWN AND TAWSE, LTD.

As large stockholders of welded and weldless steel tubes, Messrs. Brown and Tawse, Ltd., are exhibiting, on stand No. 334 T, a selection from the 1,000 sizes available



A typical Brown and Tawse tubular coil.

which range from 1 in. to 20 ins. in diameter for steam, water, gas and other services. In addition, the firm are exhibiting coils, small tools, malleable iron fittings, L.W. panel board, floor coverings, etc.

JOHN SADD AND SONS

This stand consists of two flights of stairs on two sides of the stand ending in a doorway, with subsidiary features arranged to display all types of joinery and a wide range of surface finish. The swept work under the upper flight is finished in Avadvie and the side flanking the gangway is of golden teak. The side panelling facing inwards is of English walnut, and the subsidiary gangway side of brown oak. The floor and actual stairs are of light English oak. The canopy over the " stand " of doors, which is hinged to an oak column, is of horse chestnut. The stand No. is 120 F.

ATLAS STONE CO.

The floor of the Atlas Stone Co.'s stand (No. 41 C) is paved with Atlas hydraulically pressed Foothold paving slabs, 2 ins. thick, in three standard colours : red, grey and buff. The four piers supporting the fascia are an example of Atlas reconstructed stone ; and the exterior of the office is covered with Atlas corrugated asbestos sheets in various colours, and also with Atlas Roystone slates. Exhibits include : Atlas hydraulically pressed granite concrete kerbings, asbestos rainwater goods and other asbestos cement materials.

GEORGE M. CALLENDER & CO., LTD.

A special air-insulated flat roof covering is being featured by Messrs. George M. Callender & Co., Ltd., on stand No. 96 E. The system consists of Veribest mu.tiple 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. If necessary, the mobile slabs may be lifted at any time and at any spot and the waterproofing medium examined without the slightest difficulty. 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. In the centre of the stand is a waterlogged column of loose porous bricks dampcoursed with Callendrite, which is supplied in rolls 24 ft. long, cut to suit the usual wall widths up to 36 ins. The firm's Ledkore dampcourse, also on view, is composed of a core of sheet lead with a special bitumen covering both sides, and is made in rolls 24 ft. long, in all wall widths up to 36 ins.

A section of a basement wall is exhibited showing the method of employing Callendrite sheeting as a vertical damp-proof course.

Other exhibits include : Protex and Bitusol paints, Bitufelt roofing, Rooferite felts, Bituline insulating paper, Bitubond building composition, and the Rezilia patent expansion joint.

JENSON AND NICHOLSON, LTD.

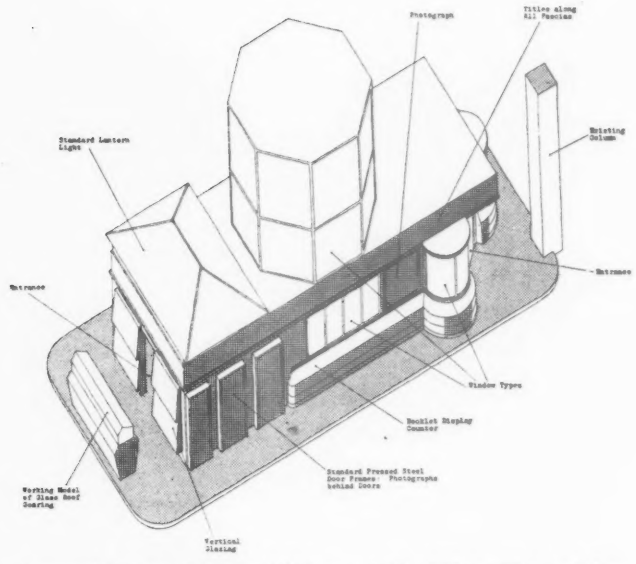
An interesting exhibit by the above firm on stand No. 275 O shows the way in which insects and fungi can rot timber, and how all classes of wood can be preserved with Cuprinol insoluble preservative, which can be painted or varnished over. Robbialac Decorators' Enamel, and all the paints, varnishes, and other decorative materials manufactured by this firm are shown.

KITCHENDOM, LTD.

Specialized kitchen equipment, including broom cupboards, cabinet assemblies, larder units, sink units and cooler kitchen cabinets with marble interiors, are shown by Kitchendom, Ltd., on stand No. 270 O.

DURASTEEL ROOFS, LTD.

On stand No. 331 T, Durasteel corrugated roofing sheets and Durasteel (3DF2) fire protection panelling are displayed to show their exceptional safety, strength and durability. A.R.P. splinter-proof shutters, embodying 3DF2 fireproof panels and



Axonometric view of the stand (No. 201-2 J) of Henry Hope and Sons.

impact absorbing sheets are comprehensively displayed.

LLOYD BOARDS, LTD.

A curved gallery to show the application of Lloyd Board to curved surfaces is the main feature on the stand of the above firm (No. 121 F). The seats and desk show the application of Lloyd Super Hardboard to furniture construction, and a selection of photographs depicting the various processes of manufacture are displayed on the base of the stand.

NEETA (KITCHEN FURNITURE), LTD.

This firm are showing round three walls of their stand (No. 425 Gal.) a range of units, put together to form complete fitments, in various finishes, i.e. polished and painted. The firm are also exhibiting a series of units left in the white wood, showing construction and finish before painting. In the centre of the stand is a display of smaller cabinets in various finishes. An important exhibit on this stand is a kitchen cabinet with built-in electric clock and radio.

EWART AND SON, LTD.

Gas water heaters at low prices, which provide a quick and unlimited supply of hot water to bath, basin or sink, are displayed by Messrs. Ewart and Son, Ltd., on stand No. 296 Q. A feature of this heater is that having an outer casing of steel and being enamelled in white porcelain, it is easily cleaned, and of attractive appearance.

HENRY HOPE AND SONS

A comprehensive display of Henry Hope and Sons' products can be seen on stand No. 201-2 J. Standard types of metal windows and doors form the side of approximately half of this stand, from the centre of which rises an illuminated tower built of standard sash units. A sliding and folding window is built into the side of the stand, and the end of the stand is roofed over with a standard lantern, the ventilators of which are operated by two different types of gears. Photographs of the firm's glass roofing and ventilator opening-gear form one of the most interesting inside features of this stand. There are displayed the firm's standard pressed steel doors, and hardware and leadwork.

JONES AND ATTWOOD, LTD.

Messrs. Jones and Attwood, Ltd., are exhibiting, on stand No. 35 C, a range of their central heating and domestic hot water supply boilers as follows: Cultivation and Allnight (for greenhouse and garage heating); Bonfire (for central heating and hot water supply); Batheater apparatus for hot water supply; and Domestikatum and Vogue (open-fire boilers for domestic hot water supply). The firm are also exhibiting a Jones' Type N water wheel distributor for sewage purification suitable for country houses, small villages, etc.

F. HILLS AND SONS, LTD.

The most interesting feature on display on the above firm's stand (No. 286 P) is the veneered door suitable for cinema or hotel work. All the doors which have been veneered are the solid core laminated construction, known as Aristocrat. In addition to the decorative veneered doors which are being exhibited, there is a display of Clymax flush doors. This door has a hollow construction, with the core scientifically built up to avoid any risk of twisting or warping. Also on view are examples of the Acme flush door and a range of panel doors.

BENHAM AND SONS, LTD.

This firm have two stands. On No. 264 N they are showing the following exhibits: Nevastane sink and drainer units made of Firth-Vickers Staybrite stainless steel; drainers sound-deadened by patented process; Nevastane plate racks, mixing taps, access traps and under-sink cupboards. The other stand (No. 23 B) is devoted to the Panelite system, which consists of pipe coils containing hot water, located in floors, walls or ceilings, having special composition covers to allow for free movement due to temperature changes.

BRITISH PLASTER BOARD, LTD.

The British Plaster Board, Ltd., are showing, on stand Nos. 211-212 K, the following materials: Hemi-hydrate plasters, such as Thistle, Murite, Pytho and Napco; Keene's cement and Anhydrous finishes, including Sirapite, Statite and Victorite; Hemi-hydrate finishes. All plastered walls and ceilings on the stand are of Thistle; and all unplastered walls are of Paramount plaster wallboard in the new ivory finish.

BRYCE, WHITE & CO., LTD.

The above firm have erected this stand (No. 161 H), from stock materials, and it is planned to show as comprehensive a range of Brycite products as the limited space on an exhibition stand will allow. Prominently featured is a representative display of doors. These include: Columbian pine doors, Swedish redwood and flush doors, for both interior and exterior use. Other products exhibited include a large number of mouldings, garage doors and entrance gates, kitchen cabinets, dressers, etc.

CELLON, LTD.

On the stand (No. 103 E) of Messrs. Cellon, Ltd., there is a comprehensive display of Cerrux modern decorative finishes. The exhibits include: synthetic primers for wood, steel, brick, plaster, etc.; synthetic finishes in gloss, semi-gloss, flat and satin effects, including the latest range of colours incorporating Monastral fast blues; plastic paint as groundwork for Cerrux finishes; Cerrusco water paints, etc.

CRITTALL MANUFACTURING CO., LTD.

The Crittall Manufacturing Co., Ltd., are showing on stand No. 167 H the following examples of their products: Standard metal windows, standard French doors; industrial sashes, anti-noise windows (an entirely new development), Universal casement windows, sliding folding doors, pressed steel products, and A.R.P. products, such as gas-proof doors, gas-proof and blast-resisting windows and water-seal gratings. Also on view are examples of Crittall glazed metal partitioning, double-action swing doors, etc.

CORK INSULATION CO., LTD.

On the stand No. 44 C, the above firm have a comprehensive display of the following products: Eldorado cork tile flooring and covered skirtings, cork tile staircase finishing in different styles, cork panelling and dado, and compressed corkboard and asbestos insulation for heat and cold.

EAGLE RANGE AND GRATE CO., LTD.

On stand No. 14 B, the above firm are displaying Eagle ranges, combination grates and gas-coke grates, including some in actual operation. The Eagle Bijou combination grates, suitable for small modern houses, include a portable model which needs no fixing apart from a connection to a flue outlet, and to the water system if a boiler is fitted.

GABRIEL, WADE AND ENGLISH, LTD.

For the first time Celcure is available to architects in the south, and is shown by the above firm on stand No. 214 K. The

stand is composed of Celcurised framing timbers and panels, with photographs to illustrate the properties and uses for Celcure. Samples of Resweld plywood, which resists attack by fungi, insects and bacteria, are on view.

ZINC DEVELOPMENT ASSOCIATION, LTD.

The stand (No. 359 Gal.) of the Zinc Development Association, Ltd., has been designed to serve as an information bureau, and members of the staff of the Association are available to discuss technical details on the uses of zinc. A special illustrated pamphlet is being distributed from the stand, and a new publication on Roll Cap zinc roofing is also available. The latter is the second of the Association's technical publications.

