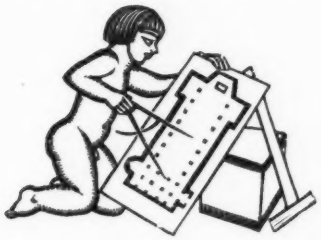
THE

ARCHITECTS'



JOURNAL

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The Editor is happy to be able to tell "Karshish's" many friends and admirers that the date of publication for the second series of *Tribulations of Early Practice* has now been fixed. The first article in this series will appear in our issue for October 20.

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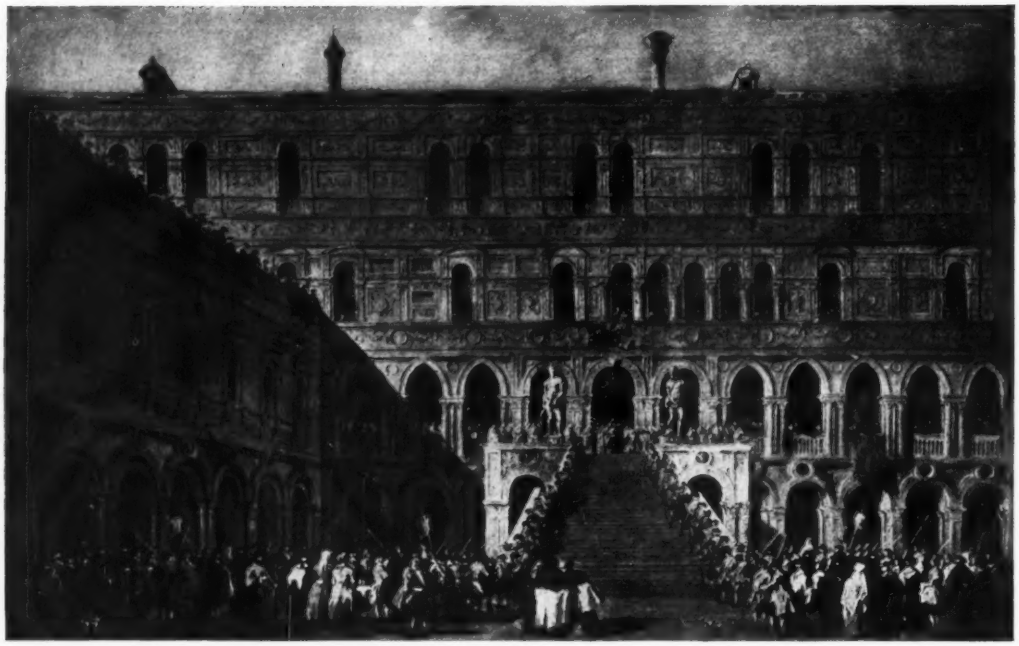
PRINCIPAL CONTENTS

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.

xxxvi : Francesco Guardi (1712-93).
The Coronation of the Doge.

This picture forms part of the same series of twelve subjects of ceremony and pageantry as No. xxxiii. *In the example here reproduced the coronation of the Doge is depicted : the scene is laid in the courtyard of the Doge's Palace, and at the top of the Scala dei Giganti lined with soldiers, the Doge, surrounded by the Venetian nobility, is being crowned in great solemnity and state. The staircase, with its two colossal statues of Mars and Neptune, and the façade of the palace are in the full blaze of sunlight ; the loggia and the windows above it, the roof of the building on the left, and the courtyard itself are crowded with people, whose skittish eighteenth-century garb offers a piquant contrast to the stateliness of the setting and the ceremony. An extraordinarily festive mood pervades the whole scene.*—[Paris, Louvre.]

THE ARCHITECTS' JOURNAL

Wednesday, September 22nd, 1926

WOMEN ARCHITECTS

Miss Nora Dunphy, a twenty-two year old Liverpool girl, is to be congratulated upon being the first representative of her sex in England to obtain the degree of Bachelor of Architecture. Her success is likely to revive the controversy as to whether architecture is likely to benefit by an increase in the number of women architects. A good deal of nonsense is habitually talked about this matter. If women succeed in becoming good architects, and it is to be expected that many of them will, they will do so because they have the capacity to become good architects and not in any degree whatsoever because they happen to be women. Furthermore, if they become good architects, they will achieve this not *because* they are women but *in spite* of their being women. For architecture is a particularly laborious profession, and women, although constitutionally perhaps stronger than men, have not in general an equal capacity for sustained intellectual and physical labours. It may also be pointed out that if women succeed in architecture such success will be partly due to their ability to resist the influences of those self-appointed champions of their sex who would yet arbitrarily prescribe and curtail the architectural interests proper to women. These are the feminists who are for ever talking about cupboards and sinks and who try to mislead women into supposing that if they only bring to architecture their specialist's knowledge of cupboards and sinks, they would be capable of a notable achievement which would not only redound vastly to their credit as designers, but would set a definitely feminine stamp upon architecture, greatly to the advantage of this art.

Let us take cupboards first. By cupboards the feminists invariably mean built-in cupboards. A cupboard which is part of a suite of furniture has little merit in their eyes. Yet one is obliged to record the obvious fact that there must exist in the world millions of cupboards which belong to suites of furniture, and such cupboards are not merely a relic of past times, but are still being turned out in large numbers by our manufacturers of furniture. Architects must provide space for these cupboards, which they certainly could not do if every room in a house had its built-in shelves in recesses both natural and artificial. If we adopted such a policy we may be sure that the angry feminists would be the first to exclaim : " How like a man to put a shelf fixture in the very place where I wanted to put the dressing-table ! " The furniture trade would suffer a great blow if we followed these advisers and the art of furniture design would itself be injured if the cupboard, wardrobe, and group of shelves were to be denied their proper affinity to the other furniture pieces, as would necessarily be the case where the fixtures became part of the house and owed no allegiance to the tables, beds, and chairs, and other movable articles of use. There is, of course, a stronger case in favour of fixed shelves in the kitchen, but even here the architect must be careful not to offend the susceptibilities of those who have inherited ancestral dressers which they hope to accommodate in their new homes. Even the line, which the masculine architect is so often accused of forgetting, can very often be accommodated in those capacious movable cupboards, such as are to be found even in the humblest cottage. These would-be reformers forget that one of the greatest assets of furniture is its *mobility*, its capacity to be moved about in accordance with the desires and caprices of its owners.

Again, it must be borne in mind that many of such fixtures as may profitably be put in a house are costly, and we may generally suspect that their absence is far more likely to be due to the necessity for economy than to the architect's ignorance of their utility. With regard to the sink, " the sink of a height that spells inevitable backache to the housewife," the male architect must acknowledge himself to be a frequent sinner. He can only plead in his defence that as housewives vary in height from 6 ft. to 4 ft., he cannot make simultaneous provision for people of such widely differing dimensions. If he makes the sink an average height he has done all that may reasonably be expected of him in this particular.

As for " labour-saving " devices in general, most of these are of masculine invention, and not all of them are very popular with the women who may be called upon to make use of them. One of the first conditions of women's success in architecture is that they should definitely get rid of " the woman's point of view " and cultivate with respect to the art a general intelligence which knows not sex.

NEWS AND TOPICS

CROSS RIVER TRAFFIC—RURAL ENGLAND—EXAMINATIONS FOR BUILDERS—A NEW LUTYENS MEMORIAL—AN ADVENTURE IN REGENT STREET

EVIDENCE given before the Commission on London Bridges by both Mr. G. W. Humphreys and Mr. Basil Mott goes to show that these prominent engineers are not yet imbued with the conservator's spirit. Both speak unhesitatingly in favour of pulling down, and are united in the idea that "the proper way to restore Waterloo Bridge would be to take it down and rebuild it." Only a few years after the date of the battle the world-famous poem "Don Juan" spread abroad Lord Byron's satire upon those who pull down old to build up new and call it restoration, so that our modern engineers are just about a hundred years out of date in confounding rebuilding with restoration. The unpleasant truth of the matter is that modern engineers are not trained in the scientific care of ancient buildings, and naturally fight shy of undertaking work which would involve an unwonted expense of imagination and invention in devising appropriate measures of repair and in determining how to apply them with safety. These adventurous acts of experimental science have been applied to the genuine restoration of old buildings in modern times, but the interest aroused has not yet penetrated to the minds of the older members of the architectural and engineering professions. Lay critics have missed the mark and concentrated attention upon such matters as the preservation of moss and ivy, and rival custodians have captiously objected to the modern means employed, even when these have been hidden and internal, as "out of harmony with ancient building methods." Returning to the bridge; one finds that on points of detail the evidence is not unanimous: Mr. Humphreys proclaiming that "the granite of Waterloo Bridge is a very bad sample of granite, indeed," and Mr. Basil Mott admitting that "the superstructure, however, is sound," and "in rebuilding it much of the old material could be used."

* * *

An extremely interesting point came up for notice, though no notice seems to have been taken of it, when Mr. Humphreys claimed that he, as "the responsible man in charge," had it "on his back," and then proceeded to picture the disastrous consequences that would follow "if another pier goes." But why on earth another pier should be allowed to "go" when the bridge is in the hands of experienced bridge builders, and has had temporary shoring works already applied to some of its parts, is something mysterious. While Mr. Humphreys' burden is heavy, it is still possible for him to lighten it, and if, as his own words imply, he believes the temporary works executed up to the present are not adequate to guarantee the stability of the structure, he should augment them with other suitable temporary works forthwith. He himself has visualized the possibility of danger, and he is the man in charge.

Lamentations upon the spread of jerry-built houses over England's most beautiful country still continue to rise on every side. Mr. Cecil Harmsworth writes to the *Times* to point out how the Isle of Wight is being spoilt by "idiotic planning and wretched construction." He has taken the course, too little appreciated in England, of consulting an architect, and quotes Mr. Guy Dawber, President of the Royal Institute of British Architects, who pronounced that "there is practically no extra cost in building premises in uniformity with the local character of the village or town." And this pronouncement of the president's is as nearly true as it is certainly also distracting to reflect upon. With the outlay that is spent on making England hideous an harmonious England might be maintained, if only the will were present as well as the material resources. In rudely describing the president's words as "nearly true," one had in mind the vast expense that would have to be incurred in training the many different people who build. The suburbs of towns and the country areas are wretchedly built upon partly because funds are short, but much more because money which might have been economically spent in training people to a love of homely beauty has not been forthcoming, or has not been so directed.

* * *

Any architect who lives in one of the areas now being spoilt will be able to testify to the very real grip exercised by habit and training upon the minds of his neighbours. The suburbanite sent out farther into the country by the house shortage takes with him a mental picture of the semi-detached building in which he has spent his infancy, and, not realizing the horror he is perpetrating, obtains from some builder of his acquaintance the nearest approximation possible to his ideal of a "home," which may take the form of one half of a semi-detached pair. It is a purposeful choice of the unsuitable type of house, and represents an expense of thought and selection that would be incredible if the facts were not proudly expressed in conversation by the happy proprietor. It is not as though the poor mistaken man had blundered absentmindedly; he has given the loving care of years to the miserable project, and has worried architects and builders freely without managing to get one of his pet ideas materially modified. It is exasperating, of course, but it is also perfectly natural. The president's message may do good in disabusing a few prospective builders as to the relative costs of certain types of building, but the root of the trouble goes far deeper, and will necessitate some delving on the part of the Board of Architectural Education before it is grubbed out.

* * *

A proposal that the artistic education of the builder should be raised was put forward recently by Mr. W. Marshall in the *Times*, and that would certainly do a great deal for those houses erected without the help of an architect, but to instil sound ideas into all who build is no light matter. If prosperous architects wish to confer a benefit on their Mother Country and their fellow men, they might devote some time to the design of really convenient, cheap, and beautiful houses, such as might be placed in rural districts without the risk of spoiling them.

The war memorial, designed by Sir Reginald Blomfield, for British soldiers who fell in the Ypres salient is almost completed. The names of some 60,000 men of the British Empire, who died but whose graves are unknown, are being inscribed in the stone. At one end of the arch is an inscription stating that " Here are recorded names of officers and men who fell in the Ypres salient, but whom the misfortunes of war denied the known and honoured burial given to their comrades in death." Special care is being taken, I hear, in making this lettering decipherable, for the King, when he examined the designs and plans in 1922, emphasized the need that the names inscribed should be clear for all to read. I wonder what will be the fate of another monument that has been designed by Sir Edwin Lutyens, of which I saw a large-sized model the other day It is evidently inspired by Sir Edwin's work at Delhi, but I am told that no decision has yet been made as to how the design should be used, or where the monument, if ever completed, shall be placed.

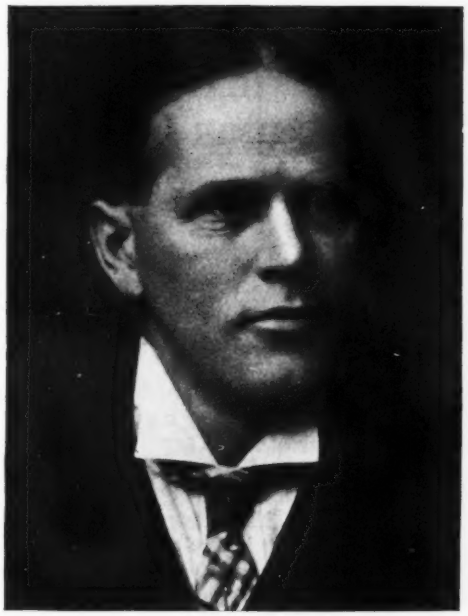
* * *

It is so usual for visitors to ruined buildings to complain of the " Vandalism " of those custodians who strip the ivy from the old walls, that it was almost a shock to find that the *Times* recently contained two separate paragraphs in which ivy was referred to without maudlin sentimentality. At Kirkstall Abbey, where " the weather and the ivy have wrought damage sufficient to indicate the need for restoration on a fairly considerable scale," the Office of Works has been called in by the Leeds Corporation Parks Committee to inspect the abbey and report on its condition. This is a satisfactory state of affairs, for although lovers of ivy have railed at the methods adopted by this extraordinarily efficient Government Department, serious conservators of ancient or ruinous buildings in many parts of the world visit the scenes of its operations as a matter of course in order to keep abreast of the times in regard to the best ways of retaining buildings in position without the intrusion of modern props on their exterior faces. Criticism is the life of an art, and it would be unfortunate if good criticism should not be forthcoming to fill the vacancy left by the retirement of the ivy lover. " Restoration " in the passage quoted above is used in the ordinary sense as equivalent to repair; it must not be supposed that the restoration of Kirkstall Abbey is intended in the sense that Saint Alban's Abbey was restored out of all knowledge of the original work.

* * *

Sir Charles Ruthen, who died at Swansea on Sunday, will be chiefly remembered by architects, I am afraid, by his criticisms of his professional brothers—criticisms which led to his resignation from the presidency of the Society of Architects.

" The architect must face the prime responsibility for the financial disaster of the great State housing scheme," he told the members. " The profession in its excitement to grasp a great flood of new and unexpected work overreached itself. It set about the designing of ideal homes and ' lay-out.' The pencil went wild: artistic houses were to be erected at last. The architects' art occupied too large a part in that great undertaking, and their example in thus profiteering was followed through all the branches of the industry. That tremendous effort to house the people was bled white. The number of houses by which the scheme



fell short of fulfilment was the extent of the responsibility of the whole industry, and the architect must take his full share."

I was talking to him a week before this, and he assured me then that he had something strong to say to architects. " They are a greedy lot," he maintained, " and if they do not fall into line with the Ministry they must leave housing work alone." In spite of his frankness, he was well liked, and he was a fine friend.

* * *

I am permitted now to tell the following story of the underpinning of one of the big London shops. In Regent Street the work of reconstruction has usually been carried out without any interruption of business. The foundations of the old buildings have been demolished while the whole of the tremendous superstructures have been left standing on a series of stout posts and lintels that must have been among the most daring pieces of building engineering of modern times. And, mark you, in all buildings but one not an inch of settlement took place. In all buildings but one. In this building, when all the floors above street level were supported only on stilts, it was sale time, and the whole army of London's shoppers had occupied it in their fight for possession of all those things at bargain prices dear to their hearts.

