THE ARCHITECTS' JOURNAL

Wednesday, August 8, 1928

A DREAM COME TRUE

THE threatened collapse of the most beautiful bridge in London is to lead to the demolition of the ugliest. This is the upshot of the historic decision taken last week by the London County Council, who agreed to the proposals of the Ministry of Transport for the building of a new road bridge at Charing Cross, the removal of the existing railway terminus of the Southern Railway in the Strand to the site now occupied by the Lion Brewery, and the formation of an embankment and gardens on the southern bank.

If Rennie's masterpiece, Waterloo Bridge, had not been found to be defective we might easily have had to wait another twenty years for such a comprehensive decision. Thus out of evil good has come. Architects and all those who have any regard for the beauty and the amenities of the capital city of the Empire must, indeed, take some pride in the rapidity with which this matter has been dealt with, when it is remembered how many are the conflicting interests and authorities concerned.

It is interesting to look back five years and, amid the welter of conflicting arguments, to try and see clearly the various stages. In 1923 most of the readers of THE ARCHITECTS' JOURNAL were in agreement that the railway bridge at Charing Cross, so unsightly and grim, was an insult to the dignity of London. We had dreams of a new bridge linking up the West End with a replanned south bank. We had visions of a London like Paris, with the two sides of the river each contributing their own particular beauty to the capital, and every time we journeyed to Waterloo we felt a certain shame at the contrast between the broad streets and luxurious shops of the north bank, and the poverty and grime of the south across the bridges. But there seemed little hope that in a post-war impoverished London our dreams could ever come true.

Then one morning we read that Waterloo Bridge might have to be closed to traffic. The wildest rumours spread, and columns were written in every daily paper on the serious problems created, owing to the settling of one of the piers of the bridge, and the possibilities of the damage being considerably extended. Engineering experts were immediately called in, and their verdict was that Rennie's bridge was to be demolished and a new modern bridge constructed in its place.

The architectural profession mobilized, and such was their power in influencing public opinion that the Prime Minister appointed a Royal Commission under Lord Lee. With commendable speed this Commission issued a report, and wisely took a broad view of the problem of London's bridges. The Ministry of Transport were critical of the Royal Commission's proposals, and put forward alternative suggestions. They were against a double-deck bridge and in favour of a road bridge. Further, they proposed the transfer of Charing Cross railway station to a new site on the south side opposite the main façade of Waterloo Station. But this recommendation provoked opposition from the Southern Railway, and as a result the scheme was further modified. We then come to the third scheme—the proposed removal of the new station to a site on the west of Waterloo Station where a frontage of 500 ft. will be given on the river, and it will be 600 yards closer to the Strand than under the scheme put forward by the Ministry of Transport.

This third scheme is in the main favoured by the L.C.C. It will cost at least £11,930,000, and the L.C.C., who are already aware of the heavy burdens cast upon the ratepayers, have only accepted it on the express condition that their liability is limited to the sum of £3,219,000. The Road Fund will have to pay any excess on this estimate. There will be several more stages to be reached before any definite action is taken. The next step is to obtain the approval of the shareholders and passengers of the Southern Railway. No less than 38,000 passengers travel daily to and fro at Charing Cross Station, and many of them may find the south bank far less convenient. But this is a minor consideration compared with the far-reaching effects of this great scheme to replan the centre of our capital, and to build a new embankment. It is hoped that without delay the finest town-planning brains in this country will be consulted in order that all the possible results of this reconstruction may be thought out in advance. We do not want to spend £12,000,000, and then find that we have only manufactured new problems to be solved by future generations. If only the Greater London Joint Town Planning Committee were a stronger body, their help would have been invaluable, but we trust that in any case they will be fully consulted.

For architects the scheme presents many points of interest. The bridge itself—will it be worthy of London? The new Embankment on the south side and the lay out of the gardens—will these be planned to an official and unimaginative pattern? The Southern Railway is to have a great chance of constructing a modern railway station, and probably the finest and most up-to-date hotel in this country on their new frontage. Are we to witness a tragedy of missed opportunities, or replanning that will make our generation famous in architectural history?

NEWS AND TOPICS

THERE is much misunderstanding regarding the possibilities of a further reduction in the subsidy given for houses. I am glad, therefore, that Mr. Neville Chamberlain a few days ago made it perfectly clear that he had no intention of making any reduction in the subsidy in regard to houses completed before the end of March next year. With that promise the local authorities, and builders interested in the speculative erection of small houses, should have no difficulty in making up their minds whether to proceed or not. In any case the figures show that the rate of building is increasing each month. There is no serious diminution in the number of houses authorized to be built by local authorities. The number of those authorized on July 1, 1927, was 96,674, and at the beginning of last month 85,298. Prices, too, are steadily falling. The average price, for example, of parlour houses included in contracts let by, or in direct labour schemes of, local authorities last June was £426 as compared with £481 a year before. These prices exclude, of course, the cost of land and developing. In the same period the corresponding average price for erecting houses without parlours fell from £425 to £356.

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Several English housing reformers who attended the Housing Congress at Paris last month have come back extremely disappointed. There were many carefully prepared papers read, more or less audibly, by the representatives of the various nations, and these were followed by animated discussions. But the upshot of a week's talking was the passing of a resolution that working-class housing should be subsidized by the Governments of every country concerned. This surely was an inadequate resolution to represent the combined wisdom of the most progressive housing reformers in Europe. Could they not agree on even one constructive proposal?

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Another weakness of the Congress was that the members were "billeted" in various hotels, and had no common meeting-place where they could meet each other and talk over particular problems. Various housing schemes in the neighbourhood of Paris were visited, but the general conclusion was that in layout and in management they were very inferior to municipal estates in Great Britain. For example, in one garden suburb outside Paris, that is supposed to represent the high-water mark of post-war housing, there was only one narrow carriageway as an entrance, leading to a village green. This was let out during the summer to travelling showmen who were allowed to erect upon it roundabouts and rifle saloons. The employees lived either in caravans or were taken as lodgers into the surrounding houses, and overcrowding was bad.

