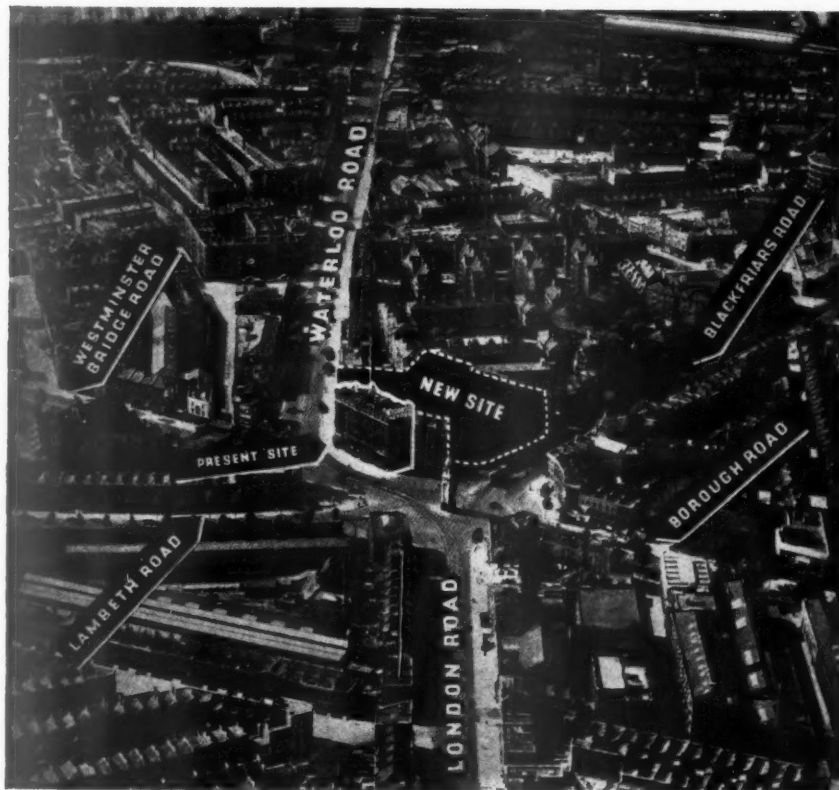


# THE ROYAL EYE HOSPITAL PROPOSED NEW BUILDING



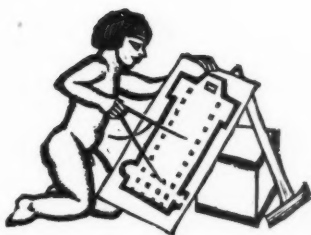
**T**HE Governors of the Royal Eye Hospital in St. George's Circus, Southwark, S.E., have acquired the old Surrey Theatre and other adjoining property for the erection of a new hospital, the architects for which are Messrs. Young and Hall. On the right is a perspective of the proposed building and, above, an aerial photograph of the site, showing the existing building and the adjoining site.





## S P A N I S H   B A R O Q U E

*A doorway entitled "Salamanca," from  
"One Hundred Photographs," a collection  
by F. R. Yerbury, which is reviewed in this  
issue.*



## SMALL HOUSE DEVELOPMENT

FOR a few days after Christmas the penalties of progress are likely to seem far more than a catchphrase. The advantages which scientific development and contemporary living conditions have brought to merry-making have naturally been fully used during the past week; now, drawbacks commonly unnoticed seem heavily present.

The telephone, most useful to ourselves, has proved capable of becoming the outlet for a well-meant but at length overwhelming cascade of hospitality sought and offered; the wireless, turned on too often, has given the impression of a good thing over-emphasized; and even motor cars have become anti-social by their saving of most needed exertion. And when these possessions are not our own but those of others, audible in despite of us, irritation can overtake goodwill with regrettable quickness.

In this unfortunate post-Christmas mood the casual student of sociology may wonder whether celebrations evolved during centuries of an unhurried and widely-spaced society do not need some modification when speeded up by twentieth-century science. But in a few days this pessimism passes.

Architects cannot get off so lightly. For them awareness of some of the disadvantages of modern living only give a sharper turn to broodings upon the problem of the small dwelling. And sounds from adjoining houses raise in turn most of the bigger questions which must be dealt with sooner or later in a livelihood already complex, in the language of statesmanship, to the edge of risk.

Houses and flats can all be made sound proof—at a price. But the public, looking at houses from the standpoint of habitual buyers of mass-produced and factory-assembled goods, denies the existence of other standards of value. They demand cheapness, and the cheap house, evolved to meet that demand, is a product of mass-produced units which have been assembled and laboriously cut to fit at a great distance from factories, and often in bad weather conditions, by craftsmen sometimes possessing no exact knowledge of the new materials they handle.

Considering these things, considering the risks of weather, high labour costs, the many independent trades employed on one small job, and the great amount of equipment the modern house must have to sell at all, the speculative builder has displayed a very real enterprise for which he too rarely gets any credit. But in such a muddle of old and new, modern materials and traditional trades, something has had to go; and what has gone has been lasting quality of structure and finish.

In response to insistence on low cost, builders and, more cautiously, architects have first reduced the

volume of materials and the area of more expensive finishes. Then high labour costs have compelled high speed in building. Finally, the more easily fixed synthetic materials have been used in ever-increasing quantities, whilst the desire for freer and closer grouping of rooms has brought into prominence new structural methods. But all the time, as economies were realized, rising standards of equipment and convenience in the small house have forced an ever closer control of costs in building, resulting in scamped construction and, more frequently, hurried and impermanent finishings.

In such a state of affairs both architects and builders have good cause for worry, for the public blames them both with little discrimination. Nor does it seem possible that low-priced dwellings of lasting quality can ever be produced on a large scale without a considerable reorganization of the building industry.

Today, despite a huge choice of patent materials, most of which are sound products, minor failures in building are so common that a reaction of opinion can be said to have arisen. Many engineers, as well as architects, agree that if houses are to be erected at modern speeds the smaller the unit of construction and finish, the better—if failure of some kind is to be avoided. Contractors, rightly, state that the smaller the unit the higher the building cost. And so the circle is complete once more.

An eventual solution would seem to be obtainable by three separate developments.

The Building Research Station which has hitherto largely confined its enquiries to materials and their failures, might enlarge their scope to the right sequences and time-scheduling of building, to the proper time allowance for the drying-out of cements and plasters, and to the precautions necessary to ensure that one material is not damaged by some process which follows on the same job. Modern construction and equipment have become so complex that such rulings would be of enormous benefit.

Next, all manufacturers of proprietary building products should see to it that adequate directions both concerning the fixing and safeguarding of their materials should be supplied on all occasions when specialists are not employed. This, especially on small jobs, is far too rarely done.

Lastly, because it will at length be inevitable, either specialist fixers of new materials must be employed much more frequently on small buildings or the old trades must each select a group of these materials and see that their members are properly trained in the use of them. One or the other must happen, and all those who have admired the ingenuity and thoroughness of the older craftsmen would prefer the latter.



*The Architects' Journal*  
Westminster, S.W.1  
Telephones: Whitehall  
9 2 1 2 - 7  
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Buildable  
P a r l  
London

## N O T E S & T O P I C S

### PRESIDENTIAL ACTIVITY

**M**Y admiration for the way in which Mr. Percy Thomas is tackling his job as President of the R.I.B.A. increases almost daily as I read his name in the papers.

I marvel at the way he rushes about the country and consumes lengthy dinners with one Allied Society after another, with one building organization after another, with the members of one sister profession after another. And after each dinner I notice that he has something pointed to say, and says it with some sense of firmness and conviction.

To some builders the other night he deplored the fact that modern buildings have so many and varied cracks in them . . . and then opened a sympathetic door to enable architects, builders and manufacturers to pool their knowledge to eliminate defects.

At Bradford his reply to a toast inspired large-type headlines across the pages of the local Press . . . and a suitable statement from one of the local M.P.s. that architects should have the greatest possible scope to help with the re-planning and re-designing of the Industrial North.

Mr. Thomas is sacrificing much of his time in the architectural cause; let us hope he won't have to sacrifice his digestion as well.

### CO-OPERATION BETWEEN PLANNING AUTHORITIES

In the report of an interview given by Professor Patrick Abercrombie on the subject of National Parks, it was mentioned that Lancashire, Cumberland and Westmorland were all making entirely independent plans to

safeguard those parts of the Lake District which fall within their boundaries.

This is a wonderful example, I think, of the need for co-operation between planning authorities. The Lake District is naturally or geographically one, and should be treated as one and not as three separate bits. The County boundaries are artificial things, and if my recollection is correct, pass down the centre of both lake Windermere and lake Ullswater.

Professor Abercrombie is reported to have said "Such a state of affairs is absurd."

### VIEWS

The Dean of St. Paul's has been imploring the citizens of London to use their influence to preserve a view of St. Paul's which is threatened by the proposed raising of a building near Newgate Street.

The preservation of good views is important and should form part of town planning schemes, but it will cost something to do, as I hardly think land owners can be expected to be sufficiently public spirited to "sterilize" this land, especially in the middle of large cities, without compensation.

Some planning authorities have preserved views, for example that from the Terrace at Richmond in Surrey, but I am afraid that the average authority, before paying compensation, likes to see a greater material return than can usually be obtained from a view.

### FREE SERVICES

In the general category of "luxury" flats our builders are being hard put to it to keep pace with the advertising stunt that "all-the-latest-modern-conveniences-are-provided-free-of-all-charges-whatsoever."

Water, gas, electric light and power, central heating and ventilation, have almost ceased to be regarded as modern conveniences—they are taken for granted. Nowadays we have radio on tap, refrigerators and refuse disposal, telephones in every room, television wiring all ready installed, and even (as I pointed out last week) 150 kinds of air, scented or otherwise.

The word "luxury" is in fact in grave danger of losing its meaning. But in the sphere of everyday housing we do not hear so much of these conveniences. I am impressed therefore to receive news from Sheffield that on a new estate the houses are to have free telephones.

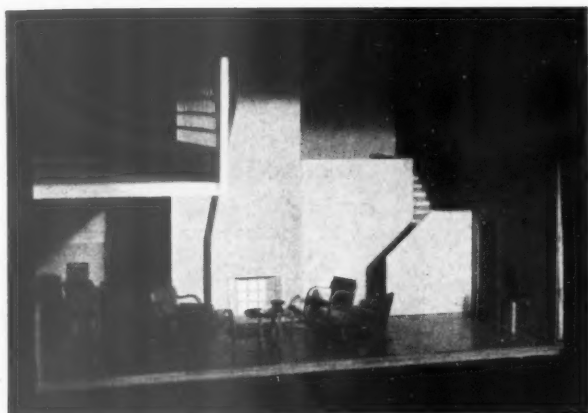
The builder pays for the installation and for the first year's rent. Such a builder earns my congratulations and I pass on his idea to the public relations officer of the G.P.O.

### STREET LIGHTING

I used to like Camden Town at night, especially Saturday night. It was a bright, garish, jolly place with crowds and stalls in the streets, with tradesmen shouting their wares and great red-faced butchers slapping meat. It had something of the atmosphere of a fair.

All the glamour has gone now with the introduction of





*The Junior Literary Conversazione at Oundle School, which contained, amongst other things, a series of exhibits to illustrate the development of social life in England, included this model, made by the students of the School under the direction of Richard Finny, which was used to illustrate the modern period and is a reproduction of the living room and dining recess of "Great Nast Hyde," Hatfield, designed by F. R. S. Yorke.*

what I believe is called daylight lighting. The noise goes on, but everything has taken on a greenish tinge, the people all appear to be suffering from serious liver complaints, and despite the brilliance of the lighting the place looks grimmer than it does by day.

In crowded districts like this good visibility is essential, but I beg lighting engineers to concentrate on achieving it in a less horrifying colour.

#### BRITISH SCHOOL AT ROME

An architect just returned from Rome tells me that the British School in the Valle Giulia is to all intents and purposes closed down . . . temporarily we hope.

The students have taken the opportunity to visit other countries, and so brought into operation an idea which I have personally cherished for some time . . . that the Rome scholars should be free to travel for more than half their scholarship time in countries other than Italy.

From this point of view the conditions of the now defunct Henry Jarvis scholarship to Rome were better than those obtaining now . . . they did allow the students more or less a free hand for six months of each twelve.

But I was amused to learn where two of the scholars in architecture have elected to study. One is basking in Spanish sunshine and the other is studying in . . . Manchester.

I am almost tempted to predict that the entries for the Rome this year (the lists close on December 30) will be a record number.

#### ARCHITECTURAL EDUCATION

A sub-committee of the Junior Members Committee of the R.I.B.A. has now been set up to make an extensive research and to report on architectural education, from the students' point of view.

This sub-committee is, I understand, to co-opt enough members to make its work really representative of current student activities. It will contain students of our recog-

nized schools and students of architecture who have had to tackle their Inter and final exams without the aid of a school.

Such a report will naturally take a considerable time, and the energy and sympathy of a great number of people, to prepare. A sincere effort of this sort deserves every encouragement and will be supported by every student of architecture, whether he is 18 or 80 years of age.

#### SCHOOLBOYS' EXHIBITION

My note last week about the new Meccano building sets reminds me that it is many years since I have visited the Schoolboys' Exhibition.

Enquiries reveal that this exhibition is to be held in the Imperial Institute this season, from January 1 until January 11 and I find that there is to be an architecture exhibit . . . for the first time in the history of this popular annual show.

Intrigued by this discovery I took my enquiries further and found that the R.I.B.A. is responsible for this excellent idea and that they are to show the schoolboys "How the House Works" . . . much the same as the engineers show how the engine works or the aeroplane flies.

Not only this, but there is to be a competition in connection with the exhibit, run with the collaboration of the A.A., and the Building Centre, with over 60 prizes of book tokens to be won.

I shall certainly advise my schoolboy and schoolgirl relatives to visit this show . . . I might almost be persuaded to take them there myself.

#### HOLIDAY LECTURES

The other thing I shall advise them to do of course is to attend the Christmas lectures at the R.I.B.A., to be given by Mr. G. A. Jellicoe.

His subjects, Italian, French and English Gardens, are most refreshing after several series of lectures during the past year or so which have concentrated on planning this or that; of explaining how this is planned, or how to plan that.

If these talks do something to attract attention to the frequently appalling surroundings even to some of the best of our buildings, then Mr. Jellicoe will have rendered our younger architects a much-needed service.

It is about time that the settings of our buildings secured more attention. Lay-out is something more than putting primrose patches about the footpaths.

#### DEPARTING BRIDGE

And, *en passant*, I shall show these nieces and nephews the last remaining pieces of the old Waterloo bridge, now fast reaching water level. Even more interesting still, I shall point out to them the scaffolding put up to take down the scaffolding which was put up to take down the bridge.

And I shall try to explain that even this will in time completely disappear and for some while there may be nothing at all over the water.

ASTRAGAL

## NEWS

POINTS FROM  
THIS ISSUE

- An exhibition is being arranged by the Building Centre, in conjunction with women members of the R.I.B.A., of work actually carried out by women architects... 942
- "There has never been an artist in Great Britain to whom the English nation owes so much gratitude as William Morris".... 953
- "Sorry that I can't let you have plans and specifications back as promised, as they got amongst my pigs and they have eaten most of them up...."..... 954
- "Only a few families have much power to control what the outside of their home looks like; all indulge now and then in interior decoration"..... 961

## THE HEALTH CONGRESS

Sir Kingsley Wood, M.P. (Minister of Health), has consented to act as President of the Health Congress of The Royal Sanitary Institute, which is to be held at Southport from July 6 to 11, 1936. He will deliver his Inaugural Address on Monday afternoon, July 6.

The deliberations of the Congress will include engineering, architecture and town planning.

EXHIBITION OF WORK BY WOMEN  
ARCHITECTS

An Exhibition is being arranged by the Building Centre, in conjunction with women members of the R.I.B.A., of work actually carried out by women architects. The Exhibition will be held in February, and will consist of photographs, models and coloured drawings of interior decoration, furniture, etc. All interested are invited to send, in the first instance, small photographs or sketches, from which a selection can be made for the Exhibition. From the selected exhibits, enlargements and finished drawings will be required, mounted on cards. Preliminary prints, etc., should be sent to: Miss Alma Dicker, A.R.I.B.A., Hon. Secretary, c/o The Building Centre, 158 New Bond Street, W.1, not later than January 10.

## THREE NEW CITIES FOR RUSSIA

The building of three completely new cities is to be started next spring in different parts of Russia. Together they will have a total population of nearly 600,000.

THE  
ARCHITECTS'  
DIARY

## Thursday, December 26

INTERNATIONAL EXHIBITION OF CHINESE ART. At the Royal Academy, Burlington House, Piccadilly, W.1.

BUILDING CENTRE, 158 New Bond Street, W.1. Exhibition of a model and photographs of the s.s. "Orion," also actual samples of fabrics, furniture, glass, cutlery, etc., used on the ship. Until January 3. 10 a.m. to 6 p.m. (Saturday, December 28, 10 a.m. to 1 p.m.)

HOUSING CENTRE, 13, Suffolk Street, S.W.1. Winter Exhibition: "The Elements of Housing." 10 a.m. to 5 p.m.

## Monday, December 30

R.I.B.A., 66 Portland Place, W.1. First of three Christmas Holiday Lectures for Children: "The Architecture of Gardens: Italian Gardens." By G. A. Jellicoe. 3.30 p.m.

## Wednesday, January 1

R.I.B.A., 66 Portland Place, W.1. Second of three Christmas Holiday Lectures for Children: "The Architecture of Gardens: French Gardens." By G. A. Jellicoe. 3.30 p.m.

## Friday, January 3

R.I.B.A., 66 Portland Place, W.1. Last of three Christmas Holiday Lectures for Children: "The Architecture of Gardens: English Gardens." By G. A. Jellicoe. 3.30 p.m.

## Monday, January 6

SOCIETY OF CHEMICAL INDUSTRIES. At Burlington House, Piccadilly, W.1. Joint Meeting with the Road and Building Materials Group. 8 p.m.

## Wednesday, January 8

INSTITUTE OF WELDING. At the Institution of Mechanical Engineers, Storey's Gate, S.W.1. "Distortion and Residual Stresses in Welds and Welding Procedure." By H. W. Townshend and J. L. Adam. 6.30 p.m.

One of the cities, of 48,000 inhabitants, is being laid down in Kazakstan, near Lake Balkash on the borders of Mongolia, where the present population of the region is scattered in settlements of primitive wooden huts. Metalled roads will replace sandy tracks that are seas of mud in winter, and the stone and concrete houses and the apartment blocks of the new city are being specially designed to give the maximum shelter from the fierce prevailing winds.

In Eastern Siberia the completed project for a Greater Krasnoyarsk provides for a community of 400,000 inhabitants. The site will extend over both banks of the Yenisei River, with the automobile, celluloid and other plants of the industrial section separated by the river from the residential quarters.

Another city with a population of 150,000 is to come into being on the banks of the Yemshanka River, in the vicinity of Orsk, to which centre it will be connected by a new highway.

The construction of the new cities is being carried out under the direction of the City Planning Trust of the Soviet Union.

## DESIGN IN TOWN PLANNING

The importance of landscape design in town planning was urged by Mr. Gilbert Jenkins, president of the Institute of Landscape Architects, at a recent meeting of the Society. Such design, he said, would save many acres of land to useful purposes

and prevent the destruction of many fine trees.

There was he said, a lack of design in the work of the Forestry Commission, and it was time to improve the lay-out of building and housing estates.

## OFFICIAL ARCHITECTURE

Official architecture was discussed by Mr. L. H. Keay, F.R.I.B.A., in a recent lecture to the Sheffield, South Yorkshire and District Society of Architects and Surveyors. He said: "It is difficult to speak of the subject of housing without raising matters which appear to be regarded as controversial. In this district I understand a plea has been made recently for the 'limitation of officialism in architecture.' At a time when Parliament has seen fit to add to the housing responsibilities of local authorities such an expression appears to be ill-timed. It is also unfortunate that a small section of the architectural press should have made comparisons recently between the work carried out by architects in private practice and those holding official appointments. It would be still more unfortunate if, forgetting our common allegiance, any of us sought to influence the R.I.B.A. to favour the interests of one section of its members whilst ignoring the rights of another."

## CIVIC CENTRE, WORCESTER

It was announced at a Ministry of Health enquiry at Worcester that the Corporation has called in Mr. Percy Thomas, F.R.I.B.A., to design the new civil centre at the back of the Queen Anne Guildhall.

## CHANGE OF ADDRESS

Messrs. C. W. Glover and Partners, Architects, Consulting Engineers, Surveyors and Valuers, have removed their offices to Shell-Mex House, W.C.2. Telephone Nos.: Temple Bar 4053 and 4054.

## OBITUARY

## CHARLES W. HARRIS

We regret to record the death of Mr. Charles W. Harris, F.R.I.B.A., of Birkenhead.

Born in 1872, he was educated in Birkenhead and articled to the late Mr. Henry Hartley, F.R.I.B.A., F.S.I., of Liverpool, and he continued in association with him until 1906, when he entered into partnership with the late Mr. Laurence Hobson, F.R.I.B.A., in 1928.

His work in association with Mr. Hobson was of a varied character and comprised domestic, business and industrial premises.

Mr. Harris engaged extensively in the practice of a surveyor, including the rating and valuation of many important properties.

He was elected an Associate of the R.I.B.A. in 1896, and a Fellow in 1915.

## A. MACPHERSON

We regret to record the death of Mr. Alexander Macpherson, of Nottingham.

Born in Sutherland in 1847, he was articled to a firm of architects in Derby. He later

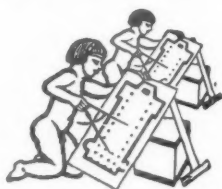
practised on his own account in that town and just before the war entered into partnership with Mr. W. F. Richardson.

