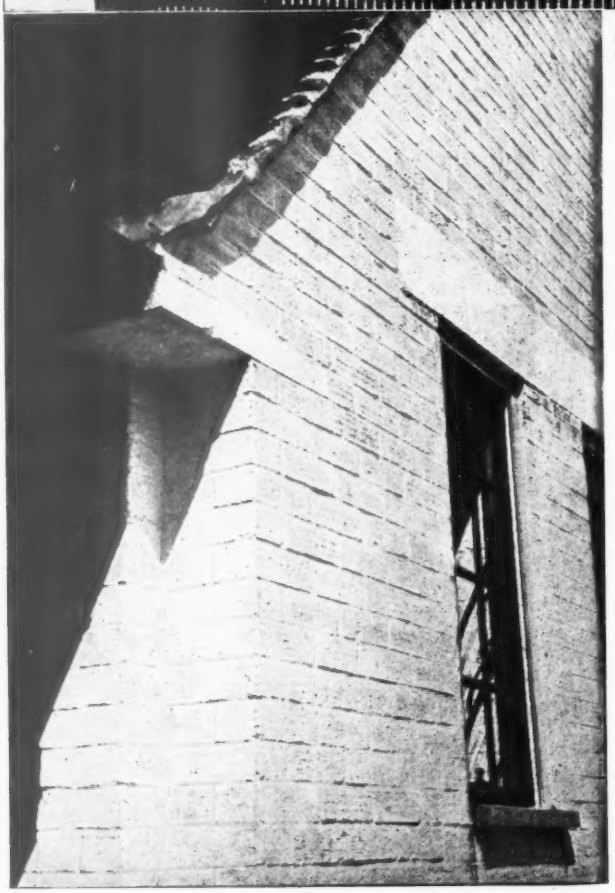

Architect: W. T. Curtis, F.R.I.B.A., Middlesex County Architect
Contractors: John Laing & Son Ltd.

Shenley Mental Hospital

In the new mental hospital at Shenley the patients are taught, as soon as their health permits, to lead normal lives. To this end improving cases are housed in separate houses, of necessity economically constructed but of distinct charm and character.

Contributing not a little to both appearance and economy 'Phorpres' Rustic facing bricks, limewashed white, have been used throughout.

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B

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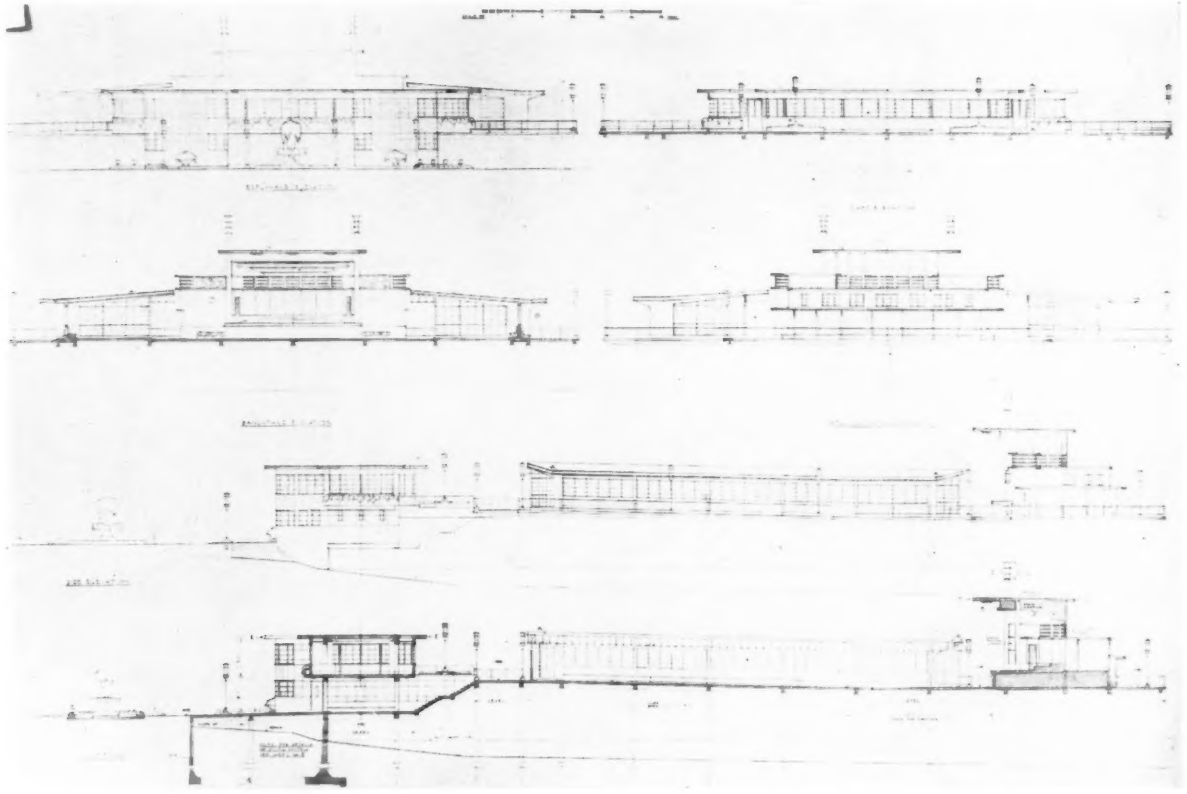
The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

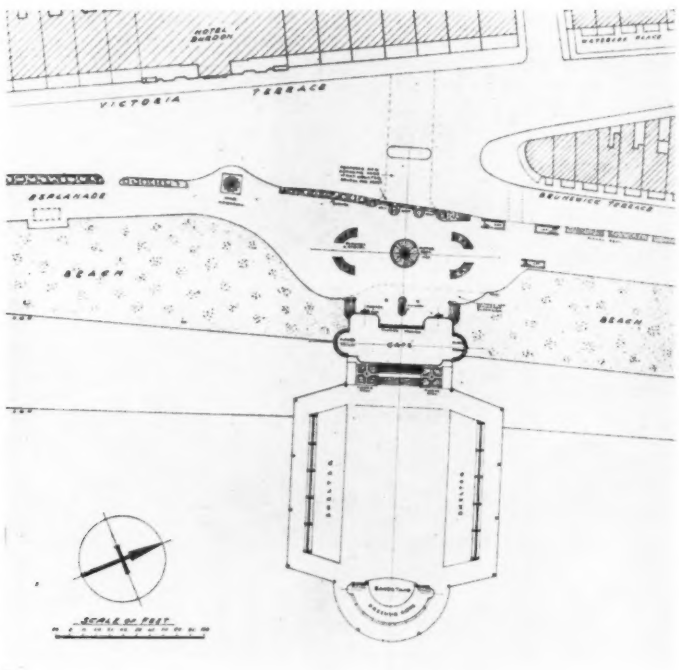
THURSDAY, May 27, 1937. NUMBER 2210 : VOLUME 85

PRINCIPAL CONTENTS

COMPETITION FOR BANDSTAND ENCLOSURE, WEYMOUTH



DESIGN PLACED FIRST: BY V. J. WENNING



ELEVATIONS, section and site plan of the design placed first in the competition for a bandstand enclosure on the sea-front at Weymouth. The full award of the assessor (Professor H. S. Goodhart-Rendel) is given on page 898; and the plan of the winning scheme is reproduced on page 903.

THE PASSING OF REGENT STREET

The last of Nash's buildings in Lower Regent Street which is to be demolished for re-development of the site. The photographs are by Mr. Bryan Westwood.

GEORGE VI AND THE R.I.B.A.

A CORONATION has just been celebrated; and however inclined towards a little rest its present inhabitants may feel, this country will be considered by history to have entered a new phase.

At the moment international possibilities are so obscure that the best of programmes for the ordinary citizen is felt to be business as usual; and up to a point everyone may agree with him.

But only up to a point. In these days, whether we like it or not, the largest of changes are taking place in the way Britain earns its living, and ultimately everyone's livelihood will be affected.

The livelihood which most matters here is that of the architect. Nor can one blink the fact that if George VI's reign is as long as that of George V, extraordinary changes for the architect will take place in it. What follows is the extent to which architects can prepare for such changes.

The R.I.B.A., appropriately at the beginning of a reign, is revising its Constitution. It aims to change an organization prepared to serve a small number of London members well known to each other and loosely affiliated with almost self-sufficient societies in the provinces into one suited to a very large and highly centralized body in which many of the hardest workers are known to very few fellow members. Sizes of committees are intended to be reduced, the committees better interlocked, voting simplified and the Institute made into a more fitting and easily working instrument for its purpose.

It is natural at a time of change to think of what the purpose of the R.I.B.A. is and of what it has achieved by 1937. Equally naturally does the purpose of the Institute fall into two divisions—the narrower and the wider.

Narrowly, the R.I.B.A. exists to protect and consolidate the profession, to maintain its standards of qualification and conduct, to increase its prestige and to express its opinion on immediate questions where its advice is asked or the interests of members are affected.

In these things the R.I.B.A. has done wonders in the last ten years, and to continue to do them well must form half, and the first half, of its labours. But the narrower purpose of the Institute should never be allowed to become its whole purpose, and in establishing good relations with the persons and institutions of most influence today it must never believe in the permanency of that influence. There have been signs in the last year or two that the R.I.B.A. is in danger of making such a mistake.

The wider purpose of the R.I.B.A. is to look ahead in a way architects cannot do individually and to make its preparations accordingly. And this, to judge from results, is where it has failed, and shows symptoms of continuing to fail.

A first example is the changing status of the architect. With the expansion of local government activities more and more architects are becoming salaried men. In this matter the R.I.B.A. has made the mistake of thinking that what the majority of its members did not want would not take place. And by not exerting at the outset all its influence to secure good conditions for salaried architects, it has allowed their prestige and conditions of work to become established on a level which will take years to alter.

The next and overwhelmingly more important example is that of town planning, together with its sub-divisions of the location of industry and the surroundings of work and education. In 1909 most architects thought town planning a bore, many still think so, and their representatives at the R.I.B.A. have only too faithfully acted on their views. In national attempts to grapple with a problem which pre-eminently concerned architects of exceptional intelligence the R.I.B.A. has abandoned all leadership and almost all action.

Town planning, however, has continued; with the result that architects are now being increasingly compelled to conform to regulations governing the size, shape and position of buildings which they had no part in drawing up and which are in most cases merely restrictive and defeatist. Only the panel system, in which die-hard and progressive architects can join in lowering the prestige which the R.I.B.A. has built up, remains as architecture's contribution to town planning.

The wider purpose of the R.I.B.A. has not, however, remained entirely unachieved. It has been done for them, to some extent, by others.

It has been Sir Malcolm Stewart, a business man and first Commissioner for the Special Areas, who has urged that town planning should be made constructive. It has been the Commissioners who approached the R.I.B.A. to help in the first experiments of trading estates, and the JOURNAL, with its limited resources, which has tried to explain to architects what trading estates are.

In the movement for better national schools, with which the Government was in sympathy, it was a newspaper which held a competition to discover new ideas and the JOURNAL which, in a special issue a year ago, tried to show how great was the need for new standards.

Finally, it has been this JOURNAL which has urged continuously and by means of a competition that unless a considerable section of architects can move forward to become architect-town planners all architects will end by fitting accommodation into a framework minutely prepared and strictly regulated by others.

It should be the wider purpose of the R.I.B.A., with its great resources and great influence, to foresee the trend of these developments and make certain that architects take their proper place in them.

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NOTES & TOPICS

THE R.I.B.A. GETS READY

THE R.I.B.A. is setting its house in order for the new reign by a little revision of its Constitution. We are no longer to have the sheaf of coloured voting papers over which the more conscientious of us have wondered who all these people are and what do they do when elected.

*

We are to stand or fall by the Council in the future ; and its members, elected more often because they have won an open competition than for any other reason I have yet discovered, are to be trusted to pick the men who will do the real work on Committees which are on the whole to be smaller and more closely co-ordinated.

*

At the Special General Meeting, the younger members, either scenting an oligarchy of elders about this suggestion or through a healthy desire to speed things up, proposed to stabilize the elected Fellows at not more than eighteen and to allow the Associates to expand from nine if they wanted. In this motion Mr. R. C. Fisher only just forestalled the Junior Members Committee.

*

After considerable doubt on the dais as to its powers of addition the motion was defeated by 77 votes to 66. The meeting was held, younger architects will note, at 5.15 p.m.

. . . FOR LOOKING AHEAD

My own tips for the R.I.B.A. in the new reign is more concern for salaried members and more intelligent anticipation. The general conditions of employment for salaried members are not good and ought to be improved ; as they might have been improved just after the war if the R.I.B.A. had used all its influence.

*

In the meanwhile the Institute is to hold an exhibition of "Schools" in October. Held eighteen months ago there can be no doubt that this would have done a lot for the prestige of architects and the R.I.B.A. Today one feels rather that we don't like to be left out of things altogether.

HON. A.R.I.B.A.S

Mr. John Gloag, Mr. E. L. Pepler, and Mr. W. Ormsby-Gore—a varied and very suitable trinity to receive honorary associateship. For years Mr. Gloag has been indefatigably trumpeting the need for architects in the design of practically everything ; Mr. Pepler has spent an equally long time demonstrating that architects must be able to plan towns as well as houses, and Mr. Ormsby-Gore, once First Commissioner of Works, had the distinction of first interesting me in Renaissance sculpture. I do not think I need say more of qualifications which include a trusteeship of the National Gallery.

CORONATION DECORATIONS—AFTERMATH

I have had something to say from time to time about the decorations, but what happens to them when the tumult and the shouting have really died and when all the king's horses and all the king's men have completed their work ?

*

In two instances at least their fate is known. Mr. Selfridge's are to live on. They have been purchased by an Indian prince for £25,000 ; I don't know what for. At any rate they leave Mr. Selfridge with a net loss of only £10,000—not such a bad price to pay for thirty seconds' glorious and unsolicited publicity in almost every cinema in the world.

*

The other instance is Bond Street. The criticisms of this scheme have varied from rude remarks about the washing to the highest praise. At any rate it is an ill wind that blows nobody any good, for the long white banners are to be cut up into blankets for the Spanish children. I understand that Bond Street, after being so excessively white, was rather nervous of being thought "red"—whatever that may mean. However, there was a duchess on the relief committee, so all was well.

"WAT IS DER OXFORD GROEP ?"

The appearance of this book on the news-stalls of Amsterdam when I was there last week, led me to make an enquiry, whereupon I discovered that this phenomenon of modern times had rolled up twenty thousand strong to the City of Utrecht. I did not go to Utrecht, but it must have been a stirring sight. Not since Marlborough and Eugene fought their gentlemanly wars in the Low Countries can so much English muscle have been seen there.

*

Of course, one could hardly escape the fringes of such an influx. On Saturday it rained cats and dogs, but six architects from almost as many countries found themselves united in the entrance hall of Hilversum town hall. It was a polyglot occasion, but the real surprise was in discovering that two members of the staff of our most Dudokish office were from the great army of Utrecht. A visit to Holland was being used to kill two birds of a very different feather.

PORTLAND PLACE

The charming radio station at Hilversum reminded me that the B.B.C. is to be enlarged—this time by Wimperis Simpson and Guthrie in association with Val Meyer and Watson Hart. This should prove interesting.

Mr. D. P. Reay, a graduate of the Liverpool School of Architecture, who has been awarded a Commonwealth Fund Fellowship. (*See page 898.*)

Those architects who "listened-in" on Sunday afternoon heard a genial and familiar voice; it was Sir Ian MacAlister speaking of his boyhood acquaintanceship with Mark Twain. It seems that Mark Twain more than once stopped with the MacAlisters in their house in Hanover Square; and rather to my surprise I heard that Mark Twain visited England as recently as 1907; so Sir Ian's memories of him are quite clear. It was a charming little broadcast, and once more gives the Secretary R.I.B.A. intimate associations with "literature"; for Sir Ian's predecessor was W. J. Locke; his successor will be difficult to find.

MARS IN THE AUTUMN

The Mars exhibition, I see, has been put off until October, so that the whole thing can be wider in scope and more thoroughly prepared. Quite apart from these arguments, October seems to be a better time, for everyone will have had their holidays by then, and the enervation produced by the recent junketings should have had time to wear off.

*

And, incidentally, do more people go to exhibitions and such like during periods of national rejoicing? To fixed shows like the British Museum and the National Gallery I should probably say: Yes. But to the special show that Mars will be?—I doubt it.

PARIS (1937) OPENS

Yes, in spite of my remarks a few weeks ago the Paris Exhibition has been formally declared open, even though half the buildings (including the British Pavilion, with its steel scaffolding draped in Union Jacks for the occasion) aren't finished, and some have hardly been begun. *The Evening Standard* whoops with joy that the pavilions of the dictatorships, Russia, Italy and Germany (built by their own nationals) are ready, and tactfully glosses over the fact that the Belgians are ready as well.

This seems to me a monstrous piece of blacklegging. Either the Belgians should have wasted some more time or they should have elected a few more Rexist deputies to keep Colonel Blimp and the *Standard* happy.

STRAIGHT FROM THE HORSE'S MOUTH

As secretary of the R.I.B.A. Public Relations Committee, Mr. Eric Bird knows well enough how to make certain that the daily press, if they get hold of an architectural story at all, at least get the facts right, and get *told* the name of the architect, even if they don't publish it.

*

Knowing how the reporters on provincial papers thirst for any sort of connected statement, I'm surprised that more architects don't follow Mr. Bird's technique and hand out a typed statement to the press when their buildings are officially opened. Judging by the press cuttings I see, not many architects do this sort of thing, but I'm sure that it would be all for the good of architecture if they did, and I can see no reason why it should be thought to savour too much of advertising.

*

If you want to see how it ought to be done read last Saturday's *R.I.B.A. Journal.*

SITTING ON TOP OF THE WORLD

"Down under" is a description which seems to be getting slightly unpopular in this so Imperial season, for the king of all the Australian astronomers has been complaining bitterly that the normal globe is mounted in such a way that he can only demonstrate Australia by turning the whole thing upside down, and that then the printing doesn't read properly. And besides, "the idea that they are at the bottom of the world gives Australian children a distinct inferiority complex."

*

His suggestion is that globes for Australian consumption should be mounted with the South Pole at the top, and the lettering adjusted accordingly. The *Evening Standard* has chased this hare with indefatigable energy: Greenwich observatory was guarded, and suspected a leg pull; a "well-known psychologist remarked (drily) that he had never seen any signs of inferiority complexes in Australian children; and a firm of globe makers said it would be "very expensive."

*

So Australian globes will therefore probably go on much as usual; but before you dismiss the whole thing with an indulgent smile, remember how useful we find Mercator's projection when it comes to maps of the world with a red Canada stretched out until it looks several times the area of the United States. Similar nice adjustments are made by every other nation in their atlases, and I can see no valid reason why Australia shouldn't do the same thing if she wants to.

*

Except, of course, that it means bringing New Zealand up as well.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

PARIS EXHIBITION

M. Lebrun, the President of the French Republic, officially inaugurated the Paris International Exhibition on Monday last.

OBJECTION TO NEW POLICE STATION FAILS

The Crown Lands Advisory Committee, after hearing evidence on both sides, has overridden an objection by the St. Marylebone Borough Council to the building of a police divisional headquarters on a site in Nottingham Terrace, Marylebone Road.

The Borough Council, which is trying to develop Marylebone Road as a high-class residential and commercial area, holds that the proposed headquarters would prejudice the development of adjacent properties, and would have a bad effect on values and amenities. The police argue that the building is necessary as part of a scheme of reorganization in the interest of efficiency and economy affecting the whole Metropolitan Police district, and that there is no other suitable site.

The Committee, to whom the question was referred by the Commissioners of Crown Lands, states that while it appreciates the Borough Council's efforts, it thinks no harmful effects would result from the proposed building. It recommends the Commissioners to proceed with the proposal, subject to an appropriate architectural design.

THE ARCHITECTS' DIARY

Thursday, May 27

ROYAL ACADEMY EXHIBITION, *Burlington House, Piccadilly, W.1. Until August 7.*

REDFERN GALLERY, *Cork Street, W.1. Exhibition of watercolours, drawings and collages by Paul Nash. Until May 29.* 10 *a.m. to 6 p.m.*

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C. Exhibition of Work, including Sketches, Set Stills and Working Drawings, by Film Art Directors in various parts of the world. Until June 12.*

INSTITUTION OF STRUCTURAL ENGINEERS, 10 *Upper Belgrave Street, S.W.1. Annual General Meeting.* 6.25 *p.m.*

Friday, May 28

R.I.B.A., 66 *Portland Place, W.1. Annual Reception.* 8.45 *p.m.*

TOWN PLANNING INSTITUTE. *At Caxton Hall, Caxton Street, S.W.1. "Air Survey and Map Revision." By F. L. Wills.* 6 *p.m.*

Saturday, May 29

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. *Visit to Eltham Palace, S.E.* 2.30 *p.m.*

Monday, May 31

CHARTERED SURVEYORS' INSTITUTION, *Gt. George Street, S.W.1. Annual Meeting.* 5 *p.m.*

LONDON SOCIETY. *Visit to Queen's House, Greenwich, and the National Maritime Museum.* 3 *p.m.*

Tuesday, June 1

R.I.B.A., 66 *Portland Place, W.1. Dance arranged by the Social Committee.* 9 *p.m.*

DESIGN AND INDUSTRIES ASSOCIATION. *Visit to the "Queen Mary." Depart from Waterloo Station at* 12.30 *p.m.*

Wednesday, June 2

WORSHIPFUL COMPANY OF CARPENTERS, *Carpenters' Hall, E.C. "Shop Fronts and Fittings." By W. H. Ansell.* 7.30 *p.m.*

GLASGOW BRIDGE DESIGN REJECTED

The designs for the new bridge over the Clyde at Finnieston have been rejected by the Fine Arts Commission. As a condition for obtaining a State grant towards the cost of construction, Glasgow Corporation submitted for examination by the Commission three designs for a fixed high-level single-span bridge.

NEWCASTLE'S NEW TOWN HALL

The Ministry of Health last week confirmed the Newcastle-on-Tyne City Council's application for compulsory purchase powers covering property on the site of the new town hall. The scheme is to cost more than half a million pounds, of which £181,000 will be spent in the purchase of the site and compensation of property owners. It is stated that the new building will take four years to complete.

ROYAL SOCIETY OF ARTS: TRAVELLING BURSARY

Through the generosity of Mr. Harold W. Sanderson, formerly of Messrs. A. Sanderson and Sons, wall paper manufacturers, the Council of the Royal Society of Arts has been enabled to offer a Travelling Bursary of £100 for award to an art teacher actually engaged in the practice and teaching of art for industrial purposes. The object of the award in the present year is to give an opportunity for the holder to investigate the problem of providing better facilities for preparing art students to enter industry, and for giving a part-time training at art schools for those already engaged in industry.

The successful candidate will be expected to make a tour lasting about six weeks, and at its conclusion to write a full report and read a paper before the Royal Society of Arts. The tour is to be made in the autumn of 1937, or at such other time as may conveniently be arranged.

Candidates for the bursary must send in their applications, with a statement of their qualifications, to reach the Secretary, Royal Society of Arts, 18 John Street, Adelphi, London, W.C.2, not later than June 30, 1937.

COMMONWEALTH FUND FELLOWSHIP

A Commonwealth Fund Fellowship of the value of £600 a year for two years has been awarded to Mr. D. P. Reay, a student of the Liverpool School of Architecture who graduated with First Class Honours in 1936. This is the eighth graduate of the Liverpool School to obtain this distinction since the Commonwealth Fellowships were founded in 1925 by the Directors of the Commonwealth Fund in New York.

Commonwealth Fellowships are open to university graduates who are British subjects, unmarried and under thirty years of

COMPETITION RESULTS

DAWLISH

Mr. Leslie T. Moore, F.R.I.B.A., the assessor of the competition for a cottage hospital, Dawlish, for the Building Committee of the Dawlish Cottage Hospital, has made his award as follows :—

Design placed first (£100) : Messrs. Alliston and Drew, of 24 Woburn Square, London, W.C.1.

Design placed second (£75) : Messrs. W. Norman Twist and H. Locksley Hare, of Sun Building, Bennett's Hill, Birmingham.

Design placed third (£50) : Messrs. Drury and Antrum, of 7 Gower Street, London, W.C.

The competition was limited to architects of British nationality practising within 200 miles of Dawlish.

WEYMOUTH

Professor H. S. Goodhart-Rendel, F.R.I.B.A., the assessor of the competition for a bandstand enclosure on the sea-front for the Borough of Weymouth and Melcombe Regis, has announced his award as follows :—

Design placed first (£150) : Mr. V. J. Wenning, of 43 Goodwyn Avenue, Mill Hill, London, N.W.7.

Design placed second (£100) : Mr. Eric J. Hartland, of 16 Wellesley Court, Strawberry Hill, Middlesex.

Design placed third (£50) : Messrs. A. H. Roberts and L. Rushbrook, of Seven Ide Hill Road, Bessels Green, Sevenoaks, Kent.

The premiated designs in each competition are reproduced in this issue.

age. They were established to provide international opportunities for education and travel and to promote mutual understanding and friendship between Great Britain and the United States. They are awarded on qualifications and on the programme of study submitted.

For the next two years Mr. Reay will be pursuing post-graduate studies, chiefly at Columbia University, New York. The subject which he will investigate will be American building equipment and services, including systems of construction and the use of pre-fabricated and synthetic building and facing materials.

Mr. Reay, who is an old boy of the Wallasey Grammar School, took the five-year degree course in the Liverpool School of Architecture, qualifying in 1936. During his course he was awarded, amongst other distinctions, the Gordon Selfridge and John Rankin Prizes, and also won the Honan Travelling Scholarship of the Liverpool Architectural Society. He has travelled extensively in Western Europe. At the present time he is a member of the architectural staff of Messrs. Barnish, Silcock and Thearle, of Rodney Street, Liverpool.

The only other Architectural Commonwealth Fellowship has been awarded to Mr. M. L. Bryer, B.ARCH., University of the Witwatersrand and New College, Oxford, who will pursue his studies at Columbia University.