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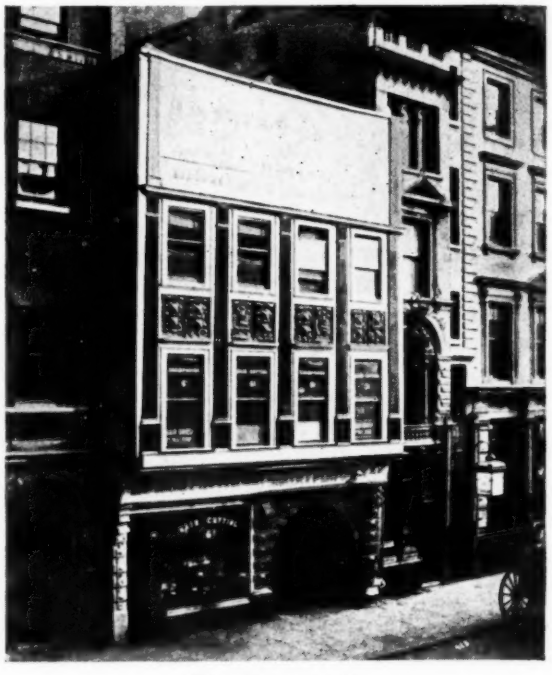
No. 17 Fleet Street is one of the sights of that historic thoroughfare; for not only is it associated with the Crown in the past, but it possesses decorative adjuncts of a specially interesting character, and it remains now the oldest domestic structure in the street. The little photo here given shows it as it used to be before it was taken over



The entrance to the Temple, Fleet Street.

and made a show-place by the L.C.C. and when the curious legend—based on what foundation it is difficult to say—associated it with Cardinal Wolsey. It stands on the site of an ancient hostelry known as the "Hande," which appertained to the Templars. In or about 1610 the present structure was put up; and some five years later a room here, with a beautifully decorated plaster ceiling and other Jacobean embellishments, was allocated to the use of the Duchy of Cornwall. Hence it was known as Prince Henry's Room. The whole place has been carefully restored, and now carries one's mind more easily back to the days when "England's Darling" held deliberations here with the council of his Cornish estates than to that later day when it was known as the "Fountain Tavern," or that still later time when Mrs. Salmon (the forerunner of Madame Tussaud) had her waxworks here, after they had been removed from the opposite side of Fleet Street. Not only is this little photograph interesting in itself, but it will recall what No. 17 Fleet Street looked like before the L.C.C. took it in hand and rehabilitated it.

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Last week-end the Prince of Wales and members of the British Legion made a pilgrimage to Ypres. I was in the town ten days ago, and wandered about the streets studying the architecture and the rapid reconstruction of a town that I had known too intimately in 1915, in 1917, and where I spent some hours on Armistice night, 1918. Of

course, by then it was almost completely destroyed with the exception of the cellars. The rebuilding has been rapid, but I thought showed a certain lack of imagination and foresight. Here was the chance to lay out an old town that suffered from narrow and inconvenient streets on modern lines and make it an example to the world of Belgian vision in town planning. But probably the difficulties of dealing with a number of very small property owners made such a scheme impracticable, and thus the houses are built on the old foundations. The reconstructed Cathedral is almost complete, but the Cloth Hall is still left in ruins as a memorial of the efficiency of the German bombardments. A prominent Belgian official told me a curious fact regarding Ypres. He stated that they had overbuilt, and that more houses had been provided than were actually needed by the population. During the summer the available accommodation was needed largely for British visitors, but during the winter many houses are almost deserted. There is also a very marked slump this year in the number of visitors to this interesting locality.

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Artlessness is all very well, but when it is practised artfully it is not so well. I imagine that the artlessness of the pictures at the Lefèvre Gallery by Winifred and Ben Nicholson were conceived artfully to meet a demand for artlessness. There must be a vogue for these childish exercises in graphic, but that they represent the whole accomplishment of their respective fabricators I can hardly believe. There is a difference between the primitive and the sophisticated which can hardly be reconciled, but was nicely illustrated at this exhibition. The pottery of Staite Murray, of which there were many pieces, is, in spirit, primitive, but it is not artless, for its technique is admirable. It is not even quaint or amusing, or at any rate not amusing enough to minister to the crude needs of the ignorant artless. Staite Murray's pottery is sound in its stoneware principle, and in its tradition. Pottery is almost as old as any other of the crafts; it may be, and it has been, as beautiful as any of them. It cannot make its claim to distinction by freakishness, and that is why, while Chinese porcelain is often supremely beautiful, it degenerates the moment it strives after abnormalities. Every ceramic school is the same today as yesterday, and while really fine earthenware and porcelain are being made today the extravagances of the Vienna school, say, are to be deprecated. It was refreshing to find, at any rate, that English stoneware still maintains its traditional perfection of workmanship and design.

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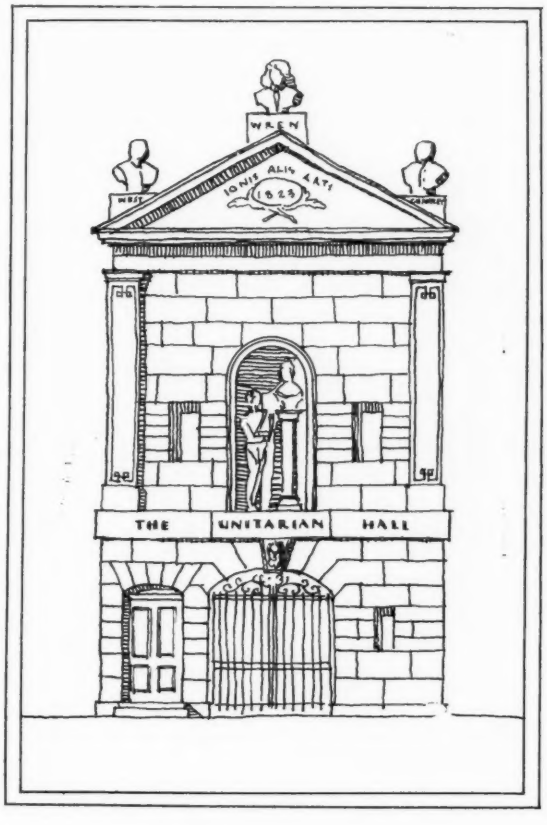
THE MASTER ART

Arrival at Carlisle at 6.30 a.m. gave one time for a stroll before the work of the day began. The cathedral was not yet open, so that one could not renew acquaintance with its flexed arches, the eccentric marriage of the roof apexes of nave and choir, at the crossing; or recapture one's original wonder on observing that the upper part of the walls of the nave was older than the lower. Strolling on, one came to the barracks, standing on the old walls; and turning to the right, towards the public gardens by the river, one's attention was drawn to the curious building wedged in a terrace of small houses, a rough sketch of which accompanies this note. The fact that it was in the classic manner and of white stone, in contrast to the prevailing red sandstone, made it notable, despite its inconspicuous size; but what attracted me most was to see, crowning the pediment, a bust of Sir Christopher Wren, in full wig, flanked on either side, lower down, by the rather bald



heads of Benjamin West, P.R.A., and Sir Francis Chantrey. Beneath was inscribed the motto " Ionis Alis Arti," and the date 1823. Whatever the alcove below — which incidentally forms the central feature of the façade — originally contained, it now displays a bust of a youthful Queen Victoria, by the side of which stands a curly-headed youth, presumably Albert, gazing at his Queen with adoring eyes.

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It is an interesting speculation as to whether the male figure does represent Albert. There is no likeness and no moustache. Can the group have been composed when first Victoria came to the throne, and the male adorer be an allegorical figure representing the husband that was to be? At present the building appears to be used as a Unitarian hall (despite the trinity of art which crowns the pediment). Originally it must have been the meeting place or gallery of the local art society, and therefore it is interesting to note that, by placing Wren at the top, they appear to have recognized architecture as the Master Art.

