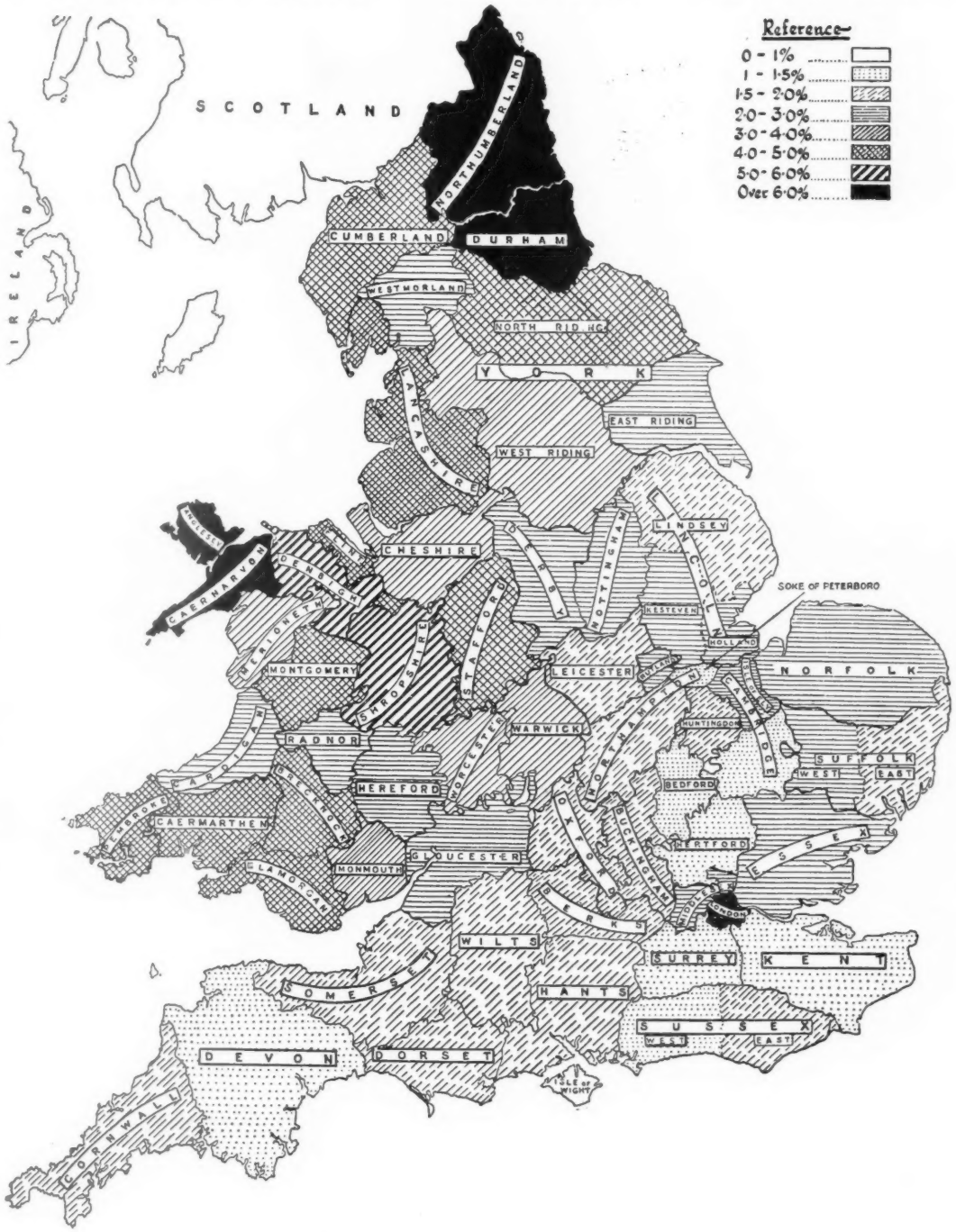
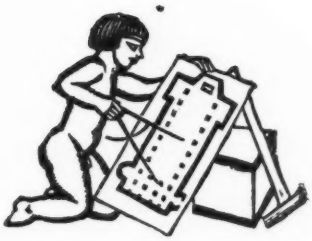
OVERCROWDING: ENGLAND AND WALES



MAP showing the incidence of overcrowding in England and Wales, reproduced from the Ministry of Health's Report on the Overcrowding Survey, recently published by H.M. Stationery Office (price 8s.). The map is reproduced by permission of the Controller of H.M. Stationery Office.

D E V O N

A house in Barnefield Crescent, Exeter. From the "Shell Guide to Devon," reviewed on page 246 of this issue.



HEALTH AND BUILDING

TYPICALLY English in its characteristic silence, the revolution in the building industry of this country proceeds slowly. A week or so ago, for all practical purposes, "a Bill entitled 'An Act to consolidate with amendments certain enactments relating to Public Health'" became part of the Statute Law. This Bill, now a Public Health Consolidation Act, contains probably ninety per cent. of the statutory powers under which the public administration controls the private building enterprise of this country. In particular, it contains the building byelaw-making powers of the local authorities, with the exception of the L.C.C. and those few comparatively large local authorities possessing local Building Acts. Its powers are administered by approximately fifteen hundred local authorities controlling building work to the value of probably £350,000,000 annually —practically two-thirds of the gross annual trade turnover of the building industry.

It will be seen, therefore, that the Bill is an important one so far as the building industry is concerned. It is doubtful, however, whether more than a few hundred persons of the 1,500,000 directly and indirectly dependent upon the industry are aware of either the significance of the passing of the Act or of the steps which were taken by the organized sections of the industry to safeguard, so far as they can be safeguarded in mere consolidating legislation, the important technical and commercial interests involved under the Act. In the light of the letter from the Secretary of the Building Industries' National Council, which appears in this issue, the notes in the JOURNAL for July 23 on this subject might seem to have done something less than justice to the action taken by that Council on the matter. An injustice was certainly not intended. The record of B.I.N.C. in this connection is all that might have been expected of it. Within the narrow limits of the powers of the Departmental Committee charged with the duty of drafting the measure for consolidating the Public Health enactments (excluding those dealing with street development), the Public Health Panel of B.I.N.C., by the submission of recommendations, secured amendments to the Bill as it left the Departmental Committee to the following effect :

I. The rights of the owner or occupier of "any premises" . . . "to have his drains or sewer made to communicate with the public sewers" are now made more definite, clear, and simple of application than was previously the case.

II. The position with regard to existing drainage of domestic sink-waste water as against foul waste-water into rain water pipes has been made clear.

III. The position with regard to the provision in a "suitable position" of sanitary accommodation in "any inn, public-house, beer-house, refreshment house, or place of public entertainment" has been made clear, and, it is hoped, made more simple in its application to "both sexes."

IV. The vexed difficulties with respect to the interpretation of the legal term "water-closet" have been overcome and flushing by automatic action has at last been legally recognized.

V. The proposal contained in the Bill to assess water charges for dwelling-houses upon, among other things, the basis of the number of water-closets and/or baths fixed in a house has been dropped.

These amendments, by reason of the effect of their wide range of incidence, are regarded as of extreme importance, inasmuch as they constitute a considerable measure of practical and constructive relief from redundant enactments. In addition to the above amendments, the following supplementary clause was submitted to the Departmental Committee :

Where building byelaws impose a requirement without specifying the particular manner or method in which, or material with which, it shall be satisfied and there is a relevant specification, code of practice, or other document of a like kind, issued by a Department of Government, the British Standards Institution, or any body of a national character representative of the building industry or any section of the building industry or of any allied profession, and the specification, code of practice or other document has been approved by the Minister, the requirement of the bye-laws shall, unless and until the contrary is proved, be deemed to be complied with if the manner, method or material adopted is in accordance with such specification, code of practice or other document to the extent of that requirement. The Minister may at any time revoke any approval given by him for the purposes of this section.

It will be observed that the purpose of this proposed additional clause is to give legal sanction to the substitution of national codes of practice for local byelaws. The Departmental Committee was precluded by its terms of reference from accepting the clause, but a sympathetic reference to the objects sought to be served by the clause was made by the Government spokesman (Viscount Gage) on the Third Reading of the Bill in the House of Lords on July 7. It will be seen, therefore, that while most practical amendments to the existing law have been secured, the seeds of the future development of the law controlling building have been sown; but only just sown. At present, the public, in the form of local authorities, maintain probably well over three thousand officials, involving a cost of, say, £1,500,000 annually, for the sole duty of checking the work of architects or the work that architects should do. The position is surely farcical when, for approximately every four privately-practising architects, the public, in effect, appoint and maintain three officials to check the work of such privately-practising architects. Properly organized, the public ends sought to be obtained by the present system of public control of buildings, can unquestionably be better served by a greater degree of public responsibility being vested in the architect. In the meantime, and as a constructive step to a much more freely functioning and effective industry, the architect and every other section of the industry should take a more practical interest in the efforts B.I.N.C. is making in the direction of lessening the grip of legal, but still vested, control upon the industry.

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

NOTES & TOPICS

WESTMINSTER

A LETTER in Saturday's *Times* stated that Messrs. Adshead, Davidge and Longstreth Thompson have completed their report on the town planning of Westminster, and that it has been printed for circulation to the Council.

*

To the best of my knowledge Westminster was the only Metropolitan Borough to take any active steps to learn the special needs of its own area after the L.C.C. passed its resolution last spring to prepare a town planning scheme for the whole of the County.

*

As the City of Westminster covers practically the whole of the theatre district, includes all the Government offices, the Houses of Parliament, the three central parks and what is generally known as the West End, whatever is suggested or done to it is of great public interest, and it is to be hoped that the Council will decide to let the public see this report.

PROVINCIAL SHOWMANSHIP . . .

The desecration of the countryside and the ruination of the village are still proceeding. Groans and curses go up from the appropriate bodies who have these matters in their charge ; and the pæan of despair is raised throughout the land ; but although local councils, jerry-builders, garage proprietors, and the people who advertise things on posters are shot at, the real cause of the trouble is missed.

*

England, as the authors of " 1066 and All That " would no doubt say, is suffering from another wave. This time it is a wave of showmanship ; not the exalted showmanship of a genius like C. B. Cochran ; but tenth-rate showmanship by amateurs, who want to turn an honest penny and in the process turn their native places into shambles.

*

I came back from the West Country a little while ago ; from Cornwall, where apparently everybody spends their time having what are described (without punctuation) as " Accommodation Cream Teas." The fragrant hedges of Cornwall and Devon are interspersed with these vilely lettered notices, and the output of cream in these two western counties must be almost comparable in volume to the alleged output of antiques in the eighteenth century ; surely some of it must be spurious : but maybe those who are responsible for the intake of cream, the hikers, the cyclists, and the motorists, are as uncritical of cream as the pre-depression American was of antiques.

*

Bad showmanship has ruined the Cheddar district ; has spoilt such places as Widdicombe, and I suspect that Clovelly has suffered, although I cannot bear to re-visit the place and thus wreck my pre-war memories. The increased number of cyclists and motorists on the road have meant, this year, an enormous increase in notices, advertising gimcrackery, food, and accommodation for men and their machines.

*

Here is something constructive for the appropriate societies to do ; regulations which are put into operation by local people (or not put into operation as the case may be) are ineffective. Societies that want to save the face of England from the complaints that are giving it such a peculiar complexion, should subsidize a national course for education in showmanship ; and publish guides to such simple things as showcard and notice writing. A lot of good work in this direction has been done with inn signs.

AND NEARER HOME

But perhaps it is the genius of the English to have a few great showmen, and an enormous horde of incompetent ones. Everywhere this inept showmanship touches (and mars) architecture. But I think the best piece of maladroit showmanship I ever came across was on the Thames.

*

I was doing that pleasant voyage from Westminster to Richmond, and suffering from the megaphone of a guide, who afflicted the launch with a stream of incomplete information delivered in a voice that suggested neglected adenoids. After referring to Thames House as " a palace of commerce " he was silent until we passed the Battersea Power Station.

*

" This, ladies and gentlemen," he bawled, " is the great Power Station, although you may not think so by the look of it. It's where they make electricity, you know—although as I said, by the looks of it you mightn't think so."

*

Undoubtedly one of Nature's functionalists.

CORONATION CLEANING

" Decorate in off-season " is a slogan recently re-suggested, and taken up in several quarters prior to the decorating stimulus of next year's Coronation.

*

The newly-published Coronation route includes over six miles of London's world-famous streets. Every building in those streets ought to be redecorated before this year is out, giving employment to the usual thousands of winter-unemployed painters ; leaving till the spring only a brief washing down to be done by the handful of men who will then alone be available.

*

Few owners in Regency London seem to realize the

"Both ends fixed"—The result of unprotected steelwork after a fire at Portsmouth.

usefulness of washing down. Paint usually lasts three years. By washing down once a year, at one-tenth the cost of repainting, paintwork can be kept decoratively bright for at least five years.

THE RIGHT PERSPECTIVE

A friend of mine in South Africa has just enlarged his field of practice.

*

Now one of the first clauses in his specifications tells the contractor to "clear the adjoining field for architect's landing."

*

So his aerial approach should enable him to discover whether the finished job looks anything like those pretty axonometrics and birds' eye views which his client liked so much.

"SHORTAGE OF ARCHITECTS"

At least two newspapers last week had items (in one paper almost a column) headed "Shortage of Architects." This at first seems strange reading when it is said that there are about 12,000 architects on the Register. But, reading on, it becomes clear that it is not a shortage of "Architects" which is referred to, but a shortage of first-class qualified assistants who are willing to take temporary jobs under public authorities of various kinds.

*

That is not *quite* the same thing. Architects tend, perhaps, to live in the moment (again, perhaps they need to), but no first-class assistant is likely to forget the record of public bodies in 1931–32. Everyone can make a mistake once.

RAILWAY ENQUIRIES

The old English sport of tilting at the artistic ideas and taste of our railway companies is fast losing its excuse. Really serious efforts are being made to clean up our railway stations.

*

In London there are some seventy-one offices for the issue of tickets and the rest; and the railway companies have joined in promoting an open competition for their re-design, not as individual enquiry places, but as joint offices.

*

Thus in time we shall become accustomed to seeing a familiar front and know that within we may enquire about tickets to Eastbourne or Edinburgh, to Selsey Bill or Spurn Head—without the annoyance of having to visit three or four offices, in three or four different streets, to gain this information.

THE CUBIC YARD

For years, though you may not have realized it, the cubic yard has been illegal as a measure of capacity. All sorts of criminal proceedings might have been instituted against all sorts of foundations, and only the man who sold a "load" of sand or gravel was being legally correct—though commercially somewhat evasive.

*

Now all is changed. The Weights and Measures Act, 1936, has received the Royal Assent and the cubic yard becomes a legal standard. More than that, it becomes obligatory for any man who sells, fetches or carries sand or ballast to do so by the cubic yard or by weight.

*

More than that, even, for the vehicles themselves must now show clearly their cubic yardage.

*

And so is brought to a happy ending the work of rationalizing a simple trade which was begun in 1930 by the Ballast, Sand and Allied Trades Association.

"FURTHER THREAT OF CIVIC COMPETITION"

And what is this—another town hall, civic centre, municipal flat block or local abattoir, where the local newspaper magnate hasn't already bought the site?

*

Nothing of the kind; merely the *Daily Film Renter* revealing that £15,000 is to be spent on a promenade scheme at Portstewart. But there is to be no jiggery-pokery with existing coffee stalls or anything else. "Steps are to be taken to see that there is no unfair competition with the entertainment interests."

*

That ought to make things all right.

ARCHITECTS AND FILMS

Among the list of scenario writers, directors, art and assistant directors, camera men and the rest of them—I saw, at the start of a comparatively recent film, "So and so, architect."

*

Film companies do often employ architects to design their sets, but this is certainly the first time I have ever seen such an individual rise to being mentioned by name.

*

I wish I could have been full of praise, have mentioned the film's title, and urged people to go to it. But—alas! the architectural work struck me as being rather worse than usual. Which loses me my moral. ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

CHARING CROSS BRIDGE AGAIN

A new road bridge at Charing Cross is among the recommendations of the London and Home Counties Traffic Advisory Committee in a report shortly to be published by the Ministry of Transport.

It is understood that the committee is opposed to the removal of Charing Cross Station to the south side of the river, and favours the construction of a new road for traffic from the Strand to Euston Road.

SAVING HANTS COTTAGES

The Hampshire Rural Cottage Improvement Society has been formed, under the presidency of Mr. G. E. H. Palmer, M.P. for Winchester, in order to buy, renovate and re-let country cottages which are below modern standards, and in order to preserve rural amenities.

REHOUSING

The latest available figures for rehousing progress are those for June. At the end of that month, states the Ministry of Health, there were 56,809 houses under construction as compared with 56,040 houses at the end of May and 55,455 at the end of April. The houses definitely allocated to 1930 Act purposes were 43,672, but it is probable that eventually a considerable proportion of the balance will be allocated to the 1930 Act.

PROPOSED TECHNICAL COLLEGE, ETC., GLOUCESTER

The Corporation of Gloucester invites architects of British nationality, domiciled in the United Kingdom, to submit designs in Competition for the erection of a technical college, etc., in Brunswick Road, Gloucester. The Corporation has appointed Mr. Henry V. Ashley, F.R.I.B.A., as assessor, and the following premiums are offered: £350, £250, and £150. Applications for the conditions of the competition, etc., should be made to Mr. H. J. Larcombe, PH.D., M.A., Belsize House, Brunswick Square, Gloucester, accompanied by a payment of two guineas, returnable on receipt of a *bona-fide* design, or upon return of the conditions in good condition on or before November 17, 1936. The last date for receiving questions is Saturday, September 26, and the last date for sending in designs is 5 p.m. on Tuesday, December 15.

THE ARCHITECTS' DIARY

Thursday, August 20

ROYAL SCOTTISH ACADEMY. *At Edinburgh until September 5.*

R.I.B.A., 66 *Portland Place, W.1. Exhibition of the designs submitted in the recent competition for a new Parliament House, Salisbury, Southern Rhodesia. Last day.*

Thursday, August 27

TOWN AND COUNTRY PLANNING SUMMER SCHOOL. *At the Salisbury Diocesan Training College, Salisbury. Until September 2.*

JOINT RECEIVING OFFICES FOR THE BRITISH RAILWAYS

Conditions of the competition for designs for joint receiving offices for the British Railway Companies are now obtainable from Mr. William H. Hamlyn, F.R.I.B.A., Chief Architect, L.M.S. Railway Company, St. Pancras Chambers, London, N.W.1. (Deposit, £1 1s.) The assessors are: Messrs. Charles Holden, F.R.I.B.A.; L. H. Bucknell, F.R.I.B.A.; W. H. Hamlyn, F.R.I.B.A., and C. Grasemann, M.A.: and the following premiums are offered: £300, £125, £50 and £25. The last day for questions is September 17; and the last day for submission of designs is November 7.

