THE ARCHITECTS' JOURNAL

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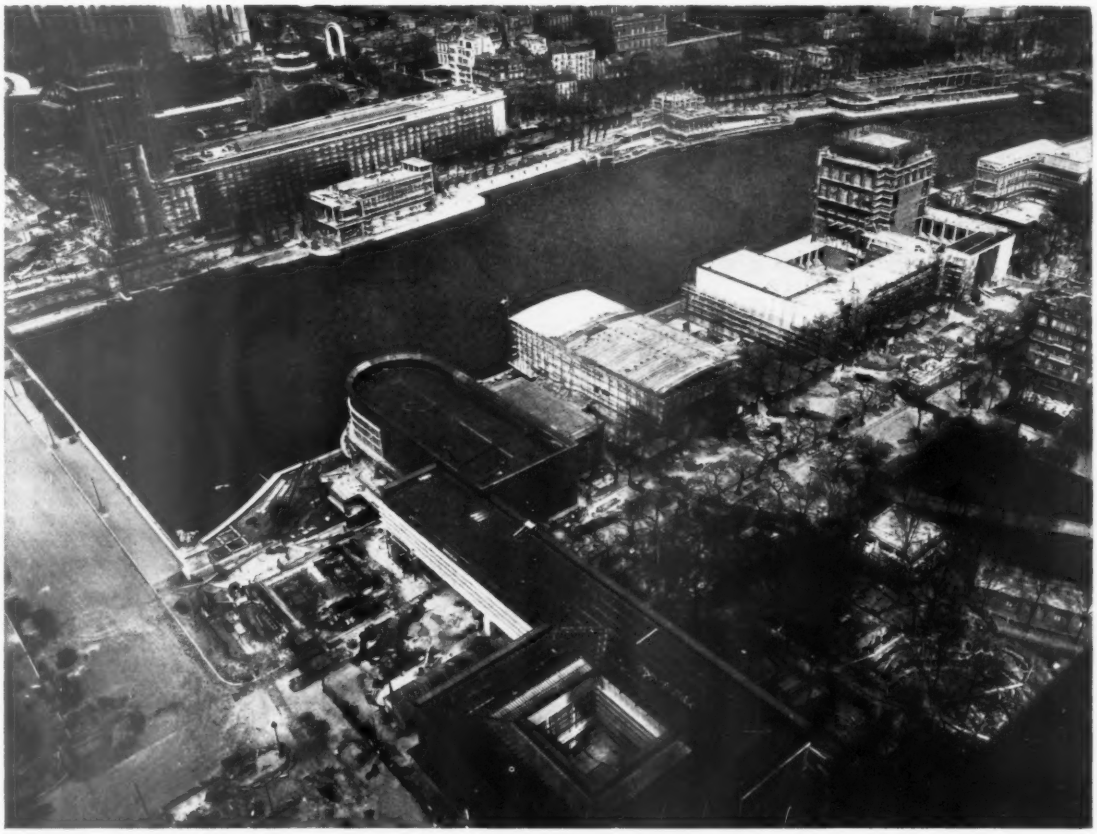
The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

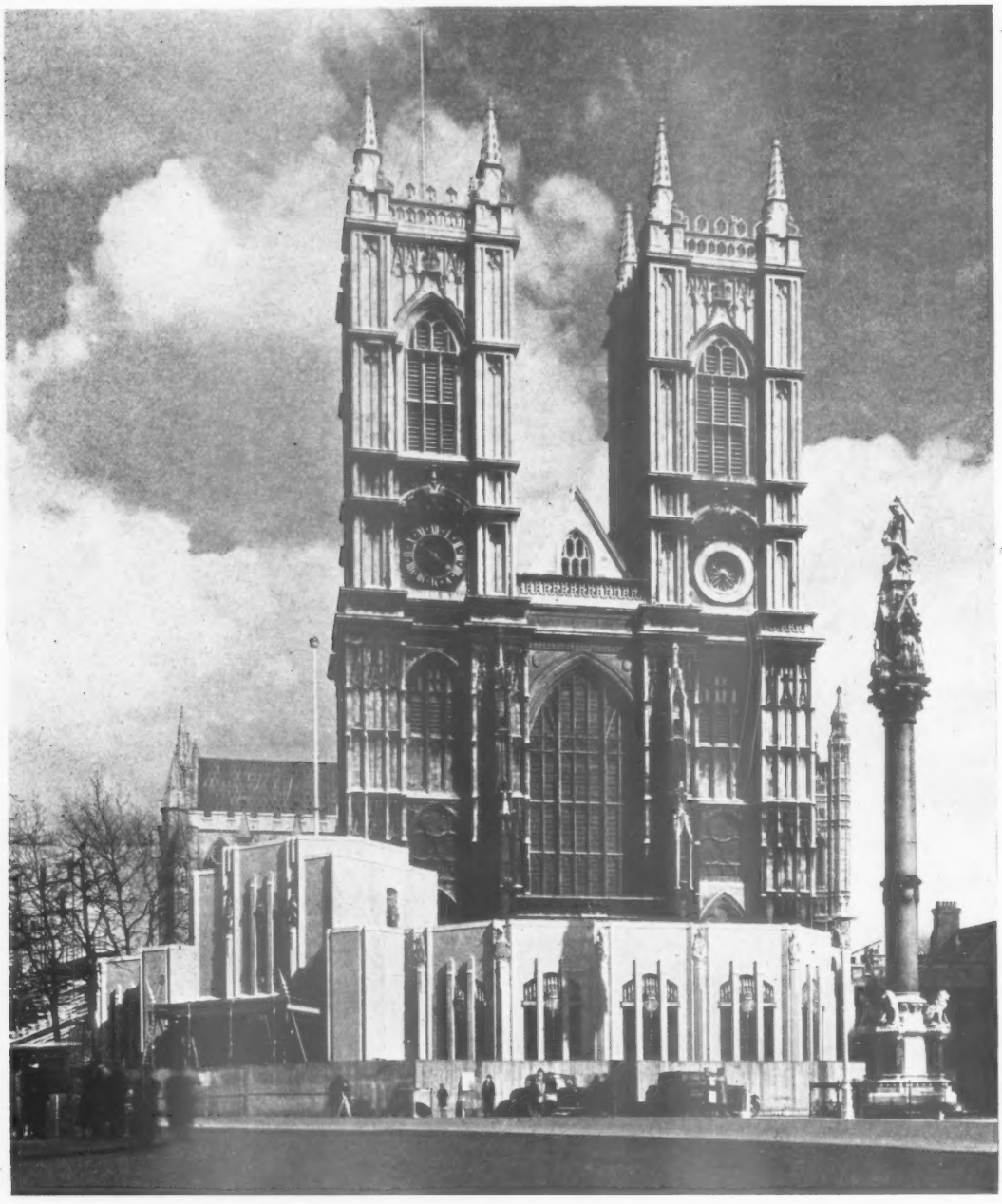
THURSDAY, April 29, 1937. NUMBER 2206 : VOLUME 85

PRINCIPAL CONTENTS

PARIS EXHIBITION: MID-APRIL PROGRESS



THE opening date for the Paris Exhibition has been fixed for Monday, May 24, and the inauguration ceremony will take place the preceding day. The closing date will be November 25. In this aerial view, in the foreground, on the left bank, is the Belgian pavilion with the Swiss and Italian beyond. Opposite is the German pavilion with the Portuguese in front and the yachting and hygiene pavilions still in an embryonic stage.



ROBING ROOM FOR THE CORONATION

A general view of the temporary robing room now being built near the West door of Westminster Abbey for the Coronation ceremony. On the façade are heraldic beasts carrying the Arms of the United Kingdom and the Dominions. A canopy replaces the porte-cochère provided at previous Coronations and this also is enriched with Royal heraldic devices. The building is constructed of steel framing and wood infilling, finished externally in plaster treated to harmonize with the stonework of the Abbey.

SAVING LONDON

ALL sorts of things are happening or are about to happen in London now and during the next month. Visitors are gathering to put in a fortnight on London. London, always news, has become even bigger news ; and its past and present glories are being broadcast in a thousand newspapers and accompanied by suitable illustrations.

Under this cascade of publicity London has taken on a coy and temporary unity. For the first time for years, Hampstead feels an interest in the Tower and Sydenham some identity with the Bloomsbury Squares. London has become self-conscious, is anxious just for a while that all of itself should give an impression of being a civilized city. And, with the new powers of vision which this change of attitude has given to her inhabitants, London has been looking at herself.

As a result she has been startled. The daily press of the last few weeks has been more kind to correspondents complaining of changing London than it ever has before. The old stories of Waterloo Bridge and the Adelphi have been aired again, but almost lost in the crowd of isolated houses, lengths of streets and sides of squares, built in days when urbanity meant something, and now being removed for new building developments.

This kind of thing is all very well. The correspondents and societies for this and that no doubt feel deeply. But they have not a monopoly of feeling strongly. Protests and petitions may save, temporarily, a few buildings here and there; but they will not save the large areas of streets and squares which really make civilized London. And it is these that are rapidly disappearing.

It is not the least use appealing to sentiment alone over Bloomsbury and Bayswater and Regent's Park. Squares and streets in these districts are not disappearing through sheer devilry but because people must live and because living is much easier if money and property are used as profitably (for the individual concerned) as possible. We are losing the London which Mr. Rasmussen* admires because of the rise in site values in its central districts. From this has flowed successive results which compel even those who most dislike doing so to take part in the grand game of destruction. Most of the houses now being demolished were too large or too poorly equipped to command rents representing a reasonable return on their present site values; so they are removed and blocks of the largest size allowed by the L.C.C. appear in their place.

Disillusioned though property owners may be by the rent rolls of half-empty flats, one cannot blame them for taking the chance. It is a free country, some flat blocks *are* full and it is their own money which they are risking. Nor can one expect architects unaided to make a stand. It is a competitive world and if, on being asked to redevelop half a Regency square, an architect were to refuse to destroy a beautiful example of homogeneity, he would hardly escape some financial ups and downs.

Looked at in this way, the problem of changing London begins to appear in proper scale. It must be dealt with in large units or, however continuous the outcry may be, nothing will be done except the accumulation of a hundred or so isolated museum pieces. No one can pretend that striking a balance between immediate expediency and a longer view will be an easy business. But it could be done.

It could be done if a politically progressive L.C.C., just re-elected for another term of office, were to decide to take seriously the future of London. A survey of the reasonably large areas of eighteenth and early-nineteenth century houses which still exist in London would not be difficult or expensive ; and the R.I.B.A. would no doubt be prepared to help in this the more readily for the helplessness of individual architects in the present situation.

With such a survey completed, the real difficulties and possibilities would begin. The L.C.C. and its advisers would have to decide whether the London of twenty years ahead would really benefit by the piecemeal redevelopment of these areas with buildings of the maximum capacity now permitted in new buildings ; whether traffic congestion and the very real possibilities of outrunning the demand in flats and offices would not make their redevelopment a financial failure as well as the end of London's last examples of urban housing planned on a large and co-operative scale.

Of course, there would be an outcry. The red terror at County Hall would send a shiver through all the Home Counties. But consider what the L.C.C. valuers might find to say in reply.

They could maintain with justice that one of the principal reasons why the lease of a Georgian house is not now attractive is the fear that any day a tenant may wake up to find half the square or the house next door has gone and a flat block about to take its place ; that, in turn, owners are now redeveloping as fast as they can not so much because a higher return is certain as because they like to lower the site values of adjoining owners before the reverse process has time to occur.

The restriction of building volumes in the selected areas for, say, fifty years would bring into operation an entirely different kind of cause and effect. Those who still would like to live in a civilized manner in London would want the houses; it would be worth while to re-equip them quite thoroughly ; and London *might* learn that it is the scale and homogeneity that makes a city architecturally worth while.

In fact, the present administration at the L.C.C. could gain immortality in few better ways.

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* *London : The Unique City.* By Steen Eiler Rasmussen. Jonathan Cape. Price 15s.

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NOTES & TOPICS

MR. GOODHART-RENDEL UNANSWERED

IT is my belief that Mr. Goodhart-Rendel may go too far one of these days with his fellow-architects. Happily seated before the best intellectual entertainer in London (Mr. Howard Robertson's words), we allow ourselves to be so easily dazzled that after the first five minutes we will accept almost anything—and, for at least half an hour afterwards, be quite unable to reply.

*

So it was on Monday at the R.I.B.A. Mr. Goodhart-Rendel spoke on recent French architecture; and it was impossible not to feel now and then that our legs were being pulled. Cosmopolitan in the word's best sense, our entertainer told us that texture and colour had little or nothing to do with architecture—and we took it like lambs. He omitted all the best known French architects, touched on the affinity between modern architecture and that of Mr. Thomas Harris, and finally, leaving on the screen a truly horrible collection of beehives and pepperpots, told us for a good five minutes about the elegance that is always France's outstanding contribution.

*

Nobody rose to meet the challenge. Nobody dared to suggest that just here and there Mr. Goodhart-Rendel might have gone a little beyond his real beliefs. Mr. Robertson and Mr. Bradshaw did their best to stir us up, but only Mr. H. M. Fletcher was brave enough to ask, "Who *was* Mr. Thomas Harris?"

*

His pleasure at the question not perfectly hidden, Mr. Goodhart-Rendel gave a final tug to the modernist toe.

*

"If you look up the word Victorian in any large dictionary," he said, "you will find that the term was first used by Mr. Thomas Harris in his book, 'Victorian Architecture' (of which I regret there is no copy in the R.I.B.A. Library). Mr. Harris's central thesis was that any building which was not obviously something else must rightly be considered Victorian."

*

After this, Mr. (Percy) Thomas very appropriately suggested refreshments.

*

THEORY AND PRACTICE IN CHELSEA

Some while ago the Chelsea Society, which is doing everything it can to protect the character of the district, persuaded the Borough Council to accept in principle a town-planning resolution aimed at the safeguarding of the residential squares; which they both agreed to be an asset.

*

Well and good. Next comes along the L.P.T.B. with their scheme to replace the trams that cross the river into Chelsea by trolley-buses; and the trolley-buses must have somewhere to turn. Chelsea Park Gardens was more or less agreed upon, but the residents in this rather swell street made a fuss and the landowner intervened on their behalf.

*

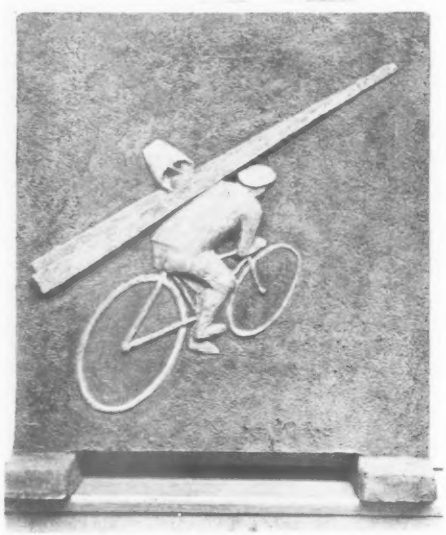
At the same time (now here is the point of the story) the same landowner put forward the suggestion that Paultons Square—the most charming and secluded of the Chelsea squares—would make a suitable turning-point instead. And the Chelsea Borough Council, having just passed a resolution safeguarding the squares, heartily agreed.

*

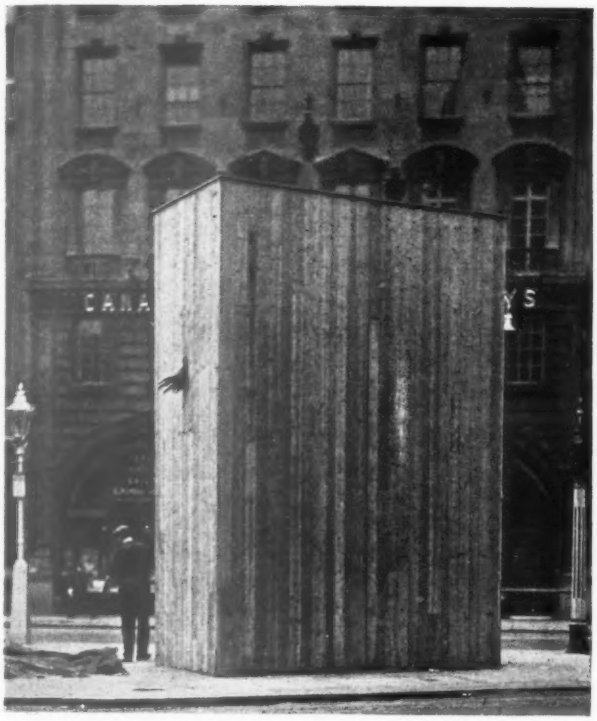
So, unless the Chelsea Society's further efforts succeed, trolley-buses are soon to run up one side of the square, giving a fine public view into all the first-floor windows (the houses are not set back from the road like those in Chelsea Park Gardens), and making a traffic route of the narrow "service" way between houses and gardens.

*

A member of the Society has worked out another argument against the proposal: if the trolley-buses take this route exactly 313 out of the 440 local school-children



The Window Cleaner: by L. Péri. From an exhibition of sculpture in concrete now being held at the Gordon Fraser Gallery, Cambridge.



The tail of George IV's horse, one of the few works of art in Cockspur Street which has escaped thorough protection from coronation crowds.

will have to cross their path four times a day on the way to and from school.

*

That is getting down to brass tacks.

SAFETY IN AIR RAIDS

The Borough of Holborn is holding an exhibition at Glaves of precautions to be taken during air raids—gas masks, blankets over doors and windows, decontaminating equipment, fire extinguishers and various other devices to show exactly what the Home Office does and does not consider good practice.

*

In his speech at the opening ceremony on Monday, Wing-Commander Hodsoll maintained that the precautions described in the Government's handbooks really *are* satisfactory. I know that a group of distinguished Cambridge research workers maintain the exact opposite, so I do not propose to set myself up in judgment on either side. From the architect's point of view there is not very much new to be seen, yet the exhibition is worth a visit, if only as a demonstration of what the official recommendations (and plenty of people know them well enough by now) look like in the goggle and rubber.

LEARNING TO DRIVE

Years ago, when I first started to drive a car, teaching consisted of a few terse instructions about which tap did what, after which I was left to my own devices, acquiring a certain amount of road sense after a series of phenomenal avoidances. Driving tests nowadays mean that most people have to take more trouble to learn than they once did, and the "motoring schools" have started making money good and quick.

*

The latest idea, and a good idea, is to lay out some fourteen acres or so in South Croydon as a driving school "with all the hazards of the public highway" save that the whole thing is private property. London busmen have for years been taught on these lines, and it was high time that the private motorist could learn with the same advantages. Whatever the safety of dual-control cars, the highway is no place for a driver who doesn't quite know what his machine is going to do, let alone pedestrians.

CONVENIENCE . . . .

My attention has been drawn, by a very good friend of mine, to a book which he rightly thought was not without its architectural interest. "At Your Convenience," by Paul Pry, is an elegant little volume dealing, as its title suggests, with those extremely useful if often over-discreet little buildings and cast-iron structures, above and below ground, which are of value to all and essential to the homeless. I trust that I have made myself quite clear.

*

Paul Pry's charming map of London, which adorns the end papers, explains the whereabouts of his subjects. Whilst this map may tell the truth, it does not tell the whole truth; for as a London perambulator of some experience I could amplify Mr. Pry's material a little—there is, for instance, that little one off Duke Street, S.W., and I am always grateful to a certain alley off, I think, Albemarle Street. One *cannot* refrain from putting a man right on his own ground.

. . . AND THE ARMY

The appearance of Paul Pry's book is not without irony, coming, as it does, at a time when the Army have encamped themselves in the parks in their habitually obtrusive manner. Their corrugated iron and sackcloth structures are fortunately too impermanent to take their place in Mr. Pry's volume; they have the true Salisbury Plain touch.

*

Having struggled for years to attain modest arrangements of door-swings in ventilated lobbies, I am sorry to see our national liking of discreet privacy thrown to the winds in this, the Coronation Year.

TIMBER

In the course of his paper on "Timber in Architectural Design" which Mr. Jordan read at the Architectural Association on Tuesday night, he mentioned some of the large-scale structures with big spans which a scientific use of the material enables one to carry out.

*

This was stressed on a flying visit which I paid to Paris at the week-end. The Exhibition is well under way, but a strike is, I understand, threatened if the work is not complete by June. It seems odd, and I couldn't quite make out why. In the meantime, the workmen are rushing up some astonishing structures built up largely of 7 by $2\frac{1}{2}$ scantlings.

*

The British Pavilion is a mass of steel—this is called British solidity and no doubt impresses foreigners.

DRANCY

I took the opportunity to go out to Drancy. The Mopin flats are an astonishing achievement, not a crack to be seen anywhere, not even in the most vulnerable points, and not a service pipe to be seen either. Their commercial failure is, I imagine, simply a matter of lack of large scale zoning, and lack of vision all round the problem at an early stage. Not even good planning and good construction will persuade the shrewd French workman to make a forty minutes' journey each evening to a not very attractive district—by bus only. ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

SIR E. COOPER ELECTED R.A.

At a general assembly of Academicians and Associates, held at the Royal Academy last week, Sir Edwin Cooper was elected a Royal Academician, and Mr. Stephen F. Gooden, engraver, and Mr. Eric Gill, sculptor, were elected Associates.

APPOINTMENT

Mr. Leonard C. Howitt, B.ARCH., A.R.I.B.A., Chief Architectural Assistant in the Liverpool Corporation Housing Department, has been appointed Deputy City Architect of Manchester.

Mr. Howitt commenced his architectural career in the Manchester City Architect's Department in 1911, joined the army in 1915, and was commissioned in the "King's" (Liverpool) Regiment, retiring in 1920 with the rank of Captain.

Entering Liverpool University School of Architecture, he was awarded a Kitchener Scholarship in 1922, and in the same year was elected A.R.I.B.A., graduating as Bachelor of Architecture in 1925.

Before joining Mr. L. H. Keay's staff at Liverpool, he was for several years Chief Assistant to Mr. Herbert J. Rowse, and since 1934 has been a member of Council of the Liverpool Architectural Society, of which Society he is a Fellow.