ASTRAGAL

THE IMPORTANCE OF GOOD LETTERING

[BY NATHANIEL LLOYD]

I SOMETIMES wonder whether draughtsmen realize how much the attractiveness of drawings suffers through the lettering on them being indifferently good. I had almost written indifferently bad, but there is no need to exaggerate the decay of good lettering. I have before me drawings made for an important competition, the appearance of which suffers (I should judge) at least 10 per cent. by reason of the mediocrity of the lettering: and the neglect of this feature of drawings was carried so far on a working drawing published recently that the draughtsman had written all his wording in cursive hand, which was not even an elegant cursive. No doubt there are architects who have attained such an eminent and assured position in their profession that they can afford to ignore such details; but, so far as my observation goes, it is not they who err most, but the men who are struggling to climb the ladder of success, and who seem convinced that they can afford to concede points to their competitors in this branch of their work.

There is another class which, either from lack of knowledge or lack of perception, seems unable to appreciate good lettering or to reject bad, and the fruits of their labours are perpetuated only too often in lettering on memorial tablets, facias of buildings, and in other permanent positions. No doubt there is such a thing as "invincible ignorance"; but, more frequently, the cause of these errors lies in bad standards set up in textbooks, written by persons having reputations as authorities in matters of design, but who are actually blind leaders of the blind. I have one fat volume of this kind before me as I write, which has passed through several editions, but which contains more examples of bad lettering than it does of good ones. What is the poor student to do who has to drink waters so polluted at the source? Here is a list of some of the faults:

Illegibility. The unpardonable sin, an example of which is illustrated in figure one. Imagine a foreigner trying to decipher it.

Irregularity. Sloppy work.

Bad proportion. This should not be too difficult to avoid in lettering.

Malformation. Flats in curves and elementary faults. Figure two illustrates: *a*: Common malformations, bad proportion, and clumsy serifs; *b*: the same word in well-proportioned and properly-shaped letters.

Bad spacing. This usually arises from the utterly wrong belief that the spaces between letters should be equal. The fallacy is exposed in figure three, where the word "tracing" is drawn first incorrectly and then correctly.

False originality. This fault is common to all design, and seems to spring from the desire to express oneself (and, incidentally, to "cut a dash"), which is so strongly implanted in the ungifted and undeveloped mind.

Mixed founts. To mix two founts or to mix upper and lower case letters are such egregious blunders as, almost, to seem impossible, yet they are not infrequently to be seen.

All these, and many other faults, should be avoidable, for abundance of good models exist. It would be difficult to imagine more beautiful lettering than that on the base of the Trajan Column and on the Arch of Titus in Rome, or upon the tombs and over doorways of the Italian Renaissance. The observant traveller must be struck by the quality of utilitarian, modern lettering (almost always well-proportioned and elegant) in Italian towns as seen in the names of streets, public notices, and on shop facias; perhaps because the Italians have had before them an unbroken succession of good examples and are endowed with such taste as not to be tempted to indulge in the designing of "original alphabets."

Figure one.

Figure two.

TRACING TRACING

Figure three.

Happy Italians ! No bad examples to vitiate good taste.

Unhappy English ! Puzzled to distinguish good models from amongst the bad ones sanctioned by "authority."

Yet there *are* "just men," and the latest of these is a woman—Mrs. Martin Buckmaster—who has drawn three charts of lettering, which have been issued recently by the Sylvan Press, Sylvan Grove, S.E.15. These are published in two sizes, both printed in dense, sharp black on Japanese vellum paper. For hanging on the wall of an architect's drawing office or in a classroom the sheets are 40×30 in., and the price of the set of three is 10s. 6d., post free. Students' sheets, measuring 10×7 in., cost 2s. 6d. the set. The charts are:

1. Roman caps.
2. Lower case and numerals.
3. Italic caps, lower case, and numerals.

I hope neither the talented draughtswoman nor your readers will think me impertinent if I venture to draw attention to certain features of such lettering, all the good ones being embodied in these charts.

May I point out that in graceful Roman capitals the majority of the letters are practically squares, the exceptions being B, E, I, J, L, P, and S, which must be slender. One of the commonest faults of the beginner, and of many who are not beginners, is to reverse these proportions. The thickness of strokes is also important. A graceful letter will be found to have a thick stroke of width equal to about one-eighth of the whole height of the letter, and its thin stroke approximately of width of about five-sixteenths of that of the thick stroke.

In the circular letters, the thick stroke should be increased slightly in its thickest part, because if this is not done it will look thinner than it does in the straight strokes.

All circular letters—C, G, O, Q, and S, should be drawn very slightly above and below the lines, to correct the optical illusion that they are of less height than are the straight letters.

In drawing italics a set square of 67½ deg. will be found to produce a pleasing slope.

With these reliable guides so easily to be obtained, is it too much to hope that we may see improved lettering in future, or that assessors of competitions may deal more stringently and critically with lettering proposed to be put on any structure? As for me, I think of forming a serious fraternity to travel the country in motor-cars (not barefoot, on account of the tarry roads) and to smash to atoms all works of bad lettering which may be found. Let sloppy designers beware !

ALLIED ARCHITECTS' ASSOCIATIONS IN THE UNITED STATES: ii

[BY HOWARD DWIGHT SMITH]

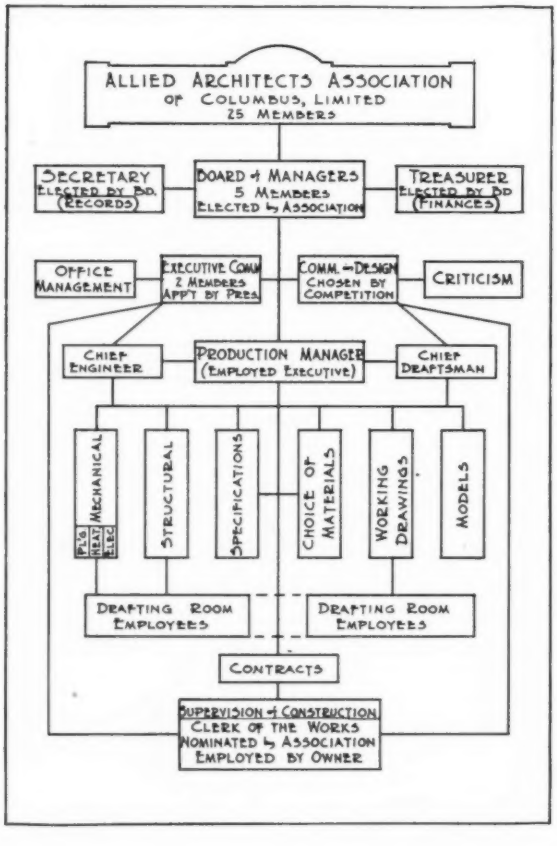
As most architects know full well, the general public is little acquainted with the details of retaining architectural service, and the relative merits of the schemes suggested by the Columbus Chapter, had little or no significance with the seven councilmen who were representatives of, and indeed fairly typical of, the general public. The advantages and disadvantages of the several schemes were of two kinds—those which were openly discussed, and those which were implied or inferred. The architects recommended the first scheme as the most direct and straightforward, suggesting the possibility of making the selection of some architect of national reputation and outstanding ability, and placing the responsibility for the wisdom of that choice directly on the shoulders of the peoples' representatives. The obvious disadvantage of this scheme, as far as the Council was concerned, was their acknowledged lack of confidence in their own ability properly to appraise the merit of possible choices, and their possible subjection to local criticism and annoyance if someone outside of the community might be selected. The implied and inferred disadvantage of the first scheme lay in the possible contest within the Council among the friends and proponents of rival candidates for the commission, and the apparently inevitable ill-will which would be felt by the large number of unsuccessful candidates.