THE NEW L.C.C. BYELAWS

The proposed Building Byelaws, containing amendments to the London Building Act, 1935, are now available. Below are some brief notes by Mr. W. E. J. Budgen, dealing broadly with the more important changes; a more detailed review will appear in our issue for August 27.

When, in 1930, the various Acts of Parliament controlling building in London were consolidated, no alteration was made in the existing requirements, and many of them, particularly those relating to structural matters, remained out of date and unduly restrictive. The L.C.C. had, however, under previous Acts obtained power to waive many of the structural requirements, and with these powers an attempt was made to relieve the hampering effect of the Act's requirements by granting "waivers." For various reasons this system was not a success, apart from the absurdity of a situation in which the regulations governing construction were admitted by all to be unnecessarily restrictive and which yet, with the exception of those relating to reinforced concrete, remained the law, which could only be altered, as opposed to "waived," by a fresh Act of Parliament.

To obviate this the London Building Act, 1935, was passed, by which the London County Council was given powers to make byelaws which would replace much of the present Building Act, and with this power it could also keep these byelaws up to date without further application to Parliament.

The procedure for making new byelaws laid down under this Act is as follows:—

Not less than two months before making any byelaw the Council is required to give notice, in the *London Gazette* and elsewhere, of its intention to do so and also to circulate various institutions, such as the R.I.B.A. and the Institutions of Civil and Structural Engineers, with copies of the proposed new byelaws. Objections may be made by "any body or person" within a period of six weeks after the publication of the advertisement and must be made by means of a letter to the Minister of Health setting out the grounds on which the objection is made. If no objections are received the Council can at any time within the next fourteen months put the proposed byelaw into force. Any objections considered valid by the Minister are forwarded to the L.C.C. If any objections cannot be met by a revision of the byelaw the Minister of Health, after a period of four months from the publication of the advertisement, has the power to settle whether or not the byelaw shall be made.

Under these powers the L.C.C. has now published* the first of such byelaws, together with the advertisement, and objections must therefore be lodged within the next six weeks.

These new byelaws are divided as follows:

1: Loading.
2: Materials of Construction.
3: Foundations.
4: Walls and Piers.
5: The Use of Structural Steel.
6: The Use of Reinforced Concrete.
7: The Construction of Furnace Chimney Shafts.
8: Miscellaneous.
9: General.

Broadly speaking they replace the following portions of the 1930 Act:

Sections 57, 60, 61, 65, and the Second Schedule.	Governing . . . . the construction of walls.
Section 58 and the Third Schedule.	. . . the design and construction of steel frame buildings.
Section 59 and the present reinforced concrete regulations.	. . . the design and construction of reinforced concrete frame buildings.
Sections 67 and 68	. . . . the construction of roofs.
Section 69	. . . . . chimneys and flues.
Sections 71 and 72	. . . close fires, pipes for conveying vapour, etc.
Section 74	. . . . . ventilation of staircases.
Sections 75 and 76	. . . rules as to habitable rooms.
Section 77	. . . . . party and other arches over public ways.
Section 79	. . . . . rules as to projections.
Section 80	. . . . . separation of buildings.

These sections will be considered in detail in a future issue—but before this is done it is as well to mention one or two important points of principle in which the new byelaws differ from the old Acts.

In the first place the new rules regarding the loads for which a building is to be designed, the allowable stresses in structural steel or reinforced concrete, the pressure on

* Proposed Building Byelaws. Price 6d. P. S. King and Son, Ltd., 14 Great Smith Street, London, S.W.1.

foundations and other such matters, will apply to all buildings and not merely, as before, to those with steel or reinforced concrete frames. Under the present Act, for example, provided that the external walls of a building comply with the second schedule, the Council has no control over the design of any internal steelwork, although the interior may, in effect, be a complete steel frame. Similarly, there are doubts as to the amount of control the Council now has over reinforced concrete floors in a steel frame building. This state of affairs is entirely illogical and the proposed byelaws will remove this illogicality. At the same time they considerably increase the Council's control of all classes of building and so must be studied with great care, bearing in mind that the previous lack of control does not seem to have been connected with any lack of structural stability.

Another point of interest, which applies particularly to the reinforced concrete and steel portions of the new byelaws, is that no methods of calculation have been laid down. That is to say, while the byelaws state that the stresses shall be calculated, and shall not exceed certain figures, the method by which these calculations are to be made is not given. This is particularly noticeable in the case of reinforced concrete, for the previous L.C.C. regulations were extremely detailed in this respect. It will be shown later that it has not been possible to carry out this omission entirely since methods of design must always be linked up with allowable stresses, but provided the calculations are to be checked by reasonable people with engineering knowledge, the less detailed the regulations are the better.

As regards submission of calculations the clauses dealing with this in the present Act are replaced by the following: "The building notice required to be served on the district surveyor under Section 161 of the principal Act shall, unless the district surveyor otherwise agrees, be accompanied (*a*) in the case of the erection of a building or part thereof or of a furnace chimney shaft by plans and sections of sufficient detail to show the construction thereof, together with a copy of the calculations of the loads and stresses to be provided for and particulars of the materials to be used and should such plans, sections, calculations or particulars be in the opinion of the district surveyor not in sufficient detail, the person depositing the same shall furnish the district surveyor with such further plans, sections, calculations or particulars as he may reasonably require.

"(*b*) In the case of an alteration or addition (or other work) by such plans, sections, calculations as the district surveyor may reasonably require."

It will again be noticed that this applies to buildings generally and not merely to those of frame construction. It is obvious also that the irksomeness or otherwise of this clause depends entirely on the manner of its interpretation by the district surveyor, from whom one has on the whole received reasonable treatment in the past. There are many other clauses where the "satisfaction" of the district surveyor is invoked, and it appears from a first inspection that these byelaws should strengthen his position rather than weaken it, as some feared.

Another point of interest is the reference, particularly in the materials section, to current British Standard Specifications. This should assist in keeping the byelaws up to date. W. E. J. B.

LETTERS FROM READERS

Consolidation of Public Health Legislation

SIR,—May I offer a friendly comment on your reference in the JOURNAL for July 23 under "Notes and Topics" headed "Public Health Bill"?

The first point to be borne in mind in thinking of this subject is that the Bill in question is not new legislation. It is solely a consolidating measure. The Departmental Committee charged with the duty of consolidating the Public Health Acts is confined to amending the phraseology of existing Acts only to the extent of defining more clearly their meaning, thus relieving the consolidating Act of ambiguities found from experience to exist in the previous Acts. It was perforce within these narrow limits that those representative bodies who took the opportunity to submit amendments were confined in their drafting.

The Sanitation, Plumbing and Water Installation Panel of my Council, under the able and constructive chairmanship of Mr. T. A. McIntyre, submitted to the departmental Committee on behalf of the industry as a whole, a series of amendments with fully detailed supporting reasons.

It may interest your readers to know that of the eleven amendments submitted to the Committee, five (the most important) were accepted outright, two were thought to be effectively covered by other Acts and the remainder ruled as constituting a "substantial" change in the law and therefore on constitutional grounds unacceptable.

The Panel, which is fully representative of the industry from the architect to the operative, is constantly at work reviewing one phase or another of public health legislation. A record of their work is fully set out in my Council's *Year Book for 1936*. Your correspondent may rest fully assured that a very lively watching brief is being held for the industry by the Advisory Committee on Building Acts and Byelaws (which is the parent Committee of all Panels of my Council) not only on behalf of public health legislation but on all phases of legislation affecting the industry. Most comprehensive recommendations are now being drafted by a sub-committee presided over by Mr. C. H. Bedells, PP.S.I., for submission to the Government on the need for further consolidation and simplification of the mass of legislative enactments now governing building operations.

H. B. BRYANT,

Secretary, Building Industries' National Council.

H. B. BRYANT (*Secretary, Building Industries National Council*).

P. J. FIELD (*Home and Overseas Press Service*).

Parliament Buildings, Southern Rhodesia

SIR,—It has been brought to my attention by the Office of the High Commissioner for Southern Rhodesia that a mistake was made in the numbering of the designs entered for the competition for the New Parliament House, Salisbury, which were exhibited at the R.I.B.A.

Apparently No. 19, a design which was drawn by Mr. G. Grenfell Baines, was pinned up in such a way that the lower portion of the figures was obscured by another sheet, and it appeared to be No. 10. When it came to placing the names on the designs, the name and address of the person who submitted No. 10 was fixed to design No. 19, thereby making it appear that he had won the third prize.

By a strange coincidence the author of design No. 10 occupied the very next position in the Exhibition, and the name fixed to his design was that of the author of design No. 19. What it really amounted to was that the names of the authors of designs 10 and 19 were transposed. P. J. FIELD

The names of the premiated and commended designs in the above competition were given correctly in the JOURNAL.

—Ed. A.J.

Banned Competition

The following notice has been issued by the R.I.B.A.: "Members of the R.I.B.A. and of its Allied Societies must not take part in the competition for the main entrance to Sutton Park, Sutton Coldfield, because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions."

Announcement

Mr. J. W. Buchanan, A.R.I.B.A., A.A. DIPL. A.M.T.P.I., has entered into partnership with the firm of Howard Leicester and Partners, architects. The firm will continue to practise at 6 Southampton Street, W.C.1. Telephone No.: Holborn 8291-2.

SHOE WAREHOUSE FOR LILLEY

GENERAL PROBLEM—*Warehouse for the storage of shoes. The building is an extension to the head office of the company and is nine storeys high. The three top floors are devoted to office accommodation, and the remaining floors to the warehouse.*

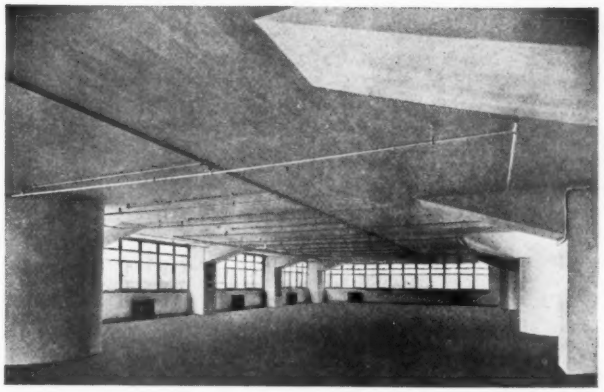
SITE—*At the junction of Pentonville Road, N., with Winchester Street.*

ELEVATIONAL TREATMENT—*The wall surfaces are a natural concrete colour. They have been rubbed down with a revolving carborundum wheel and left smooth. No other treatment has been given them.*

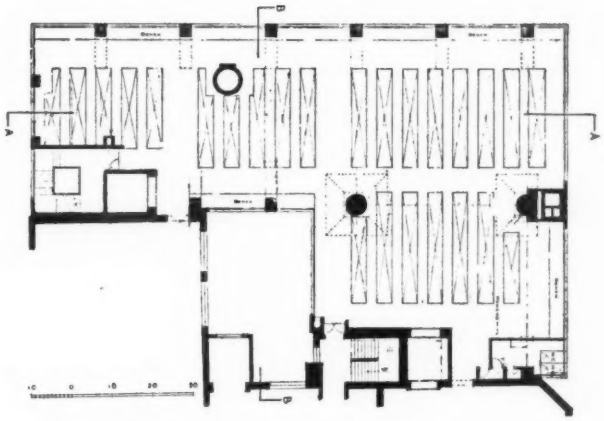
The photographs show: above, a view from Pentonville Road, showing the Winchester Street front; right, the Winchester Street front.

AND SKINNER, PENTONVILLE ROAD, N.

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

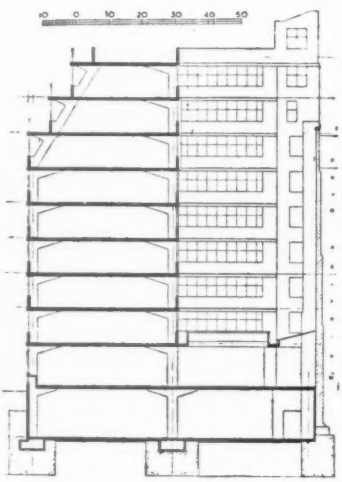


SECTION A–A

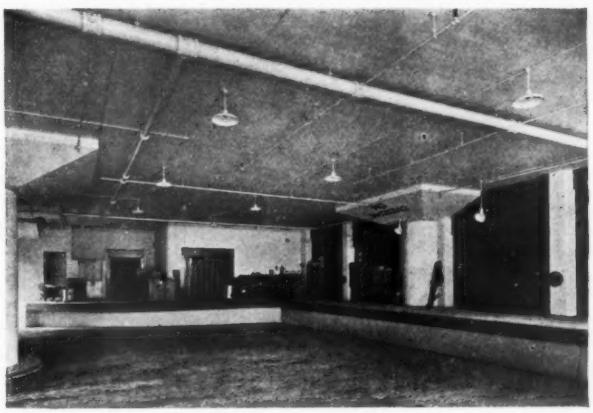


TYPICAL FLOOR PLAN

The top photograph shows a typical warehouse floor, taken during the construction of the building. Each warehouse floor has been fitted from floor to ceiling with wood racks for the storage of boxes of shoes. The photograph below is of the loading dock on the ground floor. It is entered from Winchester Street.

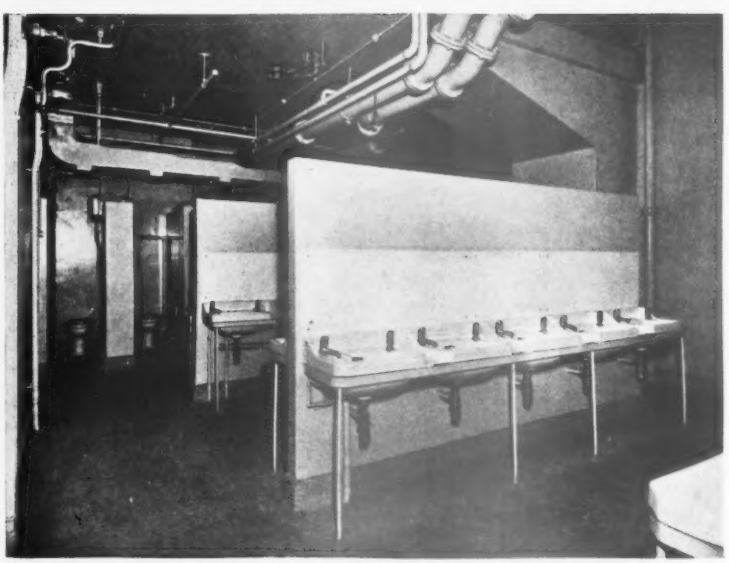


SECTION B–B



SHOE WAREHOUSE FOR LILLEY

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



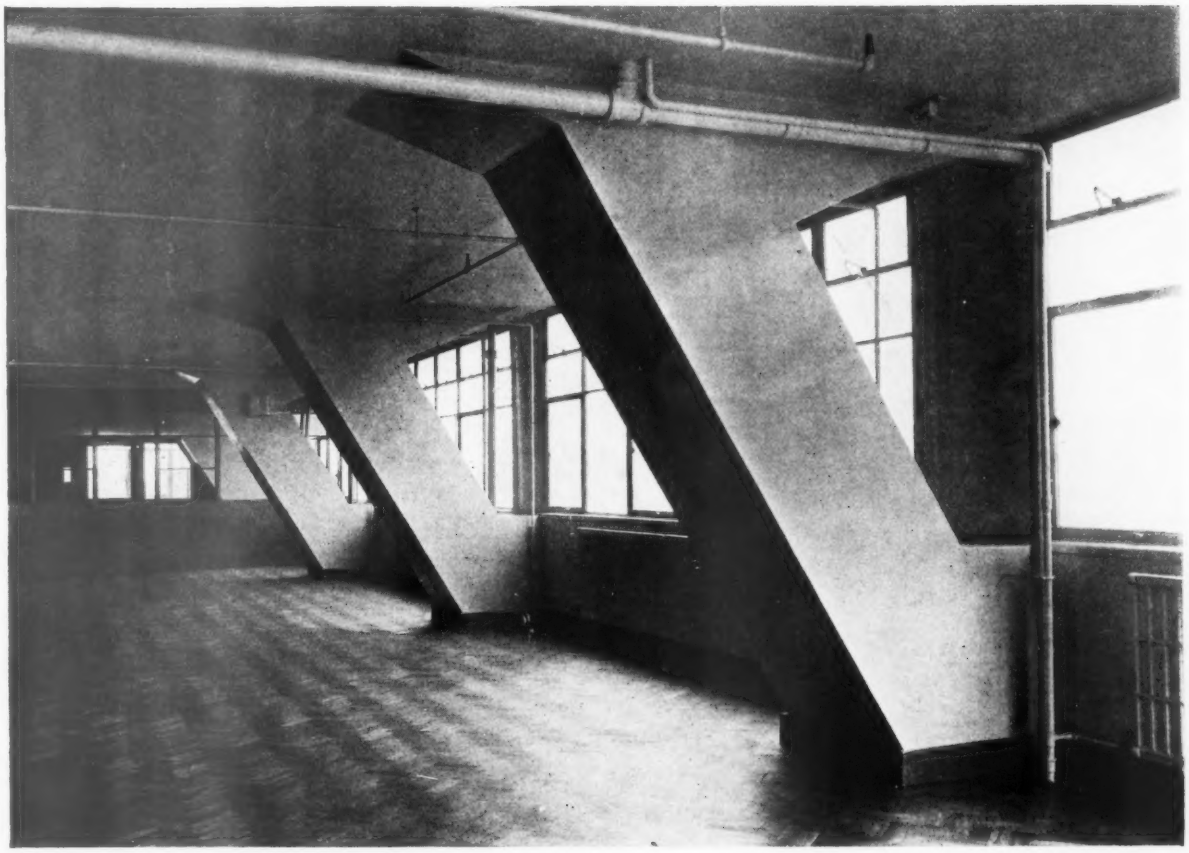
CONSTRUCTION—*An adaptation of the "mushroom" floor slab type of construction. It consists of two-way reinforced concrete slabs supported externally by concrete wall columns and internally by two reinforced concrete columns with "mushroom" caps. The slab is 10 ins. thick on all floors; the external wall columns are 3 ft. square, spaced 21 ft. centre to centre; and the two internal columns are 5 ft. in diameter. Between the external wall columns are wall beams, 9 ins. thick, finished flush with the underside of the ceilings.*

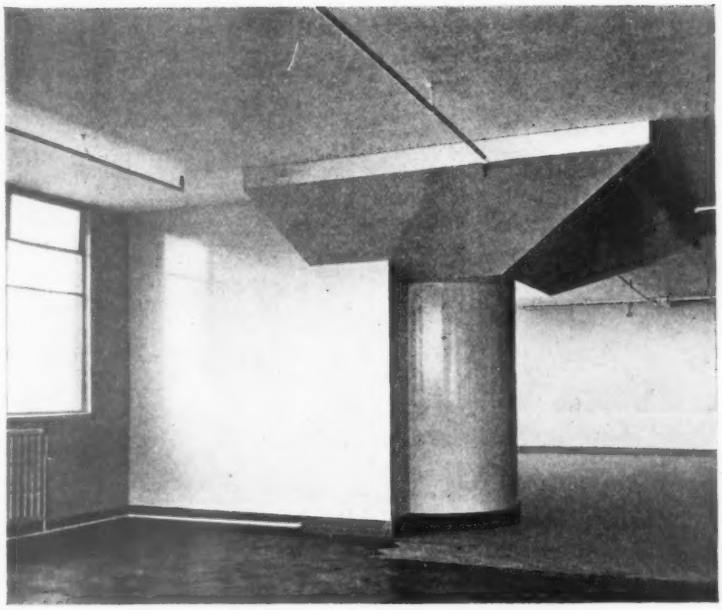
INTERNAL FINISHES—*Walls have been rubbed down to obtain a smooth face. In the warehouse portion the walls are finished with distemper. In the staircase and offices with a lacquer paint applied direct to the concrete. The floors in the warehouse are finished in granolithic, those in the offices in hardwood blocks, and those in the loading dock in buff-coloured tiles of special manufacture. Steel partitioning is fitted in the office floors, light wood racks in the warehouse. A metal spiral chute encased in a circular brick shaft delivers the boxes of shoes from the upper warehouse floors to the ground floor.*

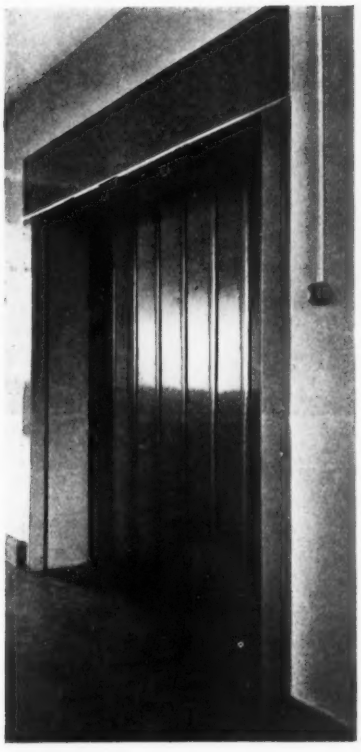
The photographs show: top, the steel lockers for the female staff; centre, the boiler-room; and, bottom, the lavatory for the female staff.