THE ARCHITECTS' DIARY

Thursday, April 29

ARCHITECTURE CLUB. *27th Dinner. At the Savoy Hotel, W.C. "Modern Flats: A Menace or a Necessity?" Speakers: Sir William Rothenstein, Darcy Braddell, T. P. Bennett, and T. J. Cullen. 7.45 p.m.*

SOCIETY OF ANTIQUARIES, *Burlington House, W.1. "The Ceiling of Peterborough Cathedral." By C. J. Cave and Dr. Tancred Borenius. 8.30 p.m.*

R.I.B.A., *66 Portland Place, W.1. Exhibition of Architects' Working Drawings. Until May 3. 10 a.m. to 8 p.m. (May 1, 10 a.m. to 5 p.m.)*

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

THE BRITISH SCHOOL AT ROME, *Imperial Gallery of Art, Imperial Institute, South Kensington, S.W. Exhibition of works submitted in the Competitions for the Rome Scholarships of 1937 in Mural Painting, Sculpture and Engraving. Until May 22. 10 a.m. to 5 p.m.*

Friday, April 30

LIVERPOOL SCHOOL OF ARCHITECTURE. *Exhibition, in the R.I.B.A. building, of photographs and models of work carried out by former students and by the staff of the School, to be opened by Professor Julian Huxley, at 3 p.m. Until May 14. 10 a.m. to 8 p.m.*

Saturday, May 1

ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS. *Visit to the University of London New Buildings, Bloomsbury, W.C. 2.30 p.m.*

Monday, May 3

ROYAL SOCIETY OF ARTS, *John Street, Adelphi, W.C. "Italian Baroque Painting." (Lecture III.) By Ellis K. Waterhouse. 8 p.m.*

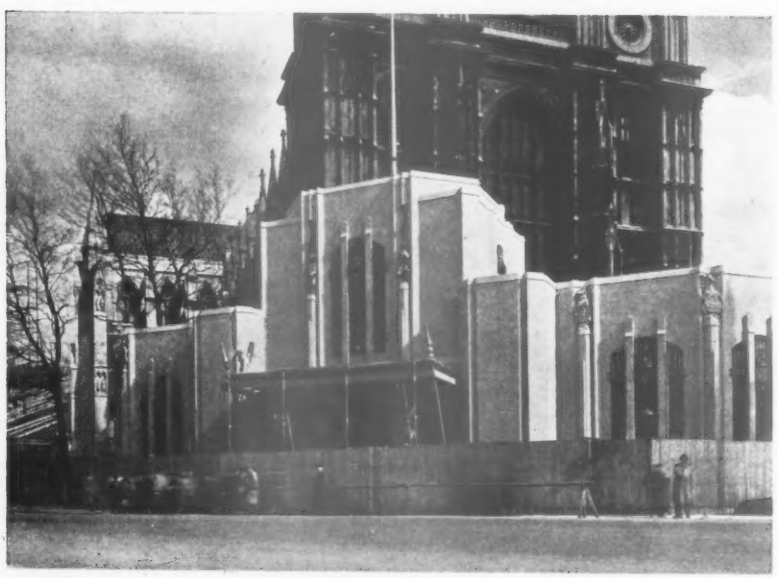
BIRMINGHAM MUNICIPAL SCHOOLS OF ARTS AND CRAFTS. *At the Museum and Art Gallery. Exhibition of Students' Work. Until May 22. 10 a.m. to 6 p.m. (8 p.m. on Wednesdays).*

Tuesday, May 4

ARCHITECTS' BENEVOLENT SOCIETY. *At the R.I.B.A., 66 Portland Place, W.1. Annual General Meeting. 5 p.m.*

Wednesday, May 5

R.I.B.A., *66 Portland Place, W1. Informal general meeting of the Junior Members' Committee. Subject for discussion: "Schools—On Paper and in Practice." 6.30 p.m.*



The temporary robing room now being built near the West door of Westminster Abbey for the Coronation ceremony (see page 714).

VACATION STUDIES IN ROME

The R.I.B.A. and allied societies have just begun to operate a scheme under which third and fourth-year students are enabled to spend a month during one vacation or another at the British School at Rome.

Each of the allied societies is to provide a sum of £15 a year with a view to an award of £30 being made every second year. Since there is no "allied society" in London, the co-operation of the L.C.C. has been obtained so far as the Northern and Regent Street Polytechnics are concerned. The Bartlett and A.A. Schools have enough funds of their own.

Seven students—the first contingent—have just returned, their visit having embraced Naples as well as Rome. It is hoped that all twelve recognized schools will shortly be enabled to send students under the scheme, and further that eventually the "intermediate" schools will benefit.

ROME SCHOLARSHIPS, 1937

The British School at Rome announces the following awards for 1937 :—

Faculty of Painting

Rome Scholarship: Kenneth Bebbington, student of the Royal Academy Schools and formerly of the Melbourne National Gallery.

Highly Commended: David Bone, student of the Beckenham School of Art. Scott A. Medd, student of the Royal Academy Schools and formerly of Trinity College School, Port Hope, Ontario, Canada.

Faculty of Sculpture

Rome Scholarship: William E. Tocher, student of the Royal Academy Schools and formerly of the Belfast College of Art.

Proxime Accessit: Karin M. Lowenadler, student of the Kennington and Lambeth Art School and formerly of the Slade School.

Faculty of Engraving

Rome Scholarship: Raymond T. Cowern, student of the Royal College of Art and formerly of the Birmingham Central School of Arts and Crafts.

Highly Commended: Frank J. Archer, student of the Royal College of Art and formerly of the Brighton School of Art. Henry M. Lack, student of the Royal College of Art and formerly of the Leicester College of Art.

The works submitted in the competitions are now on exhibition at the Imperial Gallery of Art, Imperial Institute, South Kensington. The exhibition will remain open until May 22.

CLOSING OF WANDSWORTH BRIDGE

The L.C.C. announces that it is anticipated that Wandsworth Bridge, which is to be rebuilt, will be closed to vehicular traffic from midnight on May 23-24. Part of the bridge will, however, remain open to pedestrians for a few days longer, until the temporary footbridge which is now in course of erection is ready for use.

The existing bridge, which was opened to the public in 1873, has a carriageway width

of only eighteen feet, and is restricted to loads of five tons, including the weight of the vehicle.

The new bridge, which will be of the cantilever type, will have a carriageway forty feet in width—sufficient to take four lines of traffic—and two footways each ten feet wide. It will be constructed of steel, with granite-faced piers and abutments; and will have three spans.

The design of the new bridge, which has received the approval of the Royal Fine Art Commission, has been prepared by the Council's Chief Engineer, Mr. T. Peirson Frank, M.INST.C.E., F.S.I., in collaboration with the Architect to the Council, Mr. E. P. Wheeler, F.R.I.B.A., as regards the architectural treatment.

The total estimated cost of the scheme, which also provides for the widening of the part of Wandsworth Bridge Road, between Carnwath Road and the northern bridge head, to sixty feet, and for the widening of Bridgend Road to a similar width, is about £400,000.

LIGHTHOUSE MONUMENT TO LENIN

The result of the competition for the design of a lighthouse as a monument to Lenin, which is to be erected in the port of Leningrad, was announced last week as follows: Design placed first (6,000 roubles): M. I. Benoit, I. N. Osipova, L. L. Schroeter and O. A. Ivanova. The authors of the winning scheme are students at the Architectural Department of the All-Russian Academy of Arts. Their design consists of a square pillar surmounted by a huge figure of Lenin, the lighthouse (110 metres high) standing on a broad base shaped like a five-pointed star. 85 architects submitted designs.

ON THE AIR

Wednesday, April 28. National Programme. 10.20 p.m. "Timber: The Forestry Commission and the Future." A discussion between Sir Roy Robinson, Patrick Abercrombie and J. W. C. Agate. Scottish Programme. 2.50 p.m. The ceremony of the laying of the foundation stone of the new Government Buildings in Edinburgh, by H.R.H. the Duke of Gloucester.

Thursday, April 29. National Programme. 2.5 p.m. "Your Home and Mine: The Works of a Town." By Geoffrey Boumphrey.

Friday, April 30. Television. 3.10 p.m. "Artists and their Work." Exhibition of the drawings of James Thurber. A commentary by Paul Nash.

Saturday, May 1. Regional Programme. 9.45 p.m. "The Royal Academy Banquet." Speeches by the Rt. Hon. Lord Macmillan and Sir William Llewellyn.

A.A.S.T.A.

The annual general meeting of the Association of Architects, Surveyors and Technical Assistants was held at the Friends' Meeting House, London, on Thursday, April 22. Mr. F. J. Maynard, A.R.I.B.A., who occupied the chair, was re-elected president for the session 1937-8. Vice-presidents elected were: Messrs. H. E. Furse, L. R. Penman, A.R.I.B.A. (Manchester Branch), Charles Hutton, B.ARCH. (Liverpool Branch), and G. B. Sparham.

Mr. F. J. Maynard, in the course of his presidential address, said: "The established tendency to employ architectural and other technical services on a completely salaried basis continues to develop. More and more commercial firms begin to employ their own architectural staffs. This alone expresses the essential reason for the continued existence of this Association and its persistence with its important tasks. These are in the main the securing of acceptable standards of employment, the elimination of exploitation, and the development of all-round educational facilities. We seek opportunities for members to develop and apply their capabilities to the full, and to secure suitable recognition for the work they produce.

"Two-thirds of the architectural profession are engaged on a salaried basis in public and commercial offices and as assistants in private offices at rates which in some cases are scandalously low. A number of cases can be quoted of men with twelve and fourteen years' practical experience who are doing the entire architectural work of firms in large provincial towns at salaries from £3 10s. to £4 4s. a week. Commercial undertakings, employing from three to twelve assistants, are obtaining their architecture at less than one-half per cent. of the cost of the contracts handled. Unless it can be shown clearly that every member of the staffs concerned is receiving an adequate salary, and that no one is being overworked, these figures are extremely unsatisfactory and indicate the vital need for action through this Association. We are resolved and determined to achieve for salaried men throughout the architectural and allied professions minimum basic rates of pay which shall be proportionate to the character of the service which they give to the community. The Association has made considerable progress during the past year, but we are still only at the beginning of our task of organizing assistants within the professions.

"We must give wider publicity," he continued, "to the need for granting recognition and credit for work to the responsible assistants. In a few large offices this is customary to the extent that acknowledgment is publicly made as to the authorship of executed works. The responsible assistant's name is published jointly with that of the chief architect. The extension of this custom to a number of private, as well as public and commercial, offices is a matter of common justice. It is quite unfair that credit for a design should be acquired by a chief architect, if he is not responsible for it, by the simple process of rubber stamping his name on the corner of the drawings.

"The Association regards it as part of its duty to lead and influence opinion in any matter which bears at one point or another upon the welfare of its members. In a general survey of this character the much-debated practice of employing architects and architectural assistants in the offices of local authorities under the direct supervision of surveyors or engineers must receive its share of criticism. Architects do not presume to control the work of the chief librarian, the medical officer of health or the borough treasurer, and there seems no valid reason why they themselves should continue to submit to control in their own specialized work by borough engineers. It is obviously unsatisfactory from the point of view of obtaining well-designed buildings that in the work of a very large number of municipal and county authorities the architectural department is a mere appendage of the engineer's or surveyor's office. We recognize the admirable qualities of the engineering profession, and their acknowledged competence to deal with the matters for which they have been trained, but only architects trained as such have the essential skill and knowledge for large-scale planning and design on both economic and æsthetic lines."

ARCHITECTURAL ASSOCIATION

A paper entitled "Timber in Architectural Design" was read by Mr. R. Furneaux Jordan, A.R.I.B.A., at a general meeting of the Architectural Association on Tuesday.

Extracts from the paper are printed below:

"Some of the advantages of timber are immediately apparent as are some of its limitations. Let us take first the 'pros' and then the 'cons.' One of the most impressive facts about timber on the structural side is its adaptability to modern methods of planning; the wide spans and the flexible plan forms of the modern house might almost as well have been evolved for a timber style as for a concrete one. Balconies and rooms can be cantilevered out and, incidentally, if additions and alterations have to be made, an external wall can be removed with a minimum of fuss and the material re-used. In America there are extensible timber houses on the market; they are delivered complete with furniture and equipment on a lorry, and as the family grows one can buy another room or two.

"Timber is a pleasant, clean material; painted or unpainted it has an attraction of its own, and even when not strictly 'local' it sits well in the landscape. Timber is a homogeneous material, that is, it does not have to be either poured or moulded or built up block by block. Factors which are difficult to control, such as efflorescence in brickwork and bad mixing in concrete, disappear. The frame with both its internal and external lining, the doors, windows and fittings, can all be of timber, and this gives unity. It also achieves economy because it reduces the number of trades on a job.

"Now as to some of the objections to timber, many of them more imaginary than real. The popular bogy is fire, but most of the fire risks of the timber house are also the fire risks of the brick house. After all, a brick house with timber floors and roof is, in any case, a mass of timber—a sort of huge brick flue full of sticks. At any rate, the proof of the pudding is in the eating, and the statistics of the U.S.A.

WORKING DETAILS

In February, 1934, when architectural practice was just beginning to recover from the slump, the JOURNAL *began a new section called Working Details. The intention behind this series was twofold: to illustrate the methods of construction and finish used by well-known firms in solving some of the more special problems in design; and, perhaps more importantly, to explain ways in which new materials and methods had been used to meet special problems or to overcome old problems.*

This series, in which photographs of the completed work were reproduced together with drawings and projections explaining the constructional details, was apparently found very useful, and was continued until the beginning of the "Shops" articles on November 26 last year. Publication was then suspended in order that the whole series of Details could be examined, and the possibilities of improvement or alteration carefully gone into.

Several alternative methods of presentation have been tried in the last five months, and the Details will, as before, concentrate chiefly on the use of fairly recent materials in all types of construction, fittings and equipment. The most obvious change in presentation will be probably the use of mechanical tints to differentiate materials on the drawings, but it is also hoped that a higher standard of conciseness and clearness has been obtained in presentation.

The first two Working Details of the new series are published this week.

The King unveiling the memorial to King George V, at Windsor. It consists of a stone cenotaph with a water-basin in front and two ornamental fountains at the sides. The memorial was designed by Sir Edwin Lutyens.

underwriters, covering a million houses, actually found that there were more fires in brick houses than in timber ones. This position is accepted by insurance companies in this country, who will give you a rate of 2s. 6d. per cent. Certain simple precautions must be taken, such, for instance, as the use of fire-stops, which is a regular feature of American practice. It is simply a block or piece of solid strutting between the floor joists at the foot of the wall, its object being to prevent the fire spreading from under the floor to the wall hollow or vice versa. It can, I presume, have small ventilation holes in it without losing its effect. A similar block of incombustible material is usually put between the rafters where, in a brick house, we should put beam filling.

"So far as construction is concerned, there are, of course, two main types: the frame house with weather-boarding on the outside and the house which is solid timber through and through, like the log-cabin. We have been inclined, in this country, to accept the framed house as a matter of course and, subconsciously perhaps, to dismiss the solid timber wall as an affair which was exclusively the concern of the timber countries. The framed house is, of course, likely to remain our most important timber type, but not, I think, to the complete exclusion of the solid type."

Discussing the latter type, the lecturer said: "You may be interested to hear that a number of these solid walled timber houses, planned for English ways of living and for Swedish methods of construction, are to be pre-fabricated in Sweden and imported into this country.

"Not the least interesting point about these houses is their cost. I can't give you the exact total, but each house is to be delivered complete in this country for £113, and will then take 250 working hours to erect. The interesting figures, however, are those which give the difference in cost between the brick and timber walling. Prices were obtained for the walling alone, and worked out as follows: in timber (erected and painted) the cost was 1,355 kroner per house, or £69 15s., and in 11 in. brickwork plastered with partitions of 4½ in. brickwork plastered the cost was £108 12s., a difference of approximately 30 per cent. It must also be remembered that the price for timber in this case included import duties.

"In other types of houses the difference in cost seems to be in favour of timber all along the line, but not to such an extent as in the case I have just given. In the ordinary framed and boarded house, the difference is not very considerable until you come to houses costing over £600. Comparative costs are, of course, very difficult things to arrive at, conditions between one job and another being so variable.

"The question of cost is, needless to say, of enormous importance in itself, and also because it will, in the long run, probably be the major argument in overcoming popular prejudice against the timber house. A big estate owner said recently: 'I am convinced that the timber house is as good or even better than the equivalent brick house, but before I can persuade people to accept it I must know that it is not only as cheap, but cheaper.'"

L.C.C.'S REDEVELOPMENT PLAN FOR BETHNAL GREEN

At a meeting of the London County Council on Tuesday last the Housing and Public Health Committee, Town Planning and Building Regulation Committee and Highways Committee submitted, for the Council's approval, a plan showing the suggested redevelopment of the area of 46 acres in the northern part of Bethnal Green, which the Council, on December 1, 1936, declared to be a proposed redevelopment area under the new procedure laid down in the Housing Act.

The area, which is intersected from north to south by Cambridge Road and from east to west by Hackney Road and Bishop's Road, lies between the Regent's Canal on the north and Old Bethnal Green Road on the south. The part of the area north of Hackney Road and Bishop's Road consists of a heterogeneous mixture of dwelling-houses and commercial and industrial properties, whilst the portion south of Hackney Road mainly comprises a large block of old residential property with some infiltration of industry. The remainder of the area, on the south side of Bishop's Road, is mostly residential property.

The whole of this area is to be replanned so as to secure proper separation of the housing and industrial development. The plan provides for the allocation of about 28 acres for housing, etc., purposes (including adjoining roads). The remainder of the area (approximately 18 acres) is proposed to be allocated as follows: Industrial purposes, 4¾ acres; schools, public buildings, etc., 4¼ acres; general business, 1¾ acres; statutory undertakings, 3¾ acres; roads (other than in housing portion), 3½ acres. It is proposed that the industrial area (4¾ acres) shall be adjacent to the Regent's Canal, and that the housing portion (28 acres) shall be situated south of this area and extending to Old Bethnal Green Road. It is anticipated that it will be possible to provide accommodation for about 5,000 persons in the housing area, which will connect with other housing estates now in course of development by the Council. In addition to dwellings, premises for purposes ancillary to housing, such as shops, maternity and child welfare centres, day nurseries and children's playgrounds, will be erected in the housing area. Other sites (comprising about 4¼ acres) have been provided for extensions of a school and Bethnal Green Hospital, and for the erection of other public buildings. The question of widening Hackney Road and Cambridge Road to 70 feet throughout is being considered by the Highways Committee. The redevelopment proposals also provide for the widening of other roads within and around the area and for the closing of one mile of redundant streets.

The estimated cost of the acquisition and clearance of the properties in the area, the closing of streets and the execution of the principal road works is £1,250,000, to which had to be added about £560,000 in respect of the erection of dwellings, making a total estimated expenditure of £1,810,000. The redevelopment of the area will involve the rehousing of about 4,700 working-class persons, many of whom are living in slums.

EXHIBITIONS

THERE is a splendid and very well-chosen exhibition of Modigliani's work at the Storran Gallery. Here, beyond the quality of the individual pictures can be seen the painter's development within the short space of the three years represented, from his well-known elongated carvings which immediately preceded them and which were so strongly influenced by negro art, through the period in which he painted his portraits with the simplified features and flat, sometimes concave, surfaces reminiscent of many negro masks, to his final, more naturalistic style. He is surely one of the few painters who is able to come past simplification, and the over-statements through simplification that amount to distortion, back almost to naturalism without the usual inevitable loss of content. In his simplified idiom of flat surfaces and blank eyes, Modigliani achieves amazing revelations of character, and to live with one's portrait might well be uncomfortably like living at all too close quarters with one's conscience.

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With paintings of this standard any choice can only be personal, but it is interesting to compare Jean Cocteau's portrait, painted in 1917, with that of Baranowski, painted in a very much more naturalistic manner a year later, and in comparing to realize that the comparison is not one of relative merit but of technique.

●

Soutine's painting is now being shown for the first time in this country at the Leicester Galleries. After a tormented and unhappy childhood in a Russian ghetto he escaped to the studios of Paris, but his vision had been permanently twisted towards an absorption with the macabre that amounts in much of his work almost to caricature. Of the two kinds of caricature—that which is used deliberately and with restraint to underline the subject's personality, and that which is fantasy set free—it is towards the last that Soutine is drawn so irresistibly that the element of something deliberately ghoulish in all his work makes it difficult to appreciate him properly as a painter. For remove that quality as in his latest,

more placid works, and little is left but the painting of a very able academician.

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These two painters, Modigliani and Soutine, have been much contrasted and compared lately as they were friends who at one time shared a studio, and their exhibitions coincide. But that which makes Modigliani, who died young, a great painter with whom Soutine with a life's work behind him can never compare, is their fundamental difference in outlook—a difference that is perhaps more important and more dividing than any racial division. Modigliani looked at his subject objectively—passionately, but nevertheless objectively—Soutine allows the subjective approach of his tormented imagination to distort everything he attempts to translate.

D. C.

Exhibition at the R.I.B.A.

An exhibition of the work of past students and of the staff of the Liverpool School of Architecture is to be opened at the R.I.B.A., on April 30, at 3 p.m., by Professor Julian Huxley.

The Exhibition, which will remain open until May 14, will be devoted to the work that has been designed and carried out during the past 15 years in the British Isles, Dominions and other countries by architects who have received their training in the Liverpool school and by those who have been or are members of its teaching staff. Their work will be illustrated by some 300 photographs as well as by a number of models.

The exhibits will be arranged in categories: Domestic, commercial, industrial, scholastic, monumental, ecclesiastical, civil, recreational and so forth. In addition there will be a group of exhibits illustrating the town planning work of past students of the School's Department of Civic Design.

Whitechapel Art Gallery

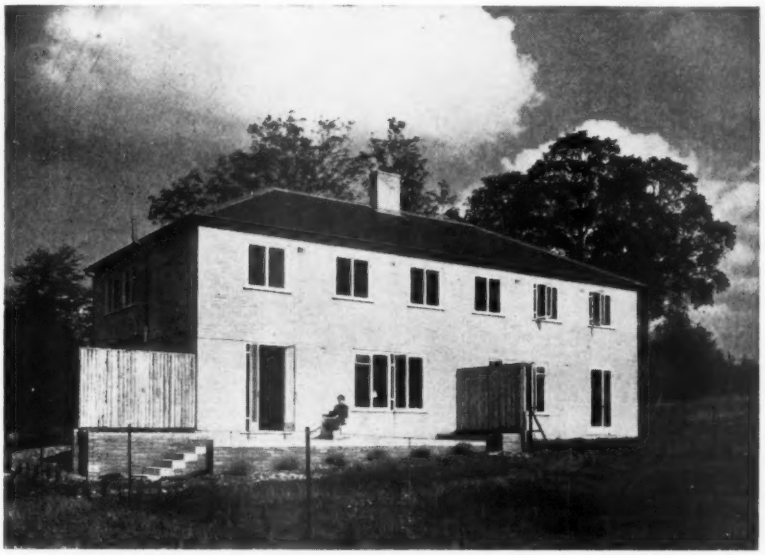
The use of the R.I.B.A. permanent collection of architectural photographs, now in process of formation, is well illustrated by an Exhibition opening today at the Whitechapel Art Gallery. The director of the Art Gallery approached the R.I.B.A. to supply him, at short notice, with some architectural photographs to supplement an exhibition of the Properties of the National Trust. Although the majority of R.I.B.A. photographs were on show elsewhere, some 200 were taken from stock to make up an interesting little exhibition consisting of three sections, namely, Central European, Colonial and recent British Architecture—the last consisting of photographs received in the last few months. As the photographic collection grows, it will be possible to create more and more of these small loan exhibitions, which are a valuable means of interesting the public in architecture.

The exhibition at Whitechapel is to be opened by Mr. P. J. Noel-Baker, M.P., and will remain open until May 29. (Admission free.)

Redfern Gallery

An exhibition of watercolours, drawings and collages by Paul Nash is to be opened today at the Redfern Gallery, Cork Street, W.1. The exhibition will remain open until May 29 between the hours of 10 a.m. and 6 p.m. (Saturdays : 10 a.m. to 1 p.m.).

PAIR OF HOUSES, IFFLEY



GENERAL — *Two houses designed for separate owners, with slightly different requirements. They were designed originally with a flat roof which was rejected by the Town Planning Committee, who insisted upon a pitched roof.*

CONSTRUCTION AND FINISHES—*The walls are of sand lime bricks, the roof is covered with slates, windows are deal casements, and the internal finish is lime plaster throughout with deal-boarded floors. One house is fitted with oak-veneered flush doors, the other with panelled Columbian pine doors. The floors over the garages are in solid concrete finished with linoleum cemented to screeding.*

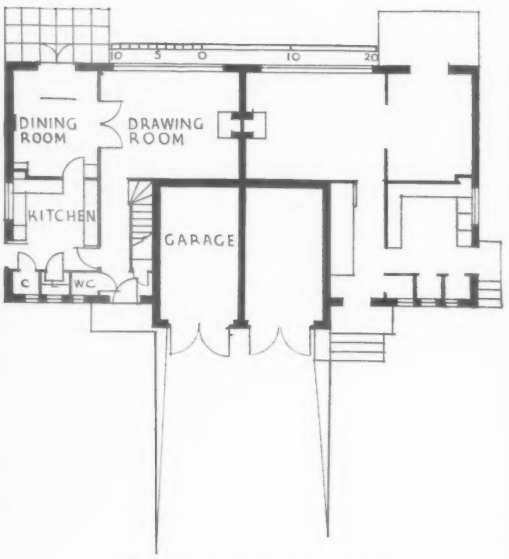
The photographs show : above, the garden front ; below, the entrance front.