* * *

Down in the shifting London clay the stilts braced themselves for the bearing of their living load. Above them were many floors where surged what John Knox apostrophized as " the monstrous regiment of women." And now something remarkable occurred. Every door in the building jammed. Doors which were shut could not be opened, and doors which were opened could not be shut. Had the reason dawned upon those thousands of shoppers panic would have replaced their surprise. For beneath their feet the posts of the underpinning had settled themselves more firmly a quarter of an inch deeper in the clay.

ASTRAGAL

THE MILAN ROAD CONGRESS

[BY G. L. PEPLER]

A PLETHORA of tongues prevented the building of the Tower of Babel. During the past week 2,000 delegates from some forty countries have caused Milan to resemble Babel, but, unlike the tower, the construction of roads seems to thrive on it. Great Britain has been represented by a party of over two hundred, and everywhere we have been received with the greatest courtesy and hospitality and our point of view has been kept well to the front, and the running of the conference has been enormously facilitated by Messrs. Bressey, Piggott and Hart, of the Ministry of Transport. Mr. Francesco Minorini, the chief engineer of the city, most kindly explained to me the plan of Milan. It is fortunate in having had two lines of fortifications which have now given way to boulevards that facilitate the circulation of traffic, and a further circular road has been added since. Many of the streets of the original centre are narrow and tortuous, but beyond that they are laid out on a grand scale. The high buildings are architecturally attractive, but tenement buildings always give me the impression that the best goods are put in the window, and that the living conditions behind are not up to sample.

Recently the city boundaries were largely extended, and plans are being prepared for the new area, but one rather gathered that enlargement of the city was the main purpose of the city fathers, and that they had not envisaged the overstrain that this would bring on its heart. A town plan is prepared by the city engineer in consultation with the landowners, and all development must conform to it. Apparently the chief agencies of development are land companies who buy up considerable areas, so that the difficulty of the small plot-holder is not serious. No building can take place until the street has been laid down and a water supply and sewer provided, and paid for, and as these services are in the hands of the municipality they appear to get, gratuitously, the width of street they want, although nominally they can be required to pay agricultural value for street land. The design of buildings is controlled, but not yet the use (zoning), although the city engineer would like these powers. The principal project in view is to move the central station and the railway line farther out, as the latter makes a serious barrier to the outward growth of the city. Land has been set apart for the new station, but as the railway belongs to the State there is much negotiation that has still to be gone through. Milan has a fairly complete canal system, and also some marvellous cemeteries.

The exhibition chiefly comprised methods and paraphernalia concerned with the construction of roads, but in the British pavilion there were some interesting exhibits connected with planning. The exhibition occupies a small part of the permanent fair ground that belongs to the State. It made one gnash one's teeth to see Milan benefiting from the presence of such a magnificent permanent fair ground when one reflected that the capital city of the British Empire still lacks this necessity, and that each year that passes makes a position anywhere near the heart of London more impossible.

The Government pavilion at Milan is a lovely old Tudor house. The exhibits there included the following models: The bridge being constructed between Newcastle and Gateshead; the projected high level roadway to give better road access to the Royal Victoria Dock and to the industries of Silvertown; a fascinating three-tier section of Piccadilly Circus as it will be rearranged, and of the projected subway and stations, and of the ganglia of tubes in the bowels of the earth; the Lea Viaduct, part of the North Circular Road; a beautiful model showing the new buildings on the site of Devonshire House, and the road tunnel that should have been made to connect the Mall with Berkeley Square, thus opening up a new north and south route. Plans and sections were also displayed of the Mersey Tunnel, the Berwick Road Bridge, and the proposed Menai Bridge. Some coloured photographs of Mr. Brodie's wide arteries at Liverpool were shown, and of particular interest were comparative diagrams, prepared by Colonel Richmond, and showing the enormous increase in traffic density between the years 1922 and 1926, in respect to the London Division of the Ministry of Transport, which extends from Basingstoke on the west to Ipswich and Margate on the east. Similar comparative diagrams had been prepared for the Midland Division for the years 1922 and 1925. The width of line indicated the density of traffic, and it was interesting to note how it thinned out between distant places, indicating the preponderance of in and out local traffic. The Ministry of Health showed a number of regional plans of joint town-planning committees, and a set of comparative road surface sections, etc. Also the Ministry of Transport displayed a map showing the arterial roads that have been recently constructed, or are being built, around London.

The conference was divided into two sections, the first dealing with road construction, and the second with administration. The second was of most interest to town planners, and it was notable that, for the first time, room had been found for a paper on town planning. This paper was entitled "Development and Planning of Towns in the Interests of Traffic," and the English contribution was presented by Messrs. Bassom (the late), Elliott, Lanchester, and myself. The conclusions of all the papers presented on this subject were excellently summarized by Mr. Albertini, of Milan. In opening the debate on the general conclusions, and suggesting several amendments, I suggested that the title of the general question and many of the writers of papers on it had put the cart before the horse. They seemed almost to revel in traffic, and to think almost entirely in terms of roads and road construction; whereas the town planner tried to look at the question from the social and economic standpoint, desiring to find ways of saving transport and of obviating traffic congestion. Transport should be the servant, not the master. I suggested amendments to this effect, and happily they were cordially received by Mr. Albertini and, in consequence, the general purport of the conclusions was modified considerably in this direction. Incidentally great stress was laid by subsequent speakers upon the necessity for having a standard international code for road signs, especially those indicating stopping places and where one-way traffic was the rule.

The papers, in this section, dealing with traffic census, contained interesting information from various countries, and the principal subject in debate was as to whether it

was better to take one consecutive period of seven days per annum (as in England), or whether it was better to spread the count over several single days at different times of the year. Unfortunately the actual debate was mostly occupied by a discussion as to whether pedestrians and perambulators should each have a separate count! The most lively debate in this section took place with reference to the advisability of constructing special roads reserved for private motor traffic, on payment of toll. The Italians, having built their special roads from Milan to the Lakes, were keen propagandists, and were generally supported. They, therefore, desired a general resolution confirming the principle. The British and United States delegates did not accept the proposition, and, on their behalf, Mr. Rees Jeffreys suggested that the limited experience gained made it too soon to dogmatize or to say that the method was suitable for universal application. Also he indicated that it would be most helpful to a decision if accurate statistics could, from time to time, be supplied, of running costs and upkeep, and of the amount of traffic that used such roads.

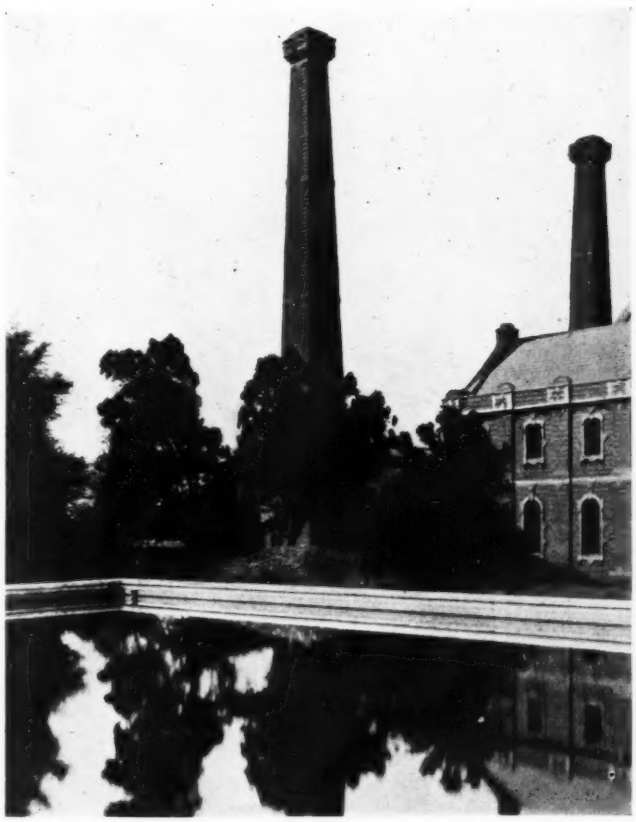
The main road from Milan to the Lakes has now been open two years. We traversed it and certainly found it a scorchers' paradise. The road is kept level, and the country roads are either dropped below or carried over it, a relatively few connections being allowed, at each of which there is a toll gate. After two years it is said that the average number of vehicles using it per day amounts to about 1,000, and that it is almost paying its way. An encouraging result, but not so surprising when one finds that the chief function of the ordinary roads appears to be to turn the traveller into a dust-covered cocktail! There is no doubt that the Milanese are a virile, go-ahead people and it has been most stimulating to run brains with them.

FACTORY CHIMNEYS: i

[BY P. M. STRATTON]

So many new qualities are ascribed to architecture each day that the three basic components of it—mass, line, and decoration—are becoming obscured. These three things belong also to mere building, and there is now a danger to the amateur mind that they may be regarded as matters which do not concern the architect, who should be employed only to humanize the contractor and make the building a good advertisement of the client. The true statement of the case, of course, is that the needs which can be met by mere building, the circumstances to which the mere builder bows or which he outrages, furnish masses and outlines for the architect to transform by addition, by subtraction, by subdivision into masses and lines which have an æsthetic quality and which can have a further "superfluous," in the sense of overflowing, beauty added by decoration.

In between these two great divisions of structures, architecture and mere building, there is a small class of structures in which the æsthetic coincides, or very nearly coincides, with the utilitarian shape; the ideal design is not only inherent in the practical mass, but is actually in many cases at the surface of it. Bridges and windmills are, of course, the two generally recognized examples; the factory chimney also belongs to this class. For if the scale and modelling of it be considered in relation to the work it does, first it will very seldom be found inhumanly large and oppressive, and though higher than any neighbouring tower or spire, not offensively bulky, simply because it exists not to house a great congregation of men or machines, but merely to ensure a draught. And, secondly, for the sake of stability it may best be round in plan, which causes it at once to be relative to the classic column, and makes it seem shaped in anticipation of the work of wind and rain, as it were, with a premonitory weathering, so that it looks, indeed, a sagacious and sensible type of thing. But further, this rounding makes it friendly to the stepping of the sunlight, so that it shares in the beauty of the tree bole, and has the interest of a thing formed out of three dimensions. The sloping inwards for stability gives the shaft a suggestion of the pyramid, with its abstract beauty consequent on unity; and a thought of the tree shape as a whole apart from the mere trunk, especially of those conifers which slope in and up to the last bough with such regularity.



The chimneys at the Waterworks, Brabourne, Worcestershire.

There is little even to threaten the æsthetic naïveté of the factory

chimney, static as it is to the passing and personal cults of every day. It literally will not stand being loaded with the Batemannish voluptuous models of our Regent Street. Nor can the young men of the Neo-Drawing-room (*ci-devant* Georgian) school, by scale and amount of "furnishing," stamp it with its exact position in the social scale. It is impossible to give it a foreign flavour as though a tall toy of a cardinal of the Renaissance; or even as though it came from Stockholm, for it is timberless. The factory chimney is perforce free from superfluities, and so rises either to the quality of great art, the impersonal quality, or can remain without interest and be utterly commonplace; needless to say that the latter is usually the case.

In excuse it can be pleaded that the factory chimney is seldom allowed to grace the end of a vista, or stand like a minaret beside a square and impressive mass. There has been too little respect shown to its form in the consideration of civic design, though where it has accidentally been allotted a place of distinction it has entered it with an astonishing flair and success. Until a few months ago the perfection of all chimneys stood centrally at the end of a narrow and insignificant thoroughfare near the old "Vic.," called Little Windmill Street, which has untidy garages and stables one side and a range of flats, strong but forbidding, on the other. The chimney was diminished with exact rightness, its capital was made to swell out at a very obtuse angle, giving a long outline absolutely in harmony with the line of shaft, and the cap was finished with a very simple and lightly-modelled abacus. Edward I'Anson was the architect, and the date of its building 1866. For some practical reason the capital was removed last year, and it seemed like moving "Patience" from her monument.

Again, few factories or power stations are planned for effect; and the chimney, though dominant in height, is thrust out into any odd corner; it is not made integral in its building, as is, for instance, the chimney at the power station at Hilversum in Holland, illustrated a few years ago in the *R.I.B.A. Journal*. Apart from position some chimneys fail from being square on plan when squareness seems uncalled for, with no panelling or other modelling to refine the obvious clumsiness of the shape; others have too much or little diminishment, though there is a wide margin in which to be safe; with most it is the want of a cap or the careless modelling of it.

[*To be concluded*]

Top, left, the chimney at the hydraulic installations, Cossnock Dock, Glasgow: right, that at the Western Infirmary, Glasgow. Below, the chimney at the New Medical College Buildings, Edinburgh.

CURRENT
ARCHITECTURE
SECTION

SOME PUBLIC SCHOOL WAR MEMORIALS

IT has fittingly fallen that many of the war memorials at our great public schools have been designed by old boys. At Eton the commission was given to Walter H. Godfrey; at Uppingham to the late Ernest Newton; and W. G. Newton won Marlborough in a competition open only to old boys.

The memorial chapel at Eton is situated on the south side of the choir, adjoining the porch eastward, and was formerly the vestry. The chapel is 20 ft. in height, although its dimensions are but 16 ft. by 12 ft., and on three sides there are lofty arched recesses framed in traceried panels, with windows facing north and east, and a pierced stone screen towards the choir on the south. In this shrine rests Eton's roll of honour, made up of nearly 1,200 names. In the illustration given, the altar is of Purbeck marble, and the window is flanked by the archangels Michael and Gabriel.

At Marlborough the site chosen by the authorities was a water-meadow, with its northern boundary lying along the Bath Road. To the east, but on considerably higher ground, stands the school chapel by Bodley, and the desire was to make a processional way from the chapel to the new memorial hall. The architect has placed his building directly facing the Bath Road, and well set back. The plan adopted is a long rectangular entrance hall block, two floors high, behind which is placed the main body of the auditorium, semicircular in shape.

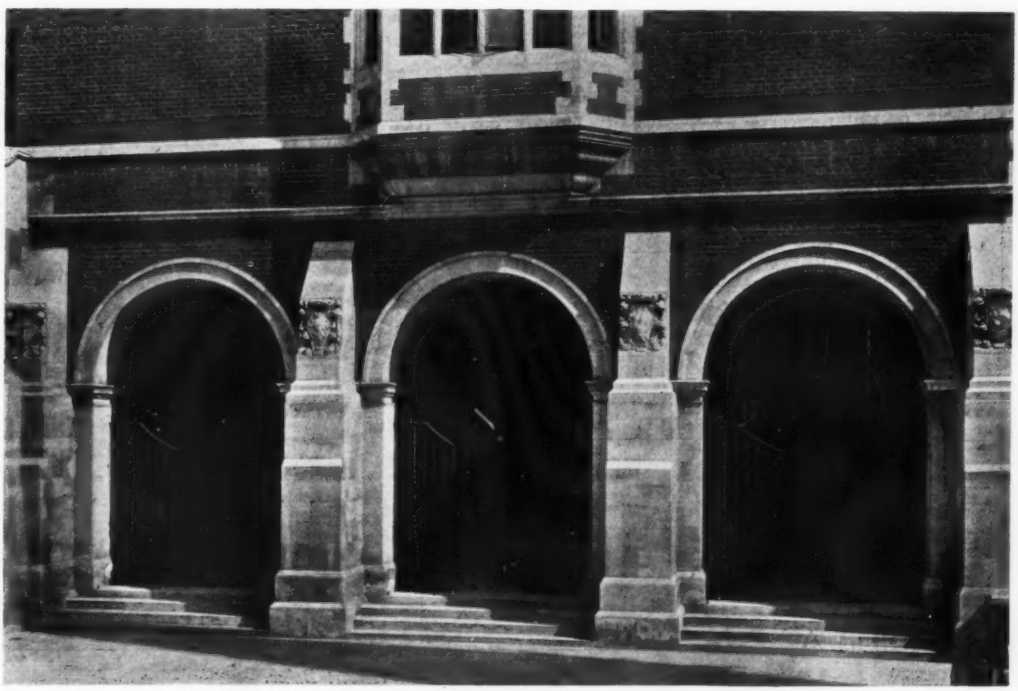
The memorial at Malvern consists of a figure of St. George in bronze on a Portland stone pedestal in the centre of the great quadrangle, and a reading-room for the boys at the end of the terrace. Both were designed by the architects (Sir Aston Webb and Sons) to harmonize with the architecture of the existing buildings. The reading-room is panelled in selected English oak, and the ceiling is a plain barrel in plaster. Externally a local stone from Cheltenham has been used with a stone slate roof.

