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THE ARCHITECTS' JOURNAL

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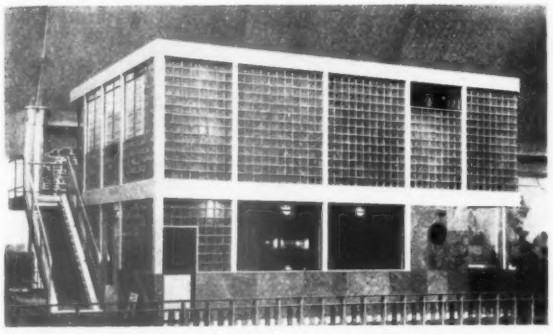
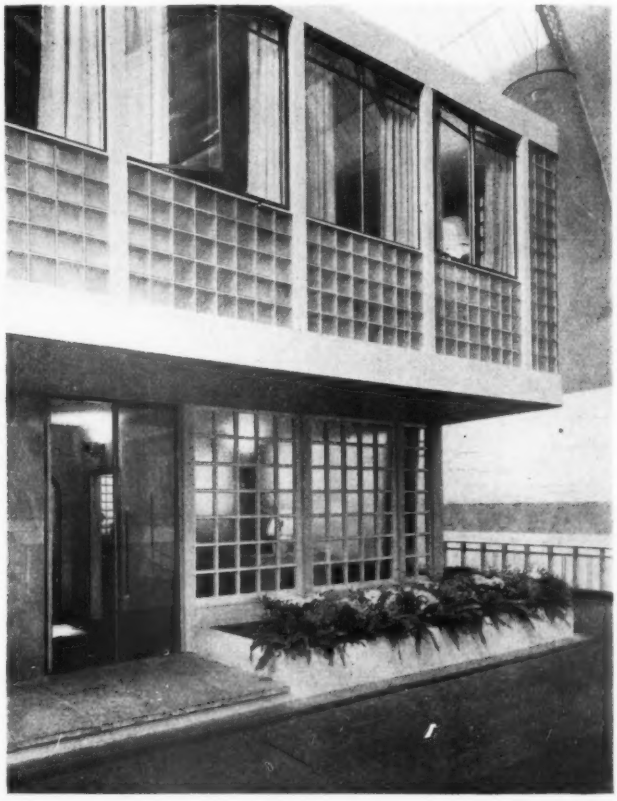
The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

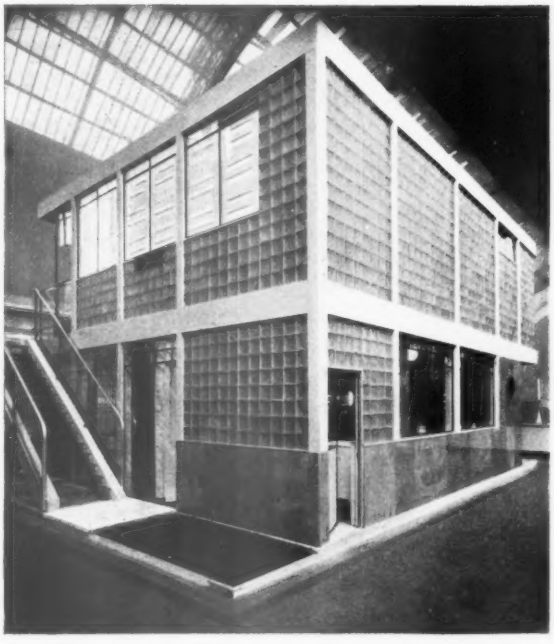
THURSDAY, APRIL 21, 1938 NUMBER 2257 : VOLUME 87

PRINCIPAL CONTENTS

GLASS HOUSE, IDEAL HOME EXHIBITION



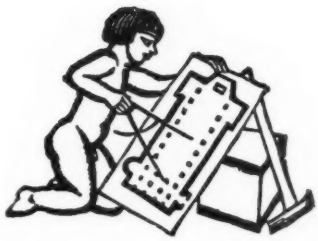




FOUR views of the Glass House at the Ideal Home Exhibition now being held at Olympia. The architects are Miss N. H. Cuthbertson and Mr. D. W. Notley, whose design was placed first in an open competition. (Photos by courtesy of Lenscrete.)

THE MARBLE BRIDGE, COPENHAGEN

The Marble Bridge marks the entrance into the tilting yard of Christian VI's reconstruction of the Christiansborg, which was carried out between the years 1731–45. The Marmorbro, with its medallions and the two pavilions flanking the entrance to the tilting yard, are typical of the period when the influence of the French Renaissance was fully established in Denmark.



5. SUMMARY

FOR four weeks the articles on this page have dealt with one subject: the architectural profession's lack of equipment for practice as it will become in ten years' time. This subject necessarily has compelled a wide view of practice, both past and present. And because an argument is never best presented in instalments, the JOURNAL intends this week to summarize the points which it has tried to make in the past four articles. It believes them to be enormously important points.

1. *Public Tension.*—Tension in foreign affairs has one potentially constructive result in domestic politics: the outlook of the ordinary man and woman is for a short time immensely widened. They see with some approach to accuracy the relation of their small affairs to the country's affairs, they see abuses and express their opinion.

The average man now believes that the primary possessions of the country should be safeguarded from sectional abuse. He is beginning to resent profiteering in land; rehousing in dreary twelve-to-the-acre congestion; and roads on which 6,540 were killed and 230,000 injured last year. He may not know the right solutions, but he is beginning to be tired of small solutions that don't work and to welcome attempts at large solutions.

With these great questions architects, collectively, must concern themselves if they are to avoid a second-class *rôle* in the future.

2. *Architects and Public Affairs.*—Just as politics may be divided into foreign and domestic affairs, so must the activities of a profession. The public are glad to have competent, honest technicians at their service in matters immediately concerning their technique. But they are not touched by it. What the average man wants is help in his own troubles. What moves him is a profession sure of the right remedies for those troubles and unafraid to advocate them even in the face of authority's frowns.

Judged in this wider way architects have made poor showing since the war. In post-war housing, slum clearance, the roads, territorial planning and trading estates, architects collectively have merely followed the band. Supposing public opinion now demands the tackling of these problems on a much bigger scale, have architects any organization that will allow them to do more than pass resolutions and hope that, when others have done the planning, some small details of the execution will fall to their share?

3. *The Profession's Missing Leg.*—In the view of the JOURNAL architects have no collective organization of this kind. And, since individually architects are quite as wide awake as other professional men, it is worth emphasizing *why* they lack this general staff.

They lack it because from the point of view of professional consolidation theirs is a young profession. Architectural practice in the future will consist of two parts: of designing individual buildings on individual plots; and of co-operation in territorial planning.

Architects are unprepared for the second part because all their collective energy has for thirty years been directed to co-ordinating and raising standards in the first part. This has been their main, indeed their only, collective policy, and in a month's time it will probably achieve success.

The concentration of resources on this one object has meant the neglect of what to the average man are the really important problems and to architects are town-planning problems. It never occurs to the average man that architects have any connection with housing, transport and the location of industry. The damage done to the profession by this attitude is tremendous.

4. *Publicity in the Grand Manner.*—How is the profession damaged by refusing to undertake collective study of those national questions in which planning plays a great part? Because of three big changes which are now taking place.

The average man, on committees and in other ways, is becoming more and more the architect's usual client. The average man cares and understands nothing about the design of individual buildings and a lot about gardens and open spaces for his family, roads safe for his children and reasonable freedom from noise and congestion; he is beginning to favour dealing with such things in a big way. Lastly, the average man has had no reason to think of architects as his allies. To him they are bound up with preservation and art societies and enter his world only when they call his home either a slum or an eyesore. This is why architects collectively ought to pay attention to territorial planning.

These have been the arguments of the JOURNAL. Now that the internal consolidation of the profession is virtually complete, architects collectively will soon be without a policy. Next week the JOURNAL will consider the means available if architects decide that the study of national planning problems should fill part of the vacuum.

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NOTES & TOPICS

TEAM VALLEY

THE exhibition in the hall of Charing Cross Underground for the last ten days has been the Team Valley Trading Estate.

*

It is a simple show: three models, some photographs, and pictures of Tyneside's industrial history. It might have been specially designed to give architects a nasty prod.

*

The model of the complete scheme reminds one that this—out of all light industrial development of the last fifteen years—is the only scheme really in operation where town planners, engineers and architects have collaborated to produce orderly efficiency from the beginning. In all other cases the fresh start made possible by light industrial development has been thrown away, either in ribbon factories or on trading estates which have managed to create a new form of landscape—a kind of fragile squalor.

*

For what the Team Valley shows is possible for industry architects ought to start and go on fighting, with every weapon from local M.P.'s to the C.P.R.E.

IDEAL HOMES

Mass observers, if there are any in the profession, have probably been to Olympia. The significance of this institution—it is all that by now—is immense.

*

The architect may wrinkle his nose. He may—as one at least has done this week—descend to any strategy to persuade clients to call on him *before* and not *after* visiting Olympia. When he has done both the public will still go to enjoy, and have their ideas formed, by Ideal Homes. And the sooner there is an Architect's House and an R.I.B.A. Stand the better.

*

Some impressions of my visit were the excellent decorative scheme with glass as the main motif; the agonized expressions of those descending the armour-plate glass stair; the salesmanship of the title "The Bride's House" (by Mr. Gerald Lacoste); the Bride's Bedroom in rose pink and electric blue—it took me a long time to fight my way in and out of this staggering apartment; and the excellent workmanship in all the houses.

*

Here and there exhibits were whimsically bad, such as the fireplace with shelf, tree-columns and all made of that glistening brown glazed earthenware one associates with comic fruit dishes. The only uniformly bad exhibits were in furniture. A badness well set off by the touches of period and the bizarre in Denis Wheatley's Mystery Rooms. Our forebears had a certain distinction in their oddnesses.

ESTABLISHED PRECEDENT

In a letter published last week Mr. Skinner described very carefully one of the first "external appearance" appeals to a local tribunal under the Town and Country Planning Act. It was a perfect affair, and as the first of many hundreds of similar cases I hope it was missed by no one.

*

Any architect who still retains a shred of a hope that these Tribunals or Advisory Committees will "improve" local architecture and never affect architects at all (save, of course, that outrageous modernist gang), had better think again. He may come in time to my opinion that it will be architects *and architects only* who will be victimized under this Act, which will not improve the standard of local building by a jot in a hundred years.

*

The Coulsdon and Purley case shows the additional difficulties that architectural practice is going to face in future.

*

Mr. Tyrrell's design, of which I have seen model and plans, has a flat roof but is otherwise as quiet as the most Georgian architect could want. Plans were first deposited on August 19 last year and were rejected on the grounds that "having regard to the general character of the existing buildings in Riddlesdown Road the building . . . would seriously disfigure the street by reason of the design of the building."

*

On the next page are illustrated a fair selection of these existing buildings.

*

Mr. Tyrrell pressed the matter which came before the Advisory Committee (Tribunal) on October 5, 1937—two months lost.

*

The Committee disapproved the design and declined subsequently to give any detailed reasons for so doing. A revised design was re-submitted to the Council on October 16, was again disapproved on October 29, and was again sent before the Advisory Committee (November 17, 1937)—three months lost.

*

This time Mr. Tyrrell was represented by a solicitor and had three expert witnesses to support him—Major Athoe, Mr. Basil Ward of Connell, Ward and Lucas, and Mr. Skinner of Tecton.

*

The Deputy Town Clerk stated that the Council liked

Some of the existing houses in Riddlesdown Road, Purley.

the second scheme even less than the first. But the Committee (Sir Arthur Spurgeon, J.P., Mr. B. Poulter, F.R.I.B.A., and Mr. C. Chart, F.S.I.), possibly impressed by Mr. Ward's assurances—the assurances of a member of the Council of the C.P.R.E.—revised their first verdict. After taking into their possession a sample of the external finish and hearing Mr. Tyrrell undertake *to maintain the trees in front of the house*, they approved the design.

*

The warning for you and I, dear colleague, is obvious. Mr. Tyrrell, who happened to be his own client, could perhaps wait three months and pay solicitor's charges. But when your design and my design for a client's house is disapproved, things will be different. Our clients —who don't know the first thing about design—will decide very easily what is the matter where our schemes are turned down. They will decide they have picked dud architects and go elsewhere.

ECONOMY CAMPAIGN

Essex ratepayers are very cross about the amount of money spent by the Essex County Council, namely, about £3,000 for the decorations of the Council Chamber of Chelmsford County Hall, which the Council apparently only uses four times a year.

*

Most of the arguments seem to be based on the very reasonable theory that the Council shouldn't spend money without making certain that it's the best way to spend it.

DOES IT WORK?

Mr. Carter, I see, has revived the old idea of a central information bureau for architects. A very good idea, if it were not for the law of libel, for any enquiry bureau will always be asked whether a material really does what is claimed for it—not just who makes it and how much it costs.

*

And it's the answer to this first question that causes all the trouble, for it must be admitted that a few materials are *not* perfect. But any bureau which actually says so won't survive very long.

SOCIAL NOTE

London stockbroker Peter Riley, whose purchase of the old Sun House at Chesham I reported eighteen months ago, has now finished moving it the two miles or so to its new site. In the words of the *Evening News*, the house has " been in turn a pilgrims' lodging-house, the home of the original Mad Hatter of the seventeenth century, an inn and a doss-house."

*

Now it's a stockbroker's private residence.

THIS WEEK'S WHIMSY

Five hundred children have been laying bricks for the new Birmingham Children's Hospital Extension. " Children of all ages were invited to lay the bricks with presentation trowels and to have their initials cut on the bricks in the outer walls of the Hospital. The idea of the scheme is to give the young subscribers a proprietary interest in the hospital." The bricks are only a guinea apiece.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

GOLD MEDAL FOR SIR CHARLES PEERS

Sir Charles Peers, former Chief Inspector of Ancient Monuments under the Office of Works, who has played a big part in the restoration and preservation of famous British cathedrals, castles, and historical buildings, is to receive the Society of Antiquaries' gold medal for his distinguished services to archæology.

MOVING SEVENTY-FIVE LARGE BUILDINGS

Following the successful removal of a block of flats weighing 23,000 tons on Gorky Street for a distance of 164 ft., the Moscow House Moving and Demolition Trust has drawn up a three-year plan, which provides for the removal of 75 large buildings to widen existing streets and to make way for new thoroughfares in connection with Moscow's reconstruction plan.

The technique of the removal is said to be a new one worked out by Soviet engineers. Steel I-beams were run under the foundation walls of the building and riveted together to make a rigid steel frame. All the inner and outer retaining walls were similarly supported on I-beams. The I-beams rested on 2,100 rollers, which travelled on steel rails, spiked to wooden ties embedded in concrete. The tracks thus formed rested on a bed of gravel spread over the whole area of work. Some 54,000 ft. of rails were employed to make the tracks.

ROYAL SOCIETY OF BRITISH ARTISTS

Mr. James Laver, Keeper of the Department of Engraving, Illustration and Design at the Victoria and Albert Museum, is to open the Summer Exhibition of the Society on Friday, April 22, at 3 p.m.

NORTHAMPTON TOWN HALL COMPETITION?

Northampton and county architects feel that misunderstanding has arisen over the question of inviting local architects to enter a competition for office and other extensions at Northampton Town Hall (states the *Northampton Chronicle and Echo*).

"First, the Markets and Town Hall Committee decided to invite Mr. Percy Thomas, F.R.I.B.A., to submit a design. The Town Council referred this back with a suggestion that local architects should be invited to submit designs. The Markets and Town Hall Committee reconsidered the matter, and decided to invite local architects to enter a competition. Later, the committee had placed before it regulations framed by the R.I.B.A. to govern competitions.

"Having considered the regulations, the committee decided to rescind its recommendation with regard to a competition, and returned to its first decision that Mr. Thomas be invited to submit a design. The recommendation with regard to Mr. Thomas was carried by the Town Council, despite the fact that there was another amendment for reference back.

"The statement was made that under a competition every architect who submitted unsuccessful plans would have to be compensated. To that statement the Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects gave emphatic denial.

"Northampton Town Council, it states, could limit the competition to architects in Northampton and the county, and offer premiums, say, three, as in open competition. No compensation would be payable to unsuccessful competitors, although an assessor would have to be appointed to have charge of the competition.

"It is only when designs are invited from a specified number of architects that the expenses of those unsuccessful have to be paid.

"It is feared that there was a misunderstanding with regard to the position among members of the Town Council, and Mr. F. A. Coles, secretary of the local association of architects, is to approach the Town Clerk on the matter.

"It is hoped that it may not be too late to make any change so far as a design for the Town Hall extensions is concerned, and in any case the local association of architects are anxious that the position shall be clearly understood for the future."

THE ARCHITECTS' DIARY

Thursday, April 21

IDEAL HOME EXHIBITION. *At Olympia. Until April 30. 10 a.m. to 10 p.m.*

R.I.B.A. EXHIBITIONS: "CIVIC CENTRES." *At the Public Art Galleries, Church Street, Brighton. Until April 24.* "AIRPORTS AND AIRWAYS." *At the Museum and Art Gallery Derby. Until April 24.*

SOCIETY OF INDUSTRIAL ARTISTS. *At the Building Centre, 158 New Bond Street, W.1. Discussion by executives of the Plastic Industry: "What We Think of the Designer." 8 p.m.*

Friday, April 22

R.I.B.A., 66 *Portland Place, W.1. Dance, organized by the R.I.B.A. Dance Club. 9 p.m. Exhibition: "Modern Schools." At the College of Arts and Crafts, Leicester.*

Monday, April 25

R.I.B.A., 66 *Portland Place, W.1.* "*London University.*" *By Charles Holden. 8 p.m.*

GARDEN CITIES AND TOWN PLANNING ASSOCIATION. *At the Housing Centre, Suffolk Street, S.W.1. Exhibition of books on planning. Until May 21.*

Tuesday, April 26

LONDON SOCIETY. *Coach Drive to Stoke D'Abernon Church and the Lawrence Weaver House at Leatherhead. Depart from Lancaster House. 2 p.m.*

INSTITUTION OF CIVIL ENGINEERS, *Gt. George Street, S.W.1.* "*Southampton Docks Extension.*" *By M. G. McHaffie. 6 p.m.*

Wednesday, April 27

INCORPORATED ASSOCIATION OF ARCHITECTS, *43 Grosvenor Place, S.W.1.* "*The Paris Exhibition, 1937.*" *By F. R. Yerbury. 7 p.m.*

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C.1. Annual Reception. 8.30 p.m.*

NORTHERN POLYTECHNIC

Mr. H. S. Goodhart-Rendel, P.R.I.B.A., in a recent address to students at the Northern Polytechnic, said he had always dreamed of the establishment in England of a national school of arts, subsidised by the Government, in which all young people with the necessary desire and talent could be fitted to serve their country in their several artistic vocations. This dream, however, seemed far from realization, and instead we had a number of schools closely associated by the Board of Architectural Education, under whose conduct they ran an almost parallel course towards the goal of the Institute examinations. The educational policy of the Polytechnic schools insisting upon thoroughness in the early stages of the course, thereby fitting students to be wage-earners directly they left the school, set an example of a particular duty very well done, and which other schools might do well to follow.

Continuing, Mr. Goodhart-Rendel offered a word of warning. Whether in public or private employment, he said, it was essential to see that as time went on their designing ability was not used by those who refused to acknowledge it publicly. Too often, the assistant's work was endorsed by the employer, a system accepted as a mere matter of course since architectural work was a business conducted in a business manner: but the art of the real artist arose from an instinct to communicate with his fellow-men, and it was a pity that he had to do this anonymously.

SLUM CLEARANCE AND RE-HOUSING

The most recent figures showing the position of slum clearance and re-housing are summarized below.

Clearance Areas and Orders.—During March local authorities declared areas comprising 4,978 houses representing the displacement of 17,794 persons, as compared with 5,049 houses and a displacement of 18,901 persons in February.

The Orders submitted during March covered 4,403 houses and the displacement of 15,803 persons, as compared with 3,713 houses and the displacement of 13,487 persons in February.

The Orders confirmed during March covered 4,986 houses and 20,559 persons as compared with 3,541 houses and 17,193 persons in February. The total number of houses in confirmed Orders is now 181,452, involving the displacement of 773,654 persons.

Re-housing Progress.—The latest available figures are those for February. At the end of that month there were 67,528 houses under construction as compared with 68,381 at the end of January and 58,276 at the end of February last year. 7,344 houses were completed during February as compared with 6,389 during January and 5,553 during February, 1937.

The great majority of these houses are being provided for re-housing persons displaced in connection with slum-clearance schemes.

EXHIBITIONS

[*By D. COSENS*]

THE relation between age and achievement is too variable to form the basis of prophecy as to the possible future development of any artist, or to be allowed to bias judgment in his favour. As a factor in painting, age is only important at the point where experiment ceases and complacency sets in, and that that may happen anywhere between birth and seventy is clearly shown by the work of many of our younger and some of our older painters.

The title "Artists who died young" serves however, as well as another, to bring together an extremely interesting collection at the Leicester Galleries. Twenty-two painters are represented in chronological order from Girtin, who died in 1802, to Christopher Wood, who died in 1930, and as diverse in outlook as Van Gogh, Beardsley, Caldecott or Lovat Fraser. There is the versatile and accomplished Gericault, who had so wide an influence; Bonington, his brilliant pupil and a master of pictorial design; Girtin, with his constructive principles and his power of composing a picture out of any ordinary scene; Spenser Gore, the promising pupil of Pissarro and Sickert; Brough, so admired by his contemporaries and so soon forgotten; Modigliani who like Bonington had perhaps reached his zenith; de la Fresnaye, the early cubist; and Gaudier Brzeska, that master of form in both line drawing and carving. There are some of Seurat's broadly painted studies, and perhaps most interesting of all, two unusual transitional Van Gogh's, "Entrée du parc" and "Chataigniers en fleurs," painted in Paris before the strong Provençal sunlight heightened his palette. These have not been shown in England before, and they are of exceptional interest.

