# THE ARCHITECTS' JOURNAL

THE ARCHITECTS' JOURNAL
WITH WHICH IS INCORPORATED THE BUILDERS' JOURNAL AND THE ARCHITECTURAL ENGINEER IS PUBLISHED EVERY WEDNESDAY BY THE ARCHITECTURAL PRESS (PROPRIETORS OF THE ARCHITECTS' JOURNAL, THE ARCHITECTURAL REVIEW, SPECIFICATION, AND WHO'S WHO IN ARCHITECTURE) FROM 9 QUEEN ANNE'S GATE, WESTMINSTER, S.W.

Mr. G. A. T. Middleton's eighth article on *Building and Decorative Timbers*, which appears in this issue, is the last in the series, and next week Mr. William Harvey will resume his illustrated survey of modern building construction. This survey will be complete at the end of the year, and between now and then Mr. Harvey will deal in detail with the work of the plasterer and the plumber.

THE ANNUAL SUBSCRIPTION RATES ARE AS FOLLOWS:
BY POST IN THE UNITED KINGDOM..... £1 3 10
BY POST TO CANADA..... £1 3 10
BY POST ELSEWHERE ABROAD..... £1 8 6
SUBSCRIPTIONS MAY BE BOOKED AT ALL NEWSAGENTS

* * *

SINGLE COPIES, SIXPENCE; POST FREE, SEVENPENCE
SPECIAL NUMBERS ARE INCLUDED IN SUBSCRIPTION;
SINGLE COPIES, ONE SHILLING; POST FREE, 1S. 2D.
BACK NUMBERS MORE THAN THREE MONTHS OLD (WHEN AVAILABLE), ADD 1S. 6D. TO ABOVE PRICES

* * *

SUBSCRIBERS CAN HAVE THEIR VOLUMES BOUND COMPLETE WITH INDEX, IN CLOTH CASES, AT A COST OF 10S. EACH. CARRIAGE IS EXTRA. A USEFUL BINDER, ALLOWING THE COPIES TO OPEN FLAT FOR READING, COSTS 4S. 6D. POST FREE

* * *

*9 Queen Anne's Gate, Westminster, London, S.W.1*
TELEPHONE: VICTORIA 6936 (OWN EXCHANGE)
TELEGRAPHIC ADDRESS: BUILDABLE, PARL., LONDON

WEDNESDAY, NOVEMBER 3, 1926. NUMBER 1659: VOLUME 64

## PRINCIPAL CONTENTS



*The Index to Advertisers will be found on page iv.*

CHRISTIAN BARMAN, *Editor*

*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.*

## RENDERINGS OF ARCHITECTURE

*Selected and annotated by Dr. Tancred Borenius.*

xlii : Jan van der Heyden (1637-1712).
Gothic and Classic Buildings.

*The description of Jan van der Heyden as the "Canaletto of Holland" seems particularly appropriate in the case of the present picture. It is not a topographical portrait, but a fantastic jumble of elements, derived from different sources; in the centre, a triumphal arch; on the right of it, a two-storied Gothic building; and on the right of that again a circular, bastion-like structure. Figures in costumes of the artist's time are moving about, examining the buildings. We are very vividly reminded here of the "architectural capprieci" of Canaletto and his followers, notably Guardi and Marieschi; only when the eighteenth-century Italians express themselves with a characteristic gracefulness and playfully romantic touch, the seventeenth-century Dutchman is still very precise, cold, and matter-of-fact. The picture is fully signed on a slab in the foreground.*—[National Gallery, No. 992.]

THE ARCHITECTS' JOURNAL

*Wednesday, November 3rd, 1926*

# CIVIC TECHNIQUE

It is good, in the midst of so much chaotic ugliness, so much urban untidiness, so much rural spoliation, to remember that there are such things as civic societies, and that even if at present they are not potent they are at least an indication that there does exist, here and there, a civic consciousness which has succeeded in becoming articulate.

But these products of civic consciousness are as yet tender growths, and their heads have barely penetrated the soil of municipal indifference, and so it behoves those who tend them to do so with the utmost care. For, to leave our simile, until the civic society has definitely found its place in the hierarchy of municipal organization, it is liable to be regarded with suspicion; as an upstart and a usurper of authority. Little by little these societies will acquire a procedure and technique of their own which will become more and more clear as their position becomes more and more established.

There are as yet but few civic societies in England, but there are many towns in which a group of prominent citizens is on the point, as it were, of crystallizing itself into such a society. Wherever there is uncertainty, guidance is looked for from Birmingham, for the Birmingham Civic Society has already a fine record of achievements, and it is, moreover, already establishing what we have termed a civic technique, as a perusal of its latest report well shows.[1]

No impartial visitor to Birmingham could be otherwise than appalled at the chaotic arrangement which has grown up in and around its railway stations. It is a town-planning platitude to point out that since the railway station is the most important gateway to the town, it is worthy of careful planning, both in itself and in its relation to its surroundings. Such an elementary fact is realized and acted upon in nearly every country in the world, except in that one which was the pioneer in railway construction. But the railway companies remain obdurate, and so our large cities, London itself not excepted, must keep their sordid, slovenly approaches. The position in Birmingham is aggravated by the fact that one of its stations, New Street Station, is so placed as to impede north and south road traffic communication, and it has long been realized that some action is needed to deal with the matter. The permanent way passes below the level of the streets, and at present there is communication from north to south across the station footbridge—the property of the railway company—but there is no direct communication for vehicular traffic, and a scheme for a new road passing over the station and over certain streets was approved by the Public Works Department and made public. This scheme, it appears, was subjected to criticism, and the whole matter was carefully considered by the Civic Society. The results of these deliberations were embodied in a report showing an amended scheme, and this report, together with diagrams, schedules, and so on, were submitted in the form of a letter, in itself the embodiment of felicitous tact, to the chairman of the Public Works Department early this year. Apparently, up to the time at which the Civic Society's main report went to press, no reply, beyond an acknowledgment, had been received from the Public Works Department, and there, at the moment, the matter rests.

We are not in a position to express an opinion upon the merits of the two schemes, although on the face of it that of the Civic Society would appear to be more economical and to provide better frontages. The position, however, is one of great interest, since probably, for the first time, a civic society has challenged the decision of the municipality on a matter of first-rate importance. The challenge, as we pointed out, has been made with great care and tact, but upon the issue hangs the prestige of the Civic Society. The Public Works Department has clearly nothing to lose in the way of *amour-propre* by adopting the amendments of the Civic Society, for no scheme is so good as to be incapable of improvement; indeed, if the Civic Society's claims are justified the Public Works Department, by submitting, will increase its reputation in the handling of a very big undertaking, but the Civic Society has everything to gain. This, then, is by far the most important matter dealt with in the Society's current report.

Another matter of lesser interest is the Society's suggestion for a municipal guide-book. English municipal guide-books are, for the most part, atrocious productions, chiefly owing to the fact that those responsible for them are entirely devoid of taste, and, moreover, although deeming themselves astute men of business, are entirely ignorant of the fact that good taste, far from being a waste of money, is a real commercial asset. The Civic Society's suggestion is for a publication in which letterpress, illustrations, typography, format, and binding shall be synthesized into a dignified volume worthy of a great city.

[1] *Report of the Birmingham Civic Society, June 1925 to June 1926.* Price 1s. 6d.

# NEWS AND TOPICS

RURAL ENGLAND AND THE R.I.B.A.—THE READING EXHIBITION—ARCHITECTS' DRAWINGS AND THE COST OF BUILDING—OVERCROWDING OF THE PROFESSION—IN A CARAVAN

MR. DAWBER covered an amazing number of subjects in his presidential address at the R.I.B.A. on Monday night. One cannot possibly remember them all. There was Registration, a word against the forming of new societies, the general strike, competitions, the London Bridges' Commission, the Foundling Hospital, women architects, Oxford Circus, the increasing motor traffic, town planning, street façades, Regent Street, the London squares, railings, and then, at last, by Jove! rural England, and the new Society. "The time has arrived," announced Mr. Dawber (though I do not think he had in mind the time of night)—"the time has arrived, if we are to have any beautiful country left within reasonable access of our towns, to take drastic action, which can only be done by a more intelligent application of our Town Planning Acts. These can never be successfully administered without the help of some proper organization such as a panel of architects . . . to which all questions affecting the general appearance of the town or village should be referred. It is in such cases that the Council for the Preservation of Rural England can be of the greatest service." As in London and other large cities, it should not be possible to put up buildings of a second-rate character, so in the country the time has passed when anyone should be allowed to build regardless of his neighbours or the countryside.

* * *

The Exhibition of the Berks, Bucks, and Oxon Architectural Association which was opened by the Vice-Chancellor of Reading University at the Reading Corporation Art Galleries last week was well worth a visit. Only two large towns are included in the area of the three counties, namely, Reading and Oxford; so many of the buildings shown at the Exhibition were erected either in or in the vicinity of these places. As both towns provided numerous examples of fine architecture in the past (it not being generally known what a wealth of good eighteenth-century buildings Reading possessed until comparatively few years ago), it is not surprising that the exhibits display a high standard of design. Regional and local architectural exhibitions are especially valuable in that they provide a means of informing certain portions of the public who are in need of this information that there exists an art of architecture and a profession devoted to its furtherance. Londoners sometimes fail to realize the conditions in which many a provincial practitioner has to work. Very often he has the greatest difficulty in persuading building owners and others interested in estate development that it is necessary to employ an architect at all, and any collective action on the part of architects working in small towns or country districts which has for its object the popularization of architecture is not only of very great benefit to the profession but also stimulates the public to take a greater interest in the appearance of towns, villages, and the countryside. The Berks, Bucks, and Oxon Association is a very active body and has a written constitution which might well serve as a model for similar societies.

* * *

In his presidential address to the Birmingham Society of Architects, Mr. Holland W. Hobbiss made some interesting suggestions with regard to the part which architects may play in the reduction of building costs. The point he raises is a very important one, because it is notorious that many possible commissions are withheld from members of our profession on the ground that so many people are deterred from building operations by the prospect of excessive costs. Mr. Hobbiss points out that the time occupied in carrying out contracts is a very great factor in the cost of the job. For if a contractor has got through a job quickly one can be pretty sure he has made a good profit, and generally speaking the work is well done. There is one matter of detail which Mr. Hobbiss believes would very considerably contribute to more rapid building if generally adopted. The builder should be supplied with a complete set of drawings, eighth scale, half-inch, and full-size details, and details of plumbing, heating, ventilation, and other specialist's work before a brick is laid. Mr. Hobbiss goes so far as to say that if clients would give architects double the time to prepare their work it would halve the period of erection. How far it is true that work is held up and labour costs increased by the omission of architects to supply working drawings with promptitude is a question which each practitioner can decide in the light of his own experience. There can be no doubt, however, that it would be of advantage to the profession in general if architects in collaboration with contractors would give careful study to the means of expediting building operations when once the tenders have been accepted.

* * *

Sometime, be sure, there'll come the day we seek,
When all our doubts are settled one by one;
—Which is the gospel: Gothic or the Greek:
—Which is the Style of all beneath the sun.

Ah! what is Truth? what Beauty?—what is Art?
—These are the questions we'll be sure to ask;
And if there's any Rule They've set apart
Could simplify and certify our task.

—First Principles, Proportions, Rules of Thumb,
By which to build a palace or a cot;
Or whether all is topsy-turvydom,
Doors, windows, walls, which may be right or not.

Books—many books there are—dark, deep as night,
—Prophets and Priests with eyes fixed on the Past;
But where's the 'open sesame,' the Light
That shall reveal to us the Truth at last?

—The Light, if but a glimmer? the Fixed Star?
—We turn into the gloom, we grope, we seek:
There'll come the day—there'll come the Avatar—
But we shan't care for Gothic nor for Greek.—H. J.

The Board of Architectural Education and the Association of Architects, Surveyors, and Technical Assistants have been examining the conditions of entry into the profession, and the October number of *The Keystone* recapitulates some of the salient points discovered during the inquiry. A disproportionate and much greater increase in the number of architects as compared with the population has to be admitted, and of that increase the " recognized " schools do not contribute any large part. Pupilage in architects' offices is by no means altogether a thing of the past, and a syllabus of training of pupils is advocated to ensure that these young men in training shall be well equipped to become architects in fact as well as in name. " Architects in practice are reminded of the unfairness of taking a youth into an office without making adequate arrangements for his education." One of the thorny problems discussed at the last meeting of the Board of Architectural Education was the exact standard of general education which the probationer ought to reach. If the demands are made too strict it was feared that it would encourage the creation of a class of half-educated persons who would practise house design without bothering themselves with any definite training in architecture. If, on the other hand, the standard is unduly relaxed the profession is likely to be lowered by the ranks of " qualified " practitioners, including half-educated persons also. The kindest course in the interests of the individual and of the profession would seem to be to fix on a standard nominally equal to matriculation, since the student would then be prepared to enter upon some other course of study if his liking for architecture did not survive the first few months of special training. More damage will be done to the profession by the inclusion of uneducated men among the diploma-bearing community than can be anticipated from the outsiders receiving a few more undesirable recruits. Questions of policy are doubtless worthy of careful consideration, but the object of paramount importance to be kept in mind is the quality of the architectural output, and this is not likely to be lowered by the insistence upon a reasonable standard of general education, whatever Mr. Bernard Shaw may say to the contrary.

* * *

A few weeks ago there appeared in the JOURNAL a leading article entitled " Architects on Holiday," and the writer mentioned how difficult it was for an architect to get away from bricks and mortar, and it was suggested that, rather than weary himself by travelling about, he might obtain more spiritual refreshment by emulating Diogenes in his tub. This is all very well, but where are we to find a tub fitted to stimulate the reflections of so profound and philosophical a person as the modern architect? It has recently been suggested to me that a caravan is the nearest approach to a Diogenic tub which our present civilization provides. The caravan, I was told, provides the means whereby a holiday can be taken at will. Your road lies where you wish it to lie, your destination where you wish it to be, your time of starting is when you want to start, and you stop just when you want to stop. It sounds ideal. This is, indeed, the simple life. I have since made some inquiries about this caravan business, and I have become exceedingly doubtful whether Diogenes would have cared to live in one.

* * *

I quote from a prospectus which says: " The modern caravan is a triumph of the skill of designer and workman alike. It is light and airy and fitted with single and double beds with spring mattresses, and has ample locker space for clothes, etc., and comfortable lounge seats. Good cooking stoves are supplied, burning either coal or oil. The interiors are artistically decorated and the windows curtained." This is really too awful. The leader writer told us that we needed a rest from architecture, but when we go into the only kind of philosophic tub which our present civilization provides we find to our horror that it is " artistically decorated." Supposing that the fastidious architect denies that the art is decorative or the decoration artistic, how much peace of mind is he likely to have in such an environment? Again, the statement that the windows are curtained suggests that this particular caravan would not have found much favour with Diogenes, for did not this gentleman request Alexander the Great to get out of his light? It may be suggested, however, that there is nothing to prevent the modern Diogenes from drawing the curtains back; but let us proceed. The prospectus goes on to say: " Some of the more expensive vans have a bath, piano, and electric light. Of course, every van carries a wireless set nowadays." Before I was able to adjust my mind to the extreme complexity of life in a caravan I read further that " The van will trail behind a motor-car of 20-25 h.p." This was altogether too much for me. I had pictured a fat horse, or perhaps a nice donkey, rather senile, which would take me leisurely along country lanes, instead of which it appears that I should be expected to career wildly at the stern of a powerful engine emitting fumes of petrol and loud, throbbing noises. I am afraid the idea does not appeal to me at all!

ASTRAGAL

## ARRANGEMENTS

WEDNESDAY, NOVEMBER 3

*At the Institution of Heating and Ventilating Engineers.* 7.0 p.m. W. E. Fretwell, M.R.I., on Small Hot Water Supply Systems.

THURSDAY, NOVEMBER 4

*At the Royal Institute of British Architects.* 7.30 p.m. Hubert Worthington, A.R.I.B.A., on Materials and Craftsmanship.

TUESDAY, NOVEMBER 9

*At the Design and Industries Association.* 8.0 p.m. Gordon Russell, C. A. Richter, and Arthur Cohen, on Furniture.

WEDNESDAY, NOVEMBER 10

*The Architecture Club* (at the Savoy Hotel). 7.30 p.m. Annual Dinner.

FRIDAY, NOVEMBER 12

*At the Royal Technical College Architectural Craftsmen's Society, Glasgow.* 7.45 p.m. James Macaulay, F.F.S., F.S.I., on Some Aspects of Regional Planning.

MONDAY, NOVEMBER 15

*At the Royal Institute of British Architects.* 8.0 p.m. General Meeting. H. V. Lanchester, F.R.I.B.A., on Bridges and Traffic.

TUESDAY, NOVEMBER 16

*At the Royal Institute of British Architects.* 7.30 p.m. Howard Robertson, F.R.I.B.A., on Good and Bad Buildings.

THURSDAY, NOVEMBER 18

*The Design and Industries Association* (at Kettner's Restaurant). 8.0 p.m. Annual Dinner. Sir Lawrence Weaver, K.B.E., Hon. A.R.I.B.A., in the chair.

# SAILING SHIP DESIGN

[BY ABLE SEAMAN, R.N.V.R.]

THE relation between the design of ships and that of buildings has always been a rather intimate one. After all, every artist knows that there is not one theory of design for buildings, another theory for ships, and yet a third theory for some other class of thing; but only one theory of design which applies to all objects which are made by man. It has been customary for a certain kind of critic to say that the beauty of ships is entirely due to the fact that they are designed to serve their purpose, and that this utility is what gives them beauty; and they point with scorn to numerous classes of building which in their opinion are lacking in this quality of perfect adaptation to purpose. They seem to start with the assumption that every ship is beautiful, and especially every sailing ship. It is clear that such people are land-lubbers and have never discussed the subject of ship design with a sailor, or else they would have known that sailors are extremely critical of every ship that comes under their purview, and not only do they criticize ships from the utilitarian point of view, but will also pass unfavourable comment upon their appearance; for they know that in no branch of activity can perfection be expected except on rare occasions, and they have sufficient instinctive taste to realize that beauty is a quality which does not necessarily come into being simply because an object fulfils its utilitarian purpose. Some sailing ships are ugly, as will presently be shown. But that many sailing ships are very beautiful, of course, cannot be disputed. Such beauty has an extraordinary attraction for everyone of us, not only because the English have from time immemorial been a seafaring race, but because a ship is in itself a highly romantic thing which seems to possess by virtue of its movement and flexibility and intimate association with wind and wave a courageous personality of its own. Moreover, as the sailing ship has now passed its zenith and its most glorious period is quite definitely in the past it has the artificial value of rarity and preciousness which belongs to bygone things. It is noteworthy that in the Navy, for instance, although much mightier ships than the old wooden men-of-war have flown the white ensign the prestige of the old *Victory* and the other sailing ships of her class stands higher than ever.

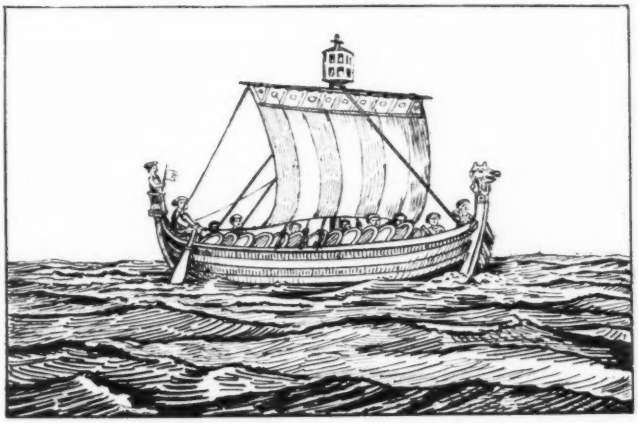
Those who would try to discover why the sailing ship exercises this peculiar spell over us cannot do better than study a delightful book which has recently been published, called *Sailing Ships at a Glance*, by Mr. Edward W. Hobbs. Here we have a succinct account of the evolution of the sailing ship from the dawn of history right through the period of its prime to modern times, when it has almost entirely been swept off the high seas. This is not the place to discourse upon the development of the sailing ship from a technical point of view, although this is a fascinating theme, but in a journal devoted to architecture it is more appropriate to consider in what respects the design of sailing ships has, as it were, an architectural quality and is concerned with æsthetic problems similar to those which the practitioners of our own art have to contend with every day. Sailors themselves, although they do not couch their observations in terms of the recognized phraseology of æsthetic criticism, are apt to make severe comments upon the appearance of ships, whether sailing ships or of any other kind. I have paid especial heed to such critical observations on the part of sailors as it has been my privilege to hear, and in nearly every instance I have found that solid reasons underlay their statements of opinion, and that the æsthetic judgments which are delivered by these unlettered men are capable of being interpreted in terms of the æsthetic canons which are applicable to all the arts.

Let us consider what are the main elements or features which comprise a sailing ship. To put it briefly there are the hull, the masts, and the sails, and there are certain subsidiary features which may be mentioned later, but it is true to say that on the shape of the

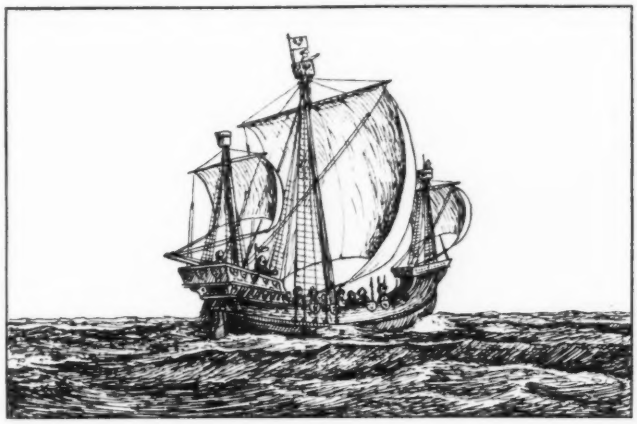
*A Roman warship (circa 200 B.C.)* [*From* Sailing Ships at a Glance.]