At Winchester the roll of honour is inscribed on panels in cloisters. The cloisters consist of four galleries, and in the centre of the quadrangle so formed a simple monument has been placed.

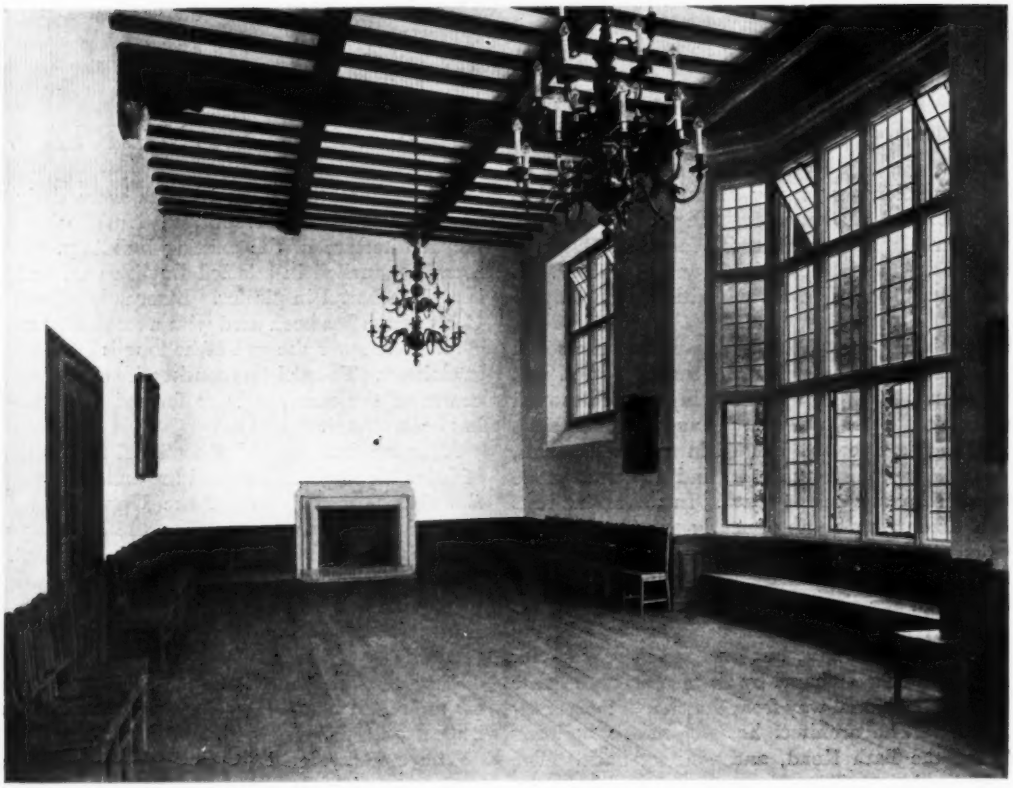
After the provision of educational facilities for the sons of fallen Uppinghamians, and the building of a war memorial shrine, the residue of the Uppingham School war memorial funds was devoted to the building of the hall, which is the dominating building of the school. Together with the classrooms that adjoin it, it gives a definite form to the quadrangle, and has also imposing frontages to the High Street and School Lane. In form the hall is a great rectangle, emphasized by four octagonal turrets at the angles; the roof runs through from gable to gable, and for the rest it is a fine study in masonry, fenestration and buttress pilasters emphasizing the roof bays.

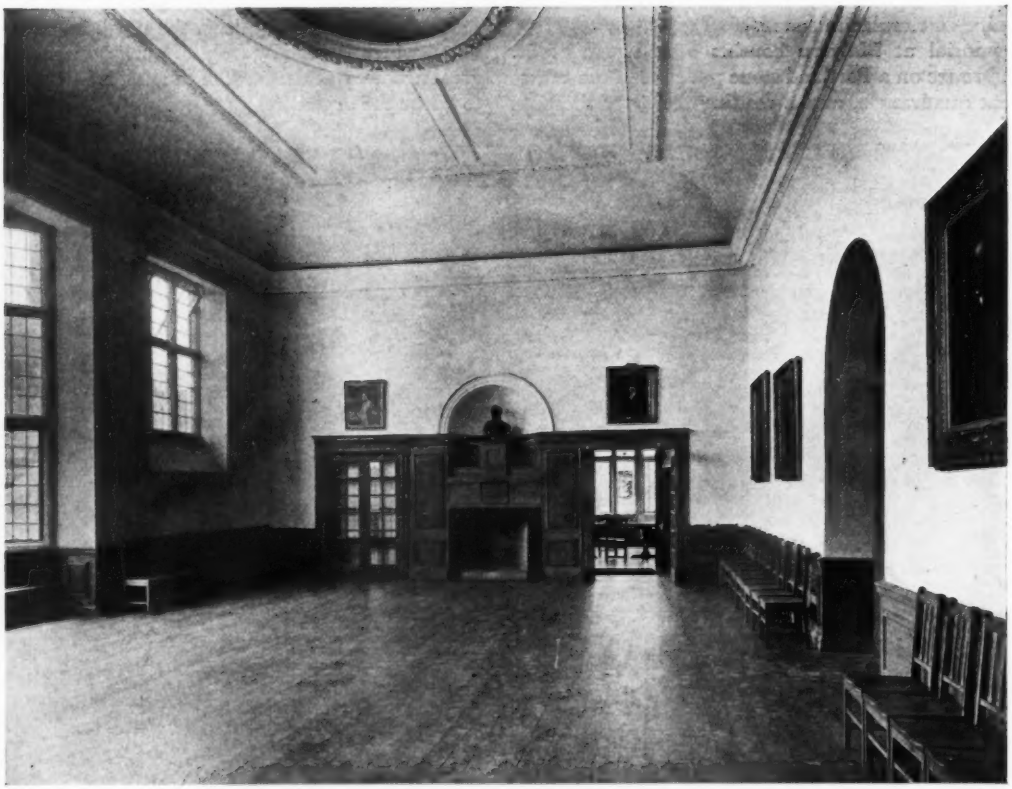
The stone for the walling is Edith Weston, rough-coursed, and the dressings are of Weldon stone.

The hall holds about a thousand, and is entered at the south end under the gallery, the north end containing the stage, which is raised 3 ft. 9 in. above the floor level. The great archway at the back of the hall is intended eventually to house the organ.



Harrow School War Memorial. By Sir Herbert Baker. The shrine.





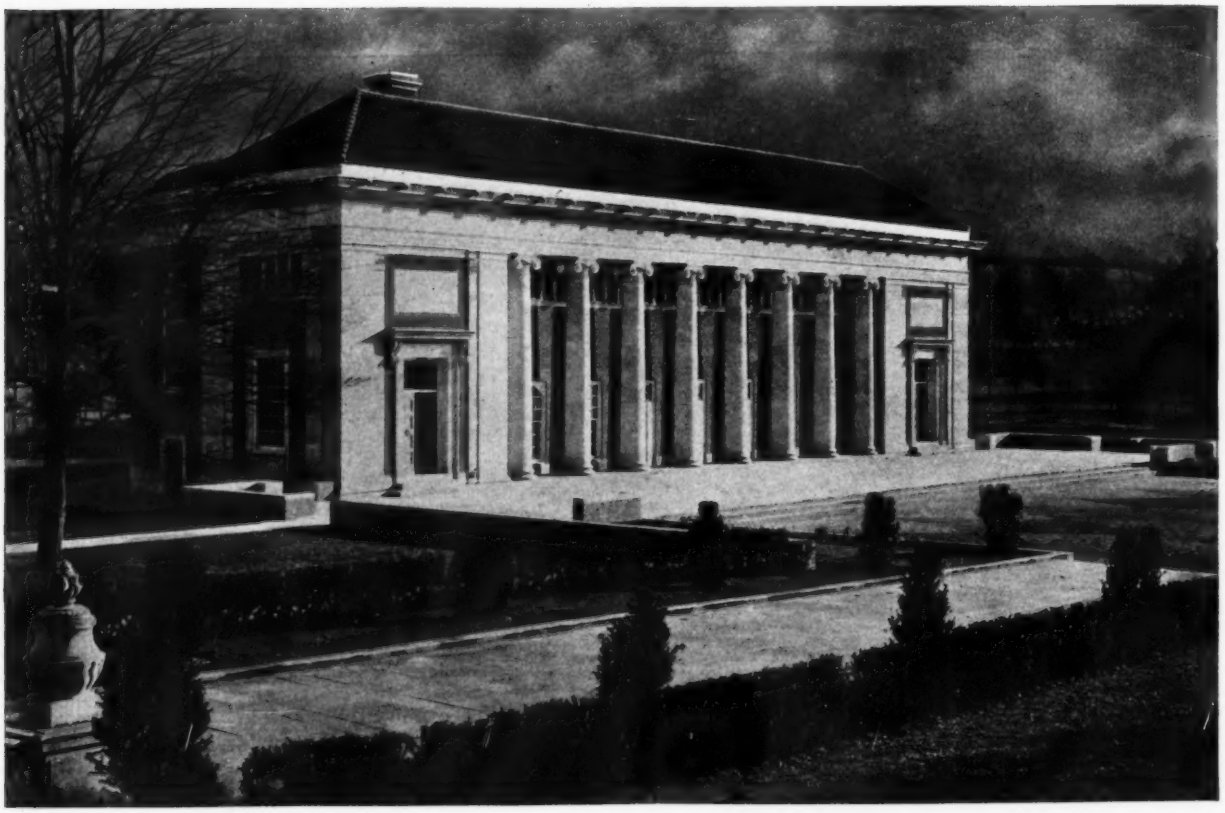
Harrow School War Memorial. By Sir Herbert Baker.
Above, the north hall. Below, the central hall.

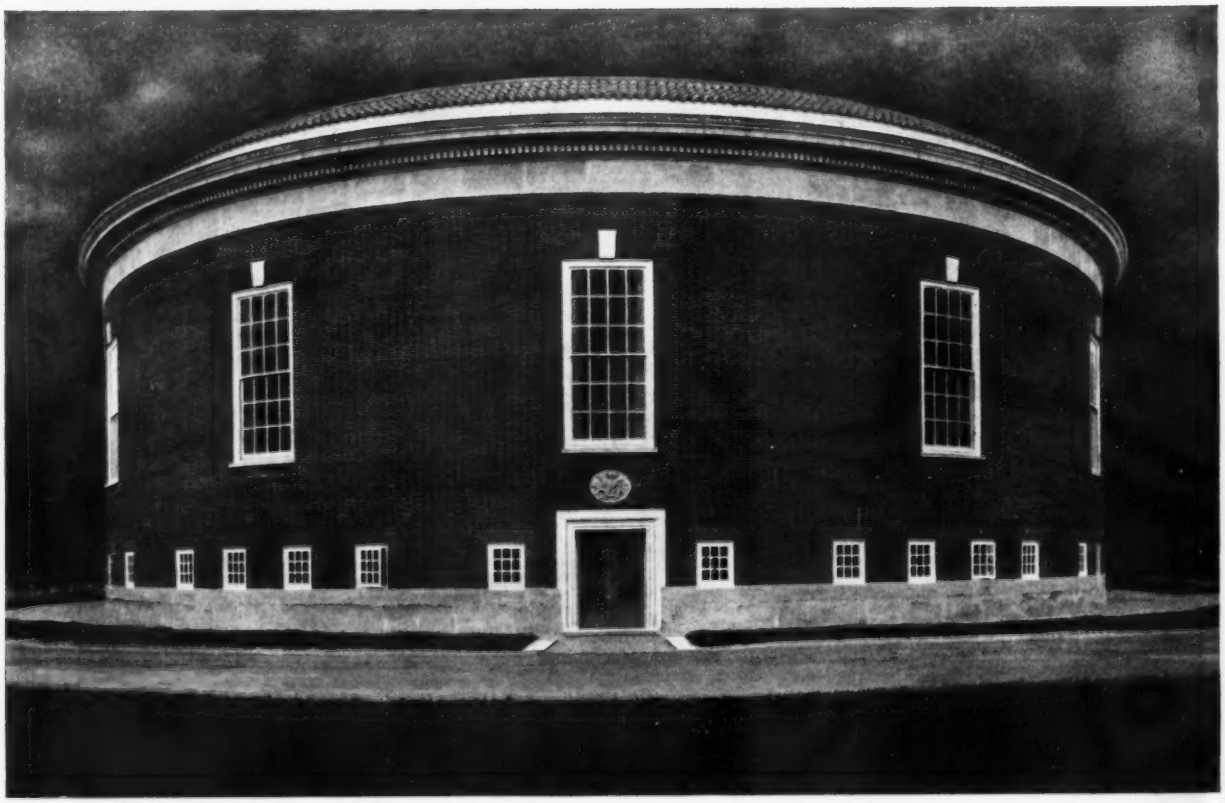
Eton War Memorial Chapel. By Walter H. Godfrey. The altar and east window.

The War Memorial at Malvern College. By Sir Aston Webb and Son. The west front.

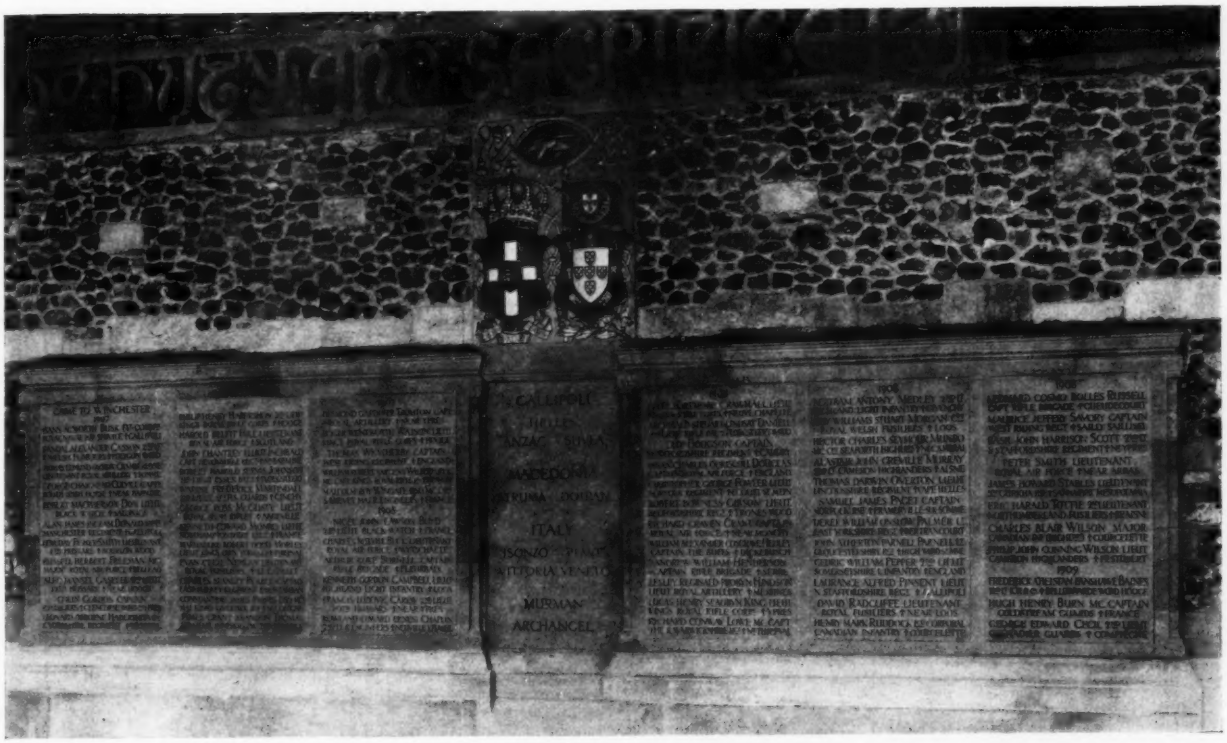
The War Memorial at Malvern College. By Sir Aston Webb and Son. The fireplace in the reading-room.