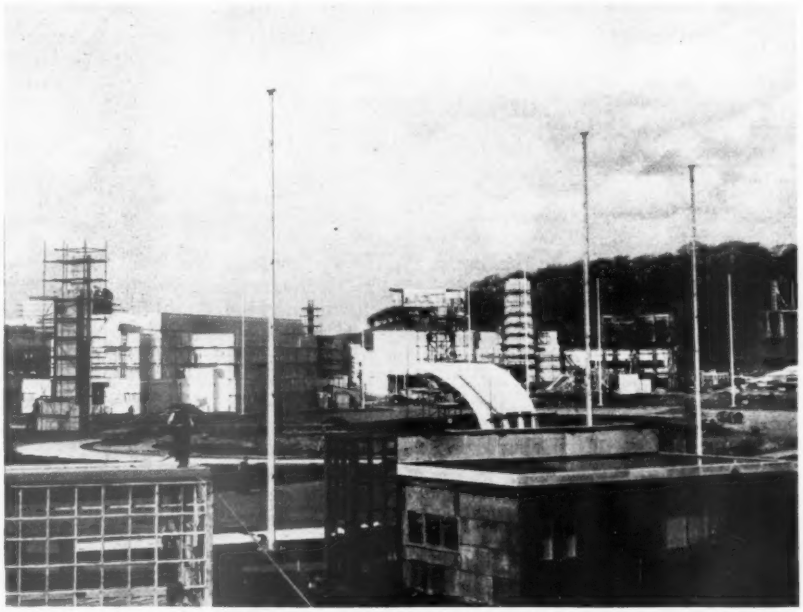
Henry Lamb is an artist whose work is typical of that English school which remained aloof from and uninfluenced by impressionism, and although he lived and worked in France before the War, there is little trace of French influence in his painting. Undoubtedly, impressionism has been largely misunderstood in this country, and its misapplied principles have not always produced happy results, but on the other hand, deliberate insularity in the face of the half-century that has seen impressionist, abstract and surreal art tends, in most painters, to give a very limited achievement. Henry Lamb's colour is as subtle, and his design as carefully arranged as ever, but it is an unfortunate fact that seen in the mass his work is dull with a uniform sameness. It is all very careful and restrained, and completely unrevealing. This will sound like heresy to his many admirers, for he is a painter of considerable and deserved repute. But his strongly felt war paintings, and many of his earlier portraits were quite another matter. In his present exhibition at the Leicester Galleries all his work is obviously the result of long and thoughtful observation. The landscapes are nice and quiet and well composed, with good distance and slight, accurately placed emphasis. "Study for a Group" and "Child in Red" are both excellent portraits, particularly the former. But "After Raphael," which is pure decoration, is perhaps a venture better suited to his talent than anything else.

Under the broad definition of "Sea Pictures" (for the sea is often barely visible) the Mayor Gallery is showing a very good collection of contemporary work, with paintings by Chirico, Tristram Hillier, and Roy le Maistre as some of the higher lights, and the completely nebulous and unco-ordinated "Summer Clouds" by Ethel Walker far away at the other extreme. Like the age limit in the "Artists who died young" exhibition the sea motif in this case serves to bring together paintings of almost equally varied outlook. John Bigge's "Time and Tide" is oddly reminiscent of a fifteenth-century Italian painting, and the mechanical shapes which take the place of the divine do not in the least upset the illusion. Only the axis of the power and the glory has shifted and is expressed in a different idiom. The suggestion of infinity is at any time a hard one, but in "Time and Tide" the painter has, in some measure, achieved this. Another interesting painting is Roy le Maistre's "Departure." In "Boats" Tristram Hillier is extremely successful in stressing the surreal qualities of a normal scene, and without the use of any incongruous image. David Jones's "View from a Balcony" makes one wish he still painted.

New paintings by Henry Lamb. Leicester Galleries. Until April 23.

Artists who Died Young. Leicester Galleries. Until April 23.

Sea Pictures. Mayor Gallery, 19 Cork Street. Until April 30.



Photograph showing work in progress in the "main street" of the Glasgow Exhibition which is to be opened by the King on May 3.

Professor Really Speaking

IT will be remembered, especially after James Hilton's very amusing article last week, that in 1940, the year after next, the experts say the population of this country is to be stationary for a short while. The long increase from the six millions of Elizabethan times, our most productive period, to the forty millions or whatever it is of today, is to end. For a few years the population is to remain level and then the gradual decline to the ten millions or so, which some think is the optimum number for the best life for all, is to set in.

If the world war, into which we seem to be sliding so gracelessly, does not occur, 1940 is clearly going to be a very important year. For the first time the major factor in every planning scheme will be known. So many people, so many mouths to fill, so many pairs of boots to make. Also so many architects. We want so many for the work of the community and for the good life of each and no more. Can we not start, then, a quota of architects? I think we can.

It really looks as if, too, at this critical and useful moment we are at long last about to be able to close the profession. If the Bill before Parliament passes, as seems likely, only those on the register will be able to call themselves architects. Others can call themselves anything else they like, house designers, dress designers, anything, but not architects, and "architect" is a word the public has got to understand. It is clearly, then, a very important moment indeed. Here, on one hand, we have for the first time a stationary population and on the other the power to limit the number of architects. Will we be sensible and collate the two? Will we say so many and no more? I hope so, and not least for the good of architectural education.

If, then, after long and careful consideration we say for this fixed population the ideal number of architects—the same applies, of course, to all the professions—is so and so (say eight thousand), we must go further and say the number to be admitted each year is so and so (say five hundred). We can then say to each school of architecture the share of this five hundred to you is fifty, forty or whatever it may be.

Even before that, of course, a quota must be settled for the numbers to be let in to the profession by direct examination, by what I call the back door. There should be a competitive examination in future for a definite number of places, like the entrance to the Civil Service. I do not believe myself you can safely choose the main body of architects by an *ad hoc* examination. Something more subtle is required which only the Schools with their long series of one-man exhibitions of each student's work over a number of years can provide. Still we must leave a way open for the genius who, even with the most liberal provision of maintenance and other scholarships, has not been able to get to a School. The dullest examiners should be able to recognize him. The danger of the back door at its present width is that it lets in, in addition to the geniuses, a crowd whose power to design had never been adequately tested and cannot be by any ordinary examination.

The Schools, then, each with their fixed maximum numbers, could plan their work and arrange the members of their staff for the highest efficiency. Just before I left Liverpool we had planned and built the new School buildings there for two hundred students giving to each what we conceived to be the ideal amount of well-lit studio space as of every other facility. That was the figure we had reached a few years before, but in our old buildings with half the space really necessary. Today under the threat of closing the profession all the Schools are being besieged with new students, and Liverpool has already had to give way. She has had to exceed what we considered the optimum number by fifteen. If, however, she were allowed to qualify only so many and no more at the end of her course she would not have been tempted to do this. Instead she would have to institute, and so would all the other schools, a really serious entrance examination and keep a waiting list of those who had passed it. To have been accepted at Liverpool, even if for the moment there was no vacant place for one, would then count as something and the existence of the test and waiting list would be good for the School, just as they were in Paris thirty years ago in the heyday of the Ecole des Beaux Arts.

I see then, as everyone must, with a proper quota established throughout the country a gradually rising standard of general as well as of technical education for the profession, and following that, in due course, a rising standard of results in actual building. People often ask me how is it that with a school of architecture today in most of the big centres the general standard of building throughout the country is still so low, so much lower, say, than it was in the eighteenth century. The answer is the British schools have not been established long enough greatly to affect the result. They have only become big and serious since the war, that is in the last twenty years. Not 5 per cent. of the men today in practice on their own account are as yet school-trained (compare the house-trained dog which commits no nuisances) and not 10 per cent. of the chief official architects. In France, where there have been schools of architecture for the last two hundred and fifty years, it is a very different matter. The clean streamlined effect of a Paris street compared to the muddle of a London one is not mainly the result of regulations. It is the result of training. Methods of expression change in France as with us, they have their new MARS Group buildings and their new traditional ones just as we have, but the result is a greater, and by greater I mean a higher, unity because there is a higher unity in the logical, trained minds which produce it.

My vision therefore of the future twenty years hence, when I and most of the other office-trained men will be dead and buried, is of a highly educated profession, able in every way to hold its own with the members of the other learned professions, which, to be quite honest, one must admit it cannot always and everywhere do at present, but also, and this is more important still, sensitive to beauty in all its forms from the strongest to the subtlest. Training even of highly selected people will not ensure creative power, but it will ensure people not mistaking vulgarity for it. In the eighteenth century, when the good apprentice followed the work of the master and did not, as a rule, dream of forsaking his master's manner, he was highly trained within narrow limits. Now, working in a unified world instead of in some small district of one country and with new ideas flowing in all the time from every direction, the Schools have to do the same canalizing work for the students in the complicated world of today which the master and his narrow creed did then in their little one and that without losing any of the vitality the new ideas give. It is a great work, perhaps the greatest of all. For it they must have the best men to teach and the best students to train. With a stationary population and a closed profession both these are for the first time possible. The professional planners can at last have a planned profession. It is the beginning of a new world.

The latest Lutyens *mot*. At the National Gallery Centenary party the other night he came up to me and said: "Really, Reilly, it's no good your pushing this MARS Group stuff, you are not handing on the torch but a kerosene tin."

LETTERS FROM READERS

Architects and Town Planning

SIR,—I have read with great interest the leading articles in which you stress the importance of town planning and suggest that architects do not play a sufficient part in its practice.

In your issue for April 7 you refer to the founding of "a society specially devoted to town planning" and, from the context, it seems obvious that you are referring to the Town Planning Institute, of which I have the honour to be the President.

This Institute was founded in 1913 and the letter proposing its constitution had twenty signatories of whom eleven were architects (including one past and one future president of the R.I.B.A., namely, Sir Aston Webb and Mr. (now Sir) Raymond Unwin), four engineers and three surveyors.

The founders of the Institute recognized that the science or art of town planning required the combined knowledge and experience of the architect, engineer, surveyor and lawyer, and care has always been taken that these elements should be represented on the council.

EWART G. CULPIN, F.R.I.B.A.
President, Town Planning Institute.

A. HODSDON ARCHARD, L.R.I.B.A.

F. J. CONNELL

G. V. DOWNER,
G.V.D. Illuminators, Ltd.

E. G. ELTON,
Sales Director, Thermolux Glass Co., Ltd.

A qualifying examination was instituted in 1916, and since 1930 has been conducted by a joint examination board, representative of the Institute, the Royal Institute of British Architects, the Chartered Surveyors' Institution, and the Institution of Municipal and County Engineers. The board also conducts the town planning diploma examinations of the other constituent bodies.

There are now over 900 members of the Institute, many of whom are qualified architects, and the interchange of views and experience within the Institute between men and women with different professional backgrounds has undoubtedly greatly extended the knowledge and improved the practice of town planning.

Members comprise both consultants and planning officers, and the latter now form a section of the Institute so as to afford themselves additional opportunity for improving their technique by mutual exchange of knowledge and experience.

The Institute is grateful for the cordial relationship that has always existed

between it and the other bodies from which its membership was originally derived, and I think that this brief summary clearly indicates that the profession of planning has now been firmly established and that the architectural aspect of it is in no way neglected.

EWART G. CULPIN,
President, Town Planning Institute.

[*Mr. Culpin states that there are now 900 members of the Town Planning Institute, "many of whom are qualified architects." In view of the importance of town planning to architects, it would be interesting to know the exact number of architect members.*—ED. *A.J.*]

R.I.B.A. Lecture

SIR,—At a recent lecture at the R.I.B.A. by Mr. Edwin Gunn, he spoke of the difficulties encountered through clients having little knowledge of the work carried out by the architect. Feeling very strongly on the same subject, I was bold enough to join in the discussion which followed the lecture and gave two concrete examples illustrating the amazing ignorance of the general public concerning the services which the architect renders.

In subsequent correspondence with Mr. Gunn on the same point he praised a publication of the Architectural Press entitled "The Adventure of Building." I remember this quite well, and have one copy left, the other having been given away long ago. My interest was revived by his remarks and I hear from your office that it is now out of print. I think this is most regrettable and sincerely hope that some steps will be taken to issue it again.

I cannot help feeling that there is a tremendous field for publications of this kind. A great service could be rendered to the profession as a whole if architectural services were more widely appreciated. I shall be most interested to hear that you will consider reprinting the booklet or, alternatively, bringing out something similar quite soon.

A. HODSDON ARCHARD

Salaries

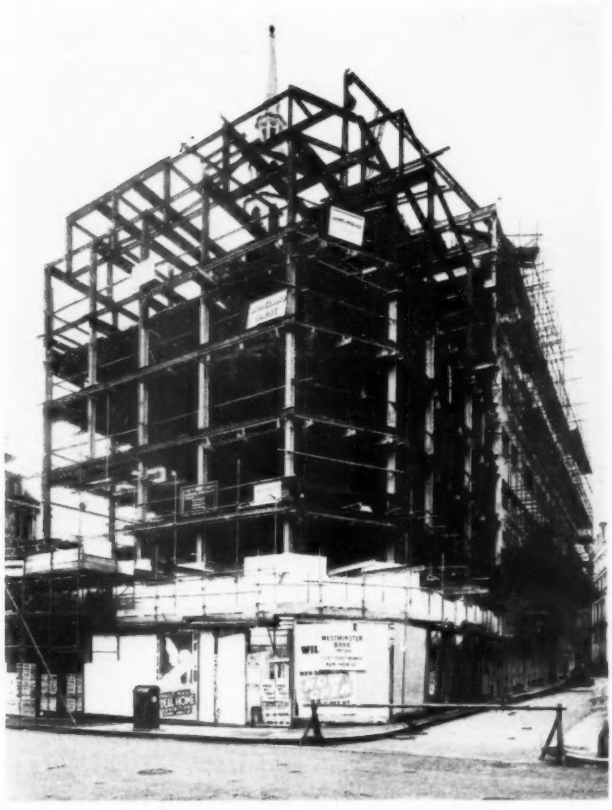
SIR,—While applauding Mr. A. W. Barr, the A.A.S.T.A. and the R.I.B.A. for their praiseworthy attempt at enforcing a universal scale of minimum salaries for architectural assistants, I think that the important question of relative costs of living as between London and the Provinces seems to have been overlooked. One feels that the scale has been worked out in London, by predominantly London members, for London practice.

£200 a year may be little above subsistance level in London, where rents and the cost of recreation are enormous, whereas in a town like Edinburgh it is a very comfortable salary, and this probably applies equally well in South Shields.

In the Provinces, where the volume of work is on a smaller scale, the recompense more precarious and the amount of principal's time to assistant's time more unbalanced, all but a handful of firms simply could not survive if they attempted to apply the recommended scale.

F. J. CONNELL

A progress photograph, taken from Fleet Street, of the new offices for the Press Association.



Lighting

SIR,—Much of Mr. Waldo Maitland's letter in your issue for April 7 is not clear to me.

For instance, his statement that "education today imposes upon the pupil visual tasks which are critical and prolonged," seems to be an exaggeration, in so far as education does not impose nearly such critical or such prolonged visual tasks as many technical and commercial occupations; *e.g.*, educational hours are normally considerably shorter than business hours.

I agree with Mr. Maitland that it would be interesting to know on what test the Board of Education based its suggestions of 6 ft. candles in 1931 and of 10 ft. candles in 1937 as desk-level minima for classrooms.

I cannot make much of Mr. Maitland's fifth paragraph. To take a few points only, it is not clear what he means by "a balance of illumination"; and what is meant by "an intensity that will provide a reasonably even illumination is desirable if the suggested diversity factor of 1·5 to 1 is to be maintained"? What is meant by diversity factor? Who suggested the figures given, and why should not we have a reasonably even illumination in any case? If diversity refers to variation of intensity, as one might reasonably guess, Mr. Maitland is merely saying that a reasonably even illumination is desirable if a reasonably even illumination is to be maintained. Further, in the same paragraph he speaks of ceiling brightness being maintained within desirable limits, but does not state what he considers are desirable limits and why. He also states that "colour and finish of wall, ceilings and furniture should receive careful consideration," which seems obvious, but he does not offer advice or information on the subject.

In his next paragraph Mr. Maitland supports the original suggestion of 15 to 20 ft. candles for classrooms and states that my suggestion that this intensity is injurious to the eyes is quite unfounded. I contend very strongly that any considerable excess of intensity beyond what is necessary and comfortable to the eyes is injurious, largely because all artificial light differs very considerably from daylight, for which our eyes are naturally adapted. Since I myself work extremely hard for very much longer hours than any school child or student, yet with perfect ease, under an illumination of $3\frac{1}{2}$ ft. candles, I feel quite justified in asserting that 15 to 20 ft. candles is unnecessary and therefore too much, i.e. injurious. In addition, it is, of course, financially

very extravagant, and it is difficult to understand anyone recommending such high intensities.

I am trying to dispel ignorance on the subject, as there is a possible danger to human sight and, therefore, to health and happiness. That marvellous and beautiful mechanism, the human eye, is already among "civilized" races losing much of its resilience and powers of perception, largely due (among other influences) to the ever-increasing intensities of artificial light to which it is being subjected, and unless this tendency is checked the race will go blind in two or three generations. If I blind one person by throwing vitriol in his eyes I am liable to a long term of imprisonment, yet apparently anyone holding himself out as an "expert" may with impunity advocate and practise the infliction of unduly high intensities of artificial light on thousands or even millions of his fellow beings.

Mr. Maitland seems to have fallen into the error (as I regard it) of some of your other correspondents, in quoting many figures or opinions of other persons or bodies but without making any real contribution of his own to the subject. The one thing that would interest me, and probably other readers, is what Mr. Maitland himself thinks or has found in practice.

Mr. Maitland does not appear to have read my previous letter (in your issue for March 31) in which I pointed out precisely what a foot candle means and set a simple little problem. I would like to ask Mr. Maitland to work out that little problem for himself and let us know the result, and also, if he likes, perhaps he will work out how many candles will be needed to provide an all-round intensity of 4 ft. candles.

G. V. DOWNER

SIR,—I have been reading with increasing interest the correspondence which has appeared in your JOURNAL on "Lighting" since March 3. May I now butt in? My point of view is that of a person interested in daylight only, therefore unaffected by the difficulties of those who are doing their best to reproduce daylight artificially.

None of your correspondents has :—

(1) Drawn attention to the fact that outside illumination in this country varies between an average of 500 ft. candles around noon during the winter and a maximum of 7,500 ft. candles during sunshine in midsummer. (*See* Illumination Research Technical Paper No. 17 — Seasonal Variation of Daylight Illumination.)

(2) Analysed the strain placed upon a child's eye in relation to the findings of the Illumination Research Committee and the Industrial Health Research Board published under the title: "The Relation between Illumination and Industrial Efficiency, I—The Effect of Size of Work."

Contemplation of (1) dismisses any fears of illumination in excess of 15 to 20 foot candles causing discomfort, but I do agree with Mr. Downer that, once the necessary minimum has been provided, good distribution or, in other words, a small diversity ratio is more important than quantity. What we have to find out is how far we can go with perfectly distributed light and continue to reduce eyestrain. The only figure I have been able to obtain is that tests have shown that 1,000 (one thousand) foot candles on a white surface (80-85 per cent. reflection factor) represents the threshold of discomfort in diffused daylight.

The report mentioned under (2) is of far-reaching importance in this respect and yet it does not seem to have received the attention it deserves. An example taken at random is the light required for an average person to see 6-point type (see panel in left-hand bottom corner of Information Sheet No. 373) without eyestrain at a distance of 13 ins. For 100 per cent. "performance" in reading this type an illumination intensity on the paper of 750 ft. candles is required, though it ought to be added that 99 per cent. performance requires only 168 ft. candles and 98 per cent. only 100. Most of us "guess" the word we are reading by its general shape, but children concentrate upon outline, a fact which is recognized by the use of fairly large type for their books. This in turn does way with the necessity of the high intensities mentioned except possibly where they are being taught draughtsmanship. Nevertheless, the correspondence which you have so far published, most of which has a bias in favour of very small light intensities, does not clear up the point: What is an optimum illumination intensity in schools at bench level? All we are learning is what are feasible intensities of artificial lighting in the present state of development of the industry.

My last point is that too much play is made of minima. A minimum is the point at which our accommodating eyes revolt under overstrain. It is known that efficiency graphs become smoother as the intensity increases, and this fact is used to argue against higher intensities. I don't agree with this attitude. These graphs need reading backwards as indicating the increasing strain upon the eye as the illumination falls, and we ought to try to get well within the "horizontal" region of the graph to make quite sure that sub-standard eyes will not suffer.

E. G. ELTON

R.I.B.A.

Air Raid Precautions.—The Home Office has requested the R.I.B.A. to undertake the dissemination of technical knowledge on structural air-raid precautions. The Air Raid Precautions Department has accumulated a considerable amount of technical information which it proposes placing at the disposal of the R.I.B.A. It is intended as a first step to hold a three-day Conference at the R.I.B.A. in the near future, to be followed by other conferences in the areas of Allied Societies. These conferences would include short courses of technical instruction. Arrangements are at present provisional and details will be announced later.

Royal College of Art Exhibition.—The R.I.B.A. has lent the Henry Florence Hall to the Royal College of Art from April 29 to May 14 for an exhibition of architectural drawings and designs by students of painting, design and sculpture. Each of these students at the R.C.A. spends two days a week in the School of Architecture, during his or her first year, in order to learn the relationships of the arts to architectural history and to modern practice. They are taught architecture as a setting and foundation for the other arts. Some work by senior students will also be included in the exhibition. The opening ceremony will be performed by Mr. R. S. Wood, Principal Assistant Secretary to the Board of Education. The private view will be held on April 28.

Exhibitions.—"Health, Sport and Fitness" opens at the Mortimer Galleries, Hull, on May 1, and will remain open until May 21. "Civic Centres" at the Public Art Galleries, Brighton, until May 8. An exhibition of work by the members of the South-Eastern Society of Architects is included. "Airports and Airways" at the Museum and Art Gallery, Derby, until April 24.