On the walls a series of full-size models, showing the various applications of zinc, are displayed. The largest of these is a full-size section of a zinc roof, which is explained by detailed drawings. Models showing the use of zinc for rain water goods, and for covering parapets and cills, are grouped on each side of this model.

Another series of models show the use of zinc for weather strips. These are being shown at an Exhibition for the first time in this country. The stand has been designed by Mr. R. Lewis Stubbs, and zinc has been used in a number of interesting forms, in its construction.

HUNZIKER (GREAT BRITAIN), LTD.

The above company are showing on stand No. 337 T, facing bricks in the new pastel shades, which will maintain their colour and freshness without the cost of renewal. The Flint Engineering brick, especially suitable for such types of engineering work as foundations and bridges, is also being shown.

JAMES CLARK AND SON, LTD.

Messrs. James Clark and Son's stand (No. 303 Q) is almost entirely covered in glass of various types, and consists mainly of the following : streamlined tower, 20 ft. 6 ins. high, covered in Vitroflex, supporting the firm's name in sandblasted Georgian wired glass, also supporting the glass runway for the waterfall. The tower stands in a lake with Waterwave roughcast bottom and Vitrolite pressed glass tiled sides. Behind is a wall, lined on the inside with tinted mirrors, a decorative mirror, and on the outside with Vitrolite glasses. A window in the middle of the wall is composed of panels of the various building glasses, and the wall is finished with glass bricks.

A perspective of the stand (No. 359 Gal.) of the Zinc Development Association.

AUSTINS OF EAST HAM, LTD.

This firm are again exhibiting, on stand No. 288 P, their Stormproof joinery. The stand, designed by Messrs. Jordan and Handisyde, is entirely built up—with the exception of the office—of the firm's standard stock lines, which are painted in gay colours. The general design of the stand is the form of a large cage made up of standard window sizes with a roof of bays. Two inner cages are also made up in a similar way with doors in frames providing the central support.

C. PORTWAY AND SON, LTD.

Tortoisette stoves, a model of which is being exhibited at work, are one of the latest methods of heating by anthracite coal. By means of an adjustable thermostat, the rate of burning of the coal in these stoves may be absolutely under the control of the user, and so varied to meet different atmospheric conditions. The Tortoisettes are supplied in a plain black finish, or any of the four standard shaded vitreous enamels. The stand No. is 246 M.

NORTH BRITISH RUBBER FLOORING CO., LTD.

A comprehensive range of this firm's rubber floors is displayed on Stand No. 159 G. Rubber banister rails are also on view.

PLASTER PRODUCTS (GREENHITHE), LTD.

P.P.G. Gypsum partition blocks for internal non-bearing partitions are shown by Messrs. Plaster Products (Greenhithe), Ltd., on Stand No. 7 B. These blocks are recommended for use in schools, hospitals, flats, hotels, office buildings, etc., where sound-proofing is essential.

NETTLEFOLD AND SONS, LTD.

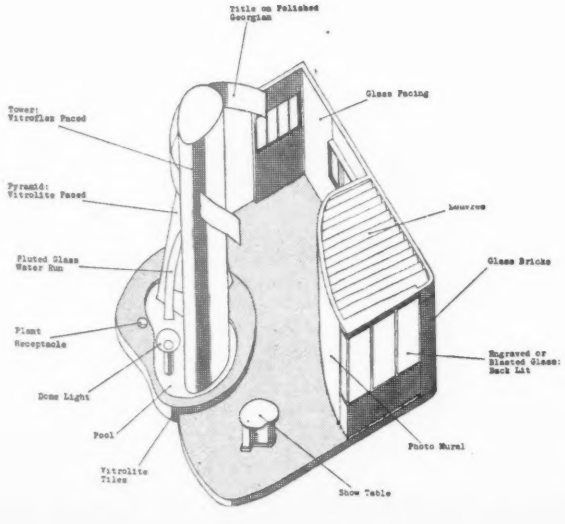
Semprax stainless steel fittings, made from Silver Fox new process stainless steel, in a large variety of new patterns, are shown by Messrs. Nettlefold and Sons, Ltd., on stand No. 200 J. Other exhibits include : the Lescot and Guardian door closers ; the Guardian XXX tubular mortice lock ; the Guardian plunger handle lock set ; floor springs, etc.

HORSELEY BRIDGE AND THOMAS PIGGOTT, LTD.

The roof of the stand (Nos. 72, 73 D) of the above firm provides an example of the Lamella system of roofing construction, the main feature of which is the building of an arched roof or complete semi-cylindrical structure by the assembly of standard pressed steel units in a series of diamond forms ; on this framework any type of roof covering may be used and a small section of the roof on this stand has been covered with corrugated asbestos sheets and R.P.M. supplied by Messrs. Turners Asbestos Cement Co. and Messrs. Wolverhampton Iron Co., respectively. The centre of the ridge has been glazed by Messrs. Mellowes, Ltd., using British Georgian wired glass and lead-covered steel glazing bars and flashing.

MIDHURST WHITES, LTD.

The main feature of this firm's stand (No. 67 D) is a white brick pylon, 20 ft. high, at the base of which, on one side, is a coloured brick seat, surmounted by a plaque. The office is connected to the pylon by a covered showstand, and is built of bands of coloured bricks. The stand has a brick base carrying wooden cupboards and table-top for exhibiting the products. Two sheets of plate-glass extending the length of the stand



Axonometric view of James Clark and Sons' Stand (No. 303 Q).

Architect ; Raymond McGrath.

enclose photographs of building work where Midhurst Whites bricks have been used.

MARLEY TILE (HOLDING) CO., LTD.

This exhibit comprises Kentish oast house and display stand with specimen roofings showing the types of tiles manufactured by the firm. The stand No. is 100, 101 E.

R. D. MILLES, LTD.

Messrs. R. D. Milles, Ltd., are showing, on stand No. 227 L, a complete range of the Milles disappearing attic stairs; also the Unique cupboard stair.

MARSTON VALLEY BRICK CO.

This firm's stand (No. 311 R) has been designed by Mr. S. G. Monk, and displays the various types of bricks manufactured by the company under the name of Marston Bespres Flettons. Ranges of the company's facings are exhibited, and, in addition, this year they have introduced their multi sand facings.

LANGLEY LONDON, LTD.

Clay roofing tiles and sister products are exhibited on the stand No. 310 R of Messrs. Langley London, Ltd. Some of the specific models displayed and their features are as follows: C.D.N. clay roofing tiles. The colour range runs from the commercial natural red and antique smooth-faced tiles, through a choice of sand-faced shades to matt green and to a dozen or more glazed colours. Pantiles on view are supplied in substantially the same range of colours and finishes as C.D.N. tiles. Beauvais roofing tiles are also on view. These roofing tiles are particularly favoured in the North of England. They are fired at a temperature of 2,000° F., which renders them as hard as stone, their absorption of water being less then 1 per cent. Another important exhibit includes the window cill tiles.

"GLASSO" MANUFACTURING CO.

The following Byta metallic waterproofing liquids are shown by the "Glasso" Manufacturing Co., on stand No. 440 Gal.: No. 1 for hardening concrete; No. 2 for brickwork; No. 3 for stone and cement; No. 4 for plaster walls; No. 5 for dusty floors. Also shown are the Crusader petrifying liquid for general purposes; and the Crusader washable water paint for interior and exterior decorations.

FISON, PACKARD AND PRENTICE, LTD.

Kiln-fired Burwell white facing bricks and Burwell gaults for foundations are displayed by Messrs. Fison, Packard and Prentice, Ltd., on stand No. 59 D.

SYDNEY FLAVEL & CO., LTD.

The principal exhibit on the above firm's stand (No. 256 M) is the Flavel Kitchen Grand Model No. 37, a practical gas cooker with streamline appearance, constructed throughout in pressed steel; the exterior is of white porcelain enamel, relieved in black. One simple movement opens or closes the top, which automatically provides a splash-back and plate-rack. The hot plate has three boiling burners and a Flavel patent high-speed grill with rustless fret. The cooking is controlled by the Flavelstat. Many other models on view show improvements in cooker design and performance.

G. E. W. CROWE

In the two flats exhibited (on stand Nos. 370, 372 Gal.), by Mr. G. E. W. Crowe, in collaboration with Messrs. Plus Flats Management, Ltd., the furnishings have been designed to make the most of the space available. The one-room flat shown is an actual reproduction of one of the 800 flats in "Chelsea Cloisters," Grosvenor Gardens, S.W.1, and has been furnished and fitted with modern furniture in order to demonstrate that adequate living accommodation can be provided in much less space than was formerly considered necessary. The Unit flat comprises "entertaining room" and bedroom, both furnished with Easiwork furniture elements, a sound-proof, air-conditioned study and an Easiwork kitchen designed on the counter type principle.

CEMENT AND CONCRETE ASSOCIATION

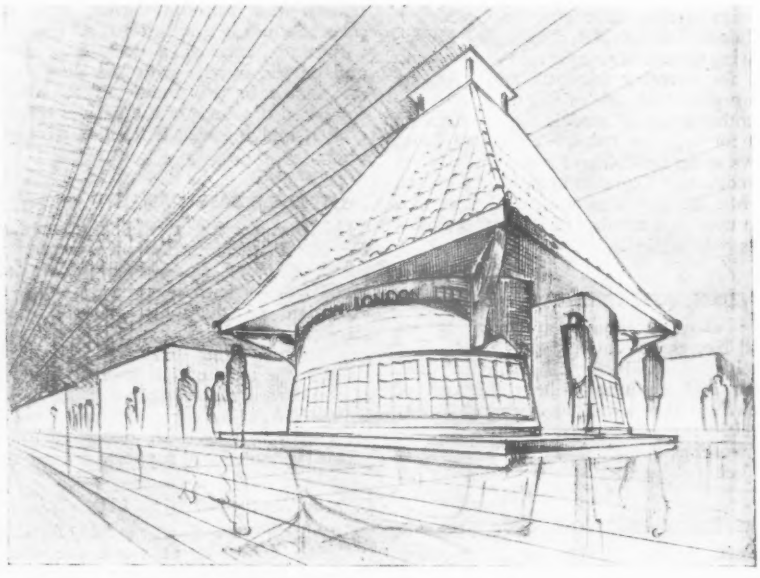
On this stand (No. 429 Gal.) the Association is showing perspective drawings (by Mr. R. Myerscough Walker), plans, elevations and diagrams indicating how concrete can be employed to solve the problems of rural and urban housing. The types of building which they illustrate are as follows: (1) a new departure in concrete house construction; (2) a house in a semi-rural setting; (3) a form of cast *in situ* construction designed for repetition in dense areas; (4) the cast *in situ* method which is more adaptable for the erection of individual houses; and (5) the concrete block, in its various forms, which provides for articulated construction in the stone counties.