For list of general and sub-contractors, see page 252.

AND SKINNER, PENTONVILLE ROAD, N.







The photograph at the top of this page shows the columns supporting the set-backs on the upper floors; the other photographs: above, one of the internal columns with "mushroom" cap carrying the reinforced concrete floor slab; right, a lift door.

HOUSE AT SEALE, SURREY:

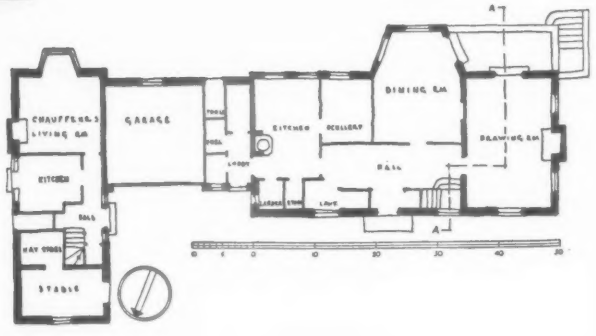
GENERAL PROBLEM—*A medium-sized house for a small family, with a cottage for a chauffeur and family, and a loose-box and a fodder store for a pony.*

SITE—*A steeply sloping one on the south side of the Hog's Back. The placing of the house upon the site was influenced partly by the contours of the ground, and, to a greater degree, by the desire to command from the windows on the south side the magnificent views across the valley and the hills beyond.*

CONSTRUCTION—*Brick cavity walls and tiled roof. The elevations are faced with sand-faced bricks of red, brown and pale purple tints. Windows are double-hung sashes. The carving over the front entrance door is in whitewood.*

The photographs show: top, the entrance front; left, the garden front.

For a list of general and sub-contractors, see page 252.

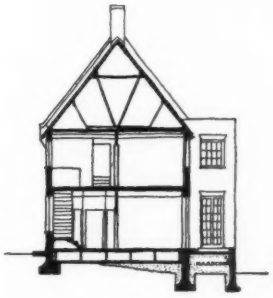


GROUND FLOOR PLAN

DESIGNED BY WELCH AND LANDER

The front entrance doorway.

FIRST FLOOR PLAN



SECTION A–A

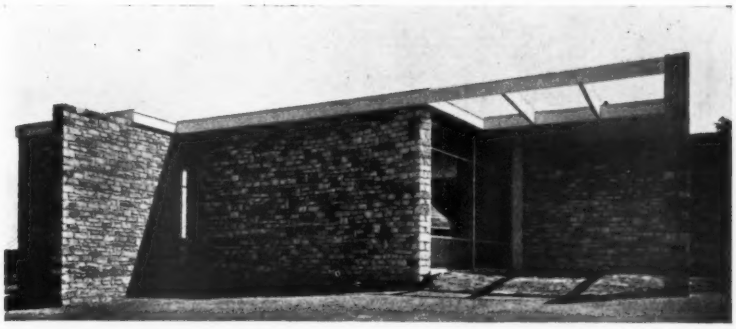
HOUSE AT SEALE, SURREY

DESIGNED BY WELCH AND LANDER

The photographs show : top, left, the playroom in the attic ; centre, the drawing-room ; bottom, the first floor landing ; top, right, one of the two bathrooms ; bottom, entrance hall and staircase.

WORKING DETAILS : 475

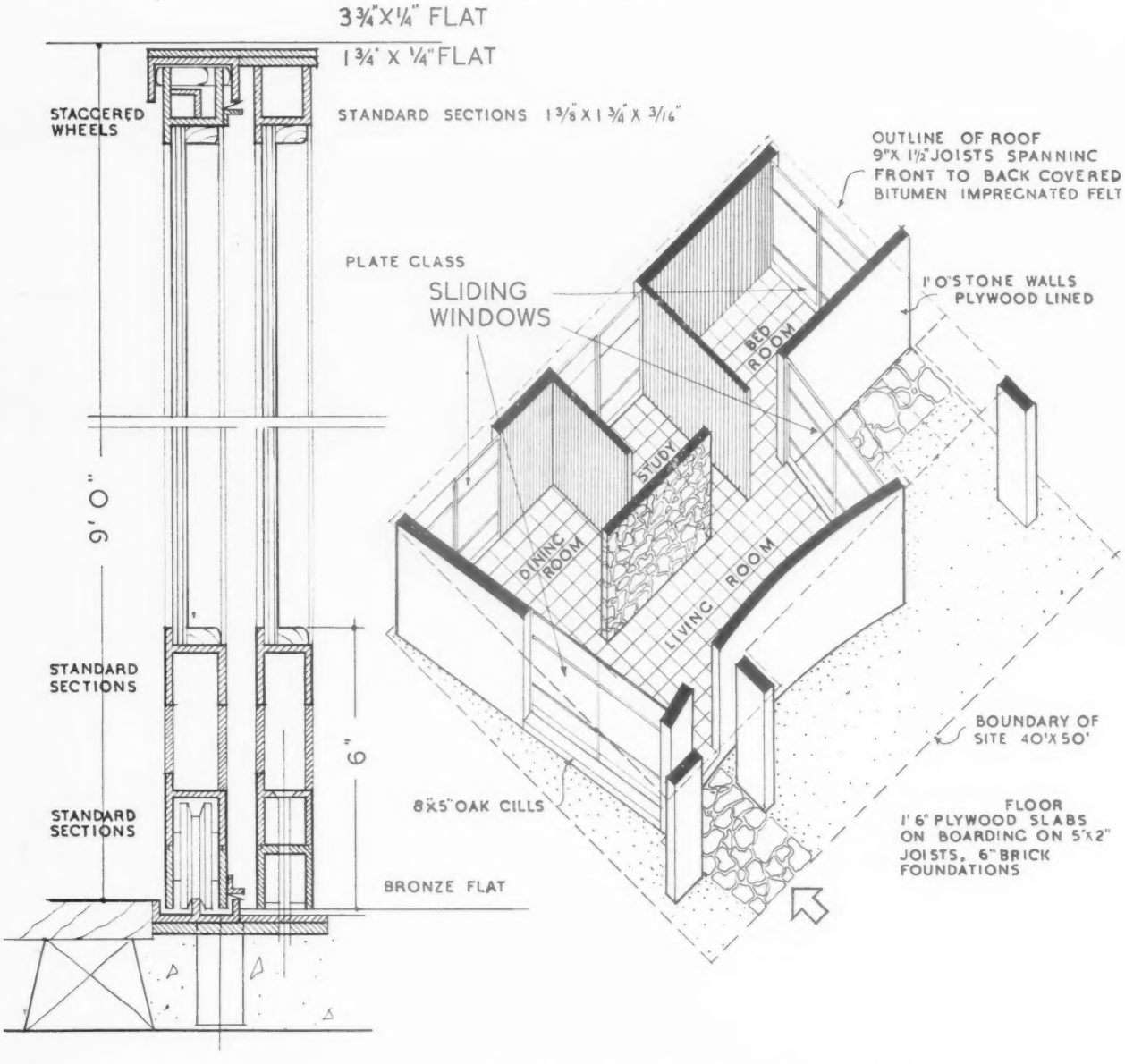
WINDOWS • EXHIBITION HOUSE, BRISTOL • BREUER AND YORKE



The pavilion illustrated above is designed to display the products of a West of England furniture manufacturer. Overleaf is an axonometric of the layout and details of the sliding plate glass windows. See also page 247 of this issue.

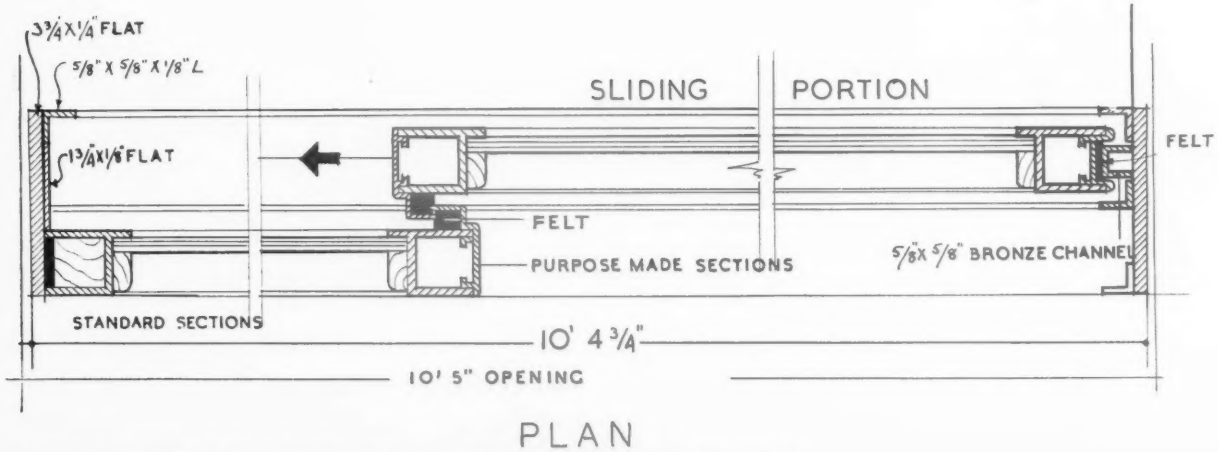
WORKING DETAILS : 476

WINDOWS • EXHIBITION HOUSE, BRISTOL • BREUER AND YORKE



SECTION

5 0 5 10 20 30 40



PLAN

Axonometric and window details of the exhibition house illustrated overleaf.

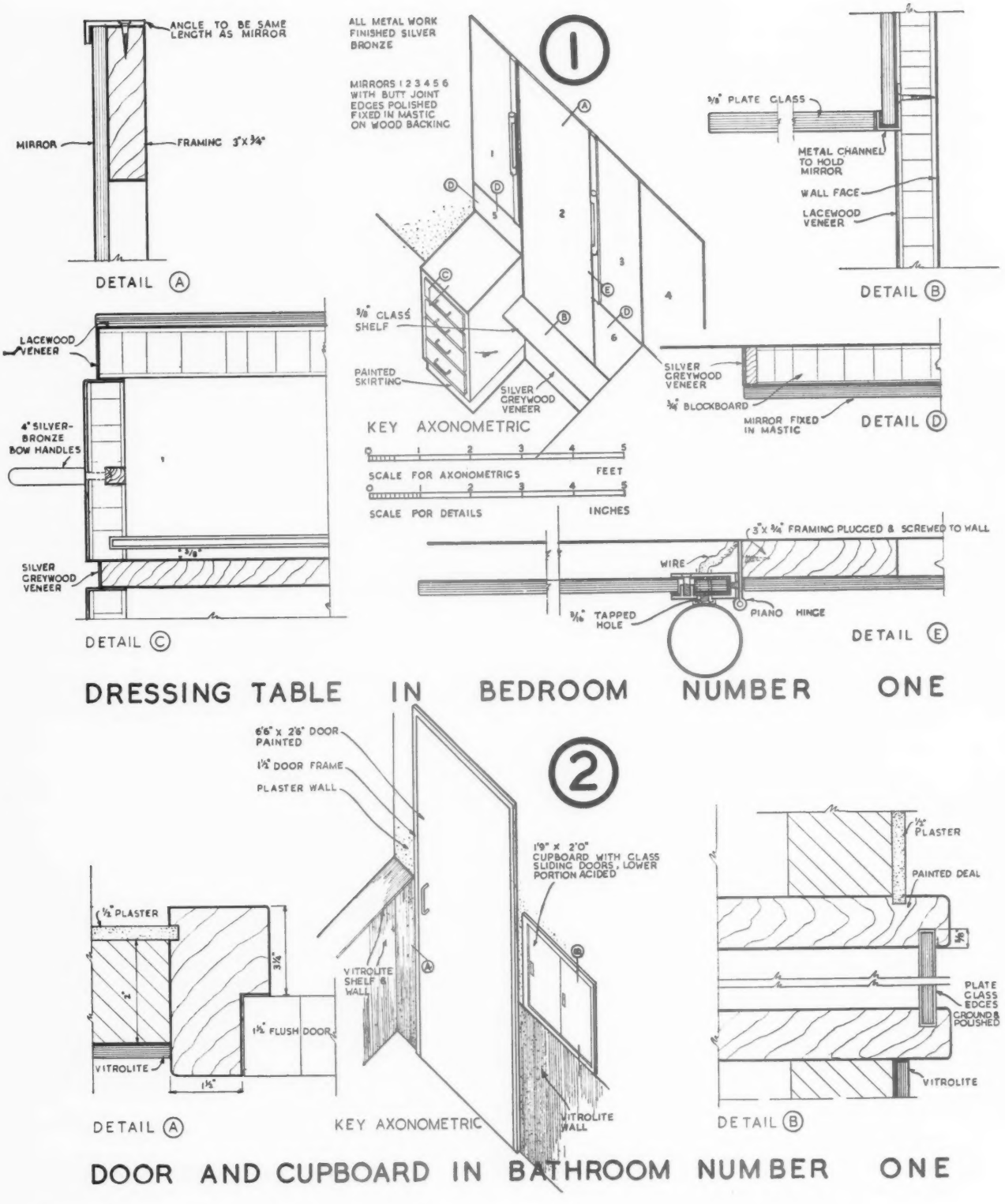
WORKING DETAILS : 477

FITTINGS • HOUSE IN FROGNAL WAY, HAMPSTEAD • E. MAXWELL FRY

Above is an illustration of the bedroom in a reinforced concrete house which was illustrated in this JOURNAL for August 13. Overleaf are an axonometric and details of the dressing-table, and further details of the wall lining and a glazed cupboard in the bathroom.

WORKING DETAILS : 478

FITTINGS • HOUSE IN FROGNAL WAY, HAMPSTEAD • E. MAXWELL FRY



Axonometric and details of the bedroom fitting illustrated overleaf.

MOVABLE STRUCTURES

BY T. J. SOPHIAN
(Barrister-at-Law)

IT may be, perhaps, a sign of the times that a considerable number of persons have taken to the habit or practice of making their homes in impermanent structures, such as caravans, huts and the like. And in a large number of places mushroom growths of caravan colonies have been springing up almost overnight.

Such a mode of living may have its advantages to the persons residing in these structures, in that it is economical, and to a large extent unrestricted by considerations of space. The caravan dweller may choose his own site for "pitching" his caravan, and may leave it, whenever the spirit moves him. But, on the other hand, it raises matters for the grave consideration of the police, local authorities and residents in the neighbourhood.

For the most part, any intervention on the part of the authorities cannot be justified, since no complaint can be made on the ground that an insanitary state of affairs is created sufficient to justify proceedings under the Public Health Acts. In most cases, the sanitary and other amenities in these caravan colonies are brought up to as high a state of perfection as the circumstances will allow, by means of the adequate provision of drinking water, chemical closets and the like; but, on the other hand, it is some hardship to the residents in the neighbourhood to have such caravan colonies in their midst. They naturally cannot be said to be desirable from an æsthetic point of view, and from the point of view of sanitation much, it seems, must be left to be desired, to whatever extent within the law the sanitary and other arrangements of such colonies might happen to be.

Some justification, perhaps, for such a mode of living might have been found in the immediate post-war conditions, when the housing of the population was a real problem, but now that there seems to be a glut of houses on the market the position is very different. Residents in permanent structures, moreover, may have some ground for complaint because of the somewhat happy condition of caravan dwellers in the matter of rates and taxes.

But there is one respect in particular in which the caravan dweller may be caught, and that is by his caravan constituting a temporary building within section 27 of the Public Health Amendment Act, 1907.

That provision is not of general application. The Act is what is called an "adoptive" Act, and will only extend to those districts in which it has been brought into operation by order of the Minister.

Under section 27, a person who proposes to erect or set up a temporary building—and a caravan or other movable form of habitation may constitute a "temporary building" a matter to be presently considered—must first apply to the local authority for permission to do so, and such application must be supported by all necessary plans, sections and specifications. The authority has one month in which to signify its approval or disapproval, and may attach conditions to its consent.