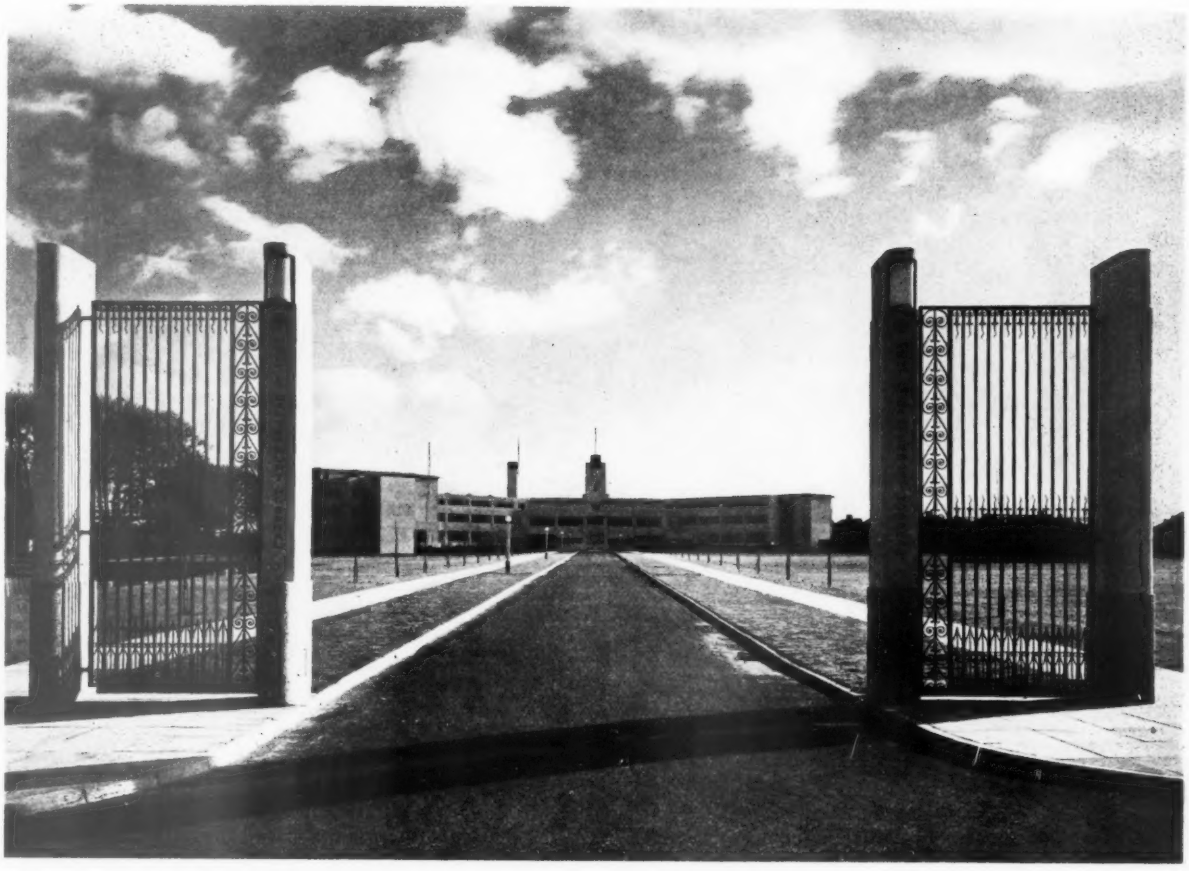
COMPETITION NEWS

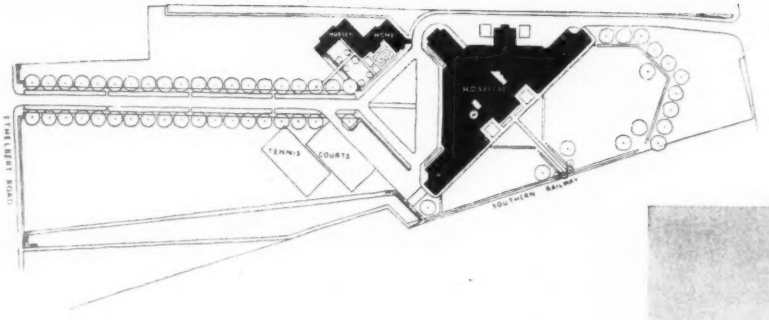
A municipal competition for the re-planning of the centre of Tel Aviv, Palestine, attracted 36 entries from architects and engineers. No first prize was awarded, as none of the plans submitted was adopted in its entirety. Several plans were accepted, however, and a committee was appointed to select from them ideas which can be co-ordinated into a single scheme.

Second prize was shared by Mrs. G. Averbuch and Mr. G. Gelbaw. Third prize was awarded to Messrs. D. A. Druzkus and A. Glickson; fourth prize, to Mr. A. Sharon; and the fifth shared by Mr. B. Enikstein and Mr. B. Bachrach.

Judges were Mr. Israel Rokach, the Mayor; Mr. A. Zabarsky, Chairman of the Municipal Technical Committee; Mr. J. Shiffman, Municipal Engineer; Messrs. R. Kaufman and J. Neufeld, architects; and Mr. I. Rappaport, civil engineer.

KENT AND CANTERBURY HOSPITAL





LAYOUT PLAN

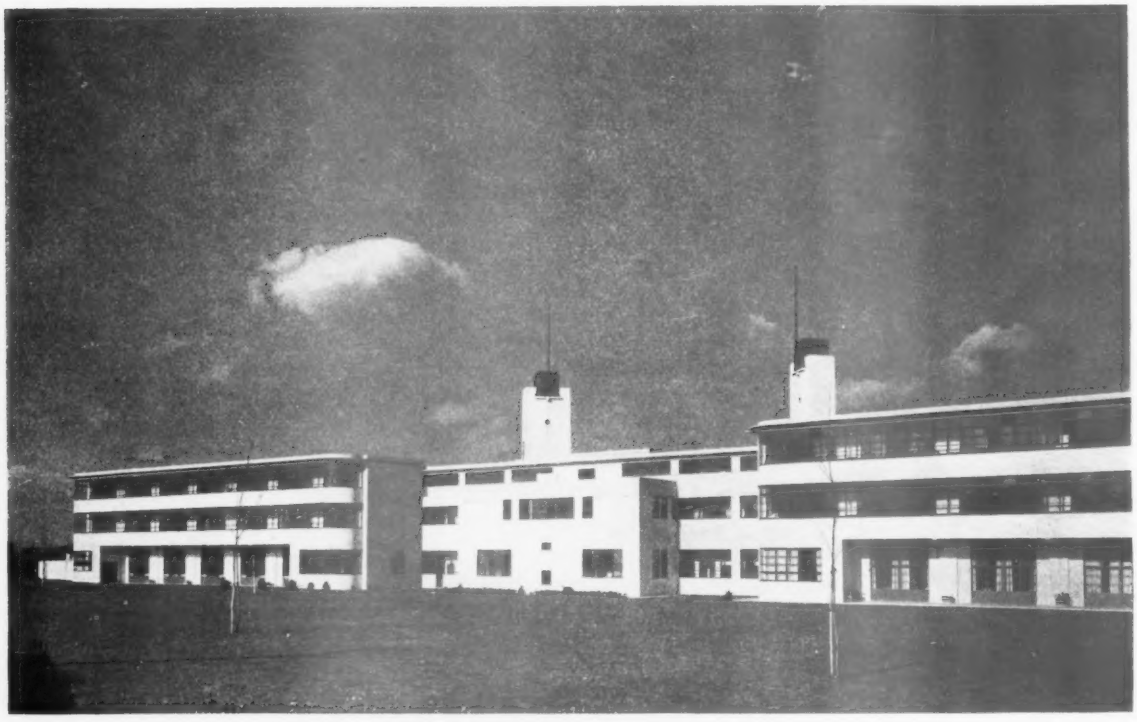
DESIGNED BY CECIL BURNS

SITE—*Ethelbert Road, Canterbury. The main entrance is from this road, with a chestnut avenue leading to the main forecourt; and a secondary connecting road, round the back of the buildings, joins the Nackington Road.*

CONSTRUCTION AND EXTERNAL FINISHES—*Reinforced concrete construction has been used throughout. No internal walls are structural. The concrete has been finished externally with a special white finish, but the aggregate has been left exposed in places in the form of panels. The floors are of hollow construction with suspended ceilings to prevent sound transmission.*

The photographs show: Top, a view from the main entrance gate; and the entrance front.

KENT AND CANTERBURY HOSPITAL:



PLAN—*The ward blocks are planned on three floors, providing accommodation for 181 patients. The larger wards are divided into 4-bed compartments by low steel and glass screens. These screens are factory-made standard units specially designed so that they can be erected in position complete, with the heating, lighting, bells, and wireless services ready to be connected to the mains.*

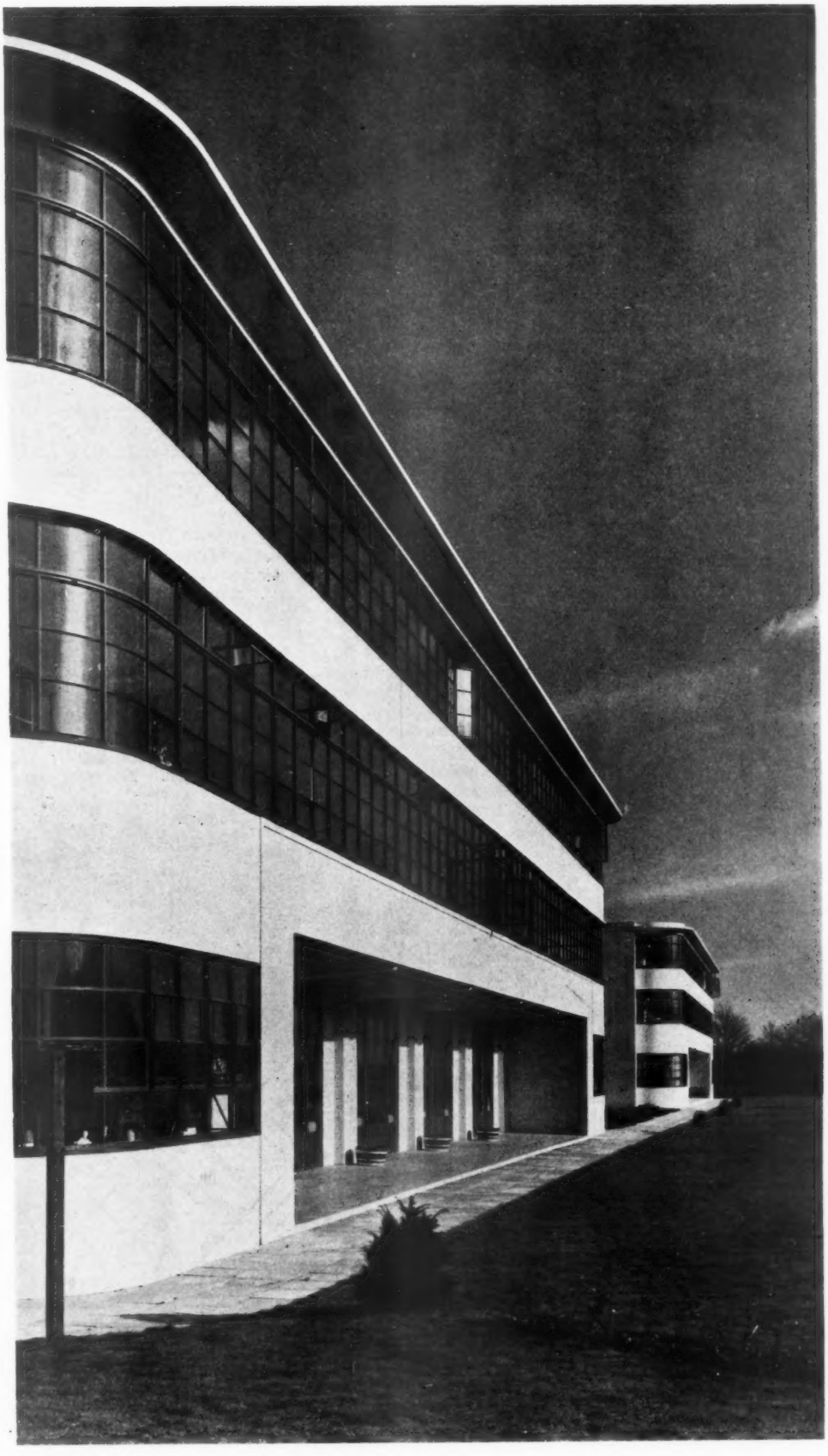
The kitchen projects clear of the other buildings, and so is cross-ventilated: but to prevent the smell of cooking penetrating into the main building, a ventilating shaft is carried up beside the main boiler chimney shaft.

The nurses' home is connected with the main building by a covered way. It contains 5 sitting-rooms and 97 bedrooms for the nursing and domestic staff.

A special feature is the shallow basement, which extends under the whole of the hospital buildings. Here are run the electric mains, also the pipework of every description, including drainage. From this basement vertical ducts are carried up the building at convenient positions.

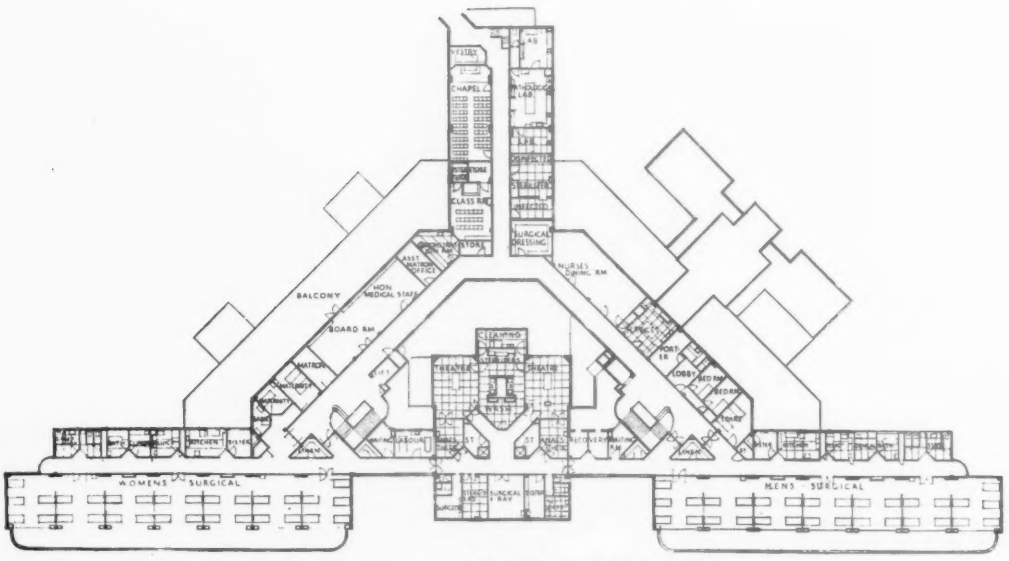
The photographs show: Top, a general view from the south; left, the nurses' home.

DESIGNED BY CECIL BURNS

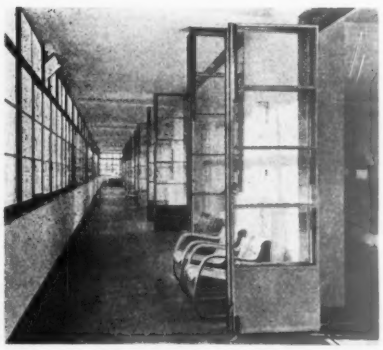


A detail of the continuous windows along the south front.

KENT AND CANTERBURY HOSPITAL:

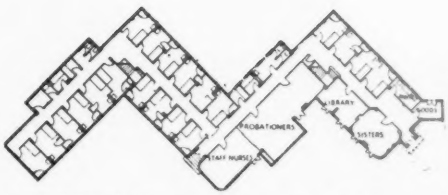


SECOND FLOOR PLAN

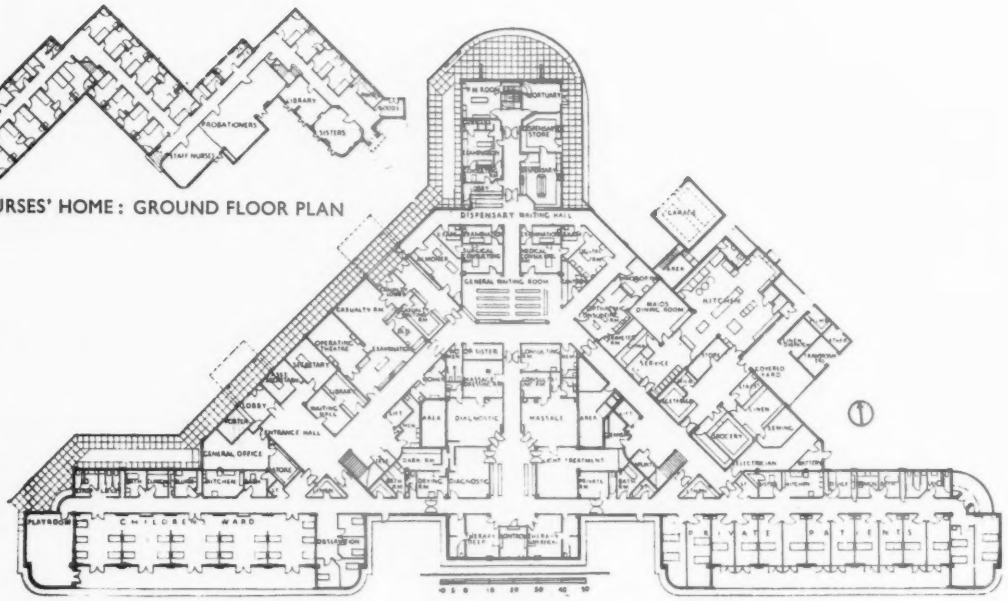


EQUIPMENT—*Heat for all purposes for the hospital and nurses' home is generated in one central boiler house containing three high-efficiency steam boilers. The theatres and adjacent rooms have steam heating panels. This group of rooms is also air-conditioned. Low-pressure steam is distributed where necessary in the hospital for sterilizing and cooking, and steam mains are available at a higher pressure for special sterilizing apparatus. Special engineering equipment in the hospital includes: electric service and bed lifts; automatic telephone installation; broadcast call system, which allows any person to be called by the telephonist; electric clocks operated by a master clock; electric bell with luminous signalling system for patients; wireless installation with headphones for all beds, and loud-speakers in certain cases. The air-conditioning system, all electric, is designed to fulfil the following requirements: heating, humidifying, cooling, drying, filtration, and ventilation. The refrigeration is of the direct expansion type.*

On the left is a view of a sun balcony.

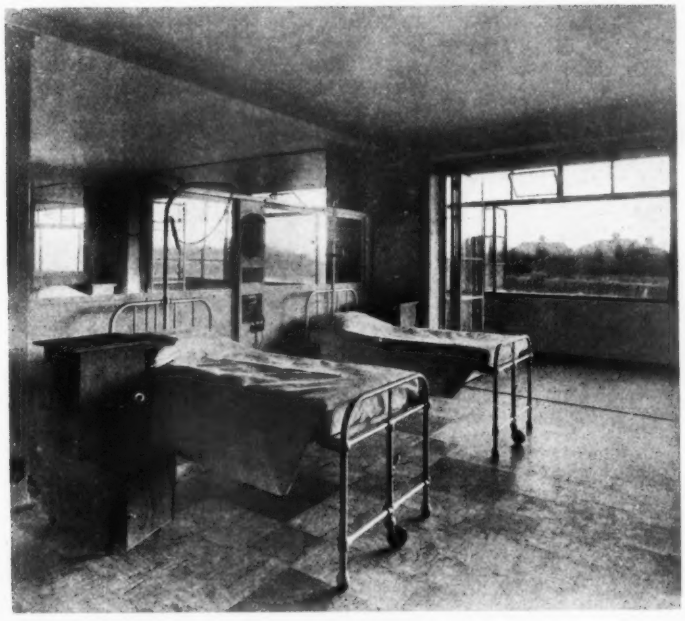


NURSES' HOME: GROUND FLOOR PLAN

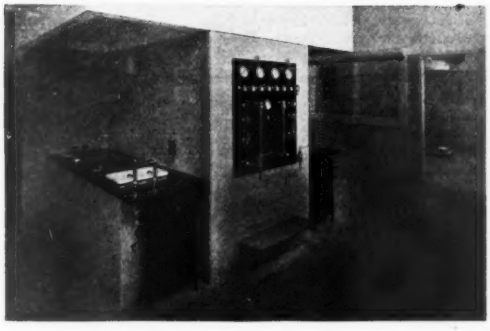


GROUND FLOOR PLAN

DESIGNED BY CECIL BURNS



The photographs show : Above, the operating theatre ; below, the surgeon's wash-up ; right, day and night views in a ward looking towards the solarium ; and a typical corridor.



KENT AND CANTERBURY HOSPITAL

DESIGNED BY CECIL BURNS

The photographs show : top, left, the entrance hall : above, the main kitchen ; left, the probationers' sitting room.

LAW REPORT

CONTRACT ON R.I.B.A. FORM

J. A. Milestone and Sons, Ltd. (in liquidation) v. Yates Castle Brewery, Ltd.—King's Bench Division. Before Mr. Justice Singleton

THIS matter came before the Court on a special case and the question raised was whether Yates Castle Brewery, Ltd., of Liverpool and Birkenhead, who entered into a contract dated November 21, 1933, with the plaintiffs, J. A. Milestone and Sons, Ltd., building contractors and decorators, of Wallasey, Cheshire, for the construction by them for the Brewery Company of the Travellers' Rest Hotel at Wallasey for £12,790, were entitled to retain in the liquidation proceedings of the contractors £643, the balance of the sum due under the contract, for the purpose of paying it to the specialists who sub-contracted for certain parts of the work.

