THE ARCHITECTS' JOURNAL

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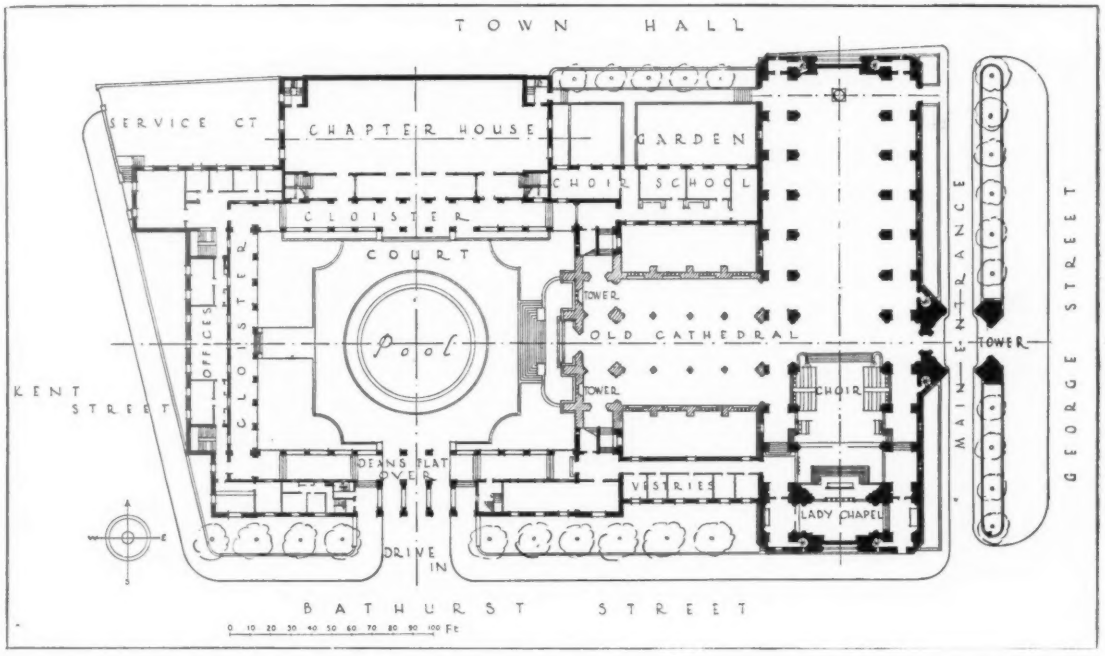
The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

THURSDAY, FEBRUARY 17, 1938. NUMBER 2248 : VOLUME 87

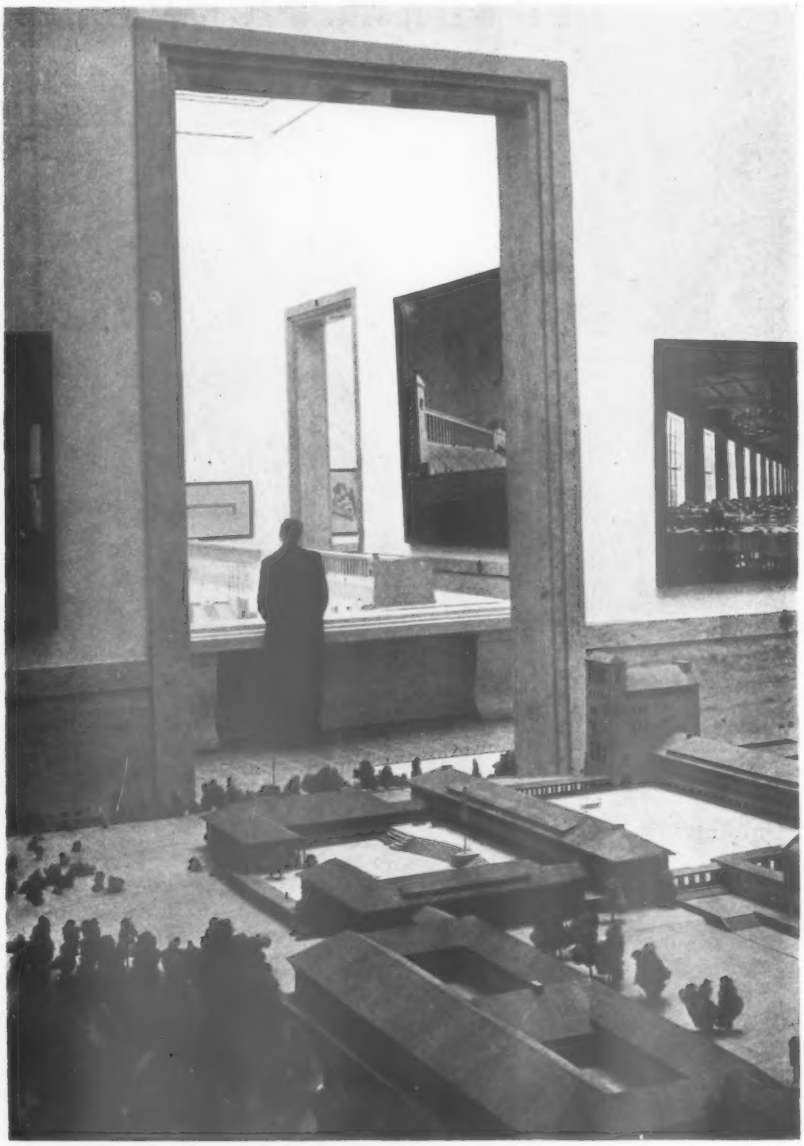
PRINCIPAL CONTENTS

SYDNEY CATHEDRAL COMPETITION

DESIGN PLACED FIRST

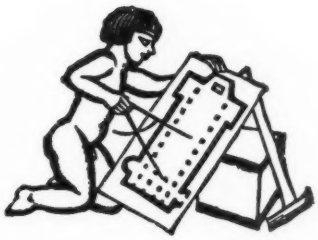


PERSPECTIVE from the south-east and ground-floor plan of the winning design, by Messrs. R. A. P. Pinckney and A. F. E. Gott, in the competition for the extension of St. Andrew's Cathedral, Sydney. The west towers of the existing cathedral, the nave of which will be incorporated in the new building as a transept, are shown on the left of the drawing. An exhibition of the designs submitted in the competition is to be held at the R.I.B.A. later in the year. The assessors were the Archbishop of Sydney, Sir Giles Gilbert Scott, R.A., and Mr. B. J. Waterhouse.



GERMAN ARCHITECTURE

An exhibition of models of German architecture recently held in the House of German Art in Munich. The above photograph shows a model of the Ordensburg Sonthofen in Bavaria, one of the four national socialist leader schools which are going to be built.



APP. EST. AND WEEKS A to E

IN this issue is published the fourth section of the JOURNAL's Prices Supplement. With this section the Supplement is completed. Next week the first section will be repeated.

As the JOURNAL, its technical advisers and Messrs. Davis and Belfield, the quantity surveyors who have prepared the Supplement for the JOURNAL, have spent nearly a year in preliminary work, no excuse is made for a certain repetition in drawing readers' attention to how the Prices work—before going on to this week's big feature, the Approximate Estimates.

The Supplement, which contains many more prices than are published in any other paper, consists of four weekly parts. In the first week is published the first half of Prices of Materials, based on a quotation for each item obtained the previous week, which for the sake of clearness may be called Week A, In the next week, Week C, the second half of Prices of Materials, also based on the quotations of Week A, is published. The following week, Week D, contains the first half of Measured Rates, revised in accordance with Week A's prices. The fourth week, E, contains two sections, the first of which is the second part of Measured Rates (again revised for Week A) *and* APPROXIMATE ESTIMATES—which, at the risk of repetition, must also be stated to have been also revised for Week A.

Astute readers may have spotted that by the time Week E is running to an end Week A's prices—the key prices for the whole cycle—may be getting out of date. This the JOURNAL cannot help. In order to get in the number of items it thought necessary in the five or six pages a week at its disposal, something had to go, and *weekly* accuracy was chosen as the victim. But though building prices do fluctuate they do not do so, normally, in the Stock Exchange "crisis" manner. And, therefore, providing the prices are made really accurate once a month, a comparatively small sacrifice in efficiency is made.

What is more, since Measured Rate prices depend on Prices for Materials, and Approximate Estimates, to some extent, on both, it was essential to the JOURNAL's system to allow a month to elapse before obtaining fresh quotations. So it was decided to depend on monthly quotations.

The first Week A was the week preceding January 27. The second Week A is the present week. Next week the Supplement, Part 1, will appear again, revised and corrected.

Now for Approximate Estimates, of which the first section appears this week. If two and a-half pages of forty or so items, appearing on pages 310-312 do not at first glance look as though they involved much work, a very little thought will prove the contrary.

Each is a very careful approximation of the price for a certain building unit complete, expressed as the price per yard or in some other easily applied way. Each required not only the price of the materials and labours involved to be ascertained, but also careful averaging of sundry labours. To each price per square yard for a partition a certain proportion was added for cutting and pinning to ceiling, wall or door, so that when the price of an average partition in real life was being calculated an average amount of sundry labours would have been found to be allowed for.

A high proportion of judgment and experience is needed to do this correctly for a number of structural units, and the authors have therefore been cautious. The first list contains only those items which are used with the greatest frequency ; and they have been careful to state that the estimates given should not be regarded as the direct result of conversion of prices and labours on any system. In time, however, it is intended to enlarge the number and scope of the estimates until they cover all items of structure and equipment which the system can be shown to cover reliably.

In the meantime, in spite of the JOURNAL's anxiety to point it out to them, architects are not likely to miss the usefulness of the idea. And when it says architects, the JOURNAL hopes that builders and quantity surveyors will also find themselves using APP. EST.

The main advantage of Approximate Estimates is in the saving of time. Where an internal alteration or a small extension is under consideration an estimate is often needed in a hurry. The cubing system is notoriously unreliable in such circumstances, and the work involved in converting various labours in Measured Rates into a lump sum estimate is, at least for architects, considerable.

Approximate Estimates in such cases, and the JOURNAL hopes in many other cases, will allow a price to be prepared as rapidly as by cubing and with far greater accuracy. With this commendation the JOURNAL places APP. EST. before its readers.

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NOTES & TOPICS

THE DINNER.

LORDS, 4; Clergy, 3 (including the Primate); Knights, 18; M.P's, 7; Colonels, 5; Lt.-Colonels, 4; Majors, 5; Captains, 2; Professors, 3; Ladies, 75; Press, 16; and quite a number of members attended the R.I.B.A. dinner last Friday.

*

The R.I.B.A. had been the scene of three social occasions in a week. It may have been this or a President who was not afraid to give anyone a hint that kept the speeches to four and their length reasonable.

*

The time schedule was: 7.42, dinner began; Sir Philip Sassoon, 9.2-9.18; The President, 9.20-9.33; Mr. Fletcher, 9.38-9.50; Sir Eric Maclagan, 9.52-10.3.

*

It is almost impossible at societies' dinners, not so much to say something new, as to sound as though one were. The things that have to be said trail a cloud of apathy over the good things that may be tucked in later on.

*

As far as I remember the First Commissioner of Works, one whose taste entitles him to attention, hinted that the modernists had still a long way to go and had better be very careful; for there was a little matter of scale and proportion on which they had not yet convinced everyone they were right.

*

The President defined "the education of the public" as "a nasty phrase used by those who aim to induce others to buy what they themselves have to sell." He also defined Associates as those tested and approved by examinations; Licentiates as those whose record of serious architectural practice could be accepted in lieu of a test; and Fellows as ex-Associates or ex-Licentiates mellowed by time.

*

He then mentioned the Registration Bill, planning and competitions. Mr. Fletcher was quietly witty in a way that cannot be quoted. Sir Eric Maclagan ended with a warning that the Georgian group were already depriving us of commissions and if they were followed by a Victorian group our situation would be even worse.

DAWN OF GEORGIANISM

Sir Eric Maclagan's warning should be noticed—even if it was not intended too seriously. The success of the Georgian Group within a short time has been extremely large, and architects are naturally pleased that a very widespread and homogeneous manner of building—neither showy nor dramatic but just quietly civilized—should at last be recognized as worth keeping.

*

They cannot now, however, stop thinking about the question with a warm feeling that "the public" is not so bad after all, or they will soon find themselves in serious difficulties.

*

They will find that every bit of Georgianism everywhere will have its local defenders who will apply for help, when it is threatened, to the Georgian Group, who will expect the benevolent interest of the R.I.B.A., which will find itself increasingly treading on the toes of its individual members.

*

In short, the R.I.B.A. ought to have a policy in this matter. For it cannot, without losing prestige, extend its support as a Learned Society to the idea of keeping a particular building, while simultaneously as a Trade Union giving tacit encouragement to one of its members who, in the normal conduct of his practice, is interested in the demolition of that building. The analogy of the Bar does not cover such cases. Both Destroyers and Preservers are entitled to expert advice, but the R.I.B.A. should be judge and not advocate.

*

The solution for the Institute would seem to lie in its preparing a list of buildings which it itself is prepared to defend to the utmost—and to go on defending with a loud and continuous trumpeting even when the battle is lost. Thereafter in the case of buildings not on the list it ought to be prepared to state the case on both sides, but should refuse to become a partisan.

"100% SAVING"

From time to time this JOURNAL's opinionated technical expert takes me to see demonstrations of this and that, and, because I have a kind heart, I go away believing everything. Until the representative of a rival firm calls the next day and explains that the figures are all faked anyway.

*

It is quite easy to argue about a whole lot of things in the building industry, and for many purposes the "best" simply doesn't exist, or if it does it's a matter of personal prejudice. But take this question of lighting. A sixty-watt lamp gives out a certain (measurable) amount of light: you can take this light and squirt it upwards or downwards or sideways or diagonally, but *nowhere* can you get more than the lamp itself gives out. So far no manufacturer I know has claimed that he can, but most of them claim to be able to get more than anyone else. For the manufacturer who simply says "this is a nice-looking fitting and it gives a pleasant kind of light," I have

A pencil portrait of Mr. Dudley Harbron, F.R.I.B.A., by Mr. L. W. Suddaby. The portrait was executed during a sketching evening at the Hull Arts Club, from the chairmanship of which Mr. Harbron has just retired.

every respect: and neither my client nor I cares about the extra .0001 of a penny an hour.

*

Driven by competition or a desire for progress, however, nearly every lighting manufacturer or association is now advocating more lamps, fewer lamps, patent lamps, more or fewer fittings. And no one so far as I can learn has worked out where and when one type is better than another and why.

*

Instead of inundating us all with booklets quoting greater efficiencies and greater economies, if a manufacturer were to produce a handbook telling when to use particular types—supporting his arguments by some evidence—I am certain he would do a brisk trade. Let us look forward to "Where and When in Lighting."

AIR RAID PRECAUTIONS

I have been reading the correspondence under this title in the JOURNAL with the greatest care. The questions raised have been of such moment that it has been almost unavoidable that correspondents should stray from the immediate point at issue.

*

This point was, I think, whether architects should now take an active part in Air Raid Precautions, both in order that by their skill they should increase the effectiveness of the precautions now being taken and that, should war break out, they would constitute the core of a skilled anti-aircraft corps of a passive kind.

*

Apart from the writers' feelings about the present Government's foreign policy, it has appeared to me that the question put in most letters was whether or not the precautions capable of being taken were so few and feeble that for architects to take part in them, and advocate their extension, was tantamount to taking part in a deception of the public of the gravest kind.

*

In my view the matter stands thus: The individual architect, whatever his feelings about the present Government, must make up his mind whether he is prepared, in the last resort, to help that Government resist the dictation of a foreign Power. If he is so prepared, then he ought to suggest that a committee of architects, selected from both Right and Left wing political opinion, should investigate A.R.P. thoroughly (not forgetting the lessons of Spain) and report to their fellows.

*

In such a matter the individual cannot judge for himself unless he is an expert. And if such a committee reports that the thorough execution of A.R.P. will make a substantial material (not purely psychological) contribution to the safety of the public, *then*, I think, architects should decide to take an active part in the precautions.

SOCIAL CENTRE

I have just received details of the International Building Club, which "was formed to provide a business and social rendezvous for members of the professions and trades connected with the building and allied industries and to provide what has undoubtedly long been needed, i.e. a central organization which would not seek to usurp the functions of existing bodies, but which would afford a social rendezvous for those associated in executive capacities with the largest industry in the Country."

*

Most architects I know like their clubs to be places where the building industry *isn't*. But as the list of Vice-Presidents includes nearly all the big estate agencies in London there will presumably be some potential clients about as well.

*

I do not think I need say anything more to help you make up your mind except to add that the club premises will probably be in Carlton House Terrace.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

LONDON'S FIRST AIR RAID SHELTERS

The first air raid shelters to be built for a London local authority were opened at the Caxton Hall, Westminster, by the Mayor of Westminster, Councillor H. S. E. Vanderpant, on February 10.

The shelters, which have been designed and erected by Messrs. Richard Costain, Ltd., to the requirements of the Westminster City Council, are of two types. The first, situated in the basement, shows how a room in an existing building can be adapted as a refuge. The second, built within the area of Caxton Hall, is of the outdoor gallery type, lined with steel, and covered with rubble and sandbags to a depth of 2 ft. 6 ins.

NORTHERN ARCHITECTURAL STUDENTS' ASSOCIATION

The annual Congress of the above Association will be held in Liverpool on February 17, 18 and 19. It will be opened to-day by the Lord Mayor of Liverpool and the guest of honour will be Mr. E. Maxwell Fry, who will speak on "Tendencies in Contemporary Architecture." Reports on conditions in the building industry and the architectural profession, and on education will form the basis of the general meetings. Professor Holford of the Department of Civic Design at Liverpool will address the Congress at another meeting, and Mr. John Gloag and Mr. G. Langley Taylor, the assessors of a competition in connection with the Congress for timber houses, will make their awards. An exhibition of the work of students of fifteen countries will be on view in the School. The drawings submitted in the recent competition for a glass house to be built at the Ideal Homes Exhibition, Olympia, will also be exhibited.

SCHOLARSHIPS IN ARCHITECTURE

The Architects' Registration Council of the United Kingdom offers for award in June, 1938, certain maintenance scholarships in architecture.

The scholarships will consist of a grant for the payment, in whole or in part, of the school fees and necessary subscriptions, instruments, books, etc., and, when necessary, a maintenance allowance not to exceed, as a rule, £100 a year. The scholarships will be renewable from year to year until the student has finished his or her school training. They will be available for students of British nationality who could not otherwise afford such training to enable them to attend architectural schools approved by the council.

Particulars and forms of application may be obtained from the Secretary to the Board of Architectural Education, Architects' Registration Council of the United Kingdom, 68 Portland Place, London, W.1. The closing date for the receipt of applications is March 21, 1938.

THE ARCHITECTS' DIARY

Thursday, February 17

SOCIETY OF ANTIQUARIES, *Burlington House, W.1.* "*Westminster Abbey: (1) The Boleyn Tomb: (2) The Site of the Anchorite's Cell.*" *By Sir Charles Peers and L. E. Tanner.* 8.30 *p.m.*

SCHOOL OF BUILDING AND ARTS AND CRAFTS, *Lime Grove, Hammersmith, W.12.* "*Furnishing.*" *By Serge Chermayeff.* 8 *p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS. *At the Institution of Civil Engineers, Great George Street, S.W.1.* "*London's Building By-laws and After.*" *By H. Berry.* 6.30 *p.m.*

Friday, February 18

REIMANN SCHOOL, 4–10 *Regency Street, S.W.1.* "*Design with the Gloves Off.*" *By Charles Marriott.* 8 *p.m.*

Saturday, February 19

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. *Visit to Skinners' Hall, Dowgate, E.C.* 2.30 *p.m.*

Monday, February 21

R.I.B.A., 66 *Portland Place, W.1.* "*The Work of the Miners' Welfare Committee.*" *By J. H. Forshaw.* 8 *p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS. *Midland Counties Branch, Junior Members' Section. At the James Watt Memorial Institute, Birmingham.* "*Modern Methods of Road Construction.*" *By N. P. Brand.*

Tuesday, February 22

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C.1.* "*The Training of an Architect.*" *By H. S. Goodhart-Rendel.* 8.30 *p.m.*

HOUSING CENTRE, 13 *Suffolk Street, S.W.1. Tuesday Lunches. Lecture by Irene Ward, M.P.* 1 *p.m.*

Wednesday, February 23

LIGHTING SERVICE BUREAU, 2 *Savoy Hill, W.C.2.* "*Sources of Lighting Inspiration.*" *By E. H. Berry.* "*Plans for the Empire Exhibition, Glasgow.*" *By Campbell Murray.* 7 *p.m.*

ROYAL SOCIETY OF ARTS, *John Street, Adelphi, W.C.2.* "*Reclamation of Tidal Lands.*" *By Oscar Borer.* 8.15 *p.m.*

ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS. *At Friends' House, Euston Road, N.W.* "*The Future and the Architectural Assistant.*" *By W. G. Holford. Presentation of Prizes in the Essay Competition.* 7 *p.m.*

HAMMERSMITH B.C. v. SIR BRUMWELL THOMAS

The Hammersmith Borough Council has decided to appeal against the judgment Sir Brumwell Thomas obtained against the Council.

HANTS AND ISLE OF WIGHT ARCHITECTURAL ASSOCIATION

Reference to the Architects' Registration Bill was made by Mr. H. S. Goodhart-Rendel in his speech at the annual dinner of the above Association. He said it had been the subject of some criticism. To those who said that the promoters of the Bill were attacking the liberty of everyone who wished to build his own house, he would say "Please read the Bill." All that the Bill sought to do was to tell the public who was an architect, in the same way that they were told who was a doctor, and to protect the term "architect" from being used professionally by unqualified persons.

The President continued: "It seems extraordinary to me that anybody should object to that. An ignorant architect can be as dangerous to life as an ignorant doctor, and the man who employs either ought at least to know what he is doing. Of course, not every unqualified architect or doctor is ignorant, and not every qualified one is knowledgable. No amount of examinations can ensure a man against loss of memory. But to buy a doorplate and some stamped notepaper with the word 'architect' upon them is at present absolutely all that a man need do before inviting other people to put their money and health in his hands, and I cannot see how this state of things can be reasonably defended by anybody."

The Bishop of Winchester pointed out that it was frequently said that modern architecture was ugly and unimpressive. The people who said that were the same people who, 20 years ago, were saying that architects were simply imitating the past, and that twentieth century architecture had no merit of its own. He admired modern architecture, of which he knew many fine examples.

L.C.C.

At Tuesday's meeting of the London County Council the Committee submitted a scheme, estimated to cost over £95,000, for the erection of four blocks of flats containing over 160 dwellings with accommodation for about 785 persons on a site, three acres in extent, in Thames Street, Greenwich. The scheme also includes provision for a children's playground. In another report the Committee recommend the acceptance of a tender involving expenditure of about £35,000, for the erection of the first block of flats on this site.

R.I.B.A. NEWS BULLETIN

Royal Gold Medal.—H.M. the King has approved the award of the Royal Gold Medal to Mr. Ivar Tongbom, Hon. Corresponding Member, Sweden, "in recognition of the merit of his work as an architect." The medal will be presented at a General Meeting on April 4 at 8.30 p.m.

Health, Sport and Fitness Exhibition.—This promises to be the most successful Exhibition that the Exhibition Committee have yet staged, judging by the interest that has already been aroused in the press and among the many societies concerned with the various aspects of its embracing title. Lord Aberdare will perform the opening ceremony on Wednesday, March 2, at 3.30 p.m. After tea has been served, Mr. John Gloag, HON.A.R.I.B.A., will lecture on "The Object of the Exhibition." R.I.B.A. members do not need cards of invitation to the opening ceremony.

General Meeting.—On Monday next, February 21, Mr. J. H. Forshaw, M.C., M.A., F.R.I.B.A., on "The Architectural Work of the Miners' Welfare Committee," in whose organization he is Chief Architect. The work of Mr. Forshaw and his staff enjoys a high reputation among architects, so a good attendance is to be expected.

Touring Exhibitions.

"Airports and Airways" is opening in Belfast on Monday next, February 21.

"Civic Centres" is at the Public Library, Museum and Art Gallery, Folkestone, until March 13.

"Modern Schools" is opening at the Corporation Museum and Art Gallery, Newport (Mon.), on February 28.

IN PARLIAMENT

Sir W. Davison last week in the House of Commons called attention to the proposal of the Post Office to erect a telephone exchange at Sidmouth Lodge, in The Boltons, South Kensington. He said that the site had been

town-planned since 1932 for private residents only. He had presented to the Postmaster-General a petition from local residents on the proposal, which was also disapproved by the Kensington Borough Council, the town-planning authority. Why, he asked, to save a few pounds, should the Post Office put up a telephone exchange in The Boltons while in the immediate vicinity there was a commercial site, which though a little more expensive, would be equally suitable and would not outrage the inhabitants ?