If a person erects or sets up any temporary structure without observing the above procedure and without the authority's consent, or if he does not observe any conditions attached, he will be guilty of an offence, and he will be liable to a penalty not exceeding 40s. and a daily penalty not exceeding the same amount for each day the offence continues.

And if he neglects to remove or pull down the temporary building within the time allowed, the authority may enter and remove or pull down the building and charge the owner with the expenses thereby incurred by them.

Now, it may be that a caravan, by reason of the circumstances affecting its actual use, is constituted a "temporary building" within the above section 27 of the Public Health Act, 1907.

The position of the owner of such a caravan may then be a somewhat unhappy one, if he neglects to observe the directions of the authority to remove or dismantle it. In such a case, of course, the owner will not have asked for any permission of the authority, since he will be usually unaware that he has been infringing the law in any way.

A TEMPORARY BUILDING

The authority, on the other hand, if there is any doubt as to whether the circumstances of the use of the caravan have constituted it a "temporary building," will be entitled to bring an action in the High Court for a declaration that the caravan or other movable structure is a "temporary building," and the costs which the unfortunate owner of the caravan may have to pay in consequence may be very substantial.

Only recently a case of this kind came before the High Court, in which a declaration was made to the effect that a caravan was a temporary building and costs were awarded to the local authority.

The case in question was the case of Battle R.D.C. *v.* Roch, and it merits some consideration, since it throws fresh light on the vexed question as to what will constitute a movable structure a "temporary building" within the meaning and for the purposes of section 27 of the Public Health Act, 1907.

The facts of this case may be briefly stated. A mobile caravan mounted on wheels, which could be moved from place to place, and which was always in this condition of mobility, was brought on to a site which had been advertised for sale as a caravan site, and which had been purchased as such by the owner of the caravan. One object of the owner of the caravan in purchasing this site and in bringing his caravan there, was apparently to enable him to find a house in the district to live in. And while his search continued, the caravan was during a large part of the time when it was on this site used by him and his family as a dwelling.

To add to its amenities a shed was erected alongside, and a sort of sentry-box in which there was a chemical privy was placed between the shed and the caravan.

The caravan remained stationary on the same site, and apparently in its original position, for a period of about eleven months, when it was attached to a couple of horses and dragged away for a distance of some two miles.

The question which the Court had to determine was whether the caravan had, during this period, become a "temporary building."

Mr. Justice Mackinnon, by whom the case was tried, decided that it had, in fact, become a "temporary building."

There does not appear to be any decisive test for the purpose of determining whether or not a movable structure of this sort has become a temporary building. The question in each case is one of fact, depending on all the circumstances, among which the intentions of the owner are by no means irrelevant, but on the other hand of particular importance in doubtful cases.

There are, of course, some cases in which there can be no doubt.

Thus, if one may quote from the judgment of Mr. Justice Mackinnon in the above case: "Nobody (would doubt) that, if a man with a caravan attached to a horse came along a road and he had released the horse from the caravan and had sent it out to graze, (that such person would not have erected a temporary building). On the other hand, quite clearly if he drags his caravan to a certain spot and puts it on to a brick foundation

Dunsford, moorland village near Moretonhampstead. From the "Shell Guide to Devon."

and transforms it as far as possible into an immovable thing fixed to the soil, nobody would dispute that it would then become a temporary building."

The state of mobility or immobility of the structure, and the time during which it continued mobile or immobile would be *prima facie* determining factors, but they would be by no means conclusive.

In Roch's Case (*supra*) the caravan, although it was always in a state of potential mobility, was nevertheless held to be a temporary building. In this case, the intention of the owner, as evidenced by his acts, of using the caravan as a permanent home for a substantial period of time no doubt contributed to the finding that it had become a temporary building.

All we might usefully add in regard to the tests to be applied is to say that the tendency at the present moment appears to lean towards giving the expression "temporary building" a wider interpretation, and holding movable and mobile structures, which have assumed a mantle of actual immobility, to be "temporary buildings."

Thus, in such cases as Keeling *v.* Wirral U.D.C., 23 L.G.R. 201, a railway carriage on wheels, which had been set up in a field, and in Ruislip-Norwood U.D.C. *v.* Lee (29 L.G.R. 333) certain structures, also on wheels and also placed on plots of land, were in each case held to have become "temporary buildings."

L I T E R A T U R E

DEVON GUIDE

Shell Guide to Devon: Edited by John Betjeman. London: The Architectural Press. Price 2s. 6d.

ONE can only wonder why, in all conscience, the *Shell Guides*—of which *Devon* is the latest to appear—have not been produced before. A stimulating and well-illustrated series such as this is a much-needed addition to guide-book literature. Their great merit is that they are so eminently readable: it is possible, even if one hardly knows the county at all, to read through *Devon* from cover to cover with unabated interest—a task scarcely to be relished with the average guide-book.

The Devon Guide is edited by Mr. John Betjeman, the general editor and originator of the series. It has a very distinct character of its own—a quality which the preceding *Guides* have as well. There is information to suit many tastes. The editor opens with a general descriptive account of the county, including its geology, and he has also written a long and adequate gazetteer to towns and villages in which, incidentally, the architecture of Devon is described. Other articles are on Prehistoric Devon by Mr. Thurston Shaw, on fishing and shooting by Major K. Dawson, and on sailing by Lord Stanley of Alderley. For the benefit of the motorist some large coloured motoring maps and a list of steep hills are included. The illustrations are well chosen and include eight plates printed on coloured paper.

A. W. H.

REINFORCED CONCRETE DESIGN

The Design of Reinforced Concrete Structures. By Dean Peabody, Jr. London: Chapman & Hall. Price 20s.

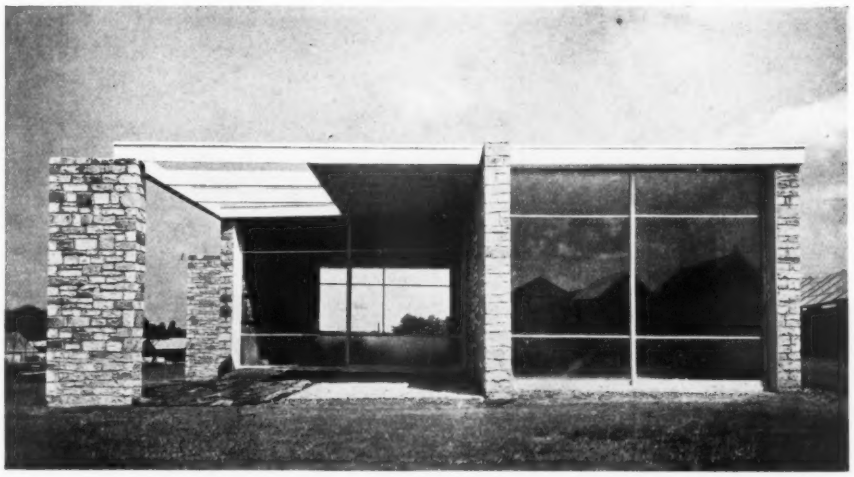
AMERICA must have an enormous market for technical literature. Books on reinforced concrete design, for example, seem to appear almost monthly, all competent and well-produced, with the additional advantage of having been tried on the dog before publication, since they are mostly reprints of university lectures.

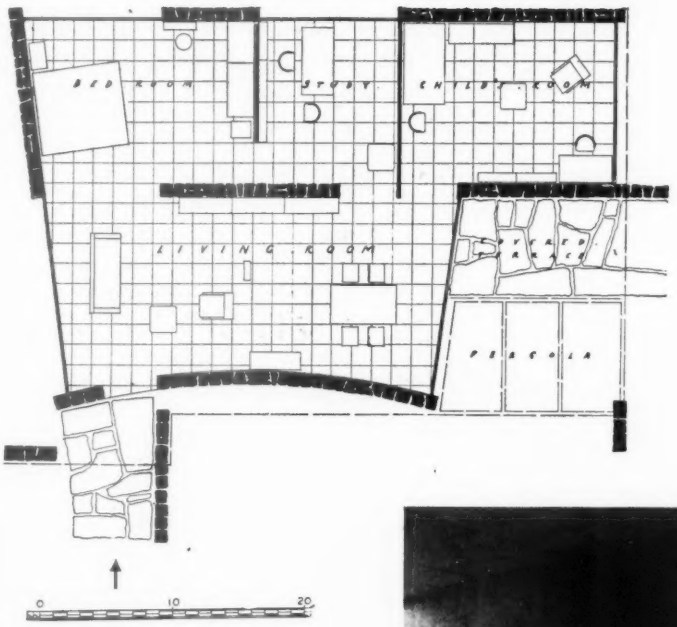
This is one such book. The method used is that of a portion of theory followed by a worked-out numerical example to illustrate it. These examples are taken from buildings and cover most of the problems the designer of a reinforced concrete building is likely to meet. A chapter on arches is also included.

W. E. J. B.

EXHIBITION HOUSE AT BRISTOL

DESIGNED BY MARCEL BREUER AND F. R. S. YORKE



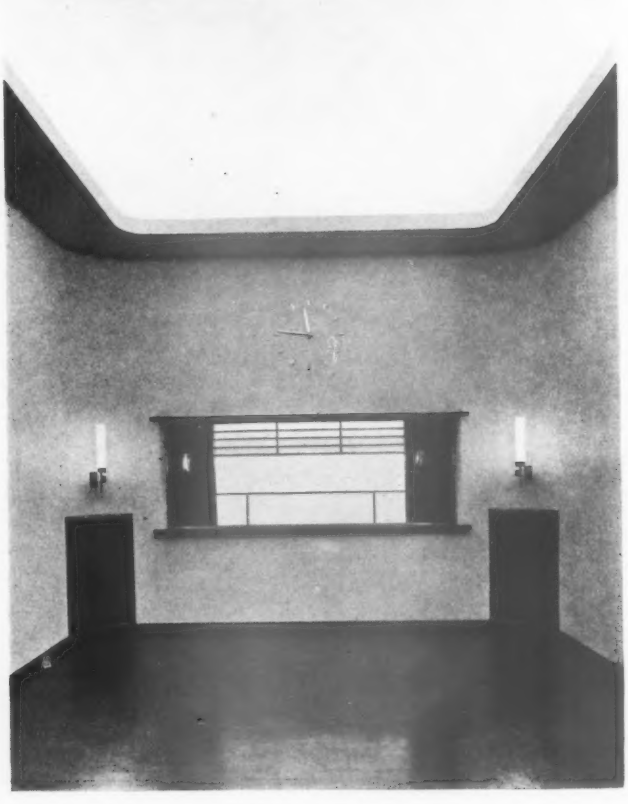


GENERAL PROBLEM AND PLAN—*The problem here was to design a pavilion, to be erected at the grounds of the Royal Agricultural Show at Bristol, and to display the products of a West of England furniture manufacturer. The plan has therefore been simply laid out as an open sequence of exhibition rooms, with simple circulations so that visitors pass naturally from one room to another and do not leave until they have seen everything.*

CONSTRUCTION—*Traditional materials have been used, local stone laid in the traditional squared-rubble fashion for the piers and external walls, and wood for the roof. The free-standing wing wall near the entrance has been designed to form a wind-shield for the garden.*

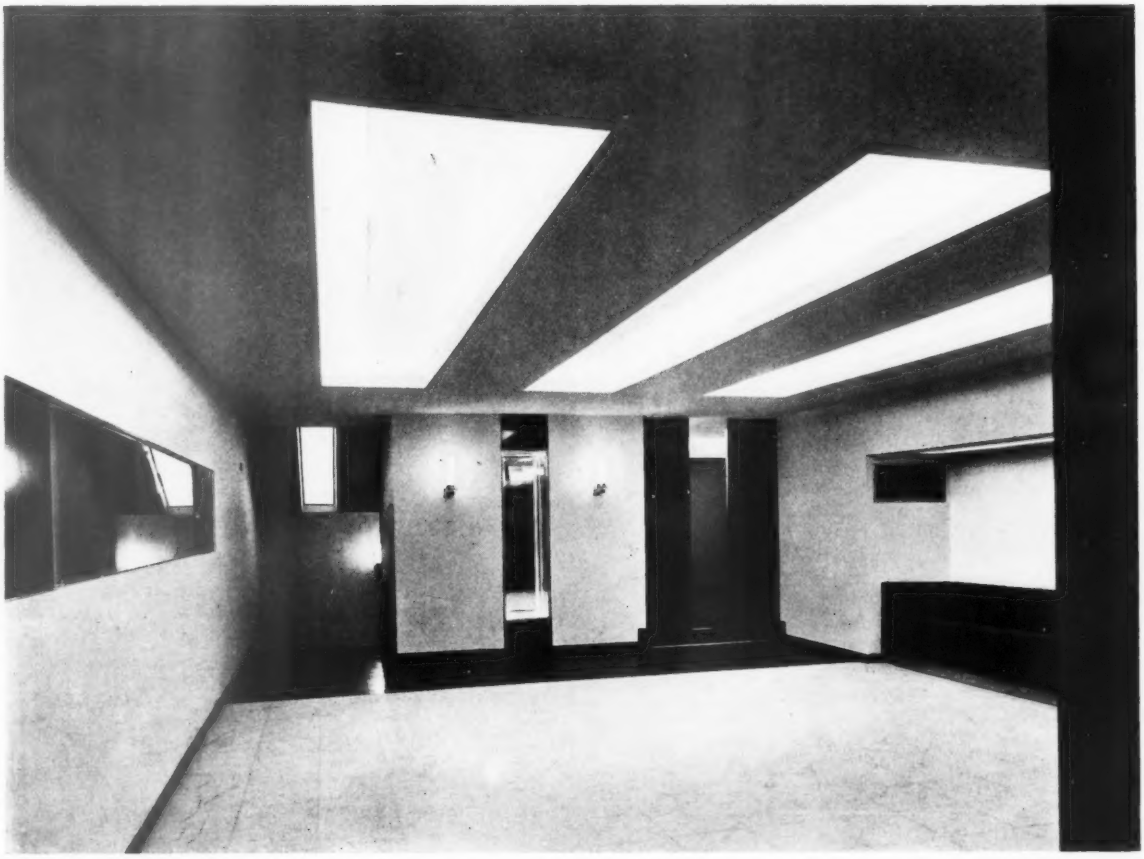
At the top of this page is a general exterior view, looking into the pergola ; on the right is an interior taken from the bedroom and looking across the living-room towards the entrance. For further illustrations and details of the sliding windows see Working Details 475 and 476 on pages 241 and 242 of this issue.

THEATRE IN BUCHAREST:

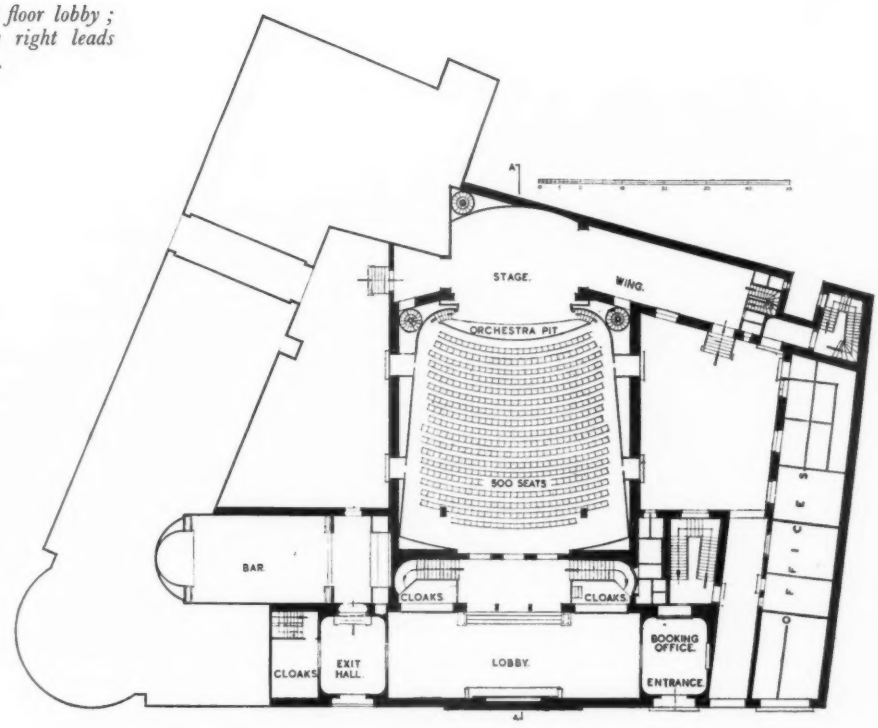


This conversion of an existing building involved a good deal of internal alterations, but little change was made in the exterior. The ground floor consisted largely of shops, which have been converted into the general offices, entrance hall, bar, cloak-rooms and lobbies, and the former lecture hall has been rebuilt as the auditorium, with provision for film projection and a full acting area with a cyclorama for stage performances. At the top of this page is a view of the main entrance hall and cloakrooms; left, a detail of the bar. Walls and ceilings are finished a pale yellow, with black and white marble floors; doors are in walnut with brass furniture.

DESIGNED BY RUDOLF FRAENKEL



Above is a view of the first floor lobby; the curtained door to the right leads through to the circle seating.