The contract was on the R.I.B.A. (1909 edition) form, and in September, 1935, the plaintiff company went into liquidation, at which time the work comprised in the contract had been practically carried out. There remained due to the plaintiffs on account of the work done for the defendants a balance amounting to £1,094, and of that sum the latter agreed that £451 was payable to the plaintiffs as the contractors, but they contended that they, as building owners under the contract, had the right and the duty to pay the balance of £643 to the specialists who did certain of the work on the building.

On behalf of the plaintiffs, however, it was contended that the £643 should be paid to them as the contractors and that as the specialists concerned were not sub-contractors they stood in the same position as the general body of the plaintiff company's creditors.

Mr. Maxwell Fyfe, K.C., and Mr. R. A. Hamilton appeared for the plaintiffs, and Mr. F. E. Pritchard, K.C., and Mr. Gordon Clover represented the defendants.

His lordship, in a reserved judgment, said the dispute arose out of a contract between the plaintiffs and defendants. The contract was for the erection of an hotel, subject to terms and conditions contained on the schedule in the contract. Defendants and the architects claimed the right to deduct the specialists' charges.

After stating the facts, his lordship said the arbitrator awarded the plaintiffs the sum of £451 and the present dispute was as to the balance, £643. By clause 2 of the contract, the defendants agreed to pay the contract price to the plaintiffs, in the manner specified in the conditions, and plaintiffs were entitled to payment by instalments during the progress of the work. The contract, however, contemplated work being done by firms other than the plaintiffs, including work by specialists.

His lordship said it was argued that the conditions of the contract were wide enough to enable the architect to pay direct any sums under the contract in accordance with its terms. His lordship was unable to find that the parties so agreed or that there was any right in the architect to issue certificates to the sub-contractors. They could not be regarded as valid certificates to pay the sub-contractors. The result was that the plaintiffs were entitled to have the award set aside in accordance with a clause which came into operation under the circumstances of their case. The arbitrator had provided for the event that had happened. The plaintiffs would have the costs of the hearing.

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Royal Society of British Sculptors

The following have been elected associate members of the Royal Society of British Sculptors : Miss Julian Allan, Mr. Frank Dobson, Mr. Eric Gill, A.R.A., Miss Dora Gordine, Mr. T. Huxley-Jones, Mr. Maurice Lambert, Miss Erica Lee, Miss Helen V. Mackay, and Mr. Charles Sykes.

WORKING DETAILS : 647

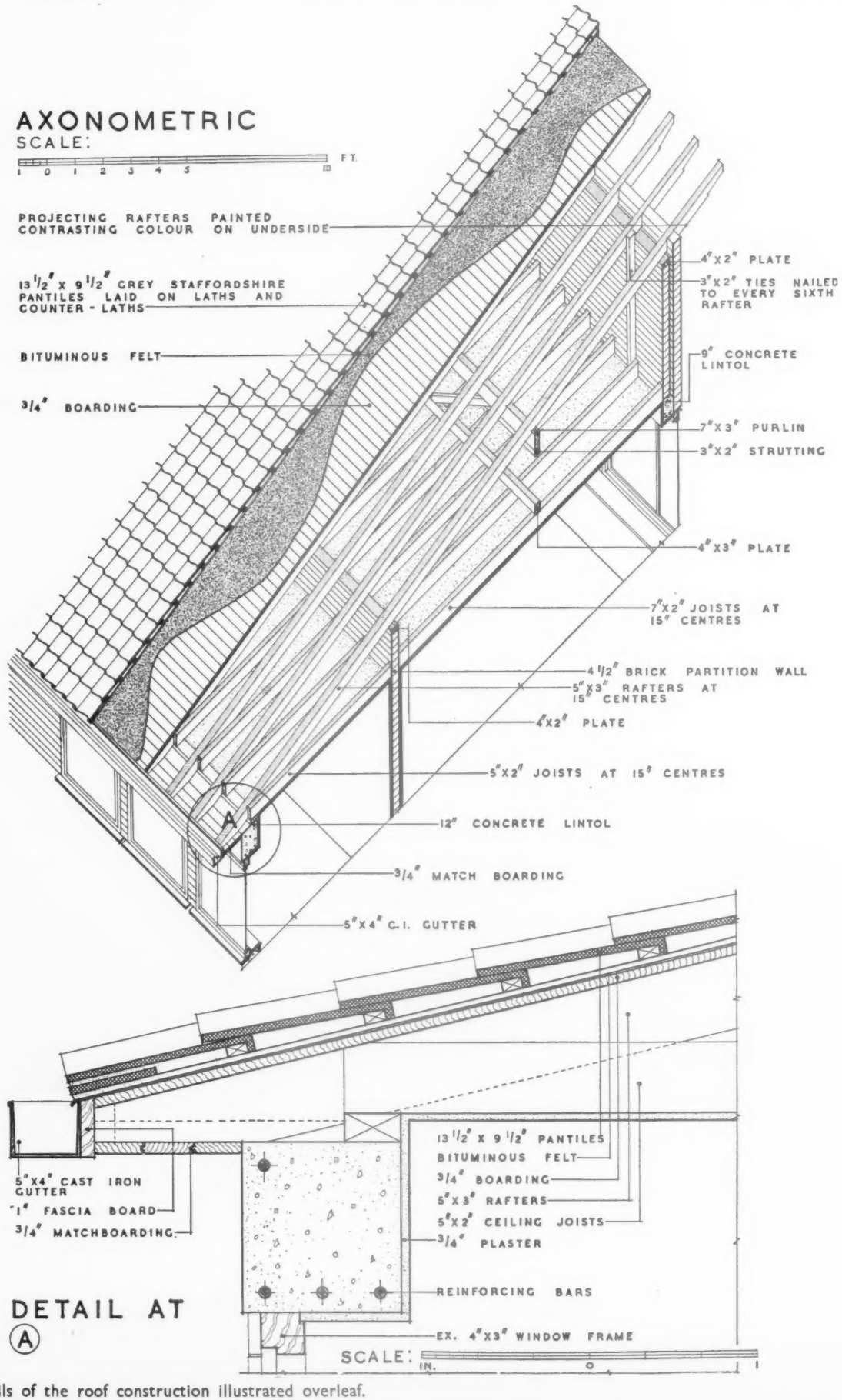
ROOF CONSTRUCTION • HOUSE AT TEWIN, HERTS • MARY CROWLEY

The roof illustrated has a one-way pitch of approximately 14°. It is constructed of timber and covered with grey Staffordshire pantiles on lathing, counter-lathing, felt and boarding. The rafters project on one elevation, and are painted a contrasting colour on the underside. Overleaf is a drawing showing the construction of the roof.

661

WORKING DETAILS : 648

ROOF CONSTRUCTION • HOUSE AT TEWIN, HERTS • MARY CROWLEY



Details of the roof construction illustrated overleaf.

The Architects' Journal Library of Planned Information

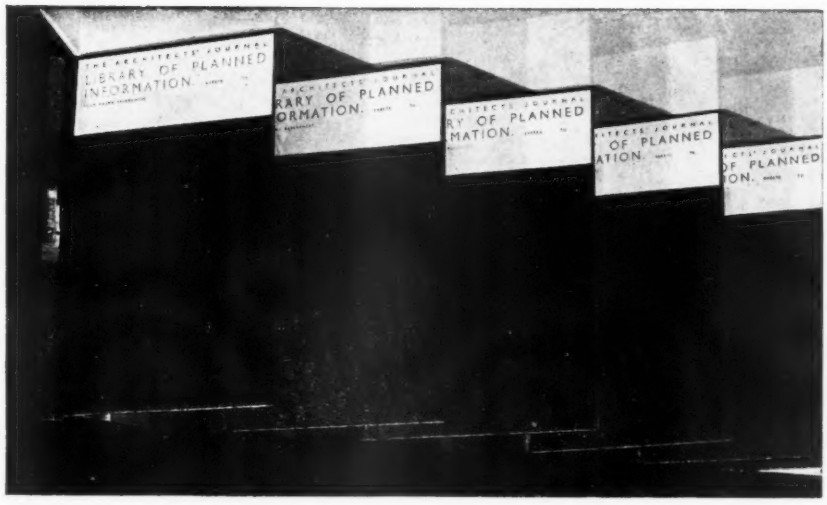
INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

619 Glass Walls, Windows, Screens, and Partitions

620 Weatherings—2



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

Sheets issued since Index :

601 : Sanitary Equipment
602 : Enamel Paints
603 : Hot Water Boilers—III
604 : Gas Cookers
605 : Insulation and Protection of Buildings
606 : Heating Equipment
607 : The Equipment of Buildings
608 : Water Heating
609 : Fireplaces
610 : Weatherings—I
611 : Fire Protection and Insulation
612 : Glass Masonry
613 : Roofing
614 : Central Heating
615 : Heating : Open Fires
616 : External Renderings
617 : Kitchen Equipment
618 : Roof and Pavement Lights

790

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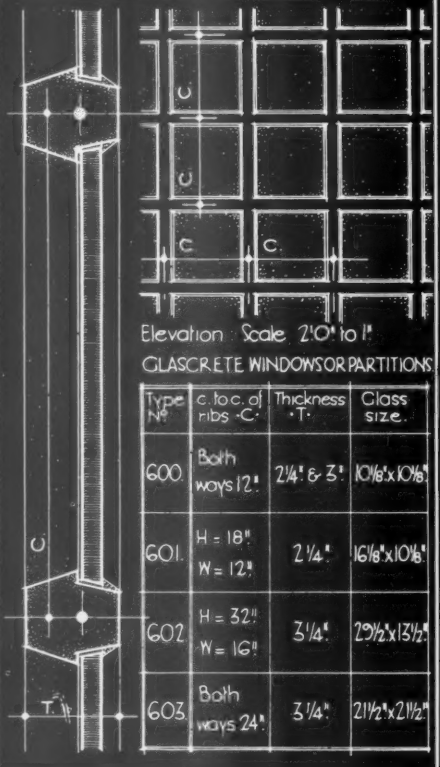
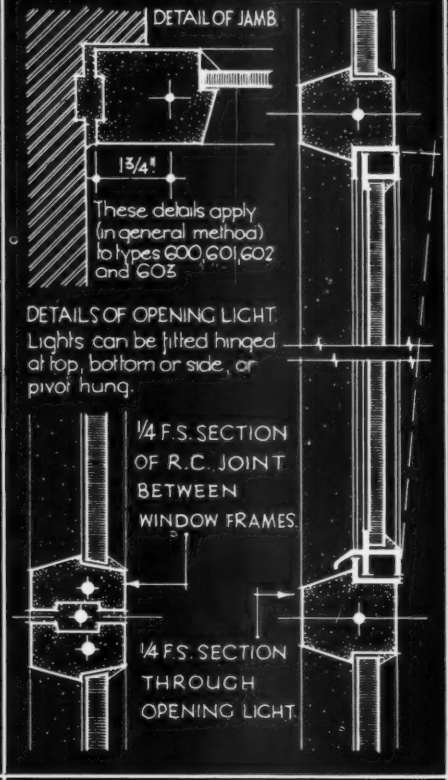
TYPES OF GLASCRETE CONSTRUCTION FOR WALLS, FIXED WINDOWS AND PARTITIONS

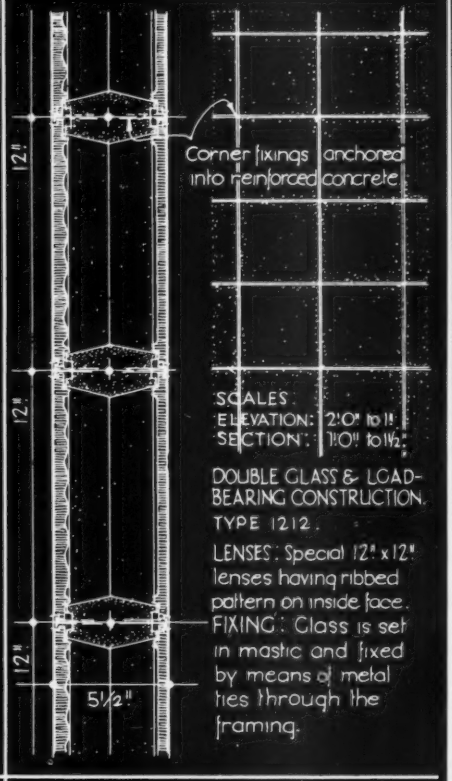


Elevation. Scale 2'0" to 1".

GLASCRETE WINDOWS OR PARTITIONS

Type No.	c. to c. of ribs 'C'	Thickness 'T'	Glass size.
600.	Both ways 12".	2¼" & 3".	10⅛"x10⅛"
601.	H = 18" W = 12"	2¼".	16⅛"x10⅛"
602.	H = 32" W = 16"	3¼".	29½"x13½"
603.	Both ways 24".	3¼".	21½"x21½"



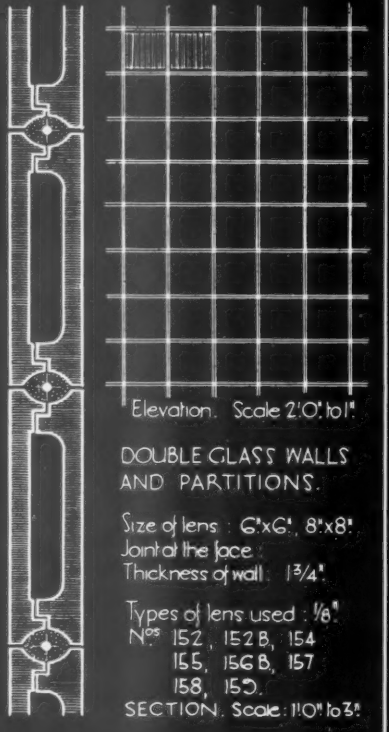


SCALES:
ELEVATION: 2'0" to 1".
SECTION: 1'0" to 1½".

DOUBLE GLASS & LOAD-BEARING CONSTRUCTION.
TYPE 1212.

LENSES: Special 12" x 12" lenses having ribbed pattern on inside face.

FIXING: Glass is set in mastic and fixed by means of metal ties through the framing.



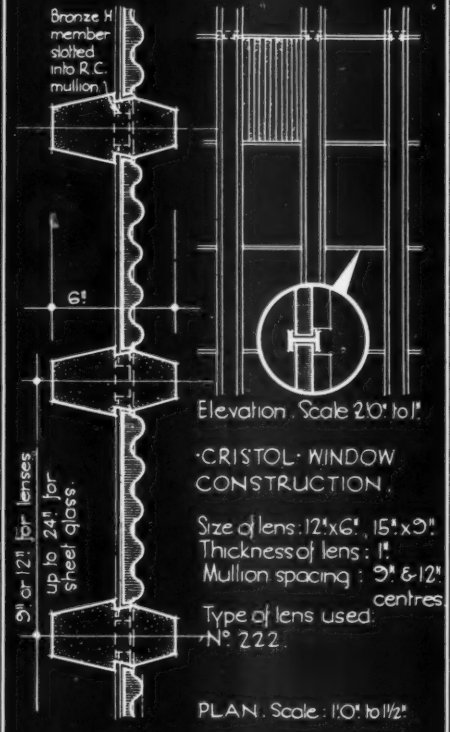
Elevation. Scale 2'0" to 1".

DOUBLE GLASS WALLS AND PARTITIONS.

Size of lens: 6"x6", 8"x8".
Joint at the face.
Thickness of wall: 1¾".

Types of lens used: ⅛".
Nos. 152, 152B, 154, 155, 156B, 157, 158, 159.

SECTION. Scale: 1'0" to 3".

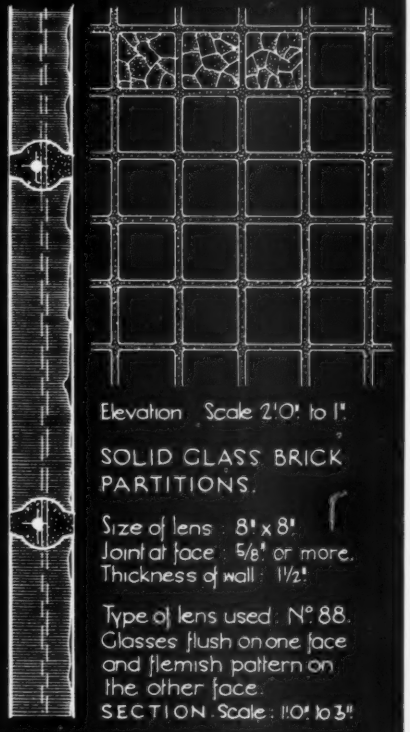


Elevation. Scale 2'0" to 1".

·CRISTOL· WINDOW CONSTRUCTION.

Size of lens: 12"x6", 15"x9".
Thickness of lens: 1".
Mullion spacing: 9" & 12" centres.
Type of lens used: No. 222.

PLAN. Scale: 1'0" to 1½".



Elevation. Scale 2'0" to 1".

SOLID GLASS BRICK PARTITIONS.

Size of lens: 8" x 8".
Joint at face: ⅝" or more.
Thickness of wall: 1½".

Type of lens used: No. 88. Glasses flush on one face and flemish pattern on the other face.

SECTION. Scale: 1'0" to 3".

Information from J. A. King and Company Limited.

INFORMATION SHEET: GLASS WALLS, PARTITIONS & SCREENS.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Otto G. Bayer

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET
• 619 •
GLASS WALLS, WINDOWS, SCREENS, AND PARTITIONS

Subject : Glascrete Construction

This is the second of a series of two Sheets devoted to Glascrete construction, the first of which (No. 618) showed types of roof and pavement lights. This Sheet shows various types of concrete-and-glass construction for walls, windows, partitions, and screens, etc.

Glascrete Walls and Windows :

Glascrete walls and windows are formed of panels of glass or lenses set in a framing or ribbing of reinforced concrete.

Type 600 ;

This type consists of precast lenses (plain or decorated sheet- or plate-glass) set in a series of vertical and horizontal exposed ribs.

Types 601, 602, 603 :

These types consist of a series of vertical and horizontal exposed ribs with glazing, plain or decorated sheet- or plate-glass cut to size. The use of these types permit larger units of glass than is possible with pressed lenses.

Precast Glass and Concrete Construction :

The framing work for types Nos. 600, 601, 602 and 603 is precast at the works, and is delivered to the job ready for fixing and glazing. It is advisable that this assembly be carried out by the Company's specialist staff.

Overall Sizes of Frames :

The size of precast frames is only limited by considerations of handling and transport and frames are usually designed to be not more than 30 ft. super in area nor more than 10 ft. in any direction.

Areas of any size can be built up in a number of such units, the size and strength of the joints between units being designed to suit the span and load required.

Sizes :

Throughout the drawings on this Sheet, the dimensions given from the centre to centre of ribs are minima and may be increased as required by increasing the width of the ribs.

Fixing of Glass :

The glazing, whether pressed lenses, sheet- or plate-glass, is fixed in position with a mastic bedding and copper clips cast into the cement ribs.

Opening Lights :

Types Nos. 600, 601, 602, 603 can be fitted with opening lights, which may be top, bottom or side hung, according to the size and the conditions of the work. Lights consisting of a single glass unit can also be horizontally or vertically centre hung.

Jointing between Frames :

The outer edges of all frames are grooved to receive a reinforcing rod and grouting when adjoining frames meet or abut against adjoining masonry.

Double Glass and Load-bearing Concrete Construction (Type 1212) :

A construction comprising a reinforced concrete grid formed either in situ or in precast panels. To both sides of this grid, glass plates are fixed by means of metal fittings. The joints between the glass plates are filled with special mastic. The construction therefore has a flush glass surface on both sides, has scaled air pockets between opposing glasses, can be constructed to an indefinite height and a considerable width and will normally carry the weight of its own thickness of brickwork above. This construction is patented and can be executed only by the Company's specialist staff.

Glascrete Patent Cristol Window Construction :

This type of window consists of a series of vertical reinforced concrete mullions grooved and slotted to receive bronze H members which in turn carry the high relief glass units. Mullions are spaced at 9 in. or 12 in. centres when high relief glass units are used, but may be spaced up to 2 ft. centres when glazing is carried out in sheet glass. This construction permits windows to be built to any desired height as the weight of each glass is carried on the H members, which in turn transmit it to the mullions. This is necessary in order to avoid ultimate fracture of the lower glasses.

This form of construction is covered by Patent No. 468,091.

The reinforced concrete ribs for this construction are precast in the required lengths and delivered with the bronze H bars ready for assembly—this assembly, including glazing, must be carried out by the Company's specialist staff.

Double Glass Walls and Partitions (Type 159) :

This type of partition consists of glass units in two parts, rebated and shaped to fit together and provide horizontal and vertical keyed channels in which concrete and reinforcing rods are used to form structural members.

This type of glass construction has high fire-resisting qualities owing to the glass units being in two pieces which are free to expand or contract individually, thus reducing the risk of ultimate fracture.

This type of construction must be built in situ and must be carried out by the Company's staff.

All lenses for this construction are flush on both outer surfaces, but a number of variations of interior surface design are available.

Solid Glass Brick Construction (Type 88) :

Solid glass bricks are grooved on all edges to provide for reinforced concrete ribs, which are usually concealed in the glass so that only a joint line appears on the surface; where necessary the ribs can be widened to give extra strength or a wider face joint forming a grid appearance.

The bricks are plain on one side and flemish pattern on the other.

Manufacturers : J. A. King and Company, Limited
Address : Bridge House, 181 Queen Victoria Street, London, E.C.4
Telephone : Central 5866
Telegrams : Kinobique, Cent, London
London Works : Clayton Road, Hayes, Middlesex
Telephone : Hayes 10
Bristol Branch : Rownham Hill, Ashton Gate, Bristol
Telephone : Bristol 63700
Leeds Branch : 4 Oxford Place, Leeds
Telephone : Leeds 22712
Sheffield Branch : 272 Attercliffe Road, Sheffield
Telephone : Sheffield 26189

736.