DESIGNED BY

DAVID BOOTH

PAIR OF HOUSES AT IFFLEY, NEAR

FIRST FLOOR PLAN



GROUND FLOOR PLAN

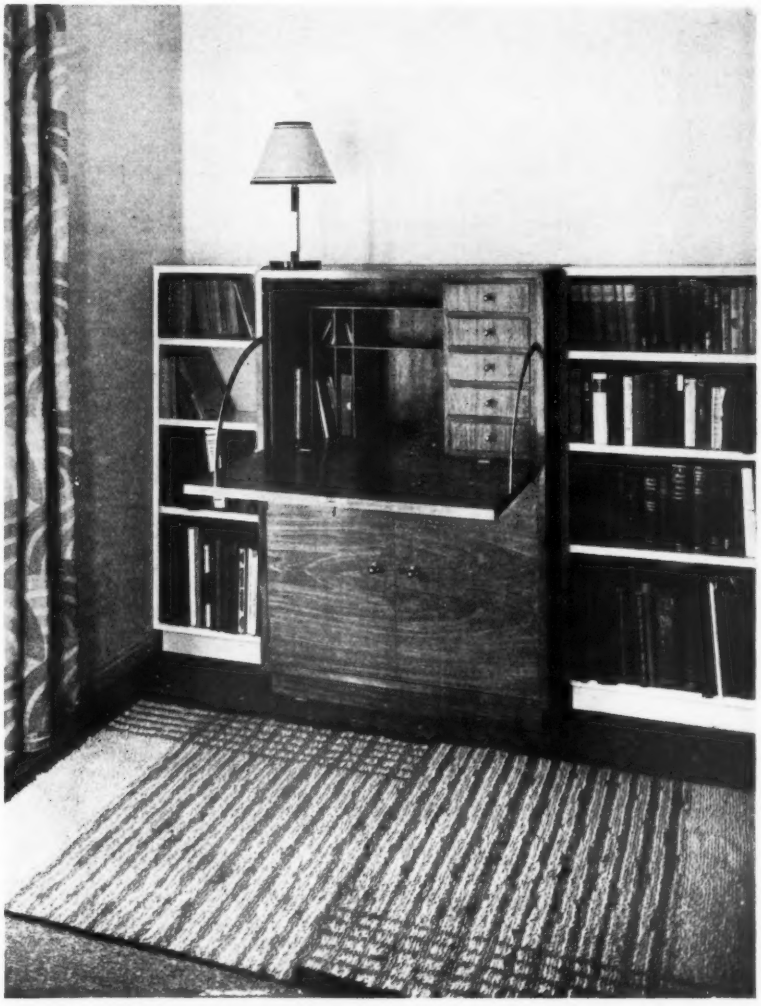
The photographs show: the staircase and the drawing room.

OXFORD: DESIGNED BY DAVID BOOTH

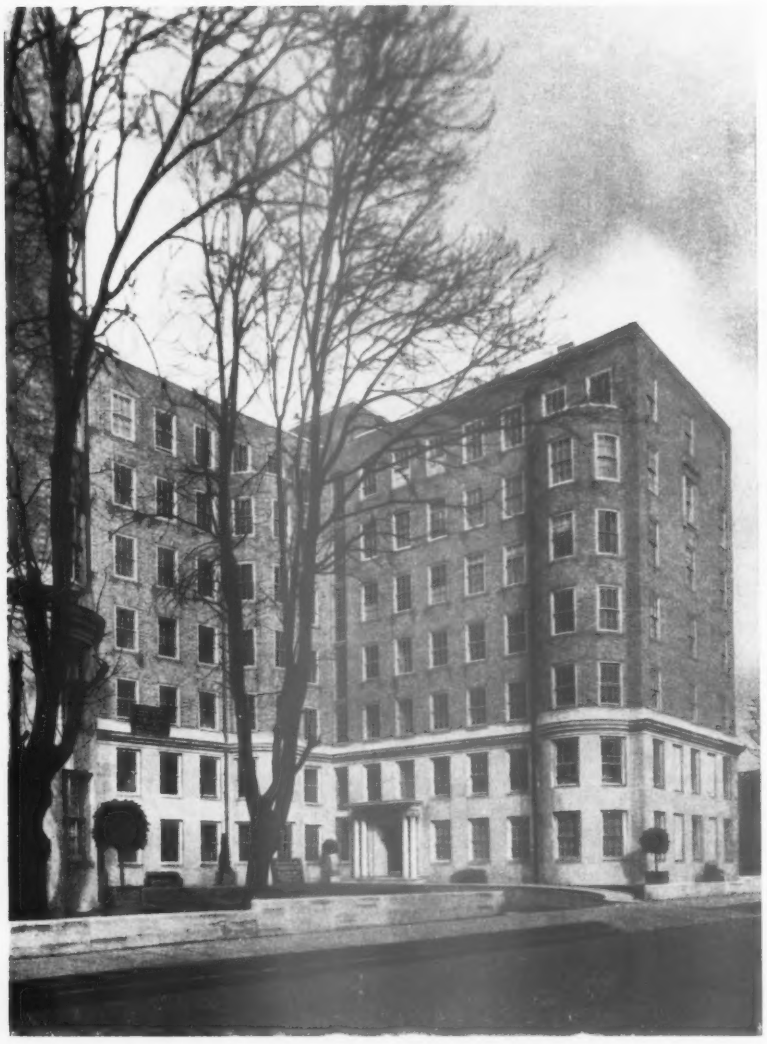
DINING ROOM AND LIVING ROOM—*The furniture is in Australian walnut; the dining chairs in steel, upholstered in black canvas. The settee and Parker chair are upholstered in a brown and white tweed. The small fireside chair is in brick red coarse textured wool cloth. The curtains are green and cream printed sateen. The close covered carpet is of natural gray hair cord, and the large fireside rug is in shades of brown and fawn.*

The photographs show: two views in the dining room, and the kitchen.

For list of general and sub-contractors see page 748.



SOUTH LODGE: BLOCK OF FLATS



DESIGNED BY WIMPERIS, SIMPSON AND GUTHRIE

GENERAL—*Eighty-two flats planned in a building divided into four blocks with two drives to serve each block.*

SITE—*At the junction of Circus Road and Grove End Road, St. John's Wood.*

CONSTRUCTION AND EXTERNAL TREATMENT—*Steel frame; hollow tile floors with wood joists, boarded on top. The partitions are of ordinary breeze block. The roof is of hollow tile construction, covered with asphalt. The walls are faced with stone up to second floor level and, above, with grey Leicestershire bricks. Wooden sash frames, painted cream, are fitted.*

PLAN—*Practically every flat has a south and west aspect. Each one is planned to give an open outlook from all rooms, lighting wells are absent and bay windows have been afforded to the principal rooms. There are two types of flats. One consists of lounge hall, drawing room, dining room, four bedrooms, two bathrooms, kitchen and cloakroom. The other contains similar accommodation, but with three bedrooms.*

INTERNAL FINISHES—*The halls on the ground floor are lined with walnut veneer and the staircases are of travertine. Floors are: Kitchen and service quarters, composition; bathrooms, cork. The entrance doors to the flats are walnut. The remainder of the joinery is either deal or Columbian pine.*

SERVICES—*There are 11 lifts—four passenger and seven service; central heating; facilities for wireless and telephone in all flats; and coal fires in the living rooms.*

The photographs show two views of the exterior, and a typical corridor in a flat.

For list of general and sub-contractors see page 748.

IN CIRCUS ROAD, ST. JOHN'S WOOD

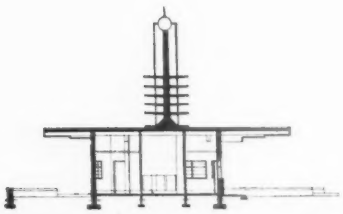
A typical kitchen. The photograph reproduced below shows a typical bathroom.

GROUND FLOOR PLAN SHOWING LAYOUT OF FLATS

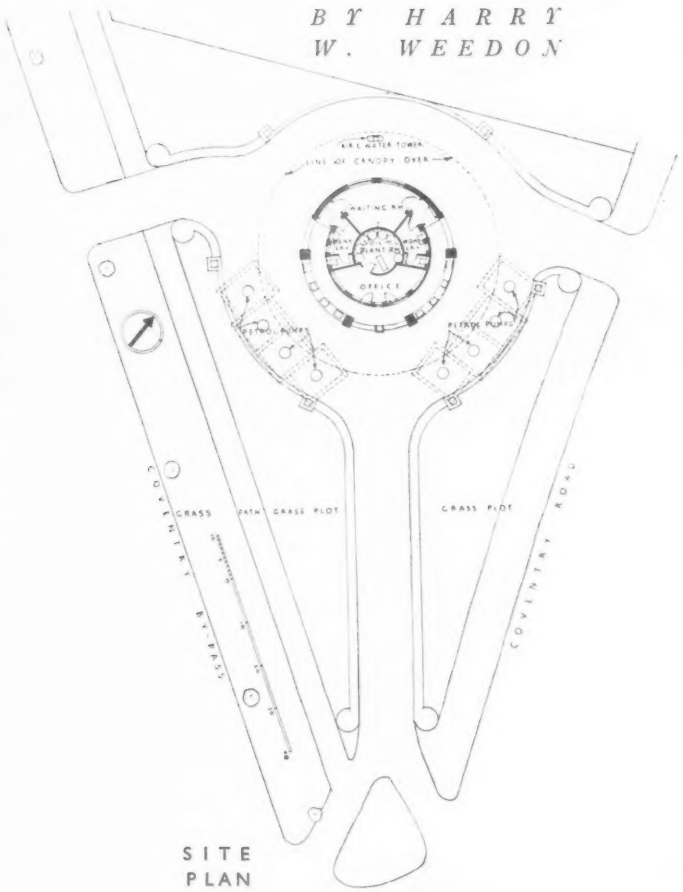
PETROL FILLING STATION, SHELDON

BY HARRY W. WEEDON

This petrol filling station is situated at the junction of the Coventry Road by-pass and the Coventry Road, Lynden End, Sheldon. The walls are 11 in. cavity, covered externally with stone paint; and the canopy is of reinforced concrete, covered with asphalt. The finial is of reinforced concrete, outlined in neon; and the window frames are painted green.



SECTION



SITE PLAN

R. I. B. A.

RECENT ARCHITECTURE IN FRANCE

On this and the page following we print extracts from a paper entitled "Recent Architecture in France," read by Mr. H. S. Goodhart-Rendel, F.R.I.B.A., at a general meeting of the R.I.B.A. held on Monday last.

Immediately after the last war the architectural supremacy of France among nations was still not seriously questioned. In England we believed that we still built the best houses and possibly the best churches. In Germany we saw some commercial buildings more progressively imagined than any elsewhere, and the originalities of the Munich style were noted with interest. Of Italy's production the Victor Emmanuel monument was perhaps unfairly considered representative. Scandinavia had attracted attention almost solely by means of the Copenhagen Town Hall. The Americans were widely acclaimed as producing bigger and better French buildings than anybody, except—possibly—the French themselves. But the French themselves, even if their practical opportunities were prejudiced by the antiquity of their country, stood alone in architectural science and in hereditary skill. In all the really difficult operations of designing nobody could touch them.

What has happened since that time? Opinions vary. Some hold that what the French did so well was not very well worth doing. That the different achievements of other countries, if not so perfect of their kind, have proved of greater value to humanity. Others hold that the old French science is demined, the skill slipping away. Others again appear to think that French architecture is too architectural, too easily distinguishable from engineering or from applied sociology. There are also many journalistic people who scorn an art that is seldom new enough to be *news*.

I, myself, am convinced that nothing that the French have not is comparable in value with what they still have. I think their engineering and sociology are as good as anybody's and that these are—what those of other people often are not—kept firmly in their proper place. I think that for the journalist politics and crime make much better news than artistic irresponsibility. And I believe, above all, that through French channels the rest of Europe can still best draw strength from the reservoirs of past experience.

Sometimes, nowadays, when people are talking about planning, they have to be reminded that among the things that have to be planned are buildings. The power of planning buildings well seems to be in the French blood. Even before the art was systematised—perhaps oversystematised by the Ecole des Beaux Arts, French buildings were already works of Fine Art when the trenches had been dug for their walls. The gem of the whole design was already in existence; from it usefulness and shapeliness would inevitably grow. The classical planning of France seems primarily ruled not so much by static things as by the expected movements of human beings, and this is what gives it its especial beauty. Some of our pleasure in passing through a harmonious succession of spaces is anticipated when we see the skilful preparation made for our passage.

In what used often to be called the "*Beaux Arts type of plan*," this preoccupation with lines of passage and service—and also with lines of passage for the eye, axial vistas and the like—resulted sometimes in exaggeration. The movements provided for were too much those of the minuet, and all spaces were so much crossed by passage lines and vistas that there was nowhere to sit down and be comfortable. In houses these faults were serious, and even in public buildings the human fondness for cutting off a corner when one can deserved more indulgence than often it got. Nevertheless, a governing forethought for human movements is the secret of all good planning, even in a warehouse, where goods have to be got in and out by men who must not get in each other's way. The opposite kind of planning is that in which rooms are shaped purely to suit their furniture and use and we are left to find the best way we can from one into the other. Such planning is exceedingly rare in France and very common elsewhere. All its advantages can be obtained and all its disadvantages avoided by flexible planning that is still systematic and deliberate. You will find, as a rule, that in those adventurous modern plans that embody spaces irregularly curved or not parallelogrammatic, the French examples balance best the claims of immobile objects and those of mobile man.

To maintain, as I do, that the French approach is the right approach to planning does not, of course, imply that all French plans are the best plans for anybody except a Frenchman. The town hall, the law courts, the house, the flat, that suit French requirements would not suit ours. Furthermore, I think that in difficult circumstances, on cramped and awkward sites, when deciding between incompatible requirements, when minimising inevitable inconveniences, lower ideals may suggest the compromises that are most valuable. In a certain kind of opportunism the best English planners need fear no rival. Our country is crowded and we are well accustomed to work within class restrictions.

Commercial buildings intended for letting have everywhere come in the years since the war to lose all fixed sub-divisions except those that enclose the vertical passage-ways—lifts—that is to say—and the staircases and others that enclose sanitary accommodation. All else but these is undivided space to be let by the foot or the metre and used by tenants as they choose. Such buildings give no great scope for the planner, and are good or bad chiefly in accordance with the skill or the ineptitude of the engineer. If their points of support are placed so as to afford the maximum of convenience in sub-division they are good, and this maximum is secured in all countries probably with about equal frequency. The stanchion plan of a framed building, however, resembles so strongly the plan of points of support with which the systematic French planner first attacks any problem whatever that traditional technique has obviously not lost its validity in the general change from masonic to metallic or reinforced concrete construction. The most economical and reasonable frame-structure is that in which all weights are brought as directly to the ground as possible, and an architect accustomed to think in dots rather than lines—in points of support rather than in walls—will usually be able to avoid a great many of the stanchions rising from girders that to a less-skilled confrère would seem indispensable.

This, then, is the first direction in which I think a study of the best French architecture will be profitable—the direction of systematic planning with some especial attention given to the provision made for human circulation.

Planning is closely bound up with building methods and materials, and in those France has no great difference to show from the methods and materials of other countries. In framed buildings the use of steel castings is rare compared with that of reinforced concrete. Stone rubble for constructional walling corresponds to our stock brickwork, solid bricks in France not being generally employed except for facing. Hollow bricks in many places are still, and long have been, the normal cheap material for partitions and for the quoining of rubble walls that are to be plastered. Timber is much scarcer than with us, particularly in the south, where the smallest and cheapest houses will have floors and staircases made of steel or iron and hollow tiles. Roofs when pitched are covered most usually with slates, with flat tiles of some pattern resembling those we make at Bridgwater, or with metal. Zinc is less popular than it used to be, but in roofs either pitched or flat seems to behave better than it does in England. Flat roofs in general are not constructed otherwise than they are elsewhere.

The infrequency of solid brick walls and the cost of brick or stone facing to rubble are probably the causes of the greater prevalence in France than in England of external surface coverings; cements and plasters, fine and coarse; mosaic; glazed tiles. Frame construction has lately increased the use of these in England, but in France the use already prevailed when walls were mostly solid. *Stuc*, a coloured and more or less polished plaster, is sometimes used externally in Paris in a way that the atmosphere of our towns would forbid, and many marbles in that fortunate city keep their polish and colour without the continual washing they would need here.

The beauty of the finer among those materials, and of the unrivalled building stone of Paris will be denied by nobody, but English and French choice among the coarser will not be the same. The average Frenchman likes his burnt clay, whether in bricks or tiles, to be smooth: the average Englishman likes it woolly. The average Frenchman likes the corners and arrises even in a rustic material to be as definite as its nature will allow: to an Englishman this hard definition is apt to seem out of place in landscape surroundings. To the bloomy textures and soft blendings of colour that form almost the chief preoccupation of some of our fashionable architects and critics the average Frenchman is entirely indifferent. The character in design and materials that the Frenchman would describe as gay and smiling generally shocks us terribly.

This is not a matter in which I think we can apply the formula of six of one and half a dozen of the other. I believe, and many Frenchmen agree with me, that in the wise choice and use of picturesque materials the advantage lies with us. I do not say in the choice of appropriate materials, because no French architect would ever have been foolish enough to roof a modern insurance office with stone slates or to fill its windows with leaded glazing as I have seen done in my time, but, on the other hand, no English architect would propose the combinations of rubble walling and glazed faience of harsh red and white bricks with yellow varnished woodwork that are still current in the suburban constructions of the older among his French confrères. A few younger men in France know and practise all that Philip Webb and his followers have taught us, although their knowledge is more often applied to the tender handling of old buildings than to the old-time flavouring of new. The pursuit of pretty textures and colours is regarded as something outside architecture, an opinion with which I agree, and as a matter of little importance, an opinion that most of us will contest.

External walls that are mere skins stretched between bones of steel or reinforced concrete have levelled many differences between the building techniques of various countries. The first Parisian building that I remember to have had a reinforced concrete frame was faced with glazed faience in the exaggerated style of 1900 modernity. Works of engineering in this method were usually faced—and continue to be usually faced—with pure cement. Faience, first advocated—I think—by Viollet-le-Duc as

an infilling for visible metallic framing, had been sensationally so used in the shape of *La Samaritaine*, and more moderately in many constructions throughout France. To allow the faience to cover and conceal the framing was no long step to take. Mosaic coverings, mostly ceramic, were used early on frame buildings and continue to be so used today. In England they appear to be unduly costly, a thing to be lamented, since no skin seems so well adapted as these for protecting a city building from decay and the accumulation of dirt. Climate and atmosphere give France the advantage of England in the successful employment of cements and, in consequence, brick veneers are less generally resorted to there than here. They are, however, quite common. *Stuc* and marble I have already spoken of; the change from solid wall to framed construction has increased their use.

Freestone façades in French towns have often tended to be viewed more as sculptured decorations of the street than as egotistic proclamations of the several natures of the buildings they mask. The time is not long past when their masonry was built entirely "in block," their mouldings and other decorations being worked in place, often with a surprising disregard of the actual jointing of the stone courses. A façade so conceived is obviously no more inconsistent with a framed skeleton than with one of weight-carrying walls, although the lightness of structure that a frame makes possible will suggest innovations in architectural form that it would be cowardly not to exploit. France still has her share of masonry façades that are entirely non-committal concerning the structure behind them, but in the latest developments of her architecture freestone, if used merely to clothe a frame, will show by the forms it assumes that its function is not constructional.

The experiment of mechanical architecture, of houses that shall be machines to live in, of offices that shall be machines to work in, of bars that shall be machines to drink in, has broken its neck logically on impact with an older France that insists upon *mairies* that are something more than machines to get civilly married in, churches that are something more than machines to worship in. While it lasted this movement did a great deal of good in two ways. It emancipated French architects from many unnecessary conventions, and it gave them a collection of new forms to make architecture of. I do not think the number of people was large who took the social and political implications of the movement very seriously, but those who did were very much in earnest indeed. Many of them greatly feared and disliked ornament. This did not follow from the mechanical theory; when machines were new and exciting things they were often lovingly ornamented by their makers. It arose rather from an impatience with the futility of much ornament that itself has become mechanical, that is done without thought or pleasure and by which neither thought nor pleasure can be evoked.

Mistrust of ornament marks a much larger movement than the mechanical one, in fact it is general today throughout architecture, despite some portents of a coming reaction. Mistrust I have said, not rejection. In the works of the more serious architects now practising in France ornament occurs, but has obviously been very rigorously reduced to its essentials and sifted from dross. It is generally felt, and I think properly, that the Parthenon without its lost colouring and metal appliqués is a model more suitable to our times than it would have been in the days of its glory, and the combination of plain flutings and groovings with motifs of figure sculpture in works inspired by that chef d'œuvre of twenty years ago the Théâtre des Champs-Elysées is still very prevalent.

Without any applied ornament, however, a remarkably high degree of elegance is often obtained by means of proportions delicately adjusted and shapes skilfully combined. This quality of elegance is a precious flower of French civilization, growing from deep roots in culture and tradition. It is as sensitive as it is sane, continually becoming tinged with some new taste or interest of the moment but never becoming unbalanced by any intemperate enthusiasm. The world of architecture today is a crank's heaven, and I suppose we must wait a good many years before we know which, if any, of the cranks have received the divine afflatus that almost all of them claim. Meanwhile, we can be very grateful for elegance and common sense when we find them, and, although in an imperfect world they will everywhere be more often to seek than to find, I think that in France we shall find them very often.

The key quality in French architecture of all ages from which its particular merits spring and have sprung seems to me to be what our ancestors would have called propriety and what we call *appropriateness*. Wren's warrant design for St. Paul's was commended by the Commissioners as being "artificial, proper, and useful," epithets which perhaps it did not altogether deserve; but for a work of architecture those words have always seemed to me to be almost the highest praise possible. *Artificial*—made by art with nothing left to chance or to blind circumstance; *useful*—serving its material purpose; and *proper*—proclaiming its fulfilment of its use and its place in human life by an appearance everyone can understand. There is a false appropriateness as well as a true one, a false appropriateness springing from mere association. I believe that even now Corinthian columns spell banking to the average American, and Londoners of the last generation learnt to associate yawning arches of port-wine-coloured faience with journeys on the underground railway. The true appropriateness of our new underground stations is no accident like these, it is something inherent in line and form. They are obviously the entrances to no places of pleasure, commerce, or religion, but to useful places, prosaic but comely.

I am afraid that their metro stations in Paris do not deserve the same commendation, but they date for the most part from the epoch of the 1900 exhibition and are, as it were, temporary decorations of a town *en gala* that have never been cleared away. In general, however, I think it is true to say that if a modern French architect were to design one of those toy towns we used to play with in the nursery, there would never be any doubt in a child's mind or in those of his elders as to which building was which. Modern architects elsewhere would be very liable to produce a box of interesting shapes all bewilderingly much alike. Now, it is inconvenient to find when you thought you were entering an interestingly shaped theatre that you have entered an interestingly shaped abattoir, and the Frenchman prefers to avoid this inconvenience by some means more architectural than that of writing up each building's name in large letters. He prefers by carefully analysing the programme of his design to decide what it is that is of prime and particular significance in that programme and to make that thing clearly dominant over all else in appearance.