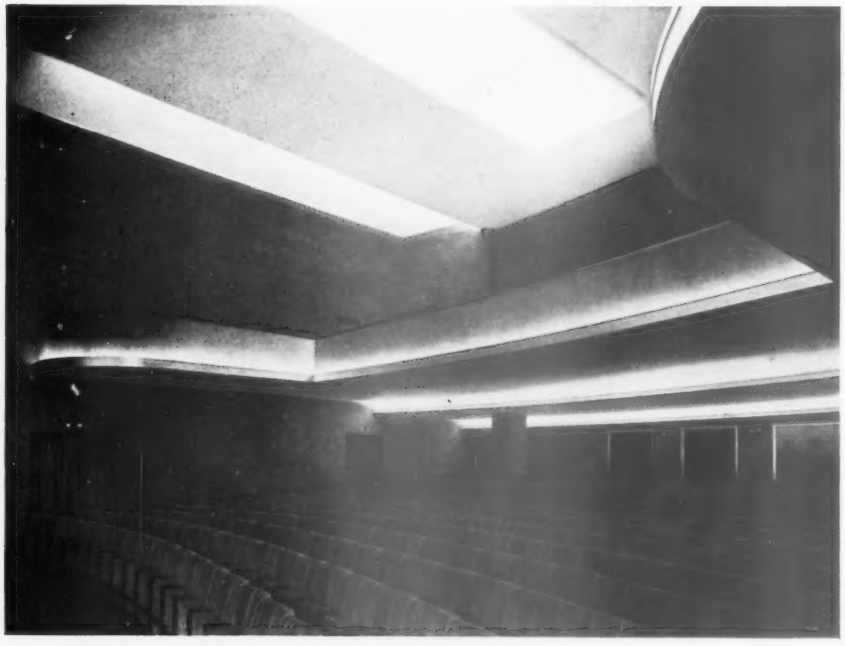
GROUND FLOOR PLAN

THEATRE IN BUCHAREST

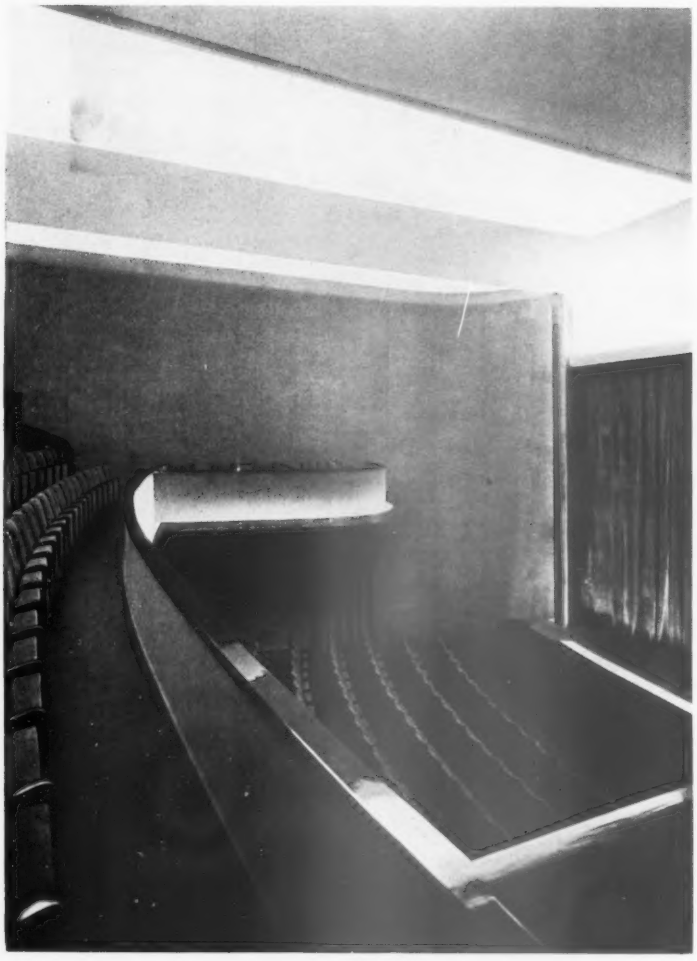
DESIGNED BY

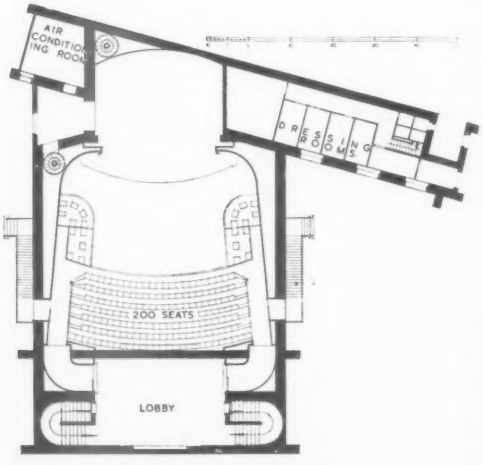
RUDOLF

FRAENKEL

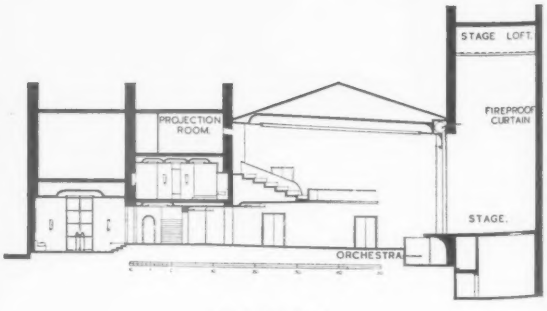


On this page are two views of the auditorium : the walls are orange, with a blue carpet and seat upholstery, while the ceiling is a pale grey. The proscenium opening is framed with a dull brass moulding, and the orchestra pit is in dark walnut ; all lighting is indirect.





CIRCLE PLAN



SECTION

TRADE NOTES

[EDITED BY PHILIP SCHOLBERG]

Copper Conduits for Wiring

A NEW copper conduit system for electric wiring, for which is claimed exceptional mechanical and electrical continuity, combined with cheapness of installation, is described in a booklet recently issued by I.C.I. Metals Limited. This new development is an extension of the application of copper tubes for domestic water services with which I.C.I. Metals have for long been associated.

●

The new Broduit conduit system consists of the adaptation of copper conduits of the requisite thickness and bore to standard malleable iron fittings, using screwed copper adapters for connecting the conduit to the boxes. The actual jointing of the conduit is carried out by sweating the lengths together with a simple copper coupling; an alternative to this is the all-copper conduit system incorporating copper junction and switch boxes.

●

In addition to ease of installation and more certain mechanical and electrical continuity, the new system is stated to offer other advantages over steel tubes for electrical conduit work, notably absence of corrosion risks and reduced weight per foot run. The need for resistance to corrosion is particularly urgent during and immediately following the construction of a building when it is drying out and conduits are wholly or partially filled with water.

●

Comparative tables are given showing the weights per 100 ft. for equivalent sizes of copper and heavy-gauge steel conduit, demonstrating the lower weights involved when copper is used.

●

Electrical continuity tests, undertaken by independent electrical authorities, have shown that, in the event of a fault having to be cleared, the current capacity of copper conduit is about 50 per cent. greater than that of steel, while the electrical resistance of the solder joint is about 55 per cent. of that of the plain length of copper tube.

●

The installation of the copper conduit system presents no difficulties so long as one or two essential points, such as cleanliness, are observed, and the booklet gives full details of installation procedure with clear sketches showing the method of connection to fittings. Installation is simplified by the fact that copper tube is easier to bend than steel, whilst no screwing is necessary.

●

Broduit conduit prices are at present lower than the prices of solid-drawn galvanized or sherardized conduit, and the adoption of the system is stated to effect a saving of anything from 20 per cent. to 30 per cent. in the total labour cost for wiring.

Cast Stone Finishes

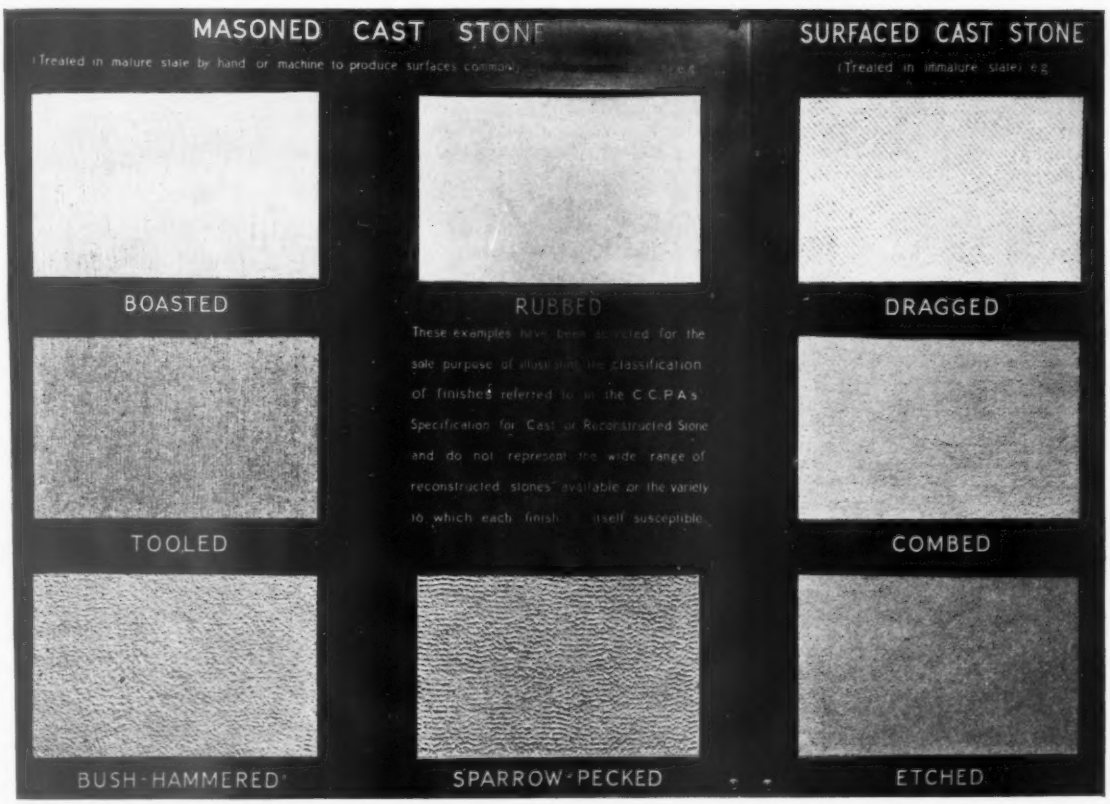
In the specification for cast or reconstructed stone recently published by the Cast Concrete Products Association, an appendix was included with a view to removing the existing ambiguity in regard to finishes. In this appendix cast stone finishes were classified under three headings:

(i) Plain cast stone (untreated after leaving mould).

(ii) Surfaced cast stone (treated in immature state), e.g. :
Dragged.
Combed.
Etched.

(iii) Masoned cast stone (treated in mature state by hand or machine to produce surfaces commonly used for natural stone), e.g. :
Boasted.
Bush-hammered.
Sparrow-pecked.
Tooled.
Rubbed.

Samples illustrating the above classification have now been installed at the Building Centre. It may also be mentioned that the



A sample panel showing the various cast stone finishes which have now been standardised by the Cast Concrete Products Association.

objectionable practice of finishing cast stone by applying a slurry or filling of cement and fine aggregate to the stone after moulding is prohibited under the specification.

Addresses

I.C.I. Metals, Ltd., Kynoch Works, Witton, Birmingham, 6.

The Cast Concrete Products Association, Ltd., 20 Dartmouth Street, London, S.W.1.

IN THAT CONTINGENCY

The following abstracts of enquiries represent a number of those recently submitted to the Building Research Station. The information given in the replies quoted is based on available knowledge. It has to be borne in mind that further scientific investigations may in the course of time indicate directions in which the replies might be supplemented or modified. Moreover, the replies relate to the specific subject of each enquiry, and are not necessarily suitable for general application to all similar problems. [Crown Copyright Reserved.]

Painting on Timber Soaked with Oil

¶ *An architect desired information regarding a decorative treatment for the underside of an open timber joist flooring which had been soaked with oil over a long period.*

It was desired if possible to apply colour direct to the exposed joists, but if no such treatment could be recommended the enquirer wished to be informed of any insulating material which could be applied to the underside of the joists, before ceiling them with a patent wallboard.

The Station is unable to suggest a satisfactory method for removing the oil from the timber, and it is very doubtful whether any treatment could be applied to prevent the penetration of oil to decorations applied direct to the timber. It is possible that two coats of shellac knotting (4 lb. shellac to 1 gall. methylated spirit) would hold back the oil to a considerable extent, but the use of such knotting would probably impair the adhesion of the decorations.

If a ceiling fibre board is employed, insulation might be obtained by means of metal foil or washers of metal or other impervious material placed between the ceiling and the joists and preventing contact between the two. With any of these methods, however, there is risk of the oil penetrating through nail-holes, and the further suggestion is therefore offered that the ceiling should be nailed to wood battens fixed to the underside of the joists, at right-angles to their direction, by means of metal floor-clips. In this way the direct penetration of nails would be avoided and if it appeared the floor were so saturated that oil might run down the clips or drop on to the ceiling further protection by means of shellac knotting might be applied. Alternatively, the ceiling might be formed in a material less liable to damage by oil, for example, steel sheeting or metal-faced plywood.

Sound Transmission Through Floors

¶ *An architect required information with regard to the sound transmission through various types of concrete floors, particularly precast floors.*

The question of the transmission of sound through floors is being investigated and, although the work on this subject is far from completed, the following general comments can be offered with some confidence.

Impact Noises.—The most important consideration in the case of floors is usually the provision of insulation against impact noises, such as footsteps. Generally speaking the noise transmitted to the room below a bare reinforced concrete slab or hollow tile floor, is about as loud as the noise created by the impacts in the room above, and no significant differences are found with different thicknesses of floor. There is good reason to suppose that the same would apply to precast floors of the tubular or "I" beam type or of any other type which provides a rigid link between the upper and lower surfaces.

It may, therefore, be assumed that no type of structural reinforced concrete floor provides in itself any useful insulation against impacts. Such insulation must be obtained by treatment of the upper or lower surface. Although a considerable variety of coverings applied direct to the upper surface have been tried in the course of the investigations in progress, none has proved satisfactory. The softer coverings, such as carpet, are effective against light blows, but of little use against heavy dull blows such as heavy footfalls. Up to the present the only form of treatment found to give satisfactory results against all types of blow is the superposition of a properly designed independent finish "floating" on resilient pads out of rigid contact with the main floor. Certain forms of suspended ceilings give some benefit, but the floating floor is probably to be preferred in that impact vibrations are thereby cut off at their source from the main structure of the building.

The question of the design of floating floors is at present under investigation. Results which it is thought would represent useful insulation in residential buildings have been obtained in the laboratory by supporting a 2 in. concrete slab on 1 in. cubes of rubber spaced at 2 ft. centres. Better results are obtainable, however, with a heavier floating slab and by increasing the space between this slab and the main floor.

Several proprietary systems adopt the floating floor principle, and good results are known to be obtained in some cases.

Air-Borne Noise.—A definite relationship has been found to exist between the weight of a floor or wall, and the insulation it provides against the transmission of air-borne sounds, this being that the insulation afforded is very approximately proportional to the logarithm of the weight per sq. ft. of floor, the heavier the floor the better being the insulation. However, in the range of weights found with most normal thicknesses of solid or hollow reinforced concrete floors, only large increases of weight significantly improve the insulation and it may be said as a rough general approximation that most concrete floors provide insulation of the same order as that given by brickwork 4½ in. thick.

Improvement in the insulation against air-borne sound can be obtained by the introduction of discontinuity in the construction, e.g. by the addition of a floating floor and indeed any measures taken to improve insulation against impacts are likely also to effect an improvement as regards air-borne sound.

It must be remembered, however, that sound is often able to pass from one room to the room below by paths other than directly through the floor.

THE BUILDINGS ILLUSTRATED

WAREHOUSE AND OFFICES, PENTONVILLE ROAD, N. (pages 234 to 237). The general contractors were W. J. Cearns, Ltd. The principal sub-contractors and suppliers included: Automatic Sprinkler Co., Ltd., sprinkler installation; Alfred Bagnall and Sons, Ltd., painting; Davis, Bennett & Co., Ltd., sanitary work; John Booth and Sons (Bolton), Ltd., fireproof doors; J. B. Brooks & Co., Ltd., steel lockers; James Combe and Sons, Ltd., heating and ventilating; Crittall Manufacturing Co., Ltd., metal windows and partitions; F. and E. Eastman, Ltd., tiled flooring; Finlay Conveyor Co., Ltd., bolt hanger sockets; General Asphalte Co., Ltd., asphalte work; Golding and Truelove, handrailing and ladders; Hartley and Sugden, Ltd., Economic boilers; Haskins, steel rolling shutters; W. A. Hole, electrical work; Hollis Bros. & Co., Ltd., wood block flooring; Lamson Store Service Co., Ltd., Lamson tube system; W. and C. Pantin, Ltd., spiral chute; Phœnix Cartage Co., Ltd., excavation; E. Pollard & Co., Ltd., folding partition; St. Mary's Wharf Cartage Co., demolition; Stuart's Granolithic Co., Ltd., granolithic work; Waygood-Otis, Ltd., lifts; A. J. Willson and Sons, storage racks.

HOUSE AT SEALE, SURREY (pages 238 to 240). The general contractors were George Kemp, Stroud & Co. The principal sub-contractors and suppliers included: Henry Parker & Co., Ltd., bricks; Roberts, Adlard & Co., Ltd., tiles and wall tiling; W.T. Lamb and Sons, Ltd., partitions; James Clark and Son, Ltd., vitrolite in bathroom; Aga Heat, Ltd., Aga cooker; Bratt Colbran & Co., Ltd., grates, electric heating and mantels; Best and Lloyd, Ltd., electric light fixtures; Spiers & Co., sanitary fittings and door furniture; Cashmore Art Workers, Ltd., decorative plaster.

PAVILION AT THE ROYAL AGRICULTURAL SHOW, BRISTOL (page 247). The general contractors were Messrs. Stone & Co. (Bristol), Ltd., and the sub-contractors and craftsmen included: Williams and Williams, Ltd., windows; Venesta, Ltd., plywood floor, walls and ceiling; Wood Products, Ltd., Ensonit underlay to roof and floor; J. H. Hall and Sons, glass; Ruberoid, Ltd., roofing.

•

We regret that the names of Messrs. Joseph Sankey and Sons, Ltd., and Messrs. Fordhams Pressings, Ltd., were omitted from the list of contractors for Brae Court, illustrated in our last issue. The former were responsible for the pressed steel door frames and the latter for the pressed steel cisterns.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICT (15 miles radius)

MARYLEBONE. *Crematorium.* The B.C. has obtained sanction to borrow £27,500 for the construction of a crematorium at the East Finchley cemetery.

SOUTHALL. *Baths.* The U.D.C. has approved preliminary plans for the construction of slipper baths in Hartington Road, and the surveyor has been instructed to prepare detailed plans for submission to the Ministry of Health when loan sanctions are applied for.

SOUTHALL. *Library.* The U.D.C. is to make application to the Ministry of Health for sanction to borrow £10,000 for the erection and equipment of the proposed branch library in Jubilee Gardens, Southall.

WOOD GREEN. *Reconstruction.* The Ministry of Health has approved the scheme of the Wood Green Corporation for the reconstruction of the baths at a cost of £16,650.