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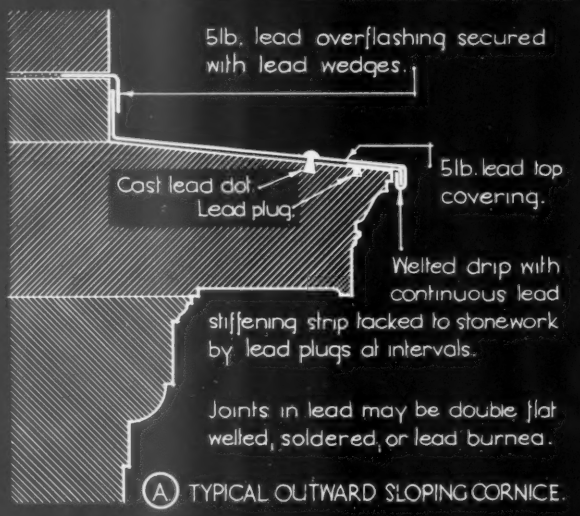
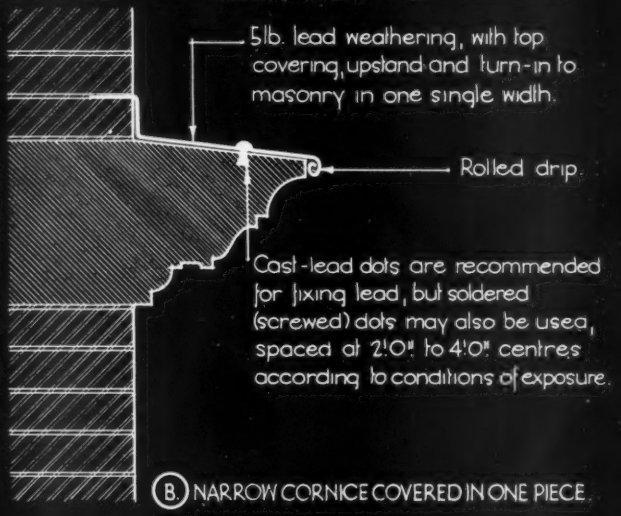
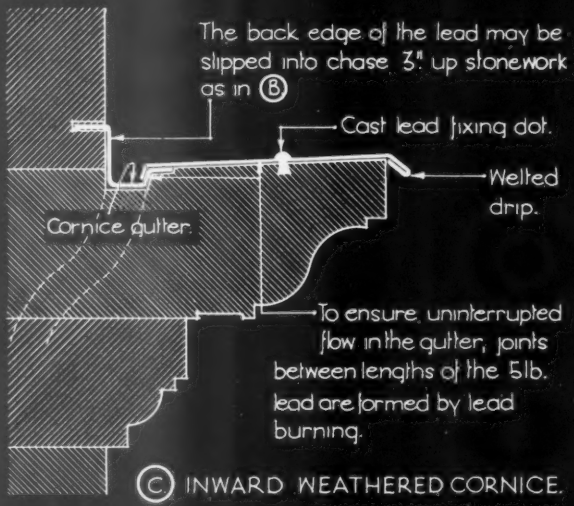
VARIOUS METHODS OF COVERING EXTERNAL CORNICES WITH LEAD SHEET WEATHERINGS:



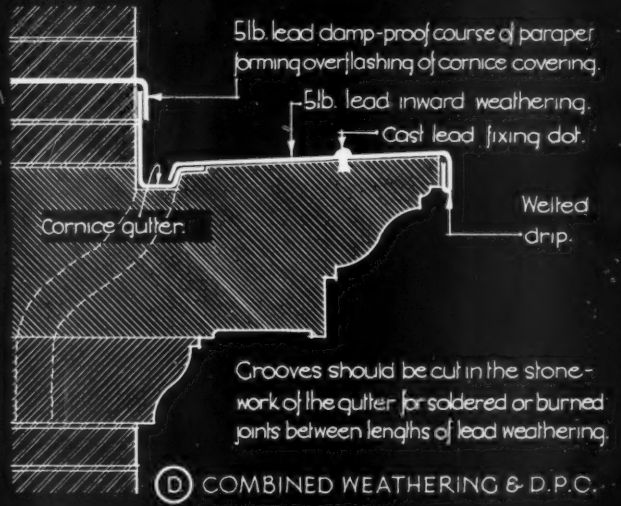
(A) TYPICAL OUTWARD SLOPING CORNICE.



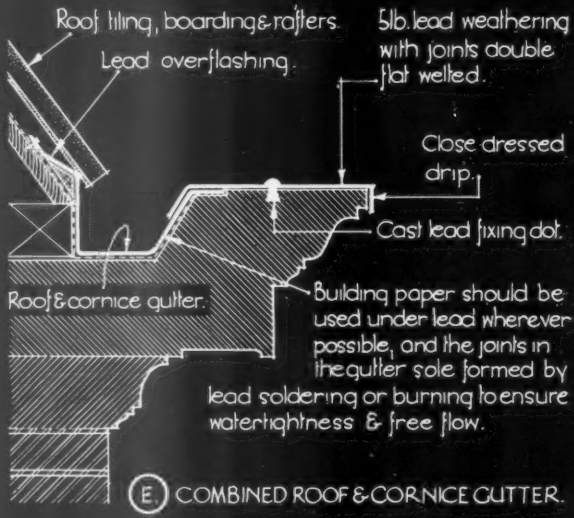
(B) NARROW CORNICE COVERED IN ONE PIECE.



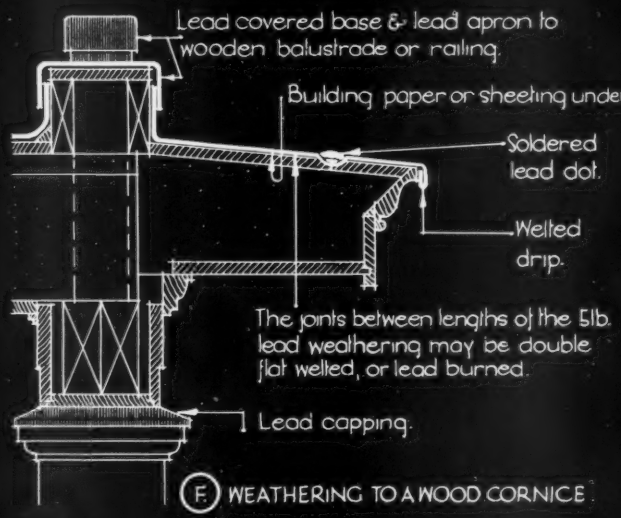
(C) INWARD WEATHERED CORNICE.



(D) COMBINED WEATHERING & D.P.C.



(E) COMBINED ROOF & CORNICE GUTTER.



(F) WEATHERING TO A WOOD CORNICE.

Information from Lead Industries Development Council.

INFORMATION SHEET : LEAD SHEET WEATHERINGS TO CORNICES. N°46.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Oscar A Bayne

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 620 •

WEATHERINGS — 2

Subject : Sheet lead weatherings to exterior cornices

General :

This is the second of a group of Sheets devoted to the subject of weather protection of various architectural features of buildings, and deals particularly with exterior cornices. Protection of these members is essential if damage and decay are to be avoided. Most of the building materials used in cornices are affected by weathering agencies, and certain limestones, often used for cornice construction, are prone to the combined attack of water and polluted atmospheres. Since the upper surfaces of most cornices are only slightly sloped to throw off water and are in extremely exposed positions, they require more careful consideration, than other parts of the work.

The types of stone, concrete and wood cornice illustrated show methods of applying lead sheet coverings to prevent damp penetration.

Cornice Coverings :

Expansion joints must be provided in all gutter and cornice work and the spacing of the joints depends upon the character of the leadwork and the degree of exposure. Generally, in flat sheet coverings to cornices in positions subject to average exposure to the sun, expansion joints should be provided by means of welt joints not more than 10 ft. apart. No single piece of lead should be of greater area than 20 sq. ft. ; the distance between expansion joints must, therefore, be reduced when the lead required is more than 2 ft. wide.

Cornice Gutters :

In gutter work, the lead being in relatively narrow lengths and the gutter, owing to its shape, being less exposed than the main cornice covering, expansion joints may be placed further apart. Expansion joints in gutters should be not more than 20 ft. apart in positions of normal exposure.

In calculating the distance between expansion joints in gutters, a stopped end which is not fixed but is free to move can be regarded as a joint ; similarly a cesspit formed for the rainwater outlet may be regarded as an expansion joint provided the lead gutter lining is turned freely down into the pit and not fixed.

Expansion joints in gutter work may consist of double-welt joints formed at the high point between two lengths of gutter draining in opposite directions ; it is, however, better practice to provide a stopped end to each length of gutter, with a lead cover piece covering two ends where they abut.

Each length of gutter must be provided with a separate outlet.

Underlay :

Wherever possible, the lead should be bedded on building paper or a good quality thin bitumen sheeting, as this prevents any risk of sharp projections and irregularities in the supporting surface cutting into the metal and so causing punctures.

Fixing :

On cement, stone, brick and concrete surfaces the lead should be held down near the front edge of the cornice by means of either soldered or cast lead dots, spaced at 2 ft. to 4 ft. centres, according to exposure conditions. If it is desired to dispense with dots, the welted joints of outward sloping cornices should be at about 3 ft. 6 in. centres, to enable sheet copper tacks fastened to the cornice, in the same manner as for soldered dots, to be folded in the welts about 6 ins. from the front edge. When laid on woodwork the lead is fixed with soldered dots only.

Lead Upstands :

The best practice is to turn the lead up the parapet walls at least 3 ins., or as high as possible without being visible from the ground. Alternatively, the back edge of narrow, one-piece weatherings is sometimes slipped directly into a groove or joint at a level with the cornice, although to ensure a watertight joint this practice necessitates a lead burning-in process by which the groove is filled with molten lead. Should the back of a one-piece weathering be first turned up the parapet before being itself tucked into a joint, the burning-in is not so essential. Normally, however, an overflashing of lead should be carried down over the upturn.

Where the level of the gutter behind the parapet is suitable, this overflashing may with advantage also form the D.P.C. of the parapet, as shown in examples D and F.

Front Edges :

The front edge of the lead may be finished in a variety of ways. Example A indicates a method of stiffening by means of a continuous lead strip or 2 in. lead tacks regularly spaced, under which the weathering is turned. Alternatively, the strip or tack may be turned outwards to enclose the edge of the weathering. Example B shows a beaded front edge ; examples C, D and F show plain welted edges, and example E a close-dressed single edge. In all cases care should be taken to see that the front edge of the metal forms a suitable drip to prevent water running back down the face of the cornice.

Contacts :

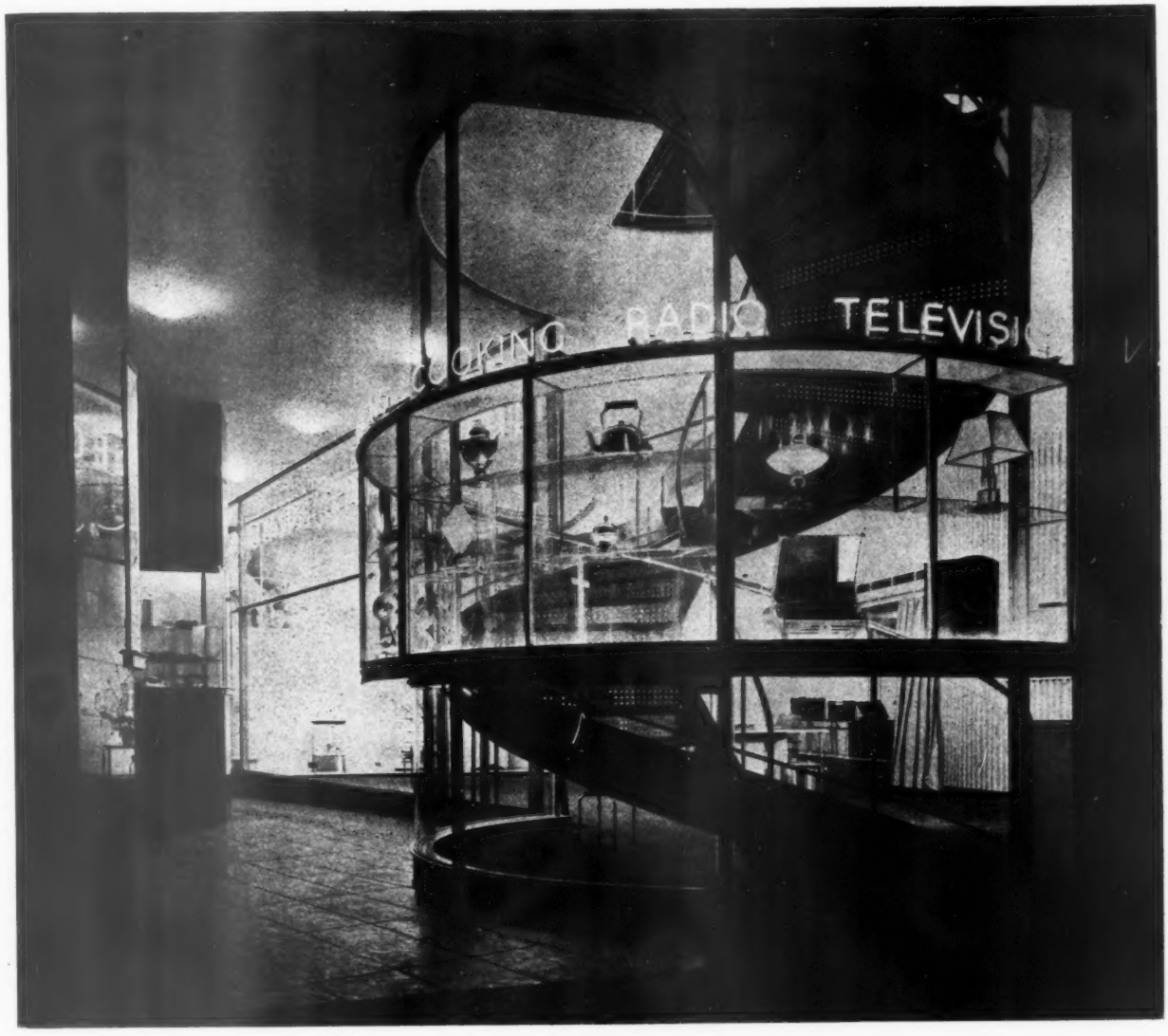
Where lead is to be bedded directly into fresh Portland cement, mortar, or concrete, the surface of the metal should be protected by a coat of bitumen in order to prevent any risk of corrosion arising from the free alkali invariably present in Portland cement during and shortly after the period of setting.

Issued by : The Lead Industries Development Council

Address : Rex House, 38 King William Street, London, E.C.4

Telephone : Mansion House 2855

ELECTRICITY SHOWROOMS, REGENT STREET, W.

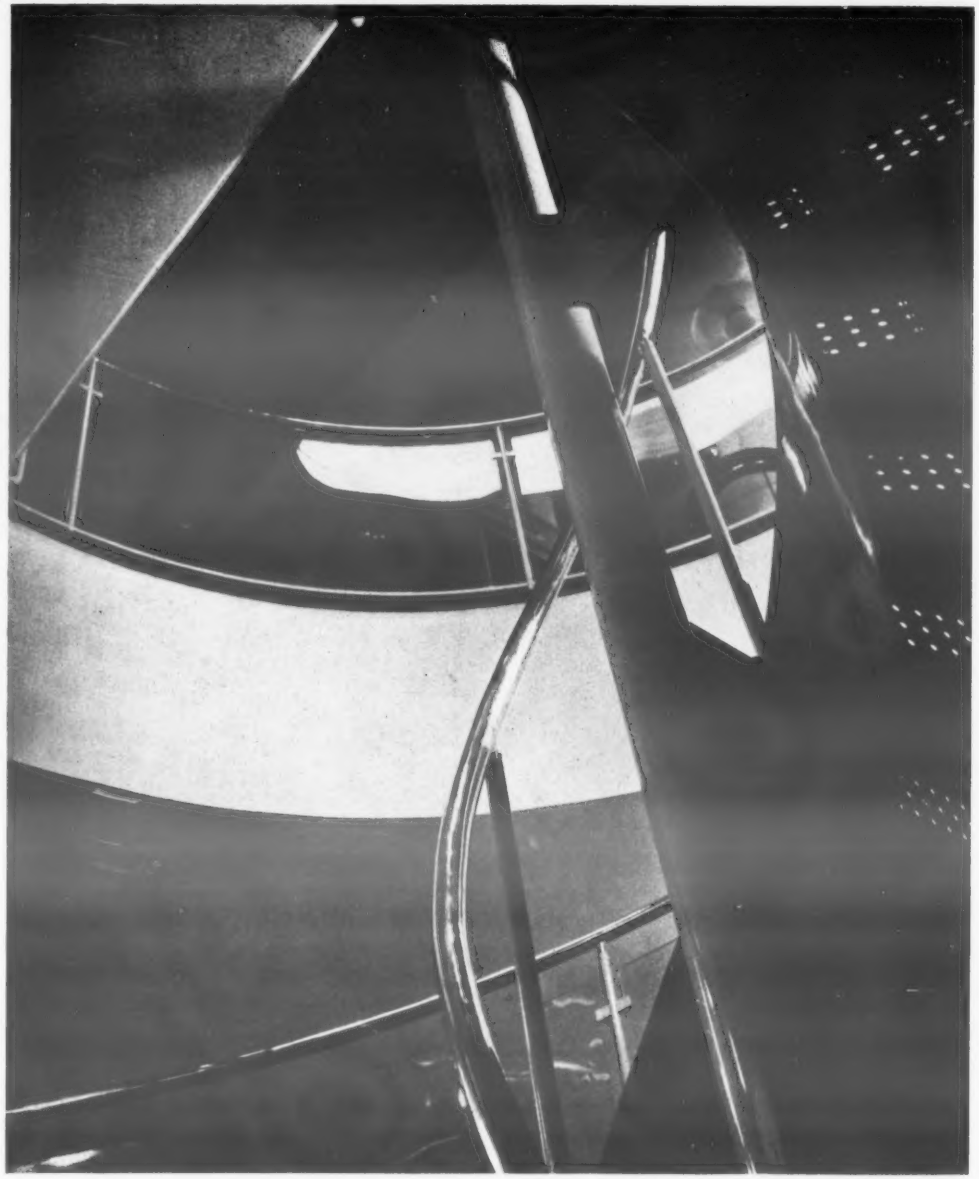


DESIGNED BY E. MAXWELL FRY

GENERAL—*The architectural scheme of the Regent Street façade is fixed and unalterable, only slight deviations from the existing front being allowed by the Commissioners of Crown Lands. The architect of this showroom for Central London Electricity, Ltd., therefore, set back the shopfront on a plan independent of that of the building above, and designed it in a free space with a large display window set at an angle and a spiral staircase forming a projecting bay. The existing stone-faced piers are left standing free with the pavement extended into the site; the backs of the piers being used to support small additional showcases.*

The photographs are: above, the staircase taken from the exterior of the shopfront, showing the circular showcase, glazed on both sides, that encircles it; right, a general view showing the existing stone-faced piers, left standing free. The pavement has been extended into the site.

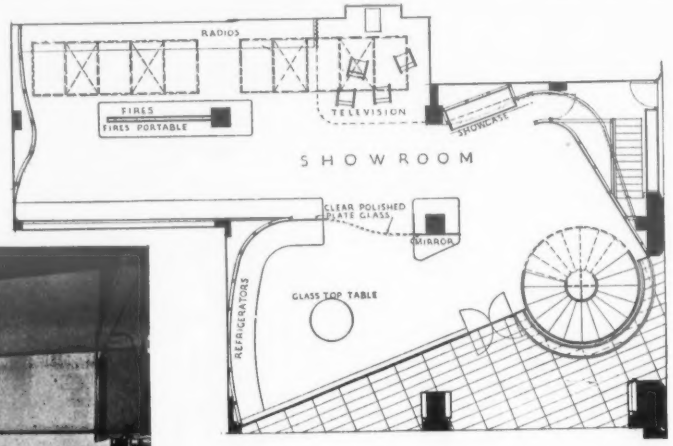
E

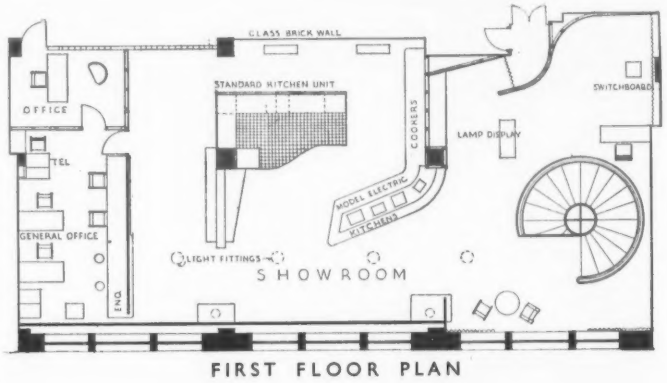


Above ; a photograph of the spiral, glass-enclosed staircase, taken from the ground-floor showroom ; right, a view looking up the staircase.

the ground-floor showroom; right, a view looking up the staircase.