The Government reply was entrusted to the Assistant Postmaster-General (Sir W. Womersley) who said that to provide the necessary service for the people of Kensington it was desirable to have a telephone exchange in the centre of the district. The Post Office requested the Office of Works to look for a site, and when it was found that the site at Sidmouth Lodge was the best for the purpose because it was central and could be purchased without the Department being plundered, the L.C.C., the town-planning authority, was approached. The L.C.C. gave permission to erect a building provided that it did not exceed 40 feet in height. The building would not occupy the whole of the site.

EXHIBITIONS

[*BY D. COSENS*]

THE arbitrary division of painting into sections labelled abstract, surreal, or representational, is misleading. They overlap, their differences are superficial, and to appreciate one, it is necessary to understand and to correlate all three.

Abstract art, the direct descendant of cubism, has no exact counterpart in painting before this century. It is a comparatively recent reaction both from representationalism's final degradation at the hands of traditionalists and the camera, and at the same time from its apotheosis by the impressionists. In terms of naturalism it seemed that the last word had been said. The constructive idiom superseded the traditional, and geometric shapes became the basis of design, but the problems which have always been the preoccupation of every painter remained unchanged and unresolved.

Surrealism is both a psychological awareness and a recoil from the cold logic of abstraction. But the qualities that we now define as surreal have repeatedly appeared in painting, not by chance, but almost certainly as a conscious experiment.

Traditional, representational art, gives what the eye sees, or, at its best translates in terms of paint, and holds for ever in suspension, the vision of a particular moment. Surreal art, supercharged with emotion and disquiet, carries the vision a step further, and translates it in terms of the subconscious. Abstract art is composed in terms of the exact relation of impersonal shapes within a definite space area—it is the purest of all art forms and has the nearest affinities to architecture But it is not, and no more can be, detached from the problems and passions of everyday life than can any other art form. The artist who retreats from the world to an ivory tower almost invariably ceases to be able to create.

In the collection of contemporary drawings at the London Gallery representationalism is freely and originally rendered by Julian Trevelyan, and the abstract idea is clearly stated in the works of Hans Erni (a particularly good example), Gabo, Léger, Ben Nicholson, Picasso, Jackson, Stephenson, and many others. Henry Moore contributes the best surreal work, while Paul Klee keeps his lonely and precarious balance. Barbara Hepworth's carving controls the room in the remarkable way that is the peculiar quality of her work.

•

Contemporary Drawings. The London Gallery, 28 Cork Street, until February 26.

LABOUR RATES

In next week's issue of the JOURNAL a loose Supplement will be published giving the new Labour Rates for the principal towns and districts throughout the country. The Labour Rates are intended for use in conjunction with the Prices Supplement, and additional copies will be obtainable from the JOURNAL.

LETTERS *FROM* READERS

Publicity for Architects

SIR,—The speeches at the debate on "Publicity for Architects," held recently at the Architectural Association, did not, in my opinion, bring out what are the essential facts which the public should know about architects ; nor by what means these facts should be conveyed.

I am convinced that the major reason for architects being so little employed is ignorance on the part of the public, and I feel it is an urgent and necessary task for the R.I.B.A. to enlighten it. I think it is absolutely essential that the prevalent idea that an architect is merely a person who puts art into buildings and thereby adds unnecessarily to their cost, should be dispelled, and that people should realize that more economic as well as "commodious, fit and delightful" buildings will be obtained by employing architects ; in fact, that it "pays," in whatever sense the word is used, to do so.

I think that there is also great ignorance as to the architect's technical knowledge, which not only enables him to plan and build more efficiently and economically than an untrained person, but also to protect his clients against poor materials and workmanship ; in fact, that to employ an architect is an essential form of insurance.

The R.I.B.A.'s magnificent efforts in organizing permanent exhibitions and lectures will doubtless do much good, but I wish that first and foremost it would concentrate on organizing some form of machinery for putting across the above messages.

J. B. DREW

Air Raid Precautions

SIR,—As Douglas Smith, in your issue of February 3, 1938, in connection with the next slump, appeals for "some pretty clear thinking," and your footnote indicates a breadth of vision, will you permit please a brief reply to "Architect and R.E. Officer" ?

Say what he will, air-raid precautions *do* form an inseparable part of militarism and modern warfare.

Lecturing upon the subject recently a senior official looked forward to the time when A.R.P.s would become a fourth service like the Army, Navy and Air Force (hurrah for caves and mother earth !). Let us be frank. Other people's defence and their fears impel air offence and more fears and vice-versa, and so on and on and up and up.

As creative artists it seems to be incumbent upon us architects, no less than upon those who practise medicine or serve the Church, etc., to repudiate vigorously all forms of savagery and brutalism. I *know* that war *is* both of these.

Art is international and universal. Our task is to add to life's amenities, and this, so it seems to me, is in accord with the purpose of the Great Architect of Time and Space.

I would therefore plead that our profession should recognize before it is too late its own responsibility, stand firm against the rot which is setting in, and refuse to debase any of the ideals for which we stand.

ANOTHER ARCHITECT

SIR,—With reference to the recent correspondence in your columns about architects and air raid precautions, you are quite right in drawing attention to the fact that questions involving political principles only are not suitable matter for the JOURNAL.

But the question as to whether architects should or should not assist local A.R.P. committees can be confined to the purely professional aspect. Can any responsible architect, whatever his politics or views on "defence," honestly give his support to A.R.P. measures which his technical knowledge and intelligence must tell him are, and always will be, useless so far as protection of property and persons is concerned in the event of a modern air attack ?

Surely, if he is at all public-spirited, he should rather, at this time of crisis, fulfil his "calling" by working *constructively* for peace.

R. FRASER REEKIE

A.A.S. T.A. ESSAY COMPETITION

Extracts from

THE ASSESSORS' REPORT

A most interesting competition; the general standard of the twenty-nine entries is very high. The competitors show a convincing unanimity on the nature of the disabilities which are suffered by architectural assistants both in private and public offices. They are almost as unanimous—a thing that gave the assessors much pleasure—on the importance of placing architecture before personal interest. Nearly every competitor made it clear that sectional clashes within the profession, though unavoidable, must never be allowed to interfere with the pursuit of architecture as an end.

They (the Assessors), after careful study, have placed the prize-winning essays in the following order :—

1. Personally. 2. Stack. 3. Baffles.
Commended—Polonius.

Personally, *in their opinion, wins the first prize on his general survey of the architectural scene, a masterly summary which in the space of 2,500 words paints a detailed picture of a vast panorama without losing sight of—in fact, while bringing into relief—its salient features.*

The assessors are impressed with Personally's *survey of the profession and his statement of the issues before the assistant, which are well-reasoned, boldly expressed, and free from the limitations of a sectional attitude. At the same time the assessors would like to point out that his refusal to observe the Great Tabu (his determination, in other words, to talk politics) lands him in the end with a solution which he has little right to put forward in view of his earlier expressed conviction that architectural strategy will have to deal for a long time to come with a continuance of "capitalist wickedness." The assessors regret that his solution seems to them rather make-believe, the kind of pseudo-socialism which the Great Tabu seeks to avoid; for the Great Tabu is a convention, observed by those who wish to safeguard themselves—and others—against the use of loose generalizations as a substitute for concise statement. All the same he gets the first prize.*

Stack *is placed second, as being the competitor who classifies and analyses in the most conclusive way the list of existing disabilities under which assistants in general feel themselves to be suffering.*

Stack's *essay is not highly diverting, but it is soundly thought out, and the classification of grievances (which is a necessary line of approach to the subject), sums up in a simple, concise way nearly all the points raised in most of the other essays. On this he wins second place.*

Baffles *is in a class by himself. His incise, malicious debunking style is highly stimulating, his great asset being a power to entertain even while he mortally offends. His attack on the R.I.B.A. and A.A.S.T.A. is bold if false, but his rather patent effort to mollify two of the assessors at the expense of the third is, in their view, a piece of naughty cynicism. They have not, however, let this weigh with them except in so far as it strengthens their suspicion that he is inclined to regard irony as a substitute for constructive suggestion. Had his programme been as well defined as his displeasure he would undoubtedly have won a higher prize. He gets the third, not on literary merit, but on his clear exposition of the problems involved, including particularly his emphasis on the fact—which few other competitors appear to appreciate—that there are categories amongst assistants, that one of the chief problems facing salaried architects as a body is the fact that they are themselves divided into types with diverging objectives.*

As announced in last week's issue, the assessors (Professor C. H. Reilly, Mr. H. de C. Hastings and Mr. F. J. Maynard) of the A.A.S.T.A. Essay Competition on "The Future and the Architectural Assistant" made their award as follows :—

1st Prize (£20) : "Personally," R. D. Manning, L.R.I.B.A., 2 Pentley Park Welwyn Garden City, Herts.

2nd Prize (£10) : "Stack," Ailwyn Best, B.ARCH., A.R.I.B.A., 6 Milborne Grove, S.W.10.

3rd Prize (£5) : "Baffles," Malcolm Mactaggart, L.R.I.B.A., Bridge House, Welwyn, Herts.

Specially Commended : "Polonius," A. P. Hodgson, 286 Derington Road, London, S.W.17.

Extracts from the assessors' report are printed on this page and the essays placed first and third are printed on this and the following four pages. We hope to print the essay placed second in our next issue. In connection with the competition a public meeting will be held under the auspices of the A.A.S.T.A. at the Friends' House, Euston Road, N.W.1, at 7 p.m. on Wednesday, February 23, when Professor W. G. Holford will speak on "The Future and the Architectural Assistant." Mr. F. J. Maynard, President A.A.S.T.A., will be in the chair, and Professor Holford's talk will be followed by a discussion.

ESSAY PLACED FIRST :

BY R. D. MANNING

THE strongest tabu in professional circles is centred round politics, based on the justifiable conviction that professional activities must not depend on the insincerities and chicanery of party politics. But politics today are rapidly crystallizing into a straightforward fight between Capitalism and Socialism and differ fundamentally from the toy battles of pre-war days. The future of architectural practice, and therefore of assistants, is bound up in the political conditions of the next generation, and it is futile to ignore this. It is most noticeable that discussion of any architectural subject in these days, if pursued long enough, leads to politics, and it is very amusing to listen to speakers trying simultaneously to pursue their arguments and observe the great tabu. It is impossible, and that is why these discussions are usually vague and inconclusive. I do not propose to observe the tabu.

In pre-war days the architectural profession was a pleasant gentleman's career, in the pursuit of which a steady flow of large houses was punctuated by occasional "plums" in the shape of schools, council offices, et cetera, for the local authorities, commercial buildings, or churches. The wealthier minority of the population, among whom most clients were found, enjoyed such a lush and steady prosperity that the private architect could enjoy himself attending to his jobs, without much anxiety about obtaining more when they were finished.

Such vulgar matters as suburban development and the existence of vast slums which were gradually falling to pieces, such sordid buildings as factories where the money was made which paid for the country houses, these did not impinge on the rarefied atmosphere in which moved the architect.

There existed, by the way, a small body of men in the employment of some official departments and local authorities who carried out routine and unimportant architectural work, usually in subordination to engineers and surveyors. They were almost invariably men who had not the ability, ambition, or social position to practise independently, and were considered very small beer by the profession as a whole.

The organization of architects was very similar to that of the medieval guild. Most offices were small, the ratio of principals to assistants being large. Any young man entering the profession did so with the intention of opening his own office ultimately and, in the prevailing conditions, most were able to do so after a few years' apprenticeship.

Despite the evident faith of a certain section of the profession today, these conditions have vanished for ever.

The operation of capitalism is displaying all the manifestations foretold by Socialists. Industry is rapidly becoming concentrated in huge monopolies, markets are shrinking, wealth is gravitating towards a decreasing section of the community. The classes from whom architects used to draw their clients have less money and are yearly more uncertain of getting it. Slump follows boom with regularity and at ever-shortening intervals.

At the same time knowledge of the value of the architect's work is spreading, though the angle from which this value is viewed varies widely. The focus of private practice has shifted to commercial work. The large country house has become only a pleasant memory. Houses costing more than £5,000 are now a rarity. On the other hand, a huge demand for small houses costing between £400 and £1,000 is only now showing signs of being satisfied. The scandal of the slums has become so blatant that it can no longer be ignored. The leaven of Socialism has worked sufficiently to produce a demand for increased social services and educational facilities.

These changes in conditions have, naturally, produced profound reactions in architectural practice.

Commercial work is on a larger scale than pre-war practice, and yields much higher fees in proportion to the labour involved. Commercial clients, drawn from a class very different from clients before the War, regard their buildings largely as advertisements, which must therefore outstare their

neighbours, and help in winning a share of the dwindling business available. A large number of men have been attracted into the architectural profession by the high fees obtainable from this work. Their mentality is wholly opposed to the professional idea, the desire to do a job well for its own sake, because one likes it, without regard for the financial return, provided one can earn a decent living. These men seldom have architectural ability or interest in the work. But they are "good business men," a euphemism for lack of scruples in obtaining work and a flair for toadying and touting. Their mentality is in complete accord with that of the commercial community, and they are therefore far more successful in securing jobs in this field than what I will call real architects.

Suburban building development after the War offered an opportunity to architects which they foolishly lost. The mirage of the country house tradition blinded them, and they scorned the effort of converting the speculative builder to the virtue and advantage of laying out estates and designing houses properly. When builders discovered that the label "Architect-designed" added to the selling value of houses, the unqualified architect, who had never before been a serious problem, stepped into the breach left undefended by the real architect. Operating on a smaller scale, he employed the same methods as his big brother, the "Business Architect." Builders, who had little discrimination in such matters, were only too pleased to secure the desired label at much lower fees. When the real architect at last awoke to his responsibilities and to the chance he had lost, he had great difficulty in persuading the builder to believe in his virtues and, now that he is enjoying some success, there are signs that the demand for small houses is ending.

Even the field of commercial practice is beginning to contract. As industry proceeds towards monopolization, and commercial building comes under more central control, many firms are finding it economical to employ salaried architects.

At the same time, local authorities and certain Government departments are carrying out programmes of building for the community, post office buildings, schools, slum clearance and rebuilding, hospitals, libraries, and so on, programmes which are only in their infancy and show every sign of continuing and developing. They have found it convenient to establish permanent architectural staffs, who can work in close contact with their other departments, and this system is so much more economical than that of employing private practitioners, that they can offer salaries and conditions which are increasingly attracting the best type of architect, who before the War would have automatically entered private practice.

Simultaneously with these developments, there has been a change in the means and conditions of entry into the profession. Most men, before the War, started by serving articles in offices. During the last twenty years, however, this system has declined. A tendency is increasing to attend architectural schools, which have been established widely from Plymouth to Aberdeen. After a course at one of these schools, usually lasting four years, a student, having passed examinations, and had one year's office experience, can apply for election as a qualified architect. Since the War, opportunities abroad, which were once available for large numbers of educated young men, have dwindled, and this is partly responsible for a large increase in the number of entrants into the professions, including architecture. The overcrowding has been increased by the facilities provided by the secondary schools and evening schools for poorer boys to compete for the same work.

The future of architectural practice obviously depends on the political future. If Socialism replaced Capitalism in this country, the future would be more hopeful than it is likely to be, in fact, for many years, because the volume of work of all kinds which is necessary to make full use of modern productive capacity, which cannot be attempted by Capitalism, is so vast that, if it was carried out by a Socialist regime, there would be little question of overcrowding in any occupation, professional or otherwise.

There seems little immediate hope of such a change, however, and we must reckon with the continuation of the present system for the time being. But I believe that the change to Socialism will eventually happen and the implications of such a change must be borne in mind. I shall discuss the immediate future as far as it can be foreseen, but I shall also make a suggestion for completely reorganizing architectural practice, which I believe would solve most of the existing difficulties of the profession, and would be of immense benefit to the community. It would result in a system perfectly practicable under modern conditions, but with the great advantage of being easily adaptable to Socialist conditions.

So long as Capitalism survives, the alternation of slump and boom will continue. Industry will continue its course of concentration into monopolies. The fight for international markets, which are essential if Capitalism is not to collapse, will inevitably lead to more wars (if it leads to another general explosion, the future of the assistant will be of little interest. I am therefore ignoring this possibility).

Present Tendencies

Present tendencies in architectural practice will continue and intensify. The assistant, assuming that he is what I have called a real architect, has two alternatives before him. He may choose to remain in private offices. If he works for the better sort of architect, he must resign himself to the small salaries this hard-pressed section of the profession can pay. He will alternate between periods of work at high pressure, including probably overtime for which he will not be paid, and periods of demoralizing idleness during slumps; when he will be very lucky if he even retains employment. If he has a substantial private income, he may succeed in establishing an office himself, but his earnings are most unlikely to be more than an addition to his private income; they will not provide a reliable livelihood. If he enters the employment of business architects, he has practically no hope of practising independently, even if he has the mental and moral equipment. The business architect will decrease in numbers, as his office increases in size. Even today, staffs of forty and fifty are becoming common. The assistant's only hope will rest in the chance of being taken into partnership, a hope which will decrease as do the number of independent establishments. He may find more hope of higher-paid posts in the staffs of the commercial firms, but these offices, specializing as they do in work which is not inspiring in its motives, are unlikely to be congenial to any man genuinely interested in his profession.

The only thing the assistant can do for his own benefit is to organize on trade union lines to extort the best terms he can from his employers. His power of doing this will be limited, because the real architect will be unable to pay more, if as much, as he can today, while the business architect, with whom profits are paramount, will quickly take advantage of any plethora of assistants to repudiate agreements made under conditions favourable to his staff, and to discharge any men who protest.

If, alternatively, the assistant enters public service, he has considerably better prospects. Local authorities are undertaking an increasing variety of work, and unless he remains with one of a few large authorities, where the work is specialized, his job will be quite as varied as in most private offices. The salaries paid, if uneven, are as high as private architects can pay, and he has the prospect of a pension when he retires, and other advantages. A large and increasing number of authorities are employing architects as officers independent of their engineers and surveyors, and although they have their failings, committees are more likely to listen to their architects, as technical experts, than is the typical private client, who "knows what he likes." Lastly, the official architect, if he is a Socialist, as are the majority of the younger men adopting this work, has the satisfaction of knowing that his work is done for the community, and not for a small section of it.

Interference

There is, nevertheless, much to be done in improving the conditions of official employment. Architects are still too commonly regarded as officials inferior to men of other professions, even where they are not actually subordinate to them, and assistants are too often regarded as a kind of "Drawing Clerk." Architects' departments are interfered with too much by other departments. These defects can be remedied by propaganda, by the efforts of individual chief architects, but, above all, by organization. Other professions, such as medicine, have succeeded by organization and a high standard of qualification, in securing recognition of status and levels of salary proportionate to their responsibilities. Architects can do likewise, if they will organize. The individual character of their work must be recognized, senior assistants must be allowed to carry their jobs right through, including any necessary interviews with committees or with other officers or outside authorities. They must be allowed to run their departments as architects' offices, and not as if their staffs were a species of superior clerks. Their work must be recognized as being of equal importance with any other department. Salaries and pensions should be standardized within reasonable limits, on a national basis, so that assistants have opportunities to work where they like, and to change their jobs for experience if they wish. Organized influence can, and should, be used on the Government and local authorities with a view to official building programmes being planned over long periods, so that the slumps and booms of Capitalism will not again be made the excuse for disgraceful panics.

There is, however, a possible reorganization of architectural practice, which will be called revolutionary, and is so. It is none the less practicable. Indeed, the only obstacle to it, which I do not belittle, is psychological, not practical.

A National Service?

Architecture should become a national service. I do not mean a Government department. The proposal is based on an appreciation of the present difficulties of the profession, and of the deep-rooted trouble from which the community suffers today due to general lack of planning, bad design, and shoddy building. The average standard would be incalculably higher if all planning, design and building were compulsorily carried out under the supervision of qualified architects, collaborating with engineers and surveyors where necessary.

In existing conditions, the chief obstacle to carrying through any such reform is (apart from ignorance of the function of architects, which is a matter of education) the level of fees charged by the private architect. These fees, even when they undercut the scale maintained by the Royal Institute of British Architects, are ultimately derived from that scale. The scale itself is calculated to provide a private architect with an adequate income, assuming that he secures a fair share of the limited field of activity left to him.

At present what happens is that a few business architects earn very large incomes, by virtue of the fact that they do not really practise architecture. They employ a large and increasing number of architects, who would be capable, in different circumstances, of working as principals. In addition, there is the large body of real architects whose abilities are to a great extent wasted, because they cannot obtain sufficient work to occupy them. It is therefore obvious that, with proper organization, the profession could cope with a vastly greater volume of work than it actually does. It has been calculated, however, that architects are only responsible for about 10 per cent. of the building done in England. Obviously, if architects were responsible for all this work, there would be no question of overcrowding in the profession, and the fees on individual jobs could be so much reduced as to form a negligible proportion of the total cost. The problem is, how to reconcile these factors.

I suggest that the following is a practicable solution :—

First of all, no unqualified architect should be allowed to practise as a principal. Recent events in Parliament show that this step is within measurable distance of fulfilment. Secondly, the country should be divided into convenient areas. Those covered by the provincial societies allied to the R.I.B.A. might be taken as a basis. A committee would be appointed for each area, composed of representatives of the various interests concerned, architects, builders, the central authority (which would, of course, be necessary), the public and others. Anyone intending to build would apply to this committee which would keep a register of all architects working as principals in the area. The work could then be allotted so as to provide each principal with as much work as he could cope with.

It would be found, I believe, that the fees necessary would be very small. These would be paid into a national fund, through the local committees, which would be used to pay all architects definite incomes, based on their respective positions.

I have not space to deal with hypothetical objections which would be made to this suggestion, but I have thought of many and they can all be answered.

The advantages of the scheme, in addition to the facts that the present spoliation of England would be stopped, and the whole architectural profession fully occupied in stopping it, are many. The business architect would disappear, because the attraction of the profession for him would be removed. The real architect would come into his own. He would, I believe, be only too glad to be able to devote his time to his work, secure of his livelihood, free to make his own friends without ulterior motive, free of the necessity for wasting time and money entertaining people he may dislike and despise, and all the other degrading expedients forced on him under present conditions.

The assistant's position would be enormously improved. It would probably be necessary to have some special qualification for becoming a principal, and his admission as such would have to be dependent in some way on the volume of work available. But these are matters of detail. The essential is that the chances of attaining such a position would be immeasurably better than they are now or can ever be again under present conditions, while so long as he remained an assistant, he would have the assurance of a proper salary scale and pensions scheme, the latter being operated by the central authority in the same way as the salaries.

There is no reason why official architects should not be organized under the same scheme. Indeed, it is desirable that they should be. They would thus recover their independence, loss of which is one of the chief criticisms made of the existing system.

I believe that some such reorganization of the profession is not only possible, but necessary. Otherwise, I believe that the business architect will ultimately kill private practice by discrediting it, industry will rely on salaried staff architects for its work, the real architect will be finally driven out of practice, the small residue which he still secures at present will fall into the hands of the builder's draughtsman, and the profession will survive as a body of architects employed by official bodies, a most undesirable consummation.

A.A.S.T.A. COMPETITION
ESSAY PLACED THIRD:

BY MALCOLM MACTAGGART

WHAT does the future hold for the architectural assistant?

If we leave out of consideration the incidence of any major calamity such as war or pandemic disease—when the effects would be incalculable—we may conjecture (with at least some degree of reasonable assurance) that during, say, the next ten to twenty years, many of the possibilities and probabilities today occupying the mental horizon of the architectural assistant will have passed into resolution or re-direction.

What, for instance, will be the upshot of the "salary question"? What will be the future constitution of the Council of the R.I.B.A.? What will be the ultimate status of the Registered Architect? Will the profession become *effectively* a "closed" profession? And so on. Such conundrums should proffer their respective solutions.

In the space at my disposal (I am warned to be brief) I shall venture upon some discussion of the architectural assistant himself, and, in a summary of (some of) the economic and psychological factors by which today his existence is most obviously and specifically conditioned, leave the glimmerings of his future to declare themselves in the light of the reader's own imaginative proclivity and capacity for constructive guess-work.

Who is "the architectural assistant"? If we are to avoid misunderstanding our subject *ab initio*, we shall need to recognize at least three distinct types of assistant within the one classification. Thus, first, there are those who are architectural assistants in the intention of learning their craft, for whom the future must be obviously success or failure in that attempt. Second, there are those who, having once acquired the necessary technical knowledge and experience, are satisfied (or more easily satisfied than others) to remain architectural assistants. Third, there are those who are not satisfied to remain architectural assistants, but aspire to the greater independence, responsibility, and (presumably) monetary return attaching to the status of architectural principal.