Sir Aston Webb and Son. The west front.





Marlborough College War Memorial. By W. G. Newton. Above, the hall from the north-east. Below, the auditorium from the south.



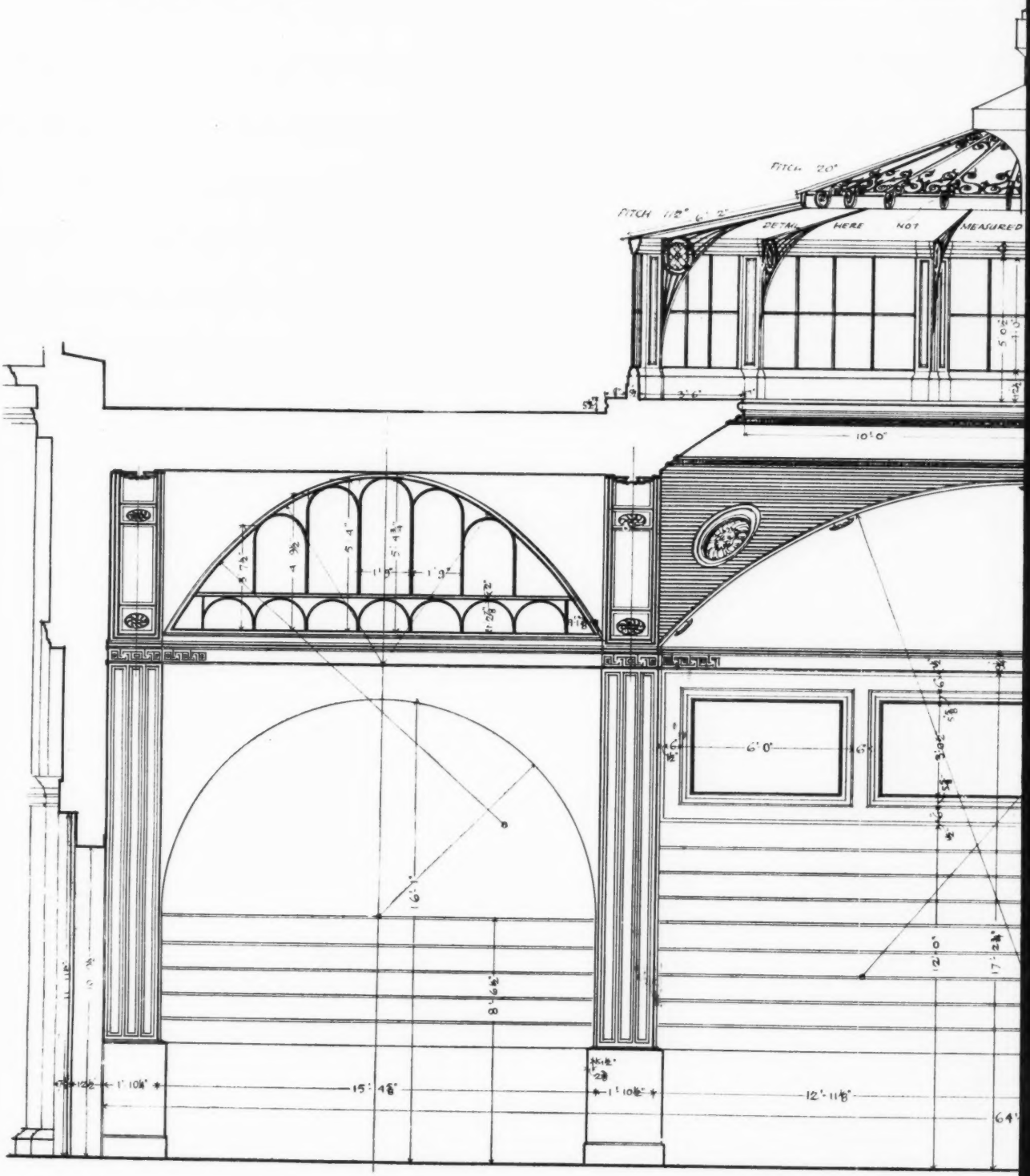
The War Memorial Cloisters, Winchester. By Sir Herbert Baker. Above, a detail of the great inscription. Below, a general view of the cloisters.

Uppingham School War Memorial. By Ernest Newton and Sons. The interior of the hall.

F. W. TROUP, F.S.A. F.R.I.B.A. :
14 GRAYS INN SQUARE. W.C.1.
DRAWN BY HOWARD D. ARCHER.

THE BANK

HALF INCH SCALE SECTION



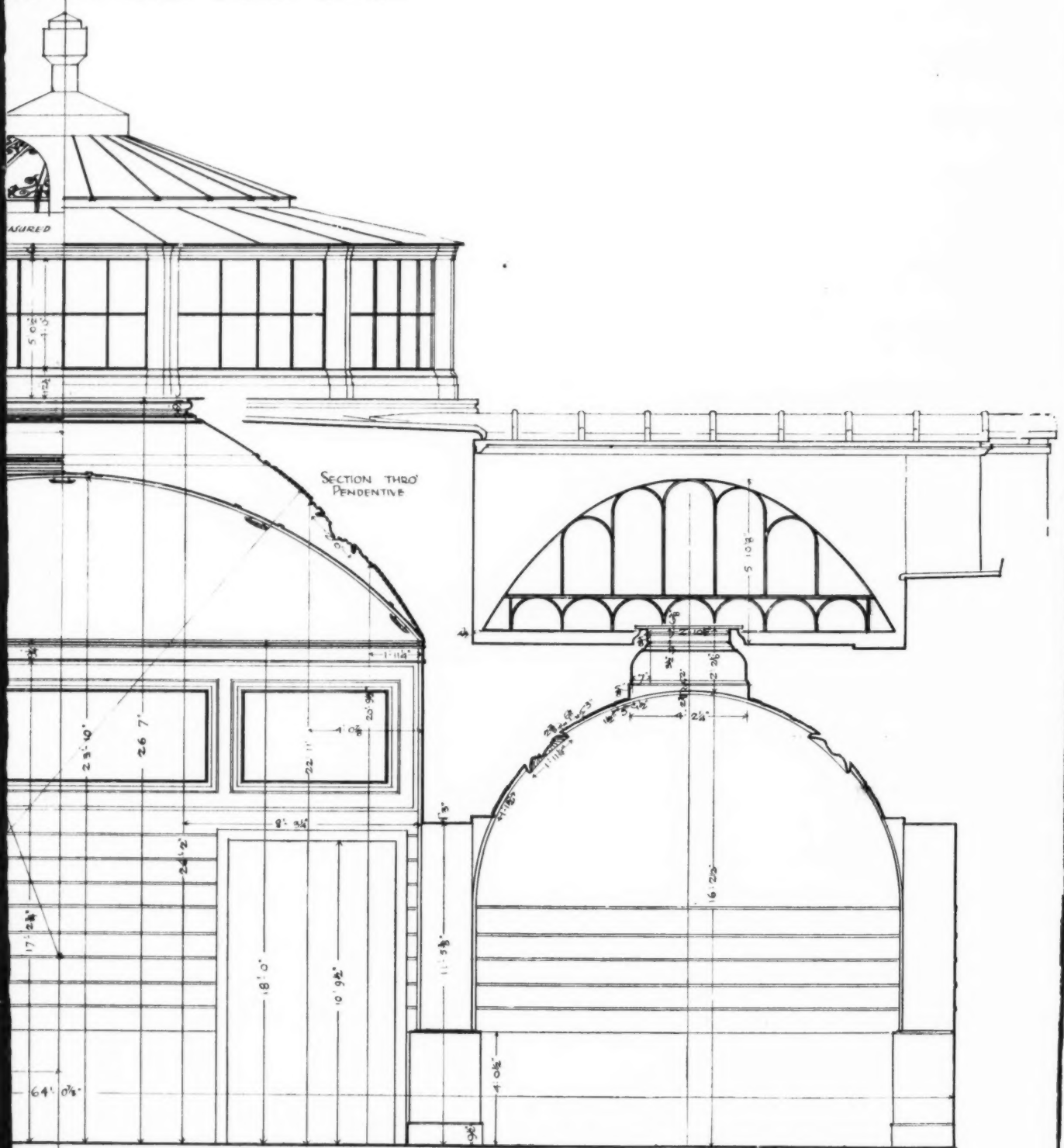
SECTIO

SCALE :

K OF ENGLAND

DRAWING № 52

ON OF BANK STOCK OFFICE



TION A—A

SCALE : 0E FEET

SOANE'S BANK OF ENGLAND. MEASURED DRAWINGS OF THE INTERIORS. i: THE BANK STOCK OFFICE. b: LONG SECTION

SOANE'S BANK OF ENGLAND

i: THE BANK STOCK OFFICE

b: Long Section

The policy of building in fire-resisting materials which Soane followed in his bank reconstruction is emphasized here by the use of cast-iron for the windows in the end vaults and in the sides of the lanterns. The glazing in the top of the latter was inserted in the middle of last century and destroyed, to a large extent, the indirect lighting formerly obtained from this plain reflecting surface, which gathered its illumination from the wide ledge between the eye of the dome and the lantern. This ledge also served as a means for cleaning the inner side of the vertical glazing.—[H. ROOKSBY STEELE.]

TALKS TO STUDENTS OF ARCHITECTURE

[BY W. S. PURCHON]

ii: THE FIRST YEAR

BEFORE considering the subjects of the R.I.B.A. Intermediate Examination, which is our next objective, there are a few general matters which should be discussed. First ascertain what help you are likely to get from your principal and the members of the staff in your office. Among your co-workers may be some who have obtained the R.I.B.A. qualifications, and who are prepared to give you a helping hand with that special work which, apart from the normal work of the office, you must undertake if you are to obtain those qualifications yourself. If so, you should use to the full any such opportunities of guidance which may present themselves. I do not intend to deal with office work beyond strongly recommending you to put your best into it, no matter how trivial the job may occasionally seem. Strive towards absolute accuracy, and do not be satisfied with half-measures. If you are in doubt about some of your work, do not immediately ask someone else, but try to overcome the difficulty yourself. If, after a genuine effort, you cannot solve the problem, then ask someone who has had more experience. It is only by solving problems yourself that you will make progress. No one else can do that for you. At the same time if after a serious attempt you fail, do not leave the matter in doubt.

Do not dodge difficulties. One knows only too well how easy it is to take your section in a slightly different position so that an awkward matter need not be indicated, but remember that someone must settle that difficulty some day. Perhaps the root of the matter is the fact that in architecture drawings are a means to an end; never forget that from your drawings bricklayers, masons, and carpenters have to decide how and where to lay real bricks, work actual blocks of stone, and cut up solid pieces of wood. This may sound very obvious, in fact it is so obvious that too often it is entirely overlooked.

While I am perfectly clear that the school is vastly superior to the office as a means of entering the profession, I am also quite clear that the office presents certain advantages, though they are completely outweighed by other advantages of the school. If, therefore, you are in an office, at the very least see that you do make full use of the special opportunities which it offers. Get on to the actual jobs. Compare the drawings you make with the objects which are made from them. Always carry a sketch-book and 2-ft. rule, and make full use of them. You can get a "Press" sketch-book made of thin paper about 7¼ in. × 4½ in., which you can carry in your breast pocket—only do not keep it in your pocket—take it out at frequent intervals and use it. You can get another one, about 3 in. square, which will go into a waistcoat pocket. In this you can enter all kinds of classified information which will be of use to you, not only for examinations, but for actual work—safe loads on different materials, weights of various materials per cubic foot, methods of calculating timber and steel joists, stanchions, and the like. If you have a few minutes to spare in waiting for a train or for lunch, and cannot find something to sketch, do a memory sketch, or see if you can remember the method of calculating some part of a structure. After making a memory sketch or attempting to work a problem from memorized data, always take an early opportunity of checking the accuracy of your effort.

The use of sketch-books and notebooks is fascinating, and has taken me upon the "job" where there are all kinds of building materials—not notes about them in books—and the men who do things with them. Remember that each of these men can teach you a great deal—not about proportion, scale, composition, and architectural form, but about something which he has been working at for years. Getting into contact with the people who make things, or use them when they are made, is the best way of getting over the great difficulty of the first year at architecture—the time when the drawings we make are only lines on paper.

Having ascertained exactly the sort of help to be expected from the office and its staff, get particulars of the educational facilities available in your area. It is understood, of course, that you cannot attend a full-time day school, but it is possible that somewhere in your neighbourhood there is an institution which offers part-time instruction in architectural subjects. If there are part-time day classes go to them if you can. If your principal is approached in the right way he will in all probability encourage you to attend them. The R.I.B.A. does its best to encourage him so to do. If there are no part-time day classes, or if you cannot obtain permission to attend them, then you will be wise if you join the most suitable evening classes that are available. Find out if there are any local scholarships. County Councils and other such bodies in many cases offer excellent facilities, and frequently adequate use is not made of them. Having joined the best classes you can possibly get to, then see you get the best possible value out of them. If an architect is teaching certain of the classes, so much the better, as he will realize your special difficulties and needs; but if not, remember there is much that you can learn from a teacher who has had a scientific, technical, or artistic training, even if he is not an architect. In any case, compare your class work with the work you do in the office, with actual building work, and with the information you find in the books, but do not conclude too readily that one of these is right and the other wrong.

It is very probable that you will find the books you need somewhat expensive; still, it is surprising how many you can buy if you really make up your mind to acquire a decent working library gradually. If, however, after having done your best to buy the necessary books there are still others that you ought to consult, remember that there are public libraries and the libraries of the R.I.B.A. and the allied societies, and you should ascertain what facilities these offer you. If your public library does not possess a book you need, you will probably find that the filling up of a "suggestion" form may produce the desired effect. Do not overlook the importance of keeping an eye on such a paper as THE ARCHITECTS' JOURNAL, which gives much information of value to students, information difficult to find in the books. The American *Pencil Points* is another particularly useful publication.

If the allied society in your area has a section for students, by all means join it. As a rule the allied societies, like the R.I.B.A., are particularly anxious to help the younger men. So get together with the other students of architecture in your district, take full advantage of the efforts your society is making on your behalf, and if you want more do not hesitate to ask for it. If there is no class in design available in your district, a number of students acting through an allied society could probably get one started in a local institution, or the society might start a design club. Attend the lectures arranged by your local society, and if a number of you would prefer another type of lecture, or if you think a special lecturer might be induced to come to your area to deal with certain problems in which you are interested, let the local secretary know your wishes. From time to time exhibitions of prize-winning designs, measured drawings, etc., are arranged by the R.I.B.A., jointly with the various allied societies. You should always make a special point of attending such exhibitions. It is very probable that one of your difficulties is that you are not sufficiently familiar with the class of work done by the ablest students of architecture; you do not, in fact, know what to aim at; the best corrective for this is to be found in attending the exhibition of the R.I.B.A. and Rome Prize drawings.

May I venture to conclude this article with some old advice which was probably never more applicable than at the present time? Vague and slipshod work gives pleasure to no one, certainly not to the one who executes it, while a drawing or other piece of work carried out skilfully and with precision is not only pleasant to see, but the doing of it is a pleasure in itself.

