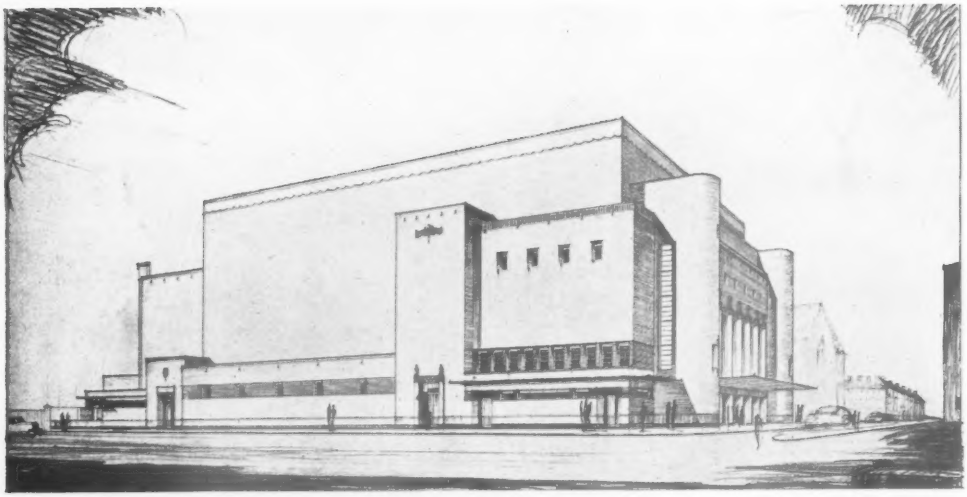
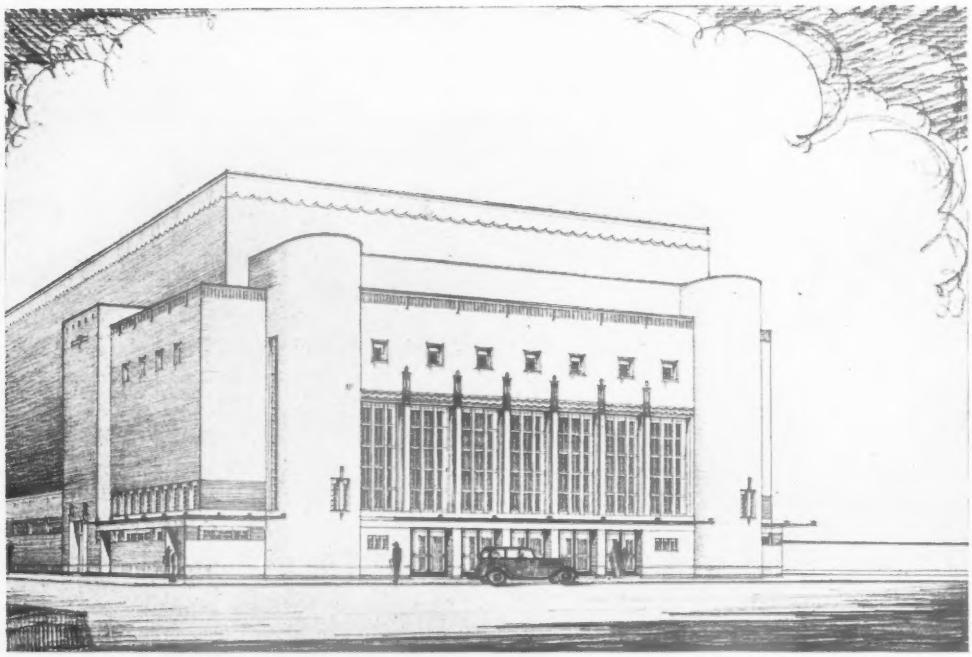
NEW AIRPORT AT GATWICK

TO BE OPENED ON SATURDAY NEXT

THE circular control room in the new airport, to be opened by Lord Swinton, Secretary for Air, on Saturday next. It has a diameter of 30 ft. and the glass wall is built at an angle of 60 deg. with the floor. The new airport brings Paris 45 minutes nearer to London, and is regarded, both in planning and equipment, as the most up-to-date in Europe. The architects are Hoar, Marlow and Lovett. Further illustrations appear on pages 868-873.

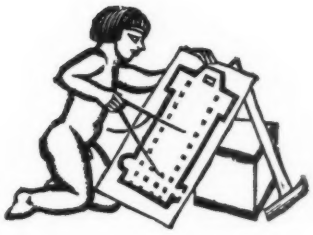




PHILHARMONIC HALL, LIVERPOOL

Designs by Mr. Herbert J. Rowse for the proposed new concert hall of the Liverpool Philharmonic Society, to replace the building which was burned down two years ago, were submitted at an extraordinary general meeting of the Society on May 27. The meeting failed to reach a definite decision as to whether to proceed with the building, and an amendment was passed that the erection of the hall should be postponed until investigation has been made into the methods of securing the financial future of the Society and into the means by which any claim on the Society by the Liverpool Corporation might be satisfied or withdrawn. There was a long debate on the matter, and when the voting showed 37 for the amendment and 33 against, the chairman, Mr. J. Ainsley Robertson, said that in view of the closeness of the vote polling would take place on the resolution to build and on the amendment during the fourteen days from June 3 to June 16.

Above are two perspectives of the proposed building : top, the elevation to Myrtle Street ; bottom, the main frontage to Hope Street.



RENAISSANCE

FROM the thought "history repeats itself" to the enquiry whether it may do so from discernible causes is but a step. That the affairs of mankind may move in cycles is a form of speculation that seems to be establishing an increasing hold.

Five-and-twenty years ago Sir Flinders Petrie analysed an array of civilizations and drew the deduction that, among the arts, sculpture, painting and literature had developed always in that order. Mr. Cecil Gray, whose concern is with the art of music, and his immediate object to forecast its future, elaborates this cyclical theory in his recent book, *Predicaments*. Seeing, as he conceives, the wheel even now coming full circle, he writes :

> After a period of continual, unrelieved decline lasting for many centuries, the art of architecture appears to-day to be entering upon a new lease of life, emerging out of the phase of "mechanics, science and wealth" which is our own age.

This pronouncement of an observer who may be accounted dispassionate though not, for reasons that will be apparent, altogether disinterested, seems to invite examination. Can "the mistress art" be fitted into a recurring cycle of the arts? Has architecture been in unrelieved decline for many centuries? Is a new lease of life in view for it?

The first question would seem immediately answerable in the affirmative, so obvious is it that the prime need in any fresh community, before it can become the nucleus of a "culture" in the archæological sense, will be for buildings in which to live and work.

So far as it goes, this conclusion is logical. Be it remembered, however, that architecture, among the arts, occupies a position unique and apart. It is the only one that is founded upon utility; the others are, in mathematical language, functions of leisure and wealth. So while the occasions for their practice are subject to fluctuation, the occasion for the practice of architecture is relatively constant and continuous. The very fact that Petrie omitted architecture from his schematic table is significant; there is evidence that it was present in his mind. Mr. Gray, who finds the omission "extremely curious," may possibly have misread its significance.

Equally, at first sight, the answer to our second question would appear to be in the negative. But there is one restricted sense in which the word "decline" might be construed to cover the situation—namely, absence of progress. This must be the sense in which Mr. Gray has read the reference Petrie does make to the architecture of our present European culture.

Since low-pitched fan-vaulting was basically merely a method of fire proofing, it may be said that until the twentieth century the pointed arch was the last innovation in architecture. And even since then the panel wall has been the only new structural element of major size, steel and reinforced concrete having only hugely widened the scope of principles already known—the post, the lintol, the arch and cantilever.

"Decline," in this sense of absence of entirely new structural principles, must be the sense in which Mr. Gray has read Petrie's reference to architecture.

Whether such "decline" has been "unrelieved" since the passing of Gothic—say, the beginning of the sixteenth century—will depend upon the view that is entertained of works, in this country alone, by Inigo Jones, by Wren, by Hawksmoor and Vanbrugh, by Gibbs and Kent, by Sir William Chambers and Robert Adam, by Soane, and by others, their heirs and successors, right down to the present day.

What, finally, of the future? In so far as the doctrine of cycles may be employable as an instrument for forecasting, success will clearly depend on the ability to recognize the present situation for what it is. Where do we stand? Has a cycle in very truth been already completed? Mr. Gray points to the appearance of such phenomena as skyscrapers and the Palace of the Soviets as first fruits of a new era. But do they incorporate a cardinal innovation in architecture?

The answer to this question must again depend upon definition of terms. The innovations of the twentieth century have been in materials and their methods of application. Ease of transport has permitted the architect to have the majority of all building labour carried out in specially equipped factories, the coming of new materials has brought almost complete flexibility of structure and plan.

These things may be great enough to justify a new architectural renaissance, but an architecture cannot be isolated from the society of which it is a part. So far, although Britain has been industrialized for a hundred years, its inhabitants have not yet properly adjusted their life and surroundings to the changes of the twentieth century—to quick transport, centralized power, and to the potential advantages of a proper mass-production.

Until it can take its right place in such a readjustment, architecture cannot achieve a new renaissance.

The Architects' Journal
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NOTES & TOPICS

A.A. COUNCIL

THE results of the elections to the new A.A. Council indicate once again the growing interest and sense of responsibility of the younger architects in the organization of their profession.

*

It also gives support to the idea that organization for results in elections, as in any other sphere, is worth while—while the ideas are comparatively new.

*

But, though young, the new Council represents a wide field of opinion and practice within the profession. Under the chairmanship of the new President, Mr. L. H. Bucknell (who is, among other things, one of those responsible for the A.A. Technical Reference), the Council ought to be able to get down quickly to its job.

RE-PRESENTATION . . .

I seem to have spent a lot of time lately in climbing the stone staircases of No. 36 Bedford Square, in an effort to keep abreast of the Association's varied activities.

*

No sooner does Mr. Will Dyson at a general meeting explode the heresy (to him) that cartooning is an Art at all, than Mr. Charles Marriott, at another meeting, demolishes (morally, chemically and almost theologically) the heresies of "Abstract Painting" and "Pictorial Architecture."

*

When we had all got over the initial confusion of terms, we began to agree with Mr. Marriott that abstract painting as such had either been with us always, or was merely a passing phase in the development from static representation to animated pictures.

*

And we were all just about to make our choice when we were skilfully decoyed up a byeway to sample the subtle distinctions between representational art and re-presentation in art.

*

First you take a fallacy and represent it as a heresy; then you re-present it as a fallacious heresy or a heretical fallacy; then you abstract any pictorial element and leave only pure Art—which cannot exist in any material world.

. . . AND RECEPTION

And finally, the annual reception on Thursday. Much the same as in previous years, lots and lots of people and lots of chatter with people I hadn't seen for years, but who always seem to come to the A.A. on this particular evening.

*

Was it a good idea to hold the Architecture Club dinner on the same evening? I think yes, for not very many people turn up early for the A.A. show and it was quite simple to go on from one to the other.

EDUCATION

Last Wednesday the Education Bill passed its third reading in the Commons. Reports of the debate left the impression that even the Government was not particularly happy about the famous exemptions clause which decrees that, despite a general raising of the school age from 14 to 15, children may be allowed to leave after 14 if they have an opportunity of "beneficial employment."

*

The Government seemed to want to raise the leaving age without any exemptions, but could not feel justified in doing so; whether because of the cost or of parents' opposition or for other reasons, did not seem very clear.

*

The President of the Board of Education said that members were entitled to assume that the Bill would result in a general raising of the school-leaving age to 14 years and 9 months. But nobody seemed to know quite why.

*

The importance of the Bill for architects lies in the frequent mention of the new school buildings needed.

AN IDEAL SCHOOL

And on the next day *The Times* emphasized this importance in a leading article entitled, "A Chance for Architects," in which it supported Lord De La Warr's proposal that an open architectural competition should be held for an ideal school.

*

Mr. Berry Webber, supporting the suggestion on behalf of the R.I.B.A., states that the competition would have a wide appeal to architects.

*

One might even go further than this, and say that such a competition, were its results well advertised, might enable British schools to achieve in five years a progress which at present looks questionable in fifty.

GUARD RAILS FOR WALKERS

Mr. Hore-Belisha continues indefatigably to cut ceremonial tapes, walk formally over his crossings, and now his latest effort is to drive the last rivet in heaven knows how

Exhibition cases used at a display of fine printing and drawings by Lund Humphries at 12 Bedford Square, which opens today. Specimens of printing are put between two plates of glass which are then lighted from behind.

many miles of pedestrian guard rails in the East India Dock Road.

*

I suppose these guard rails are necessary ; something like them is obviously essential. Shopkeepers hate them, of course—at any rate, in districts where people shop by car—but small children seem to find them grand for swinging on. All I want just at the moment is that they should *not* look the afterthoughts which they so obviously are.

BIRTHDAY PARTY

The Design and Industries Association is having a twenty-first birthday party on July 1, when members are going down the river to Tilbury by launch, lunch on the *Orion* and back via the gas works at Beckton. A.A. and R.I.B.A. members can go, too.

*

All for ten shillings, which seems very reasonable to me ; it ought to be a good party, for the river is often astonishingly lovely and it's quite difficult, apart from the P.L.A. summer trips, to go down much further than Greenwich.

PROCLAMATION

Now that the date of King Edward's Coronation has been proclaimed, there arise again thoughts of a city in gala mood—of bunting and flags, the riotous drapery of Bond Street and decorous window boxes at the Admiralty.

*

Standardization of what are, at best, voluntary and spontaneous determinations to be gay on the part of people who do not often express themselves by flags, would probably be an experiment distressing in exact ratio with its success.

*

But if architects are asked to help in the gaiety of next May, as one may expect they will be, they should bear in mind that steel scaffolding will be at a premium (a premium which deprived us last year of some rather nice pylons in the Mall) and that trees in May are apt to have *leaves*. Sight-lines calculated in winter have been known to lose something of their perfection when put to use six months later.

BUILDING COSTS

My note a fortnight ago about the Cambridge C.C. experience of increased building costs due to Government armament work, brings me a report of another effect of these activities.

*

A provincial architect has just lost four of his best assistants. All have been offered work for a temporary period at 50 per cent. more salary than their usual rate—to work on aerodromes.

*

And when these unfortunate men have finished their job (if they work hard that time will not be far distant), they will presumably be given the sack, wholesale.

*

No, this is not surmise—we have the precedent of 1931, when hundreds (300 from one department alone) of assistants were thrown out of work.

*

This apparently official habit of treating architectural assistants (and for all I know other technical men) as casual mental labourers is grossly unfair to the men—and extremely bad for the stable development of the country as a whole.

BETTER BURGLARS

I have just had a circular letter from Scotland Yard—not for leaving a car in the wrong place or for any other misfeasance, tort or what not—but begging me to put better locks on doors and see that window latches are proof against petty knavery.

*

The police, of course, can hardly be expected to patrol the public staircases of flat blocks, and the Commissioner points out that it is folly to provide the sort of trumpery lock that anyone can pick in ten seconds with a bent hair-pin. He even goes so far as to refer to it as a really anti-social act, and implies that people who ask for trouble are almost as bad as the ones who provide it.

*

Good locks, as we all know, are expensive, but worth it. The architect's chief trouble is to persuade his client that they aren't an extravagance.

RURAL ENGLAND

" Bomb-proof home for millionaire " is scarcely a title at first glance which suggests the preservation of this rural country of ours, but let me tell you more of these possibilities.

*

The house is to be entered by a tunnel from the road and the whole of the air-conditioned rooms are to be beneath a 4-ft. slab of concrete, with a nice thickness of meadow above it. But not quite a meadow, for there will be a fountain in the middle of it, concealing, we are told, a periscope which will enable the underground inhabitants to enjoy views of the beautiful surrounding country.

*

But why a fountain ?

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

"*A provincial architect has just lost four of his best assistants*" .. 865

"*Open-air sight-lines calculated in winter have been known to lose something of their perfection when put to use six months later*" .. 865

"*Truly, we are living in a progressive age brimful of opportunities for joy and happiness, even for people whose residential requirements are simple in character*" 878

"*The whole question of air raid shelters affording protection against gas and splinters from high explosive bombs is under examination*" .. 890

WESTMINSTER HOSPITAL

An offer of about £350,000 for the Westminster Hospital site, facing Westminster Abbey, was accepted by the Hospital Board of Governors at its quarterly general meeting last week.

The offer was made by Messrs. John Laing and Son, who propose to build on the site a new office building, from the designs of Sir John Burnet, Tait and Lorne.

DEPARTMENTAL COMMITTEE ON PUBLIC BUILDINGS

The Minister of Health announces that he has received the resignation of Sir L. Amherst Selby-Bigge, Bart., K.C.B., J.P., from the chairmanship of the Committee on Hospitals and other Public Buildings provided by Local Authorities which was appointed in July, 1933, to consider and report on the questions of the capital cost of construction, and the annual cost of maintenance, of hospitals and other public buildings provided by local authorities.

The Minister has now appointed Mr. Adam Maitland, M.P., to be chairman of the Committee in place of Sir Amherst Selby-Bigge.

ARCHITECTURAL ASSOCIATION

At a meeting of the above Association last week the officers and Council for the session 1936-37 were announced as follows: President, Mr. L. H. Bucknell, F.R.I.B.A.; Vice-Presidents: Messrs. J. R. Leathart, F.R.I.B.A., and C. H. Holden, F.R.I.B.A.; Hon. Secretary, Mr. Verner O. Rees, F.R.I.B.A.; Hon. Treasurer, Mr. Joseph Hill, F.R.I.B.A.; Hon. Editor, "A.A. Journal," Mr. S. E. Dykes-Bower, A.R.I.B.A., A.A.Dipl.; Hon. Librarian, Mr. S. Rowland Pierce, A.R.I.B.A.; Past President, the Hon. Humphrey Pakington, F.R.I.B.A., A.A.Dipl.

Ordinary Members of Council:—Messrs. David Booth, A.R.I.B.A., A.A.Dipl.; H. P. Crallan, A.R.I.B.A., A.A.Dipl.; Colin R. Crickmay, A.R.I.B.A., A.A.Dipl.; J. Murray Easton, F.R.I.B.A.; R. C. Erith, A.R.I.B.A., A.A.Dipl.; Humphrey H. Goldsmith, A.R.I.B.A.; R. Y. Goodden, A.R.I.B.A., A.A.Dipl.; Major V. H. Seymer, D.S.O., A.R.I.B.A., A.A.Dipl.; R. H. Sheppard, A.A.Dipl.; and B. P. Westwood, A.R.I.B.A., A.A.Dipl.

THE ARCHITECTS' DIARY

Thursday, June 4

ROYAL ACADEMY EXHIBITION, *Burlington House, Piccadilly, W.1. Summer Exhibition. Until August 3.*

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C.1. Exhibition of work executed by members of the A.A. Students' Art Club. Until June 13.*

Monday, June 8

INTERNATIONAL EXHIBITION OF ACETYLENE, OXY-ACETYLENE WELDING AND ALLIED INDUSTRIES. *At Caxton Hall, Westminster, S.W.1. Until June 13.*

Friday, June 12

NATIONAL HOUSING AND TOWN PLANNING COUNCIL. *At the County Hall, Lambeth, S.E.1. Annual Conference of Local Authorities in London and the Home Counties.*

GARDEN CITY FOR ELGIN

The Elgin Town Council confirmed, last week, the appointment of Mr. T. S. Tait, F.R.I.B.A., of Sir John Burnet, Tait and Lorne, as architect of the garden city which the Council is to erect on the estate of Deanshaugh, which it recently acquired from the Countess of Seafield's trustees.

SIR KINGSLEY WOOD ON OVERCROWDING

Sir Kingsley Wood, the Minister of Health, speaking in London last week, said the national conscience was rightly insisting that the great effort for better housing conditions should be maintained at full strength. It was a great thing that we were still building new houses at the rate of some 300,000 a year and that we should soon approach the time when we should have built some 3 million houses since the war, but we could not rest until we had seen the last of miserable and bad housing conditions in this country.