Mr. Macpherson was responsible for the design of many buildings in Derbyshire, including the Bemrose School, Co-operative Central Hall and the Unity Hall. He was a past-president of the Nottingham, Derby and Lincoln Architectural Society.

#### ARCHITECTS' REGISTRATION COUNCIL

At a meeting of the Architects' Registration Council of the United Kingdom, held in London on December 17, Mr. Sydney Tatchell, F.R.I.B.A., was elected chairman of the Council, in succession to the late Major Harry Barnes.

## COMPETITION



### NEWS

#### COMPETITION RESULT

The result of the competition (promoted by the Falkirk Town Council) for new burgh buildings at Falkirk was announced last week as follows:—

Design placed first: Messrs. J. H. Mervin and W. Carruthers Laidlaw, of 24 Duke Street, Edinburgh.

Design placed second: Messrs. James M'Gregor and T. C. Cleave, of the College of Art, Edinburgh.

Design placed third: Messrs. Mervyn Noad and Wallace, of 261 West George Street, Glasgow.

Eighteen designs were submitted; and the assessor was Mr. W. B. Whitie. The estimated cost of the scheme is £35,000.

#### PAVILION, WESTCLIFF

The Southend Council has rejected the proposal to hold an open competition for designs for the proposed entertainment pavilion at Westcliff.

## Competitions Open

**December 31.**—Sending-in Day. Proposed town hall, Bury, for the Corporation of Bury. Assessor: J. Hubert Worthington, O.B.E., M.A., F.R.I.B.A. Premiums: £500, £300 and £150. Designs must be sent to Richard Moore, Town Clerk, Municipal Offices, Bank Street, Bury, not later than December 31.

**January 7.**—Sending-in Day. Proposed pavilion, Argyle Street, Rothesay, for the Rothesay T.C. (open to architects who have been resident and/or practising in Scotland for two years.) Assessor: Col. J. Maurice Arthur, D.S.O., F.R.I.B.A. Premiums: £200, £100 and £50. Closing date: January 7. The last day for questions was November 26. Conditions are

obtainable from the Town Clerk, Municipal Buildings, Rothesay.

**January 24.**—Sending-in Day. Proposed offices for the Harrow U.D.C. (Open to architects of British nationality.) Assessors: C. H. James, F.R.I.B.A., and S. Rowland Pierce, A.R.I.B.A. Premiums: £350, £250 and £150. Conditions, etc., may be obtained on application to Mr. Vernon Younger, Clerk of the Council, Council Offices, Stanmore, Middlesex. (Deposit £2 2s.) The latest date for submission of designs is January 24.

**January 31.**—Sending-in Day. Proposed Parliament House, Salisbury, Southern Rhodesia, for the Government of Southern Rhodesia. (Open to architects of British citizenship.) Assessor: James R. Adamson, F.R.I.B.A. Premiums: £500, £300, £200 and £100. Conditions, etc., obtainable from the High Commissioner for Southern Rhodesia, Crown House, Aldwych, W.C.2. (Deposit £2 2s.) The designs must be sent to the Assessor at 19 Silverwell Street, Bolton, not later than January 31.

**January 31.**—Sending-in Day. The North British Architectural Students' Association invites members (i.e., members of Schools and/or Allied Societies at Manchester, Glasgow, Edinburgh, Leeds, Sheffield, Hull and Newcastle) to submit, in competition, designs for: (1) A Church of England Chapel. Assessor: Mr. H. L. Hicks, F.R.I.B.A. Premium: 10 guineas. (2) A Control Tower and Waiting Room for an Aerodrome. Assessor: Mr. R. Bradbury, A.R.I.B.A. Premium: 10 guineas. Conditions are obtainable from the Hon. General Secretary, N.B.A.S.A., School of Architecture, Armstrong College, Newcastle-upon-Tyne, 2. The latest date for submission of designs is January 31.

**February 29.**—Sending-in Day. Proposed police headquarters, fire station and

courts for the Southport Corporation. Assessor: E. Vincent Harris, F.R.I.B.A. Premiums: £300, £200, £100. Conditions, etc., are obtainable from R. Edgar Perrins, Town Clerk, Town Hall, Southport. (Deposit £1 1s.) Closing date: February 29. Last day for questions: January 1.

**March 1.**—Sending-in Day. Proposed public hall, Harpenden, for the Harpenden U.D.C. (open to architects of British nationality domiciled in the United Kingdom.) Assessor: Robert Lowry, F.R.I.B.A. Premiums: £100, £75 and £50. Last day for submission of designs: March 1. Architects were invited to submit names to the Clerk to the Council before December 15 last.

## Competitions Pending

General Hospital for the Glamorgan C. C. Assessor: E. Stanley Hall.

Duncan of Jordanstone College of Art, for the Dundee Institute of Art and Technology. Town Hall Buildings for the Edmonton U.D.C. Assessor: E. Berry Webber, A.R.I.B.A.

Secondary School for Boys, Luton, for the Bedfordshire C.C. Assessor: Professor W. G. Newton, F.R.I.B.A.

Block of shops and offices, for the Borough of Newcastle-under-Lyme. Assessor: H. S. Fairhurst, F.R.I.B.A.

Design for standard joint railway receiving offices in London, for the four main railway companies (L.N.E.R., L.M.S., G.W.R. and Southern). Assessors: Mr. L. H. Bucknell, F.R.I.B.A., Mr. C. Grasmann, Mr. W. H. Hamlyn, F.R.I.B.A. and Mr. Charles Holden, F.R.I.B.A.

Assembly Hall, Salisbury Street, South Shields, for the South Shields T.C.

## THIS ARCHITECTURE



From a provincial newspaper.



# RECONSTRUCTION OF KIRKLEY



**GENERAL PURPOSE.**—*The new buildings were erected to replace a country house of which the main block had been burnt out, the kitchen and conservatory wings remaining untouched.*

**SITE.**—*Kirkley Hall is a few miles from Ponteland, Northumberland,*

*is surrounded by a fairly large area of parkland, and has good views across agricultural land to the south.*

*The illustrations show: a preliminary detail of the principal front; and a general view from the south-east.*



# HALL, NORTHUMBERLAND

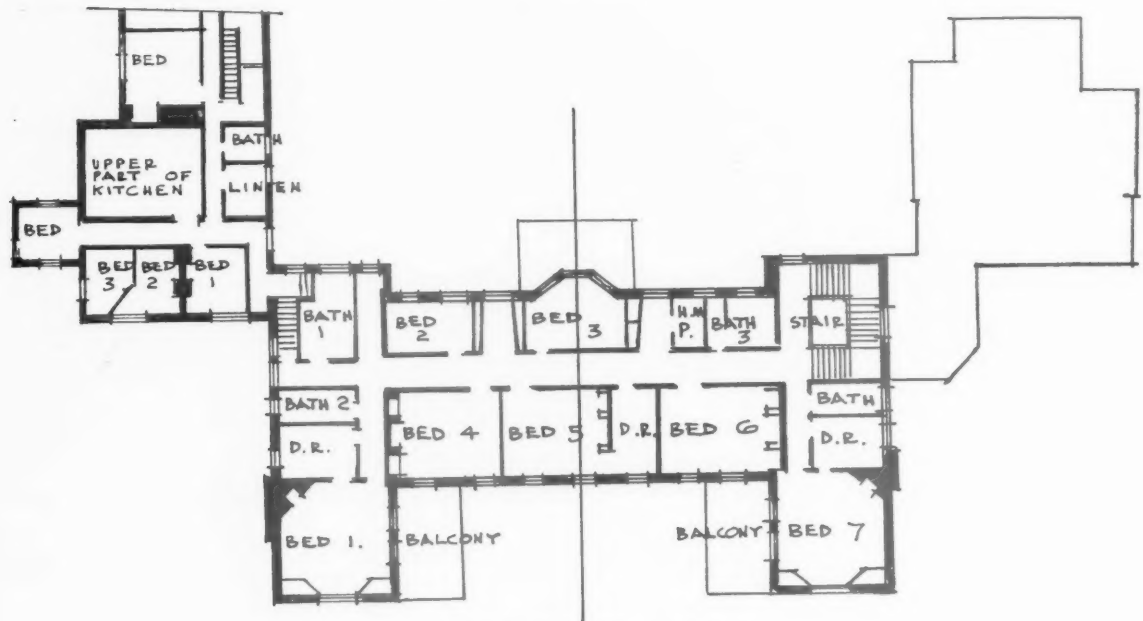


**CONSTRUCTION.**—The house has weight-carrying walls, faced externally with local stone, and patent R.C. hollow tile filler-beam floors, and green-slatted roof. The windows are wood-framed, sliding sashes and casements, with lead division strips.

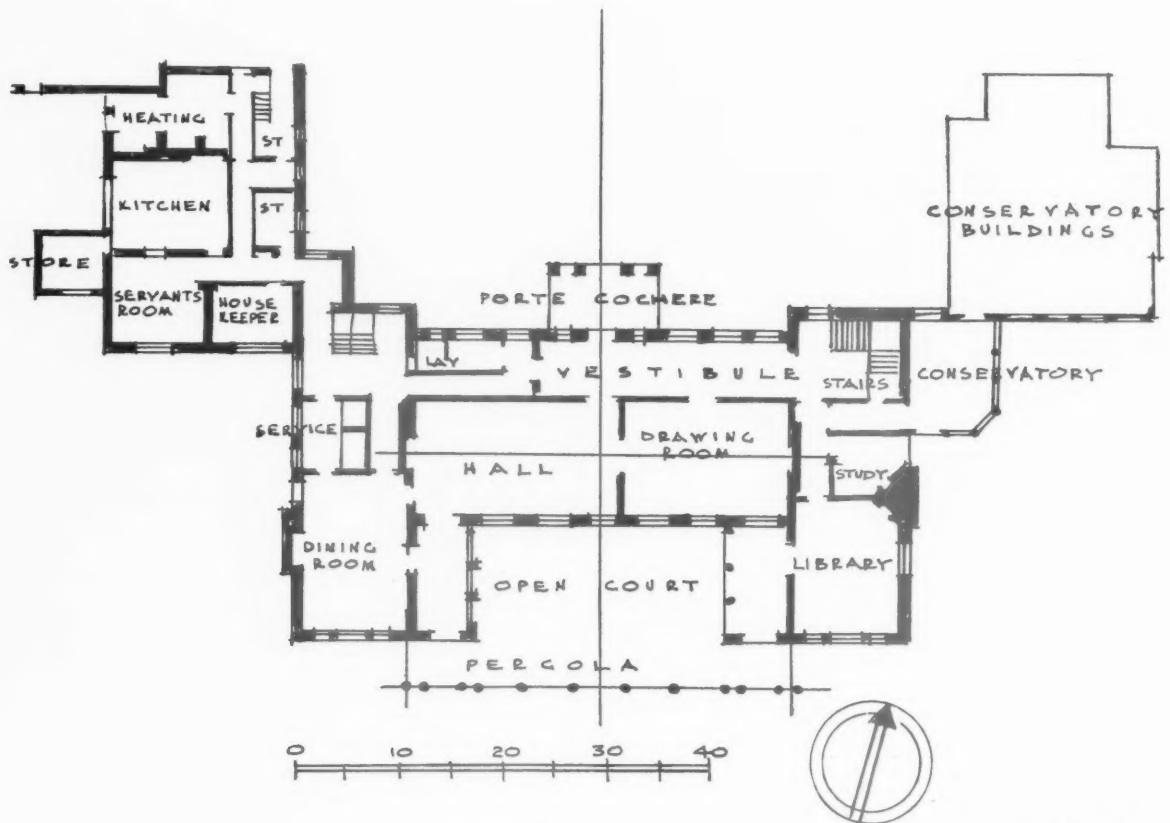
The photographs show: above, the main entrance front; top right, the south front; right: a detail of the sun court and loggia.

D E S I G N E D B Y  
C A C K E T T , B U R N S D I C K  
A N D M A C K E L L A R

## RECONSTRUCTION OF KIRKLEY



FIRST FLOOR PLAN



GROUND FLOOR PLAN

## H A L L , N O R T H U M B E R L A N D

**PLAN.**—The plan lay-out of the building was controlled to some extent by the necessity for retaining the existing kitchen block with staff bedrooms over, but is otherwise of the two-floored "north corridor" type with projecting wings, a sun court, loggia and first-floor balconies being provided on the south front.

**DECORATIVE TREATMENT.**—The entrance hall, hall and dining room are oak panelled, and the drawing-room and library panelled in plaster.

**SERVICES.**—The house is heated on the low pressure hot water system from an oil-fired boiler, the flush radiant panels being in the ceiling. In the drawing-room and dining-room the panels are housed in a sunk margin around the ceiling, the face of this sinking being of obscured glass behind which are placed units for continuous concealed lighting.

In the large hall the heating units work with panels between the ceiling beams and are wood-grained to match.

**CONTRACT.**—The single contract price of the building was £23,000.

The photographs show: the hall with the drawing-room beyond; the drawing-room; and the entrance vestibule with plaster vaulting.



D E S I G N E D B Y  
C A C K E T T , B U R N S D I C K  
A N D M A C K E L L A R

## LIBRARY AT THE GIRLS' SCHOOL,

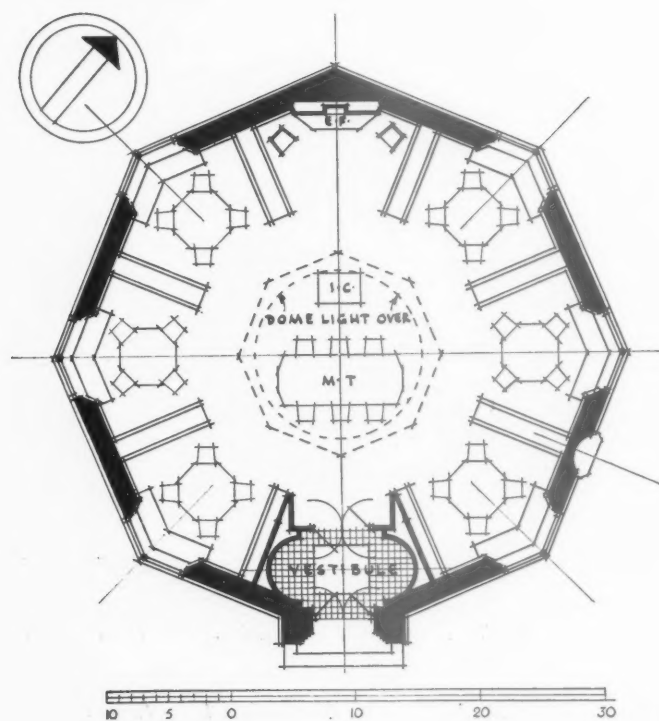


DESIGNED

BY

SIDNEY

TATCHELL



PLAN

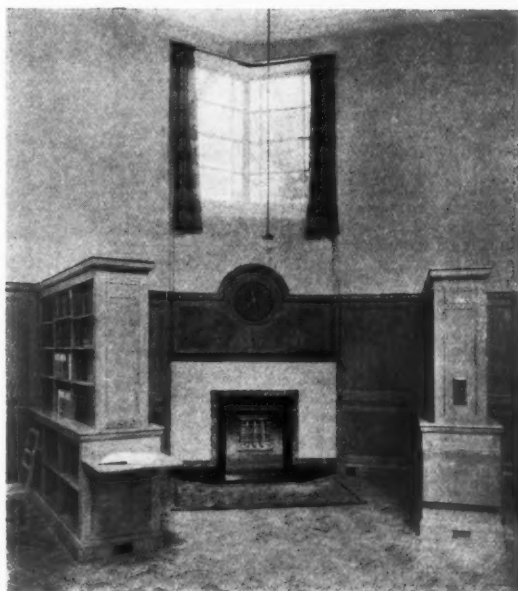
GENERAL.—This new library has been added to the Girls' School at Christ's Hospital, Hertford, by the Council of Almoners.

PLAN.—The building is planned as an octagon, a shape which was to some extent determined by the comparatively limited space available. This shape has, however, enabled the book racks and windows to be arranged in such a manner as to obtain the maximum of light for the books and readers. A central dome affords additional lighting. Accommodation is provided for approximately 5,000 volumes, and additional shelving can be added as the need arises.

Above is a general view from the east.



## CHRIST'S HOSPITAL, HERTFORD



CONSTRUCTION AND FINISHES.—The building is faced with multi-coloured bricks, with Portland stone dressings; and the main entrance doors are of English oak. Windows and laylight are metal, and roof finishing of asphalt. The floor is of oak blocks, and the walls above dado height are painted cream. The panelling and bookcases were executed in English oak. The furniture was designed by the architect.

The photographs show: above, looking towards the inner entrance doors: right, a detail of the fireplace.

## IN THAT CONTINGENCY

The following abstracts of inquiries 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 inquiry, and are not necessarily suitable for application to all similar problems. Crown Copyright is Reserved.

### Magnesium Sulphate in Bricks

**Q** A FIRM of builders reported several cases of plaster failure on walls built of bricks of a certain type, a sample of which was submitted. The plaster appeared to be pushed off the walls in patches by the formation of crystals at the surface of the brickwork. In one case plastering had not yet been commenced and the inquirers wished to know whether any treatment could be applied to the brickwork to prevent trouble of the kind already experienced. The unplastered walls were stated to be already throwing off salts. An opinion was desired regarding the efficacy of hacking off the portions of the surface most affected.

A superficial examination suggests that the specimen brick contains a high proportion of magnesium sulphate, the presence of which is known to be a frequent cause of blistering and loosening of plaster applied to brickwork. In such cases a mass of crystals is found between the plaster and brick, and their deposition at this particular point may usually be explained by action between the salts in the brick and lime in the plaster. The salts are carried to the brick face by moisture as it dries at the internal or external face.

While the salts may tend to concentrate on the surface, it is likely that each of the suspected bricks is impregnated throughout with magnesium sulphate and that this substance is also present in the rest of the bricks, though in smaller amount. The crystallization of salts due to initial drying-out may not be sufficient to cause injury, and if the brickwork remains virtually dry there may be little subsequent danger. If, on the other hand, water penetrates the wall to any serious extent, plaster failures and even progressive deterioration of the brickwork is to be expected. Hacking the surface, as suggested, would thus be of little benefit, but it would obviously be desirable to cut out and replace any individual bricks which show signs of excessive efflorescence.

In considering methods of obtaining a satisfactory internal finish in the present case it must be borne in mind that the presence of magnesium sulphate usually indicates that the bricks are underburned and consequently lacking in strength. Particular care should be taken to ensure that the adhesion or fixing of the finish is not endangered by weakness of individual bricks.

Assuming that a plaster finish is required, the most satisfactory procedure would probably be to prevent contact between the plaster and brick, either by battening the wall and plastering on lath or plaster-board, or by applying an impervious coating to the surface. In the latter case a bituminous paint might be found suitable. As a base for plaster, expanded metal should be stretched over the surface and fixed at intervals by wood plugs.

Alternatively, a gypsum plaster, provided it

were known to be free from lime, might be applied direct to the brickwork, not that efflorescence would be prevented if moisture penetration occurred, but it would appear at the face of the plaster. Although some damage to the decorations will then ensue it will be less than if the efflorescence formed at the contact between brick and plaster and pushed the latter bodily off the wall. There is, at present, no formal specification for gypsum plasters, and care would need to be exercised in the selection of material. A plaster of the "retarded hemi-hydrate" type could be employed with safety.

There are, no doubt, other plasters which could be used with success in a case such as that under discussion, but on no account should a material of unknown composition be applied direct to the brickwork. A warning may be added against the use of Portland cement in this way, since hardened cement contains lime which might cause repetition of the trouble. There is reason to think that aluminous cement would be useful, as being much less liable to injury by sulphates, but this suggestion has not been tried under the conditions referred to above, and a definite recommendation is therefore not possible.

In view of the above notes it may be thought that danger would arise through the use of lime or cement for bedding bricks impregnated with sulphates. In practice, however, it is found that destructive action does not commonly take place in this way.

### Weight of Cement

**Q** AN inquiry regarding the weight of dry cement was made by a firm of cement manufacturers. The inquirers stated that they had previously assumed a range of 90 to 94 lb. per cu. ft. for ordinary Portland cement, when filled into a cu. ft. measure as lightly as possible. Data were now required, however, relating to present-day products, particular reference being made to the "ordinary" and "rapid-hardening" grades of Portland cement.

Two difficulties arise in supplying figures of general application to each of the classes of cement mentioned.

In the first place it is almost impossible to fix a standard for compactness of filling. Experiments made at the Building Research Station on various grades of Portland cement have shown that, when very loosely filled into a hopper, it may vary in weight from 62 to 79 lb. per cu. ft., but when well compacted the weight may be increased to well over 100 lb. per cu. ft.

The second difficulty lies in the absence of any commonly accepted definition of the term "rapid-hardening" and in the variability in rate of hardening according to the materials and method of manufacture. It is generally found, however, that of the products of any one works the more finely ground materials are the more rapid-hardening.

In estimating the weight of cement given by volumetric measurements it is therefore more useful to take into account the fineness of the cement as measured by sieve analysis. Thus the range of 90 to 94 lb. per cu. ft. mentioned appears to be a fair average for Portland cement with, say, 5 per cent. residue on a 170 sieve when filled into a measure from sacks and lightly tamped down. A finer ground Portland cement with, say, 1 per cent. residue on a 170 sieve, when filled under the same conditions, would probably weigh from 80 to 85 lb. per cu. ft.

Even this classification is not, however, by any means accurate, and its adoption would no doubt prove irksome in practice. A more satisfactory method of meeting the modern demand for greater precision and uniformity in the proportioning of concrete consists of stating the proportions of the mix in terms of weight of cement. The hundredweight bag of cement is usually a convenient unit, and in the following table this forms the basis for figures giving the approximate equivalents of typical volumetric proportions.