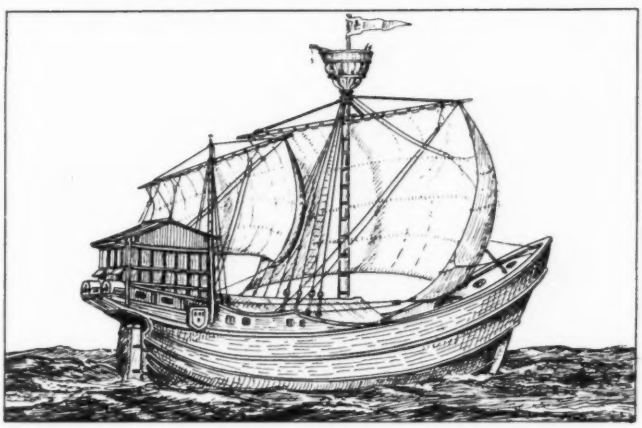
hull the number and disposition of masts and sails the formal quality of a sailing ship principally depends. Next let us consider the function of a sailing ship, its capacities and limitations. Now, one of the most important things to observe about a sailing ship is that it is designed to move forwards, and it never, except in moments of unusual perversity, moves backwards. This fact determines an important formal characteristic of the hull, namely, that its bow is markedly different from its stern, and, within reason, the more obvious this difference is the more expressive of the idea of motion does the ship become. For instance, figure 48, here reproduced, the *Mora*, which was used by William the Conqueror for the invasion of Brittany, in which the ornamental terminal features at bow and stern are similar in shape and size is not nearly so expressive or, indeed, so beautiful as the early Egyptian craft represented in figure 30, or the beautiful Greek *Uniene* of figure 37, where the inflection of the hull towards the front is achieved in a most emphatic manner by giving to the stem of the boat a decorative terminal in the shape of a nozzle or beak of a mysterious animal, while the cutwater is tilted up in a graceful curve, which marks the stern.

It is an interesting exercise to go through the illustrations in this volume and examine each sailing ship design in order to estimate the degree in which the hull has been inflected to express its forward movement. In the case of the great galleons, pinnaces, and battleships of the seventeenth and eighteenth centuries, the towering erections at the sterns containing officers' quarters, provided an emphatic contrast to the pointed bows with their great bowsprits, illustrated in figures 102, 109, 119, and 120. Examples where this inflection appears to be inadequate are to be found in figures 27, 58, 122, 128, 137, 148, and, lastly, 150, the rotor ship, which looks as if it might move in either direction with equal facility. Before leaving the question of the hull it may be well to consider the relation of this feature to such habitable superstructures as may be built in connection with it. It is obvious that the quaint little "houses" which appear on the decks of the vessels in figures 24, 27, 47, 63, 69, and 81, are excrescences, indigested little bits of urban architecture which have no organic relationship to the design of the ships, while in figures 31, 32, 33, 34, 49, 55, 65, 67, 77, and 89, "the buildings" on the deck are placed in such a way that they take account of its plan and are so disposed that they give an additional emphasis to the bow or stern of the ship.



Next we come to the masts and sails, and here again the æsthetic instinct of the builders of ships has resulted in the creation of compositions far more subtle and distinguished than could ever have arisen if they had been actuated by no other motive than that of designing vessels which would conform to the barest utilitarian and constructional requirements. For instance, the crude forms of the primitive sailing boats illustrated in figures 24 and 25 show no attempt at all to combine hull, mast, and sail into an artistic unity, these three members being, as it were, "thrown together." For the purpose of this analysis it may be convenient if we divide sailing ships into two main classes: those with single mast and single sails, and those with multiple masts and multiple sails. Among the former type are to be numbered some of the most delightful examples of early ship design. If the reader glances at figures 30, 31, 37, 38, 41, 44, 45, 46, 47, 50, 53, and 57, which illustrate among other famous types of vessels Greek and Roman, Norse, and early English merchantmen and men-of-war, he will discover that they are alike in exemplifying a simple and pleasing kind of unity. In each case the square sail, beautifully inflected towards the bow of the ship, is of such large dimensions that it becomes the single



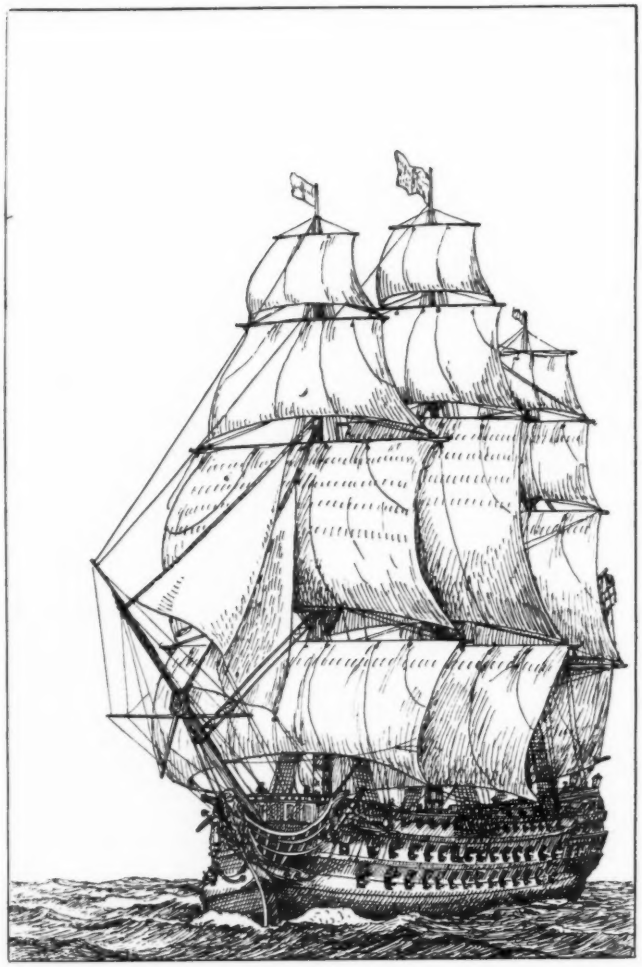


*Above, the* Mora, *William the Conqueror's ship (circa A.D. 1066). Centre, an English ship-of-war (circa 1440). Below, a caravel of the time of Columbus (circa 1490).* [*From* Sailing Ships at a Glance.]

dominating member of the composition, while the yard which marked the upper boundary of the sail is in several instances attached by stays to the top of the mast, which is itself given an emphatic punctuation in the form of some grand decorative feature, such as the Roman eagle or other insignia of national power.

As soon as we have more than one mast and sail, the problem of composition becomes a much more complicated one. There is one obvious solecism which must at all costs be avoided, and that is the designing of a ship with two equal masts each of which has attached to it a sail of similar dimensions. Examples of this unpleasant "unresolved duality" are given in figures 35, 36, 99, in the gaff sails of 121, and the lateens of figure 123, but the rarity of the occurrence of this particular formal defect is evidence that the designers of ships were, as a rule, conscious that a certain unity and cohesion were worth striving for in the composition not only of the hull but of the features subsidiary to it. The grand ships-of-war (figures 79, 83, 84, 92, 93, 102, 119, and 120) from the fifteenth to the eighteenth centuries were nearly all three-masted and had three or more tiers of sails all subtly inflected towards the crown of the mast, the division of the sails into only two tiers, as in figure 89, being of very rare occurrence. Again another significant inflection was often displayed in the arrangement of masts by which the foremast and mizzen mast were each of them of less height than the mainmast, unlike the seven-masted steel schooner of American design, which looks as if it had been conceived by Mr. Ford himself (figure 143), the standardization of parts being brought to such an advanced stage.

An example where utility has been sought and found at the expense of beauty is shown in figure 128, which illustrates a Colonial clipper, dated 1880. This vessel has fore and aft sails set on stays between the masts, and the formal result is most unhappy, for we see obtrusive triangular pieces set haphazardly athwart the main pattern of the superstructure, and there results a bewildering conflict of lines and angles.

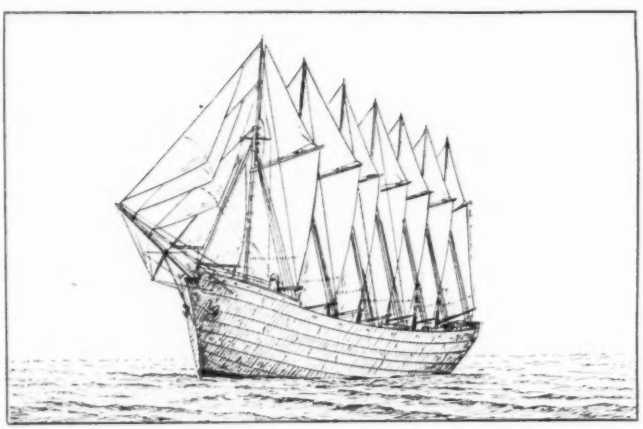


Nearly all the ships illustrated in this volume, however, have the distinction resulting from an extreme *tidiness* and simplicity, which are themselves æsthetic qualities.

This simplicity is seldom the obvious solution of the particular problem upon which an engineer or ship-builder may be engaged. It must be sought with the ardours of long perseverence, for it is generally the last and rarest attribute which a work of art is likely to possess. The easy thing is more often the elaborate thing, the thing of small parts and small expediencies. In order to obtain simplicity another quality is necessary, namely, unity, and it is just this unity which characterizes the best of the sailing ship designs. These latter have, in fact, every formal quality which may distinguish a work of architecture, and it is noteworthy that the noblest examples of the sailing ship belong to a period when great and noble architecture was being produced ashore. Later, when buildings became ugly, even the sailing ship became ugly.

The æsthetics of ship design is an inexhaustible theme, but it is one which architects cannot afford to neglect. A survey of the numerous examples shown in this excellent manual will prove a most profitable intellectual exercise. The book is attractively produced, and contains a wealth of historical matter and technical information. An admirable bibliography is appended.

*Sailing Ships at a Glance.* By Edward W. Hobbs. Architectural Press. Price 6s. net.



*Above, the bows of a first-rate 100-gun warship (circa 1800). Below, a seven-masted schooner* [*From* Sailing Ships at a Glance.]

CURRENT
ARCHITECTURE
SECTION

# THE WANDSWORTH TECHNICAL INSTITUTE

[BY S. ROWLAND PIERCE]

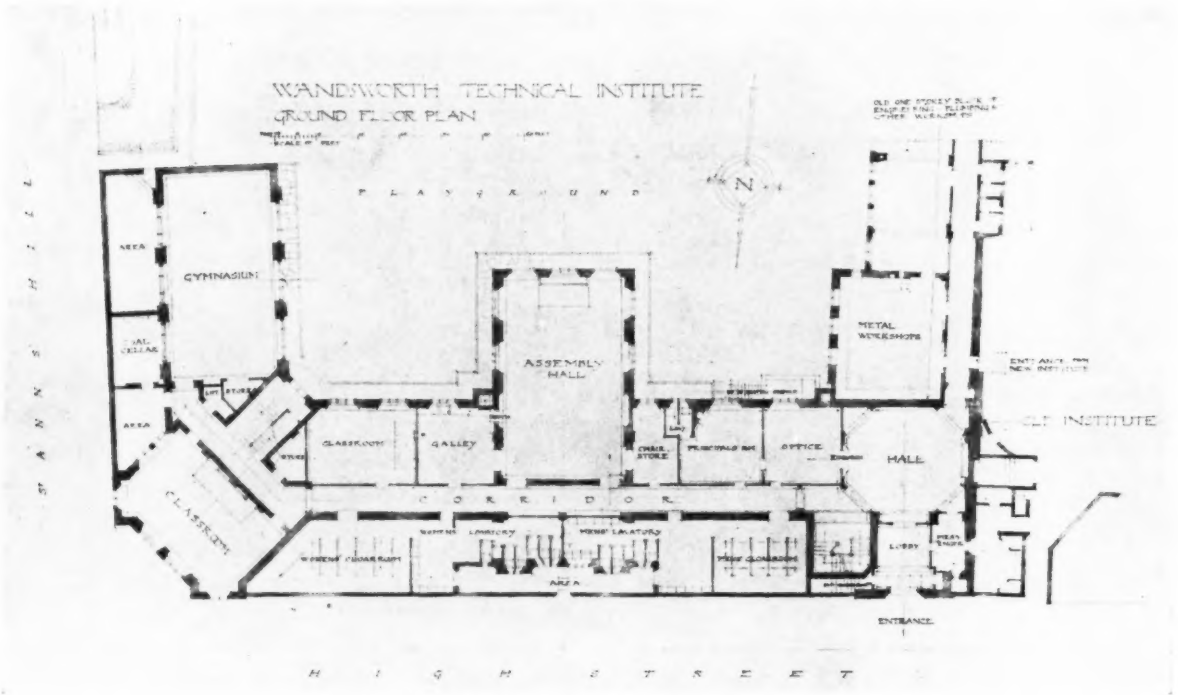
IT is a pleasant thing to have to review a recent addition to the new buildings of London, a building which has adopted the homely brick as the dress in which it shall look out upon the world. The increasing adoption of central heating and measures for abatement of the smoke nuisance in London is having its influence on the external materials of London's buildings. Much writing and photography has been devoted to the modern brickwork of Holland, but upon examination much of that same Dutch brickwork is found to be entirely unrelated to any technical logic that could be formulated, by any stretch of the imagination, from the nature of brickwork. It is refreshing, therefore, to find that a new building has appeared which has, at one and the same time, the charms of the Dutch brick surfaces, combined with a directness and soundness

*Wandsworth Technical Institute. By G. Topham Forrest.*
*A detail of the staircase from the main entrance.*

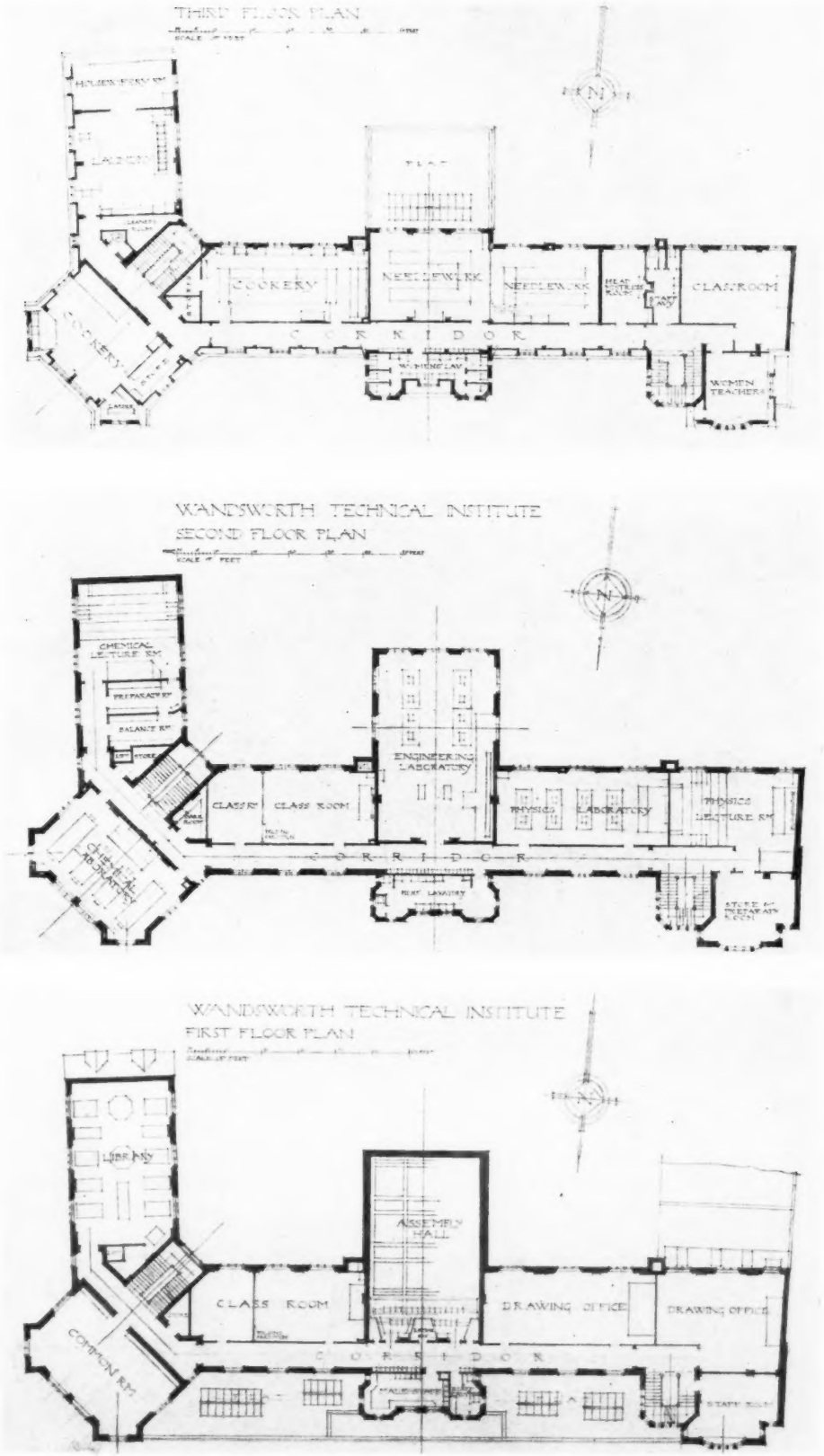
ELEVATION TO HIGH STREET

that nowhere violate the possibilities of the material. Thus we may congratulate Mr. Topham Forrest, architect to the London County Council, who has been responsible for the Wandsworth Technical Institute. It has been a habit in the past to look somewhat askance at public architectural departments, but London, at any rate, in many different directions can claim a strong lead over most other administrative bodies, and, indeed, in addition, over many private practitioners.

The entire Institute at Wandsworth has suitability and business-like qualities that should prove a source of inspiration to all those who use it, whether they be pupils or teachers; and if such be accomplished in this apathetic age, it should be hailed as a distinct contribution to modern architecture. Mr. Topham Forrest has chosen his materials with foresight and a feeling for texture. A multi-coloured red facing-brick, laid in English bond, with flush and moderately wide joints, for the walls, and a dull red sand-faced tile for the roofs, used with a due respect for surface and pattern, are the chief materials of the new Institute. If we may be allowed here to whisper a criticism in respect of the elevations it would be directed to the subject of the windows in the High Street façade. Throughout the entrance-wing, which adjoins the old Institute, steel frames, with lead glazing, fixed directly to the brickwork have been used, whilst all the other windows of the same façade have steel sashes with astragals, glazed with sheet glass, and set in wood frames. This unexpected and




*Wandsworth Technical Institute. By G. Topham Forrest. Above, the elevation to High Street. Below, the ground-floor plan.*

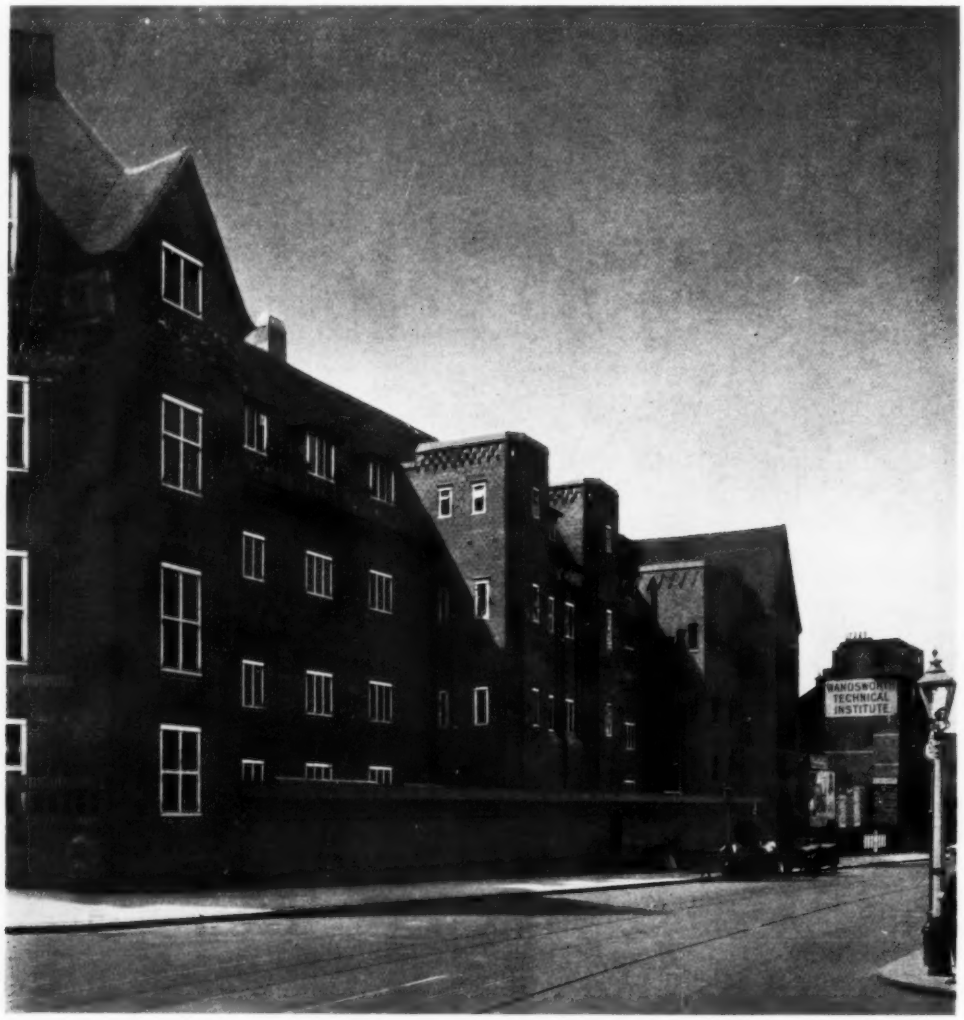



*Wandsworth Technical Institute. By G. Topham Forrest. Above, the third-floor plan. Centre, the second-floor plan. Below, the first-floor plan.*

unexplained change in method produces a jarring note in an otherwise harmonious elevation.

The plans show considerable ingenuity in dealing with a restricted and somewhat narrow site. The chief rooms for demonstrations and class-work, on all floors, have been placed at the back of the building; an arrangement which ensures quietude by reason of the insulation afforded by the corridors on the side facing the High Street with its noise of traffic and trams, and in addition allows a maximum of sunshine to enter the classrooms and workrooms. The main entrance is at the west end of the High Street front, and from the entrance hall on the ground floor easy access is provided to all parts of the building, and control is obtained from the school office and the principal's room. Lavatories and cloakrooms are set behind the screen-wall, which makes a strong feature at the base of the building on the ground floor. Access is also provided to the old Institute to the west, and to the one-story extension erected in 1915, to the south. The chief rooms on the ground floor are a metal workshop, two classrooms, a gymnasium, and the assembly hall. Adjoining the latter a "galley" has been provided with hatch-service to the hall. The playground at the back of the Institute is laid out to obtain the maximum advantage from existing trees and shrubberies which formerly belonged to the garden of an old house at the southern end of the site.