To the layman the competition method of selecting an architect has a strong superficial appeal. By it he consciously or unconsciously perceives the opportunity of making a choice between several ideas, and, possibly behind a screen of personal judgment, makes a prejudiced choice in an attempt to avoid the unhappy results which might follow direct selection. The average layman, however, seldom realizes the attendant expense of carefully conducted competitions, and is only infrequently inclined to

submit his lay judgment and vested powers to be circumscribed by the rather severe restrictions which age-long and oft-repeated experience has proven must be made in the interest of architecture and society, as outlined by the requirements of the American Institute for the conduct of competitions.

Of the third scheme much may be said. The practice of having design and supervision of construction of civil architecture integral with the administration of a political unit has several advantages, chief among which is the opportunity for continuous and sympathetic study of the problems involved. When properly and efficiently administered such a development should reasonably be an economical measure. Its principal disadvantage is the possibility of making such a department a political football with the attendant uncertainty of artistic, structural, and executive policy. Other potential disadvantages are the possible artistic limitations placed upon such an organization because of lower remuneration scales than in private or commercial fields, and the almost inevitable tendency toward gradually lowering standards or increased costs when the stimulus of competitive practice is lacking. (In spite of these disadvantages it must be recorded here that throughout the United States there are many of the profession labouring constantly and unselfishly for comparatively low salaries, for political subdivisions, such as school districts, cities, counties, and States.)

With the advantages and disadvantages of the several schemes presented by the architects, Council eschewed all, and suggested that the Chapter itself make some collective arrangement for rendering complete architectural service. Analysis of this scheme suggests that it serves several desirable purposes. First, it provides an elegant gesture



in patronizing home talent. Secondly, it avoids the necessity of making an arbitrary choice among local practitioners of asserted equal ability. Thirdly, it makes a fair bid for public confidence, since the group of architects has generally been considered by the community as representing acceptable artistic standards and business integrity. Fourthly, it gives reasonable assurance of a building at least equal to the artistic average of the larger structures of the community, and fifthly, it places upon the group most likely to criticize architectural results, the responsibilities of producing desirable results. Furthermore, Council realizing that there were local practitioners who were not affiliated with the American Institute, requested that any scheme devised by the Chapter should make it possible to extend the opportunity to all architects in the community who might be qualified to participate.

The study of ways and means to accomplish the end sought by Council was referred to the Standing Committee on Public Improvements of the Chapter. Of the several things which presented themselves for consideration, four seemed to be of the most import.

The first was the lack of a corporate entity to which responsibility might be delegated through a definite legal contract. On the one hand, the Institute Chapter, being simply an unincorporated professional society, has no financial status except such as may be imputed to it by its individual members. On the other hand, there was no general inclination to subscribe to articles of incorporation for embarking upon a commercial venture where each incorporator might be individually liable, by law, for any or all indebtedness incurred by the corporation.

The second was the natural inertia, or rather unwieldiness, of a group, most of whom were properly interested in the artistic merit of final results, but among whom there was no established commercial or financial interest.

The third, and perhaps the most fundamental was the question as to whether or not it is ever desirable, or even possible, to distribute the paternity of artistic conception among a group. Experience seems to indicate that the best artistic creations have been brought to fruition through individual and very personal travail, and that the incentive of personal credit for successful creation, or of individual discredit for failure, is a necessary premise in all artistic endeavour. The desirability of avoiding impersonality in architecture has been alluded to in some of the national deliberations of the American Institute when the custom of continuing an established practice on the good-will and reputation of an individual architect after his retirement or death has been discussed. When scepticism was expressed by Council's legal adviser by asking the pertinent question: "When things go wrong, how can the group be effectively called to account?" he had in mind the age-old adage, "That which is everybody's business is nobody's business."

A fourth possible disadvantage to group activity was to what length the activities of such a group should extend, granted it might be successfully organized. If after having been created for a specific purpose, should the organization seek to continue its existence and justify itself by seeking further commissions, which might otherwise fall to the lot of the individual architect or private firm?

During the course of study on the part of the committee it was discovered that at Los Angeles, on the far western coast, a similar situation to that in Columbus had already been met, and that an organization known as the Allied Architects' Association of Los Angeles was already executing a public building commission. By rare good fortune the

Cleveland Avenue Sub-station, for the Columbus Fire Department.
By the Allied Architects' Association of Columbus, Ltd.

moving spirit of that venture, Mr. Edwin Bergstrom, then a National Director and now the National Treasurer of the American Institute of Architects, was enabled to step off in Columbus during the "incubation" period of the Columbus project in November and December 1923. The remarkable similarity of the two sets of circumstances and the enthusiasm of Mr. Bergstrom over the effectiveness of the Los Angeles effort since its inception gave the new project the encouragement and impetus it needed.

After a study of several peculiar requirements of Ohio laws governing incorporation and the formation of partnerships, during which it developed that a so-called "limited partnership" of not over twenty-five members could be formed which could execute legal contracts, but in which the financial liability of its members would be limited to the amount of their stock holdings, the committee on January 1, 1924, transmitted five recommendations to the Columbus Chapter. (The reason for the limitation to twenty-five partners seems to be an arbitrary vagary of the law for which reasonable explanation is lacking.)

The substance of the committee's report is as follows:

1. That a limited partnership association as suggested by the City Attorney be organized, separate and distinct from the Chapter, and that a form of organization statement suggested by the Ohio statutes, be used.

2. That the preliminary subscription list be open to all architects in Columbus who are members of the Institute Chapter, or whose architectural qualifications are such as to make them eligible to membership of the American Institute of Architects, it being understood that the only restriction shall be that of ability to meet the professional standards set by the Institute.

3. That the total capital stock be $5,000, and that the amount to be subscribed by each member be fixed at $200 to insure uniform interest and participation.

4. That five directors be chosen by the preliminary subscribers at a time to be fixed by the Chapter.

5. That by-laws somewhat similar to those adopted by the Los Angeles Association be prepared for adoption by the preliminary subscribers.

Following favourable action by the Chapter, a preliminary meeting was held at which thirteen of the twenty-five members were nominated and elected by the Chapter. At this point the Chapter relinquished its place in the picture and the thirteen original subscribers designated by it proceeded to complete the list of twenty-five and to prepare and adopt by-laws. The culmination of the efforts to effect an architectural organization to accomplish a definite purpose is well expressed in that section of the by-laws defining its objects and qualifications for membership.