Nominal mix	Proportions, cu. ft. of aggregate per 112 lb. bag of cement	
	Fine	Coarse
1 : 1 : 2	1½	2½
1 : 1½ : 2½	1½	3
1 : 1½ : 3	1½	3½
1 : 2 : 4	2½	5

### Concreting in Cold Weather

**Q** AN inquirer desired information about methods of protecting new concrete from the effects of frost.

The period during which concrete is susceptible to damage by frost lies in the early stages of its life. It is generally accepted that after the first seven days, provided curing conditions have been reasonable, there is little possibility that good concrete will be attacked by frost. Concrete of inferior quality is susceptible to frost action throughout its life.

The chemical process of hydration of cement is hastened by warmth and retarded by cold, to an extent varying with different types of cement. Hydration is accompanied by evolution of heat, but except in large masses of concrete, this is soon dissipated. The most obvious method of counteracting the effects of extreme cold is to raise the temperature of the setting mixture artificially and to conserve the heat by adequate insulation. It is advisable that when Portland cement concrete is being placed at, or near freezing point, precautions should be taken to ensure that the temperature of the concrete does not fall below 40 deg. F. for the first 24 hours, nor below 32 deg. F. for 72 hours.

This condition can be most conveniently satisfied by heating the aggregate and mixing water. It is obvious that the higher the pre-heating temperature the longer will the effect of heating remain, but it may be pointed out that the size of the mass of concrete and the richness of the mix will similarly influence the resistance to rigorous external conditions.

To cite a particular case, if a "rapid-hardening" Portland cement were used in a nominal 1 : 2 : 4 mix, and the temperatures of the surrounding air and mixed materials were respectively 25-30 deg. F. and 65 deg. F., it would be unwise to place concrete in members less than 6 in. in diameter or in slabs less than 4 in.

thick. With a normal Portland cement, or a leaner mix of a rapid-hardening cement, the minimum permissible dimensions would be greater.

The following table, which is based on observations made at the Building Research Station, shows the temperatures necessary for concrete slabs at the time of placing, taking into account the factors already mentioned. The external condition to which these figures apply is a temperature of 40 deg. F. at the time of placing, falling to 28 deg. F. during 12 hours and remaining constant at that level for the remainder of three days. The cement is taken to be rapid-hardening Portland and the slab is assumed to have 1 in. wood shuttering below and a layer of canvas or sacking on the upper surface.

Nominal mix	Temperature of the concrete necessary at time of placing—°F.				
	Thickness of slab—in.				
	6	9	12	15	18
1 : 1 : 2	42	No preheating necessary			
1 : 2 : 4	30	44	49		
1 : 3 : 6	63	51	45	41	

Brief reference may be made to methods of protecting setting concrete from frost attack by the addition of substances during mixing. It is frequently easier to employ such a method, but it should be pointed out that the Reinforced Concrete Structures Committee recommended that reliance should not be placed on added materials as the sole protection against frost.—*Report of the Reinforced Concrete Structures Committee of the Building Research Board with Recommendations for a Code of Practice for the Use of Reinforced Concrete in Buildings.* (H.M. Stationery Office, 1933. 1s. 3d. net.)

Sodium chloride (common salt) and calcium chloride are most commonly used for this purpose, the usual proportions being 2-4 per cent. of the weight of cement. Calcium chloride has been found to be slightly more effective, but it must be realized that since both materials are hygroscopic there is a possibility of continued dampness of the work. Their use should therefore be restricted to concrete in which dryness is not an essential feature. The addition of hygroscopic materials is particularly dangerous in reinforced concrete or concrete covering structural steelwork, owing to the increased risk of corrosion of the metal.

The risk of damage to the concrete itself by such additions is uncertain, but it is fairly well established that though sodium chloride may be harmful there is little danger with calcium chloride.

#### Decay of a Stone Plinth

**A**N architect reported serious efflorescence, accompanied by discoloration and progressive disintegration of the surface, on the stone facing of a comparatively new city building. Apart from slight efflorescence near the cornice the trouble was confined to the plinth, where it rose direct from the pavement. Advice was required on suitable methods of arresting the decay.

Following an inspection it was learned that similar efflorescence was appearing in similar positions on adjacent buildings. Arrangements were therefore made for a joint investigation to be carried out, and samples of the efflorescent salts were collected from each building and analyzed.

The concentration of efflorescence on the

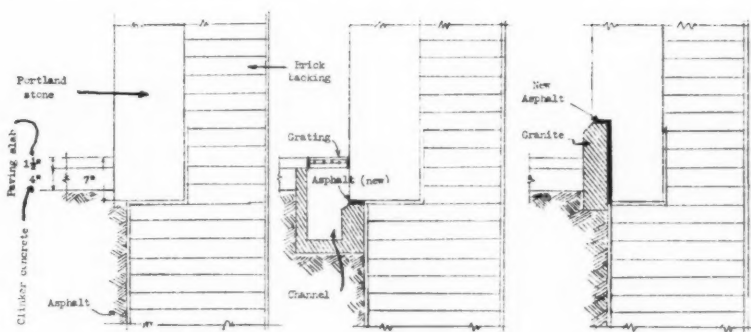


Figure 1.

Figure 2.

Figure 3.

plinths suggested that the salts were derived from the ground, and suspicion was cast on the damp-proof course. The pavement slab was accordingly lifted, and it was then found that the stonework of the plinth was in direct contact with a bed of clinker concrete in the manner shown in Figure 1. A sample of the clinker concrete was analyzed for comparison with the efflorescence.

As a result of the chemical analysis, it was concluded that the efflorescent salts are largely derived from the clinker concrete, though the soil and jointing and backing materials in the wall are also potential sources.

To remedy the defect it will therefore be necessary to break the capillary path between the stone and the materials beneath the paving, and two methods of construction are suggested in Figures 2 and 3. Figure 2 would offer better opportunities for the lowest course of stonework to dry, but Figure 3 would possibly be preferred on account of cost.

When steps have been taken to prevent further absorption of moisture from the soil, systematic brushing with a dry brush, followed by washing, will in time effect the removal of the salts now present in the stone. If a drained channel below the level of the damp-proof course is not provided, it is important that the salts should be swept up and removed before the stone is washed. Otherwise they may be splashed on the face of the stone and reabsorbed.

Vigorous scrubbing with a stiff brush may be effective in removing the discoloration, but it would be an advantage to rub down the surface to a new face by scouring with carborundum. At the present time evaporation of moisture is largely confined to the broken surfaces where decay has occurred, and it is only through these areas that the soluble salts can escape. By removing the hard surface skin that has developed evaporation of moisture will occur over the whole of the exposed face. Removal of the salts by regular washing will thus be greatly facilitated, and at the same time the stone will be given a clean appearance. The surface skin in question consists largely of calcium sulphate produced by reaction with sulphurous constituents of the air. No damage to the stone is to be feared in consequence of its removal.

#### Birmingham and Five Counties Architectural Association

"Designing against noise—the architects responsibilities" was the subject of a lecture by Mr. Hope Bagenal at a recent meeting

of the Birmingham and Five Counties Architectural Association.

"Business men," said the lecturer, "like to reproach architects with dreaminess and the artistic temperament. That is really only a defence. They are themselves wholly romantic, have highly-developed powers of self-delusions, do not know the nature of a fact, and will often act on a purely creative impulse when they think they are being hard-headed and business-like. We have, of course, to warn them that cut-throat competition, false economies, thin drum-head construction may pay 10 per cent. this year, but that very soon maintenance costs will eat up profit."

"We must study planning against noise. As a profession, we, and we alone, can plan properly. That is our great service and our great asset. Successful sound-insulation was the result of informed planning, and that alone. We must lead the public in the demand for quiet equipment for services and present the demand to the engineering profession. We ought all to join the Anti-noise League and make it the spearhead of this demand. Architects and engineers must come together on this problem."

#### L.C.C. and Building Delays

At a recent meeting of the L.C.C. the chairman of the Town Planning and Building Regulation Committee was asked what steps would be taken to meet the grievances about the delay experienced in obtaining from the Council the approval of plans for new buildings or alterations to existing buildings.

The chairman, Mr. H. Berry, replied that the application of town planning to the whole of London necessarily resulted in some measure of delay at the outset as compared with the speed recently experienced under the London Building Act. But the time taken in handling applications was being progressively reduced to a minimum.

#### Change of Address

Mr. S. T. Walker, M.A., A.R.I.B.A., has removed his offices to Essex House, 27 Temple Street, Birmingham, 2. Telephone No. : Midland 1239.



## T H E N E W M O S C O W



The first line of the Moscow underground railway system was completed in May, 1935. The length of the line is approximately eight and a half miles and there are thirteen stations.

The constructional difficulties of the undertaking were considerable. The surface levels of the route varied greatly and the subsoil strata contained both streams and quicksands. These conditions compelled the combined excavation and immediate reinforcement of the tunnel, as well as laying the permanent way at a depth reaching 140 ft. in places. The entire construction of the tunnels and stations is in reinforced concrete, and the work was completed in 18 months.

Of the total of thirteen stations, four are located at a considerable depth and are double or triple vaulted. The remainder, lying fairly close to the surface, are supported on R.C. flats and columns. 107 ventilators have been designed to change the air eight times an hour. All save one of the stations are planned with central platforms of an average width of 45 ft.

Each of the stations was designed by a different architect or group of architects, and while a general uniformity of design was aimed at, difference of detail in the various stations was encouraged.

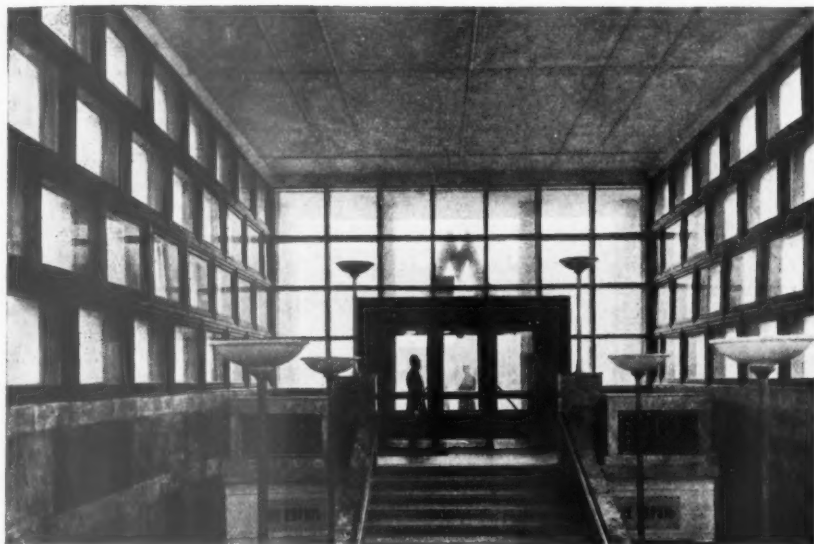
The architects generally adopted reflected lighting from ceilings and vaults as being the best method of countering the oppressive effect of the heavy vaulting and columns, as well as using a colour scheme ranging from cream-white, through yellow and pink, to dark red.

The materials used are tiles, artificial marble, marble, granite and parphyry, with natural granites and marbles predominating. The materials used for the surface vestibules are similar, with the addition of wood and bronze.

The photographs on this page show: above, the Komso-molskaya Station, R. Krinsky, architect; below, vestibule of the Kirouskaya station, A. Colley, architect.



## U N D E R G R O U N D



Above, entrance vestibule, Kirouskaya Station, H. Colley, architect; below, corridor, Station of the Palace of the Soviets, designed by Lichsenberg and Douskin.

D E S I G N E D B Y V A R I O U S  
C O N S U L T A N T A R C H I T E C T S

POST-WAR TENDENCIES  
IN GERMAN ART SCHOOLS

"Post War Tendencies in German Art Schools" was the title of a paper read by Dr. Nikolaus Pevsner at a general meeting of the Royal Society of Arts on December 18. In the first part of his paper Dr. Pevsner dealt with the growth of the arts and crafts movement in Europe. "There has never been an artist in Great Britain to whom the English nation owes so much gratitude as William Morris," he said. "Thanks to his theories and his work, and thanks to his influence on young artists, England became the leader of European art at the end of the nineteenth century. It can be proved that without William Morris, without the English arts and crafts, and without the school of architects who followed Philip Webb and Norman Shaw, that is, without men such as Voysey, Lethaby, Baillie Scott and others, no modern movement would have started on the Continent."

In the second part of his paper Dr. Pevsner described what he considered to be one of the most important German art schools erected after the war—the Bauhaus. This part of the paper is summarized below:—

"On the Bauhaus, we now have Walter Gropius's own book, published some months ago by Messrs. Faber and Faber. Gropius, who lives at present in this country, was one of the originators of the modern movement in architecture. He is no doubt the greatest living German architect, and it was no small good fortune that, during the war, the Grand Duke of Saxe-Weimar chose him to take over the Weimer Kunstgewerbeschule which van de Velde, being a Belgian, had left. Immediately after the revolution of 1918, Gropius was appointed Director of the Kunstgewerbeschule as well as of the Academy of Fine Art. The two institutes were amalgamated and reopened under the name of Staatliches Bauhaus. The following nine years are the heroic age of the Bauhaus. In 1923, Gropius published a manifesto on the policy of his school: in 1925 it moved from Weimar to Dessau, where Gropius was granted money for setting up completely new buildings. However, in 1928, Gropius left the Bauhaus, which, under his successor, went Communist for a while, so that, in spite of the efforts of its last Director, Mies van der Rohe, it was dissolved after the political change of 1933. Deplorable as this end may be, the historian is entitled to say that when it came to an end the Bauhaus had accomplished its great task—at least, so far as Germany goes.

"The following are some of the essential points in Gropius's manifesto of 1923. Nineteenth-century dualism, which separates the individual from the community, is now rapidly dying. In many fields of human activity, a notion of the 'fundamental oneness of all phenomena' has reappeared. In art, this is bound to destroy that fatal doctrine of art for art's sake and to clear the way for a genuine new style. For styles are always and exclusively the expression of the unity of a society. Now, every true style is dominated by architecture. The art of building, depending in every respect on teamwork, is the truest

expression of that co-operative organism which we call society.

"A reorganization of art education is possible only by aiming at an all-embracing architecture. The worst mistake about the art education of the past was that it left the young artist without any contact with the realities of materials, technique and economy. This is where the Bauhaus came in. For Gropius's pamphlet was not only a splendid piece of passionate and revolutionary writing, it was also a precise account of a sound and thoroughly thought-out school programme.

"The curriculum consisted of practical instruction in the use of stone, wood, metal, glass, clay, textiles, pigments, and in the qualities of materials and tools, and of formal instruction which was divided as follows: study of nature and materials, study of geometry, construction and model-making, and study of design according to volume, colour and composition. Lectures on old and new art and science were added. The student passed through three courses. He began in a preparatory class, lasting for six months, where the whole range of Bauhaus teaching was given in an elementary form. The aim of this class was to gauge the pupil's talent, to liberate his mind from conventions, and to help him to first-hand experience of the basic facts about materials and tools. After this, the pupil proceeded into the proper practical and formal course, lasting three years. Since Gropius is well aware of the fact that the ideal training for the architect, artist and craftsman is the apprenticeship to a master-craftsman, he developed an ingenious system combining modern school instruction with some of the advantages of the mediæval practice. Each pupil had to work especially in one craft or trade, and all the time under two supervising masters. In the later phase of the Bauhaus only one master was responsible. At the end of the three years, the student had to undergo the ordinary municipal trade examination before the Board of Master-Craftsmen. Only with the Journeyman's Certificate thus acquired was he allowed to try for the Bauhaus Apprenticeship Certificate, which enabled him to enter the third course, Structural Instruction. Here he was actively collaborating in the Bauhaus building activities. He could also be chosen for the Research Station and the experimental Designing Studio. He now had access to all workshops, in case he wanted to improve his knowledge outside his own trade, and he was sent for short periods into the factories of sympathetic industrial lists, or—if he wanted to specialize in architecture—to one of the Technical Universities.

"So much for the programme of the Bauhaus. But organization in itself can never suffice to make a school successful. It is the spirit prevailing that decides. Gropius's principal aim was a constructive unity between creative art and industry. He attained this by appointing a staff of advanced architects, artists and craftsmen who were—at least for the first years—all enthusiastically willing to serve the great ideal of a building community. Gropius has also admirably succeeded in combining the principles of handicraft with those of machine production."

## LETTERS FROM READERS

### *Architectural Education*

SIR,—This question of architectural education is of vital importance. The aim of an architectural school should be to equip men capable of doing the best work of their time. By the very fact that it is training men, the school must be ahead of actual practice, always ready to experiment, to investigate new ideas. The schools should be the leaders of thought.

Instead of this, what is the arrangement we are forced to work in? A system years behind actual practice, reluctantly following, accepting only well-tried standards, utterly without enthusiasm or progress. Mr. Rother may well ask what is to be done about it. In our sheltered seclusion, deluded into believing the myth of private practice, we do traditional solutions to impossible programmes. Blinded to the fact that the only hope for private practice lies in group working, our individualism is fostered on a dangerous system of marks. The architectural profession deplores the shortcomings of reinforced concrete construction, yet in one of the biggest schools in the country, for three years out of five, we are not allowed to think of it.

It almost suggests some ruling force preferring things to remain as they are.

R. T. WALTERS

### *Plans in the Farmhouse*

SIR,—I do not know whether the enclosed might interest your readers, particularly London practitioners, as showing one of the difficulties of country practice. The writer is a village builder who had tendered for a small farmhouse. I hope the pigs don't suffer from the Blues!

"EAST ANGLIAN ARCHITECT"

[Following is the letter referred to by the above correspondent.—Ed., A.J.]

DEAR SIR,—Sorry that I can't let you have plans and specifications back as promised as they got amongst my pigs and they have eaten most of them up, how they got there I do not know, if you remember when I sent my price in for the house, I could not find them and I thought that they must be in my car, but when I got my car home they was not there, I hunted all over to find them, and then about Wed. I was

R. T. WALTERS

EAST ANGLIAN ARCHITECT

MILKMAN

looking at my pigs and I saw a piece of blue print, I got it out, and it was a piece of your plan, I must have been giving them some bedding and drooped it in then, so there it is. I am very sorry, but if I have to make it right I shall have to do so, but I hope that you will let me off.

Yours faithfully,

"EAST ANGLIAN BUILDER"

### *Milk and Architecture*

SIR,—I am a milkman and have gone in for a correspondence course on architecture, because I want to be a builder.

What architects' trade union ought I to join? I have been looking through some building magazines and see that a lot of work is done by members of the A.R.I.B.A., but most of all by those belonging to the F.F.R.I.B.A. Are these trade unions very strict? I mean, would a man belonging to the F.F.R.I.B.A. be allowed to do a town hall if this is the work of those belonging to the M.INST.C.E. and the A.R.I.B.A. Would he be thrown out of the F.F.R.I.B.A. or would the other unions go on strike? In your magazine the people have no letters after their names. Are they blacklegs?

Where I live there are lots of houses with the top half half timber, not whole half timber or bottom half half timber, as I have seen in books.

MILKMAN



### New Library, Liverpool University

Work is shortly to begin on the erection of the new library for the University of Liverpool on the site of the old School of Architecture in Ashton Street. The architect for the building is Mr. Harold A. Dod.

# TOWN PLANNING

## PROCEDURE AND THE POSITION IN LONDON

[BY T. S. BARNES]

*In this article, the first of two, an attempt is made to give a general outline of the scope of town planning in this country, the procedure and stages necessary for the preparation of schemes, and a short survey of the position in London. In a second article, which will be published shortly, the position outside London will be reviewed.*

*These articles must necessarily not be considered fully accurate in detail, but it is hoped they will provide for those unfamiliar with the subject a broadly correct summary of town planning progress up to the present.*

THE general object of town planning is to control development of land to secure amenity and convenience, and to preserve and protect existing amenities whether they be architectural, historic or natural.

Town planning powers in this country are conferred by various statutes, the earliest being the Housing and Town Planning Act of 1909, and the latest the Town and Country Planning Act of 1932.

The authorities which exercise these powers are the London County Council, the Common Council of the City of London, the County Borough Councils and the County District Councils; but any planning authority may delegate its powers to a joint committee appointed from two or more planning authorities, and any county district council may delegate its powers to the council of the county in which it is situated.

During the twenty-three years between the Acts which have been mentioned, Parliament gradually increased the scope of town planning legislation, but it was not until the passing of the 1932 Act that power was given to prepare schemes for built-up areas.

Prior to this Act a certain amount of built-up area could be, and was, brought into schemes, but merely by way of protecting some area which was not built-up, or some place of historic interest which formed the reason for a scheme.

All town planning legislation is permissive and there is still much of the country for which no scheme is in preparation, but month by month the number of local authorities undertaking the preparation of schemes is increasing and schemes already under

way are reaching more advanced stages. As mentioned above, all Town Planning legislation is permissive, and before any land can be town planned, it is necessary for the planning authority to resolve to prepare or adopt a town planning scheme. The various stages of the procedure from the resolution to prepare to the time when a scheme comes into operation, together with the information which at each stage must be shown upon maps and in the statements prepared by the planning authority, are clearly set out in the Town and Country Planning Regulations, 1933, issued by the Minister of Health.

Broadly the stages are as follows:—

(1) The planning authority resolves to prepare a scheme or to adopt one prepared by the owners of the land, and submits the resolution to the Minister of Health.

(2) The Minister can approve it, with or without modification or disapprove it.