ENFIELD. *Houses, etc.* Plans passed by the U.D.C.: Re-building premises (shops, offices, etc.), corner of Church Street and Market Place, Enfield, for Mr. N. Martin; steel-framed building, London Plywood Co., Lea Valley Road, Ponders End, for Messrs. Wright, Anderson & Co.; steel-framed building, Enfield Cable Works, for Enfield Cable Works; 23 houses and bungalows, Cadogan Gardens, Grange Park, for New Ideal Homesteads; alterations and additions, 97 Windmill Hill, Enfield, for Mr. Donald Hamilton; 18 houses, Spring Court Road, The Ridgeway, Enfield, for Mr. Williamson: six bungalows, Linkside Gardens, Enfield, for Mr. G. F. Pulford; 139 houses, Pembroke Avenue, for Messrs. W. Goodchild & Co.; new streets and sewers, Slades Rise, Slades Close, for Messrs. Geo. Wimpey & Co.; five houses, Turkey Street, Forty Hill, for Chas. V. Cable; 30 houses, Falcon Crescent, Ponders End, for M. Blade; Chapel of Rest, 249 Hertford Road, Enfield Highway, for G. H. Betts; 41 houses, off Green Street, for Harwood A. Nash; 12 shops and flats, Great Cambridge Road, for L. R. Badcock; 36 flats, Canonbury Road, for E. W. Palmer; milling shed, Bridge Works, Southbury Road, for C. R. Belling; alterations, Railway Inn, Ordnance Road, Enfield Lock, for John T. Stone; 12 houses, Westfield Road, Ponders End, for Mr. G. W. Newman; additions, Robin Hood public-house, The Ridgeway, for McMullen and Sons, Ltd.; 36 houses, Elmer Close, Chase Cottage Estate, Enfield Road, for Geo. Wimpey & Co.; 85 houses, Ladysmith Road, for T. Anders.

CATERHAM. *School.* The Surrey Education Committee has obtained sanction to borrow £19,324 for the erection of a central school at Caterham Valley.

ENFIELD. *Fire Station.* The U.D.C. is considering a site for a fire station in the western portion of the district.

MITCHAM. *Library.* The Council has decided to enlarge the public library by the addition of a new lending department and a children's room. The work is estimated to cost between £9,000 and £10,000.

SOUTH-WESTERN COUNTIES

WEYMOUTH. *Crematorium.* The Corporation has asked the borough surveyor to prepare plans for the construction of a crematorium.

WEYMOUTH. *Houses, etc.* Plans passed by the Corporation: Six houses, Portland Road, for Mr. F. E. Jay; three houses, Faircross estate, for Messrs. Smith and Lander; 14 bungalows, Spa estate, for Mr. A. A. Hayward; two houses, Hetherley Road, for Mr. W. P. George.

WEYMOUTH. *Parking Station.* The Corporation has approved a scheme for the provision of a central parking station, at a cost of £20,000.

SOUTHERN COUNTIES

CHICHESTER. *Houses.* The Chichester R.D.C. proposes to erect 85 houses in different parishes throughout the area.

CHICHESTER. *Cinema.* The Licensing Justices have given approval to plans of a new cinema to be erected in Eastgate Square by the Gaumont British Corporation. The building is to cost £30,000.

DORKING. *Houses.* The U.D.C. is to erect 30 houses at a cost of £10,400.

GUILDFORD. *Development.* Messrs. Clarke, Gammon and Emerys are to develop the Culver House Estate, Epsom Road, Guildford.

HORSHAM. *Houses.* The Housing Committee of the U.D.C. has prepared a scheme for the proposed erection of 73 houses and eight bungalows at an estimated cost of £34,645.

GUILDFORD. *Houses, etc.* Plans passed by the Corporation: Three detached houses, Beechway, off Horseshoe Lane, Merrow, for Messrs. E. A. Moon; alterations and additions, "Trevelyan," Cranley Road, for the Rev. Canon E. Newell; technical college, Stoke Road, for the Surrey County Council Education Department; ten detached houses, "Beechlawn," off Epsom Road, for Mr. L. R. Hiscock; bus shelter, The Drive, corner of Curling Vale, Onslow Village, for Onslow Village, Ltd.; alterations and additions to nursing home, "Glaven" and "Mount Alvernia," Harvey Road, for the Rev. Mother; tyre service station, Woodbridge Road, for the Marsham Tyre Co., Ltd.; three pairs of semi-detached houses, Manor Gardens, for West Surrey Building Estates, Ltd.; four detached houses, Holford Road, Merrow, for the Chapman Building Co.

BEXHILL. *Houses, etc.* Plans passed by the Corporation: Four houses, Hillcrest Road, for Mr. J. E. Maynard; seven houses, Southcliff Avenue, for Mr. R. A. Larkin; ten houses, Glenthorn Road, and four flats, Chantry Lane, for Mr. E. Bunce; four houses, Uplands Gardens, for Mr. R. W. Moore; additions, St. Mary Magdalen School, for Mr. Marshall Wood; cinema, Buckhurst Road, for Messrs. Verity and Beverley, on behalf of Union Cinema Co., Ltd.; six bungalows, Glyne Farm Estate, for Mile Oak Estates, Ltd.; six houses, Willingdon Avenue, for Mr. H. H. Ford; alterations, Albany Hotel, for Mr. Cane; 12 houses, Bancroft Road, for Mr. H. Beard.

MIDLAND COUNTIES

BIRMINGHAM. *Extension.* The Corporation has obtained sanction for a loan of £10,385 for the extension of the wholesale fruit and vegetable market.

LINCOLN. *Extensions.* The Corporation is to extend the gas works at a cost of £28,250.

WOLVERHAMPTON. *Developments, etc.* Plans passed by the Corporation: Development, St. Catherine's estate, Penn, for Mr. A. N. Bloxham; hotel, Bushbury Lane, for Atkinsons Brewery, Ltd.; 156 houses, Green Lane, Aldersey, for Brian Construction Co.; development, Buttons Farm estate, Penn Road, for Messrs. Joynson Bros.; six houses, off Pinfold Lane, for Mr. H. Grindley; two houses, Alexandra Road, for Mrs. A. Barber; four houses, Sherbourne Road, for Mr. A. J. Fieldhouse; six houses, Penn Road, for Mr. C. M. Jones; stores extensions, Clifton Street, for Messrs. C. Clark and Sons, Ltd.; two houses, Buttons Farm estate, Penn Road, for Messrs. T. and S. Ham; Turkish baths, Bath Avenue, for Corporation Baths Committee; six houses, Uplands Farm estate, for Mr. J. V. Powell; two houses, Wychbury Road, for Mr. O. Denning; alterations, 41 Lichfield Street, for Wolverhampton Building Society; four houses, off Pinfold Lane, for Messrs. E. Hallett and Sons; three houses, Finchfield Lane, for Mr. R. G. Carpenter; estate development, Bhylls Lane, for Messrs. Annan and Jones.

NORTHERN COUNTIES

HULL. *School buildings.* The Hull Education Committee is to erect new buildings for the Riley High School on a site east of the River Hull.

LEEDS. *Industrial Premises.* Messrs. Braithwaite and Jackman, architects, are to erect industrial premises for Messrs. Walmsley and Mandale in Gelderd Road and Brown Lane, Leeds.

LEEDS. *Schools.* The Leeds Education Committee has acquired sites on the Halton Moor estate for the erection of two elementary schools.

MANCHESTER. *Extensions.* The Manchester Corporation Transport Committee is to extend the bus garage accommodation at a cost of £82,000.

ROTHERHAM. *Extensions.* The Corporation is to extend the power station at a cost of £195,000.

ROTHERHAM. *School.* The Education Committee is to proceed with the erection of a central school for 750 at Clough Bank.

RUSHOLME. *School.* The governors of the Manchester High School for Girls are to erect new premises at Grangethorpe, Rusholme, at a cost of £50,000.

SHEFFIELD. *Houses, etc.* Plans passed by the Corporation: Three houses, Foxhill Road, for Mr. J. E. Tommason; two houses, off Bocking Lane, for Mr. James Mander; mission hall, Blackbrook Road, for Rev. L. C. Peto; two cinemas, Bradfield Road and Holme Lane, for Mr. J. F. Emery; estate development, Dore Lane, for Chatsworth Estate Co.; four houses, Green Oaks Road, for Mr. R. E. Sheard; two houses, May Road, for Messrs. Booth Bros.; 34 houses, Far View Road, for Mr. H. Simpson; four houses, Knowle Lane, for Mr. R. S. Hutchinson; two houses, Beauchief Rise, for Mr. A. Yeardley; 16 houses, Gleadless Road, for Mr. W. Croft; four houses, Bannerdale Road, for Mr. H. E. Mottram; six houses, Malton Street, for Mr. V. Clamp; two houses, Marsh House Road, for Mr. G. M. Taylor; 14 houses, Farm Bank Road, for Messrs. A. and E. Tate; four houses, Chorley Drive, for Mr. J. W. Sivil; 258 houses, Parsons Cross estate, for Corporation Estates Committee; 142 houses, off Seagrave Road, for Mr. E. Cooper; 12 houses, Norton Lees Crescent, for Messrs. F. B. Skinner and Sons, Ltd.; 10 houses, Benty Lane, for Mr. A. Spooner; two houses, Lismore Road, for Mr. C. H. Beardow; four houses, Walkley Bank Road, for Mr. J. Samuel; 27 houses, Allenby Drive, for Messrs. Wright and Walton; six houses, Old Park Road, for Mr. F. H. Undrell; two houses, Dobcroft Road, for Mr. G. H. Abey; shop and house, Cullabine Road, for Mr. H. Hirst; 16 houses, High Storrs Rise, for Messrs. M. J. Gleeson, Ltd.; six houses, Hallam Grange Road, for Mr. H. Newton; 12 houses, Bannerdale Road, for Mr. W. Wright; two houses, Cockshutt Road, for Mr. W. Redmile; five houses, Mulehouse Road, for Mr. F. Ridal; eight houses, Hinde House Lane, for Messrs. J. Copley and Sons, Ltd.

SOUTH SHIELDS. *School.* The Roman Catholic authorities are to erect an elementary school at Harton, South Shields.

SOUTH SHIELDS. *School.* The South Shields Education Committee has approved plans for the erection of a senior school at Cleadon Park.

SOUTH SHIELDS. *Extensions, etc.* Plans passed by the Corporation: Extensions, 78 Cuthbert Street, for Sansinema Meat Co.; three houses, South Taylor Street, for Mr. F. Buffham; shop and house, Prince Edward Road, for Mr. Howard Hill; alterations, Wheatsheaf Hotel, Fowler Street, and extensions, Victoria bottling stores, Green Lane, for Messrs. T. A. Page, Son and Bradbury; dressing rooms, Greyhound Stadium, Horsley Hill, for South Shields Football Club.

WALLASEY. *School.* The Wallasey Education Committee has approved revised plans for the erection of an elementary school at East Way, Moreton.

RATES OF WAGES

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

			I s. d.	II s. d.
A_1	ABERDARE ...	S. Wales & M.	1 5½	1 1½
A	Aberdeen ...	Scotland	1 6½	1 2
A_1	Abergavenny ...	S. Wales & M.	1 6	1 1½
A_3	Abingdon ...	S. Counties	1 5	1 0½
A	Accrington ...	N.W. Counties	1 6½	1 2
A_3	Addlestone ...	S. Counties	1 5	1 0½
A	Adlington ...	N.W. Counties	1 6½	1 2
A	Airdrie ...	Scotland	*1 6½	1 2
C	Ableburgh ...	E. Counties	1 2½	11
A	Altrincham ...	N.W. Counties	1 6½	1 2
B_3	Appleby ...	N.W. Counties	1 3	11½
A	Ashton-under-Lyne	N.W. Counties	1 6½	1 2
B_1	Aylesbury ...	S. Counties	1 4	1 0
B_1	BANBURY ...	S. Counties	1 4	1 0
B_1	Bangor ...	N.W. Counties	1 4	1 0
A_3	Barnard Castle	N.E. Coast	1 5	1 0½
A	Barnsley ...	Yorkshire	1 6½	1 2
B	Barnstaple ...	S.W. Counties	1 4½	1 0½
A	Barrow ...	N.W. Counties	1 6½	1 2
A	Barry	S. Wales & M.	1 6½	1 2
B_1	Basingstoke ...	S.W. Counties	1 4	1 0
A_2	Bath	S.W. Counties	1 5½	1 1½
A	Batley ...	Yorkshire	1 6½	1 2
A_2	Bedford ...	E. Counties	1 5½	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 5½	1 1½
A_2	Bewdley ...	Mid. Counties	1 5½	1 1½
B_3	Bicester ...	S. Counties	1 3	11½
A	Birkenhead ...	N.W. Counties	*1 7½	1 2½
A	Birmingham ...	Mid. Counties	1 6½	1 2
A_1	Bishop Auckland	N.E. Coast	1 6	1 1½
A	Blackburn ...	N.W Counties	1 6½	1 2
A	Blackpool ...	N.W. Counties	1 6½	1 2
A	Blyth	N.E. Coast	1 6½	1 2
B_1	Bognor ...	S. Counties	1 4	1 0
A	Bolton ...	N.W. Counties	1 6½	1 2
A_2	Boston ...	Mid. Counties	1 5	1 0½
A_2	Bournemouth...	S. Counties	1 5½	1 1½
B_3	Bovey Tracey	S.W. Counties	1 3½	11½
A	Bradford ...	Yorkshire	1 6½	1 2
A_1	Brentwood ...	E. Counties	1 6	1 1½
A	Bridgend ...	S. Wales & M.	1 6½	1 2
B	Bridgwater ...	S.W. Counties	1 4½	1 0½
A_1	Bridlington ...	Yorkshire	1 6	1 1½
A	Brighouse ...	Yorkshire	1 6½	1 2
A_2	Brighton ...	S. Counties	1 5½	1 1½
A	Bristol ...	S.W. Counties	1 6½	1 2
B	Brixham ...	S.W. Counties	1 3½	11½
A	Bromsgrove ...	Mid. Counties	1 5½	1 1½
B	Bromyard ...	Mid. Counties	1 3	11½
A	Burnley ...	N.W. Counties	1 6½	1 2
A	Bursiem ...	Mid. Counties	1 6½	1 2
A	Burton-on-Trent	Mid. Counties	1 6½	1 2
A	Bury	N.W. Counties	1 6½	1 2
A	Buxton ...	N.W. Counties	1 6	1 1½
A_1	CAMBRIDGE	E. Counties	1 6	1 1½
B_1	Canterbury ...	S. Counties	1 4	1 0
A*	Cardiff ...	S. Wales & M.	1 6½	1 2
A	Carlisle ...	N.W. Counties	1 6½	1 2
B	Carmarthen ...	S. Wales & M.	1 4½	1 0½
B	Carnarvon ...	N.W. Counties	1 4½	1 0½
A	Carnforth ...	N.W. Counties	1 6½	1 2
A	Castleford ...	Yorkshire	1 6½	1 2
A_3	Chatham ...	S. Counties	1 5	1 0½
A	Chelmsford ...	E. Counties	1 5	1 0½
A	Cheltenham ...	S.W. Counties	1 5	1 0½
A	Chester ...	N.W. Counties	1 6½	1 2
A	Chesterfield ...	Mid. Counties	1 6½	1 2
B_1	Chichester ...	S. Counties	1 4	1 0
A	Chorley ...	N.W. Counties	1 6½	1 2
B_1	Cirencester ...	S. Counties	1 4	1 0
A	Clitheroe ...	N.W. Counties	1 6½	1 2
A	Clydebank ...	Scotland	1 6½	1 2
A	Coalville ...	Mid. Counties	1 6½	1 2
A_2	Colchester ...	E. Counties	1 5½	1 1½
A	Colne	N.W. Counties	1 6	1 1½
A_2	Colwyn Bay ...	N.W. Counties	1 5½	1 1½
A_1	Consett ...	N.E. Coast	1 6	1 1½
A_2	Conway ...	N.W. Counties	1 5½	1 1½
A	Coventry ...	Mid. Counties	1 6½	1 2
A_2	Crewe	N.W. Counties	1 5½	1 1½
A	Cumberland ...	N.W. Counties	1 5	1 0½
A	DARLINGTON	N.E. Coast	1 6½	1 2
A	Darwen ...	N.W. Counties	1 6½	1 2
B	Deal	S. Counties	1 4	1 0
A_2	Denbigh ...	N.W. Counties	1 5	1 0½
A	Derby	Mid. Counties	1 6½	1 2
A	Dewsbury ...	Yorkshire	1 6½	1 2
B	Didcot ...	S. Counties	1 4½	1 0½
A	Doncaster ...	Yorkshire	1 6½	1 2
B_1	Dorchester ...	S.W. Counties	1 4	1 0
A	Driffield ...	Yorkshire	1 5	1 0½
A_2	Droitwich ...	Mid. Counties	1 5½	1 1½
A	Dudley ...	Mid. Counties	1 6½	1 2
A_2	Dumfries ...	Scotland	1 6	1 1½
A	Dundee ...	Scotland	1 6½	1 2
A	Durham ...	N.E. Coast	1 6½	1 2
A_2	EASTBOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale ...	S. Wales & M.	1 6	1 1½
A	Edinburgh ...	Scotland	1 6½	1 2
A_2	Exeter ...	S.W. Counties	*1 5½	1 1½
B	Exmouth ...	S.W. Counties	1 4½	1 0½
A_2	FELIXSTOWE	E. Counties	1 5	1 0½
A	Filey	Yorkshire	1 5	1 0½
A	Fleetwood ...	N.W. Counties	1 6½	1 2
B_1	Folkestone ...	S. Counties	1 4	1 0
A	Frodsham ...	N.W. Counties	1 6½	1 2
B_3	Frome ...	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 6½	1 2
B	Gillingham ...	S. Counties	1 4½	1 0½
A_1	Glamorgan-shire, Rhondda Valley District ...	S. Wales & M.	1 6	1 1½
A	Glasgow ...	Scotland	1 7	1 2½
A_2	Gloucester ...	S.W. Counties	1 5½	1 1½
A_2	Goole ...	Yorkshire	1 5½	1 1½
A_2	Gosport ...	S. Counties	1 5½	1 1½
A_2	Grantham ...	Mid. Counties	1 5	1 0½
A_1	Gravesend ...	S. Counties	1 6	1 1½
A	Greenock ...	Scotland	*1 6½	1 2
A	Grimsby ...	Mid. Counties	1 6½	1 2
B	Guildford ...	S. Counties	1 4½	1 0½
A	HALIFAX ...	Yorkshire	1 6½	1 2
A	Hanley ...	Mid. Counties	1 6½	1 2
A	Harrogate ...	Yorkshire	1 6½	1 2
A	Hartlepools ...	N.E. Coast	1 6½	1 2
B	Harwich ...	E. Counties	1 4½	1 0½
B_1	Hastings ...	S. Counties	1 4	1 0
A_2	Hatfield ...	S. Counties	1 5½	1 1½
B	Hereford ...	S.W. Counties	1 4½	1 0½
A_2	Hertford ...	E. Counties	1 5½	1 1½
A	Heysham ...	N.W. Counties	1 6½	1 2
A	Howden ...	N.E. Coast	1 6½	1 2
A	Huddersfield ...	Yorkshire	1 6½	1 2
A	Hull	Yorkshire	1 6½	1 2
A	ILKLEY ...	Yorkshire	1 6½	1 2
A	Immingham ...	Mid. Counties	1 6½	1 2
A_2	Ipswich ...	E. Counties	1 5½	1 1½
B_2	Isle of Wight ...	S. Counties	1 4½	1 0½
A	JARROW ...	N.E. Coast	1 6½	1 2
A	KEIGHLEY ...	Yorkshire	1 6½	1 2
A_2	Kendal ...	N.W. Counties	1 5	1 0½
A	Keswick ...	N.W. Counties	1 5	1 0½
A_1	Kettering ...	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 5½	1 1½
B_1	King's Lynn ...	E. Counties	1 4	1 0
A	LANCASTER ...	N.W. Counties	1 6½	1 2
A_1	Leamington ...	Mid. Counties	1 6	1 1½
A	Leeds	Yorkshire	1 6½	1 2
A	Leek	Mid. Counties	1 6½	1 2
A	Leicester ...	Mid. Counties	1 6½	1 2
A	Leigh	N.W. Counties	1 6½	1 2
B	Lewes	S. Counties	1 3	11½
A_3	Lichfield ...	Mid. Counties	1 5½	1 1½
A	Lincoln ...	Mid. Counties	1 6½	1 2
	Liverpool ...	N.W. Counties	*1 8	1 3
A_2	Llandudno ...	N.W. Counties	1 5½	1 1½
A	Llanelly ...	S. Wales & M.	1 6½	1 2
	London (12-miles radius)		1 8	1 3
	Do. (12-15 miles radius)		1 7½	1 2½
A	Long Eaton ...	Mid. Counties	1 6½	1 2
A	Loughborough	Mid. Counties	1 6½	1 2
A_1	Luton	E. Counties	1 6	1 1½
A	Lytham ...	N.W. Counties	1 6½	1 2
A_1	MACCLESFIELD	N.W. Counties	1 6	1 1½
A_3	Maidstone ...	S. Counties	1 5	1 0½
A_3	Malvern ...	Mid. Counties	1 5	1 0½
A	Manchester ...	N.W. Counties	1 6½	1 2
A	Mansfield ...	Mid. Counties	1 6½	1 2
B_1	Margate ...	S. Counties	1 4	1 0
A	Matlock ...	Mid. Counties	1 5	1 0½
A_1	Merthyr ...	S. Wales & M.	1 6	1 1½
A	Middlesbrough	N.E. Coast	1 6½	1 2
A_2	Middlewich ...	N.W. Counties	1 5½	1 1½
B_3	Minehead ...	S.W. Counties	1 3½	11½
B_2	Monmouth ... & S. and E. Glamorganshire	S. Wales & M.	1 3½	11½
A	Morecambe ...	N.W. Counties	1 6½	1 2
A_2	NANTWICH ...	N.W. Counties	1 5½	1 1½
A	Neath	S. Wales & M.	1 6½	1 2
A	Nelson ...	N.W. Counties	1 6½	1 2
A	Newcastle ...	N.E. Coast	1 6½	1 2
A	Newport ...	S. Wales & M.	1 6½	1 2
A	Normanton ...	Yorkshire	1 6½	1 2
A	Northampton...	Mid. Counties	1 6½	1 2
A	North Shields...	N.E. Coast	1 6½	1 2
A	North Staffs ...	Mid. Counties	1 6½	1 2
A_1	Norwich ...	E. Counties	1 6	1 1½
A	Nottingham ...	Mid. Counties	1 6½	1 2
A	Nuneaton ...	Mid. Counties	1 6½	1 2
A	OAKHAM ...	Mid. Counties	1 5	1 0½
A	Oldham ...	N.W. Counties	1 6½	1 2
A_2	Oswestry ...	N.W. Counties	1 5	1 0½
A_1	Oxford ...	S. Counties	1 6	1 1½
A	PAISLEY ...	Scotland	*1 6½	1 2
B_1	Pembroke ...	S. Wales & M.	1 3	11½
A	Perth	Scotland	*1 6½	1 2
A_1	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ...	S.W. Counties	*1 6½	1 2
A	Pontefract ...	Yorkshire	1 6½	1 2
A_1	Pontypridd ...	S. Wales & M.	1 6	1 1½
A_2	Portsmouth ...	S. Counties	1 5½	1 1½
A	Preston ...	N.W. Counties	1 6½	1 2
A	QUEENSFERRY	N.W. Counties	1 6½	1 2
A_2	READING ...	S. Counties	1 5½	1 1½
B	Reigate ...	S. Counties	1 4½	1 0½
A	Retford ...	Mid. Counties	1 5	1 0½
A_1	Rhondda Valley	S. Wales & M.	1 6	1 1½
A	Ripon	Yorkshire	1 5	1 0½
A	Rochdale ...	N.W. Counties	1 6½	1 2
B	Rochester ...	S. Counties	1 4½	1 0½
A_1	Ruabon ...	N.W. Counties	1 6	1 1½
A	Rugby ...	Mid. Counties	1 6½	1 2
A_2	Rugeley ...	Mid. Counties	1 5½	1 1½
A	Runcorn ...	N.W. Counties	1 6½	1 2
A_1	ST. ALBANS ...	E. Counties	1 6	1 1½
A	St. Helens ...	N.W. Counties	1 6½	1 2
B_3	Salisbury ...	S.W. Counties	1 3½	11½
A_1	Scarborough ...	Yorkshire	1 6	1 1½
A	Scunthorpe ...	Mid. Counties	1 6½	1 2
A	Sheffield ...	Yorkshire	1 6½	1 2
A	Shipley ...	Yorkshire	1 6½	1 2
A_2	Shrewsbury ...	Mid. Counties	1 5½	1 1½
A_2	Skipton ...	Yorkshire	1 5½	1 1½
A_2	Slough ...	S. Counties	1 5½	1 1½
A_1	Solihull ...	Mid. Counties	1 6	1 1½
A_2	Southampton ...	S. Counties	1 5½	1 1½
A_1	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ...	N.W. Counties	1 6½	1 2
A	S. Shields ...	N.E. Coast	1 6½	1 2
A_1	Stafford ...	Mid. Counties	1 6	1 1½
A	Stirling ...	Scotland	1 7	1 2½
A	Stockport ...	N.W. Counties	1 6½	1 2
A	Stockton-on-Tees	N.E. Coast	1 6½	1 2
A	Stoke-on-Trent	Mid. Counties	1 6½	1 2
B	Stroud	S.W. Counties	1 4½	1 0½
A	Sunderland ...	N.E. Coast	1 6½	1 2
A	Swansea ...	S. Wales & M.	1 6½	1 2
A	Swindon ...	S.W. Counties	1 5	1 0½
A_1	TAMWORTH ...	N.W. Counties	1 6	1 1½
B	Taunton ...	S.W. Counties	1 4½	1 0½
A	Teesside Dist....	N.E. Counties	1 6½	1 2
A	Teignmouth ...	S.W. Coast	1 5½	1 1½
A	Todmorden ...	Yorkshire	1 6½	1 2
A_1	Torquay ...	S.W. Counties	1 6	1 1½
B_2	Truro	S.W. Counties	1 3½	11½
A_3	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ...	Mid. Counties	1 6½	1 2
A	Tyne District	N.E. Coast	1 6½	1 2
A	WAKEFIELD	Yorkshire	1 6½	1 2
A	Walsall ...	Mid. Counties	1 6½	1 2
A	Warrington ...	N.W. Counties	1 6½	1 2
A_1	Warwick ...	Mid. Counties	1 6	1 1½
A_1	Wellingborough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 6½	1 2
A_2	Weston-s.-Mare	W. Counties	1 5½	1 1½
A_2	Whitby ...	Yorkshire	1 5½	1 1½
A	Widnes ...	N.W. Counties	1 6½	1 2
A	Wigan ...	N.W. Counties	1 6½	1 2
B	Winchester ...	S. Counties	1 4½	1 0½
A_2	Windsor ...	S. Counties	1 5½	1 0½
A	Wolverhampton	Mid. Counties	1 6½	1 2
A_2	Worcester ...	Mid. Counties	1 5½	1 1½
A_2	Worksop ...	Yorkshire	1 5	1 0½
A_1	Wrexham ...	N.W. Counties	1 6	1 1½
A	Wycombe ...	S. Counties	1 5	1 0½
B	YARMOUTH ...	E. Counties	1 4½	1 0½
B	Yeovil ...	S.W. Counties	1 4½	1 0½
A	York	Yorkshire	1 6½	1 2