[*To be continued*]

EASEMENTS OF LIGHT

[BY JOHN SWARBRICK]

V: SOME FINAL INSTANCES

A PARTICULARLY interesting sky projection is shown in figure twenty-two. This is substantially a copy of one submitted on behalf of the plaintiff, in a recent right-of-light case, in which an injunction to pull down was granted. It will be observed that the structure, which it was intended to build and which was then in course of erection, would have obstructed a very unusual proportion of the remaining daylight and very nearly all the direct sunlight. This was obviously a very serious infringement of light, as the Court held. The effect of this infringement will be apparent upon comparing the daylight plan of the ground floor, prior to the erection of the new buildings, which is shown in figure twenty-three, with the corresponding plan in figure twenty-four, which shows what the lighting of the ground floor would have been when the proposed new building had been completed.

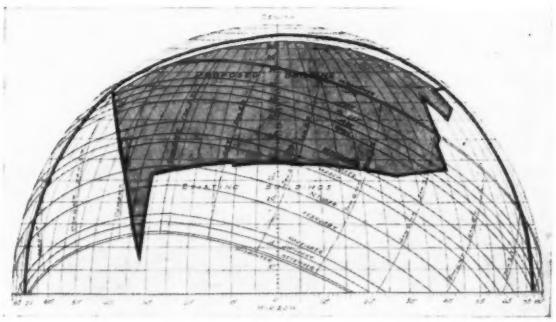


Figure twenty-two. Sky projection submitted in a recent right-of-light action, in which an injunction to pull down was granted.

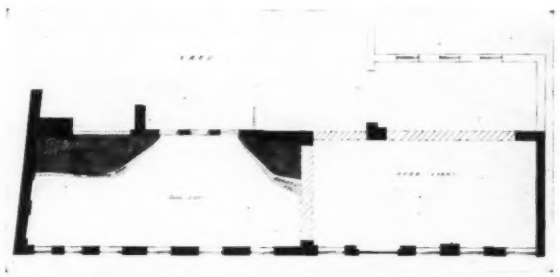


Figure twenty-three. Daylight plan submitted, in conjunction with the sky projection, in the same case, to show the original lighting of the ground floor.

Light Reflected from Obstructing Buildings: If it be desired to give any value to light reflected from obstructing buildings, the projected area of such obstructions can be treated similarly as sky of a lower brightness according to its colour, cleanliness, and the amount of real sky throwing light on to it. But as even white-glazed bricks moderately clean have only a very low brightness as compared with that of any sky which they obstruct, except, of course, under direct sunlight, light reflected from obstructing buildings cannot mitigate to any practical degree the loss of sky which they involve.

The Use of Photometers: The foregoing methods of predetermining illumination have superseded largely the employment of photometers in ancient-light cases, in which their use is confined to measuring the light under conditions which exist or can be simulated by the erection of screens, etc. They are, however, instruments which might with advantage be more widely used by practitioners in connection with artificial illumination and light effects generally.

Semon v. *Bradford Corporation: The Value of Lateral Light:* Lateral light played an important part in the well-known case of Semon & Company *v.* the Bradford Corporation which came before Mr. Justice Eve in 1922. This was the first reported case in which modern methods were used to demonstrate the extent and effect of the infringement. The plaintiffs alleged that a proposed generating station of the Bradford Corporation, when erected, would so materially diminish the access of light to their eighteen windows on the ground, first, and second floors in Balme Street, Bradford, as substantially to detract from the beneficial use and occupation of their warehouse.

By the Action, which was purely of a *quia timet* nature, they claimed an injunction, the effect of which, if granted, would have been to have prevented the defendants from completing the building as planned. On the other hand, the defendants conceded that their building, if erected, must intercept a very large percentage of direct light reaching some few of the Balme Street

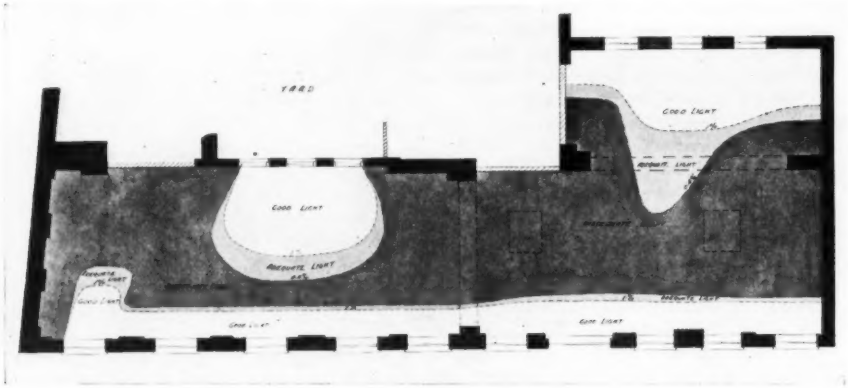


Figure twenty-four. Daylight plan submitted, in conjunction with the sky projection, in the same case, to show what the lighting of the ground floor would have been when the erection of the proposed new building had been completed.

windows, but they asserted that there would be no interference with the beneficial use and occupation of the premises as a warehouse sufficient to entitle the plaintiffs to relief in the action. It was demonstrated that ample light would continue to come laterally to positions claimed to be in danger from many other windows which were quite unaffected. The extent to which Mr. Justice Eve appreciated the assistance given by modern methods of presenting the facts relating to light may be gathered from the concluding part of his judgment, as recorded in *Law Reports*, vol. 2, Chancery Division, 1922, which reads as follows :—

"It appears that in recent years a great advance has been made in the study of light problems, and although no standards have been fixed determining the minimum amount of light reasonably necessary for particular industries, certain conclusions have been arrived at from which it is possible to ascertain the quantitative value of the light in a room under varying conditions of obstruction.

"It has been established that the ratio of the light at any given point in a room to the sill light is constant, the sill light being light available at the outside sill of the window from an unobstructed horizon. The sill light must, of course, vary with atmospheric conditions outside, but whatever the variations may be, the percentages in the various parts of the room of the inside illumination to the sill light remain constant. This percentage is spoken of as the daylight factor. It is remarkable how small a percentage of the available sill light penetrates into the room, but the data to which I have referred enable standards to be fixed below which the daylight factor ought not be allowed to fall, having regard to the purposes for which the light is required. Upon this subject public elementary schools have received far more attention than any other form of building both in this and every other civilized country, and much labour extending over many years has been expended in arriving at the proper minimum illumination of a room wherein young children have to work in circumstances somewhat novel to them. The result is that there is a consensus of expert opinion that if the worst-lighted desk receives 1 per cent. of the sill light the room is adequately lighted for the purposes of an ordinary public elementary schoolroom and, adds Mr. Waldram: 'A public elementary school constructed according to the rules of the Board of Education—that is a room wherein there is 1 per cent. of sill light at the worst lighted desk—is the best side lighted room I have ever come across.' For adult clerical work a much lower percentage is required. Mr. Waldram's investigations made some years ago, accepted by textbook writers and confirmed by an average of 0·5 per cent. ascertained by the careful measurements of existing conditions at a large number of factories dealt with at pp. 40 and 41 of the first report of the Departmental Committee appointed by the Home Office—'to enquire as to the conditions for the adequate and suitable lighting of factories and workshops' led him to the conclusion that the point whereat ordinary common-sense people would begin to grumble at the quantum of light would be the point in the room at which the percentage of illumination fell to 0·4 per cent. of the sill light, and this point he designates 'the grumble point.'

"It comes, therefore, to this, that the evidence given on behalf of the defendants proves a room to be adequately lighted for the purposes of adult clerical work so long as the illumination at the worst lighted working point in the room does not fall below 0·4 per cent. of the sill light. I ought to add that the light is measured in all cases at table level—that is 3 ft. above the floor." After discussing the evidence in detail offered on behalf of the plaintiffs and that of Mr. Waldram, his lordship concluded : "In the face of this evidence, strengthened by a careful comparison of the relative proportions of floor and glazed-window areas—unshaken by cross-examination and unchallenged by a satisfactory practical test on behalf of the plaintiffs—it is impossible for me to hold that the plaintiffs have discharged the burden of establishing that the defendants' operations will constitute an actionable nuisance.

"The evidence proves, I think, that the plaintiffs' warehouse is and will remain in enjoyment of an unusually large amount of light having regard to its locality, and in these circumstances I can only dismiss the action, with costs."

This judgment was largely due to exceptional circumstances; the proposed building of the Bradford Corporation only seriously affected two windows on the ground floor and two on the first floor out of a large number all lighting the same space; yet many practitioners not fully conversant with the facts have stated that, in view of this decision, owners cannot hope to secure injunctions, in warehouse areas, in the case of obstructions which do not extend beyond about 60 deg. from the sill. This opinion has been somewhat widely disseminated, but it is an entire misinterpretation of the judgment, which quite clearly states the material facts. Moreover, it is known that injunctions to pull down have been granted in later cases where a smaller angle of light has been intercepted. I am indebted to Mr. Waldram for calling my attention to such a case, in which the obstruction only subtended an angle of about 40 deg. This was the unreported case of Jones *v.* Bennett and others, which came before Mr. Justice Russell in 1924. In this instance also, the circumstances were exceptional in that the obstruction, moderate as it was, blocked out the last remaining light to the kitchen of a valuable house. The fact is that the angle of light intercepted is only one of the elements to be considered. A contemplated building might obstruct even more than 60 deg. of light, and yet, owing to its position, the extent of its façade and the presence of lateral light, do but a limited amount of injury; whilst, in another case, a structure subtending an angle of only 40 deg. might deprive an important room of its last glimpse of the sky.

[It should be mentioned in connection with the illustrations in the third article, in the issue of THE ARCHITECTS' JOURNAL for August 18, that this method of visualizing the effect of an obstruction was devised by Mr. John B. Thorpe, of Gray's Inn Road. In the case illustrated the obstructing wall was white, whilst the original and lower obstruction was dark. Mr. Thorpe reproduced these conditions very accurately, and both the effect and the limits of the effect of reflected lights are clearly distinguishable in the photographs.]

[*Concluded*]

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

21404. Anderson, F. Pointing brickwork, etc. August 31.
21326. Broda, J. Boarded roofing. August 30.
21873. Colquhoun, J. Building construction. September 4.
21395. Hartgrove, H. J. Brick waterproof dressing. August 31.
21763. Munroe, T. B. Flooring material. September 3.

SPECIFICATIONS PUBLISHED

257332. Rogers, R. H. Erection of concrete walls.
257343. Concrete, Ltd., and Mathews, C. B. Method of and apparatus for producing concrete and like blocks for building and other purposes.
257346. Weston, H. Manufacture of reinforced concrete slab walls.
257350. Smith, E. A. Building of concrete walls suitable for dwelling-houses.
257351. Woolcock, J. Construction of houses and other buildings wherein the walls comprise concrete or similar material cast *in situ*.

ABSTRACT PUBLISHED

254808. Slade, W., Johnson, C. Walls, building blocks.

LITERATURE

A POLITICIAN ON ARCHITECTURE

M. HERRIOT, ex-Prime Minister of France, has written a very charming book about Normandy—or rather, the western and more secret end of it—and has naturally devoted a considerable proportion of his space to the architecture of the district. It has been said that mankind is the material with which statesmen model their masterpieces, and it is interesting to find M. Herriot approaching Norman architecture by way of the character of the Norman peasant. The Norman is shrewd, level-headed, a little ironical; he prizes above everything order and moderation. M. Herriot thinks that he has discovered these same characteristics in the architecture of Normandy.

But it is plain that what we know in England as Norman architecture makes little personal appeal to the ex-Premier. He even tries to saddle us with it, ascribing the popularity of the cushion capital in this country to our natural "fancy for heaviness." "Nothing," he argues, "could be less Mediterranean." But the truth is that Norman architecture—like the Norman character—is both English and French. M. Herriot tries to claim the one and reject the other, to suit his own preferences. The later Gothic architecture of Normandy, which he whole-heartedly admires, should, he says, be named not "Gothic," but "French." In all this the patriot speaks. But in his notes on the Cathedrals of Coutances, Lisieux, and Séez, M. Herriot writes like an artist and a man of letters. His book, indeed, would make an admirable introduction to a study of these buildings on the spot.

There is more architecture of the Renaissance period in this "secret" part of Normandy than is commonly realized by people who have never visited it. "Caen," says M. Herriot, "is a Renaissance museum." And if in Normandy the Renaissance does not assert itself with quite the same profuseness as in other French provinces, it is remarkable how quickly Italian influence was felt there. Apparently, as M. Herriot says, "the new art did not in this province meet with the violent resistance which in other places was offered to it by a bourgeoisie uneasy at such pagan inventions." There, again, we have the Norman character asserting itself. It is equally true that Normandy continued to oppose to Renaissance extravagances the same moderating influence that it afterwards exercised politically in the Revolution. "We shall not discover here those sensuous thrills which bestow on certain Renaissance creations, even in their confusedness, a superabundance of life."

The Norman fights against the excesses of the new fashion, but even he cannot prevent his churches from becoming more like entertainment halls. "They jar," says the Radical ex-Premier, "on the ideas that even the least devout of us have of a church." The reredoses are chiselled like Italian furniture; the saints—especially the women saints—"wear smiles that would not disgrace the highest society." He is happier with civil architecture. Here the Renaissance "resumes its advantage." It is not always easy to rediscover. Often it hides its graceful ruins under grass and trees. But much remains, that any passing visitor may see. There is, for instance, the famous Chateau d'O, on which M. Herriot has written a characteristic passage, worth quoting on that account:

"The fineness of its lines, the moderation of its projections, the pitch of its roofs against which the red-brick chimneys nestle, the elegance of the gallery with its little columns running along the courtyard strewn with rosy sand, the courtly grace of the façade with its flamboyant windows, the splashes of red brick on the walls, the light architecture of the water-tower; and quite near, adjoining the lord's dwelling, the squat mass of domestic offices, of the farm, the wine stores, the huge dovecot, the sincerity of real country life, all the refinement of the period set as neighbour to the robust richness of the fields; and the light, too, as gentle as could be wished, making a variety of shadows on the dainty architectural details of the entrance lodges as on the clumps of trees; the whole scene, clad in a sort of undress by length of time which has darkened the wall of the moat, is like to a poem by Ronsard."

That gives an idea of M. Herriot's quality, but it is not a good example of the work of his translator, Mr. Lepper, who has done much better elsewhere.

C. WILKINSON

Amid the Forests of Normandy. By Edouard Herriot. Translated by John Heron Lepper. Cassell. Price 10s. 6d.