We had particularly to deal effectively with slum conditions and the evil of overcrowding. Some 400,000 slum dwellers and their children had already been removed from the slums to new and decent houses, but others remained in disgraceful hovels, and our conscience could not be clear until that was ended.

Resolute action and sustained effort were needed in connection with the new campaign against the evils of overcrowding. Local authorities had now carried out the first complete survey of housing conditions with regard to overcrowding. Overcrowding in London was proportionately and in total more serious than in most of the provincial towns, and the survey in London had shown that about 70,000 houses were at present overcrowded. The complete surveys for the country as a whole had not yet been received, but it was apparent that in large parts of the country the problem was manageable and could be dealt with expeditiously. In compass, the problem of overcrowding like that of the slums was one well within our powers if we stuck to our task.

WEST YORKSHIRE SOCIETY OF ARCHITECTS

The annual excursion of the above Society took place last month under the leadership of the President, Mr. C. E. Fox, F.R.I.B.A. The party, consisting of over forty members and friends, first visited Shibden Hall, Halifax, and then proceeded on a circular tour in the Halifax district, halting at places of interest. The itinerary included Hardcastle Crags, Gorple and Heptonstall, the Roman road on Blackstone Edge, which has been recently uncovered, the concrete dam at Ryeburn Reservoir, Barkisland Hall and Clay House.

THE ARCHITECTURE CLUB

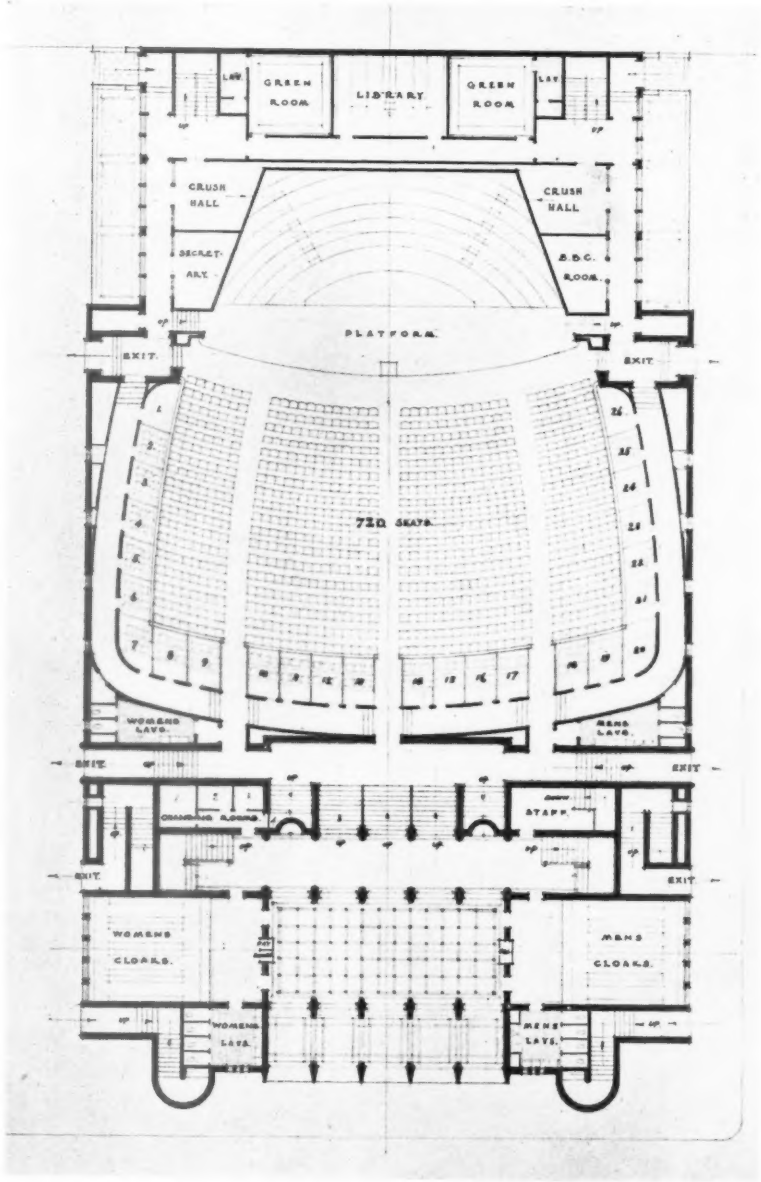
The twenty-sixth dinner of the Architecture Club was held on Thursday last at Savoy Hotel, when the topic of discussion was "The King's Highway." Mr. R. Holland-Martin, President of the Club, occupied the chair.

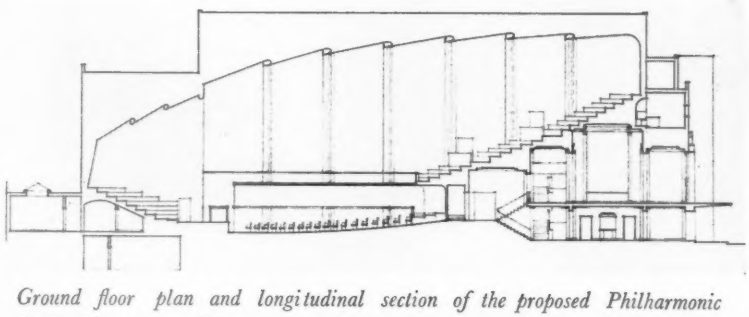
Sir John Squire, who introduced the subject, said he desired to propose the "health" of the King's Highway, which appeared to him to be in a pretty precarious state. Ribbon development went on much faster than Parliament could cope with. The whole solution both of the traffic problem and of the housing problem, from the architectural and the aesthetic points of view, rested with those who were trying to plan, and he felt that they were not trying to plan fast enough.

A number of lantern slides of highways, past and present, including some of new roads in Germany, were shown, and were described by the Secretary.

Mr. George L. Pepler, Chief Town Planning Inspector of the Ministry of Health, emphasised that in considering the King's highway, the question should be viewed in general relationship to the layout of any region or place, and the service the road was going to give must always be envisaged. The chief fault in the earlier road-planning was false economy. Road planning meant a very great expenditure of public money, and it was thought that some return should be obtained from the frontagers. He suggested that the mover of the toast need not be so gloomy about the situation.

Sir Charles Bressey, Engineer to the Highways Development Survey, Ministry of Transport, said a remarkable fact about so much criticism that one heard was that whatever was done by local authorities must in the very nature of things be wrong. The gentlemen who did not sit on those authorities and who took no part in local administration were those who understood what should be done!





Ground floor plan and longitudinal section of the proposed Philharmonic Hall, Liverpool. The architect is Herbert J. Rowse. *See also page 862.*

The perpetual scorn that was so commonly directed against local authorities was excessively irritating to those who had to deal with leaders of local administration.

Mr. W. Rees Jeffreys, Chairman of the Roads Improvement Association, said that the problem of ribbon development was a much a question for the architect as the road builder, and they had to work in far greater co-operation than in the past.

A NEW COMPETITION

The Louth Corporation invites architects to submit designs for new municipal offices to be erected on a site near the Town Hall, Louth. The following premiums are offered : First—Fifty guineas (to be included as part of the commission payable to the successful competitor); second —Twenty-five guineas.

Full particulars are obtainable from Mr. Hugh E. Roberts, Town Clerk, Town Hall, Louth. The latest date for submission of designs is July 4.

R.I.B.A.

"EVERYDAY THINGS" EXHIBITION

The R.I.B.A. Exhibition of Everyday Things has successfully started its tour of the provinces with an attendance of 2,000 in the first week of showing at Bristol. It is on view at the Royal West of England Academy and was opened by the President of the R.I.B.A. on May 18, the Lord Mayor of Bristol presiding. It will close at Bristol on June 13 and open at the Walker Art Gallery, Liverpool, on July 4. After showing in Liverpool for six weeks, it will proceed to Manchester.

COUNCIL MEETING

Following are some notes from a recent meeting of the Council of the R.I.B.A. :—

The Employment of Architects in the Scheme for Co-ordinating Means of National Defence : A letter was addressed to Sir Thomas Inskip, Minister for the Co-ordination of Means of Defence, urging the employment of architects on the numerous buildings which will be required by the Defence Forces in consequence of the expansion of the Forces recently decided upon by the Government, and offering the help of the Institute in this connection.

The R.I.B.A. Statutory Examination for District Surveyors, April 1936 *:* The Board of Architectural Education reported that at the examination held in April, five candidates sat, of whom the following were successful :—P. T. Dean and D. D. Clarke.

The R.I.B.A. Examination for Building Surveyors, April 1936 *:* The Board reported that two candidates sat for this examination and that the following was successful :—J. R. Wyld.

International Hospital Association : It was decided to accept membership of the International Hospital Association, and Mr. E. Stanley Hall (Vice-President) and Mr. Lionel G. Pearson (F.) were appointed as the R.I.B.A. representatives on the United Kingdom (Provisional) Council.

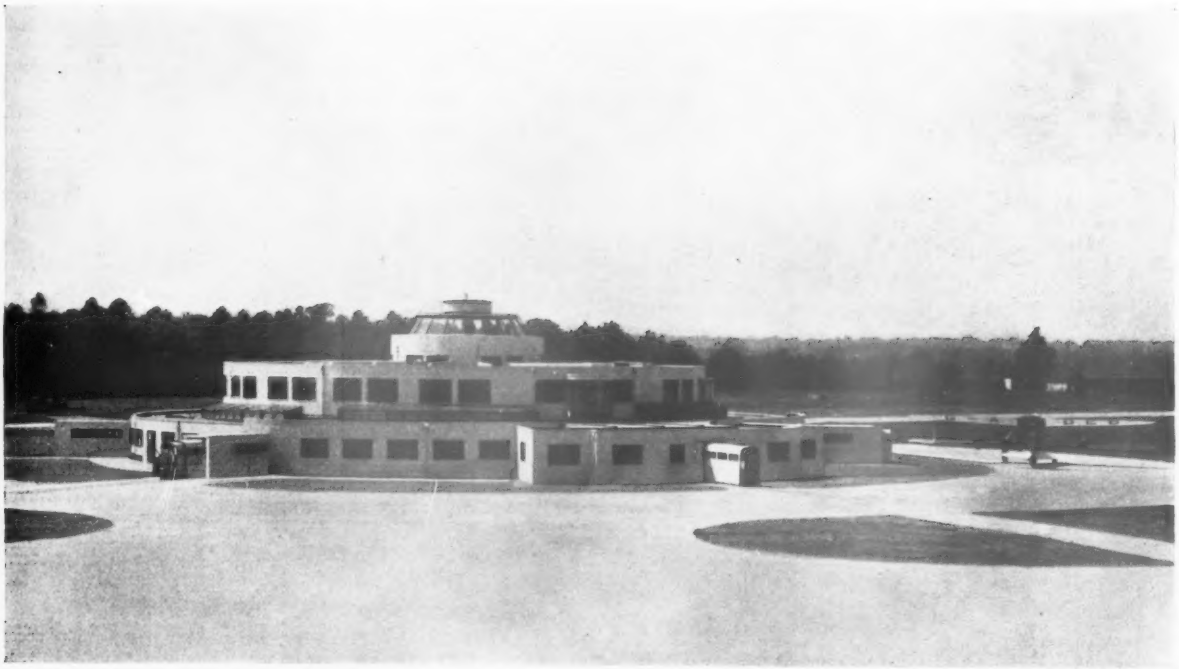
1931 Form of Contract : Clause 18 *:* On the recommendation of the Practice Standing Committee it was decided to obtain counsel's opinion on the interpretation of Clause 18 of the 1931 Form of Contract.

Reinstatements : The following ex-members were reinstated :—As Associates : Francis H. Heppel, Alexander Steele, and William N. Worrall.

Transfer to the Retired Members Class.—The following member was transferred to the Retired Members Class : As Retired Associate : Charles Alfred Geen.

Resignations.—The following resignations were accepted with regret :—Francis M. Drake (F.). William J. Paterson Cox (A.)

GATWICK AIRPORT: DESIGNED BY

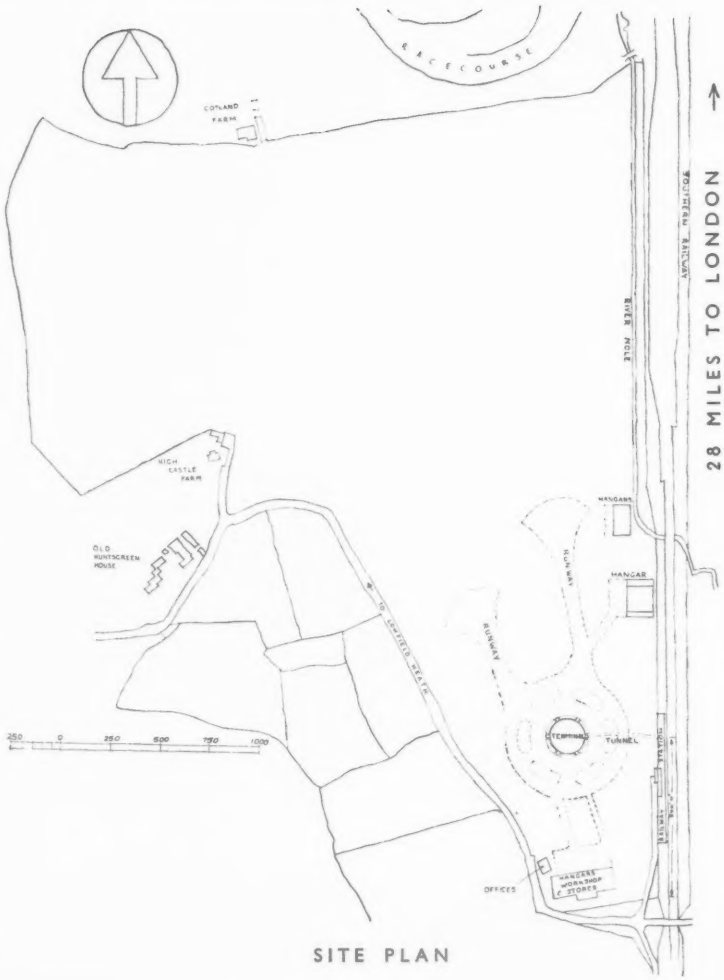


GENERAL PROBLEM. — *It was the clients' wishes that the airport should be kept low, both in appearance and reality, that it should be circular in plan, and that it should be white for easy recognition from the air. Both in planning and equipment the airport is generally regarded as the most up-to-date in Europe.*

SITE.—*At Gatwick, Surrey. A new railway station, named Gatwick Airport, reached in 30 minutes by electric train from Victoria, London, has been built by the Southern Railway, to serve the airport. Gatwick is 28 miles from London, and is 20 miles nearer to Paris than Croydon. Air travel is quicker by 45 minutes compared with Croydon, and 25 minutes compared with Heston. British Airways find that since they have been operating from Gatwick their Scandinavian Air Mail plane has been, on the average, 18 minutes earlier than before.*

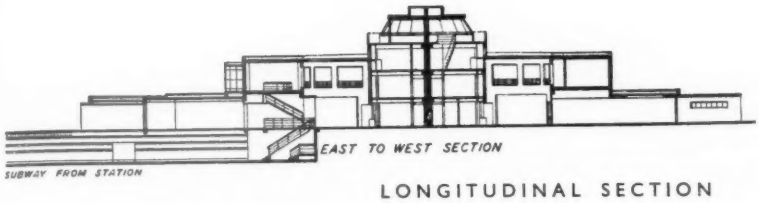
CONSTRUCTION. — *The centre portion of the airport is of reinforced concrete, the floors being supported on two reinforced concrete ring beams 38 ft. and 80 ft. in diameter, respectively, each supported at six points on the circumference. The remainder of the building, from 120 ft. diameter outwards, is steel framed, with brick infilling to allow for future extension. The roofs are of reinforced concrete and hollow tile; the floors are concrete, finished in jarrah wood block in the offices; composition flooring in the Customs Hall and concourse. The partitions are hollow tile and breeze.*

The photograph is taken from the footbridge of the new railway station, built by the Southern Railway, to serve the airport.

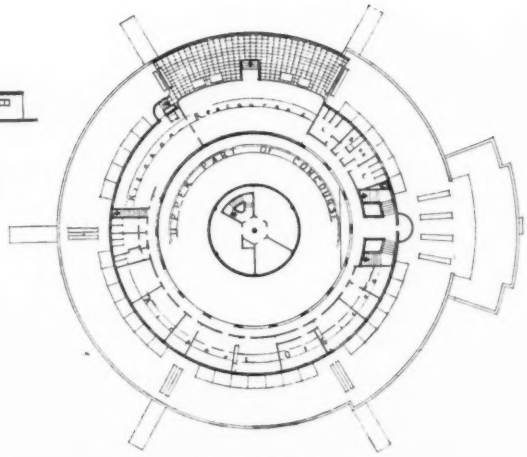


SITE PLAN

HOAR, MARLOW AND LOVETT



LONGITUDINAL SECTION



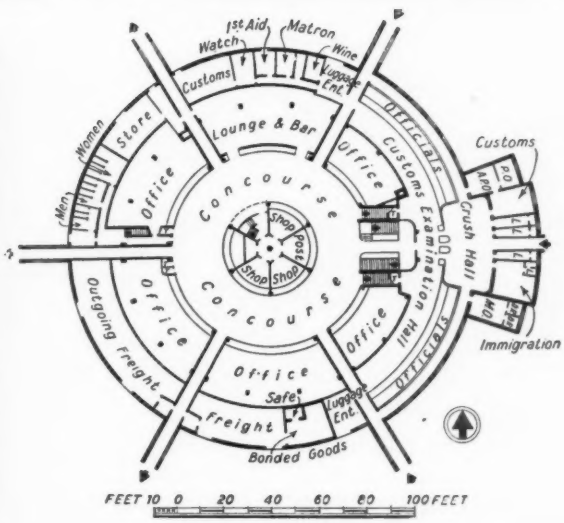
FIRST FLOOR PLAN

PLAN. — *Passengers are under cover from the time they leave Victoria Station until they reach their destination on the continent. From Gatwick station they walk through a subway, 130 yds. long, into the airport, and from there through radiating corridors and telescopic canopies into the aeroplanes.*

The planes circulate round the airport in an anti-clockwise direction, and six planes can be dealt with simultaneously from the six radiating corridors. Three corridors are for incoming planes, three for outgoing. The telescopic canopies are run out after the planes have drawn up to their allotted positions.

On the ground floor are the offices of the Customs, Immigration, M.O., and C.I.D. officials, a large customs hall, and a circular concourse with shops, a post office, and the offices of the operating companies. On the first floor are a restaurant, fully licensed for the sale of drinks, with seating for 80, and seating for 100 more persons on the open-air terrace overlooking the landing ground; kitchens, passengers and staff changing and bath rooms, and the airport owners' offices. In the central drum are the meteorological and other offices. On the third floor is the control room.

The photographs show: centre, the customs hall; below, looking from the customs hall into the concourse.