GROUND FLOOR PLAN





FIRST FLOOR PLAN

DESIGNED BY E. MAXWELL FRY

PLAN—*On the left-hand side of the shopfront, looking in from the street, are a platform and background which will take displays of varying sizes and descriptive matter immediately above, and on the blank wall up to the ceiling is a photo-mural, designed by L. Moholy-Nagy, showing the story of electrical generation and distribution. In the free space in front of this stand there is room for one solo display which can be spot-lighted at night. Behind the staircase to the right is a display with a curved veneered wood screen as a background. These displays are within the immediate vision of the public on the pavement. In the showrooms themselves are a higher concentration of general equipment; a corner space for television, shut off by a curtain, which can fold away when unnecessary; a prefabricated kitchen and bathroom unit of the latest American type, and in the bay beyond the stairhead on the first floor are lighting fittings seen against a photo-mural background.*

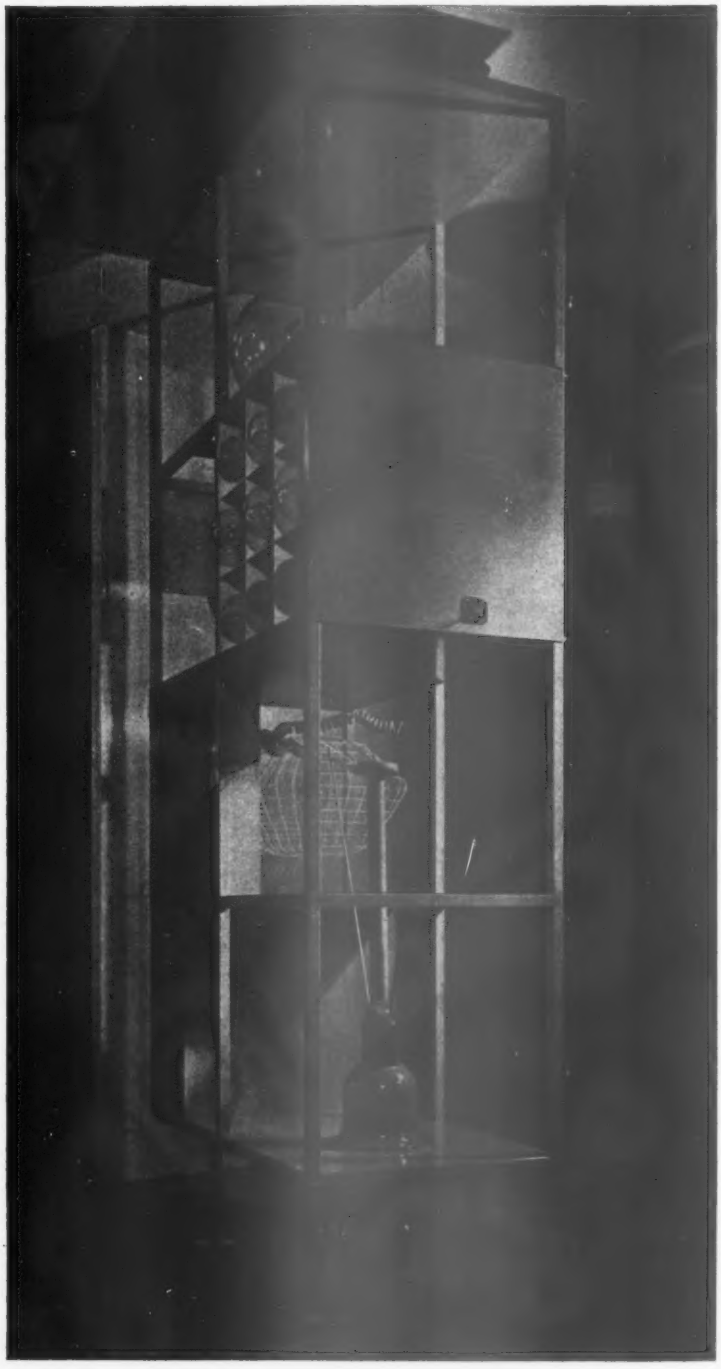
FINISHES—*The spiral staircase is enclosed in glass and is constructed in cellulosed steel, grey in colour on the underside of the treads, which are covered in red rubber. The handrail is steel, cellulosed yellow. In the shopfront flexible spot lights can be directed where required and are in addition to the line of reflectors recessed in the ceiling immediately behind the plate glass window.*

The photographs show: left, top, the glass-panelled screen on the first floor of the Regent Street side. The display shelves are backed with perforated aluminium panels. Left, the office counter and the glass brick wall which is used as a display background. Right, above, the head of the spiral staircase, showing the indirect lighting unit flooding the central column. Right, the model kitchen, pale yellow in colour and raised on a platform above the carpeted floor of the showroom.

ELECTRICITY SHOWROOMS, REGENT STREET, W.

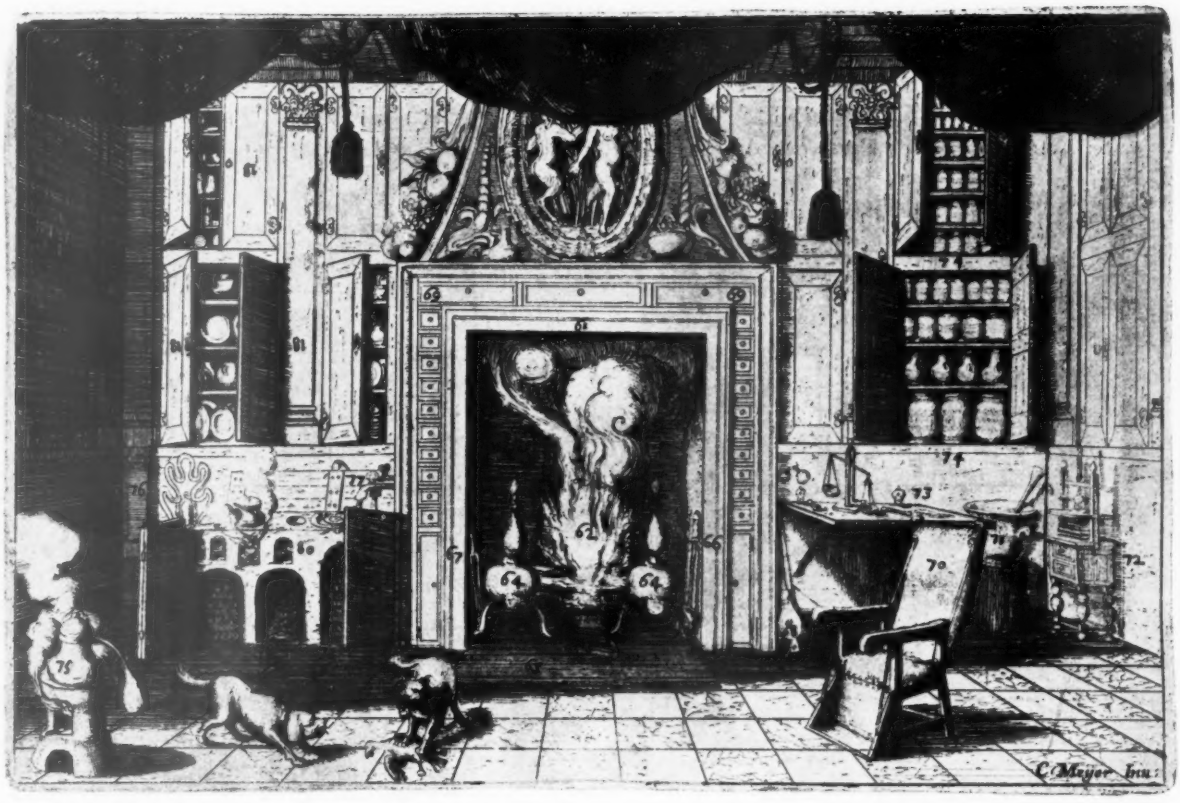
DESIGNED BY

E. MAXWELL FRY



The photographs show : above, a free-standing display on the first floor concerned with lamps. The grey cellulosed-metal frame contains in various compartments a magnified model of a coiled filament, a three-dimensional diagram of light distribution from a central point, and a number of separately controlled lamps arranged to display their comparative intensity and current consumption. Right, top, the switch panel controlling the display of fittings in the lighting department. A photo-electric cell on the panel registers the intensity of each light or combination of lights. Centre, a showcase on the ground floor set into a pane of corrugated aluminium. Right, the ground-floor showroom, showing the ventilation duct, along either side of which are continuous grilles of steel louvres. At the far end of the room is a photographic display in a pierced screen by L. Moholy-Nagy.

For list of general and sub-contractors, see page 678.



ONE-ROOM FLAT of the year 1684. Sitting zone. Architect: C. Meyer. From "The Modern Flat." Key:—61: Chimney for smoking meat, with a vent hole that will never make smoke, and a spit which can be used alternatively with the smoke. 62: Iron grate within the chimney, behind which one can make in the wall space a receptacle, within which water will always be boiled by the fire and one could draw it off from another room behind the fireplace by means of a tap. 63: Another similar iron hearth placed in the floor of the fireplace which serves to keep in heat and protect the floor which the fire cannot hurt, nor burn the ceiling below. 64: Fire-dogs with poker for exciting fire. 65: Vessel to put the fire and ashes in during the night, which then go out by themselves. 66: Dutch fire-tongs. 67: Similar small poker. 68: Similar bellows. 69: Various drawers for keeping gun, fishing rods, candles, matches, tobacco and other things. 70: Chair for resting during the day, with tapestry above to divide room in four parts. 71: Mortar. 72: Press for holding down the napkins and table cloths. 73: Drop-down kitchen table: easily put up. 74: Cupboard for holding plates, basins, etc. 75: Furnace with receptacle for distilling different tasties. 76: Table for cleaning and sharpening knives. 77: Two taps, for cold and hot water. 78: Bins for wood and coal. 79: Furnace for cooking various things. 80: Stove for cooking. 81: Cupboard for holding dishes, plates and other similar things. 82: Washing-up device which does not leak.

L I T E R A T U R E

THE MODERN FLAT

[By ARTHUR KORN]

The Modern Flat. By F. R. S. Yorke, A.R.I.B.A., and Frederick Gibberd, A.I.A.A. London: Architectural Press. Price 30s.

THIS book has a very simple construction. It deals with the modern flat—"the type peculiar to our own era."

The chaotic conditions which spoil the whole country to-day could be changed by substituting tall flat buildings, and the authors have demonstrated that we already possess the means to do so by giving us an excellent collection of examples.

What is really happening to-day is clearly illustrated in three comparative plates; the first, a perfect rural scene, captioned "We are giving up this"; the second showing a specimen of an ugly and stupid development of to-day, "For this"; and a third one, a single block of flats clearly defined in picturesque parkland setting, "Rather than this" . . .

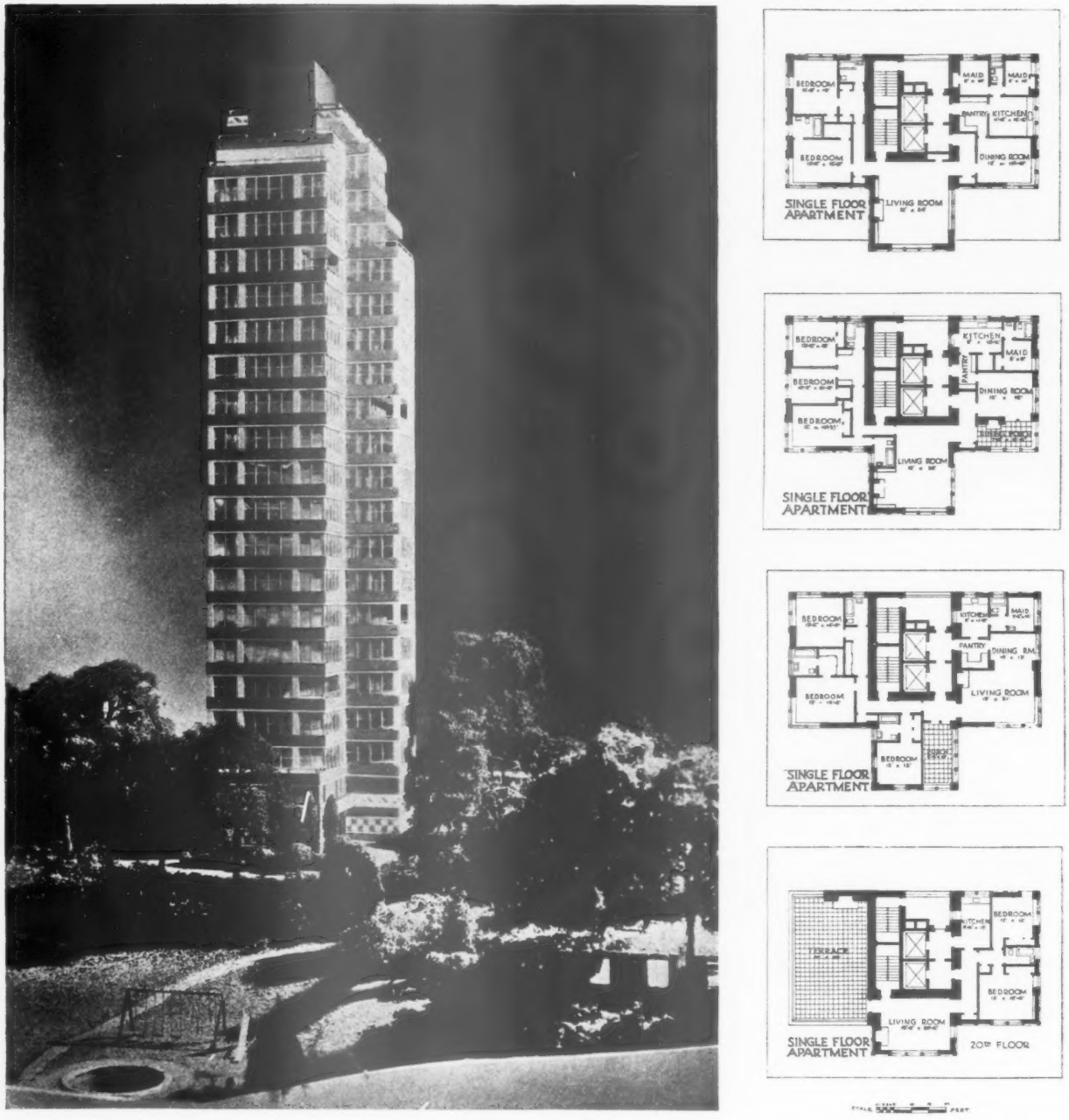
This last photograph could be taken as a classic example of what could be achieved, and that we already possess the technical means to fulfil our needs in this way is proved by the various types of buildings taken from 14 different countries.

Examining the first part of the book a little more closely we find, on page 1, a photograph showing typical town planning, a stupid repetition of small houses in an industrial district, planned without any consideration for the amenities of life. ("The Englishman's Home is his castle!") Another typical example, the Old Kent Road struggling across south-east London . . . . ("factories, playgrounds, residential streets, through traffic routes, churches, gasometers, and railway sidings in confusing juxtaposition, to the detriment of efficiency in any direction, and of the health and well-being of the thousands who are housed in the jumble").

The illustrations of a development which took no more than 18 months, destroying completely a perfectly lovely rural scene, are described. "These pictures, typical of present-day development in all parts of the country, show more clearly than words can describe what happens to the countryside when the people are housed in individual villa dwellings." Other photographs of town, country, suburb and seaside give further proof of the destruction of whole districts, and make us familiar with the so-called "Landscape in 1937."

After examining the material in the introductory pages we go on to the technical matter. Three basic models of layout and form are shown, the types of access by corridor, by gallery, or direct, each of which is carefully considered in respect of advantages and disadvantages.

The greater portion of the research deals with the actual planning, which means the control of the different elements.



Project for apartment tower in the country. One flat per floor. Architect: Raymond Hood. The plans show variation in floor layout. From "The Modern Flat."

The plan for the individual flat is divided into two main zones; the living zone, with hall, living room, dining space, kitchen and balcony, and the sleeping zone, with bedroom, bathroom and storage. The small explanatory diagrams are of a logical clearness, and the authors always succeed in bringing out the kernel of the problem, so that every point becomes clear, even to the layman.

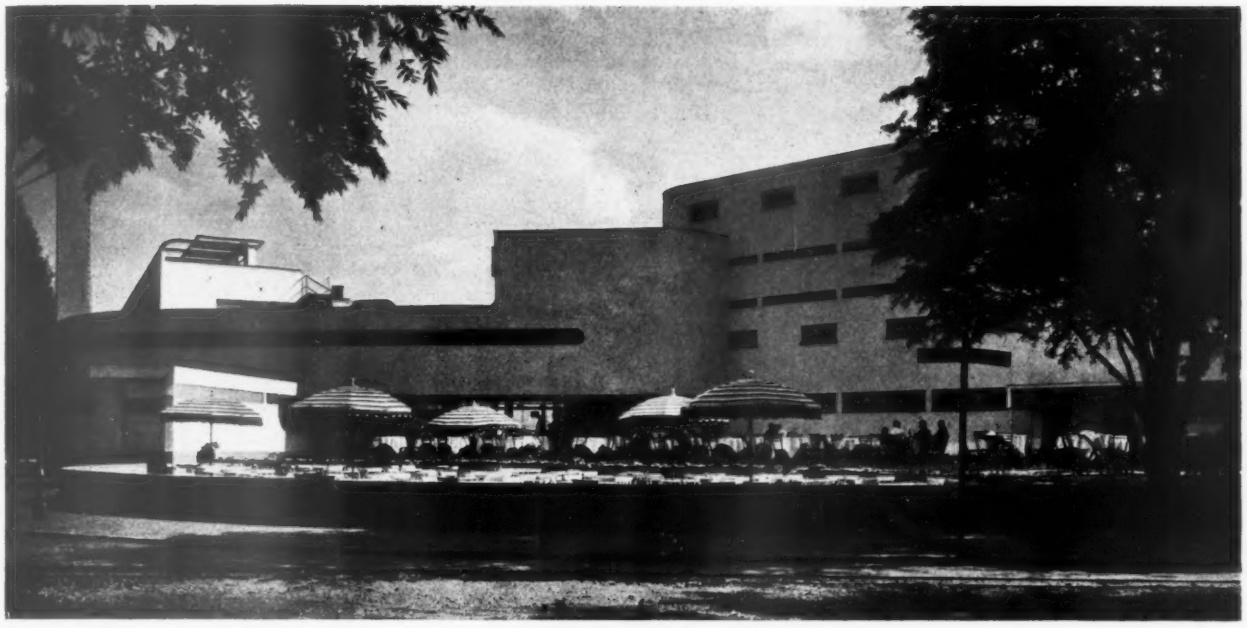
Three remarkable examples are those of the Bergpolder flats, Rotterdam, by Brinkman and Van der Vlugt, demonstrating the gallery type; Highpoint, Highgate, London, by Lubetkin and Tecton, demonstrating the type with direct access, and the Cité de la Muette, Drancy, Paris, by Beaudouin and Lods, as a skyscraper example.

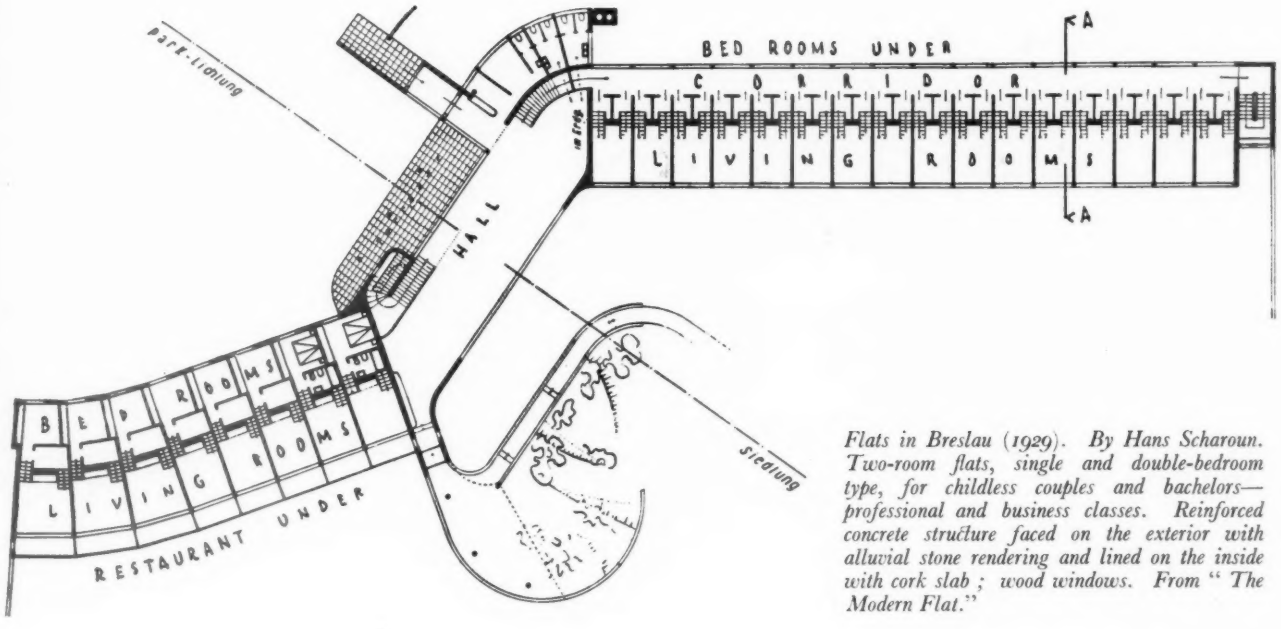
The work of Mr. Gibberd, the architect for Pullman Court, London, is reminiscent of some of the best architectural examples of the past.

As the authors point out, "many of the blocks illustrated might be units in a large scale development." The projects towards the end of the volume give some idea of the change that is possible; public authorities would take over the clearing of large areas in existing towns, or develop new areas. "Such development in this country with its present governmental system would only be possible if some organization like the London County Council were to clear such a site as that on the south of the river, or if a great industrialist were to build a new city for its works and workers."

How such a development would appear is presented by the last two examples.

Finally, ten pages are devoted to a detailed examination of Le Corbusier's Ville Radieuse, with a clear explanation of this extensible organic group, its zoning, traffic, circulation, housing and so on.





Flats in Breslau (1929). By Hans Scharoun. Two-room flats, single and double-bedroom type, for childless couples and bachelors—professional and business classes. Reinforced concrete structure faced on the exterior with alluvial stone rendering and lined on the inside with cork slab; wood windows. From "The Modern Flat."

SACRED ART

[*By G. E. CHARLEWOOD*]

Modern Sacred Art. Edited by Joan Morris. Sands & Co. Price 7s. 6d.