EDUCATIONAL SUPPLY ASSOCIATION, LTD.

A stand by the above firm (No. 314 R), shows various adaptations of the Esavian folding and sliding principle. A circular Esavian folding and sliding loggia door made with a centre section winged in order that it may be used as an ordinary door, is displayed at the end of the main gangway. Sliding partitions made in three sections and other examples of this principle are shown.

HENRY WIGGIN & CO., LTD.

On stand No. 274 O, the above firm have a display of extruded nickel silver, used for architectural metalwork. This commodity is 20 per cent. nickel; examples are shown of balustrades, screens, etc., made from the various extruded sections, such as sheet, rod, and strip, in which it can be obtained. Monel sink units, comprising a sink and draining board made in one piece (the metal being stainless) are also on view.



A perspective of Langley London's Stand (No. 310 R.)

WOOD PRODUCTS, LTD.

The stand of the above firm (No. 60 D) is entirely faced in the wood fibre insulating and building boards manufactured in Finland by Enso-Gutzeit o/y. A cheap roof lining used on the stand is Tufbord, which can be used for converting attics into spare rooms, etc. Ensonit, used to provide warmth, and prevent condensation, in air-raid shelters, is demonstrated in a section of shelter, erected on the stand.

ZEROS (SALES), LTD.

The only motorless electrical refrigerators on the market are shown by Messrs. Zeros (Sales), Ltd., on stand 351 Gal. Having no motor or moving parts this refrigerator, it is claimed, cannot wear out, and is entirely silent, causing no radio interference. Every one is guaranteed for six years.

CASHMORE ART WORKERS

Architectural metalwork, carving, and fibrous plasterwork carried out by the above firm, illustrated by photographs and a few specimens, are shown on stand No. 383 Gal.

"TWISTEEL" REINFORCEMENT, LTD.

A reinforced concrete bombproof shelter has been erected by the above firm on stand No. 98 E. The walls, floor and roof are designed to be reinforced with Twisteel high tensile bars and fabric, and a detail drawing of the shelter is shown, together with photographs, to illustrate the method of construction.

ALLAN URE & CO., LTD.

Messrs. Allan Ure & Co., Ltd., are showing their Ure Back-to-Back grate on stand No. 12 B. The Ure is fitted between kitchenette and living room and is simple to build-in. It is strongly constructed of cast iron throughout, and is low in maintenance. Also on view are the Hatchway Ure and the Laundry Boiler Ure.

G. A. HARVEY & CO. (LONDON) LTD.

Messrs. G. A. Harvey & Co. (London), Ltd. (stand No. 118 F), are exhibiting copper and zinc roofing, ventilators, air ducts, tanks and cylinders, pressed steel gutters, ornamental grilles for inlet vents and radiator covers, steel furniture. The firm's general catalogue, entitled Harco Products, is a volume of 640 pages, with an index of 16 pages, which gives some idea of the great number of items manufactured by this company. A copy of this book is obtainable at the stand.

Perforated metals, one of the firm's specialities, are represented by screens and screen plates suitable for gravel, sand and ballast, also cement machinery plates. Wire window guards of every kind are produced by this firm, and representative designs are exhibited on model factory and church windows.

SILENT GLIDING DOORS, LTD.

This firm are showing, on stand No. 338 T, a number of examples of their patent silent gliding door gears. Both their A.1 and FF. type are silent in operation, require no open floor channel or other impediment across the opening and are adaptable to any conditions.

SMITH'S ENGLISH CLOCKS, LTD.

A full range of mantel and wall models are on view on the stand (No. 47 C) of Messrs. Smith's English Clocks, Ltd.

SOMERSET TRADING CO., LTD.

This firm's display (stand No. 116 F) consists of a main roof and smaller racks showing Abbey tiles, pantiles, double Roman tiles, Somerset interlocking tiles, etc., patent interlocking tiles, also the new products, self-locking double Roman tiles and large roll pantiles.

STAINLESS STEEL SINK CO., LTD.

The above firm recently amalgamated with the Taylor Rustless Fittings Co., Ltd., and are showing, on stand No. 339 T, Plana stainless steel sinks, tanks, etc., in various sizes. Stainless steel fittings on view include door furniture of both standard and special designs, all kinds of architectural fittings such as hand and foot rails, crush barriers, kicking plates, etc.

G. A. Harvey & Co.'s Stand (No. 118 F).

PENMAENMAWR AND WELSH GRANITE CO., LTD.

Exhibits of this firm on stand Nos. 353–355 Gal. are as follows: granite kerbs and channels, Penmaenmawr special paving setts; grade aggregates for various classes of concrete and reinforced concrete roadwork; paving slabs; foundations; floors; roofs; bridges, etc.

RONUK, LTD.

The all-oak woodwork of Messrs. Ronuk, Ltd.'s stand (No. 153 G) has been stained with Colron wood dye and polished with Ronuk by the company's own Polishing Contract Department. The full range of Colron colours are shown on a wide variety of timbers.

VENESTA, LTD.

Messrs. Venesta, Ltd., have arranged their products on stand No. 155 G to illustrate their uses for both ornamental and constructional purposes. Examples of the various plywoods manufactured by this company, and a film of the work carried out in their Baltic mills, are features of an interesting exhibit. The stand has been designed by Mr. A. A. MacFarlane.

RYARSH BRICK AND SAND CO., LTD.

The Ryarsh Brick and Sand Co., Ltd., on stand No. 95 E, are showing built-up panels of Ryarsh white facings, buff facings, blue facings and red facings, and many other colours in 2-in. and 2⅝-in. bricks.

T. AND W. IDE

This firm's stand (No. 325 S) is mainly built up from Crittalls' standard curved window frames. The roof consists of a bent dome divided into 12 squares, and is glazed in pink sandblasted glass with clear numerals and electric clock with extended hands in the centre, supplied by B.T. Installations, Ltd. The hips are glazed with the same glass with sandblasted decoration.

On a platform outside one side of the stand is an all-glass fountain. The pool consists of a sheet of large white Flemish to simulate water, above mosaic of green and black Sanitide. The whole is surrounded with a curb of bent ⅜-in. roughcast, sandblasted on the inside and fitted with electric lamps. Another side of the stand is glazed with Lock-Light fire-resisting glazing. Specially featured are the firm's new rectangular domes and solid glass rods in all colours.

BRITISH UNIT HEATER AND RADIATOR CO.

This firm are exhibiting a range of standard coppered unit heaters, which are made in sizes giving duties from 16,000 B. th. u-hr. to 132,000 B. th. u.-hr. when working on low pressure hot water, and duties from 32,000 B. th. u.-hr. to 340,000 B. th. u.-hr. when operating on steam. The firm's stand No. is 65 D.

ALADDIN INDUSTRIES, LTD.

This firm are exhibiting, on stand No. 253 M, their Blue Flame heaters, radiators, greenhouse heaters, incandescent paraffin lamps, etc.

J. A. KING & CO., LTD.

Messrs. J. A. King & Co., Ltd.'s stand (No. 156 G) has been designed to show the uses of reinforced concrete and glass. The exhibits include : the Glas-crete type of reinforced concrete and glass, suitable for pavement, floor and roof lights ; barrel lights and domes ; canopies, stallboards and staircase windows and partitions; Glas-crete windows of various sizes in pre-cast concrete frames ; Glas-crete translucent wall ; Christol Glass high relief glass in copper glazing for domes, laylights, etc. ; Chisarc reinforced concrete light roof construction ; King ferro-concrete glazing bar ; King self-centering flooring tubes ; King hollow tile partitions and floor blocks.

BROAD & CO., LTD.

The chief feature of the above firm's exhibit (stand No. 328 S) is the five complete bathrooms, three in colour, two in white. The walls of each bathroom are tiled in various shades of eggshell surface tiles to harmonise with the coloured ware exhibited, and schemes in white and cream glazed tiles are shown. Also on view are the Aristos all-tile and faience fireplaces.

CANDY & CO., LTD.

On this stand (No. 160 G) a bathroom is exhibited, tiled in a colour scheme selected from the new range of wall tile colours, which Messrs. Candy & Co., are producing. A full range of wall tiling colours to match the baths and sanitary fittings of the leading manufacturers is also on view ; and other exhibits include the Devon fires in faience and tiles and a selection of Candy Ware pottery.

LONDON AND COUNTIES COKE ASSOCIATION

The exhibit (stand No. 15 B) of the above Association demonstrates the industrial and domestic uses of coke with the appliances and methods specially designed for efficient coke burning.

VENT-AXIA, LTD.

Six-in. and 9-in. diameter Vent-Axia stale air extractors and fresh air intake units moulded in bakelite and suitable for fitting into window panes, laylights, or flush with wall faces, are displayed by Messrs. Vent-Axia, Ltd., on stand No. 272 O.

A perspective of J. A. King's stand (No. 156 G.)

DOWNHAM & CO.

The exhibits on the stand (No. 263 N) include : toilet and medicine cabinets for recessing into walls and for surface fixing ; Miro-glide patent recess cabinet and splash back combination ; alcove fittings to recess into wall ; flush fitting electrical fitments ; bathroom stools and chairs ; towel rails, etc.

GLIKSTEN DOORS, LTD.

On the stand (No. 112 F) Messrs. Gliksten Doors, Ltd., have a comprehensive display of doors ; specially featured is the Staybrite flush-door. A sound-proof room, constructed from Wellinith light-weight building slabs, has been built on the stand.

T. C. JONES & CO., LTD.

Messrs. T. C. Jones & Co., Ltd., are exhibiting, for the first time at the Exhibition, their portable electric welding set, which is driven by a four-cylinder, water-cooled, petrol engine, and is mounted on two pneumatic wheels fitted with brakes and the necessary draw-bar, making it suitable for trailing behind a lorry. This equipment is capable of a steady load of 200 amps., which can be exceeded for short periods. Other exhibits include the Super 12 petrol crane and centrifugal self-priming pumps. The stand No. is 221 K.

KONKERWIND, LTD.

Messrs. Konkerwind, Ltd., are showing, on stand No. 443 Gallery, the Konkerwind chimney top, a patent chimney made of reinforced best British Portland cement designed to prevent down-draught. It is square in shape with a specially shaped louvre in each side, and is made to fit the usual 9-in. flue. Also shown is the Konquest cold food cabinet.

HIGHWAYS CONSTRUCTION, LTD.

The stand (No. 69 D) of Messrs. Highways Construction, Ltd., exhibits the various uses of asphalt in its many forms in building construction. Also on view are Mono pavets and Colorpavets (uncoloured and coloured hydraulically compressed asphalt tiles) for all types of commercial and domestic flooring.

HITCHINS FLUSH WOODWORK, LTD.

Laminated flush doors of English and Empire materials, laminated panels and veneered flooring are exhibited by Messrs. Hitchins Flush Woodwork, Ltd., on stand No. 341 V.