GROUND FLOOR PLAN

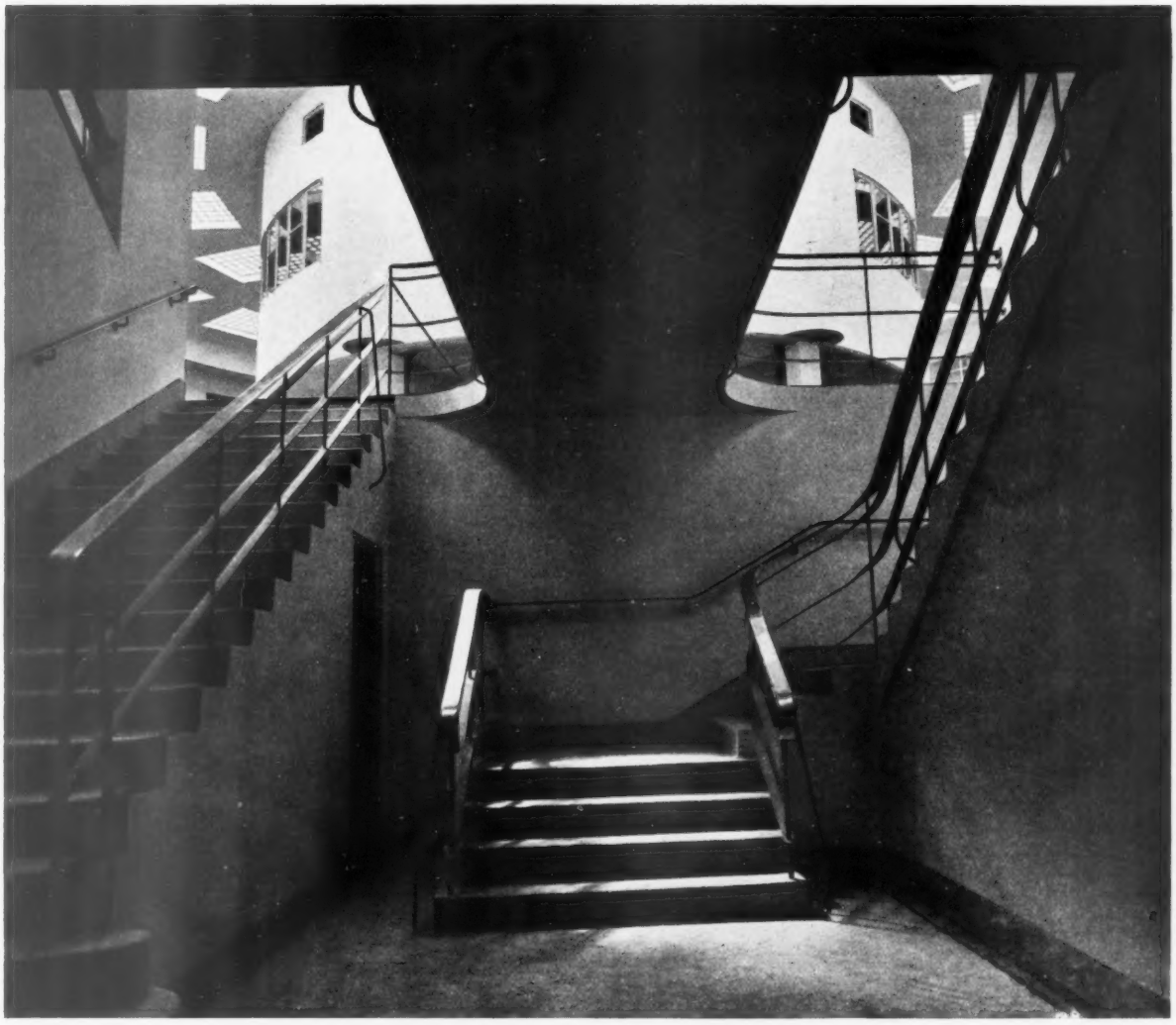
GATWICK AIRPORT: DESIGNED BY

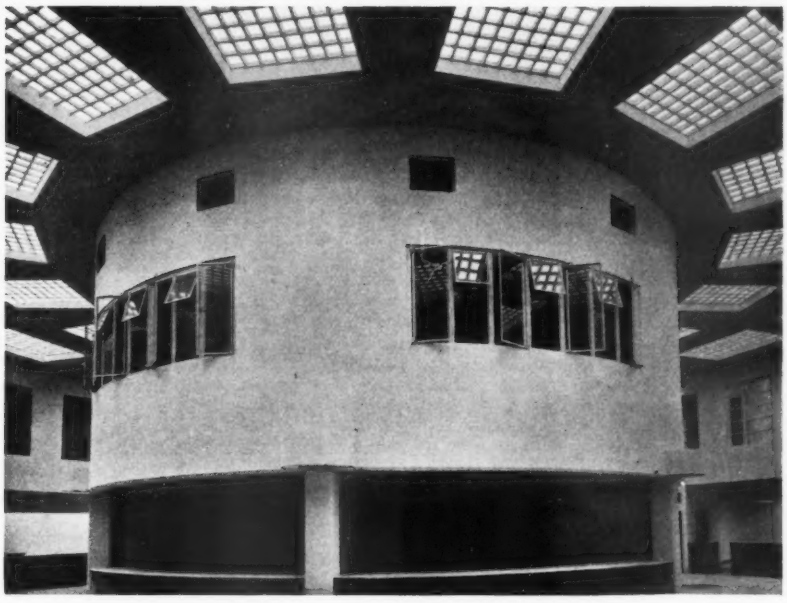
INTERNAL FINISHES.—*In the kitchens and staff lavatories the floors and walls are tiled, and in the passengers' and office staff lavatories the floors and the walls, to a height of 6 ft. 9 ins., are finished in terrazzo. The subway is of reinforced concrete, lined to a semi-elliptical shape with building board on timber framing. Behind the building board are the exhaust ventilation ducts. The subway is fitted with showcases at intervals and has concealed electric lighting.*

The walls and ceiling of the concourse are distempered a light pink, the doors on the balconies are painted green, and the doors and counters on the ground floor are oak. In the Customs hall the walls are light pink, the ceiling white, and the window frames and partitions green. The restaurant has light pink walls, white ceiling and wood tables and chairs finished eggshell. The carpet and the table tops are blue.

The photographs are : above, in the concourse, showing an office of one of the operating companies. The doors in the centre open into one of the radiating corridors leading to the aeroplanes ; on either side are the doors to the public telephone kiosks. Left : the staircase in the concourse leading up to the restaurant, and down to the subway serving the railway station.

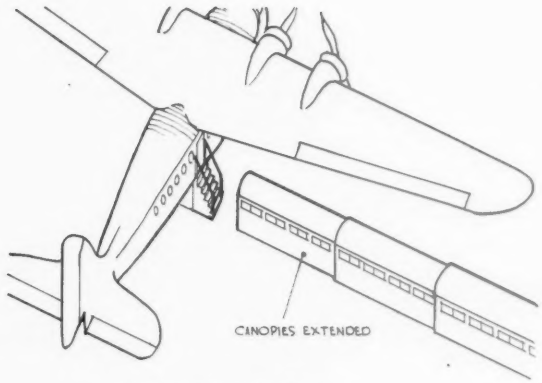
HOAR, MARLOW AND LOVETT



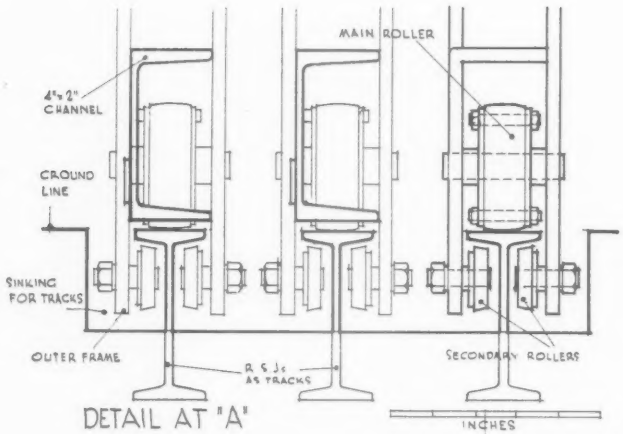


The photographs show: above, the approach to the concourse from the subway; right, the centre drum in the concourse, containing the meteorological offices. Above it is the control room.

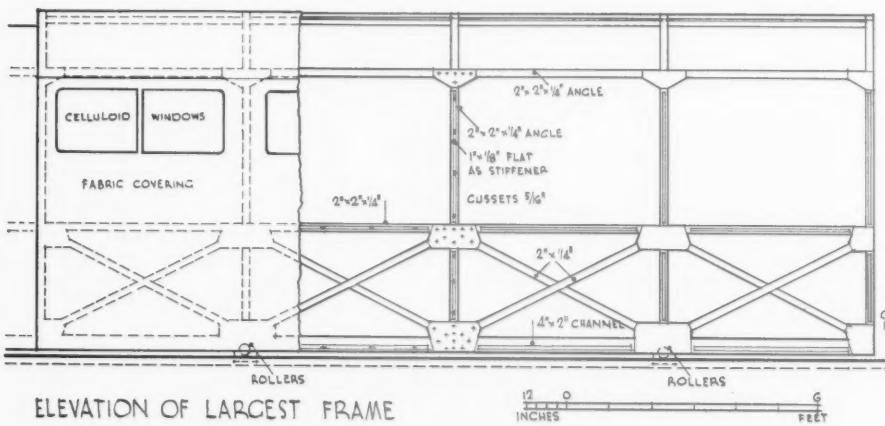
GATWICK AIRPORT: DESIGNED BY



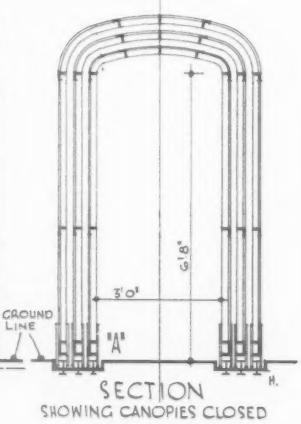
AXONOMETRIC



DETAIL AT "A"



ELEVATION OF LARGEST FRAME

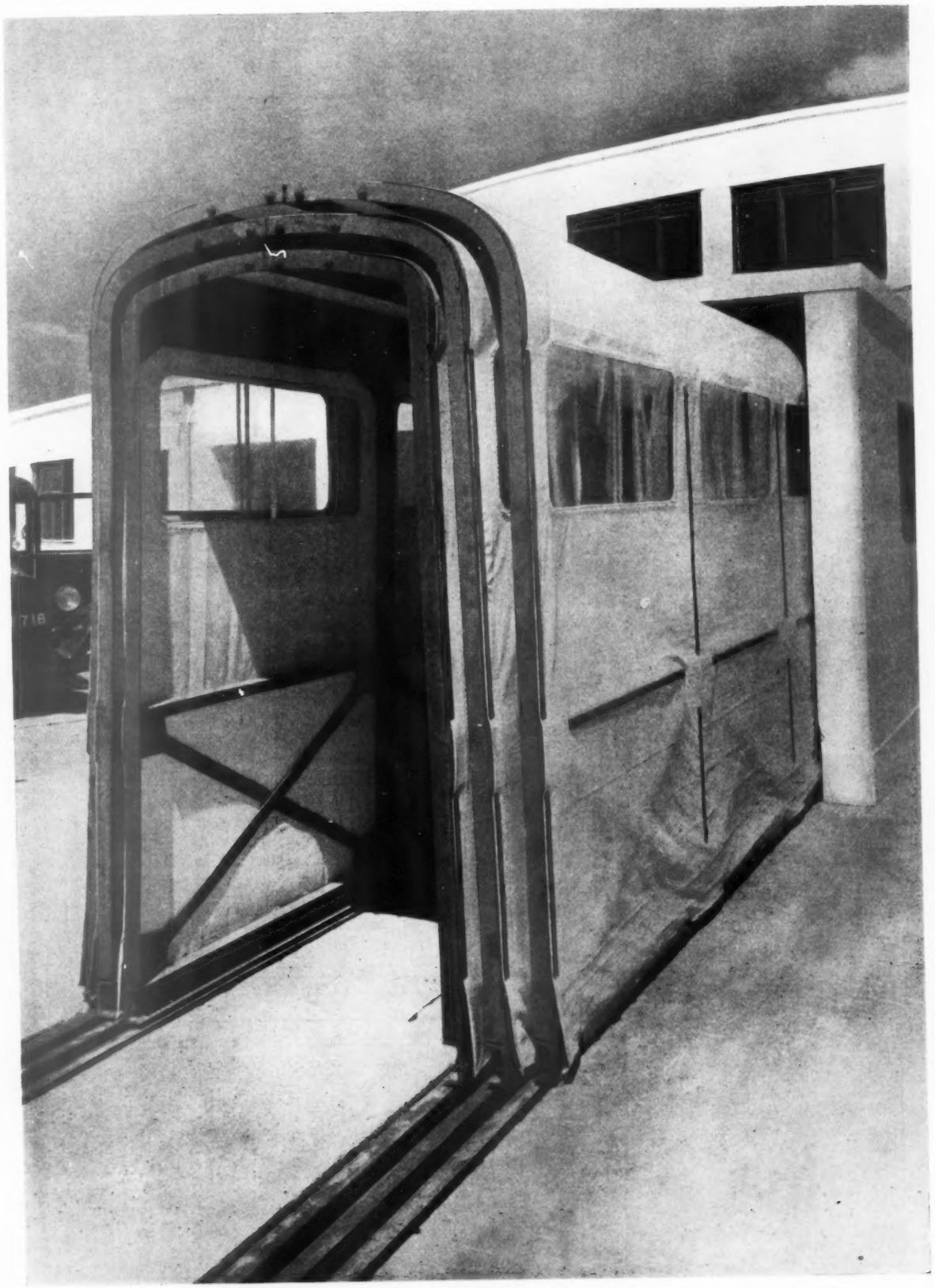


SECTION SHOWING CANOPIES CLOSED

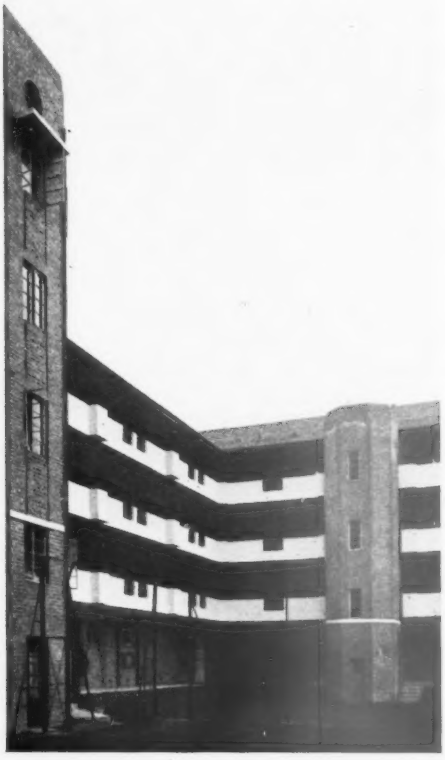
SERVICES.—*These include public telephone kiosks, an internal telephone system connecting all the offices, the restaurant and the control room, a teleprinter for direct communication with Croydon, and electric lighting and cooking. Heating and hot water services are supplied from separate anthracite boilers, the water for heating being circulated in conjunction with the plenum system of ventilation. The extract ventilation of the subway is independent of the building. All service pipes are run in ducts with manhole access. The airport is equipped for night flying and blind landing equipment is to be installed shortly.*

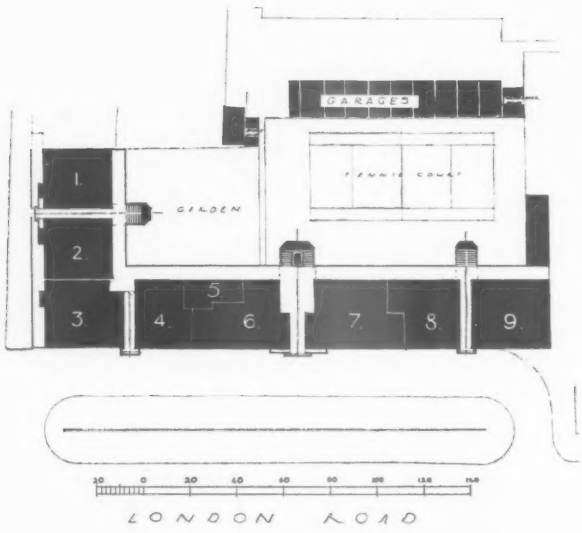
The photographs show : left, looking from the balcony into the concourse ; right, the restaurant. Above is a detail drawing, and on the page facing is a photograph of one of the telescopic canopies. *For list of general and sub-contractors, see page 890.*

HOAR, MARLOW AND LOVETT



FLATS AT THORNTON HEATH,





GENERAL PROBLEM.—*A block of thirty-nine flats and an estate manager's flat. The flats provide accommodation varying from a living-room, one bedroom, kitchen and combined bathroom and w.c. to two reception rooms, three bedrooms, kitchen and separate bathroom and w.c.*

The photographs show : above, a view of the Goldwell Road and London Road fronts ; left, the garden front, showing two of the staircase towers.

SURREY: BY Z. SIROTKIN

SITE.—*At the corner of London Road and Goldwell Road. A narrow right-of-way at the rear gives access to the garages. The local council required the building to be set back on the main, London Road, front to allow for a private approach road.*

CONSTRUCTION.—*Reinforced concrete framework with brick external panels, carried on reinforced concrete beams. The only portions of the framework which show on the main elevations are the continuous lintols. These are 5 ins. deep and are rendered in white cement to make them identical in appearance with the continuous cills. The roof is ordinary timber construction, covered with tiles. In the centre portion of the roof are a tank space and eight drying-rooms for the use of tenants. Between the flats all the partitions are double thickness and are built on bituminous felt to eliminate sound transmission. The floors are solid concrete slabs, the floor boards being carried on battens held in position with clips.*

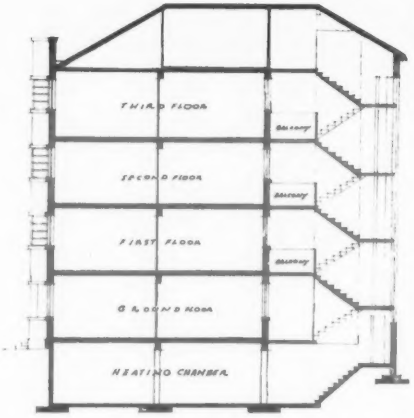
ELEVATIONAL TREATMENT.—*The walls are faced with red sand bricks between the windows and pressed purple bricks under the windows, with pointing in white cement. The main entrance surrounds and piers on the London Road front are finished with black glass, and the piers have concealed neon lighting.*

SERVICES.—*Constant hot water is supplied from electro-thermal storage heaters in the basement. A telephone is installed in a recess in the hall of each flat, and in a call-box on the ground and on the second floors adjoining the central staircase and lift. Coal fires are provided in the living-rooms, electric fires in the bedrooms. Concealed safes are installed, and electric clocks are fitted in the surrounds to the coal fires.*

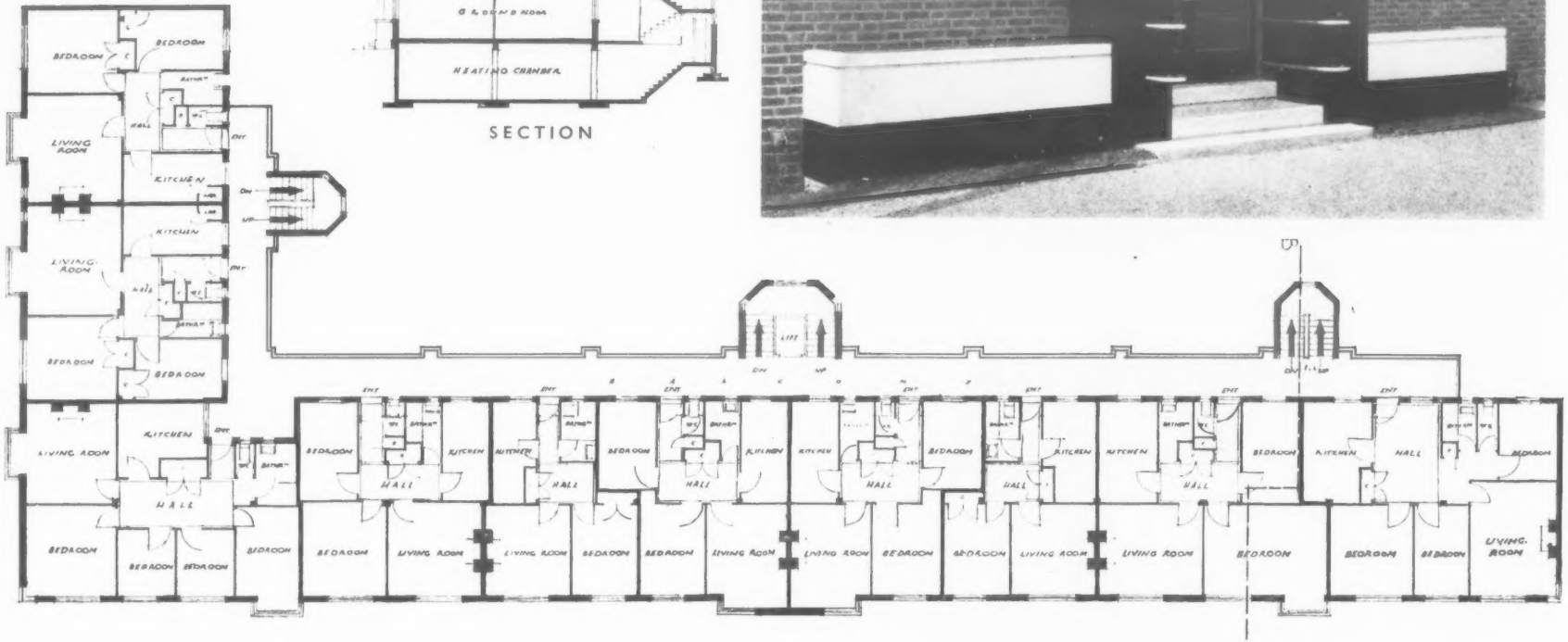
The photographs show : above, left, the entrance from Goldwell Road ; above, the balconies on the garden side ; left, the telephone call-box on the second floor balcony.