The purpose of this Association is to provide, by professional co-operation and collaboration, architectural services for the design and construction of a City Hall for Columbus, Ohio, and for such other public buildings or improvements in Columbus and Franklin County which because of their civic importance seem to merit the efforts of a group of architects, and to perform such architectural service in such a manner as to advance the art of architecture and contribute to the public good. Any architect residing in Franklin County, Ohio, who, because of his ability and qualifications, has advanced the art and profession of architecture and thereby is especially fitted to render professional services for the public welfare, is eligible as a member of this Association.

[*To be continued*]

FASCIST ARCHITECTURE IN ITALY

[BY EDWARD CARRICK]

In Milano and Bergamo, in the province of Lombardy, there have just been built two new headquarters for the Fascisti, and the Lombards have good reason to be pleased with them, particularly with the Casa del Fascio in Milano. It has been built in the Via Nirone and covers an area of approximately 528 square metres. Both buildings are of particular interest, as they are among the first of their kind to be built in Italy, and so far no plans or photographs have been published of either of them. These Fascist headquarters are increasing in number all over the peninsula. In Italy, Government offices more often than not are simply beautiful seventeenth- or eighteenth-century palaces renovated and converted to the new use, the only sign to show the change being some decorative coat of arms placed above the doorways, and a policeman or a "blackshirt" at attention outside.

These Fascist headquarters have to serve many purposes, among them being a barracks, a restaurant, a club, and should contain a reading-room, a reception room, a lecture room, and staff offices. As the space allotted for these buildings is never very large, it is quite an interesting little job for the architect to work out the puzzle of meeting all these needs and at the same time giving them a semblance of beauty.

The architect has been very happy in the façade of the Milano building, in which he has followed the Classic

Fascist headquarters, Milan. By Colleoni. Detail of front elevation.

style as it was taught in the sixteenth century by Palladio and Serlio. In fact, the photograph reproduced here, with its hollow black windows, has quite the effect of the woodcuts in Serlio's famous books. One of the most interesting points about this façade is that it is in reality ordinary concrete moulded into shape, as was the case in most of the Wembley Exhibition buildings, only with the difference that here the whole has been beautifully finished off with the chisel. Concrete is now being utilized very extensively in Italy, where it would seem that it must be cheap; for it is even used to make fences, railway sleepers, and for hollow bricks, from which a vast quantity of the buildings are now made.

The architect in designing the Fascist headquarters in Bergamo, has been very lucky with the exterior of his building, though the photograph reproduced here does not do it credit. This type of building is very common in the provincial towns of Italy and shows what

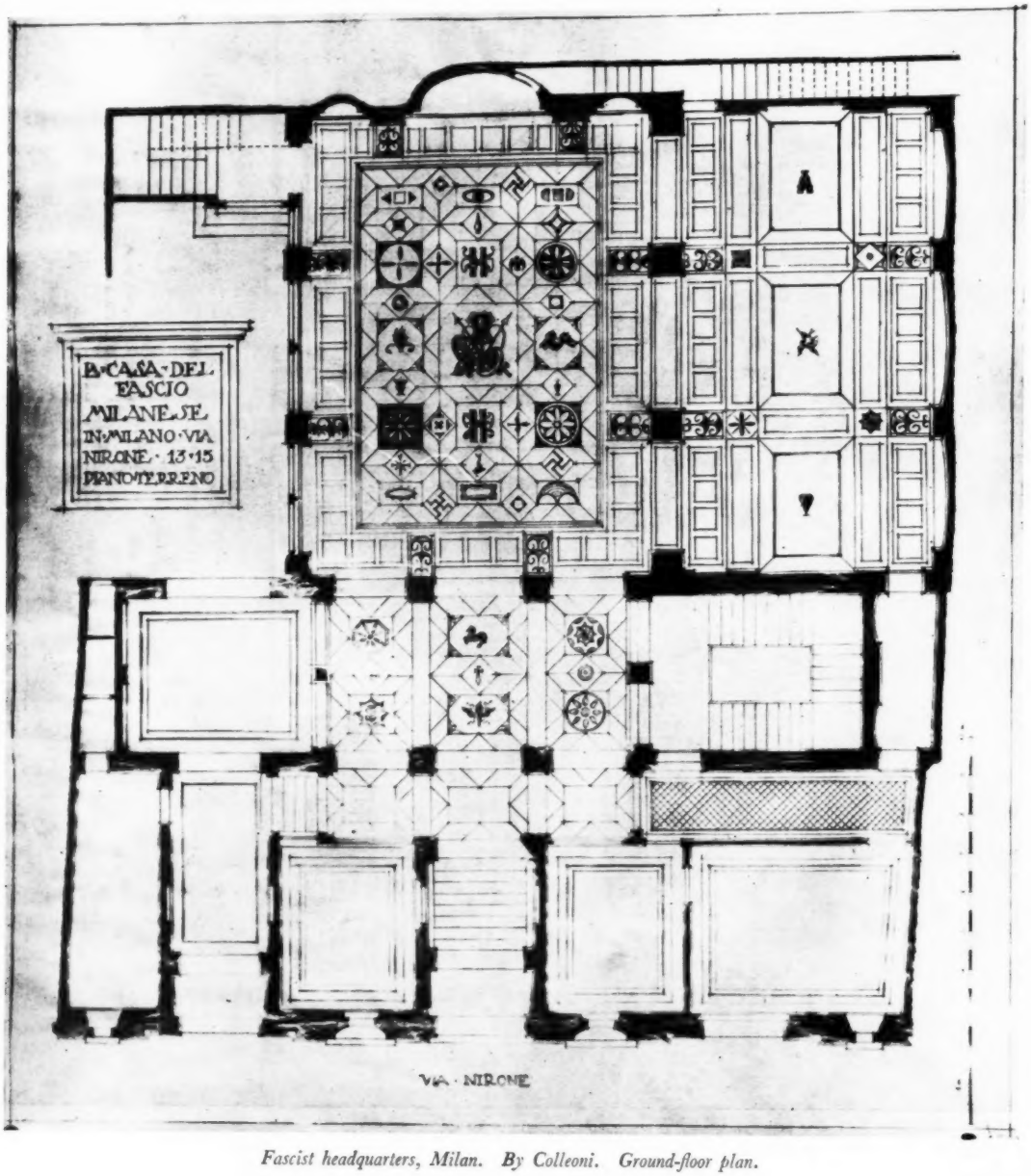
Fascist headquarters, Milan. By Colleoni. The main front.

an influence Piermarini's architecture still has on the modern Italian architect. Piermarini was the last of Italy's architects who really left his mark on the country before he died in the early nineteenth century; but his style has always struck me as being rather heavy, and there seems to be a tendency to heaviness in this building in Bergamo.

The niches above the four pilasters in the centre of the façade, however, have a very beautiful and light effect, and are different from the overbalancing effect made by the presence of the "fasci" above the four columns on either side. The balconies also seem rather clumsy, and I should think that the impression here is of too many balusters being compressed into such a small space.