LONDON SAND BLAST DECORATIVE GLASS WORKS, LTD.

The stand (No. 117 F) of the London Sand Blast Decorative Glass Works, Ltd., consists of decorative glass mirrors, niches, illuminated counter and a large ceiling laylight in the firm's latest product, bent Treta glass.

Trade Notes, by Philip Scholberg, are held over from this issue ; they will be resumed next week.

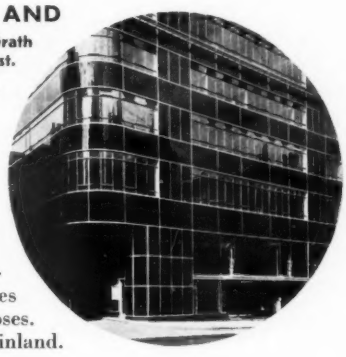
BOOKS

PUBLISHED BY THE ARCHITECTURAL PRESS

Publishers' Note: In presenting this latest list of books it should be mentioned that the illustrations on these pages are only miniatures of the originals. As the descriptive notes given here are necessarily brief, the publishers will be glad to send a complete catalogue, or any book on five days' approval, provided the recipient will defray the cost of postage both ways in the event of the book being returned.

GLASS IN ARCHITECTURE AND DECORATION.

By Raymond McGrath and A. C. Frost.



A monumental work of reference containing 650 large pages and 462 illustrations. The book is divided into the following sections: The making of Glass—Glass in Architecture—Glass in Decoration—The Nature and Properties of Glass. There is also an appendix which gives illustrations and data regarding glasses manufactured for building purposes. £3 3s. 0d. Postage 1s. inland.

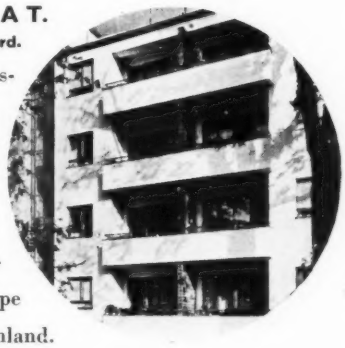
THE MODERN HOUSE.

By F. R. S. Yorke, A.R.I.B.A.

This book outlines the requirements to be met with in the new type of home and discusses its several parts—Plan—Walls—Windows—Roofs, etc. It is illustrated by more than 500 photographs of English, American and Continental Houses, including plans, descriptions and constructional details. 21s. Postage 6d. inland.

THE MODERN FLAT.

By Yorke & Gibberd.



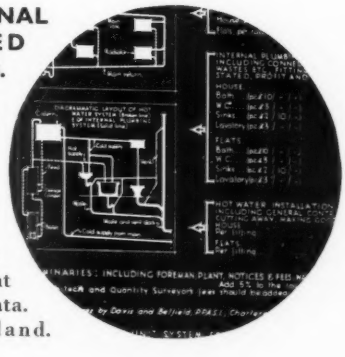
Following 32 pages of fully illustrated introduction are 168 pages of exterior and interior views, scale plans, details, diagrams and tabular information about blocks of flats built in recent years by well-known architects in England, Europe and the U.S.A. 30s. Postage 7d. inland.

THE MODERN HOUSE IN ENGLAND.

Edited by F. R. S. Yorke, A.R.I.B.A.

Comprising the Contents of the December, 1936, Architectural Review and a number of additional examples of modern English houses built since that date. The illustrations are accompanied by explanatory notes on construction and materials. 144 pages, including 350 photographs, plans and drawings. 15s. Postage 6d. inland.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION. Vols. 1–4.



These volumes contain all the Information Sheets which have appeared as supplements to The Architects' Journal up to the end of 1937. The object of these Sheets is to present in diagrammatic form the facts about building materials and equipment and general construction data. 21s. each. Postage 6d. inland.

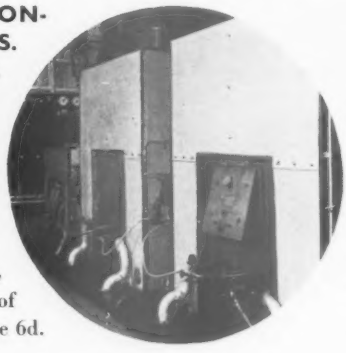
SMALL HOUSES, £500–£2,500.

By H. Myles Wright, M.A., A.R.I.B.A.

This book contains exterior and interior photographs and plans of houses of different types recently built in Great Britain. To every house illustrated is appended a descriptive note giving particulars of the site, plan, construction, services, equipment and cost. 7s. 6d. Postage 6d. inland.

HEATING AND AIR-CONDITIONING OF BUILDINGS.

By Dr. Oscar Faber and J. R. Kell.



The authors deal with their subject in well-informed but simple language, so that the book is recommended equally to the student and the architect as well as the technician. The book contains 434 pages of text, 75 tables, 240 line drawings and 32 pages of photographs. 25s. Postage 6d.

A HISTORY OF THE ENGLISH HOUSE.

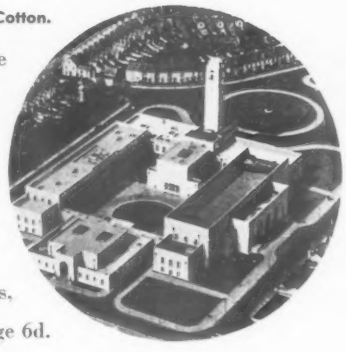
By Nathaniel Lloyd, O.B.E., F.R.I.B.A.

A magnificent record in text, photographs, drawings and plans of dwelling-house development in England from the earliest times until the middle of the 19th century. The book contains over 500 pages, size 12½ in. by 9 in. and nearly 900 illustrations. £3 3s. Postage 1s.

MODERN CINEMAS.

The contents of this book originally appeared in The Architects' Journal. It is divided into three sections, under Planning, Construction and Interior and is fully illustrated with photographs, plans, sections and detail drawings. Size 12¼ in. by 9 in. 3s. 6d. Postage 6d.

TOWN HALLS. By A. Calveley Cotton.



This is the first volume in the "Planning of Modern Buildings" series which is considering the planning, structure and equipment of specialised types of building. The book is fully illustrated by axonometric drawings, plans and sections. 6s. Postage 6d.

SMALLER RETAIL SHOPS.

By Eryan and Norman Westwood.

The second volume in the "Planning of Modern Buildings" series is fully illustrated by photographs and plans, together with 35 pages of illustrations of selected shop fronts, interiors, plans and detail drawings. 10s. 6d. Postage 6d. inland.

THE DESIGN OF NURSERY AND ELEMENTARY SCHOOLS.

By H. Myles Wright, M.A., A.R.I.B.A., and R. Gardner-Medwin, B.Arch., A.R.I.B.A.

The book describes the requirements of the new educational policy in relation to Nursery and Elementary Schools. The text is illustrated by plans, photographs and equipment of the newest schools of these types built both in this country and abroad. 10s. 6d. Postage 6d. inland.

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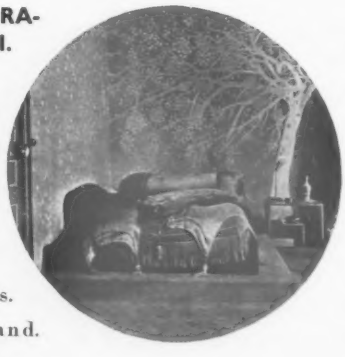
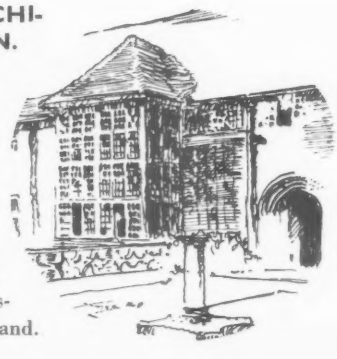


The results of French achievement in the modern movement are revealed in these books, each of which contains nearly 600 illustrations, including a number of plates in colour. Size 15 in. by 11 in. £2 10s. each. Postage 1s. inland.

THE PRINCIPLES OF ARCHITECTURAL COMPOSITION.

By Howard Robertson, F.R.I.B.A.



It is because the book fills so adequately the very real gap in the literature on the Theory of Architectural Design that it has achieved such popularity among students, practising architects, and lay public alike. Containing 180 pages, with over 160 line illustrations. 10s. 6d. Postage 6d. inland.

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While in no way purporting to be a guide to "Modernist" design the book provides a sane and stimulating analysis of many of the current problems encountered by architects. 240 pages and over 100 line drawings and photographs of some of the most interesting buildings in Europe and America. 15s. Postage 6d. inland.

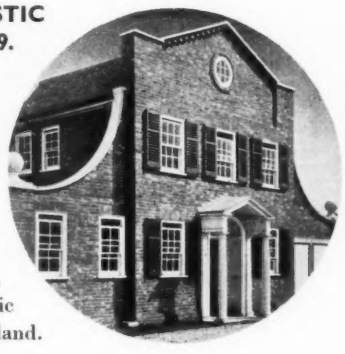
HOUSES OF THE WREN AND EARLY GEORGIAN PERIODS.

By Small and Woodbridge.

A selection of houses which are among the finest examples of the period; these have been recorded by means of specially prepared measured drawings and photographs of general elevations, gates and railings, doors, halls, staircases, panelled rooms, fireplaces, etc. £1 5s. Postage 8d. inland.

RECENT ENGLISH DOMESTIC ARCHITECTURE, 1929.

Edited by H. de C. Hastings.



This volume contains more than 100 large pages of photographs and plans of houses by leading architects; notes on the materials used are given in each case, and where possible the actual building costs, together with the price per cubic foot. 15s. net. Postage 6d. inland.

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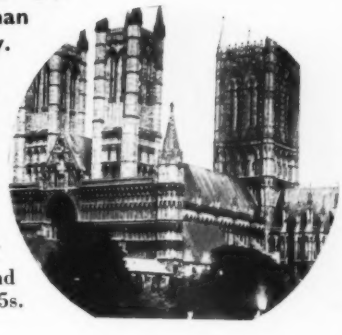

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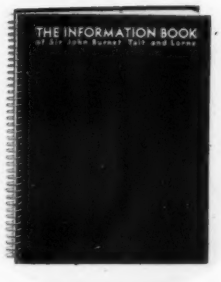

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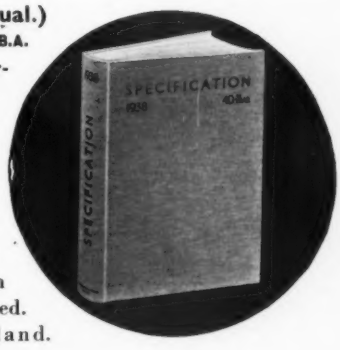

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LUCA DELLA ROBBIA AND HIS FAMOUS GLAZE

SEPTEMBER

Apart from Luca della Robbia's glazed sculptures, there still exist to-day examples of his enamelling on the flat. For instance, the Victoria and Albert Museum, Kensington, has possessed since 1861 a series of twelve terra cotta medallions on which Luca illustrated the 'Labours of the Months.' The title of the September roundel, which we are permitted to reproduce here, is 'The Vintage."