(3) If the scheme is approved, there is a choice of procedure open to the planning authority:

(a) Direct to a draft scheme which must be adopted within 24 months of the approval of the resolution or,

(b) By way of a preliminary statement, which must be submitted to the Minister of Health within 15 months of approval of the resolution, to a draft scheme which must be adopted within nine months of the approval of the preliminary statement.

(4) The town planning authority must pass a resolution making a scheme of the draft scheme, with or without modification, within nine months, if it proceeded direct to a draft scheme; or six months, if it proceeded by

way of a preliminary statement. The scheme must then be submitted to the Minister.

(5) The Minister may approve it or disapprove it, or may intimate his intention of approving it with modification. In this latter case, it is sent back to the planning authority.

(6) If the scheme is approved it is laid before Parliament and after passing through, it finally becomes capable of becoming operative.

(7) There is a right of application to the High Court to quash the scheme in whole or part within six weeks of its passing through Parliament, and only after the expiration of this period, does the scheme become operative.

At each stage of the procedure provision is made for advertisement of it to be published in the local press, for notices on owners or other interested persons, for the inspection of maps illustrating it, for objections and their consideration by planning authorities and their submission to the Minister, and for public enquiries.

There is provision for the names of the owners of property and others within the area of a scheme to be entered on a register, and to receive all notices which are required by the Act or Regulations to be published.

Until a scheme becomes operative it has no effect, and during the time it is in course of preparation control is exercised under an Order made by the Minister, known as the Town and Country Planning (General Interim Development) Order, 1933. The Order does not contain provisions which can be enforced and the control exercised under it is of a negative character. It is nevertheless a very strong control, as, unless permission to carry out work is obtained under it, the planning authority, may, when a scheme comes into operation, remove, without payment of compensation, any work for which permission was not obtained, and which conflicts with the scheme.

Under the 1932 Act the scope of a town planning scheme is extremely wide, for not only can a great deal of what might be termed positive planning be done, such as new roads, road improvement and the provision of open spaces, but control is, or can be, exercised over practically every aspect of land development and building. Not only are new buildings subject to it, but so are additions and alterations to existing buildings. It covers such matters as height, volume and use of buildings, elevational materials and appearance, and use of land, and so long as the planning authority limits its activities to control, the instances in which it must pay compensation are few.

Much interesting information on the



extent of town planning control may be gained from the reports of appeals to the Minister of Health, against decisions of planning authorities which are published annually by the Ministry.

## THE POSITION IN LONDON

Within the county area the planning authority is the London County Council, but on certain matters the Metropolitan Borough Councils must be consulted.

Prior to the Town and Country Planning Act, 1932, coming into operation, the London County Council had already resolved to prepare 16 schemes for different and scattered parts of the county, but only in three of these had the schemes become operative. In one instance the draft scheme had been adopted but not submitted to the Minister of Health, in two the Minister had approved the preliminary statement, in two the preliminary statement had been submitted but not approved by the Minister, and in the remaining six instances, only the resolution to prepare a scheme had been approved.

Generally speaking these schemes were confined to existing open spaces, parks, commons and the like, and the areas immediately surrounding them, and a number appear to have been rushed through to control some proposed development which might have affected the amenities of open space adjoining it.

With the passing of the 1932 Act, it became possible to prepare schemes for areas irrespective of whether they were built up or not, if it could be shown that development was likely to take place, and up to the beginning of this year three additional resolutions had been passed by the London County Council, and approved by the Minister, bringing the number of schemes and proposed schemes up to eighteen.

Of these, No. 16, the Bloomsbury Scheme, which included parts of the Boroughs of St. Pancras, Finsbury and Holborn was much the most important, being the first fully developed area of any size in London to come under town planning control.

The area comprised in this scheme included the well-laid-out Bedford Estate and the approval of the resolution was strongly opposed at a public enquiry, but the Minister gave his approval, and it appears that his decision encouraged the County Council to proceed with its resolution to prepare a scheme for all those parts of the county not already subject to town planning control.

This resolution was passed by the Council in the latter part of last year, and after a public enquiry lasting nearly three weeks the resolution to prepare Scheme No. 19 was approved by the Minister on May 27 of this year,

and the whole area of the County of London became subject to Town Planning control.

Naturally enough no scheme was ready (even if a scheme to which no objections were made had been prepared before the resolution, the procedure laid down would prevent it coming into operation for a considerable period) and control is exercised under the Interim Development Order.

And that, broadly speaking, is the course of town planning in London and the position as it stands at present, though it is quite likely that all the schemes which have not become operative may be consolidated into one scheme.

## R.I.B.A.



### ANNUAL DINNER

The annual dinner of the R.I.B.A. is to be held in the Henry Florence Memorial Hall, 66 Portland Place, W.1, on Monday, February 3, at 7.30 p.m.

### COUNCIL MEETING

Following are some notes from a recent meeting of the Council of the Institute:—

*Proposed Examination for Clerks of Works.* The Board reported that the Incorporated Association of Clerks of Works had set up an examination board to conduct examinations for Clerks of Works, and invited the R.I.B.A. to nominate two representatives to serve on that Board. The Board reported that they had appointed Mr. C. S. White and Mr. L. H. Bucknell to serve on the examination board.

*The Architect's Registration Council.* Mr. E. Berry Webber (A.) was appointed as one of the R.I.B.A. representatives on the Architect's Registration Council in place of the late Major Harry Barnes.

*The R.I.B.A. Aerodromes Committee.* Professor Patrick Abercrombie (F.) and Mr. Lionel F. R. Coote (A.) have been appointed as additional members of the R.I.B.A. Aerodromes Committee.

*Co-ordinating Committee on Art and Industry.* Mr. L. H. Bucknell (F.) and Mr. R. A. Duncan (A.) have been appointed to represent the R.I.B.A. on the Co-ordinating Committee on Art and Industry.

*R.I.B.A. Architecture Medals: The Berks, Bucks and Oxon Architectural Association.* Mr. Edward Maufe (F.) has been appointed as the R.I.B.A. representative on the Jury for the award of the R.I.B.A. Architecture Medal in the area of the Berks, Bucks and Oxon Architectural Association.

*Revision of Ordnance Survey Maps.* The Science Standing Committee reported that, in response to a request from the Secretary of the Ordnance Survey Committee, appointed by the Minister of Agriculture and Fisheries, they had submitted to that committee two memoranda containing suggestions for the revision of Ordnance Survey maps. The committee further reported

that representatives of the Science Standing Committee had attended a meeting with the Ordnance Survey Committee and given oral evidence in support of the memoranda. The action of the committee was approved and confirmed.

*Air Raid Precautions Handbook No. 5—the Protection of Buildings against Air Raids.* The Science Standing Committee reported that it had appointed the chairman, Mr. Thos. E. Scott (F.) and Mr. Eric L. Bird (A.) to represent the Royal Institute at a meeting of the Air Raid Precautions Department of the Home Office, in order to consider the draft handbook on the protection of buildings against air raids, now in course of preparation by the department. The action of the committee was approved and confirmed.

*Paint Application Panel of the Research Association of British Paint, Colour and Varnish Manufacturers.*—Mr. Alan E. Munby (F.) was appointed to represent the R.I.B.A. on the Paint Application Panel of the Research Association of British Paint, Colour and Varnish Manufacturers.

*Town Planning and Housing Committee.* Mr. Percy W. Lovell (A.) and Major R. Hardy-Syms (L.) were appointed as additional members of the Town Planning and Housing Committee.

*Reinstatements.* The following ex-members were reinstated: As Licentiate, Mr. V. V. Vadnerker; as Student, Mr. J. F. Lees Mercer.

## Housing Centre

Dr. E. C. Kaufmann, late Director of Housing, Frankfurt-on-Main, lecturing to the Housing Centre last week on "Housing and Territorial Planning in Russia," said: "All inhabitants of Russian towns, with the exception of a few privileged individuals and families, live in slum conditions today. It is wrong, therefore, to try and compare demands and achievements in the field of housing over there with demands and achievements in this country. It must be remembered that the masses of the town population, especially the industrial proletariat before the revolution, were housed in overcrowded basement dwellings and filthy overcrowded suburbs."

Regarding the sanitary conditions, the lecturer said that "when the period of reconstruction began in 1927, only 21 out of 521 cities had a drainage system."

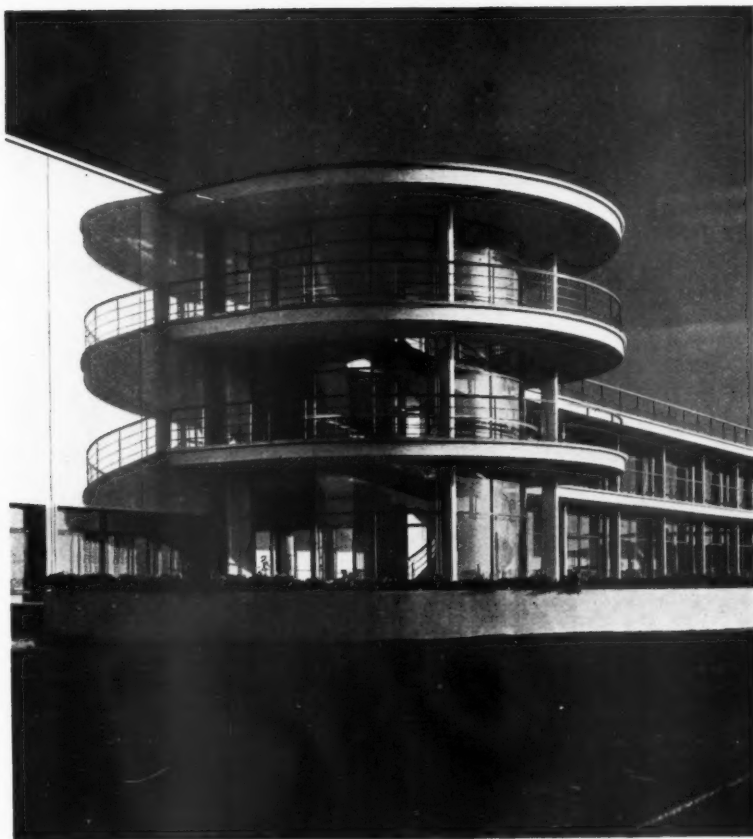
"There is," he continued, "no clear line being followed, neither in regard to the development of new types of dwellings emanating from a change of the social outlook, nor in the architectural shaping of these types. We have seen the pendulum swing from fierce radicalism, demanding community dwellings as the aim of the new society, back to normal and practically petty bourgeois housing ideals. Architecturally, we have seen our Russian colleagues return from a period of over-Corbusiering Corbusier to a worship of Greek, Roman and Renaissance ideals, for which change of mind they make efforts of justification in their professional press. I hope that the present grotesque revelling in the decorative elements of historic styles will be over-come, and that a more natural course will be resumed."

On the same day, Sir E. Owen Williams, K.B.E., opened the Centre's Winter Exhibition, entitled "The Elements of Housing."



# WORKING DETAILS : 379

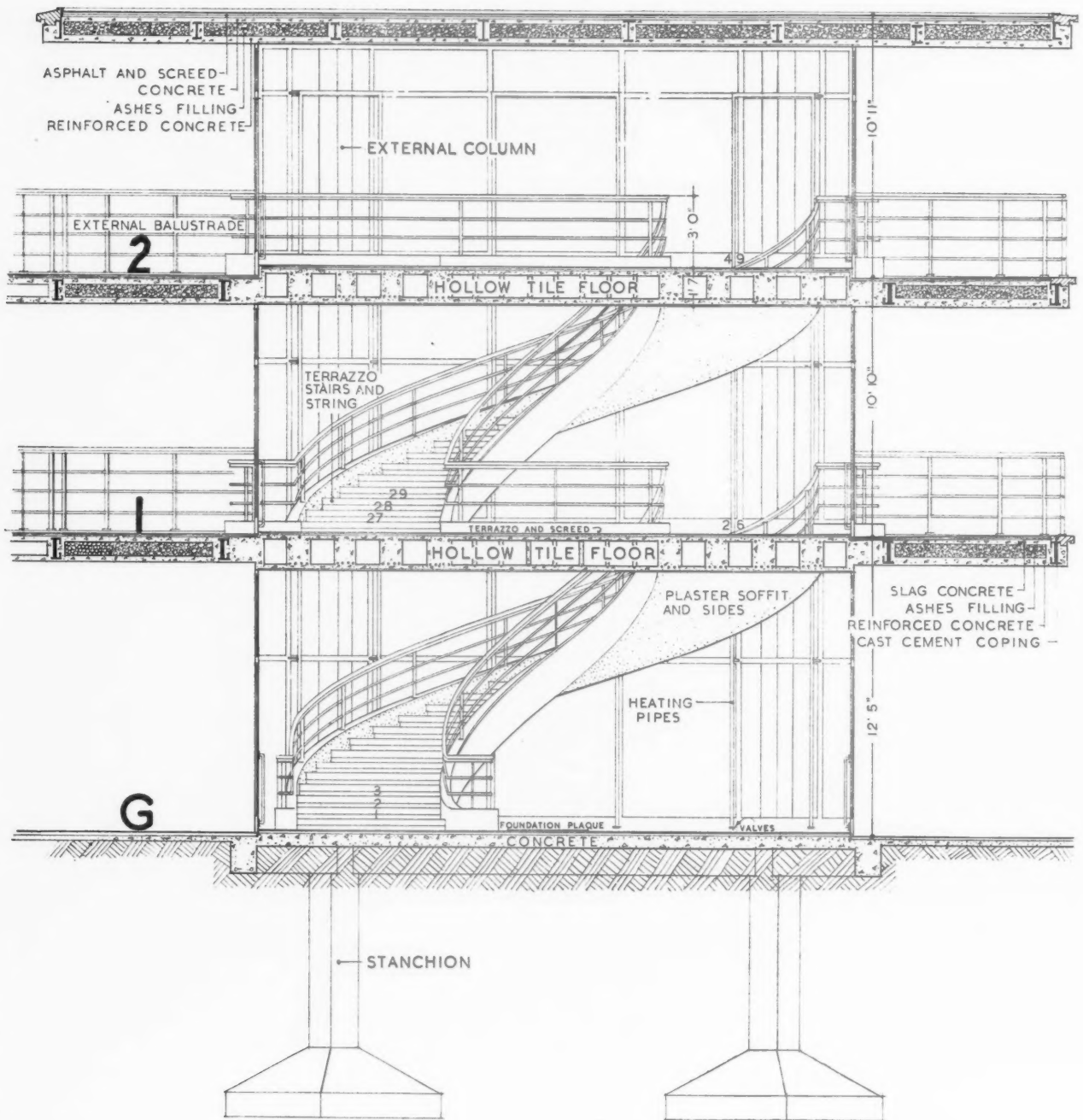
STAIRCASE AND BALCONIES • DE LA WARR PAVILION, BEXHILL • MENDELSON AND CHERMAYEFF



The two photographs on this page show the interior of the main semi-circular staircase bay with the spiral staircase inside it, and the exterior with the semi-circular sun balconies. As the section overleaf shows, the glass drum is entirely independent structurally from balconies or staircase, the balconies being carried on external columns and the staircase spanning unsupported from floor to floor. The drawing overleaf should be read in conjunction with Working Detail No. 382, also published in this issue.

# WORKING DETAILS : 380

STAIRCASE AND BALCONIES • DE LA WARR PAVILION, BEXHILL • MENDELSON AND CHERMAYEFF



## SECTION A-A

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Section through the staircase illustrated overleaf.

# WORKING DETAILS : 381

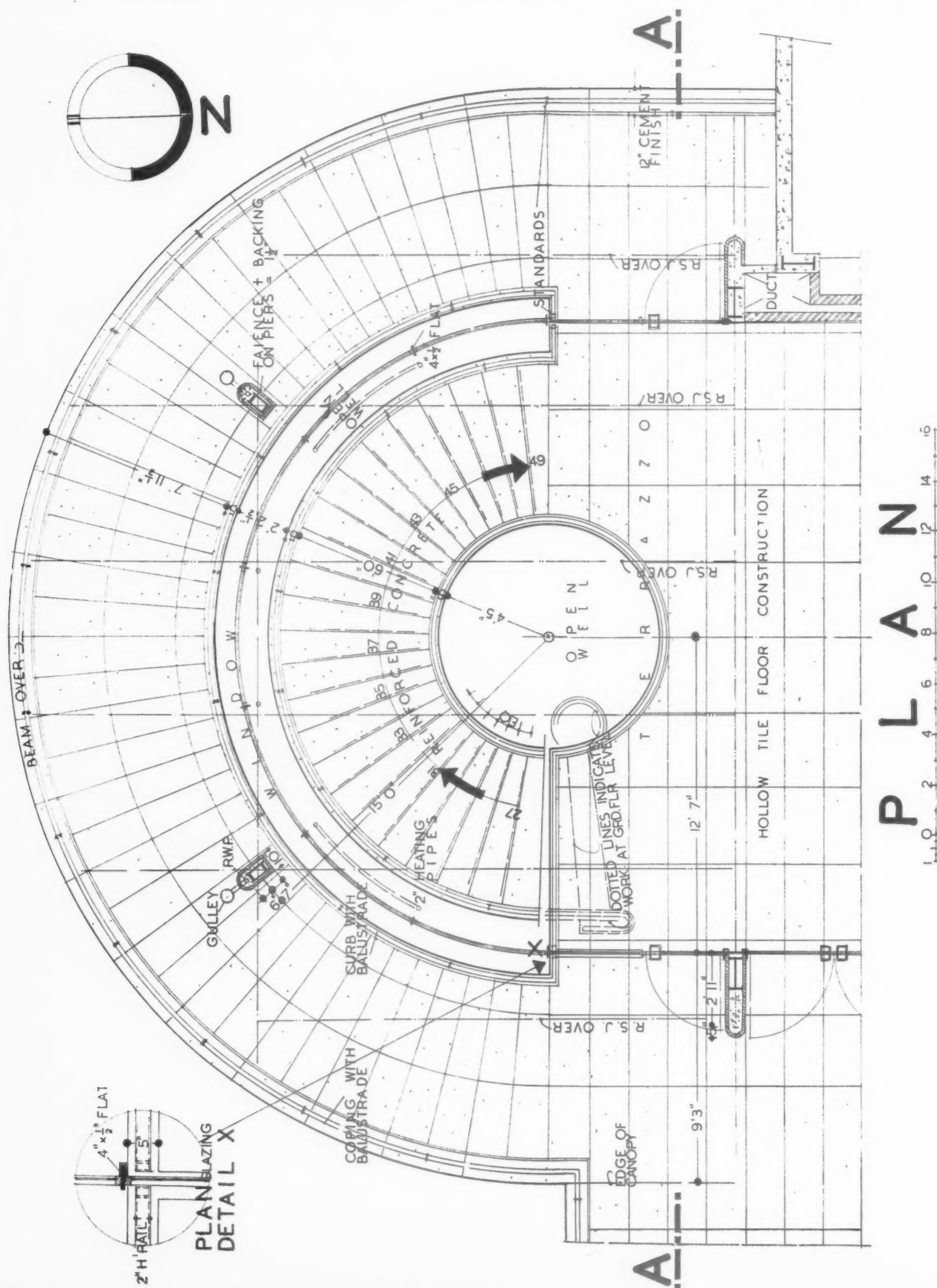
STAIRCASE AND BALCONIES • DE LA WARR PAVILION, BEXHILL • MENDELSON AND CHERMAYEFF



This photograph shows a night view of the staircase illustrated in Working Detail No. 379. Overleaf is a second floor plan through the internal staircase and balconies, showing how these units are structurally separate, and the arrangement of the vertical heating pipes inside the mullions. These pipes serve the dual purpose of heating the staircase and preventing condensation on the glass. The drawing should be read in conjunction with Working Detail No. 380, also published in this issue.

WORKING DETAILS : 382

STAIRCASE AND BALCONIES • DE LA WARR PAVILION, BEXHILL • MENDELSON AND CHERMAYEFF



Second floor plan of the staircase and balconies illustrated overleaf.



## L I T E R A T U R E

## THE MATTER OF COLOUR

[BY H. MYLES WRIGHT]

*Colour Design for Modern Interiors.* A series of eighty plates in full colours showing recent work of modern German and other continental designers. London: The Architectural Press. Price 42s.

IF strong feelings are aroused, and strong opinions held, about the outsides of contemporary buildings, there are at least a breadth and remoteness about the clashes that result from their expression which allows the lives of most families to continue undisturbed. As in politics, the day-to-day battle is chiefly for professionals and only rarely does the public express its views, based mostly upon associations, but once in a while upon results. And, again like politics, the professionals, save when their livelihood is sharply threatened, pay no attention whatever.

The case of the insides of houses is very different indeed. Only a few families have much power to control what the outside of their home looks like; all indulge now and then in interior decoration. The battle of the styles outside passes by the average individual. Not so the battle within.

Oddly, very oddly, as this field of design has increased in importance, the architect's guidance and control have diminished. The days of marble halls, oak stairs and panelled rooms have passed. In nearly all houses, even "architect-designed" houses, interior effect now depends on the treatment of plane surfaces, on hangings and on furniture. A little detail concentrated about the fireplace and perhaps one built-in fitting is all the "architectural shaping" which the family's budget can carry. And so, since the whole effect of the rooms depends upon a thoughtful selection of texture and of colour, expert advice becomes more essential—or so one would imagine.

Instead, through hurry or laziness, the architect's guidance is asked for less and less. One coat of cream distemper and some assorted paintwork is too often the limit of professional assistance; and even this is growing rarer as more wives "would rather do the decorations themselves."

As an ambition to achieve their own background this frequent determination is understandable. But not in its execution; for, in the event, they very rarely do the decoration themselves. Decorators, period and moderne; the furnishing departments of stores; and just ordinary painters and decorators, rush in to coax and flatter with fashionable suggestions

until individuality is lost in a miscellany of whimsies and tints which no scattering of personal belongings can pull together.