The lecture room in the Casa del Fascio in Milano has been very well arranged so as to allow of a large number of people congregating to hear, if not see, the speaker. This room is placed on the second floor and is reached from the Via Nirone by mounting a few steps and passing through a hall with a mosaic pavement. On the right it communicates with a reading-room. The glass doors that divide the hall and reading room from the lecture room can at any time be thrown open, thus affording twice the amount of accommodation. The lecture room runs into the third floor, and on three sides is overlooked by a balcony. The decoration of the whole is very quiet in style, and except for the mosaic pavement on the second floor it rather lacks interest. In the reading-room, on the third floor, the patterns on the ceiling and the floor are identical. Otherwise the whole building is very harmonious in conception.

Since October 1922, when the Fascisti came into power, actual building in Italy has advanced with rapid strides. That is to say, public buildings of all kinds have sprung up everywhere in order to make life for the people easier, and



Fascist headquarters, Milan. By Colleoni. Ground-floor plan.

Fascist headquarters, Milan. By Colleoni. Above, entrance to the great meeting-room. Below, room of honour.

Fascist headquarters, Milan. By Colleoni. Room of honour, overlooking great meeting-room.

projects which were talked about years ago have at last been initiated. All over the country new arterial roads are being constructed, and in nearly all the principal cities improvements are being made with new roads to prevent the congestion of traffic from which Italy has always suffered, and with beautiful public buildings, such as schools, railway stations, houses for the poor, municipal buildings, etc. Everywhere one hears the chip of the mason's hammer and sees new and fantastic shapes constructed in reinforced concrete. Sometimes, especially in summer, one sees work going on as early as 4.30 in the morning, so that the heat shall not dry the concrete too quickly. Only one thing is to be regretted, which is, that with all this extraordinary energy, very few really beautiful pieces of modern architecture are to be seen. By this I do not mean that the buildings now being erected in Italy are without beauty. All show signs that Palladio has not been forgotten, and it seems that the Fascist regime has reawakened among the Italian architects a great feeling for the "pseudo-Classic," which was brought to such a point of perfection under Napoleon by Percier and Fontaine. But it seems a pity, while so much is being spent on building and so much enthusiasm is being shown about it, that when one compares what has been done in Italy with what has been done in Sweden, for example, one is forced to admit that Sweden is far in advance.

All these handsome buildings that are being erected in Italy today have no signs of revolution about them. They have nothing to show that they were not built a hundred or more years ago by Piermarini or any of the less famous architects of the "risorgimento," whereas the buildings constituting the Town Hall at Stockholm, the work of Ragnar Östberg, fill one with a sense of satisfaction. One feels that at least here stands something of which the twentieth century has reason to be proud in that it is perfectly original without forgetting any of the great traditions. Of course, on this point many differ. While I was travelling between Halle and the Hook I had occasion to talk with what seemed a very well-travelled American doctor. I spoke of the beautiful buildings in Sweden, but he did not seem to agree for he said: "You know I am not a conceited man, nor are the Americans a conceited nation, but I have been travelling all these last six months, and, in that time, have been to nearly every town in the world . . . and confidentially . . . between you and me, I can say that . . . there is not a single thing in any country can beat anything to be found in the States." With regard to Italy, one can only hope that political Fascism will soon die among the artists, leaving only the spirit, which will inspire them with great and original ideas. The Italian artist has always produced the most beautiful work under the sternest rulers, so it is to be expected that they will revive once more.

Private villas have also been springing up like mushrooms all along the Riviera and in other parts of Northern Italy, so that a little over a year ago a law was passed by Mussolini which prevented the construction of any more "Case di Lusso" because it was found that there were insufficient workmen to cope with the plans made by the Government to house the ever-increasing population of Italy. This edict, I believe, is still in force.

The latest report I have had from Italy is to announce great happenings in Rome, which city has just celebrated her 2,681st year, and in honour of the occasion many great public works have been opened, including a new air port, the most modern yet known, public gardens, fountains and schools. Among other gigantic projects which have been started at the same time are schemes for the emptying of Lake Nemi, which will bring to light the State barges of ancient Rome now lying at the bottom, the excavation of the Circus Maximus, and, greatest of all, the isolation of the Capitol, which will return to its original form on a bare precipitous rock, thus doing away with the slums that now surround it. All this shows that the modern Italians still love and do their best to preserve their ancient monuments. Let us hope that in doing so they will not forget that if they wish to be remembered in the ages to come, they in their turn must leave behind them still greater monuments than those left by their predecessors—monuments marked with originality, beauty and strength, proclaiming not a revival, but an advance.

Fascist headquarters, Bergamo. By Colleoni.

THE SOISSONS MEMORIAL TO THE MISSING

[BY HOWARD ROBERTSON]

To express an abstract idea in architecture is a most difficult thing. Behind the design of every war memorial lies such an idea, that of crystallizing in form a series of emotions and thoughts which are so intimate and precious that their expression is doubly delicate. The memorial is, indeed, a problem for the artist. Its purpose must be plain, yet its tale of purpose must be shorn of the trite phrases which are commonplace emphasis, the emphasis which offends because it presupposes that an appeal, to be felt, must be obvious. An ill-judged display of sentiment is an offence to finer feelings. In *Stalky & Co.* there is the incident of the bombastic public man who, after flavouring his address to the school corps with an oozy patriotic sentiment, ended by unfurling the Union Jack, an act which was greeted by the schoolboy audience with silence, not because the flag meant nothing, but because the boys were ashamed for the orator.

There are now innumerable examples of war memorials in every country concerned in the Great War, and in the design of all of them the intention is to do honour to the dead. Grafted on to this main theme are minor motifs, ranging from an attempt to wring the heartstrings on general grounds to a frank embodiment—amounting at times to glorification—of the military spirit. In another, and negligible category, are those memorials which are merely neat or clever design, with the purpose of the monument an afterthought. Generalities are dangerous. But in England the worst of our memorials run to an appeal to sentiment via familiar attributes—urns, and wreaths, and crosses; while in France the appeal is flamboyant. There is generally something of the cemetery in an English war memorial, in France there is nearly always something lyrical—"La Gloire."