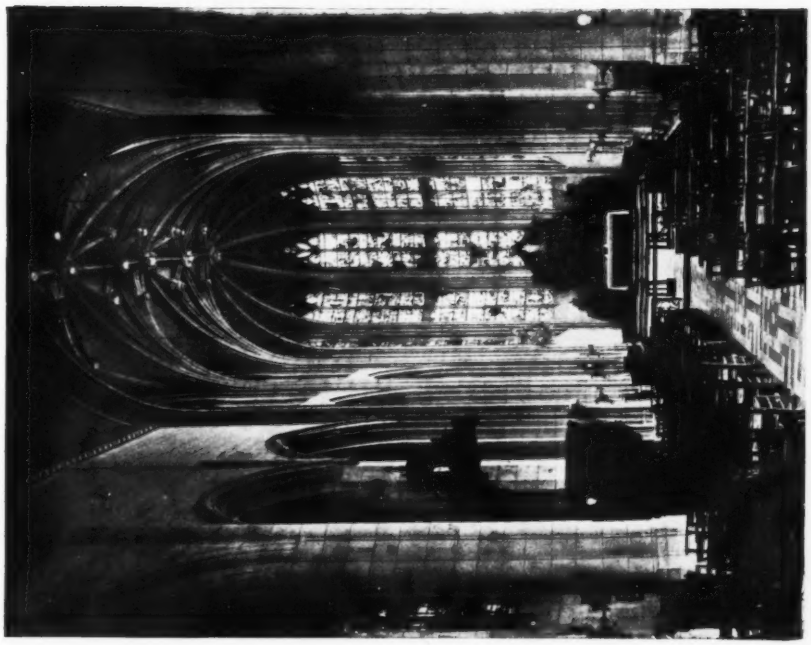
VIGNOLA'S ORDERS

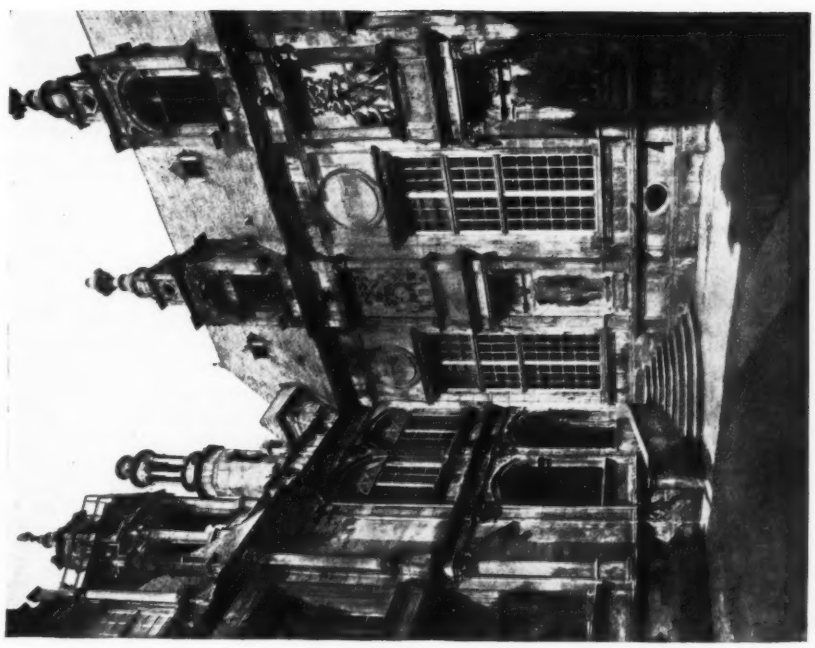
The French edition of Vignola's Orders, arranged by Esquié, has been found useful in a number of our leading schools for some considerable time; and there is no doubt that this edition, with Arthur Stratton's explanatory notes and glossary of French and English terms, will be even more popular. The plates, which appear to be exactly the same as in the French edition, are very beautifully drawn and excellently reproduced. Sheer accuracy and clearness of definition may be thought rather old-fashioned by some, for the tricks which mask slovenly draughtsmanship still retain a certain popularity, and for this reason, if for no other, it is good to think of Esquié's work being brought before an increasing number of English students. It should also be noted that these plates show the Orders, not as unrelated features, as is too often the case in our English books, but used with other features to form porticoes, arcades, etc., and that in many cases stone-jointing is indicated. In these, and other ways, Esquié helps the students to realize that the Orders are not merely academic exercises, but parts of structures. In addition to the plates dealing with Vignola's Orders, this books also contains an excellent set of studies of shadow projection, a series of illustrations of Greek and Roman Orders, and of certain Roman buildings, and a number of examples of doorways and windows mainly designed by Vignola. While it is advantageous, for comparative purposes, to have the Greek and Roman examples included in this work, students will be wise to use these particular plates with some care, and to check them by reference to special books on Greek and Roman architecture.

Esquié has done his work very thoroughly, but Stratton has been too modest. These French interpretations of the Italian Renaissance need a fuller introduction to English students. Perhaps in the next edition he will add to his notes, and tell us more about the special characteristics of the forms shown in the plates. Further attention might well be drawn, for instance, to the arris flutes used with the Doric Order, to the special base used with the Ionic, and to the relative advantages and disadvantages of the methods given for setting out the profiles of columns. On this latter point the method of starting the diminution at the base might be mentioned with advantage. Perhaps also a few more hints could be given to students to help them to use the book in the best way, a matter for which Arthur Stratton is particularly well qualified. Students should be warned that they cannot use these orders as they stand for varying purposes, but that modifications are necessary, and that these depend on scale, position, etc. Plate 49 is of an Ionic Order, not Doric, as stated in the English text; and it may also be pointed out that if the scheme of Roman numerals used in this text corresponded with that used on the plates it would facilitate reference. This is a valuable book as it stands, but a slight expansion of the English text on the lines suggested would add very considerably to its usefulness to English students.

W. S. PURCHON

The Five Orders of Architecture according to Vignola. Arranged by Pierre Esquié, with notes and glossary by Arthur Stratton, F.R.I.B.A. John Tiranti & Co. In portfolio, 12s. 6d.; bound, 14s.





Left, Hotel D'Escoville, Caen. Right, Conches: the Choir. [*From* Amid the Forests of Normandy.]

SPECIFICATIONS

This is a small text-book, intended more for the student than for the practising architect, and its object is to give some idea of the typical clauses which should appear in a well-thought-out specification. Since the war specifications have undergone changes in many respects. The necessity for economy has led to the specifying of smaller scantlings in various parts of the building. And many of the old ports for exporting timber do so no more so that the old formulæ have become obsolete. The book is general rather than particular, that is to say, it mentions typical clauses from which the specification writer would obtain guidance. The introduction contains useful hints on specification writing generally, and emphasizes the desirability of avoiding vague terms such as "best," "proper," etc. Such terms which seem to flow off the pen of many specification writers have no precise connotation. Since precision is an absolutely essential quality of a good specification, it stands to reason that they should be omitted.

The value of the book to the student would have been very much enhanced had it contained a glossary of terms. How many quite advanced students could give a definition of the italicized words in the clause, from Founder and Smith?

"The cast iron to be of *clean*, sound castings, *sharp* and *sound*, perfectly *fair*, and *out of winding* free from *cinder*, *honeycomb*, *blow-holes*, and other defects."

H. J. B.

Specifications for Building Works. By Wilfred L. Evershed, F.S.I. Sir Isaac Pitman and Sons, Ltd. Price 5s. net.

CORRESPONDENCE

"DAILY MAIL" HOUSES COMPETITION

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—In a recent *Daily Mail* the following announcement appeared:

"The *Daily Mail* has received congratulations from members of the architectural profession, as well as enquiries from land-owners, builders, and others asking to be provided as soon as possible with the prize-winning plans and specifications."

Can you spare a little space in your paper to protest against architects having their brains picked in this manner?

JAMES F. HAMPTON

REGISTRATION

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—In reference to the declaration by the President of the R.I.B.A. that the interests of unattached architects in bona-fide practice are specially safeguarded in the Bill now being prepared, may I ask whether such protection is limited to those in practice, and if so, why? So far as I have been able to ascertain, the proposals have not, hitherto, appeared to provide equitable treatment for the bona-fide architect who is not in practice on his own account.

Has any attention been given to the claims of those formerly in practice who were compelled to close down during the war and are now working as assistants?

Are experienced assistants who have not yet seen their way to commence practice in their own name to be ignored? It is a well-known fact that there are many such who are the mainstays of practices owned by others.

A man who has had no proper training as an architect cannot hold a position as assistant, but he can carry on a practice as a principal. That he be admitted and the men who make it possible for him to carry on be shut out seems utterly unjust. Surely the decision as to who is to be registered should not rest solely on a property qualification.

I would respectfully suggest that the assistant with not less than, say, seven years' training at the date when registration comes into force might be placed on the register and be allowed to practise if, or when, his experience totals twelve years (or earlier if he pass the examinations). Similar conditions might reasonably be required of the man in practice, with a liberal reduction of the qualifying period in recognition of the added experience which may be deemed to have arisen from the responsibilities of principalship.

The real question seems to me to be not so much whether a man is in "bona-fide practice" as whether he is, personally, a bona-fide architect, or as nearly so as the unattached may presume to be! Meanwhile, we are pleasantly aware that our old appellation—unqualified—has been temporarily laid aside, and we are humbly grateful for that blessed word—unattached.

A. W. W.

THE R.I.B.A. AND OTHER SOCIETIES

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—In your issue for September 1 the President of the newly-formed Incorporated Association says: "It would be interesting to know what body, other than my Association, would safeguard the interests of the unattached qualified practitioners and their assistants?" The answer to the implied question is that the interests of the salaried architects and assistants are continually watched and safeguarded by the Association of which I have the honour to be secretary, an Association which has successfully operated for a period of years before the "Incorporated Association" was founded, and which, incidentally, has been accorded direct representation on the R.I.B.A. Council for, among other aims, the very purpose named by your correspondent.

JOHN MITCHELL,
General Secretary, Association of Architects, Surveyors, and Technical Assistants.

ARCHITECTS' INSURANCE

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—Criticism on my part of the scheme of insurance now put forward in conjunction with the projected Architects' Defence Union would be clearly out of place; but upon one point, since it necessarily challenges comparison with the existing Architects' Indemnity Policy, I may with propriety be allowed a word. Out of an annual subscription of £3 3s. per head the Defence Union proposes to provide, *inter alia*, insurance for its members against professional liability risks. While this subscription rate is—ignoring the further advantages offered by the Union—less favourable to small practices than is the premium at present chargeable in respect of the policy with which I am associated, yet, reduced to an average, the latter is substantially greater.

To the architect with these facts before him, and the knowledge that the new scheme has been examined and approved by a committee of his own Institute, the inference is inevitable that Lloyds' underwriters have taken advantage of their position, hitherto, as the only source through which this protection could be obtained, to exact premia in excess of those warranted by the risks covered. It is against this implication that I wish to protest. Claims under the Architects' Indemnity Policy, reduced to a yearly average per head, greatly exceed the capitation payable to the insurers under the Defence Union scheme. This refers to actual claim payments, without the inclusion of working costs, profits, or reserve for contingencies (this last a serious item when it is recalled that claims involving several thousands of pounds occur with fair frequency, and that the contemplated initial membership of the Union is one thousand only), and, of course, includes no allowance in respect of the new liabilities undertaken by the Defence Union.

It is obvious that the existence of the Defence Union may be expected favourably to affect the incidence of claims. It is equally obvious that had it been reasonable to suppose that the loss reduction to be anticipated from this cause would bridge the gap in terms of cash between past experience, and the anticipation embodied in the Defence Union subscription rates, my company would have hastened to reduce its rates correspondingly rather than suffer such competition as is represented by a comparison of the existing and the proposed ratings.

It is because the discrepancy between the actual experience of

five years past, and the expectance of losses under the new scheme is far too great to admit of any reasonable anticipation of its being reconciled by the new factor. Because, therefore, the facts known to them do not warrant any expectation of the ability of anybody to continue to offer this insurance on the terms, or nearly on the terms, of the new proposals, except at the expense of the value offered to the policy holder, that my company has abstained from any attempt to compete with the latter, and from offering to accept business on terms which, unless all past experience is falsified, must prove impossible of maintenance.

LEONARD LAIT,
Architects and Professional Indemnity Agencies, Ltd.

THE COMPETITORS' CLUB

THE "DAILY MAIL" COMPETITION

ONCE again architects are invited to offer solutions of the problem of the small house; and, perhaps, not without reason, considering the demand for these, and the desirability of their being designed to offer the maximum of beauty and convenience compatible with the inherent limitations. There are still bad types of house going up all over the country, disfiguring its natural beauty, and it cannot be too often reiterated that there is no need for a cheap house to be a nasty one.

The prizes offered are in reasonable proportion to the work involved, and the requirements bear a due relation to the cost limit. Two types of house are specified, and three premiums of £150, £100, and £50 are to be awarded for each of these.

A: is a house costing £1,500, on a site 70 ft. wide by 150 ft. deep, the narrow side facing south, bounded by a road in which there are all the gas, electric lighting, and drainage services, and on either side by other building plots. The house is to have the following accommodation: Dining-room, sitting-room, kitchen, four bedrooms, bathroom, separate w.c. upstairs and one downstairs, usual offices, and garage to be incorporated in the scheme or adjoining it.

B: is a house costing £850, on a site 60 ft. wide by 120 ft. deep, and all as to class "A." The house is to have the following accommodation: Sitting-room, living-room, small scullery, w.c., and usual offices on the ground floor, with three bedrooms, bathroom, and w.c. on the first floor. A small garage separate to the house is to be shown on the block plan, but not included in the cost.

The houses are to be suited to the suburbs of a large town or city, with gas, water, and electric light available. No drainage need be shown, nor need fencing, garden lay-out, roads, or paths be included in the cost.

As the President of the R.I.B.A., with two coadjutors selected by him, are to adjudicate, intending competitors may be satisfied that the decision will be in the hands of those experienced in this class of work, while the promoters state quite clearly the points they regard as of major importance. As set forth in the conditions, "The objects of the competition are two-fold. First, to obtain the best possible plans from the point of view of beauty and comfort. Second, to obtain plans which will give the best possible value for money, commensurate with good materials and workmanship. This latter is an important aspect of the competition, to which entrants should pay the closest attention." The right to publish any of the designs submitted is reserved, either in the Press or in book form, with the name and address of the architect attached, thus affording a means of advertising not often available to members of this profession, while the first £1,500 house, and possibly others, or portions of these, are to be erected at the *Daily Mail* Exhibition, Olympia, in March, 1927. Those so employed will be remunerated in accordance with the R.I.B.A. scale of charges. The date for sending in designs is November 30, and that for questions, September 30. The conditions are issued by the Secretary, Ideal Houses Competition, 130 Fleet Street, London, E.C.4.

This type of competition has been criticized as resulting in too much skill and knowledge being given too cheaply. Its opponents hint that plans so published are the mainstay of the inexpert, and point to the case of the United States, where such plans are issued broadcast by contracting firms. Doubtless such cases do occur, but on the other hand, the system adopted by the *Daily Mail* has undoubtedly influenced a very large public in the direction of employing architects; when, without this publicity, such a course would never have been regarded as practicable. Moreover, even if it does occur that plans are "lifted," the public benefits and the profession suffers no pecuniary loss, as the offenders would not dream of employing professional advice, being quite content, if the better design is not available, to substitute something worse. Of course, it is annoying to an architect to see his brains exploited in this way, especially if the result is a travesty of his intentions; but when the whole matter is looked at broadly, it appears most probable that while the public undoubtedly is a gainer by this form of educational effort, the architect also has his position strengthened among those with whom at present he has a very precarious footing, namely, that large body of people who would like to possess an "ideal home," but who forego that privilege because they do not believe it possible that this can be provided under the auspices of a skilled architect within the limits of their purse. Municipal enterprises have done much to prove that the employment of an architect is a genuine economy apart from its other advantages, and contact with the small private owner is all that is needed to make good his position here also.

SENESCHAL

COMPETITION CALENDAR

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

September 30. Cenotaph for Liverpool. Assessor, Professor C. H. Reilly, O.B.E., M.A., F.R.I.B.A. Premiums, first, £200; second, £150, provided he is an ex-Service man; third, £100; fourth, £50. The author of the selected design will be paid a commission of 500 guineas, which will include the premium of £200 above-mentioned, and, in addition to preparing all the necessary working drawings and superintending the erection of the work, he will be required to superintend the erection of a full-size wood and plaster model of his design on the site. Particulars from the Town Clerk.

October 30. New Offices for Scottish Legal Life Assurance Society, Bothwell Street, Glasgow. Assessor, Mr. John Keppie, A.R.S.A., F.R.I.B.A. Particulars from Mr. William Watson, Secretary, 84 Wilson Street, Glasgow, before August 21. Deposit £1 1s.

January 25, 1927. Conference Hall, for League of Nations, Geneva. 100,000 Swiss francs to be divided among architects submitting best plans. Sir John Burnet, R.A., British representative on jury of assessors.

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

November 30. *a:* Design for a house costing £1,500; *b:* design for a house costing £850. Assessor, 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, 1927. 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.