It is because the three qualities of most consequence in the modern living room are too often all forgotten, that *Colour Design for Modern Interiors* is so much to be welcomed. Far more important than what goes with the owner's romanticism, or the owner's furniture, are restfulness, to combat the perpetual stimuli that occur outside the twentieth-century house; an effect of roominess, to offset the small size of modern living-rooms; and economy, in first cost, upkeep and household labour.

Any decorative treatment, to be lastingly satisfying, must today possess these qualities; beyond them it must be left to the owner's taste to decide between quarry tiles, rush mats and pewter, and rubber floors and bent plywood. All that can be said definitely is that rooms in the future will be of simple shape, with large windows and doors devoid of complicated mouldings. Against this background most families must make their own surroundings—in colour, fabrics, and furniture.

The 80 plates in *Colour Design for Modern Interiors*, all of them the work of continental designers, show how backward this country is in the use of colour. That north rooms must have warmer colours than south, that monochrome increases apparent space whilst strong demarcation of small surfaces decreases it—these are about all, to judge from results, that we seem to know about colour. The designers whose work is shown in fine reproduction in *Colour Design*, have got much farther. Capacious insularity may object here and there that the decorative treatment is over-dramatized, and that the scale of some rooms has been stretched to the point of distortion—but these have really little to do with colour, in which we are obviously behindhand.

The extent and relationship of surfaces, the effect of light and shade, the values of monochrome and contrast—all these are worth an analytical study in the interiors shown.

Categorical listing is not helpful in a review which cannot, for technical reasons, be accompanied by colour reproductions, but the vestibule by F. A. Breuhaus; corner of a living room by C. Müller; living-rooms by H. Kämmerer, B. Kaminski, and H. Warkus; and a study by K. Groote, are all particularly worth thinking over by cautious adherents to buff distemper, and they all pass the triple test that has been stated. Of rooms

outside the home, the garden hall of a hotel by M. Stier, is wonderfully effective in pale grey-green, buff and orange, and the conference room of a factory by H. Kämmerer, looks what it should be, comfortably business-like.

*Colour Designs for Modern Interiors* should be considered as more than a portfolio of studies; it is a reference book of colour ideas and combinations which the public, and its advisors, might well think about before light-heartedly starting the next redecorating.

Most of us have a lot to put up with in our houses. Irreconcilables in the way of landlord's fixtures too often can neither be ignored nor removed. But nearly all discords between furniture and walls, fixtures and ambitions, can be overcome, if the problem is thoughtfully tackled. More books like this would make the struggle almost joyful.

## MR. YERBURY ON TOUR

[BY D. COSENS]

*One Hundred Photographs.* By F. R. Yerbury. London: Jordan-Gaskell. Price 18s.

SOMETIMES wonder how many people, and particularly how many architects, realize their debt to Mr. Yerbury. For many years he has travelled and brought back with him photographs of contemporary buildings from all over Europe and from America. So, no doubt, have many other people. But not only has Mr. Yerbury always been interested in the so-called modern movement in architecture, but also he has been in a position to judge the work that was being done abroad and to photograph what was either good or representative.

He published collections of photographs of some of the best foreign work at a time when most of even the more enlightened English architects were apt to be profoundly shaken by anything that, while attempting to adapt itself to the functional demands of an increasingly mechanical age, did not at the same time try to conceal the fact by the application of considerable ingenuity and a dim memory of the precepts of Palladio and Trystan Edwards. There can be little doubt that by familiarizing them with tendencies in building which most of them were far too busy to go and see for themselves, he influenced their outlook and their work considerably, and may indirectly take credit for starting a train of thought the vitality of which is today becoming apparent in this country.

And he continues to show architects and students of architecture what is going on abroad—whether they like it or not.

This new book is not the typical collection of photographs of modern buildings for which he is so well known,



*Chairs in Hyde Park. From "One Hundred Photographs."*

but, as he says in his preface, a miscellaneous collection taken from time to time of things that have interested him, arranged with deliberate inconsequence.

Remembering the very high standard Mr. Yerbury has set in photography, I am rather disappointed in a few of those chosen—but perhaps that is largely because the lack of any sequence or connection in this book forces one to judge each photograph separately, and very much more critically than one would tend to judge a more coherent collection.

Many of them have been published before. Many illustrate old friends, sometimes seen from an unusual angle, sometimes in a light that reveals hitherto unsuspected characteristics, but nearly always looking their best as part of a deliberately arranged composition.

And as one turns the page one is again reminded that Mr. Yerbury's success as a photographer is largely due to his knowledge of the camera's limitations. The chief function of photography is to give an accurate statement and to act as a permanent record of things seen and done, and in this it differs fundamentally from painting—a fact that the followers of both arts are too often apt to forget. Painting has nothing to learn from photography, but a good photographer, providing he sticks firmly to his basic idea of presenting a faithful record, will borrow largely from the technique of painting, in composition, the subtle use of perspective and any deliberate adjustment of light and shadow that helps to accentuate the character of his subject.

The technique so successfully originated by René Clair, wholly successful

as it is for moving pictures, which are seen, not as isolated shots, but in their whole context, is for that very reason not always suited to still photography.

It has led many a photographer into an enchanting fairyland of shapes and shadows where perfectly ordinary objects are wantonly distorted for the sake of the amusing compositions that they make.

Mr. Yerbury meets these temptations with discretion, and that, on the whole, is very wise in a book largely devoted to photographs of buildings. It is for his architectural photographs that he is justly famous. Often the effects produced must be the result of considerable guile, and although one can detect and admire his technical skill, it is never tiresomely obvious and is never allowed to defeat its own ends by becoming an end in itself.

Of all the photographs, I like best his *Doorway in the Louvre* (46). While using a composition of the simplest elements he seems to have caught some deserted midnight quality which is rather haunting and quite impersonal. To have seen and captured that, however accidentally, is, I think, a minor triumph. After that, with the exception of the charming tail-piece, about which there can be no hesitation, I find myself wavering between many favourites.

There is the *Alcala des Henares* (87); the expectant rows of chairs at the *Band Stand in Hyde Park* (47); the *Crystal Palace* looking more like its name than I have ever seen it (63); a lovely cloud photograph called *Air Travel* (43); the *Mussolini Forum* (32); a beautiful study in reflections at *Amsterdam* (72); a worthy memory of *Waterloo Bridge* (83); factory buildings at *Detroit* (54); a slightly

*Prix-de-Rome* rendering of the *Lazienki Palace at Warsaw* (6); *Drottningholm Palace, Sweden* (7), and finally, and perhaps best after the *Doorway in the Louvre*, a rather sad nostalgic version of *Gray's Inn* (16).

It is to be hoped that before the threatening storm breaks over Europe Mr. Yerbury will again take his camera, and, hurrying from land to land, add to the lasting records he has already made of the things that architects of this generation have attempted and sometimes achieved.

## PLANNING

[BY B. S. TOWNROE.]

*Design of Residential Areas.* By Dr. Thomas Adams. Harvard University Press. Price 15s. net.

DR. THOMAS ADAMS, since his return from the United States, has been a most prolific writer on town planning, and is giving generously of the experience which he has gathered. This includes about twenty years of private practice, during which he acted for seven years as Director of the Regional Plan of New York, and some ten years in the public service, first as Town Planning Inspector to the Local Government Board (now Ministry of Health) of England and Wales, and later as Town Planning Adviser to the Canadian Government.

Other recent books by Dr. Adams include *Recent Advances in Town Planning* and *Outline of Town and City Planning*, just published, and written primarily for American readers.

His book on the design of residential areas is a part of a series of reports, for which the Harvard School of City Planning are responsible, on "various phases of man's arrangement and use of his environment." This particular volume considers what are reasonably good living conditions and what is their least cost.

The monograph consists of two parts. The first deals with basic considerations which affect developments of land for housing in all urban areas; the second deals with broad principles and methods of design, and with a few practical examples of community and neighbourhood planning.

Much of the letterpress and many of the plans refer to the United States and are therefore not directly of interest to English readers. But they give the impression that housing conditions in America are infinitely worse than anything in this country. For example, Dr. Adams quotes from the Report of the New York State Board of Housing, which states that in a typical industrial city "seventeen per cent. of the buildings have dark rooms. These rooms have no outside window, not even a window in an interior wall to admit light and air indirectly from

another room." Such conditions would not, of course, have been allowed by any medical officer in this country, where an outside window is regarded as essential.

Dr. Adams has much to say that is helpful with regard to ribbon development. His conclusion is that we are in the midst of an era of sporadic effort in movements of policy associated with planning of cities. He again and again stresses the need of wise planning and zoning policies for controlling new residential developments and "the vital necessity of bringing the costs of land development in central as well as in suburban areas into such relationship with the total cost of buildings as will make possible reasonable densities and at the same time meet economic demands."

He has several interesting criticisms on garden cities in this country. For example, in regard to Letchworth, he states that "one weakness in the plan that has been revealed by experience is that the provision for a secondary business street near the streets designed for the principal business buildings has retarded the development of the latter." Unfortunately, the permanent shops erected on this street have absorbed "capital that should have gone to building up the streets adjoining the central square that were intended to be used for commercial purposes."

The book is full of information and ideas, but it would have been improved by drastic use of the editorial blue pencil, for there is repetition and tautology. These massive monographs have a useful part to play in the education of town planners, but Dr. Adams would be performing a real service to this country if he would publish a smaller volume summarizing his experience in more trenchant language. He has a real contribution to make to town planning thought, and this book, like his latest volume, will remain indispensable to leisured students of town planning.

The urgent need, however, today is for a vigorous statement by a man of experience that will bring home to the general public that town planning is not a by-path followed by doctrinaires, but needs the best and shrewdest brains of architects and engineers if the many problems ahead are to be wisely solved.

## DOWNS, FOREST AND WEALD

*The Sussex Landscape.* By W. Harding Thompson and Geoffrey Clark. A. and C. Black. Price 5s. net.

THIS is the fourth of the "County Landscapes," dedicated to the C.P.R.E. by these eminent regional planners, to be produced within a couple of years. Yet you might think to read its hundred octavo pages, that



Salamanca. From "One Hundred Photographs"

into them are pressed the knowledge and affection of a lifetime. Very likely it is so. Certainly it would occupy a good ten years of vacation expeditions to follow all the authors' signposts.

To set up signposts is the function of every guide-book, you will say. But with what discreet logic they are here set up those will appreciate who have something more than a passing acquaintance with Sussex. The writers—thank goodness!—do not reveal all her secret delights; they point where the worthy may discover them for themselves.

As before, the leading features of the county's face are depicted in the kernel of the book, the gem-like, brightly-hued map slipped into a pocket (this time, wisely, inward-opening). Professor Patrick Abercrombie's system of colouring and symbols of a dozen intriguing orders have been developed to convey information that is astonishingly complete and proportioned.

There are two other charts, one of geology—the true basic factor—and one of contours; and thanks to the

larger scale now adopted the reader can take in the lie of the land virtually at a glance. The letterpress is the fantasia on these themes.

Sussex occupies a remarkable—probably a precarious—position. Despite her nearness to the octopus, London, her eight south-seeking arterial roads, and the Southern Electric expresses, much of her countryside remains inviolate. "When so much land is available for building elsewhere it seems both criminal and illogical to sacrifice the natural beauty of the South Downs," I had just read, when a fox loped through the long grass stared me in the face, and slipped silently away—for I was lying in the shade of a thorn-bush on Mount Harry, over by Lewes. Criminal indeed! Yet here came, too, five separate aeroplanes droning the latest menace of mechanization over my head. Already much of the South Coast has suffered despoliation; wise planning alone will save Downs, forest and Weald.

H. F.



## LAW REPORTS

## NOTICE TO TREAT AFFECTING PART OF UNFINISHED HOUSE

*Silcock and Sons v. Green—King's Bench Division. Before Mr. Justice Charles.*

THIS was an important action concerning the Stepney Borough Council. Plaintiffs were Messrs. W. Silcock and Sons, builders, of 169 Cannon Street Road, E., and they sued Mrs. K. Green, of 86 Commercial Road, E., claiming damages for alleged breach of contract.

The case for Messrs. Silcock and Sons was that in September, 1934, they entered into a contract with Mrs. Green to rebuild premises at 365 Commercial Road, for £2,000. The work was commenced in October and went on till early in November, and they spent a good deal of money on labour and material. Then it was alleged that Mrs. Green, through her architect, directed them to discontinue the building and repudiated and put an end to the contract.

Mrs. Green, in her defence, pleaded that it became impossible for the contract to be carried out, and she was absolved from completing it and from any liability. The work on the building was discontinued because of a notice to treat for sale to the Stepney Borough Council of a part of the land upon which the building provided for in the contract was to have been erected. The notice to treat was served upon Mrs. Green by the Council under powers conferred upon them by statute.

Messrs. Silcock and Sons disputed that the notice to treat absolved Mrs. Green from liability for completion of the contract.

Mrs. Green, in reply, contended that by the terms of the contract the builders undertook to give notice required by any Act of Parliament, or the regulations and by-laws of any local authority, relating to the contemplated work, and that they also undertook to deposit such plans with the local authorities as might be necessary. It was alleged that Messrs. Silcock and Sons had not given the necessary notices and deposited the required plans with the local authority, and that if they had done so Mrs. Green would have known sooner of the proposed acquisition of the property by the Council. As it was, she contended she was unaware of it till the notice to treat was served.

Mrs. Green counterclaimed for the return of £400 which she had paid to the builders.

Messrs. Silcock and Sons did not admit they were required to give any notices to the Borough Council under the contract with Mrs. Green, or that they had failed to give such notices.

They further contended that the Stepney Borough Council were well aware of the proposed erection of the building, and that any failure to notify Mrs. Green about the intention to serve notice to treat was not due to any act or fault of theirs (the builders).

During the hearing of legal argument by counsel, his lordship commented that there did not seem much help for anyone to build in Stepney. "I thought there was encouragement to build these days," he said.

A little later his lordship remarked that he thought it appeared that if anyone was to blame in this case it was the Stepney

Borough Council. It looked as if they knew the building was being erected, but for some reason or other forgot.

## JUDGMENT

His lordship, in giving judgment, said that the builders made an application to the Stepney Borough Council to set up hoardings at 365 Commercial Road for the purpose of rebuilding the premises. It seemed that with that application for a licence the builders also submitted specifications of the building about to be erected. Having taken that step, the builders received from the Borough Engineers' and Surveyors' Department of the Council a licence to erect a hoarding for the purpose of rebuilding the premises. The licence was signed by the Borough Engineer and Surveyor, and dated October 4, 1934. It was contended that the builders should have given another notice at some period or other—a notice which related to matters of drainage.

It might be that Messrs. Silcock and Sons should have given that notice, said the judge, but in the particular circumstances of this case he was not sure of that. He had been told that in practice that notice was frequently not given, and in any case it was only a seven-day notice.

Work on the rebuilding proceeded, excavations were made, and the house rose to the level of the first floor. Messrs. Silcock and Sons did substantial work, in fact, upon the erection of the building in accordance with plans that had been approved by the London County Council and discussed with the District Surveyor. Then a Mr. Pitsea, who lived next door, became apprehensive—or said he became apprehensive—that the new building might be carried up to such a height that it would interfere with his light. So Mr. Pitsea, on October 24, wrote a letter to the Borough Surveyor. He was satisfied, Mr. Justice Charles went on, that the Borough Surveyor, or his office, knew all about the building which was being erected on the site, and that was shown by the signature on the licence for a hoarding. The Town Clerk of Stepney moved that notice be served on Mrs. Green for compulsory purchase of part of the site, and the notice was so served on November 1, 1934.

The taking of the property had been considered as far back as April, 1934, but up to October 24 of the same year apparently nothing had been done, and, indeed, the court had been told that nothing had been done down to the present day. That really gave rise to considerable doubt in his mind, said the judge, as to the *bona fides* of the notice. The notice to treat was received and accepted as a good notice by Mrs. Green, who put an end completely and definitely to her contract with Messrs. Silcock and Sons for the erection of the building.

It was contended on behalf of Mrs. Green that the notice to treat was a good one of which she was in law bound to take notice, and, indeed, that she was helpless in the matter. She averred that she did not, in truth, break the contract, but it was frustrated, the bottom having fallen out of it. The value of Mrs. Green's contention depended on the view taken of the notice to treat and the vital matter the court had to decide was whether that notice was good or not.

He was satisfied that the notice to treat was a bad one. In his view, if the notice was such as to cause a substantial interference with or alteration in the character of the building, then it was not good if it referred only to part of the building. The notice had to refer, in his judgment, to the whole of the building, and if it did not, then the person upon whom it was served could say to the Council that they must take the lot, and that if they did not they should not take any. The Council could be told that they could not take away a part which altered the character and amenities of the building, and that they must take the whole or none at all.

After referring to legal authorities on the matter, his lordship remarked that it seemed that he was, for the first time, applying the law, expressed as applicable to a completed building, to a partly-finished building, but he thought the law was just the same as if the building had been finished. He was of the opinion that as there would be a substantial interference with the building thus far erected and designed, the notice to take part of it was bad, and the Stepney Borough Council could not in law take a part of the building. The notice also referred only to lands, and he had come to the conclusion that that was another defect in it.

Referring to what Mrs. Green could have done on receiving the notice, his lordship said she could have thrown it in the waste paper basket. She could have written and told the Council that she was not going to part with a portion of the building, and that if they wanted anything they must take the whole of the premises. It was now known that the Council's answer to that would have been that they were not going to take the whole, and Mrs. Green could then have told the builders to go on with the erection.

A whole year had elapsed, and not a single step had been taken to widen the street as was contemplated. It might be that the notice to treat was given Mrs. Green because of pressure put upon the Council by Mr. Pitsea.

He was of the view that there was clearly no sort of frustration, and Mrs. Green was bound to implement the contract with Messrs. Silcock and Sons into which she had entered. The builders were entitled to damages for wrongful termination of the contract in breach of Mrs. Green's legal obligation. They had received £400 already, and they claimed for loss of profit and other matters a further sum of £465.

His lordship thought that certain deductions totalling about £65 should be made from the sum claimed, and he gave judgment in favour of Messrs. Silcock and Sons for £400. He also gave judgment for them upon Mrs. Green's counterclaim for the return of the £400 already paid.

Judgment was accordingly entered for Messrs. Silcock and Sons for £400 with costs, and judgment was also entered for them on the counterclaim with costs.

In applying for a stay of execution pending a possible appeal, counsel for Mrs. Green remarked that she was an innocent party. She was, he said, out of pocket, and it was a case of great hardship. It was a matter of her being between the devil and the deep blue sea.

"I am sorry for her," commented his



lordship, who added that he hoped she would succeed if and when she made a claim against the Stepney Borough Council.

Remarking that Messrs. Silcock and Sons had also suffered, his lordship granted a stay of execution for fourteen days providing £100 was brought into court and the costs paid on the usual undertaking, the stay to be continued if an appeal was entered.



#### CLAIM FOR DILAPIDATIONS

*Rann v. Anderson.—King's Bench Division. Before Mr. Justice Singleton.*

THIS was an action by Mr. J. S. Rann, of Hornimans Drive, Forest Hill, S.E., against Mrs. Violet Anderson, wife of Dr. Maurice Anderson, of Portland Road, South Norwood, claiming two quarters' rent of a house and damages for alleged breach of covenant in regard to dilapidations. The defence was a plea that the lease of the house had been surrendered.

Mrs. Anderson and her husband, who carried on his practice there, entered into occupation of the house in 1930, and the tenancy agreement was said to have been one for three years, subject to an option for renewal by Mrs. Anderson for a further three years. The option, it was stated, was exercised by Mrs. Anderson in June, 1933.

His lordship, in giving judgment, after hearing evidence, said that Mrs. Anderson left the house last year and sent the keys to the agent. She declined to pay rent in respect of the two quarters for which she was now sued, because she averred that in December, 1934, Mr. Rann took a surrender of the term of the lease and thereafter no rent became payable under the agreement. There was an interview in October, 1934, and it was sufficient for

him to say, said his lordship, that he accepted the account of Mrs. Rann, wife of the plaintiff, in regard to that interview. Mrs. Rann denied that she told Mrs. Anderson that vacant possession was required as they wanted to sell the house, but Mrs. Anderson stated that there was a discussion about selling, and she told Mrs. Rann she would look for another house. He could not think that the chance of Mr. Rann selling the house would be greater if it was empty. He was bound to say there was no force, whatever, in the allegation by Mrs. Anderson that there was an agreement

that the lease should be surrendered, and that it was surrendered. He was satisfied from the evidence that there was no such agreement to surrender. He was of the view that Mrs. Anderson thought that Mr. and Mrs. Rann would be able to let the house pretty soon, and trusted to friendship that they would not sue for the rent. Having been friends of Mr. and Mrs. Rann, Mrs. Anderson and her husband left the property without telling them they were doing so. He entered judgment for plaintiff for £40 for rent and for £45 for dilapidation claim.

## TRADE NOTES

[EDITED BY PHILIP SCHOLBERG]

#### Spacers for Reinforcing Rods

THE difficulty of ensuring that rods in reinforced concrete floors have the necessary cover can be overcome in various ways, from the simple wood blocking that is removed as the floor is poured, to the threading of distance washers over the rods.

And now the Adamite Company has introduced a new type of spacer called the H.S.V., made up of 20 gauge mild steel strip in widths of  $\frac{1}{2}$ ,  $\frac{3}{4}$  and  $\frac{7}{8}$  of an inch, according to the thickness of the rod. The strip is laid on edge and the rods rest upon it, thus being kept the right distance from the shuttering.

Type A, for hollow tile floors, is in the form of a V with  $\frac{1}{2}$  in. legs, so that it can be placed on the shuttering between the rows of hollow tiles.