In villages rebuilt on battlefields the churches have not generally been very well designed, a remembrance of what used to be having influenced their designers either too much or not enough. They are usually adroitly constructed with a combination of reinforced concrete and local materials, and, although semi-traditional in style, owe more to the drawing-board than to the inspiration of the countryside. In judging church architecture abroad, however, the Englishman must remember the different conditions under which it is produced in a country where there is an established religion and in one where there is not. In both the important churches may be comparable, but in a country without a State religion the smaller churches reflect the taste of poor and simple people, and this taste has nowadays been badly corrupted by the smart shoddy with which machines so long have fed it. Poverty may make beauty, but does so most often, I am afraid, when it is guided by the judgment of people not poor.

Englishmen when inspecting French church architecture may also be surprised at the extreme rarity of visible timber roofs and ceilings. These, speaking generally, the French simply do not like, and even in old churches so covered have frequently in the last century inserted plaster vaulting to hide them. In very few parts of France would a timber roof or ceiling be as cheap as with us, and there has accordingly been no strong reason for the established prejudice to be discarded. Occasionally in Normandy and Brittany the old timber roofs characteristic of those parts may be reproduced, but such reproduction is rare.

Reproduction, indeed, of any ancient characteristics whatever is rare in all modern French churches, and to their architects must be given the credit of a steady aim at development, even though we may not always relish its direction. Sometimes, however, churches are built in circumstances so similar to those in which old churches came into being as to make no innovation necessary, and when innovation is unnecessary it is often true wisdom not to attempt it.

When the history comes to be written of the modern style, the style whose boastful adjective already tends to be put into inverted commas, when that style is bottled on a museum shelf beside the dustier bottles containing the pre-war *Style Moderne*, the *Art Nouveau* of 1900, the experiments of the Century Guild, the *Victorian* style of Mr. Thomas Harris, the Boeotian style of Soane, the romantic experiments of the French Revolution, I think that the only thing those exhibits will be seen to have in common will be the spirit of revolt. Writers make solemn attempts nowadays to trace a common direction through all the revolting movements they happen to have heard of, with very curious results. Paxton joins hands with Mackintosh, and no doubt somebody will soon find that Thomas Harris has been reincarnated in M. le Corbusier. The appetite for novelty is not in itself a bad thing, provided it occurs in a person with a strong digestion. Now the strongest and healthiest digestion in European art has been proved, times without number, to be that of France. The cold classicism of the Empire, the bourgeois conventionality of Louis Philippe, the false glitter of the Second Empire, the Republican officialism that followed it, the *fin-de-siecle* experimentalism, the American patronage of revived Louis Seize, the sociological reactions from pre-war tradition—none of these exigent moods has choked her essential originality. In modern architecture we can generally be sure enough of getting modernity, but I think that in France primarily (I had almost said in France alone) can we be also sure of getting architecture.

INFORMAL MEETING

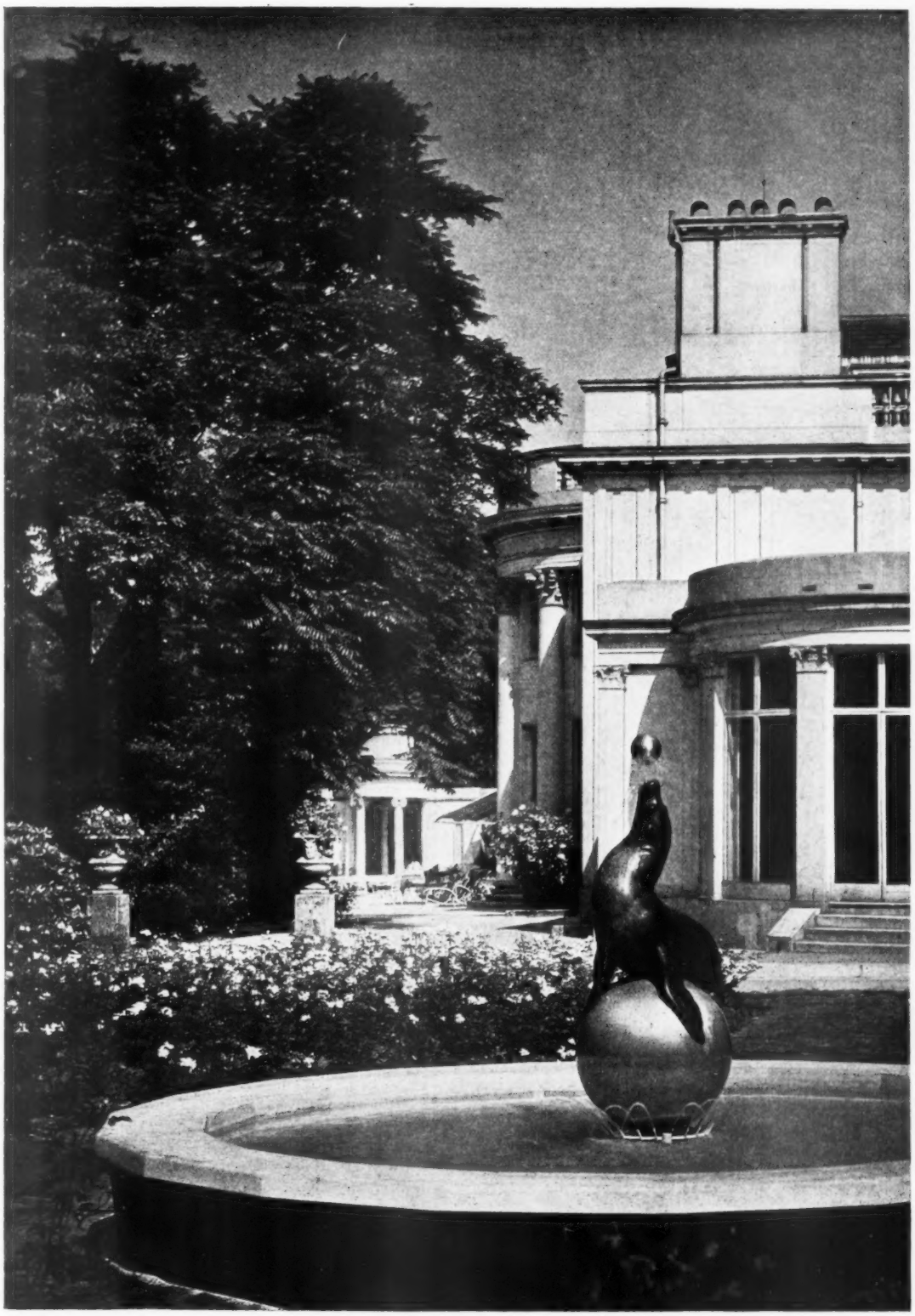
The last informal general meeting of the Session is to be held at the R.I.B.A. on May 5 at 6.30 p.m. The subject for discussion is "Schools—on Paper and in Practice." Mr. H. Myles Wright will occupy the chair, and it is hoped that one of the assessors in the recent *News Chronicle* Schools Competition, the winners of the competition, a member of the Schools Committee of the L.C.C., and an official architect will take part in the discussion.

EXAMINATIONS

The following are the dates on which the forthcoming examinations will be held: *Final Examination:* July 14, 15, 16, 17, 19, 20 and 22, 1937. (Last day for receiving applications, June 14, 1937.) *Special Final Examination:* July 14, 15, 16, 17, 19 and 20, 1937. (Last day for receiving applications, June 14, 1937.)

WORKING DETAILS : 531

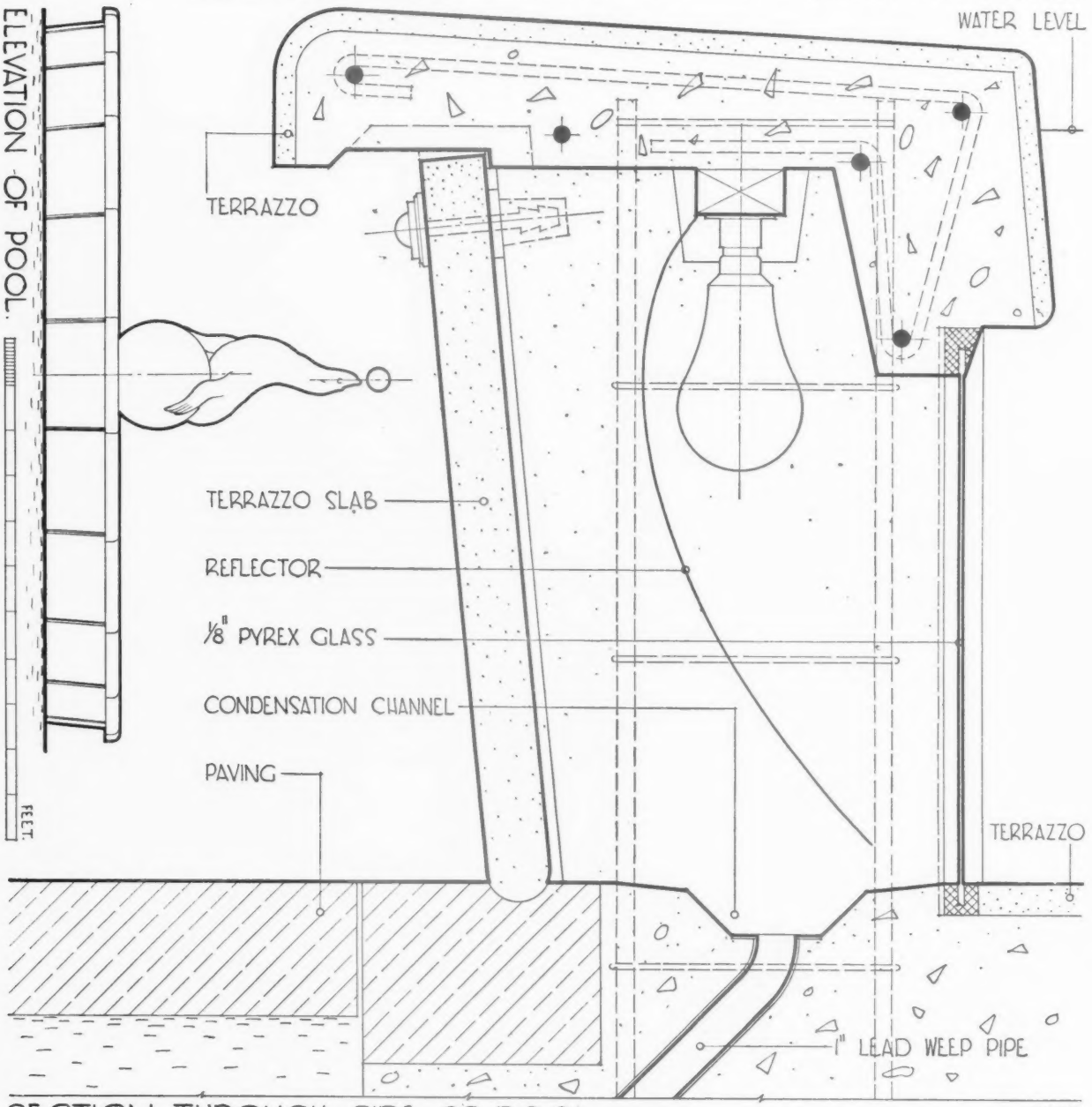
POOL • HOLME HOUSE, REGENT'S PARK, N.W. • G. A. JELLICOE AND PARTNERS

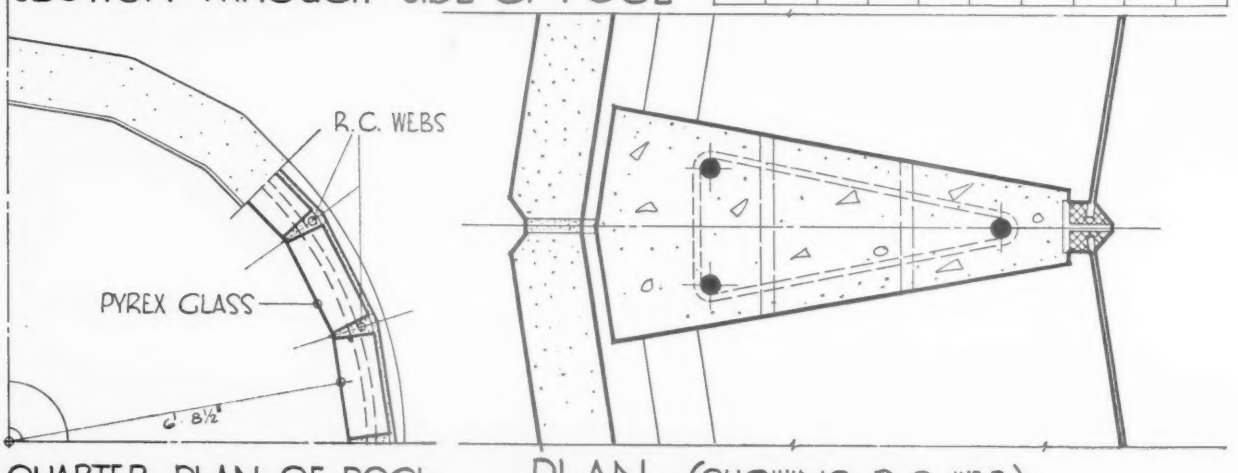


The structure of the pool consists of a series of reinforced concrete webs and a capping of reinforced concrete with terrazzo finish. Between the webs are a series of light boxes. These are faced on the inner side below water level with sheets of toughened glass and, on the outer side, with removable panels of black terrazzo to ensure easy access to the lighting system. The sculpture, in bronze and aluminium, was executed by Wheeler Williams. Details are shown overleaf.

WORKING DETAILS : 532

POOL • HOLME HOUSE, REGENT'S PARK, N.W. • G. A. JELLICOE AND PARTNERS





Detailed plan and section of the pool illustrated overleaf.

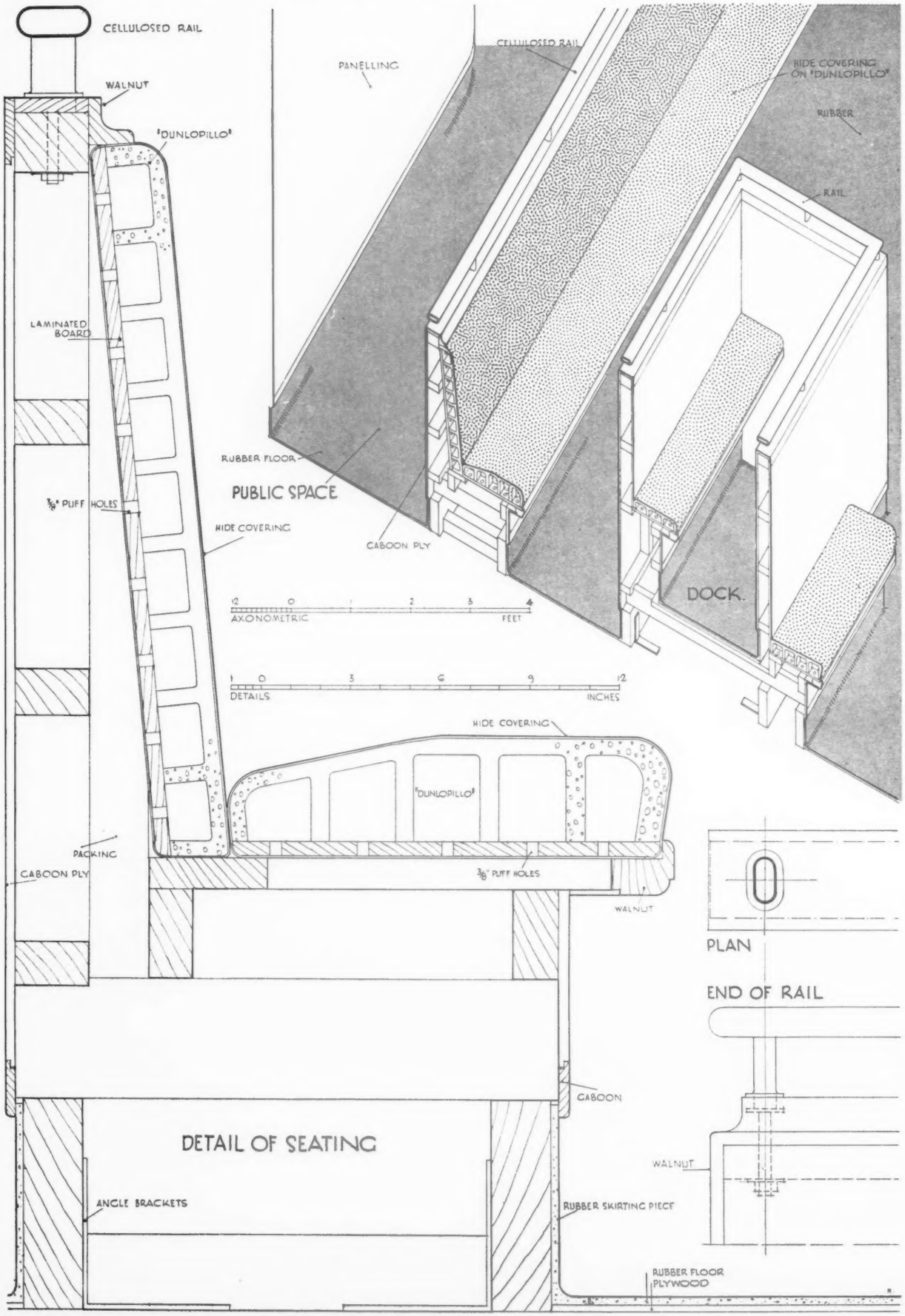
WORKING DETAILS : 533

DOCK SEATING • BOW STREET POLICE COURT • G. MACKENZIE TRENCH

The dock seating is carried out in pneumatic cushioning with red hide covering. Internally the dock is lined with gaboon ply, and externally in Australian walnut ply. The dock rail is of steel, cellulosed red. The floor is of rubber, light grey in colour, with a narrow red margin. Details appear overleaf.

WORKING DETAILS : 534

DOCK SEATING • BOW STREET POLICE COURT • G. MACKENZIE TRENCH



Axonometric and details of the dock seating illustrated overleaf.

INFORMATION SHEET
SUPPLEMENT

The Architects' Journal Library of Planned Information

RECENT developments have brought up for reconsideration the question of the looseness of Information Sheets.

When the series was first started, it was felt that readers of the Journal would have some grounds for complaint if in a feature that was clearly meant for it, no facilities for filing were provided: and the Sheets were therefore inserted loose in the paper.

This method has obvious advantages for filing, but it has also obvious disadvantages, which our readers have not been slow to point out.

As a permanent feature, loose inserts are a nuisance in a paper, since they have a way of dropping out in the street or the train, if not before they get into the reader's hands (we have periodical complaints that Information Sheets for such a week have not been delivered with the paper).

Or, what is nearly as bad, they have a way of sticking out slightly, and getting bent or torn.

Furthermore, those architects who collect the sheets, and there are a great many, are often human enough to delay the act of filing for several days after receiving their copies, in which time the sheets again have a good chance to commit literary hara-kiri.

For all these reasons, it has been decided to make an obvious improvement.

By binding in the Information Sheets in the Journal so that they cannot fall out, their powers of self-destruction will be curtailed. And to insure that they can be as readily filed as before, the pages are now being perforated.

INFORMATION SHEETS

502 Fixing Blocks

503 Approximate Estimating—XII

504 Aluminium

Sheets Issued since Index :

401 : Plumbing to Baths
402 : Waterproofing
403 : Asbestos-aluminium Foil—I
404 : Roofing
405 : Joinery
406 : Asbestos-aluminium Foil—II
407 : Roofing
408 : Joinery
409 : Rubber-faced Building Slabs
410 : Places of Public Entertainment—II
411 : Electric Switchgear
412 : Lead Soakers to Valleys
413 : Plumbing in Welded Copper Pipe
414 : Electric Switchgear
415 : Electric Switchgear
416 : Insulating Board
417 : Work on Glass
418 : Plumbing in Welded Copper Pipe
419 : Places of Public Entertainment—III
420 : Tentest Metal Cover Strip
421 : Wood Preservatives
422 : Welding Sheet Copper Work
423 : Garages and Drives—II
424 : Roof Glazing
425 : Places of Public Entertainment—IV
426 : Asbestos-cement Roofing Tiles
427 : Asbestos-cement Roofing Tiles
428 : Welding Sheet Copper Work
429 : Flat Roofing
430 : Asbestos-cement Roofing Tiles
431 : Automatic Boilers
432 : Plumbing
433 : Places of Public Entertainment—V
434 : Plumbing
435 : Lifts—I
436 : Lead Soakers to Hips
437 : Coloured Cement Renderings
438 : Wallboards
439 : Wall Finishes
440 : Roofing
441 : Sash Operating Gear
442 : Roofing
443 : Wallboards
444 : Rainwater Goods and Fittings—I
445 : Roofing
446 : Rainwater Goods and Fittings—II
447 : Bathroom Cabinets
448 : Roof Glazing
449 : Places of Public Entertainment—VI
450 : Telephone Cabinets
451 : Hardboard
452 : Escalators
453 : Automatic Boilers
454 : Places of Public Entertainment—VII
455 : Places of Public Entertainment—VIII
456 : Ellipses
457 : Roofing
458 : Sanitary Equipment
459 : Hoods and Canopies
460 : Expansion Joints
461 : Roof Pitches, etc.
462 : Gas Refrigerators—I
463 : Asbestos Cement Rubber Floor Tiles
464 : Approximate Estimating—I
465 : Gas Refrigerators—II
466 : Approximate Estimating—II
467 : Gas Refrigerators—III
468 : Approximate Estimating—III
469 : Gas Refrigerators—IV
470 : Stopstara Glazing Compound
471 : Gas Cookers
472 : Lead Insulation against X-Rays
473 : Electrical Equipment—I
474 : Asbestos-Cement Ventilating Ducts
475 : Asbestos-Cement Glazed Panels
476 : Approximate Estimating—IV
477 : Monel Metal Sink Units
478 : Approximate Estimating—V
479 : Roofing
480 : Approximate Estimating—VI
481 : Lead Flashings
482 : Approximate Estimating—VII
483 : Flue Linings
484 : Plumbing Systems
485 : Partition Blocks
486 : Elementary Schools—I
487 : Plumbing
488 : Approximate Estimating—VIII
489 : Sliding and Folding Windows
490 : Flue Linings
491 : Approximate Estimating—IX
492 : Aluminium
493 : Construction of Stepped Balconies
494 : Approximate Estimating—X
495 : Sheet Steel Office Equipment
496 : Roofing—Chimney Flashings
497 : Approximate Estimating—XI
498 : Roof Insulating Blocks
499 : Heating
500 : Chimney Stacks—Weather Proofing
501 : Aluminium

419.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

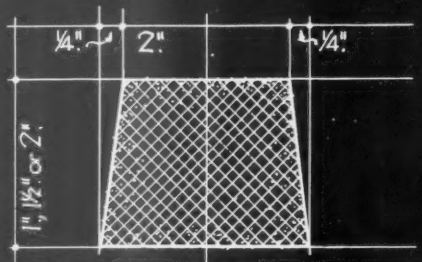
DURABLOX DOVETAIL FIXING BLOCKS: For fixing wood to concrete or hollow tile floor & suspended ceilings.

COMPOSITION.
Durablox are a kiln-fired product made from wholly inert raw material high temperature fired.

SIZE AND WEIGHT.
Blocks are made in a standard size of 3" long x 2½" base x 1½" ht. Wt. 4oz. ea. 56lbs per carton of 200.

CRUSHING STRENGTH.
Fosalsil has a crushing strength of 987.lbs. per square inch in area.

CHEMICAL PROPERTIES.
The material preserves embedded metal and is wholly impervious to vermin and extremes of climate



TRANSVERSE SECTION.