Now, it is generally overlooked that between those who approximate to the second of these types and those who approximate to the third, a clash of interests exists. The second type is primarily interested (or becomes so, sooner or later) to look upon the architectural principal as a source of income or as an influential agent in the direct line of that source, and is therefore minded to maintain the present relative standing of assistant to principal, with more or less the sole proviso of getting out of it the best monetary return it is capable of yielding. For this type, the ideal professional mechanism consists in a difference of economic objectives such as pertains typically today between employers and employees, the ideal spanner to adjust the nuts and bolts of that mechanism being the trade union.

For the third type, however, such a difference of economic objectives is a cause for suspicion and irritation. Unavoidably, its members are interested in the question of cash return for services rendered—since they too have stomachs to fill and frequently dependents to provide for—but for them it is architecture itself (if there is such a thing) and not mere bread-and-butter that remains the prime workaday incentive. They have set out to find their lives in an activity of architectural creation, and from that objective they are not to be lightly dissuaded. To fall into line with the policy of a trade union (may I relate this remark to the A.A.S.T.A.?) is repugnant to their temperament, since in such a policy they recognize (or imagine they do) the innate acceptance of much that they are at pains to resist. They are individualists, and nothing is ever likely to turn them into good herd animals.

A glance at the numbers of the membership of the R.I.B.A., and the conditions of Fellowship of the R.I.B.A., will show the importance of understanding correctly the

nature of this main difference of type among assistants. In round figures, out of more than eight thousand corporate members, less than two thousand are Fellows. To "qualify" for Fellowship, the condition is that of having been for seven years in private practice in the position of architectural *principal*, or, if in salaried or official practice, for a similar period in a position of *responsibility*.

What qualification is necessary in order to become a principal or hold a responsible position? Are all those in a principal or responsible position fitted to be there? Are all those not in a principal or responsible position not fitted to be there?

It is obvious that the R.I.B.A. does not welcome such questions, since out of its Council of 81 members, in fact, not less than 60 members (an incontestable majority) *must* be Fellows. The principle of *commercial opportunity*—the principle wherein the undisclaimable policy of the control of the profession is vested—is to be tacitly accepted.

Mere tacit acceptance, however, is apt to prove an insecure foundation in the long run, and the suggestion is today becoming increasingly unmistakable that if architectural assistants as a whole (*the bulk of the non-Fellow classes of the R.I.B.A.*) were to achieve a unity of purpose, they could very easily succeed in getting a large part of their own way.

What is their own way? One does not normally ask questions about the future except to see how much of one's own way it is likely to contain. What is the "own way" of the A.A.S.T.A.? I remember reading in THE ARCHITECTS' JOURNAL some six months ago a letter from the secretary of the A.A.S.T.A. wherein a coming time was projected when the A.A.S.T.A. would be "a power in the land." The A.A.S.T.A. therefore wants to *be* something, namely, "a power in the land." It is therefore not surprising that those who want to *do* something are seldom enthusiastic about the A.A.S.T.A. They view the A.A.S.T.A. as an organization which, though no doubt designed originally for getting something done, has since lapsed into a mere self-maintenance society. They ask (with considerable justice) what would happen to the A.A.S.T.A. if the R.I.B.A. were to turn into a genuinely democratic organization? Would the A.A.S.T.A. be left with any good reason for continuing to exist? And so (not unnaturally) they argue that the A.A.S.T.A., intent upon becoming "a power in the land," can hardly be expected to exert itself in the direction of bringing the R.I.B.A. to its democratic senses. It would be suicide.

The plan which should be followed is, of course, painfully obvious. I have pointed out that "type 3 assistants" are suspicious of associating themselves with the objectives of "type 2 assistants." What, however, is there to prevent the two types from entering upon a joint policy of *impartiality?* Let come what may. Let the hatches be taken off and the true nature of the professional cargo exposed to public view. Let it be made certain that the part played by economic opportunism in appointing the professional "leadership" has been thoroughly grasped by all. Let the principle be openly proclaimed that the designer's name should be associated with his work, regardless of whether or not he occupies a subordinate position. Let it be a matter for commonplace discussion that the true interpretation of the function of "architectural principal" is that of publisher rather than of author—

Work in progress on the new Waterloo Bridge. On the other side of the river can be seen Shell Mex House (left), Brettenham House, and a corner of Somerset House.

that of encouraging and promoting what others besides himself may have to make by way of architectural contribution, rather than of the childish behaviour of forcing the acceptance of his own particular fads of taste and opinion upon his defenceless "inferiors." And much more besides. Let it all be a coldly impartial disclaimer of the degrading game of tacitly accepting impertinent implications.

I am saying, in effect, that to a great extent the architectural assistant *can* be the master of his own destiny. He numbers more than three-fourths of the total profession, and, should it now be the upshot that, either through apathy or distrust of his comrades, he fails to make the future more to his liking than the present, he will have only himself to blame. Do you agree?

While you are asking yourself that question, I will proceed with my projected summary.

A Scale of Salaries

The R.I.B.A. (I refer to that commercially favoured section from which the control is drawn) will probably give way *gradually* in the matter of fixing (or, at least, recommending "very strongly") anything like a reasonable scale of salaries for assistants. That it will in the end give way is, I think, extremely probable, for, by so doing, the privately practising member will have established a point of far more importance to himself than any question of assistants' salaries—I refer to the fact of securing for himself the implicit sanction of his status as an employer of his, otherwise, professional equals.

The "type 2" assistant will be indifferent to such incidental implications, but I am by no means certain that the "type 3" assistant will be equally comfortable; he may be in two minds whether to construe the event as a gain or a loss.

Rationalization (so-called) of Industry

One of the most obvious tendencies today is towards larger units of commercial organization. The independent architect with the relatively small private practice is, therefore, increasingly finding himself forced to abandon his position. For the assistant, on the other hand, the prospect is one of correspondingly greater security; large organizations, such as railway companies, banks, chain stores, and so on, can afford to lay their plans well in advance and are thus able to organize their own professional staffs, and the architectural assistant will find in their service less likelihood of losing his job as a result of trade disturbances, besides having a better chance of finding his way into a pensionable post.

For the more adventurous, however, the prospect holds a divided blessing, since, except in so far as greater organization brings into being greater scope for internal specialization, greater security will carry with it a corresponding decrease in the number of opportunities for independent self-expression.

Salaries should be little affected; the general tendency is likely to be favourable for the recognition of some stabilized scale based on experience and qualification.

The Competition System

I agree with the remarks recently made by Professor Reilly in THE ARCHITECTS' JOURNAL. There *should* be juries and not single assessors. The obviousness of his view is so unmistakable that I feel it pretty safe to guess that such an amendment of the existing competition system will not be many years in coming. I even venture to foresee a time when it will not be thought unreasonable that judgment should be by vote of the competitors themselves, since nobody can possibly know more about a competition than somebody who has actually been in for it.

The inexpensive reproduction of drawings available today, coupled with the fact of cheap and rapid travelling, suggests the possibility of there being several selected centres—say, Glasgow, Manchester, London and Bristol—to each of which competitors would have to send prints of their drawings. Each competitor would then be at liberty to attend at the most convenient centre for him, and, with the sole proviso of not being allowed to vote in his own favour, record his vote upon the submitted designs. It is obvious that such a development would be favourable to the prestige of the assistant.

The War: 1914–18

Most of those who were either killed or seriously disabled between 1914 and 1918, were between the ages of 19 and 35. This means that today (1937) the men between the ages of 38 and 54 must be relatively few. The effect will be that, in another ten to fifteen years—when most of those who today are 54 or older, will no longer be able to pursue an active existence—there must be a sudden drop in the ages of the men holding the more responsible positions. My own view is that the outlook of the younger men of today (those who are now younger than 38) will then make itself rapidly—perhaps, even, too rapidly—effective.

The R.I.B.A.

The disparity to which I have already called attention, namely, the responsible representation on the R.I.B.A. Council only of those "qualified" by commercial opportunity, year by year is becoming more acute. The proportion of Fellows to the total non-Fellow membership is persistently declining, and it is safe to conjecture that a turning-point in the present constitution of the R.I.B.A. Council is not far ahead. What will take its place? The probability is that the present Council, if left to its own devices, will hand over some of its power to the "junior" members, but not enough to make any real difference. Will the Council be left to its own devices? Can the assistant classes of the profession muster the necessary strength of impersonal resolve to force the hand of the present Council? Can Associates and Licentiates combine to secure the impartial recognition of their existence and work? Something of the sort, sooner or later, is bound to happen.

Advertising

Often one hears discussed the advisability of advertising to stimulate public interest in the services the profession has to offer, but I am still waiting to hear who is to pay for the advertising! The R.I.B.A. has already an overdraft account of £159,000, besides being without the necessary mechanism for distributing the results of advertising, equitably, among its members.

Even so, perhaps the more real difficulty is that the Council of the R.I.B.A. (today still undoubtedly the controlling force in professional architecture) is genuinely interested only in the well-being of the privately practising member, and he is already getting as much as advertising can bring him, since he is the only member of the profession of whom the public has been allowed to hear. A building goes up, and, as a matter of course, he becomes described as "the architect." The information is, of course, seldom restrictively true (and often thoroughly untrue), but the public is not to know about that. No—I do not think the Council of the R.I.B.A. is likely to countenance any suggestions that might upset the present system of "matter of course" advertising. Do you?

Professional Etiquette

If we may judge by what is saleable matter on the bookstalls and hearable matter on the "wireless," our current tendency is towards a less muddled outlook. We may expect, therefore, that before much longer it will have dawned upon us that, if the members of the architectural profession were to act generously and honestly among themselves, their relation with the public could be left to look after itself.

Economics

The increasing interest taken by the public in economics, is likely before much longer to manifest itself even among architectural assistants, when it will be one of their first questions to ask whether it is true, that, in the main, architecture *creates* demand, or true that, in the main, architecture *supplies* demand.

To that question, when it comes, the race of principal architects will have no good answer to give, for should it be replied that architecture creates demand, then it would be necessary also to give the reasons why architecture, during periods of trade depression, is unable to create demand, and why the R.I.B.A. has been so careful to stipulate that the scale of assistants' salaries, proposed by the A.A.S.T.A., should be applicable to *normal* times only.

The conclusion will be irresistible that architecture, in the main, cannot be said to be creating demand but only to be supplying demand, whence it will not be a great step further for it to be asked how it comes about that the principal claims to be *giving* the assistant his job! It will be pointed out that the work is there to be done irrespectively of the existence of any particular person or persons in the profession, and that, in fact, the assistant generally owes the principal rather less than nothing.

Collaboration

The fact that it is impossible to fix a standard for distinguishing between right and wrong in design, is becoming more and more widely recognized. It is becoming increasingly a fact of common knowledge that, once certain elementary conditions—such as durability of materials, price, constructability, and so on—have been met, the rest—the highly important rest—becomes a matter of individual taste or opinion.

Whose opinion is to be accepted? Today it is the architectural principal whose opinion takes precedence. The reason is obviously that he holds his assistants at an economic disadvantage. But the old confusion of ideas is disappearing. The fact that opinion is as much the prerogative of one man as of another, is making for a greater tolerance of outlook, and though the habitual principal still clings to the economic reins of his forebears, his opinions are rapidly losing their claim to any *consequent* superiority.

The tendency is towards a day when it will be asked: how are men to collaborate in terms of opinion? Is it the best solution of this vital of all problems for the profession (as for the rest of mankind) that collaboration should continue to be recessive to coercion? Is the aesthetic and ethical development of human collaboration to accept defeat in the common vulgarity of an economic deadlock? The tendency is thus again favourable for the architectural assistant, who has much to gain and little to lose by it.

Architects' Registration Bill

Sir Ian MacAlister's circular (dated December 9, 1937), addressed to the members of his organization (the R.I.B.A.), exhorting them to enlist the support of their respective Members of Parliament for the Bill, suggested to me the writing of a letter on something like the following lines:—

"DEAREST M.P.,

Since I cannot bear to disappoint Sir Ian MacAlister, who appears suddenly to have discovered a use for me, I hasten to send you (as he asks) the enclosed memorandum in support of the Architects Registration Bill.

Do please support the Bill—there's a good fellow! It will please Sir Ian MacAlister. And if, in addition, you feel that you would like to do something to please me also, perhaps you would not mind asking a *question* during the Debate on the Bill?

You see, it is like this. If the 'honourable' profession of architecture is to become 'closed,' as Sir Ian MacAlister wants it to be, then, surely, in return for the greater protection received by it, we, its members, should *as a whole* be correspondingly answerable to the public. But I—and, say, four out of every five members of my profession, who (like myself) are *merely* assistants—have no voice in the control of how our profession behaves towards the public. We are without any means of guaranteeing the integrity of our own organization, for like good little boys we must do as we are told by our *principals*, and not by our *principles*. It is our *principals* who decide where to draw the line and, would you believe it, many of them do not appear to draw the line anywhere! So do you think you would mind asking the promoters of the Bill what they propose to do about the compulsory irresponsibility of eighty per cent. of the members of the architectural profession, once it has become 'closed'?

Of course, I am not *really* going to write you this letter. I am merely inventing it to have something to amuse myself with when I am not 'dealing with' architecture.

Yours ironically,

BAFFLES."

Well, the Bill did go through. And, somehow, I cannot help feeling that someone has made a "mistake." I suggest that the assistant who is interested in the future of *his* profession might do worse than study my projected correspondence.

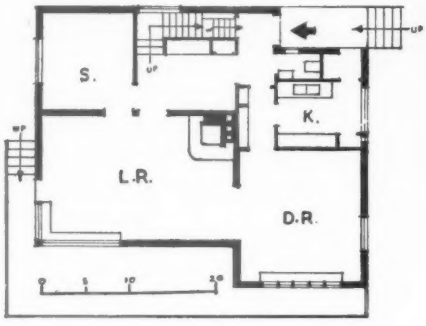
General Conclusion

My space has come to an end. The future developments of town planning, the possible effects of standardizing design, the possible effects of a continued fall in the birth-rate, and many other topics I might, whether competently or incompetently, yet, relevantly, have touched upon, would take me unreasonably far beyond the allotted span of this essay. Or is this a competition, founded on R.I.B.A. precedent, where I am meant to violate the stipulated conditions? However that may be, the maxim that it is not necessary to eat a whole ox in order to discover that it is tough, now permits me to overlook the inevitable shortcomings of a premature generalization. Have I—or, have I not—said enough to have made it clear that, whatever may be the future for the architectural assistant during the next ten to twenty years, the debunking of his profession is likely to be a considerable part of it? And have I—or, have I not—said enough to have made it clear that, while neither assistant not principal can yet claim to anything approaching intellectual integrity, the principal (if for no other reason than that he has greater opportunities) has more bunk about him than the assistant?

Do not mistake me! I am as well aware, probably, as anyone, that *leadership* is natural to man. In the current relation of principal to assistant, however, there is little or nothing of true leadership. If there were, the frankly impartial discussion of the nature of the relationship itself would be of common occurrence between principals and assistants. In your experience, have you found it to be of common occurrence?

VILLA AT SMESTAD, OSLO

FIRST FLOOR



GROUND FLOOR

This weatherboarded timber house is painted red with stuccoed lower ground floor. The large dining-room window is divided into square panes with deep mullions and transoms which form attractive shelves for flowers.

DESIGNED BY F. A. CLASON

R.I.B.A. ANNUAL DINNER

The annual dinner of the R.I.B.A. was held in the Henry Florence Hall, 66 Portland Place, W.1, on Friday last. The toast list was as follows : "The R.I.B.A. and its Allied Societies," proposed by the Rt. Hon. Sir Philip Sassoon, P.C., M.P., First Commissioner of Works ; and responded to by Mr. H. S. Goodhart-Rendel, President of the R.I.B.A. "Our Guests," proposed by Mr. Henry M. Fletcher, Hon. Secretary of the R.I.B.A. ; and responded to by Sir Eric Maclagan, C.B.E., Director of the Victoria and Albert Museum. Following are some extracts from the speeches by Sir Philip Sassoon, Mr. Goodhart-Rendel, and Sir Eric Maclagan.

SIR PHILIP SASSOON: It may be right to say that there is one principle upon which modern architecture should be based, and that is that it should seek to embody the spirit of its age. That is obviously a right principle, but it does not carry us the whole way. Architecture is, after all, not merely the mirror of public opinion ; it has always been, and I hope that it will always be, a great educative force. Public opinion is too variable a quantity for an art which embodies in itself an element of permanence to follow slavishly in all its altering moods ; there must be deeper and surer principles on which it is founded.

Perhaps one of those principles should be that architecture in all places and at all times should do its best to take advantage of the materials which are available to it in all places and at all times. We have seen ourselves how local stone and local brick and timber have a way of blending with and becoming a part of their own particular surroundings in the most happy way. I think that perhaps one of the major problems with which architecture is faced in this country is that of making the best use of the materials and the methods which advancing science has made available for us. We have not, perhaps, been able to make the best use of those materials and of those methods. Perhaps we have not yet discovered, for instance, how to achieve the happiest results with steel and concrete, to mention one example.

Another basic problem is that a way should be found with the means available to us of combining utility with beauty. I am sure you will agree with me that ornament and embellishment by themselves are of little purpose. For instance, I do not think they have ever made a bad building into a good building. On the other hand, if utility is the only end then there is no place for art in architecture. That brings us to our chief difficulty. What for thousands of years has been considered by mankind as the criterion of beauty is now challenged. I personally do not think that that challenge will last, but it exists, and is responsible for many of the buildings which have been put up since the War, buildings which perhaps I would be surprised to see future generations consider worthy to be regarded as ancient monuments.

Now, no doubt, there is an element of beauty in sheer force and power. That is one of the elements which the generations of the past have always considered to be one of the components of the beautiful. One of those elements is proportion—or scale, which I am told is the right way to pronounce it. Scale is not easy to define ; it is easier to realise the presence of proportion or the absence of proportion than to be able to say exactly of what it consists. So often you hear people talking glibly about proportion, and saying that a certain building is no good because the proportions are all wrong or saying that another building is beautiful because the proportions are right. I have just come back from a holiday in the United States, and there I must say that I did find those stupendous buildings in New York gave me a sense of proportion. Not only were they built on a tremendous scale, but it seemed to me that they had the most exquisite finish ; these big buildings were finished almost with the detail of a Cartier cigarette box.

Now, I think that the great cities of the world have each their own individual architecture, and it seems to me that proportion should conform in each case to that individual atmosphere. I can admire sky-scrapers in New York, but I cannot conceive of them in the London streets. I think that when one visits Paris one comes back with the memory of its monuments, the Arc de Triomphe, the Pavillon of Gabriel in the Place de la Concorde, the Louvre with its bridges, and so on ; but for me the charm and the character of London lies in those small Georgian houses which unfortunately have been disappearing of late and which have been replaced in too many cases, I think, by buildings which have no character of their own.

I do not want you to misunderstand me. Though I have been responsible, as perhaps you may have seen, for restoring No. 10 Downing Street lately to what it was when Samuel Scott painted it, I do not for one moment say that modern architecture should copy the architecture of the Georgian period. We are not

living in Georgian times, and I think that we should not obtain satisfactory results by attempting to recapture those architectural triumphs by the aid of the new methods and the new materials which are now available to us. The charm of our old buildings so largely depends upon the delightful combination of their architecture and the harmony which goes with it of the materials of which they are composed. The aim of our modern architecture, it seems to me, should be to produce new harmonies which should give full expression to the qualities of those new materials and methods which are now available to us and at our command.

I do not think that these new harmonies, if I may say so, have been yet completely found in London. I believe that the principles which were followed by the great English architects of the past would perhaps show us the way to find them, and might suggest a way whereby these new materials might portray the essential character of London just as typically as the sky-scrapers of New York typify that more recent and more restless city. It seems to me that the appeal of weight and mass is more suitable to the stone age than to the age of steel. It is difficult, for example, to recapture the atmosphere of Durham Cathedral in reinforced concrete. I believe, however, that steel and concrete are capable of being adapted to the character of London more successfully than they have been up to date, and that perhaps if we could only find the right way we might be able to produce results as satisfactory as those which have been given us by the age of stone.

But, after all, one must be fair. We are still only experimenting in a new medium, and it is only natural that some of those experiments should not be completely successful. Some of them, however, have at least given us a glimpse of what can be and no doubt will be achieved in the future.

MR. H. S. GOODHART-RENDEL (President): The "education of the public" is a nasty phrase used by those whose educational aim is that of inducing other people to buy what they themselves want to sell. Such people, speaking of "the public" generally, do not include themselves in it; in fact, they probably buy something quite different. The object of any learned society, however, must be the education of the public, its own members included; and in this sense the architectural education of the public is the primary object of the R.I.B.A. For this its library, its *Journal* its sessional papers, its studentships, its prizes and its scholarships exist; and for this it has embarked of late years upon its great enterprize of touring exhibitions. There is a great deal in these activities about which I should think anything else than a boasting spirit would be positively ungrateful. Yet nowhere can we relax any effort in pursuing and popularizing our art, in imparting experience to the world outside, among ourselves, and to the students upon our threshold. Particularly, perhaps, should we impart it among ourselves, because we must see that we become daily more worthy of the mission which we claim.

Now every Associate of our Institute is, as it were, a guaranteed article, tested and approved by means of examinations. Our Licentiates are those whose record of serious architectural practice can be accepted *in lieu* of a test. Our Fellows are ex-Associates or ex-Licentiates mellowed by time. Now, examinations cannot prove any more of an artist than that he has the technical competence to express whatever may be in him. They can, however, detect whether an architect is or is not a person qualified to deal safely with your money and perhaps with your life. In short, they can establish whether an architect is an architect in the sense that a doctor is a doctor or a lawyer a lawyer. This is a thing which the public needs to know for its own protection, and it cannot know it certainly until the Bill promoted by the Architects' Registration Council has became law. The strong agreement of the Institute with the purport of that Bill is, I think, already well known. The Bill's success would be valueless, however, if the examination standard required by the Board were to be in any way lowered; and that standard corresponds with the standard set and maintained by our Institute.

During the years since the last war, many Englishmen have made a momentous discovery; they have discovered that as in private so in public affairs, it pays to look ahead—to look ahead even further, perhaps, than the probable date of the next general election. To this novel, hazardous enterprise of looking before one leaps, the name "planning" has been given, a name that naturally makes architects sit up and take notice. Now, planning is a very particular faculty which every student thinks he has by nature, until he learns that he has not, and its cultivation is the special province of architectural education. By virtue of its possession, the young trained architect may sometimes be tempted to claim a little larger scope than should logically be accorded to him; he may claim to set himself up not only as an expert necessary in social reform, but also as a social reformer himself. Such occasional over-presumption, however, must not be allowed to divert attention from the very wide usefulness in social work of minds trained to planning. A man who can successfully correlate what are now called the "services" in a large building—the water, the electricity, the gas—and can direct and make easy its internal traffic, is not likely to make heavy weather of trifles like food supplies or munitions or the local distribution of labour.

Apart from all such grand capabilities, the ordinary services of an architect are continuously necessary in civilized life, and it is inevitable that there should rest upon our Institute a great and constant task of professional organisation. This the Institute pursues for the advantage of the architect in so far as that advantage is also the advantage of architecture, but no further. It repudiates, and I trust always will repudiate, any desire to hold up the outside public for sectional or professional ends. Of its organising activities this is not the time to speak, but the moment is perhaps appropriate for a word or two about one activity which is less one of organisation than of persuasion.

The Institute, as is well known, loses no opportunity of advocating and supervising architectural competitions. It holds that by this system only can progress be perpetually stimulated nowadays and young men assured of their chance. Competitions have their opponents, some of whom hold that they are too apt to be won by old hands, and others that old hands will not enter them; some, again, that they give the promoters too much for their money, and others that they cost too much money for what they give. I think that these objections can be left to cancel themselves out; but there is one objection sometimes brought that cannot be lightly dismissed. People are loath to leave the decision of a competition in the hands of a professional assessor, and yet without an absolute assessor architects very naturally will not spend the time and money on the preparation of designs. The answer to this seems to me to be that unless you are certain that there is one man whose work will please you—in which case, of course, you will go to him direct—it is much less risky to choose an assessor who himself will have much to choose from, rather than to choose an architect who can choose only from among the contents of his own mind. Mr. So-and-so may have done a very nice town hall somewhere else, but may produce a design for your town hall which you think simply horrid. A wisely-chosen assessor will be fully informed as to the kind of town hall that you want, and in ninety-nine cases out of a hundred I believe will be able to see that you get it.