Type B, for solid floors, consists of a 12 ft. length of strip bent concertina shape with 6 in. arms. When ready for laying on the job the spacers are pulled out to a length of 9 ft. and dropped on the shuttering at 3 ft. centres. The rods are then laid across them.

Cost works out at approximately 1½d. per yard super, and the system should be well worth trying, partly for the sake of saving trouble and time, and also to make

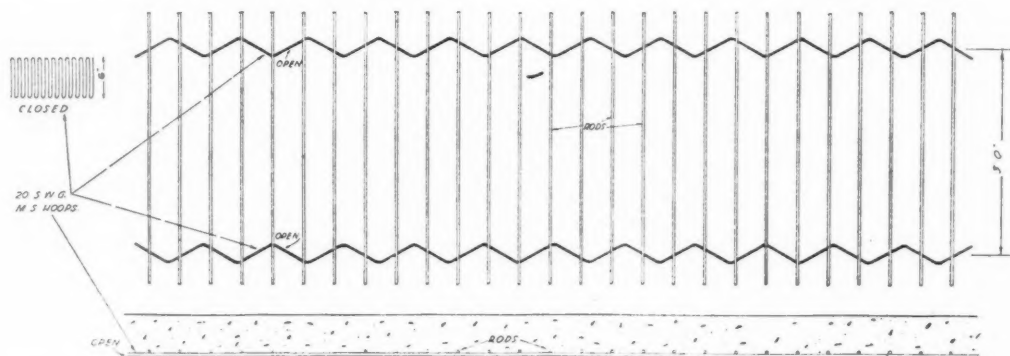
quite certain that the specified cover is really given, and that the builder has no possible chance of explaining away faults in construction by maintaining that they are inevitable.

#### Timber Seasoning

A further publication in the series of Forest Products Research records has been issued by the Department of Scientific and Industrial Research.\* This deals with timber seasoning and is intended as a brief guide to the correct and economic drying of timber. The principles and recommendations laid down apply to timber generally and not necessarily to individual species, and the advantages of air seasoning and kiln seasoning are discussed in some detail.

An interesting point brought out in the pamphlet is that it is not possible to dry timber out of doors in this country enough for use in artificially-heated buildings; under the most favourable circumstances the moisture content might conceivably be reduced to about 12 per cent. in the height of summer, but 18 per cent. represents a far more usual figure, whereas a moisture content of 9-12 per cent. is required

\* *Timber Seasoning.* Forest Products Research Record No. 4. Published by H.M. Stationery Office. Price 6d. net.



Plan and section through typical reinforced concrete floor showing the application of H.S.V. spacers. (See note on this page.)

for interior woodwork in buildings of this type.

Methods for checking the progress of seasoning are described and suggestions are given on the piling of the timber and drying rates and times and, in the case of air seasoning, on the best time of year to pile.

It is pointed out that certain refractory hardwoods, which take months to season in a kiln, can, if allowed to season in air for a year or so beforehand, be kiln-seasoned in a week or two. The pamphlet deals with the means of preventing damage to timber during the seasoning process. Unfortunately, the conditions least likely to lead to splitting and checking are those most suitable for the development of stain, mould and other fungus growth, which always requires the presence of a certain amount of moisture in the wood. Fortunately, however, the timbers most susceptible to fungus attack are, in general, those most tolerant of severe drying conditions.

### Welsh School of Architecture

The annual exhibition of designs and measured drawings by students of the above School was held recently at the Technical College, Cardiff. The exhibition was arranged jointly by the South Wales Institute of Architects' Central (Cardiff) Branch and the Welsh School of Architecture.

The exhibition was declared open by the Lord Mayor (Alderman G. Fred Evans, J.P.), Mr. C. F. Jones presiding over the ceremony.

Mr. W. S. Purchon, F.R.I.B.A., the head of the School, in his address, said that the School was opened rather more than 15 years ago. During that time the School had gradually developed, first being granted the "intermediate" exemption of the R.I.B.A. and, later, the "final" exemption of that body, which meant that its examinations were recognized as exempting successful students from the whole of the examinations leading to the associateship of the R.I.B.A. Two years ago the examinations of the Welsh schools were accepted as providing a full qualification for admission to the register established in connection with the Architects' Registration Act.

Last session six students completed the full-time five years' course and were awarded the college diploma, carrying with it the exemptions. The six students were J. H. Sheridan-Shedden, J. L. Milburn, D. H. Graham-Cumming, J. P. Hall, D. H. Lewis and Miss A. M. Wride.

Six students were awarded certificates at the end of their third year, and were thus exempted from the R.I.B.A. intermediate examination. Two of these students (N. P. Thomas and L. W. D. Wall) were granted the special certificate with distinction. During the previous session, Messrs. D. W. Roberts, H. J. W. Lewis, and G. L. Price reached the final stage in the competition for the R.I.B.A. Victory scholarship. In the final result announced during last session, H. J. W. Lewis was

awarded honourable mention. During last session, H. E. A. Scard was a finalist for the Tite Prize; H. J. W. Lewis and D. W. Roberts were finalists for the Soane Medallion; while D. W. Roberts was a finalist for the Rome Prize.

The outstanding success of the past session was the winning by N. P. Thomas and L. W. D. Wall of both the Archibald Dawney scholarships, each valued at £50 a year for two years. As H. E. A. Scard won a Dawney Scholarship in the previous session, of the four present Archibald Dawney scholars, three were thus students of the Welsh School of Architecture.

In many ways the R.I.B.A. and the South Wales Institute of Architects had been helpful to the School, while several of the leading local architects and others continued to help individually by the award of prizes and by acting as honorary lecturers, examiners, and members of Design Juries.

### Manufacturers' Items

Following is a list of some recent contracts obtained by the Trussed Concrete Steel Co., Ltd.

STRATFORD, E. : Reconstruction of bunkers and boiler house for Messrs. Boake Roberts & Co. General contractors : A. E. Symes, Ltd. Reinforced Concrete Engineers : The Trussed Concrete Steel Co., Ltd.

FALKIRK : Refuse disposal plant for the Borough of Falkirk. Architects : Cruikshank and Seward, F./F.R.I.B.A. Reinforced Concrete Engineers : The Trussed Concrete Steel Co., Ltd.

LONDON, E.1 : Shops, flats and workshops at 2-10, Heneage Street. Architect : G. C. Winbourne, A.R.I.B.A. Contractors : A. Class and Sons. Reinforced Concrete Engineers : The Trussed Concrete Steel Co., Ltd.

MALDEN : New Cinema. Architect : David E. Nye, A.I.A.A. Contractors : James Smith and Sons (Norwood), Ltd. Hy-Rib reinforcement is being used for the suspended ceilings.

CHISWICK : Manor Garden flats. Contractors : Hewett, Ltd. Reinforced Concrete Engineers : The Trussed Concrete Steel Co., Ltd., also supplying Truscon precast floors.

CARDIFF : Offices at 96, St. Mary Street. Architects : Henry Budgen & Co. Contractors : E. Turner and Sons, Ltd., Cardiff. Reinforced Concrete Engineers : The Trussed Concrete Steel Co., Ltd.

BIRMINGHAM : Research Laboratory for the Mond Nickel Co., Ltd., a reinforced concrete frame building. Architect : H. Williamson. Reinforced Concrete Engineers and Constructors : The Trussed Concrete Steel Co., Ltd.

LONDON : Shops and flats at 300/308, Marylebone Road, N.W.1, in reinforced

concrete. Architect : Frank Scarlett, B.A., A.R.I.B.A. General contractors : Kirk and Kirk, Ltd., Putney. Reinforced Concrete Engineers : The Trussed Concrete Steel Co., Ltd.

LONDON, N.1 : Electricity showroom at Holloway Road. A reinforced concrete framed building. Architect : E. C. P. Monson, F.R.I.B.A. General contractors : J. Gerrard and Sons, Ltd., London. Reinforced Concrete Engineers and Constructors for the reinforced concrete work : The Trussed Concrete Steel Co., Ltd.

LONDON, N.W. : John Barnes, Ltd., Finchley Road. Architects : T. P. Bennett and Son. General contractors : Gee, Walker and Slater. Hy-Rib "Key-mesh" reinforcement is being used for the suspended ceilings.

WORTHING : Messrs. Bentalls' premises. Architects : Sir Aston Webb and Son. General contractors : Frank Sandell and Son, Hy-Rib "Key-mesh" reinforcement is being used for the suspended ceilings.

The Norris Warming Co., Ltd., and F. A. Norris & Co., Ltd., Engineers, have removed their offices to Burley House, Theobalds Road, W.C.1. Telephone No. : Holborn 7833 (10 lines).

The International Bath Association states that the first year's sales of I.B.A. standard Artisan baths exceeded 30,000. The larger sizes of standard baths, known as the I.B.A. Magna baths, sold even more quickly, the total reaching 42,000 within six months of their introduction.

The standard Artisan and Magna baths and a "Five-Purpose" bath, for houses in which there is no space for a separate bathroom, are to be exhibited in the new Sanitary Section of the Building Centre, New Bond Street, which is to be opened in January.

## THE BUILDINGS ILLUSTRATED

KIRKLEY HALL, NORTHUMBERLAND (pages 944-947). The general contractors were Henry Kelly, Ltd. The principal subcontractors and suppliers included :—

J. A. King & Co., Ltd., concrete blocks and fireproof floors; R. N. Cairns, central heating; National Radiator Company, boilers; Allison and Son, plumbing; Shanks & Co., sanitary fittings; N. F. Ramsay & Co., door furniture; Cress & Co., electric wiring; Sanderson & Co., plaster; Robert Brown & Co., tiling.

CHRIST'S HOSPITAL LIBRARY, HERTFORD (pages 948-949). The general contractors, who were also responsible for the bookcases and panelling, were Henry Morris and Son, Ltd. The principal subcontractors and suppliers included :—

Jacob, White & Co., Ltd., electrical installation; Durbin and Sons, central heating; Gordon Stark, furniture.

## THE WEEK'S BUILDING NEWS

## LONDON &amp; DISTRICTS (15-MILES RADIUS)

**BATTERSEA.** *Fire Station.* The L.C.C. is to erect a new fire station in Este Road at a cost of £17,080, to replace the Battersea station which was built in 1874.

**BETHNAL GREEN.** *Rehousing.* The L.C.C. is to undertake a rehousing scheme on the Pedley Street area, Bethnal Green, at a cost of £35,000.

**CAMBERWELL.** *Tenements.* The L.C.C. has arranged for Messrs. E. D. Winn & Co., Ltd., to erect two further blocks of tenements on the Friary estate, Camberwell, at a cost of £22,400.

**CAMBERWELL.** *Flats.* Plans passed by the B.C.: Block of flats, Southampton Street, for Mr. G. A. Stepleton; extensions, Canterbury Tavern, Canterbury Road, for Messrs. Courage & Co., Ltd.; rebuilding, Marlborough Arms P.H., Dalwood Street, and alterations, Duke of Clarence P.H., Camberwell Road, for Messrs. Charrington & Co., Ltd.; rebuilding, Asylum Tavern, Asylum Road, for Messrs. Nowell, Parr and Son; post office, Lordship Lane, for Messrs. Dixon and Braddock; additions, Bee Hive beerhouse, Meeting House Lane, and rebuilding Royal George P.H., Rotherhithe New Road, for Messrs. Eedle and Myers.

**EAST HAM.** *Houses, etc.* Plans passed by the Corporation: 20 houses, Park Avenue, for Messrs. C. Living and Son; additions, 590 Romford Road, for Mr. H. Bailey; five houses, Langdon Road, for Mr. A. E. Bebington; 10 houses, Bonny Downs Road, for Mr. A. H. Middleton; four houses, Little Ilford Lane, for Mr. S. A. Newlyn.

**FULHAM.** *Flats.* Samuels Trust, Ltd., are to erect a block of flats in High Street, Fulham.

**FULHAM.** *Housing.* The B.C. has appointed Messrs. C. E. Ball and Partners as quantity surveyors in connection with the housing scheme in Fulham Palace Road, for which a compulsory Purchasing Order has been confirmed by the Ministry of Health.

**GREENWICH.** *Flats.* The B.C. is to acquire a site at Charlton for the erection of 80 flats.

**HARROW.** *Flats.* Mr. G. F. S. Davis proposes to erect flats, squash racquet courts and a swimming pool on the Sudbury House Estate.

**HARROW.** *Shops and Flats.* The U.D.C. has approved plans for the erection of a block of 10 shops, with 20 flats over, in Alexandra Avenue, by Messrs. T. F. Nash; and for 22 shops, with 44 flats over, in Northolt Road, by Messrs. Grainger and Apthorpe.

**HARROW.** *Cinema, etc.* Messrs. Marshall and Tweedy have submitted plans to the U.D.C. for the provision of a cinema, car park, six shops with 12 flats over, a block of 24 flats and 10 lock-up garages at Manor House, Station Road, Sheepcote Road and Bonnersfield Road.

**KENTON.** *Hall.* Messrs. J. Laing and Son, Ltd., have submitted plans to the Harrow U.D.C. for the proposed erection of a church hall at Culver Grove.

**KINGSTON.** *Extensions.* The Surrey Education Committee is preparing plans for extensions at the Kingston technical college.

**LAMBETH.** *Flats.* Mr. J. J. Joass is to erect a block of flats at Albert Embankment and Lambeth Road.

**LAMBETH.** *Rehousing.* The L.C.C. is to clear further areas of Lambeth and provide rehousing at a cost of £37,000.

**SHOREDITCH.** *Tenements.* The L.C.C. is to erect 264 tenements and 17 shops on the Haggerston Road area, Shoreditch, at a cost of £142,300.

**VIEWSLEY.** *Stores.* New stores are to be erected at 50 and 50a High Street, for Messrs. F. W. Woolworth & Co.

## SOUTHERN COUNTIES

**BRIGHTON.** *Houses, etc.* Plans passed by the Corporation: 18 houses, Elms Estate, Patcham, for Mr. Thos. W. Bassett; two houses, Sunnydale Avenue, for Mr. J. Sweeney; 57 bungalows, Farm Hill Estate, Woodingdean, for Coastal Estates, Ltd.; five shops and houses, Longridge Avenue, for Saldean Estate Co.; alterations, 55-6 Kings Road, for Jays Jewellers, Ltd.; factory extension, 93 Lewes Road, for

Messrs. A. H. Cox & Co., Ltd.; church hall, Dyke Road, for Church of Good Shepherd; 15 houses, Friar Close, for Sussex Building and Property Co., Ltd.; four houses, Greenfield Crescent, for Alliance Construction Co.; two shops, Whitehawk Road, for Mr. Lewis C. Cohen; reconstruction, Phoenix Brewery, Phoenix Place, for Tamplin and Sons Brewery, Ltd.; alterations, White Hart P.H., York Hill, for Portsmouth and Brighton Breweries, Ltd.; 20 houses, Court Close, Patcham, for Mr. Edward Stephens; two houses, Overhill Drive, for Messrs. Braybans, Ltd.; two houses, Friar Road, for Mr. C. W. Comber; additions, St. John's Home, Walpole Road, for Sister Superior; two houses, Stanmer Park Road, for Mr. W. A. Fuller.

**BRIGHTON.** *Houses and Flats.* The Corporation is to prepare plans for the erection of 112 houses on the Chichester estate, and a block of 48 flats in Nelson Row.

**BRIGHTON.** *Development.* Messrs. Varndean Estates, Ltd., is to develop a further 27 acres on the Withdean estate, Brighton.

**BRIGHTON.** *Houses.* The Corporation has approved a scheme for the erection of 200 houses on the Hodshrove Farm Estate.

**BRIGHTON.** *Flats.* Messrs. Catchpole and Doxin are to erect 75 flats on the Hatch Beauchamp Estate, Brighton.

**BRIGHTON.** *Hospital.* The Corporation has approved revised plans for the erection of an admission hospital at the mental institution at a cost of £30,000.

**PORTSMOUTH.** *Houses, etc.* Plans passed by the Corporation: Two houses, Uplands Road, for Messrs. Curtis and Hankins, Ltd.; alterations, Delhi beerhouse, Delhi Street, for Messrs. J. J. Young and Son, Ltd.; rebuilding joinery works, Melbourne Street, for Mr. G. Bedwell; four houses, St. Andrews Road, for Mr. F. Bennett; three houses, Merrivale Road, for Messrs. Dye Bros.; two houses, off Havant Road, for Mr. C. Hibberd; alterations, Centurion beerhouse, Cross Street, for Portsmouth and Brighton Breweries, Ltd.; warehouse extension, Vivash Road, for Messrs. John Palmer, Ltd.; laundry extensions, 16-40 Kingston Crescent, for Messrs. A. and E. Chapman; alterations, Swan P.H., Cesham High Street, for Messrs. Brickwood & Co., Ltd.

**SELSEY.** *School.* The West Sussex County Council has instructed the County Architect to prepare plans for the erection of a school for 160 senior mixed children, and for the extension of the present infants' school by the addition of two or three extra classrooms, hall and staff rooms.

## SOUTH-WESTERN COUNTIES

**PLYMOUTH.** *Houses, etc.* Plans passed by the Corporation: 218 houses, Westmill estate, St. Budeaux, for Messrs. Davis Estates, Ltd.; six houses, Kenilworth Road, for Mr. F. Westcott; nine houses, Ladysmith Road, for Mr. J. Rendle; five houses, Newman Road, for Mr. A. E. Searle; alterations and additions, Old Road Inn, Old Laira Road, for Octagon Brewery, Ltd.; two shops and offices, Alexandra Road, for Mr. J. F. Stanbury; factory extensions, Alexandra Road, for Messrs. Brown, Wills and Nicholson; alterations, 75-85 Mutley Plain, for Messrs. Chas. Harding, Ltd.; alterations and additions, Athenæum Hotel, Athenæum Street, for Mr. H. F. Stebbing; alterations and additions, 96-8 Fore Street, for Messrs. Montague Burton, Ltd.

**SWINDON.** *Houses.* Plans passed by the Corporation: Four houses, Marlborough Road, for Messrs. E. H. Bradley and Sons; five houses, Moredon Road, for Messrs. R. J. Beswick and Son; 69 houses, off Vicarage Road, for Messrs. E. W. Beard, Ltd.; 58 houses, Northern Road, for Mr. A. J. Colborne; cinema and shops, Regent Street, for Mr. W. R. Glen; reconstruction, 32-4 Bridge Street, for Messrs. W. J. Dacombe and Son.

**TORQUAY.** *Reconstruction, etc.* Plans passed by the Corporation: Reconstruction, 9-11 Lucius Street, for Mr. T. Grimes; 160 houses, Shipway Park estate, for Mr. J. Lloyd; 16 houses, Great Brake estate, for Mr. H. C. Powell; rebuild-

ing, Gibbols Hotel, Torwood Street, for Hotel Co.; four houses, Sherwell Valley, for Chelston Building Co.; two houses, Cadewell Lane, for Mr. F. G. Radford.

## MIDLAND COUNTIES

**BIRMINGHAM.** *Power Station Buildings.* The Corporation is to enlarge the power station buildings at a cost of £88,830.

**BIRMINGHAM.** *Housing Estate.* The Corporation is to develop a housing estate at Springfield Farm at a cost of £57,000.

**BIRMINGHAM.** *Houses.* The Corporation is to erect 159 houses at Chester Road at a cost of £62,000.

**BIRMINGHAM.** *School.* The Birmingham Education Committee is to obtain a site on the Stonehouse Farm estate for the erection of an elementary school.

**WOLVERHAMPTON.** *Cinema, etc.* Plans passed by the Corporation: Cinema, Skinner Street, for Odeon Theatres, Ltd.; three houses, Ribblesford Road, for Mr. G. H. Guest; showroom, Birmingham Road, for Mr. J. Nicholls; two houses Willenhall Road, for Mr. E. Howard; six houses, Ribblesford Avenue, for Messrs. J. Shutt and Son; three shops, Penn Road, for Co-operative Wholesale Society, Ltd.; public house, Penn Road, for Holt Brewery Co., Ltd.; four houses, Hollybush Lane, for Mr. G. Bates; four houses, Warstones Crescent, for Messrs. A. M. Griffiths and Son, Ltd.; Sunday school, Wesley Road, for Rev. G. P. Owen; 54 houses, off Nine Elms Lane, for Mr. F. Walker; 36 houses, Wyrley Street, for Messrs. A. Poole, Son and Co.; 36 houses, Powell Street, for Mr. H. Grindley; shop and house, Hollybush Lane, for Mr. J. Dainty; warehouse, Raby Street, for Messrs. T. J. Cook and Son; two houses, Bhylls Lane, for Messrs. F. Hughes, Ltd.; four houses, Finchfield Lane, for Messrs. Biddulph and Thrift; hospital extensions, Compton Road, for Eye Infirmary Committee; two houses, off Pinfold Lane, for Mr. W. L. Jones.

## NORTHERN COUNTIES

**BARROW-IN-FURNESS.** *Cinema, etc.* Plans passed by the Corporation: Cinema, Abbey Road, for Mr. James Brennan; alterations, Sandgate Hotel, Salthouse Road, for Messrs. Ind, Coope and Allsopp, Ltd.; two houses, Ainslie Street, for Messrs. Grundy and Liddell; 54 houses, Highfield Road, for Mr. W. Hull; 14 houses, Harrogate Street, for Messrs. T. Chester and Sons.

**BRADFORD.** *Houses.* The Bradford City Architect is preparing plans for the erection of 288 houses on the Canterbury estate.