FLATS AT THORNTON HEATH, SURREY

DESIGNED BY Z. SIROTKIN



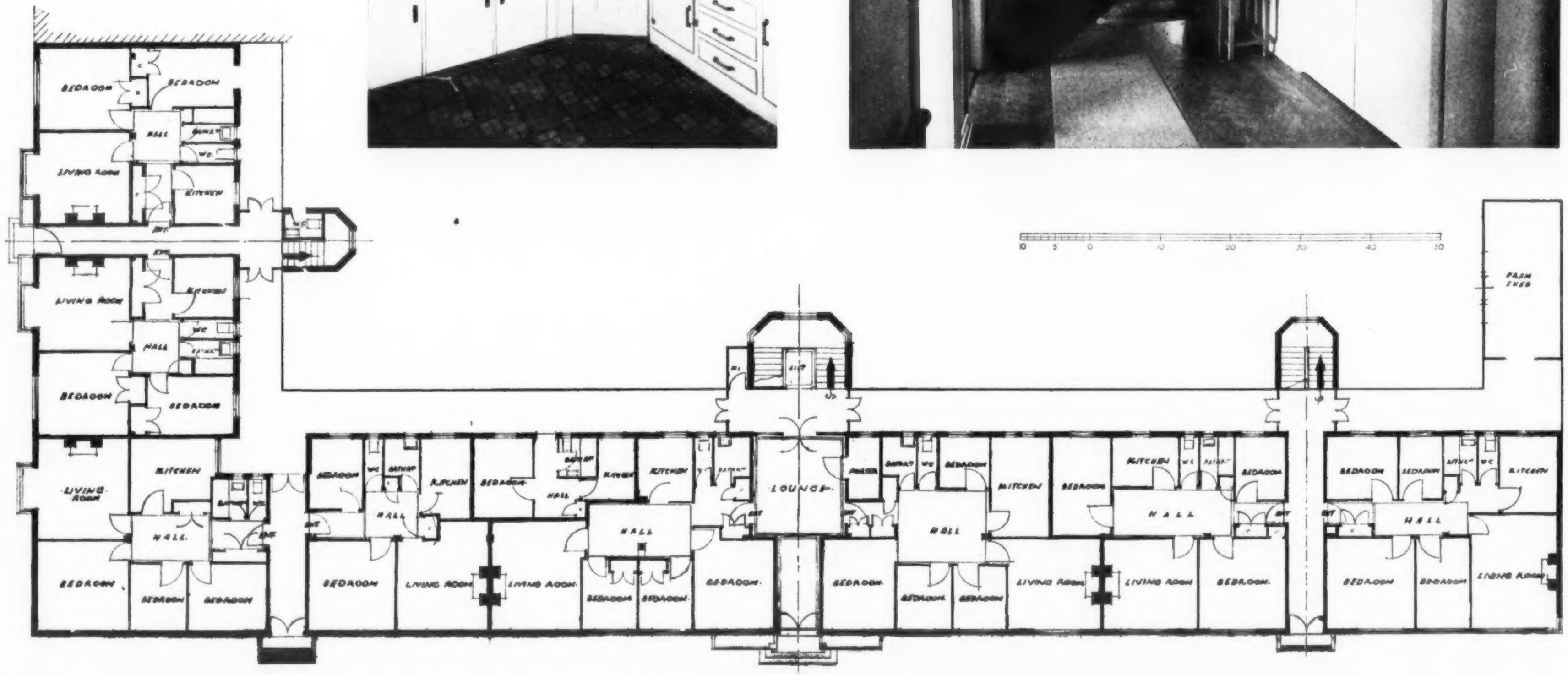
SECTION



TYPICAL UPPER FLOOR PLAN

The photographs show: a kitchen and a hall in one of the flats. On the facing page is a detail of the main entrance from London Road.

For list of general and sub-contractors see page 890.



GROUND FLOOR PLAN

A pleasing streamline design.

MODERN BUNGALOW DESIGNS

By "HOMO"

[*The* JOURNAL *has received and has pleasure in publishing the following article on bungalow design. Photographs, cross-headings and captions are by the author.*]

THE popularity of the bungalow as a permanent home shows no signs of abatement; in fact, builders in many parts of this country who formerly looked upon bungalow enthusiasts as a passing "fashion" are now turning their attention to this particular building development.

In recent years, considerable improvement has taken place in bungalow design and the scope in this direction would appear to be unlimited judging by the many designs found during a recent tour.

The purpose of this article is not to discuss the pros and cons of bungalows *versus* houses, but rather to treat the subject from the view of the artistic features which are being embodied in the modern types. While the majority of home finders are usually more immediately concerned with accommodation requirements, we can therefore assume that these matters have been disposed of, and that the family have decided to make their home in a bungalow. So that we are now in a position to discuss the various styles or types which are available today.

CHARM OF DESIGN

In contrast to the earlier designs those of recent years show a marked improvement, and embody some very desirable and pleasing features, all of which are most welcome. The fact must not be overlooked, however, that the earlier designs were more or less of a standard type, inasmuch as they were representative of the cottage home for which there was a certain demand, and any departure from such designs proved a costly procedure. On the other hand, since the colonial and continental designs were introduced the earlier English types have been replaced by a different and more elegant type of bungalow.

Some may regret the passing of the cottage style of structure; it has or had, no doubt, hidden charms, but when compared to the modern designs in which charm predominates, we are sensitive to the new atmosphere created. The psychological effect of charm in design must be that of enjoyment and appreciation—and that, surely, is a worthy aim. An interesting illustration—which cannot be an isolated one, of the modern tendency and appreciation of the individual—is that of a home seeker who had actually designed his future bungalow from types seen while on a holiday. When, however, the time arrived for the building of his new home, he found to his utter amazement adjacent to his chosen site a type of bungalow more elegant and of a more pleasing design than the one he had so carefully nourished. Needless to relate, the "bungalow of his dreams" faded away, and this home finder is now residing in a bungalow in which "charm of design" was the principal feature.

Cottage type of modern design.

MODERN STYLES

Of course, artistic views of individuals vary, even among those of the same family; some develop it early in life, others acquire it. Again, these views are exhibited in different ways; for example, some people think interior decorations or designs are more important than exterior, while others lavish their attention on the garden.

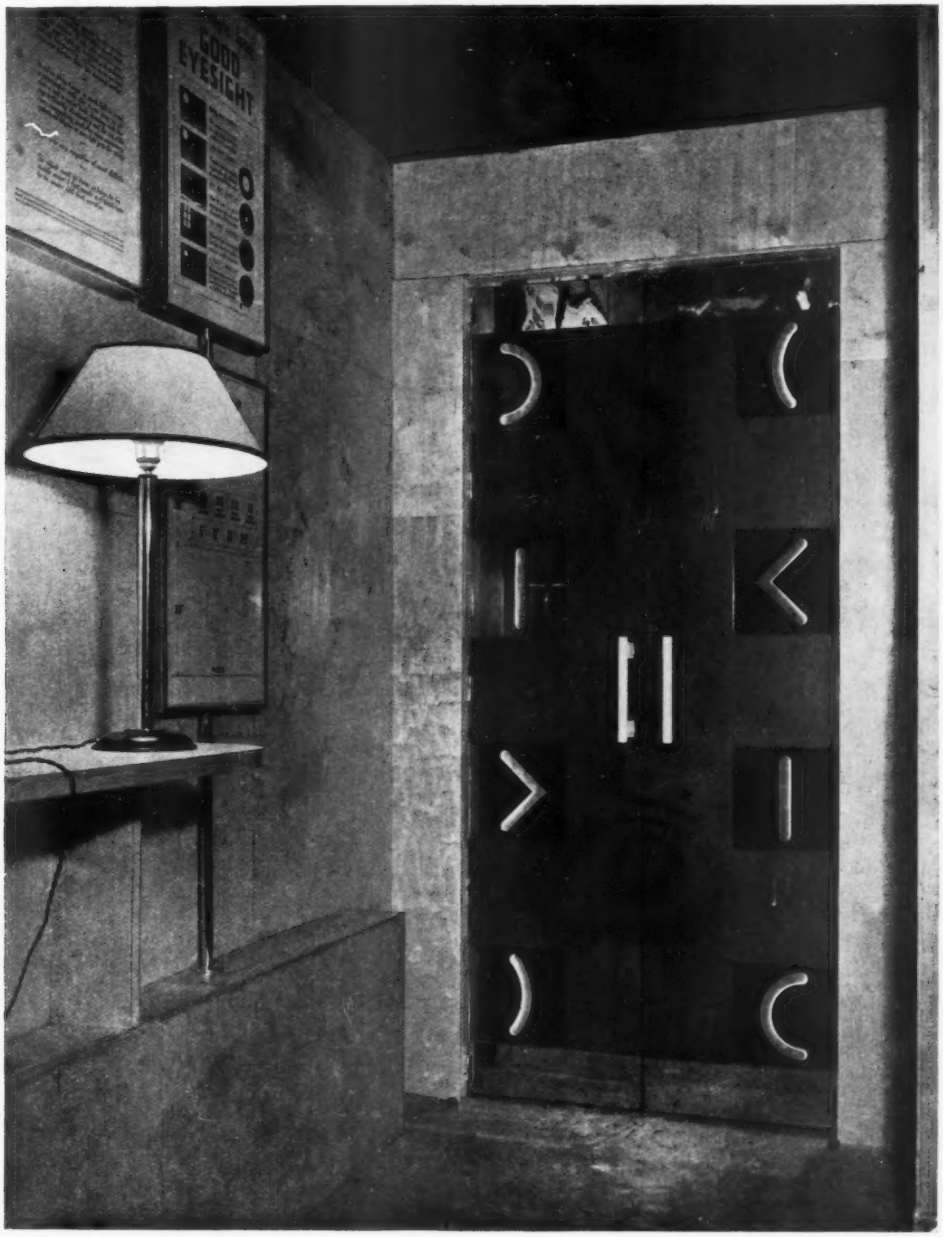
The different types illustrated are representative of modern progress and have been selected at random, as examples of bungalows with the average accommodation for the small family. Each has its own particular charm of design, simple in character, correctly proportioned, and as such, must command admiration even from those to whom the plain cottage type represented the ideal of residential happiness. It may be argued that a detached bungalow should have a distinctive design in order that it may not appear dwarfed by surrounding buildings, but even when circumstances are not so favourable, distinctive designs can still be embodied in semi-detached bungalows, and many types are to be seen possessing elegance and character of the modern craftsman.

BUNGALOW ESTATES

As previously mentioned many builders are developing estates for bungalow residents, and it is interesting to note the improvements both in design of structures and the general lay-out of the estate. In contrast to the methods adopted a few years ago, when bungalows of the plainest designs were constructed on barrack lines, the improvements of recent years have given a decided impetus for further development. Indeed, in some localities, very large estates are being developed which reflect credit on the promoters, inasmuch that designs of a pleasing character have been used which today are making the bungalow residence so popular to the home seeker of average means. Truly, we are living in a progressive age brimful of opportunities for joy and happiness, even for people whose residential requirements are simple in character.

WORKING DETAILS : 431

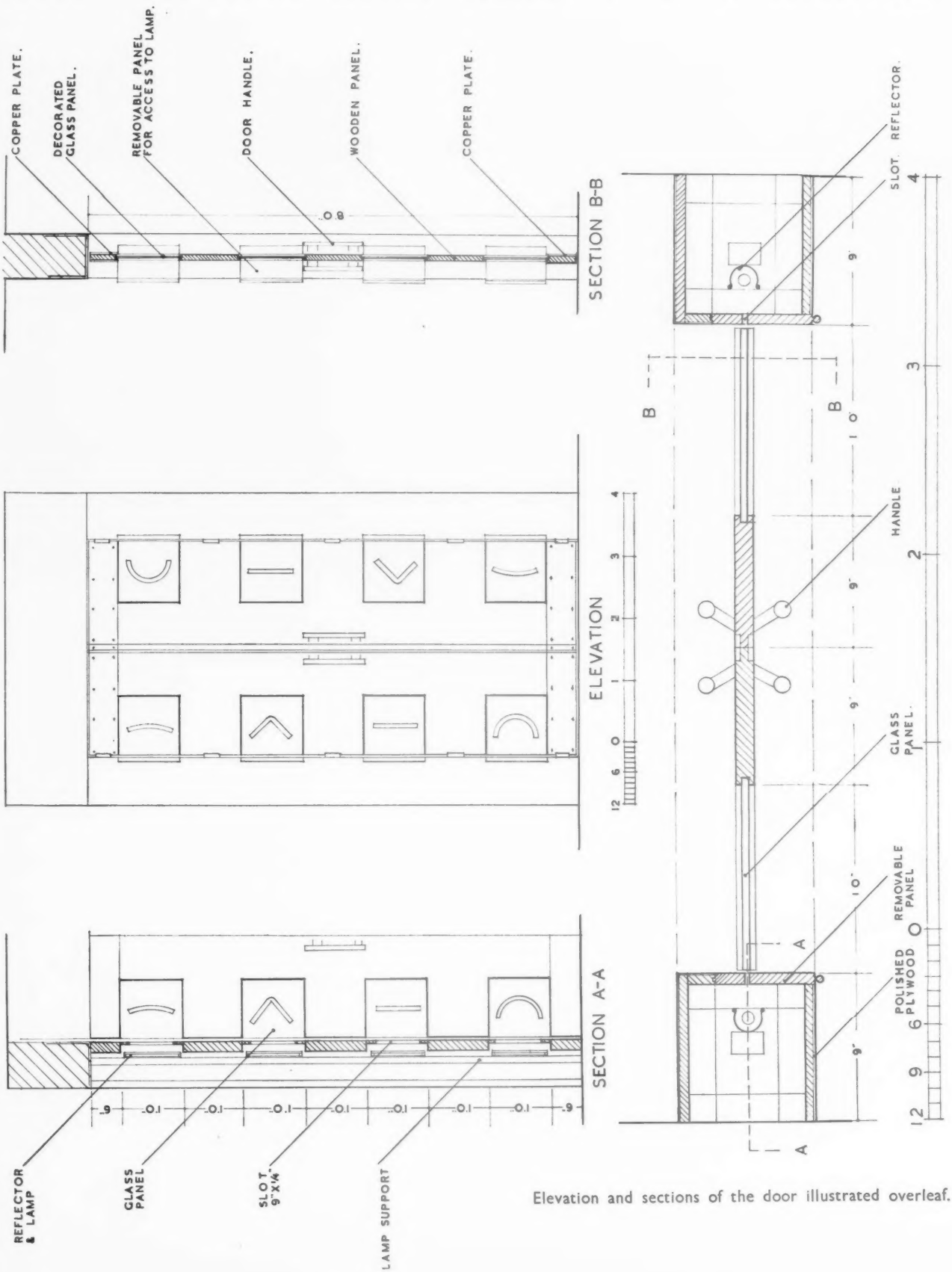
DOOR • LIGHTING SERVICE BUREAU • R. O. SUTHERLAND



The swing doors illustrated above have been built to show the possibilities of employing side lighting for illuminated glass door panels, which are arranged here to be lit through a small slot in the architrave, behind which is a concealed tubular lamp. Sliding panels are provided for access purposes. An elevation and sections of the door are shown overleaf.

WORKING DETAILS : 432

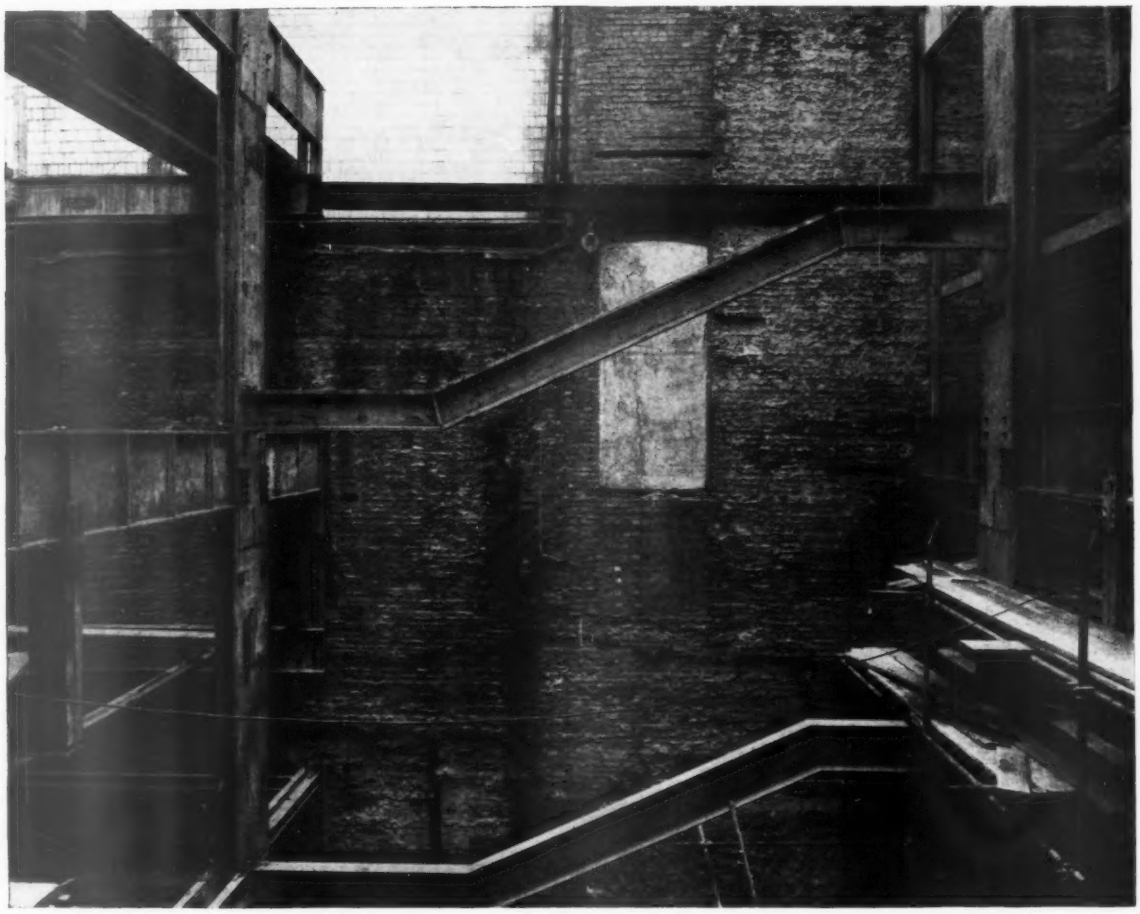
DOOR • LIGHTING SERVICE BUREAU • R. O. SUTHERLAND



Elevation and sections of the door illustrated overleaf.