PLAN OF BLOCK. SCALE ½" = 1"

PLACING AND FIXING BLOCKS.

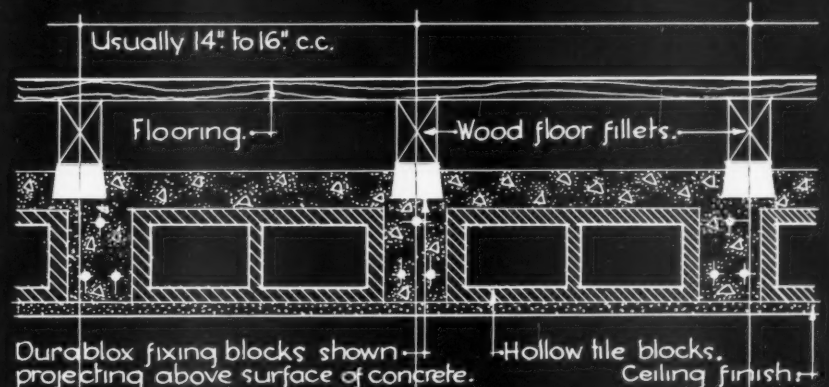
FLOOR FIXING.
For floor fixing, Durablox are placed on the soft concrete at approximately the required spacing and alignment and afterwards pushed in until they are flush with the surface – or project to the required height.

SECURING FLOOR FILLETS.
After the concrete is set the floor fillets are laid along the embedded rows of blocks and nailed into position, nails being not greater in length than the thickness of the fillet plus that of the block.
No concrete fill is required between fillets, and any size fillets may be used.

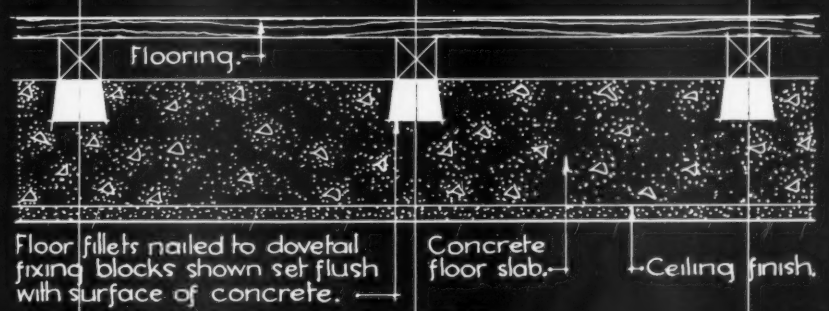
NAILS, SPIKES ETC..
Blocks will take nails, spikes or screws without cracking or splitting

CELING FIXING.
For ceiling fixing blocks are lightly stuck or wired to temporary shuttering before concrete is poured.

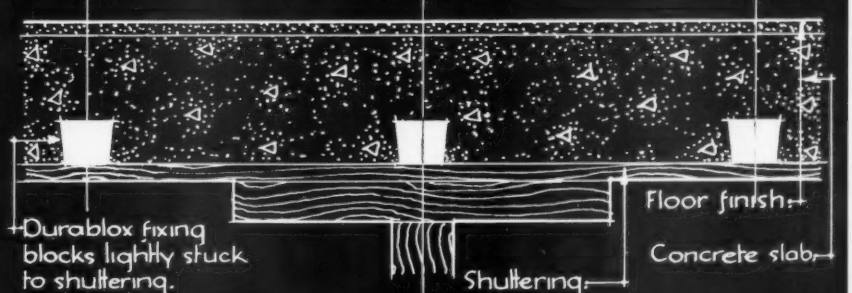
HOLLOW BLOCKS.
Durablox may be fixed between Hollow blocks, the method of fixing being the same as for a reinforced concrete suspended ceiling.



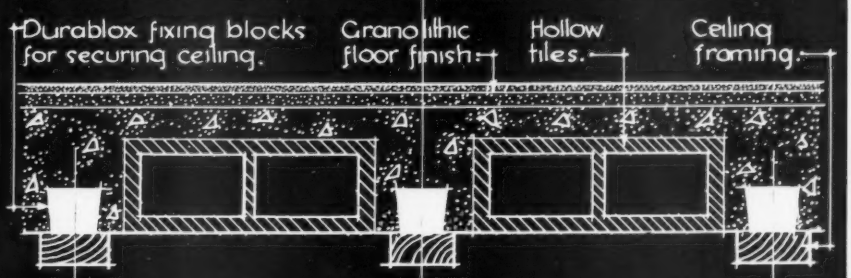
APPLICATION TO HOLLOW TILE FLOOR.



APPLICATION TO CONCRETE FLOOR.



APPLICATION TO SOFFIT OF REC. SUSPENDED CEILING.



APPLICATION TO HOLLOW BLOCK FLOOR. SCALE: 1½" = 1'0"

Information from Moler Products Ltd..

INFORMATION SHEET: DURABLOX FIXING BLOCKS FOR CONCRETE FLOORS & CEILINGS.
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

• 502 •

FIXING BLOCKS

Product : Durablox Fixing Blocks for Concrete Floors and Ceilings

General :

Durablox, details for the use of which are shown on the other side of this Sheet, provide a very satisfactory method of securing wood to concrete.

The use of these blocks is quick and simple and avoids plugging. Their wedge shape gives a very good key and ensures them of a very secure hold. Once the concrete has set around the blocks they will take nails, spikes and screws without splitting and maintain a robust grip for an indefinite period.

Manufacture :

Durablox are a kiln-fired product made from a wholly inert raw material and fired at a high temperature. This inert nature of the blocks preserves any metal embedded in them. Furthermore, they are impervious to vermin. The change of climatic conditions has no ill-effect on the block or its use. It will be seen from this that it is particularly suitable for use in tropical countries.

Construction :

When used as fixing blocks for wood floor joists or fillets on a concrete slab, Durablox are placed on the wet concrete at approximately the required spacing and alignment and then pushed in until they are either flush with the surface of the concrete or project to the required height (see details overpage). After the concrete has set, the floor joists or fillets are placed along the embedded rows of blocks and nailed into position. Nails, screws or spikes used should not be greater than the thickness of the fillet plus that of the block.

When the floor fillets are fixed in this manner, no concrete filling in between joists is necessary.

Durablox :

Durablox are also of great practical use in the construction of suspended ceilings (shown in details on the front of this Sheet). They should be lightly stuck or wired to the shuttering before the concrete is poured, so that when the shuttering is removed they are exposed and the wood framing for the ceiling may be nailed, spiked or screwed to them.

The properties generally of Fosasil products which have been dealt with in former Sheets, apply to Durablox fixing blocks, as they are of similar material and manufacture.

Size :

Durablox are manufactured in a standard size of 3″ long, 2½″ wide across base, and 1½″ deep, the top being 2″ across.

Two other sizes are obtainable similar in size to the standard blocks, except that they are 1″ and 2″ deep.

Weight :

The standard blocks weigh 4 oz. each, and are supplied in cartons of 200 blocks weighing 56 lbs.

Crushing strength :

Durablox has a crushing strength of 987 lbs. per sq. in.

Previous Sheets :

Sheets already published dealing with Moler Products are Nos. 483, 485, 490 and 498.

Manufacturers : Moler Products, Ltd.
Address : 103 Kingsway, London, W.C.2
Telephone : Holborn 2961/2

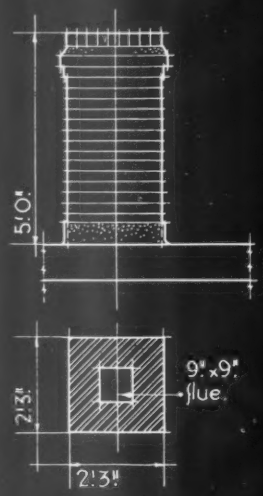
38. THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

CHIMNEY STACKS.

PRICES ARE THOSE CURRENT DURING JANUARY, 1937.

APPROXIMATE ESTIMATING: The following are approximate prices for Chimney Stacks complete, including work to roof. Prices are for a medium sized job in the London area, and include for overhead charges & profit.

TYPE A.1.: 100/3. EACH.



ONE FLUE STACK RISING 5'0" ABOVE FLAT ROOF, SIZE 2'3" x 2'3" WITH OVERSAILING COURSES, FLASHINGS, ETC. BUILT IN FLETTON BRICKWORK, WITH RUSTIC FLETTON FACINGS. P.C. 75/- M. DELIVERED.

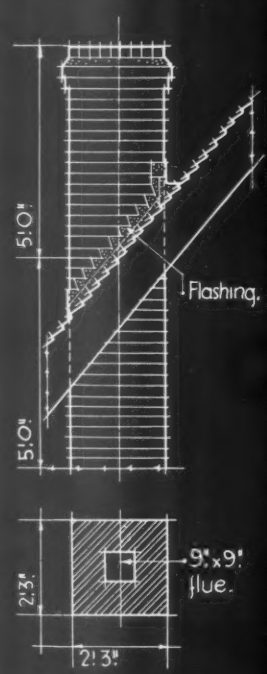
TO TYPE A.1. ADD FOR:	each
10/- increase in cost of facings	3/9.
Cement plainface and distemper	8/9.
White cement plainface	16/6.
Each additional 9" x 9" flue with 9" brickwork	37/9.
Ditto with 10/- increase in cost of facings	38/8.
Ditto with cement plainface and distemper	39/5.
Ditto with white cement plainface	41/-.

TYPE A.2.: 107/9. EACH.

ONE FLUE STACK RISING 5'0" ABOVE FLAT ROOF, SIZE 2'3" x 2'3" WITH OVERSAILING COURSES, FLASHINGS, ETC. BUILT IN STOCK BRICKWORK, AND STOCK FACINGS P.C. 95/- DELIVERED.

TO TYPE A.2, ADD FOR:	each.
10/- increase in cost of facings	3/9.
Cement plainface and distemper	13/7.
White cement plainface	21/4.
Each additional 9" x 9" flue with 9" brickwork	42/3.
Ditto with 10/- increase in cost of facings	43/2.
Ditto with cement plainface and distemper	45/2.
Ditto with white cement plainface	46/9.

TYPE B.1.: 174/6. EACH.



ONE FLUE STACK, AVERAGE 5'0" ABOVE AND BELOW PITCHED ROOF, SIZE 2'3" x 2'3" WITH OVERSAILING COURSES, FLASHINGS, GUTTERS ETC, BUILT IN FLETTON BRICKWORK WITH RUSTIC FLETTON FACINGS. P.C. 75/- M. DELIVERED.

TO TYPE B.1. ADD FOR:	each.
10/- increase in cost of facings	3/9.
Cement plainface and distemper	8/9.
White cement plainface	16/6.
Each additional 9" x 9" flue with 9" brickwork	63/1
Ditto with 10/- increase in cost of facings	64/-.
Ditto with cement plainface and distemper	64/9.
Ditto with white cement plainface	66/4.
12" Additional height of brickwork in roof space, per flue	8/10.

TYPE B.2.: 189/3. EACH.

ONE FLUE STACK, AVERAGE 5'0" ABOVE AND BELOW PITCHED ROOF, SIZE 2'3" x 2'3" WITH OVERSAILING COURSES, FLASHINGS, GUTTERS ETC. BUILT IN STOCK BRICKWORK AND STOCK FACINGS. P.C. 95/- M. DELIVERED.

TO TYPE B.2. ADD FOR:	each.
10/- increase in cost of facings	3/9.
Cement plainface and distemper	13/7.
White cement plainface	21/4.
Each additional 9" x 9" flue with 9" brickwork	71/5.
Ditto with 10/- increase in cost of facings	72/4.
Ditto with cement plainface and distemper	74/4.
Ditto with white cement plainface	75/11.
12" Additional height of brickwork in roof space, per flue	10/8.

Figures by Davis and Belfield, A.R.A.S.I., Chartered Quantity Surveyors.

INFORMATION SHEET: UNIT SYSTEM FOR APPROXIMATE ESTIMATING: 12.
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

• 503 •

APPROXIMATE ESTIMATING—XII

Subject : Unit System for Approximate Estimating

This series of Sheets, taken as a whole, forms a complete system for the preparation of detailed estimates. Alternatively, less detailed estimates can rapidly be made, merely by multiplying the areas or quantities of the different component parts of the building by the appropriate unit prices, varied by judgment alone.

For all normal estimates, and whenever time permits, account should be taken of the difference in cost of the various types of finish, etc., shown with each typical form of construction. These have been kept to a minimum for the sake of simplicity, but other materials, if the prices are known, may easily be compared.

The system is not intended to replace the complicated pricing data necessary for a very close estimate, but it should, in all cases, prove more accurate than cubing, and it should be found particularly useful in alteration work, or work where the price per foot cube is not well established. An additional advantage is that firm estimates obtained for lifts, plumbing or other services, fittings, etc., can be used in conjunction with this system much more readily than with the cubing method.

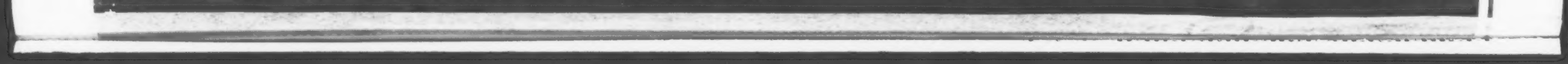
This Sheet deals with typical examples of Chimney Stacks including the necessary trimming of joists or rafters, the deduction of roof finishes and the cost of skirtings and lead flashings and gutters and a damp-proof course to the stack.

Any increase or decrease in the height of the stack will not vary quite *pro rata* with the example given, as the cost of the roof work and the chimney caps remains constant; however, an approximate adjustment can easily be made. Similarly, some allowance should be made if only 4½ in. brick casing is required to the flues instead of the 9 in. allowed on this Sheet.

The example below gives the cost of a three flue stack in stock brickwork with facings p.c. 105s. M. on a house with pitched roof. Height above roof 5 ft. and below roof (to top floor ceiling level) 3 ft.

	£	s.	d.
Stack as Type B.2	9	9	3
10s. increase in cost of facings ...		3	9
Two additional flues with facings p.c. 105s. M.	7	4	8
	16	17	8
2 ft. less height in roof space than Type B. for 3 flues	3	4	0
Total	13	13	8

Sheets Nos. 1-11 dealt with Ground Floors, Upper Floors, Roofs, Parapets and Eaves, Foundations, External and Internal Walls, Partitions, Doors and Windows, Staircases and Fireplaces and Chimney Breasts. Future Sheets will show the cost analysis of Services, Drains, etc.



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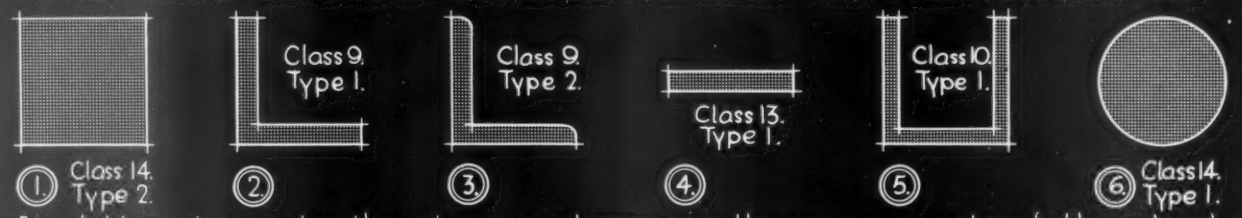
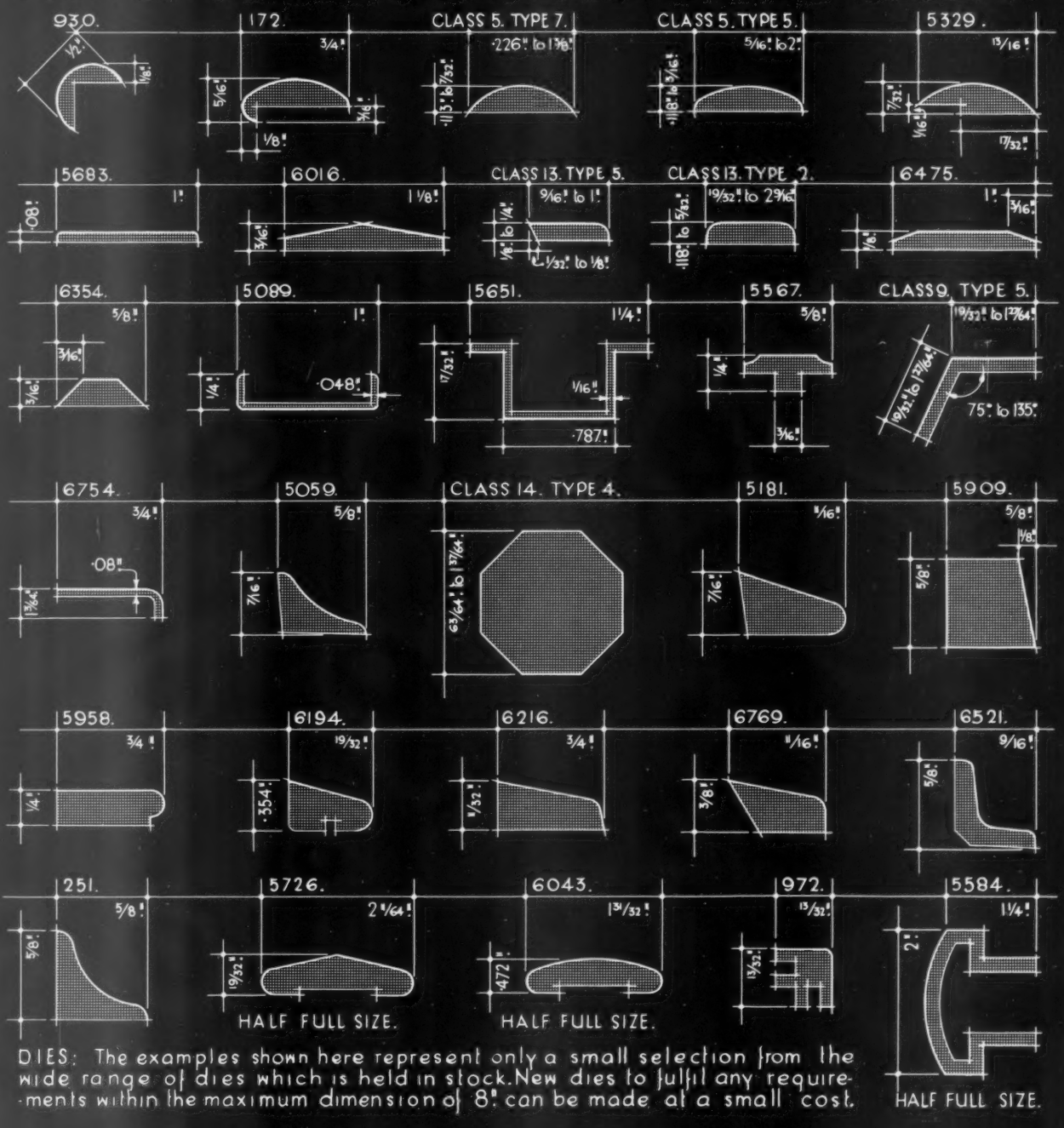
TYPICAL BASIC SECTIONS OF EXTRUDED ALUMINIUM FOR ARCHITECTURAL USE:



For tables of sizes for the above sections see the reverse side of this sheet.

TYPICAL EXAMPLES OF OTHER COMMON SHAPES:



DIES: The examples shown here represent only a small selection from the wide range of dies which is held in stock. New dies to fulfil any requirements within the maximum dimension of 8" can be made at a small cost.

Information from the Northern Aluminium Company Limited.

INFORMATION SHEET: ALUMINIUM: No 3: BASIC AND SPECIAL EXTRUDED SECTIONS:
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 • Oscar A. Bayne

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INFORMATION SHEET
• 504 •
ALUMINIUM

General :

This is the third of a series of Sheets dealing with the architectural uses of aluminium, and sets out a typical selection of the more simple extruded sections. The sections illustrated represent only a small selection from the wide range of dies kept in stock. For instance, the basic shapes numbered 1 to 6 are obtainable in a great number of sizes and variations, and there are other standard die shapes such as for small tees, channels and gutterings, miscellaneous half and quarter round and other cover mouldings, fillets, beads, etc. New dies for special requirements can be made at a small cost, or in the case of large orders at no extra cost.

A fuller classification is given in the Noral Handbook, Section C.

The range of other typical extruded sections given is not intended for any specific building work, but merely as a guide to indicate the many hundreds of sections, and variations of each, that are obtainable. Ranges of sections suitable for specialised application such as to doors and windows, staircase and lift construction, etc., will be given in later Information Sheets of this series.

Maximum Sizes :

Sections up to 8 ins. maximum dimension can be extruded in all alloys. Most of the extruded sections of individual alloys, however, are able to be produced only within certain manufacturing limits of thickness, cross sectional area, and weight per piece. Where not ordered otherwise, sections are supplied in 12 ft. lengths with a proportion of shorter lengths and to certain guaranteed dimensional tolerances.

The following tables show a selection of sizes available in the various sections. They are intended as a guide to some of the standard sections, but do not attempt to cover the full range. A fuller classification is given in the Noral Handbook, Section C.

SIZES AND WEIGHTS OF SQUARES
(Typical Basic Section No. 1)

Side	Weight	Side	Weight
ins.	lbs. /ft.	ins.	lbs. /ft.
3/16	·042	3/4	·675
5/16	·117	15/16	·920
3/8	·165	1	1·20
7/16	·300	1 1/4	1·89
1/2	·469	1 5/16	2·21
		2	4·80

SIZES AND WEIGHTS OF EQUAL AND SQUARE ANGLES
(Typical Basic Section No. 2)

Leg	Thick-ness	Weight	Leg	Thick-ness	Weight
ins.	ins.	lbs. /ft.	ins.	ins.	lbs. /ft.
5/16	3/64	·033	1 1/4	3/16 to 5/16	·520 to ·820
1/2	1/16	·070	1 3/8	·059 to ·118	·191 to ·374
5/8	1/8	·169			
3/4	3/32	·158	1 1/2	1/4	·825
7/8	1/16 to 3/16	·127 to ·352	2	3/16 to 3/8	·715 to 1·63
1	1/16 to 1/4	·145 to ·525	3	1/2	4·82

SIZES AND WEIGHTS OF EQUAL AND SQUARE ANGLES HAVING INSIDE ARRISES ROUNDED
(Typical Basic Section No. 3)

Leg	Thick-ness	Weight	Leg	Thick-ness	Weight
ins.	ins.	lbs. /ft.	ins.	ins.	lbs. /ft.
1/2	1/8	·126	1 3/8	·177	·553
5/8	3/32	·130	1 1/2	1/8 to 1/4	·438 to ·826
3/4	3/16	·295	1 3/4	1/8 to 1/4	·520 to ·975
1	1/8	·283	2	1/8 to 3/16	·583 to 1·62
1 1/8	3/16	·456	2 1/2	3/16 to 7/16	1·09 to 2·39
1 1/4	1/8 to 1/4	·363 to ·676	3	1/4	1·74

SIZES AND WEIGHTS OF FLAT BARS
(Typical Basic Section No. 4)

Width	Thick-ness	Weight	Width	Thick-ness	Weight
ins.	ins.	lbs. ft.	ins.	ins.	lbs. ft.
3/8	1/8	·056	2	·104 to 3/4	·242 to 1·80
1/2	1/16 to 3/8	·037 to ·219	2 1/8	3/16	·477
5/8	1/16 to 1/8	·046 to ·418	2 1/4	1/8 to 1/2	·337 to 1·31
3/4	·118		2 3/8	1/8	·349
3/4	·118 to 1/2	·058 to ·450	2 1/2	3/16 to 1 1/8	·562 to 4·50
7/8	1/16 to 1/4	·082 to ·663	2 5/8	1 1/16	3·38
1	1/16 to 1/8	·075 to ·450	2 3/4	·160 to ·197	·533 to ·652
1 1/8	·118 to 1	·118 to 1·32			
1 1/4	1/16 to 1/2	·092 to ·750	2 7/8	1/8	·431
1 1/2	1/8 to 1 1/2	·196 to 1·82	3	·197 to 1/2	·707 to 1·75
1 1/2	·118 to 1/4	·316 to 1·35	3 1/8	1/16 to 1 1/4	·229 to 7·10
1 5/8	·080 to 1/8	·151 to ·734	3 3/8	1/2	1·96
1 3/4	·104 to 1 1/16	·212 to 2·23	3 1/2	1/16	·258
1 7/8	1/8	·574	4	1/4	·600

SIZES AND WEIGHTS OF CHANNELS
(Typical Basic Section No. 5)

Width	Depth	Thickness	Weight
ins.	ins.	ins.	lbs. /ft.
5/16	5/16	·039	·040
3/8	3/8	1/16	·112
1/2	1 1/4	1/16	·204
1/2	1 1/4	·048	·052
1/2	1	1/8	·346
5/8	5/8	3/16	·162
3/4	1	1/8	·409
1 1/8	1	1/8	·418
1 1/4		1/8	·291
1 3/8	1 3/4	1/8	·673
1 1/2	3/4	1/8	·400
1 3/4	1	3/16	·760
2	1 1/2	1/4	1·31
2 3/4	1 3/4	3/16	1·02
3	7/8	1/8	·675

SIZES AND WEIGHTS OF ROUNDS
(Typical Basic Section No. 6)

Diameter	Weight	Diameter	Weight
ins.	lbs. /ft.	ins.	lbs. /ft.
1/4	·058	1 5/8	2·44
3/8	·130	1 3/4	2·83
1/2	·231	1 7/8	3·24
5/8	·360	2	3·69
3/4	·519	2 1/8	4·17
7/8	·706	2 1/4	4·67
1	·923	2 3/8	5·20
1 1/8	1·17	2 1/2	5·77
1 1/4	1·44	3	8·30
1 3/8	1·75	3 1/2	9·75
1 1/2	2·08	3 1/2	11·30

Previous Sheets :
Previous Sheets in this series dealing with the architectural uses of aluminium were Nos. 492 and 501.