There is one extremely desirable thing that the Institute, I think, could not initiate, but which, speaking for myself, I should rejoice to see initiated by others. At present, when an old building, good or bad, is threatened with destruction, the newspapers are filled with agonised protests; but when once the fight for its preservation is lost, nobody seems to care a tinker's curse what takes its place. Could not an architectural vigilance society be formed to divert a certain amount of the energy now spent on fighting lost causes into ensuring new beauties for the future? Usually the first that the public knows of what is to be built in conspicuous and familiar places is gathered from a horrid little picture stuck up on the hoarding, and, if the reality is soon seen to be even worse than the picture, it is then too late to say anything except with bombs. I know that much is already done under the panel system to mitigate the horrors of ill-advised new building, but, even if the panel system were universal in the country, there would be many occasions which called for weightier and more universal public criticism. We have the highest authority for saying that "it is a National-Socialist principle not to publish details of difficult problems in order to allow them to be discussed, but first to bring such plans to fruition and then to show them to the people. The great artists and architects are entitled to be freed from the criticism of their small contemporaries." This principle seems to be acted upon in England as well, but I am not sure that the artists and architects whom we free from criticism are always our great ones.

SIR ERIC MACLAGAN: I think we may justly claim that the Victoria and Albert Museum has very real contacts with architecture, and in particular, I should like to say what has been said so often by other and more competent people, how particularly glad we all were at the Victoria and Albert Museum to welcome the way in which the R.I.B.A. launched out into that system of travelling exhibitions of which your President has already spoken, and which does touch very nearly on work which we ourselves do our best to attempt in the provinces.

There is also, and quite obviously, another respect in which the Museum is closely connected with the activities of architects. We are called on now and again to do our best to preserve not architecture—because architecture cannot be preserved in a museum—but specimens of architectural decoration which otherwise would have perished. Your Hon. Secretary, in his kindly references to our activities, mentioned the fact that we are going to be privileged to preserve the music room from Norfolk House, and thus to retain at any rate part of a building which itself is doomed to perish. As I say, we are only too conscious that the preservation of architectural details satisfies a very small part of the demand which exists so widely for the preservation of the works of the past, but at any rate, so far as we can fulfil it with our very limited space, we shall always be ready to do it.

I feel, however, that such activities as we may exercise in that respect are perhaps less hostile to your own interests than those which are being so widely advocated now by other bodies. Nothing could testify more clearly to the integrity and public spirit shown by architects than the fact that they continually support societies whose avowed aim is to take the bread out of their mouths. We have heard a great deal lately about the Georgian Group, whose most laudable aim it is to preserve for us the remains of Georgian architecture. But you cannot fail to be conscious of the fact that every Georgian building which is preserved prevents an architect of today from obtaining a commission of which he may stand in considerable need. That Georgian Group has been brought before the notice of the public with every possible emphasis, with what I might justly describe as a Byronic emphasis on the wrong-doings of Church and State. I warn you, however, that the Georgian Group is obviously only the precursor of other societies of similar aim. We are moving on in our appreciation, and it will be but a very little time before you find the Victorian Vigilantes also insisting on the intense importance of preserving the work of the great architects of a slightly later age. There will be a small but active group which will be described as the "Great Exhibition Group" whose particular object it will be to preserve the beautiful buildings of that period which abound in the neighbourhood of the Victoria and Albert Museum, a neighbourhood in which I have myself the good fortune to reside. All these bodies, as I have already said, will be dangerous to you.

THE ROYAL GOLD MEDAL

At a Council meeting of the Institute, Mr. Ivar Tengbom, Honorary Corresponding Member of the R.I.B.A. (Sweden), was elected by the members and his name will be submitted to His Majesty the King as a fit recipient of the Royal Gold Medal for Architecture for the year 1938.

The Architects' Journal Library of Planned Information

INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

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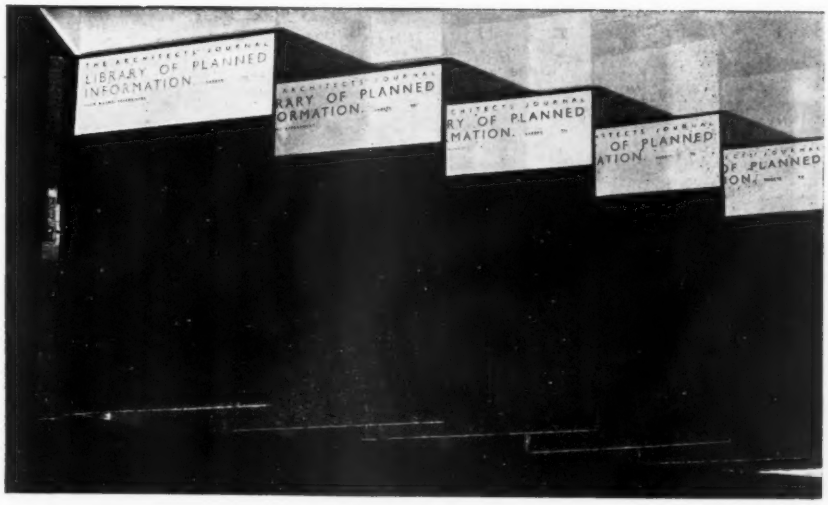
602 Enamel Paints



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

Sheets Issued since Index :

501 : Aluminium
502 : Fixing Blocks
503 : Approximate Estimating—XII
504 : Aluminium
505 : Aluminium
506 : Approximate Estimating—XIII
507 : Plumbing : Jointing of Copper Pipe
508 : Roofing—Valley Flashings
509 : The Equipment of Buildings
510 : Aluminium
511 : Elementary Schools—II
512 : School Lighting
513 : Approximate Estimating—XIV
514 : Air Conditioning
515 : Insulation of Buildings
516 : Cycle Parks
517 : Cycle Parks
518 : Plumbing Systems—II
519 : Kitchen Equipment
520 : Roofing—Flashings
521 : Motor Cycle Parks
522 : Reinforced Asbestos-Cement Roofing Tiles
523 : Poison Gas Precautions
524 : Kitchen Equipment
525 : Metal Reinforced Asbestos Cement
526 : Leadwork to Photographic Developing Tanks
527 : Asbestos-Cement Corrugated Sheets
528 : Cycle Parks
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531 : Plumbing
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555 : A.B.M. Draining Boards
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558 : A.B.M. Rainwater Pipes
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560 : Kitchen Equipment
561 : Asbestos-Cement Roofing
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564 : The Equipment of Buildings
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592 : The Equipment of Buildings
593 : Electric Lighting
594 : Sheet Leadwork
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596 : Gas Heating Equipment
597 : Sanitary Castings
598 : Heating Equipment
599 : Heating (Electrical)
600 : Sewage Disposal

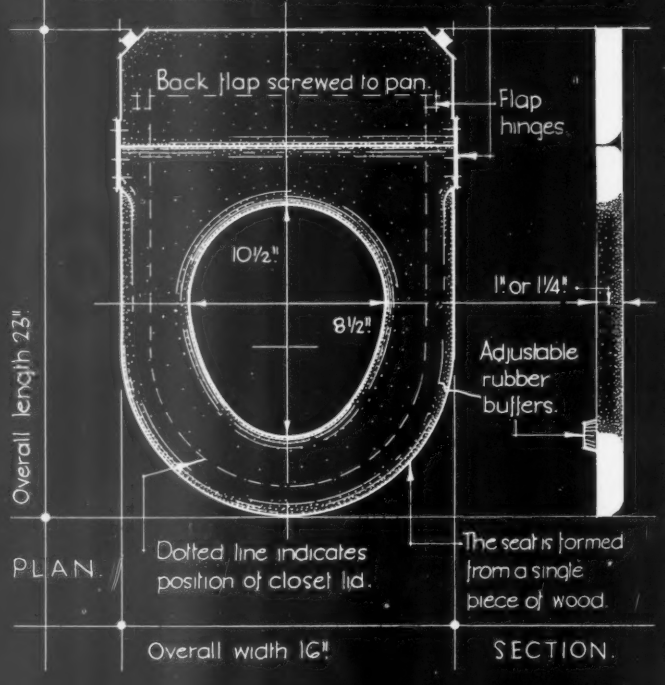
753.

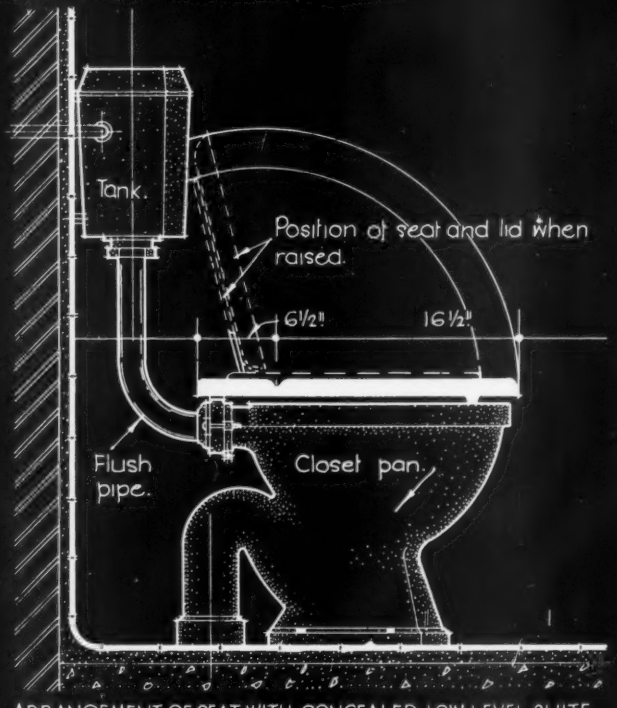
THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

A.B.M. ONE-PIECE CLOSED FRONT WOODEN CLOSET SEATS : SCALE · 1" & 1½" = 1'0"
All seats may be supplied with or without wooden closet has to match seat.

(A) BACK FLAP TYPE CLOSET SEAT WITH DOUBLE PIVOT-ACTION HINGES :

The hot pressed chromium plated brass hinge allows the seat to be pushed right back without strain or risk of damage.

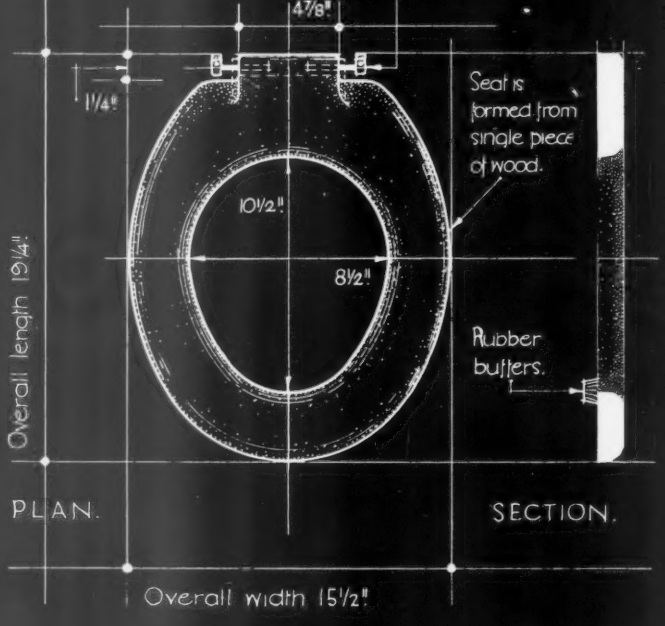




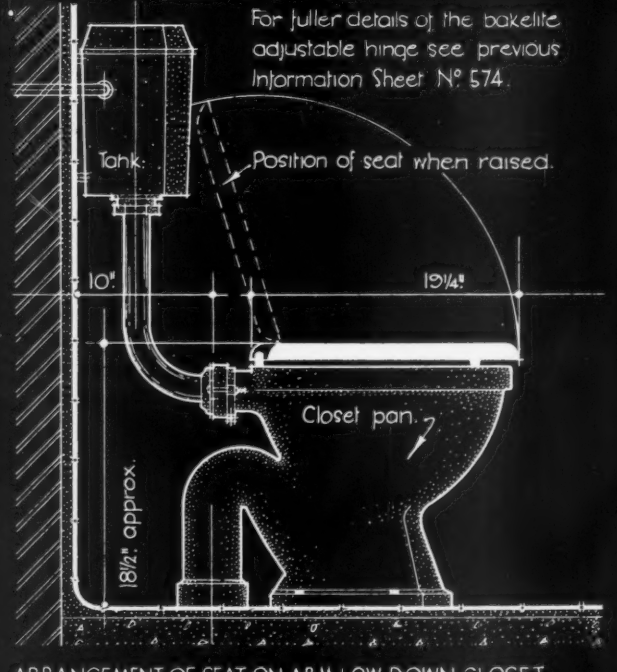
ARRANGEMENT OF SEAT WITH CONCEALED LOW LEVEL SUITE.

(B) OVAL RING TYPE CLOSET SEAT WITH ADJUSTABLE BAKELITE HINGES :

The adjustable bakelite hinges allow for lateral as well as front to back adjustment to fit closet pan.



For fuller details of the bakelite adjustable hinge see previous Information Sheet N°. 574.



ARRANGEMENT OF SEAT ON A·B·M· LOW DOWN CLOSET.

Information from Associated Builders' Merchants, Limited.

INFORMATION SHEET : SPECIALLY HINGED SOLID WOOD CLOSET SEATS.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 • Oscar A Bryne.

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 601 •

SANITARY EQUIPMENT

Product : A.B.M. Closed Front Wooden Closet Seats.

General :

This Sheet deals with two styles of closed front wooden w.c. seats, the first being the Back Flap pattern fitted with a patented double-pivot hinge, and the second the oval ring type fitted with patent adjustable bakelite hinges. Both types are made from one solid piece of wood, so that maximum strength is obtained and breaking up through contraction or expansion of the seat is impossible. The Back Flap Patent seat is available with a top lid to match if desired.

Back Flap Type :

This seat is full size throughout, i.e. overall 16 ins. and 23 ins. and is not cut away at the back. The chief merit of this particular seat is in the hinges, these being of brass designed with a double-pivot action which allows the seat to be raised right back without strain on the fixings or risk of damage to the woodwork.

Back extension seats are obtainable in thicknesses of 1 in. stained and polished wood, or plain hardwood, 1¼ in. stained and polished or plain hardwood, and 1¼ in. solid mahogany.

Oval Ring Type :

The special feature of these seats is the adjustable hinges, enabling them to be fitted to any closet pan of normal design. The hinge bosses are adjustable laterally by being provided with chromium plated brass rods, which are cut to the length necessitated by the position of the holes in the lugs of the closet pan. Adjustment from front to back is made by virtue of the reversible bosses, these being placed on the ends of the tubes either in the forward position, or alternatively by transposing them, when they will be found to occupy a position ½ in. further back.

The adjustable hinges are fully detailed on previous Information Sheet No. 574, dealing with moulded bakelite closet seats.

Buffers :

Both patterns of seat are provided with two rubber buffers screwed on the underside, and these form the actual bearing surface between the closet and the seat.

Packing :

When quantities are required A.B.M. closet seats are packed in fibre containers as follows :—

Back extension :	1 in. seats single flap...	20
	1 in. seats double flap	10
	1¼ in. seats single flap	16
	1¼ in. seats double flap	9
Ring wood seats, single		24

Each container is marked with details of the contents, which are kept in perfect condition.

Previous Sheets :

Sheets already published dealing with A.B.M. products are Nos. 540, 555, 558, 562, 566, 570, 574, 579, 591 and 597.

Standardised Designs :

The Associated Builders' Merchants is a non-trading organization devoted to the standardization of the design of building materials and equipment.

Materials and equipment made by a number of manufacturers are stamped with the following symbol (BRITISH AND STANDARD) indicating that they conform to the standard of design and quality laid down.

Information from : The Associated Builders' Merchants, Ltd.

Address : Peters Hill, Upper Thames Street, London, E.C.4

742.

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THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

SPECIFICATIONS FOR PAINTING VARIOUS SURFACES WITH ·DURADIO· ENAMEL PAINT:

TYPE OF SURFACE.	PREPARATION.	PAINTING TREATMENT AND REMARKS.
WOODWORK (Normal, new, unpainted, or burnt off.)	Glass paper, remove dust, treat all knots with 1 coat Yeoman N°5014 Genuine Shellac Knotting. Allow to harden.	1st. Coat. : Interior – N° 4944 Pink Priming Paint. Exterior – N° 0116I Superfine Priming Paint. Stop cracks, nail holes, etc., with Genuine Linseed Oil Putty after priming coat is dry. 2nd Coat. : ·Duradio·Undercoating thinned if necessary with Turpentine only. 3rd. Coat. : As 2nd. coat. Finish. : ·Duradio· Enamel Paint. If three coats only are desired omit 3rd. coat.
WATERPAINTED. OILPAINTED.	Wash, rub down, and scrape to remove grease, dirt and loose material. Allow to dry. Make good all defective plasterwork with Patent Plaster.	1st. Coat. : ·Duradio· Undercoating thinned with Turpentine only; stop small cracks etc., with Linseed Oil Putty after 1st. coat is dry. 2nd Coat. : As 1st. coat. 3rd. Coat. : ·Duradio· Enamel Paint. If two coats only are required omit 2nd. coat, touch up all stopping and allow to dry before applying finishing coat.
METAL. new-(Interior & Exterior.)	Remove all rust, dirt, grease etc. Surface must be dry and free from moisture.	1st. Coat. : ·Arcanol· (Anti-Corrosive) Primer. Allow 14 hours to dry. Stop all joints with hard stopping. 2nd. Coat. : ·Duradio· Undercoating thinned if necessary with Turpentine only. 3rd. Coat. : ·Duradio· Enamel Paint. Where it is desired to finish in White, Ivory, Cream or other pale tint, two coats of Undercoating should be applied.
LIME PLASTER. PORTLAND CEMENT. BRICKWORK. STONEWORK. new but dry & chemically neutral.	Remove plaster nibs, efflorescence, and all loose particles. Repairs to brick or stone joints should be made on exterior surfaces with mastic cement, & on interior surfaces with Patent Plaster.	1st. Coat : ·Duradio· Undercoating thinned to priming consistency with 1 part Raw Linseed Oil and 2 parts Turpentine. 2nd. Coat. : ·Duradio·Undercoating thinned if necessary with Turpentine only. 3rd. Coat. : ·Duradio·Undercoating as 2nd. coat. Finish. : ·Duradio· Enamel Paint. If three coats only are desired omit 3rd. coat.
LIME PLASTER. PORTLAND CEMENT. BRICKWORK. STONEWORK. ASBESTOS SHEETS. new and thoroughly dry, but not chemically neutral.	Prepare as above.	·Truseal· Primer for alkaline surfaces, thinned with Turpentine in the proportion of 1 to 1½ pints to each gallon of ·Truseal·. 1st. Coat. : Apply liberally and evenly avoiding any part being missed. Allow to dry overnight. The ·Truseal·coat must not be glass-papered. 2nd. Coat. : ·Duradio· Undercoating thinned if necessary with Turpentine only. 3rd. Coat. : ·Duradio·Undercoating as 2nd coat. Finish. : ·Duradio· Enamel Paint, apply liberally and evenly.
KEEN'S CEMENT. PARIAN CEMENT. SIRAPITE PLASTER. (used neat). not dry but chemically neutral and where immediate decoration is desired.	None.	·Duradio· Undercoating thinned with Turpentine only, use thin and apply within 12 hours after trowelling. Allow to stand as long as possible before applying 2nd. coat. 1st. Coat. : 2nd. Coat. : ·Duradio· Undercoating thinned if necessary with Turpentine only. 3rd. Coat. : ·Duradio· Undercoating as 2nd. coat. 4th. Coat. : ·Duradio· Enamel Paint. If three coats only are desired omit 3rd. coat.
KEEN'S CEMENT. PARIAN CEMENT. SIRAPITE PLASTER. HARD WALL PLASTER. ASBESTOS SHEETS. new but dry & chemically neutral.	Remove plaster nibs, efflorescence, and all loose particles.	1st. Coat. : ·Duradio· Undercoating thinned if necessary with Turpentine only. 2nd. Coat. : As 1st. coat. 3rd. Coat. : ·Duradio· Enamel Paint.

NOTE: Rub down between coats and allow 24 hours for each to dry (unless otherwise specified).

Information from The Walpamur Co. Ltd.

INFORMATION SHEET: ENAMEL PAINTING SPECIFICATIONS: N°2:
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 ·Jean A. Bayne·

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 602 •

ENAMEL PAINTS

Product : Duradio Enamel Paint and Undercoating

Duradio Enamel paint gives a high gloss distinctive porcelain-like finish and, on drying, forms a film which is of very elastic and tough nature possessing outstanding resistance to conditions of exposure such as rain, varying temperatures, etc. It possesses excellent anti-corrosive properties, rendering it invaluable as a protective coating for metal structures and for preventing decay of woodwork, stone, etc.

General Information :

Surfaces on which suitable : Duradio is suitable for application on most types of surfaces such as wood, metal, stone, dry neutral plaster, wall boards, etc., and is equally suitable for inside or outside use.

Application : This paint is usually applied with a brush, but it is suitable for spraying. Where it is to be applied with a spray on interior work, leadless quality should be specified in order to conform with the lead paint regulations. It is important that the surfaces to be painted should be thoroughly prepared, primed and undercoated with suitable paint, as the finish and durability of enamel paint depend to a large extent on correct ground work. See notes below on Duradio undercoating.

Brushing Process : The paint should be stirred well before use and should not be thinned or added to in any way. It should be applied liberally and laid off evenly, avoiding runs.

Spraying Process : The paint should be stirred well, and thinned a little with turpentine only.

Spreading Capacity : This enamel paint is easy to use and, when applied by brush over a ground of suitable undercoating, will spread 80 to 90 square yards per gallon, one coat. When skilfully applied by spraying process, the amount of Duradio Enamel paint deposited on the surface is found to be similar to the amount applied by brush, with the exception of waste which must be allowed for.

Drying : Duradio enamel paint dries dust proof in about 8 to 10 hours, and is hard in 16 to 24 hours under normal conditions. Free ventilation and warm, dry atmospheric conditions naturally accelerate drying.

Opacity or Obliterating Power : The use of finest quality pigments coupled with thorough grinding ensures that Duradio shades possess maximum opacity and give extreme solidity of colour.

Shades : The paint is supplied in 50 carefully selected standard shades.

Duradio Undercoatings:

The most suitable undercoatings for Duradio require to be of a good quality and of a nature producing a reasonably hard, impervious semi-gloss film when dry. It is important that undercoatings of a too oily nature should not be used, thus avoiding softness which under extreme changes of tenperatures may cause blistering or cracking.

Best Undercoating : To obtain the best results the undercoatings specially prepared for Duradio enamel paint should be used. These are supplied in a suitable range of shades, are finely ground, and, when dry, produce a surface which ensures the most satisfactory results in both appearance and durability.

Spreading Capacity : When thinned with turpentine only and used as an undercoat over primed or previously-painted surfaces of normal condition, one gallon of undercoating will spread 100 to 120 square yards one coat. The spreading capacity of Duradio undercoating when used as a primer depends upon the degree of absorption of the surface.

Application : Standard quality Duradio undercoating contains lead and is intended for use by brushing process. Where undercoating is required for spraying purposes a special leadless quality should be specified.

Drying : This undercoating dries under normal conditions in 8 to 12 hours, and is fit to receive the succeeding coat in about 16 hours.

Advisory Service : Questions in connection with any problems appertaining to the use of paints, or the preparation of specifications or colour schemes, should be addressed to the Architects' Department at Darwen or London.