BRISTOL'S MEMORIAL TO KING GEORGE V

Bristol's memorial to King George V will take the form of a 16-sided bronze lantern crowning a 60 ft. stone column, to be erected at St. Augustine's, and a playing field in the Barton Hill district. The memorial has been gratuitously designed by a panel of members of the Bristol Society of Architects.

ROYAL INCORPORATION OF ARCHITECTS IN SCOTLAND

The twenty-first annual convention of the Royal Incorporation of Architects in Scotland is to be held at St. Andrews on Friday, June 4, and Saturday, June 5. The annual general meeting will be held in the Town Council Chambers at 3 p.m. on June 4, and, at 7.30 p.m., the annual dinner will be held at the Grand Hotel.

EXAMINATIONS FOR THE OFFICES OF DISTRICT SURVEYOR AND BUILDING SURVEYOR

At the R.I.B.A. Statutory Examination for the Office of District Surveyor in London held on May 5, 6 and 7, 1937, the following candidate presented himself and was successful in the examination: Mr. Norman E. Back.

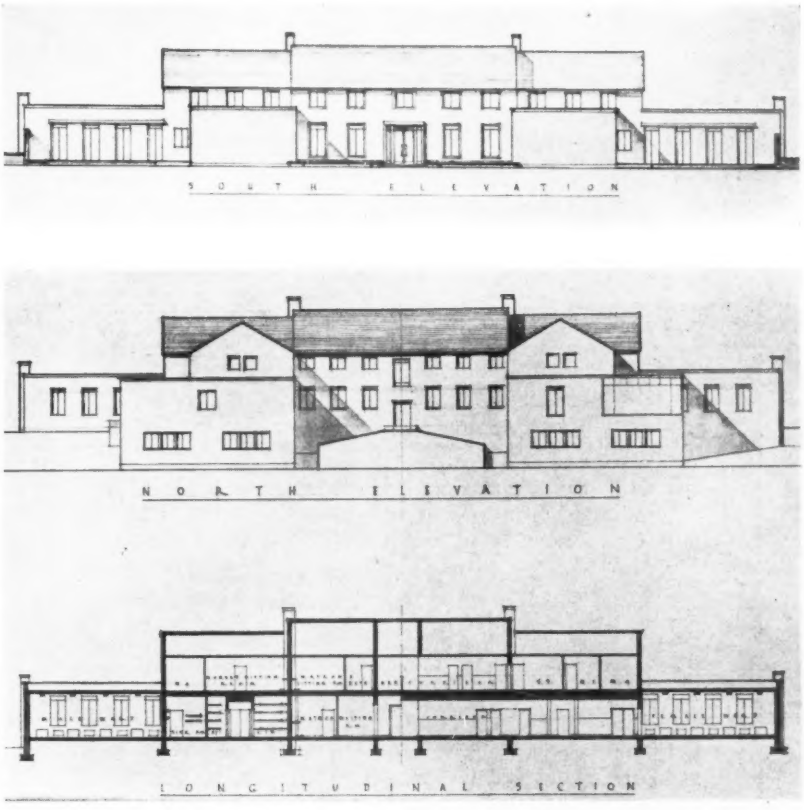
At the R.I.B.A. Examination for the Office of Building Surveyor under Local Authorities held on May 5, 6 and 7, 1937, six candidates presented themselves and the following were successful: Messrs. Horatio Marshall, P. E. Kerr and Charles N. Varney.

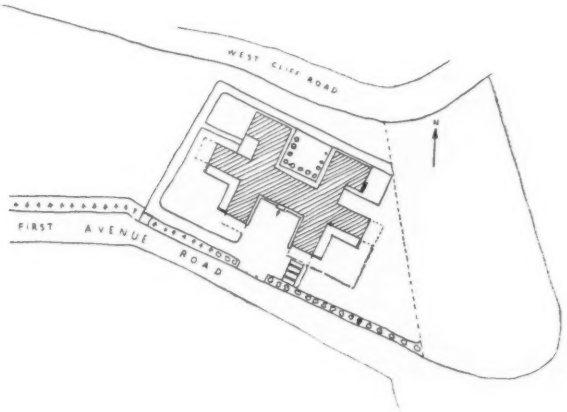
ANNOUNCEMENTS

Mr. J. H. McLaren, A.R.I.B.A., is now in private practice as an architect and surveyor at No. 6 Bell Yard, Doctors Commons, E.C.4. Telephone No.: City 7415.

DAWLISH COTTAGE HOSPITAL COMPETITION

WINNING DESIGN: BY ALLISTON AND DREW





SITE PLAN

Mr. and Mrs. Berkeley L. Moir are now practising as Moir and Bateman, AA.R.I.B.A., at Little King's House, Strawberry Vale, Twickenham, and would be pleased to receive trade catalogues. Work would be undertaken for London architects.

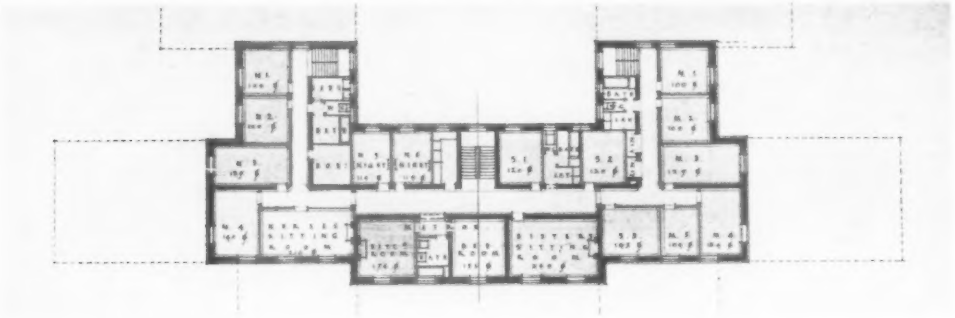
TWO CORRECTIONS

We regret that, owing to a printer's error, the last line of a quotation from an article by Mr. G. Grey Wornum incorporated in the advertisement of Messrs. Courtney Pope, Ltd., on page xxvii of our issue for May 13 was unreadable. The quotation should have read as follows: "A marquise can be an extremely useful adjunct to the design of a façade, and is by no means to be despised from an architect's point of view. Built of glass and metal it can give as much sense of frivolity and lightness to a building as the designer wishes. . . ."

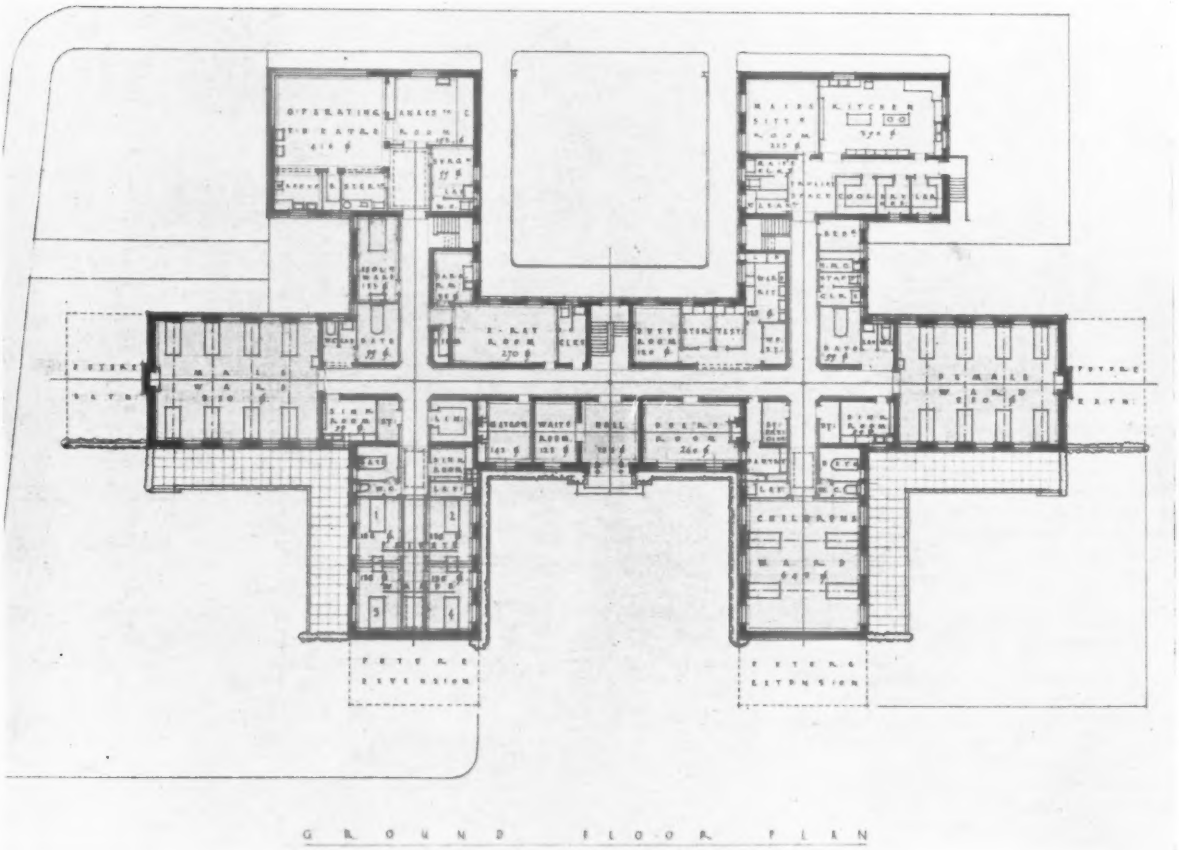
We should like to thank readers who have kindly drawn our attention to the error.

On page 881 of the JOURNAL for May 20 the illustrations of a plan and axonometric of a standard light-industry factory were attributed to Messrs. Percy Bilton Properties, Ltd. This was incorrect, the factory illustrated being a standard design by Messrs. Commercial Structures, Ltd.

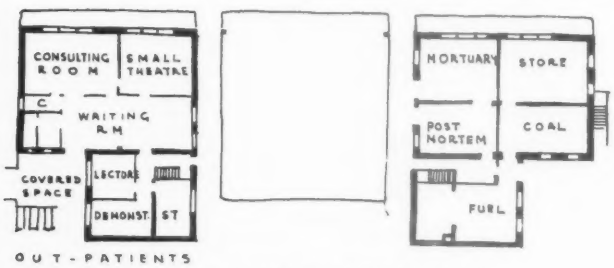
COMPETITION FOR COTTAGE HOSPITAL, D



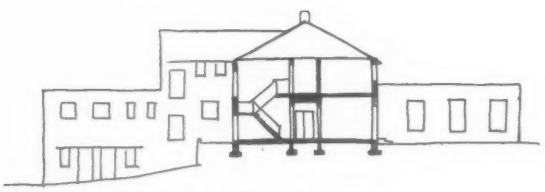
First floor plan



GROUND FLOOR PLAN



LOWER GROUND FLOOR PLAN



SECTION

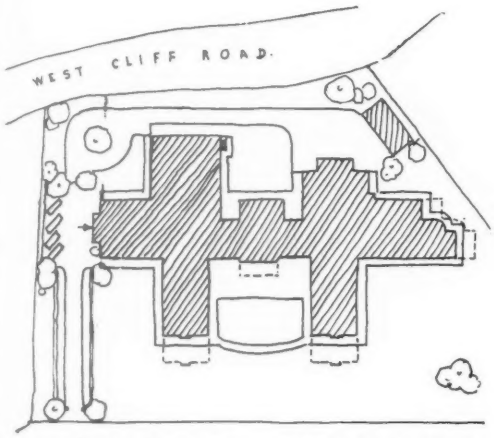
DESIGN PLACED FIRST: BY ALLISTON AND DREW

THE WINNERS' REPORT

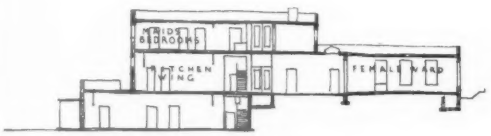
Following are some extracts from the winners' report :

Construction.—Outer walls solid brickwork with a 2-in. cavity. Facings white sand limes, or other light-coloured bricks. Brickwork externally built in lime mortar. Internal brickwork built in cement mortar. Portland stone dressings or, if cost does not permit, reconstructed artificial stone. Floors and staircases in hollow tile and reinforced concrete construction. All

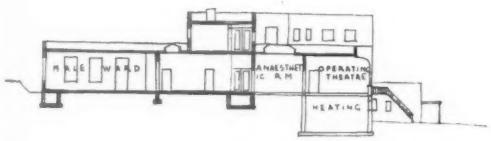
DAWLISH: THE PREMIATED DESIGNS



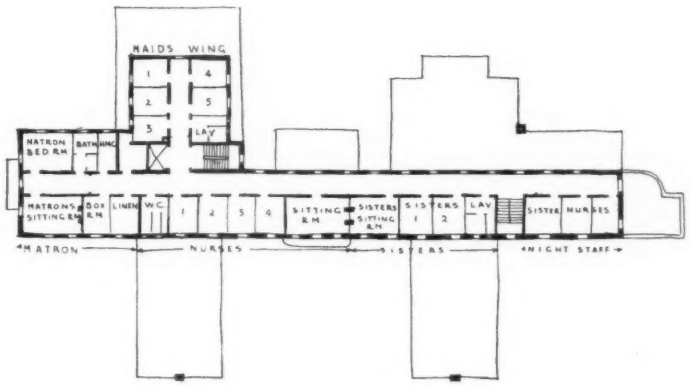
SITE PLAN



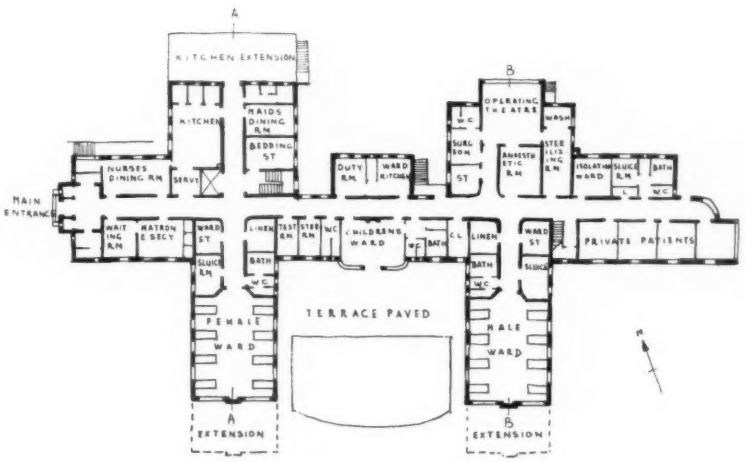
SECTION A—A



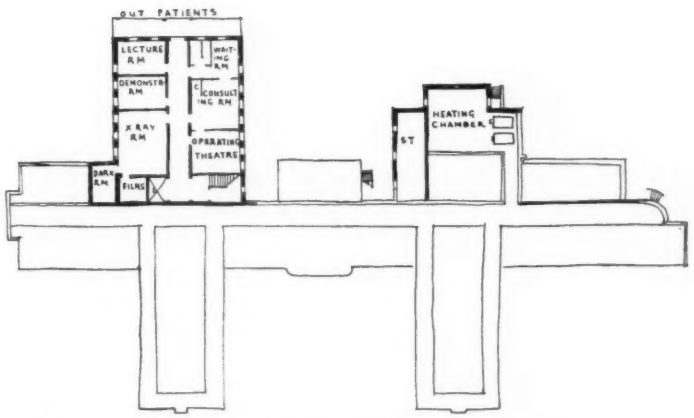
SECTION B—B



FIRST FLOOR PLAN



GROUND FLOOR PLAN



LOWER GROUND FLOOR PLAN

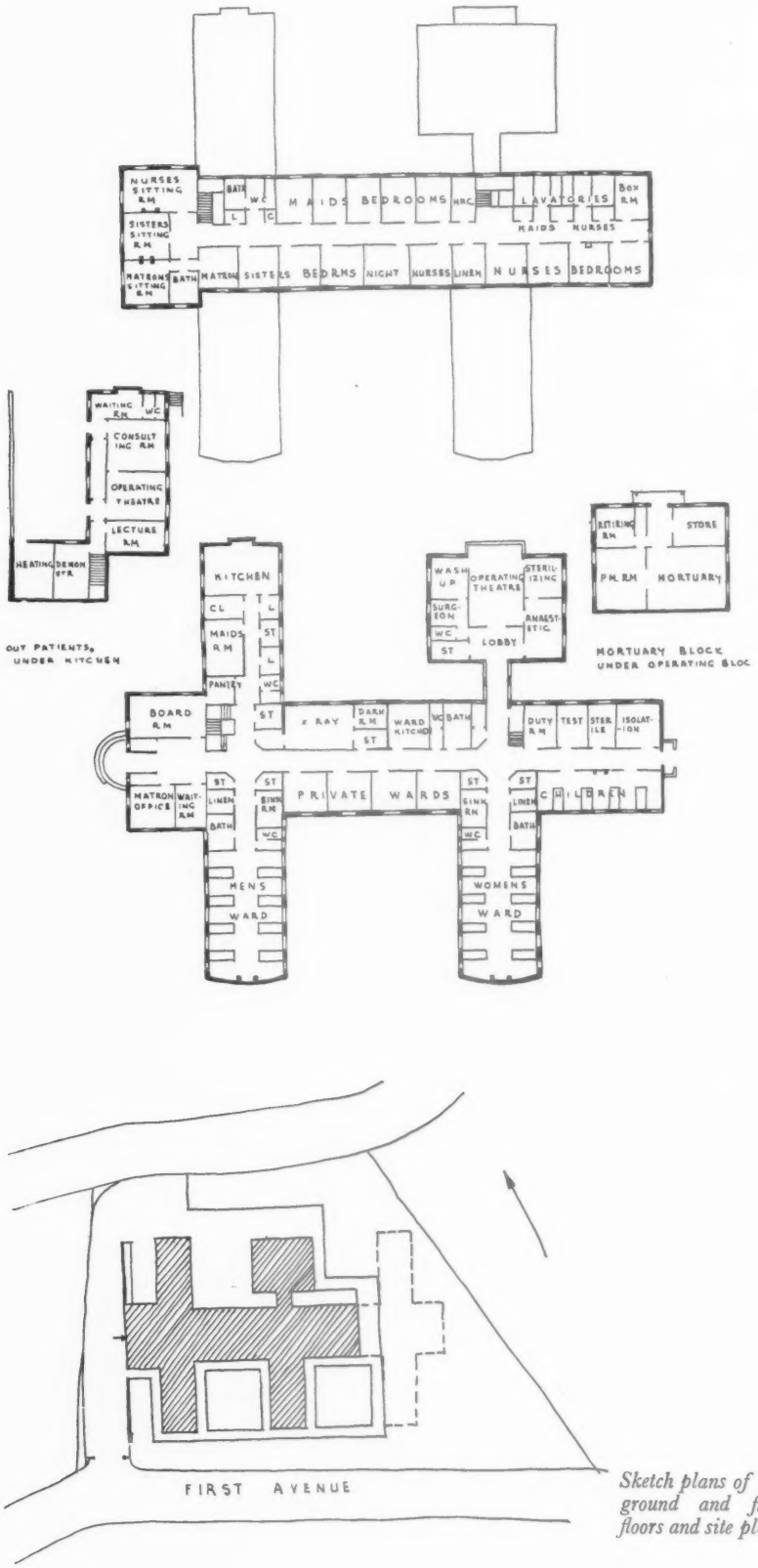
DESIGN PLACED SECOND: BY W. NORMAN TWIST AND H. LOCKSLEY HARE

stairs enclosed in 9-in. brickwork. Roof, green slates. Internal partitions, where not of solid brickwork, in hollow blocks. Floors generally of thick linoleum laid directly on cement screed. Main corridors in tinted granolithic. Operating suites in terrazzo; kitchen sanitary apartments, etc., in best quality quarry tiles. Flush doors to be used throughout, hung in metal frames, and painted or cellulosed in the operating suite, etc. Walls generally to be painted with an enamel dado. Walls to operating suites to be in terrazzo. Walls to sanitary apartments, kitchen, etc., would be tiled to a height of 5 ft. 6 ins. Casement metal windows to be throughout.

Soundproofing.—General reliance on brickwork construction. Flat roofs insulated with a layer of cork under the asphalt. For partitions that are not brick, and where soundproofing is essential, double partitions are used, insulated with felt at the edges.

All walls and ceilings, except where hard plaster is necessary for wear, to be in ordinary lime plaster. Linoleum to be $\frac{1}{4}$ in. or $\frac{5}{16}$ in. thick.

DAWLISH COTTAGE HOSPITAL COMPETITION



Sketch plans of the ground and first floors and site plan.

DESIGN PLACED THIRD BY DRURY AND ANTRUM

WEYMOUTH COMPETITION

Following are some extracts from the winner's report.

Site.—The site chosen would appear to be the most economical as a comparatively slight enlargement of the existing wide esplanade makes a spacious approach to Bandstand Pier possible. A new crossing from the town side is suggested, the existing one being rather indirect and flanked on both sides with lavatories.

Bandstand Pier, Piling, etc.—The method of construction is as follows: The precast reinforced concrete piles 12 ins. in diameter and of an average length of 21 ft. should be driven to a set about 1½ in. for ten blows of a 2-ton hammer falling 4 ft., and the head of the piles as driven should finish 2 ft. 3 ins. above low-water level. The heads of the piles should then be stripped for a distance of about 2 ft. and connected together by gridwork to beams about 15 ins. by 10 ins. cross section, which would be constructed just about low-water level, thus bracing together the whole of the pile system. These braces would run in two directions at right angles and divide the whole area into squares with sides approximately 20 ft.

After the construction of the bracing beams near low-water level reinforced concrete columns of 12 ins. diameter should be built up above the piles to the main deck level. On top of these columns a deck should be constructed consisting of a 5-in. two-way reinforced concrete slab, carried on gridwork beams, dividing the whole deck into panels approximately 20 ft. square, and the size of these beams would be about 15 ins. by 10 ins. below the slab. Concrete slabs top surface to be finished in granolithic.

Retaining Wall.—A reinforced concrete retaining wall would have to be constructed in conjunction with similar slab beam and pile construction to form extension to existing esplanade and pier approach (*see* drawings).

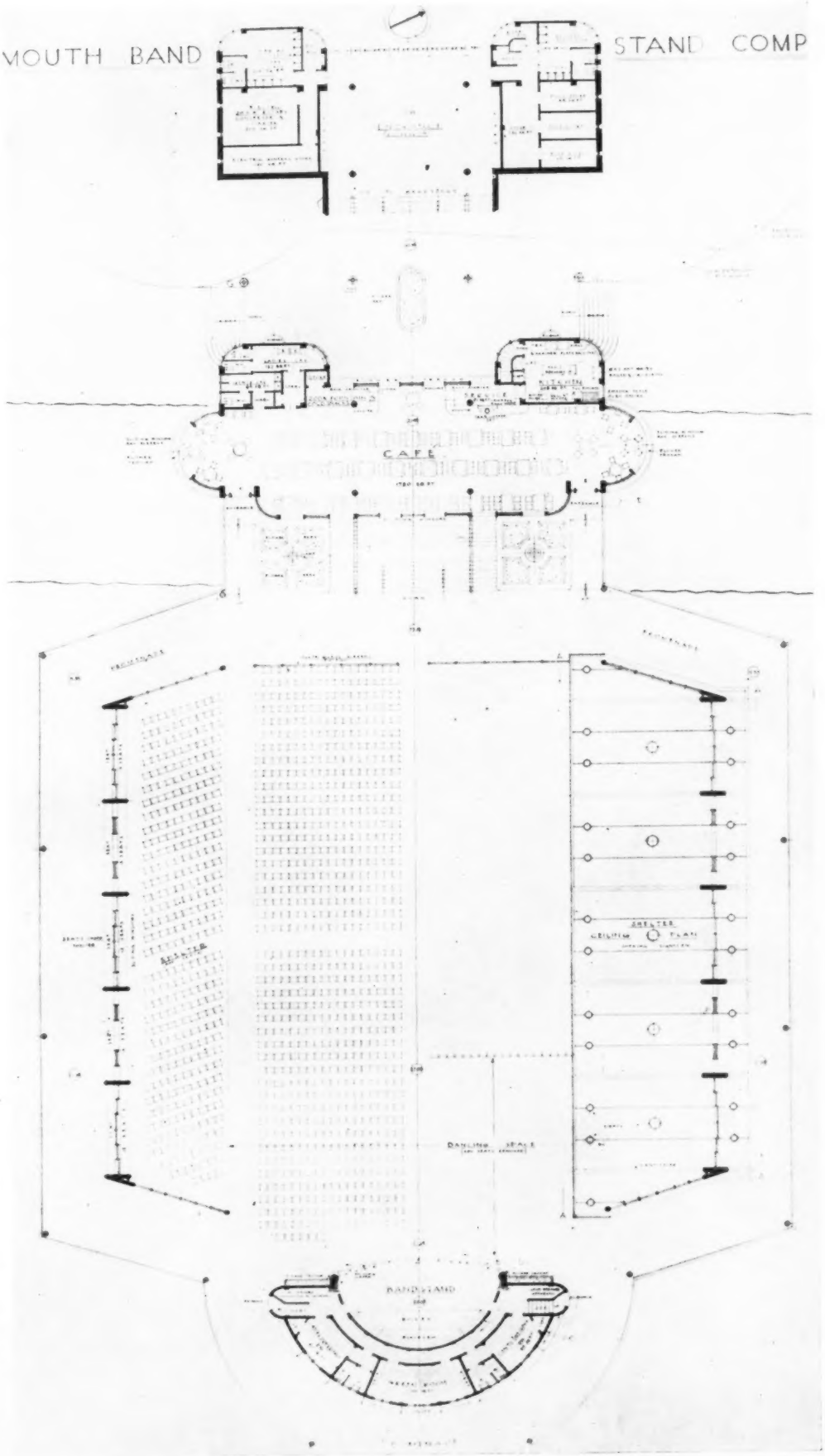
Cafe.—To be constructed throughout in reinforced concrete off the piles and beams to reinforced deck. Roof finish to be in asphalt. External rendering to concrete to be two-coat rendering in Martone mixed with required pigment and to scratch finish. Floor to café to be oak strip flooring on fillets. Other floors finished in granolithic. Walls and ceiling to be plastered and painted. Kitchen and lavatories to have tiled dado 5 ft. high. Loggia entrance ceiling to be constructed with single-sided galvanized steel plywood and covering strips to form bays, and painted; and metal sliding windows to be fitted.