**CARLISLE.** *Extensions, etc.* Plans passed by the Corporation: Workshop extension, Scotland Road, for Messrs. W. H. Reeves and Son; estate development, Eterby Lea, for Border Engineering Contractors, Ltd.; 16 houses, Moorhouse Road, for Messrs. Benwell and Slack; 76 houses, Knowe Park estate, for Messrs. J. Laing and Son, Ltd.; two houses, Newtown Road, for Mr. H. E. Scarborough; pavilion extension, Newtown Road, for Mr. J. Wright; two houses, Moorhouse Road, for Mr. J. Little; two houses, Warwick Road, for Mr. H. Foxall; 28 houses, Croft Road, for Mr. E. C. Coleman.

**SOUTH SHIELDS.** *Hotel.* The Corporation has leased a site in Sea Road to the Durham and Northumberland Licensed Victuallers' Association for the erection of an hotel.

**SOUTH SHIELDS.** *School Centre.* The South Shields Education Committee has approved plans for the erection of a school centre for boys, at a cost of £8,599.

**SOUTH SHIELDS.** *Houses, etc.* Plans passed by the Corporation: Two houses, Coleman Avenue, for L.N.E.R. Homes Committee; two bungalows, Clyvedon Rise, for Mr. C. Rogers; bank, Dean Road, for Martin's Bank, Ltd.; alterations, Old Durham Billiard Hall, Cuthbert Street, for Mr. J. R. Wallace; five houses, Vine Street, for Mr. J. Carr; four bungalows, Sunnyside Drive, for Messrs. G. R. Smith and Partners; shop, Oxford Street, for Mr. Howard Hill.



# 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	II				I	II			I	II	
			s. d.	s. d.				s. d.	s. d.			s. d.	s. d.	
A <sub>1</sub>	<b>ABERDEEN</b> ..	S. Wales & M.	1 5	1 1½	A <sub>2</sub>	<b>EASTBOURNE</b> ..	S. Counties	1 5	1 0½	A	Northampton	Mid. Counties	1 4½	1 0½
A <sub>1</sub>	Aberdeen ..	Scotland	1 6	1 1½	A <sub>1</sub>	Ebbw Vale ..	S. Wales & M.	1 5½	1 1½	A	North Staffs ..	Mid. Counties	1 6	1 1½
A <sub>1</sub>	Abergavenny ..	S. Wales & M.	1 5½	1 1½	A <sub>1</sub>	Edinburgh ..	Scotland	1 5	1 1½	A	North Shields ..	N.E. Coast	1 6	1 1½
A <sub>1</sub>	Abingdon ..	S. Counties	1 4½	1 0½	A <sub>1</sub>	E. Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1 5½	1 1½	A <sub>1</sub>	Norwich ..	E. Counties	1 5½	1 1½
A <sub>2</sub>	Accrington ..	N.W. Counties	1 6	1 1½	A <sub>2</sub>	Exeter ..	S.W. Counties	1 5	1 0½	A	Nottingham ..	Mid. Counties	1 6	1 1½
A <sub>2</sub>	Addlestone ..	S. Counties	1 4½	1 0½	H	Exmouth ..	S.W. Counties	1 4	1 0	A	Nuneaton ..	Mid. Counties	1 6	1 1½
A	Adlington ..	N.W. Counties	1 6	1 1½										
A	Aldrie ..	Scotland	1 6	1 1½	A <sub>2</sub>	<b>FELIXSTOWE</b> ..	E. Counties	1 4½	1 0½	A	<b>OAKHAM</b> ..	Mid. Counties	1 4½	1 0½
C	Aldeburgh ..	E. Counties	1 2	1 0½	A	Fley ..	Yorkshire	1 4½	1 0½	A	Oldham ..	N.W. Counties	1 6	1 1½
A	Altrincham ..	N.W. Counties	1 5	1 0½	A	Fleetwood ..	N.W. Counties	1 5	1 1½	A <sub>2</sub>	Oswestry ..	N.W. Counties	1 4½	1 1½
B <sub>2</sub>	Appley ..	N.W. Counties	1 2½	1 1	A <sub>2</sub>	Folkestone ..	S. Counties	1 3½	1 1½	A <sub>1</sub>	Oxford ..	S. Counties	1 5½	1 1½
A <sub>2</sub>	Ashton-under-Lyne	N.W. Counties	1 6	1 1½	A	Frodsham ..	N.W. Counties	1 6	1 1½					
B <sub>1</sub>	<b>AYLESBURY</b> ..	S. Counties	1 3½	1 1½	B <sub>1</sub>	Frome ..	S.W. Counties	1 3	1 1½					
					B <sub>2</sub>									
B <sub>1</sub>	<b>BANBURY</b> ..	S. Counties	1 3½	1 1½	A	<b>GATESHEAD</b> ..	N.E. Coast	1 6	1 1½	A	<b>PAISLEY</b> ..	Scotland	1 1½	1 1½
B <sub>1</sub>	Banger ..	N.W. Counties	1 3½	1 1½	B	Gillingham ..	S. Counties	1 4	1 0	B	Pembroke ..	S. Wales & M.	1 2½	1 1
A <sub>1</sub>	Barnard Castle	N.E. Coast	1 4½	1 0½	A	Glasgow ..	Scotland	1 4	1 0	A	Perth ..	Scotland	1 6	1 1½
A <sub>1</sub>	Barnsley ..	Yorkshire	1 4	1 0	A	Gloucester ..	S.W. Counties	1 5	1 0½	A <sub>1</sub>	Peterborough ..	E. Counties	1 5½	1 1½
A	Barnstaple ..	S.W. Counties	1 4	1 0	A <sub>2</sub>	Goole ..	Yorkshire	1 5	1 0½	A	Plymouth ..	S.W. Counties	1 6	1 1½
A	Barrow ..	N.W. Counties	1 6	1 1½	A <sub>2</sub>	Gosport ..	S. Counties	1 5	1 0½	A	Pontefract ..	Yorkshire	1 6	1 1½
A	Barry ..	S. Wales & M.	1 6	1 1½	A <sub>2</sub>	Grantham ..	Mid. Counties	1 4½	1 0½	A <sub>1</sub>	Pontypridd ..	S. Wales & M.	1 5½	1 1½
B <sub>1</sub>	Basingstoke ..	S.W. Counties	1 3½	1 0½	A <sub>1</sub>	Gravesend ..	S. Counties	1 5½	1 1½	A	Portsmouth ..	S. Counties	1 5	1 0½
A <sub>2</sub>	Bath ..	S.W. Counties	1 5	1 0½	A <sub>2</sub>	Greenock ..	Scotland	1 6	1 1½	A <sub>2</sub>	Preston ..	N.W. Counties	1 6	1 1½
A <sub>2</sub>	Batley ..	Yorkshire	1 5	1 0½	A	Grimby ..	Yorkshire	1 6	1 1½					
A <sub>2</sub>	Bedford ..	E. Counties	1 5	1 0½	B	Guildford ..	S. Counties	1 4	1 0					
A <sub>2</sub>	Berwick-on-Tweed	N.E. Coast	1 5	1 0½										
A <sub>1</sub>	Bewdley ..	Mid. Counties	1 5	1 0½	A	<b>HALIFAX</b> ..	Yorkshire	1 6	1 1½	A	<b>READING</b> ..	S. Counties	1 5	1 0½
B <sub>2</sub>	Bicester ..	S. Counties	1 2½	1 1	A	Hanley ..	Mid. Counties	1 6	1 1½	B	Relgate ..	S. Counties	1 4	1 0
A	Birkenhead ..	N.W. Counties	1 7½	1 2½	A	Harrogate ..	Yorkshire	1 6	1 1½	A	Retford ..	Mid. Counties	1 4½	1 0½
A	Birmingham ..	Mid. Counties	1 6	1 1½	A	Hartlepool ..	N.E. Coast	1 6	1 1½	A <sub>1</sub>	Rhondda Valley	S. Wales & M.	1 5½	1 1½
A <sub>1</sub>	Bishop Auckland	N.E. Coast	1 5½	1 1½	A	Harwich ..	E. Counties	1 4	1 0	A	Ripon ..	Yorkshire	1 4½	1 0½
A	Blackburn ..	N.W. Counties	1 6	1 1½	B <sub>1</sub>	Hastings ..	S. Counties	1 3½	1 0½	A	Rochdale ..	N.W. Counties	1 6	1 1½
A	Blackpool ..	N.W. Counties	1 6	1 1½	B <sub>1</sub>	Hatfield ..	S. Counties	1 5	1 0½	B	Rochester ..	S. Counties	1 4	1 0
A	Blyth ..	N.E. Coast	1 6	1 1½	A <sub>2</sub>	Hertford ..	S. Counties	1 4	1 0	A <sub>1</sub>	Ruabon ..	N.W. Counties	1 5½	1 1½
A <sub>1</sub>	Bognor ..	S. Counties	1 3½	1 1½	A <sub>2</sub>	Heysham ..	N.W. Counties	1 6	1 1½	A	Rugby ..	Mid. Counties	1 6	1 1½
A <sub>2</sub>	Bolton ..	N.W. Counties	1 6	1 1½	A	Howden ..	N.E. Coast	1 6	1 1½	A <sub>2</sub>	Rugeley ..	Mid. Counties	1 5	1 0½
A <sub>2</sub>	Boston ..	Mid. Counties	1 4½	1 0½	A	Huddersfield	Yorkshire	1 6	1 1½	A	Runcorn ..	N.W. Counties	1 6	1 1½
A <sub>2</sub>	Bournemouth ..	S. Counties	1 5	1 0½	A	Hull ..	Yorkshire	1 6	1 1½					
A <sub>2</sub>	Bovey Tracey	S.W. Counties	1 3	1 1½										
A <sub>2</sub>	Bradford ..	Yorkshire	1 6	1 1½	A	<b>ILKLEY</b> ..	Yorkshire	1 6	1 1½	A <sub>1</sub>	<b>ST. ALBANS</b> ..	E. Counties	1 5½	1 1½
A <sub>2</sub>	Brentwood ..	E. Counties	1 5½	1 1½	A	Immingham ..	Mid. Counties	1 6	1 1½	A	St. Helens ..	N.W. Counties	1 6	1 1½
A <sub>2</sub>	Bridgend ..	S. Wales & M.	1 6	1 1½	A <sub>2</sub>	Isle of Wight ..	S. Counties	1 3	1 1½	B	Salisbury ..	S.W. Counties	1 3	1 1½
A <sub>2</sub>	Bridgewater ..	S.W. Counties	1 4	1 0						A <sub>1</sub>	Scarborough ..	Yorkshire	1 5½	1 1½
B	Bridlington ..	Yorkshire	1 5½	1 1½	A	<b>JARROW</b> ..	N.E. Coast	1 6	1 1½	A <sub>1</sub>	Scunthorpe ..	Mid. Counties	1 6	1 1½
A <sub>1</sub>	Brighouse ..	Yorkshire	1 6	1 1½	A	<b>K</b> ..	Yorkshire	1 6	1 1½	A	Sheffield ..	Yorkshire	1 6	1 1½
A <sub>2</sub>	Brighton ..	S. Counties	1 5	1 0½	A <sub>2</sub>	Kendal ..	N.W. Counties	1 4½	1 0½	A	Shipley ..	Yorkshire	1 6	1 1½
A <sub>2</sub>	Bristol ..	S.W. Counties	1 6	1 1½	A <sub>2</sub>	Keewick ..	N.W. Counties	1 4½	1 0½	A <sub>2</sub>	Shrewsbury ..	Mid. Counties	1 5	1 0½
B	Brixham ..	S.W. Counties	1 5	1 0½	A <sub>1</sub>	Kettering ..	Mid. Counties	1 5½	1 1½	A <sub>2</sub>	Skipton ..	Yorkshire	1 5	1 0½
A	Bromsgrove ..	Mid. Counties	1 5	1 0½	A <sub>2</sub>	Kidderminster	Mid. Counties	1 5	1 0½	A <sub>2</sub>	Slough ..	S. Counties	1 5	1 0½
A	Bromyard ..	Mid. Counties	1 2½	1 1	B <sub>1</sub>	King's Lynn ..	E. Counties	1 3½	1 1½	A <sub>1</sub>	Solihull ..	Mid. Counties	1 5½	1 1½
A	Burnley ..	N.W. Counties	1 6	1 1½						A <sub>2</sub>	Southampton	S. Counties	1 6	1 1½
A	Burslem ..	Mid. Counties	1 6	1 1½	A	<b>K</b> ..	Yorkshire	1 6	1 1½	A <sub>1</sub>	Southend-on-Sea	E. Counties	1 5½	1 1½
A	Burton-on-Trent	Mid. Counties	1 6	1 1½	A <sub>2</sub>	Kewick ..	N.W. Counties	1 4½	1 0½					
					A <sub>2</sub>	Kidderminster	Mid. Counties	1 5	1 0½	A	Southport ..	N.W. Counties	1 6	1 1½
A	Bury ..	N.W. Counties	1 6	1 1½	B <sub>1</sub>	King's Lynn ..	E. Counties	1 3½	1 1½	A	St. Helens ..	N.W. Counties	1 6	1 1½
A	Buxton ..	N.W. Counties	1 5½	1 1½						A <sub>1</sub>	Stafford ..	Mid. Counties	1 5½	1 1½
										A	Stirling ..	Scotland	1 6	1 2
										A	Stockport ..	N.W. Counties	1 6	1 1½
										A	Stoke-on-Trent	Mid. Counties	1 6	1 1½
A <sub>1</sub>	<b>CAMBRIDGE</b> ..	E. Counties	1 5½	1 1½	A	<b>LANCASTER</b> ..	N.W. Counties	1 6	1 1½					
B <sub>1</sub>	Canterbury ..	S. Counties	1 3½	1 1½	A <sub>1</sub>	Leamington ..	Mid. Counties	1 5½	1 1½	A	Stoke-on-Trent	Mid. Counties	1 6	1 1½
A	Cardiff ..	S. Wales & M.	1 6	1 1½	A <sub>1</sub>	Leeds ..	Yorkshire	1 6	1 1½	B	Stroud ..	S.W. Counties	1 4	1 0
A	Carlisle ..	N.W. Counties	1 6	1 1½	A <sub>2</sub>	Leek ..	Mid. Counties	1 6	1 1½	A	Sunderland ..	N.E. Coast	1 6	1 1½
B	Carmarthen ..	S. Wales & M.	1 4	1 0	A <sub>2</sub>	Leicester ..	Mid. Counties	1 6	1 1½	A	Swansea ..	S. Wales & M.	1 6	1 1½
B	Cardarvon ..	N.W. Counties	1 4	1 0	A <sub>2</sub>	Lewes ..	N.W. Counties	1 6	1 1½	A	Swindon ..	S.W. Counties	1 4½	1 0½
A	Cardorff ..	N.W. Counties	1 6	1 1½	B	Lichfield ..	Mid. Counties	1 5	1 0½					
A	Casford ..	Yorkshire	1 6	1 1½	A <sub>2</sub>	Lincoln ..	Mid. Counties	1 6	1 1½					
A <sub>2</sub>	Chatham ..	S. Counties	1 4½	1 0½	A <sub>2</sub>	Liverpool ..	N.W. Counties	1 7½	1 2½	A <sub>1</sub>	<b>TAMWORTH</b> ..	N.W. Counties	1 5½	1 1½
A <sub>2</sub>	Chelmsford ..	E. Counties	1 4½	1 0½	A <sub>2</sub>	Llanidno ..	N.W. Counties	1 5	1 0½	B	Taunton ..	S.W. Counties	1 4	1 0
A	Cheltenham ..	S.W. Counties	1 4½	1 0½	A <sub>2</sub>	Llanelli ..	S. Wales & M.	1 6	1 1½	A	Teasdale Dist.	N.E. Counties	1 6	1 1½
A	Chesham ..	N.W. Counties	1 6	1 1½	A	London (12-miles radius)		1 7½	1 2½	A <sub>2</sub>	Teddmorton ..	S.W. Coast	1 5	1 0½
A	Chester ..	N.W. Counties	1 6	1 1½	A	Long Eaton ..	Mid. Counties	1 6	1 1½	A <sub>1</sub>	Telford ..	Yorkshire	1 6	1 1½
A	Chesterfield	Mid. Counties	1 6	1 1½	A	Loughborough ..	Mid. Counties	1 6	1 1½	A <sub>2</sub>	Torquay ..	S.W. Counties	1 5½	1 1½
B <sub>1</sub>	Chichester ..	S. Counties	1 3½	1 1½	A <sub>1</sub>	Luton ..	E. Counties	1 5½	1 1½	B <sub>2</sub>	Truro ..	S.W. Counties	1 3	1 1½
A	Chorley ..	N.W. Counties	1 6	1 1½	A <sub>2</sub>	Lytham ..	N.W. Counties	1 6	1 1½	A <sub>2</sub>	Tunbridge Wells	S. Counties	1 4½	1 0½
B <sub>1</sub>	Cirencester ..	S. Counties	1 3½	1 1½										
A	Cilmer ..	N.W. Counties	1 6	1 1½										
A	Clydebank ..	Scotland	1 6	1 1½										
A	Coalville ..	Mid. Counties	1 6	1 1½										
A	Colchester ..	E. Counties	1 5	1 0½										
A	Colne ..	N.W. Counties	1 5½	1 1½										
A <sub>2</sub>	Colwyn Bay ..	N.W. Counties	1 5	1 0½	A <sub>1</sub>	<b>MACCLESFIELD</b> ..	N.W. Counties	1 5½	1 1½					
A <sub>2</sub>	Consett ..	N.E. Coast	1 5½	1 1½	A <sub>2</sub>	Malden ..	S. Counties	1 4½	1 0½					
A <sub>2</sub>	Conway ..	N.W. Counties	1 5	1 0½	A <sub>2</sub>	Malvern ..	Mid. Counties	1 4½	1 0½	A	<b>WAKFIELD</b> ..	Yorkshire	1 6	1 1½
A <sub>2</sub>	Coventry ..	Mid. Counties	1 6	1 1½	A <sub>2</sub>	Manchester ..	N.W. Counties	1 6	1 1½	A	Walsall ..	Mid. Counties	1 6	1 1½
A <sub>2</sub>	Crew ..	N.W. Counties	1 5	1 0½	A <sub>2</sub>	Mansfield ..	Mid. Counties	1 6	1 1½	A	Warrington ..	N.W. Counties	1 6	1 1½
A	Cumberland ..	N.W. Counties	1 4½	1 0½	B <sub>1</sub>									



PAINTER		¢	s.	d.
White lead in 1 cwt. casks . . .	cwt.	2	8	6
Linseed oil . . . . .	gall.	2	3	
Boiled oil . . . . .	"	2	9	
Turpentine . . . . .	"	4	12	
Patent knotting . . . . .	"	14	0	
Distemper, washable . . . . .	cwt.	2	0	
ordinary . . . . .	"	3	0	
Whitening . . . . .	"	4	0	
Size, double . . . . .	frkin	3	0	
Copal varnish . . . . .	gall.	13	0	
Flat varnish . . . . .	"	14	0	
Outside varnish . . . . .	"	16	0	
Wine names . . . . .	"	1	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

Digging over surface n/e 12" deep and cart away	Y.S.	£ s. d.
" to reduce levels n/e 5' 0" deep and cart away	Y.C.	2 9
" to form basement n/e 5' 0" deep and cart away	"	8 6
" " " 10' 0" deep and cart away	"	9 0
" " " 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	"	10 3
Hardcore, filled in and rammed	Y.C.	1 6
Portland cement concrete in foundations (6-1)	"	1 12 6
" (4-2-1)	"	1 16 0
Finishing surface of concrete, space face	Y.S.	7

## DRAINLAYER

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

## BRICKLAYER

Brickwork, Flettons in lime mortar	Per Rod	£ s. d.
" " in cement	"	26 10 0
" Stocks in cement	"	27 12 6
" Blues in cement	"	34 0 0
Extra only for circular on plan	"	50 0 0
" backing to masonry	"	1 10 0
" raising on old walls	"	2 0 0
" underpinning	"	5 10 0
Pair Face and pointing internally	F.S.	1 12 6
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	"	7 1
Weather pointing in cement	"	3
Slate dampcourse	"	10
Vertical dampcourse	"	1 1

## ASPHALTER

1" Horizontal dampcourse	Y.S.	£ s. d.
1" Vertical dampcourse	"	4 6
1" paving or flat	"	6 9
1" paving or flat	"	4 0
1" x 6" skirting	F.R.	5 6
Angle fillet	"	1 0
Rounded angle	"	2
Cesspools	Each	5 0

## MASON

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

## SLATER AND TILER

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

## CARPENTER AND JOINER

Flat boarded centering to concrete floors, including all strutting	Sqr.	£ s. d.
Shuttering to sides and soffits of beams	F.S.	2 2 6
" 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
1" deal sawn boarding and fixing to joists	Sqr.	1 14 6
1" " " "	"	1 17 6
1 1/2" " " "	"	2 3 0
1 1/2" x 2" fir battening for Countess slating	"	0 9
Do. for 4" gauge tiling	"	12 0
Stout leather-edged tilting fillet	F.R.	4 1
Patent inodorized felt, 1 ply	Y.S.	2 3
" " 2 ply	"	2 9
" " 3 ply	"	3 3
Stout herringbone strutting to 9" joists	F.R.	1 10 1
1" deal gutter boards and bearers	F.S.	1 2
1 1/2" " " "	"	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
1 1/2" do.	"	2 10 0
1 1/2" do.	"	2 17 0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.	1 6
1 1/2" do.	"	1 9

## CARPENTER AND JOINER—continued

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

## SMITH AND FOUNDER

Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.	£ s. d.
Riveted plate or compound girders, and hoisting and fixing in position	"	16 6
Do., stanchions with riveted caps and bases and do.	"	19 0
Mild steel bar reinforcement, 1/2" and up, bent and fixed complete	"	17 6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.	18
Wrought-iron caulked and cambered chimney bars	Per cwt.	10 0

## PLUMBER

Milled lead and labour in flats	cwt.	£ s. d.
Do. in flashings	"	2 0 3
Do. in coverings to turrets	"	2 3 9
Do. in soakers	"	2 9 3
Labour to welded edge	F.R.	1 15 9
Open copper nailing	"	3 1
Close " "	"	3
Lead service pipe and fixing with pipe hooks	F.R.	10 10 1 3 2 0 2 10
Do. soil pipe and fixing with cast lead tacks	"	—
Extra, only to bends	Each	2 0 6 9
Do. to stop ends	"	6 1 8 9 11 1 0
Boiler screws and unions	"	3 3 3 9 5 0 8 0
Lead traps	"	6 3 8 9
Screw down bib valves	"	6 9 9 6 11 0
Do. stop cocks	"	7 0 9 6 12 6
4" east-iron 1/2" dia. 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

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

## GLAZIER

21 oz. sheet glass and glazing with putty	F.S.	£ s. d.
26 oz. do. and do.	"	6 1/2
Flemish, Arctic Figured (white) and glazing with putty	"	7 1/2
Cathedral glass and do.	"	1 1
Glazing only, British polished plate	"	1 2
Extra, only if in beads	"	7
Washleather	F.R.	2

## PAINTER

Clearcolle and whiten ceilings	Y.S.	£ s. d.
Do. and distemper walls	"	9
Do. with washable distemper	"	1 1
Knob, 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 wax-polish woodwork	"	1 11
French polishing	F.S.	4 6
Stripping off old paper	Piece	1 2
Hanging ordinary paper	from	2 9







This chart sets out comparatively the cost per room of various housing blocks; the cost being given as a PERCENTAGE of the cost of a room in a six storey block, (100%)



5.35.