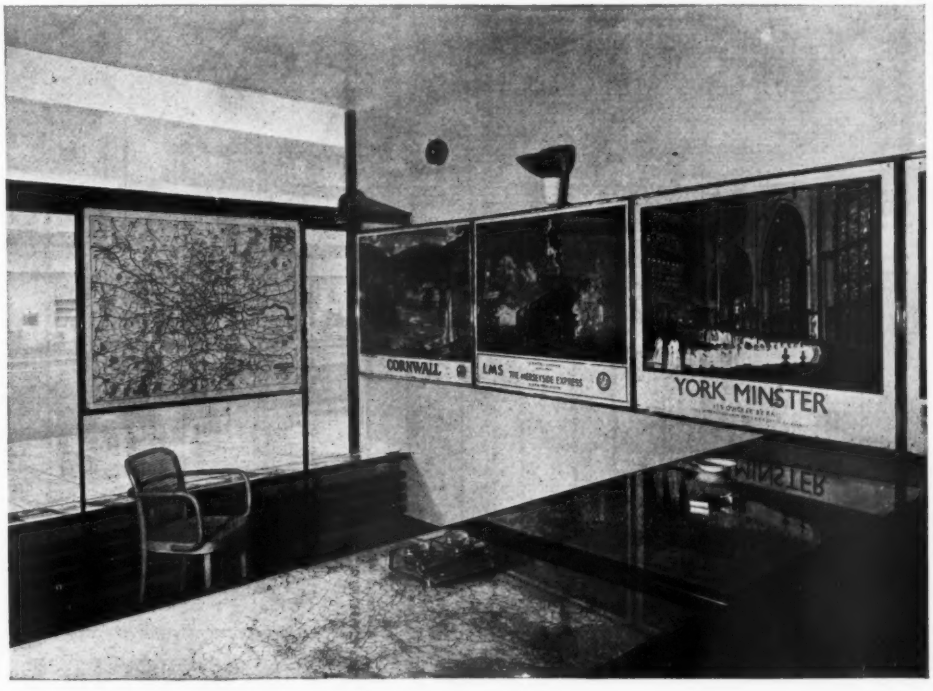
Name of Manufacturers: The Walpamur Company Limited
Address : 35-36 Rathbone Place, London, W.1
Telephone : Museum 6600
Works : Darwen, Lancs
Telephone : Darwen 662

WORKING DETAILS : 629

SHOPFRONT • BRITISH RAILWAYS OFFICES, QUEEN'S ROAD, W. • H. T. CADBURY-BROWN

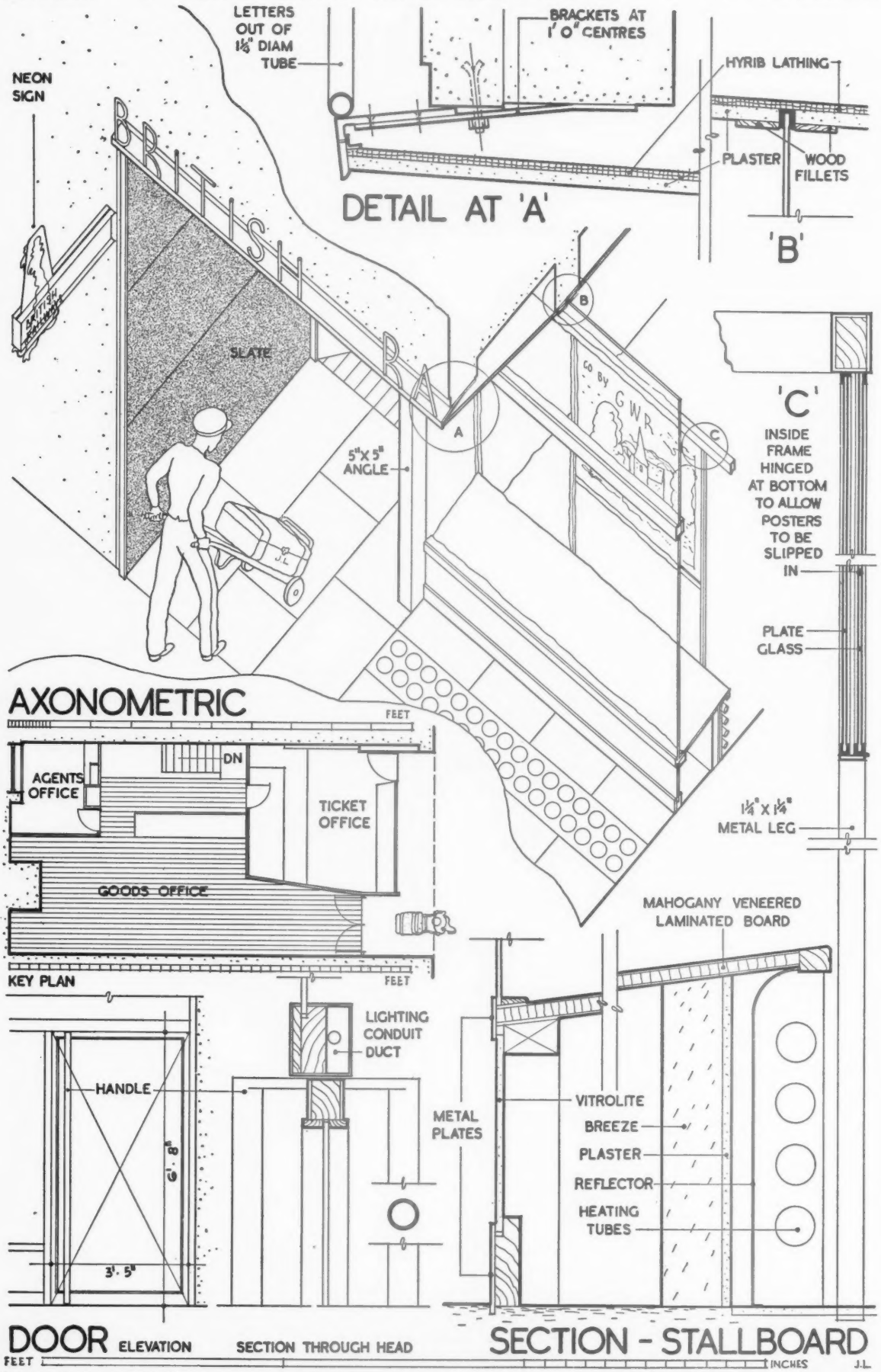
These offices for British Railways are the first of a series to be erected following an open competition for British architects. They consist of a small ticket office with goods office behind.

Overleaf are shown an axonometric and details of the shopfront. This is constructed of sheradized steel, cellulosed, with vitrolite riser, the outside lobbies being lined with shot blasted slate. The display window and entrance door to the ticket office are in plate glass, while the double doors leading to the goods office, which are subjected to considerable wear, are constructed in beaten iron. The back of the display window is also in plate glass with poster panel. The walls of the ticket office are decorated with posters in stainless steel frames.



WORKING DETAILS : 630

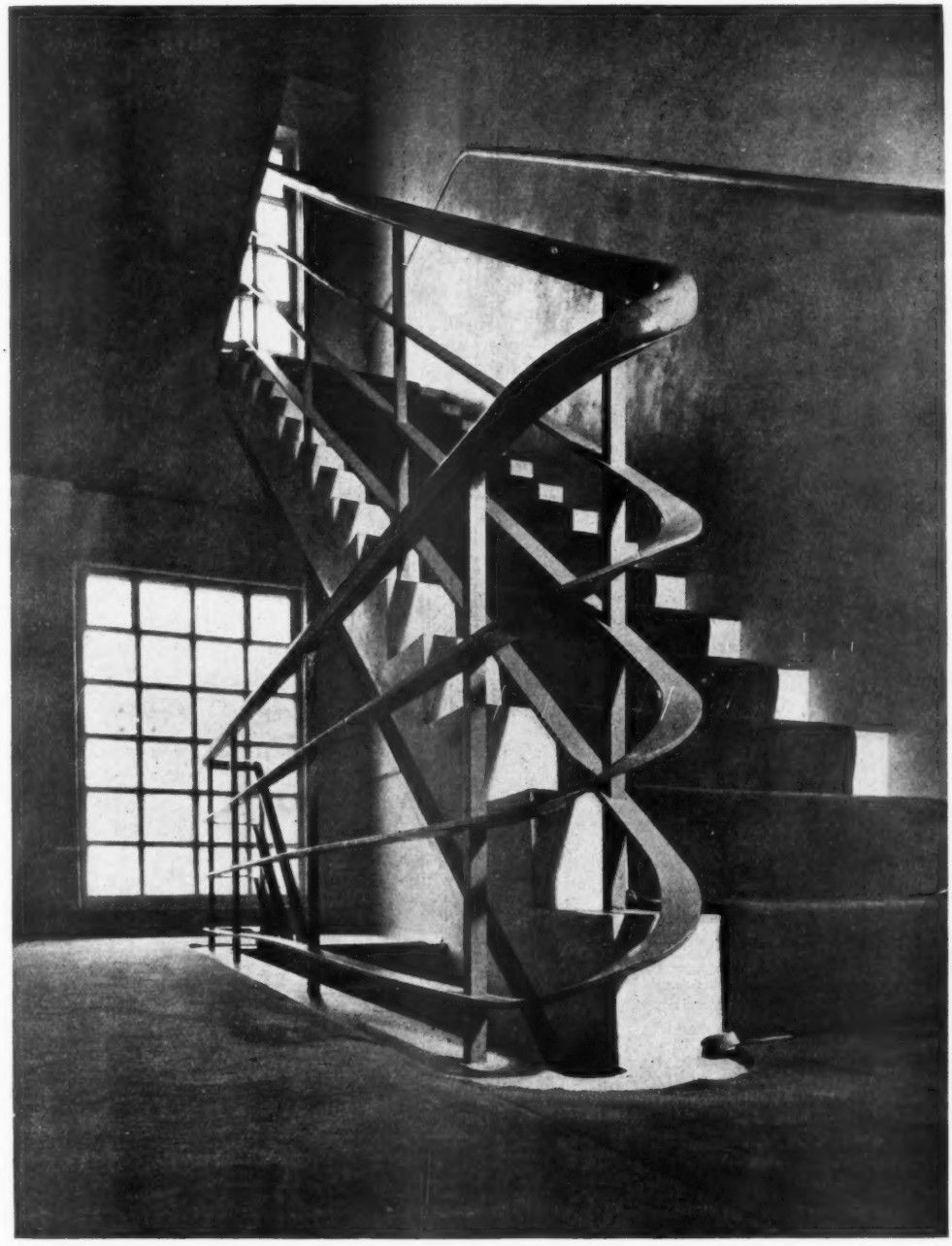
SHOPFRONT • BRITISH RAILWAYS OFFICES, QUEEN'S ROAD, W. • H. T. CADBURY-BROWN



Axonometric and details of the shopfront illustrated overleaf

WORKING DETAILS : 631

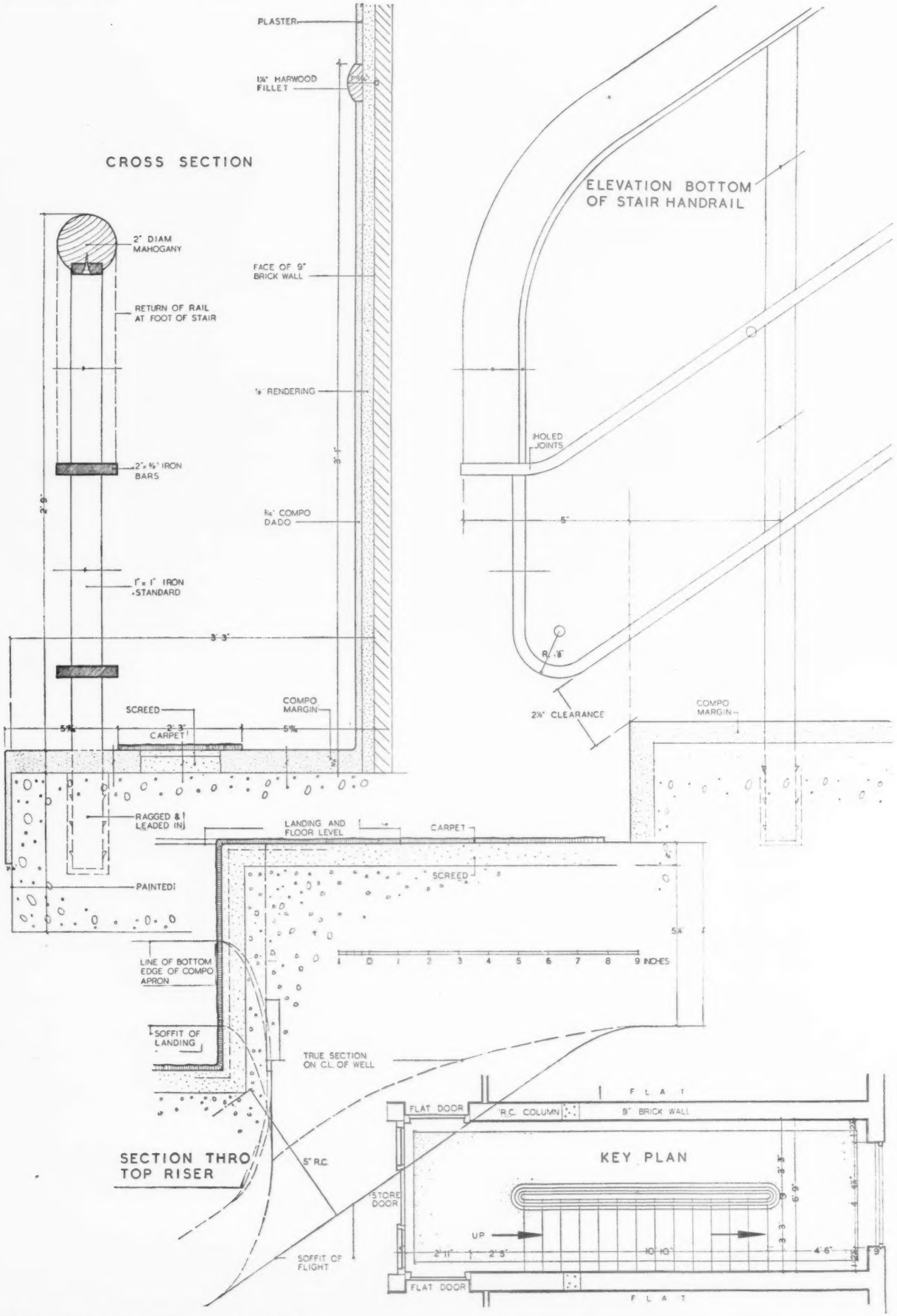
STAIRCASE • PARK COURT, CRYSTAL PALACE, S.E. • FREDERICK GIBBERD



There are nine three-storey blocks of flats, each one being planned with a flat on either side of a central staircase.
The flights and landings are of reinforced concrete construction, finished on the underside against smooth shuttering, and painted with a concrete paint, red ochre in colour. The top surfaces are finished in the centre with carpet on ¾-in. screed, with margins of buff magnesite composition. The walls have a dado above composition, with white painted plaster above.
Details of the construction of stairs and handrail are shown overleaf.

WORKING DETAILS : 632

STAIRCASE • PARK COURT, CRYSTAL PALACE, S.E. • FREDERICK GIBBERD

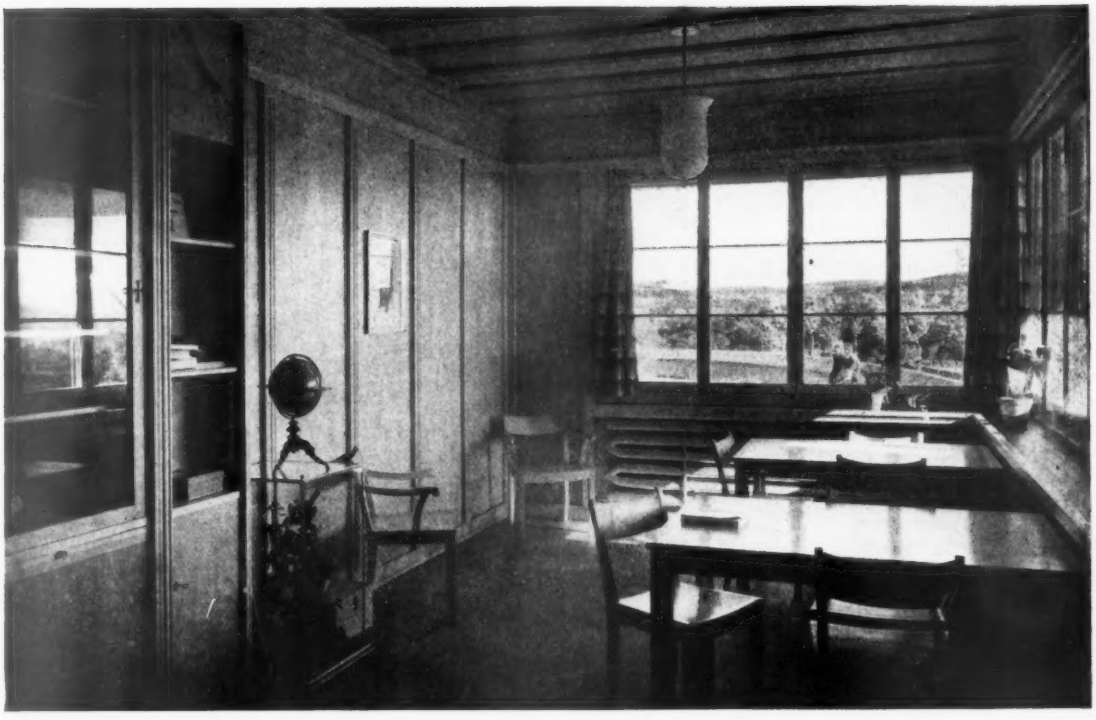


Details of the staircase illustrated overleaf.

SCHOOLS

The Architects' Journal Library of Planning

Senior Schools



Above : Library in a school in Austria, the shelving being behind the camera. The informal arrangement of the room is particularly suitable.

PLAN UNITS : LIBRARIES AND PRACTICAL ROOMS

WITH greater encouragement of individual traits the library becomes an important element in the Senior School. Until recently a properly equipped library with free access for the children was extremely rare. It must now be considered a necessity.

The placing of the library is naturally governed by quiet. It should therefore be placed away from traffic noises, outside the main stream of circulation within the school, as far as possible from outdoor play spaces. It is the one children's room which can be profitably placed on an upper floor. A good position is adjacent to the staff rooms, where it can be unobtrusively supervised and where children who want to read or do special work of their own can be sure of finding a congenial atmosphere.

Access to outdoor reading space on a roof and outlook over the school garden can be attractive features.

Size.—Need not be large. In a 2-stream school the size of a normal classroom (480–520 feet) is sufficient. 3-stream and larger schools, 550–700 feet.

Lighting.—Main window wall is best facing south to south-east. Artificial lighting should be arranged to give shadowless light of 15–20 foot candles on table tops.

Floor.—Polished cork, linoleum, rubber or close carpeting.

Walls and Ceilings.—Absorbent materials should be used freely, especially if the library is not sufficiently insulated from outside noise. Books themselves act as absorbents, and normally a fibre-board ceiling and a cork or close-carpeted floor will give the necessary degree of absorption.

Colours should be light and cool in tone—provided the room is adequately heated in winter.

Equipment.—Bookshelves should face main window wall or may be arranged at right-angles to main window, forming bays with tables between. Suitable size for tables is 6 ft. by 2 ft. 6 ins. to seat three children on each side. All books should be accessible to smallest child, two sizes of tables and chairs provided.

PRACTICAL ROOMS

Even in ordinary Senior Schools without any particular industrial bias, the teaching of a variety of manual tasks is now considered important. The Hadow Report recommends that there should be three specially fitted practical rooms to every four classrooms. Work carried out in these rooms may include needlework, weaving, lino-cutting, model-making, leatherwork and other craft work which varies

Outdoor globe at Suresnes, with land in low relief and coloured. Channels are placed in the oceans and keep the footway clear of the globe. A whimsical but stimulating way of encouraging the study of geography. — Architects : Beaudoin and Lods.

according to local conditions. Geography and art come under practical training, but special rooms for these will be described separately.

Size

Spaciousness is essential. Cramped conditions are detrimental to effective teaching. In a 3-stream school there should be three rooms devoted to general practical training, each no less than 700 sq. ft., and approximately square. A 2-stream school needs two practical rooms; a 1-stream school also needs two rooms; one combined with the art room.* In large schools each practical room may be used for a specific purpose, but in small schools each room will be used for several purposes and must therefore be planned accordingly.

Storage

Designing of cupboards in each room must depend on the type of work to be done, and in several-purpose rooms storage for different working materials and for unfinished work of each child must be provided. There should be direct access to storage spaces from each practical room. Normally the requirements are one deep store about 40 sq. ft., fitted with shelves from floor to ceiling, and built-in cupboards ranging the full length of one wall, about 3 ft. high and 1 ft. 6 ins. to 2 ft. deep, fitted with adjustable shelves. There should also be the usual teacher's cupboards and a small bookshelf.

Windows

As in classrooms, except that direct access to an outdoor teaching space is not so important and down-to-the-ground windows are not necessary. Full window walls down to table height on two or even three walls are an asset.

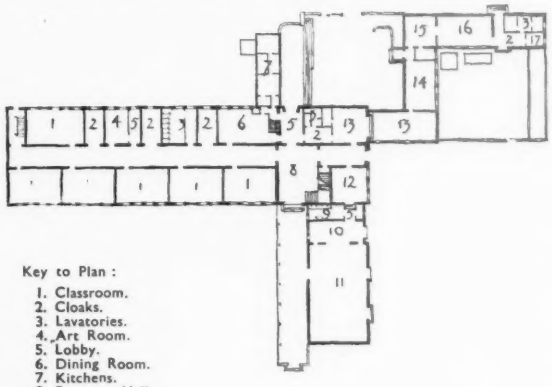
Artificial Lighting

As in classrooms. For sewing there should be an illumination of 25 foot-candles on each child's table. Artificial light compensation should be designed to ensure this amount of illumination on dull days and for evening work. Some American schools provide photronic cells to give automatic correction to daylight deficiency, and as a large proportion of faulty eyesight in adults has lately been traced to eye strain in childhood, this scientific method of light adjustment must not be treated with scorn.

Heating and ventilation

As in classrooms.

* A list of minimum accommodation for Senior Schools is given in tabulated form in the Board of Education's pamphlet, number 11, "Elementary School Buildings."



Key to Plan :
1. Classroom.
2. Cloaks.
3. Lavatories.
4. Art Room.
5. Lobby.
6. Dining Room.
7. Kitchens.
8. Entrance Hall.
9. Showers.
10. Stage.
11. Gymnasium.
12. Changing Room.
13. Recreation Room.
14. Library.
15. Rest Room.
16. Kindergarten.
17. Teacher.

German Senior School with a well-arranged 2-floor plan using the central corridor.

SCHOOLS

Floor Finishes

A floor which will not suffer too seriously when knives or sharp tools are dropped on it, and which can be easily swept clean of pencil chippings, bits of cloth and crayon dust, is the best for practical rooms.

Spilled water and spilled paint have also to be considered. Hardwood, cork and rubber finishes can only be recommended for needlework and the less messy crafts. Tiles and terrazzo, though expensive and inclined to be cold, are likely to be best to cope with water, paint and plasticene. More expensive but having the additional qualities of warmth and resilience, is the new terrazzo with a rubber matrix. Linoleum, preferably with a good *small* pattern to avoid showing footmarks, is likely to stand most things for a limited time and can be replaced quite cheaply.

Wall and Ceiling Finishes

As in classrooms.

Furniture and Equipment

Typical practical room equipment includes: 1 or 2 sinks of the household type.

3 gas and 3 electric points.

Individual tables for each child, at least 2 ft. square. They should be light but steady, tops horizontal or made adjustable, fitted with one shelf and a rack for tools, workbag, etc. Linoleum tops are sometimes suitable.

Separate chairs, preferably nesting type.

Teacher's table, 4 ft. by 2 ft.

1 long fixed bench which may be combined with built-in cupboards, placed under a window. Sinks may be built in to this bench or may be in a separate recess.

Shelves and pinrails for completed needlework, models, etc.

Geography Room

This may be counted as one of the general practical rooms, but in a 3-stream school an extra room specially fitted for the teaching of geography is a great asset. Special apparatus and a collection of maps can be concentrated in this room. An adjoining outdoor teaching space, whether on the ground or on the roof, might contain a large revolving globe and possibly a large sand-pit for demonstration purposes.

The room should be at least 700 sq. ft., unless arranged for half classes.

General requirements are the same as those for other practical rooms.

Furniture and Equipment

In addition to chairs, tables, bench and sinks described for general practical rooms, the following special equipment is required:—

Sand table, with tray about 5 ft. by 2 ft. 6 ins. and 6 ins. to 8 ins. deep, fitted with cover to form a stout table-top.

Maps, preferably stitched on pivoted screens.

Globe, the larger the better. Could be placed outdoors, as suggested, or in an annex of the room.

Lantern and screen, and possibly a 16 mm. movie projector.

Loud speaker (as a branch from a central radio in the assembly hall).

Frames or pinrails for large-scale topographical photographs, and for travel posters.

Shelves for models.

Cupboards for children's atlases.

Bookshelves for special reference books.

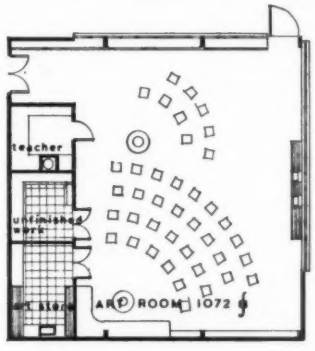


Diagram layout of an Art Room for a 3-stream Senior School. Principal lighting is from the large north windows at the top of the plan, with storage for materials, unfinished work and a clean-up room. The square shape facilitates the forming of small groups.