Shelters.—To be constructed in reinforced concrete cantilevers and walls and sliding metal windows and fixed glass screens each end. Roof to be wood joists, boarding and finished in asphalt. All concrete work to be rendered with Martone. Ceiling to be covered with single-sided galvanized steel plywood sheets, and joints covered with metal slips to panels and painted, as shown on ⅛ in. scale plans. Fascia to overhanging roof to be similarly treated. Metal and glass apron fixed under same.

Bandstand.—For the construction of this bandstand special care has been taken in the design and choice of materials to produce reinforcing reflections and distribution of sound. Allowance has also been made for the fitting of microphones and loud-speakers. Ample space is provided for 50 performers and a grand piano. The general construction consists of outer reinforced concrete walls and piers to dressing-room block and inner reinforced concrete curved wall and piers and pylons to bandstand. The roof to be constructed in concrete joists, boarding and asphalt finish. Stage floor and tiers to be wood joists covered with teak, ceiling to bandstand framed up and covered with single-side aluminium metal plywood bent to curves to form lighting troughs, casing to proscenium beams and underside to canopy. Similar metal plywood panels to walls. Metal covering strips to joints of sheeting. All to be sized and painted and with hard gloss finish. Dressing-rooms, etc., walls and ceilings to be sprayed with distemper. Flush doors to be stained and varnished.

COMPETITION FOR BANDSTAND ENCLOSURE, WEYMOUTH

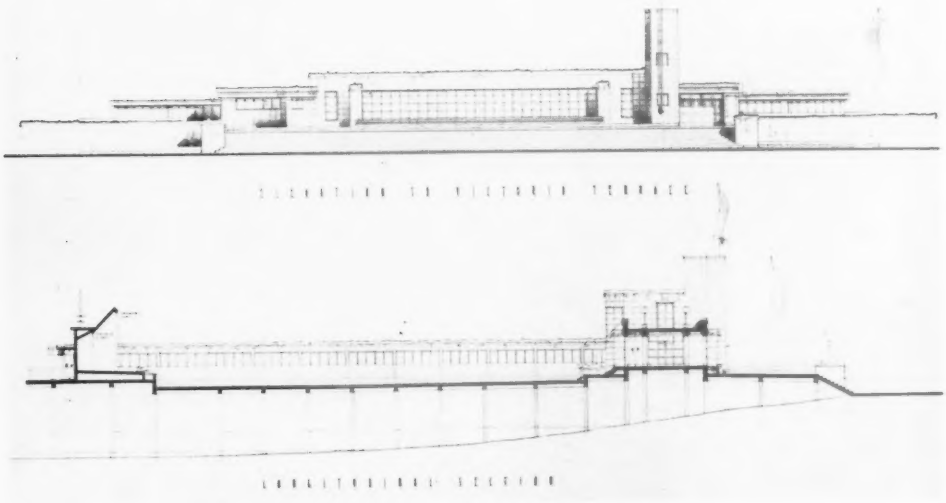
DESIGN PLACED FIRST BY V. J. WENNING



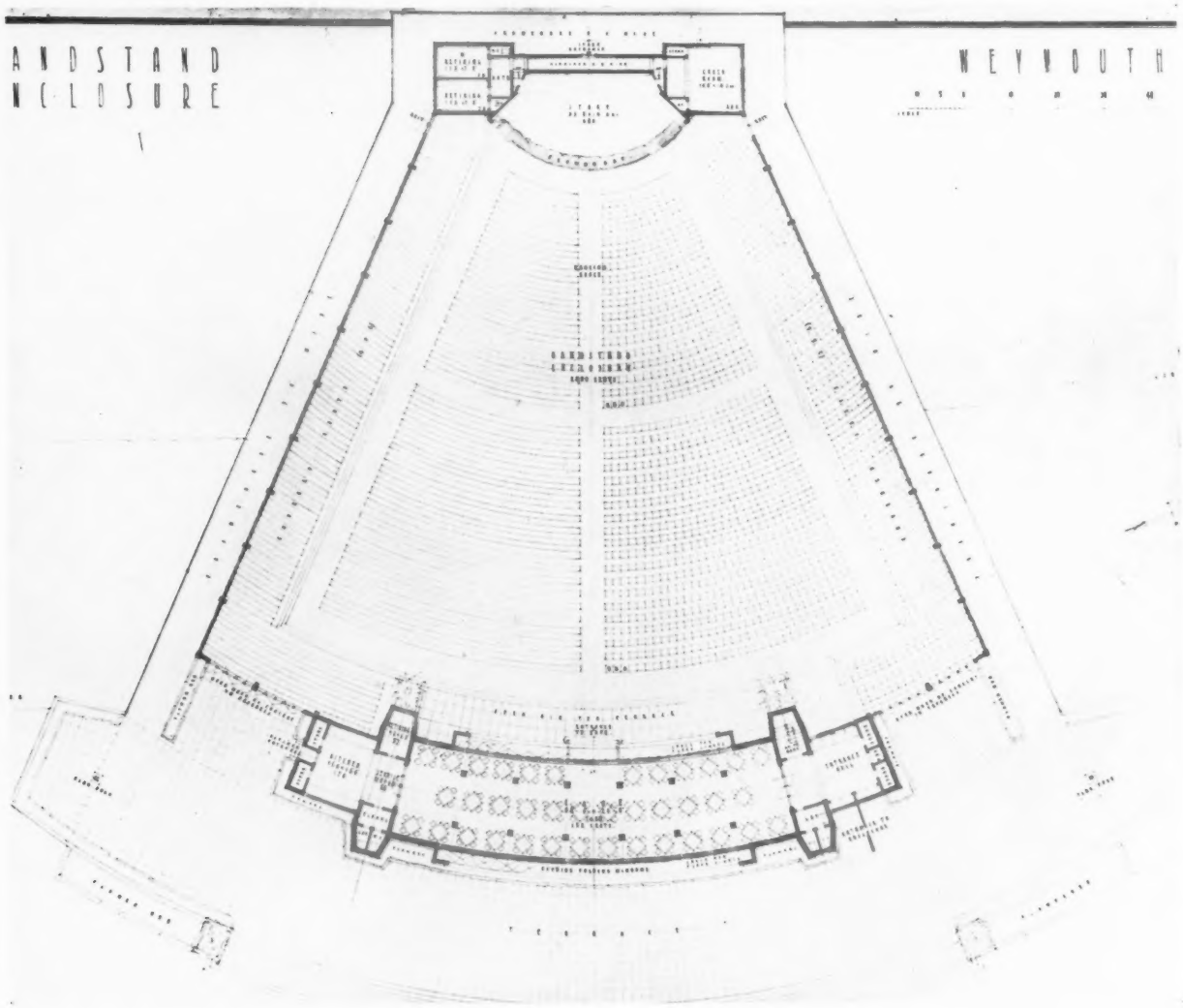
Plan of the winning scheme. Elevations, section and site plan are reproduced on page 893; overleaf are reproduced elevation, longitudinal section and plan of the design placed second. Extracts from the winner's report are printed on the facing page.

COMPETITION FOR BANDSTAND ENCLOSURE, WEYMOUTH

DESIGN PLACED SECOND BY ERIC J. HARTLAND

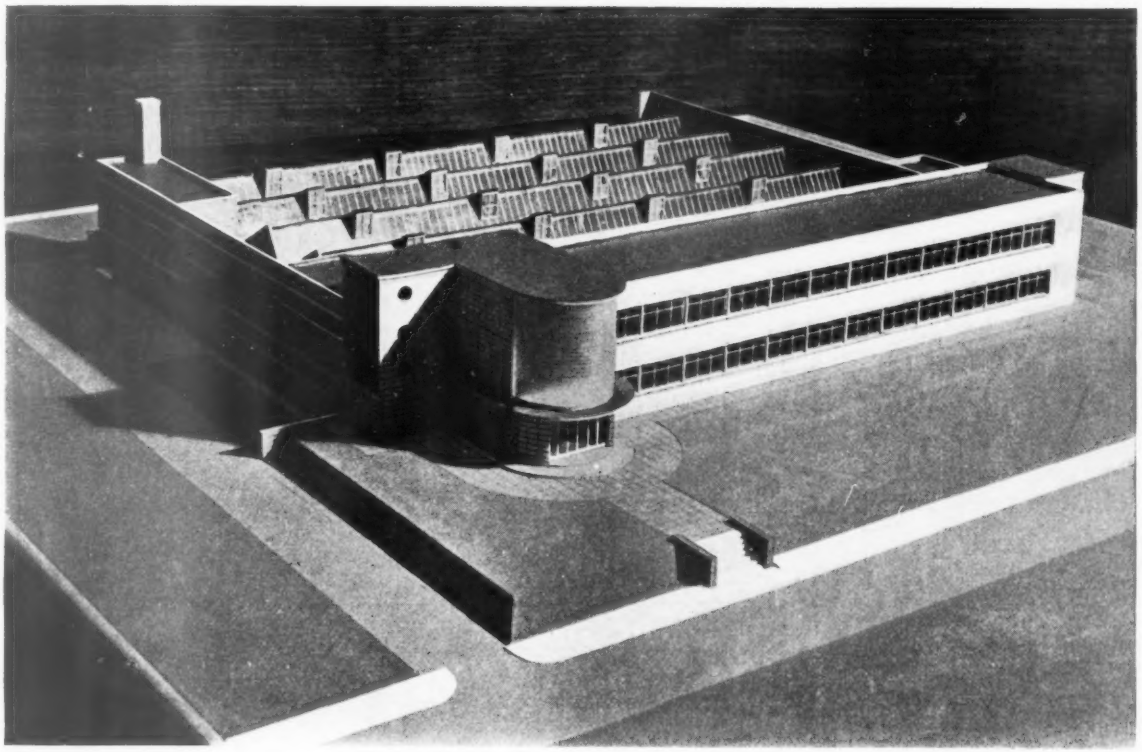


Left: elevation to Victoria Terrace and longitudinal section; below, principal floor plan.



ANALYSIS OF A BUILDING: 7

CORSET FACTORY AT SLOUGH



BY SIR JOHN BROWN AND HENSON IN ASSOCIATION WITH W. DAVID HARTLEY

PROBLEM

Messrs. Berlei are manufacturers of corsets and other similar products. They are now one of the biggest manufacturers in Europe; and are an expanding concern.

CONDITIONS GOVERNING THE SELECTION OF THE SITE

Before finally selecting any particular site, directors and architects examined many similar buildings. Naturally, the main problem was one of factory area. In this class of trade neither the supply of power nor transport facilities are of great importance, as only a few horse-power is necessary to drive the sewing machines, and three lorries are enough for transport. Labour is by skilled girls.

SITE

The site is on the south side of the Great West Road, and is about 300 ft. square, and almost dead level. On the east are overhead power cables. Opposite is the entrance to the Slough Trading Estate. A secondary road runs in front of the factory parallel to the Bath Road.

COST

The contract price was £22,285. Price per foot super, (total area), 9½d.—a low price considering that this building has received a better finish than is usual in this work. The front is faced with slabs and glass bricks in the front window.

OWNERS' REQUIREMENTS

Industrial.—A factory for the complete manufacture of corsets from sorting and cutting the raw material (rubberised cloth from London) to pressing and delivering the finished product to London.

Factory.—Space to accommodate roughly 300 employees, or approximately 15,000 ft. super., with the following requirements.

(1) North lighting.

(2) Conditioned ventilation and heating.

(3) Social rooms for employees.

(4) Possibility of future extensions.

(5) Flexibility of internal factory layout.

(6) Best conditions for installation of power machinery and benching.

Above is a photograph of a model of the building showing the main (north-east) front.

ANALYSIS OF A BUILDING: 7:

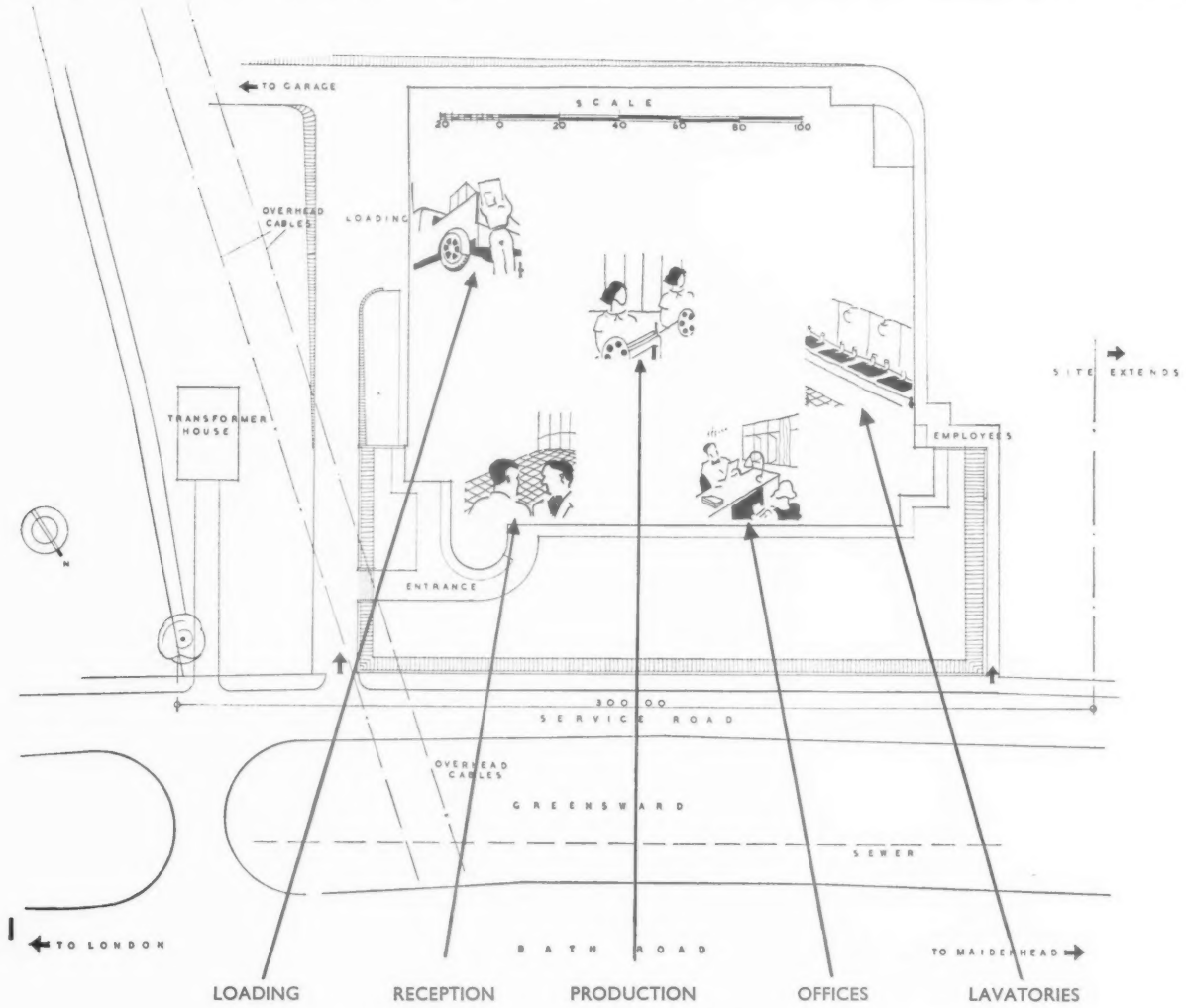


FIG. 1 : ACCOMMODATION REQUIRED

Entrance and reception hall.
Enquiries.
General office.
3 Private rooms.
3 Design rooms.
Dressing rooms.
Boardroom.
Lavatories for staff and directors.

Lavatories.—(Staff and directors' lavatories to be separate). *Factory Employees.*—(1) Large cloakroom. (2) Lavatories on the basis of one w.c. to every 25 employees.

RECEPTION AND DESPATCH

Light vans collecting and delivering in London Area four times a day. Room for loading two vans at once. Garage to be separate.

Boiler rooms and special tank room for sprinklers, etc.

FIG. 2 : SEQUENCE OF OPERATIONS

Each circle represents a new process, requiring different machines and operatives, in the make up of the product. Hence the interior planning of the factory had

(1) to be kept open,

(2) progress from one process to the next must not involve movement of employees.

FIG. 3 : SOLUTION

From the requirements it follows that the factory should be on an E to W axis to give the correct lighting for the operatives, and there should be no confusion between the goods circulation and the employees' circulation.

That these entrances should be as direct as possible from the road.

Offices placed along the road front. Advantages :

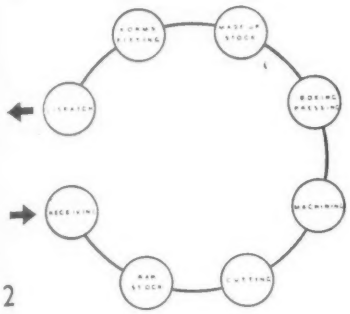
(1) Easy supervision of the factory.
(2) Commercially an impressive façade.
(3) Direct entrance from road.

The complete circulation diagram is superimposed on the sketch plan (fig. 3).

The employees enter and leave through the cloakrooms with lavatories entirely separate.

Office circulation ; supervision of factory ; reception of visitors ; boardroom upstairs.

CORSET FACTORY AT SLOUGH



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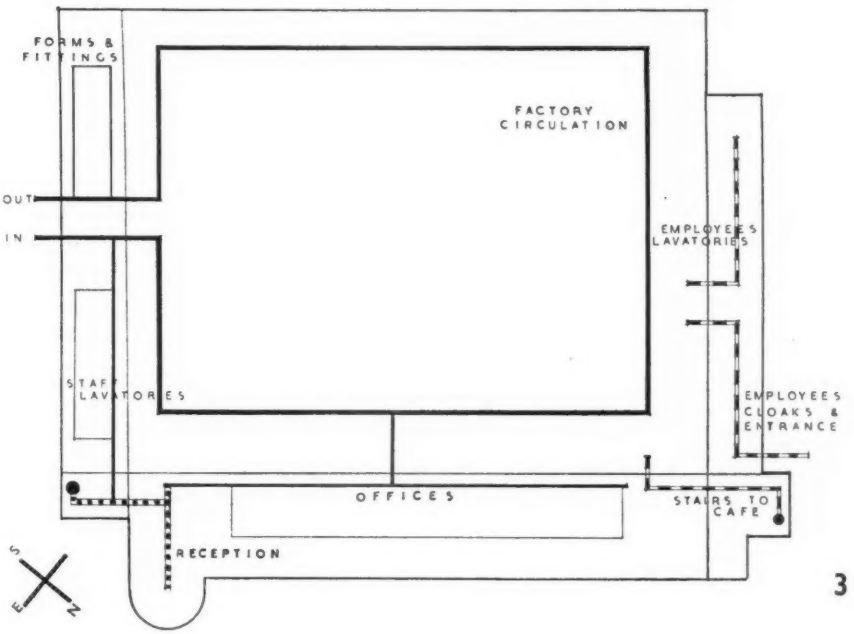

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BY SIR JOHN BROWN AND HENSON IN ASSOCIATION WITH W. DAVID HARTLEY

FIG. 4: STRUCTURAL

The spans of the steel frame grid were determined by :—

(1) The layout of the machine benches, etc., shown in figure 6 overleaf;

(2) Heating and ventilating requirements.

FIGS. 4 & 5: HEATING AND VENTILATION

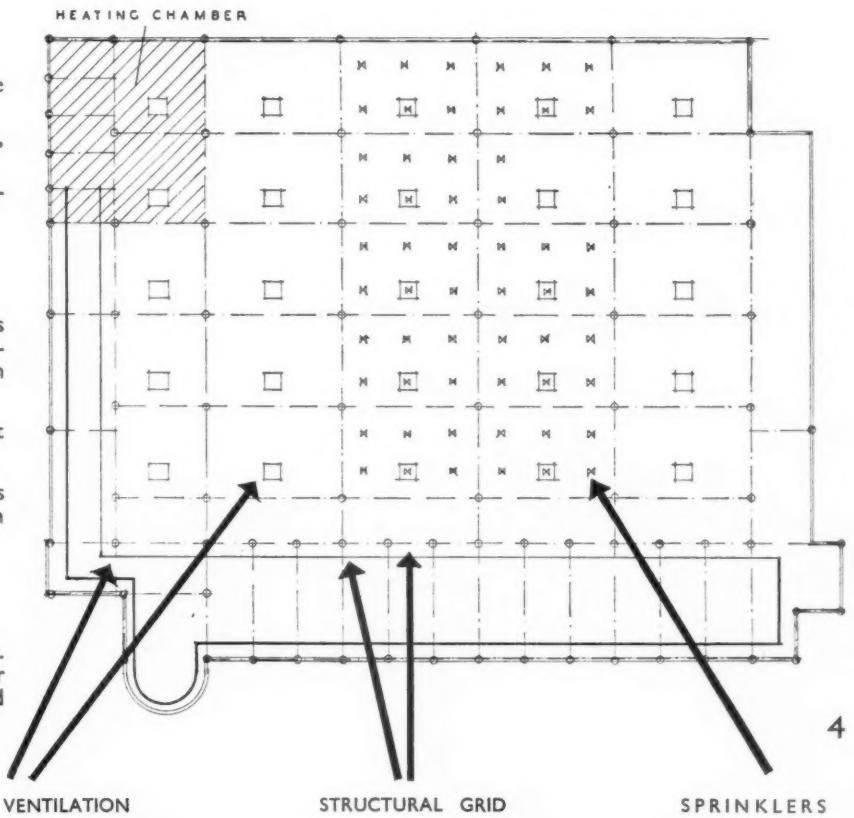
Factory.—Air is drawn in through fans and passed over heating units to maintain a temperature of 63 deg. One such unit is placed in every bay.

Offices.—By a normal system of hot water heating.

Drainage.—Placing of the lavatories ensures a direct and simple connection to sewer.

FIG. 4: FIRE RESISTANCE: INSURANCE DEMANDS.

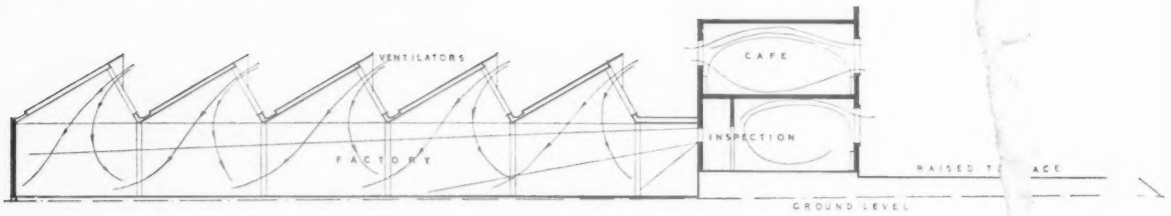
One sprinkler to every 100 ft. super. Bays 20 ft. by 10 ft. two sprinklers per bay: one at apex of North light and the other half-way down side.



4

HEATING AND VENTILATION STRUCTURAL GRID SPRINKLERS

ANALYSIS OF A BUILDING: 7



5

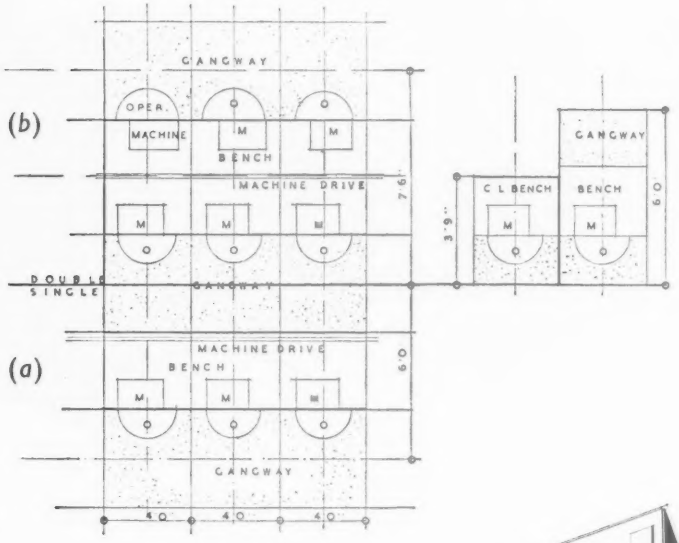
CORSET FACTORY AT SLOUGH

FIG. 5: SECTION THROUGH FACTORY

(1) *Commercial.*—By raising the office block 4 ft. above general site level, the factory is made more impressive from the road.

(2) Raising the floor of the office block above factory level facilitates supervision

(3) *Ventilation and Heating.*—The air currents from the intake fans in the roof are shown. Extraction is from below. This system directly regulates the incoming air currents ; air changes can be increased or decreased according to the conditions and the air warmed in winter or cooled in the summer.



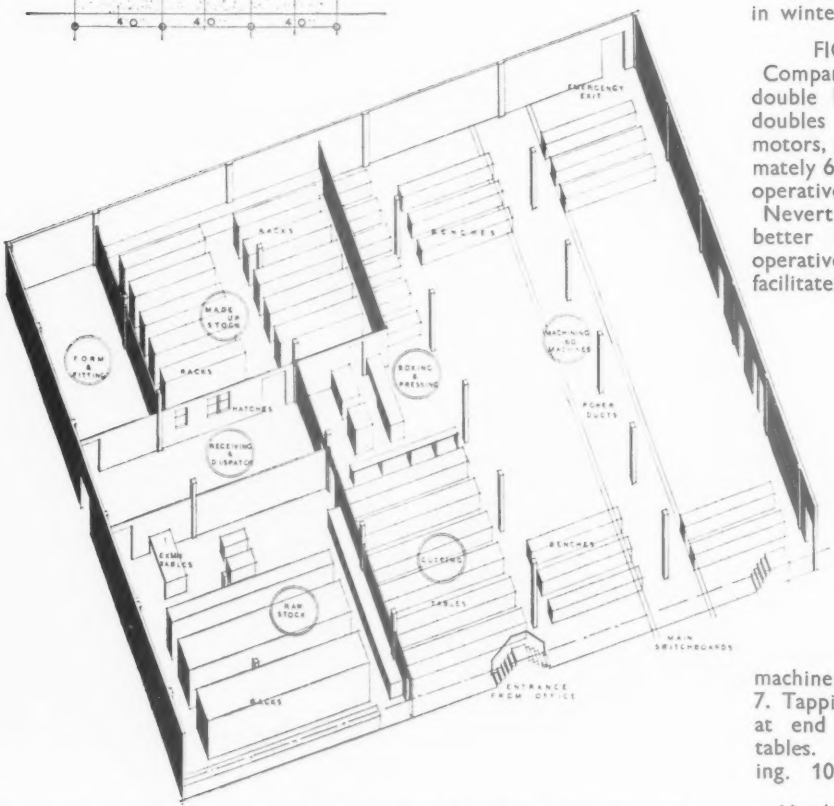
6

FIGS. 6 and 7: LAYOUT

Comparison between single and double benching. Single benching (*a*) doubles initial cost and upkeep of motors, etc. ; (*b*) increases by approximately 6 ft. the floor area necessary for operative.