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

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

CURRENT PRICES

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

WAGES

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

MATERIALS

EXCAVATOR AND CONCRETOR

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

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

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

BRICKLAYER

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

MASON

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

SLATER AND TILER

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

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

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	" "			5
" " 2nds	" "			4
Mahogany, Honduras	" "		1	3
" African	" "		1	1
" Cuban	" "		2	6
Oak, plain American	" "		1	0
" Figured "	" "		1	3
" plain Japanese	" "		1	2
" Figured "	" "		1	5
" Austrian wainscot	" "		1	6
" English	" "		1	11
Pine, Yellow	" "		1	0
" Oregon	" "			4
" British Columbian	" "			4
Teak, Moulmein	" "		1	3
" Burma	" "		1	2
Walnut, American	" "		2	3
" French	" "		2	3
Whitewood, American	" "		1	1
Deal floorings, ¾"	Sq.		18	6
" 1"	"	1	1	6
" 1¼"	"	1	2	0
" 1½"	"	1	5	0
" 1¾"	"	1	10	0
Deal matchings, ¾"	"		14	0
" 1"	"		15	6
" 1¼"	"	1	4	0
Rough boarding, ¾"	"		16	0
" 1"	"		18	0
" 1¼"	"	1	6	0

Plywood, per ft. sup.

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

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings

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

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

Discounts

TUBES.

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

FITTINGS.

Gas	57½	Galvanized gas	47½
Water	52½	" water	42½
Steam	47½	" steam	37½

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

SMITH AND FOUNDER—*continued*

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

		¾" s.	¾" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.				8 10
Shoes	each	2	0	3	0
Anti-splash shoes	"	4	6	8	0
Boots	"	3	0	4	0
Bends	"	2	7	3	9
" with access door	"		—	6	3
Heads	"	4	0	5	0
Swan-necks up to 9" offsets	"	3	9	6	0
Plinth bends, 4½" to 6"	"	3	9	5	3

		3" s.	3" d.	4" s.	4" d.	6" s.	6" d.
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6		6
Stop ends	each		6		6		6
Angles	"	1	7	1	11		
Obtuse angles	"	2	0	2	6		
Outlets	"	1	9	2	3		

PLUMBER

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

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

PLASTERER

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

GLAZIER

Sheet glass, 21 oz., squares n/e 2 ft.	s.	d.	s.	d.
" " 26 oz. " "				
Flemish, Arctic, Figures (white)*				
Blazoned glasses			2	
Reeded: Cross Reeded				1
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite				6
Crown sheet glass (n/e 12" × 10")			2	0
Flashed opals (white and coloured)	1	0	and 2	0
¼" rough cast; rolled plate				
¼" wired cast; wired rolled				
¼" Georgian wired cast				11
¼" Polished plate, n/e 1 ft.	†10 to ‡1		1	
" " 2 "	†1 2 " ‡1		4	
" " 4 "	†2 3 " ‡2		6	
" " 8 "	†2 9 " ‡3		2	
" " 20 "	†3 1 " ‡3		9	
" " 45 "	†3 3 " ‡4		0	
" " 100 "	†4 0 " ‡4		10	
Vita glass, sheet, n/e 1 ft.			1	0
" " " 2 ft.			1	3
" " " over 2 ft.			1	9
" " plate, n/e 1 ft.			1	6
" " " 2 ft.			3	0
" " " 5 ft.			4	0
" " " 7 ft.			5	0
" " " 15 ft.			6	0
" " " over 15 ft.			7	6
"Calorex" sheet 21 oz., and 32 oz.	2	6	and 3	6
" rough cast ¼" and ½"			⅝ " 1	0
Putty, linseed oil	lb.			3

* *Colours, 1d. F.S. extra.*

† *Ordinary glazing quality.* ‡ *Selected glazing quality.*

PAINTER

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

CURRENT PRICES FOR MEASURED WORK

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

EXCAVATOR AND CONCRETOR

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

DRAINLAYER

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

BRICKLAYER

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

ASPHALTER

		s. d.
½″ Horizontal dampcourse	Y.S.	4 9
½″ Vertical dampcourse	,,	7 9
¾″ paving or flat	,,	6 3
1″ paving or flat	,,	7 6
1″ × 6″ skirting	F.R.	1 0
Angle fillet	,,	2½
Rounded angle	,,	2½
Cesspools	Each	5 6

MASON

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

SLATER AND TILER

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

CARPENTER AND JOINER

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

CARPENTER AND JOINER—*continued*

		s. d.
1½″ deal moulded sashes of average size	F.S.	1 9½
2″ ,, ,, ,, ,,	,,	1 11½
1½″ deal cased frames double hung, of 6″ × 3″ oak sills, 1¼″ pulley stiles, 1¼″ heads, 1″ inside and outside linings, ⅝″ parting beads, and with brass faced axle pulleys, etc., fixed complete	,,	3 7
2″ ,, ,, ,, ,,	,,	3 10
Extra only for moulded horns	Each	6
1½″ deal four-panel square, both sides, door	F.S.	2 0
2″ ,, ,, ,, ,,	,,	2 8
1½″ ,, but moulded both sides	,,	2 4
2″ ,, ,, ,, ,,	,,	3 0
4″ × 3″ deal, rebated and moulded frames	F.R.	1 0
4½″ × 3½″ ,, ,, ,,	,,	1 4
1½″ deal tongued and moulded window board, on and including deal bearers	F.S.	1 9
1½″ deal treads, 1″ risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	2 6
1½″ deal moulded wall strings	,,	2 1
1½″ ,, outer strings	,,	2 4
Ends of treads and risers housed to string	Each	1 9
3″ × 2″ deal moulded handrail	F.R.	1 3
1″ × 1″ deal balusters and housing each end	Each	2
1¼″ × 1¼″ ,, ,, ,,	,,	2 9
3″ × 3″ deal wrought framed newels	F.R.	1 3
Extra only for newel caps	Each	6
Do., pendants	,,	6 0

SMITH AND FOUNDER

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

PLUMBER

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

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

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

PLASTERER AND TILING

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

GLAZIER

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

PAINTER

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

Supp

THE

• TU
COM

com
sele
burn
fibre
Port
stru
in ro
clos

four
inter

TYI
OF

Con

Flat

Stan
for

1/8 R

con

FUL
DE
STA
SID

1/4

NO

INF
SIR JO

INF

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

· TURNALL · ASBESTOS-CEMENT TRAFFORD ROOF TILES : PROPERTIES AND USES:

COMPOSITION & DESIGN : Trafford tiles are composed of specially selected and treated non-burning mineral rock fibre in conjunction with Portland cement, the structure being built up in rolling mills to form closely integrated layers. Each tile comprises four corrugations with intervening flats.

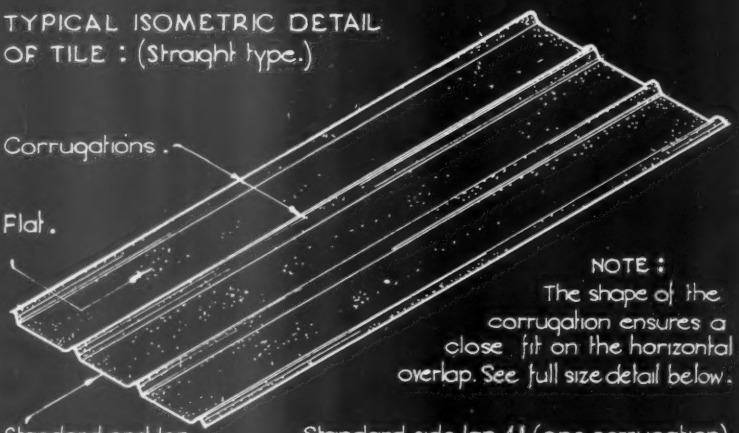
SIZE & COLOUR: Tiles are manufactured in standard widths of 3'8", and in lengths up to 10'0" in 6" rises, with a constant thickness of 1/4". Standard colours are Grey, Red and Russet-Brown.

FIXING : The fixing of Trafford tiles depends on the type of construction and the detailed application. Corrugations are drilled on the job. For the reception of hook or roof-bolts, driving screws, clips, etc, as required, see later Information Sheets of this series.

FITTINGS : A wide range of asbestos-cement ridge, hip, and special roof fittings are manufactured. For use in conjunction with the tiles, see further Information Sheets of this series.

FINISH & MAINTENANCE: The exposed surface of all tiles and fittings is permanently smooth and does not require painting or other maintenance. For use in acid atmospheres, tiles may be supplied treated with black acid-resisting bitumen solution.

TYPICAL ISOMETRIC DETAIL OF TILE : (Straight type.)



NOTE : The shape of the corrugation ensures a close fit on the horizontal overlap. See full size detail below.

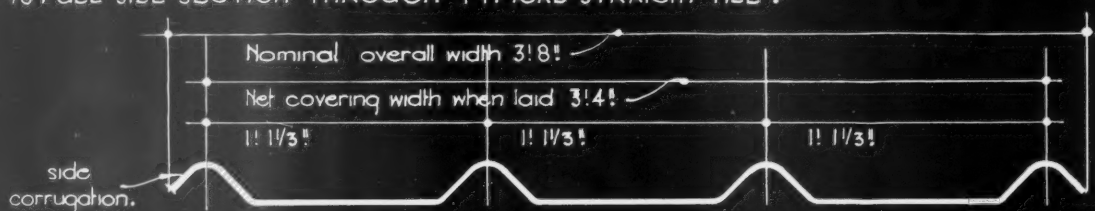
Standard side lap 4" (one corrugation), see sectional details below.

WEIGHT OF ROOFING : The weight of 100 square feet of laid roofing is approximately 304 lbs. NOTE · 13·03 square yards of tiling covers 100 square feet.

PURLIN SPACING : All sizes of tile are designed for a maximum purlin spacing of 4'6" centres, wood or steel. For side cladding & gable work the rails may be spaced up to 6'0" centres.