WORKING DETAILS : 433

STAIRCASE • SIMPSON'S, PICCADILLY • ENGINEERS: HELSBY, HAMANN AND SAMUELY

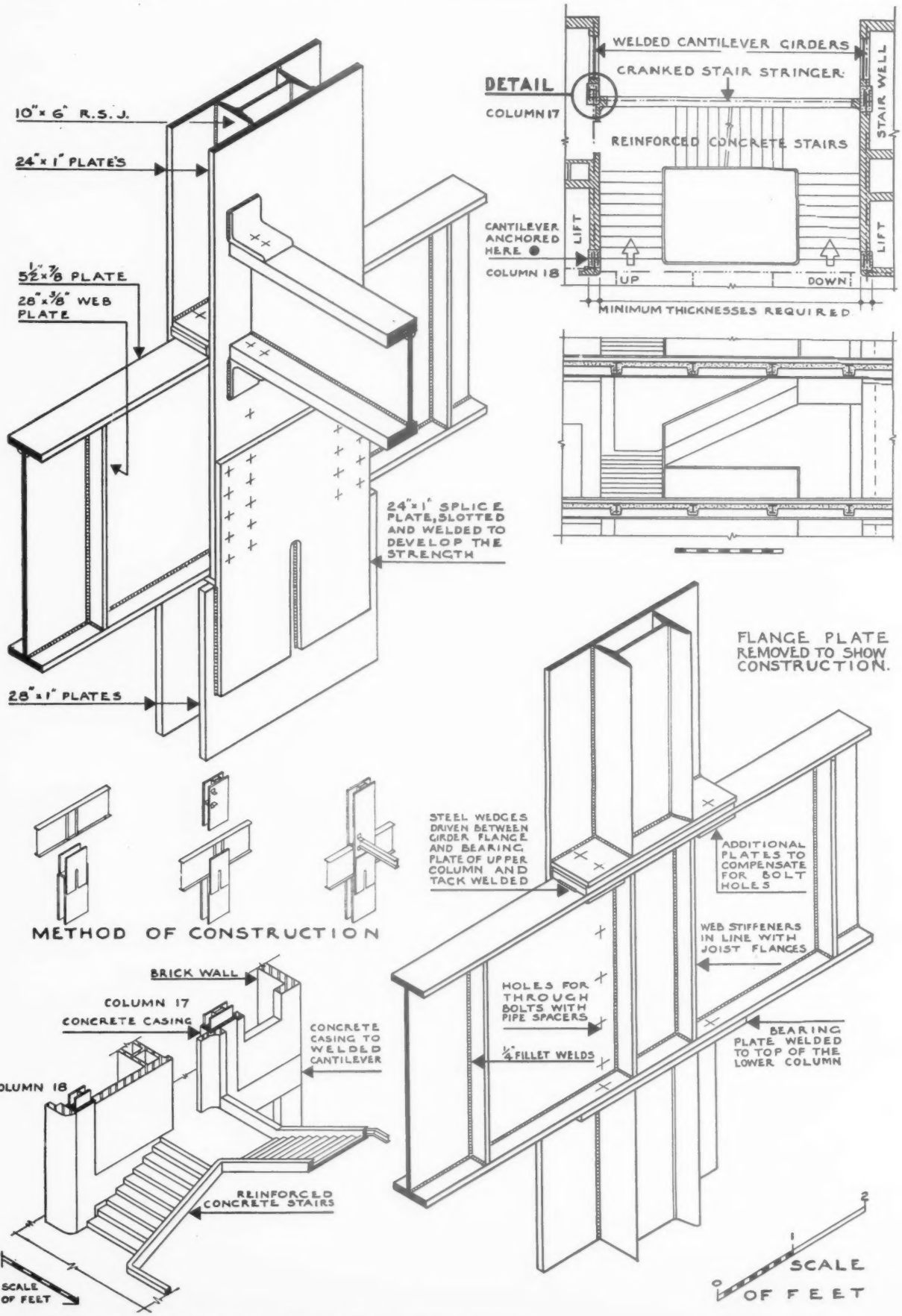


The photograph reproduced above shows the steelwork which surrounds the staircase well. Details of the welded construction, together with plan section and axonometric of the staircase, are shown overleaf. The construction is interesting on account of the very small space occupied by the columns which carry both the floors and the staircase. These are only 12 inches by 24 inches on plan, and fit into the thickness of the wall. This has been made possible by the use of welded construction. The floor joists, which are cantilevered at one end, are threaded through the columns, and by welding the two together, the strength of the columns is not impaired.

FILING REFERENCE:

WORKING DETAILS : 434

STAIRCASE • SIMPSON'S, PICCADILLY • ENGINEERS: HELSBY, HAMANN AND SAMUELY



Axonometrics and details of the staircase steelwork illustrated overleaf.

69 TOWN HALLS

The Architects' Journal Library of Planning

The Competition System

THE HUMAN ELEMENT

IT was stated in the introduction to this section that the architectural competition system, all things considered, was good, but that its greatest faults lay in the "human" element; that is, in the assessor and the competitors.

This section has attempted to examine the difficulties of competitors and to give constructive notes on planning, based on data and discoveries made through conversations with officials and visits to various civic centres.

The allegation that faults might be found with assessors of competitions, however, needs qualifying.

The Assessor

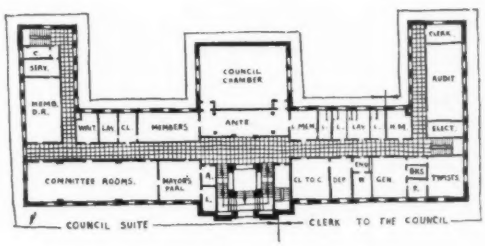
The choice of an assessor is one of the most important factors in a competition. There have been assessors who have been chosen who know very little indeed about the actual administration or ceremonial connected with a civic centre. Such assessors, although men of great building experience and common sense, can never get the best out of a competition. Any keen competitor naturally inquires into the professional history, tastes, characteristics and idiosyncrasy of the assessor, and a great number of competitors will not enter for a competition which is being assessed by a man who does not understand municipal administration, because they have no faith in the assessor and do not want to cast all the pearls of long research before someone who does not appreciate them.

The assessor who does not understand at all or who partially understands, because he has built one town hall, is dangerous to the whole structure of the competition system. It is only natural that any assessor who is uncertain of the practicability of a new idea is sure to take the course of safety and fall back on either the type of plan he has done himself or the type of plan which he knows, through seeing similar plans, has been done before and can therefore be done again.

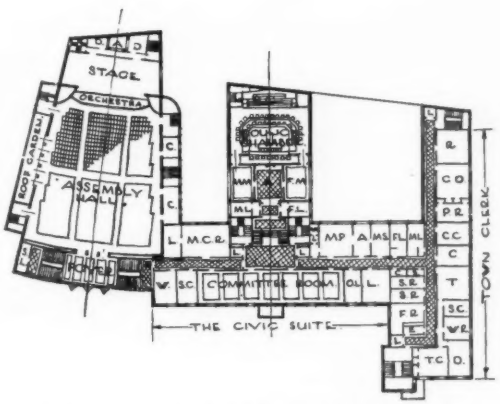
Fortunately, an assessor who does not understand his subject, is now not often appointed, and competitors owe a great debt to the R.I.B.A. for the good choice of competition assessors; and the great care taken to investigate the wishes of the promoters and the type of building they require is amply repaid by the fact that the promoters generally get what they want.

The R.I.B.A. seems to hold the right view in that the promoters are the people that matter, and that they should get the sort of building they want erected to the designs and under the supervision of a competent architect.

In addition to understanding the internal workings of the building, the assessor must possess a flexible and impartially reasoning mind which recognizes and appreciates a solution which was hitherto outside his conception, and a brain which will not reject instantly something which is not understandable at first glance. Competitors have perhaps even less confidence in an assessor with fixed ideas, than they have with one whose eyes may sometimes be blinded



Swinton and Pendlebury : First Floor Plan



Greenwich: First Floor Plan

Greenwich: Key to Plan

TOWN CLERK

R.	Registrar
G.O.	General Office
P.R.	Private Office
C.C.	Committee Clerks
C.	Cemeteries
T.	Typists
S.C.	Senior Clerk
W.R.	Waiting Room
D.	Deputy
T.C.	Town Clerk
L.	Lift
E.	Enquiries
F.R.	Filing Room
S.R.	Stationery Room
C.	Cleaner
S.	Store
M.L.	Men's Lavatory
F.L.	Female Lavatory

THE CIVIC SUITE

L.	Leader
O.L.	Opposition Leader
C.R.	Committee Rooms
S.C.	Small Committee
W.	Whips
L.	Lockers
M.C.R.	Members' Common Room
L.	Lift
M.L.	Men's Lavatories
F.L.	Female Lavatories
M.M.	Male Members
F.M.	Female Members
M.P.	Mayor's Parlour
A.	Ante
M.S.	Mayor's Secretary

ASSEMBLY HALL

S.L.	Staff Lavatories
C.	Chair Store
D.	Dressing
A.	Area

G

by beautifully rendered drawings which bring out the best in a plan and gloss over the worst.

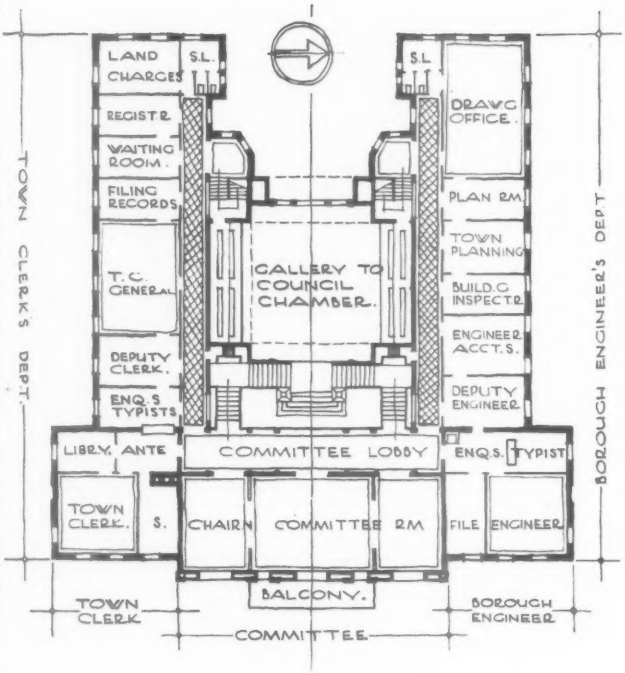
The Presentation of Drawings

An architectural competition cannot be conducted fairly unless the assessor insists on absolutely uniform presentation. The conditions should lay down clearly what sort of finish the assessor expects, and if possible, a specimen plan might be sent with the conditions to ensure that competitors understand what sort of finish is required. The programme should state clearly whether solids in section should be all black or all white, whether in block plans the buildings should be dark, the sizes of the sheets and borders, type of printing, provision of mosaics and furniture on plan, etc.—in fact, state everything necessary to control the merely slick draughtsman, and to help the young men who cannot afford to gamble two hundred pounds and three months' work on the preparation of drawings.

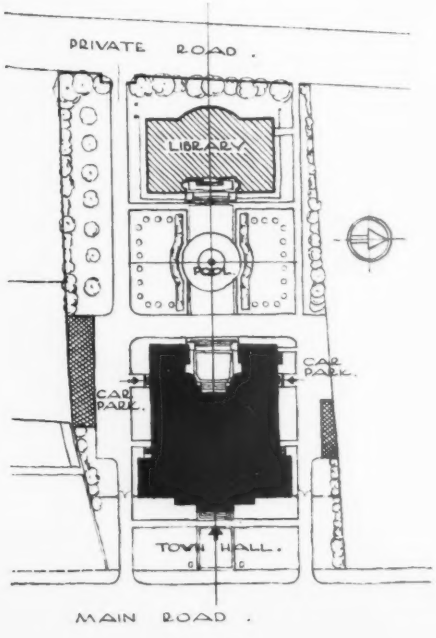
In my opinion, all rendering and colour should be absolutely prohibited. An expert reads the drawings and there should be no need to amplify the good points in the scheme.

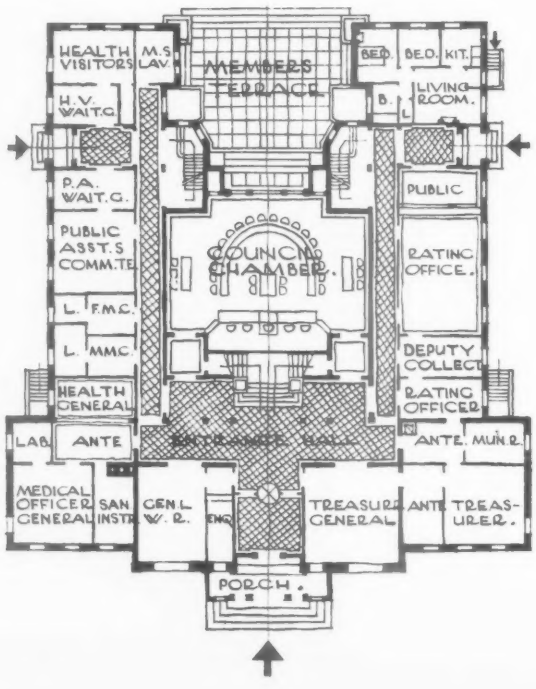
It is argued that certain designers cannot design without putting shadows and colour on the drawings, and it is unfair to limit them by excluding rendering. This reasoning seems very faulty, because, while a designer may like to execute preliminary drawings with shadows and such furbelows, he must make unrendered working drawings to convey his ideas to the builders, and therefore he must be able to design without using sciography on his drawings —unless, of course, the designer does all his designs on paper, and never builds them, but in that case he is not an architect but an architectural student.

The line drawings of Hornsey Town Hall in this section seem to be an ideal form of presenta-



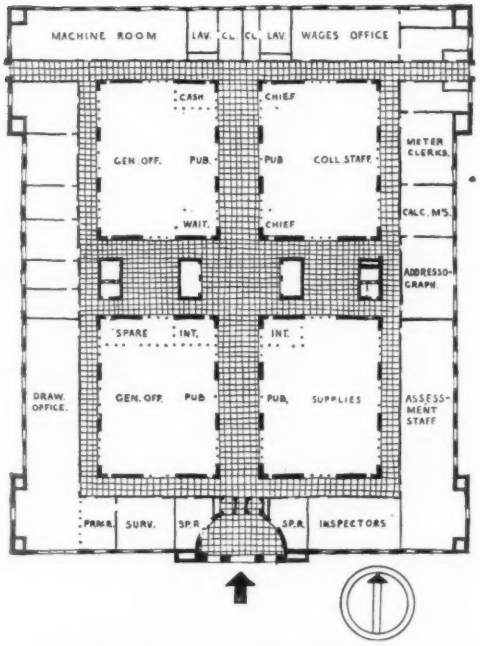
Wallington: Site, Ground and First Floor Plans



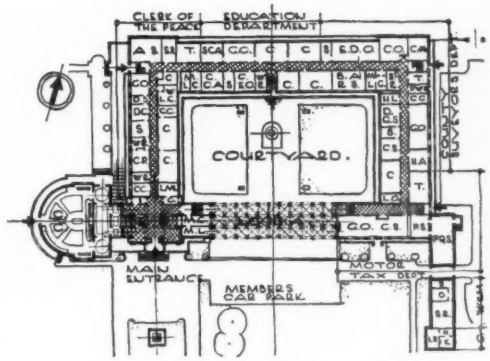


tion for competition drawings. It is unnecessary to ink the lines which are not in *poché;* a clear pencil line would be a good substitute. The printing is done on these drawings by means of the so-called stencil, which may not be a good method in general practice, but in competition work would serve to keep presentation very uniform. If the promoters want to see a beautifully finished set of drawings, or are in doubt about the assessor's choice, then the first three could be asked to submit fully rendered drawings, after the competition is finished.

The half-inch detail seems to be entirely unnecessary, and all elevations and sections should be drawn to sixteenth scale. The assessor should, however, have some guide to the competitor's ability to design in detail. What kind of a drawing this detail should be is very difficult to decide finally—but one-eighth scale elevation would seem enough. Mr. Thomas's beautifully drawn detail for the Swansea competition presented a standard with which only a big office could compete. The programme might specify very clearly what was expected and eliminate elaborate compositions of detail. It is unfair to expect the competitor to put one man for five days on to drawing out a detail. Architects do quite enough work for nothing, without the assessor adding a great deal more for the pleasure of being flattered that he is worth a good drawing. Draughtsmanship, however good, has really nothing to do with architecture, it is only a means of expressing certain dimensions on paper, and while a competent-looking set of drawings conveys to the assessor



Birmingham : Ground Floor Plan



Hertford: Ground Floor Plan

KEY TO PLAN

M.L.	Members' Lavatory
M.C.	Members' Cloaks
L.M.L.	Lady Members' Lavatory
C.	Cloaks
C.C.	Committee Clerks
W.R.	Waiting Room
C.P.	Clerk of the Peace
W.R.	Waiting Room
S.	Secretary
D.C.	Deputy Clerk of the Peace
D.S.	Deputy Secretary
G.O.	General Office
A.S.	Asst. Solicitors
S.R.	Spare Room
T.	Typists
W.L.C.	Women's Lavatory and Cloaks
C.	Cleaner
M.L.C.	Men's Lavatory and Cloaks
C.C.	Chief Clerk
C.	Clerks

EDUCATION DEPARTMENT

S.C.A.	Senior Clerks and Assistants
G.O.	General Office
C.	Clerks
C.C.A.	Chief Clerk and Assistants
S.	Secretary
C.E.O.	Chief Education Officer
W.R.	Waiting Room

COUNTY SURVEYOR'S DEPT.

S.	Plan Store
E.D.O.	Engineering Drawing Office
C.O.	Clerk's Office
C.A.A.	Chief Accounts Assistant
B.A.R.S.	Building and Arterial Roads Staff
M.L.C.	Men's Lavatory and Cloaks
H.L.	Chiefs' Lavatory
S.R.	Strong Room
D.C.S.	Deputy Council Surveyor
S.	Secretary
C.S.	County Surveyor
C.	Clerks
T.	Typist
P.W.R.	Public Waiting Room
C.C.	Chief Clerk
G.O.	General Office
H.A.	Highways Assistant

MOTOR TAXATION DEPT.

T.	Typists
L.O.	Licensing Officer
G.O.C.S.	General Office Clerks' Space
P.S.	Public Space
P.Q.S.	Public Queuing Space

WEIGHTS AND MEASURES

S.	Store
O.	Office
S.O.	Stamping Office

CARETAKER'S HOUSE

H.	Hall
L.R.	Living-Room
K.	Kitchen

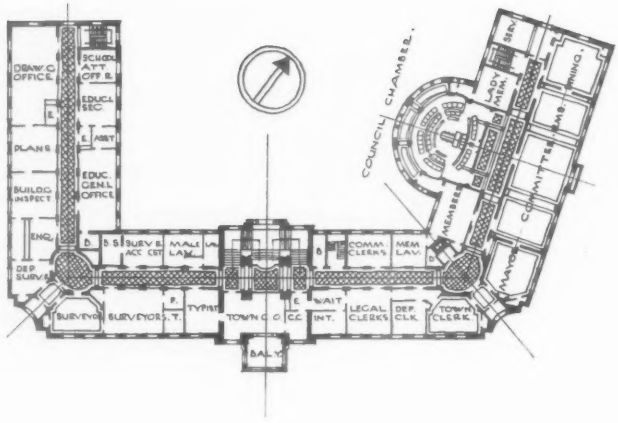
the feeling that they are the outcome of good organisation in an efficient office, it is not necessary for the draughtsmanship and rendering of competitions to be extravagant.