FAITH and doctrine are the inspiration of truly sincere sacred art, and, provided the artist is possessed of these, there is hope.

To understand this book, it must be realized that it would appear to be intended as a stepping-stone leading to others to help the Catholic Christian across the stream of uncertainty to a happy place where the plastic arts may be used so rightly as to express and teach the beauty of holiness.

It is usually required that the modern church should be suitable both for Catholic and Protestant worship, that is, to join with the priest in the Mass, and also with fellow-worshippers in prayer and praise and in listening to sermons, and the building which seems to conform to these requirements most satisfactorily is one having unobstructed views of the high altar and good acoustic properties. The majority of the buildings illustrated in this book appear to possess these properties.

Incorporated in the book are a series of special articles by writers, all of whom appear to be good Catholic readers.

In the article entitled, "The Living Style," the writer gives the impression that modern church buildings are designed in one style, namely, the "new style," and that the unity between architects and workers in the allied arts is growing closer, but a comparison between the church of SS. Fabian and Venantius and the church of Christ the King, at Turners Cross, Cork, is not very convincing, the former being a development from Romanesque and the latter from some form of Flemish architecture with an Assyrian flavour about it.

It is not necessary to be an expert mathematician to design a good bank ; but apparently it is necessary to be a good Catholic to produce Modern Sacred Art, and this raises the question whether it is not possible for knowledgeable and fully-trained artists or architects of marked æsthetic ability, but without any particular religious convictions, to produce work which would inspire those having such convictions ?

TRADE NOTES

[BY PHILIP SCHOLBERG]

A Small Heat Storage Cooker

WHILE nobody doubts the efficiency of the heat storage type of cooker, most of the models so far available have been fairly expensive and a little on the large side for the small house or holiday cottage. And now Messrs. Smith and Wellstood have produced a small version of the Esse which sells at the low price of £32 and has a running cost of about 2s. a week for fuel. This price includes a set of pots and pans with perfectly flat machined bases, a very sensible move on the part of the manufacturers, for really flat bases are essential with cookers of this type, otherwise the rate of heat transfer becomes far too low and the cooker becomes inefficient. Light gauge spun or pressed utensils are quite all right for gas and for some types of electric cooker, and there is a great temptation to buy them as they are so much cheaper than the heavier kinds. Smith and Wellstood have taken the choice out of the consumer's hands and probably saved themselves a certain amount of complaints.

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Of the two ovens the top one is for roasting and the lower one for plate warming and slow cooking ; there is also an adjustable thermostatic control for the oven temperatures. Overall sizes are 34 ins. by 20 ins. by 31¾ ins. high, this latter figure being increased to 51¾ ins. by the plate rack and back panel. Flue pipe should be 3 ins. asbestos or 3½ ins. cast iron for short lengths, half an inch being added to these figures for longer runs. The photograph at the head of these notes gives an idea of the cooker's general appearance and shows the two extension shelves which are available as extras to increase the space on the top of the cooker. These shelves add 5 ins. each to the figures given above for the width of the cooker. The standard price of £32 is for mottled porcelain enamel finish, cream on blue or cream on green ; for an extra £2 you can have plain colours, cream, light blue or light green, the top plate on all models being enamelled black. —(*The Esse Cooker Company, Ltd., Bonnybridge, Scotland.*)

Copper Pipes and Galvanized Tanks

There is at the moment a growing belief in the building and plumbing trades that the corrosion of galvanized hot water tanks may be accelerated by the use of copper pipes in the circulating system, and the premature failure of galvanized tanks and cylinders has often been put down to this cause. Practical evidence certainly lends some colour to this theory, and because of the growing use of copper pipes the British Non-Ferrous Metals Research Association has been making a thorough investigation of the whole problem. The investigations are not yet complete, but the results so far obtained show that the success of the copper pipe galvanized tank combination is largely dependent on the type of water with which it is used. In many districts the method is perfectly successful, but with waters having a high free carbon dioxide content a certain amount of copper is dissolved during circulation through the pipes and this is liable to set up corrosion of the galvanized tank coatings. It has previously been suggested that the corrosion is due to electrolytic action and recommendations have sometimes been made that electrical contact between the copper and the galvanized iron should therefore be prevented. The Association's researches, however, tend to show that there is nothing in this theory, nor does the bonding together of the two materials (thus improving the electrical contact) act as an effective remedy, though it has been tried by some builders.

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So far only galvanized hot-water tanks or cylinders and copper pipes have been referred to, but it will be realized that the same considerations may apply wherever galvanized and copper parts are used in the circulating system. The use of galvanized cold water cisterns with copper service pipes is generally satisfactory, as the solvent action of the water on the copper is not so marked with cold solutions, and the water is usually fed to the cistern direct from the mains and does not return to the cistern after passing through the copper pipes. It is worth emphasizing, however, that the use of bare iron pipes or red steam pipes in the same circulating system as galvanized tanks is not a practice to be recommended, for the rust from the pipes may pass to the tank and settle on the bottom, thus causing a severe local attack on the galvanizing. In order to complete their programme of research, the Association is appealing to all architects and builders to report all cases of premature failure of galvanized tanks fitted with copper pipes, and also all cases where this combination has been successfully used in practice.—(*The British Non-Ferrous Metals Research Association, Regnart Buildings, Euston Street, London, N.W.1.*)

Electrical Fittings

A new catalogue from Heal's shows a very pleasant selection of electrical gear. Mostly lighting fittings, ceiling, wall and floor standards, but there is also a certain amount of bathroom and kitchen equipment, such as illuminated mirrors, toasters, hot plates (a particularly good one, No. E100, Heal's have been selling for some years, but it is still one of the best-looking on the market), fires, irons and breakfast cookers. The lighting fittings, however, are the most interesting, a simple copper-coloured hemisphere, by Mr. Maxwell Fry, and a floor standard by the same designer, being among the most satisfying, though nearly all the severer designs remain pleasing to the eye, particularly when compared with the more whimsical reading lamps. I cannot believe that a lampshade is the right place for leaping gazelles, flowers or anything but the most formal kinds of pattern, though Heal's will doubtless justifiably retort that this is what the

public likes, and often buys in preference to the simpler types.—(*Heal and Son, Ltd., 196 Tottenham Court Road, London, W.1.*)

Welding Steel Structures

The Department of Scientific and Industrial Research has just issued a report* on the welding of steel structures which embodies the results and conclusions of a panel of the Steel Structures Research Committee, whose members have been working for eight years on the subject. Various reports of the investigations have appeared from time to time, but the most important part of the work has been done during the past four years, and has not previously been published. The report points out that the welded joint is largely dependent for success on the skill and experience of the individual workmen concerned, and a satisfactory test result on a separate piece of welded work cannot always be regarded as evidence that apparently similar welds in a service member are equally satisfactory. Much of the panel's work was therefore devoted to the development of a non-destructive form of test which could be applied on the job to the routine examination of various types of weld. Of the electrical tests, X-rays were excluded on the grounds of cost and the difficulty of handling the high voltages required, and a magnetic method showed a general agreement with mechanical strengths when average results on simple samples were compared, but local defects in individual welds could not be detected with certainty, and spurious effects occurred. A further test, in which the weld is tapped with a hammer while the operator listens through an ordinary medical stethoscope, was at first thought to be very successful, but it was found that this method places too much reliance on the experience of the operator, and that the results obtained by it are unreliable.

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It will be seen, therefore, that the panel have not been successful in finding a satisfactory non-destructive field test, but they do not feel that the lack of such a test is a reason for general condemnation of welding. For butt welds in structures it is suggested that radiographic tests can be employed if there is any doubt about the soundness of particularly important welds. The general conclusions reached by the panel are as follows :—" We consider that electric arc (metal arc) welding is sufficiently reliable and trustworthy for general use in the fabrication of joints in steel-framed and other buildings, and recommend it for that purpose provided that suitable precautions are observed concerning quality of electrodes, standards of workmanship, methods of design and working stresses. This recommendation applies only to welding in which the parent metal is structural steel conforming to B.S.S. No. 15, 1936."

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The panel also believe that their investigations have produced much new information which should be useful as a basis for a code of practice, and have given some consideration to the preparation of a suitable code. Recently, however, this task has been handed over to a technical committee of the Institute of Welding, which has undertaken the preparation of draft building bye-laws and a code of practice.

* *Welding of Steel Structures.* (London : H.M. Stationery Office. Price 6s.).

A ceiling fitting and a floor standard designed for Messrs. Heal by Mr. E. Maxwell Fry. (*See note on this and preceding page.*)

THE BUILDINGS ILLUSTRATED

KENT AND CANTERBURY HOSPITAL

(pages 655-660). Architect : Cecil Burns. The general contractors were Rice and Son, Ltd., and the principal sub-contractors and suppliers included : Trussed Concrete Steel Co., Ltd., reinforced concrete ; B. French, Ltd., electrical installation ; Tice & Co., Ltd., heating installation ; Matthew Hall & Co., Ltd., plumbing ; Permanite, Ltd., Permatile roofing and asphalt ; Crittall Manufacturing Co., Ltd., folding and sliding doors and windows ; James Gibbons, Ltd., all other windows and lantern lights, special bed screens, instrument and poison cupboards, door furniture, etc. ; F. McNeill & Co., Ltd., Insulcrete partition blocks ; Henry Hartley & Co., Ltd., Glittercrete walls and skirtings ; Gypsum Mines, Ltd., Sirapite plaster ; Conway & Co., and Matthews, terrazzo and floor and cill tiling ; Henry Hope and Sons, Ltd., steel door frames, partitions and hatches ; Rippers, Ltd., linoleum and steel faced doors ; Runnymede Rubber Co., Ltd., rubber flooring ; Cork Insulation Co., Ltd., Eldorado cork flooring ; Hadfields, Ltd., paint and distemper ; Manlove, Alliott & Co., Ltd., sterilizing apparatus ; Davey, Paxman & Co., Ltd., steam boilers ; Falkirk Iron Co., Ltd., kitchen equipment ; J. and E. Hall, Ltd., refrigeration ; Joseph Avery & Co., Ltd., dark blinds ; Lenscrete, Ltd., roof lights ; Waygood-Otis, Ltd., lifts ; Shanks & Co., Ltd., sanitary fittings ; Sumerling & Co., Ltd., bed-pan washers and warming cupboards ; Synchronome Co., Ltd., electric clocks ; Schall and Son, Ltd., diagnostic X-ray equipment, cautery units ; Victor X-Ray Co., Ltd., therapy X-Ray equipment ; Haywards, Ltd., balustrades, cat ladders, gratings, etc. ; Herbert Morris, Ltd., ash hoist ; Reginald Bell, Ltd., decorative glass ; Modern Surfaces, Ltd., Brizocrete finish ; Clarks, Ltd., layout of grounds ; Griffin and Tatlock, Ltd., dispensary, clinical room and pathological laboratory equipment ; Howard Brothers, wood block flooring ; British Pliant Veneers, Ltd., wall linings ; General Electric Co., Ltd., broadcast call system ; James Clark and Son, Ltd., glass and glazing ; Weckes, Ltd., and Finmar, Ltd., furniture ; Berry & Co., bedside lockers ; Silverdale Manufacturing Co., Ltd., ward screens ; Atlas Stone Co., Ltd., paving slabs ; Potter Rax Gate Co., Ltd., shutter gates ; Glass Enamelled Metal Products, Ltd., theatre chute ; Meldrums, Ltd., destructor ; General Fire Appliance Co., fire extinguishers ; Roneo, Ltd., steel filing cabinets ; Matthews and Yates, Ltd., ventilating fans ; Julius Sax & Co., Ltd., bell transformers ; Baldwins, Ltd., brick cable covers ; Ferranti, Ltd., meters ; Holophane, Ltd., special bedside fittings ; W. T. Glover & Co., Ltd., paper cables ; Pirelli, Ltd., V.I.R. ; Simplex Electric Co., Ltd., switch fuses and distribution boards ; British Thomson-Houston Co., Ltd., main board and Mazda lamps ; Automatic Telephone and Electric Co., Ltd., telephones ; Westinghouse Brake and Signal Co., Ltd., rectifier ; Technical Lights and Equipment, Ltd., operating fittings ; F. W. Smurthwaite, Ltd., wireless ; J. H. Tucker & Co., Ltd., switches ; M. K. Electric, Ltd., switch sockets ; Chloride Elec. Storage Co., Ltd., secondary lighting battery ; Walsall Conduits, Ltd., sparkless switches and switch sockets ; Brookhirst Switchgear, Ltd., fan control panel ; Berrys Electric, Ltd., fires ; Gent & Co., Ltd., bell indicators ; Dewrance & Co., gunmetal fittings for boilers and steam valves ; G. and J. Weir, feed pumps ; F. A. Pullen, circulating pumps ; Hartley and Sugden, Ltd., calorifiers ; Towler and Son,

New office building for F. Hills and Sons was recently opened at Trafford Park, Manchester. Above are views showing the main front and the board room. See note on this page.

smokepipe connections; Ideal Boilers and Radiators, Ltd., radiators; Hattersley (Ormskirk), Ltd., valves (general); E. Barber & Co., stopcocks; Stewarts and Lloyds, Ltd., steam tubes and fittings; Crane, Ltd., cast fittings; Le Bas Tube Co., Ltd., malleable fittings; Yorkshire Copper Works, Ltd., copper tubes (through Fredk. Braby); Newalls Insulation Co., Ltd., insulation; Musgraves, Ltd., induced draught; Martins, Ltd., curtains; Bull Motors Ltd. (branch of E. R. & F. Turner, Ltd.), Bull super silent electric motors; Dales, Ltd., interior signs.

SHOWROOM FOR CENTRAL LONDON ELECTRICITY, LTD., REGENT STREET (pages 669-672). — Architect: E. Maxwell Fry. The general contractors were Holland & Hannen and Cubitts, Ltd., and the principal sub-contractors and suppliers included: Limmer & Trinidad Lake Asphalte Co., Ltd., asphalt; Pilkington Brothers, Ltd., Insulite glass brick wall (glass bricks), glass; A. Johnson & Co., Ltd., Savestane table tops; Dorman, Long & Co., Ltd., structural steel; Fairways, Ltd., tiles (floor); F. McNeill & Co., Ltd., Insulcrete partitions; Chance Bros. & Co., Ltd., glass; Hotpoint Electric Appliance Co., Ltd., special kitchen units; York Shipley, Ltd., air conditioning; Bratt Colbran & Co., Ltd., electric fire display; Berrys Electric, Ltd., special electric fire; A. O. Gibbons, Ltd., special lighting to murals; Troughton and Young, Ltd., electric wiring and fixtures; Best and Lloyd, Ltd., Ascog, Ltd., Merchant Adventurers of London, Ltd., General Electric Co., Ltd., Oswald Hollmann, Ltd., Curtis Lighting of Gt. Britain, Ltd., and Allom Brothers, Ltd., electric light fixtures; John Bolding and Sons, Ltd., sanitary fittings; North British Rubber Co., Ltd., stairtreads; Dryad Metal Works, Ltd., and Comyn Ching & Co., Ltd., door furniture; J. Starkie Gardner, Ltd., casements, window furniture, iron staircases and metalwork; Potter Rax Gate Co., Ltd., folding gates; John B. Thorp and Westhill Models, models; Nobel Chemical Finishes, Ltd., Dulux paint and Beldec distemper; Walter W. Jenkins & Co., Ltd., marble; Edinburgh Weavers, Ltd., textiles (curtains); Waring and Gillow, Ltd., carpets; Venesta, Ltd., doors; B. Cohen and Sons, furniture (office fittings); Thonet Brothers, Ltd., and Pel, Ltd., furniture; Bull Motors, Ltd. (branch of E. R. and F. Turner, Ltd.), Bull super silent electric motors; Cellulin Flooring Co., Ltd., lino; Gent & Co., Ltd., special clocks to architect's design; Claude-General Neon Lights, Ltd., and J. Akers, Ltd., signs.

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Manufacturers' Items

The new office building for Messrs. F. Hill and Sons, Ltd., at Trafford Park, Manchester, was opened recently by the chairman of the company, Mr. Arthur G. Murrell. The building, of which two photographs are reproduced above, was designed by Mr. G. P. Stainsby. The firm state that, "by means of a new system, 6 mm. oak ply produced in the company's own works has been used to panel the walls of the entrance hall and small conference room, and the uncommon curly birch is similarly employed in the waiting room. Both of the above rooms demonstrate also an entirely novel system of parquetry, matching their respective panellings, which will be made available on the market shortly. It is the board room, however, which commands especial attention. Indian laurel has been used throughout for panelling, doors and fittings, the rich beauty of this rare wood contrasting with introduced strips of English holly."

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Messrs. Riley, Stoker & Co., Ltd., inform us that, owing to expansion in business and subsequently increased staff, they have decided to move into larger offices. As from May 16, their address will be: 40–43 Chancery Lane, W.C.

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Messrs. John Hall and Sons, Ltd., paint manufacturers, are now celebrating their 150th anniversary. Since the formation of the firm in 1788, it has always been controlled by the Hall family. Besides producing the well-known Brolac paint John Hall and Sons also control one of the largest glass merchants' businesses in England. Some notes on the firm's present activities have been sent to us; extracts are printed below:—

"What is not generally realised is that the company's extensive new factory at Hengrove, Bristol, was, during the last half of 1937, scoring another 'wartime' triumph. Some 90 per cent. of wood-oil, the basis of Hankol, the secret of Brolac paint, comes from Hankow, and, owing to the blockade by Japanese warships, there was for a time a complete shortage of wood-oil. Other consequences of the Sino-Japanese conflict were that wood-oil prices jumped to unprecedented heights, and that contracts for a time were ruthlessly suspended under the *force-majeure* clauses.

"Yet John Hall and Sons were able to announce that normal deliveries of Brolac were assured through 1938, that no increase in price was anticipated, and that no paint would be sold under the name of Brolac that was not made with Hankol under the established formula. The company were able to do this because they were carrying enormous stocks of wood-oil, and directly any signs of shortage appeared, they bought up large quantities that were on the high seas and had avoided the blockade."

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The social organization run by the employees of the United Steel Companies' Cumberland Group (Workington Iron and Steel Company Beckermet and Bigrigg Hematite Mines, Rowrah Quarries, etc.) have decided to proceed with a £6,500 welfare hall, to be erected in Workington. This will incorporate a large dance floor 80 ft. by 40 ft., together with a stage and other accommodation. £3,250 towards the cost of the hall will be donated by the United Steel Companies, Ltd., and the remaining £3,250 is to be handed over to the organization as a loan, to be paid off by them over a term of years.

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We have received from Messrs. Southerns, Ltd., a copy of their latest catalogue illustrating and describing their standard doors, and a set of photographs showing Royal Flush doors supplied by them during the past year. Copies of the catalogue and photographs may be obtained on application to the firm at 32 Store Street, Manchester. Some of the buildings in which the firm's doors have been used are: Broadwalk Court, The Mall, Kensington (Architect, Robert Atkinson); Bow Arrow Hospital, Dartford (Architect, A. C. Paulin); White House, Regent's Park, N.W.1 (Architect, Robert Atkinson).

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The twenty-sixth ordinary general meeting of the Timber Fireproofing Company, Ltd., was held recently in London. Mr. W. J. Garner (the chairman) said that the profit of £10,149 was extremely satisfactory, representing earnings of over 24 per cent. for the period, or 16 per cent. per annum. The works had been engaged to capacity, and this pleasant situation still persisted. The demands now being made upon them were likely to continue undiminished for several years, and the directors had recently sanctioned still further extensions to the plant at Market Bosworth.

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Mr. A. B. Challacombe, who has been associated with Trollope and Colls, Ltd., since 1892, and who was appointed a technical director seven years ago, has now been made a full member of the board.

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The directors of Messrs. Claude-General Neon Lights Ltd., have had under consideration for some time a scheme to reorganise the capital structure of the company in order to enable the company more easily to cope with its constantly increasing business. The original capital structure of the company was unusually complicated in that there were three classes of shares—preference, ordinary, and founders. A scheme of arrangement as between the shareholders of the company, has now been approved by the Court, under which scheme these three classes will now disappear, and in future there will be one class of share (ordinary) only.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

BUCKHURST HILL. *School.* The Essex Education Committee has approved plans for the erection of a junior school at Buckhurst Way, Buckhurst Hill, at a cost of £15,782.

EAST HAM. *Cinema.* Plans passed by the East Ham Corporation : New cinema, High Street North, Mr. A. Mather.

LEWISHAM. *Cinemas, etc.* Plans passed by the Lewisham B.C. : Houses, Hall Park Estate (Cotton Hill), Catford, Wates, Ltd. ; cinema, Stanstead Road, Forest Hill, L. E. Tompkins & Co. ; flats, adjoining Brockley View, Forest Hill, C. J. Curtis & Co. ; cinema, Lewis Grove, Shaws, Ltd. ; nurses' home, Lewisham Hill, Mr. C. B. Carter ; 26 maisonettes, Blythe Hill Lane, New Ideal Homesteads, Ltd. ; 10 houses, Queenswood Road, Messrs. Bretts.

PROVINCES

BOLTON. *Lighting Depot.* The Bolton Corporation is to erect a lighting depot at the corner of Bark Street and Pool Street, at an estimated cost of £1,975.

BOLTON. *Houses.* The Bolton Corporation is to erect 30 houses in Charles Street.

BOLTON. *Houses.* Plans passed by the Bolton Corporation :—22 houses, Orwell Road, Leigh Bros., Ltd. ; six houses, Woodbine Road, Mr. P. Baxendale.

BOLTON. *School Clinic, etc.* The Bolton Corporation has approved plans of the proposed school clinic and maternity and child welfare centre at Starkie Road.

BLACKPOOL. *Houses, etc.* Plans passed by the Blackpool Corporation :—Six houses, Norcliffe Road, Mr. J. Ridyard ; 56 chalets, Holiday Camp, Common Edge Road ; six houses, Wetherby Avenue, Mr. W. B. Snape ; 16 houses, Westby Avenue, I. Fletcher, Ltd. ; 111 houses, Warley Road, R. Fielding and Son.