The priceless ingredient of Luca's secret glaze

SINCE Luca della Robbia's day, none have been able to discover the secret of his historic glaze —so unique was its character and so completely did the famous sculptor preserve the formula unto himself. An inkling of its composition has, however, been handed down to posterity by Vasari, contemporary biographer, who relates: 'After having made innumerable experiments, Luca found that if he covered his terra-cotta figures with a coating of glaze formed from the mixture of Tin, Litharge, Antimony *and other minerals and mixtures*, carefully prepared by the action of fire in a furnace made for the purpose, the desired effect was produced to perfection, and endless durability might be secured for his works in clay.'

Probably more important than these known and unknown components was that other priceless ingredient, Luca's own industrial skill, his infinite patience and determination. Once having mastered an intense blue-white, Luca quickly attempted blues, violets, greens and browns with equal success, and gave to the world a demonstration of remarkable colour sense in his many later productions. To-day, Luca's fine artistic sense is echoed in the unique colour range of Robbialac, the Decorators' Enamel named after him and in which Science has succeeded in almost duplicating the exact qualities of the sculptor's original glaze.

In the 'Robbialac Dictionary of Colours,' recently compiled by Jensons with the assistance of the British Colour Council and published exclusively in the interests of the Architectural profession, are to be found authentic della Robbia shades and others of similarly outstanding beauty, with some light on the derivation of their nomenclatures and, in addition, an indication as to the usage of the different hues. A copy of this work is available to any member of the Profession who cares to apply for it.

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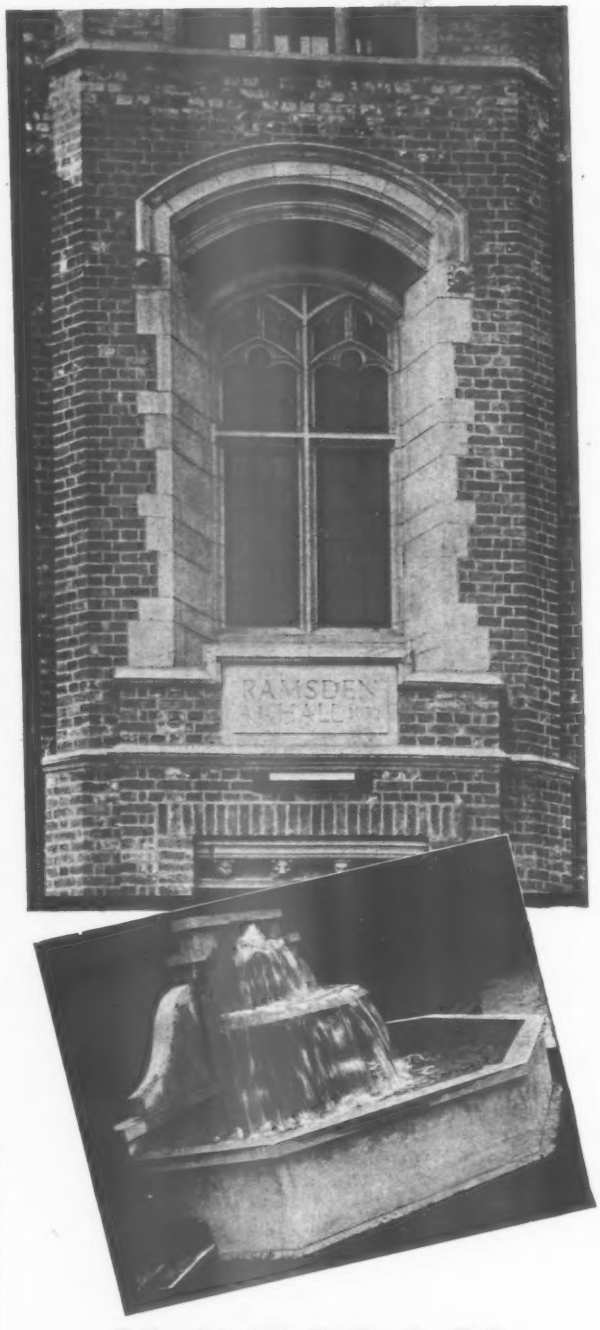

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THE WEEK'S BUILDING NEWS

LONDON

FINCHLEY. *Flats.* Plans have been prepared by Mr. P. Class for the erection of 28 flats in North Circular Road, Finchley.

FRIERN BARNET. *Flats.* Plans passed by the Friern Barnet U.D.C. : 62 flats, office and stores, Friern Park, Lovesay and Son ; eight flats, Glenhurst Road, Mr. E. W. Palmer.

TOTTENHAM. *School Enlargements.* The Tottenham Education Committee is to enlarge the Downhills School at a cost of £22,566 and the Culvert School at £25,498.

PROVINCES

ABINGDON. *Houses.* The Abingdon Corporation is to erect 90 houses on the Drayton Estate at a cost of £31,679.

ARNOLD. *School Accommodation.* The Notts Education Committee is to provide new school accommodation at Arnold for about 300 children.

AYLSHAM. *School.* The Norfolk Education Committee is to erect a central school at Aylsham.

BILSTON. *Houses.* The Bilston Corporation is to erect 344 houses on the St. Chad's Estate at a cost of £107,200.

BIRKENHEAD. *Houses.* The Birkenhead Corporation is to erect a further eight houses on the Vyner estate.

BISHOP'S STORTFORD. *Houses.* The Bishop's Stortford U.D.C. is to erect 72 houses on the Hallingbury Estate, at a cost of £30,325.

BLACKWELL. *Houses.* The Blackwell R.D.C. is to erect 104 houses on estates at Tibshelf and Clapwell at a cost of £36,100.

BLUNDESTON. *School.* The Lothingland Church Senior School Committee is to erect a church senior school at Blundeston, at a cost of £16,000.

BLYTH. *Houses.* The Blyth, Suffolk R.D.C., is to erect 12 houses at Earl Soham.

BLYTH. *Water Supply.* The Blyth (Suffolk) R.D.C. is to provide water supply for the parishes of Framlingham and Saxtead, at a cost of £11,425.

BRADFORD. *Houses.* The Bradford Corporation has obtained sanction to borrow £154,153 for the erection of 380 houses on the Canterbury estate.

BRADFORD. *Schools.* The Bradford R.C. trustees are to erect a senior girls' school for about 320 pupils in the West Bowling district and a senior school for about 320 boys and 320 girls in the Bradford Moor district.

BROMSGROVE. *Enlargement of Council Offices.* The Bromsgrove U.D.C. is to enlarge the council offices at a cost of £15,000.

BURGESS HILL. *School.* The East Sussex Education Committee has purchased a site at Burgess Hill for the erection of a junior school.

CHELTENHAM. *Flats, etc.* Plans passed by the Cheltenham Corporation : 24 flats, Elmfield Park Estate, Cunningham and Gibaud ; 20 houses, Brooklyn Road, Marshall's, Ltd.

CHELTENHAM. *Pavilion.* The Cheltenham Corporation is to erect a pavilion at Alstone at a cost of £1,166.

CORNHILL. *School.* The Northumberland Education Committee has approved a revised estimate of £16,700, for the erection of a school in Cornhill.

DERBYSHIRE. *Schools.* The Derbyshire Education Committee is to erect a senior school at Long Eaton, at a cost of £42,275, and a junior school at Chaddeston, at a cost of £15,175.

DUDLEY. *Houses.* The Dudley Corporation has obtained sanction to borrow £82,291 for the erection of 242 houses on the Bowling Green Estate and £31,721 for the erection of 84 on the Propry Estate.

EASTBOURNE. *School.* The Eastbourne Education Committee is to erect a new senior school in Brodrick Road.

ECCLES. *Houses.* Plans passed by the Eccles Corporation : 10 houses, Weymouth Road, Winton, for Mr. E. Burtonwood.

GLASGOW. *Clinic.* The Glasgow Corporation has approved plans for the erection of a clinic at Denmark Street, Possilpark, at an estimated cost of £6,000.

HUNTINGDONSHIRE. *Extensions.* The Huntingdonshire C.C. proposes a scheme for extensions at the County Buildings, at a cost of £40,000.

HUNTS. *Schools, etc.* The Hunts. Education Committee proposes schemes for eight central schools at a cost of £160,000 ; provision of playgrounds at £10,000, and extension of Fletton Secondary School at £14,000.

HUYTON. *Houses.* The Huyton with Roby U.D.C. is to erect 100 houses on the council estate, at a cost of £40,838.

LEICESTER. *Gas School, etc.* The Leicestershire C.C. has approved plans by the County Architect for four flats for officers ; garage accommodation for 12 cars with workshops ; photographic department and gas school and lecture room, at Leicester, at a cost of £12,000.

LEICESTER. *Houses.* The Leicester Corporation is to erect 150 houses and four shops on estates at Braunstone and Northfield, at a cost of £63,161.

LIVERPOOL. *Schools.* The Liverpool Education Committee is to erect schools at Smithy Lane, at a cost of £65,611 ; at Fazakerley, at a cost of £22,743, and at Sefton Park, at £11,694.

LYNEMOUTH. *School.* The Northumberland Education Committee is to erect a senior school at Lynemouth, at a cost of £25,960.

MAIDSTONE. *Enlargements.* The Kent C.C. is to enlarge the police headquarters at Maidstone at a cost of £39,962.

MANCHESTER. *School Enlargement.* The governors of the Manchester High School for Girls are to enlarge the premises at a cost of £37,500.

MANCHESTER. *Flats.* The Manchester Corporation is to erect 218 flats on the Ardwick Clearance area, at a cost of £128,150.

MANCHESTER. *Sanatorium Extensions.* The Manchester Corporation is to extend the nursing staff accommodation at Baguley sanatorium, at a cost of £4,450.

MANCHESTER. *College Enlargements.* The Manchester Education Committee is to enlarge the College of Technology at a cost of £170,200.

NORTHUMBERLAND. *Welfare Centres.* The Northumberland C.C. is to erect an infant welfare centre at Dinnington, at a cost of £1,000 ; at Prudhoe, at £650 ; and Whitley Bay, at £3,200.

NORTHUMBERLAND. *School.* The Northumberland Education Committee is to erect a senior school at Cornhill, for about 180 pupils, at a cost of £16,700.

OXFORD. *Library.* The Oxford Corporation is to erect a branch library, at a cost of £10,832.

RYE. *School.* The East Sussex Education Committee is to erect a senior school in Broad Road, Rye.

SALFORD. *Houses.* The Salford Corporation is to erect 50 houses on the Summerville estate, at a cost of £21,789.