Information from : The Northern Aluminium Company, Ltd.

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THE SALE OF PROPERTIES

[BY T. J. SOPHIAN]

MANY statements may be made verbally or in writing or printing (e.g. where advertisements appear) in connection with the sales of properties, which may in some cases have legal effect and, if inaccurate, entail serious consequences.

There is nothing in law to prevent a person from "puffing" his goods or his property, but it does not require much to overstep the mark as it were, and to bring the eulogy within the focus of the law. Thus, for example, property may be described as "modern property, with all modern conveniences." Now such a property may have indoor sanitation, but it may only have a cesspool and no proper drainage system. The puff, in such a case, would be beyond the border line and entitle the purchaser to damages.

The dividing line may in some cases be difficult to determine, but the Courts will regard the intention with which the statement was made and the effect which it produced and was likely to produce in the mind of the person towhom it was addressed.

The findings of the Court on these matters would be findings of fact, with which of course we are not concerned, since this is not a matter of law. What is of importance, however, is to examine the different kinds of legal effect which may be produced where such statements are made. For this purpose we may conveniently start at the bottom of the scale and work our way upwards.

Where a statement is made which does not in any way affect the mind of the other contracting party, and which does not subsequently constitute any term of the contract, no legal effect will attach thereto, and no penal consequence accordingly will follow, even if the statement is untrue.

A, for example, may advertise his property as attractive property, when in fact it is not attractive at all. *B*, the intending purchaser, may then as the result of the advertisement inspect the property, and may or may not find it attractive to himself. *B* in such a case has seen the property and its attractiveness or otherwise cannot in any way affect his judgment as far as entering into the contract is concerned.

The description of the property as being "attractive" in such a case would merely amount to a "puffing" which would be of no legal effect. One may contrast the example given above of a puff which does overstep the mark.

But let us now pass over the border, as it were, and examine the first type of case of which the law will take cognizance.

Here we reach the first stage where the statement becomes a "representation." In order to transform the statement into a "representation," it must actually have the effect of inducing the other party to enter into the contract. But the state of mind of the person making the statement will be very material, since, if the statement is untrue and is made innocently, it will amount to an innocent misrepresentation; but, on the other hand, if it is made with actual knowledge of its untruth or with a reckless disregard as to its truth or untruth it will amount to a fraudulent misrepresentation and different and more serious consequences will ensue.

One may take the instance, for example, where a property is advertised as being structurally sound, and which appears outwardly to be such but which is not in fact sound. Such a statement as to the structural soundness of the property is clearly a representation because it would affect the mind of the purchaser as to whether to buy the property and would in fact induce him to enter into the contract.

The vendor or his agent may make the statement innocently or on the other hand they may make it "fraudulently" in the sense above explained. Though here it is to be observed mere negligence, however gross, in making a statement will not render it "fraudulent." There must be something more than negligence for this purpose, viz., a reckless disregard as to whether or not the statement is true. Thus, for example, if the agent had inspected the property, which outwardly appeared sound, and then represented it as being structurally sound, this representation would be an innocent one. But if, on the other hand, he knew as a fact that the property was unsound, or, on being informed by some of his staff that there was a suspicion that the property was not sound and that the matter really needed further investigation, he neglected to make the inspection and took a chance that the property was all right and in these circumstances represented the property as sound, when in fact it really was unsound, this representation would be "fraudulent."

To revert to our illustration. In the first case, because the representation is innocent, the purchaser who was thus induced to enter into the contract will not be entitled to any damages. At the most he will be entitled to repudiate the transaction and to have the contract set aside, but in order to obtain this relief he must repudiate at once. Even then the right of repudiation may be lost, if the circumstances have so altered that the parties cannot be restored to the same position in which they were originally before the contract was made.

Thus, for example, if the purchaser were to enter into possession of the property, it is unlikely that rescission could be obtained.

On the other hand if the misrepresentation is "fraudulent" in the sense above mentioned, the purchaser would be entitled not only to rescind but also to recover damages.

The purchaser would in any event be entitled to damages whether or not he repudiated the contract, but he may lose his right to repudiate, in at least two cases, viz., firstly, where he does not act promptly on learning of the misrepresentation, or does any act subsequently in affirmation of the contract; and secondly, where the parties cannot be relegated to their original position under the contract.

Now let us pass to a higher stage where the statement becomes a part of the contract itself.

A representation as such, whether innocent or fraudulent, is no part of the contract itself, and legal effect is only given to it, because it induces the other party to enter into the contract itself.

A statement, however, may pass through the representation stage, to the higher stage, where it becomes a part of the contract itself.

In such cases the statement may become a warranty or a condition. It will be a warranty if it amounts to a subsidiary promise independent of and collateral to the main contract. In such a case if a breach of the warranty occurs the aggrieved party will only be entitled to damages and he will not be entitled to rescind the contract.

If, however, the statement subsequently becomes an essential term of the contract, it will be a condition and a breach will entitle the other party to repudiate.

It is exceedingly difficult in some cases to determine what effect parties desired to give to a statement, i.e. as to whether they intended it to be a warranty or be a condition.

This is a matter to be deduced from the intention of the parties and will be largely a question of fact for the Court to determine from all the circumstances, particularly in those cases where the written contract itself does not indicate whether the assurance contained in the statement is to be a warranty or a condition.

It will be appreciated, therefore, that such a warranty may or may not be written; it may be made verbally.

Thus a person may say that he will not buy property unless he is given an assurance that it is ripe for development and that the cost of the services, e.g. water supply, drainage and the like, will be reasonable.

He may of course indicate that he would not entertain the proposition otherwise, and he may do this verbally or in writing by correspondence.

If it is subsequently found after the contract has been executed that the cost of these services will be extraordinarily high, the vendors would be liable for breach of warranty and would have to pay the purchaser damages and place him in the same position (financially) as that in which he would have been had the statement been true.

Of course such a statement may, by the twist of a word or two, easily have the legal effect of a condition, entitling the purchaser to rescind the contract. Thus, for example, if the correspondence or the contract stated that the purchase was to be made only on the basis that the cost of the services would be normal or that the property was otherwise ripe for development, the purchaser might well contend if the position were in fact otherwise that he was entitled to rescind.

There may be cases, however, in which although a collateral warranty was in fact given, proof thereof is inadmissible because of the rules of evidence that oral statements

may not be given in evidence to add to, vary, or contradict a written contract. Evidence of a verbal collateral warranty will not, therefore, be admitted, and its legal effect consequently will be nil, in those cases in which the written contract embraces the whole of the terms of the contract, or in which the verbal warranty would contradict the written contract.

It is essential in such cases not only that the written contract should be silent as to the matter the subject of the parol warranty, but also that the written contract must not cover the whole ground of the bargain.

To take an instance. *A* may indicate that he will not purchase leasehold property unless he is given an assurance that the drains are in order, such assurance being given orally, but the drains not in fact being in order.

If the contract is silent about the drains, evidence of the oral warranty may be given. On the other hand if the contract contains a clause to some such effect as that the purchaser is to keep the drains in order, it is doubtful whether evidence of the parol warranty would be admitted. These rules of evidence must not therefore be lost sight of.

We may perhaps conclude this article by referring to two other important matters.

Firstly, with regard to the sale of properties, or estates in process of being developed.

As a general rule, the purchaser of unfurnished property is required by the law to look after himself, and to him the rule *caveat emptor* strictly applies.

An important exception, however, has been recently engrafted on this rule. The Courts have held that on a sale of a house which is in process of being built or which is to be built in the future (and which accordingly is not already built), the law will imply a warranty that the house will be built in an efficient and workmanlike manner and of proper materials and that it will be fit for habitation. Such an implied warranty may, of course, be excluded expressly by the terms of the written contract itself.

Another matter arises as to the extent to which a principal may be bound by the misstatements of his agent who has been instructed to sell property on his behalf.

In such cases the agent's statement, even though made without authority, will bind the principal and will be regarded as having been made by him. The principal, however, may have his remedy in damages against the agent for negligence and breach of duty.

And where there are several agents of the same principal, the Court will be entitled to regard their combined acts and their combined states of mind in the making of statements to third parties.

Thus, if one agent gives to another agent of his principal, information which he knows to be untrue, and the second agent innocently passes on this information to the other party to the contract, the principal will be liable for fraudulent misrepresentation to the third party, who was induced to enter into the contract, even though the principal himself and the agent who actually made the statement acted quite innocently in the matter.

Thus this consequence was held to ensue where on a sale of a number of blocks of flats, an agent of the principal, on information received from a co-agent, which the latter should have known to be incorrect, misstated that no difficulty was being experienced in collecting rents from the tenants of the various flats and that such payments were made promptly.

LAW REPORT

CONSTRUCTION OF A SWIMMING POOL

Gilliam & Co., Ltd. v. *Martin.—Official Referee's Court.—Before Mr. T. Eastham, K.C.*

This was an action which concerned the construction of a swimming pool at Moor Park, Farnham. It was brought by Messrs. Gilliam & Co., Ltd., contractors and garden architects, of Central Works, Croydon, against Mr. Dick Martin, of Castle Street, Farnham, claiming £575 alleged to be the balance due upon their charges of £750 in connection with the construction of the swimming pool.

Mr. Martin was said to be the owner of the estate with which Dean Swift was associated.

The case for Messrs. Gilliam & Co., Ltd., was that Mr. Martin gave the order for the swimming pool to be constructed and that there was an implied warranty that he had authority to act for a company called Swift's Club, Ltd. Alternatively, Messrs. Gilliam & Co. claimed against Mr. Martin personally in respect of the work they had done. It was alleged that on December 21, 1935, Mr. Martin accepted their tender on behalf of Swift's Club, Ltd., which company, however, was not incorporated till December 30.

Mr. Martin, in his defence, denied that he gave any warranty, implied or otherwise. He contended that he acted as the agent of Swift's Club, Ltd., and not in any personal capacity, and he further alleged that the work which Messrs. Gilliam & Co., Ltd., did was badly done. A counterclaim in that connection was brought against Messrs. Gilliam & Co., who denied that the work was badly done.

Mr. Eastham, in the course of his judgment, read correspondence that had passed between the parties and reviewed the evidence. In his view, he said, the acceptance of an offer contained in Mr. Martin's letter of December 21, 1935, was completed as soon as the plaintiff company accepted his cheque, and certainly when they paid it into their banking account. That was what was called "acceptance by an act," and it seemed in this case that the retaining of Mr. Martin's cheque concluded a contract.

Swift's Club, Ltd., was incorporated on December 30, 1935, and as a private company it could, of course, commence business as soon as it was incorporated. The first meeting of directors was held on January 2, 1936, and Mr. Martin had sworn that he was authorized by the directors on that date to conclude a contract with Messrs. Gilliam & Co., Ltd. Nothing was said by Mr. Martin about his having paid £75 to the plaintiff company himself. The work was started two or three days later.

Messrs. Gilliam & Co., Ltd., found water when they got to a certain depth and, according to evidence, the ground being waterlogged, it made the work difficult.

At another meeting of Swift's Club, Ltd., that company paid Mr. Martin the £75 and a lease was also executed between him and the company.

In April last year Mr. Martin wrote to Messrs. Gilliam & Co., Ltd., complaining about the way in which the work was being done. That was the first letter the Official Referee could find which was written on the notepaper of Swift's Club, Ltd.

On June 10, 1936, the work was completed and an account was sent to Mr. Martin showing a balance owing by him of £575. Subsequently it appeared that the plaintiff company received three bills from Swift's Club, Ltd., and they then wrote to Mr. Martin saying that the order was his personally. Mr. Martin wrote a long letter to Messrs. Gilliam & Co., Ltd., setting out his contention that he had not ordered the work in a personal capacity.

In his view, continued the Official Referee, the letter of December 21, 1935, was not a good acceptance as it contained a new term. That being so, it was not an acceptance but an offer. He thought that by sending the cheque Mr. Martin intended to bind Messrs. Gilliam & Co., Ltd., if they kept it. It seemed that there was a concluded contract in the terms of Mr. Martin's letter of December 21 when the plaintiff company kept his cheque.

At that time, said Mr. Eastham, he was satisfied that there was no legal contract with Swift's Club, Ltd. The offer, in his view, was accepted before the company was incorporated, and it was certainly accepted when the cheque was paid into the plaintiff company's account, which was before the first meeting of the directors of Swift's Club, Ltd. At the first meeting the directors only authorized Mr. Martin to conclude a contract whereas it had then been concluded.

On the whole the Official Referee thought that Mr. Martin was liable to Messrs. Gilliam & Co., Ltd., in respect of the work.

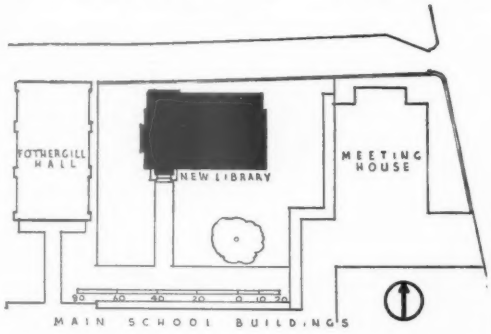
Dealing with Mr. Martin's counterclaim, Mr. Eastham pointed out that Mr. Martin alleged, if he was personally liable to Messrs. Gilliam & Co., Ltd., that the work was not done in a workmanlike manner and that materials were defective. Particulars had been given of defects, it being contended that the workmanship and materials throughout were inferior.

"I have considered the whole of the evidence on this point and have had the advantage of seeing the pool myself," said the Official Referee. "I am satisfied that the work done was defective and was not in accordance with the contract."

Having regard to the evidence and his inspection he held on the whole that Mr. Martin had suffered damage in respect of defective work and work not in accordance with the contract to the extent of £250. Setting that amount off against Messrs. Gilliam & Co.'s claim there was a balance of £325 due from Mr. Martin to them.

Giving judgment for Messrs. Gilliam & Co., Ltd., for £325, Mr. Eastham said he thought he should add that where there was a difference between the evidence of Mr. Gilliam, of the plaintiff company, and Mr. Martin, he preferred the evidence of Mr. Gilliam and accepted it.

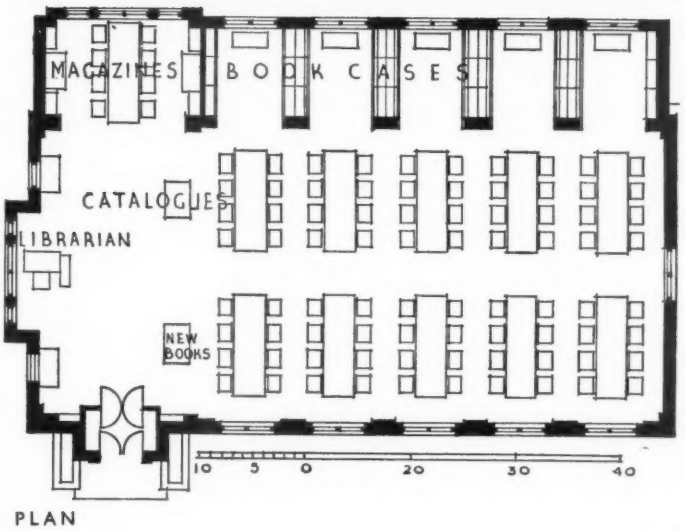
LIBRARY, ACKWORTH SCHOOL, YORKS.



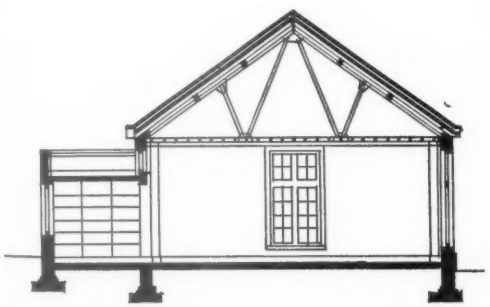
GENERAL—*The design was awarded first place in an architectural competition, promoted by the Governors of the School. The building replaces the former library and consists of a large reading room. It accommodates 7,000 volumes and will hold an additional 3,000. There is seating for 90 scholars.*

CONSTRUCTION AND FINISHES—*The reading tables are fitted with artificial lighting shaded from the reader's eyes and a shelf on which to rest books. Heating is by radiation from low pressure hot water pipes in the ceiling. The clerestory windows induce natural cross ventilation and give additional light. White mahogany, stained a dull matt grey, is used for the shelving. The furniture has been designed specially and is made from light oak. The floor surface is ⅜-in. cork tile. Local stone has been used externally to harmonize with the existing school buildings.*

The photographs show : above, the entrance front ; below left, the entrance doors and the librarian's table ; right, looking from the librarian's table towards the magazine section.



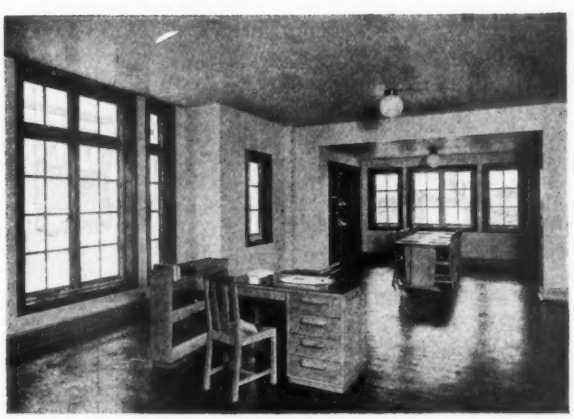
PLAN



SECTION

DESIGNED BY

H. H. CASTLE



Paray-le-Monial. From "Cathedral; A Gothic Pilgrimage."

L I T E R A T U R E

BACKGROUNDS AND PRACTICE

[*By S. E. DYKES-BOWER*]

Cathedral; A Gothic Pilgrimage. By Helen H. Parkhurst. London: Lovat Dickson. Price 15s.
The Heritage of the Cathedral. By Sartell Prentice. London: Methuen and Co. Price 16s.
New Churches Illustrated. Incorporated Church Building Society. Price 3s. 6d.

WHEN a particular subject, whether the work of an artist or a period, has been so thoroughly examined that there seems little more to say, it is a favourite practice to turn to its 'background.' At once what seemed simple becomes complex; settled assurance gives way to all-pervading doubt, and the ensuing confusion is the excuse for a fresh spate of 'studies' from eager, inveterate writers.

That both these American books on Gothic Art are concerned with its background is not necessarily a criticism in itself. They aim at being interpretive and presumably will meet the demand of that growing number of persons who feel that they must first 'understand' artists—their heredity, their upbringing, their actions and their morals—before they can begin to enjoy their works.

The earnestness of such an approach to architecture will be both tested and stimulated by Mr. Sartell Prentice's book. Simple-minded people who thought they had a working knowledge of mediæval art will be appalled. The genealogy of Gothic is traced back into dim and far from respectable antiquity; no disreputable connection is overlooked. The names of Visigoths and Ostrogoths, of Merovingians, Franks, Vandals and other outrageous barbarians are bandied about in a way that causes the brain to reel and, indeed, if such thoroughness is necessary to true comprehension of Gothic, a new terror is added to learning.

This is not, however, to condemn a genuinely able book. The average reader will get most pleasure from it if he dips into it at random. It is unusually well written and illustrated; it is full of piquant and recondite information; and it is clearly based on careful and extraordinarily wide reading. The author may be sometimes far-fetched in his search for a cause and his judgment as to its effects; but he never says what is either unintelligent or uninteresting.

From an architectural standpoint, Miss Parkhurst's book, the fruits of a Guggenheim Fellowship, suffers from an unfortunate first section. It is the only part of the book that deals with actual buildings, but the rapturous style in which it is written is likely to exasperate the reader before he ever reaches the second and third sections, which are of more value. These deal with the 'symbolic meaning and emotional significance of the mediæval cathedral' and it is unfortunate that the scope of the essay was not confined to such aspects. Both matter and style improve immediately architecture is left behind, and that this is an advantage the following extract will show. It describes a first visit to the fine but not overwhelming church of Paray-le-Monial in France. "Arriving at last at Paray-le-Monial we may feel that the value of all that went before was that by their means we were initiated, undergoing the compulsion of a strange influence, as of a magic potion causing in those who have once yielded to its effect, at once hypnotic and intoxicating, an appetite not to be satisfied by any substitute. Thus we were made ready for this hour when we are called upon to quaff a deeper draught from that same cup. But how persuade the uninitiate of its effect as of an intoxicant that is likewise an opiate—the drink of Bacchus mingled with that of the god of sleep?"

To turn from the achievements of religious architecture in France, illustrated in the very fine photographs at the end of this book, to the religious architecture of our own day is to experience a shock of humiliation. The contrast is unavoidable and painful—though it is not entirely contemporary architects who are to blame. The root cause of the difference is lack of money. Whereas formerly the prime motive in church architecture was to build as magnificently, and therefore as expensively as possible, today it is to build as cheaply and, necessarily therefore, as plainly as possible. It is often alleged that too much money is dangerous; but too little money becomes a withering influence that nips all inspiration in the bud. It is more than a restraint, it is a deterrent.