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INFORMATION SHEET

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AMERICAN HOUSING

(i)

THIS Sheet has been prepared from data obtained by the Housing Study Guild of New York, who, during the early months of the recent slump, prepared an exceptionally full survey of the various problems involved in the rehousing of urban workers on crowded and expensive city sites.

The survey is based on a site plan equal in area to approximately twenty New York "blocks," or about one-eighth of a square mile, and all cost data have been prepared on this assumption.

The front of this Sheet sets out the essential results obtained in this survey, and show that, under the conditions imposed, the 6-storey block, with elevators, is the cheapest type of construction. The actual costs are as follows :

Type	Price per room (including kitchens)
	\$
2 storey—no basement ..	729.34
2 „ with basement ..	736.29
3 „ „ „ ..	723.09
4 „ „ „ ..	685.72
6 „ „ „ ..	651.05
8 „ „ „ ..	697.87
10 „ „ „ ..	685.43
12 „ „ „ ..	675.69

Future Sheets in this series will give site plans with figures for densities and areas built upon, plans and sections of the suggested buildings, and a full cost analysis for each type of building, together with details of the construction, finishes and equipment employed throughout.

We do not put forward these block lay-outs or type plans as the ideal solution of the housing problem, since, for this country, several details would require amendment, and population densities would be considered too high. The Sheets, should, therefore, be considered as a whole, and are of value for comparative purposes, as showing the variations in cost between housing blocks of different heights.

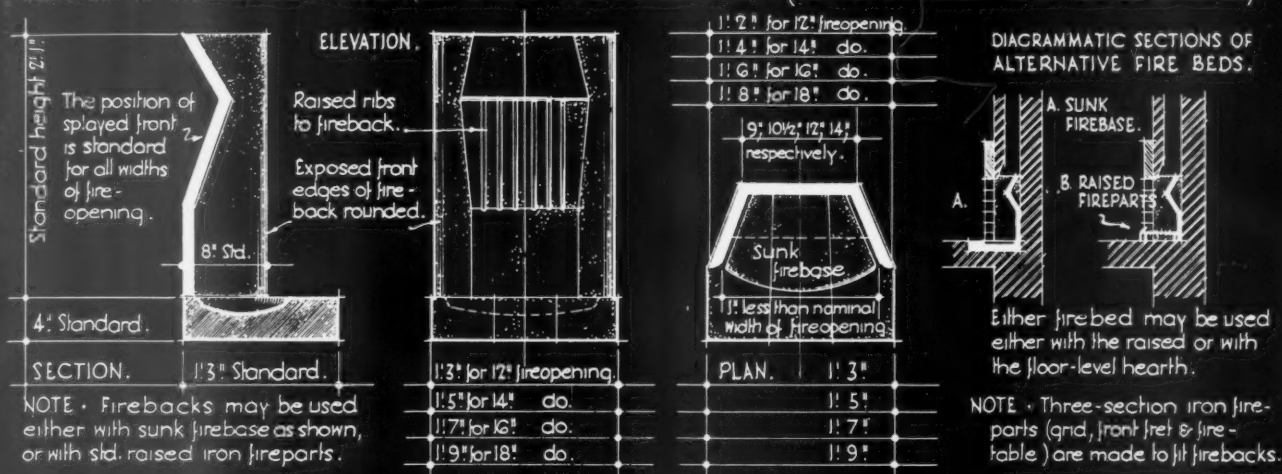






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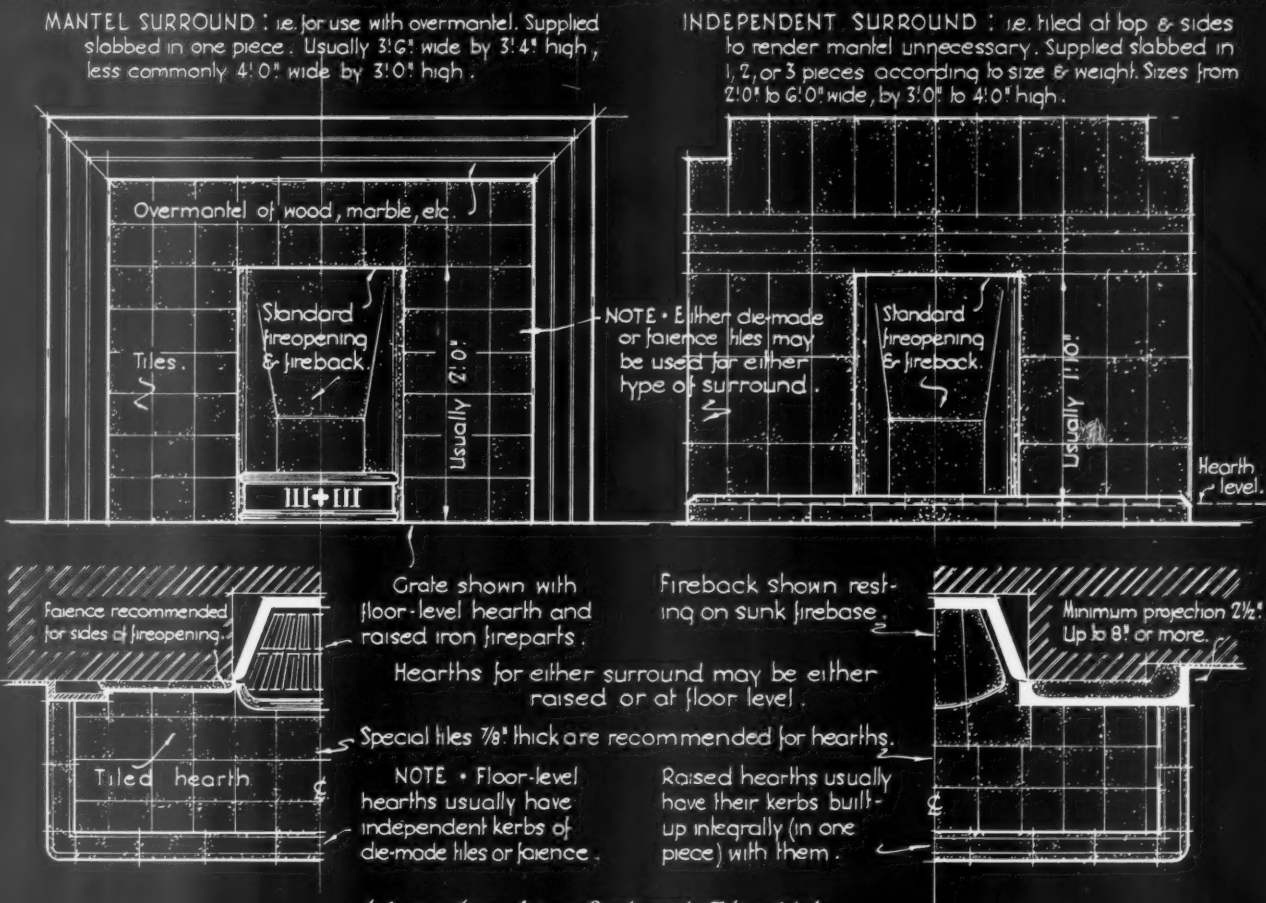
## DETAILS OF STANDARD FIREBRICK BASES AND FIREBACKS: (For use with Glazed Tile or Faience surrounds).



## TYPES OF BUILT-UP GLAZED TILE FIREPLACE KERBS: (Length and depth made to suit requirements)



## DIAGRAMMATIC DETAILS SHOWING TYPICAL TILING METHODS FOR FIREPLACES AND HEARTHES.



INFORMATION SHEET • GLAZED TILE & FAIENCE FIREPLACE SURROUNDS  
 SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WCI • *Oliver & Bagnall*

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FIREPLACES AND FIRE-  
PLACE SURROUNDS

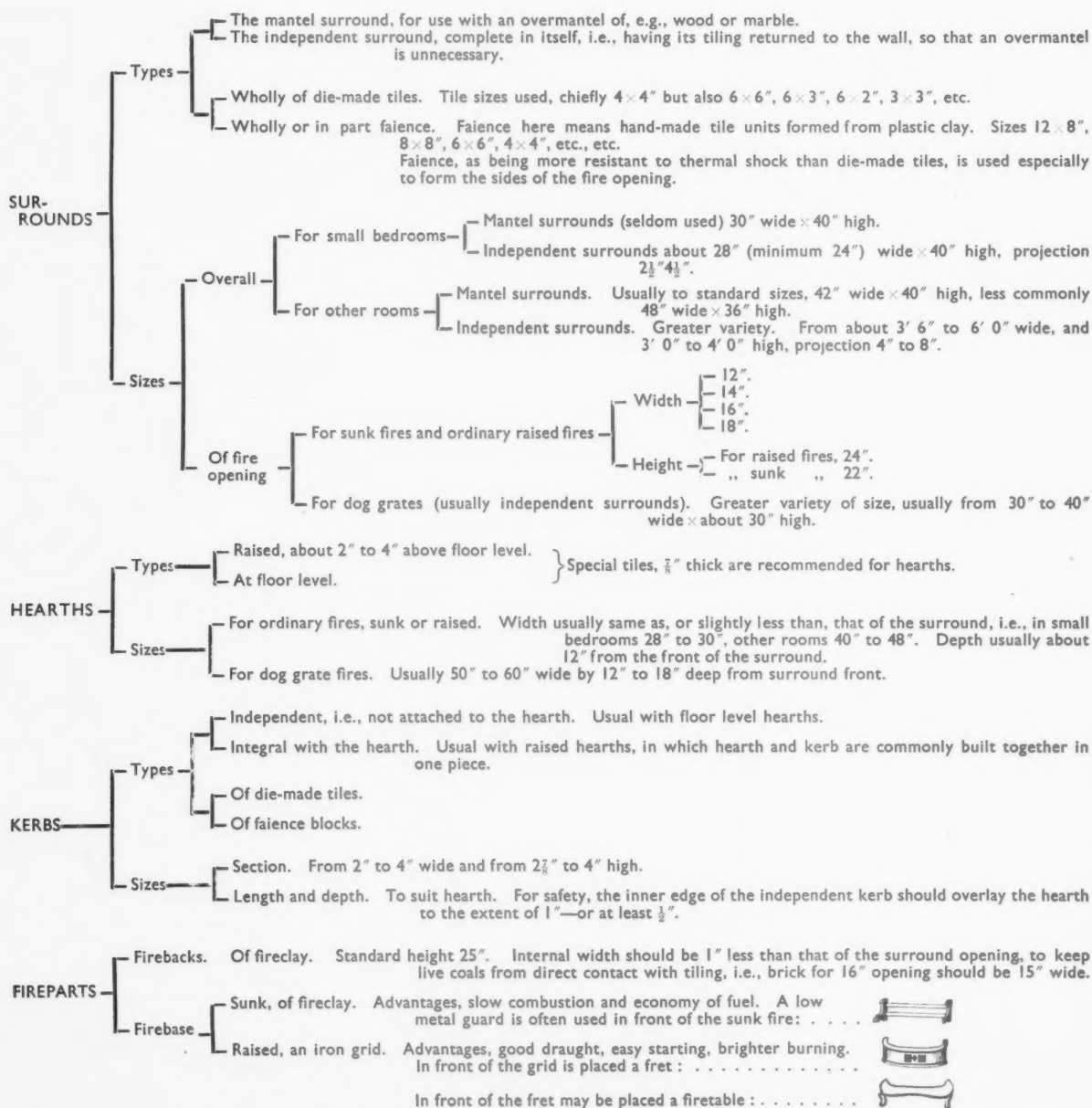
Product : Glazed Tiles, Faience and  
Fireplace Fittings.

The following classification of materials and  
parts taken with the detail drawings given on  
this Information Sheet provide a comprehen-  
sive treatment of the subject of fireplaces.

Fireplace surrounds are made in a variety of  
standard designs by the Company. Special  
designs can be prepared as required. The  
Company's range of tiles and fireplace materials  
is such that almost an unlimited variety of  
designs and colours is possible.

Manufacturers : Richards Tiles Ltd.  
Address : Tunstall, Stoke-on-Trent  
Telephone : Hanley 7215-8  
London Office (new address) : Grand  
Buildings, Trafalgar Square, W.C.2  
Telephone : Whitehall 5914  
Glasgow Office : 53 Bothwell Street,  
Glasgow, C.2  
Telephone : Central 1768

COMPONENT PARTS :—The Surround, the Hearth, the Kerb, the Fireparts.



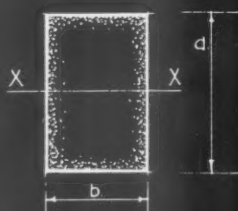






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## MOMENT OF RESISTANCE

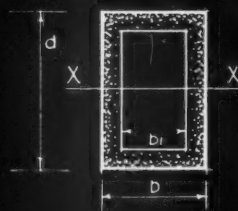


RECTANGLE  
Axis through centre

$$I_{xx} = \frac{bd^3}{12}$$

$$Z_{xx} = \frac{bd^2}{6}$$

$$r_{xx} = \frac{d}{\sqrt{12}} = 0.289d$$

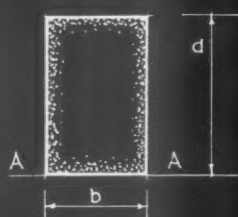


HOLLOW RECTANGLE  
Axis through centre

$$I_{xx} = \frac{bd^3 - b_1d_1^3}{12}$$

$$Z_{xx} = \frac{bd^2 - b_1d_1^2}{6d}$$

$$r_{xx} = \sqrt{\frac{bd^3 - b_1d_1^3}{12A}}$$

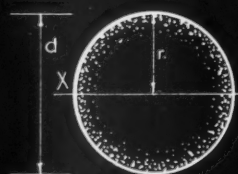


RECTANGLE  
Base as axis

$$I_{AA} = \frac{bd^3}{3}$$

$$Z_{AA} = \frac{bd^2}{3}$$

$$r_{AA} = \sqrt{\frac{d}{3}} = 0.577d$$

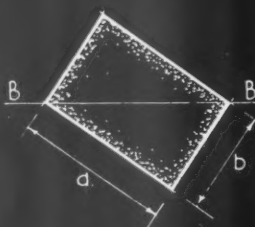


CIRCLE  
Axis through centre

$$I_{xx} = \frac{\pi d^4}{64} = \frac{\pi r^4}{4}$$

$$Z_{xx} = \frac{\pi d^3}{32} = \frac{\pi r^3}{4}$$

$$r_{xx} = \frac{d}{4} = \frac{r}{2}$$

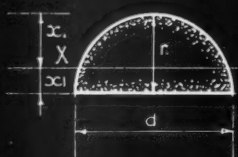


RECTANGLE  
Diagonal as axis

$$I_{BB} = \frac{b^3d^3}{6(b^2+d^2)}$$

$$Z_{BB} = \frac{b^2d^2}{6\sqrt{b^2+d^2}}$$

$$r_{BB} = \frac{bd}{\sqrt{6(b^2+d^2)}}$$

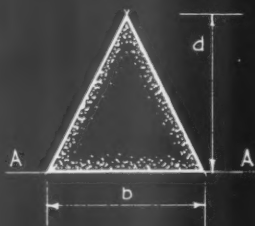


HALF CIRCLE  
Axis thro' centre of gravity

$$I_{xx} = 0.11r^4 \quad x_c = 0.576r$$

$$Z_{xx} = 0.19r^3 \quad x_1 = 0.424r$$

$$r_{xx} = 0.264r$$

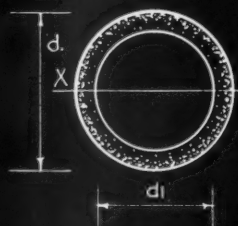


TRIANGLE  
Base as axis

$$I_{AA} = \frac{bd^3}{12}$$

$$Z_{AA} = \frac{bd^2}{12}$$

$$r_{AA} = \sqrt{\frac{d}{6}} = 0.41d$$

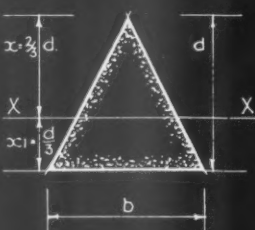


HOLLOW CIRCLE  
Axis through centre

$$I_{xx} = \frac{\pi(d_1^4 - d_2^4)}{64}$$

$$Z_{xx} = \frac{\pi(d_1^3 - d_2^3)}{32d}$$

$$r_{xx} = \sqrt{\frac{d_1^4 - d_2^4}{4A}}$$



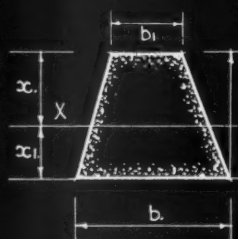
TRIANGLE  
Axis thro' centre of gravity

$$I_{xx} = \frac{bd^3}{36}$$

$$Z_{xx} = \frac{I_{xx}}{x_c} = \frac{bd^2}{24} \text{ or}$$

$$Z_{xx} = \frac{I_{xx}}{x_1} = \frac{bd^2}{12}$$

$$r = \frac{d}{\sqrt{18}} = 0.236d$$



TRAPEZOID  
Axis thro' centre of gravity

$$x_c = \frac{d(b_1 + 2b)}{3(b + b_1)} \quad x_1 = \frac{d(b + 2b_1)}{3(b + b_1)}$$

$$I_{xx} = \frac{d^3(b^2 + 4bb_1 + b_1^2)}{36(b + b_1)}$$

$$Z_{xx} = \frac{d^2(b^2 + 4bb_1 + b_1^2)}{12(b + b_1)}$$

$$r_{xx} = \frac{d}{6(b + b_1)} \sqrt{2(b^2 + 4bb_1 + b_1^2)}$$

Information from W. E. J. Budgen, B.Sc., A.M. Inst. C.E.

INFORMATION SHEET: MOMENTS OF INERTIA  
SIR JOHN BURNETT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1 *Alan A. Bayne.*

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MOMENTS OF INERTIA

Notes on Moment of Inertia, Neutral Axis, Section Modulus, Radius of Gyration.

THESE terms, as used in structural design, refer to mathematical properties of the cross-sectional areas of beams, columns, etc. Mathematical properties of homogeneous sections are independent of the material of which the sections are composed, e.g.; the section moduli of rectangular baulks of timber and steel of the same size are equal.

With non-homogeneous sections, such as reinforced concrete beams, this statement needs qualifying (see below). The terms moment of inertia and radius of gyration have been introduced into structural design from other branches of mechanics, and are actually misnomers, since an area can have no inertia.

The definitions of the terms are as follows :

Moment of Inertia (I) (or second moment) about an axis is the sum of the products of the area of each elementary part of the section and the square of its distance from the axis.

Neutral axis of a beam is the line in which the neutral surface (i.e., the surface on which there is neither tensile or compressive stress) cuts a cross-section of the beam.

Radius of gyration (r) about any axis

$$= \sqrt{\frac{\text{Moment of Inertia of section about the axis}}{\text{Area of section}}}$$

The radius of gyration is used in finding the safe loads on various sections as columns, the allowable stress depending on the ratio of unsupported length of the column to the minimum radius of gyration.

Section Modulus about neutral axis

$$= \frac{\text{Moment of Inertia of section about neutral axis}}{\text{Distance from neutral axis to extreme top or bottom of section}}$$

(where the section is not symmetrical about the neutral axis there are two values for the section modulus).

Moment of Inertia of non-homogeneous sections.

With non-homogeneous sections the term moment of inertia is even more misused, and with reinforced concrete sections there is no universally recognised definition or method of calculating this property.

Since however the moment of inertia is chiefly used in comparing the relative stiffnesses of various members the actual value is unimportant provided the same method of calculation is used for all the members concerned.

(The stiffness of a member is defined as the value obtained by dividing its moment of inertia by its length.)

The Code of Practice for Reinforced Concrete, Clause 506 (Estimation of the Stiffness of a Member) reads as follows :

"For the purpose of estimating the stiffness of a reinforced concrete member the moment of inertia may be calculated using its whole section. Allowance for the reinforcement may be made using the appropriate modular ratio. In the case of a beam the breadth of the compression slab shall be taken in accordance with clause 601g (for T beams and L beams). The method employed in estimating the moments of inertia shall be the same for all members considered in any one calculation."