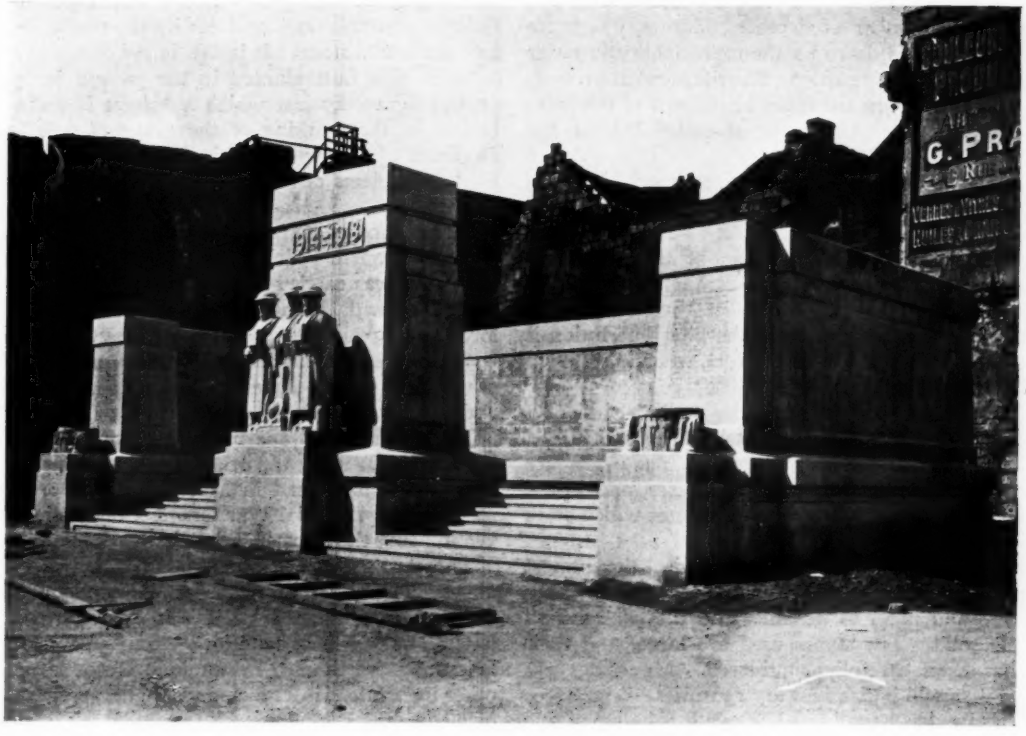
In the memorial at Soissons the designers have escaped the pitfalls which invite the application of a label. This design is certainly not beyond criticism; but it has achieved beyond a doubt the essential qualities of a monument designed for such a purpose. It has gravity, dignity, reticence; it contains no cheap sensations, its appeal is on a high plane; it is strong, and not sentimental, but it is not inhuman. And by its characterization of its main theme—the presentation of a group of three soldiers—it avoids the dangers of merely technical interest, and yet sidesteps what may have developed into an unworthy realism, for realism is not wanted. The minds and hearts of people to whom these memorials mean so much will never require a picture if the artist can realize in stone, not an image but a message. That message, we feel, is the finest part of the achievement in the Soissons Memorial. And, even did one not know the personality of those concerned in its design, one would believe that this aspect of their success was the result of a deep sincerity.

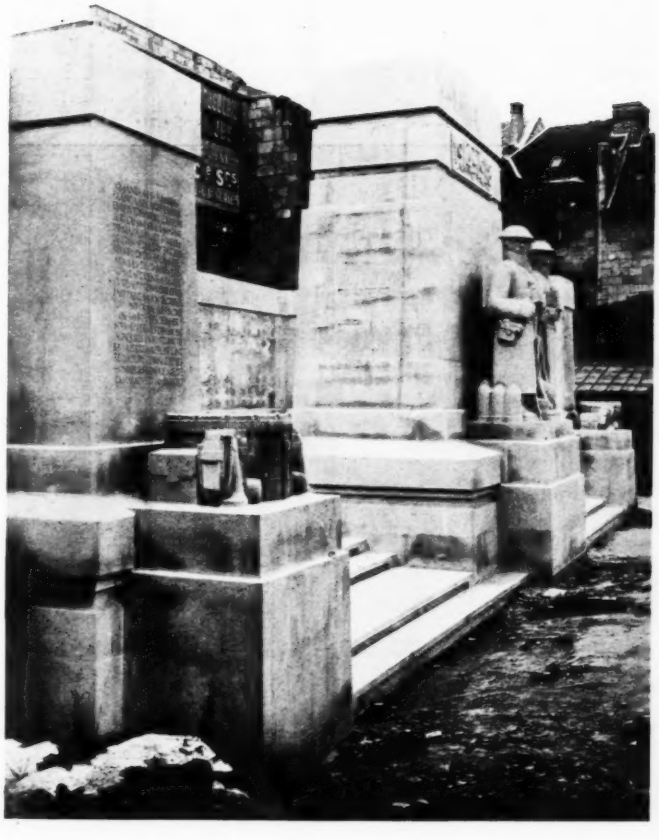
The character of the memorial is expressed in the treatment of the sculpture and the pylon. It is maintained throughout in all the details, so that the scheme has a unity which is very necessary considering the type of composition adopted.

Any criticism of the design, to the writer's thinking, is not connected with character or expression, but arises purely from a sensation of form and line. It translates itself into a sensation of slight heaviness and over-emphasis. It is difficult, without an examination of the memorial on the site, to attempt to analyse the causes. Perhaps this heaviness derives from the set-back and the dual channels of the centre pylon, and from the depth of the course which crowns the wall. There are certainly reasons for this emphasis in the demand which the site makes for a strongly horizontal composition, and it must also be pointed out that the presence of a hoarding has made an elevational photograph impossible, without which it is manifestly unfair to express opinions on such details.

The site is a small one, measuring but 60ft. by 30ft.

The Soissons Memorial. By V. O. Rees and Gordon Holt. The central group. By Eric Kennington.





The Soissons Memorial. By V. O. Rees and Gordon Holt.

On either side the ground rises rapidly, and around the memorial stand a number of derelict buildings, which are gradually being pulled down by the municipality in order to make room for a public garden. The site, even at present, has dramatic possibilities, for it lies in the axis of the principal bridge over the Aisne, the so-called "Pont des Anglais."

On this same line, behind the memorial, stands the church of St. Pierre, and behind this again the cathedral. This arrangement must be realized in order to understand the composition of the memorial, with its horizontal lines which avoid competition with the buildings beyond.

In respect of the memorial itself, the best description is contained in the words of Mr. V. O. Rees, who has supplied the following details:

"The idea of the space enclosed by walls is that of a sacred enclosure. On the three interior faces are placed the name panels (in Nabresina stone). The walls are terminated at each end by buttressing masses, and in the centre is a pylon 25 ft. high, on either side of which steps lead up to the platform.

"The memorial has been designed with the utmost economy of architectural 'motifs.' Seat, wall, and coping are as severe and plain as possible, and the construction is extremely solid. The stones used are large, and their bonding has been carefully considered. Mouldings are avoided, as they will perish in a few centuries.

"Walls and pylon have been built with a batter of one in thirty-two; all vertical external arrises have been rounded to a ⅜ in. radius, and the weatherings are sharp, about 20 deg.

"The central group is by Mr. Eric Kennington, who was assisted in the actual carving by Mr. Herbert Hart. Mr. Kennington allowed himself to be governed by the architectural conditions to an unusual degree, and the work is very balanced and symmetrical, though the two sides vary considerably in detail.

"The group was enlarged on the spot from a one-sixth full-size plaster model, and cut by the two sculptors direct into the actual stone. It is 8 ft. in height.

"The rifle butt planted in the ground in front of the central figure, against which a helmet is resting, is symbolical of the marking of the grave of a fallen soldier. In front of the wall terminals are carved drums and bugles, emblems of the 'Last Post,' the work of Mr. Allan Howes.