On the first floor there are a library, common room, drawing offices, two classrooms, and staff rooms. A gallery is provided at this level at the back of the assembly hall; and is so arranged that the projection-room for the lecture lanterns is placed centrally. The second floor is occupied entirely by laboratories for chemistry, physics, and engineering, the two former departments having separate lecture-rooms. Rooms for laundry, housewifery, and needlework are placed on the third, and topmost, floor, where also are provided staff rooms for the women teachers. Lavatories are repeated on each floor, and form the projecting centre block on the High Street front, while the two staircases connecting all floors are equally well expressed on the elevations. One adjoins the entrance-wing, and one is at the angle formed by High Street and St. Ann's Hill, where the staircase is given more subtle expression by the high-pitched pyramidal turret which forms the "stop" for the two elevations flanking it. An electric lift




*Wandsworth Technical Institute. By G. Topham Forrest. The main front.*

connects the ground floor service for the assembly hall to the third floor cookery department, so that meals may be served, if occasion requires, in the main hall.

The internal finish of the Institute is simple and efficient throughout. The walls in many cases are unplastered and finished with colour washes. High tile dadoes are provided in the cookery and laundry departments, and in the corridors and staircases. The floors are of fireproof construction throughout, and it is pleasing to observe that in many of the rooms the chief constructional steel has been left exposed to view and painted. A similar frankness is apparent on the staircases, where all the construction is visible, without being ugly or obtrusive, an object lesson of direct application for the young craftsmen on the second floor. The staircases are constructed of Japanese oak.

It may not be amiss here to express a hope that many more buildings for the express purpose of technical education may be erected in the near future by our educational authorities. It should be needless to make the obvious point that ordinary elementary education alone has but half the value that a similar education has if reinforced by a knowledge of some craft or a rudimentary insight into the first logical steps of a science. That there are too few technical institutions of the character of the new Wandsworth building in London, indeed, in the whole country, is one of the contributory factors that would seem to cause disinterestedness in everyday work and craftsmanship, a result that accrues from too slight a knowledge and understanding of the elementary principles that underlie so many of the crafts and sciences of modern life.

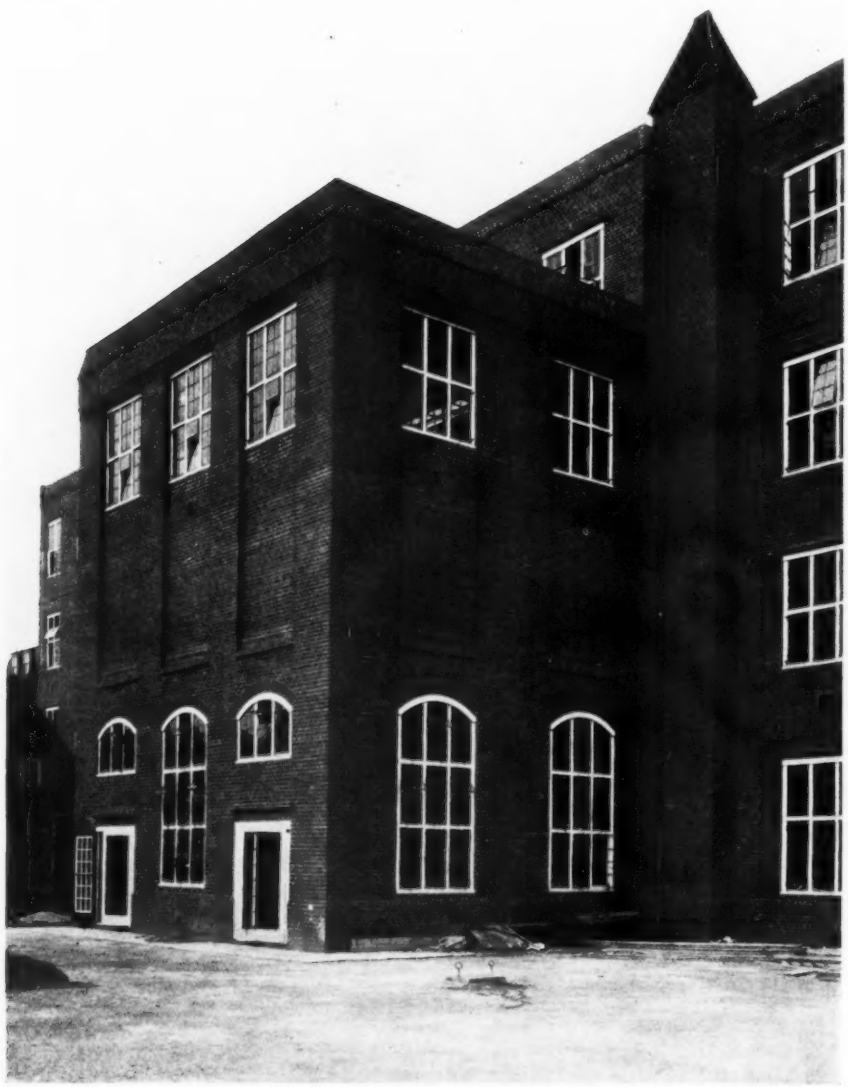
It is with something akin to envy that we turn to the architectural papers of the United States, and, to a lesser degree, of Germany, and discover that in those countries there exist, or there are proposed, so many more schools

*Wandsworth Technical Institute. By G. Topham Forrest. The return end of the building, facing east.*

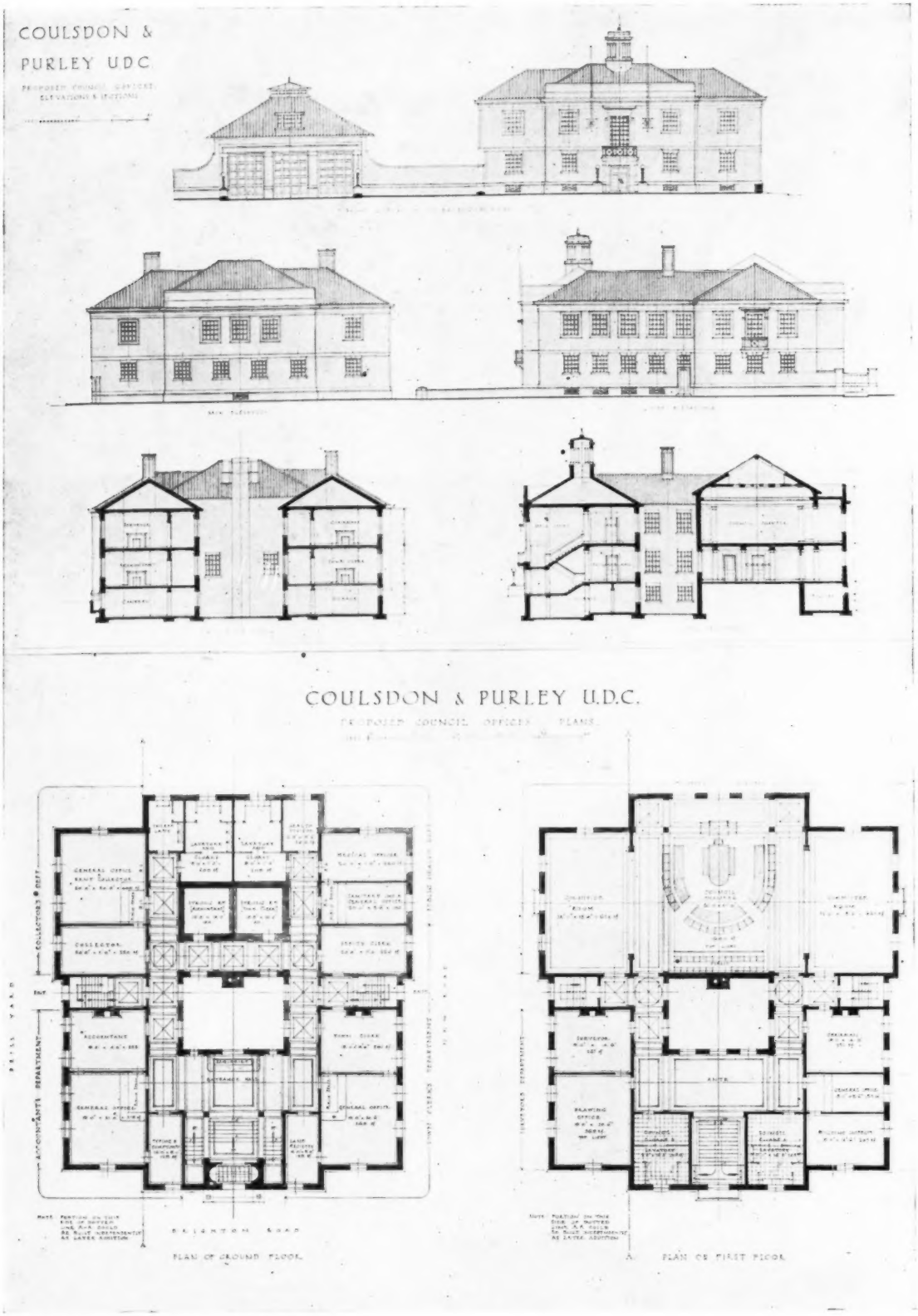
or institutes for such work, of a size and completeness in equipment that tends to far out-distance our own efforts in the same direction. It often occurs that in this country the building that houses such activities is an inadequate one, or one that has been converted, where, even though technical subjects are taught, the surroundings are congested or are not sufficiently inspiring or instructive, and half the value of the teaching is thereby lost. As we have tried to show above, Wandsworth, at least, has met such criticisms in a distinctive manner.

Following are the names of the contractors and principal subcontractors :

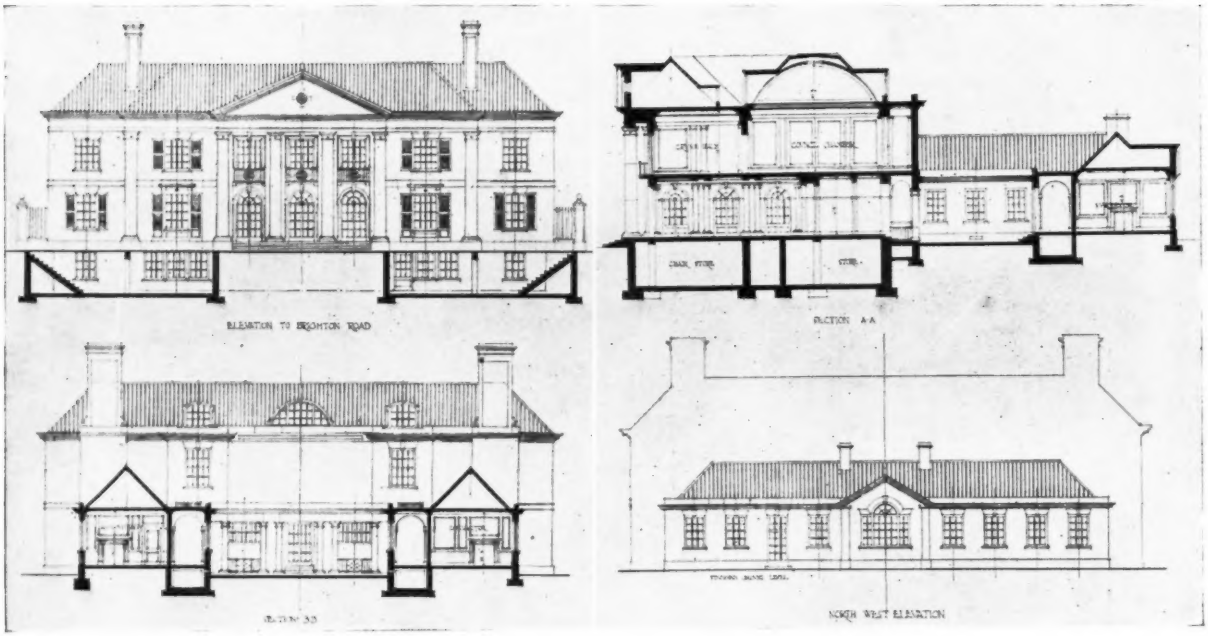
General contractors, Messrs. Prestige & Co., Ltd., of Grosvenor Road, the amount of the contract being £50,832. The foundation work and basement were completed under a separate contract by Mr. A. Monk, of Edmonton, the amount of the contract being £8,665. The clerk of the works was Mr. A. H. Castle. Principal subcontractors : The Ragusa Asphalte and Paving Co., Ltd., asphalt work; S. and E. Collier, facing-bricks; H. F. Warner, Ltd., roof tiling; Williams and Williams, Ltd., steel casements; Carter & Co., and Van Straaten & Co., wall and floor tiling; "Zeta" Wood Flooring Co., Ltd., wood-block flooring; The Medway Safety Lift Co., hand-power lift; The Fretwell Heating Co., heating; A. C. W. Hobman & Co., tar paving. The work of installing the electric lighting and an electric lift has been carried out by F. G. Minter, Ltd., and Holt and Willetts, respectively, under the direction of Mr. G. W. Humphreys, C.B.E., the chief engineer to the Council. The cost of equipping the building with apparatus, benches, etc., is estimated at £10,500, and the bulk of the fittings have been supplied under the direction of Mr. F. W. Mackinney, the chief officer of supplies to the Council.

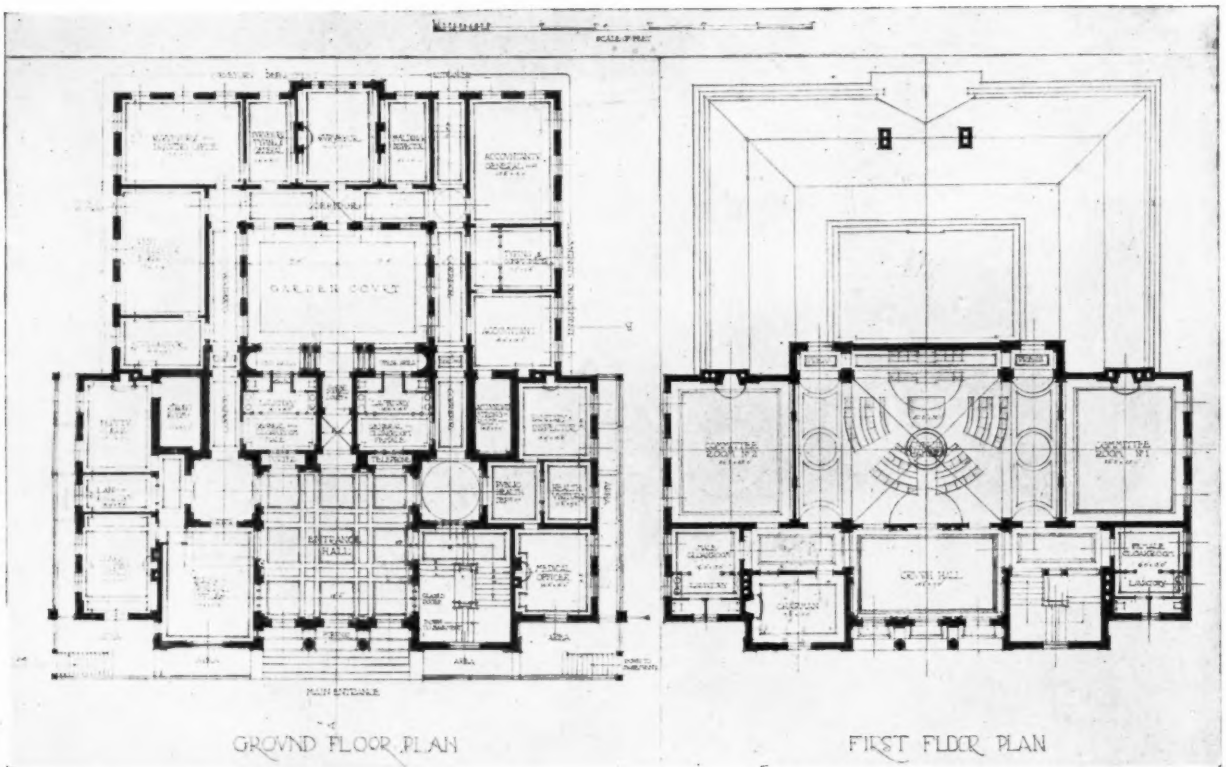


*Wandsworth Technical Institute. By G. Topham Forrest. The back elevation.*

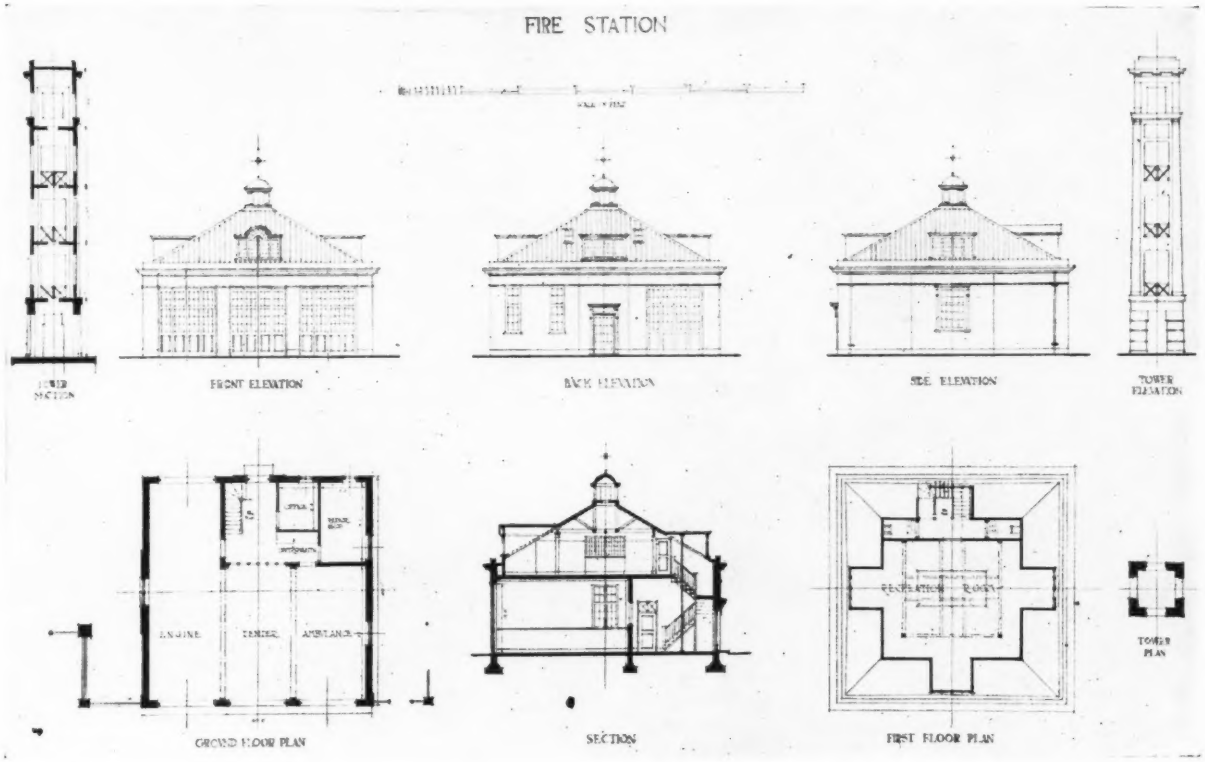


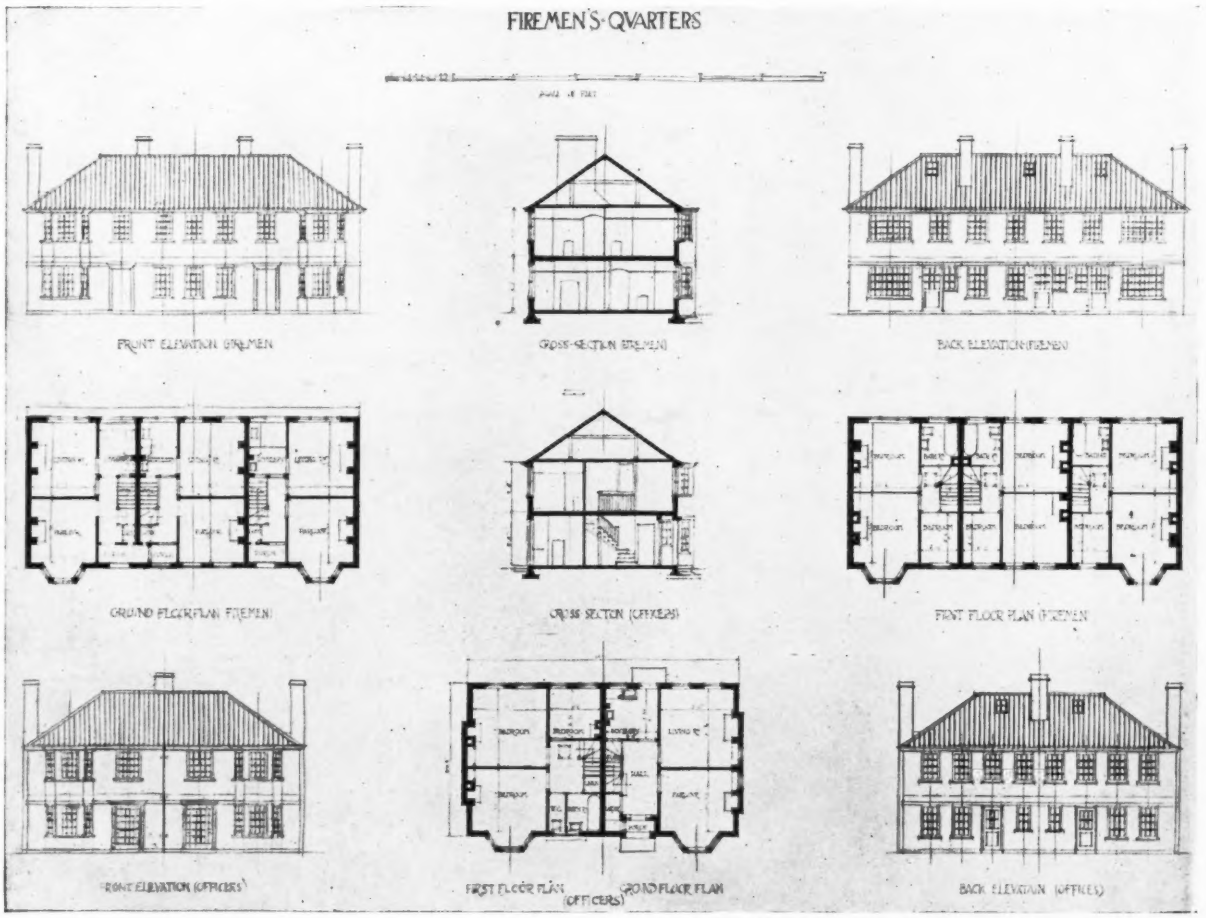

*The Coulsdon and Purley Council Offices and Fire Station Competition. P. D. Hepworth, assessor. The second premiated design. By C. Cowles-Voysey.*