Art Room

The art room should be immediately adjacent to the practical rooms. Work done in the art room will often be connected with craft work done in the practical rooms, so that for convenience as well as association, arts and crafts should be grouped together. Access to a verandah, paved court or roof garden for outdoor sketching can be a pleasant and useful feature.

Size

For a full class in 2- and 3-stream schools the area of the art room should not be less than 900 sq. ft., approximately square and with no dimension less than 26 ft. Height should be slightly more than in classrooms: 11 ft. 6 ins. to 12 ft. 6 ins.

Storage

There should be a store of approximately 90 sq. ft., preferably with a window at one end, fitted with a large sink and draining-board and shelves of varying depths from floor to ceiling.

In addition, the length of one wall, there should be built-in cupboards 12 ins. deep and

Library furniture, from a Swedish school, of a light and efficient type.

3 ft. to 5 ft. high, preferably fitted with sliding doors.

Windows

Main window lighting should be from the north. Other walls may have windows starting about 8 ft. above the floor and fitted with shades or Venetian blinds. Patchy lighting must be avoided.

Artificial Lighting

Arc or daylight lamps, shadowless or having good diffusion, should be provided for supplementary and evening lighting. Illumination on each trestle or table should be 25 foot-candles. Two movable reflector lamps for the lighting of models should be provided, and electric lighting plugs should be placed at generous intervals round the room.

Heating and Ventilation

As in classrooms.

Floor Finishes

Hardwood, linoleum or *in situ* rubber. If hardwood is used for the main floor, the store room floor should be tiled, and sinks might be placed in a tiled annex.

Wall and Ceiling Finishes

It is advisable to treat walls and ceilings, except for small areas, in light, more or less neutral, colours in order not to confuse judgments of colour. Walls immediately above sinks and benches should have a protective veneer of tiles, linoleum or bakelite. Free wall area is valuable for hanging children's work and a changing collection of instructive pictures.

Furniture and Equipment

Chairs with sloping backs and light trestles are generally used, but tables with adjustable tops are sometimes preferred. Furniture should in any case be light and easily movable, as grouping will always be varied and informal.

Other equipment includes :—

1 long bench under high windows of one wall, with teak or lino top. Some craft work and modelling will often be done in the art room. Cupboards for incomplete models, etc., under bench.

2 sinks, not less than 2 ft. by 1 ft. 6 ins., near bench and possibly in a special tiled recess.

2 solid movable benches, 6 ft. by 3 ft. (not always required).

Slotted fixtures to take standard frames and mounts.

Swinging pivoted screens for pinning up small drawings.

Small blackboard (or yellowboard) for demonstration.

Shelves for display of models.

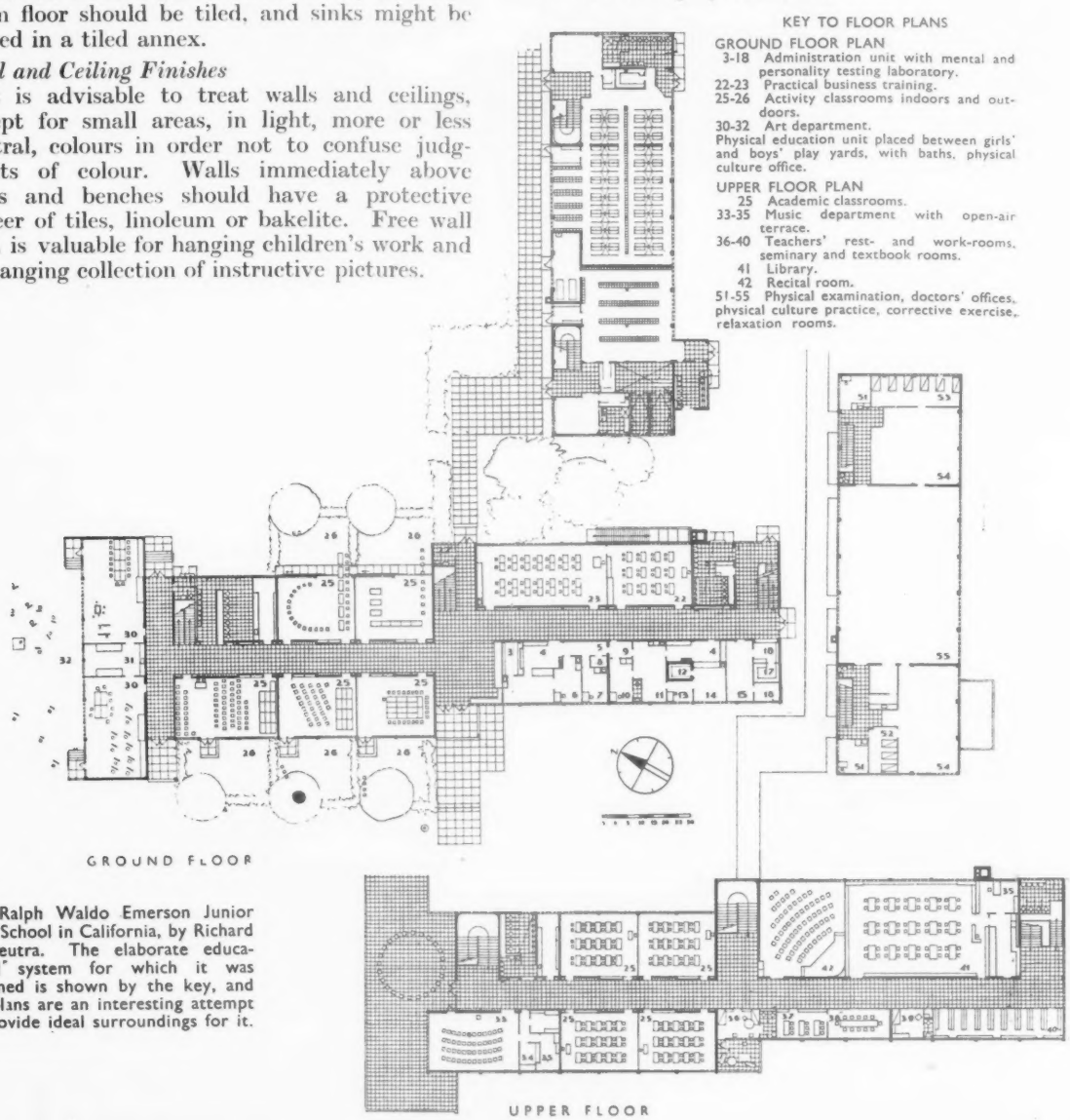
KEY TO FLOOR PLANS

GROUND FLOOR PLAN

3-18 Administration unit with mental and personality testing laboratory.
22-23 Practical business training.
25-26 Activity classrooms indoors and outdoors.
30-32 Art department.
Physical education unit placed between girls' and boys' play yards, with baths, physical culture office.

UPPER FLOOR PLAN

25 Academic classrooms.
33-35 Music department with open-air terrace.
36-40 Teachers' rest- and work-rooms, seminary and textbook rooms.
41 Library.
42 Recital room.
51-55 Physical examination, doctors' offices, physical culture practice, corrective exercise, relaxation rooms.

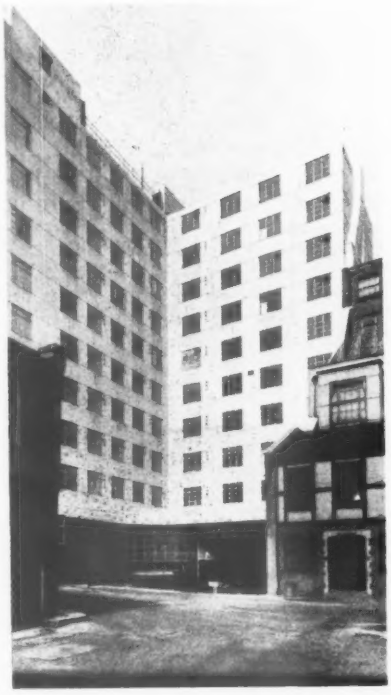


GROUND FLOOR

UPPER FLOOR

The Ralph Waldo Emerson Junior High School in California, by Richard J. Neutra. The elaborate educational system for which it was designed is shown by the key, and the plans are an interesting attempt to provide ideal surroundings for it.

FLATS IN EXHIBITION ROAD, KENSINGTON, S.W.



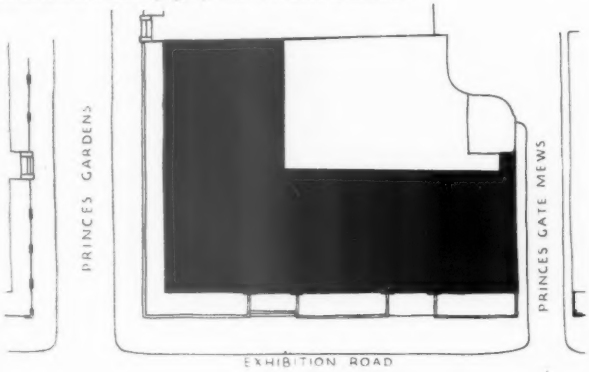
DESIGNED BY ADIE, BUTTON AND PARTNERS

SITE—*A very expensive site had to be covered to the maximum extent to make a sound financial scheme. The existence of running sand and running water on the site made deep excavations necessary, and the sub-basement thus formed was utilized as a bomb-proof shelter.*

CONSTRUCTION—*Reinforced concrete throughout with hollow block floors, finished with soundproof spring floors. Internal partitions are 3-in. plaster blocks or two skins of 2-in. blocks plus 2-in. space between flats.*

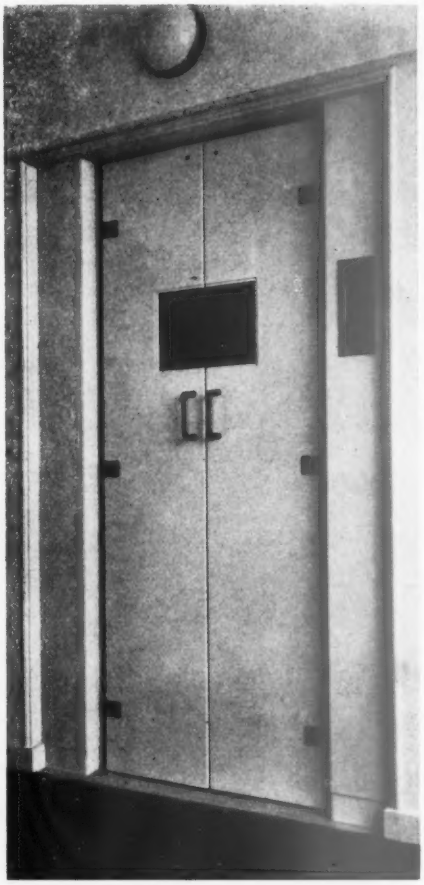
EXTERNAL FINISHES—*The area wall is faced with grey Belgian granite ; the entrance steps are of Portland stone ; and the building face has been finished with reconstructed Portland stone. The windows are metal casements.*

The photographs show : above, the rear elevation ; above, right, one of the main entrances ; and a general view of the fronts to Exhibition Road (right) and Princes Gardens.



SITE PLAN

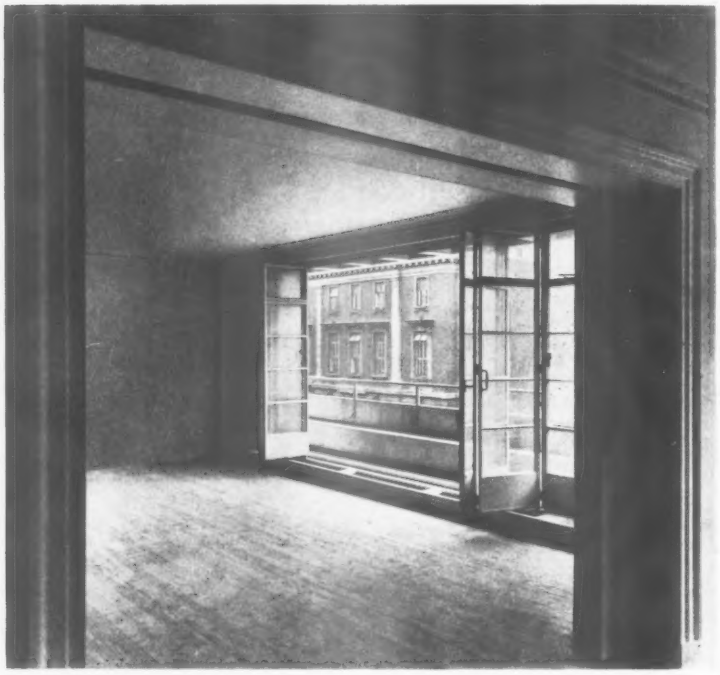
FLATS IN EXHIBITION ROAD, KENSINGTON, S.W.:



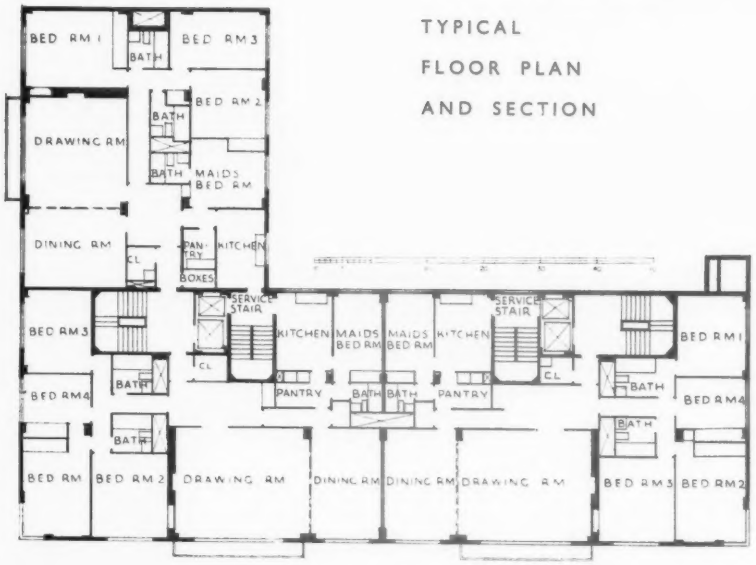
The photographs show : above, a typical lift door ; right, a typical living-room showing the sliding-folding windows.

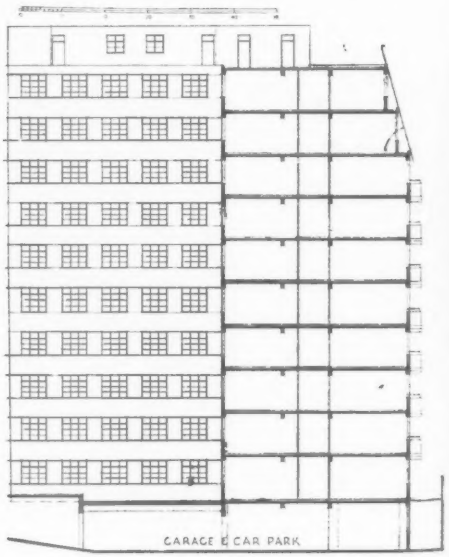
PLAN—*All the main rooms look on to Princes Gardens or Exhibition Road ; and all the main living-rooms have balconies with sliding-folding windows. There are separate maids' quarters to each flat, including a bathroom and bedroom. A garage for tenants' cars has been provided under the terrace garden. In the sub-basement a bomb-proof, gas-proof shelter has been provided with two exits in case of emergency. Emergency lighting, sanitation and ventilation can be provided at short notice as all provisions have been made. Wireless aerial and units have been provided, with provision for television at a later date.*

INTERNAL FINISHES—*Entrance halls have been decorated in the Georgian manner with fibrous plaster pilasters and cornice. The Corinthian capitals are gilded, and floors are oak block. The staircases and lift halls are carpeted and the solid balustrade has a bronze handrail fixed on brackets. The decoration and painting of the flats, including bathroom tiling and fireplaces, are to be completed to the taste of the individual tenant. Each flat has two complete built-in oak wardrobes, including mirrors, tie rack, shoe-rails, etc.*

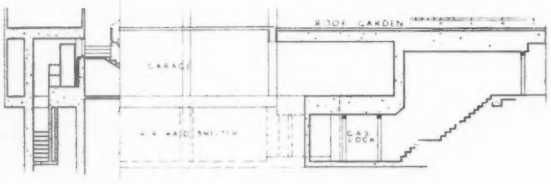


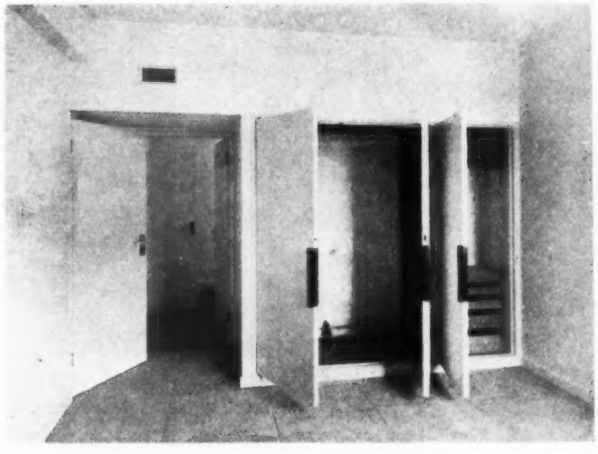
TYPICAL FLOOR PLAN AND SECTION

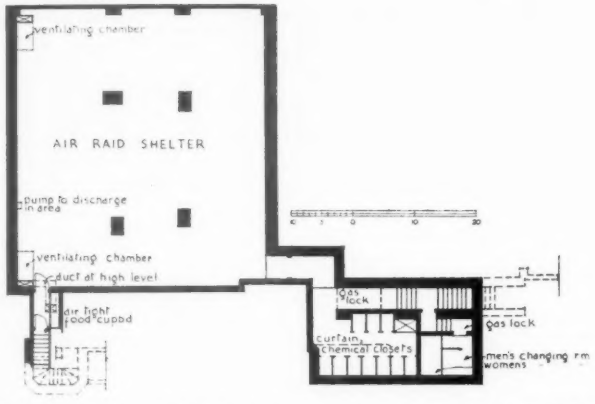




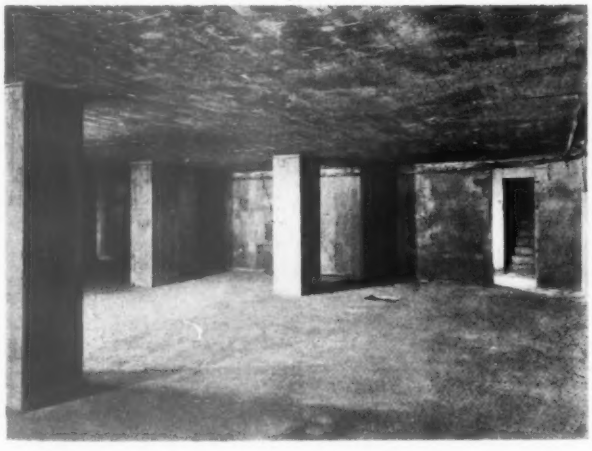
DESIGNED BY ADIE, BUTTON AND PARTNERS







PLAN AND SECTION OF BOMB-PROOF SHELTER



SERVICES—*Separate access to each flat from service lifts and staircases which connect with a corridor in the basement leading to the street trades entrance. There are five lifts in the building, two passenger, two service and one refuse container lift to the street. The heating is by accelerated low-pressure hot water with flush panel radiators to all rooms except main living-rooms, which have convector units in the step to the balcony.*

All pipes in the building are concealed and large access ducts have been provided to all bathrooms, with access from the corridors. A coal fire has been provided to each flat and the flues at roof level have been masked by a screen wall which rises to the height of the tank-room roofs. Conduits for G.P.O. 'phones have been run to all flats, and a separate telephone system has been installed to enable any tenant to ring the porter, garage or any other tenant.

The photographs show : top, left, a typical kitchen ; top, and centre, typical hall to a flat and cupboards; left, a general view of the bomb-proof shelter.

For list of general and sub-contractors, see page 304.

Frank Lloyd Wright's column design for the Johnson Building, Racine.
[From the "Architectural Forum."]

PERIODICALS

JANUARY ANTHOLOGY

AMERICA

Architectural Forum

(Monthly, $1·00. 135 East 42nd Street, New York)

JANUARY. A Frank Lloyd Wright number, many views and plans of Taliesin, several comparatively recent jobs, including the Johnson building now under construction at Racine, Wisconsin, with an interesting column design (see illustration).

Architectural Record

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

January. An illustrated article by Richard Neutra on the technical advances made in building during the past year; an article on design trends, by Herbert Matter; a review of the Buckingham housing project, a scheme for families in the $1,500 to $2,000 per annum group—plenty of plans, progress, photographs and constructional details. The Building Types section deals with hotels quite thoroughly, and there is a useful two-page bibliography.

Pencil Points

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

January. Professor Talbot Hamelin, of Columbia, starts the first of his series of articles on architectural criticism in succession to the late Mr. van Buren Magonigle: some notes on Chinese art, by Mark Daniels, illustrated by sketches for the China Village of the 1939 Golden Gate International Exposition; open spandrel bridges of ancient China—a first article by Liang Ssu Ch'eng; some sketches for film sets, by Carl Heilborn, and an article by Ernst Johnson on Perspective in Reverse, showing how a photograph may be translated into a scale drawing.

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FRANCE

L'Architecture

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

January. Three jobs, by M. Charles Letrosne, including a house for himself at Val-Martin, and an office block for the Westminster Foreign Bank in the Place Vendôme; M. George Labro's new buildings at Le Bourget—an article with good photographs, plans nearly unreadable.

La Technique des Travaux

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

January. A sanatorium in Brabant, by Maxime Brunfaut, good photographs, plans and constructional information; new offices for a Lille newspaper which make the best of neither world (see illustration page 303); a new airport near Delft about one-third the area of the Schiphol, by Brinkman, the late van der Vlugt and Zwanenberg.

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GERMANY

Baukunst und Städtebau

(Monthly, 1 m. 90. Bauwelt Verlag, Charlottenstrasse 6, Berlin, S.W. 68)

January. A school and a private house in Kleinmachnow, by Friedrich Blume; an article, by Werner Harting, on the planning of flat blocks to resist aerial attack, with a useful cost analysis; Trip to Paris, an article, by Alfons Leitl; the second instalment of Carl Meissner's article on Finland, dealing this time with the work of Professor J. S. Sirén.

Baumeister

(Monthly, 3 m. Georg Callwey, Finkenstrasse 2, Munich)

January. A new hospital, by Willem Bäumer, near Stuttgart; a three bedroom country house in Westphalia, by Willi Gertz; work by Herbert Noth, mostly country jobs, including a very pleasant house and studio at Locarno; a children's hospital in Schaffhausen, by Scherrer and Meyer.

Bauwelt

(Weekly, 90 pf. Bauwelt Verlag, Charlottenstrasse 6, Berlin, S.W.68)

January 6. Two Air Ministry buildings in Kiel and Konigsberg, by Professor Ernst Sagebiel; a forecast for the German building industry in 1938, by Doctor Dresl.

January 13. Three country houses near Berlin, by Hermann Werner.

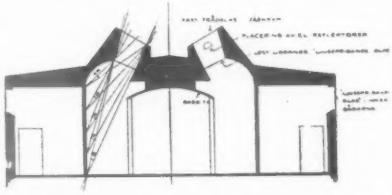
January 27. Small and medium-sized houses, by Karl Preuss, Hans Buschow and Fritz Glantz.

Deutsche Bauzeitung

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

January 5. A gymnasium at Augsburg showing some interesting timber construction; notes on window areas in small houses, by Otto Völckers.

January 12. An article on timber construction and methods of jointing, by Paul Hallensleben.



Section through a part of the Malmö Museum, showing the method of lighting.
[From "Byggmästaren"]

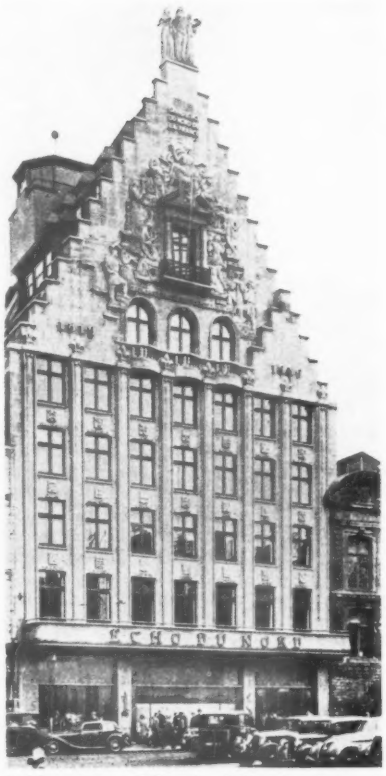
January 26. Some interiors of the Führer's house at Berchtesgaden.