January, 8, 1927. Town Hall Extension and Public Library Building for the City of Manchester. Assessors, Messrs. T. R. Milburn, R. Atkinson, and Ralph Knott. Preliminary competition open to architects of British Nationality. Particulars from Mr. P. M. Heath, Town Clerk. Deposit £1 1s.

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

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.

COMPETITION NEWS

The Rome Scholarship

Applications to compete in the preliminary competition for the Rome Scholarship in Architecture and the Henry Jarvis Studentship must be made on the prescribed form to the Honorary General Secretary, British School at Rome, 1 Lowther Gardens, Exhibition Road, London, S.W.7, not later than October 15 next. Between October 1 and 15 the applicant must deliver to the Honorary General Secretary a portfolio, not exceeding double elephant size, containing specimens of his work, unless he has been admitted to a previous competition or is recommended for admission as a fifth-year student by the principal of a school having a five-years' course recognized by the R.I.B.A. The Rome Scholarship will be of the value of £250 per annum, and will be tenable at the British School at Rome for a maximum period of three years. Candidates must be British subjects, and not less than thirty years of age on July 1, 1927. The Jarvis Scholarship will be of the value of £250 per annum, and will be ordinarily tenable at the British School at Rome for two years. The studentship will be confined to students or Associates of the R.I.B.A., but otherwise the conditions for the two awards will be the same. Admission to compete may be granted at the absolute discretion of the Faculty to candidates over thirty years of age, provided they have spent in war service at least that number of years by which their age exceeds thirty.

SOCIETIES AND INSTITUTIONS

The R.I.B.A. Annual Dinner

Architects will be gratified to learn that the Prince of Wales (Hon. Fellow) has graciously consented to be present at the annual dinner of the Royal Institute of British Architects, which will take place on Tuesday, November 23, and to present the Royal Gold Medal for Architecture for the year 1926 to Professor Ragnar Ostberg.

R.I.B.A. Examinations

The questions set at the Intermediate and Final (or Special) Examinations held in June and July, 1926, have been published, and are on sale at the R.I.B.A., price 1s. 6d. (exclusive of postage).

R.I.B.A. Exhibition of Students' Designs

The designs of students of recognized schools exempted from the R.I.B.A. final examination, with the exception of the subject of professional practice, will be exhibited until Thursday, September 23, in the Galleries of the R.I.B.A., 9 Conduit Street, W.1. The R.I.B.A. Board of Architectural Education silver medal for recognized schools is awarded for the best set of designs submitted. This year the following schools, which have courses of five or more years' duration, recognized by the R.I.B.A. for exemption from the R.I.B.A. final examination have sent exhibits. The Robert Gordon's Colleges, Aberdeen; the Edinburgh College of Art; the Glasgow School of Architecture; the University of Liverpool; the Architectural Association, London; the Bartlett School of Architecture, University of London; the Victoria University, Manchester; the McGill University, Montreal. In addition, drawings have been received from the Department of Architecture of the Technical College, Cardiff, and from the School of Architecture, Leeds School of Art (at present recognized for exemption from the R.I.B.A. intermediate examination), certain of whose students have been granted special exemption from the R.I.B.A. final examination, with the exception of that portion of the examination relating to professional practice.

The Royal Sanitary Institute

The course of lectures and demonstrations for sanitary inspectors to be given by the Royal Sanitary Institute begins on October 4. The lecturer in elementary science (physics, chemistry) is Mr. Alan E. Munby, M.A., F.R.I.B.A. During the session visits will be paid to public and private works illustrative of sanitary practice and administration. Full particulars can be obtained from Mr. E. White Wallis, O.B.E., F.S.S., 90 Buckingham Palace Road, London, S.W.1.

The Incorporated Association of Architects and Surveyors

The annual dinner will be held at the Holborn Restaurant on Saturday, September 25, at 7 o'clock. Reception at 6.30. Tickets 12s. 6d. (double £1 1s.), may be obtained from the secretary, Major G. B. Jones Athoe, 15 Bedford Street, Strand, W.C.2.

TRADE AND CRAFT

The motor travelling exhibit of the National Radiator Co., Ltd., will be in the Territorial Drill Hall of the 6th Welch Regiment in Richardson Street, Swansea, on Wednesday and Thursday, September 29 and 30.

At the Universal Smoke Abatement Exhibition, Bingley Hall Birmingham, the British Thomson-Houston Company is exhibiting and demonstrating up-to-date electrical equipment for domestic services. This display includes apparatus for cooking, heating, washing, and house cleaning, and such convenient appliances for the table as toasters, kettles, percolators, etc. Mazda electric lamps, including the new Pearl Mazdas, are used in connection with the lighting and decoration of the stand, while B.T.H. lighting fittings, reflectors, etc., are ingeniously arranged to provide striking effects.

The new extension of the head offices, factories, and showrooms of Messrs. E. Pollard & Co., Ltd., at St. John Street, Clerkenwell, E.C.1, was officially opened last week. The occasion was celebrated by an inspection of the new extension by many of the company's friends, who were afterwards extertained at lunch. The new building has been designed and planned by Mr. Malc. W. Matts, L.R.I.B.A. The St. John Street frontage is 160 ft. long, and the building runs back to a depth of 130 ft., where it connects with the main building at the same floor levels. It is of steel frame construction, with reinforced concrete floors. One of the finest views of London and the suburbs is obtained from the roof. The inspection of the building proved to be of the greatest interest. No efforts have been spared to adopt every auxiliary device for the speeding up of output, and for ensuring the comfort and convenience of the staff. The offices are specially planned for the business; the designing studies are light and airy; the factory floors are spacious and well ventilated, lighted, and heated in winter, and equipped with the most modern machinery for economical production; and the showrooms are large and contain samples of all requirements. There is a great variety of machines, each engaged with separate operations. There are machines for cutting moulding, grooving, sanding, polishing, etc., to lessen the cost of production; there are heating plant, waste conveyors, lighting plant, electric lifts, clocks and such devices to keep the shops warm, clean, well illuminated, well ventilated, and as near ideal for that class of manufacture as seems possible. All shavings, sawdust, and waste are sucked from every machine, and the sweepings through floor gratings by a 90-h.p. fan and forced through a steam barrage into the destructors. The heat generated in the destructors can either be passed away or used for heating in the winter by means of a central heating plant embracing both factories. Modern methods also prevail in the showrooms and offices. Every part of the factory is fully protected against fire. A sprinkler system is installed, and fire-resisting steel doors divide each section. The firm claim that they now possess the largest and most complete shopfitting factory in the United Kingdom, having over 1,200 highly-skilled mechanics. The contractors for the new extension were Messrs. John Greenwood and Sons, Ltd.

ANNOUNCEMENT

Professor Vernon Herbert Blackman, SC.D., F.R.S., Professor Frederick George Donnan, C.B.E., D.SC, LL.D., F.R.S., and Professor Frederick Alexander Lindemann, PH.D., F.R.S., have been appointed by order of Council dated August 20, 1926, to be members of the Advisory Council to the Committee of the Privy Council for Scientific and Industrial Research, in the place of members who have retired on the completion of their terms of office.

THE WEEK'S BUILDING NEWS

Housing at Chatham

The Chatham Council has entered into contracts for the erection of 180 houses.

Subsidy Houses for Downpatrick

The Downpatrick Urban Council has passed plans for the building of twenty-four subsidy houses.

Proposed Houses at Barnet

The Barnet Rural District Council has decided to submit the estimates of fifty-seven proposed houses for the approval of the Ministry of Health.

New Glamorgan Education Department Offices

A scheme for the erection of a new building at Cathays Park to accommodate the administrative staff of the Glamorgan Education Department is to be proceeded with.

Proposed Swimming Bath for Sunderland

The Sunderland Town Council has been recommended to build an open-air self-filling salt water swimming bath at Roker at a cost not to exceed £20,000.

The Glasgow Street Improvement Scheme

The Glasgow Town Council has agreed to pay £25,000 in connection with the proposed improvement at the east corner of Argyll Street and Union Street.

An Auxiliary Hospital for Greenock

An auxiliary hospital for Greenock is to be erected in the Kip Valley. The sum required to defray the cost of the building is £60,000.

School Plans Approved at Sheffield

The plans of the Sheffield City architect (Mr. W. G. Davies, A.R.I.B.A.) for the erection of the new Prince Edward Council School on the Manor Estate, Sheffield, have been approved.

Enlargement of London's Air Port

The first of the new giant aeroplane sheds which are being erected on Croydon aerodrome in connection with the £225,000 scheme for the rebuilding of London's air port is nearly completed.

Building Strike at Glasgow

The labourers employed in the erection of the new Kelvin Hall, Glasgow, have declared a strike owing to the failure to bring about a settlement in the dispute concerning their wages.

The Manchester C.W.S. to Remain

It is authoritatively denied in Manchester by the Co-operative Wholesale Society that it intends, as reported, to transfer its headquarters to London. On the other hand, another building is to be erected in Manchester.

£92,000 Scheme for Brighton

The Ministry of Health has closed the inquiry into the application of Brighton Corporation for a loan of £92,000 for reconstructing and reconditioning the Aquarium as the opposition to the scheme has been withdrawn.

Plans Approved at Hamilton

The Hamilton Dean of Guild Court has passed plans for the erection of a new slaughter-house, costing £18,000; additions to the local hospital, costing £11,000; and a slum clearance scheme, costing £2,500. A scheme for the erection of 164 houses at Chanting Hall, owing to opposition, has been delayed for discussion at a later date.

The New Kent Coal Towns

Elvington is to be the name of the second town to be created in the new Kent coalfield. It will accommodate the workers at the Tilmanstone pit. Work has already begun on the building of Aylesham, the first of the eight or nine towns to be provided. The largest town, to hold a population of about 36,000, will be established between Eastry and Betteshanger.

Ellesmere College Memorial Chapel

The Governors of Ellesmere College, Shropshire, have decided to proceed with the building of the memorial chapel in memory of all old Ellesmerians, and especially those who fell in the war of 1914 to 1918. It has been designed by Sir Aston Webb, R.A. The Governors appeal to all old Ellesmerians to be present at the ceremony of laying the foundation stone, which takes place on September 30.

Building Trade Statistics

Reports received from 137 of the principal urban areas in Great Britain, exclusive of the L.C.C. area, with a total population of 15,831,000, show that last July plans were passed for buildings of an estimated cost of £5,679,100. These were mostly for house building. Taking into consideration the effects of the industrial slump and coal dispute it is noteworthy that the total sum is nearly as large as that for July, 1925.

Housing Progress at Luton

In place of a number of condemned houses at Kensworth, the Luton Rural District Council has decided to apply to the Ministry of Health for sanction to erect sixteen new houses. The Ministry has given approval to the erection by the Council of twenty houses at Stopsley, and twenty-six houses at Limbury, and has also agreed to the extension of the Council's scheme for assisting private enterprise in respect of a further sixty houses.

Dock Improvement at Bootle

It is proposed to undertake a scheme for the provision of large new docks by the Mersey Docks and Harbour Board, within the boundary of Bootle. A new vestibule dock and two branch docks will add another 2¾ miles of quays to the port, while alongside the new branch docks sheds are being built to cover a total floor area available for cargo of 54 acres.

The Vienna Town-planning Congress

The International Dwellings and Town Planning Congress was recently opened at Vienna in the presence of nearly a thousand delegates from all parts of Europe. The Minister of Commerce, Herr Schuerff, and the Burgomaster of Vienna, Herr Seitz, welcomed the visitors. The main subjects for discussion by the Congress are the land question in relation to town planning, and the rational apportionment of single and collective family houses.

Burnley Building Schemes Approved

The Burnley Public Library Committee has received from the Ministry of Health approval of the scheme for the erection of twenty-eight houses to re-house the persons to be dispossessed by the erection of the Central Library. Sanction has also been obtained to the borrowing by the Burnley Corporation of the following amounts: £12,450 for the erection of houses; £1,216 for street works; £184 for the construction of sewers; and £19,000 for the erection of a public library.

The New Horticultural Hall, London

The Council of the Royal Horticultural Society announces that the contract for the erection of the new hall in Greycoat Street, behind the site of the present hall, has been let to Messrs. Foster and Dicksee, of Rugby, for completion within sixteen months. Messrs. Easton and Robertson, of 36 Bedford Square, W.C., are acting as the Society's architects, and Dr. Oscar Faber, O.B.E., of 37 Duke Street, Oxford Street, W., as consulting engineer for the reinforced concrete work.

An L.C.C. Secondary School at Tooting

At a cost of £56,000 a new London County Council secondary school for boys has been built in Beechcroft Road, Tooting. The school occupies an historic position, its seven acres once having been held for over 300 years by the Abbey of Bec in Normandy. Two acres of the site are occupied by school buildings, which comprise eighteen classrooms, arranged on two floors, laboratories, an assembly and dining hall, with kitchen quarters adjacent, and a gymnasium. A library and an art room on the higher floor are also among the features of the building. The school will ultimately accommodate 500 boys.

THE WEEK'S BUILDING NEWS—*continued.*

Edgware Tower to be Restored

The tower of Edgware Church, built in the fourteenth century, is to be restored.

Housing at Sleaford

Thirty-eight houses are to be built at Sleaford, Lincolnshire, at a cost of £13,927.

More Houses for Solihull

The Solihull District Council has decided to erect another forty-eight houses.

More Houses for Peebles

Peebles Town Council has decided to erect more houses on the Dalatho housing estate scheme at the Edinburgh Road.

Housing at Boston

The Boston Town Council is going to erect forty-four houses on the Tattershall Road.

Housing at Cheltenham

The Cheltenham Town Council proposes to buy land in the Marle Hill Road for the purpose of erecting houses for the poor.

Bank Building in Ireland

The Munster and Leinster Bank proposes to build a branch at the corner of Dunlo-Society Street, Ballinasloe.

A Garden City for Wallasey

The Wallasey Town Council is to consider a scheme for a garden city providing for 6,000 villas.

Houses for Stevenage

The Stevenage Urban District Council proposes to build sixty houses at a cost of £24,500.

Police Houses for East Horndon

The Essex Joint Standing Committee proposes to buy a site at East Horndon for the erection of new police houses.

A New School for Bromborough

The architect to the Cheshire Education Committee has prepared plans for a new Woodslee Council school at Bromborough estimated to cost £23,393.

Building Sites at Congleton

The Housing Committee of the Congleton Town Council has under consideration new building sites in Bromley Lane and Astbury Lane End.

A Sunderland Sewerage Scheme

The Sunderland Corporation proposes to undertake the construction of a sewer from Plains Farm to Ryhope Road, at an estimated cost of £51,500.

Housing at Langport

The Langport Rural District Council has received the approval of the Ministry of Health for the erection of a number of houses in various parishes.

Housing Progress at Otley

The Otley Council has completed the erection of 376 houses for the working classes. Fifty-six are in course of construction, and seventy-eight more are projected.

A Technical School for Tipperary

The North Tipperary Technical Committee is considering plans for the building of a new technical school on the Urban Council's building site at Castle Avenue.

Housing at Patcham

The Steyning East Rural Council has approved a scheme for providing twenty houses for the working classes at Patcham at an estimated cost of £10,923.

Another Hotel for Manchester

On an advantageous island site, at the corner of Newton Street and Dale Street, Manchester, another big hotel is to be built containing 250 bedrooms.

Slum Clearance at Kirkintilloch

The Kirkintilloch slum clearance scheme, which involves the erection of seventy-two houses, has been approved by the Board of Health.

An Abattoir and Market for Bristol

The preliminary plans and estimates of a public abattoir and centralized meat market, to be built at a cost of £40,500, have been prepared for the Bristol Town Council.

Extensions to an Inverness Infirmary

The directors of the Northern Infirmary at Inverness have decided to make a start with the reconstruction of their building as soon as one-half the estimated cost of £100,000 is in hand.

Development of a Nottingham Site

A valuable site in Carrington Street, Nottingham, which for some time has been in a derelict state, is now to be developed, and a building—either to be used as a hotel or for office purposes—and a garage are to be built.