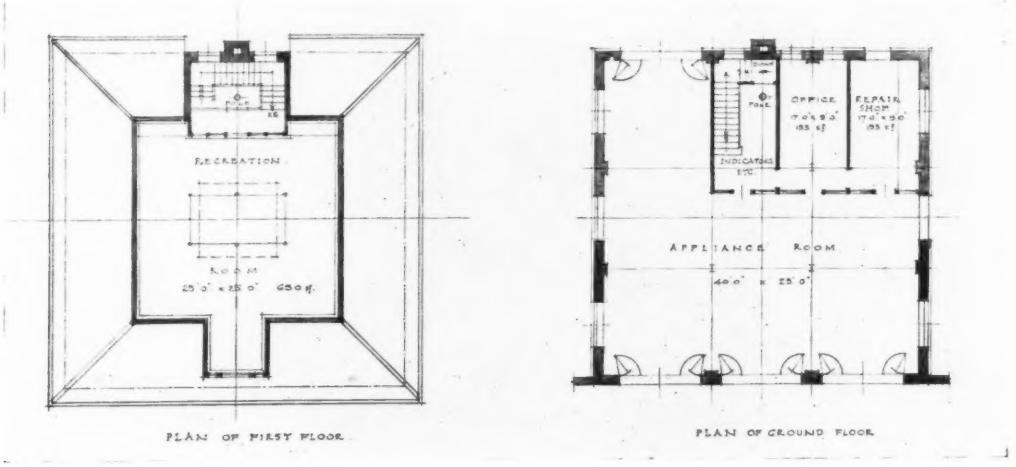



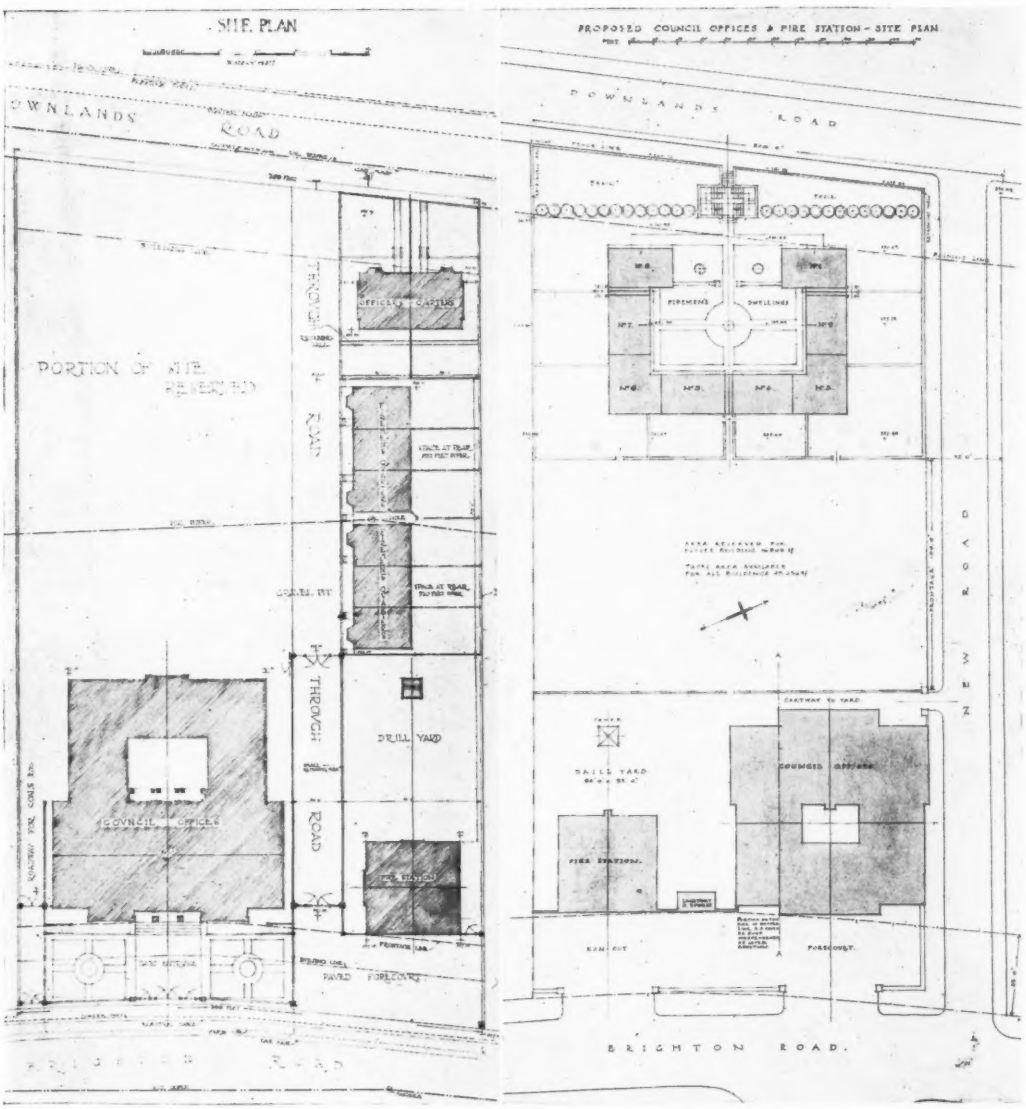

*The Coulsdon and Purley Council Offices and Fire Station Competition. P. D. Hepworth, assessor. The first premiated design. By W. B. Nicholls and B. Hughes.*



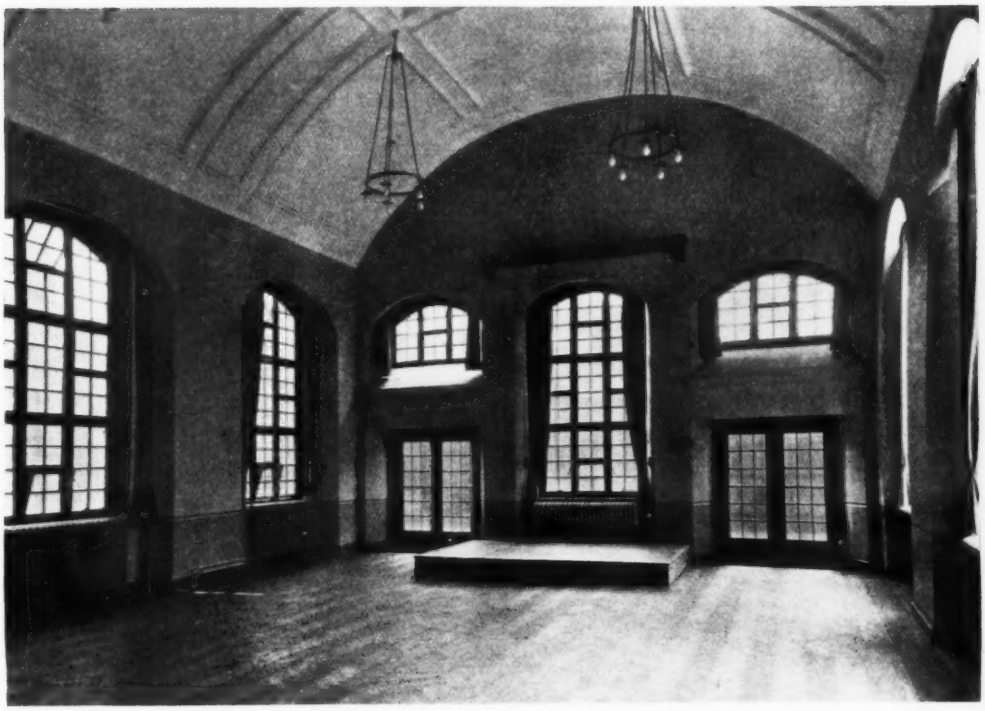




*The Coulsdon and Purley Council Offices and Fire Station Competition. P. D. Hepworth, assessor. The first premiated design. By W. B. Nicholls and B. Hughes.*




*The Coulsdon and Purley Council Offices and Fire Station Competition. P. D. Hepworth, assessor. Above, the second premiated design. By C. Cowles-Voysey. Plans of the fire station. Below, left, site plan of the first premiated design. By W. B. Nicholls and B. Hughes. Below, right, site plan of the second premiated design. By C. Cowles-Voysey.*



*Wandsworth Technical Institute. By G. Topham Forrest. Above, the assembly hall. Below, the library.*

*Wandsworth Technical Institute. By G. Topham Forrest.*
*Above, the woodworking department. Below, the gymnasium.*

# TRIBULATIONS OF EARLY PRACTICE: ii

[BY KARSHISH]

## iii: OFFICE ROUTINE

THE distracting preoccupations which have been instanced as tormenting our architect may be grouped under five heads. Uncertainty (1) whether particular papers are in the office, and if so, where they are to be found; (2) whether certain letters or documents have been written and posted, and whether certain acknowledgments have been made or received; (3) whether he has dealt with all the things which have occurred to his mind as necessary to be done; (4) whether certain things ordered to be done in or out of the office have, in fact, been attended to; (5) whether he has remembered to hold in mind the whole of the matters over which he intends to keep special watch.

An efficient routine, therefore, must comprehend a system by which (1 and 2) every paper in the office has its appointed place, where anyone can at once put his hand upon it; by which (3) notes made of things to be done will automatically come up for attention; and by which (4 and 5) all matters will come before the architect at the due moment without any reliance on his own or anyone else's memory. Let us, then, consider how the machine may be constructed to work the miracle, and how it may be used.

It must be borne in mind that the actual mechanism our architect will adopt should be adapted to his peculiar needs. Different men approach their work in very different ways. There are orderly and untidy habits of mind; there are men who are prone to confusion, and others who are naturally methodical; men who make heavy weather of the disagreeables of every day, and those whom no storms seem to disarray. Some men have a special faculty for delegating their responsibilities and are able to rely upon clerks and use other minds to enforce—or replace—the operations of their own; others, like Michelangelo, are constitutionally incapable of availing themselves of help, but must word every letter, father every idea, draw the contour of every moulding. Partly by prejudice, perhaps, but more particularly by sympathy and because it exhibits the spirit in which, to my way of thinking, an architect ought to get on terms with his work, I avour the case last instanced; and for this reason, and because such a man takes most on his own shoulders and, therefore, stands most in need of an efficient office organization, I will describe such a system of routine as would meet his needs, for if it meet his needs it will meet all likely needs. The reader should bear in mind, however, that it is the principle, rather than the letter of the discipline laid down, which is the important thing. An outline only can be presented here; the routine indicated may be elaborated, varied, or even short-circuited, to suit different circumstances. One condition, however, it must always perfectly satisfy; it must be as nearly as possible fool-proof, and it must have no open joints. The office mill, whatever grist is put into it, must grind exceedingly small. It is not to be supposed that the practice dealt with need be of other than quite ordinary dimensions, and our architect will be well advised if, when he first starts an office, he at once adopts a routine and, in the capacity of architect, disciplines himself in his capacities of typist, clerk, and draughtsman. The numbers refer to the classifications above.

1. Letters received and carbons of letters written are to be filed away in order of date in foolscap "folders" of stiff paper and fastened there with a lace, or otherwise, the last letter on top and specifications, estimates, or other documents at the back. When appropriate, two or three foolscap sheets should be put in the back upon which records, such as expenses, extras, omissions, or other matters, may be recorded. Each file is given a serial number, which is logged in a book, and they are stacked away in the order of entry.

Each file is titled, as logged, with the name of the person corresponded with, and the subject, e.g. *Twitters & Co.*, "*Basset Court.*" *Twitters & Co.*, "*Joyville.*" *Peter Wobble, Esq.*, "*Joyville*" (don't forget the "Esq.," P.W. might see the file), *Banting*, "*Joyville*," *Heating*, and so forth. Files may also be miscellaneous, e.g. *Estimates Electric Light;* in which case the folders may be indexed on the outside with the names of those concerned in their contents, or they may be subject files only, e.g. *Patent Floorings.* When any folder is full it may be marked "A," and a second, to be marked "B" but having the same serial number, may be opened. All papers marked to be filed are put into their proper folders day by day.

Upon his table the architect will keep baskets of the well-known kind. If there are six of them they would probably be identified as follows: IN; ARCHITECT; CLERK; DRAWING OFFICE; FILE; OUT. All papers for the architect's attention are put into "IN"; they are *not* distributed over his drawing-table, put under his hat, left on a chair to fall into the wastepaper-basket, or on the mantelpiece to fall into the fender, nor are they put down on the table so that they may be shuffled up with specification sheets to be sent post-haste to the quantity surveyor, who will discover them a week later. They all, whatever they are, go to "IN," where the architect's imp cannot touch them. At his chosen hour the architect goes through his "IN" basket, where he finds the last postal delivery, letters ready for his signature, documents for enclosure, and so forth; and he deals with each in turn and puts it into its appropriate basket;—papers signed or passed for post into "OUT," papers marked for file into "FILE," those marked with instructions to clerk, e.g. "Copy this for Waghorn, to-day," into "CLERK," and to draughtsman, "Note dimensions given in this letter," into "DRAWING OFFICE," while papers he wishes to hold over for further consideration he throws into "ARCHITECT." The clerk does not take papers out of baskets and litter them about the back office; he removes the baskets and replaces them with empty ones. He then feeds out of his baskets as his master feeds, and if it is found he has left any paper outside the machine he tends, he is promptly made to become pink in the cheeks.

3. The architect will carry about with him a small block of detachable slips and a pencil. When any forgotten or forgettable thing rises to his mind, he there and then kills it for ever by scribbling a direction to the clerk, or draughtsman, or he even drafts a letter while the sense of what is to be said is hot in his mind. When he comes to the office he tears off the slips and puts each into its appropriate basket. Into "CLERK," "Order coal for winter at once. Two tons." "'Phone to Jenkins to come and see me." "Expenses to-day, Basset Court, 8s. 4d." Into "FILE," memorandum that on that day boundary fence had been repaired. Into "DRAWING OFFICE," "See me about Basset staircase," and into "ARCHITECT," notes of matters requiring his personal attention. The architect will make use of similar slips while in the office; it is easier for him to scribble a note of what he wants done than to ring for the clerk to send the draughtsman who will, perhaps, ask questions which a little thought would make unnecessary; but besides saving time and distractions this use of slips makes it almost impossible for instructions to be forgotten, overlooked, or misunderstood, and it secures that the fact that a direction has been obeyed will come under the architect's notice as is provided for under (4), which decrees that every instruction, whether pencilled on the margin of a letter or document, or conveyed by a slip, shall be returned to "IN" with the initials of the person who has dealt with the matter appended; and all such initialing is to be dated. Such pencilled marginal and other records of what has been ordered and done, and by whom, and why, and when, are an enormous aid to any subsequent unravelling of the history of any event, or in grasping the position of affairs at any particular date, when exploring files.

*The characters appearing in these articles are entirely imaginary, and are not intended to bear any resemblance to real persons, whether living or dead.*

With such a routine well established it is astonishing how speedily and with what little effort an architect can dispose of the mass of intricate detail which belongs to architectural practice. The papers fly; all is done without cares or preoccupations. The system, by vesting all discretion in the architect, makes it possible for a boy clerk to do accurately and thoroughly work which a fully-paid assistant would do only imperfectly. An office so run is never overcome with the paralysis experienced in some when: "The clerk who knows about the heating at Pensfold is away ill just now." In such an office, too, an assistant who can find an excuse for neglect or misunderstanding must be a clever fellow and well worth making the most of: "Cannot you read, then?" "Then you never cleared the basket!" "This paper was not marked for the file, why is it here?" "If you had initialed and returned the slip this would not have happened." The "I thought," "I did not suppose," "I forgot," of the culprit can make little way against retorts of that kind, and the architect's imp is hard put to it to find something to do.

5. This, the most onerous of the architect's preoccupations, can be disposed of by making use of what I will call a remembrancer. The device is specially applicable to the needs of the architect. My remembrancer, then, is a square wooden box, three-quarters of an inch greater in width and in depth than a sheet of quarto paper. It has a cover to keep out dust, and the back is sloped at an angle of about 60 deg. with the bottom. This box is equipped with thirty-one stiff cards half an inch bigger in both dimensions than the quarto sheet, and notched along the top edge on "where is it" principle for ready access to any number. These lie against the sloped back. The device is used as follows: Any slip, letter, or document referring to a matter which the architect wants to keep in mind is put behind the card numbered with the day of the month on which he wishes to recall it. When he comes to the office he each morning looks through the papers accumulated behind the card bearing that day's date and deals with each as he desires. We will suppose that on May 7 he finds a letter from a firm of merchants saying that certain goods will be ready at a certain date; the architect writes to ask whether they are on the way, and then puts the letter again into the remembrancer behind 14, so that the matter will come before him in a week's time. There is also a slip "Final certificate due Branding, June 7"; the architect puts this back behind 7, where it will confront him when payment is due in a month's time. There is a letter from his quantity surveyor asking for levels: this letter is only two days old, and was put behind 7 because on that day the architect intended to go on to the site and get the levels, but he finds he will have to put off his visit till the next day, and accordingly he places the letter behind 8, where he knows it will come to his hand next morning. The remembrancer is a particular boon when negotiations have to be followed up. There is a squabble, we will suppose, about the position of a boundary. The architect puts a sheet of paper into the remembrancer which comes automatically to his notice at such intervals as he deems well, and upon it he keeps a running record of events. The reminder enables him also to jog solicitors, and prod surveyors, and ask how this matter and that shapes just at the times when it is judicious and useful to take those steps. This paper will eventually go on to the file, where it will be a valuable record: and it will at any time enable the architect, perhaps when the client or his lawyer is with him, to hold in his hand a concise history of the whole matter with a record of the existing position of affairs, without any effort of memory or need to track down the facts in the recesses of various files.

With such a system as this, as long as the wheels are revolving smoothly, and the machine is kept clean, high efficiency and economy of working is secured, and the architect will have the pleasure of knowing that among the evasive and the sloppy who work under his direction he is regarded as a "holy terror," and by the capable and conscientious as a safe man.

Our architect will find that his account-keeping will give him little trouble. All he needs is two accounts at his bank each with its pass book. Into "A" account are paid all fees, and against it are drawn all cheques to meet office expenses. Account "B" is kept in credit by sums transferred by the bank to it from account "A," and all personal expenses are debited to it. Thus pass book "A" is the business ledger, and pass book "B" the private. In addition to *File Register*, a *Drawings Register*, a petty cash book and a letter book (to keep tally of postage and stamps), are all the books an architect needs. For his private satisfaction, however, it is well for him to possess a book in which, when a job comes in, he may note the approximate fees it will bring him, which he may add to the total there shown. At the end of each year he carries forward to the next approximate estimates of fees outstanding or due to be earned. By this means he may at any moment inform himself of the financial outlook of the immediate future.

[*To be continued*]

# BUILDING AND DECORATIVE TIMBERS

[BY G. A. T. MIDDLETON]

## viii: SEASONING AND PRESERVATION: PLYBOARDS AND VENEERS

METHODS of seasoning and preserving timber have altered little during the last quarter of a century. One may, in fact, go much farther and say that both air and water seasoning have centuries of successful experience behind them. The application of protective coats of paint for preservation is also a very old method. Natural seasoning, whether by air alone or by water and air, is a slow process, and the modern tendency is to rely upon it less and less, and to use artificial seasoning instead. The effect is not merely to reduce the stock in hand, and consequently the capital lying idle, by acceleration. Experience shows that a more evenly dried material results from artificial seasoning, and that the process, being under control, enables different degrees of dryness to be obtained, according to the purpose for which the wood is required; while thick and thin timber can (and should) be differentiated.

In some of the great forest districts of the world, where a continuous supply can be depended upon, artificial seasoning is carried out by means of large "progressive" kilns, through which the planks or scantlings travel broadside on. Thus, if the boards do not exceed 16 ft. long, the kiln must be 17 ft. wide, to allow clearance. The lengths of the boards vary greatly, however. Hard woods season better in a long kiln, and when made to travel slowly through it. In England small compartment kilns are almost invariably used. These take the boards end on, and work intermittently. In either form of kiln the heat is generally obtained by the use of steam coils. These are either within the compartment, if circulation of air is to depend on temperature differences; or arranged in an external heater box, if fans or blowers are utilized to secure air movement. Many variations of both types are in use, according to climate and local conditions—or, perhaps, it may be added, prejudice or personal preference.

Where electricity is available in forest areas at low cost it is sometimes used to season newly felled timber. The current is passed longitudinally through the logs, thus utilizing the electric conductivity of the contained sap to produce a rise of temperature.

In dry and well-ventilated situations most timbers require nothing beyond thorough seasoning in order to preserve them for a very long period, running into centuries. This is particularly the case with such timbers as teak, which contain an essential oil rendering them immune from attack by the death-watch beetle, and resistant to rot. Other timbers, like oak and elm, last best if totally immersed in water. Almost all, however, are liable to decay somewhat rapidly unless some preservative measures are taken. The sapwood of soft woods will do so very rapidly if exposed to wet and dry conditions alternately, or to moisture in unventilated places. Where exposed to moisture the only thing to do is to substitute dryness for moisture and ventilate thoroughly. Otherwise "dry-rot" is almost sure to destroy the timber.

Creosoting under pressure, which is used for railway sleepers, is not to be thought of in connection with building work. There are, however, many positions where creosote, or one of the well-known stains with a creosote basis, may be applied with a paint-brush. It is a most efficacious preservative against wet rot, and against the attacks of insect pests, but it needs renewing from time to time. So, too, does paint, which, if of good material well applied, is the best preservative of all. Regular repainting is essential in places exposed to the weather.