SAMFORD. *Houses.* The Samford, Suffolk R.D.C. is to erect 12 houses at Stratford St. Mary.

SCARBOROUGH. *Clinic, etc.* The Scarborough Corporation is to provide a maternity and child welfare and a school clinic, at a cost of £20,000.

SEATON VALLEY. *Houses.* The Seaton Valley U.D.C. is to erect 132 houses at Hester Hill, New Hartley, at a cost of £51,000.

SHEFFIELD. *Houses.* Plans passed by the Sheffield Corporation : Six houses, Norton Park Road, Mr. J. T. Redmile ; 10 houses, Sharrard Grove, Hallewell Estates, Ltd. ; 18 houses, Old Park Avenue, Mr. F. H. Undrell ; eight houses, Cockayne Place, Mr. T. Leadbeater ; eight houses, Oxted Road, Mr. F. Clifton ; 60 houses, Holdings Road, A. Quibell & Co. ; 16 houses, Sundown Road, E. and H. Oliver ; 16 houses, Bannerdale Road, Mr. H. Seymour ; eight houses, Retford Road, Mr. E. A. Birtles ; 32 houses, Welwyn Road, Mr. H. Seymour ; 34 houses, Horndean Road, Mr. C. W. Alflat.

SOUTHEND. *School Enlargements.* The Southend Education Committee is to enlarge the Eastwood school, at a cost of £36,690.

STOKE-ON-TRENT. *Houses.* The Stoke-on-Trent Corporation has obtained sanction to borrow £74,365 for the erection of 178 houses on the Meir Estate.

STONE. *School Enlargements.* The Staffordshire Education Committee is to enlarge Alleyne's Grammar School, Stone, at a cost of £30,853.

STOWMARKET. *School.* The East Suffolk Education Committee has purchased a site at Stowmarket for the erection of a secondary school.

THE BUILDINGS ILLUSTRATED

MESSRS. D. H. EVANS' STORE, OXFORD STREET, LONDON, W.1 (pages 428-437) ; Architect : Louis Blanc. The general contractors were James Carmichael (Contractors), Ltd., and sub-contractors and suppliers included : Moreland, Hayne & Co., Ltd., steelwork ; Willment Bros., demolition and excavation ; F. J. Barnes, Ltd., Portland stone ; Empire Stone Co., Ltd., reconstructed stone ; Williams and Williams, Ltd., metal casements ; British Challenge Glazing Co., roof lights ; Lenscrete, Ltd., pre-cast concrete lights ; Whitehead and Sons, Ltd., marble paving and wall linings ; Fredk. Sage & Co., Ltd., shopfronts and entrances ; Highways Construction, Ltd., asphalt ; Rapid Floor Co., Ltd., pre-cast concrete floors ; Gilbert Seale & Son, Ltd., fibrous plaster ; National Flooring Co., Ltd., cork floors ; J. Starkie Gardner, Ltd., staircase balustrading and flag masts ; Whitehead and Sons, Ltd., marble wall linings ; Conway & Co., and Matthews, tiling ; John Bolding and Sons, Ltd., lavatory fittings ; Allen and Greaves, Ltd., metal partitions ; Fredk. Sage & Co., Ltd., George Parnall & Co., Ltd., departmental fixtures ; Benham and Sons, Ltd., cooking apparatus ; Harrods, Ltd., restaurant decorations, furniture and furnishings ; London Sand Blast Decorative Glass Works, Ltd., decorative glass ; A. L. Gibson & Co., Ltd., fire-resisting shutters ; Waygood-Otis, Ltd., lifts ; J. & E. Hall, Ltd., escalators and fur cold storage ; Drake and Gorham, Ltd., general lighting and departmental lighting ; Rosser & Russell, Ltd., heating and air conditioning ; Associated Fire Alarms, Ltd., fire alarms ; Automatic Sprinkler Co., Ltd., automatic sprinklers ; General Electric Co., Ltd., Fredk. Sage & Co., Ltd., electric light fittings ; Instanta Electric, Ltd., electric location and clock system.

HOUSE AT TETTENHALL, STAFFS (pages 438–440). Architects : A. P. and Bertram Butler. The general contractors were Henry Willcock & Co., and sub-contractors and suppliers included : Permanite, Ltd., asphalt ; Himley Brick Co., Ltd., bricks ; Hollington Stone Co., stone ; Allied Guilds, Ltd., artificial stone ; Westmoreland Slates, slates ; Ducatt Heating Co., Ltd., central heating ; Robin Hood, boilers ; Burns and Dudgeon, electric wiring ; J. W. Middleton & Co., and Falk Stadelmann & Co., Ltd., electric light fixtures ; A. G. Curtis & Co., plumbing ; Shanks, Ltd., sanitary fittings ; Josiah Parkes, Ltd., and Bullers, Ltd., door furniture ; James Gibbons, Ltd., casements ; Rhodes Chains and Lifts, window furniture ; Trumpers, plaster and decorative plaster ; Allied Guilds, Ltd., decorative plaster ; Henry Willcock & Co., Ltd., joinery and stonework ; Fraley and Sons, marble ; Dunsmore Tiles, Ltd., tiling ; Gordon Russell, Ltd., textiles ; Smith's English Clocks, Ltd., clocks ; Wyatt, Ltd., and Lee, Howl, Ltd., water supply ; Kenniscott, Ltd., water-softening plant.

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

PRICES

ON the following pages appears Prices of Materials —Part I, with the prices, last published on August 18, brought up to date.

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

★ *ANSWERS TO QUESTIONS*

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

NOTES ON PRICE CHANGES

Prices have remained practically unchanged.

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

● *Items marked thus have risen in price since last quotation on August 18.*

✱ *Items marked thus have fallen in price since last quotation on August 18.*

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

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

★ ***The previous complete Supplement is contained in the issues of the JOURNAL for August 18, August 25, September 1 and September 8.***

Prices vary according to quality and the quantity ordered.

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

PART 1

CURRENT MARKET PRICES OF MATERIALS—I

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

CONCRETOR

Cements

All delivered in paper bags (20 to the ton) free and non-returnable.

		4 Tons and over
Portland	per ton	42/–
Rapid hardening	per ton	48/–
Water repellent	per ton	72/–
Atlas White (1 barrel 376 lbs.)	per barrel	44/–
	1 ton upwards	
Colorcrete rapid hardening, Nos. 1 and 2	per ton	69/–
Colorcrete non rapid hardening	per ton	140/– to 300/–
Snowcrete	per ton	175/–

	1–10 cwts.	11–15 cwts.	16–20 cwts.	1 ton and upwards
Ciment Fondu, delivered Central London area	per cwt. 7/9	7/3	6/–	6/–

Aggregate and Sands (Full Loads)

2″ Unscreened ballast	per yard cube	6/–
¾″ (Down) Washed, crushed and graded shingle	per yard cube	6/2
⅜″ (Down) Ditto	per yard cube	7/6
2″ Broken brick	per yard cube	10/6
¾″ Ditto	per yard cube	11/9
Washed pan breeze	per yard cube	5/3
Coke breeze 1″ to dust	per yard cube	13/6
⅜″ Sharp washed sand	per yard cube	8/3
White Silver Sand for white cement (one ton lots)	per ton	25/–

(For Sands for Bricklaying and Plastering see respective trades)

Pavings

Brick hardcore	per yard cube	2/9
Concrete ditto	per yard cube	3/9
Clean furnace clinker and boiler ashes	per yard cube	3/6
Coarse gravel for paths	per yard cube	6/9
Fine ditto	per yard cube	9/6
Clean granite chippings	per ton	18/6
Red quarry tiles, 6″ × 6″ × ⅞″	per yard super	6/–
Buff ditto, 6″ × 6″ × ⅞″	per yard super	6/6
Hard red paving bricks	per 1,000	150/–

Reinforcement

* Basis price for mild steel rods, ⅝″ diameter and upwards, from London stocks	per ton	£14 0 0
Extras for :—		
9/16″ and ½″ diameter	per ton	10/–
7/16″ diameter	per ton	15/–
⅜″ diameter	per ton	20/–
5/16″ diameter	per ton	30/–
¼″ diameter	per ton	40/–
3/16″ diameter	per ton	60/–
Lengths of 40 ft. to 45 ft.	per ton	10/–
Lengths of 45 ft. to 50 ft.	per ton	15/–

CONCRETOR—(*continued*)

Sundries

Retarding liquid, in 5-gallon drums (for exposing aggregate)	per gallon	20/–
Ditto. (for obtaining a bond)	per gallon	12/6

} Ex Warehouse, Southwark Bridge. Drums chargeable and credited, if returned.

BRICKLAYER

Common Bricks

Rough stocks	per 1,000	69/6
Third stocks	per 1,000	54/6
Mild stocks	per 1,000	71/6
Sand limes	per 1,000	50/–
* Phorpres pressed Flettons	per 1 000	46/3
* Phorpres keyed Flettons	per 1,000	48/3
Blue Staffordshire wirecuts	per 1 000	165/–
Lingfield engineering wirecuts	per 1 000	95/–
Breeze fixing bricks	per 1,000	57/6
Firebricks, best Stourbridge 2½″	per 1,000	155/–
Firebricks, best Stourbridge 3″	per 1,000	190/–

* At King's Cross. For delivery in W.C. district add 4/3 per 1,000

Facing and Engineering Bricks

Sand Limes, No. 1	per 1,000	85/–
Sand Limes, No. 2	per 1,000	70/–
* Phorpres rustic Flettons	per 1,000	66/3
Midhurst Whites	per 1,000	75/–
Hard stocks, firsts	per 1,000	97/–
Hard stocks, seconds	per 1,000	89/–
Sand-faced, hand-made reds	per 1,000 from	115/–
Sand-faced, machine-made reds	per 1,000 from	110/–
Red rubbers (9¾-in.)	per 1,000	300/–
Hunziker (white)	per 1,000	67/6
Hunziker (creams, light greys etc.)	per 1,000 from	100/–
Dunbricks (concrete), multi reds, ex works	per 1,000	72/–
Dunbricks (concrete), multi lavender, ex works	per 1,000	75/–
Southwater engineering No. 1 (first quality red pressed)	per 1,000	145/–
Southwater engineering No. 2 (second quality red pressed)	per 1,000	125/–
Blue pressed	per 1,000	174/–

* At King's Cross. For delivery in W.C. district add 4/3 per 1,000.
Discount if accompanied by order for pressed 2/– per 1,000.

* **Items marked thus have fallen in price since August 18th.**

CURRENT PRICES

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

BRICKLAYER AND DRAINLAYER

BRICKLAYER—(*continued*)

White, Salt and Coloured Glazed Bricks (9″ × 4½″ × 2⅞″)

The following prices are subject to 2½ per cent. trade discount and 2½ per cent. cash discount, and include delivery to any railway station (minimum 4-ton loads). Add 10/– per 1,000 for delivery in London area.