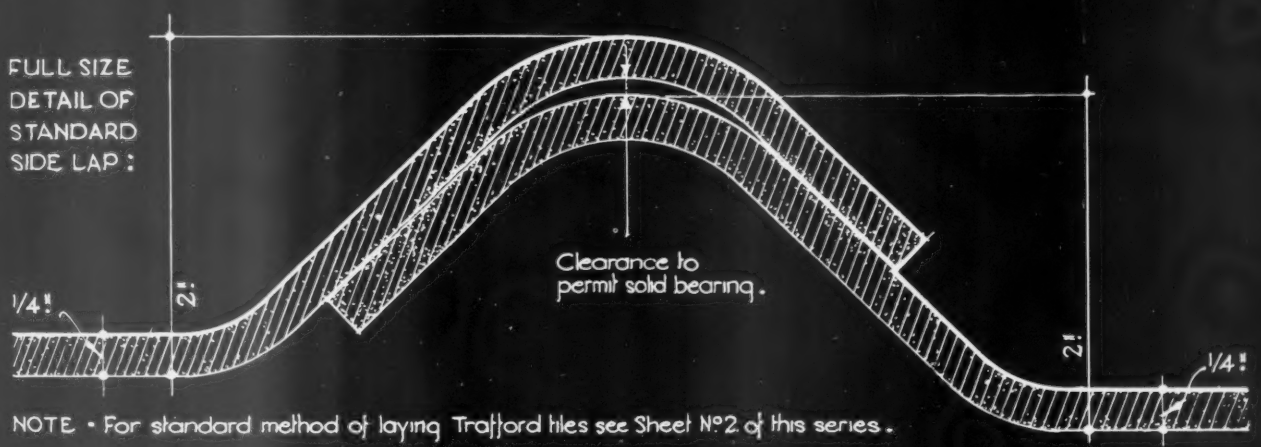
CURVED TILES: For elliptical and semi-circular roofs, tiles curved to a minimum radius of 4'6" are obtainable in lengths up to 10'0". Curved-ended tiles for mansard, ventilators, and abutment work are made to any radius.

1/8 FULL SIZE SECTION THROUGH TYPICAL STRAIGHT TILE :



NOTE The covering efficiency of each size of tile is 89% of its gross area.

FULL SIZE DETAIL OF STANDARD SIDE LAP :



NOTE · For standard method of laying Trafford tiles see Sheet N°2 of this series.

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

INFORMATION SHEET : ASBESTOS-CEMENT ROOFING TILES : N°1.

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

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 394 •

ASBESTOS CEMENT ROOFING TILES—I

General

This is the first of a series of Sheets relating to the various uses of asbestos-cement products in general building construction, and deals with roofing tiles. Subsequent Sheets will set out the laying and fixing and the range of asbestos-cement roof fittings for use in conjunction with the tiles.

Material

"Turnall" Asbestos-Cement Trafford Tiles are milled from a combination of British Standard Specification Portland cement and natural mineral rock white asbestos fibre. The fibre imparts to the cement certain characteristics such as toughness and flexibility which permit it to be used in the form of thin, light sheets capable of being cut and sawn.

Asbestos

The asbestos fibre-bearing volcanic rock is quarried, cobbed by hand, dried, crushed and fibre-ised, and then graded in a shaking screen according to physical properties. For roof tile purposes only the white fibres are used, that is, those composed almost universally of a compound of magnesia and silica.

Manufacture

In the process of manufacture the fibres are thoroughly and uniformly coated with fine cement particles. The sheets are not moulded but are built up in rolling mills in the form of layers or films of asbestos and cement, regularly distributed and interlaced to constitute a kind of tough-woven fabric.

Structure

After the sheets have been allowed to mature, the material when fractured is devoid of stratification or lamination.

Properties

In addition to being permanently incombustible and weather resisting, the tiles afford considerable resistance to transverse mechanical and tensile stresses, increasing in ratio with their age.

Size, Weight, Colours, etc.

See clauses on the face of this Information Sheet.

Prices

For quantities over 15 squares of roofing :—

Supply of materials only 2/6¾ per sq. yd.
Supply and fix ... ... 40/- per square

Information from :
Turners Asbestos Cement Co.,
Branch of Turner and Newall Ltd.
Address (Head Office) :
Trafford Park, Manchester, 17
Telephone : Trafford Park 2181 (8 lines)
London Office :
Asbestos House, Southwark Street, S.E.1
Telephone : Waterloo 4041

Supplement t

TH

J
For

Un
ab
of
co

SI
O
AD

1¾
Ju
sh
wi
en

1¼
be

6½"

2

PLA

1¼"
Bra

2

SC
2"

C 2½"

ISO

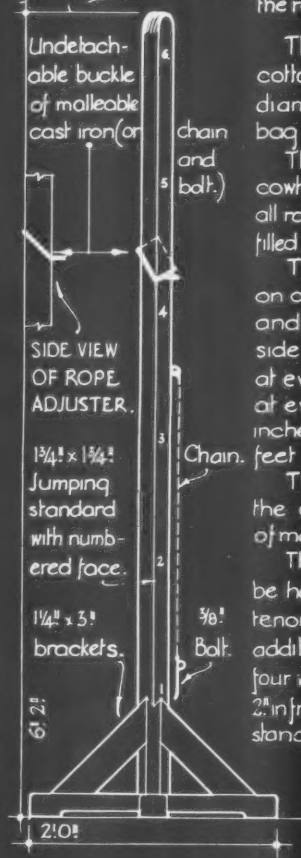
Do

INFO
SIR JO

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

JUMPING STAND • Scale: ¾ inch = 1 foot.

For alternative method of fixing the rope see note on the reverse side of this sheet.



The rope should be of white cotton, 16 feet long and 1¼ inch diameter, spliced to a sand bag at each end.

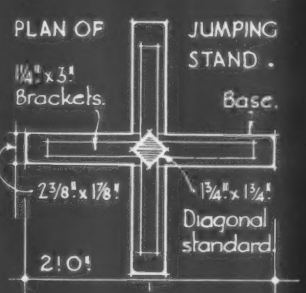
The sand bags should be of cowhide, blocked to shape, sewn all round, eyeletted for the rope & filled with sand & weighing 14 oz. each.

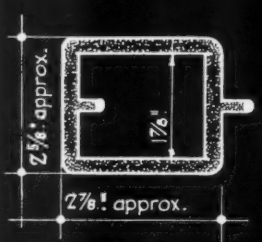
The standard should be bored on one side for the rope adjuster and numbered on the opposite side with punched ¼" figures at every inch, and ½" figures at every foot of height, the inches figures blacked and the feet figures coloured red.

The adjusters should be of the undetachable buckle-type, of maleable cast iron, (See above.)

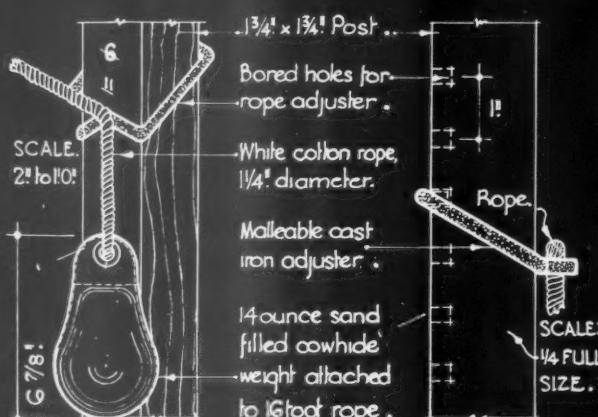
The cross-way base should be halved together, the standard tenoned through and wedged, additional support is provided by four wooden brackets at 45°, starting 2" in from end of base, fixed to base & standard by counter sunk screws in cups.

SIDE ELEVATION OF JUMPING STAND.





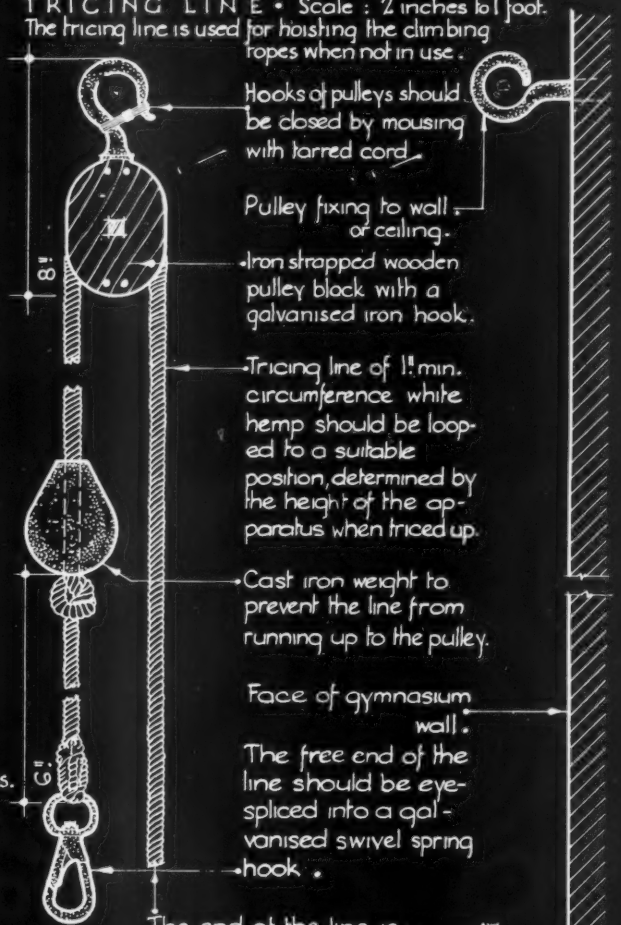
QUARTER FULL SIZE OF ROPE ADJUSTER.



ISOMETRIC SKETCH OF STAND: SIDE ELEVATION OF STAND:

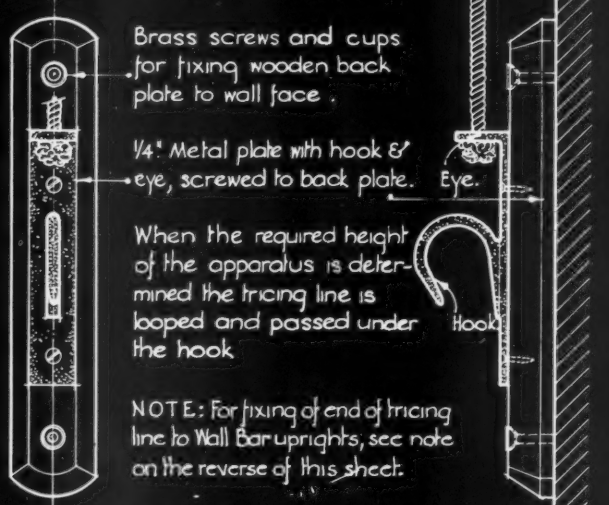
TRICING LINE • Scale: 2 inches to 1 foot.

The tricing line is used for hoisting the climbing ropes when not in use.



ELEVATION OF TRICING LINE.

The end of the line is secured by fixing it to a plate with hook and eye, the rope passing through the eye and knotted.



ELEVATION OF WALL PLATE WITH HOOK & EYE. SCALE: 2 Inches to 1 Foot.

SIDE ELEVATION OF WALL PLATE WITH HOOK & EYE. SCALE: 2 Inches to 1 Foot.

Data from Board of Education Physical Training Series No. 14, by permission of the Controller, H.M. Stationery Office.

INFORMATION SHEET: GYMNASIUMS: 7: DETAILS OF JUMPING STAND & TRICING LINE.

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC • Alan. E. Bayne.

Supplement to THE ARCHITECTS' JOURNAL for August 20, 1936

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 395 •

GYMNASIUMS—VII

Jumping Stands

Arrangements must be made for adjusting the height of the rope at 1 inch intervals from a point as low as the supporting brackets permit up to 6 feet from the ground, the inches being marked by $\frac{1}{4}$-inch numerals painted or stencilled black and red respectively. Undetachable buckle type adjusters of malleable cast iron may be used for this purpose, the standard being bored on one side to receive them. But an alternative system, which has the advantage that the adjusters cannot slip out of place, consists of a bolt of about $\frac{3}{8}$ inch diameter which is bent downwards and shaped with a closed eye-piece on the one side of the standard, passes through holes bored right through the standard and projects on the other side about $1\frac{1}{2}$ inches to 2 inches, where it is tilted upwards slightly to receive the rope.

Tricing Lines

In cases where tricing lines are required it is often necessary to devise a system to suit the requirements of a particular arrangement of apparatus or of building. The tricing line should be made from white hemp rope of not less than 1 inch circumference which runs through an iron strapped wooden pulley block with a galvanized iron hook and fixed to the ceiling. The pulley hook should be closed by mousing with tarred cord.

The free end of the line should be eye-spliced into a galvanized swivel spring hook or similar suitable fitting, and fitted with a cast-iron weight to prevent the line from running up to the pulley. The other end of the line should be spliced into a screw eye fitted at the top of the wall bar upright and when the climbing ropes are hoisted, the slack of the tricing line is wound round a turned hardwood button which is fixed at the bottom end of the upright. By this method no loose ends are left in which children can catch their hands or feet.

Supplem

THE

TY

Exp
ma
we

F. S

OB

FIX
Sc

Se

Ba
Ba

Jo

PA

hu

PA
Co

C

P

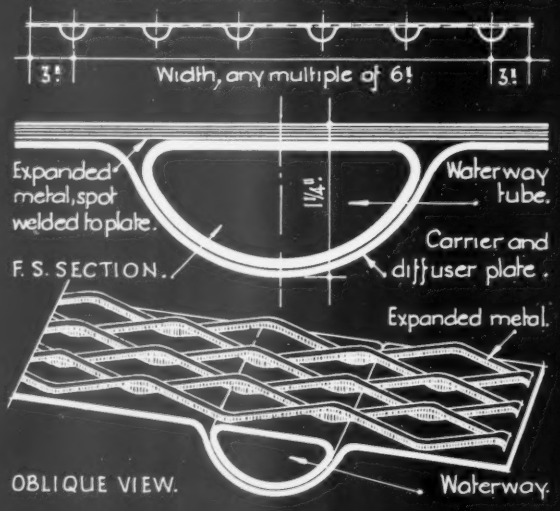
ar
is

INF
SIR Jo

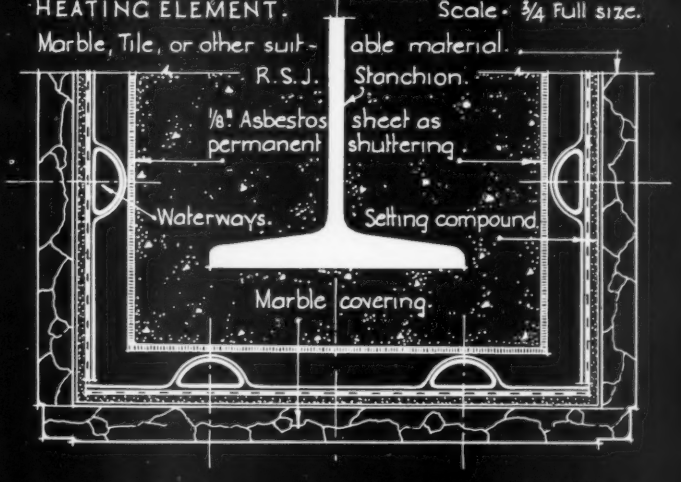
IN

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

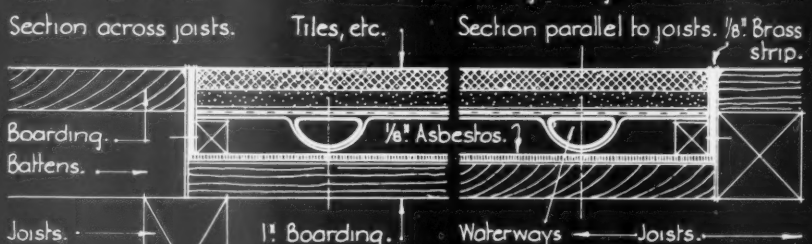
TYPICAL BORDER PANEL HEATING ELEMENT FOR USE IN FLOOR & WALLS :



PART PLAN OF A PIER WITH CONCEALED PANEL HEATING ELEMENT. Scale · ¾ Full size.



FIXING DETAILS FOR VARIOUS TYPES OF FLOOR CONSTRUCTION : Scale · ¼ Full size. For notes see the back of this Information sheet.

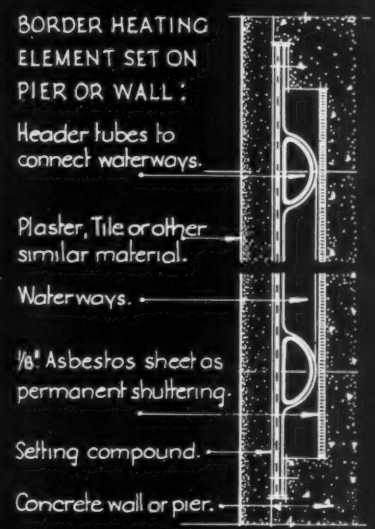


PANEL FIXED IN BOARDED FLOOR ON WOOD JOISTS.
Panels of more than 12" width require adequate support to the heating tubes. Cross battens should be provided at intervals under the asbestos.

PANEL FIXED IN A BOARDED FLOOR ON CONCRETE.
Covering may be Terrazzo, Granwood, Tile, Marble or other similar material.

PANEL FIXED IN A CONCRETE FLOOR.
Where this type of Border Panel Heating is applied to Churches, etc. and fitted under the aisle and covered with any suitable material, the time lag is reduced to approx. six hours, & a fuel saving of at least 25% is effected.

BORDER HEATING ELEMENT SET ON PIER OR WALL :



BORDER HEATING ELEMENT FOR USE IN SKIRTING.

Information from Comyn Ching & Co. (London) Ltd.

INFORMATION SHEET : BORDER STEAM OR HOTWATER HEATING ELEMENTS :
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 · Olga A. Bayne.

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 396 •

BORDER HEATING

Description

Border heating panels (Patent Number 278195) consist of a series of waterways mounted in a grooved plate in a similar manner to the Solray Panel, but in this instance covered with expanded metal welded at intervals to the grooved plate.

Waterways

The waterways are free to move by expansion and thus do not disturb or crack the material used for covering.

Expanded Metal

The expanded metal acts as an expanding key for the covering material, the co-efficient of expansion of both materials being practically the same.

Floor Coverings

Various types of floor covering can be used, such as terrazzo, tile, marble, granwood, stone, etc., and these are laid as a normal floor.

Heating Surfaces

Although low temperature surfaces are utilized in this form of heating, very high efficiencies are obtained, resulting in about 25 per cent. saving in fuel costs when compared with ordinary convector heating. Sizes and shapes of element to suit special requirements can be supplied.

Laying and Fixing

Border panels may be used on gravity or accelerated low pressure installations—the units themselves being laid in shallow trenches, insulated with asbestos and held down by small ragged bolts.

Heat Emissions

Figures showing the heat emission of the elements may be obtained from the manufacturers.

Name of Manufacturers : Comyn Ching & Co. (London) Ltd.

Address : 52, 54, 56 and 58 Castle Street, Long Acre, London, W.C.2.

Telephone : Temple Bar 9123