Housing at Ballycastle

At a recent meeting of the Ballycastle Rural Council it was intimated that the Ministry of Home Affairs had forwarded an Order authorizing the erection of fifty-two cottages under the Labourers Improvement Act.

The Kehoe Square Scheme

The Dublin Commissioners in Council has been recommended to apply for sanction to a loan of £298,000 for the acquisition of land adjacent to Kehoe Square, and for the erection on the land of 570 houses.

A Burslem Conversion Scheme

A scheme is under consideration at Burslem to convert the Old Burslem Town Hall into an art gallery, to house the paintings bequeathed by the late Dr. John Russell, and also the Corporation's permanent collection of pictures.

Additional Work on Burton Bridge

Owing to the collapse of the weir on the north side of Burton Bridge, which is in course of reconstruction by the Burton-on-Trent Corporation, and is now nearly completed, work necessary to safeguard the foundations of the bridge, at an additional expenditure of £30,000, will be required.

A Gift to Montrose

The late Mr. Robert M'Farlane, of Montrose, has directed his trustees to pay or convey to the provost, magistrates, and Town Council of Montrose part of his estate for the purpose of providing a public hall for the community or any other public utility or improvement scheme as the Council may determine.

Building Progress in Minehead

The Minehead Urban District Council has granted to the owners of the parks estate an order under the Town Planning (General Interim Development) Order, 1922, permitting development of the estate and building operations to proceed subject to certain conditions. The Town Planning Committee has also approved the lay-out of parts of the Dunster Castle estate on the North Hill and in the Parks.

Timber Houses at Newcastle

The first pair of a number of timber houses which are being built on the Walker estate at Newcastle have recently been opened. These dwellings represent the application of British standards of housing comfort to Norwegian methods of building construction. They have been built to the order of the Newcastle Corporation. Each house contains a parlour, living-room, kitchen, three bedrooms, scullery, and bathroom, and the cost, exclusive of land and road making, is £485 per house. Ninety-eight houses of this type are to be built by the Corporation in the Fenham district.

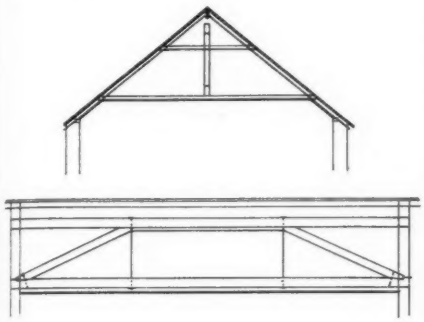
Improvements at Southampton Docks

In a short time work will be begun on programme of improvements at Southampton Docks, which are to be extended at a cost of £13,000,000. The accommodation for the biggest liners in the world will be doubled, and the extensions will take place along the western shore. These include the reclamation of nearly 500 acres of foreshore; two new dry docks, one 1,200 ft., long, and the other slightly shorter; the making of 16,600 ft. of additional deep-water quayage; the construction of a double line of railway track parallel with the present main line; a new bridge across the West railway station, to do away with the level crossing; public parks, which are to belong to the Corporation, as part of the agreement under which the land was taken over; and the reconstruction of the main entrance of the royal pier and new sheds and warehouses.

READERS' QUERIES

A TRUSSED PURLIN

A reader asks whether the accompanying diagram indicates a suitable practical support for the roof of a hall 20 ft. wide and 30 ft. long.



The idea of using a trussed purlin to support the roof and the ceiling of the hall is quite sound, but the design of the trussed purlin, as shown in the diagram, is not altogether satisfactory. In the first place it is not adequately triangulated; and in the second, it is not of sufficient thickness to prevent sideway buckling of the truss as a whole and of its inclined braces. The top chord of the truss should be raised, if practicable, to touch and to support the undersides of the common rafters which may be spiked, or notched and spiked to it. This extra height of the truss would permit of the inclination of the braces being made about 45 deg., for that is the most economical angle. The number of bays in the truss may with advantage be increased to six with five vertical tension bars, and with three diagonal compression braces on each side of the central rod. Appropriate dimensions for the members would then be: Top and bottom chords, 6×8 in.; end braces, 6×8 in.; intermediate braces, 6×6 in.; middle braces, 6×4 in. The central tie rod may be $\frac{5}{8}$ in. diameter, intermediate tie rods $\frac{7}{8}$ in. diameter, and the outer tie rods $1\frac{1}{8}$ in. or $1\frac{1}{4}$ in. diameter. The bearing joints of the diagonal braces must be carefully formed without cutting too much into the fibres of the top and bottom chords, but adequate joints are essential. The outermost pair of braces must be restrained from shearing off the short ends of the upper fibres of the bottom chord by the use of heelstraps and bolts. The bearings of the trussed purlin at its ends are also important, and this need of bearing area affords another reason for making the chords of wide material. Stone templates of ample width must be provided to spread the weight on the 9-in. walls at the ends of the hall, or the courses of bricks may be reinforced with hoop metal set in Portland cement mortar in the brick joints.

W. H.

COPPER SHEATHING ON A DOME

H. A. C. writes: "A steel and breeze concrete dome is to be covered with copper. It is proposed to build in the concrete dovetail fixing fillets and cover the outside of the concrete dome with $\frac{5}{8}$ in. boarding. The boards and fillets are to be twice creosoted all over before fixing. A doubt arises as to the liability of the woodwork to dry-rot when enclosed and covered with copper, especially in the moulded ribs which are of timber and copper covered. Can you inform me if this practice of wood underlinings to copper coverings is usual or, alternatively, what better method of securing the copper covering and moulded ribs to the breeze concrete dome can be suggested?"

In most historic domes, which are constructed with wooden sheathing under lead, copper, or zinc coverings, the supporting members are also of wood, and spaces exist between the ribs for air to circulate and minimize the danger of dry-rot. With the dovetail fixing fillets actually embedded in the concrete the liability to attack by dry-rot is not negligible, even though the timbers are twice creosoted before fixing. The practice of using wood underlinings to metal coverings is usual, and dates back thousands of years, but it may not be the best method just because it is based upon an age-old tradition.

Another way of using copper and steel and breeze concrete in conjunction with one another would be to provide each sheet of the copper with a sufficient number of tabs to anchor the copper, and apply it to the concrete while the concrete is green, on the analogy of an old method of laying roof tiles by means of pegs inserted in lime concrete built up to the roof slope instead of hanging them on to battens.

Still another way would be to design a stiff self-supporting sheath of copper to act as an outer shuttering for the breeze. The joints and cover flashings would require a little freedom for expansion, but this could doubtless be arranged after a practical experiment had been attempted.

In these days of dear and sappy timber and high labour costs it seems that an effort should be made to dispense with the use of the intermediate layer of wood. The routine of modern architectural practice is hardly favourable to experiment, but perhaps such a body as The Copper and Brass Extended Uses Council would give assistance in the matter for the sake of the great architectural interest attaching to the invention of a novel and improved method of employing the material they advertise.

W. H.

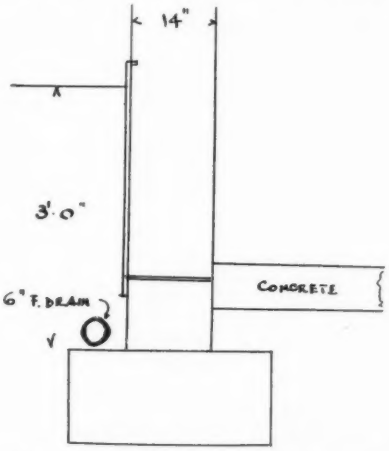
A DAMP WALL

S. B. writes: "The accompanying sketch shows the arrangement of the damp courses in bad ground. The vertical course is two-layer Limmer asphalt, the horizontal pure bitumen damp course, and the floor was specially treated. The latter is perfectly dry and shows no sign of dampness, yet the wall inside the building is covered with a fluffy substance and other signs of dampness. Could you inform me where the above arrangement is defective or suggest the cause of the dampness? The wall was built in particularly bad weather, but has been completed five months."

The signs of damp may be due to the wet weather when the wall was built and to the water with which the mortar was mixed not yet having dried out thoroughly. Five months is not a long period for this process of drying out of a wall 14 in. in thickness. Two other causes may be suspected, however: either the damp course leaks and lets in water from the adjoining ground outside the building, or rain percolates through the wall above the level of the top of the damp course.

A 14-in. wall is by no means waterproof, and may collect water during rainy periods and discharge it into the interior either immediately in local streams, or continually in the form of moisture. The remedy for this is to build an outer face to the wall with a space between the new and the old work and turn it into a cavity wall with proper provision for tying old to new by means of wall-ties. Weather-slating and weather-tiling are resorted to for the same purpose, or the brick face may be hacked over and the exposed surfaces rendered in waterproofed cement and sand. This last method is sometimes unsatisfactory, as any crack in the cement coating, whether caused by shrinkage or by settlement in the building is liable to collect the rainwater and allow it to flow into the brickwork almost as freely as before the application of the coating of cement. If the vertical asphalt has leaky places and blow-holes, these defects must be diligently searched for, cut out, and made good in a thoroughly conscientious manner.

If the moisture is found principally along the joint between wall and floor, the cause of the trouble may be percolation through



the joint around the inner edge of the horizontal damp course. The white fluffy substance is caused by the efflorescence of various chemical salts contained within the substance of the wall; it is an ordinary phenomenon in new structures, and need not be taken as evidence of excessive dampness.

W. H.

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
A₂	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
B₂	Appleby ..	N.W. Counties	1 4½	1 0½
A	Ashton-under-Lyne	N.W.Counties	1 8	1 3½
A₂	Atherstone	Mid. Counties	1 6½	1 2
B₂	Aylesbury ..	S. Counties	1 4½	1 0½
B	BATH ..	S.W.Counties	1 6	1 1½
B₂	Banbury ..	S. Counties	1 4½	1 0½
B₂	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
B₂	Basingstoke	S.W. Counties	1 4½	1 0½
A	Batley ..	Yorkshire	1 8	1 3½
B	Bedford ..	E. Counties	1 6	1 1½
A₂	Berwick-on-Tweed	N.E. Coast	1 7	1 2½
A₂	Bewdley ..	Mid. Counties	1 6½	1 2
B₂	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
B₂	Bognor ..	S. Counties	1 4½	1 0½
A	Bolton ..	N.W.Counties	1 8	1 3½
A₂	Boston ..	Mid. Counties	1 6½	1 2
B₁	Bournemouth	S. Counties	1 6	1 1½
A	Bradford ..	Yorkshire	1 8	1 3½
A₂	Brentwood	E. Counties	1 6½	1 2
A	Bridgend ..	S. Wales & M.	1 8	1 5½
B₂	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
B₂	Brixham ..	S.W. Counties	1 4½	1 0½
A₂	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
A₂	Burton-on-Trent	Mid Counties	1 7	1 2½
A	Bury ..	N.W.Counties	1 8	1 3½
A₂	Buxton ..	N.W.Counties	1 6½	1 2
B	CAMBRIDGE	E. Counties	1 6	1 1½
B₂	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
B₂	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
B₂	Chichester..	S. Counties	1 4½	1 0½
A	Chorley ..	N.W.Counties	1 8	1 3½
B₂	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
A₂	Crewe ..	N.W.Counties	1 6½	1 2
A₂	Cumberland	.....	1 6½	1 2
A	DARLINGTON	N.E. Coast	1 8	1 3½
A	Darwen ..	N.W.Counties	1 8	1 3½
B₂	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
A₂	Driffield ..	Yorks	1 6½	1 2
A₂	Droitwich..	Mid. Counties	1 6½	1 2
A₂	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 8	1 3½
A	Durham ..	N.E. Coast	1 8	1 3½
B₁	EASTBOURNE	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
B₂	Exmouth ..	S.W. Counties	1 5	1 1
B	FELIXSTOWE	E. Counties	1 6	1 1½
A₂	Filey ..	Yorks	1 6½	1 2
A	Fleetwood ..	N.W.Counties	1 8	1 3½
B₂	Folkestone ..	S. Counties	1 4½	1 0½
A	Frodsham ..	N.W.Counties	1 8	1 3½
B₂	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
A₂	Goole ..	Yorkshire	1 7	1 2½
B₁	Gosport ..	S. Counties	1 5½	1 1½
A₂	Grantham..	Mid. Counties	1 6½	1 2
A₂	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
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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
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
A₂	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
A₂	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
A₂	Lichfield ..	Mid. Counties	1 6½	1 2
A	Lincoln ..	Mid. Counties	1 8	1 3½
A	Liverpool ..	N.W.Counties	‖1 9	1 3½
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
A₂	Malvern ..	Mid. Counties	1 6½	1 2
A	Manchester	N.W.Counties	1 8	1 3½
A	Mansfield ..	Mid. Counties	1 8	1 3½
B₂	Margate ..	S. Counties	1 4½	1 0½
A₂	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
A₂	Middlewich	N.W. Counties	1 6½	1 2
A	Monmouth	S. Wales & M.	1 8	1 3½
A₁	S. and E. Glamorganshire Morecambe	N.W. Counties	1 7½	1 2½
A₂	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
A₂	Northampton	Mid. Counties	1 8	1 3½
A	North Staffs.	Mid. Counties	1 7	1 2½
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
A₂	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 3½
A₂	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
A₂	Retford ..	Mid. Counties	1 6½	1 2
A	Rhondda Valley	S. Wales & M.	1 8	1 3½
A₂	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
A₂	Rugeley ..	Mid. Counties	1 6½	1 2
A	Runcorn ..	N.W. Counties	1 8	1 3½
A₂	ST. ALBANS	E. Counties	1 6½	1 2
A	St. Helens..	N.W.Counties	1 8	1 3½
A	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
A₂	Shrewsbury	Mid. Counties	1 6½	1 2
A₂	Skipton ..	Yorkshire	1 7	1 2½
B	Slough ..	S. Counties	1 5½	1 1½
A₂	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
A₂	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
A₂	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
A₂	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
A₂	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

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.

* 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.*

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 lintols, 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.*

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.*

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.	21	10	0
DO. *headers, per M.*	21	0	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	12	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, ½ in., 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.*

Portland Stone:			
Whithed, per ft. cube	£0	4	7
Basebed, per ft. cube	0	4	8
Bath stone, per ft. cube	0	3	9
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super.	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.

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 18s. 0d. 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.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):			
7×3, per std.	£21	0	0
11×4, per std.	31	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, 1¼ 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., 1¼ in., per ft. sup.	0	3	0
DO., DO., moulded b.s., 2 in., per ft. sup.	0	3	9
DO., DO., DO., 1¼ 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	
STAIRCASE WORK, DEAL:			
1 in. riser, 1¼ in. tread, fixed, per ft. sup.	0	3	6
2 in. deal strings, fixed, per ft. sup.	0	3	9

PLUMBER

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

Lead, milled sheet, per cwt.	£2	3	0
DO. *drawn pipes, per cwt.*	2	4	6
DO. *soil pipe, per cwt.*	2	6	6
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	10	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, 1s. 9½d. *per hour (plus allowances in London only);* LABOURER, 1s. 4½d. *per hour.*

Chalk lime, per ton	£2	11	0
Hair, per cwt.	0	18	0
Sand and cement see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	8
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, ⅛ 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, 1s. 8½d. *per hour.*

Glass: 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 1s. 6d. to 2s. 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, 6½d. to 8d. per ft. according to size.			

DECORATOR

PAINTER, 1s. 8½d. *per hour;* LABOURER, 1s. 4½d. *per hour;* FRENCH POLISHER, 1s. 9d. *per hour;* PAPERHANGER, 1s. 8½d. *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
Double size, 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, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SMITH

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

Mild steel in British standard sections, per ton	£12	10	
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, 1/32 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, 1/4 in. punched per M. grey	17	0	0
DO., *red*	19	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	3½
¼ m/m figured ash, per ft. sup.	0	0	5
4½ m/m 3rd quality composite birch, per ft. sup.	0	0	1½