Nevertheless single benching gives better working conditions since all operatives have proper lighting, and (*b*) facilitates supervision as all operatives face the inspection corridor.

It is believed that this is the only example of its use in England.



7

FIG. 7 : The actual lay-out of the operations (previously shown in Figure 2) :—

1. Receiving and despatch. 2. Examination and cutting table. 3. Racks for raw stock. 4. Reference table. 5. Cutting tables. 6. Single bench machine tables for 160 operatives. 7. Tapping off duct for electric motors at end of each bench. 8. Ironing tables. 9. Boxing, dressing and stamping. 10. Made up stock.

Hatch service through partitions. The partitions are light and easily removable.

BY SIR JOHN BROWN AND HENSON IN ASSOCIATION WITH W. DAVID HARTLEY

CO-SET FACTORY AT SLOUGH

BY SIR JOHN BROWN AND HENSON IN ASSOCIATION WITH W. DAVID HARTLEY

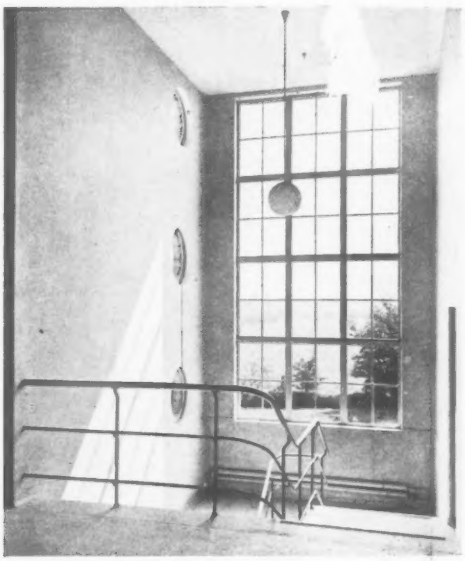
On this and the two pages following are reproduced photographs of the exterior and interior of the factory which is the subject of the analysis on pages 905-908.

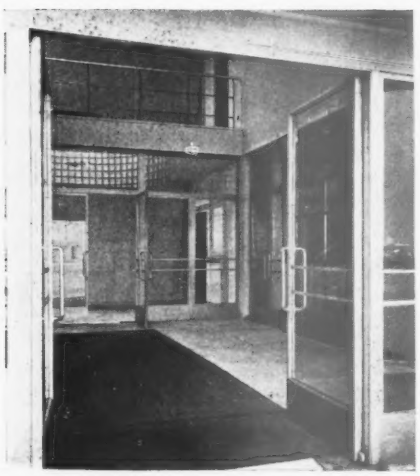
The office block is faced externally with primrose faience in 2 ft. by 1 ft. slabs; the metal windows are painted dark green and the roof is covered with asphalt. The window over the main entrance is constructed of glass bricks. The factory block has buff facing bricks and, internally, the walls are distempered primrose.

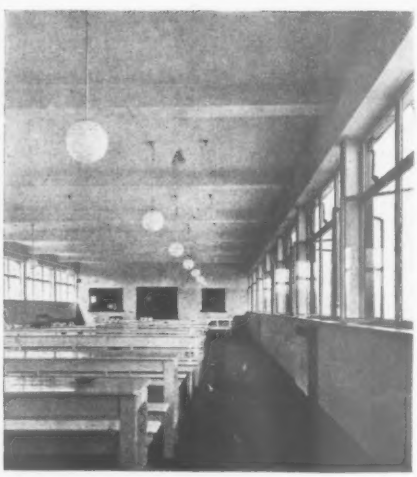
The photographs show: above, the main front; right, a detail of the window over the main entrance.

D

FACTORY AT SLOUGH: BY SIR JOHN BROWN AND



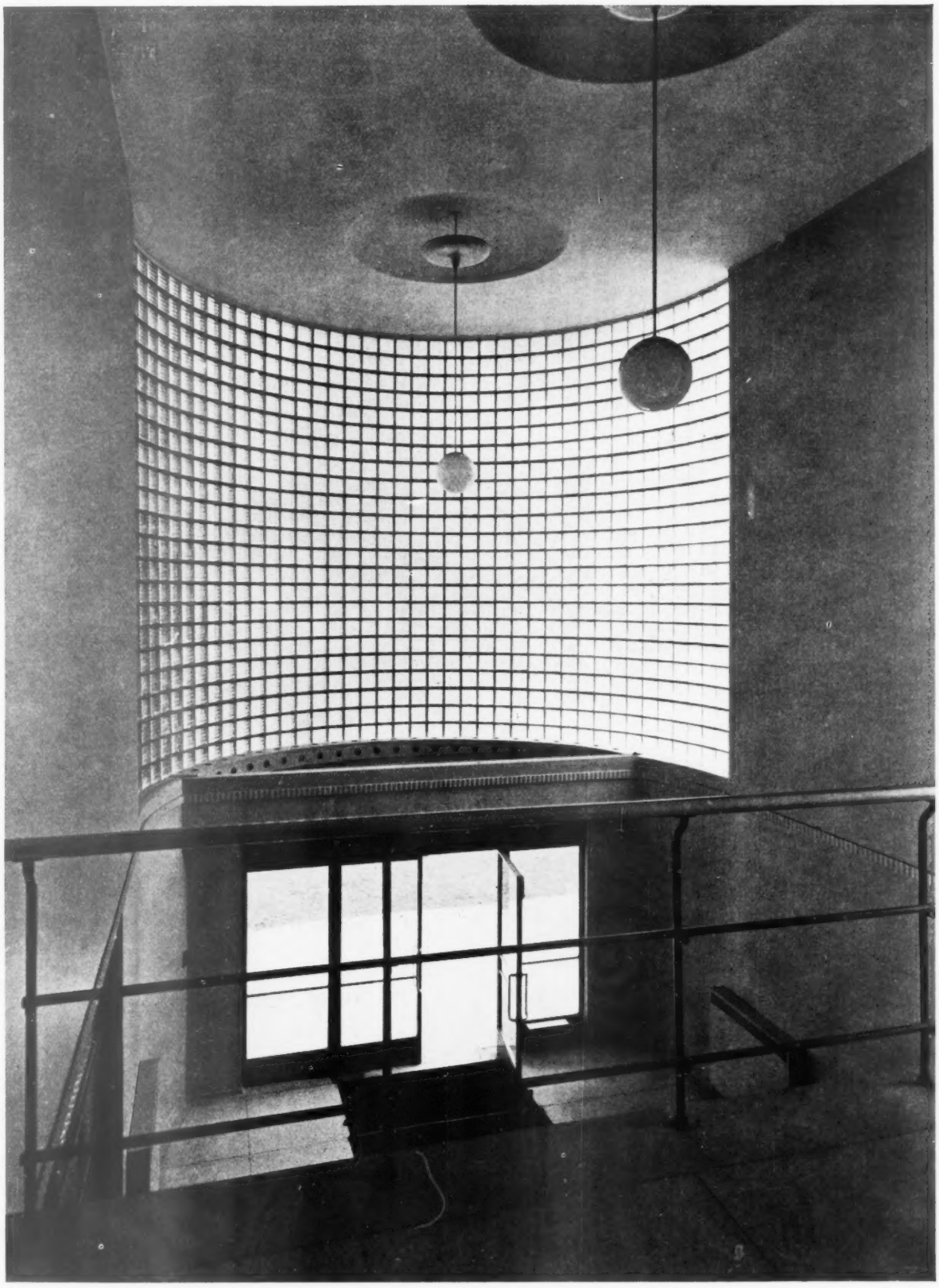




Internally the walls are plastered and colour-washed primrose. In the entrance hall the floor is of buff terrazzo with aluminium expansion joints, and the entrance doors and staircase balustrade are in anodized aluminium. Other doors are standard flush, painted dark green. Standard spherical lighting fittings are installed throughout the offices. The floors of the whole of the factory are finished with special linoleum.

The photographs show: left, top, the main entrance to the offices; bottom, the entrance hall and the canteen; above, two views of the staircase.

HENSON, IN ASSOCIATION WITH W. DAVID HARTLEY



Looking from the first floor landing towards the glass brick semi-circular window and the main entrance doors. For list of general and sub-contractors see page 933.

LETTERS FROM READERS

HUBERT T. E. FURSE
ARTHUR C. GRAVELL
W. G. MADDISON
PROFESSOR C. H. REILLY
CECIL A. SHARP

St. James's Church, Piccadilly

SIR,—We wish to express our regret at the unnecessary destruction of the old arch and part of the wall to St. James's Church, Piccadilly, by which a few more seats for spectators of the Coronation procession were obtained.

Having seen the design proposed to supersede the old, we consider that those responsible have shown little appreciation of the qualities of the work they have demolished. The old wall, which was probably erected in 1850, was a good piece of architectural design with a simple and satisfying feeling for form and materials. It was in keeping with Wren's massive little church.

What can be said for the proposed new entrance? There is a good deal of hearty architectural vulgarity in Piccadilly. Vulgarity is usually interesting and its faults are exuberant and obvious, but "genteel" design such as that now proposed hides behind a mild inoffensiveness fundamental weakness of form which is glossed over with reassuring traditional motives.

Sir Reginald Blomfield has ever been an enthusiastic champion of traditional design, but surely it is work of the character of his proposed entrance to St. James's Church which has led many present-day architects to take a more analytical interest in architectural form in order to capture more of the spirit if less of the letter of good traditional design.

HUBERT T. E. FURSE
ARTHUR C. GRAVELL

Hyde Park Corner

SIR,—Time marches on, and Sir Edwin Lutyens redesigns Hyde Park Corner, welding a simplified traffic system with a piece of architectural lay-out, clearly illustrated by two models now on view at the Royal Academy; but does Sir Edwin imagine that lamp standards are things of the past, and that traffic is now able to control itself without the necessity of coloured signals? Are the more usual articles of street furniture considered to be architecturally unimportant, and therefore left to the practical fellows of the local authority?

Surely the designer does not think that the placing of lamp standards, traffic lights, telephone kiosks, sand bins, fire alarms, letter boxes, Belisha beacons, bus stop signs and all other necessities, will have no effect upon his scheme.

Perhaps I am not old enough to criticise, but these things do puzzle the young mind.

W. G. MADDISON

The Liverpool School

SIR,—While being very grateful to you and to Mr. Myles Wright for the kind things said about the buildings by old Liverpool students shown at the recent R.I.B.A. Exhibition, and not less so for those said about myself, in your last issue, I must in fairness to Professor Budden, who like all the rest was a student of mine, point out that the drawings for the new buildings for the school were made by him after the usual joint sketches and discussions. The exact and final form therefore of the elevations on which Mr. Wright builds an important part of his argument is his work with whatever that implies.

C. H. REILLY

Inn Signs

SIR,—The letter you publish on the 6th instant from Sir E. Guy Dawber, regarding inn signs, renews my ambitions which date back some five years. I have, in consequence, sent my name as requested, and the necessary information to the Committee Secretary he named, being an ardent exponent of well-painted and designed inn signs.

The "well painted and designed" should be inseparable, both created by the same master mind to be in unison, and I am unable to conceive a better combination than the architect and the artist, providing the former is also the latter.

The subject is a most fascinating one, one to be encouraged to its fullest, calling for ingenuity as well as architectural and artistic technique.

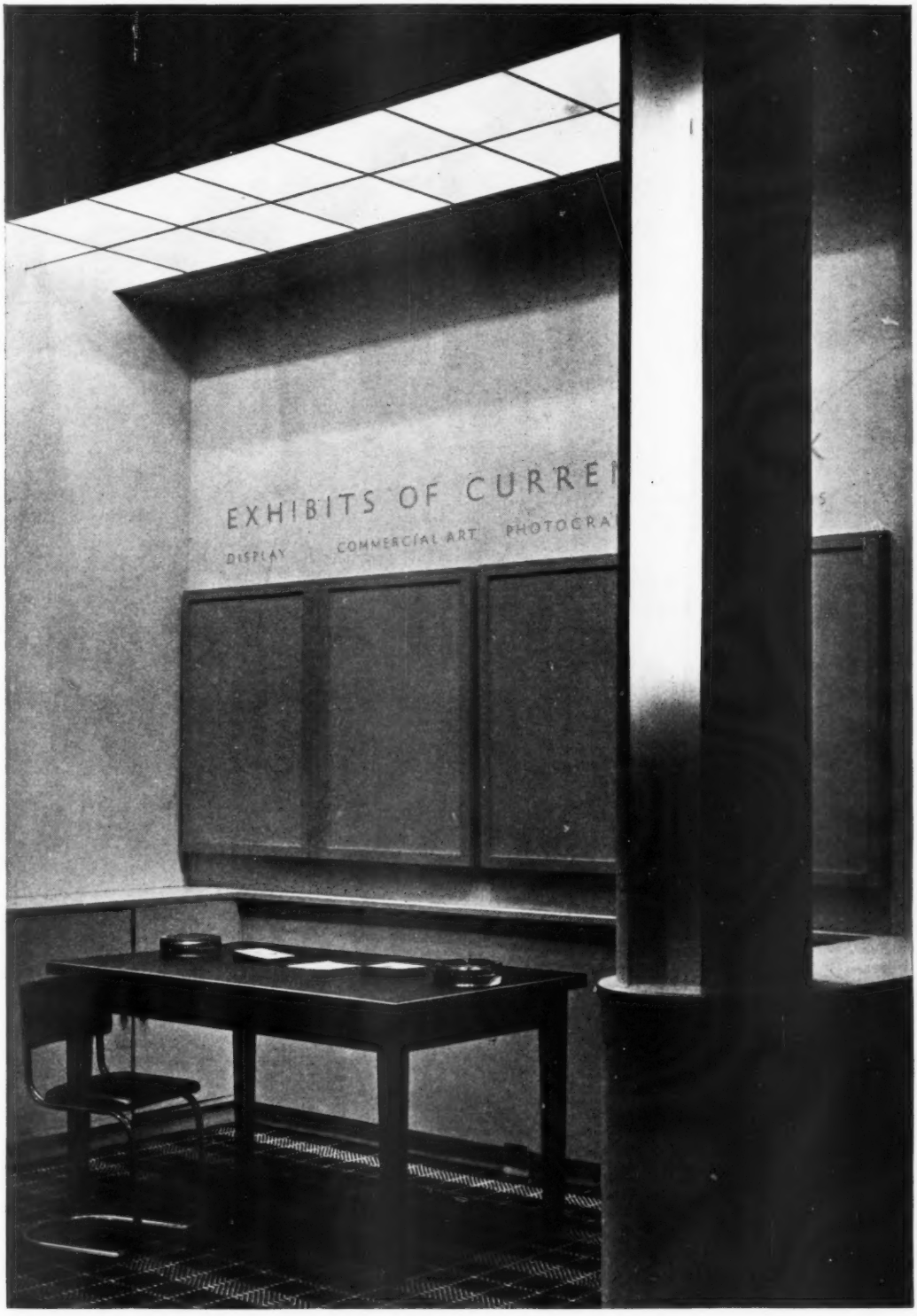
Generally speaking, it will be found that the inn sign has a history and direct bearing and meaning which should be probed and fully exploited to finality, and portrayed in a lucid, direct and artistic manner, and not leave one guessing.

CECIL A. SHARP

A cutting from the JOURNAL *for May 20 and a commentary by a Scottish architect. We join with our correspondent in deploring the slip of the pen which has raised in our pages the burning issue of Scottish nationalism. We apologize abjectly* [*Ed.* A.J.]

WORKING DETAILS : 543

EXHIBITION SPACE • REIMANN SCHOOL, S.W. • STANLEY HALL AND EASTON AND ROBERTSON

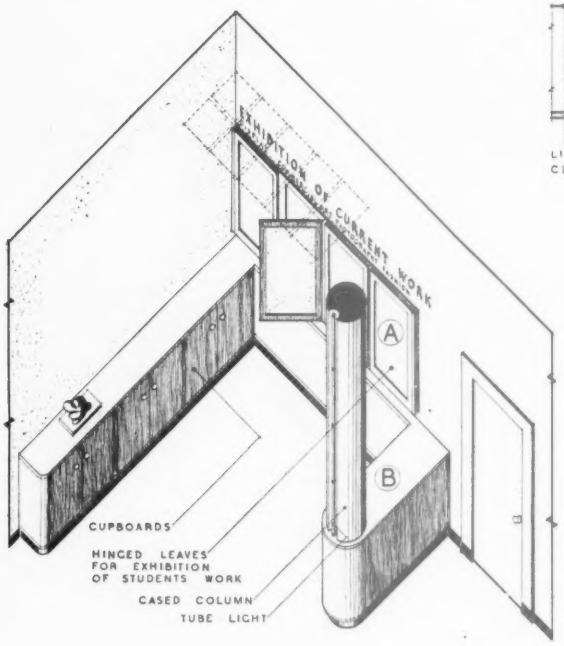


A corner of the boardroom is designed as exhibition space, the students' work being exhibited on a series of hinged leaves running along the wall. The exhibition space is enclosed by a series of cupboards, 3 ft. in height.

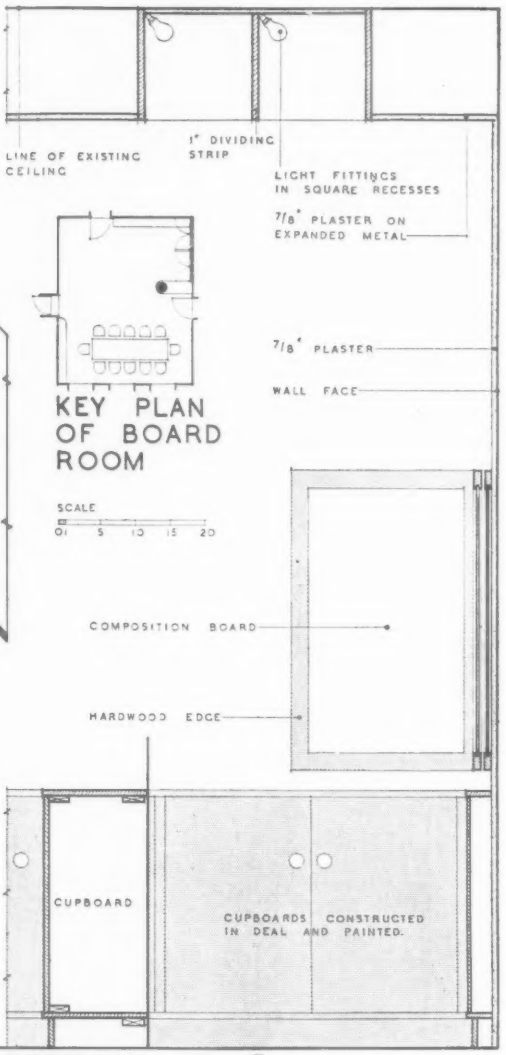
Lighting is from fittings in square recesses in the ceiling. There is also a tubular light recessed in the circular column.

WORKING DETAILS : 544

EXHIBITION SPACE • REIMANN SCHOOL, S.W. • STANLEY HALL AND EASTON AND ROBERTSON

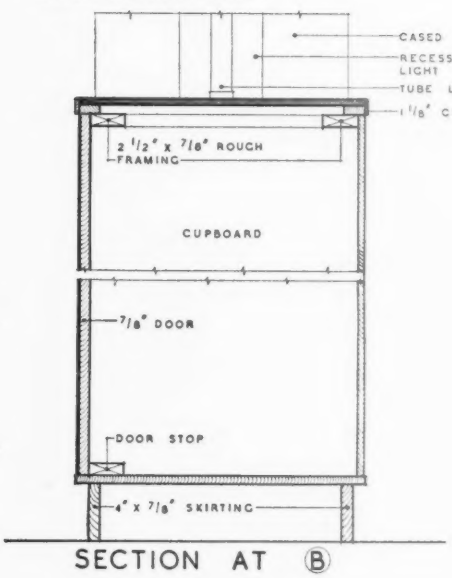


AXONOMETRIC

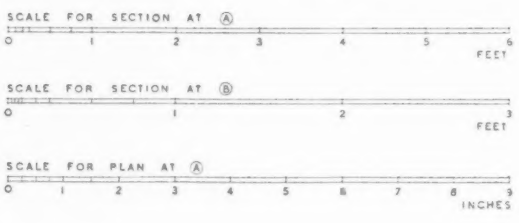


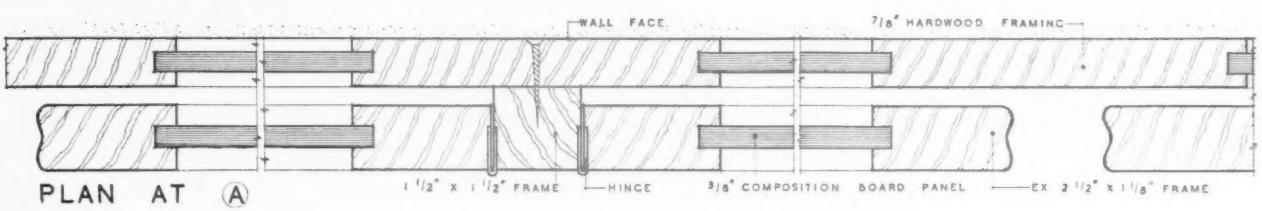
SECTION AT (A)

KEY PLAN OF BOARD ROOM



SECTION AT (B)



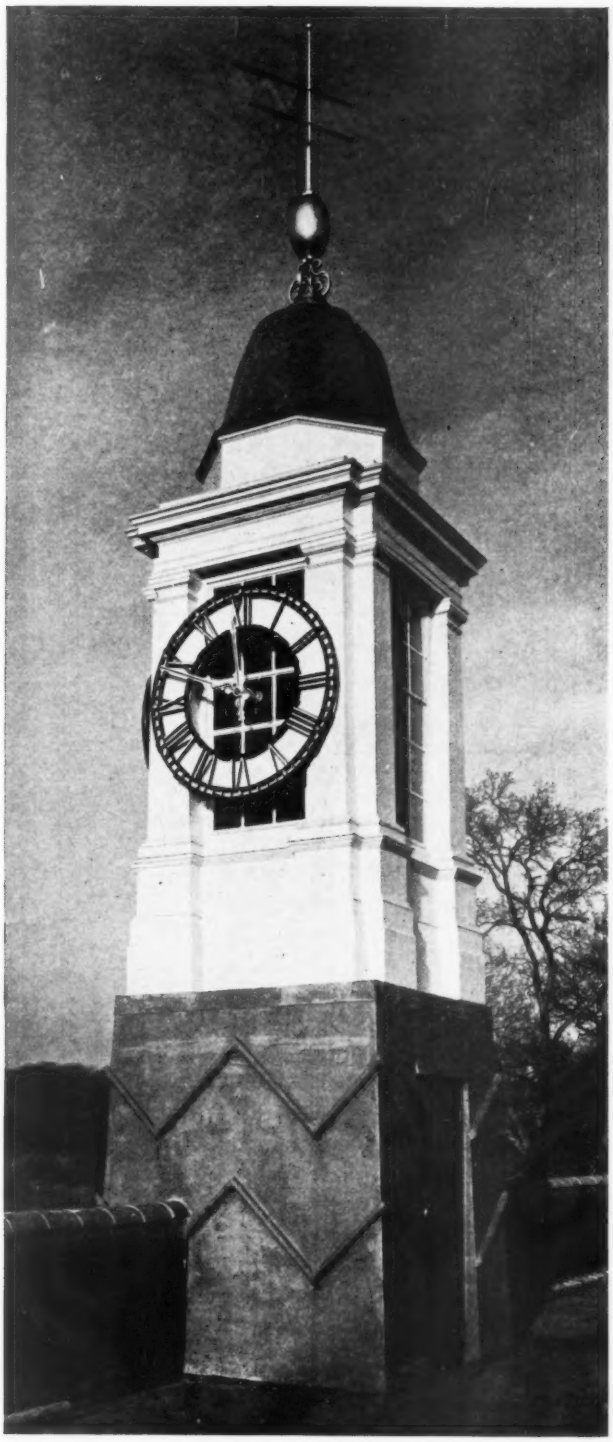


PLAN AT (A)

Axonometric and details of the exhibition space in the boardroom illustrated on the previous page.