CARDIFF. *School.* The Cardiff Education Committee has acquired a site at Birchgrove for the erection of an elementary school.

CARLISLE. *Houses.* Plans passed by the Carlisle Corporation :—Houses, Caldew Vale Estate, J. Laing and Son, Ltd. ; eight houses, Beechwood Avenue, A. Blakeley and Sons.

CHESTERFIELD. *Houses.* Plans passed by the Chesterfield Corporation :—18 houses, Brookbank Estate, Mr. F. Longden ; 71 houses, Highbury Estate, Mr. A. Heath ; 14 houses, off Dunston Lane, Mr. W. H. Frearson.

DONCASTER. *School.* The Doncaster Education Committee is to erect a school at Waverley at a cost of £35,904.

DURHAM. *Small Holdings.* The Durham C.C. is to provide small holdings at Hutton Henry, at a cost of £24,785, and at West Auckland, at a cost of £9,700.

ELLESMERE. *Houses.* The Ellesmere Port U.D.C. is to erect 58 houses, at a cost of £23,595.

GRAVESEND. *Police Station, etc.* The Gravesend Corporation has obtained sanction to borrow £11,966 for the purchase of land as a site for new police and fire stations.

HARROW. *School.* The Middlesex Education Committee has purchased land in Robin Hood Drive, Harrow, for the erection of an elementary school.

HASTINGS. *Children's Home.* The Hastings Corporation is to acquire premises in Collier Road for a children's home.

HOVE. *Houses.* Plans submitted to the Hove Corporation :—Eight houses, St. Helier's Avenue, Cohen and Davis ; 24 houses, Hangleton Road, Toms and Partners.

HULL. *School.* The Hull Education Committee has decided to erect the nursery school in Fifth Avenue by direct labour, at a cost of £9,278.

HULL. *Schools.* The Hull Education Committee is to acquire sites on the Bilton Grange estate for the erection of two elementary schools.

ILKESTON. *Fire Station.* The Ilkeston Corporation is to proceed with the proposed scheme for a new fire station, at an estimated cost of £14,000.

LEEDS. *School.* The Leeds Education Committee has obtained sanction to borrow £46,857 for the erection of Chapel Allerton High School for Girls.

LEEDS. *Housing.* The Leeds Corporation has obtained sanction to borrow £30,300 for the purchase of 86.03 acres of land for housing purposes on Beckett Park estate, and £236,700 for the erection of 605 houses on the Belle Isle estate.

MANCHESTER. *Houses.* The Manchester Corporation is to erect 16 houses on the Kenworthy Lane Estate, Wythenshawe, by direct labour.

MELFORD. *Houses.* The Melford R.D.C. is to erect 159 houses in various parishes at a cost of £64,150.

MIDDLESBROUGH. *Houses, etc.* The Middlesbrough Corporation is to erect 100 houses and two houses and shops on the Bramble Road site, at a cost of £30,000.

MONMOUTHSHIRE. *Small Holdings.* The Monmouthshire C.C. is to provide small holdings at Leechpool Farm at a cost of £22,645.

MORECAMBE. *Pavilion, etc.* The Morecambe Corporation has approved plans by the borough surveyor for the erection of a pavilion and colonnades at the Harbour band arena, at a cost of £21,000.

NEWPORT. *Police Headquarters, etc.* The Newport (Mon.) Corporation is to erect police headquarters and assize court, at a cost of £89,424.

NORTHAMPTON. *Houses, etc.* Plans passed by the Northampton Corporation : 13 houses, Malcolm Drive, Chowns, Ltd. ; 38 houses, Windsor Crescent, A. & F. Gale, Ltd. ; nurses' home, off Billing Road, Governors of General Hospital.

NORTHAMPTON. *Houses.* Plans passed by the Northampton R.D.C. : 10 houses, Bushland Road, A. Glenn and Sons, Ltd.

OLDBURY. *Houses.* The Oldbury Corporation is to erect 90 houses by direct labour on the Moat Farm Estate.

OLDBURY. *Houses.* Plans passed by the Oldbury Corporation : 18 houses, Blakeley Hall Road, Mr. G. H. Smith ; 61 houses, Moat Road, Mr. L. E. Hewitt ; eight houses, Grafton Road, W. Lees and Sons.

OLDBURY. *Shops.* Messrs. Marshall and Tweedy, architects, for Mr. E. Lotery, are to erect 40 shops in Hagley Road, Oldbury.

OTLEY. *Houses.* Plans passed by the Otley U.D.C. :—22 houses, Pool Road, Waterhouses (Leeds), Ltd.

PORTSMOUTH. *School.* The Portsmouth Education Committee has purchased a site in Grove Road for a senior council school.

PORTSMOUTH. *Pavilion.* The Portsmouth Corporation is to erect a pavilion in North End recreation ground, at an estimated cost of £12,000.

PORTSMOUTH. *Houses.* The Portsmouth Corporation is to erect 408 houses and six shops at Wymering at a cost of £167,636.

PRUDHOE. *Houses.* The Prudhoe U.D.C. is to erect 64 houses at Edgewell, at a cost of £23,841.

RAWTENSTALL. *Houses, etc.* The Rawtenstall Corporation has obtained sanction to borrow £50,022 for the erection of 112 houses and road and sewer works at Booth Road, Waterfoot.

SADDLEWORTH. *Houses.* The Saddleworth U.D.C. is to erect 30 houses at Shaws, 30 at Heathfields, and 20 at Horsfield, and 36 at Cooper Street, at a cost of £48,004.

SALFORD. *Library.* The Salford Corporation is to reconstruct the central library, Peel Park, at a cost of £4,000.

SCARBOROUGH. *Houses.* The Scarborough Corporation has instructed the borough engineer to prepare plans for the erection of 98 further houses on the Barrowcliff Estate.

SHEFFIELD. *Laboratory.* The Sheffield Corporation is to erect the new City laboratory at the City General Hospital, by direct labour, at an estimated cost of £24,342.

SHEFFIELD. *Houses, etc.* Plans passed by the Sheffield Corporation : 12 houses, Lyminster Road, Mr. D. Hurrell ; 12 houses, Highcliffe Drive, Mr. G. Thompson ; 101 houses, Darnall Road, etc., Mr. H. Haywood ; eight houses, Retford Road, Mr. E. A. Birtles ; 24 houses and conversion of " Lynwood " to flats, Clarkhouse Road, Fowler and Marshall ; 10 flats, Botanical Road, Mr. J. C. Mason ; 40 houses, Studfield Hill, J. Copley and Sons, Ltd. ; 38 houses, Norton Lees Square, F. B. Skinner and Sons, Ltd. ; 14 houses, Woodthorpe Road, J. H. Judge & Co. (Builders), Ltd. ; 24 houses, Sundown Road, E. & H. Oliver ; 12 houses, Gleadless Road, Mr. W. Croft ; 24 houses, Brooklands Avenue, T. W. Knowles, Ltd.

SMETHWICK. *Extensions to Fire Station.* The Smethwick Corporation has approved plans by the borough engineer for extensions at the fire station, at a cost of £7,108.

SOUTHPORT. *Police Station, etc.* The Southport Corporation has obtained sanction from the Ministry of Health to proceed with the scheme for the provision of a police station, court house and fire brigade premises, at a cost of £118,006.

STALYBRIDGE. *Bungalows.* The Stalybridge Corporation is to erect 50 bungalows on the Springs Lane site.

STOKE-ON-TRENT. *Houses.* The Stoke-on-Trent Corporation has obtained sanction to borrow £235,414 for the erection of 600 houses on the Newhouse Farm Estate, Bucknall.

STOKE-ON-TRENT. *Houses.* Plans passed by the Stoke-on-Trent Corporation : 26 houses, Sandhurst Avenue, Normacot, for Mr. E. G. Smith ; 10 houses, off Stone Road, for Mr. H. W. Cartlidge.

SURREY. *School.* The Surrey Education Committee has obtained sanction for a loan of £43,490 for the erection of new premises for the Farnham girls' grammar school.

SUTTON COLDFIELD. *Houses.* Plans passed by the Sutton Coldfield Corporation : 16 houses, Bedford Road, Mr. R. Burfell ; 12 houses, Darnick Road, Mr. F. H. Wilkinson ; 73 houses, Grange Lane, R. Shaw & Co.

TIPTON. *Houses.* The Tipton U.D.C. has obtained sanction to borrow £91,700 for the erection of 277 houses on the Gospel Oak estate.

TORQUAY. *Concert Hall.* The Torquay Corporation has obtained sanction to borrow £8,164 for the provision of a concert hall at Babbacombe.

USK. *Institute Buildings.* The Monmouthshire C.C. is to provide additional buildings at the Usk Institute of Agriculture, at a cost of £10,000.

WALSALL. *Flats, etc.* The Walsall Corporation is to erect 36 flats and four shops at Warewell Street, at a cost of £16,108.

WOLVERHAMPTON. *Houses.* The Wolverhampton Corporation has obtained sanction to borrow £58,760 for the erection of 48 houses in Dixon Street, 90 in Walsall Street and 16 in Low Hill.

WOLVERHAMPTON. *Houses, etc.* Plans passed by the Wolverhampton Corporation :—Seven houses, Merridale Gardens, Mr. R. Carpenter ; 16 flats, Parkdale, Mr. D. C. Wadhaw ; 32 houses, off Pinfold Lane, Mr. W. G. Darby ; 10 houses, Bee Lane, Fordhouses, Mrs. F. W. Varty ; 73 houses, Rake Gate Farm Estate, Mr. E. A. Colman ; 12 houses, Westlands Estate, Mr. E. W. Baxter.

WORTHING. *Houses.* Plans passed by the Worthing Corporation :—18 houses, Ringmer Road, Nunns Estates.

WREXHAM. *Houses.* The Wrexham R.D.C. is to erect 314 houses on the Cefn, Rhos, Broughton, Brymbo and Gwersyllt sites, at a cost of £108,150.

YORK. *Cinema, etc.* Plans passed by the York Corporation : Cinema, Hull Road, Mr. E. Sherry ; 42 houses, Forestway Estate, Ainsty Building Estates, Ltd. ; 12 houses, Fifth Avenue, Mr. R. A. Cattle ; eight houses, Plumer Avenue, Cowling and Swift ; 82 houses, Holly Bank Estate, Holly Bank Estate Co., Ltd.

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

PRICES

ON the following pages appears Prices of Materials —Part I, with the prices, last published on March 24, brought up to date.

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

NOTES ON PRICE CHANGES

The changes in the prices of this section are marked in the lists, and do not appear to be of any special significance. Conditions generally remain the same as last month, and the remarks appearing in previous issues still hold good.

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

★ *ANSWERS TO QUESTIONS*

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

• *Items marked thus have risen in price since last quotation on March 24.*

* *Items marked thus have fallen in price since last quotation on March 24.*

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

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

★ *The previous complete Supplement is contained in the issues of the* JOURNAL *for March 24 March 31, April 7 and 14.*

Prices vary according to quality and the quantity ordered.

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

PART 1

CURRENT MARKET PRICES OF MATERIALS—I

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

CONCRETOR

Cements

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

		Min. 80 ton freights F.A.S. Safe wharf in River Thames, London area
	4 Tons and over	
Portland .. .. per ton	42/–	38/–
Rapid hardening .. per ton	48/–	44/–
Water repellent .. per ton	72/–	68/–
Atlas White (1 barrel 376 lbs.) per barrel	44/–	

	1 ton upwards
Colorcrete rapid hardening, Nos. 1 and 2 per ton	69/–
Colorcrete non rapid hardening .. per ton	140/– to 300/–
Snowcrete .. .. per ton	175/–

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

Aggregate and Sands (Full Loads)

2″ Unscreened ballast .. .. .. per yard cube	6/–
¾″ (Down) Washed, crushed and graded shingle .. .. per yard cube	6/2
⅜″ (Down) Ditto .. .. per yard cube	7/6
2″ Broken brick .. .. per yard cube	10/6
¾″ Ditto .. .. per yard cube	11/9
Washed pan breeze .. .. per yard cube	5/3
Coke breeze 1″ to dust .. .. .. per yard cube	13/6
$\frac{3}{16}$″ Sharp washed sand .. .. .. per yard cube	8/3
White Silver Sand for white cement (one ton lots) per ton	25/–

(For Sands for Bricklaying and Plastering see respective trades)

Pavings

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

Reinforcement

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

CONCRETOR—(*continued*)

Sundries

Retarding liquid, in 5-gallon drums (for exposing aggregate) per gallon	20/–	Ex Warehouse, Southwark Bridge. Drums chargeable and credited, if returned.
Ditto. (for obtaining a bond) per gallon	12/6	

BRICKLAYER

Common Bricks

Rough stocks .. .. per 1,000	70/6
Third stocks .. .. per 1,000	54/6
Mild stocks .. .. per 1,000	71/6
Sand limes .. .. per 1,000	50/–
* Phorpres pressed Flettons .. .. .. per 1,000	46/8
* Phorpres keyed Flettons .. .. .. per 1,000	48/8
Blue Staffordshire wirecuts .. .. .. per 1,000	165/–
Lingfield engineering wirecuts .. .. per 1,000	95/–
Breeze fixing bricks .. .. per 1,000	57/6
Firebricks, best Stourbridge 2½″ .. .. per 1,000	155/–
Firebricks, best Stourbridge 3″ .. .. per 1,000	190/–

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

Facing and Engineering Bricks

Sand Limes, No. 1 .. .. per 1,000	85/–
Sand Limes, No. 2 .. .. per 1,000	70/–
*Phorpres rustic Flettons .. .. .. per 1,000	66/3
Midhurst Whites .. .. per 1,000	75/–
Hard stocks, firsts .. .. per 1,000	95/–
Hard stocks, seconds .. .. per 1,000	88/–
Sand-faced, hand-made reds .. .. per 1,000 from	115/–
Sand-faced, machine-made reds .. .. per 1,000 from	110/–
Red rubbers (9¾-in.) .. .. per 1,000	300/–
Hunziker (white) .. .. per 1,000	67/6
Hunziker (creams, light greys, etc.) .. per 1,000 from	100/–
Dunbricks (concrete), multi reds, ex works per 1,000	72/–
Dunbricks (concrete), multi lavender, ex works .. .. per 1,000	75/–
Southwater engineering No. 1 (first quality red pressed) .. .. per 1,000	145/–
Southwater engineering No. 2 (second quality red pressed) .. .. per 1,000	125/–
Blue pressed .. .. per 1,000	174/–

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

✱ **Items marked thus have fallen in price since March 24.**

CURRENT PRICES

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

BRICKLAYER AND DRAINLAYER

BRICKLAYER—(*continued*)

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

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

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

Limes and Sand

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

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

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

Sundries

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

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

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

Wall reinforcement supplied in standard rolls containing 25 yards lin.

2″ wide black japanned	per roll 2/1	Greater widths pro rata 2½″ price carriage paid on orders of £5. Discounts for quantities.
2″ wide galvanized ..	per roll 3/2	
2½″ wide black japanned	per roll 2/7½	
2½″ wide galvanized	per roll 3/10½	

Partitions

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

BRICKLAYER—(*continued*)

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

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

Gas Flue Blocks

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

DRAINLAYER

Agricultural Pipes

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

(Delivered in full loads Central London Area.)

Salt Glazed Stoneware Pipes and Fittings

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

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

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

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

CURRENT PRICES

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

DRAINLAYER AND MASON

DRAINLAYER—(*continued*)

Cast Iron Drain Pipes and Fittings

Socket and Spigot Pipes :—

Weight (per 9 ft.)	Size.	9 fts.	6 fts.	4 fts. each	3 fts. each
1 . 1 . 8	4″ per yard ..	6/6	7/3	11/7	8/9
1 . 1 . 20	4″ per yard ..	6/9	7/5	11/10	9/–
2 . 0 . 6	6″ per yard ..	10/–	11/11	19/3	15/4
4 . 0 . 2	9″ per yard ..	18/2	23/9	41/3	31/5

Socket and Spigot Pipes :—

Weight (per 9 ft.)	Size.	2 fts.	18 ins.	12 ins.	9 ins.
1 . 1 . 8	4″ each	7/3	6/6	5/8	5/2
1 . 1 . 20	4″ each	7/4	—	—	—
2 . 0 . 6	6″ each	11/6	—	—	—
4 . 0 . 2	9″ each	—	—	—	—

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

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

Cast Iron Inspection Chambers

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

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

The branches to the above are at 135°

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

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

Channels in White Glazed Ware (Unselected Quality)

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

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

These prices are subject to 20% discount.

DRAINLAYER—(*continued*)

Channels in Brown Glazed Ware

		4″	6″	9″
Half round straight channels 24″ long..	each	1/3	1/10½	3/4½
Half round straight channels 30″ long..	each	—	—	4/2½
Ditto, short lengths	each	1/3	1/10½	—
Half round ordinary channel bends ..	each	1/10½	2/9½	5/0½
Ditto, short	each	1/10½	2/9½	—
Ditto, long	each	3/9	5/7½	10/1½
Three-quarter round branch bends ..	each	5/–	7/6	—

		6″×4″	9″×6″
Half round taper channels 24″ long ..	each	3/9	6/9
Half round taper channel bends ..	each	4/8½	8/5½

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

Manhole Covers

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

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

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

MASON

Yorkstone

Building quality Robin Hood and Woodkirk Blue Stone.

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

Ancaster Stone

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

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

Bath Stone

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

Portland Stone

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

¾″ Thick Plain Marble Wall Linings

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

Artificial Stone

6″×3″	Copings and sills	per foot run	1/6
6″×6″	Copings and sills	per foot run	2/4
9″×3″	Copings and sills	per foot run	2/–
9″×6″	Copings and sills	per foot run	3/4
12″×3″	Copings and sills	per foot run	2/4
12″×6″	Copings and sills	per foot run	3/9

Cornices according to detail, per foot cube (from) 6/9

• Items marked thus have risen in price since March 24.

CURRENT PRICES

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

MASON, SLATER, TILER AND ROOFER, AND CARPENTER

MASON—(*continued*)

Reconstructed Stone to match Natural Stone

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

Slate Slabs, cut to size and Planed

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

Combined Slate Cills and Window Boards for Metal Windows

Straight Cills				Circular Cills for C.O.P. Frames		
Window Width	Wall thickness 9″	11″	13½″	Radius	External reveals 2″	4½″
1′ 8″ ..	4/–	4/8	5/8	2′ 4½″ ..	21/–	24/–
3′ 3½″ ..	7/4	8/7	10/4	2′ 7½″ ..	25/6	28/6
4′ 10½″ ..	10/6	12/3	14/10	2′ 10½″ ..	30/–	33/3

SLATER, TILER AND ROOFER

Best Bangor Slates

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

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

Old Delabole Slates (f.o.r.)

Standard sizes.

Prices and computed weights per 1,200.

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

Random sizes.

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

		No. 1 Grading 24″/22″ to 12″/10″
Ordinary grey greens	per ton	128/–
Covering cap.:	per ton (3″ lap)	2·37 squares
	per ton (4″ lap)	2·19 squares

		No. 2 Grading 24″/22″ to 12″/10″
Weathering grey greens (V.M.S.)	per ton	139/–
Covering cap.:	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares

		No. 2 Grading 24″/22″ to 12″/10″
Weathering greens (V.M.S.) ..	per ton	149/–
Covering cap.:	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares

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

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

Tiles

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

SLATER, TILER AND ROOFER—(*continued*)

Westmorland Green Slates

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

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

Asbestos-cement

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

Prices are for minimum two-ton loads.

Cedar Wood Tiles

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

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

CARPENTER

Carcassing Timber

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

		Per standard £ s. d.	Per foot cube
4″ × 11″ Scantling		26 10 0	3/2¾
4″ × 9″ ,, ...		26 10 0	3/2¼
3″ × 11″ ,, ...		24 10 0	2/11¾
2″ × 11″ ,, ...		24 10 0	2/11¾
3″ × 9″ ,, ...		23 10 0	2/10¼
2″ × 9″ ,, ...		24 0 0	2/11
3″ × 8″ ,, ...		23 0 0	2/9½
2″ × 8″ ,, ...		22 10 0	2/8¾
3″ × 7″ ,, ...		22 10 0	2/8¾
2″ × 7″ ,, ...		22 10 0	2/8¾
4″ × 6″ ,, ...		25 0 0	3/0¼
3″ × 6″ ,, ...		23 10 0	2/10¼
*2″ × 6″ ,, ...		21 0 0	2/6½
3″ × 5″ ,, ...		22 10 0	2/8¾
*3″ × 4″ ,, ...		20 10 0	2/6
*2″ × 5″ ,, ...		20 0 0	2/5½
*2″ × 4″ ,, ...		20 0 0	2/5½
1½″ × 11″ ,,	(20 ft. lengths and over)	per ft. run	–/5
1½″ × 9″ ,,	(20 ft. lengths and over)	per ft. run	–/4
1½″ × 7″ ,,	(20 ft. lengths and over)	per ft. run	–/2¾

Yellow Deal Battens

¾″ × 1″	per 100 feet run	1/8
¾″ × 1½″	per 100 feet run	2/6
¾″ × 2″	per 100 feet run	3/6
1″ × 2″	per 100 feet run	4/6
1½″ × 2″	per 100 feet run	6/3

Weather Boarding

Deal :—		
*¾″ × ½″ × 6″ Feather edge	per square	12/3
*¾″ × ½″ × 4″ Feather edge	per square	10/3
Western red cedar :—		
1″ × 6″ Rebated	per square	35/–
11/16″ × 5/16″ × 6″ Feather edge	per square	13/6
¾″ × ½″ × 4″ Feather edge	per square	12/6

Roof Boarding

Deal :—		
*¾″ × 6″	per square	18/–
*1″ × 6″	per square	23/6

* Items marked thus have fallen since March 24.

TO BE CONTINUED IN NEXT ISSUE