Many timbers, however well they may be seasoned, are apt to shrink in their breadth (longitudinal shrinkage is in all cases negligible) after being planed, and sometimes for quite a long period. This accounts for the well-known (and equally well anathematized !) opening of the joints of floorboards, especially if they be of one of the soft woods or of maple, and the shrinkage of joinery panels. This is so objectionable in appearance that it is now usual to employ plyboards for panels rather than to cut them out of solid timber. Plyboards are obtainable in broad sheets, and owing to their method of manufacture they neither shrink nor warp. These boards consist of three, five, or even seven thicknesses of veneer, glued together under pressure, the first, third (fifth and seventh) thicknesses being arranged with the grain at right angles to that of the second (fourth and sixth). The veneers may be as thin as $\frac{1}{64}$ in., or as thick as $\frac{3}{8}$ in., but for the manufacture of plyboards the usual thicknesses are from $\frac{1}{12}$ in. to $\frac{1}{8}$ in. Straight logs which do not taper appreciably are selected, and these are cut into lengths slightly less than the width of the knife in the machine—commonly 36 in. These log sections are then immersed in water kept at a constant temperature for several hours, the temperature and time varying according to the wood to be treated and determined by experiment. The log section is then carefully centred and made to rotate, while the knife edge, carried in a heavy block, is brought up to it slowly. The speeds of rotation of the log and forwards of the knife need careful adjustment in order to produce a "peel" or veneer of uniform thickness, and this, as it comes off the lathe, is taken up on a moving table and cut, generally by a hand-actuated cutter, into suitable lengths. Each sheet then passes into the dryer (for cutting is generally performed on green timber), and is there, being thin, seasoned in half an hour or little more. The operation of gluing-up then follows immediately. The centre sheet of a 3-ply board is passed through glue rollers, which glue both surfaces, and is placed at once on the top of the bottom board, and the third board on top of it again, the grain running in alternate directions as already explained. The whole operation is continued until twenty or more sets of ply-boards are arranged in a heap, and then the whole lot are put in a press and tightly clamped together—to be released when the glue has set, about twenty-four hours later. Much of the success of the result depends upon the quality of the glue. Casein glues are generally considered best. Many beautiful woods, such as birch and alder, which only give timber of too small a size for use in building work, are rendered available in plywood.

# LITERATURE

## MR. YERBURY IN SPAIN

MR. YERBURY'S second portfolio of Spanish photographs contains some brilliant examples of his skill, not only in photography, but in making a picture. If there is a want of intricacy or distance as compared with his photographs of subjects in England and the Low Countries, it is probably due to the character of Spanish architecture, which is direct and robust. The illustration reproduced on this page shows the national bias. Granted the arcade is European (and handled as delicately as Bramante could have done), the upper order is not met outside Spanish influence. Instead of the usual play and interest of the balustrade, the fence to the covered-way retains the feeling of a wall in its flatness and solid look; the upper entablature is a beam frankly more than strong enough for its work, but with a strength doubly assured by the corbels from the capitals. Of the two cornices, each shows in its way the survival of the old Greek tradition that the cornice is a part of the roof, for the lower cornice with no roof to justify it has faded to a mere ornamental band; but the upper cornice has reality, it goes under the tiles and has a solid inherence in roof and wall and a structural function. The almost universal heavy pantiles, whose deep waves break along the skyline as seen from the narrow streets, has helped to keep the Spanish cornice true to type.

A survival of another kind is the use of strange finials, crestings, and stone balls; it is shown in the photograph of the Seville Cathedral chapels, starting from the balustrade. Every good Andalusian who builds a villa wants it somewhere, and nowadays does the thing in coloured pottery. The legitimate use of these crestings is to pull down the sky into the picture of the building, but the sky seems worthy of a more polite approach.

Mr. Yerbury has several illustrations of the Moorish Alcazar at Seville, and of the Alcazar Gardens, subjects which cannot be adequately shown without colour, for colour was of the essence of their contract. His photograph of the convent church of St. Paul also gives no idea of the art of colour which makes the entrance magnificent. There are many better subjects than these for photography in Andalusia; as that heroic western approach to Jerez Cathedral or the fine gloom of its *desornamentado* sacristies; the distant views of the hill towns, San Roque and Medina Sidonia, or the details of their balconies and patios. On the other hand, we are given several of the most solid Spanish achievements —the Square at Salamanca, Alcala de Henares, Lerma, Aranjuez. From these and others comes the main effect of Spanish

*Alcala de Henares.* (*Archbishop's Palace, patio.*)
[*From* Lesser Known Architecture in Spain.]

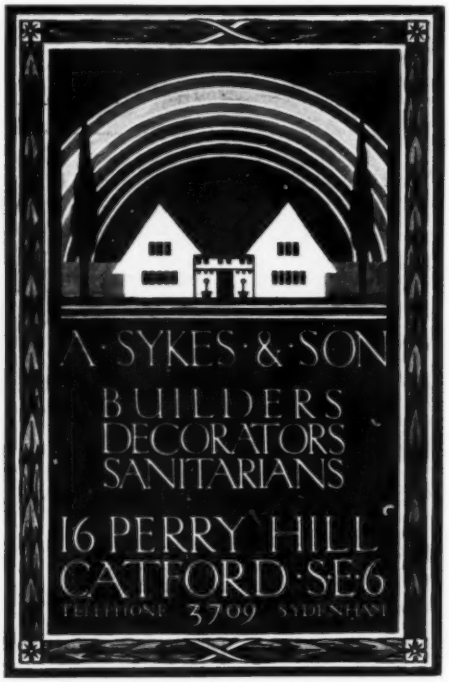
architecture, that thrill of discovering something incredibly remote in age yet familiar in style. There is a flavour in the air surrounding that beauty which has lain untouched by man's hand for centuries, ripening in the sun and gathering a grey and golden dust. Spain is a half-wild garden, and old towns and monasteries and churches lie in it unbetrayed as yet by the kiss of change.

P. M. STRATTON

*Lesser-Known Architecture of Spain.* Second series. By F. R. Yerbury. Benn Bros. Price 18s.

### THE ART OF THE POSTER

*Posters and Publicity* is the title of *The Studio's* special autumn number. The letterpress, written by Sydney R. Jones, occupies only twelve pages, and takes the form of a brief review of advertisement design during the past year, while the remainder of the book consists of about 150 pages of illustrations, many of them in colour. These are divided roughly into groups; travel, transport, food, toilet, clothing, and raw materials being among the headings, and there is a large "miscellaneous" section at the end. In every group all sorts of advertisers, representative of all nations, are given a place, and there is hardly an illustration which is not of the highest order. It is no surprise to come upon some charming advertisement of one or other of the delicacies




*A poster by Guy Miller.*
[*From* Posters and Publicity.]

of my lady's dressing-table; we may even look upon the showcard of some restaurant and remain unmoved, for is there not artistry in the serving of a meal? But it seems that there can be few things in this world (even among those made by man) which have not some claim to beauty when they are rightly interpreted to us. Engineers have discovered artists who have found decoration in the most mundane of wares. Steam shovels and wireless aerials compete for beauty with what one must suppose is really quite an ordinary motor tyre. And yet one closes the book grieving that the building trades are so sadly represented. Only two firms of all those connected with the industry in this country have had their advertisements included. There are admirable examples of work done by Leonard Squirell and Walter M. Keesey, and others, for Messrs. Kerner-Greenwood & Co., the makers of "Pudlo," who have for some time being paving the way to a higher standard of advertisement among builders' merchants, and whose efforts are well known; and Messrs. Sykes and Son, builders, of Catford, have a very pleasing poster reproduced. Surely there is as much scope for good advertisement in relation to building as to engineering; certainly the architectural papers would welcome a further effort towards the adornment of this section of themselves, and it is especially gratifying to see "Pudlo" advertisements which have previously decorated the pages of THE ARCHITECTS' JOURNAL. At least it can be said that *Posters and Publicity* may be regarded, not only as a delightful book, but as an admirable catalogue of ideas for anybody who wishes to advertise.

M. L. A.

*Posters and Publicity:* Special Autumn Number of *The Studio*, 1926; price 7s. 6d. net (paper cover); 10s. 6d. (cloth).

### NEW STANDARD SPECIFICATIONS

The British Engineering Standards Association has just issued British Standard Specifications for zinc oxide (types 1 and 2) for paints, asbestine for paints, interior oil varnish, exterior oil varnish, and flatting or rubbing oil varnish. They contain clauses regulating the composition, together with standard reception tests, for the purchase of zinc oxide, asbestine, interior, exterior, flatting or rubbing oil varnish, and appendixes giving methods of carrying out the tests. The Association has also issued British Standard Specifications for barytes and boiled linseed oil. They contain clauses regulating the composition, together with standard reception tests, for the purchase of barytes and boiled linseed oil and appendixes giving methods of carrying out the tests. These specifications have been prepared at the request of the paint manufacturers by a committee representative of both the buying and manufacturing interests, and as in the case of all British Standard Specifications, they will be reviewed as experience of their working or progress in the industry renders it necessary, and revised issues will be published from time to time.

*British Standard Specifications: No. 254-1926, for Zinc Oxide (types 1 and 2), for Paints; No. 255-1926, for Asbestine for Paints; No. 256-1926, for Interior Oil Varnish; No. 257-1926, for Exterior Oil Varnish; No. 258-1926, for Flatting or Rubbing Oil Varnish. No. 259-1926, for Boiled Linseed Oil, and 260-1926, for Barytes.* B.E.S.A. Publications Department, 28 Victoria Street, S.W.1. Price 1s. 2d. each, post free.

## NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of His Majesty's Stationery Office, by our own patent expert. All inquiries concerning inventions, patents, and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

### LATEST PATENT APPLICATIONS

25829. Bell, N. M. Fire-grates. October 16.
25597. Chedburn, N. S. Shuttering for concrete walls. October 14.
25598. Chedburn, N. S. Clamps for manufacture of concrete walls. October 14.
25692. Coystra, P. S., and Westerhout, J. M. Building-blocks. October 15.
25604. Cumberland, C. Construction of concrete walls, etc. October 14.

### SPECIFICATIONS PUBLISHED

259261. Bates, A. Concrete buildings cast in situ.
259332. Ledder, J. Method of mounting ornamental tiles and the like.
242267. Soc. Bournisien, Beau, et Cie. Process for protecting walls of safes or of strong-rooms against blow-pipes.
242720. Soc. Bournisien, Beau, et Cie. Process for protecting walls of safes or of strong-rooms against blow-pipes.
259421. Bemis, A. F. Building-construction.

### ABSTRACT PUBLISHED

257346. Weston, H. Walls.

# THE COMPETITORS' CLUB

## A COMPETITION FOR FURNITURE DESIGNS

This competition is in four sections, each respectively being for the complete furnishing of: *a :* a double bedroom; *b :* a drawing-room; *c :* a sitting hall; and *d :* a dining-room. It is intended to encourage the creation of types of furniture to express the needs of the modern household without that implicit obedience to classical formula which has for so long been fashionable. The idea is to stimulate and revive a greater interest in types of furnishing and equipment that clearly voice the aspirations of our own time, and meet the needs of a generation affected in their daily lives in a thousand different ways by influences entirely unknown and uncontemplated in the seventeenth and eighteenth centuries. It does not appear logical to suppose that an age which can create the automobile and the aeroplane must of necessity rely upon the age of the stage-coach for its furniture. The object, therefore, of the competition is to discover fresh ideas in design, and to find avenues through which makers may go towards the development of design in furniture, characteristic and expressive of our own times, and suitable for the houses in which we all, according to our various circumstances, must live.

The competition is open, not only to professional furniture designers, but to architects, artists, craftsmen, and students, some of whom may not necessarily have designed furniture before. In return for their contribution of four hundred guineas to the prize fund Messrs. Broadwood and Sons may claim the exclusive right in the use of any of the designs gaining awards, but *The Furnishing Trades' Organizer*, under the terms of the competition, may publish any design submitted, as a means, not only of interesting the trade, but of creating a market for the work of competitors who show ability and promise. The aim of the competition is not solely to secure an exhibition of technical excellence from expert draughtsmen, but also to bring forth new and original ideas, some of which may form the nucleus of a style more in accordance with modern aspirations and needs than those of former times which, although historically and artistically important, have manifestly outlived their appropriateness. In brief, the aim of the competition is to encourage a new outlook on design as applied to furniture rather than to invent novelty for immediate use.

The committee of honorary assessors, with power to add to their number, is as follows: The Countess of Oxford and Asquith; The Lady Islington; Sir Frank Baines, C.V.O., C.B.E., F.R.I.B.A. (Director, H.M. Office of Works); H. Clifford Smith, F.S.A. (Department of Woodwork, Victoria and Albert Museum); F. V. Burridge, O.B.E., R.E., A.R.C.A. (Principal of the Central School of Arts and Crafts); P. Morley Horder, F.S.A.; Philip Tilden; Percy A. Wells (Principal of the Cabinet Department, Shoreditch Technical College); Holbrook Jackson (Editorial Director, The National Trade Press, Ltd.); Capt. Edward W. Gregory (Editor, *The Furnishing Trades' Organizer*). The date for sending in is January 15, 1927.

Preliminary adjudication. Selected designs. Two hundred guineas in prizes. The committee of assessors will select the most distinctive and practical designs submitted, and award premiums of twenty-five guineas each to a maximum of two hundred guineas for eight designs so selected. These designs may be taken from any, or all, of the sections. Two awards will not necessarily go to each section, nor will eight prizes be given if the standard of design does not justify it.

Final adjudication. Completed furniture. Three hundred guineas in prizes. The Old Ford Engineering and Manufacturing Co. (a subsidiary company of John Broadwood and Sons, Ltd.) have agreed to make furniture from any or all of the premiated designs in the first adjudication. When this is complete the assessors will award in order of merit the prizes below to the designers of furniture which in their opinion is the best in actuality.

| | |
|---|---|
| First prize .. .. .. .. | 150 guineas |
| Second prize .. .. .. .. | 100 „ |
| Third prize .. .. .. .. | 50 „ |

All the furniture made, and all the designs submitted for competition, will be shown at an exhibition to be organized for the purpose by *The Furnishing Trades' Organizer*, Regent House, Kingsway, London, W.C.2, from whom further details of the competition can be obtained.

SENESCHAL

*Appreciative of the fact that two heads may be better than one, Seneschal will be at all times ready to consider articles on competition subjects for publication on this page. Such should be from 800 to 1,200 words in length, and deal with questions of general interest to competitors.*

## COMPETITION CALENDAR

***The conditions of the following competitions have been received by the R.I.B.A.***

*November* 30. *a :* Design for a house costing £1,500; *b :* design for a house costing £850. Assessors, Mr. E. Guy Dawber, P.R.I.B.A., together with two others to be appointed by him whose names will be made known later. Premiums in each section: First, £150; second, £100; third, £50. Particulars from the secretary, *Daily Mail* Ideal Houses Competition, 130 Fleet Street, E.C.4. The prize-winning £1,500 house will be erected and completely furnished and equipped at the 1927 *Daily Mail* Ideal Home Exhibition at Olympia to be held next March.

*January* 3. Academy, Perth. Open to Architects practising in Scotland. Assessor, Mr. James D. Cairns. Premiums: £100 and £50. Particulars from Mr. R. Martin Bates, Education Offices, Perth. Deposit £1 1s.

*No date.* Incorporated Architects in Scotland: 1: Rowand Anderson Medal and £100; City Art Gallery and Museum; 2: Rutland Prize (£50) for Study of Materials and Construction; 3: Prize (£10 to £15) for 3rd year Students in Scotland; 4: Maintenance Scholarship, £50 per annum for 3 years. Particulars from Secretary of the Incorporation, 15 Rutland Square, Edinburgh.

***The conditions of the following competitions have not as yet been brought to the notice of the R.I.B.A.***

*January* 8. Town Hall Extensions and Public Library Building, Manchester. Assessors, Messrs. T. R. Milburn, Robert Atkinson, and Ralph Knott. Particulars from Mr. P. M. Heath, Town Clerk. Deposit £1 1s.

*January* 15. Designs for complete modern furniture for *a*, a double bedroom, *b*, a drawing-room, *c*, sitting hall, *d*, dining-room. Assessors, the Countess of Oxford and Asquith, the Lady Islington, Sir Frank Baines, C.V.O., C.B.E., F.R.I.B.A. (Director of H.M. Office of Works), Messrs. H. Clifford Smith, F.S.A. (Department of Woodwork, Victoria and Albert Museum), F. V. Burridge, O.B.E., R.E., A.R.C.A. (Principal of the Central School of Arts and Crafts), P. Morley Horder, F.S.A., Philip Tilden, Percy A. Wells (Principal of the Cabinet Department, Shoreditch Technical College), Holbrook Jackson (Editorial Director, The National Trade Press, Ltd.), and Captain Edward W. Gregory (Editor, *The Furnishing Trades' Organizer*). For the preliminary adjudication there are 200 guineas in prizes, and for the final 300 guineas. Particulars from the Editor, *The Furnishing Trades' Organizer*, Regent House, Kingsway, London, W.C.2. An exhibition of prints and drawings of modern furniture and decoration will be held in the Gallery of Carlton House, Great Queen Street, W.C.2, from November 15 to 27 inclusive.

*No date.* Town Hall and Library, Leith. Assessor, Sir George Washington Browne, R.S.A. Particulars from the City Chambers, Edinburgh.

# CORRESPONDENCE

## THE R.I.B.A. AND THE NEW SOCIETIES

*To the Editor of* THE ARCHITECTS' JOURNAL

SIR,—I have read with interest the letter signed "Equity." The R.I.B.A. has admitted thousands of men without any test or examination, but the Licentiates were not members until quite recently. "Equity" states that the Society of Architecture for nearly forty years took in nearly every soi-disant architect who cared to apply, "and these gentlemen are now in the Institute." In his next paragraph he writes "the R.I.B.A. cannot possibly open its doors much wider *and still call itself a body of qualified practitioners*"! He is a bit of a humorist, for no man who knows the facts, as he does, could suggest this seriously.

TRUTH

## USELESS RAILINGS

*To the Editor of* THE ARCHITECTS' JOURNAL

SIR,—The leading article on "The Decorative Railing," in your issue for October 6, is largely framed as a reply to an article by myself on "Useless Railings," in *The Graphic* for August 21. But, unfortunately, the author of the reply has to a considerable extent misconstrued my case. At the outset I was careful to say that I did not propose to touch upon the controversial question of railings round the parks; my whole argument was concentrated on railings in front of buildings—"useless for any purpose whatsoever." Therefore the question of railings round the gardens of squares, to which your article devotes much attention, does not come into the picture. Nor is it any answer to my plea for the abolition of useless railings to point out that in many cases railings protect people from tumbling into basement areas. That is obviously a useful purpose, though often it could be served by less ugly railings.

All the examples I gave were cases of railings which were quite useless, and in my opinion also ugly. Your article challenges my application of the word "ugly" to the railings in front of the Admiralty. This is a matter of opinion. I can see no beauty in them, and I think that the building behind them would look finer and more dignified without them. There is apparently also a divergence of taste between us with regard to the tall railings in front of the British Museum. You admit that these railings are in themselves "badly designed," but you claim that they add dignity to the building behind them. I disagree. I think that the fine front of the British Museum would look finer still from the street which faces it if these "badly designed" iron obstacles were removed.

About these questions of taste argument is, of course, impossible, but the main thesis of your article shows that you have misunderstood my point of view. You plead for the preservation of the decorative railing; I fully agree with you. Where a railing is decorative, to my mind it is also useful, and, therefore, ought to be preserved. But will you kindly go and look at some of the cases which I mentioned in *The Graphic*—the railings on the west side of Chancery Lane, the tall railings in Stone Buildings, Lincoln's Inn, the railings in Chandos Street, Strand, the railings on the north side of Drury Lane Theatre—and say in your next issue whether you seriously consider these to be decorative. If not, let us agree that they ought to be removed. There are hundreds of similar cases all over London. If we can by joint effort get rid of these we need not worry to argue about those which you claim to be decorative.

HAROLD COX

Our leader writer, in reply, says: The leading article entitled "The Decorative Railing," about which Mr. Harold Cox complains, although it made reference to his remarks in *The Graphic*, was not entirely devoted to the criticism of his remarks, but dealt rather with the whole subject of the use and abuse of railings, including the question of the desirability of demolishing the railings around the gardens in public squares. If we were to enter into a discussion as to which of the railings in London were or were not beautiful, a very long argument would be involved and, perhaps, an inconclusive one. Mr. Cox in saying that where a railing is decorative it is in his opinion also useful has declared himself to be "on the side of the angels" in this matter. We owe him an apology, therefore, if the leading article to which he refers should have led him to suppose that we numbered him among the architectural "reformers" who would destroy every railing which did not serve a very obvious utilitarian purpose.

# TRADE NOTES

Messrs. Setchell and Sons, Ltd., of 26-27 Finsbury Court, London, E.C.2, sole distributors of Old Delabole slates, announce that the prices of Old Delabole medium and seconds green sized slates, as quoted on page 5 of the current price list No. 118 (with the exception of sizes 12 in. by 7 in. and 12 in. by 6 in.) will be reduced by 10 per cent., and that such reduction will apply to orders for these slates received by the firm on and after November 1.

By the use of Duresco washable distemper the walls of Cannon Street Station, London, have been completely transformed. It is understood that no previous attempt had been made to treat them in any way since the station was built. In the present case the grimy, sooty walls were simply brushed down, and given two coats of Duresco, the whole of the work, which entailed the use of several tons of Duresco, being executed by Messrs. Vigor & Co. (Poplar), Ltd., in the short space of ten weeks, and with a full service of steam and electric trains still running. The sole manufacturers of Duresco are The Silicate Paint Company.

The General Electric Co., Ltd., announce that they have opened well-equipped showrooms for the display of stage lighting apparatus at Central House, Kingsway (next door to Magnet House), telephone Regent 7050, extension 183. These showrooms are available to architects, consulting engineers, contractors, and others interested in the stage lighting of theatres, cinemas, dance halls, cabarets, etc., to whom a cordial invitation is extended. Stage lighting engineers are in attendance at all times to advise on technical matters, or to prepare and submit stage lighting schemes of any magnitude. Adequate stocks of spotlights, floodlights, arcs, and various colour mediums are always available to meet urgent demands.

# OBITUARY

*Mr. H. K. Nield*

We regret to record the death of Mr. H. K. Nield, of Barnet. He was prospective Liberal candidate for the Macclesfield Division of Cheshire, which he unsuccessfully fought at the last election, and was previously Liberal candidate for the St. Albans Parliamentary Division. An architect by profession, he was Deputy Chief of the Building Licensing Department of the Ministry of Munitions during the war. Only a few weeks ago Mr. Nield returned from America, where he married Miss Marjory Porritt, daughter of Mr. Edward Porritt, an historical and political writer, of Connecticut.

*Mr. E. O. Brown*

We regret to record the death of Mr. Edgar Oswald Brown, of Burgess Hill. He had held for the past five years the post of resident architect to Messrs. Thomas Tilling, Ltd., London. He was a member of the R.I.B.A. During the war he was a lieutenant (acting captain) in the Royal Air Force, and superintended the construction of the aerodromes at Rugby and Clipstone. At the Oxford base he held the position of section officer, and had to supervise the construction and repair of aerodromes over a wide area.

* * *

Mr. George Abraham Crawley, of Chelsea Park Gardens, Chelsea, and well known in England and America for his architectural and decorative work, left £33,495.