WORKING DETAILS : 545

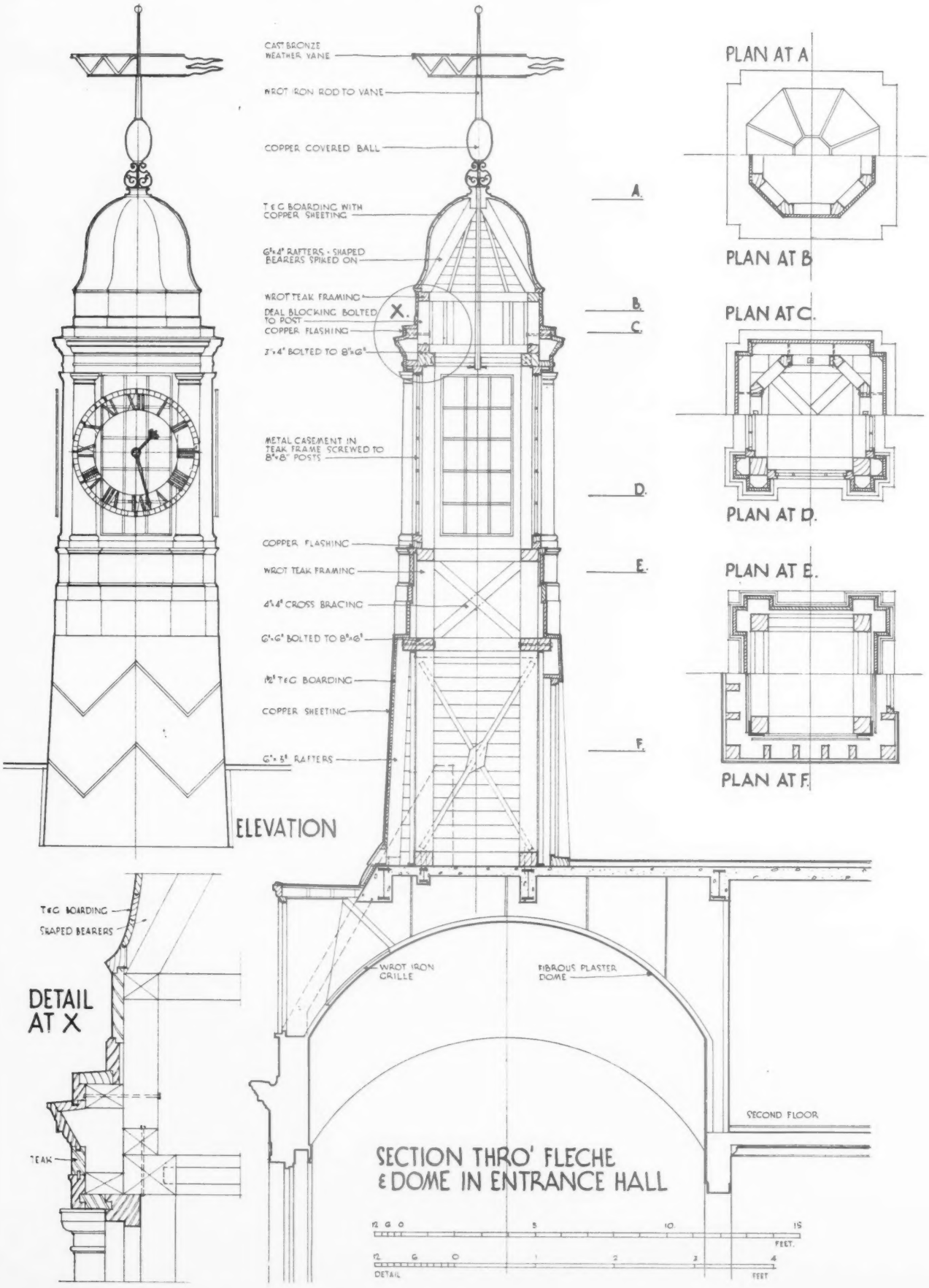
FLÈCHE • WELWYN TOWN HALL • ELSOM AND STONE



The flèche is constructed in teak framing with tongued and grooved boarding, covered with copper sheeting. The weather vane is in cast bronze. For details see overleaf.

WORKING DETAILS : 546

FLÈCHE • WELWYN TOWN HALL • ELSOM AND STONE



Details of the flèche illustrated on the previous page.

The Architects' Journal Library of Planned Information

INFORMATION SHEET

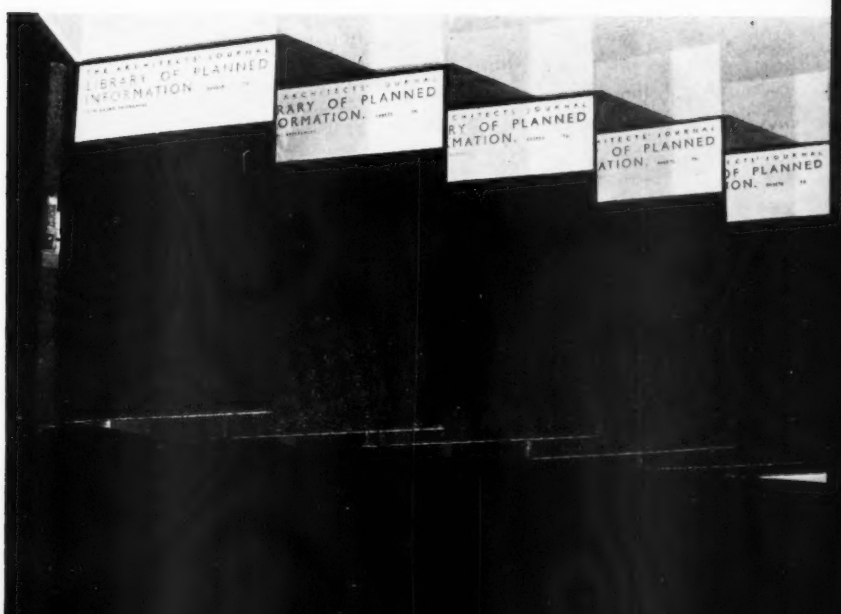
SUPPLEMENT

SHEETS IN THIS ISSUE

514 Air Conditioning

515 Insulation of Buildings

516 Cycle Parks



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402 : Waterproofing
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404 : Roofing
405 : Joinery
406 : Asbestos-aluminium Foil—II
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414 : Electric Switchgear
415 : Electric Switchgear
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418 : Plumbing in Welded Copper Pipe
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440 : Roofing
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509 : The Equipment of Buildings
510 : Aluminium
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512 : School Lighting
513 : Approximate Estimating—XIV

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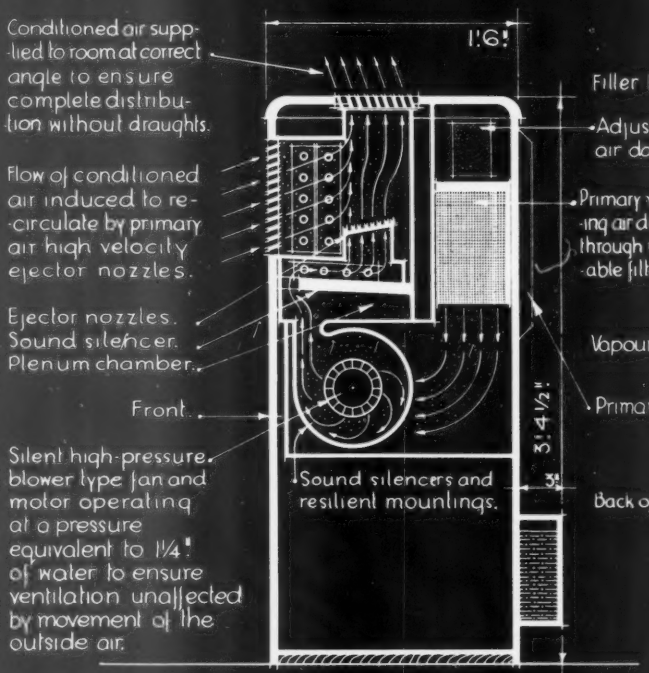
617. # THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

ARRANGEMENT OF THE CARRIER PORTABLE ELECTRIC AIR-CONDITIONING UNITS:

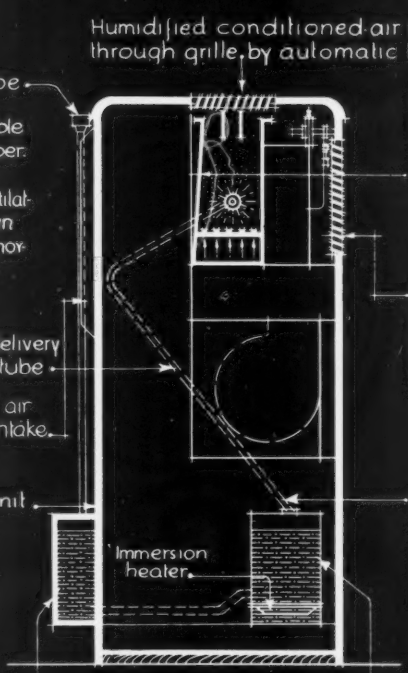
Model 50 D illustrated is air-cooled & requires no water or drain connection. Water-cooled models are available.

TYPICAL DIAGRAMMATIC CROSS-SECTION SHOWING PATH OF AIR TRAVEL. Scale. 1 Inch equals 1 Foot:



Matched walnut grain cabinet lined throughout with sound absorptive material.

TYPICAL DIAGRAMMATIC CROSS-SECTION SHOWING HUMIDIFYING EQUIPMENT. Scale: 1 Inch equals 1 Ft:



Main supply and humidifier tanks, with hygrostatically controlled electric immersion heater.

COOLING AND DE-HUMIDIFYING EQUIPMENT (For summer conditioning)

For a description of the equipment for this purpose see the back of this sheet.

DIAGRAMMATIC SECTIONAL PLAN OF UNIT SHOWING ARRANGEMENT OF HEATING EQUIPMENT. (Winter conditioning).

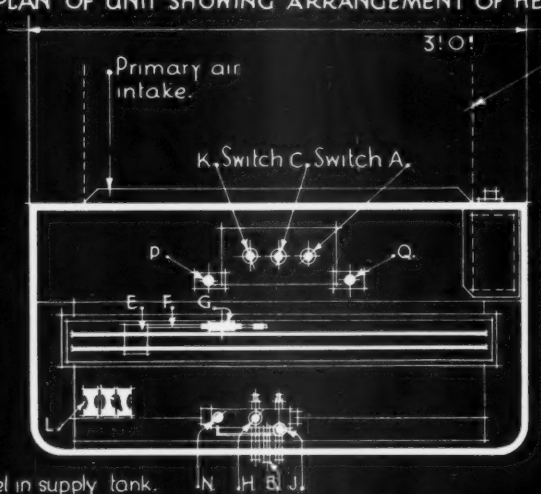
CONTROL SWITCHES:

SWITCH A operates the ventilating high pressure fan, which draws the outside air through the unit, conditioning it and discharging it through the high velocity nozzles.

This immediately raises the pressure-operated flapper E, which brings into action the weighted rod F, and this causes the mercury switch G to complete the necessary electric circuit to operate the heating (Switch B) and cooling (Switch C.)

K & L Thermal overload circuit cut-outs.

Q & P. Signal lamps indicating water-level in supply tank.



A sealed metal duct, 28" x 8" and adjustable to height is connected to the back of the unit & led to the exterior for the primary ventilating air-supply.

H: Thermostat temperature control. (Selective).

J: Neon indicator alight when heating elements are in operation.

N: Hygrostat automatically controlling the desired relative humidity selected within the conditioned space.

Information from Carrier Weathermakers Ltd.

INFORMATION SHEET: SELF-CONTAINED AIR CONDITIONING UNITS.

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

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 514 •

AIR CONDITIONING

Product : Self-Contained, Electric Year Round Air Conditioning Units

General :

Carrier Weathermaker unit air conditioning equipment is manufactured in portable self-contained unit form for installation in any given enclosed space without structural alterations. Provision is made at the back of each model for connection to a duct for the supply of the primary ventilating air, and the emission of condenser air in air-cooled models, and this may be either through an existing window behind the unit, or through an external wall at any convenient position. The length and dimensions of the ducting required depends upon the distance from the outside air to the proposed location of the unit. Longer ducting of bigger dimensions is required when the units are intended for use in basements. On the other hand, wooden airtight window-box types of ducting may be used where convenient. This unit air conditioner can be built in to suit desired architectural arrangements, and may be supplied with a prime coat for finishing in any style of decoration.

Models :

In addition to the air-cooled portable model shown overleaf, unit air conditioners are also available in water-cooled types normally requiring only a 4-in. by 4-in. primary air duct, adjustable to height, but, here again, longer ducting of bigger dimensions may be used when it is necessary for the unit to be placed at some distance from the air intake. Air-cooled models require no water or drain connection, but the water-cooled types, with cooling capacities of approximately 10 per cent. more, require connections for ½-in. copper piping to be made for both the water and the condensate drain. Otherwise, the specification for both types of unit is the same. Neither type requires special electric wiring, and either may be plugged into an existing A.C. or D.C. 15 ampere power point of any normal voltage.

Functions :

The functions of the unit are :—

(a) To cleanse the air of impurities by removing odours, smoke, pollen, air-borne germs and dust.

(b) To provide cool, clean air in summer, and remove excess humidity.

(c) To provide warm, clean air in winter, and add humidity to the air.

(d) To provide ample positive ventilation irrespective of outside air conditions, in order to maintain the oxygen content and dilute odours and smoke when windows remain closed.

(e) To eliminate street noises by permitting windows to be permanently closed.

(f) To distribute the conditioned air evenly throughout the space by a mild air circulation without draughts.

(g) To create by the Carrier Ejector System, inducement of the conditioned air back to the primary air stream for re-conditioning and re-circulation.

Operation :

The diagrammatic sections overleaf show the general arrangement of the equipment contained within the cabinet and necessary to perform the various functions of air conditioning. It should be noted that the quantity of room air or outside air delivered to the space is controllable, while the degree of humidification required, and also the heating of the air for winter conditioning, are individually controllable by a series of thermostats and hygrostats provided with circuit cut-outs.

Disposal of excess moisture removed from the air during the cooling period. (Summer Conditioning):

The Economiser or sub-cooling coil cools the moisture extracted from the air, and by means of the slinger which rotates with the compressor motor shaft, this condensate is slung against the evaporator (not shown in diagrams), thus evaporating the liquid extracted from the air and passing it to the outside without the necessity for a drain.

This sub-cooling coil increases the efficiency of the unit. The economiser is in the base of the unit, and through it the liquid refrigerant from the main cooling equipment (not shown in diagram) flows. A multiblade fan is used for discharging the evaporated water back into the outside air.

Path of air travel silenced :

The primary air stream for ventilation is drawn through the unit by means of an electrically operated high-pressure blower type fan with its own motor. This air is discharged into a plenum chamber as indicated, from whence it passes through notched slots of a specially designed silencer where, for all practical purposes, the air-borne fan noise is absorbed. The ejector nozzles of the air ejector system have been developed to obtain the maximum induction effect with the minimum noise generation, and the complete unit is lined, in addition, with sound absorptive material.

Silencing :

Both supply and discharge of the fan are provided with sound silencers, and both the fan and its motor are supported on resilient mountings. Noise from the operation of the cooling and dehumidifying equipment is eliminated by having both the compressor and its motor mounted on spring supports. In this connection, also, flexible loops are provided in all refrigerant lines connected to the compressor. In full operation the unit makes less noise than an ordinary electric desk fan.

Finish :

The units are finished in matched and panelled walnut grain veneer, with darker inlaid and rounded corners.

Models 50D (air-cooled) and 50DW (water-cooled) are 3 ft. 4½ ins. in height and 3 ft. in width, by 1 ft. 6 ins. in depth.

Capacity :

The air-cooled Model 50D illustrated, has a cooling capacity of 8,030 B.T.U.'s per hour, and the water-cooled Model 50DW a capacity of 8,850 B.T.U.'s per hour.

The heating capacity of both models is 1¾ kilowatts (diffused), with thermostatic temperature control.

Quotations will include installation except under abnormal conditions, in which cases a nominal extra charge will be quoted according to the additional work and material involved.

Manufacturers : Carrier Weathermakers, Ltd.
Address : 27 Conduit Street, London, W.1
Telephone : Mayfair 4420

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42. THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

CONSTRUCTION AND FINISH. Scale: One inch to one foot.	Thermal transmission. B. T. U's.	Heat loss per hour per 1000 sq. ft. for 30°F. temp. diff.. B. T. U's.	Hot water radiation surface required. SQUARE FEET.	Cost of heating plant at 5/- per sq. ft. of radiation surface. £. s. d.
4½" brickwork. — Fairface.	0·59.	17,700.	111.	27 : 15 : 0.
4½" brickwork. — ¾" plaster.	0·53.	15,900.	100.	25 : 0 : 0.
4½" brickwork. — ⅝" tentest fixed by adhesive to cement render.	0·30.	9,000.	56.	14 : 0 : 0.
4½" brickwork. — ⅝" tentest on battens.	0·23.	6,900.	43.	10 : 15 : 0.
9" brickwork. — Fairface.	0·39.	11,700.	73.	18 : 5 : 0.
9" brickwork. — ¾" plaster.	0·36.	10,800.	68.	17 : 0 : 0.
9" brickwork. — ⅝" tentest fixed by adhesive to cement render.	0·24.	7,200.	45.	11 : 5 : 0.
9" brickwork. — ⅝" tentest on battens.	0·20.	6,000.	38.	9 : 10 : 0.
11" brickwork. cavity wall. — Fairface.	0·29.	8,700.	55.	13 : 15 : 0.
11" brickwork. cavity wall. — ¾" plaster.	0·27.	8,100.	51.	12 : 15 : 0.
11" brickwork. cavity wall. — ⅝" tentest fixed by adhesive to cement render.	0·20.	6,000.	38.	9 : 10 : 0.
11" brickwork. cavity wall. — ⅝" tentest on battens.	0·17.	5,100.	32.	8 : 0 : 0.
5" concrete. — As struck.	0·83.	24,900.	156.	39 : 0 : 0.
5" concrete. — ⅝" tentest. (Permanent shuttering).	0·35.	10,500.	66.	16 : 10 : 0.
Corr. iron, studs or steel frame. — As framed.	1·50.	45,000.	281.	70 : 5 : 0.
Corr. iron, studs or steel frame. — ⅝" tentest lining.	0·31.	9,300.	58.	14 : 10 : 0.
1" Weatherbds. assumed airtight. — ⅜" plasterboard.	0·33.	9,900.	62.	15 : 10 : 0.
1" Weatherbds. assumed airtight. — ⅝" tentest.	0·23.	6,900.	43.	10 : 15 : 0.
½" As. cmt. on studs. — As framed.	1·16.	34,800.	218.	54 : 10 : 0.
½" As. cmt. on studs. — ⅝" tentest lining.	0·29.	8,700.	55.	13 : 15 : 0.
⅝" tentest & ½" cem. render. — As framed.	0·40.	12,000.	75.	18 : 15 : 0.
⅝" tentest & ½" cem. render. — ⅝" tentest lining.	0·20.	6,000.	38.	9 : 10 : 0.

Issued by the Tentest Fibre Board Co., Ltd.. Figures by Oscar Faber, D.Sc., M.I.H.V.E..

INFORMATION SHEET : HEATING COSTS : ANALYSIS OF WALL CONSTRUCTION AND FINISHES

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

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET
• 515 •
INSULATION OF BUILDINGS

Subject : Thermal Transmission through Walls in relation to Heating Plant Costs.

General:

On this Sheet are set out various types of external wall and the effect upon the heating costs when different finishes are applied. The thermal conductivity of each component part of the wall determines the total heat loss, and for the purpose of computing the cost of the heating plant necessary to maintain the desired internal temperature, a conservative figure of 5s. per square foot of radiation surface has been taken.

The walls are listed with and without insulation, and this is substituted for other materials in most cases.

Thermal Transmission :

The figures given in the examples are based on official and independent tests under normal conditions (see table). They include surface resistances, and show the number of British Thermal Units which pass through one square foot of wall in one hour, for 1°F. difference between the inside and outside air temperatures.

In actual practice allowances should be made for the height of rooms, unusual exposure and aspect.

TABLE OF CHIEF THERMAL COEFFICIENTS AND RESISTANCES USED

	C or k	R
Air space	1·10	0·91
Inner Surface	1·65	0·61
Outer Surface	6·00	0·17
¼" Asbestos Cement ...	2·70	0·093*
4½" Brickwork	5·00	0·90*
Cement Rendering	8·00	—
5" Concrete	12·00	0·417*
¾" Plaster (average) ...	3·75	0·20*
⅜" Plasterboard	1·10	0·345*
½" Tentest	0·38	1·645*
1" Timber	1·00	1·00*

C or k = conductivity in B.T.U.'s per hour, per sq. ft., per degree Fahr., per 1 inch thickness.

R = resistance = $\frac{1}{C}$ or $\frac{1}{k}$

* = resistance for thickness stated.

Heat Loss :

The heat loss of B.T.U.'s per hour for 1,000 square feet of the walling has been used in the calculations, with an assumed temperature difference of 30° F. Hence the total heat loss quoted represents the thermal transmission figure multiplied by 30,000.

Radiation Surface :

The heat output per square foot of surface of hot water pipes and radiators has been assumed as 160 B.T.U.'s per hour, so that the total heat loss in B.T.U.'s divided by 160 gives the radiation surface required for 1,000 square feet of the walling for 30° F. temperature difference.

Information from : The Tentest Fibre Board Co. Ltd.
Address : Astor House, Aldwych, W.C.2
Telephone : Holborn 8018

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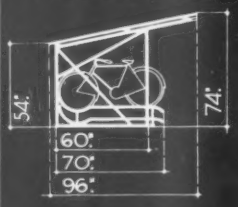
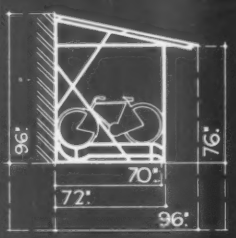
THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION.

PATENT STEEL CYCLE PARKS FOR OUTDOOR USE.

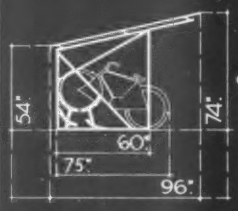
0 1 2 3 4 5 6 7 8 9 10 11 12
Scale of Sections in feet.



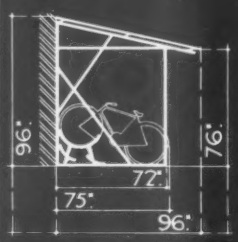
MODEL CPH/B.
Horizontal cycle park fitted with roof which inclines to the back.



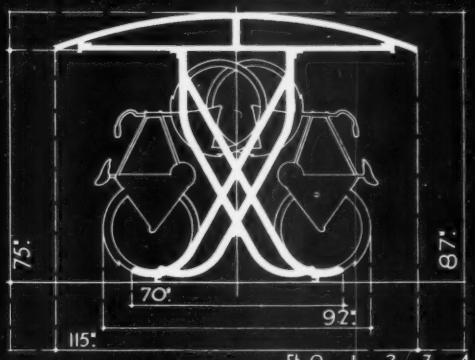
MODEL CPH/F.
Horizontal cycle park fitted with roof which inclines to the front.



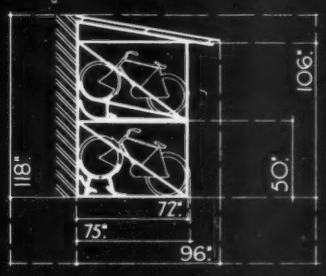
MODEL CPR/B.
Cycle park with raised front wheel support & roof which inclines to the back.



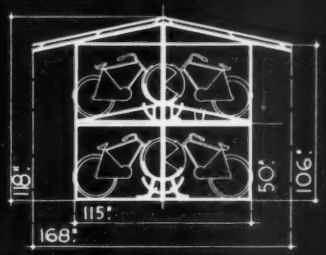
MODEL CPR/F.
Cycle park with raised front wheel support and roof which inclines to the front.



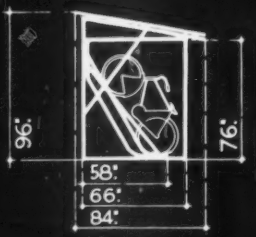
MODEL DCPS/A. Scale: Ft. 0 1 2 3 4
Double sided cycle park with arched roof, cycles parked sloping using minimum floor area.



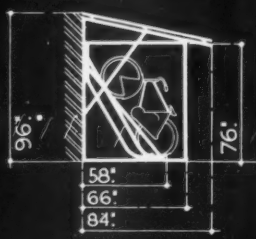
MODEL TCP/F.
Two-tier single-sided cycle park with roof which inclines towards the front.



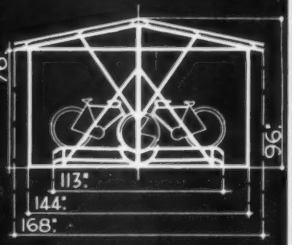
MODEL TDCP/F.
Two-tier double-sided cycle park with roof which inclines to each side.



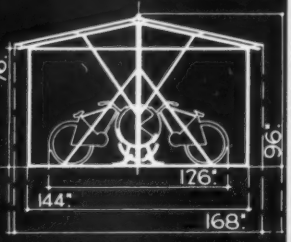
MODEL CPS/F.
Single sided, sloping cycle park fitted with roof which inclines to the front.



MODEL CPS/FF.
Single sided sloping cycle park fitted with roof which inclines from a flush back.

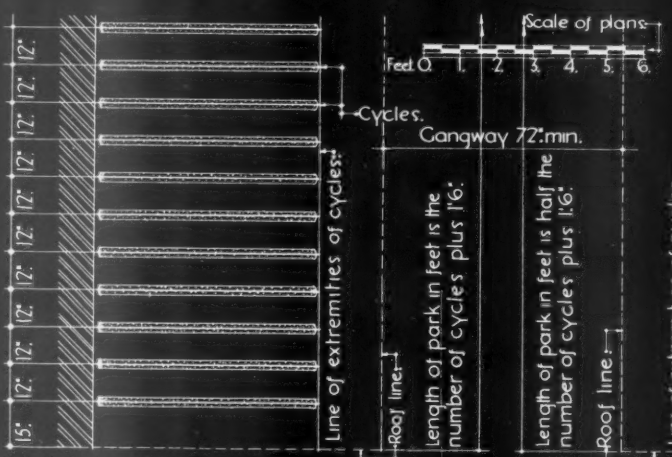


MODEL DCPH/F.
Horizontal double sided cycle park with roof which inclines to each side.

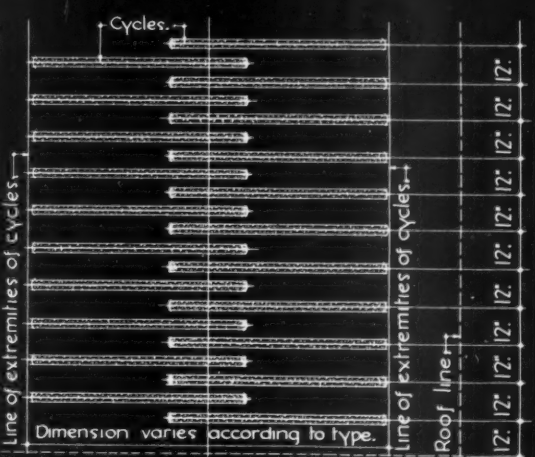


MODEL DCPR/F.
Double-sided cycle park with roof which inclines to each side.