The architect has to choose between two alternatives. He may either spend the money at his command on the structure or part of it and hope that its completion and proper furnishing may be added later; or he may content himself with a modest building and modest furnishings and derive what satisfaction he can from seeing such a building carried out entirely under his care. The latter course usually means the sacrifice of his dreams, but it will not be altogether surprising if he chooses it. The larger and more ambitious the structure, the more costly will be its furnishing. And though there are many fine churches whose completion and adornment have been successfully finished after years of effort by their congregations, it would be foolish to ignore the fact that the chances of sustained generosity of this kind, in the circumstances of the times, cannot be relied upon. Most of the new churches built today are erected in new housing districts where the

parishes consist entirely of people of small or very moderate means. Such parishes cannot afford even to build their own church, and have to be assisted by grants and donations. Schools, a church hall and a vicarage may all have to be provided in addition, and these are likely to take precedence of any work of a non-essential kind, such as the decorative enrichment of a building is usually considered to be.

With few exceptions, the 52 churches included in this publication of the Incorporated Church Building Society have been kept within such limits that their virtual completion has been possible. While they do not all reach an equal standard of merit, taken as a whole and examined in the light of their cost, they maintain a tolerable standard. In some cases it is surprising how much has been accomplished for comparatively little expenditure, even making allowance for the fact that building costs at the time of their erection were low.

The question that perusal of such a book provokes is: What seems to be the type of church most favoured to-day? Has it a characteristic form and distinctive architectural character?

The churches illustrated represent such diversity of treatment that no definite answer is possible. There has been little change from the traditional long nave and aisles, except in so far as the nave tends to be shorter and wider and the aisles suppressed into mere passage-ways. There is still a division of opinion as to the best position for the choir. Rightly or wrongly, the chancel position is more popular than the west gallery position, with, perhaps in consequence, a cramping of the sanctuary, which is too often under-sized in relation to the rest of the church. Organs are rarely well treated, either in position or design. The importance of adequate vestries is better understood and the systems of electric lighting and heating more carefully controlled than formerly. A satisfactory treatment of the roof remains the most difficult problem of interior design and, of the wooden roofs, many suffer from timbers of too slight section. In a few examples the glazing of the windows takes 'arty' or eccentric forms and, in a fewer still, decorative details, reminiscent of the cinema, find a place.

It is invidious to select particular churches for praise, but the three contributions of Sir Charles Nicholson stand out as particularly good. They have simplicity, definite architectural quality and an appropriateness that seems exactly right. Such churches would take their place happily in any company and be as graceful to worship in as to look at. Although ostensibly Gothic, their natural ease of bearing causes them to appear less stylistic than some of the modern churches, overweighted as these are by mannerisms and self-consciousness. Some of the plain brick churches which hark back to Byzantine or Romanesque originals seem a little fussy and indeterminate; they might be better if they could forget the source of their inspiration altogether. Because it has forged its own expression from the properties of the material itself, Mr. Goodhart-Rendel's church at Brighton is an example of a brick church of outstanding quality and power. Among Gothic churches in brick, St. Columba's, Scarborough, is in a class by itself. The most expensive in the book, it is interesting to turn from it to a small church, the cheapest but one, by Herbert North and Padmore at Harlescott. If it is true that modern developments in architecture would delight William Morris and Lethaby, could they be here to see them, this no doubt is the sort of expression of it that would elicit their whole-hearted approval. It has delicacy, charm and enterprise.

All the churches shown have been built since 1926. This book of 200 photographs is a useful piece of work and will be of interest to all concerned with an important, and not the least difficult branch of architecture.

PERIODICALS

MARCH ANTHOLOGY

AMERICA

Architectural Forum

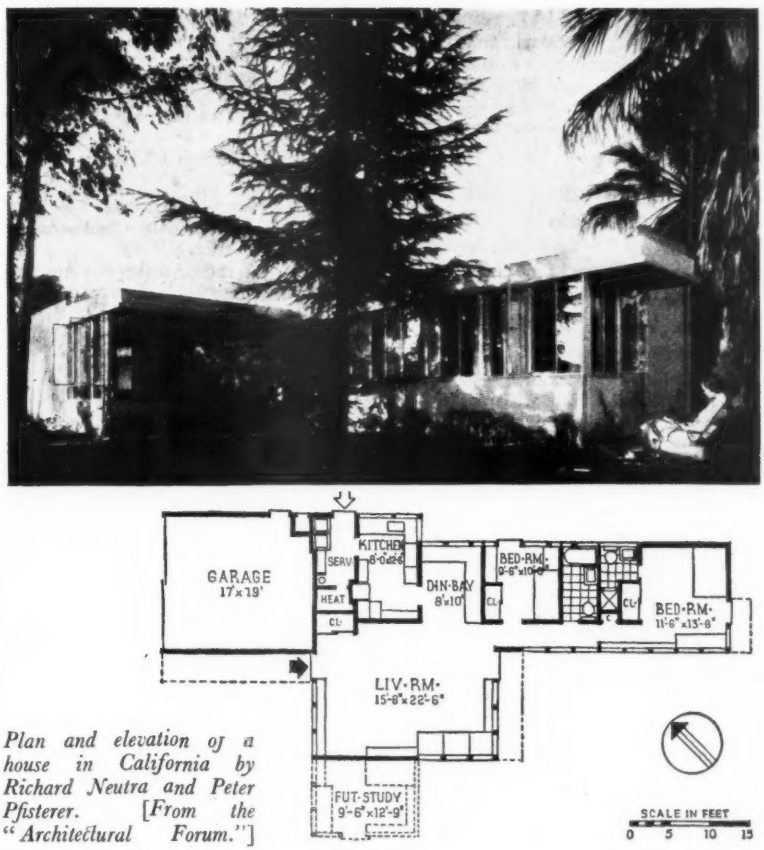
(Monthly, $1.00. 135 East 42nd Street, New York)

MARCH. Twelve pages of good planning data for shoe shops, illustrated with several different examples, one-third of all American shoe sales are made in department stores. Fourteen pages of houses, including one in Pasadena, by Richard Neutra (*see* illustration), Kansas City Auditorium, a colossal building to seat 14,000, and a further instalment of early Western Pennsylvanian houses.

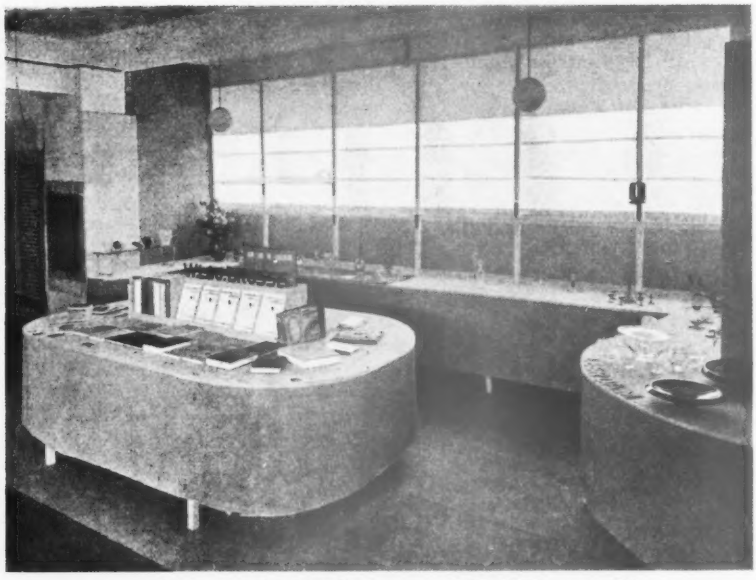
Architectural Record

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

March. The English number, forty-six pages arranged by the *Architectural Review*, a serious and well-planned contribution in which modern work, in spite of the small available choice, makes a surprisingly



Plan and elevation of a house in California by Richard Neutra and Peter Pfisterer. [From the "Architectural Forum."]



An exhibition stand by H. J. Brusse and H. Molenaar. [From "de 8 en opbouw."]

brave show. Building types—a series of one-family dwellings costing less than $10,000.

Pencil Points

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

March. A long illustrated article on the work of Gustav Jensen, who seems to have designed practically everything from metal sinks via door furniture to scent bottles and packages: and designed them pretty well, too. Mr. Guptill's corner for draughtsmen contains an extraordinary story about a bear and some red flannel and an ingenious excuse for not writing about his proper subject.

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FRANCE

L'Architecture

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

March. Mostly Paris Exhibition stuff, now almost inevitable in French periodicals.

La Technique des Travaux

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

March. A flat block in Brussels, semi-moderne in elevation, but with a reasonable plan considering the site. A 2,000-seater cinema in the Champs Elysées, Paris. Exhibition work on the Trocadéro, and the Schunck store at Heerlen, by F. P. J. Peutz.

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GERMANY

Baukunst und Städtebau

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

March. The new German Air Ministry building in Berlin, by Ernst Sagebiel—eighteen pages of plans and photographs, with constructional details. Small country houses.

Der Baumeister

(Monthly, 3 m. Georg Callwey, Munich)

March. Single-family houses in Saarbrücken by Rudolf Krüger; a large new restaurant near Vienna by Erich Boltenstern. Working details and notes on the effect of sun and wind on snow loadings.

Bauwelt

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

March 4. Recent amendments in the building regulations of Prussia. House types in Lindos.

March 11. Two rather ponderous office blocks in Hamburg, by Elingius and Schramm; an analysis, by Walter Kleffner, of secondary building costs, levelling, fees, by-laws, etc., in terms of lay-out adopted.

March 18. Two houses, by Hermann Schneider.

March 25. Munich buildings, by Georg Holzbauer.

Deutsche Bauzeitung

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

March 3. A thorough seven-page article by Max Warnatsch on current designs for sliding doors, illustrated with numerous details.

March 10. Single-family houses in Berlin and Vienna and a hospital competition result.

March 17. "Current interior decoration under the Third Reich."

March 31. Two country houses, by Fritz Schleifer, suggestions for hospital planning, underground traffic tunnels, notes on gas-proof shelters.

Innen Dekoration

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

March. Interiors of a house, by Walter Loos, recent designs by the Deutscher Werkstätten, and a week-end house by Jan Boguslavsky.

Moderne Bauformen

(Monthly, 3 m. Julius Hoffmann, Stuttgart)

March. A youth hostel in Tübingen, by Ernst Breitling and Hans Bruha, thirty photographs and four plans. A market hall at Vevey.

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HOLLAND

Bouwkundig Weekblad Architectura

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

March 6. Three traditional country houses.

March 13. Notes on materials; reviews of periodicals.

March 20. Competition notes and results.

March 29. Designs for a bank building in Amsterdam, by D. Roosenburg.

de 8 en opbouw

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

March 13. Several designs for exhibition stands, mostly very good.

March 29. A Mediterranean travel diary, by Arthur Staal.

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SWEDEN

Boet

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

March. The main article (well illustrated)

The new Air Ministry building in Berlin. Architect, Ernst Sagebiel. [From "Baukunst und Städtebau."]

is devoted to the new furniture and interiors by Otto Schultz.

Form

(Ten issues for 10 kr. per annum. Nybrogatan 7, Stockholm)

No. 3. Arts and crafts in Norway.

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SWITZERLAND

Schweizerische Bauzeitung

(Weekly, 1 fr. Dianastrasse 5, Zürich)

March 6. Mainly civil engineering.

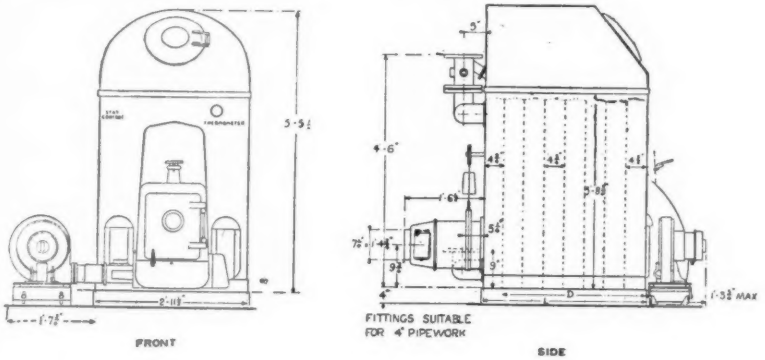
March 13 and 20. Schemes submitted in the Zurich congress and concert hall competition.

March 27. A ski-hut, by R. Christ.

Werk

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

March. Several designs submitted in the Zürich competition, the winners were Haefeli, Moser and Steiger.



TRADE NOTES

[*EDITED BY PHILIP SCHOLBERG*]

Automatic Magazine Boilers

UP till now Cerac, Ltd., have manufactured only two different types of automatic burner, the first a water-jacketed gravity-fed burner unit intended to be fixed to existing boilers (a model naturally available in several different sizes) and a gravity-fed boiler complete with magazine and burner, all neatly fitted away inside an enamelled casing so that the whole unit can be tucked away in a corner of the kitchen or scullery and still not look like a peculiar piece of agricultural machinery. The smaller model was described in these notes about a year ago and is still on the market in two standard sizes, 120,000 and 150,000 B.T.U. Good at its job, but somewhat on the small size for a large country house—hence a new model, designed on the same lines, but arranged to work with a normal sectional boiler in a range of sizes varying from 190,000 to 540,000 B.T.U.

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This new model was almost bound to come, for the separate unit is perfectly satisfactory when applied to existing jobs, the small type takes care of the small job and it is obviously more satisfactory if the larger sizes can also be designed as a single unit with the burner and the boiler arranged to work together from the first. The principles are exactly the same as with previous Cerac burners—magazine on the top feeding by gravity, and a downward air draught from the fan—with the usual thermostat controls. Sizes of the various models are set out in the adjoining table, the variable dimensions being shown in the drawing at the head of these notes. Prices vary from £120 to £200 for the complete unit but do not include installation costs.

Model	Ratings, B.T.U.H.		Depth of Firebox "D"	Length of Boiler "L"
	Hot Water	L.P. Steam		
M.40	190,000	171,000	1′ 2⅜″	1′ 6⅞″
M.50	240,000	216,000	1′ 6⅜″	1′ 11⅜″
M.60	290,000	261,000	1′ 11⅜″	2′ 4″
M.70	340,000	306,000	2′ 4⅜″	2′ 9⅜″
M.80	390,000	351,000	2′ 9⅜″	3′ 1⅞″
M.90	440,000	396,000	3′ 1⅜″	3′ 6⅜″
M.100	490,000	441,000	3′ 6⅜″	3′ 11⅜″
M.110	540,000	486,000	3′ 11¼″	4′ 4¼″

Ratings based on Welsh Anthracite Grains or Peas.
Size of flow and return 4″ maximum.

The manufacturer's information booklet is remarkably full and well arranged, and almost for the first time in my life I have *not* had to ring up and cross-examine reluctant salesmen for essential details. Why is it, by the way, that so many firms are reluctant to give prices?—surely the first thing that the architect wants to know. Silence on this point nearly always leads to the suspicion that costs are higher than they ought to be and that jobs are obtained by personal magnetism or high-pressure sales talk. The usual excuse that "it depends on the size of the job" really holds no water for every architect is sensible enough to realize that: surely *some* indication could easily be given? Many products are so secret and mysterious nowadays that the unfortunate user cannot guess whether the cost is to be measured in pence or pounds.

Small Lighting Plants

There are plenty of manufacturers making lighting plants for the larger type of country house, but the cost is generally fairly high, too high, as a rule, to make their installation worth while in the country cottage visited only at week-ends. Yet the town dweller is so used to the amenities of electricity, at any rate for lighting, that a cheap lighting set would probably be well worth while. I have just discovered the Johnson set, an American unit made by the manufacturers of a well-known outboard motor, and sold in this country by E. P. Barrus.

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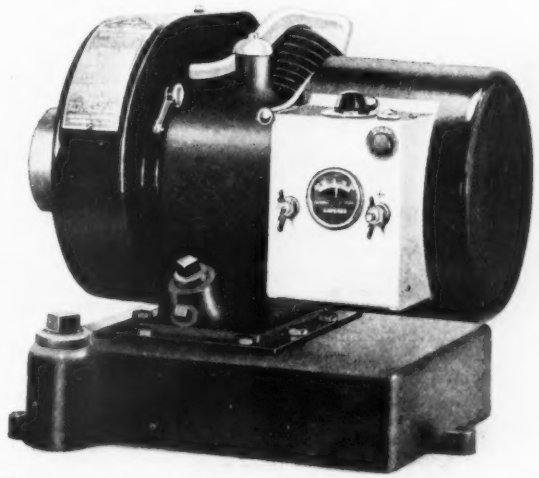
Output is 300 watts from a unit which measures only 16 ins. by 15 ins., with an overall height of 14 ins. and a weight of 75 lb. The four-stroke motor is rated at only ⅝ horse-power, but a few twelve or twenty-four watt lamps here and there with one or two thirty-sixes or forty-eights in the more important positions ought to provide plenty of light in a cottage where, after all, not very many lamps are in use at the same time. The voltage of the supply is 12, and the cost of the unit is £25. This price does not include batteries or wiring—the cost of which will obviously vary, but a good-sized lead-acid battery will cost about £7 10s., though here I should be inclined to prefer the nickel-iron types,



The Johnson 300 watt lighting unit (see note on this page).

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which seem to suffer less if they are left uncharged for long periods.

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Lamps are available in a reasonable range of sizes, though they cost rather more than the normal voltage types (3s. to 4s.) and a gallon of petrol is enough for twelve hours' charging. With all small plants of this kind the chief disadvantages is the peculiarly fussy noise that many of them seem to make, but this unit does not run very fast and does not make the horrible puttering noise of a two-stroke, so that with a little care in installation and adequate silencing arrangements the noise question could be reasonably well solved.

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For the reliability of this unit I can give no authentic information, but the manufacturers have a good name in America and any unit sold for yachts is expected to be reliable under rough treatment from people who tend to despise all machinery anyway, so it may be assumed that there is nothing radically wrong with this particular job. One other important point which I nearly forgot : starting is by a push button control which temporarily turns the dynamo into a motor, and remembering how fast twelve volts can spin a large car engine there oughtn't to be any difficulty in starting off a mere ⅝ horse-power.

Ashes on my Head

My apologies to British Pliant Veneer, Ltd., about whom I wrote a note a few weeks ago. Their prices are *not* what I said they were, but range from 7d. a square foot upwards. All due to my abominable habit of making cryptic scribbles on the backs of envelopes and then forgetting what they mean.

Addresses

Cerac, Ltd., 2 Thames House, Queen Street Place, London, E.C.4.

E. P. Barrus, Ltd., 35-37 Upper Thames Street, London, E.C.4.

British Pliant Veneer, Ltd., 120 Middlesex Street, Bishopsgate, London, E.C.1.

Manufacturers' Items

Robert Benson & Co., the banking house, are backing a new company called Celotex, Ltd. This company (according to the *Star* for April 12), has a nominal capital of £400,000 in 263,000 5½ per cent. cumulative and participating first preference, 67,000 5½ per cent. non-cumulative convertible second preference shares of £1 each, and 350,000 deferred 4s. shares.

Celotex are to acquire Texcel, formerly the Celotex Company of Great Britain, and will manufacture Celotex, Acousti-Celotex and other insulating material, sound-absorbing boards or materials for walls or ceilings.

Hitherto, the British company have been selling those materials on licence from the American parent company, Celotex Corporation of America. A factory is now to be erected, and the manufacture of the products carried out.

At present it is not intended to make a public offer of capital or to introduce the shares to the market, but some such deal may be arranged later.

Mr. C. H. Pearson, until recently contract manager of Messrs. Electrolux, Ltd., has joined the staff of Messrs. Parkinson and Cowan, as assistant to Col. H. W. Woodall, the chairman and managing director of the company.

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A booklet devoted to the Broduit copper conduit system for electric wiring has just been issued by I.C.I. Metals Ltd., of Kynoch Works, Witton, Birmingham, 6.

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We have received from J. H. Sankey and Son, Ltd., one of their latest revised Sankey heat charts. Copies of the chart will be sent free on application to the firm at Aldwych House, Aldwych, W.C.2.

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Sharp Bros. and Knight, Ltd., joinery and moulding manufacturers, of Burton-on-Trent, have just issued an illustrated brochure devoted to their flush doors. The various sizes of the doors are given, together with their prices.

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A new paint for the combating of rust has recently appeared on the market. The chief feature of this new product is that, not only is it applied direct to the rusted surface but that it actually reacts on the rust itself in such a way as to transform it into an essential part of the protective coating for metals used in industries involving exposure to rain, mist, salt water, and other climatic conditions such as bridges, docks, wireless masts and corrugated iron structures.

The paint is being sold by Messrs. Thomas Parsons and Sons, Ltd., under the name of Rust-eeter. Messrs. Parsons state that Rust-eeter, "unlike red lead, may be sprayed on as well as applied by brush. It sets to the touch in less than twenty minutes, thus minimizing the chances of dust and foreign bodies adhering, and is completely dry within twenty-four hours. A gallon will cover 400 to 500 square feet." We are informed that single coats applied in 1932 and placed in unfavourable conditions, were still undamaged in 1936, and no trace of corrosion could be detected.

We are also informed that Thos. Parsons and Sons, Ltd., are presenting a bonus to their employees equivalent to one week's salary or wages to commemorate the Coronation of Their Majesties King George VI. and Queen Elizabeth.

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In the list of contractors for the National Bank of Scotland, published in our issue for April 25, we incorrectly stated that the floor clips were supplied by Redalon, Ltd. Actually the floor clips were supplied by the Adamite Co., Redalon, Ltd., having been amalgamated with them for the past eighteen months.

THE BUILDINGS ILLUSTRATED

PAIR OF HOUSES AT IFFLEY, NR. OXFORD (pages 721-723). The general contractors were Hinkins and Frewin, Ltd., and the principal sub-contractors and suppliers included: Grovebury Brick Co., bricks; Shanks & Co., Ltd., sanitary fittings; Gordon Russell and Comyn Ching, door furniture; Josiah Parkes, locks; Venesta, Ltd., flush doors; Manders, paint; Ascot Gas Water Heaters, Ltd., water heating; Lowe and Oliver, electrical work; Art Pavements, Ltd., stone surrounds and hearths to fireplaces; furniture, curtains, carpets, etc., were designed and executed by Elsa Booth.

SOUTH LODGE, CIRCUS ROAD, ST. JOHN'S WOOD (pages 724-725). The general contractors were Gee, Walker and Slater, Ltd., and the principal sub-contractors included: Ragusa Asphalte Co., Ltd., asphalt; Girling's Ferro-concrete Co., Ltd., artificial stone; Redpath, Brown & Co., Ltd., structural steel; A. Goldstein & Co. (Glass Merchants), Ltd., patent glazing; A. D. Wire & Co., patent flooring (composition flooring); Holliday, Hall and Stinson, Ltd., electric wiring, electric light fixtures, and telephone; Shanks & Co., Ltd., sanitary fittings; Comyn Ching & Co., Ltd., door furniture; The Crittall Manufacturing Co., Ltd., casements; Bostwick Gate Co., Ltd., folding gates; The Potter Rax Gate Co., Ltd., rolling shutters, lift enclosures, etc.; Wilmer and Sons, Ltd., iron staircase and metalworks (grilles); G. H. Coles, garden work; Attoc Blocks, Ltd., fireproof construction; Express Lift Co., Ltd., lifts; Marbolex Products, bathroom panelling; Riley Stoker & Co., Ltd., automatic stokers; Cement Waterproofers, Ltd., waterproofing rendering; Gas Light and Coke Co., refrigerators.

PETROL FILLING STATION, SHELDON (page 726). The general contractors were E. G. Brown and Son.

IN PARLIAMENT

[BY OUR SPECIAL CORRESPONDENT]

Housing in Cardiff

Captain A. Evans asked the Minister of Health if he was aware that the Cardiff Corporation proposed to erect 2,000 houses within the next four years; whether he would prevail on the City Council to consult some competent architectural authority and so avoid the further erection of the inadequate elevations that threatened to disfigure the city boundaries; and whether he would press for the early presentation by the city council of its long-delayed town-planning scheme.