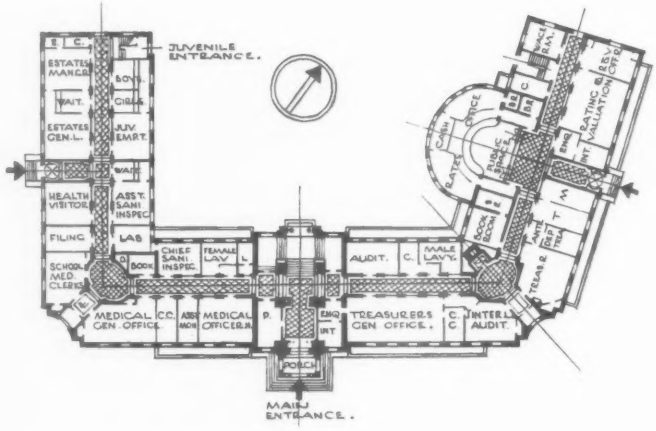
The attempts to allow drawings to be finished as comparatively rough sketch designs have not been successful, because by this system slick draughtsmanship has an even greater influence than before. Fussing and large centre lines can cover a great number of inefficiencies.

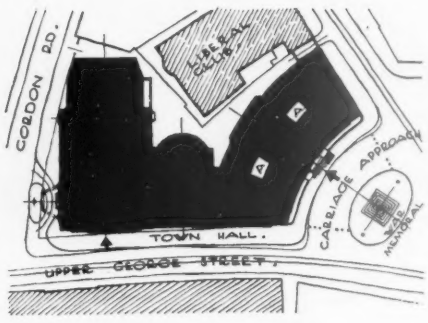
The only other details which do shake the faith of competitors are the assessors who give place or even the award to competitors who break the conditions, and the extension of the competition closing date.

It must be very difficult for an assessor when he sees a design which flagrantly breaks the competition conditions and is obviously the best scheme, but there is no doubt that competitors who break any part of the conditions should be disqualified, because the foundation of the competition system must remain unshaken. One decision against the conditions will leave for the future a great many competitors floundering about in extravagant time-wasting indecision wondering whether conditions may or may not be broken with impunity. If the conditions preclude the best design, the mistakes of the promoters or the assessor should not be visited on the competitors.

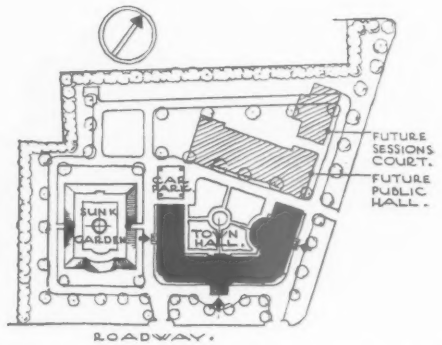
Notice of extension of the competition time in the answers to questions is another nuisance which has recently caused a great deal of grumbling. I believe it is true to say that in a recent competition for some law courts, answers to questions were published three weeks before the originally sending-in day, and the assessor in his answers to questions permitted an extension to be made of several weeks. Any intending competitor who started the competition and gave it up on finding he had no possible hope of finishing on the original sending-in day, was automatically excluded from finishing on the extended closing date. These abuses should be remedied.







Luton: Site Plan



Stretford: Site, Ground and First Floor Plans

Chesil Bank. From "Shell Guide to Dorset."

LITERATURE

DORSETSHIRE

BY E. D. SWINBURNE

Shell Guide to Dorset. Paul Nash. The Architectural Press. Price 2s. 6d.

IT is said that a nation gets the government it deserves, and perhaps the same principle can be applied to guide-books and travellers. Indeed, there is much justification for supposing that this is so, when one stops to consider the rape of the countryside which has taken place and against which so little protest has been made; and so little notice taken of that protest.

The traveller of today is content to go to the well-advertised resorts where the builder has left his mark in the cause of "development," changing beyond recognition what were probably once delightful seaside towns. For such a traveller, the popular guide-book is sufficient—the type of guide which is packed with accounts of rambles, ready-made views, bathing facilities and hotel accommodation; all given in such detail that there is little space, or apparent inclination, to describe the surrounding countryside.

Mr. Nash's guide to Dorset will appeal to those travellers who wish to know a county as it really is; its customs, manners, industries, and its own individuality of scenery and geology. Mr. Nash has written "The form the guide takes is designed to give the most straightforward view of the county's resources *as they are today*." He has achieved his purpose. The author deals with the face of Dorset, its geology, its language, and its food. He has also compiled the gazetteer. Further articles describe the flora and fauna peculiar to the county and the sport which can be enjoyed there. The book is complete in information and is supplemented by excellent maps and a list of ferries.

The guide is illustrated by photographs and water-colours, the latter being the work of Mr. Nash himself. Of the photographs, Chesil Bank is superb and an example of the heights photographic study can reach. The coast at Kimmeridge, taken by the author, affords a lovely study in contrasts.

The water-colours are specially worth notice, particularly that of Badbury Rings. The painting has a feeling of space and solitude—a feeling which is such an inherent quality of the Dorset heath. Corfe Castle has been given the dignity and strength which are its due, and which can never be lost even by the development of its surroundings into a recognized beauty spot. Mr. Nash displays in his water-colours an understanding of that remote charm which is Dorset's, a county which is independent and serene, untouched and always haunting the memory of its lovers.

Mention must be made of the author's dedication and final plea, with which all readers might associate themselves.

YORKSHIRE'S CHURCHES

BY G. E. CHARLEWOOD

York Minster and Neighbouring Abbeys and Churches. Gordon Home. Dent. Price 2s. 6d.

MR. GORDON HOME'S new book is an addition to the series dealing with cathedrals, abbeys and famous churches, of which he is the editor.

It is well up to the high standard of the earlier guides in the series and provides in neat form both entertainment for the general reader and instruction for the serious student of ecclesiastical architecture; for Mr. Home knows

Badbury Rings. From "Shell Guide to Dorset."

Blandford Church. From "Shell Guide to Dorset," reviewed on the preceding page.

how to associate the famous monuments of the English Church with the men who built and maintained them throughout the centuries.

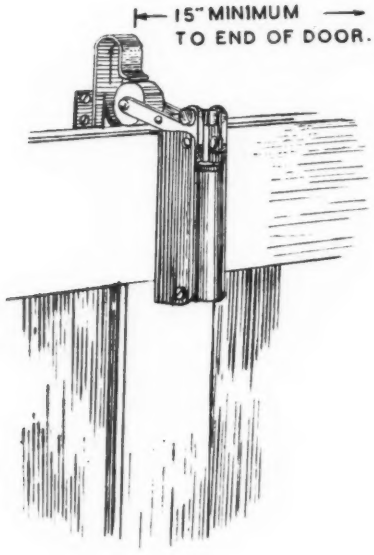
To present in less than two hundred pages an adequate account of so ancient and important a church as York Minster, avoiding any resemblance to a mere catalogue of architectural changes and not forgetting some human interest, is a notable achievement on the part of the author. Mr. Home does not rest content with an account of the Minster alone, and the reader may perhaps feel that the glory of York was ample material for this book without the inclusion of other buildings.

After a brief reference to the Roman Camp at Eboracum, the author enables us to dwell in the Anglo-Saxon town of Eoforwic during the period in which Saint Paulinus, King Edwin, Bishop Wilfred and Archbishop Albert, one after another, impressed the place with the mark of their work and influence.

The post-Conquest period is treated in no less able a way, and the reader is enabled to visualise the wonderful growth of the Minster under the guidance of the famous Archbishops Thurston, Gray, Melton and John of Thoresby.

The closing chapters are devoted to Rievaulx, Byland, Kirkham and Whitby Abbeys, together with a few of the lesser Yorkshire churches.

It is all very good reading, the illustrations are ample and carefully chosen, and a chronology and index are added.



TRADE NOTES

[*EDITED BY PHILIP SCHOLBERG*]

A New Type of Door Closer

THE Dictator door closer (shown in the headpiece to these notes) consists of two parts :—

The hook, which is fixed to the door frame above the centre of the door, and the closing device itself, which is fixed to the centre of the top of the door, immediately below the hook. This device is composed of the casing, roller arms with rubber roller, and the cylinder containing an oil check with spring and plunger. The cylinder is held to the casing by a swivel pin at the bottom. The head of the plunger, which projects from the top of the cylinder, is held by another swivel pin to the bases of the roller arms at either side, these bases being also riveted to either side of the casing, about which points they can turn. The rubber roller is held by a pin and bush between the tops of the roller arms. When the door is in the closed position, this rubber roller is at the top of the inside of the hook. As the door is opened, the top lip of the hook draws the rubber roller and roller arms down towards the horizontal as they emerge from the hook and, at the same time, compresses the spring of the oil check, raising the head of the plunger in such a way that the pin holding the latter to the bases of the roller arms comes vertically above the points where these bases are riveted to the casing, thereby "setting" the spring, and preventing it from being released.

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On the door being closed, the impact of the rubber roller on the lower lip of the hook releases the setting of the spring, and puts the oil check into action, the rubber roller bearing against the inside of the upper lip of the hook as it ascends and the roller arms coming into a vertical position. An additional advantage is that even when the door is fully closed, there is still tension on the spring, and door-rattle which might otherwise occur through draughts is thereby eliminated.

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The manufacturers, Messrs. James Gibbons, emphasize the extensive use that is being made of this door closer in hospitals throughout the country.

F. R. S. Y.

Two New Cookers

The two photographs on this page show a new stainless steel cooker which has just been introduced by Sidney Flavel & Co. The stainless lid forms a back plate when raised, and the front of this cover swings down and carries a wire mesh tray. The cooker is a full-size design with four boiling rings, a separate grilling unit, a large oven (18 ins. wide, 16 ins. high, and 15 ins. deep) and a plate-warming compartment on the left.

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The price is high, 40 guineas, but it is admitted quite frankly to be a luxury model, and stainless steel is none too cheap in first cost. The design is, none the less, very straightforward and clean, though I should much prefer the legs without the splay.

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At the other end of the price scale is the Elf, a small model arranged to be bracketed from the wall, though a stand is available at extra cost if necessary. Although the cooker is small, one boiling ring, a reversible griller and an oven, it is said to be large enough for the needs of a small family. Two models are listed, the standard in grey mottled porcelain enamel at £3 19s. 6d., the de luxe model in blue and white with a slightly more elaborate hot plate arrangement at £2 more.

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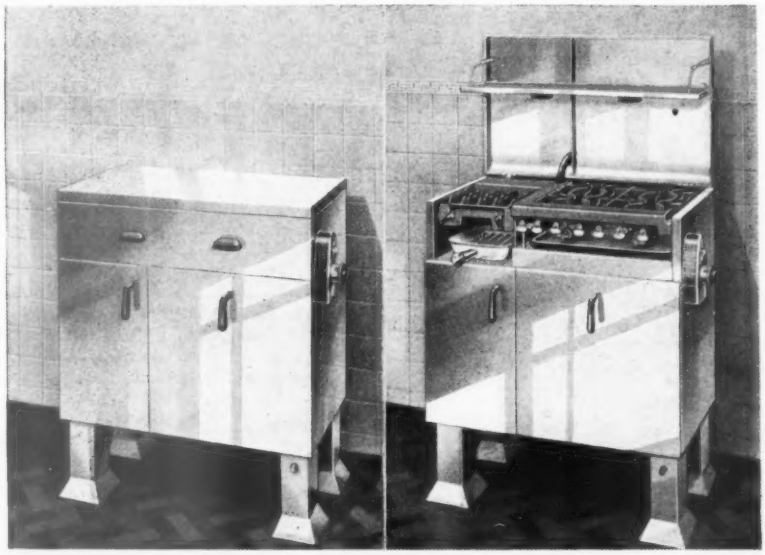
A pair of plate-warming racks is arranged on either side of the oven, within the body of the cooker, and the oven gases are led forward through them, warming the plates and at the same time preventing stains on the wall behind the cooker. The standard fixing is by a bracket with rawlplugs, and a fairly severe experimental shaking showed that the cooker remained firm. Incidentally, one advantage of this type of fixing is that the cooker can be placed at exactly the right height; the figure suggested is 36 ins. from floor to hotplate, and this seems about the average for most standard cookers. None the less people *do* vary in height, and it is all to the good that allowance can be made for it.

Addresses:

James Gibbons, Ltd., St. John's Works, Wolverhampton.

Sidney Flavel & Co., Ltd., Eagle Foundry, Leamington.



The new Flavel stainless steel gas cooker shown open and closed : the front of the cover is reversible and forms a shelf.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Underground Garages

Mr. Maclay asked the Home Secretary whether his attention had been drawn to the suggestion to build large underground car-parking garages in the congested areas of London and other cities; and whether he would consider the desirability of taking immediate steps to ensure that these buildings were erected in such a manner as to make them quickly and easily convertible into large scale gas- and bomb-proof shelters for the use of the civil population in the event of war.

Mr. Lloyd, who replied, said that the cost of making underground garages proof against direct hits by high explosive bombs would be prohibitive, except in very special circumstances. The whole question of air raid shelters affording protection against gas and splinters from high explosive bombs was, however, under examination at the moment, and the possibility of making use of underground garages and of rendering them, and other places of shelter, gas proof and splinter proof would be considered. The results would be embodied in an Air Raid Precautions Handbook on "Structural Precautions against Bombs and Gas." In the meantime, his Department would be glad to advise the architects of any proposed underground garages and to recommend the extent to which such garages should be used as shelters, having regard to the various considerations of safety involved.

Housing Standards

Mr. Hicks asked the Minister of Health whether he had taken any further steps to maintain good housing standards since he received a deputation upon the subject from the National Federation of Building Trades Operatives in July of last year; whether he had yet considered the scheme submitted to him by the building industry for improving standards of construction and design; and, if so, whether he would be able to give practical effect to his sympathy in this matter, which he had previously expressed, by assisting the progress of this scheme or dealing with the matter effectively in any other way.

Mr. Shakespeare said that since the Minister received the Deputation referred to, many representations had been made to local authorities by circular and otherwise. The Minister had received the scheme referred to, and had asked the Central Housing Advisory Committee to consider it and advise what action was necessary and desirable.

In reply to Mr. Barr, Mr. Shakespeare said that the total number of houses completed in England and Wales with State Assistance from 1919 up to March 31, 1936, was 1,252,777. The total amount of Exchequer contributions paid in respect of State assisted houses up to that date was £164,489,622.

Housing Demolitions

Mr. Sorensen asked the Minister of Health whether he had considered the protests submitted to him respecting the proposed demolition of picturesque houses in the village of Fenchingfield, Essex; and whether he would take steps to see that, while adequate and suitable provision of working-class accommodation was encouraged, no unnecessary destruction of rural beauty and amenities took place in that district.

Sir K. Wood said that he had received representations with regard to the orders to which the hon. Member referred. He had directed an inquiry into those orders, and pending consideration of the report of his inspector it would not be proper for him to make any statement on the particular orders. But he was fully alive to the importance of the considerations mentioned in the second part of the question.

Town and Country Planning

Lieutenant-Colonel Moore asked the Minister of Health if he could state in what approximate percentage of cases in the last twelve months where an appeal was made to him under the Town and Country Planning Act, 1932, and the Town and Country Planning (General Interim Development) Order, 1933, a decision was given favourable to the local authority.

Sir K. Wood said that the approximate percentage of interim development appeals dealt with during the twelve months ended April 30, 1936, on which a decision was given favourable to the local authority was 34. In 49 per cent. agreement was reached between the parties or the appeals otherwise lapsed. In the remaining 17 per cent. the appeals were allowed.

Manufacturers' Items

Messrs. R. L. Pickard & Co., of Berners House, 47-48 Berners Street, London, W.1, have just issued a folder containing fifteen sheets of drawings of cast-iron or lead rain-water heads. Copies of the folder are obtainable on application to the firm.

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A detailed investigation of the decorative timbers suitable for flush-door manufacture has recently been carried out by Mr. R. A. Brough, and has resulted in a considerable addition to the Leaderflush door range. The manufacturers, whose works are at Beeston, Notts, inform us that a new service representation in the London area is being organized by Mr. E. H. Hodge, of 26 Thrale Road, S.W.16.

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Mr. H. E. Sants, late of the Bath Cabinet Makers, has joined the staff of Messrs. B. Cohen and Sons, Ltd.

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Mr. Ashley S. Ward has been appointed managing director of Marshall Sons & Co. (Successors), Ltd., of Gainsborough, which has just undergone reconstruction.

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Messrs. Wood Processes, Ltd., of 9 Hanover Street, London, W.1, have just issued a revised list of Flexwood. The firm point out that although the list, which this replaces, has been in operation since April, 1935, it is impossible to maintain constantly uniform prices, in view of the varying costs of different veneers. Whereas some woods show an increase, they have been able to reduce some of the more popular woods such as red gum, striped African walnut, figured Australian walnut, and plain French walnut; and to introduce three woods, namely, poplar, American whitewood, and plain African walnut at the low price of 1s. a square foot.

THE BUILDINGS ILLUSTRATED

GATWICK AIRPORT (pages 868 to 873). The general contractors were A. Jackaman and Son, Ltd. The principal sub-contractors and suppliers included :—Sub-contractors :—Excel Asphalte Co., Ltd., asphalt roofing; Excel "Sparmat" white asphalt; High Brooms Brick and Tile Co., sand-lime bricks; A. J. Main & Co., Ltd., structural steel; Pugh Bros., Ltd., glass; J. A. King & Co., Ltd., roof lights; Haywards, Ltd., patent glazing; Acme Flooring and Paving Co., Ltd., wood-block flooring; Turpins Parquet Floor Joinery and Wood Carving Co., Ltd., composition flooring; Armstrong Cork Co., Ltd., Plasco flooring stairtreads, Plasco marble mix; Rosser and Russell, Ltd., central heating, boilers, and ventilation; Troughton and Young, Ltd., electric light fixtures and wiring; W. N. Froy and Sons, Ltd., sanitary and cloakroom fittings; Taylor Pearse & Co., Ltd., door furniture and cloakroom fittings; Williams and Williams, Ltd., casements and window furniture; Dennison Kett & Co., Ltd., canopies and fireproof doors; Ash's Mnfg. Co., Ltd., joinery; Drytone Joinery, Ltd., joinery (control room); Marble Mosaic Co., Ltd., wall and floor terrazzo; En-Tout-Cas Co. (Syston), Ltd., preparation of landing ground; Magneta Time Co., Ltd., clocks; Cox and Barnard, glass; Standard Telephones and Cables, Ltd., internal 'phones; Arundell & Co., metalwork; Universal Shopfitting Co., Ltd., shop fittings; H. Hanson, Ltd., subway show-cases; Dales, Ltd., signs; Longley & Co., Ltd., joinery; Joseph Freeman, Sons & Co., Ltd., Cementone finish for exterior.

JUBILEE COURT, THORNTON HEATH (pages 874 to 877). The general contractors were Bierrum and Partners. The principal sub-contractors and suppliers included :—General Asphalte Co., Ltd., asphalt; Concrete Slabs Co., concrete blocks; Norbiton Potteries and Brickworks, Ltd., J. H. Sankey and Son, Ltd., and Freeman and Freeman, Ltd., bricks; John Macquire, tiles; Permanite, Ltd., roofing felt; A. Goldstein & Co., Ltd., glass; Vigers, Sons & Co., Ltd., wood-block flooring; British Dolomont Co., Ltd., patent flooring; Croydon Electric, Ltd., central heating; Slate Slab Products, Ltd., grates; Croydon Gas Co., gasfitting; Buxton and Longley, Ltd., electric wiring; Jones and Snelgar, plumbing; Rownson, Drew and Clydesdale, Ltd., door furniture; Crittall Mnfg. Co., Ltd., casements; Keighley Electrical Eng. Co., Ltd., lifts and folding gates; J. P. Griffiths, Ltd., plaster; Potter Rax Gate Co., Ltd., and Haskins, Ltd., metalwork; Sharp Bros. and Knight, Ltd., joinery; Marb Panels, Ltd., tiling; Richard & Co., Ltd., clocks; Croydon Corporation, water supply; Camden Tile Co., stairtreads.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15 MILES RADIUS)

BATTERSEA. *School.* The L.C.C. has approved revised plans for the erection of a central school in Calvert Road, Battersea, at a cost of £51,500.