SECTIONS OF SINGLE & DOUBLE SIDED CYCLE PARKS, ONE OR TWO TIERS, WITH ROOFS.



PLAN OF SINGLE SIDED CYCLE PARK.



PLAN OF DOUBLE SIDED CYCLE PARK.

Information from Constructors Ltd.

INFORMATION SHEET: PATENT STEEL CYCLE PARKS FOR EXTERIOR USE: No. 1.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Oscar A. Bayne.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 516 •

CYCLE PARKS

Subject : Patent Steel Cycle Parks for Outside Use

General :

This sheet, the first of a series of four, deals with Constructors' Patent Steel Cycle Parks for outdoor use. The types of park vary, and the wide range available, comprising single and double sided, horizontal or sloping, one or two tier, caters for every requirement.

Construction :

The channels in which the cycles are parked are constructed from 13 gauge ($\frac{3}{32}$-in. thick) mild steel. In the horizontal models both ends of the channel are supported on gussets arc-welded to the sleepers. Roofs are of galvanized corrugated sheets, supported on angle purlins. Arc-welded roof trusses, adequately braced, are spaced at approximately 10-ft. centres.

Erection :

The parks are despatched knocked down, necessary members being marked to facilitate erection. This, together with the instructions and drawings supplied, makes erection by the customer a simple matter. The manufacturers will erect if required.

Foundations (Method of Anchorage) :

For concrete or other solid sites, the parks are secured by means of coach screws and "Rawlplugs." Where the site is composed of gravel or any other loose material the parks are secured by anchor plates on long bolts buried to a depth of 12 ins. It is essential that details of foundation should be given when ordering so that suitable fixings can be supplied.

Spacing :

Full details for the spacing of parks, minimum gangways, etc., are shown in the plans and sections on the front of the sheet.

Selection of Type

Where ample space is available, models CPH/B, CPH/F, CPR/B, CPR/F, DCPH/F and DCPR/F are recommended, these models being noted for excreme ease of parking and therefore particularly suited for the use of females and juveniles.

The most popular model is the DCPS/A, and this, with models CPS/F and CPS/FF, is particularly economical with regard to ground space, owing to the cycles being parked in a sloping position.

Models TCP/F and TDCP/F provide the maximum possible accommodation. These are suitable for either men or youths.

All models are constructed on the initial and extension unit principle, enabling parks to be enlarged from standard components whenever required.

Parking Principle :

Cycles are supported in the specially designed channels only through the medium of the tyres, thereby eliminating all possibility of damage to the cycle. The entrance end is splayed to allow easy ingress of the wheel.

Models DCPS/A, CPH/B, CPH/F, DCPH/F, CPS/F and CPS/FF all have channels supporting both wheels of the cycle.

With models CPR/B, CPR/F and DCPR/F the cycle is supported by the front wheel only. The channel is in two sections, the front one being pivoted, the cycle only requires to be wheeled into this pivoted shoe to automatically park without lifting.

Finish :

All steelwork is thoroughly degreased prior to stoving one coat rust preventative, and one coat grey enamel.

Prices :

Outdoor Models

Model	Price per cycle s.	d.
DCPS/A	15	6
CPH/B	20	0
CPH/F	20	0
CPR/B	22	6
CPR/F	22	6
TCP/F	22	6
CPS/F	19	3
CPS/FF	19	0
DCPH/F	20	0
DCPR/F	22	6
TDCP/F	22	6

Extras :

Special roof coverings of Asbestos, Robertson's Protected Metal, Cellactite, etc., will be quoted on request. Gutters and rainwater pipes, ivorine number plates, security chains and padlocks will also be quoted on request.

Issued by : Constructors Limited

Registered Office and Works: Nickel Works, Tyburn Road, Erdington, Birmingham

Telephone : Erdington 1616 (5 lines)

London Office and Showrooms : 7 Sunbeam Road, Park Royal, Acton, W.

Telephone : Museum 7873/4

Manchester Office : 122 Corn Exchange Buildings, Manchester, 4

Telephone : Blackfriars 2765

Glasgow Office : 58 Bath Street, Glasgow

Telephone : Douglas 5885

IN THAT CONTINGENCY

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

Failure of High Alumina Cement Concrete

¶ *A CONTRACTOR submitted samples of high alumina cement concrete cut from large slabs which had been laid in a "rushed" job. Blocks 10 ft. by 4 ft. by 6 ft. and 23 ft. by 2 ft. by 3 ft. were cast in one day, and after about a month cracks were observed, and later the concrete began to disintegrate. The mix used was a 1 : 1½ : 3 with 4 gallons of water per cwt. of cement. Precautions were taken to prevent any admixture of normal Portland cement with the high alumina cement.*

The information supplied and an examination of the samples suggest three possible causes contributory to the failure :—

(*a*) The proportion of water used is low for high alumina cement, for which a greater amount of water is required for satisfactory hardening than with Portland cement. The manufacturers state that the proportion used should not be less than 4½ gallons per cwt.

(*b*) Mass concrete made with high alumina cement should not be poured in lifts exceeding about 1 ft. in any one day, and should be kept covered with wet sacks for at least 24 hours after placing. The necessity for this arises from the high heat evolution from high alumina cement in setting and the resulting high temperatures inside the concrete if poured in large masses at once. The strength development of high alumina cement at elevated temperatures is relatively low. In the present instance the dimensions of the blocks cast are considerable and the temperatures developed in the interior of the blocks would be high. This alone would be sufficient to cause the observed weakness of the concrete.

(*c*) From superficial appearance the aggregate grading appears far from ideal. There is apparently a large gap between the coarse aggregate and sand sizes.

In connection with the effect of temperature on the hardening of cements, a subject dealt with in Building Research Technical Paper No. 14, the difference in the behaviour of high alumina cement and Portland cements should be noted. The latter are not affected by high temperatures likely to be developed in mass concrete, and although precautions are necessary when very large masses are to be poured, e.g. dams, no ill effects are likely to be experienced in normal building practice. In the case of high alumina cement, however, as indicated earlier, every precaution should be taken to keep the concrete as cool as possible, particularly during hot weather, for the evolution of heat during setting is so considerable and rapid that without such precautions it cannot be dissipated sufficiently to prevent undue rise in the temperature of the concrete.

Failure of Paint

¶ *IT was reported that trouble had been experienced with paint applied to Keene's cement plaster over a Portland cement undercoat. Part of the work had been done by spraying and part by hand; it was only the sprayed work, on which the paint had blistered, that proved unsatisfactory. Efflorescence was stated to have appeared on the face of the primer which was applied following the trowel.*

An examination of the efflorescence showed that it consisted mainly of sodium sulphate, a substance commonly present in small proportions in bricks and cement, and it would seem that this salt was deposited at the internal surfaces in greater amounts than is usual, possibly owing to the humid weather, which prevented external drying, and the favourable internal drying conditions.

The efflorescence probably began to form on the surface of the primer in the interval between priming and painting. The fact that the subsequent defects were chiefly confined to the areas which had been spray-painted is interesting. A possible explanation is that in the case of the brush-painted areas the deposit of salts may have been removed, either deliberately by rubbing-down the primed surface before painting, or by the action of brushing on the paint, while the paint applied by spraying may simply have lain on top of the salts and so failed to secure proper adhesion.

In redecorating, the efflorescence should be removed as completely as possible. Much could be done by scraping, but it is probable that some will remain. Scraping should therefore be followed by lightly rubbing down the walls with a damp sponge, which should remove most of the salts remaining on the surface. If, on drying, further efflorescence is produced on the surface, the treatment should be repeated, if necessary with further scraping.

Sands for Plastering

¶ *INFORMATION was desired upon the effect of the various kinds of sands, commonly used for plastering, upon the strength and general behaviour of the cementing materials in common use.*

Practically three-quarters of the bulk of plastering consists of sand. Little attention is, however, paid to the quality of the sand used and its effect on the various cementing materials used in plastering, and it is not generally appreciated that the sand may be the cause of troubles encountered in plastering, though many of the plaster failures referred to the Building Research Station can in fact be attributed to the use of faulty sand.

The sands commonly used in this country are either river or sea sand, pit sand, or artificial sand, i.e. crushed rock or stone, but the actual origin is not of importance provided other properties are good.

The constituents of sand may for the present purposes be classified as follows :—

1. Sand proper (i.e. particles coarser than No. 200 sieve).

2. Fines (below No. 200 sieve), consisting of—

(*a*) Material which is of the same chemical composition as sand but in a more finely divided state; for convenience this material may be called *silt*.

(*b*) Material finer than silt and of a different chemical composition; conveniently referred to as *clay*.

3. Salts. Sea-salt, salts derived from the soil, etc.

4. Organic impurities :—
(*a*) Humus.
(*b*) Coal.

Considering these constituents separately, the important properties of the sand proper are :—

(1) Grading.
(2) Particle size or fineness.

(1) GRADING.—If a sand is composed of grains of various sizes, the total space in the bulk to be filled by the cementing material is less than that in a sand consisting of particles of the same size. Sands of uniform particle size, i.e. badly-graded sands, will therefore require more cementing material than well-graded sands in which all sizes from fine to coarse are represented, and consequently, if normal proportions are used, there is a danger of over-sanding and resulting weakness. The ideal grading in sands for undercoat plastering appears to be one approaching a uniform distribution over the whole range of sizes (including silt).

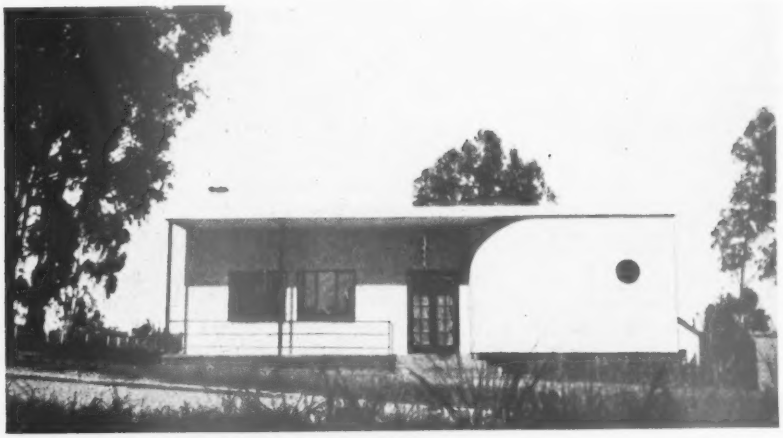
(2) FINENESS.—Much trouble is caused by the use of very fine sands, and many troubles with plastering and mortar work are attributable to fine sands. A very fine sand has a much larger surface area for a given volume than a coarser sand. This extra area requires not only more cementing material to cover it, again leading to over-sanding, but more water is necessary to obtain the usual consistence. With any type of cementing material a weak friable material is obtained.

With the calcium sulphate plasters, the set may be slowed down or quickened, according to the type of plaster. A rough guide is that, if there is a noticeable absence of particles of the size of a pinhead or larger, the sand should be examined further.

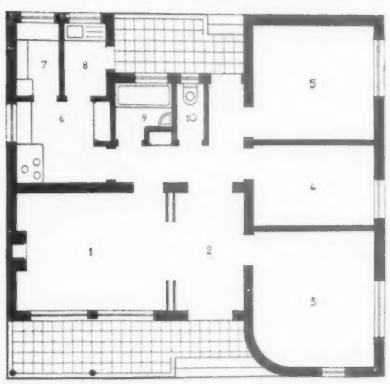
Silt.—An adequate proportion of silt is often beneficial in improving the working properties of the mix by improving the grading. A sand free from silt, e.g. a washed sand, is often harsh working. Of course, abnormal quantities should not be present, but the amount should conform with the general grading of the sand.

Clay.—Although clay improves the working properties of the plastering mix, it generally weakens the strength of the resulting plaster if present in quantities greater than 5 per cent. of the volume of sand. If present as a

BUNGALOW AT JOHANNESBURG



DESIGNED BY E. FERRARA



1. Living Room.
2. Dining.
3, 4, 5. Bedrooms.
6. Kitchen.
7. Larder.
8. Scullery.
9. Bath.
10. W.C.

The bungalow is of white cement-rendered brickwork with concrete steps and plinth. Roof is an R.C. flat with finish of bitumen sheeting. Windows are standard steel.

coating around the grains, it prevents the cementing material adhering to the sand. When present in this form, it cannot be removed by ordinary washing, and the harmful effects are most important when Portland cement or limes are used. Clay is also harmful when distributed throughout the sand, but when present in lumps its effects are less serious. It has ill effects on the setting of gypsum mixes, and in Portland cement or lime mixes it increases the shrinkage on drying.

Salts.—Sea-salt is the salt most often found in sand. It does not influence the set or hardening of any of the common cementing materials, but is undesirable as it causes dampness and in contact with metalwork may result in serious corrosion.

Chalk, limestones, shells, etc., are harmful only to certain of gypsum plasters (accelerated anhydrous plasters), but those affected are rarely used in sanded mixes, and the problem is not of great practical importance.

Sulphates are rarely present in sands in sufficient quantities to be harmful. They would accelerate the set of gypsum mixes and would harm Portland cement mixes.

Efflorescence on Brickwork

¶ *AN architect asked for information regarding methods of preventing or minimising the appearance of white deposits seen on brickwork.*

The formation of a white deposit (commonly called efflorescence) on brickwork facings is due to the presence, in the materials used, of certain substances which are soluble in water. The substances or salts are present in varying proportions in all bricks and mortar. They are dissolved by the water used during building, but as the brickwork dries this water passes to the surface, carrying with it the salts in solution. Then, as the water evaporates, the salts are left on the surface in the form of a white deposit.

Once brickwork has been built using bricks containing salts, there is no method of preventing the appearance of the deposit, and it should therefore be the aim to select bricks which are as free from salts as possible. Under present conditions there can be no assurance that any brick will be absolutely free from salts, though some contain remarkably low proportions, and a well-fired brick should not give rise to serious trouble of this kind. It is advisable, therefore, either to use a brick which, from previous experience, is known not to produce efflorescence; or, failing this, the brick should be tested for salts.

In general, a slight efflorescence is of no concern; it will disappear within about 12 months without damage to the work, and with some types of bricks must be considered inevitable.

The choice of mortar has also an important bearing on the liability to formation of efflorescence, and a note on "Mortars for Brickwork" previously published in this Series should for that reason be of interest.

The liability to efflorescence is accentuated if, during construction or as a result of features in design, excessive moisture passes into the bricks. Serious efflorescence arising from this cause is often seen on buildings erected during wet weather, when the bricks have been saturated when laid and completed work has not been protected.

Summarising, therefore, the main requirements to minimize the formation of efflorescence are:—

(1) to use bricks as free from salts as possible. Tests may be necessary;

(2) to prevent excessive moisture reaching the bricks or brickwork during construction.

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Announcement

Mr. C. Edmund Wilford, A.R.I.B.A., Chartered Architect, of 10–12 Market Street, Leicester, has opened an additional office in London at Eagle House, Jermyn Street, S.W.1. Telephone: Whitehall 8065.

An Architect's Will

Mr. Austin Durst, F.R.I.B.A., of The Grange, Wendover, Bucks, left £21,985 (net personalty, £19,648).

West Yorkshire Society of Architects

At the annual meeting of the West Yorkshire Society of Architects, held recently in Leeds, Mr. N. R. Paxton, secretary, stated that at the end of the session there was a membership of 564, an increase of 33 on the previous year. Mr. G. W. Atkinson, of Leeds, was elected president for the ensuing year.

The Heysham "Hogback." From "The Arts in Early England."

LITERATURE

SAXON ART

[*BY G. E. CHARLEWOOD*]

The Arts in Early England. By G. Baldwin Brown, M.A., LL.D., F.B.A. Vol. VI. Part 2. Anglo-Saxon Sculpture. John Murray, 30s.

THIS book is an addition to one of the most exhaustive works of its kind ever published.

It is a fortunate circumstance from the standpoint of scholarship that the author did not die until material, sufficient to enable his editor subsequently to complete the work, had been collected and prepared by him.

Mr. E. H. L. Sexton, who has carried out the editing and correcting of this last volume, justly says, in reference to the late Professor Baldwin Brown, "The books themselves are his memorial and testify to his deep sensibility of the early art of England and the place it occupied in the life of the people."

The famous crosses at Ruthwell and Bewcastle were discussed and illustrated in Vol. V. This book, the second part of Vol. VI, is devoted to other interesting crosses and carved monuments scattered about the country-side. These are described in the minutest detail; and any available evidence as to date or origin is meticulously considered.

The author refers to the statement that, in the South, crosses were commonly used to mark preaching stations before churches were built, but a map which is reproduced (Fig. 13) shews that many more Anglo-Saxon monuments now remain in the North of England than in the South, and this volume is to some extent a study of these districts, containing the best specimens of Anglo-Saxon Art.

At Reculver early fragments in the form of stone drums are carved with such skill that in the detail of drapery and the drawing of extremities, the artist is said to have surpassed his Northumbrian rivals; and the nearness of Reculver to the classical fountain-head on the continent is advanced as the reason for this.

The chapter on revetment slabs, with its excellent photographs of the fine slab at Jedburgh, is followed by two equally interesting chapters describing Anglo-Saxon figure, animal and naturalistic carving. The wonderful details of the Easby cross are beautifully illustrated, and Dr. Brown refers to *Campanula* blossom, found in the neighbouring fields of North Tyne, having been reproduced in the carved decoration of the cross at Simonburn.

The Scandinavian decorative work found on the crosses in the Isle of Man is described as having representations of Norse mythology mingled with Christian representations. The fact that Viking raiders absorbed Celtic traditions in the North of Ireland and developed them in Norway, is shown to have influenced the Anglo-Saxon art to such an extent that after the capture of York in 867 Scandinavian monstrosities in the likeness of the typical Norwegian "gripping beast" appear in carvings at Haughton-le-Skerne in North Yorkshire, "with an aspect so extraordinary and so repellent that they serve as complete foils to the "pettable" Anglian beasts.

Other types of monument are discussed in the last chapter; the coped tombstones such as the Heddar Stone in Peterborough Cathedral and the bear headed hog-back type, of which the stone at Heysham Churchyard, Lancashire, is a noteworthy specimen.

This second part of Volume VI contains upwards of ninety plates, from excellent photographs taken by the author.

LONDONDERRY HOUSE

Londonderry House and its Pictures. By H. Montgomery Hyde, D.LITT. Foreword by The Most Hon. The Marquess of Londonderry. London: The Cresset Press. Price 15s. net.

THE large domestic splendours of Park Lane have gone, and have left behind them only Londonderry House,

Enlargement of part of Jedburgh Slab. From "The Arts in Early England," reviewed on the preceding page.

than which none of them has played a more brilliant part, especially in social-political life in the last hundred years or so. It has been a grandiose background to brilliance ; how long it will remain so is uncertain.

For, apart from the changing social habits of the time, which make such big houses, as Lord Londonderry puts it, in a sense anachronisms, there is the continual economic pressure on such sites as this occupies. Lord Londonderry puts it in another way when he says, "I cannot help feeling that . . . the powerful agency of evolutionary thought and opinion will probably besiege and raze to the ground in the interest of modern buildings a house for which perhaps I have sentimentally an undue affection and regard."

Lord Londonderry is understood not to be foretelling the house's immediate future when he writes so ; in the meantime the house, if it is indeed an anachronism, stands and serves as a great museum piece that has by no means been overtaken by any of the sterility that tends to afflict museum pieces in general. Dr. Hyde's book is a valuable record. It is agreeably bound and handsomely composed and printed, and it comprises a short history of the house (with a somewhat summary account of the 1825 rebuilding under Benjamin and Philip Wyatt, which made it what it is to-day), a thoroughly interesting description of the several rooms with the pictures they contain, a description of the principal portraits, a catalogue of the pictures, and some thirty-eight reproductions of photographs of the pictures and the house.

There is some mention, too, of the valuable collection of historical manuscripts. The book is specially to be sought for its description of the pictures — Romney, Stubbs, Hoppner, Lawrence, Sargent, Lavery, Philip de László and Glyn Philpot are the artists most notably represented ; all of them, it is claimed, are described here in detail for the first time. E. H. W. A.

PERIODICALS

APRIL ANTHOLOGY

AMERICA

Architectural Forum

(Monthly, $1.00. 135 East 42nd Street, New York)

APRIL. The integrated house, a very thorough consideration of the possibilities of unit planning and construction with some intelligent suggestions for pre-fabricated units. A section of fifty new houses by various architects, with good notes on construction, finishes, and equipment. Contemporary details.

Architectural Record

(Monthly, 50 cents. 115 West 40th Street, New York)

April. The new architecture in Mexico—86 pages arranged by Esther and Ernest Born. Mexico emerges as a country where modern architecture is accepted as natural, where it is practised by Mexicans trained in Mexico, with really excellent results : a most interesting and surprising survey of a subject little known in England. The "Building Types" section is devoted to schools.

Pencil Points

(Monthly, 50 cents. 330 West 42nd Street, New York)

April. Small houses by Randolph Evans, all traditional—most in quiet good taste. Sketches on a European trip by Boris Leven. Comparative details of interior balustradings.

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FRANCE

L'Architecture

(Monthly, 8 frs. 51 Rue des Ecoles, Paris 5e)

April. A block of Paris flats by R. and H. Bodecher, two traditional schools, and Roux-Spitz's Post Office building.

La Technique des Travaux

(Monthly, 10 frs. 54 rue de Clichy, Paris 9e)

April. An interesting cinema job at Marseilles—three auditoria in the same building, with ingenious entrances and exits. The new Hôtel de Ville at Montreuil—a symmetrical plan, but a peculiarly unfortunate elevation. A survey of the resistance of reinforced concrete buildings to aerial bombardment.

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GERMANY

Baukunst und Städtebau

(Monthly, 1 m. 90. Bauwelt Verlag, Berlin, S.W.68)

April. Large flat blocks and two small houses by Paul Baumgarten. Two Hamburg office blocks by Elinguis and Schramm. Two houses by Hermann Schneider, of Zürich.

Baumeister

(Monthly, 3 m. Georg Callwey, Münich)

April. A traditional youth hostel near Münich, by Karl Vessar. Work in Palestine by Theodor Wieland. Several small houses and a simple tennis and hockey club building near Cologne.

Bauwelt

(Weekly, 90 pf. Ullstein Verlag, Berlin, S.W.68)

April 1. The alteration and modernization of large country houses, by Emil Schuster.

April 8. Results of a hospital competition at Eutin. Stone building in Northern Italy.

April 15. Two country houses, one, for a painter, by Werner Harting, the other by Lyonel Wehner.

April 22. Further designs in the hospital competition referred to in April 8. The clubhouse of the German Aero Club on the Rangdorfer See near Berlin: good site, good traditional building, by Ernst Sagebiel.

April 29. A complete issue devoted to the problem of defence against aerial attack.

Deutsche Bauzeitung

(Weekly, 3 m. 40 per month. Beuthstrasse 6-8, Berlin, S.W.19)

April 7. Small house details by Helmut Hille.

April 14. The Eutin hospital competition result.

April 21. Further details by Helmut Hille, continued from April 7.

Innen Dekoration

(Monthly, 2 m. 50. Alexander Koch, Neckarstrasse 121, Stuttgart)

April. The work of Dr. Alexander Popp, a well illustrated article describing several buildings and numerous interiors. Other current interior work of varying merit.