# READERS' QUERIES

### A BILLIARD-ROOM CEILING

*L. S. writes : " The roof shown on the accompanying plan and section is designed for a billiard-room of the size figured. A curved ceiling is desired, and no truss is to show. Would the design be satisfactory ? "*

With a wooden roof of this form which depends upon a cantilever leg, there is a danger that the cantilever will give somewhat and kick out the walls, and if it does not do so immediately, it will do so gradually, as the shrinkage of the timbers and the working loose of the nails allow of greater freedom of movement. If the inquirer pictures to himself the curved struts after they have become an eighth, or a quarter, of an inch thinner with shrinkage, he will realize how it will be possible for the leg of the roof which rests on the 11 in. hollow wall to exert a lateral outward pressure against it in process of time. This tendency of the roof to descend at the crown and to spread apart at the wall tops may be resisted by embedding a continuous band of reinforcement around the walls of the billiard-room on all four sides over the heads of the doors and windows. A good plan is to make the reinforced concrete lintels continuous, with hook-joints to make proper junctions at the end of every length of bar, including the returns at the corners.

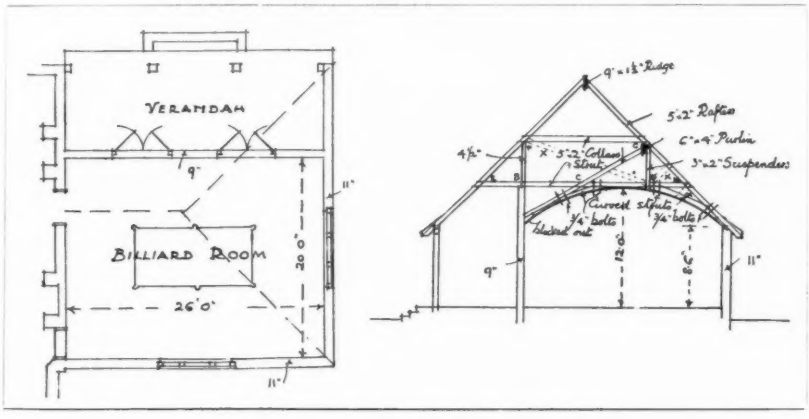
An extra 4½ in. thickness on the inner side of the external walls would make matters more secure. Even with these precautions a certain amount of bulging may be expected in the middle of the length of the walls, and deflection in the cantilever leg may be provided against by fixing short lengths of timber across the angle between the foot of the rafter and the curved strut, as shown by dotted lines.

The fixing of the several timbers together is an important matter, and if nails are depended upon for the purpose the lower collar might be made deeper, say 7 in. by 2 in., to give room for more effective fixing, and to avoid deflection in this member under the weight of the ceiling. What happens at the hipped end of the roof cannot be known for certain from the diagram, which only shows the cross-section, but the feet of the jack rafters will have to be tied-in in any case, even if the curved struts of the ceiling are not required. This tying-in of the hipped end is sometimes accomplished by fixing the nearest collar to every rafter and then providing some binders in the direction of the length of the roof, and spiking them to the tops of all the collars. One such binder might be placed at B on the section and others at C and D.

The attachment of the binders to the last collar (and by its means to the jack rafters of the hipped end of the roof) is often made only by means of nails, but bolts, or straps and bolts, may be needed to provide adequate tensile connection. It is possible to calculate how many nails will be needed at any junction, but it is also prudent to refrain from putting too much confidence in the result of the calculation, since a split in the grain reduces the actual holding power of the nail, and vibrations due to wind-pressure tend to shake the timbers apart, as was discovered in the experimental nailed trusses of war-time factory roofs.

The 6 in. by 4 in. purlin shown in the diagram raises a query as to the amount of support it is likely to obtain at the hip, and, on the whole, it would, perhaps, be as well to omit it and substitute 4 in. by 3 in. stringers at E, F, G, H, where they will help to give extra material for the nails to hold into at the connections between collars and rafters. These horizontal members help to make the roof act as a whole and prevent it sagging too violently at the foot of any one rafter which happens to be weaker than the rest. They also provide opportunities for horizontal gusset pieces across the corners of the plan under the hips as angle ties. The hips themselves may be made of deep material pared away at the foot so as not to show inside the room, if their appearance there is not wanted.

W. H.




*A billiard-room ceiling.* [*See answer to L. S.*]

### PROPORTIONS FOR ROUGHCAST

*J. H. writes : " I propose to erect two villas, and intend having them roughcasted. Which are the best materials to use to obtain the finished appearance as white as possible ? "*

The whiteness of the roughcast may be obtained either by the use of light-coloured aggregates, or by the use of light-coloured cementing material, or by both together. The exact texture and colour desired affect the choice of these materials, but probably the most pleasant effect under the grey English sky is obtained by means of screened chippings of Portland stone mixed with lime, gauged with Portland cement, 2 to 1. White Portland cement and sand may be used as a matrix instead of lime, and the aggregates may include marble chippings if an intense or glistening whiteness is preferred. One mixture which results in the production of an almost white roughcast without the employment of marble or stone chippings is made by coating ordinary screened pebbles of lightish colour with a slurry composed of mixed lime and good grey Portland cement. The material has to be mixed in small quantities, and the water content must be determined by experiment. Mixing is continued until every pebble is encased in a film of the lime and cement mixture. As soon as the pebbles are thoroughly coated they are thrown with the trowel on to the floating coat that has been prepared freshly to receive them. The final coat of roughcast is not very much more than a fairly enduring form of decoration, so it is well to make the first rendering coat of cement and sand in the proportion of 1 to 1, or 1 to 2, and to add Stantonite waterproofing material, as necessary to exclude the wet, and to form a key by scratching. The proportions of mixtures which are being made up for colour-effects have to be tried out as samples on some convenient piece of wall surface, but once a satisfactory mixture and method of handling have been arrived at, every succeeding batch must be mixed and used in exactly the same way. In all mixings of lime and cement the lime must be slaked first and the cement dusted in immediately before the material is to be turned over and applied to the wall. Constant supervision is generally necessary if an even or a regularly rough textured coat is to be obtained.

W. H.

### "DAILY MAIL" IDEAL HOUSES

*Far North writes : " I am sure many of the Scottish competitors in the* Daily Mail *Ideal Homes Competition would be glad to know the minimum cubing rate for the London area. The accommodation asked for in both classes, i.e. £1,500 and £850, seems to imply that building costs in London have reached a very much lower rate than in Scotland."*

The minimum rate per cubic foot in London for this class of house is 1s. 4d.

E. C. I.

# THE WEEK'S BUILDING NEWS

*Guildford Museum*

Guildford Museum is to be extended.

*Brompton Hospital to be Enlarged*

Brompton Hospital is to be enlarged.

*Housing at Poplar*

Forty tenements are to be built in Birchfield Street, Poplar.

*A Streatham Street Improvement*

Mitcham Lane, Streatham, is to be widened.

*A Cricklewood Telephone Exchange*

A telephone exchange is to be built at Cricklewood.

*Housing at Whitehaven*

The Whitehaven Town Council has decided to build about 200 more houses.

*A New Church for Feltham*

Feltham Primitive Methodists are to have a new church.

*Guildford Waterworks Scheme*

The Guildford Council is considering a £75,000 waterworks scheme.

*More Houses for Eton*

The Eton Council is to erect forty houses near Eton College Sanatorium.

*More Shops for Victoria*

Shops are to be built on the forecourt of Victoria Station.

*Cottages for Ballymoney*

The Ballymoney Rural District Council is to erect eighty-six cottages.

*Worthing Depot Improvements*

It is proposed to reconstruct the Corporation depot at a cost of £13,000.

*The Reconstruction of Romford Road*

The East Ham Council is to reconstruct Romford Road from Manor Park Broadway to Katherine Road.

*A New Public Library for Westminster*

A public library is to be built by the Westminster Council at the corner of St. Martin's Street and Orange Street.

*Proposed New Racecourse for Margam*

A proposal is on foot for the construction of a racecourse at Margam, near Neath, at a cost of £100,000.

*Littlehampton Harbour Scheme*

It is proposed to reconstruct the harbour at Littlehampton. Sixty thousand pounds is the estimated cost.

*A New Street for Balham*

A new street is to be made between Thurleigh Road and Nightingale Lane, Balham.

*Housing at Cowes*

A second housing scheme, involving an expenditure of £10,000, has been adopted by the Cowes Council.

*A Bradford Road Improvement Scheme*

The Bradford Town Council has under consideration a road improvement scheme estimated to cost £545,500.

*Belfast's Gas Undertaking*

The Belfast Corporation proposes to borrow £150,000 for the general purposes of the gas undertaking.

*Streatham Road Improvements*

Nearly £5,000 is to be spent in buying property to widen Streatham High Road at Greyhound Lane.

*Fifty More Houses for Irthlingborough*

The Irthlingborough Urban District Council proposes to provide fifty more houses.

*More Houses for Coventry*

A proposal is being considered by the Coventry City Council to erect an additional 100 houses on the Radford estate at an estimated cost of £42,000.

*Crayford Housing*

The surveyor to the Crayford Urban District Council has prepared a lay-out plan for sixty-three houses on the Slade Green Road estate.

*Housing at Foleshill*

The Foleshill Rural District Council has received the approval of the Minister of Health to grant the subsidy for a further 200 houses.

*Proposed Council Offices for West Mersea*

The West Mersea Urban District Council has decided to ask the surveyor to prepare plans of new Council offices and Council chamber.

*Another Blackpool Cinema*

Another large cinema is to be built at Blackpool, and a suitable site in Whitegate Drive has been secured. Mr. H. Best is the architect.

*Housing at Adwick*

The proposal of the Adwick Urban District Council to purchase twenty-six acres of land between Adwick and Highfields, and to erect 276 houses, has been sanctioned by the Ministry of Health.

*Proposed New Reservoir at Balcombe*

The Ministry of Health is to hold an inquiry into the application of the Mid-Sussex Joint Water Board, for sanction to loans for the construction of a reservoir at Balcombe.

*Improvements at Hastings*

The report of the architect and surveyor engaged by the Corporation, dealing with necessary work to bring the White Rock Baths up to date and to provide medical baths, has been circulated. The expenditure suggested is £102,000.

*More Houses for Spenborough*

The Spenborough Urban District Council has decided that plans should be prepared for the erection of 116 more houses. The Council has also decided to seek powers to raise a loan for the enlargement of South Parade School, Cleckheaton.

*Proposed New Dulwich School for Girls*

Plans are now being considered by the Estates Governors of the Dulwich College Foundation for the erection of a girls' college at Dulwich Common as part of the Foundation. The girls' school will probably be on the same lines as Dulwich College.

*Improvements at Jarrow*

The Jarrow Town Improvement Committee has recommended that the Housing Committee be requested to call a special meeting to deal with the area of Spenser Street and Shakespeare Street corner, previously reported upon as an unhealthy area.

*Improvements at Newmarket*

The Newmarket Rural District Council has decided to submit a scheme for the provision of twenty bungalow dwellings to the Ministry of Health for sanction. The surveyor is to report as to the cost of improving a number of dangerous road corners.

*Bloomsbury Site Negotiations*

Subject to the consent of the Chancellor of the Exchequer to proposals put forward by the University of London, the Senate, it is announced, has authorized definite negotiations with the Duke of Bedford for the purchase of part of the Bloomsbury site.

*New Mining School for Edinburgh*

At the Edinburgh Dean of Guild Court a warrant was granted to the Governors of George Heriot's Trust for alterations at 79 Grassmarket, by which an old brewery will be converted into mining laboratories and lecture-rooms. The cost of the new mining school will be over £20,000.

*The Condition of Newcastle Cathedral*

When the Duchess of Northumberland opened the new vestries at Newcastle Cathedral, Canon Newson announced that an anonymous donor had provided £13,000 for the work. Beetles had ravaged the roof, and thousands of pounds more would be required.

*Housing at Derby*

Under Corporation schemes (Housing Act, 1924) 111 houses are in course of erection; whilst public utility societies have 121 subsidized houses in course of erection, and two non-subsidized. Plans have been passed for a further six subsidy houses and twenty-six non-subsidy houses.

*Brighton Aquarium Plan*

The Minister of Health has approved generally Brighton Town Council's scheme for the reconstruction of the Aquarium at a cost of £92,000. The Council has asked the Special Aquarium Committee to report, with recommendations, as to which section of the scheme shall be commenced first.

*Brighton Road Widening Scheme*

The Health Committee recommends that application be made to the Ministry of Health for sanction to a loan to defray the cost of forming roads and sewers on the portion of ten acres of land forming part of the Bristol estate, upon which it is proposed to erect the first instalment of sixty houses.

*Scheme for Widening Kensington High Street*

The Kensington Borough Council is considering a recommendation by the Improvements Committee to contribute one-third of the cost of widening Kensington High Street between Young Street and the Metropolitan Railway station to a width varying from 80 ft. to 85 ft. The total cost is estimated at £451,550.

*Southend Building Developments*

The Southend Town Council has approved plans for fifty-seven houses, fourteen bungalows, eighteen garages, eight flats, two shops with flats over, three semi-bungalows, four conversions of houses into flats, one shop, one new store, one office, shop and hall, new church hall, West Road, for Wesleyan Methodists, and one warehouse and showroom.

*Suffolk Street Galleries*

The unsatisfactory condition of the Galleries in Suffolk Street, which the Royal Society of British Artists built a little over a century ago, has necessitated an extensive scheme of reconstruction, involving an entirely new finely-proportioned arched roof to the central gallery, modelled on that of Room XXV at the National Gallery. The exhibition was opened to the public on November 1.

*The Houses of Parliament Mosaics*

The Earl of Crawford and Balcarres unveiled in St. Stephen's Hall, Houses of Parliament, the mosaic panel, "Edward III commands the rebuilding of St. Stephen's Chapel." This is the last of the mosaics. It has been designed by Mr. R. Anning Bell and executed by Miss Gertrude Martin, an English mosaic craftswoman. It is placed over the west doorway. Edward III is shown presenting the approved design for the Chapel to his master mason.

*Slum Clearance at Dundee*

A number of slum clearance schemes were recently discussed by the Housing Committee of the Dundee Town Council, in consequence of a letter which has been received from the Scottish Board of Health asking for the city's requirements. It had been stated at a previous meeting that for the clearance of a large slum area in the Hawkhill district about £114,000 was involved. It was ultimately agreed to defer the whole question.

*Windsor Castle Approach*

The Windsor Town Council and the Crown authorities are co-operating in a scheme for improving the approach to Windsor Castle. The central feature is the widening of St. Albans Street. In order to effect this the boundary wall of the Castle grounds is to be set back, and a number of old buildings near the Royal mews will be demolished. An ancient inn and shop property at the end of Park Street is to be cleared away, to improve the approach to the Castle from the famous Long Walk.

*The Pulford Street Site*

A report of the Westminster Housing Committee has recently been made on the question of the Pulford Street housing site. The report says that the committee, having once again had the matter before it, desires to state that after most carefully re-examining the possibilities of developing a housing scheme on the site, is unanimous in reaffirming that its disadvantages far outweigh its advantages. The committee notes, therefore, with approval, the decision of the London County Council to utilize the site for other purposes.

*Proposed New School at Chorlton-cum-Hardy*

The provision of a new municipal elementary school for Chorlton-cum-Hardy is proposed by the Manchester City Council. It is estimated that when permission will be sought to borrow, a sum of £47,236 will be required for the building and equipment of the premises. The site of the proposed school, which has received the approval of the Board of Education, is at the junction of Barlow Moor Road and the new public park opposite Hardy Lane. The plans provide accommodation for 390 boys, 360 girls, and 480 infants, a total of 1,230 places.

*A London Hospital Extension Scheme*

The plans and elevations for the proposed extension of the Elizabeth Garrett Anderson Hospital, Euston Road, were on view at an "At Home" held at the hospital. Mr. A. Gordon Pollock (chairman of the hospital) said the architects had made the most of the rather limited site. It was hoped to complete the new buildings about May 1928. They had in hand £3,100 towards a new nurses' home, which was to form a memorial to the nurses who fell in the war. Among those present was Sir Brumwell Thomas, the honorary architect to the hospital.

*Glasgow School of Art: The Extension Scheme*

At the annual meeting of the Governors of Glasgow School of Art, Mr. John Keppie, A.R.S.A., F.R.I.B.A., was re-elected vice-chairman. The annual report for session 1925-26 was submitted, showing that 1,274 students had enrolled, being 169 more than the previous session. Sixty-seven diplomas were granted, being nineteen more than the previous session. At the International Exhibition of Modern Decorative and Industrial Art in Paris in 1925 the school received the Grand Prix for general work, and the Gold Medal for metal work. The Governors have had plans prepared for the utilization of the property acquired in Renfrew Street opposite the present main building for an extension scheme. The scheme is estimated to cost a total of £35,000.

*Manchester Corporation and Wythenshawe Acres*

Manchester Corporation's application to borrow £211,000 to purchase the Wythenshawe Estate of 2,569½ acres outside the city boundary on the Cheshire side of the River Mersey was investigated by Mr. M. G. Weekes and Mr. R. Unwin, Ministry of Health Inspectors, at an inquiry at the Town Hall. The inquiry was the prelude to the putting forward of a Bill to embrace in the city area Northenden, Northern Etchells, and Baguley. There was strong opposition. Mr. P. M. Heath, the town clerk, said that in some districts the housing accommodation was totally inadequate. It was calculated that by 1936 49,332 more houses would be needed. Mr. J. B. L. Meek, the city engineer, said to extend Princess Road to Wythenshawe would cost £120,000, to bridge the Mersey £30,000, and to sewer the estate £185,000.

*Manchester Improvement Schemes*

The Manchester City Council Gas Committee proposes a further capital expenditure of £126,000 on the new gasworks at Partington, the sum including £30,000 for the provision of houses for workmen, subject to the sanction of the Ministry of Health. Another proposed application to the Ministry is by the Housing Committee, which seeks power to borrow £150,000 in respect of the assistance of new construction of houses under the Housing Act, 1923, while the Education Committee wants to borrow £47,236 for the erection and equipment of a municipal elementary school at Barlow Moor Road, Chorlton-cum-Hardy. The Rivers Committee also propose to apply for borrowing powers to the amount of £95,552 for the construction of relief and intercepting sewers in the Moss Side and Whalley area. Expenditures on capital account include £10,000 by the Improvement and Buildings Committee for the purchase of land and properties in connection with new streets (Coupland Street to Lloyd Street and Coupland Street to Carter Street), and £30,000 by the Waterworks Committee on the construction of the Heaton Park reservoir.