Prices per 1,000	White, Ivory and Salt Glazed				Buff, Cream and Bronze	Other Colours	All Colours	
	Best		Seconds		Best	Best	Seconds	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Stretcher, glazed one side ..	24	0 0	22	0 0	26	0 0	29	10 0	23	0 0	22	10 0	21	10 0
Header, glazed one end	23	10 0	21	10 0	25	10 0	29	0 0	22	10 0	32	10 0	30	10 0
Double stretcher, glazed two sides	32	10 0	30	10 0	34	10 0	38	0 0	31	10 0	29	10 0	27	10 0
Double header, glazed two ends	29	10 0	27	10 0	31	10 0	35	0 0	28	10 0	34	10 0	31	10 0
Quoin, glazed one side and one end	30	10 0	28	10 0	32	10 0	36	0 0	29	10 0	38	0 0	34	10 0

Limes and Sand

		1-ton lots	6-ton lots
Lime, greystone	per ton	43/–	37/6
Lime, chalk	per ton	43/–	37/6
Lime, blue Lias (including paper bags)	per ton	47/–	42/6
Lime, hydrated (including paper bags)	per ton	47/–	42/6
Washed pit sand	per yard cube		7/9

(For cements, *see* "Concretor.")

Hire of jute sacks charged at 1/6 and credited at 1/6. If left, charged at 1/9.

Sundries

Wall ties, self coloured	per cwt.	19/–
Wall ties, galvanized	per cwt.	24/6
Hoop iron, black	per cwt.	25/–
D.P.C. slates, size 18″ × 9″	per 1,000	157/6
D.P.C. slates, size 14″ × 4½″	per 1,000	61/3
*Ledkore D.P.C. Grade A	per foot super	5d.
*Ledkore D.P.C. Grade B.	per foot super	6½d.
*Ledkore D.P.C. Grade C	per foot super	8d.

* Trade discount 5 per cent. and cash discount 5 per cent. Prices include delivery on minimum of £4 orders.

	9″×3″	9″×6″	9″×9″	12″×9″	14″×9″
Earthenware airbricks: red, blue, vitrified and buff terra cotta each	–/8	1/4	2/4	4/–	6/8
	9″×3″	9″×6″	9″×9″	12″×6″	12″×9″
Black cast iron, School Board pattern airbricks per doz.	3/–	5/6	11/–	11/–	20/–
Galvanized ditto per doz.	5/6	11/–	22/–	22/–	40/–
Black hit and miss cast iron ventilators per doz.	12/–	15/–	21/–	21/–	36/–
Galvanized ditto per doz.	24/–	30/–	42/–	42/–	72/–
	1′ 0″	1′ 6″	2′ 0″	2′ 6″	3′ 6″	5′ 0″
Buff terra cotta chimney pots .. .. each	2/6	3/–	4/4	5/9	13/4	22/6
Fireclay .. per cwt.	4/–					

Wall reinforcement supplied in standard rolls containing 25 yards lin.
2″ wide black japanned per roll 2/1
2″ wide galvanized .. per roll 3/2
2½″ wide black japanned per roll 2/7½
2½″ wide galvanized .. per roll 3/10½
} Greater widths pro rata 2½″ price carriage paid on orders of £5. Discounts for quantities.

Partitions

		2″	2½″	3″	4″
Breeze ..	per yard super	1/3½	1/5½	1/8	2/3
Clay tiles ..	per yard super	2/3	2/6	2/9	3/1
Pumice ..	per yard super	2/8	3/–	3/6	4/–
Plaster ..	per yard super	2/3	2/9	3/3	4/–

BRICKLAYER—(*continued*)

Shepwood Partition Bricks size 9″ × 2⅞″ and 2½″ on bed. Terms, as for Glazed Bricks

Prices per 1,000 except where stated per brick	White, Ivory and Salt Glazed				Buff, Cream and Bronze	Other Colours	All Colours	
	Best		Seconds		Best	Best	Seconds	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Double stretcher, glazed two sides	32	10 0	30	10 0	34	10 0	38	0 0	31	10 0	29	10 0	27	10 0
Single stretcher, glazed one side	24	0 0	22	0 0	26	0 0	29	10 0	23	0 0	34	10 0	31	10 0
	Each		Each		Each	Each	Each	
Round end glazed two sides and one end ..	–/10½		–/10		1/0½	1/0½	–/10½	

Gas Flue Blocks

		Single Flues	Double Flues
Straight blocks	each	1/1	1/11
Building in set	Per set of 3	2/8	4/10
Cover blocks	each	1/5	3/–
Raking blocks 45°	each	2/9	3/11
Raking blocks 60°	each	1/11	2/10
Offset blocks	each	3/4	4/10
Closer blocks	each	1/1	1/11
Closer flashing blocks	each	1/–	1/8
Straight flashing blocks ..	each	1/–	1/8
Terminal and cap	per set	6/9	11/6
Middle terminal and cap ..	per set	6/3	10/9
End terminal and cap	per set	6/6	11/3
Corbel block	each	4/10	3/2
Gathering block	each	—	9/8

DRAINLAYER

Agricultural Pipes

	2″	3″	4″	6″
Pipes in 12″ lengths .. per 1,000	67/6	92/6	120/–	210/–

(Delivered in full loads Central London Area.)

Salt Glazed Stoneware Pipes and Fittings

		4″	6″	9″
Pipes (2′ lengths)	each	1/8	2/6	4/6
Bends, ordinary	each	2/6	3/9	6/9
Single Junction, 2′ long	each	3/4	5/–	9/–
Yard Gulley, without grating ..	each	6/3	6/10½	11/3
Ordinary round or square Grating, painted	each	–/7½	1/3	2/6
Ordinary round or square Grating, galvanized	each	1/0½	2/1	4/4½
Extra for Inlets, horizontal	each	1/6	1/6	1/6
Extra for Inlets, vertical	each	2/3	2/3	2/3
Intercepting Trap with Stanford Stopper	each	17/6	22/6	37/6
Grease and mud interceptor with bucket for removing silt and grease for 6″, 9″ and 12″ drains, with iron grating, painted	each	20/–		
Ditto, with iron grating galvanized	each	21/10½		

The above prices to be varied by the following percentages for the different qualities given. All subject to 2½ per cent. cash discount.

	British Standard	British Standard Tested
Orders for 2 tons and over	Less 20%	Plus 5%
Orders under 2 tons, 100 pieces upwards	Less 2½%	Plus 22½%
Orders under 2 tons, less than 100 pieces	Plus 7½%	Plus 32½%

	Best	Seconds
Orders for 2 tons and over	Less 27½%	Subject to 15% off the price of best quality for all sizes
Orders under 2 tons, 100 pieces upwards	Less 10%	
Orders under 2 tons, less than 100 pieces	Nett	

CURRENT PRICES

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

DRAINLAYER AND MASON

DRAINLAYER—(*continued*)

Cast Iron Drain Pipes and Fittings

Socket and Spigot Pipes :—

Weight (per 9 ft.)	Size	9 fts.	6 fts.	4 fts. each	3 fts. each
1.1. 8	4″ per yard ..	6/6	7/3	11/7	8/9
1.1.20	4″ per yard ..	6/9	7/5	11/10	9/–
2.0. 6	6″ per yard ..	10/–	11/11	19/3	15/4
4.0. 2	9″ per yard ..	18/2	23/9	41/3	31/5

Socket and Spigot Pipes :—

Weight (per 9 ft.)	Size	2 fts.	18 ins.	12 ins.	9 ins.
1.1. 8	4″ each	7/3	6/6	5/8	5/2
1.1.20	4″ each	7/4	—	—	—
2.0. 6	6″ each	11/6	—	—	—
4.0. 2	9″ each	—	—	—	—

Tonnage Allowances :—
Orders up to 2 tons nett.
Orders 2 to 4 tons less 2½%
Orders 4 tons or over less 5%

		4″	6″	9″
Bends	each	6/3	12/10	40/7½
Single junctions	each	11/–	22/–	70/11
Intercepting traps	each	37/6	48/3	137/6
Gulleys ordinary trapped ..	each	15/–	—	—
Extra for inlet 4″	each	4/3	—	—
Grease Gulley trap	each	117/6	—	—
H.M.O.W. large socket gulley trap with 9″ gulley top and heavy grating and one back inlet ..	each	23/9	42/9	—

Cast Iron Inspection Chambers

The larger figures below refer to the main pipes and the smaller figures to the branches

		4″×4″	6″×4″	6″×6″	9″×6″
Straight chambers with two branches one side ..	each	56/3	66/10	78/9	153/9
Straight chambers with three branches in all ..	each	66/3	76/10	91/3	166/3
Straight chambers with four branches in all ..	each	76/3	87/10	103/9	178/9
Straight chambers with three branches one side ..	each	71/3	88/9	101/3	—
Straight chambers with four branches in all ..	each	81/3	98/9	113/9	—
Straight chambers with five branches in all ..	each	91/3	108/9	126/3	—
Straight chambers with six branches in all ..	each	101/3	118/9	138/9	—
Straight chambers with four branches one side ..	each	93/9	111/3	133/9	—
Straight chambers with five branches in all ..	each	103/9	108/9	146/3	—
Straight chambers with six branches in all ..	each	113/9	131/3	158/9	—
Straight chambers with seven branches in all ..	each	123/9	141/3	171/3	—
Straight chambers with eight branches in all ..	each	133/9	151/3	183/9	—

The branches to the above are at 135°

		4″	6″
Extra for branches between 135° and 180°	each	7/6	7/6
Extra for branches between 90° and 135° other than standard angles	each	6/3	6/3

		4″×4″	6″×4″	6″×6″
Curved chambers, no branch 90°–112½°	each	26/10	—	38/2
Curved chambers, no branch 135°	each	26/10	—	38/2
Curved chambers, one branch 135°	each	33/9	48/9	55/–
Curved chambers, two branches 135°	each	40/8	65/8	76/3

Channels in White Glazed Ware (Unselected Quality)

		4″	6″	9″
Half round straight channels, 6″ long ..	each	2/4	3/2	5/3
Half round straight channels, 12″ long ..	each	3/3	4/5	6/11
Half round straight channels, 18″ long ..	each	4/–	5/3	8/5
Half round straight channels, 24″ long ..	each	4/8	6/4	10/6
Half round straight channels, 30″ long ..	each	5/10	7/11	13/2
Half round straight channels, 36″ long ..	each	7/–	9/6	15/9
Half round ordinary or long channel bends	each	8/5	12/11	21/–
Half round ordinary or short channel bends	each	6/–	8/5	—
Three-quarter round ordinary branch bends	each	8/1	11/8	—
Three-quarter round ordinary branch bends, midgets	each	7/3	—	—

		6″×4″	9″×6″
Half round taper channels 24″ long ..	each	7/10	11/3
Half round taper channel bends	each	10/3	17/9

These prices are subject to 20% discount.