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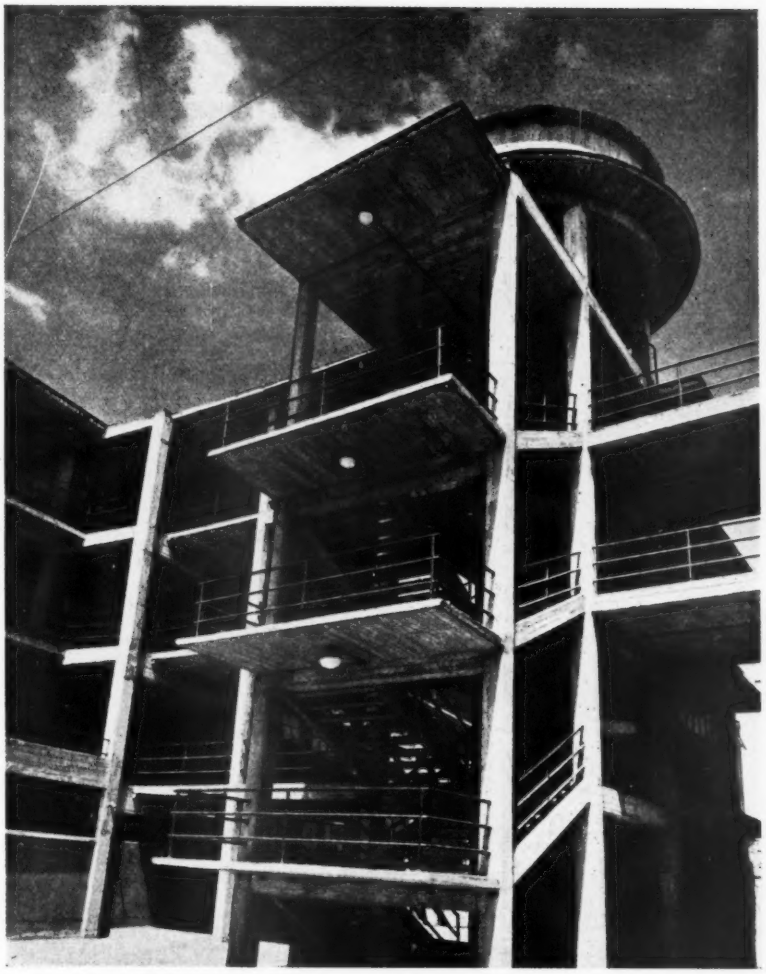
HOLLAND

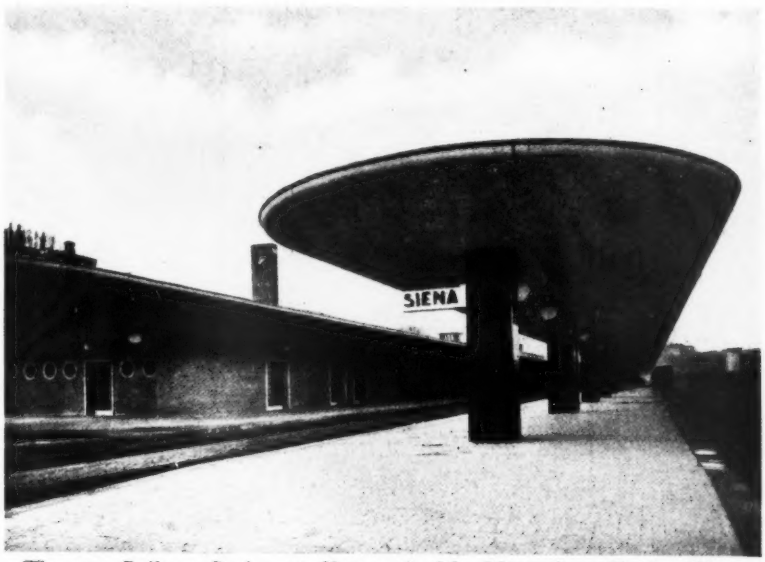
Bouwkundig Weekblad Architectura

(Weekly, 15 florins per annum. Weteringschans 102, Amsterdam)

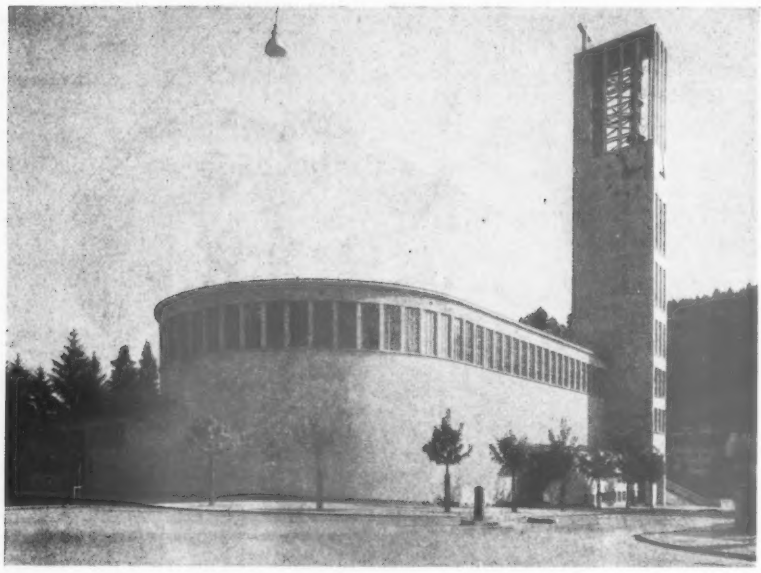
April 3. The moving of existing buildings,

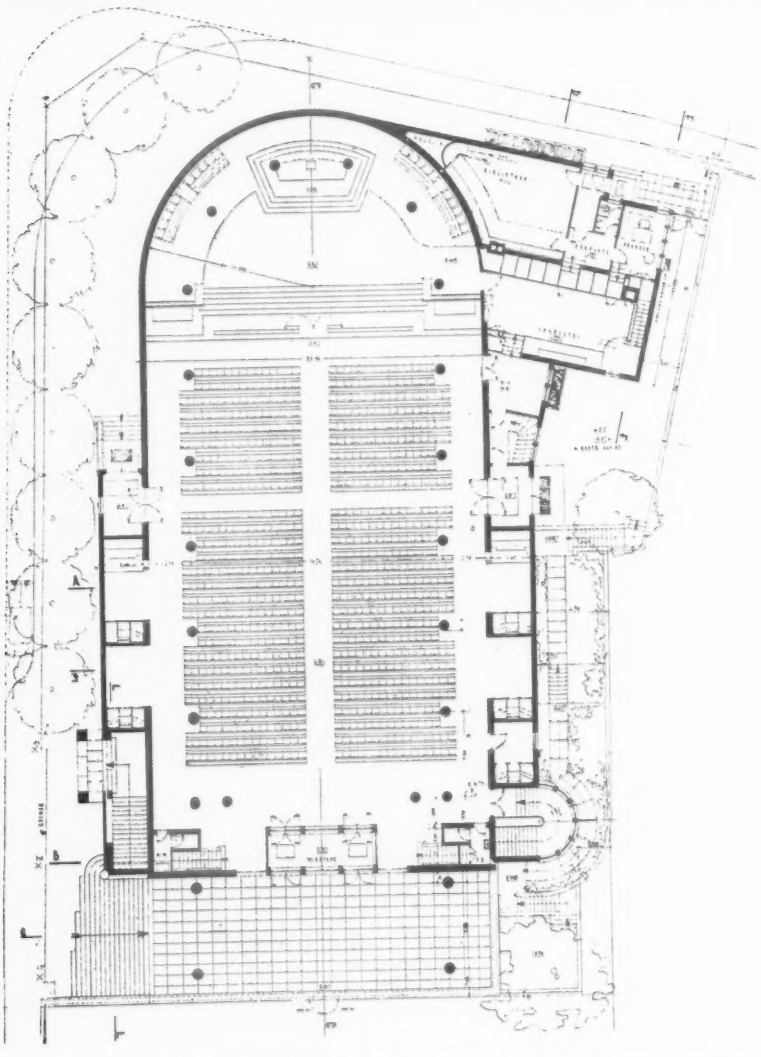


The School of Industrial Technics, Mexico City. Juan O'Gorman, architect. [*From the "Architectural Record."*]



The new Railway Station at Siena. Angiolo Mazzoni, architect. [*From "Architettura."*]





General view and plan of St. Karls-Kirche, Lucerne. Fritz Metzger, architect. [*From "Werk."*]

an interview with John Eichleay, of Pittsburg, who specializes in work of this kind.

April 17. An introduction to Czecho Slovakia—illustrated article by H. G. J. Schelling.

April 24. A printing works at 's-Gravenhage by J. C. van Dorsser.

de 8 en opbouw

(Fortnightly, 30 cents. Amstel 22, Amsterdam C.)

April 17. Some devastating and witty comments on the Amsterdam Town Hall competition.

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HUNGARY

tér és forma

(Monthly, 4 pengos. Horanszky-u 8, Budapesth VIII)

No. 4. Recent buildings in Pécs, notably a health centre. "Form and Functionalism," an article by J. J. P. Oud. Town planning in Baja.

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ITALY

Architettura

(Monthly, 18 lire. via Palermo 10, Milan 1[20])

March. Two railway stations by Angiolo Mazzoni (*see* illustration). A villa in Turin by Gino Levi-Montalcini.

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SWEDEN

Boćl

(Monthly, 1 kr. 75. Kristinelundsgatan 11, Gothenburg)

No. 4. Plenty of furniture, nearly all of it restrained and pleasant; recent Danish glass, cutlery and some ceramics.

Byggmästaren

(Weekly, 20 kr. per annum. Kungsgatan 32, Stockholm)

No. 10. Country houses and week-end cottages, mostly of timber.

No. 11. Regional planning for the suburbs of Stockholm.

No. 12. Recent developments in constructional technique.

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SWITZERLAND

Schweizerische Bauzeitung

(Weekly, 1 fr. Dianastrasse 5, Zürich)

April 3. New apparatus at the Basle Fair: overhead wire layouts for trolley-buses.

April 10. Recent buildings by Kündig and Oetiker, mostly country houses.

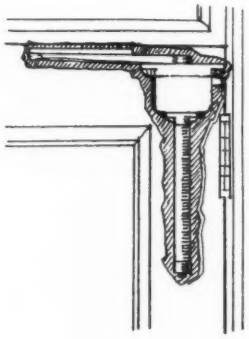
April 17. A large new school by the architects mentioned above.

April 24. Result of a competition for a Roman Catholic Church in Amriswill. Won by P. Büchi.

Werk

(Monthly, 3 fr. 50. Mühlebachstrasse 59, Zürich)

April. Recent Swiss churches of different denominations.



TRADE NOTES

[EDITED BY PHILIP SCHOLBERG]

Door Springs

NOBODY very much likes the look of the general run of door closers, which, with one exception, are distressingly ugly to look at, and always give the impression of having been stuck on as an afterthought. The floor closer is the neatest, but a good deal of care must be taken to prevent washing water from getting in and the oil from getting out, and floor finishes and screeds are getting so thin that there is not always enough depth available to take the box.

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The Oscar C. Rixson Company of Chicago have, however, been doing for some time what everyone ought to have thought of years ago, for they are marketing a closer which is concealed in the head of the door so that the whole thing is normally invisible, and only the two swinging arms appear when the door is opened.

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The sketch at the head of these notes shows the closer applied to a metal door 1½ ins. thick, but the fitting can equally well be applied to a wooden door, though here the thickness would presumably have to be greater if the head of the style were not to be weakened too much.

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In their advertisements the manufacturers say: "Here is complete door check efficiency with a new decorative feature—invisibility." A solemn thought—not only that invisibility should be a virtue in itself, but that an equal degree of invisibility would be such a virtue in so many things that we nowadays accept as inevitable simply because they have risen up and hit us so often that we have ceased to notice that they are there at all.

Broadcasting Studio Acoustics

The *B.B.C. Annual*, published last month, shows that a good deal of research has been carried out on studio acoustics, and a new "live end-dead end" type has been evolved. The orchestra end of the studio has no acoustical treatment at all on walls, floor or ceiling, all the absorbing materials, which may consist of up to 6 ins. of mineral wool, being concentrated in the other half of the studio, where the microphone is normally placed. Recent experience has suggested that floors should be uncarpeted, and preferably of polished wood, a departure from current practice.

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Acoustical methods such as these can only be tested in actual practice, as it has not been found possible to devise any reliable laboratory tests, and progress seems to be on rather hit-or-miss lines. Five or six years ago, for instance, such features as wooden floors and reflecting walls were found to be undesirable, but the performance of microphones is now getting a great deal better, and the best conditions for broadcasting are now almost the same as those which would give perfect listening conditions within the studio, so that there is a strong tendency for an orchestral broadcasting studio to approximate, so far as acoustical design is concerned, to an ideal concert hall.

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Another innovation is that orchestras are now to be arranged in curved tiers so that there is no screening of one member of the orchestra by the performer immediately in front of him—another development which brings the broadcasting studio one step nearer the ordinary concert hall. If these developments seem obvious enough to have been made years ago, it must be remembered that the technique of broadcasting sounds *after* they reach the microphone has been continuously improved, and that what may now be right acoustically would have been definitely wrong a few years ago.

Fixing Immersion Heaters

The sketches on the left show a modification of the ordinary method of fixing immersion heaters. Given a fairly broad and flat-domed hot-water cylinder, the job is quite easy, but with the tall high-domed type so usual in small linen cupboards there may be a few snags, for the heaters must be fixed radially in the dome, and this often cuts down the possible length of heater and allows a pocket of dead unheated water at the bottom of the cylinder.

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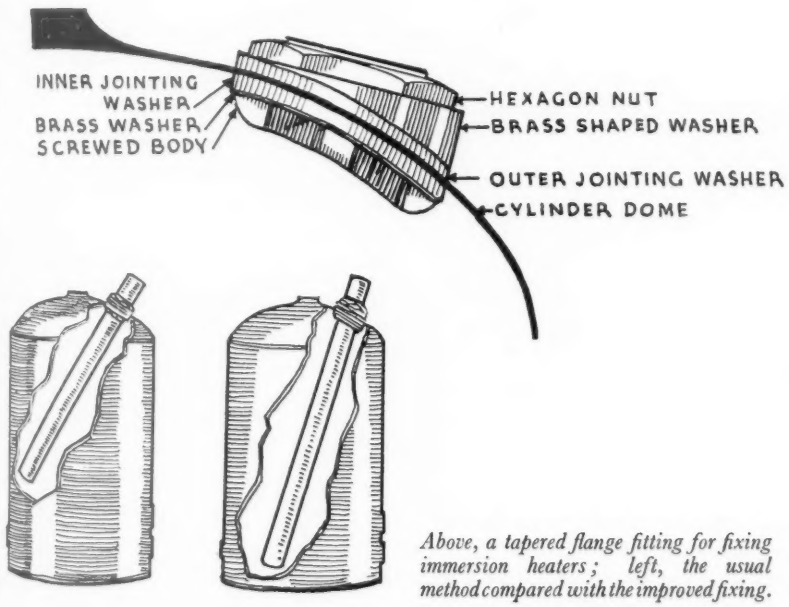
A Liverpool firm has now produced a tapered flange fitting with shaped washers to overcome this trouble, the sectioned sketch showing how the trick is done. There is obviously nothing revolutionary in the idea, and a really competent fitter should be capable of making the whole thing with a certain amount of time and trouble, though it is convenient to know that such a fitting is made as standard, for it will certainly be a good deal cheaper and better than a purpose-made job.



Above, a tapered flange fitting for fixing immersion heaters; left, the usual method compared with the improved fixing.

Home-Grown Timber

The Department of Scientific and Industrial Research has issued a small but valuable booklet* on Home Grown Timbers, prepared, as might be expected, by the Forest Products people at Princes Risborough. The booklet, which is divided into two sections dealing with hardwoods and softwoods, gives a general description of each timber, with notes on its seasoning,

* *Home-Grown Timbers.* London: His Majesty's Stationery Office. Price 1s. 6d.

mechanical properties, natural durability, preservative treatment, woodworking qualities, liability to attack by various insects, and, finally, a summary of its uses.

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A well arranged and useful production which automatically goes straight on to the reference shelf.

Sensible Floodlighting

Astragal's remarks last week on the virtues of a reasonable angle of throw for floodlighting projectors leave out one important detail. London buildings hardly ever have any space for floodlights anyway—6 ft. of area at the most, generally nothing at all, and projection is therefore nearly always vertical, so that even a fly has a shadow about a foot long and any drips or sills produce the most improbable effects.

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The other disadvantage is that floodlighting schemes are nearly always in the hands of the lamp suppliers, whose sole creed seems to be that eight lamps are always better than one. The result is that nearly every building is flooded with heaven knows how many foot-candles and the poor thing can't *help* looking like painted cardboard. Would it be too revolutionary to suggest that architects might sometimes be asked what to do, and that their advice might then be acted upon?

Addresses

The Oscar C. Rixson Co., 4450 Carroll Avenue, Chicago, Illinois.

Essex Partners, 16 South Castle Street, Liverpool.

LAW REPORTS

ERECTION OF FLATS: SHARING THE PROFIT

McKay v. *Simmonds.—King's Bench Division. Before Mr. Justice Atkinson*

THIS was an action by Mr. A. M. L. McKay, a builder, of West Side, Wimbledon Common, against Mr. C. G. Simmonds, of Regent Street, London, to recover the sum of £6,755, money alleged to be due under an agreement for erecting a block of flats at Wimbledon Hill, known as Emerson Court and Hill Court. Plaintiff, in the alternative, sought rectification of the agreement.

Mr. Gilbert Beyfus, K.C., for the plaintiff, said the blocks of flats were built by the plaintiff for the defendant, the work being completed in April, 1936. Plaintiff's case was that by an agreement of August, 1934, the defendant agreed to pay him £10,000 as remuneration, and that this sum should not be affected by any variation in the building specifications. It was further agreed that the buildings should not cost more than £50,000, and that if the total expenditure exceeded that amount, then the amount to be paid to the plaintiff should abate by a sum equivalent to 50 per cent. of the excess cost. Under the agreement plaintiff had only received £3,245 from the defendant.

Plaintiff's case was that the total expenditure was £49,338, and that this amount included £6,766 net increase in the cost due to variations, and that in breach of the agreement the defendant had sought to include this sum and a sum of £13,800, of which £8,000 was the cost of the land, in the total amount of expenditure.

By his defence defendant denied that there was any other sum due to the plaintiff beyond the £3,245 which he had been paid.

Plaintiff gave evidence in support of his case. He denied that there was any discussion with the defendant to the effect that the blocks of flats would realize £70,000.

Mr. Wallington, K.C., for the defendant, said his client's case was that the parties agreed to share any profit made on the blocks of flats on a fifty-fifty basis.

Defendant gave evidence and said the arrangement was that if the property could be purchased for a certain figure, then he would find the finance to erect the blocks of flats and that they would go fifty-fifty in the profits. The properties were purchased for £8,000, and his estimate of the cost of the construction of the flats was £50,000, including the land. He estimated that he could sell the flats for £70,000, and he then told defendant that it worked out at £10,000 for each of them, subject to the costs not exceeding the estimates.

His lordship after hearing the evidence held that plaintiff was entitled to £5,352.

His lordship did not think that the plaintiff was wrong in his construction of the agreement and under these circumstances the alternative claim for rectification did not arise.

Judgment was entered for the plaintiff for £5,352, with costs.

LIABILITY FOR FALL ON A FLAT STAIRCASE

Kirkland v. *Simmons and others.—King's Bench Division. Before Mr. Justice Greaves Lord*

THIS action arose out of an accident on the common staircase at a block of flats at Queen's Gate, Kensington. The plaintiff was Mr. Wm. Kirkland, and he brought his action against the defendants for injuries sustained through falling down a portion of a flight of stairs at the flat on May 2, 1936. The defendants were the landlords of the flat and a carpet-beating company.

Mr. Tristram Beresford, K.C., for the plaintiff, said the action was for damages for alleged breach of warranty, negligence or breach of duty. Plaintiff was the tenant of the flat. There was a common staircase, and thereby an implied warranty that it would be made safe. It appeared that the carpet-beating company had been employed by the landlords to relay the carpet on the stairs, and plaintiff's case was that they had failed to exercise reasonable skill and care in doing the work, with the result that the plaintiff, while descending the staircase, fell and broke his ankle.

The defence set up by defendants was a denial of negligence or breach of duty or that the stairs were dangerous or defective. In the alternative they submitted that the plaintiff did not exercise reasonable care when negotiating the narrow stairs at the turn.

His lordship, after hearing the evidence and arguments of Mr. Russell Vick, K.C., and Mr. F. J. Tucker, K.C., for the defendants, said he came to the conclusion that the plaintiff was entitled to recover against both defendants. It was clear that the carpet-beating company took upon themselves the duties of taking up and relaying the carpet on the staircase, and they therefore owed a duty to the plaintiff. That duty they did not discharge, and therefore theirs was a liability in tort. The stair carpet was relaid so carelessly as to constitute a source of danger to users of the stairs. The next point was, were the landlords of the plaintiff liable? He came to the conclusion that they were liable in contract as well as in tort. Under these circumstances plaintiff was entitled to recover damages, and he awarded him £350 against both defendants.

Judgment accordingly, with costs.

APPEAL UNDER THE PRIVATE STREET WORKS ACT, 1892

Newton v. *Lambton Hetton and Joicey Collieries, Ltd.—Court of Appeal. Before Lords Justices Greer, Slesser and Greene*

THIS was an appeal by the plaintiff from a decision in favour of the defendants on a claim in respect of an accident in Newbottle Row, Houghton-le-Spring.

It appeared that the defendant company made an application to the local authority under the Private Street Works Act, 1892, for the adoption of Newbottle Row, it having been made up to the satisfaction of the surveyor. It was described in the application and in the order as being Nos. 1 to 15 inclusive, Newbottle Row. It transpired that Nos. 1 to 5, which abutted upon it, were not within the area of the local authority. Later, an accident took place and the question which arose was whether the defendants or the local authority could be made liable to the plaintiff in respect of the accident he had sustained. The judge in the court below decided against the plaintiff, hence the appeal.

The court, after hearing long legal arguments, allowed the appeal and directed that a new trial should take place.

Lord Justice Greer, in giving judgment said the case was an unfortunate one and the appeal arose from the fact that the judge in the court below decided certain questions before the evidence was completed. The first ground upon which the judge decided against the plaintiff was that the place where the accident happened had become part of a street taken over by the local authority. It appeared that the accident happened just near No. 7, and if that were right, and if this street, to the extent of No. 7, had in fact been taken over and had become legally invested in the local authority, then the action against the defendant company, who owned the street before it was taken over, would of necessity fail. The judge had before him two letters from the defendant company which followed the application to the local authority, showing that they were anxious to get rid of all liability in respect of the whole street. The local authority then replied that, the street having been made up to the satisfaction of their surveyor, they adopted it and declared it to be a highway repairable by the inhabitants at large. Notices were put up by the local authority to this effect. His lordship said he could only read that notice in one way, viz. as meaning that the whole of the street from Nos. 1 to 15 had been adopted and had become a highway. There was evidence before the judge, which he thought was accepted by both sides as

showing that there was a portion of the road, at any rate, that was outside the district of the local authority, and that being the case, it seemed to his lordship impossible to say that the notice applying to a road, of which part was within the jurisdiction of the authority and part outside the jurisdiction, could be a valid notice which could change the status of Newbottle Row. For this reason he thought the judge was not entitled to find that this street, at the place where the accident occurred, had passed to the local authority and that he was wrong in law in so deciding.

Lords Justices Slesser and Greene concurred.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICT (15 MILES RADIUS)

ACTON. *Flats.* Plans passed by the Acton Corporation: 44 flats, The Avenue, Bedford Road and Newton Grove, Mr. E. Price Lavender.

ACTON. *Day Nursery and School Clinic.* The Acton Corporation is to erect a combined day nursery and school clinic in Avenue Road.

EAST HAM. *Garages, etc.* Plans passed by the East Ham Corporation: 41 lock-up garages, rear of Geoffrey Gardens, Messrs. Hamletts; cinema, High Street North, Mr. A. Mather.

WATFORD. *Extensions.* The Watford Corporation is to inquire of Mr. Cowles Voysey as to whether, in his opinion, future extensions of the new municipal offices could be accommodated in that portion of the Elms site south of the roadway leading to the public baths.

WEST HAM. *School.* The West Ham Education Committee is to erect a school for the deaf at a cost of £12,988.

SOUTHERN COUNTIES

HASTINGS. *Houses.* Plans passed by the Hastings Corporation: Eight houses, Edmund Road, Mr. T. E. Relfe; alterations, Central Hotel, Queen's Road, Messrs. Oxley and Burleigh; 22 houses, off Frederick Road, Messrs. Jeffery and Wyatt.

KENT. *Technical Institute.* The Kent Education Committee has acquired a site at Knoll Rise, Orpington, for the erection of a branch technical institute.

KENT. *Technical Institute.* The Kent Education Committee has purchased a site in Rover Walk, Tonbridge, for the erection of a technical institute.

WORTHING. *Flats.* Messrs. Josephs, architects, on behalf of Col. Rodocanachi, are to erect a block of 12 flats in George V Avenue, Worthing.

WORTHING. *Flats.* Mr. F. W. Beach has prepared a scheme for the erection of a block of 42 flats in Norfolk Street, Worthing.

WORTHING. *Flats, etc.* Plans passed by the Worthing Corporation: 60 flats, South Farm Road, Centrecourt Investment Co.; 22 houses, Offington, rear of Warren Road, Mr. L. C. LeMaitre; six houses, Keymer Crescent, Worthing Estates Building Co.; seven houses, Clifton Road, Mr. W. W. Sandell; ten houses, Ardingley Drive, Chatsmore Estates; 13 shops and 10 flats, Ham Road, East Worthing Properties, Ltd.; eight houses, off Arundel Road, A. M. Lyne, Ltd.

SOUTH-WESTERN COUNTIES

EXETER. *Terminal Buildings.* The Exeter Corporation has obtained sanction to borrow £9,386 for the erection of terminal buildings at the aerodrome.

HEREFORD. *Houses.* At a meeting of the Hereford Corporation the Town Clerk reported that the Minister of Health had stated that he would raise no objection to the Council negotiating for an extension of the contract of Copp Bros., Ltd., for the erection of the 477 houses on the College Road site at existing contract prices, and the architect was authorized to negotiate with Copp Bros., Ltd.

TORQUAY. *Houses.* The Torquay Corporation is to erect 200 houses on the Watcome Housing estate.

TORQUAY. *Testing Department.* The Torquay Corporation has approved an estimate of £10,000 for the erection of a testing department for the electricity undertaking at Newton Abbot.

EASTERN COUNTIES

ESSEX. *Convalescent Home.* The Essex C.C. is to purchase Michaelstow Hall, Dovercourt, comprising 125 acres, for a convalescent home to accommodate 50 patients.

ESSEX. *Extensions.* The Essex C.C. has approved plans by the County Architect for the extension of Oldchurch Hospital, Romford, to provide an ultimate accommodation of 1,060 beds, at an estimated cost of £369,000.

HERTFORD. *County Offices.* The Herts C.C. has obtained sanction to borrow £279,884 for the erection of new county offices on the Leahoe estate, Hertford.

NORWICH. *School.* The Norwich Education Committee is, by direct labour, to erect an infants' school at Catton Grove, at a cost of £13,987.

SOUTHEND. *Extensions.* The Southend Corporation has approved plans by the borough engineer for a comprehensive scheme of alterations and additions at Rochford House, at a cost of £9,000.

MIDLAND COUNTIES

LEICESTER. *Schools.* The Leicestershire Education Committee is to erect elementary schools at Homefield Avenue and Turnbull Drive, Braunstone, at a cost of £30,000.

NORTHANTS. *Extensions.* The Northants Education Committee is to enlarge Raunds Council Senior School at a cost of £9,000.

NORTHANTS. *School.* The Northants Education Committee is to erect a junior school at Croyland Road, Wellingborough, at a cost of £15,100.

NORTHAMPTON. *Houses.* The Northampton Corporation has approved plans by the borough engineer for the erection of 166 houses on the Spencer estate for displaced slum dwellers.

NOTTINGHAM. *County Offices.* The Notts County Council has obtained sanction to borrow £15,600 for the purchase of land at Trent Bridge, Nottingham, for the erection of new county offices.

STAFFORD. *Technical College.* The Staffordshire Education Committee is to erect a technical college at Stafford at a cost of £99,950.

STAFFORD. *School.* The Staffordshire Education Committee is to erect a secondary school at Leek at a cost of £37,261.