# RATES OF WAGES

| | | | I | II |
|---|---|---|---|---|
| | | | s. d. | s. d. |
| A | ABERDARE | S. Wales & M. | 1 8 | 1 3½ |
| A₁ | Abergavenny | Do. | 1 7½ | 1 2½ |
| B | Abingdon .. | S. Counties | 1 6 | 1 1½ |
| A | Accrington | N.W. Counties | 1 8 | 1 3½ |
| A₃ | Addlestone | S. Counties | 1 6½ | 1 2 |
| A | Adlington | N.W. Counties | 1 8 | 1 3½ |
| A | Airdrie .. | Scotland | *1 8 | 1 3½ |
| C₁ | Aldeburgh | E. Counties | 1 4 | 1 0½ |
| A | Altrincham | N.W. Counties | 1 8 | 1 3½ |
| B₃ | Appleby .. | N.W. Counties | 1 4½ | 1 0½ |
| A | Ashton-under-Lyne | N.W. Counties | 1 8 | 1 3½ |
| A₃ | Atherstone | Mid. Counties | 1 6½ | 1 2 |
| B₃ | Aylesbury .. | S. Counties | 1 4½ | 1 0½ |
| B | BATH .. | S.W. Counties | 1 6 | 1 1½ |
| B₃ | Banbury .. | S. Counties | 1 4½ | 1 0½ |
| B₃ | Bangor .. | N.W. Counties | 1 5 | 1 1 |
| A | BarnardCastle | N.E. Coast | 1 8 | 1 3½ |
| A | Barnsley .. | Yorkshire | 1 8 | 1 3½ |
| B₁ | Barnstaple | S.W. Counties | 1 5½ | 1 1½ |
| A | Barrow .. | N.W. Counties | 1 8 | 1 3½ |
| A | Barry .. | S. Wales & M. | 1 8 | 1 3½ |
| B₃ | Basingstoke | S.W. Counties | 1 4½ | 1 0½ |
| A | Batley .. | Yorkshire | 1 8 | 1 3½ |
| B | Bedford .. | E. Counties | 1 6 | 1 1½ |
| A₃ | Berwick-on-Tweed | N.E. Coast | 1 7 | 1 2½ |
| A₃ | Bewdley .. | Mid. Counties | 1 6½ | 1 2 |
| B₃ | Bicester .. | Mid. Counties | 1 4½ | 1 0½ |
| A | Birkenhead | N.W. Counties | †1 9 | 1 3½ |
| A | Birmingham | Mid. Counties | 1 8 | 1 3½ |
| A | Bishop Auckland | N.E. Coast | 1 8 | 1 3½ |
| A | Blackburn | N.W. Counties | 1 8 | 1 3½ |
| A | Blackpool | N.W. Counties | 1 8 | 1 3½ |
| A | Blyth .. | N.E. Coast | 1 8 | 1 3½ |
| B₃ | Bognor .. | S. Counties | 1 4½ | 1 0½ |
| A | Bolton .. | N.W. Counties | 1 8 | 1 3½ |
| A₃ | Boston .. | Mid. Counties | 1 6½ | 1 2 |
| B₁ | Bournemouth | S. Counties | 1 6 | 1 1½ |
| A | Bradford .. | Yorkshire | 1 8 | 1 3½ |
| A₃ | Brentwood | E. Counties | 1 6½ | 1 2 |
| A | Bridgend | S. Wales & M. | 1 8 | 1 3½ |
| B₃ | Bridgwater | S.W. Counties | 1 5 | 1 1 |
| A₁ | Bridlington | Yorkshire | 1 7½ | 1 2½ |
| A | Brighouse | Yorkshire | 1 8 | 1 3½ |
| B₁ | Brighton .. | S. Counties | 1 6 | 1 1½ |
| A | Bristol .. | S.W. Counties | 1 8 | 1 3½ |
| B₃ | Brixham .. | S.W. Counties | 1 4½ | 1 0½ |
| A₃ | Bromsgrove | Mid. Counties | 1 6½ | 1 2 |
| C | Bromyard .. | Mid. Counties | 1 4 | 1 0½ |
| A | Burnley .. | N.W. Counties | 1 8 | 1 3½ |
| A | Burslem .. | Mid. Counties | 1 8 | 1 3½ |
| A₃ | Burton-on-Trent | Mid. Counties | 1 7 | 1 2½ |
| A | Bury .. | N.W. Counties | 1 8 | 1 3½ |
| A₃ | Buxton .. | N.W. Counties | 1 6½ | 1 2 |
| B | CAMBRIDGE | E. Counties | 1 6 | 1 1½ |
| B₃ | Canterbury | S. Counties | 1 4½ | 1 0½ |
| A | Cardiff .. | S. Wales & M. | 1 8 | 1 3½ |
| A | Carlisle .. | N.W. Counties | 1 8 | 1 3½ |
| B | Carmarthen | S. Wales & M. | 1 6 | 1 1½ |
| B₃ | Carnarvon | N.W. Counties | 1 5 | 1 1 |
| A₁ | Carnforth .. | N.W. Counties | 1 7½ | 1 2½ |
| A | Castleford | Yorkshire | 1 8 | 1 3½ |
| B₁ | Chatham .. | S. Counties | 1 5½ | 1 1½ |
| B₁ | Chelmsford | E. Counties | 1 5½ | 1 1½ |
| B | Cheltenham | S.W. Counties | 1 6 | 1 1½ |
| A | Chester .. | N.W. Counties | 1 8 | 1 3½ |
| A | Chesterfield | Mid. Counties | ‡1 8 | 1 3½ |
| B₃ | Chichester | S. Counties | 1 4½ | 1 0½ |
| A | Chorley .. | N.W. Counties | 1 8 | 1 3½ |
| B₃ | Cirencester | S. Counties | 1 5 | 1 1 |
| A | Clitheroe .. | N.W. Counties | 1 8 | 1 3½ |
| A | Clydebank | Scotland | 1 8 | 1 3½ |
| A | Coalville .. | Mid. Counties | 1 8 | 1 3½ |
| B₁ | Colchester .. | E. Counties | 1 5½ | 1 1½ |
| A | Colne .. | N.W. Counties | 1 8 | 1 3½ |
| B₁ | Colwyn Bay | N.W. Counties | 1 5½ | 1 1½ |
| A | Consett .. | N.E. Coast | 1 8 | 1 3½ |
| B₁ | Conway .. | N.W. Counties | 1 5½ | 1 1½ |
| A | Coventry .. | Mid. Counties | 1 8 | 1 3½ |
| A₃ | Crewe .. | N.W. Counties | 1 6½ | 1 2 |
| A₃ | Cumberland | ..... | 1 6½ | 1 2 |
| A | DARLINGTON | N.E. Coast | 1 8 | 1 3½ |
| A | Darwen .. | N.W. Counties | 1 8 | 1 3½ |
| B₃ | Deal .. | S. Counties | 1 4½ | 1 0½ |
| B₁ | Denbigh .. | N.W. Counties | 1 5½ | 1 1½ |
| A | Derby .. | Mid. Counties | 1 8 | 1 3½ |
| A | Dewsbury | Yorkshire | 1 8 | 1 3½ |
| B | Didcot .. | S. Counties | 1 6 | 1 1½ |
| A | Doncaster | Yorkshire | 1 8 | 1 3½ |
| C₁ | Dorchester | S.W. Counties | 1 4 | 1 0½ |
| A₃ | Driffield .. | Yorks | 1 6½ | 1 2 |
| A₃ | Droitwich | Mid. Counties | 1 6½ | 1 2 |
| A₃ | Dudley .. | Mid. Counties | 1 7 | 1 2½ |
| A | Dundee .. | Scotland | 1 8 | 1 3½ |
| A | Durham .. | N.E. Coast | 1 8 | 1 3½ |
| B₁ | EAST-BOURNE | S. Counties | 1 6 | 1 1½ |
| A | Ebbw Vale | S. Wales & M. | 1 8 | 1 3½ |
| A | Edinburgh | Scotland | 1 8 | 1 3½ |
| A | E. Glamorganshire & Monmouthshire | S. Wales & M. | 1 8 | 1 3½ |
| B | Exeter .. | S.W. Counties | §1 7 | 1 2½ |
| B₃ | Exmouth | S.W. Counties | 1 5 | 1 1 |
| B | FELIXSTOWE | E. Counties | 1 6 | 1 1½ |
| A₃ | Filey .. | Yorks | 1 6½ | 1 2 |
| A | Fleetwood .. | N.W. Counties | 1 8 | 1 3½ |
| B₃ | Folkestone | S. Counties | 1 4½ | 1 0½ |
| A | Frodsham | N.W. Counties | 1 8 | 1 3½ |
| B₃ | Frome .. | S.W. Counties | 1 4½ | 1 0½ |
| A | GATESHEAD | N.E. Coast | 1 8 | 1 3½ |
| B₁ | Gillingham | S. Counties | 1 5½ | 1 1½ |
| B | Gloucester | S.W. Counties | 1 6 | 1 1½ |
| A₃ | Goole .. | Yorkshire | 1 7 | 1 2½ |
| B₁ | Gosport .. | S. Counties | 1 5½ | 1 1½ |
| A₃ | Grantham | Mid. Counties | 1 6½ | 1 2 |
| A₃ | Gravesend | S. Counties | 1 7 | 1 2½ |
| A | Greenock .. | Scotland | *1 8 | 1 3½ |
| A | Grimsby .. | Yorkshire | 1 8 | 1 3½ |
| B₁ | Guildford .. | S. Counties | 1 5½ | 1 1½ |
| A | HALIFAX .. | Yorkshire | 1 8 | 1 3½ |
| A₁ | Hanley .. | Mid. Counties | 1 7½ | 1 2½ |
| A | Harrogate | Yorkshire | 1 8 | 1 3½ |
| A | Hartlepools | N.E. Coast | 1 8 | 1 3½ |
| B₂ | Harwich .. | E. Counties | 1 5 | 1 1 |
| B₃ | Hastings .. | S. Counties | 1 4½ | 1 0½ |
| B₁ | Hatfield .. | S. Counties | 1 5½ | 1 1½ |
| B | Hereford .. | S. W. Counties | 1 6 | 1 1½ |
| B | Hertford .. | E. Counties | 1 5½ | 1 1½ |
| A₁ | Heysham | N.W. Counties | 1 7½ | 1 2½ |
| A | Howden .. | N.E. Coast | 1 8 | 1 3½ |
| A | Huddersfield | Yorkshire | 1 8 | 1 3½ |
| A | Hull .. | Yorkshire | 1 8 | 1 3½ |

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

| | | | I | II |
|---|---|---|---|---|
| | | | s. d. | s. d. |
| A | ILKLEY .. | Yorkshire | 1 8 | 1 3½ |
| A | Immingham | Mid. Counties | 1 8 | 1 3½ |
| B | Ipswich .. | E. Counties | 1 6 | 1 1½ |
| C₁ | Isle of Wight | S. Counties | 1 4 | 1 0½ |
| A | JARROW .. | N.E. Coast | 1 8 | 1 3½ |
| A | KEIGHLEY | Yorkshire | 1 8 | 1 3½ |
| B₂ | Kendal .. | N.W. Counties | 1 5 | 1 1 |
| B₂ | Keswick .. | N.W. Counties | 1 5 | 1 1 |
| B | Kettering .. | Mid. Counties | 1 6 | 1 1½ |
| A₃ | Kidderminster | Mid. Counties | 1 6½ | 1 2 |
| B₂ | King's Lynn | E. Counties | 1 5 | 1 1 |
| A₁ | LANCASTER | N.W. Counties | 1 7½ | 1 2 |
| A₃ | Leamington | Mid. Counties | 1 6½ | 1 2½ |
| A | Leeds .. | Yorkshire | 1 8 | 1 3½ |
| A | Leek .. | Mid. Counties | 1 8 | 1 3½ |
| A | Leicester .. | Mid. Counties | 1 8 | 1 3½ |
| A | Leigh .. | N.W. Counties | 1 8 | 1 3½ |
| B₂ | Lewes .. | S. Counties | 1 4½ | 1 0½ |
| A₃ | Lichfield .. | Mid. Counties | 1 6½ | 1 2 |
| A | Lincoln .. | Mid. Counties | 1 8 | 1 3½ |
| A | Liverpool .. | N.W. Counties | ||1 10 | 1 4½ |
| B | Llandudno | N.W. Counties | 1 6 | 1 1½ |
| A | Llanelly .. | S. Wales & M. | 1 8 | 1 3½ |
| | London (12 miles radius) | | 1 9½ | 1 4½ |
| | Do. (12-15 miles radius) | | 1 9 | 1 4 |
| A | Long Eaton | Mid. Counties | 1 8 | 1 3½ |
| A | Loughborough | Mid. Counties | 1 8 | 1 3½ |
| B | Luton .. | E. Counties | 1 6 | 1 1½ |
| A | Lytham .. | N.W. Counties | 1 8 | 1 3½ |
| A₁ | MACCLESFIELD | N.W. Counties | 1 7½ | 1 2½ |
| B | Maidstone | S. Counties | 1 5½ | 1 1½ |
| A₃ | Malvern .. | Mid. Counties | 1 6½ | 1 2 |
| A | Manchester | N.W. Counties | 1 8 | 1 3½ |
| A | Mansfield .. | Mid. Counties | 1 8 | 1 3½ |
| B₃ | Margate .. | S. Counties | 1 4½ | 1 0½ |
| A₃ | Matlock .. | Mid. Counties | 1 6½ | 1 2 |
| A | Merthyr .. | S. Wales & M. | 1 8 | 1 3½ |
| A | Middlesbrough | N.E. Coast | 1 8 | 1 3½ |
| A₃ | Middlewich | N.W. Counties | 1 6½ | 1 2 |
| A | Monmouth | S. Wales & M. | 1 8 | 1 3½ |
| | S. and E. Glamorganshire | | | |
| A₁ | Morecambe | N.W. Counties | 1 7½ | 1 2½ |
| A₃ | NANTWICH | N.W. Counties | 1 6½ | 1 2 |
| A | Neath .. | S. Wales & M. | 1 8 | 1 3½ |
| A | Nelson .. | N.W. Counties | 1 8 | 1 3½ |
| A | Newcastle | N.E. Coast | 1 8 | 1 3½ |
| A | Newport .. | S. Wales & M. | 1 8 | 1 3½ |
| A | Normanton | Yorkshire | 1 8 | 1 3½ |
| A₃ | Northampton | Mid. Counties | 1 7 | 1 2½ |
| A | North Staffs. | Mid. Counties | 1 8 | 1 3½ |
| A | North Shields | N.E. Coast | 1 8 | 1 3½ |
| B | Norwich .. | E. Counties | 1 6 | 1 1½ |
| A | Nottingham | Mid. Counties | 1 8 | 1 3½ |
| A | Nuneaton .. | Mid. Counties | 1 8 | 1 3½ |
| B | OAKHAM .. | Mid. Counties | 1 5½ | 1 1½ |
| A | Oldham .. | N.W. Counties | 1 8 | 1 3½ |
| A₃ | Oswestry .. | Mid. Counties | 1 6½ | 1 2 |
| B | Oxford .. | S. Counties | 1 6 | 1 1½ |
| A | PAISLEY .. | Scotland | *1 8 | 1 3½ |
| C | Pembroke | S. Wales & M. | 1 4½ | 1 0½ |
| A | Perth .. | Scotland | *1 8 | 1 3 |
| A₃ | Peterborough | Mid. Counties | 1 6½ | 1 2 |
| A | Plymouth | S.W. Counties | ¶1 8 | 1 3½ |
| A | Pontefract | Yorkshire | 1 8 | 1 3½ |
| A | Pontypridd | S. Wales & M. | 1 8 | 1 3½ |
| B | Portsmouth | S. Counties | 1 6 | 1 1½ |
| A | Preston .. | N.W. Counties | 1 8 | 1 3½ |
| A | QUEENSFERRY | N.W. Counties | 1 8 | 1 3½ |
| B | READING .. | S. Counties | 1 6 | 1 1½ |
| B | Reigate .. | S. Counties | 1 5½ | 1 1½ |
| A₃ | Retford .. | Mid. Counties | 1 6½ | 1 2 |
| A | Rhondda Valley | S. Wales & M. | 1 8 | 1 3½ |
| A₃ | Ripon .. | Yorkshire | 1 6½ | 1 2 |
| A | Rochdale .. | N.W. Counties | 1 8 | 1 3½ |
| B | Rochester | S. Counties | 1 5½ | 1 1½ |
| A₁ | Ruabon .. | N.W. Counties | 1 7½ | 1 2½ |
| A₂ | Rugby .. | Mid. Counties | 1 8 | 1 3½ |
| A₃ | Rugeley .. | Mid. Counties | 1 6½ | 1 2 |
| A | Runcorn .. | N.W. Counties | 1 8 | 1 3½ |
| A₃ | ST. ALBANS | E. Counties | 1 6½ | 1 2 |
| A | St. Helens | N.W. Counties | 1 8 | 1 3½ |
| A₁ | Scarborough | Yorkshire | 1 7½ | 1 2½ |
| A | Scunthorpe | Mid. Counties | 1 8 | 1 3½ |
| A | Sheffield .. | Yorkshire | 1 8 | 1 3½ |
| A | Shipley .. | Yorkshire | 1 8 | 1 3½ |
| A₃ | Shrewsbury | Mid. Counties | 1 6½ | 1 2 |
| A₂ | Skipton .. | Yorkshire | 1 7 | 1 2½ |
| B | Slough .. | S. Counties | 1 5½ | 1 1½ |
| A₃ | Solihull .. | Mid. Counties | 1 7 | 1 2½ |
| B | South'pton | S. Counties | 1 6 | 1 1½ |
| B₁ | Southend-on-Sea | E. Counties | 1 5½ | 1 1½ |
| A | Southport | N.W. Counties | 1 8 | 1 3½ |
| A | S. Shields .. | N.E. Coast | 1 8 | 1 3½ |
| A₂ | Stafford .. | Mid. Counties | 1 7 | 1 2½ |
| A | Stockport .. | N.W. Counties | 1 8 | 1 3½ |
| A | Stockton-on-Tees | N.E. Coast | 1 8 | 1 3½ |
| A | Stoke-on-Trent | Mid. Counties | 1 8 | 1 3½ |
| B | Stroud .. | S.W. Counties | 1 5½ | 1 1½ |
| A | Sunderland | N.E. Coast | 1 8 | 1 3½ |
| A | Swansea .. | S. Wales & M. | 1 8 | 1 3½ |
| B | Swindon .. | S.W. Counties | 1 6 | 1 1½ |
| A₁ | TAMWORTH | N.W. Counties | 1 7½ | 1 2½ |
| B₁ | Taunton .. | S.W. Counties | 1 5½ | 1 1½ |
| A | Teeside Dist. | N.E. Counties | 1 8 | 1 3½ |
| A | Todmorden | Yorkshire | 1 8 | 1 3½ |
| A₃ | Torquay .. | S.W. Counties | 1 7 | 1 2½ |
| B₁ | Tunbridge Wells | S. Counties | 1 5½ | 1 1½ |
| A | Tunstall .. | Mid. Counties | 1 8 | 1 3½ |
| A | Tyne District | N.E. Coast | 1 8 | 1 3½ |
| A | WAKEFIELD | Yorkshire | 1 8 | 1 3½ |
| A₂ | Walsall .. | Mid. Counties | 1 7 | 1 2½ |
| A | Warrington | N.W. Counties | 1 8 | 1 3½ |
| A₃ | Warwick .. | Mid. Counties | 1 6½ | 1 2 |
| B | Wellingborough | Mid. Counties | 1 6 | 1 1½ |
| A | West Bromwich | Mid. Counties | 1 8 | 1 3½ |
| B | Weston-s-Mare | S.W. Counties | 1 6 | 1 1½ |
| A₃ | Whitby .. | Yorkshire | 1 6½ | 1 2 |
| A | Widnes .. | N.W. Counties | 1 8 | 1 3½ |
| A | Wigan .. | N.W. Counties | 1 8 | 1 3½ |
| B₂ | Winchester | S. Counties | 1 5 | 1 1 |
| B | Windsor .. | S. Counties | 1 6 | 1 1½ |
| A | Wolverhampton | Mid. Counties | 1 8 | 1 3½ |
| A₃ | Worcester | Mid. Counties | 1 6½ | 1 2 |
| A | Worksop .. | Yorkshire | 1 8 | 1 3½ |
| A₁ | Wrexham .. | N.W. Counties | 1 7½ | 1 2½ |
| B | Wycombe | S. Counties | 1 6 | 1 1½ |
| B₁ | YARMOUTH | E. Counties | 1 5½ | 1 1½ |
| B₂ | Yeovil .. | S.W. Counties | 1 5 | 1 1 |
| A | York .. | Yorkshire | 1 8 | 1 3½ |

* Plasterers, 1s. 9d.

† Carpenters and Painters, 1s. 8½d.

‡ Plumbers, 1s. 9d.

§ Painters, 1s. 6d.

‖ Carpenters and Plasterers, 1s. 8½d.

¶ Painters, 1s. 7d.

# PRICES CURRENT

## EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 4½d. *per hour*; LABOURER, 1s. 4½d. *per hour*; NAVVY, 1s. 4½d. *per hour*; TIMBERMAN, 1s. 6d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour*; WATCHMAN, 7s. 6d. *per shift.*

| | £ | s. | d. |
|---|---|---|---|
| *Broken brick or stone, 2 in., per yd.* | £0 | 11 | 6 |
| *Thames ballast, per yd.* | 0 | 13 | 0 |
| *Pit gravel, per yd.* | 0 | 18 | 0 |
| *Pit sand, per yd.* | 0 | 14 | 6 |
| *Washed sand* | 0 | 15 | 6 |
| *Screened ballast or gravel, add 10 per cent. per yd.* | | | |
| *Clinker, breeze, etc., prices according to locality.* | | | |
| *Portland cement, per ton* | £2 | 19 | 0 |
| *Lias lime, per ton* | 2 | 10 | 0 |
| *Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.* | | | |
| *Transport hire per day:* | | | |
| *Cart and horse* £1 3 0 *Trailer* | £0 | 15 | 0 |
| *3-ton motor lorry* 3 15 0 *Steam roller* | 4 | 5 | 0 |
| *Steam lorry, 5-ton* 4 0 0 *Water cart* | 1 | 5 | 0 |
| EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube | 0 | 3 | 0 |
| Exceeding 6 ft., but under 12 ft., add 30 per cent. | | | |
| In stiff clay, add 30 per cent. | | | |
| In underpinning, add 100 per cent. | | | |
| In rock, including blasting, add 225 per cent. | | | |
| If basketed out, add 80 per cent. to 150 per cent. | | | |
| Headings, including timbering, add 400 per cent. | | | |
| RETURN, fill, and ram, ordinary earth, per yd. | £0 | 2 | 4 |
| SPREAD and level, including wheeling, per yd. | 0 | 2 | 4 |
| PLANKING, per ft. sup. | 0 | 0 | 5 |
| DO. over 10 ft. deep, add for each 5 ft. depth 30 per cent. | | | |
| HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. | £0 | 2 | 1 |
| DO. 6 in. thick, per yd. sup. | 0 | 2 | 10 |
| PUDDLING, per yd. cube | 1 | 10 | 0 |
| CEMENT CONCRETE, 4-2-1, per yd. cube | 2 | 3 | 0 |
| DO. 6-2-1, per yd. cube | 1 | 18 | 0 |
| DO. in upper floors, add 15 per cent. | | | |
| DO. in reinforced-concrete work, add 20 per cent. | | | |
| DO. in underpinning, add 60 per cent. | | | |
| LIAS LIME CONCRETE, per yd. cube | £1 | 16 | 0 |
| BREEZE CONCRETE, per yd. cube | 1 | 7 | 0 |
| DO. in lintels, etc., per ft. cube | 0 | 1 | 6 |

## DRAINER

LABOURER, 1s. 4½d. *per hour*; TIMBERMAN, 1s. 6d. *per hour*; BRICKLAYER, 1s. 9½d. *per hour*; PLUMBER, 1s. 9½d. *per hour*; WATCHMAN, 7s. 6d. *per shift.*

| | £ | s. | d. |
|---|---|---|---|
| *Stoneware pipes, tested quality, 4 in., per yd.* | £0 | 1 | 3 |
| DO. *6 in., per yd.* | 0 | 2 | 8 |
| DO. *9 in., per yd.* | 0 | 3 | 6 |
| *Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.* | 0 | 6 | 9 |
| DO. *6 in., per yd.* | 0 | 9 | 2 |
| *Portland cement and sand, see "Excavator" above.* | | | |
| *Lead for caulking, per cwt.* | £2 | 5 | 6 |
| *Gaskin, per lb.* | 0 | 0 | 5½ |
| STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. | 0 | 4 | 3 |
| DO. 6 in., per ft. | 0 | 5 | 0 |
| DO. 9 in., per ft. | 0 | 7 | 9 |
| CAST-IRON DRAINS, jointed in lead, 4 in., per ft. | 0 | 9 | 0 |
| DO. 6 in., per ft. | 0 | 11 | 0 |

*Note.*—These prices include digging and filling for normal depths, and are average prices.

Fittings in Stoneware and Iron according to type. *See* Trade Lists.