BERMONDSEY. *Flats, etc.* The B.C. is to erect 158 flats and two shops on the Arnolds Place area at a cost of £85,574.

BETHNAL GREEN. *Rehousing.* The L.C.C. is to clear the Darling Row area of Bethnal Green and provide rehousing accommodation in the area at a cost of £68,000, and elsewhere at a cost of £106,000.

CLAPHAM. *Tenements.* The L.C.C. is to erect tenements in Poynders Road, Clapham, at a cost of £75,000.

CROYDON. *Slum Clearance.* The Croydon Corporation has prepared a scheme for the clearance of the Leighton Street area and rehousing at a cost of £86,900.

CROYDON. *Reconditioning.* The Croydon Education Committee has approved plans for reconditioning five schools at a cost of £19,350.

CROYDON. *Extensions.* The Corporation has approved a scheme for extensions at the Warlingham Mental Institution at a cost of £176,000.

FINSBURY. *Health Centre.* The B.C. has acquired a site in Northampton Road for the erection of a public health centre.

FULHAM. *Tenements.* The B.C. has purchased land in Bagleys Lane and Marinefield Road for the erection of 108 tenements.

FULHAM. *Flats.* The B.C. has approved plans by the borough engineer for the erection of flats at Margravine Road, at a cost of £39,880.

HAMPSTEAD. *Nurses' Home.* The L.C.C. is to erect a nurses' home and staff accommodation at New End Hospital, Hampstead, at a cost of £43,500.

ILFORD. *Library.* The Corporation has acquired a site in Goodmayes Lane for the erection of a library.

KENSINGTON. *Dwellings.* The B.C. is to erect dwellings in South Row at a cost of £30,875.

KENSINGTON. *Tenements.* The B.C. is to erect tenements on the site of the Notting Hill brewery, at a cost of £57,000.

MARYLEBONE. *Flats, etc.* Plans passed by the B.C.: Flats, 32-6 St. John's Wood Road, for Messrs. Connell, Ward and Lucas; rebuilding 66-7 Newman Street, for Messrs. W. Henry White and Sons; conversion, 96-8 Baker Street, to news cinema, for Messrs. Marshall and Tweedy; further blocks of flats, Henry Street, for Mr. H. K. Dyson; rebuilding premises of Messrs. John Lewis in Oxford Street, Cavendish Square and Princes Street, for Messrs. Reilly and Crabtree.

MARYLEBONE. *Flats.* Mr. E. A. Stone has prepared plans for the erection of a block of flats on the site of 71 Portland Place, Marylebone.

MARYLEBONE. *Offices and Showrooms.* Messrs. Armstrong and Bayne have prepared plans for the erection of offices and showrooms at 2-4 Langham Street and 1-3 All Soul's Place, Marylebone.

PADDINGTON. *Flats, Cinema, etc.* It is proposed to erect a block of 76 flats, shops, restaurant and cinema on the site of 51-79 Edgware Road, Paddington.

PLUMSTEAD. *Extensions.* The L.C.C. is to enlarge the St. Nicholas Hospital, Plumstead, at a cost of £87,800.

SHOOTERS HILL. *Isolation Blocks.* The L.C.C. is to erect isolation blocks at the Brook Hospital, Shooters Hill, at a cost of £137,000.

SOUTHWARK. *Rehousing.* The L.C.C. is to clear the Law Street area of Southwark and provide rehousing on the site and elsewhere at a cost of £720,000.

WEMBLEY. *Welfare Centre.* The U.D.C. is to erect a maternity and child welfare centre at One Tree Hill.

SOUTHERN COUNTIES

BEXHILL. *Bungalows.* Plans passed by the Corporation: 19 bungalows, Pembury Grove, for Mr. R. A. Larkin; six bungalows, Willow Grove, for Mr. E. Bunce; two houses, Long Avenue, for Mr. J. H. Lye; five houses, Bidwell estate, for Mr. J. E. Maynard; five houses, Uplands Gardens, for Mr. R. W. Moore; seven bungalows, Glyne Farm estate, for Mile Oak Estates, Ltd.

BEXHILL. *Development.* The Corporation has approved a scheme for the development of an estate in Barnhorn Road, for Earl de la Warr, Mr. G. Colville and Mr. G. W. Chisholm.

BRIGHTON. *Houses, etc.* Plans passed by the Corporation: Two houses, Gableson Avenue, for Mr. T. G. Thompson; 34 houses, Greenfield Crescent, Patcham, for Mr. C. W. Parkes; warehouse and show rooms, 52-3 Regent Street, for Electrical Components, Ltd.; seven houses, Overhill Drive, for Messrs. Braybons, Ltd.; four houses, Millers Road, for Mr. G. H. Pannett.

BRIGHTON. *Offices.* The Corporation has approved plans by Mr. A. W. McCully for new offices to be erected on the Princes Place site.

DARTFORD. *Nurses' Home, etc.* The L.C.C. is to erect isolation blocks and a nurses' home at the Joyce Green Hospital, Dartford, at a cost of £133,600.

NORTHERN COUNTIES

BURTON-ON-TRENT. *Extension.* The Corporation has approved plans by the borough engineer for extensions at the town hall, at a cost of £40,000.

CARLISLE. *Municipal Buildings.* The Corporation has inspected town halls in various towns and now recommends proceeding with the scheme for new municipal buildings.

CARLISLE. *Development.* The Corporation has passed plans submitted by Messrs. John Laing and Son, Ltd., for the development of the Morton estate.

HALESOWEN. *School.* The Worcestershire Education Committee is to prepare revised plans for the erection of a senior school at Halesowen.

ILKESTON. *Houses, etc.* Plans passed by the Corporation: 46 houses, Richmond Avenue, for Messrs. D. Clegg & Co., Ltd.; shop and house, Cotmanhay Road, for Mr. T. Hallam; bus depot, Manor Road, for Barton Transport, Ltd.; six houses, Factory Lane, for Mr. W. Beardesley; two houses, Heanor Road, for Mr. W. H. Dawson; office extensions, Derby Road, for Derby and Notts Electric Power Co., Ltd.; two houses, Shipley Common Lane, for Mr. A. Wheatley.

MANSFIELD. *Houses.* The Ministry of Health has sanctioned the erection, by direct labour, of 63 houses by the Mansfield Corporation on the Racecourse estate, at a cost of £18,700.

MANSFIELD. *Houses, etc.* Plans passed by the Corporation: Four houses, Francis Street, for Mr. B. Tack; 10 houses, Beech Hill Avenue, for Mr. C. H. Hill; two houses, Oak Trees Lane, for Mr. J. H. Wightman; two houses, Fairholme Drive, for Mr. F. E. Mann; two houses, Chesterfield Road, for Mr. A. Keeling; factory extensions, Nottingham Road, for Messrs. Boneham and Turner; two houses, Matlock Avenue, for Mr. T. Jeffery; two bungalows, Cromford Avenue, for Mr. J. Handby; two houses, Bathwood Drive, for Mr. F. Lindley.

PONTEFRACT. *Houses, etc.* Plans passed by the Corporation: Two houses, Camp Mount, for Mr. F. Lightowler; 16 houses, Love Lane, for Mr. T. Asquith; club and house, Baghill Lane, for Mr. T. W. Dakin; bakery extension, Stuart Street, for Messrs. T. H. Wilcock and Sons; laundry extension, Newgate, for Pontefract Laundries, Ltd.

SHEFFIELD. *Houses.* Plans passed by the Corporation: 10 houses, Firshill Avenue, for Mr. E. C. Thompson; two houses, Strelley Road, for Mr. J. Mander; four houses, Lound Road, for Mr. H. E. Mottram; six houses, Norton Lane, for Mr. J. H. Dyson; 14 houses, Barnsley Road, for Mr. J. W. Broadhead; two houses, Moor View Road, and 44 houses, Barholm Road, for Messrs. T. A. Knowles and Sons, Ltd.; two houses, Standon Road, for Mr. A. Woollen, two houses, East Highgate, for Mr. M. W. Spencer; four houses, Burlington Road, for Messrs. J. Laver and Sons, Ltd.; three houses, Tenterton Road, for Mr. H. Cooper; two houses, Redcar Road, for Mr. E. H. Needham; two houses, Lyminster Road, for Mr. D. Hurrell; six houses, Alnwick Road, for Hallewell Estates, Ltd.; three houses, Carter Knowle Road, for Mr. W. Croft; 16 houses, Carnaby Road, for Messrs. Simpson Bros., Ltd.; 48 houses, off Gleadless Road, for Mr. E. Cooper; 11 houses, Cockshutt Drive, for Mr. W. Redmile; 96 houses, Lound Road, for Messrs. W. and E. Sadler, Ltd.; two houses, Old Park Road, for Messrs. C. Middleton and Sons; six houses, Old Park Road, for Mr. F. H. Undrell; three houses, Meadow Bank Avenue, for Mr. G. Jackson; six houses, Hemsworth Road, for New houses (Builders), Ltd.; 10 houses, off Elm Lane, for Mr. H. Simpson; 32 houses, Marsh Lane, for Messrs. T. V. and W. L. Simpson; reconstruction, Cricket Inn, Cricket Road, for Messrs. William Stones, Ltd.; works, Worksop Road, for Brown Bayley's Steel Works, Ltd.; factory and offices, Eyre Street and Brown Lane, for Messrs. Wm. Turner and Bro., Ltd.; glass technology department, Northumberland Road, for University of Sheffield; celluloid factory, Union Lane, for Messrs. Lee and Crookes, Ltd.; workshop and warehouse, Meersbrook Park Road, for Standard Hack Saw Co., Ltd.; garage and showroom, Mappin Street, for Cavendish Buildings, Ltd.; canning factory, Limestone Cottage Lane, for Messrs. Batchelor & Co., Ltd.

SOUTH SHIELDS. *Houses.* The Corporation is to erect 40 houses on the Cornwallis area, at a cost of £16,200.

SOUTH SHIELDS. *Institute, etc.* Plans passed by the Corporation: Institute, Prince Edward Road, and four shops and flats, Freemantle Avenue, for Mr. C. S. Errington, architect for Sutton Dwellings Trust; two shops and offices, Smithy Street, for Mr. H. Hill; alterations, offices, Saville Street, for Corporation Permanent Building Society; two houses, Thornton Street, for Mr. F. W. Newby; alterations, premises corner of Victoria Road and Cuthbert Street, for Mr. C. P. Sherwin, architect for Tyneside Buildings, Ltd.

WARRINGTON. *Works, etc.* Plans passed by the Corporation: Works, Chester Road, for Messrs. F. White & Co.; foundry extensions, Dallam Lane, for Whymans Foundry Ltd.; additions, Centenary Institute, Liverpool Road, for Messrs. J. Crossfield and Sons, Ltd.; works extensions, Academy Street, for British Wedge Wire Co., Ltd.; three houses, Cowdell Street, for Mr. W. Berry; 26 houses, Thellwall Lane, for Messrs. W. Ardern and Son; warehouse, Gaskell Avenue, for Messrs. Pierpoint and Bryant, Ltd.; 22 houses, Hoyle Street, for Mr. J. F. Simm; 65 houses, Canal Bank estate, for Mr. W. Lee; three houses, off Long Lane, for Mr. C. Forsyth; alterations, Midland Hotel, Horsemarket Street, for Messrs. Greenall, Whitley & Co., Ltd.; office and workshop, Padgate Lane, for Mr. A. Roughley.

WEST BROMWICH. *Housing Scheme.* The Corporation is purchasing eight acres in Oldbury Road for a housing scheme.

WALES

SWANSEA. *Cinema.* The Corporation has sold extra land at Townhill to Mr. Oscar Dennis for the erection of a cinema.

SWANSEA. *Houses.* The Corporation has sold land in New Road, Sketty Park, to Mr. Jenkin Williams, for the erection of 22 houses.

RATES OF WAGES

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

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

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

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

CURRENT PRICES

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

WAGES

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

MATERIALS

EXCAVATOR AND CONCRETOR

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

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

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

BRICKLAYER

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

MASON

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

SLATER AND TILER

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

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

CARPENTER AND JOINER

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

Plywood, per ft. sup.

Thickness	¼" A d.	¼" B d.	¼" BB d.	⅜" A d.	⅜" B d.	⅜" BB d.	½" A d.	½" B d.	½" BB d.	⅝" A d.	⅝" B d.	⅝" BB d.
Birch 60 × 48	4	2½	2	5	3	2½	7	5	4	8	6	5
Cheap Alder	–	2	1½	–	3½	2	–	–	–	–	–	–
Oregon Pine	–	2½	–	3	2½	–	4	3½	–	5	4½	–
Gaboon Mahogany	4	3½	–	5	4½	–	7	6½	–	8	7	–
Figured Oak	6½	5	–	7½	5½	–	10	8	–	1/–	9	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings

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

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

Discounts — TUBES.	Per cent.		Per cent.
Gas	65	Galvanized gas	52½
Water	61½	,, water	47½
Steam	57½	,, steam	42½

FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

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

SMITH AND FOUNDER—*continued*

		s.	d.
Mild steel reinforcing rods, ⅝"	cwt.	9	6
,, ,, ½"	,,	9	6
,, ,, 1"	,,	8	6
,, ,, 1¼"	,,	9	6
,, ,, 1½"	,,	9	6

		¾" s.	¾" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.	8		10	
Shoes	each	2	0	3	0
Anti-splash shoes	,,	4	6	8	0
Boots	,,	3	0	4	0
Bends	,,	2	7	3	9
,, with access door	,,	—		6	3
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	3	9	6	0
Plinth bends, 4½" to 6"	,,	3	9	5	3
Half-round rain-water gutters of ordinary thickness metal	F.R.	5		6	
Stop ends	each	6		6	
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

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

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

PLASTERER

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

GLAZIER

		s.	d.	s.	d.
Sheet glass, 21 oz., squares n/e 2 ft.	s. F.S.				2½
,, ,, 26 oz. ,, ,,	,,				3
Flemish, Arctic, Figures (white)*	,,				7
Blazoned glasses	,,			2	6
Reeded: Cross Reeded	,,				11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite	,,				6
Crown sheet glass (n/e 12" × 10")	,,			2	●
Flashed opals (white and coloured)	,,	1	0 and	2	0
¼" rough cast; rolled plate	,,				5½
¼" wired cast; wired rolled	,,				9½
¼" Georgian wired cast	,,				11
¼" Polished plate, n/e 1 ft.	,,	†10 to		‡1	1
,, ,, 2	,,	†1	2 ,,	‡1	4
,, ,, 4	,,	†2	3 ,,	‡2	6
,, ,, 8	,,	†2	9 ,,	‡3	2
,, ,, 20	,,	†3	1 ,,	‡3	9
,, ,, 45	,,	†3	3 ,,	‡4	0
,, ,, 100	,,	†4	0 ,,	‡4	10
Vita glass, sheet, n/e 1 ft.	,,			1	0
,, ,, ,, 2 ft.	,,			1	3
,, ,, ,, over 2 ft.	,,			1	9
,, ,, plate, n/e 1 ft.	,,			1	6
,, ,, ,, 2 ft.	,,			3	0
,, ,, ,, 5 ft.	,,			4	0
,, ,, ,, 7 ft.	,,			5	0
,, ,, ,, 15 ft.	,,			6	0
,, ,, ,, over 15 ft.	,,			7	6
"Calorex" sheet 21 oz., and 32 oz.	,,	2	6 and	3	6
,, rough cast ¼" and ½"	,,		8½ ,,	1	0
Putty, linseed oil	lb.				3

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

PAINTER

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

CURRENT PRICES FOR MEASURED WORK

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

EXCAVATOR AND CONCRETOR

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

DRAINLAYER

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

BRICKLAYER

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

ASPHALTER

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

MASON

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

SLATER AND TILER

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

CARPENTER AND JOINER

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

CARPENTER AND JOINER—*continued*

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

SMITH AND FOUNDER

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

PLUMBER

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

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

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

PLASTERER AND TILING

		s. d.
Expanded metal lathing, small mesh	Y.S.	2 0
Do. in n/w to beams, stanchions, etc.	"	2 9
Lathing with sawn laths to ceilings	"	1 3
½" screeding in Portland cement and sand or tiling, wood block floor, etc.	"	1 5
Do. vertical	"	1 7
Rough render on walls	"	1 2½
Render, float and set in lime and hair	"	1 9
Render and set in Sirapite	"	1 11
Render, backing in cement and sand, and set in Keene's cement	"	2 9
Extra, only if on lathing	"	4
Keene's cement, angle and arris	F.R.	6
Arris	"	1½
Rounded angle, small	"	3
Plain cornices in plaster, including dubbing out, per 1" girth	"	1½
1" granolithic pavings	Y.S.	3 6
1¼" " "	"	4 6
6" × 6" white glazed wall tiling and fixing on prepared screed	"	17 6
9" × 3" " " " "	"	1 2 6
Extra, only for small quadrant angle	F.R.	8

GLAZIER

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

PAINTER

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

04.

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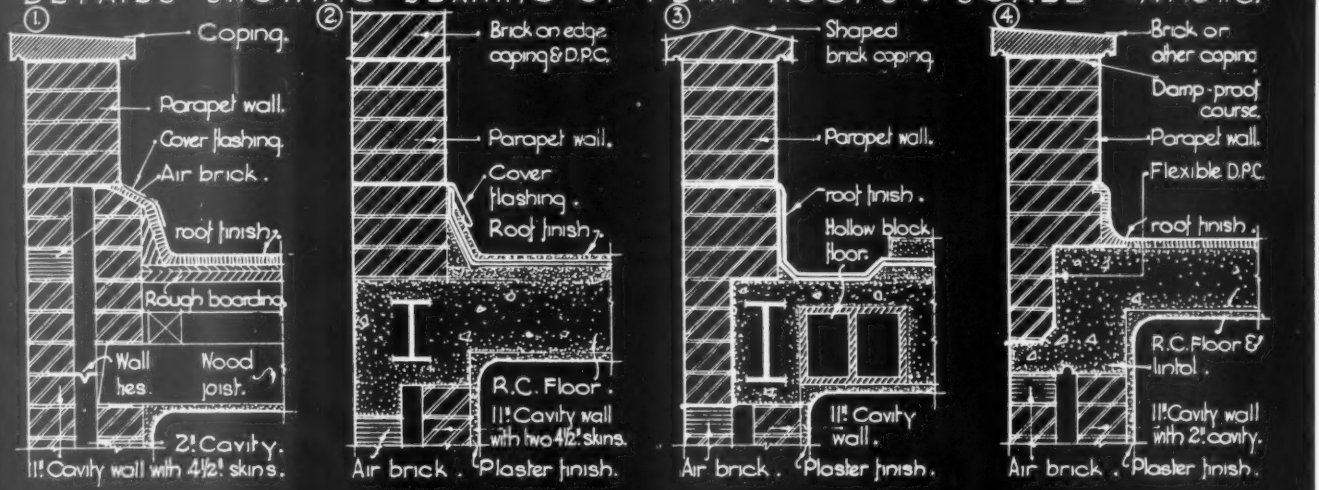
VARIOUS DETAILS OF CAVITY WALL CONSTRUCTION : DETAILS SHOWING BEARING OF FLAT ROOFS : SCALE · 3/4" to 1'0"



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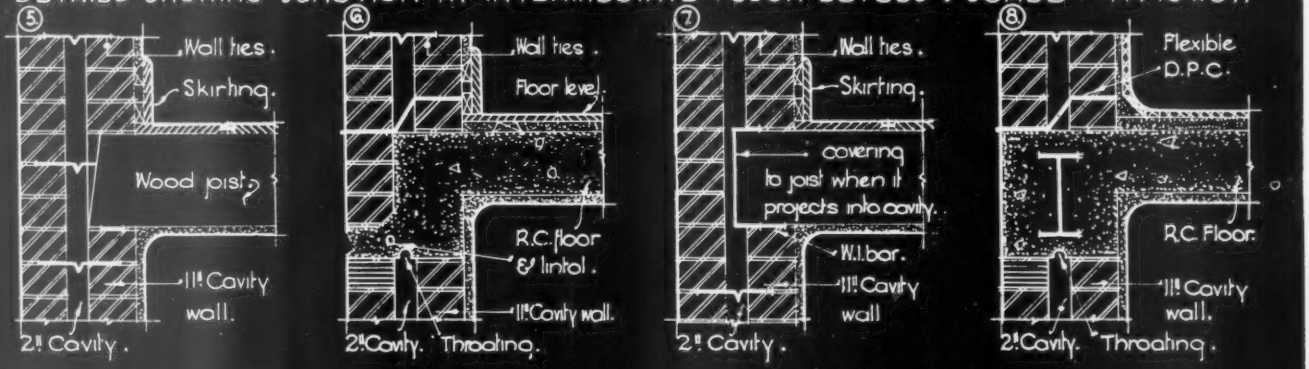
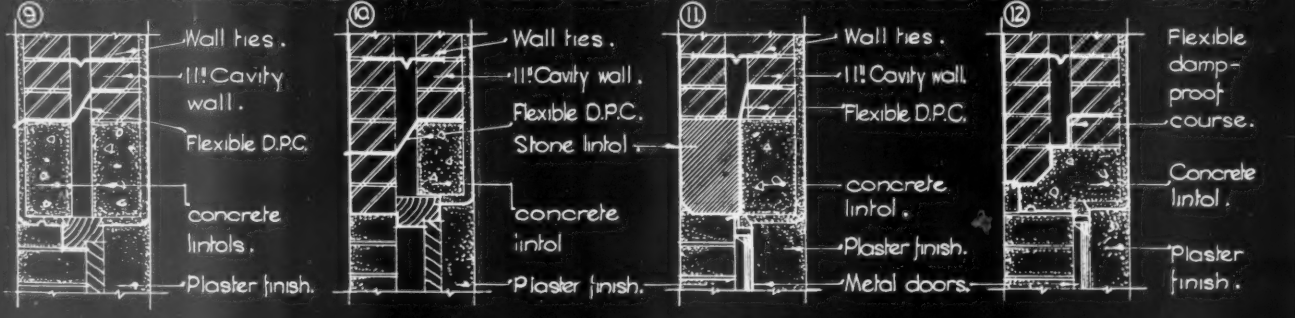


DETAILS SHOWING CAVITY TREATMENT AT DOOR HEADS : SCALE · 3/4" to 1'0"



DETAILS SHOWING CAVITY TREATMENTS AT CILL LEVEL : SCALE · 3/4" to 1'0"

Information from Clay Products Technical Bureau of Great Britain.