DRAINLAYER—(*continued*)

Channels in Brown Glazed Ware

		4″	6″	9″
Half round straight channels 24″ long ..	each	1/3	1/10½	3/4½
Half round straight channels 30″ long ..	each	—	—	4/2¾
Ditto, short lengths	each	1/3	1/10½	—
Half round ordinary channel bends ..	each	1/10½	2/9¾	5/0¾
Ditto, short	each	1/10½	2/9¾	—
Ditto, long	each	3/9	5/7½	10/1½
Three-quarter round branch bends ..	each	5/–	7/6	—

		6″×4″	9″×6″
Half round taper channels 24″ long ..	each	3/9	6/9
Half round taper channel bends ..	each	4/8¼	8/5¼

The above prices are subject to the same discounts as those given for "Best" quality salt glazed stoneware pipes.

Manhole Covers

		Black	Galvanized
24″ × 18″ single seal for foot traffic. (Weight 0.3.0 in lots of 24)	each	12/–	23/3
24″ × 18″ single seal for light car traffic. (Weight 2 cwt. in lots of 24)	each	35/–	61/6
24″ × 18″ Wood Block pattern. For road traffic. (Weight 3 cwts.)	each	Coated 55/9	

		Fine Cast	Galv.
Cast step irons, 13½″ long, 6″ wide, 9″ in wall, approximate weight 5½ lbs. each	per dozen	12/6	20/6

		4″	6″
Galvanized fresh air inlets with cast brass fronts (L.C.C. pattern)	each	5/6	20/3

MASON

Yorkstone

Building quality Robin Hood and Woodkirk Blue Stone.		
Blocks scrappled, random sizes ..	per foot cube	4/6
Add for blocks to dimension sizes ..	per foot cube	6d. (each dimension)
Templates with sawn beds, edges rough (up to 4 ft. super and not over 2′ 6″ long)	per foot cube	5/–
Templates with sawn beds, sawn one edge	per foot cube	6/–
Templates with sawn beds, sawn two edges	per foot cube	7/–
Prices f.o.r. Yorkshire, railway rate to London Station per ton. (Minimum 6-ton loads.)		18/3

Ancaster Stone

Freestone, random blocks	per foot cube	3/6
Brown weather bed stone selected for polishing all brown blocks	per foot cube	8/–
Brown and blue weather bed stone selected for polishing	per foot cube	7/–

Prices f.o.r. Ancaster, railway rate to London Station approximately 11½d. per foot cube (minimum 6-ton loads).

Bath Stone

Random blocks, delivered railway trucks, Paddington or South Lambeth	per foot cube	2/10¾

Portland Stone

Whitbed, in random blocks of 20 feet cube average, delivered railway trucks Nine Elms, South Lambeth or Paddington	per foot cube	4/5
Basebed—add to the above	per foot cube	–/3
For every foot over 20 ft. cube average—add	per foot cube	–/1
For every foot over 30 ft. cube average—add	per foot cube	–/0½

¾″ Thick Plain Marble Wall Linings

Roman Travertine	per foot super	5/–
Golden Travertine	per foot super	6/3
Roman stone	per foot super	4/6
Hopton-wood stone	per foot super	5/–
Second statuary	per foot super	4/6
Sicilian	per foot super	4/–

Artificial Stone

6″ × 3″	Copings and sills	per foot run	1/6
6″ × 6″	Copings and sills	per foot run	2/4
9″ × 3″	Copings and sills	per foot run	2/–
9″ × 6″	Copings and sills	per foot run	3/4
12″ × 3″	Copings and sills	per foot run	2/4
12″ × 6″	Copings and sills	per foot run	3/9
Cornices according to detail, per foot cube (from)			6/9

CURRENT PRICES

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

MASON, SLATER, TILER AND ROOFER, AND CARPENTER

MASON—(*continued*)

Reconstructed Stone to match Natural Stone

Sills, lintols, coping, cornices, ashlar, etc., average size	per foot cube	11/–
Window sills, 9″ × 3″ section	per foot run	2/1
„ „ 7″ × 3″ section	per foot run	2/–

Slate Slabs, cut to size and Planed

		1″	1¼″	1½″
Not exceeding 4′ 6″ long or 2′ 3″ wide	per foot super	3/1	3/4	3/11
„ „ 6′ 6″ long or 3′ 3″ wide	per foot super	3/9	4/1	4/10
Exceeding 6′ 6″ long or 3′ 3″ wide	per foot super	4/1	4/6	5/2
Rubbed faces	per foot super	–/5	–/5	–/6
„ edges	per foot run	–/4	–/4	–/5

Combined Slate Cills and Window Boards for Metal Windows

Window Width	Straight Cills: Wall thickness 9″	11″	13½″	Circular Cills for C.O.P. Frames: Radius	External reveals 2″	4½″
1′ 8″	4/–	4/8	5/8	2′ 4½″	21/–	24/–
3′ 3¼″	7/4	8/7	10/4	2′ 7¼″	25/6	28/6
4′ 10½″	10/6	12/3	14/10	2′ 10¼″	30/–	33/3

SLATER, TILER AND ROOFER

Best Bangor Slates

		£	s.	d.
24″ × 12″	per 1,000 actual	33	6	6
22″ × 12″	per 1,000 actual	27	19	0
22″ × 11″	per 1,000 actual	25	4	9
20″ × 12″	per 1,000 actual	24	14	6
20″ × 10″	per 1,000 actual	21	15	5
18″ × 12″	per 1,000 actual	20	19	3
18″ × 10″	per 1,000 actual	17	4	0
18″ × 9″	per 1,000 actual	15	11	9
16″ × 12″	per 1,000 actual	17	14	9
16″ × 10″	per 1,000 actual	15	11	9
16″ × 9″	per 1,000 actual	13	19	6
16″ × 8″	per 1,000 actual	12	1	11

Prices include for delivery to site in lots of 1,000 and upwards.

Old Delabole Slates (f.o.r.)

Standard sizes.
Prices and computed weights per 1,200.

		20″ × 12″	16″ × 10″
Grey medium gradings	per 1,200 cwts.	597/– 46½	366/– 30
Unselected greens (V.M.S.)	per 1,200 cwts.	672/– 55½	413/– 36

Random sizes.
Prices per ton and computed covering capacities in squares per ton.

		No. 1 Grading 24″/22″ to 12″/10″
Ordinary grey greens	per ton	128/–
Covering cap. :	per ton (3″ lap)	2·37 squares
	per ton (4″ lap)	2·19 squares
		No. 2 Grading 24″/22″ to 12″/10″
Weathering grey greens (V.M.S.)	per ton	139/–
Covering cap. :	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares
		No. 2 Grading 24″/22″ to 12″/10″
Weathering greens (V.M.S.)	per ton	149/–
Covering cap. :	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares
		No. 2 Grading 24″/22″ to 12″/10″
Rustic reds (25%) and weathering greens (V.M.S.)	per ton	174/–
Covering cap. :	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares

Railway rate to Nine Elms, London, minimum 4 tons, 21/9, minimum 6 tons per truck, 18/1 per ton.

Tiles

		£	s.	d.
Hand-made sandfaced 10½″ × 6½″ red roofing tiles	per 1,000	4	15	0
Machine-made sandfaced 10½″ × 6½″ red roofing tiles	per 1,000	4	0	0
Berkshire rustic pantiles	per 1,000	18	10	0

SLATER, TILER AND ROOFER—(*continued*)

Westmorland Green Slates

	Price per ton	Bests, 24″ to 12″ long. Proportionate widths. Computed cover in sq. yds. per ton
Random sizes.		
No. 1 Buttermere fine light green	240/–	30
No. 2 „ light green (coarse grained)	215/–	27–28
No. 5 „ olive green (coarse grained)	197/–	25–27
No. 5 Medium green	197/–	25–26
No. 7 Elterwater fine light green	216/–	27–28
No. 15 Tilberthwaite fine light green	214/–	26–28
No. 16 „ light green (coarse grained)	202/–	25–27

Prices include for delivery to any station, minimum 6-ton truck loads.

Asbestos-cement

6″ corrugated sheets, grey	per yard super	2/11
Standard 3″ corrugated sheets, grey	per yard super	2/7¾
Slates :—		
15¾″ × 7⅞″ grey	per 1,000	£6 16 3
15¾″ × 15¾″ diagonal, grey	per 1,000	£12 18 6
15¾″ × 15¾″ diagonal, russet or brindled	per 1,000	£16 6 6
Pantiles.		
Large russet brown	per 1,000	£19 8 6

Prices are for minimum two-ton loads.

Cedar Wood Tiles

Canadian cedar wood shingles .. per square 32/– (normal quantity).

Prices include for delivery to nearest railway station in England but vary with quantity.

CARPENTER

Carcassing Timber

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

		Per standard £ s. d.	Per foot cube
4″ × 11″ Scantling		24 15 0	3/–
4″ × 9″ „		23 15 0	2/10¾
3″ × 11″ „		22 10 0	2/8¾
2″ × 11″ „		23 10 0	2/10¼
3″ × 9″ „		22 0 0	2/8
2″ × 9″ „		22 10 0	2/8¾
3″ × 8″ „		20 10 0	2/6
2″ × 8″ „		20 5 0	2/5½
3″ × 7″ „		20 5 0	2/5½
2″ × 7″ „		20 0 0	2/5¼
4″ × 6′ „		23 10 0	2/10¼
3″ × 6′ „		21 0 0	2/7½
2″ × 6″ „		20 0 0	2/5¼
3″ × 5″ „		20 10 0	2/6
● 3″ × 4″ „		20 10 0	2/6
2″ × 5″ „		19 0 0	2/3¾
2″ × 4″ „		18 10 0	2/3
1½″ × 11″ „	(20 ft. lengths and over)	per ft. run	–/4½
1½″ × 9″ „	(20 ft. lengths and over)	per ft. run	–/3¾
1½″ × 7″ „	(20 ft. lengths and over)	per ft. run	–/2¾

Yellow Deal Battens

¾″ × 1″	per 100 feet run	1/6
¾″ × 1½″	per 100 feet run	2/–
¾″ × 2″	per 100 feet run	2/9
1″ × 2″	per 100 feet run	4/3
1½″ × 2″	per 100 feet run	5/3

Weather Boarding

Deal :—		
¾″ × ¼″ × 6″ Feather edge	per square	11/–
¾″ × ¼″ × 4″ Feather edge	per square	9/–
Western red cedar :—		
● 1″ × 6″ Drop sidings	per square	33/–
● 11/16″ × 3/16″ × 6″ Feather edge	per square	12/–
● ¾″ × ¼″ × 4″ Feather edge	per square	13/–

Roof Boarding

Deal :—		
¾″ × 6″	per square	16/–
1″ × 6″	per square	21/–

● Items marked thus have risen since August 18.

TO BE CONTINUED IN NEXT ISSUE