## BRICKLAYER

BRICKLAYER, 1s. 9½d. *per hour*; LABOURER, 1s. 4½d. *per hour*; SCAFFOLDER 1s. 5½d. *per hour.*

| | £ | s. | d. |
|---|---|---|---|
| *London stocks, per M.* | £4 | 15 | 0 |
| *Flettons, per M.* | 2 | 18 | 0 |
| *Staffordshire blue, per M.* | 9 | 10 | 0 |
| *Firebricks, 2½ in., per M.* | 11 | 3 | 0 |
| *Glazed salt, white, and ivory stretchers, per M.* | 23 | 0 | 0 |
| DO *headers, per M.* | 23 | 10 | 0 |
| *Colours, extra, per M.* | £5 | 10 | 0 |
| *Seconds, less, per M.* | 1 | 0 | 0 |
| *Cement and sand, see "Excavator" above.* | | | |
| *Lime, grey stone, per ton* | £2 | 17 | 0 |
| *Mixed lime mortar, per yd.* | 1 | 6 | 0 |
| *Damp course, in rolls of 4½ in., per roll* | 0 | 2 | 6 |
| DO. *9 in. per roll* | 0 | 4 | 9 |
| DO. *14 in. per roll* | 0 | 7 | 6 |
| DO. *18 in. per roll* | 0 | 9 | 6 |
| BRICKWORK in stone lime mortar, Flettons or equal, per rod | 33 | 0 | 0 |
| DO. in cement do., per rod | 36 | 0 | 0 |
| DO. in stocks, add 25 per cent. per rod. | | | |
| DO. in blues, add 100 per cent. per rod. | | | |
| DO. circular on plan, add 12½ per cent. per rod. | | | |
| FACINGS, FAIR, per ft. sup. extra | £0 | 0 | 2 |
| DO. Red Rubbers, gauged and set in putty, per ft. extra | 0 | 4 | 6 |
| DO. salt, white or ivory glazed, per ft. sup. extra | 0 | 5 | 6 |
| TUCK POINTING, per ft. sup. extra | 0 | 0 | 10 |
| WEATHER POINTING, per ft. sup. extra | 0 | 0 | 3 |
| GRANOLITHIC PAVING, 1 in., per yd. sup. | 0 | 5 | 0 |
| DO. 1½ in., per yd. sup | 0 | 6 | 0 |
| DO. 2 in., per yd. sup. | 0 | 7 | 0 |
| BITUMINOUS DAMP COURSE, ex rolls, per ft. sup. | 0 | 0 | 7 |
| ASPHALT (MASTIC) DAMP COURSE, ½in., per yd. sup. | 0 | 8 | 0 |
| DO. vertical, per yd. sup. | 0 | 11 | 0 |
| SLATE DAMP COURSE, per ft. sup. | 0 | 0 | 10 |
| ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd. | 0 | 8 | 6 |
| DO. SKIRTING, 6 in. | 0 | 0 | 11 |
| BREEZE PARTITION BLOCKS, set in Cement, 1½ in. per yd. sup. | 0 | 5 | 3 |
| DO. DO. 3 in.. | 0 | 6 | 6 |

THE wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

## MASON

MASON, 1s. 9½d. *per hour*; DO. *fixer*, 1s. 10½d. *per hour*; LABOURER, 1s. 4½d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour.*

| | £ | s. | d. |
|---|---|---|---|
| *Portland Stone:* | | | |
| *Whitbed, per ft. cube* | £0 | 4 | 6 |
| *Basebed, per ft. cube* | 0 | 4 | 7 |
| *Bath stone, per ft. cube* | 0 | 3 | 0 |
| *Usual trade extras for large blocks.* | | | |
| *York paving, av. 2½ in., per yd. sup.* | 0 | 6 | 6 |
| *York templates sawn, per ft. cube* | 0 | 6 | 9 |
| *Slate shelves, rubbed, 1 in., per ft. sup.* | 0 | 2 | 6 |
| *Cement and sand, see "Excavator," etc., above.* | | | |
| HOISTING and setting stone, per ft. cube | £0 | 2 | 2 |
| DO. for every 10 ft. above 30 ft., add 15 per cent. | | | |
| PLAIN face Portland basis, per ft. sup. | £0 | 2 | 8 |
| DO. circular, per ft. sup. | 0 | 4 | 0 |
| SUNK FACE, per ft. sup. | 0 | 3 | 9 |
| DO. circular, per ft. sup. | 0 | 4 | 10 |
| JOINTS, arch, per ft. sup. | 0 | 2 | 6 |
| DO. sunk, per ft. sup. | 0 | 2 | 7 |
| DO. DO. circular, per ft. sup. | 0 | 4 | 6 |
| CIRCULAR-CIRCULAR work, per ft. sup. | 1 | 2 | 0 |
| PLAIN MOULDING, straight, per inch of girth, per ft. run | 0 | 1 | 1 |
| DO. circular, do, per ft. run | 0 | 1 | 4 |
| HALF SAWING, per ft. sup. | £0 | 1 | 0 |
| Add to the foregoing prices if in York stone 35 per cent. | | | |
| DO. Mansfield, 12½ per cent. | | | |
| Deduct for Bath, 33⅓ per cent. | | | |
| DO. for Chilmark, 5 per cent. | | | |
| SETTING 1 in. slate shelving in cement, per ft. sup. | £0 | 0 | 6 |
| RUBBED round nosing to do., per ft. lin. | 0 | 0 | 6 |
| YORK STEPS, rubbed T. & R., ft. cub. fixed | 1 | 9 | 0 |
| YORK SILLS, W. & T., ft. cub. fixed | 1 | 13 | 0 |

## SLATER AND TILER

SLATER, 1s. 9½d. *per hour*; TILER, 1s. 9½d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour*; LABOURER, 1s. 4½d. *per hour.*

N.B.—Tiling is often executed as piecework.

| | £ | s. | d. |
|---|---|---|---|
| *Slates, 1st quality, per M:* | | | |
| *Portmadoc Ladies* | £14 | 0 | 0 |
| *Countess* | 27 | 0 | 0 |
| *Duchess* | 32 | 0 | 0 |
| *Clips, lead, per lb.* | 0 | 0 | 4 |
| *Clips, copper, per lb.* | 0 | 2 | 0 |
| *Nails, compo, per cwt.* | 1 | 6 | 0 |
| *Nails, copper, per lb.* | 0 | 1 | 10 |
| *Cement and sand, see "Excavator," etc., above.* | | | |
| *Hand-made tiles, per M.* | £5 | 18 | 0 |
| *Machine-made tiles, per M.* | 5 | 8 | 0 |
| *Westmorland slates, large, per ton* | 9 | 0 | 0 |
| DO. *Peggies, per ton* | 7 | 5 | 0 |
| SLATING, 3 in. gauge, compo nails, Portmadoc or equal: | | | |
| Ladies, per square | £4 | 0 | 0 |
| Countess, per square | 4 | 5 | 0 |
| Duchess, per square | 4 | 10 | 0 |
| WESTMORLAND, in diminishing courses, per square | 6 | 5 | 0 |
| CORNISH DO., per square | 6 | 3 | 0 |
| Add, if vertical, per square approx. | 0 | 13 | 0 |
| Add, if with copper nails, per square approx. | 0 | 2 | 6 |
| Double course at eaves, per ft. approx. | 0 | 1 | 0 |
| TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square | 5 | 6 | 0 |
| DO., machine-made DO., per square | 4 | 17 | 0 |
| Vertical Tiling, including pointing, add 18*s.* 0*d.* per square. | | | |
| FIXING lead soakers, per dozen | £0 | 0 | 10 |
| STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square | 0 | 10 | 0 |
| LABOUR only in laying slates, but including nails, per square | 1 | 0 | 0 |

*See* "Sundries for Asbestos Tiling."

## CARPENTER AND JOINER

CARPENTER, 1s. 9½d. *per hour*; JOINER, 1s. 9½d. *per hour*; LABOURER, 1s. 4½d. *per hour.*

| | £ | s. | d. |
|---|---|---|---|
| *Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):* | | | |
| 7×3, per std. | £20 | 0 | 0 |
| 11×4, per std. | 30 | 0 | 0 |
| *Memel or Equal. Slightly less than foregoing.* | | | |
| *Flooring, P.E., 1 in., per sq.* | £1 | 5 | 0 |
| DO. *T. and G., 1 in., per sq.* | 1 | 5 | 0 |
| *Planed Boards, 1 in. × 11 in., per std.* | 30 | 0 | 0 |
| *Wainscot oak, per ft. sup. of 1 in.* | 0 | 2 | 0 |
| *Mahogany, per ft. sup. of 1 in.* | 0 | 2 | 0 |
| DO. *Cuba, per ft. sup. of 1 in.* | 0 | 3 | 0 |
| *Teak, per ft. sup. of 1 in.* | 0 | 3 | 0 |
| DO., *ft. cube* | 0 | 15 | 0 |
| FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube | 0 | 5 | 9 |
| DO. framed in floors, roofs, etc., per ft. cube | 0 | 6 | 3 |
| DO., framed in trusses, etc., including ironwork, per ft. cube | 0 | 7 | 3 |
| PITCH PINE, add 33⅓ per cent. | | | |
| FIXING only boarding in floors, roofs, etc., per sq. | 0 | 13 | 6 |
| SARKING FELT laid, 1-ply, per yd. | 0 | 1 | 6 |
| DO., 3-ply, per yd. | 0 | 1 | 9 |
| CENTERING for concrete, etc., including horsing and striking, per sq. | 3 | 10 | 0 |
| SLATE BATTENING, per sq. | 0 | 18 | 6 |

## PRICES CURRENT; *continued.*

CARPENTER AND JOINER: *continued.*

| | | | |
|---|---|---|---|
| DEAL GUTTER BOARD, 1 in., on firring, per sq. | £3 | 5 | 0 |
| MOULDED CASEMENTS, 1¾ in., in 4 sqs., glazing beads and hung, per ft. sup. | 0 | 3 | 0 |
| DO., DO. 2 in., per ft. sup. | 0 | 3 | 3 |
| DEAL cased frames, oak sills, 2 in. d.h. sashes, brass-faced pulleys, etc., per ft. sup. | 0 | 4 | 0 |
| DOORS, 4 pan. sq. b.s., 2 in., per ft. sup. | 0 | 3 | 6 |
| DO., DO., DO. 1½ in., per ft. sup. | 0 | 3 | 0 |
| DO., DO. moulded b.s., 2 in., per ft. sup. | 0 | 3 | 9 |
| DO., DO., DO. 1½ in., per ft. sup. | 0 | 3 | 3 |
| If in oak multiply 3 times. | | | |
| If in mahogany multiply 3 times. | | | |
| If in teak multiply 3 times. | | | |
| WOOD BLOCK FLOORING, standard blocks, laid in mastic herringbone: | | | |
| Deal, 1 in., per yd. sup., average | 0 | 10 | 0 |
| DO. 1¼ in., per yd. sup., average | 0 | 12 | 0 |
| DO., DO. 1¼ in. maple blocks | 0 | 15 | 0 |
| STAIRCASE WORK, DEAL: | | | |
| 1 in. riser, 11 in. tread, fixed, per ft. sup. | 0 | 3 | 6 |
| 2 in. deal strings, fixed, per ft. sup. | 0 | 3 | 9 |

### PLUMBER

PLUMBER, 1*s.* 9½*d. per hour;* MATE OR LABOURER 1*s.* 4½*d. per hour.*

| | | | |
|---|---|---|---|
| *Lead, milled sheet, per cwt.* | £2 | 4 | 6 |
| DO. *drawn pipes, per cwt.* | 2 | 6 | 0 |
| DO. *soil pipe, per cwt.* | 2 | 8 | 0 |
| DO. *scrap, per cwt.* | 1 | 9 | 6 |
| *Copper, sheet, per lb.* | 0 | 1 | 0 |
| *Solder, plumber's, per lb.* | 0 | 1 | 2 |
| DO. *fine, per lb.* | 0 | 1 | 5 |
| *Cast-iron pipes, etc.:* | | | |
| *L.C.C. soil, 3 in., per yd.* | 0 | 4 | 1 |
| DO. *4 in. per yd.* | 0 | 5 | 0 |
| *R.W.P., 2½ in., per yd.* | 0 | 2 | 0 |
| DO. *3 in., per yd.* | 0 | 2 | 5 |
| DO. *4 in., per yd.* | 0 | 3 | 3 |
| *Gutter, 4 in. H.R., per yd.* | 0 | 1 | 5 |
| DO. *4 in. O.G., per yd.* | 0 | 1 | 9 |
| MILLED LEAD and labour in gutters, flashings, etc. | 3 | 12 | 6 |
| LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft. | 0 | 2 | 1 |
| DO. ¾ in., per ft. | 0 | 2 | 5 |
| DO. 1 in., per ft. | 0 | 3 | 3 |
| DO. 1¼ in., per ft. | 0 | 4 | 6 |
| LEAD WASTE OR SOIL, fixed as above, complete, 2½ in., per ft. | 0 | 6 | 0 |
| DO. 3 in., per ft. | 0 | 7 | 0 |
| DO. 4 in., per ft. | 0 | 9 | 9 |
| CAST-IRON R.W. PIPE, at 24 lb. per length, jointed in red lead, 2½ in., per ft. | 0 | 2 | 5 |
| DO. 3 in., per ft. | 0 | 2 | 10 |
| DO. 4 in., per ft. | 0 | 3 | 3 |
| CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft. | 0 | 2 | 7 |
| DO. O.G., 4 in., per ft. | 0 | 2 | 10 |
| CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft. | 0 | 7 | 0 |
| DO. 3 in., per ft. | 0 | 6 | 0 |
| Fixing only: | | | |
| W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each | 2 | 5 | 0 |
| BATHS only, with all joints | 1 | 18 | 0 |
| LAVATORY BASINS only, with all joints, on brackets, each | 1 | 10 | 0 |

### PLASTERER

PLASTERER, 1*s.* 9½*d. per hour (plus allowances in London only);* LABOURER, 1*s.* 4½*d. per hour.*

| | | | |
|---|---|---|---|
| *Chalk lime, per ton* | £2 | 17 | 0 |
| *Hair, per cwt.* | 0 | 18 | 0 |
| *Sand and cement see "Excavator," etc., above.* | | | |
| *Lime putty, per cwt.* | £0 | 2 | 9 |
| *Hair mortar, per yd.* | 1 | 7 | 0 |
| *Fine stuff, per yd.* | 1 | 14 | 0 |
| *Sawn laths, per bdl.* | 0 | 2 | 9 |
| *Keene's cement, per ton* | 5 | 15 | 0 |
| *Sirapite, per ton* | 3 | 10 | 0 |
| DO. *fine, per ton* | 3 | 18 | 0 |
| *Plaster, per ton* | 3 | 0 | 0 |
| DO. *per ton* | 3 | 12 | 6 |
| DO. *fine, per ton* | 5 | 12 | 0 |
| *Thistle plaster, per ton* | £3 | 9 | 0 |
| *Lath nails, per lb.* | 0 | 0 | 4 |
| LATHING with sawn laths, per yd. | 0 | 1 | 7 |
| METAL LATHING, per yd. | 0 | 2 | 3 |
| FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ⅞ in., per yd. | 0 | 2 | 4 |
| DO. vertical, per yd. | 0 | 2 | 7 |
| RENDER, on brickwork, 1 to 3, per yd. | 0 | 2 | 7 |
| RENDER in Portland and set in fine stuff, per yd. | 0 | 3 | 3 |
| RENDER, float, and set, trowelled, per yd. | 0 | 2 | 9 |
| RENDER and set in Sirapite, per yd. | 0 | 2 | 5 |
| DO. in Thistle plaster, per yd. | 0 | 2 | 5 |
| EXTRA, if on but not including lathing, any of foregoing, per yd. | 0 | 0 | 5 |
| EXTRA, if on ceilings, per yd. | 0 | 0 | 5 |
| ANGLES, rounded Keene's on Portland, per ft. lin. | 0 | 0 | 6 |
| PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin. | 0 | 0 | 5 |
| WHITE glazed tiling set in Portland and jointed in Parian, per yd., from | 1 | 11 | 6 |
| FIBROUS PLASTER SLABS, per yd. | 0 | 1 | 10 |

### GLAZIER

GLAZIER, 1*s.* 8½*d. per hour.*

| | | | |
|---|---|---|---|
| *Gluss: 4ths in crates:* | | | |
| *Clear, 21 oz.* | £0 | 0 | 6 |
| DO. 26 oz. | 0 | 0 | 7½ |
| *Cathedral white, per ft.* | 0 | 0 | 6½ |
| *Polished plate, British ¼ in., up to 2 ft. sup.* | 0 | 2 | 0 |
| DO. *3 ft. sup.* | 0 | 2 | 6 |
| DO. *7 ft. sup.* | 0 | 3 | 6 |
| DO. *25 ft. sup.* | 0 | 4 | 0 |
| DO. *100 ft. sup.* | 0 | 4 | 6 |
| *Rough plate, ⅛ in.* | 0 | 0 | 6 |
| DO. *¼ in., per ft.* | 0 | 0 | 6½ |
| *Linseed oil putty, per cwt.* | 0 | 16 | 0 |
| GLAZING in putty, clear sheet, 21 oz. | £0 | 0 | 11 |
| DO. 26 oz. | 0 | 1 | 0 |
| GLAZING in beads, 21 oz., per ft. | 0 | 1 | 1 |
| DO. 26 oz., per ft. | 0 | 1 | 4 |
| Small sizes slightly less (under 3 ft. sup.). | | | |
| Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft. | | | |
| LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, per ft. sup. and up | £0 | 3 | 6 |
| Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size. | | | |

### DECORATOR

PAINTER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 4½*d. per hour;* FRENCH POLISHER, 1*s.* 9*d. per hour;* PAPERHANGER, 1*s.* 8½*d. per hour.*

| | | | |
|---|---|---|---|
| *Genuine white lead, per cwt.* | £3 | 11 | 0 |
| *Linseed oil, raw, per gall.* | 0 | 3 | 7 |
| DO., *boiled, per gall.* | 0 | 3 | 10 |
| *Turpentine, per gall.* | 0 | 6 | 2 |
| *Liquid driers, per gall.* | 0 | 9 | 6 |
| *Knotting, per gall.* | 1 | 4 | 0 |
| *Distemper, washable, in ordinary colours, per cwt., and up* | 2 | 0 | 0 |
| *Doublesize, per firkin* | 0 | 3 | 6 |
| *Pumice stone, per lb.* | 0 | 0 | 4 |
| *Single gold leaf (transferable), per book* | 0 | 1 | 11 |
| *Varnish, copal, per gall. and up* | 0 | 18 | 0 |
| DO., *flat, per gall.* | 1 | 2 | 0 |
| DO., *paper, per gall.* | 1 | 0 | 0 |
| *French polish, per gall.* | 0 | 19 | 0 |
| *Ready mixed paints, per gall. and up* | 0 | 10 | 6 |
| LIME WHITING, per yd. sup. | 0 | 0 | 3 |
| WASH, stop, and whiten, per yd. sup. | 0 | 0 | 6 |
| DO., and 2 coats distemper with proprietary distemper, per yd. sup. | 0 | 0 | 9 |
| KNOT, stop, and prime, per yd. sup. | 0 | 0 | 7 |
| PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup. | 0 | 0 | 10 |
| DO., subsequent coats, per yd. sup. | 0 | 0 | 9 |
| DO., enamel coat, per yd. sup. | 0 | 1 | 2½ |
| BRUSH-GRAIN, and 2 coats varnish, per yd. sup. | 0 | 3 | 8 |
| FIGURED DO., DO., per yd. sup. | £0 | 5 | 6 |
| FRENCH POLISHING, per ft. sup. | 0 | 1 | 2 |
| STRIPPING old paper and preparing, per piece | 0 | 1 | 7 |
| HANGING PAPER, ordinary, per piece | 0 | 1 | 10 |
| DO., fine, per piece, and upwards | 0 | 2 | 4 |
| VARNISHING PAPER, 1 coat, per piece | 0 | 9 | 0 |
| CANVAS, strained and fixed, per yd. sup. | 0 | 3 | 0 |
| VARNISHING, hard oak, 1st coat, per yd. sup. | 0 | 1 | 2 |
| DO., each subsequent coat, per yd. sup. | 0 | 0 | 11 |

### SMITH

SMITH, *weekly rate equals* 1*s.* 9½*d. per hour;* MATE, *do.* 1*s.* 4*d. per hour;* ERECTOR, 1*s.* 9½*d. per hour;* FITTER, 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 4*d. per hour.*

| | | | |
|---|---|---|---|
| *Mild steel in British standard sections, per ton* | £12 | 10 | 0 |
| *Sheet steel:* | | | |
| *Flat sheets, black, per ton* | 19 | 0 | 0 |
| *Do., galvd., per ton* | 23 | 0 | 0 |
| *Corrugated sheets, galvd., per ton* | 23 | 0 | 0 |
| *Driving screws, galvd., per grs.* | 0 | 1 | 10 |
| *Washers, galvd., per grs.* | 0 | 1 | 1 |
| *Bolts and nuts, per cwt. and up* | 1 | 18 | 0 |
| MILD STEEL in trusses, etc., erected, per ton | 25 | 10 | 0 |
| DO. in small sections as reinforcement, per ton | 16 | 10 | 0 |
| DO. in compounds, per ton | 17 | 0 | 0 |
| DO. in bar or rod reinforcement, per ton | 20 | 0 | 0 |
| WROT. IRON in chimney bars, etc., including building in, per cwt. | 2 | 0 | 0 |
| DO. in light railings and balusters, per cwt. | 2 | 5 | 0 |
| FIXING only corrugated sheeting, including washers and driving screws, per yd. | 0 | 2 | 0 |

### SUNDRIES

| | | | |
|---|---|---|---|
| *Fibre or wood pulp boardings, according to quality and quantity. The measured work price is on the same basis . . . per ft. sup.* | £0 | 0 | 2½ |
| FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to | 0 | 0 | 6 |
| *Plaster board, per yd. sup.* from | 0 | 1 | 7 |
| PLASTER BOARD, fixed as last, per yd. sup. from | 0 | 2 | 8 |
| *Asbestos sheeting, ⅛ in., grey flat, per yd. sup.* | 0 | 2 | 3 |
| DO. *corrugated, per yd. sup.* | 0 | 3 | 3 |
| ASBESTOS SHEETING, fixed as last, flat, per yd. sup. | 0 | 4 | 0 |
| DO. corrugated, per yd. sup. | 0 | 5 | 0 |
| ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey | 2 | 15 | 0 |
| DO., red | 3 | 0 | 0 |
| *Asbestos cement slates or tiles, ⅛ in. punched per M., grey* | 16 | 0 | 0 |
| DO. *red* | 18 | 0 | 0 |
| ASBESTOS COMPOSITION FLOORING: Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup. | 0 | 7 | 0 |
| DO. ½ in. thick, suitable for domestic work, unpolished, per yd. | 0 | 6 | 6 |
| *Metal casements for wood frames, domestic sizes, per ft. sup.* | 0 | 1 | 6 |
| DO. *in metal frames, per ft. sup.* | 0 | 1 | 9 |
| HANGING only metal casement in, but not including wood frames, each | 0 | 2 | 10 |
| BUILDING in metal casement frames, per ft. sup. | 0 | 0 | 7 |
| *Waterproofing compounds for cement.* Add about 75 per cent. to 100 per cent. to the cost of cement used. | | | |
| *Plywood:* | | | |
| *3 m/m alder, per ft. sup.* | 0 | 0 | 2 |
| *4½ m/m amer. white, per ft. sup.* | 0 | 0 | 3¾ |
| *⅜ m/m figured ash, per ft. sup.* | 0 | 0 | 5 |
| *4½ m/m 3rd quality, composite birch, per ft. sup.* | 0 | 0 | 1½ |

6
2
7
10
4
0
0
2
11
or;
½d.
ER,
0
0
0
0
0
10
1
0
0
0
0
0
0
0
0
0
2½
6
7
8
3
3
0
0
0
0
0
0
0
6
6
9
0
7
2
3¾
5
1½