Mr. Hudson said he was aware of the proposal of the local authority to which his hon. friend referred. The plans and elevations of the first instalment of the scheme were submitted to his Department before approval. The member's attitude on the question of the employment of architects by local authorities was set out in Circular 1539 issued to local authorities on the 7th May last year. The Minister is in communication with the local authority with a view to expediting the progress of their town-planning schemes.

Unemployed in Building Trades

Mr. McGovern asked the Minister of Labour if he could state the total number of unemployed persons in the building trades on April 1, 1937; the number in each trade; and similar figures for each year since April 1, 1918.

Mr. Ernest Brown said that the latest figures related to March 15, 1937, when

employment was adversely affected by bad weather. The following table gave the information desired for a date in March of each year since 1924, the earliest year for which comparable figures were available :—

Date (March)	Insured persons recorded as unemployed in Great Britain.								
	Carpenters	Bricklayers	Masons	Slaters and Tilers	Plasterers	Painters	Plumbers	All other other Occupations	Total
	Aged 16 years and over.								
1924 ..	3,610	895	583	370	352	11,457	2,278	50,239	69,784
1925 ..	2,925	837	880	210	273	11,679	1,945	46,856	65,605
1926 ..	4,814	1,073	1,103	274	254	8,578	1,713	42,555	60,364
1927 ..	6,696	1,829	1,706	273	619	11,432	2,492	46,776	71,823
	Aged 16 to 64 years.								
1928 ..	11,232	5,423	2,014	461	3,011	8,474	2,769	54,580	87,964
1929 ..	13,161	6,007	1,981	1,093	2,604	11,178	1,626	63,419	101,069
1930 ..	15,380	8,756	2,438	1,144	4,629	14,574	4,804	76,523	128,248
1931 ..	27,054	12,541	3,634	1,512	5,364	25,349	6,430	100,047	181,931
1932 ..	34,068	20,471	4,652	1,977	7,452	34,534	8,974	129,578	241,706
1933 ..	31,405	15,159	5,300	1,585	7,366	30,515	8,129	125,951	225,410
1934 ..	18,355	7,664	4,330	1,735	3,318	22,141	6,126	108,577	172,246
1935 ..	13,756	4,340	3,257	1,360	3,231	17,296	5,208	106,035	154,483
1936 ..	11,375	3,883	2,148	1,008	2,392	17,061	3,649	97,964	139,480
1937 ..	10,906	8,996	3,105	1,613	4,307	22,068	3,604	102,700	157,299

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15 MILE RADIUS)

ACTON. *Flats, etc.* Plans passed by the Acton Corporation : 16 flats, Southfield Road and factory extensions, Gorst Road, for Messrs. Percy Pratt and Bloubt ; factory and offices, Western Avenue, for Hooper & Co. (Coachbuilders), Ltd. ; works extensions, St. Leonards Road, for Lightalloys, Ltd. ; factories, Old Oak Common Lane, for Messrs. Hillier, Parker, May and Rowden ; works extensions, 47 Minerva Road, for Messrs. N. Green & Co., Ltd. ; works extensions, St. Leonards Road, for Messrs. Wallis Gilbert and Partners ; works extensions, Standard Road, for Standard Motor Co., Ltd.; works extensions, Bollo Lane, for Hayward Turbine Eng., Ltd.

CAMBERWELL. *Welfare Centre.* The L.C.C. is to erect an infant welfare centre on the Sumner Road estate, Camberwell.

EALING. *Schools.* The L.C.C. has sold three sites on the Hanwell estate to the Ealing Corporation for the erection of schools.

FINCHLEY. *Houses.* Messrs. Williams, Pettett and Gardner are to erect 15 houses in Dollis Avenue, Finchley.

FINCHLEY. *Sorting Office and Postal Garage.* A site is to be secured in Finchley by H.M. Office of Works for the erection of a sorting office and postal garage.

FINSBURY. *Dwellings, etc.* The Finsbury B.C. is to erect a block of dwellings and shops in Farringdon Road at a cost of £32,500.

FULHAM. *Factory.* Messrs. J. Lyons & Co. are to extend the jam factory in Rannoch Road, Fulham.

HACKNEY. *School and Extensions.* The L.C.C. is to erect an elementary school for 1,100 in Hackney and enlarge the local central school accommodation by 400 places.

LAMBETH. *Open Air Swimming Bath.* The Lambeth B.C. is to construct an open air swimming bath in Brockwell Park at a cost of £24,150.

SOUTHWARK. *Extensions.* The governors of St. Saviour's and St. Olave's Grammar School Southwark, have purchased property for the extension of the school and the provision of a gymnasium.

WALTHAMSTOW. *Receiving Office.* The Metropolitan Water Board is to convert premises in Walthamstow as a receiving office.

WANSTEAD. *Extensions.* Plans passed by the Wanstead U.D.C. : Assembly hall, Bancroft's School ; additions to swimming bath, Boys' Garden City, Woodford Bridge.

WESTMINSTER. *Housing Scheme.* The Westminster City Council recommends the appointment of Mr. A. J. Thomas, F.R.I.B.A., to prepare plans for the development of the housing scheme on the Glasgow Terrace site.

WOOLWICH. *Tenements.* The Woolwich B.C. is to erect 198 tenements on the Horn Park estate at a cost of £77,120.

SOUTHERN COUNTIES

BOURNEMOUTH. *Hotel.* Messrs. Eldridge Pope & Co. are to erect an hotel in Broadhurst Avenue, Bournemouth.

BOURNEMOUTH. *Health Centre.* The Bournemouth Corporation has purchased a site in Kinson Road, for the erection of a health centre.

PORTSMOUTH. *Cinema, etc.* The Portsmouth Corporation Highways Committee has considered proposals for the erection of a cinema, concert hall, swimming pool and a restaurant on the site of Long's Brewery, Southsea, and recommends that no objection be offered to the principle of the proposals subject to the requirements of the Building Byelaws and all other Acts and regulations applicable to the development being complied with.

PORTSMOUTH. *Houses and Flats.* The Portsmouth Corporation has prepared a programme for the erection of 250 houses and 614 flats for rehousing purposes.

PORTSMOUTH. *School.* The Portsmouth Education Committee has purchased 9½ acres of land in Grove Road, Drayton, for the erection of an elementary school.

SELSEY. *School.* The West Sussex Education Committee is to erect a senior school at Selsey at a cost of £17,000.

EASTERN COUNTIES

LOWESTOFT. *Houses.* Plans passed by the Lowestoft Corporation : 11 houses, Yarmouth Road, Oulton Broad and Higher Drive, Mr. S. C. King ; 63 houses and one house and shop, Normanston Drive Estate, Mr. B. W. Youngs.

LOWESTOFT. *Extensions.* The Lowestoft Corporation has approved plans for additions to the Isolation Hospital, at a cost of £4,562.

NORWICH. *Rehousing.* The Norwich Corporation has prepared a rehousing scheme which will involve an outlay of approximately £430,000.

YARMOUTH. *School.* The Yarmouth Education Committee has obtained 10 acres at the junction of Caister and Jellicoe Roads, for the erection of new school buildings and playing fields.

YARMOUTH. *Church.* Messrs. A. E. Cowl and Son, on behalf of the Deacons of the Park Baptist Church, are obtaining a site in Beatty Road, Yarmouth, for the erection of a church.

MIDLAND COUNTIES

BURSLEM. *Extensions.* The Stoke-on-Trent Corporation has approved plans on behalf of the Burslem Suburban Club and Institute, Ltd., for additions to premises in High Lane, Burslem.

LEICESTERSHIRE. *Extensions.* The Leicestershire Education Committee has approved plans for additions to the Coalville Grammar School, comprising a gymnasium, dining hall, library, etc.

LEICESTER. *School.* The Leicestershire Education Committee has approved plans of the proposed new school at Ratcliffe Culey.

LEICESTER. *Schools.* The Leicestershire Education Committee has prepared a scheme for the provision of modern schools for boys and girls for the Ashby-de-la-Zouch and Ashby Woulds districts.

LEICESTER. *Extensions.* The Leicestershire Education Committee has approved plans for the erection of a caretaker's house, garage and store at the Hinckley Grammar School.

NORTHERN COUNTIES

BLACKPOOL. *Houses, etc.* Plans passed by the Blackpool Corporation : Five houses, St. Anne's Road, Mr. E. Armitage ; five houses and shops, Grange Road, Mrs. Horrocks ; eight houses and shops, Harrowside, Messrs. N. Rideout & Co. ; 74 houses, Belvere Avenue, Mr. S. A. Howard ; private hotel, Reads Avenue, Ashworth's Private Hotels, Ltd. ; offices, Norbreck Road, Norbreck Hydro, Ltd. ; assembly hall, Whitegate Drive, Mr. H. Marland ; six houses, Faringdon Avenue, Mr. G. W. Godfrey.

BRADFORD. *School.* The Bradford Education Committee has asked the City Architect to prepare plans for extensions at Great Horton school and the Thorpe modern school.

BRADFORD. *Extensions.* The Bradford Education Committee has approved plans by the City Architect for extensions at the technical college at a cost of £45,500.

CARLISLE. *Houses, etc.* Plans passed by the Carlisle Corporation : 14 houses, Beechwood Avenue, Messrs. A. Blakeley and Sons ; omnibus station and offices, Scotch Street, United Automobile Services, Ltd. ; 16 houses, Blunt Street, Messrs. J. and R. Bell, Ltd.

LANCASHIRE. *Extensions.* The Lancashire Mental Hospitals Board is to extend the Brookhall Certified Institution for mental defectives to provide accommodation for 1,326 additional patients, at a cost of £488,666.

WALLSEND. *Houses, etc.* Plans passed by the Wallsend Corporation : 86 houses, King's Road Estate, and flats, Mr. Wm. Leech ; houses in flats, between Station Road and John Street, Messrs. R. A. Gofton and Sons ; alterations, High Street West, Messrs. F. W. Woolworth & Co., Ltd. ; extensions to offices and new tube store, The Thermal Syndicate, Ltd. ; alterations, High Street West, Messrs. D. Gillis ; six houses in flats, Ravensworth Street, Mr. T. Christy.

RATES OF WAGES

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

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

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

The rates for every trade in any given area will be sent on request. The rates of wages have been revised consequent upon the increase in wages which came into operation on February 1, together with all revisions following authorized annual regradings.

CURRENT PRICES

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

WAGES

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

MATERIALS

EXCAVATOR AND CONCRETOR

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

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

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

BRICKLAYER

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

MASON

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

SLATER AND TILER

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

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

CARPENTER AND JOINER

	£ s. d.
Good carcassing timber . . F.C.	2 2
Birch . . . . as 1" F.S.	9
Deal, Joiner's . . . ,, ,,	5
,, ,, 2nds . . ,, ,,	4
Mahogany, Honduras . . ,, ,,	1 3
,, African . . ,, ,,	1 1
,, Cuban . . ,, ,,	2 6
Oak, plain American . . ,, ,,	1 0
,, Figured ,, . . ,, ,,	1 3
,, plain Japanese . . ,, ,,	1 2
,, Figured ,, . . ,, ,,	1 5
,, Austrian wainscot . ,, ,,	1 6
,, English . . . ,, ,,	1 11
Pine, Yellow . . . ,, ,,	1 0
,, Oregon . . . ,, ,,	4
,, British Columbian . ,, ,,	4
Teak, Moulmein . . ,, ,,	1 3
,, Burma . . . ,, ,,	1 2
Walnut, American . . ,, ,,	2 3
,, French . . ,, ,,	2 3
Whitewood, American . ,, ,,	1 1
Deal floorings, ⅞" . . Sq.	18 6
,, 1" . . ,,	1 1 6
,, 1" . . ,,	1 2 0
,, 1¼" . . ,,	1 5 0
,, 1½" . . ,,	1 10 0
Deal matchings, ⅝" . . ,,	14 0
,, 1" . . ,,	15 6
,, 1" . . ,,	1 4 0
Rough boarding, ¾" . . ,,	16 0
,, 1" . . ,,	18 0
,, 1¼" . . ,,	1 6 0

Plywood, per ft. sup. :

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

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

SMITH AND FOUNDER

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

	⅛"	¼"	½"	1"	1¼"	2"
Tubes 2'–14' long per ft. run	4	5½	9¼	1/1	1/10	
Pieces, 12"–23" long . each	10	1/1	1/11	2/8	4/9	
,, 3"–11½" long . ,,	7	9	1/3	1/8	3/–	
Long screws, 12"–23½" long ,,	11	1/3	2/2	2/10	5/3	
,, ,, 3" M–½" long ,,	8	10	1/5	1/11	3/6	
Bends . . . . ,,	8	11	1/7½	2/7½	5/2	
Springs not socketed . ,,	5	7	1/1½	1/11½	3/11	
Socket unions . . ,,	2/–	3/–	5/6	6/9	10/–	
Elbows, square . . ,,	10	1/1	1/6	2/2	4/3	
Tees . . . . ,,	1/–	1/3	1/10	2/6	5/1	
Crosses . . . ,,	2/2	2/9	4/1	5/6	10/6	
Plain sockets and nipples ,,	3	4	6	8	1/3	
Diminished sockets . ,,	4	6	9	1/–	2/–	
Flanges . . . ,,	9	1/–	1/4	1/9	2/9	
Caps . . . . ,,	3½	5	8	1/–	2/–	
Backnuts . . . ,,	2	3	5	6	1/1	
Iron main cocks . . ,,	1/6	2/3	4/2	5/4	11/6	
,, with brass plugs . ,,	—	4/–	7/6	10/–	21/–	

Discounts TUBES	Per cent.		Per cent.
Gas . . .	68½	Galvanized gas .	61½
Water . . .	66½	,, water .	55
Steam . . .	63½	,, steam .	50

FITTINGS			
Gas . . .	61½	Galvanized gas .	55½
Water . . .	58½	,, water .	50
Steam . . .	53½	,, steam .	46½

	s. d.
Rolled steel joists cut to length . . cwt.	14 6
Mild steel reinforcing rods, ⅜" . . . ,,	10 6
,, ,, ,, ½" . . . ,,	10 3
,, ,, ,, ⅝" . . . ,,	10 0

SMITH AND FOUNDER—*continued*

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

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

PLUMBER

	£ s. d.
Lead, milled sheets . . . cwt.	34 6
,, drawn pipes . . . ,,	34 0
,, soil pipes . . . ,,	37 0
,, scrap . . . ,,	22 0
Solder, plumbers' . . . lb.	1 1½
,, fine do. . . . ,,	1 4
Copper, sheet . . . ,,	1 2
,, tubes . . . ,,	1 4½

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

PLASTERER

	£ s. d.
Lime, chalk . . . . per ton	2 0 0
Plaster, coarse . . . ,,	2 15 0
,, fine . . . ,,	4 7 6
Hydrated lime . . . ,,	3 0 9
Sirapite . . . . ,,	3 6 0
Keene's cement . . . ,,	5 0 0
Gothite plaster . . . ,,	3 6 0
Pioneer plaster . . . ,,	3 6 0
Thistle plaster . . . ,,	3 6 0
Sand, washed . . . Y.C.	11 6
Hair . . . . lb.	6
Laths, sawn . . . bundle	2 4
,, rent . . . ,,	3 9
Lath nails . . . . lb.	3

GLAZIER

	s. d.	s. d.
Sheet glass, 24 oz., squares n/e 2 ft. s. F.S.		2½
,, ,, 26 oz. ,, ,, ,,		3¼
Flemish, Arctic, Figures (white)* ,,		7¼
Blazoned glasses . . . ,,		2 6
Reeded : Cross Reeded . . ,,		11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite ,,		6
Crown sheet glass (n/e 12" × 10") . ,,		2 0
Flashed opals (white and coloured) . ,,	1 0 and	2 0
¼" rough cast; rolled plate . ,,		6
¼" wired cast; wired rolled . ,,		10½
¼" Georgian wired cast . ,,		11½
¼" Polished plate, n/e 1 ft. ,,	†10 to	‡1 1
,, ,, 2 ,,	†1 2 ,,	‡1 4
,, ,, 4 ,,	†2 3 ,,	‡2 6
,, ,, 8 ,,	†2 9 ,,	‡3 2
,, ,, 20 ,,	†3 1 ,,	‡3 9
,, ,, 45 ,,	†3 3 ,,	‡4 0
,, ,, 100 ,,	†4 0 ,,	‡4 10
Vita glass, sheet, n/e 1 ft. ,,		1 0
,, ,, 2 ft. ,,		1 3
,, ,, over 2 ft. ,,		1 9
,, plate, n/e 1 ft. ,,		1 6
,, ,, 2 ft. ,,		3 0
,, ,, 5 ft. ,,		4 0
,, ,, 7 ft. ,,		5 0
,, ,, 15 ft. ,,		6 0
,, ,, over 15 ft. ,,		7 6
"Calorex" sheet 21 oz., and 32 oz. ,,	2 6 and	3 6
,, rough cast ⅛" and ¼" ,,	8½ ,,	1 0
Putty, linseed oil . . . lb.		3

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

PAINTER

	£ s. d.
White lead in 1-cwt. casks . . cwt.	3 0 9
Linseed oil . . . . gall.	3 2
Boiled oil . . . . ,,	3 5
Turpentine . . . . ,,	3 9
Patent knotting . . . ,,	14 0
Distemper, washable . . cwt.	2 6 0
,, ordinary . . ,,	2 0 0
Whitening . . . . ,,	4 0
Size, double . . . firkin	3 0
Copal varnish . . . gall.	13 0
Flat varnish . . . ,,	14 0
Outside varnish . . . ,,	16 0
White enamel . . . ,,	1 15 0
Ready mixed paint . . ,,	13 6
Brunswick black . . . ,,	7 6

CURRENT PRICES FOR MEASURED WORK

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

EXCAVATOR AND CONCRETOR

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

DRAINLAYER

		4" s. d.	6" s. d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1 6	2 3
Extra, only for bends	Each	2 8	3 9
" junctions	"	3 9	4 6
Gullies and gratings	"	16 6	18 0
Cast iron drains, and laying and jointing	F.R.	5 9	8 3
Extra, only for bends	Each	11 9	17 3

BRICKLAYER

	£ s. d.
Brickwork, Flettons in lime mortar	Per Rod 26 10 0
" " in cement	" 27 12 6
" Stocks in cement	" 34 0 0
" Blues in cement	" 50 0 0
Extra only for circular on plan	" 2 0 0
" backing to masonry	" 1 10 0
" rising on old walls	" 2 0 0
" underpinning	" 5 10 0
Fair Face and pointing internally	F.S. 1¼
Extra over fletton brickwork for picked stock facings and pointing	" 8
" " " red brick facings and pointing	" 11
" " " blue brick facings and pointing	" 1 4
" " " glazed brick facings and pointing	" 3 6
Tuck pointing	" 7½
Weather pointing in cement	" 3
Slate dampcourse	" 10
Vertical dampcourse	" 1 1

ASPHALTER

	s. d.
½" Horizontal dampcourse	Y.S. 4 9
⅝" Vertical dampcourse	" 7 9
¾" paving or flat	" 6 3
1" paving or flat	" 7 6
1" × 6" skirting	F.R. 1 0
Angle fillet	" 2½
Rounded angle	" 2½
Cesspools	Each 5 6

MASON

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

SLATER AND TILER

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

CARPENTER AND JOINER

	£ s. d.
Flat boarded centering to concrete floors, including all strutting	Sqr. 2 2 6
Shuttering to sides and soffits of beams	F.S. 7
" to stanchions	" 7
" to staircases	" 1 6
Fir and fixing in wall plates, lintols, etc.	F.C. 3 9
Fir framed in floors	" 4 6
" " roofs	" 6 6
" " trusses	" 7 6
" " partitions	" 8 6
⅞" deal sawn boarding and fixing to joists	Sqr. 1 14 6
1" " " " " "	" 1 17 6
1½" " " " " "	" 2 3 0
⅞" × 2" fir battening for Countess slating	" 9 6
Do., for 4" gauge tiling	" 12 0
Stout feather-edged tilting fillet	F.R. 4½
Patent inodorous felt, 1 ply	Y.S. 2 3
" " " 2 "	" 2 9
" " " 3 "	" 3 3
Stout herringbone strutting to 9" joists	F.R. 10½
1" deal gutter boards and bearers	F.S. 1 2
1½" " " " " "	" 1 6
2" deal wrought rounded roll	F.R. 8
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr. 2 1 0
1¼" do.	" 2 10 0
1½" do.	" 2 17 0
1" deal moulded skirting fixed on, and including grounds plugged to wall	F.S. 1 6
1½" do.	" 1 9

CARPENTER AND JOINER—*continued*

	s. d.
1¼" deal moulded sashes of average size	F.S. 1 9½
2" " " " "	" 1 11½
1½" deal cased frames double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ¾" parting beads, and with brass faced axle pulleys, etc., fixed complete	" 3 7
2" " " " " "	" 3 10
Extra only for moulded horns	Each 6
1¼" deal four-panel square, both sides, door	F.S. 2 0
2" " " " "	" 2 8
1½" " but moulded both sides	" 2 4
2" " " " "	" 3 0
4" 3" deal, rebated and moulded frames	F.R. 1 0
4½" 3½" " " " "	" 1 4
1¼" deal tongued and moulded window board, on and including deal bearers	F.S. 1 9
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	" 2 6
1½" deal moulded wall strings	" 2 1
1½" " " outer strings	" 2 4
Ends of treads and risers housed to string	Each 1 9
3" × 2" deal moulded handrail	F.R. 1 3
1" × 1" deal balusters and housing each end	Each 2 0
1½" 1½" " " " "	" 2 9
3½" × 3" deal wrought framed newels	F.R. 1 3
Extra only for newel caps	Each 6 0
Do., pendants	" 6 0

SMITH AND FOUNDER

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

PLUMBER

	£ s. d.
Milled lead and labour in flats	cwt. 2 5 0
Do. in flashings	" 2 8 6
Do. in covering to turrets	" 2 14 0
Do. in soakers	" 1 19 9
Labour to welted edge	F.R. 3½
Open copper nailing	" 3
Close " "	" 4

	½" s. d.	¾" s. d.	1" s. d.	1¼" s. d.	2" s. d.	4" s. d.
Lead service pipe and fixing with pipe hooks F.R.	1 2	1 4	1 8½	2 7	3 6	—
Do. soil pipe and fixing with cast lead tacks	—	—	—	—	—	7 3
Extra, only to bends Each	—	—	—	—	2 3	7 6
Do. to stop ends "	6½	8	9	11	1 0	—
Boiler screws and unions	3 3	3 9	5 0	8 0	—	—
Lead traps	—	—	—	8 0	11 6	—
Screw down bib valves "	6 9	9 6	11 0	—	—	—
Do. stop cocks	7 0	9 6	12 6	—	—	—

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

PLASTERER AND TILING

	s. d.
Expanded metal lathing, small mesh	Y.S. 2 0
Do. in n/w to beams, stanchions, etc.	" 2 9
Lathing with sawn laths to ceilings	" 1 3
½" screeding in Portland cement and sand or tiling, wood block floor, etc.	" 1 5
Do. vertical	" 1 7
Rough render on walls	" 1 2½
Render, float and set in lime and hair	" 1 9
Render and set in Sirapite	" 1 11
Render, backing in cement and sand, and set in Keene's cement	" 2 9
Extra, only if on lathing	4
Keene's cement angle and arris	F.R. 6
Arris	" 1¾
Rounded angle, small	" 3
Plain cornices in plaster, including dubbing out, per 1" girth	" 1½
1" granolithic pavings	Y.S. 3 6
1½" " " "	" 4 6
6" × 6" white glazed wall tiling and fixing on prepared screed	" 17 6
9" × 3" " " " " " "	" 1 2 6
Extra, only for small quadrant angle	F.R. 8

GLAZIER

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

PAINTER

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