Buildings Supplement. Recent single-family houses, by Klaus Reese: some small (twelve-family) flat blocks, by Rudolf Jacobs; a timber week-end house near Berlin, by Karl Otto; town planning and layouts near the Adolf Hitler-See in Stendal.

Innen Dekoration

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

January. Some small houses and plenty of painstakingly designed interiors; not enough plans or drawings.



A Newspaper Office in Lille, by Laprade, Bazin and Willoqueaux; "dans un esprit très moderne et personnel." [From "La Technique des Travaux."]

Moderne Bauformen

(Monthly, 3 m. Julius Hoffmann, Paulinenstrasse 44, Stuttgart)

January. Illustrations of the work of Paul Bonatz, taken from a book published on his sixtieth birthday; there are several drawings of proposed bridges for the German Motor Roads, for which Professor Bonatz is general inspector; a large country house in the Taunus mountains, by Kurt Dübbers—many photographs and good plans and constructional details; a country house on a steeply sloping site, by Fritz Breuhaus; recent interiors, mostly good, and a block of shops and offices in Stuttgart, by Hans Schmöl.

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HOLLAND

Bouwkundig Weekblad Architectura

(Weekly, 15 fl. per annum. Weteringshans 102, Amsterdam)

January. Plans and photographs of Sven Markeluis' "architect's house" in Stockholm.

January 8. An office block in the Keizersgracht, Amsterdam, by A. A. Kok.

January 15. A large thatch-roofed country house, by A. P. Smits and C. van de Linde.

January 22. New Year greeting cards, an article illustrated largely with woodcuts.

January 29. An observatory at Eindhoven, by L. C. Kalff.

de 8 en opbouw

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

January 15. *de 8* starts the year with a new cover and illustrates a cinema at Utrecht, by G. Rietveld, and a timber house, by Otto Senn.

January 29. The furnishing of working-class flats—two prize schemes which have produced good results at a comparatively ow price.

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ITALY

Architettura

(Monthly, 18 lire. Via Palermo 10, Milan 1)

December. A review of various schemes submitted in the competition for the "Casa Littoria" in Rome; town planning in Abyssinia—many schemes already prepared.

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SWEDEN

Byggmästaren

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

No. 1. Calculations for the swaying period of buildings, by H. Kreüger and J. H. Sager; town and regional planning notes, by Uno Ahrén.

No. 2. Malmö Museum, plans, photographs, and useful drawings showing the method of lighting (*see* section page 302).

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SWITZERLAND

Schweizerische Bauzeitung

(Weekly, 1 fr. Dianastrasse 121, Zurich)

January 1. A new church in Zurich, by Henauer and Witschi, photographs, plan. and some acoustical details, by L. Villards.

January 8. Two factories near Zurich, by Roland Guyer; a clinic at Locarno, by Bruno Brunoni.

January 15. Bridges built during the last five years in the canton of Graubünden; a competition for a school in Zurich, won by W. Niehus.

January 22. More bridges in Graubünden.

January 29. Further schemes submitted in the school competition referred to above (January 15).

Werk

(Monthly, 3 m. 50. Muhlebachstrasse 59, Zurich)

January. Sculpture by Paul Speck; the Museum of Modern Art at the Paris Exhibition; a museum project by Le Corbusier.

TRADE NOTES

[*BY PHILIP SCHOLBERG*]

Sensible Information

BRITISH Vitrolite (or should one say Pilkingtons?) have just issued a new book of specifications which is almost a model of what such things should be. Out of a total of some 180 odd pages, about thirty are devoted to colour charts and such necessary data as sizes, thicknesses, weights and methods of fixing, all set out so that the essential information is there, and without any unnecessary beating about the bush. The rest of the book consists of photographs of existing jobs with drawings on the left-hand pages to show how it is all done. This is exactly the sort of thing the architect needs. The standard of design among the jobs shown is fairly high, but there are inevitably one or two which some people will not like, though I cannot see that this matters very much. Most manufacturers worth anything at all have quite definite ideas about the proper use of their material from the design point of view; their chief concern, however, is to see that it is fixed in the right way and to leave all questions of design to the architect and hope for the best. Hence the designs in this book, which provide something for nearly every taste.

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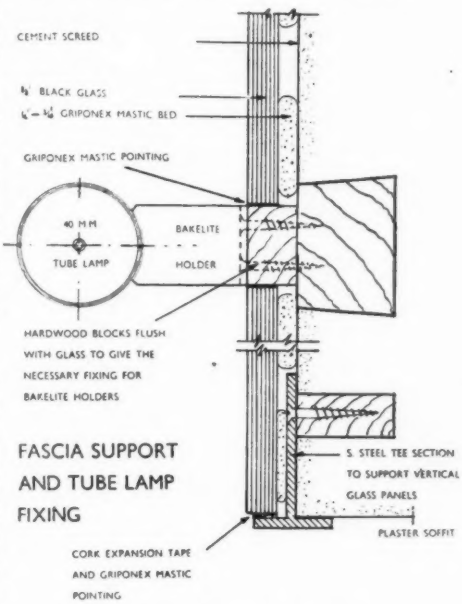
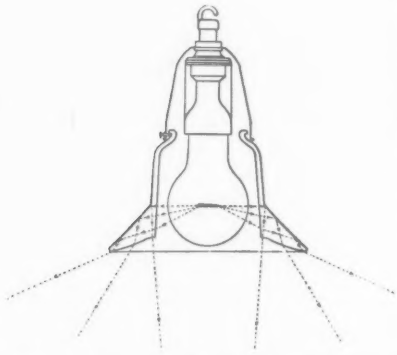
While the use of Vitrolite internally for such things as bars, bathrooms, ceilings, and table-tops is gradually being understood, the problem becomes more complicated with the necessary weatherproofing for external use, and anchors are desirable for alternate courses if the overall height is greater than 8 ft. The drawing in the right hand column shows a fairly typical detail of a shop fascia carrying a tubular light fitting, and is taken from Messrs. Hall Crown's premises in Oxford Street, by Mr. Oliver Bernard. Generally speaking, a well-produced and useful book with a commendable absence of nonsense about it.—(*The British Vitrolite Company, Ltd., 164 Shepherdess Walk, Hoxton, London, N.1.*)

Lighting Efficiency

Without giving a great deal of thought to the problem most people assume that the average reflector is as efficient as it can well be, though it must be admitted that vitreous enamel is not the perfect reflecting medium, quite apart from the fact that its efficiency falls off when it gets dirty. A compara-



Details of Vitrolite exterior fixing



Above, section of the Amplilux industrial unit; left, a type for restaurants or the private house.

tively recent French patent, however, attacks the problem from a different angle and employs the principle of total internal reflection in a prism. The drawing at the top of this page shows an industrial fitting made on these lines, the prism being annular on plan with the top of the triangular section mounted at the same level as the filament. The advantage of this method is that the internal reflection factor is getting on for 100 per cent., and the efficiency cannot drop with the accumulation of dust, a point well worth considering with the average rather inaccessible factory fitting. Photometer tests show an increase in light on the working plane of about 60 per cent. compared with a new vitreous enamelled reflector of the type normally used in factories, and this fitting also gives a certain amount of ceiling illumination, and this tends, too, to reduce glare, since the fittings are seen against a light instead of a dark background. Cost is 18s. 6d. for the 100 watt, 21s. for the 200 watt fitting, these prices including a porcelain skirted lampholder and earthing screw. The design of this fitting seems particularly sensible in that its pleasant appearance is due entirely to the essential shape of the prism and the frosted bell above it, and no effort has been made to achieve good appearance at the expense of efficiency.

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The photograph shows another type of unit more suitable for restaurants or the private house, the price of this varying from 65s. to 105s., according to the lamp size and the globe diameter. Here the prism forms the lowest ring of the globe and gives the same high intensity in the horizontal plane. For ordinary reflector units the prism is available mounted on a wire frame which slips over the lamp, the price here varying from 5s. 6d. to 15s. for the 500 watt size. On a bare lamp the illumination on the horizontal plane is nearly doubled by the prism; it should be realized that these prisms are fairly strongly directional, and that they are therefore not suitable for use anywhere and everywhere, but it would seem that in workshops, restaurants or drawing offices, in fact anywhere where the main illumination is from ceiling fittings, they would be well worth a trial. The principle is so obvious and so simple that it is fantastic nobody should have thought of it before, and the results are so impressive that I feel there must be a snag somewhere. But it is difficult to ignore photometer tests, and most of the people who attended a recent demonstration in Grosvenor Gardens admitted, almost resentfully, that they could offer no destructive criticisms. Although the original patent is French, an English company is now manufacturing in this country. They have the best of all arguments in that they should be able to show a saving in current and lamp costs.—(*The Amplilux Lighting and Illumination Co., Ltd., 12 Grosvenor Gardens, London, S.W.1.*)

A New Varnish

Since Messrs. Nobles and Hoare have been making paints and varnishes for the last 150 years it may be assumed that any new product of theirs is well worth a trial. Their latest effort is a medium-priced all-purpose varnish which sells at 12s. a gallon and is marketed under the name of Albavar. It is pale enough to be used over delicate colours, dries quickly, and can be flatted if required to take a second coat, while at the same time it is claimed to be reasonably durable both for inside and outside use. This firm is, of course, still making the more expensive qualities for special purposes.—(*Nobles and Hoare, Ltd., Cornwall Road, Stamford Street, London, S.E.1.*)

Silent Motors

Mention of old-established firms reminds me that Bull Motors have been concentrating on silence for nearly forty years, working on the principle that anti-vibration mountings are all very well, but that it is far better to produce motors which do not need them. A very reasonable policy, which is still adhered to, incidentally, by the better types of motor-car manufacturer, who believe that flexible mountings are a slightly immoral palliative for vibration which should not be there at all. In order to obtain silent running Bull motors have cast iron instead of fabricated steel frames, and instead of ball bearings, which tend to be noisy, sleeve bearings are used. There are also details of the rotor design which eliminate relative movement and consequent chatter, but these need not concern us here. From the architect's point of view the main factor is that these motors are slightly more expensive and slightly less efficient than the good industrial types, but they are *silent*. Decibel figures for sound emission may be valuable, but the real test is the amount of annoyance caused when they are installed. Judging from the impressive list of buildings in which these motors have been used there are plenty of architects who think that the silence of these motors is worth the extra price, though it is worth remembering that silent motors mean that the rest of the equipment must be silent, too.—(*Bull Motors, Ltd., Ipswich.*)

Data for Sports Buildings

It remains to be seen whether the Government's programme for a fit and healthy nation is going to lead to an outburst of stadia and swimming baths all over the country. Even assuming that about half of them will automatically go to the borough engineer there is no reason why architects should not have the essential data somewhere handy. A recent booklet* by the professor of architecture at Karlsruhe technical high school gives plenty of information at the very reasonable price of 1 mark 62 for 111 diagrams and photographs ending up with an ideal layout plan for a small town of about 30,000 inhabitants. While some of the plans of Roman amphitheatres and such buildings as the baths of Caracalla are perhaps not essential, there is plenty of other information about such things as the sizes of fields for different games, seating angles and sight lines for grandstands, while there are also about thirty pages of data on open-air and covered swimming baths.

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Ignorance of the German language does not matter very much with a book of this kind, for, although there is a certain amount of letterpress, the diagrams and photographs are the things that matter, and they are self-explanatory, or at worst the cheapest pocket dictionary will tell you what you want to know.

* *Sportbauten und Bäder.* By Otto Ernst Schweizer. Berlin, Walter de Gruyter & Co., Woyrschstrasse 13. Berlin, W.35. Price RM 1.62.

THE BUILDINGS ILLUSTRATED

PRINCES GATE, SOUTH KENSINGTON (pages 299-301). Architects: Messrs. Adie, Button and Partners. The general contractors were E. H. Burgess, Ltd., who were also responsible for the joinery. The sub-contractors and suppliers included: Coles Demolition and Excavation, Ltd., demolition, excavation, foundations and dampcourses; The Trussed Concrete Steel Co., Ltd., reinforced concrete and fireproof construction; Fenning & Co., Ltd., Portland stone; H. W. Cullum & Co., Ltd., patent flooring; India Rubber Gutta Percha, Ltd., patent flooring; Korkoid Decorative Floors, patent flooring; Frazzi, Ltd., "Paropa" roofing; I.C.I. Pioneer, Ltd., partitions and plaster; Crittall Manufacturing Co., Ltd., patent glazing, metal casements and window furniture; Maple & Co., Ltd., wood block flooring and decorative plaster; H. W. Dutton & Co., Ltd., central heating and ventilation; A. Grant and Sons, gasfitting and plumbing; Ideal Boilers and Radiators, boilers; Troughton and Young, electric wiring, electric light fixtures and bells; Baldwins (Birmingham), Ltd., sanitary fittings; Inlaid Ruboleum Tile Co., Ltd., stairtreads; Walter Cassey, Ltd., door furniture; G.P.O., telephones; George Wright (London), Ltd., rolling shutters and iron staircases; Fenning & Co., Ltd., stonework; Leeds Fire-clay Co., Ltd., tiling; Trollope and Sons, show flat and furniture; Marryatt and Scott, Ltd., lifts; Bull Motors (Branch of E. & S. Turner) Bull super silent motors.

Next week's issue of the JOURNAL will contain as a *loose supplement* the new LABOUR RATES for the principal towns and districts throughout the country. These Rates should be retained for use in conjunction with PRICES, and additional copies will be obtainable from the JOURNAL.

PRICES

THE fourth and last part of the JOURNAL'S *Prices Supplement is published this week, and contains the second part of Measured Rates and the new section on Approximate Estimating. Next week the first section of the Supplement will be repeated. The Prices for Materials will be altered in accordance with fresh quotations received, the items which have changed will be marked, and in the following weeks Measured Rates and Approximate Estimates will also be altered in accordance with the quotations for Materials.*

The section of Approximate Estimating which begins on page 310 expresses the prices of complete and often used building units in a manner extremely easily applied. The author explains its application in the accompanying article.

★ *ANSWERS TO QUESTIONS*

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

APPROXIMATE ESTIMATES

By O. A. DAVIS

CURRENT Prices for Approximate Estimates, which appear in the Pricing Supplement of this issue, are a new feature, and as far as my firm are aware nothing similar has been published previously in other Journals. For some time we have considered that the whole question of the preparation of Approximate Estimates has been unnecessarily neglected, and we believe that even those who criticise the subject matter in the Pricing Supplement will agree that the idea behind it is sound.

For important prices it is usually possible to check one's data by getting in touch with a manufacturer or merchant direct, but Approximate Estimates are nearly always needed in a hurry, and it is essential that the available data should be in such a form that it can be easily filed and referred to in the office.

In its simplest form Approximate Estimating consists of converting the units at which various materials are usually priced to one common unit, so that a number of materials can be grouped together at one composite price. For instance, the price of deal flooring can be converted from squares to yards super, and the price of floor joists can be converted from feet cube to yards super (if the distance apart is known); thus a complete floor, including boarding, joists, and plaster and distemper under, can be priced at a single price per yard.

An improvement on this system is to include in each composite price an allowance to cover the cost of sundry labours and incidental items which are either necessary to, or are to be normally expected in, the structural unit under consideration. This is the method adopted.

As examples the price given for a partition, plastered and distempered both sides, is made up of the three prices given in "Current Prices for Measured Work" for partitions, plaster and distemper, with an allowance for an average amount of cutting and bonding of the partitions to walls and pinning up to soffites, etc., for which no prices were given in that section owing to lack of space. Again, the price for a wood floor includes an allowance for herringbone strutting and also for the wood plates on which the floor is resting.

There are, of course, limits to the "incidental items" allowed for. The price for pitched roofs, measured on slope, does not, for instance, include the cost of collars, struts or trusses. We believe that such limitations will be obvious.

The items in Approximate Estimates are somewhat similar to those which appeared in Information Sheets. They are, however, based on a different method of measurement, and those who use both sets should be careful to bear this in mind.

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

1. Current Market Prices of Materials, Part I. (published January 27).
2. Current Market Prices of Materials, Part II. (published February 3).
3. Current Prices for Measured Work, Part I. (published last week).
4. A.—Current Prices for Measured Work, Part II.
   B.—Prices for Approximate Estimates.

● *Prices are for work executed complete and are for an average job in the London Area, all prices include for overhead charges and profit for the general contractor.*

PART 4

CURRENT PRICES FOR MEASURED WORK—II

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

JOINER

Deal Flooring

		1″	1¼″
Plain edge flooring in batten widths	per square	38/–	48/–
Ditto tongued and grooved ditto ..	per square	41/8	52/1

Wood Block Flooring, laid herringbone, 100 yards and up

D.G. and T.G. kiln dried, 2 block border, laid in hot mastic composition on cement screed, including 2 feet run of straight cutting per yard super, and wax polishing at time of laying.

		1″ nominal	1¼″ nominal
Mahoborn teak	per yard super	13/11	18/4½
Canadian Maple	per yard super	11/6	13/8
25–30 per cent. quart Austrian Oak	per yard super	12/10	16/–
Plain American Oak (no selection made for sap) ..	per yard super	11/8	—
Gurjun	per yard super	12/7	14/9
Pitch Pine (50% rift sawn)	per yard super	11/10	13/8
Ditto (100% ditto)	per yard super	13/1½	15/6
British Columbian Pine ..	per yard super	10/–	11/6
Kara Sea Deal, 100 per cent. rift sawn	per yard super	9/9	10/6
Jarrah	per yard super	13/–	15/3
Additional straight cutting	5½d. per foot run		

JOINER—(*continued*)

Secret Nailed Tongued and Grooved Strip Flooring, fully Desiccated, including Polishing

		1″ nominal £ s. d.	1¼″ nominal £ s. d.
Austrian Wainscot Oak ..	per square	8 18 6	10 12 7
Plain Japanese Oak ..	per square	7 10 8	9 2 2
Plain American Oak ..	per square	7 7 0	9 3 9
Pitch Pine	per square	7 0 6	8 15 7
British Columbian Pine ..	per square	4 14 6	5 7 7
Canadian Maple	per square	6 19 1	8 10 7
Mahoborn Teak	per square	6 19 1	8 10 7
English Oak	per square	10 4 9	12 15 11
Gurjun	per square	6 19 1	8 10 7
Jarrah	per square	6 13 10	8 6 5

Wall Linings

⅝″ Deal tongued and grooved V-jointed Matching in narrow widths	per square	33/4
¼″ (6 mm.) Birch (A) Plywood and fixing to walls	per square	46/6
3/16″ Asbestos cement sheets butt jointed	per foot super	–/3¾
½″ Fibre board and fixing to walls ..	per yard super	3/–
Deal battens as ground plugged to brickwork	per foot super	–/2½
1½″ × ⅜″ wrot and chamfered fillets ..	per foot run	–/1¾
2″ × ½″ wrot and moulded ditto	per foot run	–/2

CURRENT PRICES

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

JOINER, IRONMONGER AND STEEL AND IRONWORKER

JOINER—(*continued*)

Skirtings

	Deal	Austrian Oak
1″ chamfered or moulded 4″ high, fixed to and including grounds and backings planted on per foot run	–/3½	–/9
Add for plugging to brickwork .. per foot run	–/0½	–/0¾

Fitted ends on hardwood price as 4″ of skirtings, mitres as 6″.
Fitted ends, etc., on deal skirting included in price per foot run.

Casements and Fanlights

	1½″	2″
Deal moulded sashes divided into squares with glazing bars .. .. per foot super	1/4½	1/5½
Add for hanging casements (butts measured separately) .. .. each	1/9	2/–

Cased Frames and Sashes

Deal cased sashed frame, including 2″ double hung sashes, with 6″×3″ Oak cill and brass axle pulleys, sash line and weights, average 15 feet super .. per foot super	3/9

Doors in Deal

	¾″	1″	1¼″
Matchboarded, ledged and braced door per foot super	1/–	1/2	1/4
	1½″	1¾″	2″
Framed, ledged and braced door, filled in with matchboarding .. per foot super	1/5	1/9	1/10
Ditto garage doors, ... per foot super			1/7
			4-panel
1½″ square framed, both sides .. per foot super			1/7
2″ ditto .. .. per foot super			1/9
1½″ ditto bead butt panels one side, but square the other per foot super			1/9
2″ ditto, ditto .. .. per foot super			1/11
1½″ moulded both sides .. .. per foot super			1/10
2″ ditto .. .. per foot super			2/–
For fixing only p.c. doors allow .. per foot super			–/2½

Hardwood doors two-and-a-half times as much as deal.

Deal glazing beads, mitred and bradded per foot run	–/1½
Ditto and fixed with brass cups and screws per foot run	–/3

Window and Door Linings

	1″	1¼″	1½″
Deal linings, 6″ wide, tongued at angles and planted on including backings per foot run	–/6½	–/7	–/8
Add for plugging to wall per foot run	–/0¾	–/0¾	–/0¾
Add for rebating .. .. .. per foot run	–/0½	–/0½	–/0½
Add for ½″ × 2″ Deal stop planted on per foot run	–/1½	–/1½	–/1½
Deal window board 9″ wide, with rounded nosing, tongued at back and on and including bearers plugged to brickwork.. per foot run	–/10	–/11	1/1
¾″ Deal scotia mould .. .. per foot run		–/1½	
Oak linings 6″ wide tongued at angles and planted on including backings per foot run	1/–	1/5	1/8
Add for plugging to brickwork .. per foot run	–/1	–/1	–/1
Add for rebating .. .. .. per foot run	–/1	–/1	–/1
Add for ½″ × 2″ Oak stop planted on per foot run	–/3	–/3	–/3
Oak window board 9″ wide, with rounded nosing tongued at back and on and including bearers plugged to brickwork .. .. per foot run	1/9	2/–	2/3½
¾″ Oak scotia mould .. .. per foot run		–/3½	

Window and Door Frames

	Deal	Austrian Oak
4″ × 3″ door frames .. .. per foot run	–/10	2/1
4″ × 3″ window frames .. .. per foot run	–/11	2/3
4″ × 3″ transomes and mullions .. per foot run	1/4	3/1
6″ × 3″ door cill, sunk weathered twice throated and grooved for water bar (measured separately) per foot run	—	3/9
6″ × 3″ window ditto .. .. per foot run	—	3/1
Add or deduct for variation in sectional area per square inch .. .. .. per foot run	–/0½	–/1½
Add for each labour, for chamfer, bead or rebate, etc. .. .. per foot run	–/0½	–/1
Add for each moulding .. .. per foot run	–/0¾	–/1½

Architraves

	Deal	Oak
1″ × 3″ chamfered or moulded architraves, including mitres on softwood, planted on per foot run	–/3	–/8½

Mitred angles on oak price as 6″ of architrave.

Add for plugging to brickwork .. per foot run	–/0¾	–/1
Add for narrow splayed grounds .. per foot run	–/1½	–/1½

JOINER—(*continued*)

Shelving

	Deal	Oak
Slat shelving of 1″ × 2″ spaced ¾″ apart per foot super	–/9	—
1″ shelving .. .. .. per foot super	–/10	2/–
1¼″ ditto .. .. .. per foot super	–/11½	2/4
1″ cross-tongued shelving .. per foot super	1/–	2/4
1¼″ ditto .. .. .. per foot super	1/1½	2/8
1″ × 2″ chamfered bearers planted on per foot run	–/2½	–/6½
Add if bearers plugged to brickwork per foot run	–/0¾	–/1

Teak Draining Boards and Twice Oiling

1¼″ Moulmein cross-tongued fluted draining board fixed to slight falls .. .. .. per foot super	3/9
½″ × 2″ rounded rim bedded in white lead and screwed to edge of draining board .. .. .. per foot run	–/5
½″ × 4″ rounded skirting fillet ditto.. .. per foot run	–/9

Staircases

	Deal	Oak
1¼″ treads and 1″ risers .. per foot super	2/–	5/–
2″ strings, fixed .. .. .. per foot run	1/10	4/7
Housing treads and risers to strings .. each	–/9	1/6
3″ × 2½″ French polished moulded handrail per foot run	—	2/6
1¼″ × 1¼″ square balusters 2′ 6″ long .. each	–/10	2/–
4″ × 4″ Newels with chamfered edges and fixing per foot run	1/4	3/4

IRONMONGER

Fixing only

4″ Butt hinges to softwood .. .. .. per pair	1/–
4″ ditto to hardwood .. .. per pair	1/4
16″ T. hinges to softwood .. .. .. per pair	1/6
48″ Collinges patent gate hinges to softwood per pair	7/6

	Softwood	Hardwood
6″ Cabin hooks .. .. .. each	–/7½	–/10
Hat and coat hooks .. .. .. each	–/3	–/4
Cupboard knobs .. .. .. each	–/3	–/4
Night latches .. .. each	1/6	2/–
Thumb latches .. .. .. each	1/6	2/–
Letter plate and knocker, including perforation in door .. .. each	2/6	3/4
Barrel or tower bolts .. .. .. each	–/10	1/1
Flush bolts .. .. each	1/6	2/–
Rim locks and furniture .. .. each	2/–	2/8
Mortice ditto .. .. each	3/–	4/–
Rebated ditto .. .. each	3/6	4/8
Grip handles .. .. each	–/6	–/8
Cupboard locks .. .. .. each	1/–	1/4
Spring catches .. .. each	–/10½	1/1½
Casement fastener .. .. .. each	1/–	1/4
Ditto stays .. .. each	–/10	1/1
Sash fastener .. .. each	–/8	–/11

STEEL AND IRONWORKER

(For Rainwater Goods—*see* "Plumber.")