INFORMATION SHEET : CAVITY WALL CONSTRUCTION · NUMBER 2 ·

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

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INFORMATION SHEET

• 361 •

BRICKWORK

Subject : Cavity Wall Construction

The following notes should be read in conjunction with those given on sheet No. 359, which dealt with certain major considerations governing cavity wall construction. Sheet No. 359 also deals with suitable treatments of the cavity head under pitched roofs and of the cavity at foundation level.

Parapet Walls :

Parapet walls, whether superimposed on solid or cavity walls, will, owing to their extreme exposure, act as feeders of moisture to associated structures, unless adequate damp-proof courses be incorporated as near the base of the parapet as possible. In addition, special care should be taken to ensure the watertightness of the copings.

Methods of inserting the damp-proof course in parapets to various types of flat roof cavity wall construction are given in details 1 to 4. As regards materials for copings, which have to withstand extreme exposure to the action of acid gases and frost whilst saturated, the purpose-made vitrified brick coping is, functionally, pre-eminent, and, moreover, requires no damp-proof course immediately beneath it as do most other forms of coping. For brick-on-edge copings, special care should be taken to select for the purpose only hard-fired dense brick. Natural stones, if used for copings, should be of low saturation coefficient (see Building Research Special Report No. 18, p. 50).

In any case, a damp-proof course should be inserted immediately below such copings. Copings of artificial stone (actually precast concrete units) are now available but, like the renderings on the inner face of the parapet walls advocated by certain authorities, these tend to "bleed" lime into the parapet where it becomes fixed as an unsightly white efflorescence. Where the design allows or where a contrast colour band along the roof line is acceptable, engineering brick laid in cement mortar can be used to advantage either to build the whole parapet or as the combined foot and damp-proof course of the parapet wall. With these bricks no damp-proof course through the base of the parapet is necessary.

Exposed Concrete :

Such concrete or reinforced concrete members as are exposed or come into direct contact with exposed brickwork (Details 2, 4, 6, 8, 12) must be of rich mix and thoroughly impervious to moisture and a throating must be provided at the base wherever it bridges the cavity.

Air Bricks :

Where the cavity is continuously bridged by associated members (as in details 6 and 8) and thereby actually divided up into a vertical series of separate cavities, air bricks should be inserted if ventilation is required in the cavity (see note on the pros and cons of cavity ventilations on Information Sheet No. 359).

Protection of Timber Projecting into Cavity (see detail 7) :

To obviate any possibility of dry rot, the ends of floor joists, etc., carried into the cavity should be protected by a covering of lead or other suitable treatment. In this connection, the Forest Products Research Laboratory, Princes Risborough, Bucks., has developed an economical and effective method of creosoting joist ends on the site.

Treatment of Jambs, Vertical Joints of Cavity Walls with Doorways, Windows, etc. :

Details of treating the vertical junctions of cavity walls with doorways, window openings, etc., will form the subject of a separate Sheet in this series on cavity wall construction.

Previous Sheets :

Sheets already published by this Bureau are No. 331, Standard sizes of Clay Bricks ; No. 334, Cost of Buildings ; and No. 359, Cavity Wall Construction No. 1.

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Telephone : Sloane 7805

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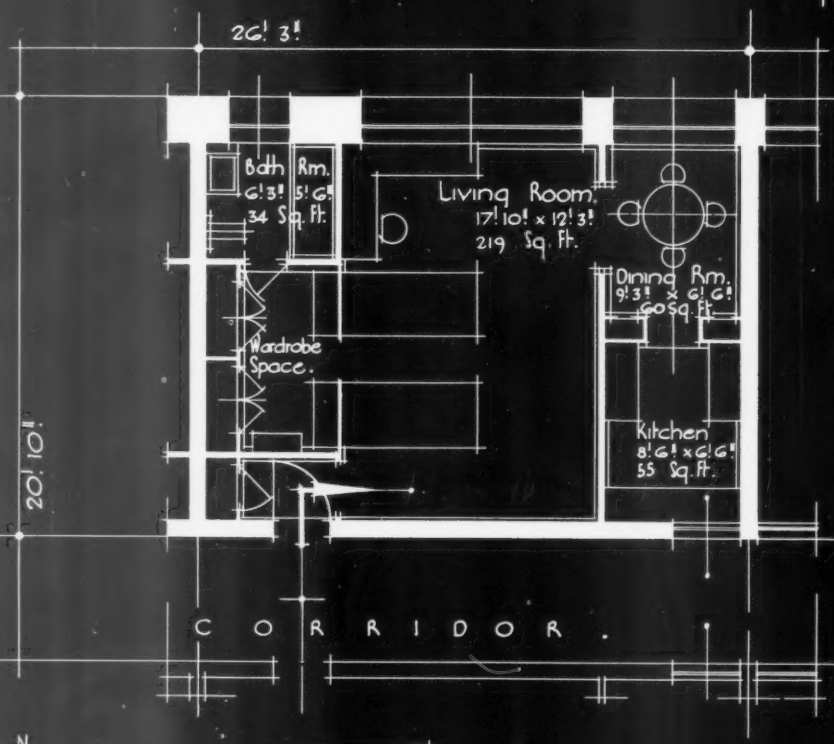
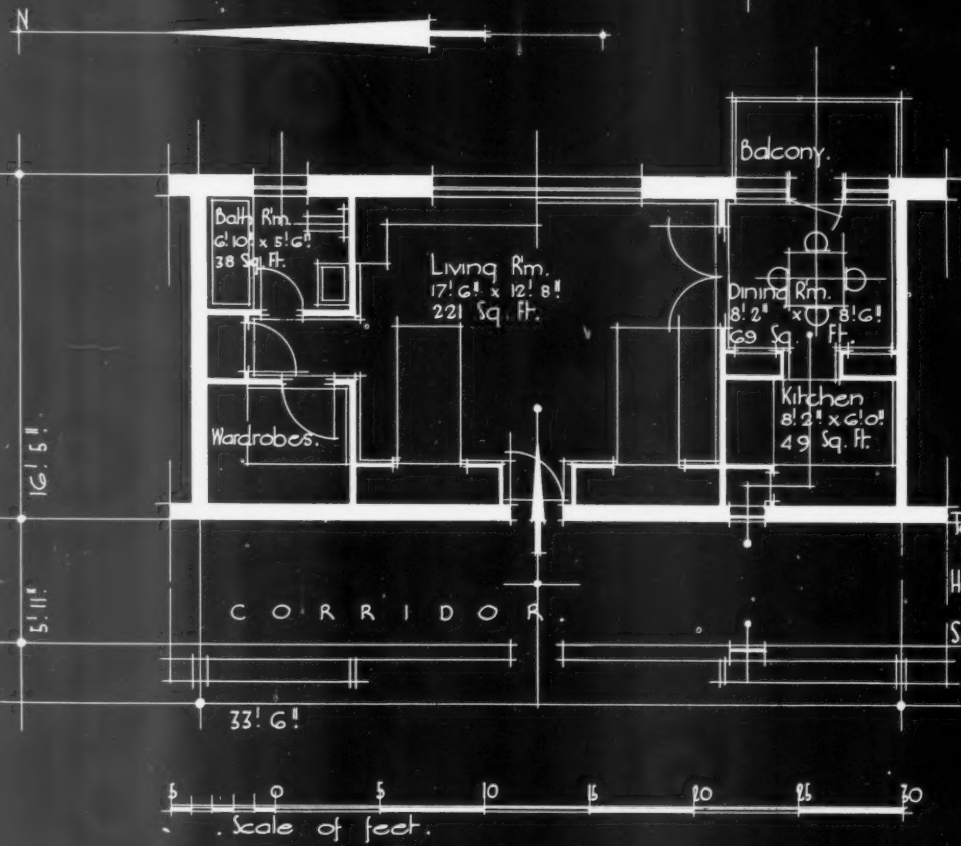
TYPES OF FLAT UNIT : U·S·A

ACCESS: Internal stair.
TYPE : 2-room, Kitchen & Bathrm.



The total areas given include the external walls, the corridor walls, & half the division walls between flats. The balcony is not included.

Total area of unit: 547 Sq. Ft.
Habitable area: 279 Sq. Ft.
Service area: 163 Sq. Ft.



Total area of unit: 550 Sq. Ft.
Habitable area: 290 Sq. Ft.
Service area: 200 Sq. Ft.

INFORMATION SHEET : INDUSTRIAL HOUSING 12.

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

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INDUSTRIAL HOUSING—XII

The units illustrated are planned on either side of a central corridor, but either may be modified to form balcony access types in wings one flat deep. The accommodation of each flat is two rooms, kitchen and bathroom.

The upper plan shows access to the living-room from the corridor by double doors, through a small entrance corridor in which a cloak cupboard is provided. In the daytime the beds are folded up into the cupboard room at the head. This practice is common to the majority of American flat units and leaves the living-room entirely free of bedroom furniture. Access to the wardrobe space is by an opening between the beds, and to the bathroom and w.c. through the wardrobe space. Direct light and ventilation is provided to the bathroom only.

The dining-room and cooking recess adjoin each other. In the kitchen cupboard (frequently an ice-chest) is a sliding door to the corridor through which provisions can be passed even in the absence of the inhabitants. No through ventilation is provided.

In the lower plan additional frontage for the balconies has been obtained by turning the living-room to run lengthwise with the main wing. Access to this room is then direct from the corridor, through the small recess formed by the cupboards provided for the folding beds. The general layout is similar to the upper unit, but it should be noted that access to the bathroom and wardrobe space is now from the corridor off the living-room, with direct light and ventilation to the bathroom only, as before. In this instance, also, the slightly larger dining-room has been provided with double doors from the living-room and direct access out on to a balcony. Kitchen recess and food hatch remain as before, with no through ventilation, the built-in cupboards forming the division between kitchen and dining recesses.

The service area includes all that space which is not used as living accommodation for the occupants, i.e. service area includes kitchen, wardrobe, bath, w.c. and lobby.

In the lower scheme the area of the balcony has been included in the service figure only, while the area of the cupboards for the folding beds is included both in the " total " and " service " figures of each flat.

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UNIT-MEMBRANE METHODS OF SPANDREL BEAM DAMP-PROOFING :

PURPOSE :

The typical details set out below show methods of damp-proofing spandrel beams in steel or concrete structures, to ensure a complete barrier to the penetration of moisture.

The floor slabs abut into beams which cannot otherwise be protected against the infiltration of rainwater etc..

PROPERTIES : By the application of R.I.W. Marine Cement Damp-proofing Composition in conjunction with prepared felt paper, 7oz. open mesh burlap, or other fabric arranged in the construction as shown, an elastic and waterproof sheath is provided over the beam surfaces which is coherent, elastic and adherent at low temperatures.

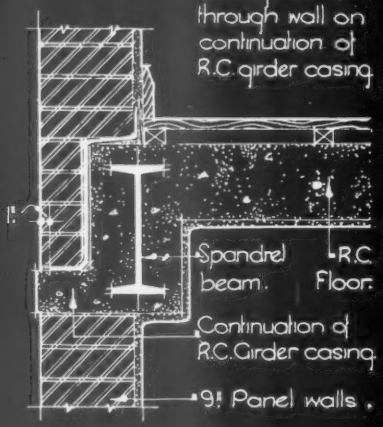
APPLICATION :

In the use of the Unit-Membrane Spandrel Beam Damp-proofing Systems no loss of bricklayers' time results.

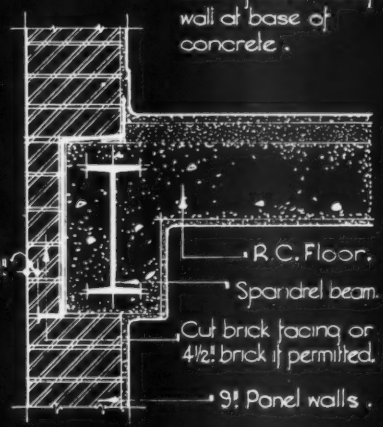
All the necessary felt or fabric etc., is cut to proper lengths and widths on the job in advance, and can be speedily treated with R.I.W. Marine Cement Damp-proofing Composition & installed as required.

3/4! SCALE SECTIONS SHOWING APPLICATION OF DAMP-PROOFING TO TYPICAL WALL BEAMS :

(A) Damp-proofing flashed up on interior, carried across Portland cement bevel, down vertical beam casing and out through wall on continuation of R.C. girder casing.

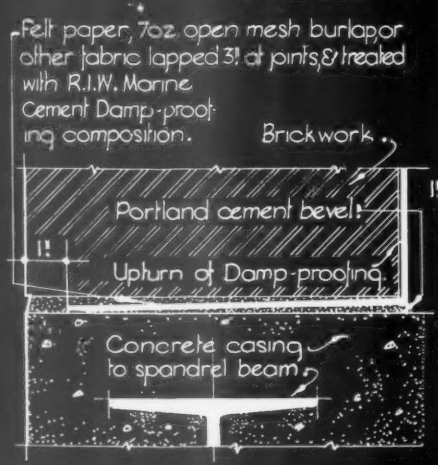


(B) Damp-proofing flashed up on interior, carried across Portland cement bevel, down face of beam casing & out through wall at base of concrete.

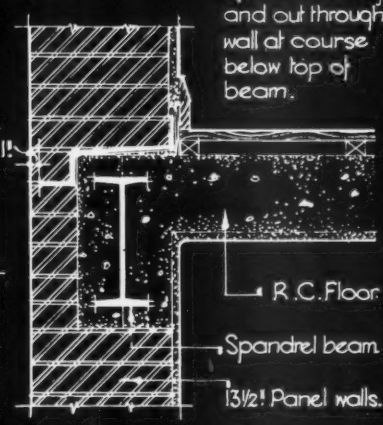


(C) Damp-proofing flashed up on interior, and carried out through wall on the Portland cement bevel on concrete beam casing.

1/4 F.S. DETAIL SHOWING DAMP-PROOFING TO WALL BEAMS :



(D) Damp-proofing flashed up on interior, carried across Portland Cement bevel, down face of beam casing, and out through wall at course below top of beam.



PREPARATION OF SURFACES :

The surfaces to which the R.I.W. Unit Membrane Spandrel Damp-proofing is to be applied should be finished sufficiently smooth so that no sharp edges protrude.

The membrane should be laid on a bevel of Portland cement placed over the top of the beam surfaces, extending to within 1! of the exterior face of the wall & carried through the entire wall thickness.

It should be carried sufficiently beyond same, to lap or bond with R.I.W. Damp-proofing & plaster bond applied to the interior of the exterior wall.

NOTE :
For further notes on the preparation of the beam surfaces and notes on typical laying specifications for membrane methods of spandrel beam damp-proofing, see material on reverse side of this sheet.

Information from The R.I.W. Protective Products Co. Ltd.

INFORMATION SHEET : DAMP-PROOFING SPANDREL FLOOR BEAMS :
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Wm. A. Boyne

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SPANDREL BEAM DAMP-PROOFING

Name of Product : R.I.W. Marine Cement Damp-Proofing Composition

Specifications :

The exterior surface of all exposed beams shall be damp-proofed by the R.I.W. Membrane Method of Spandrel Beam Damp-Proofing in accordance with the directions of the manufacturers.

When the concrete casing has been completed and dry, the surface shall be cleaned of all foreign matter. The exterior and top surface shall then receive a uniform coat of R.I.W. Marine Cement on the top ; this should extend 12″, or 3″, beyond the inner face of the wall.

Seven ozs. open mesh burlap, 60/60 Sisalkraft, 2 ozs. Copper Sisalkraft or other suitable material cut to required lengths and widths shall be smoothly laid to same and lapped at joints not less than 3″, and the face of the burlap, Sisalkraft or other material in turn shall receive uniform coat of R.I.W. Marine Cement Damp-Proofing Composition.

Where the surface has been abraded, or wherever damaged, same shall be touched up so that an even coat is obtained.

The R.I.W. Membrane Spandrel system shall be carried down the face of the concrete only when A, B or D systems are adopted, and carried out on the course of brickwork to within 1″ of the face as shown in illustrations.

Preparation of Surfaces :

The surfaces to which the R.I.W. Unit-Membrane Spandrel Damp-Proofing is to be applied should be finished sufficiently smooth so that no sharp edges protrude. The membrane shall extend over a bevel of Portland cement mortar (placed over the top of the beam surfaces by the brickwork contractor) and the membrane shall be carried over same, extending through the entire walls and carried sufficiently beyond to be turned up the interior of the wall to make continuity with the R.I.W. No. 232 Damp-Resisting Composition and Plaster Bond which is to be applied to the interior surface of the weather-exposed walls.

The contractor installing the R.I.W. No. 232 Damp-Proofing Composition to the walls shall take precautions to see that the spandrel beam damp-proofing membrane is securely flashed up on all interior surfaces of walls, columns, etc.

Cost :

Cost of R.I.W. Marine Cement : 10s. per gallon.

Covering Capacity : 60 sq. ft. per gallon one coat.

Previous Sheets :

This Sheet, having been brought up to date and developed more fully, supersedes the original Sheets Nos. 163 and 163 (Revised). Other Sheets dealing with the Company's products are No. 159, Stain Prevention in Stonework ; No. 222, Integral Waterproofing ; and No. 238, Swimming Pool Construction.

R.I.W. No. 232, Damp-resisting Compound and Plaster Bond:

A further Sheet is being prepared dealing with this waterproofing more fully than was possible on the old sheet (No. 163), which is now cancelled.

Name of Manufacturers : The R.I.W. Protective Products Co., Ltd.
Address : 16-17 Devonshire Square, E.C.2.
Telephone : Bishopsgate 3137