WEST BROMWICH. *Houses.* The West Bromwich Corporation recommends the tender of Messrs. Wm. Cooper and Son, for the erection of 152 houses and bungalows in Vernon Street, and 22 houses in Hamstead Road.

WOLVERHAMPTON. *Houses, etc.* Plans passed by the Wolverhampton Corporation: six houses, Regent Road, Mr. A. L. Davies; seven houses, Newbolds Road, Mr. F. Turner; five houses, Canterbury Road, Mr. T. E. Christensen; six houses, Canterbury Road, Mr. L. F. Butler; workshop and offices, Temple Street, J. and E. Bates and Sons, Ltd.; 26 houses, Old Heath Road, Mr. M. A. Boswell.

WOLVERHAMPTON. *Extensions.* The Wolverhampton Corporation has prepared a scheme for extensions and alterations to the Borough Hospital, at a cost of £56,710.

NORTHERN COUNTIES

BIRKENHEAD. *Flats.* Mr. Wannop, junr., is to erect 42 flats between Well Lane and Church Road, Birkenhead.

BIRKENHEAD. *Technical and Commercial College.* The Birkenhead Education Committee has approved revised sketch plans for the new technical and commercial college.

CHESHIRE. *Senior School.* The Cheshire Education Committee has approved a revised estimate of £41,288 for the erection of a senior school at Sale Ashton.

CHESHIRE. *Senior School.* The Cheshire Education Committee is to erect a senior school at Sale Moor at a cost of £28,033.

CHESHIRE. *Senior School.* The Cheshire Education Committee is to erect a senior school at Bromborough Allports, at a cost of £45,680.

CHESHIRE. *Senior School.* The Cheshire Education Committee is to erect a senior school at Frodsham, at a cost of £22,095.

DURHAM. *Hospital.* The Durham County Council has obtained the approval of the Minister of Health for the completion of the School Aycliffe Colony to accommodate 1,024 patients, plus 16 supernumerary beds for tubercular and isolation cases, at an estimated cost of £272,800.

DURHAM. *Houses.* The North Eastern Housing Association is to build 46 houses in Easington Lane, Haswell, Co. Durham.

MANCHESTER. *Houses.* The Manchester Corporation is to erect 60 houses at Blackley, 54 at Higher Crumpsall and 86 at Newton Heath.

MANCHESTER. *Houses.* The Manchester Corporation now proposes to erect 974 houses and certain ancillary buildings on the Booth Hall Estate, Blackley, by direct labour, at a cost of £400,000.

SHIPLEY. *Houses.* Plans passed by the Shipley U.D.C.: 20 houses, Gaisby Lane, Mr. A. Greenwood; 10 houses, Elm Grove, off Low Ash Road, Wrose Hill Estate Co.

SOUTHPORT. *Flats.* Mr. Frank Haslam is to erect three blocks of residential flats on the site of "Sandringham School," Alexandra Road, Southport.

SOUTHPORT. *Flats.* The Southport Corporation has asked the borough engineer to report on the total cost of acquiring the necessary land and erecting 24 flats thereon, suitable for occupation by married couples.

SOUTH SHIELDS. *Clearance.* The South Shields Corporation has approved a scheme for the proposed levelling and clearing of the Holborn area, at an estimated cost of £58,900.

SOUTH SHIELDS. *Extensions.* The South Shields Corporation is to extend the town hall, at a cost of £16,000.

STRETFORD. *Houses.* The Stretford Corporation has approved plans for the erection of 206 houses at Barton Road Estate.

STRETFORD. *Houses.* Plans passed by the Stretford Corporation: 109 houses, Barton Road, Messrs. J. Maunders and Sons.

THE BUILDINGS ILLUSTRATED

BERLEI FACTORY, SLOUGH (pages 905-911). The general contractors were Bowles and Son, and the principal sub-contractors and suppliers included: W. Richards and Son, steelwork; Trussed Steel Concrete Co., "Truscon" precast floors; Shaw's Glazed Brick Co., faience; Henry Hope and Sons, metal windows; C. B. Jackson & Co., Ltd., central heating; D. Anderson and Son, macasphalt patent roofing; Atlas Co., sprinklers; Callender's Cable and Construction Co., Ltd., wiring; Best and Lloyd, Ltd., light fittings; Leeds Fireclay Co., sanitary goods; Mather and Platt, Ltd., rolling shutters; Dryad Metalworks, door furniture; Parker, Winder and Achurch, cloakroom fittings; Jaconello, Ltd., terrazzo floors; Lenscrete, Ltd., glass brick windows; Birmingham Guild, metal doors; G. C. Harris, metal balustrades; Munday and Pickford, Ltd., metal letters; Northampton Machinery Co., metalwork; Roneo, Ltd., partitions; Bedford Electrical Installation Co., electrical installation.

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	ABERDARE	S. Wales & M.	1 7	1 2½
A	Aberdeen	Scotland	1 7	1 2½
A_1	Abergavenny	S. Wales & M.	1 6½	1 2
A_2	Abingdon	S. Counties	1 5½	1 1½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 6	1 1½
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	0 11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby	N.W. Counties	1 3½	0 11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
B	Aylesbury	S. Counties	1 5	1 0½
B	BANBURY	S. Counties	1 5	1 0½
B_1	Bangor	N.W. Counties	1 4½	1 0½
A_3	Barnard Castle	N.E. Coast	1 5½	1 1½
A	Barnsley	Yorkshire	1 7	1 2½
B	Barnstaple	S.W. Counties	1 5	1 0½
A	Barrow	N.W. Counties	1 7	1 2½
A	Barry	S. Wales & M.	1 7	1 2½
B	Basingstoke	S.W. Counties	1 5	1 0½
A_2	Bath	S.W. Counties	1 6	1 1½
A	Batley	Yorkshire	1 7	1 2½
A_2	Bedford	E. Counties	1 6	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley	Mid. Counties	1 6	1 1½
B	Bicester	S. Counties	1 5	1 0½
	Birkenhead	N.W. Counties	*1 8	1 3
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 2
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth	N.E. Coast	1 7	1 2½
B	Bognor	S. Counties	1 5	1 0½
A	Bolton	N.W. Counties	1 7	1 2½
A_3	Boston	Mid. Counties	1 5½	1 1½
A_2	Bournemouth	S. Counties	1 6	1 1½
B_3	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford	Yorkshire	1 7	1 2½
A_1	Brentwood	E. Counties	1 6½	1 2
A	Bridgend	S. Wales & M.	1 7	1 2½
B	Bridgwater	S.W. Counties	1 5	1 0½
A_1	Bridlington	Yorkshire	1 6½	1 2
A	Brighouse	Yorkshire	1 7	1 2½
A	Brighton	S. Counties	1 6	1 1½
A	Bristol	S.W. Counties	1 7	1 2½
B	Brixham	S.W. Counties	1 5	1 0½
A	Bromsgrove	Mid. Counties	1 7	1 2½
B	Bromyard	Mid. Counties	1 5	1 0½
A	Burnley	N.W. Counties	1 7	1 2½
A	Burslem	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury	N.W. Counties	1 7	1 2½
A_1	Buxton	N.W. Counties	1 6½	1 2
A_1	CAMBRIDGE	E. Counties	1 6½	1 2
B_1	Canterbury	S. Counties	1 4½	1 0½
A	Cardiff	S. Wales & M.	1 7	1 2½
A	Carlisle	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B	Carnarvon	N.W. Counties	1 5	1 0½
A_1	Carnforth	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
A_3	Chatham	S. Counties	1 5½	1 1½
A_3	Chelmsford	E. Counties	1 5½	1 1½
A_3	Cheltenham	S.W. Counties	1 5½	1 1½
A	Chester	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B	Chichester	S. Counties	1 5	1 0½
A	Chorley	N.W. Counties	1 7	1 2½
B_1	Cirencester	S. Counties	1 4½	1 0½
A	Clitheroe	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville	Mid. Counties	1 7	1 2½
A_2	Colchester	E. Counties	1 6	1 1½
A_1	Colne	N.W. Counties	1 6½	1 2
A_2	Colwyn Bay	N.W. Counties	1 6	1 1½
A_1	Consett	N.E. Coast	1 6½	1 2
A_3	Conway	N.W. Counties	1 6	1 1½
A	Coventry	Mid. Counties	1 7	1 2½
A_3	Crewe	N.W. Counties	1 6	1 1½
A_3	Cumberland	N.W. Counties	1 5½	1 1½
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen	N.W. Counties	1 7	1 2½
B_1	Deal	S. Counties	1 4½	1 0½
A_3	Denbigh	N.W. Counties	1 5½	1 1½
A	Derby	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B_1	Dorchester	S.W. Counties	1 4½	1 0½
A_3	Driffield	Yorkshire	1 5½	1 1½
A_3	Droitwich	Mid. Counties	1 6	1 1½
A	Dudley	Mid. Counties	1 7	1 2½
A_3	Dumfries	Scotland	1 6	1 1½
A	Dundee	Scotland	1 7	1 2½
A	Durham	N.E. Coast	1 7	1 2½
A_2	EASTBOURNE	S. Counties	1 6	1 1½
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 2
A	Edinburgh	Scotland	1 7	1 2½
A_2	Exeter	S.W. Counties	*1 6	1 1½
B	Exmouth	S.W. Counties	1 5	1 0½
A_2	FELIXSTOWE	E. Counties	1 5½	1 1½
A_2	Filey	Yorkshire	1 5½	1 1½
A	Fleetwood	N.W. Counties	1 7	1 2½
B_1	Folkestone	S. Counties	1 4½	1 0½
A	Frodsham	N.W. Counties	1 7	1 2
B_2	Frome	S.W. Counties	1 4	1 0
A	GATESHEAD	N.E. Coast	1 7	1 2½
B	Gillingham	S. Counties	1 5	1 0½
A_1	Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1 6½	1 2
A	Glasgow	Scotland	1 7	1 2½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole	Yorkshire	1 6	1 1½
A_2	Gosport	S. Counties	1 6	1 1½
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 2
A	Greenock	Scotland	*1 7	1 2
A	Grimsby	Mid. Counties	1 7	1 2
B	Guildford	S. Counties	1 5	1 0
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B	Harwich	E. Counties	1 5	1 0½
B	Hastings	S. Counties	1 5	1 0½
A_2	Hatfield	S. Counties	1 6	1 1½
B	Hereford	S.W. Counties	1 5	1 0½
A_2	Hertford	E. Counties	1 6	1 1½
A	Heysham	N.W. Counties	1 7	1 2½
A	Howden	N.E. Coast	1 7	1 2½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull	Yorkshire	1 7	1 2½
A	ILKLEY	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich	E. Counties	1 6	1 1½
B_2	Isle of Wight	S. Counties	1 4	1 0
A	JARROW	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
A_2	Kendal	N.W. Counties	1 5½	1 1½
A_2	Keswick	N.W. Counties	1 5½	1 1½
A_1	Kettering	Mid. Counties	1 6½	1 2
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_1	King's Lynn	E. Counties	1 4½	1 0½
A	LANCASTER	N.W. Counties	1 7	1 2½
A_1	Leamington	Mid. Counties	1 6½	1 2
A	Leeds	Yorkshire	1 7	1 2½
A	Leek	Mid. Counties	1 7	1 2½
A	Leicester	Mid. Counties	1 7	1 2½
A	Leigh	N.W. Counties	1 7	1 2½
B	Lewes	S. Counties	1 5	1 0½
A_2	Lichfield	Mid. Counties	1 6	1 1½
A	Lincoln	Mid. Counties	1 7	1 2½
	Liverpool	N.W. Counties	*1 8½	1 3½
A_2	Llandudno	N.W. Counties	1 6	1 1½
A	Llanelly	S. Wales & M.	1 7	1 2½
	London (12-miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_1	Luton	E. Counties	1 6½	1 2
A	Lytham	N.W. Counties	1 7	1 2½
A	MACCLESFIELD	N.W. Counties	1 6½	1 2
A_3	Maidstone	S. Counties	1 5½	1 1½
A_3	Malvern	Mid. Counties	1 5½	1 1½
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield	Mid. Counties	1 7	1 2½
B_1	Margate	S. Counties	1 4½	1 0½
A_3	Matlock	Mid. Counties	1 5½	1 1½
A_1	Merthyr	S. Wales & M.	1 6½	1 2
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead	S.W. Counties	1 4	1 0
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 4	1 0
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath	S. Wales & M.	1 7	1 2½
A	Nelson	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A	Northampton	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A	North Staffs	Mid. Counties	1 7	1 2½
A_1	Norwich	E. Counties	1 6½	1 2
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton	Mid. Counties	1 7	1 2½
A_2	OAKHAM	Mid. Counties	1 5½	1 1½
A	Oldham	N.W. Counties	1 7	1 2½
A_3	Oswestry	N.W. Counties	1 5½	1 1½
A_1	Oxford	S. Counties	1 6½	1 2
A	PAISLEY	Scotland	*1 7	1 2
B_2	Pembroke	S. Wales & M.	1 3½	0 11½
A	Perth	Scotland	*1 7	1 2½
A_1	Peterborough	E. Counties	1 6½	1 2
A	Plymouth	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 2
A_2	Portsmouth	S. Counties	1 6	1 1½
A	Preston	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 6½	1 2
B	Reigate	S. Counties	1 5½	1 1½
A_2	Retford	Mid. Counties	1 5½	1 1½
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 2
A_2	Ripon	Yorkshire	1 5½	1 1½
A	Rochdale	N.W. Counties	1 7	1 2½
B	Rochester	S. Counties	1 5	1 0½
A_1	Ruabon	N.W. Counties	1 6½	1 2
A	Rugby	Mid. Counties	1 7	1 2½
A_2	Rugeley	Mid. Counties	1 6	1 1½
A	Runcorn	N.W. Counties	1 7	1 2½
A_1	ST. ALBANS	E. Counties	1 6½	1 2
A	St. Helens	N.W. Counties	1 7	1 2½
B_2	Salisbury	S.W. Counties	1 3½	0 11½
A_1	Scarborough	Yorkshire	1 6½	1 2
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield	Yorkshire	1 7	1 2½
A	Shipley	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton	Yorkshire	1 6	1 1½
A_2	Slough	S. Counties	1 6	1 1½
A_1	Solihull	Mid. Counties	1 6½	1 2
A_2	Southampton	S. Counties	1 6	1 1½
A_1	Southend-on-Sea	E. Counties	1 6½	1 2
A	Southport	N.W. Counties	1 7	1 2½
A	S. Shields	N.E. Coast	1 7	1 2½
A_1	Stafford	Mid. Counties	1 6½	1 2
A	Stirling	Scotland	1 7½	1 2½
A	Stockport	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B	Stroud	S.W. Counties	1 5	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swansea	S. Wales & M.	1 7	1 2½
A_2	Swindon	S.W. Counties	1 5½	1 1½
A_1	TAMWORTH	N.W. Counties	1 6½	1 2
B	Taunton	S.W. Counties	1 5	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
A_2	Teignmouth	S.W. Coast	1 6	1 1½
A	Todmorden	Yorkshire	1 7	1 2½
A_1	Torquay	S.W. Counties	1 6½	1 2
B_2	Truro	S.W. Counties	1 4	1 0
A_2	Tunbridge Wells	S. Counties	1 5½	1 1½
A	Tunstall	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_1	Warwick	Mid. Counties	1 6½	1 2
A_1	Wellingborough	Mid. Counties	1 6½	1 2
A	West Bromwich	Mid. Counties	1 7	1 2½
A_2	Weston-s.-Mare	S.W. Counties	1 6	1 1½
A_2	Whitby	Yorkshire	1 6	1 1½
A	Widnes	N.W. Counties	1 7	1 2½
A	Wigan	N.W. Counties	1 7	1 2½
B	Winchester	S. Counties	1 5	1 0½
A_2	Windsor	S. Counties	1 6	1 1½
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_3	Worksop	Yorkshire	1 5½	1 1½
A_1	Wrexham	N.W. Counties	1 6½	1 2
A_3	Wycombe	S. Counties	1 5½	1 1½
B	YARMOUTH	E. Counties	1 5	1 0½
B	Yeovil	S.W. Counties	1 5	1 0½
A	York	Yorkshire	1 7	1 2½

* 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. The rates of wages have been revised consequent upon the increase in wages which came into operation on February 1, together with all revisions following authorized annual regradings.

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 8½
Carpenter . . . . . ,,	1 8½
Joiner . . . . . ,,	1 8½
Machinist . . . . . ,,	1 9½
Mason (Banker) . . . . . ,,	1 8½
,, (Fixer) . . . . . ,,	1 9½
Plumber . . . . . ,,	1 8½
Painter . . . . . ,,	1 7½
Paperhanger . . . . . ,,	1 7½
Glazier . . . . . ,,	1 8½
Slater . . . . . ,,	1 8½
Scaffolder . . . . . ,,	1 4½
Timberman . . . . . ,,	1 4½
Navvy . . . . . ,,	1 3½
General Labourer . . . . . ,,	1 3½
Lorryman . . . . . ,,	1 6½
Crane Driver . . . . . ,,	1 7½
Watchman . . . . . per week	2 10 0

MATERIALS

EXCAVATOR AND CONCRETOR

	£ s. d.
Grey Stone Lime . . . . . per ton	2 2 0
Blue Lias Lime . . . . . ,,	1 18 6
Hydrated Lime . . . . . ,,	2 5 0
Portland Cement, in 4-ton lots (d/d site, including Paper Bags) . . ,,	1 19 0
Rapid Hardening Cement, in 4-ton lots (d/d site, including Paper Bags) . ,,	2 5 0
White Portland Cement, in 1-ton lots ,,	8 15 0
Thames Ballast . . . . . per Y.C.	6 6
¾" Crushed Ballast . . . . . ,,	7 0
Building Sand . . . . . ,,	7 6
Washed Sand . . . . . ,,	8 6
2" Broken Brick . . . . . ,,	8 0
¾" ,, ,, ... ,,	10 3
Pan Breeze . . . . . ,,	6 6
Coke Breeze . . . . . ,,	8 9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

	4" s. d.	6" s. d.
Straight Pipes . . . per F.R.	0 9	1 1
Bends . . . . each	1 9	2 6
Taper Bends . . . ,,	3 6	5 3
Rest Bends . . . ,,	4 3	6 3
Single Junctions . . ,,	3 6	5 3
Double . . . . ,,	4 9	6 6
Straight channels . . per F.R.	1 6	2 6
¾" Channel bends . . each	2 9	4 0
Channel junctions . . ,,	4 6	6 6
Channel tapers . . ,,	2 9	4 0
Yard gullies . . . ,,	6 9	8 9
Interceptors . . . ,,	16 0	19 6
IRON DRAINS:		
Iron drain pipe . . per F.R.	2 3	3 8
Bends . . . . each	5 10½	12 1
Inspection bends . . ,,	10 7½	13 3½
Single junctions . . ,,	10 4	21 3
Double junctions . . ,,	16 0	28 8
Lead Wool . . . . lb.	6	—
Gaskin . . . . . ,,	5	—

BRICKLAYER

	£ s. d.
Flettons . . . . . per M.	2 12 0
Grooved do. . . . . ,,	2 14 0
Phorpres bricks . . . . ,,	2 15 0
,, Cellular bricks . . . ,,	2 15 0
Stocks, 1st quality . . . ,,	4 11 0
,, 2nd ,, ... ,,	4 2 6
Blue Bricks, Pressed . . . ,,	8 14 0
,, Wirecuts . . . ,,	7 12 6
,, Brindles . . . ,,	7 0 0
,, Bullnose . . . ,,	9 0 0
Red Sand-faced Facings . . ,,	6 18 6
Red Rubbers for Arches . . ,,	12 0 0
Multicoloured Facings . . ,,	7 10 0
Luton Facings . . . . ,,	7 10 0
Phorpres White Facings . . ,,	3 17 3
,, Rustic Facings . . ,,	3 12 3
Midhurst White Facings . . ,,	5 0 0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:	
Stretchers . . . . . ,,	21 0 0
Headers . . . . . ,,	20 10 0
Bullnose . . . . . ,,	27 10 0
Double Stretchers . . . ,,	29 10 0
Double Headers . . . ,,	26 10 0
Glazed Second Quality, *Less* . ,,	1 0 0
,, Buffs and Creams, *Add* . ,,	2 0 0
,, Other Colours . . . ,,	5 10 0
2" Breeze Partition Blocks . . per Y.S.	1 7
2½" ,, ,, ,, . . . ,,	1 10
3" ,, ,, ,, . . . ,,	2 1
4" ,, ,, ,, . . . ,,	2 6

MASON

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

SLATER AND TILER

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

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

CARPENTER AND JOINER

	£ s. d.
Good carcassing timber . . F.C.	2 2
Birch . . . . . as 1" F.S.	5
Deal, Joiner's . . . . ,, ,,	4
,, ,, 2nds . . . ,, ,,	3
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 8
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
	1 6 0

Plywood, per ft. sup.:

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

	d.
Scotch glue . . . . . lb.	8

SMITH AND FOUNDER

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

	½"	¾"	1"	1¼"	2"
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 . . .	68½	Galvanized gas .	61½
Water . . .	66½	,, water .	55
Steam . . .	63¾	,, steam .	50

	FITTINGS		
Gas . . .	61½	Galvanized gas .	55½
Water . . .	58½	,, water .	50
Steam . . .	53¾	,, steam .	46½

	s. d.
Rolled steel joists cut to length . . cwt.	14 6
Mild steel reinforcing rods, ½" . . . ,,	10 6
,, ,, ,, ¾" . . . ,,	10 3
,, ,, ,, 1" . . . ,,	10 0

SMITH AND FOUNDER—*continued*

	s. d.
Mild steel reinforcing rods, ¾" . . cwt.	9 6
,, ,, ,, ⅞" . . . ,,	9 6
,, ,, ,, 1" . . . ,,	9 6
,, ,, ,, 1¼" . . . ,,	9 6
,, ,, ,, 1½" . . . ,,	9 6

	¼" s. d.	4" s. d.
Cast-iron rain-water pipes of ordinary thickness metal . . F.R.	8	10
Shoes . . . . . each	2 0	3 0
Anti-splash shoes . . ,,	4 6	8 0
Boots . . . . . ,,	3 0	4 0
Bends . . . . . ,,	2 7	3 9
,, with access door . . ,,	—	6 3
Heads . . . . . ,,	4 0	5 0
Swan-necks up to 9" offsets . ,,	3 9	6 0
Plinth bends, 4½" to 6" . . ,,	3 9	5 3
Half-round rain-water gutters of ordinary thickness metal . . F.R.	5	6
Stop ends . . . . . each	6	6
Angles . . . . . ,,	1 7	1 11
Obtuse angles . . . . ,,	2 0	2 6
Outlets . . . . . ,,	1 9	2 3

PLUMBER

	3"	4"	6"
Lead, milled sheets . . . cwt.			34 6
,, drawn pipes . . . ,,			34 0
,, soil pipes . . . ,,			37 0
,, scrap . . . . ,,			22 0
Solder, plumbers' . . . lb.			1 1½
,, fine do. . . . ,,			1 4
Copper, sheet . . . ,,			1 2
,, tubes . . . ,,			1 4½
L.C.C. soil and waste pipes:			
Plain cast . . . F.R.	1 0	1 2	2 6
Coated . . . ,,	1 1	1 3	2 8
Galvanized . . ,,	2 0	2 6	4 6
Holderbats . . . each	3 10	4 0	4 9
Bends . . . . ,,	3 9	5 3	10 3
Shoes . . . . ,,	2 10	4 4	9 6
Heads . . . . ,,	4 8	8 5	12 9

PLASTERER

	£ s. d.
Lime, chalk . . . . per ton	2 0 0
Plaster, coarse . . . ,,	2 15 0
,, fine . . . ,,	4 7 6
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, 24 oz., squares n/e 2 ft. s. F.S.		2½
,, ,, 26 oz. ,, ,, ,,		3½
Flemish, Arctic, Figures (white)* ,,		7½
Blazoned glasses . . . ,,		2 6
Reeded: Cross Reeded . . ,,		11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite ,,		6
Crown sheet glass (n/e 12" × 10") . ,,		2 0
Flashed opals (white and coloured) . ,,	1 0 and	2 0
¼" rough cast; rolled plate . ,,		6
¼" wired cast; wired rolled . ,,		10½
¼" Georgian wired cast . . ,,		11½
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 ½" and ¼" . ,,	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.	3 0 9
Linseed oil . . . . gall.	3 2
Boiled oil . . . . ,,	3 5
Turpentine . . . . ,,	3 9
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.	4″ d.	6″ s.	6″ 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.	5	9	8	3
Extra, only for bends	Each	11	9	17	3

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
,, rising 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	6

MASON

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

SLATER AND TILER

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

CARPENTER AND JOINER

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

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.	2	5	0
Do. in flashings	,,	2	8	6
Do. in covering to turrets	,,	2	14	0
Do. in soakers	,,	1	19	9
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3
Close ,, ,,	,,			4

		½″ s.	½″ d.	¾″ s.	¾″ d.	1″ s.	1″ d.	1¼″ s.	1¼″ d.	2″ s.	2″ d.	4″ s.	4″ d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	4	1	8½	2	7	3	6	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		7	3
Extra, only to bends	Each	—		—		—		—		2	3	7	6
Do. to stop ends	,,	6½		8		9		11		1	0	—	
Boiler screws and unions		3	3	3	9	5	0	8	6	—		—	
Lead traps		—		—		—		8	0	11	6	—	
Screw down bib valves	,,	6	9	9	6	11	0	—		—		—	
Do. stop cocks	,,	7	6	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	8
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	8
Render and set in Sirapite	,,	1	11
Render, backing in cement and sand, and set in Keene's cement	,,	2	9
Extra, only if on lathing	,,		4
Keene's cement angle and arris	F.R.		6
Arris	,,		1½
Rounded angle, small	,,		3
Plain cornices in plaster, including dubbing out, per 1″ girth	,,		1½
1″ granolithic pavings	Y.S.	3	6
1½″ ,, ,, ,,	,,	4	6
6″ × 6″ white glazed wall tiling and fixing on prepared screed	,,	17	6
9″ × 3″ ,, ,, ,, ,,	,,	1	2	6
Extra, only for small quadrant angle	F.R.			8

GLAZIER

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

PAINTER

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