Steelwork

	£	s.	d.
Basis for plain rolled steel joists .. per ton	18	7	6

Fabricated Steelwork

	£	s.	d.
Joists cut and fitted .. .. .. per ton	24	13	6
Stanchions, ordinary sections with riveted caps and bases .. .. per ton	24	13	6
Stanchions, compound .. .. .. per ton	25	4	0
Girders, ditto .. .. per ton	25	4	0
Framed roof trusses, average span .. per ton	28	7	0

The above prices are ex mills ordered well in advance of delivery.
Prices ex London stocks are considerably higher, and definite quotations should be obtained.

Wrot Iron Work

Simple balusters and handrail fixed (excluding mortices, etc.) .. .. per cwt.	56/–
Bolts and nuts fitted .. .. per cwt.	35/–

Galvanized Corrugated Sheeting

	20 B.G.	22 B.G.
Sheeting in 3″ corrugations and fixing on wood framing with screws and galvanized embossed curved washers including laps .. per square	56/–	49/–
Ditto fixed to steel framing .. per square	63/4	56/8

CURRENT PRICES

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

PLASTERER, EXTERNAL AND INTERNAL PLUMBER

PLASTERER

Lime and Sirapite Plastering

	Per yard super	In narrow widths per foot super
Expanded metal lathing	1/8	–/3
1″ × 3/16″ sawn laths	–/9	–/1½
Render and set in lime and hair	1/8	–/3½
Render, float and set in lime and hair	2/–	–/3¾
Plaster, float and set ditto on lathing (measured separately)	2/1½	–/4
Render and set with Sirapite	1/9½	–/3½
Plaster, float and set ditto on lathing (measured separately)	2/3	–/4

Keenes

	Per yard super	In narrow widths per foot super
Cement plain face on and including a backing of Portland cement and sand	2/6	–/5

Mouldings and Labours

		Lime and Sirapite	Keenes
Plain cornices and mouldings 6″ girth	per foot run	–/9½	–/11
Labour arris, quirk or throat	per foot run	–/1½	–/1½
Ditto rounded angle	per foot run	–/2	–/2
Ditto staff bead	per foot run	—	–/7½

Mitres price as 12″ of moulding, stopped ends as 6″, and rounded angles as 18″.

Portland Cement and Sand (1 : 3)

		½″	¾″
Screeds to floors for wood or tiles	per yard super	1/2½	1/4
Screeds for tiling, etc., on walls	per yard super	1/4	1/6
Renderings to walls—one coat float finish	per yard super	1/6	1/8
Plainface	per yard super	1/10	2/–

Coloured Cement Plainface

Cullamix No. 2 or 3 cream, on and including water repellent cement and sand backing	per yard super	3/10
Snowcrete mixture on and including ditto	per yard super	3/10
Snowcrete and white silica sand on and including ditto	per yard super	3/6

Wall Tiles, Commercial Quality

6″ × 6″ × ⅜″ ivory or white	per yard super	16/–
Extra for rounded edge tiles	per yard run	1/5
6″ × 6″ × ⅜″ coloured enamel bright glazed	per yard super	21/9
Extra for rounded edge tiles	per yard run	–/8½
6″ × 6″ × ⅜″ eggshell gloss enamelled	per yard super	23/4
Extra for rounded edge tiles	per yard run	–/7½

For raking out joints of brickwork, keyed bricks or hacking face of concrete, to form key for plastering, see "Bricklayer."

EXTERNAL PLUMBER

Lead

	Flats	Gutters, Flashings, etc.	Stepped Flashings	Soakers cut to size
Milled sheet lead and labour per cwt.	40/6	41/7	42/8½	35/4
Bedding edges in white lead			per foot run	–/2
Lead wedgings to flashings			per foot run	–/1½
Ditto to stepped flashings			per foot run	–/2
Dressing 6-lb. lead over glass and glazing bars			per foot run	–/3½
Copper nailing			per foot run	–/1½
Close ditto			per foot run	–/2
Bossed ends to rolls			each	–/7½
Extra labour dressing through shoots and into rainwater heads			each	3/–
Ditto to cesspools, including extra solder			each	5/3

Cast Iron Rainwater Goods

Rainwater Pipes fixed to brickwork.

		3″	4″
Round pipes	per foot run	1/5½	1/9
Extra for bends	each	2/2	2/10
Ditto 6″ offset	each	2/4	2/10
Ditto single branches	each	2/7	3/1
Ditto shoes	each	1/7	2/2
		3½″ × 3½″	4″ × 3″
Square and rectangular pipes	per foot run	3/2	2/10
Extra for elbows	each	4/11	3/6
Ditto single branches	each	5/9	5/4
Ditto shoes	each	4/8	4/3

EXTERNAL PLUMBER—(*continued*)

Gutters fixed to fascia.

		4″	5″	6″
Half-round gutters	per foot run	1/–	1/2½	1/8½
Extra for angles	each	1/9	2/–	2/3
Ditto nozzles	each	1/7	1/10	2/5
Ditto stop ends	each	1/–	1/3	1/4½
O'Gee gutters	per foot run	1/1½	1/4	1/9½
Extra for angles	each	1/9½	2/3	2/4
Ditto nozzles	each	1/8	2/3	2/8
Ditto stop ends	each	1/1½	1/4½	1/7½

INTERNAL PLUMBER

Lead Pipes

Service.

		½″	¾″	1″	1¼″
Pipes laid in trenches	per foot run	1/–	1/3	1/9½	2/5½
Add if fixed on walls	per foot run	–/2	–/3	–/4	–/5
Ditto if in short lengths	per foot run	–/1	–/1	–/1½	–/2
		1½″	2″	2½″	3″
Pipes laid in trenches	per foot run	3/1	4/1	—	—
Add if fixed on walls	per foot run	–/6	–/8	—	—
Ditto if in short lengths	per foot run	–/3	–/4	—	—

Distributing.

		½″	¾″	1″	1¼″
Cold water pipes fixed to walls	per foot run	–/11	1/3	1/8½	2/3½
Add if in short lengths	per foot run	–/1	–/1	–/1½	–/2
Cold water pipes fixed to walls	per foot run	1½″ 2/10½	2″ 3/8	2½″ —	—
Add if in short lengths	per foot run	–/3	–/4	—	—

Flushing and Warning.

		½″	¾″	1″	1¼″
Waste and overflow pipes fixed in short lengths	per foot run	–/9	–/11½	1/2½	1/5½
Waste and overflow pipes fixed in short lengths	per foot run	1½″ 1/10½	2″ 2/6	2½″ —	3″ —

Soil and Ventilating.

					3½″	4″	4½″
Pipes fixed, including lead tacks	per foot run				5/6	6/–	6/10
	1½″	2″	2½″	3″	3½″	4″	4½″
Bends each	1/6	2/–	2/9	3/9	4/3	4/6	5/6
Soldered joints to fittings	½″	¾″	1″	1¼″	1½″	2″	
each	2/1½	2/4	2/7	2/9	3/–	3/5	
Soldered branch joints (price as largest branch) each	½″ 2/3½	¾″ 2/6	1″ 2/9	1¼″ 3/–	1½″ 3/3		
Soldered branch joints (price as largest branch) each	2″ 3/8	2½″ 4/–	3″ 4/6	4″ 5/–	4½″ 6/6		
Wrap small pipes with hair felt	per foot run				–/6		

Drawn Lead Traps

	1¼″	1½″ 3″ deep seal	1½″	1½″ 3″ deep seal	2″	2″ 3″ deep seal
P. Traps 6 lb. with cleaning eye and two soldered joints each	7/1	7/7½	8/3	8/9½	9/8	10/2½
S. ditto each	7/6	8/0½	8/8	9/2½	10/4	10/10½

Brasswork (*Best Quality*)

	½″	¾″	1″
Brass screwdown stop cocks including two soldered joints each	7/6	9/9	13/1
Ditto, including two red lead joints for iron each	5/8	7/10	11/–
Ditto, including one soldered and one red lead joint each	6/1	8/1	11/2
High pressure Portsmouth pattern ball valve with flynut and union and one soldered joint each	8/5	11/7	17/2
Ditto, including red lead joint for iron each	6/5	9/2	16/8
		2″	4″
Brass thimble and soldered and cement joints each		5/–	9/5
Ditto, with solder and caulked lead joints each		6/–	11/2

Fixing Only (*Connections to Pipes measured separately*)

24″ × 18″ × 6″ sinks including taps, etc., and pair of brackets cut and pinned to brickwork each	6/–
24″ × 18″ lavatory basins ditto each	6/6
W.C. suite comprising pan and trap, seat, W.W.P. and brackets each	10/6
Baths, including taps, etc., and setting in position each	10/6

CURRENT PRICES

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

INTERNAL PLUMBER, GLAZIER AND PAINTER

INTERNAL PLUMBER—(*continued*)

Screwed and Socketed Galvanized Steam Quality Steel Tubes and Fittings

Pipes up to and including 1½″ include short running lengths, sockets, connectors, elbows, bends, fire bends; Tees and Diminishing Pieces enumerated.

Distributing.

		½″	¾″	1″	1¼″	1½″	2″
Pipes fixed to walls	per foot run	–/10	1/–	1/4	1/10	2/4	3/–
Ditto in short lengths, fittings, etc., measured separately	per foot run	–/10	1/–	1/4	1/10	2/4	3/–
Extra for							
Firebends	each	–/4	–/6	–/9	1/3	1/6	2/–
Bends	each	1/2	1/5	1/9	2/6	3/1	4/9
Round elbows	each	1/5	1/8	2/–	2/4	2/10	4/4
Square ditto	each	1/5	1/8	1/11	2/3	2/8	4/1
Tees	each	1/6	1/10	2/1	2/9	3/1	4/8
Crosses	each	2/9	3/2	3/10	5/–	6/–	9/1
Diminishing pieces	each	–/10	–/11	1/2	1/6	1/11	2/8
Caps	each	–/7	–/8	–/10	1/–	1/5	1/9
Plugs	each	–/6	–/6	–/8	–/11	1/4	1/8

Cast Iron Waste, Soil and Vent Pipes

		2″	3″	4″	5″	6″
L.C.C. pipes in 6′ 0″ lengths fixed to brickwork	per foot run	1/10	2/–	2/5	4/5	5/4
Extra for bends	each	5/3	6/1	7/10	11/–	14/9
Ditto single branches	each	6/5	8/2	11/–	17/6	23/6
Ditto swannecks 6″ projection	each	6/1	8/9	11/1	16/1	22/–
Extra for access door or any fitting	each	6/9	6/9	7/3	8/6	8/6

Zincworker

		13 G.	14 G.	15 G.	16 G.
Rolled sheet zinc on flats	per foot super	–/7½	–/8	–/9	–/9½
Ditto in gutters, cover flashings, etc.	per foot super	–/8½	–/8½	–/9½	–/10½
Ditto in stepped flashings	per foot super	–/10½	–/11	1/–	1/0½
Labour and risk dressing over glass	per foot run	–/4½	–/4½	–/4½	–/4½
Capped ends to rolls	each	–/2¼	–/2¼	–/2¼	–/2¼
Extra labour to cesspools	each	2/7½	2/7½	3/2	3/2

Copperworker

Distributing.

		½″	¾″	1″	1¼″	1½″	2″
Solid drawn copper tube fixed to walls	per foot run	–/9	1/–	1/5½	1/10	2/3	3/3
Add if in short lengths	per foot run	–/0¾	–/0¾	–/1	–/1½	–/2	–/2¼

Fittings for copper tubes

Compression type							
Straight couplings	each	1/10	2/2	3/–	3/9	5/1	7/3
Obtuse elbows	„	2/8	3/2	4/5	5/6	8/10	12/7
Tees	„	3/1	3/6½	5/4	7/4½	11/3	15/7
Crosses	„	4/1½	4/8	5/8½	8/–	13/2	18/–
Reducing coupling	„	—	2/2	3/–	3/9	5/1	7/3
Bends	„	2/5	2/10½	3/1	5/–	8/3	11/11
Brass stopcocks	„	5/6	7/10	11/–	19/3	26/6	43/6
Capillary type							
Straight coupling	each	1/6	1/11	2/7	3/3	4/1	5/4½
45° Elbow	„	2/4	2/11½	3/10½	4/11	6/10	9/7
Tees	„	2/7	3/–	4/3	5/10	7/10	11/–
Crosses	„	3/1	3/6	5/1½	6/10	9/8	13/5
Reducing coupling	„	—	1/7	2/–	2/6	3/3	4/8
Bends	„	2/8	3/2	4/3	5/7	8/1	10/11
Pillar tap connections	„	1/11	2/6				

		24 G.	23 G.
Rolled sheet copper on flats	per foot super	1/7	1/9
Ditto in gutters, cover flashings, etc.	per foot super	1/8	1/10
Ditto in stepped flashings	per foot super	2/1½	2/4½
Labour and risk dressing over glass	per foot run	–/4½	–/4½
Capped ends to rolls	each	–/3½	–/3½
Extra labour to cesspools	each	3/8	3/8

GLAZIER

Sheet Glass (Ordinary Glazing Quality)

18 oz. clear sheet and glazing to wood, sprigged and with back and front putties, to all normal sizes not exceeding 60″ in length or 40″ wide	per foot super	–/6½
24 oz. ditto	per foot super	–/7¾
32 oz. ditto	per foot super	1/0½

GLAZIER—(*continued*)

Obscured ground sheet glass, net extra to above prices	per foot super	–/1¾
⅛″ figured rolled white glass and glazing to wood with beads (measured separately)	per foot super	–/10½
Ditto, normal tints, ditto	per foot super	1/2¾
Hammered double rolled cathedral white ditto	per foot super	–/10
Ditto, normal tints, ditto	per foot super	1/1¾
Add for glazing into metal frames (ordinary rebates)	per foot super	–/1½
Ditto, metal sashes with ferroput	per foot super	–/2½
Ditto, solid metal casements and screw beads	per foot super	–/2¼
Wash leather strip or similar material and bedding edge of glass	per foot run	–/3¼

Glazing only thick drawn sheet glass, polished plate or wire polished plate for all normal sizes. (For prices of glass see materials section and add profit, say 10 per cent.) per foot super 6¼d.

PAINTER

Painting, Whitening and Distempering (on new Plastered Walls)

Twice distempering white	per yard super	–/5
Ditto, in common colours	per yard super	–/7
Add for stippling	per yard super	–/2
Preparing and painting three coats of paint	per yard super	1/10

Preparing and Painting Two Coats of Oil Colour on Ironwork after fixing

General surfaces	per yard super	1/1½
Perforated landings and staircases both sides (one side measured)	per yard super	2/6
Pipes, bars, balusters, etc., not exceeding 3″ girth	per yard run	–/1¾
Metal Window Frames	per yard run	–/2¾
Eaves gutters	per yard run	–/7½
2″ Rainwater pipes	per yard run	–/3
4″ ditto	per yard run	–/6
Squares one side	per dozen	1/9
Large ditto	per dozen	2/3
Extra large ditto	per dozen	3/–
Edges of casements	each	–/3

Painting on New Woodwork

		Knot, prime, stop and paint three coats oil colour	Add or deduct for each coat more or less
General surfaces	per yard super	2/5	–/6
Fascias and soffites	per yard super	2/6	–/7½
Fillets, skirtings, etc., not exceeding 3″ girth	per yard run	–/3	–/0¾
Ditto, not exceeding 6″	„ „ „	–/5½	–/1¼
Ditto, not exceeding 9″	„ „ „	–/7	–/1¾
Ditto, not exceeding 12″	„ „ „	–/9	–/2
Squares one side	per dozen	3/6	–/9
Large ditto	„ „	4/6	1/–
Extra large ditto	„ „	6/–	1/4
Edges of casements	each	–/6	–/1½

Sundries

Twice creosoting woodwork	per yard super	–/6
Twice limewhiting brickwork	per yard super	–/4

		Sizing	Staining	Once Varnish
General surfaces	per yard super	–/2	–/4½	–/6
Wax polishing	per foot super			–/4½
Body in and French polish on hardwood surfaces	per foot super			1/–

Writing

Plain letters or figures, two coats, 2″ to 12″ letters	per dozen inches in height	1/10½
Ditto, shaded	„ „ „ „	2/6
Plain gold, 2″ to 12″ letters	„ „ „ „	2/6
Ditto, 12″ to 24″	„ „ „ „	3/9

Gilding

		Single Gold	Double Gold
Preparing and gilding in best oil gold	per foot super	5/3	8/4
Ditto in matt or burnished gold	per foot super	7/4	11/6

Paperhanging

Pasting and hanging only.

		On walls	On ceilings
Preparing new plastered walls for papering	per piece (60 feet super)	1/4	1/5½
Plain lining paper	„ „ „ „	1/4	1/8
Common printed papers	„ „ „ „	2/–	2/6

APPROXIMATE ESTIMATES

★ON this and the two following pages appears the JOURNAL's new section of Approximate Estimates.

There is nothing revolutionary about the idea—its usefulness lies in its efficiency as a time-saver in calculating the approximate price of work to which the cubing system cannot be applied.

In brief, an Approximate Estimate in considering a roof, converts the several units of pricing involved into a common unit of price per square yard, and then adjusts the price to cover sundry labours. By this means several stages of calculation are saved by the estimator in a hurry.

The Estimates published this week cover many of the items for which prices are needed continually. It is intended, however, whilst retaining these and varying their prices with Current Rates, to enlarge the list until it covers all the units of structure and equipment to which the system can reliably be applied and to publish them monthly.

• ***The following composite prices are for work executed complete and should be used for the preparation of Approximate Estimates only.***

FOUNDATIONS

		Thickness of walls			
		9″	*11″ Hollow*	*13½″*	
• **Foundations 2′ 6″ deep to walls, including stock brickwork up to 6″ above ground and slate damp-proof course**	*per yard run*	*28/9*	*32/2*	*38/4*	

EXTERNAL WALLS

• **External walls in Flettons including lime plaster and distemper one side and facings p.c. 100/– the other**	*...per yard super*	*19/9*	*20/3*	*25/8*	
• **Ditto, including Keenes plain-face and three coats oil colour one side and ditto**	*...per yard super*	*21/10*	*23/4*	*27/9*	

INTERNAL WALLS AND PARTITIONS

		2″	*3″*	*4½″*	*9″*
• **Breeze partitions or brick walls and including lime plaster and distemper both sides**	*...per yard super*	*9/3*	*10/6*	*10/10*	*16/8*
• **Ditto, including Keenes cement plain-face and three coats oil colour both sides**	*per yard super*	*13/5*	*14/7*	*15/–*	*20/10*

APPROXIMATE ESTIMATES—(*continued*)

GROUND FLOORS

- Solid ground floor construction, including 9″ excavation hardcore, concrete and wood block flooring or paving p.c. 10/- yard... ... *per yard super* 17/11
- Ditto, with floor fillets and deal tongued and grooved flooring ... *per yard super* 12/8
- Ditto, with floor fillets and oak tongued and grooved narrow widths strip flooring ... ... *per yard super* 25/-
- Sleeper wall ground floor construction, including 15″ excavation, hardcore, concrete, sleeper walls 12″ high, joists and deal tongued and grooved flooring ... ... *per yard super* 15/3
- Ditto, with oak tongued and grooved narrow widths strip flooring ... *per yard super* 27/7

UPPER FLOORS

		With 7″ Joists	With 9″ Joists	With 11″ Joists
• Wood construction with lime plaster and distemper to soffite and deal tongued and grooved flooring	*per yard super*	12/-	13/2	14/3
• Ditto, with oak tongued and grooved narrow widths strip flooring	*per yard super*	24/4	25/6	26/7
• Reinforced concrete construction suitable at 13′ 0″ spans for carrying ¾ cwt. per ft. super, with lime and distemper to soffite and deal block flooring...	*per yard super*			24/5
• Ditto, with oak block flooring	*per yard super*			30/9

FLAT ROOFS

		Using 7″ Joists	Using 9″ Joists	Using 11″ Joists
• Wood construction with lime plaster and distemper to soffite and asphalt roof finish	*per yard super*	18/5	19/5	20/2
• Reinforced concrete construction (suitable at 13′ 0″ span for carrying 40 lbs. per ft. super) with lime plaster and distemper to soffite and asphalt roof finish	*per yard super*			20/1

PITCHED ROOFS

- Bangor Countess slating, including battens, roof boarding and 4″ × 2″ rafters (measured on slope) ... ... *per yard super* 13/2
- Westmorland green slates No. 1 ditto ... ... *per yard super* 17/2
- Machine-made tiles ditto ... ... *per yard super* 11/6
- Hand-made sand faced tiles ditto ... ... *per yard super* 12/4
- Slate ridges, including cuttings and 1½″ × 9″ deal ridge ... ... *per yard run* 8/9
- Half-round ridge tile ditto ... ... *per yard run* 7/5
- Slate hips, including cuttings, lead soakers, and 1½″ × 11″ deal hips *per yard run* 23/10
- Hip tiles, including cuttings and 1½″ × 11″ deal hips... ... ... *per yard run* 20/8

Lead valley gutter to slated roof, including cuttings and 1½″ × 11″ deal hips ... ... *per yard run* 15/6

- Purpose-made valley tiles, including cuttings and 1½″ × 11″ deal hips *per yard run* 13/7

APPROXIMATE ESTIMATES—(*continued*)

DOORS

		Partitions or Walls				
		2″	3″	4½″	9″	13½″
• 2″ flush door p.c. 29/– 2′ 6″ × 6′ 6″, including deal frames or linings, ironmongery p.c. 15/– and simple architraves both sides, all painted	each	100/–	101 5	96/3	100/10½	106/10½

WINDOWS

Prices are for normal size, including suitable ironmongery, glazing with clear sheet glass and painting.

- Standard metal casements with fixed lights ... ... *per foot super* 2/8½
- Ditto, with 50 per cent. opening lights ... ... *per foot super* 3/10
- Standard metal casements in wood frames with fixed lights ... ... *per foot super* 4/2
- Ditto, with 50 per cent. opening lights ... ... *per foot super* 4/10
- Standard industrial type sashes with fixed lights ... ... *per foot super* 2/2½
- Ditto, with 33⅓ per cent. opening lights ... ... *per foot super* 3/2
- Solid deal frames and 2″ casements ... ... *per foot super* 5/1½
- Deal cased frames and double hung sashes ... ... *per foot super* 4/10½

STAIRCASES

- Deal 9′ 0″ high, including half space landing, newels, balusters and handrail ... ... *each* £23 10 0
- Austrian oak ditto ... ... *each* £44 5 0
- Precast concrete ditto ... ... *each* £32 15 0

DRAINS

- Small manholes 2′ 0″ deep and branch channel ... ... *each* £4 5 0
- Large ditto with 6 branch channels 4′ 0″ deep ... ... *each* £7 18 0

		4″ Stone-ware	6″ Stone-ware	4″ Iron	6″ Iron
• Drain pipes laid complete, including excavating trench average 2′ 6″ deep, concrete beds and pipes	*per foot run*	2/7	3/5	4/1½	6/–
• Ditto, but excavating average 4′ 0″	*per foot run*	4/3½	5/–	5/10	7/7

PATHS AND DRIVES

- Gravel paths, including excavation and hardcore ... ...*per yard super* 5/3
- Gravel drive ditto ... ...*per yard super* 6/9
- Tarmacadam drive ditto ... ...*per yard super* 7/10

FENCES

- Cleft chestnut pale fence 4′ 0″ high ... ... *per foot run* –/10
- Deal weather boards, including posts, arris rails and gravel boards creosoted, 5′ 0″ high ... ... *per foot run* 2/9½
- Ditto, in English oak throughout ... ... *per foot run* 3/10½

The four sections on PRICES published in the issues of January 27, February 3, 10 and this week, together complete the PRICES SUPPLEMENT. Next week the FIRST SECTION—PRICES OF MATERIALS, PART 1—will be repeated with items revised according to market quotations.