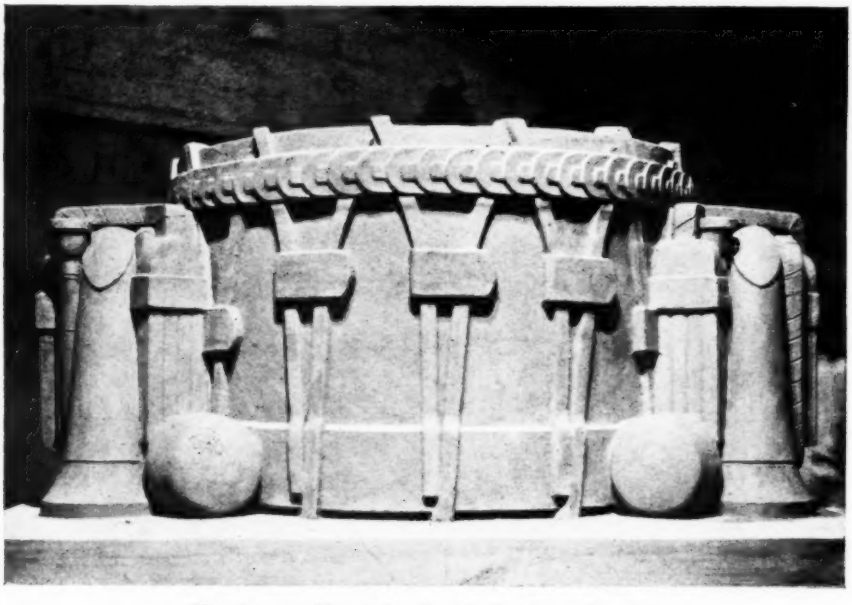
"The monument is entirely constructed of Euville stone of a warm yellow colour and with an open grain. The work was carried out by Messrs. W. Airey and Sons, of Leeds, with French labour directed by an English foreman.

"The cost, in English money, was only about £6,000, of which nearly a quarter has been expended on the group and the carved enrichments."

The execution of the memorial was closely supervised by Mr. V. O. Rees; the original design was the result of a competition organized in March 1925, among ex-Service men, by the Imperial War Graves Commission, Sir Aston Webb being the assessor.

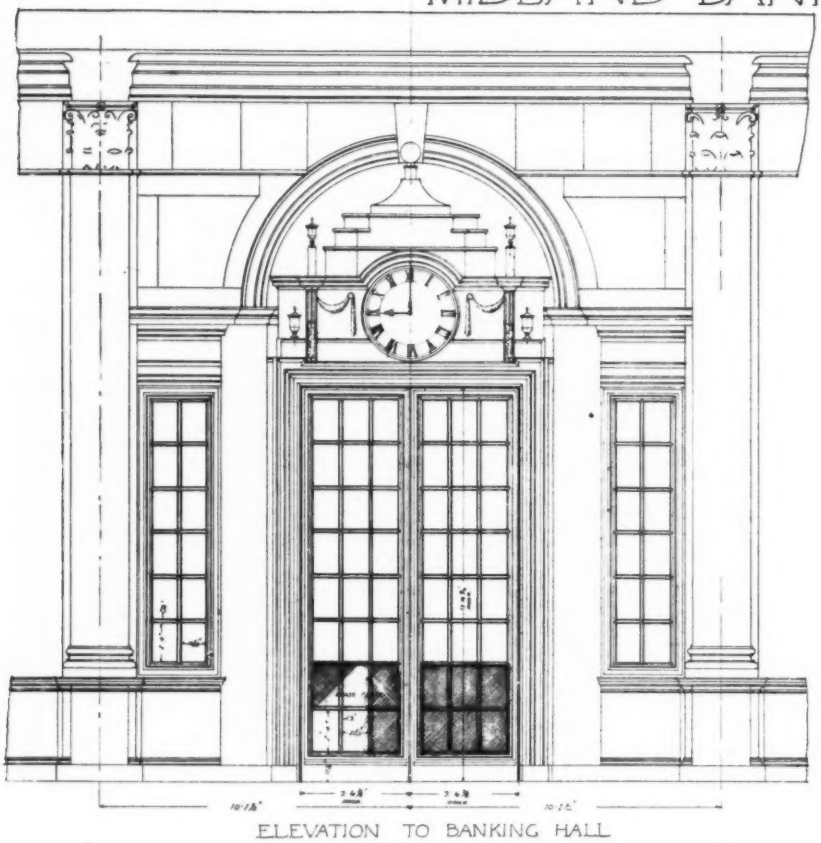
The purpose of the memorial, which was unveiled by General Sir A. Hamilton Gordon, is defined by two inscriptions, that on the rear wall is in French, in 8 in. block letters, and reads as follows: "Aux Armées Françaises et Britanniques l'Empire Britannique Réconnaissant." The other inscription, in French and English, records the names of 3,985 officers and men "to whom the fortune of war denied the known and honoured burial given to their comrades in death."

The design of such a memorial is a great privilege and a great responsibility. The architects and the sculptors who have collaborated in this monument at Soissons have been equal to their task, and have shown that English artists have gifts of sensibility and expression which can be revealed in a way which is both personal and national.



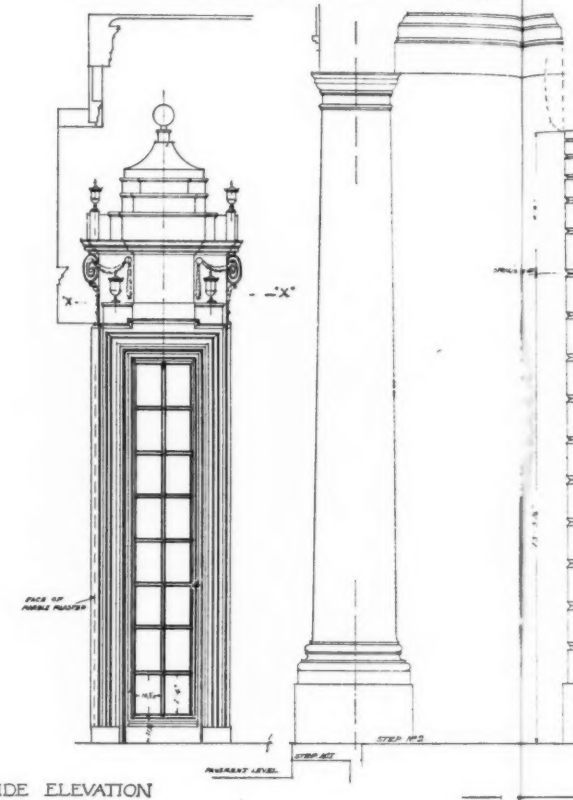
The Soissons Memorial. By V. O. Rees and Gordon Holt. The drum and bugles, one of the decorative attributes which flank the steps. By Allan Howes.

MIDLAND BANK. LIMITED NEW HEAD

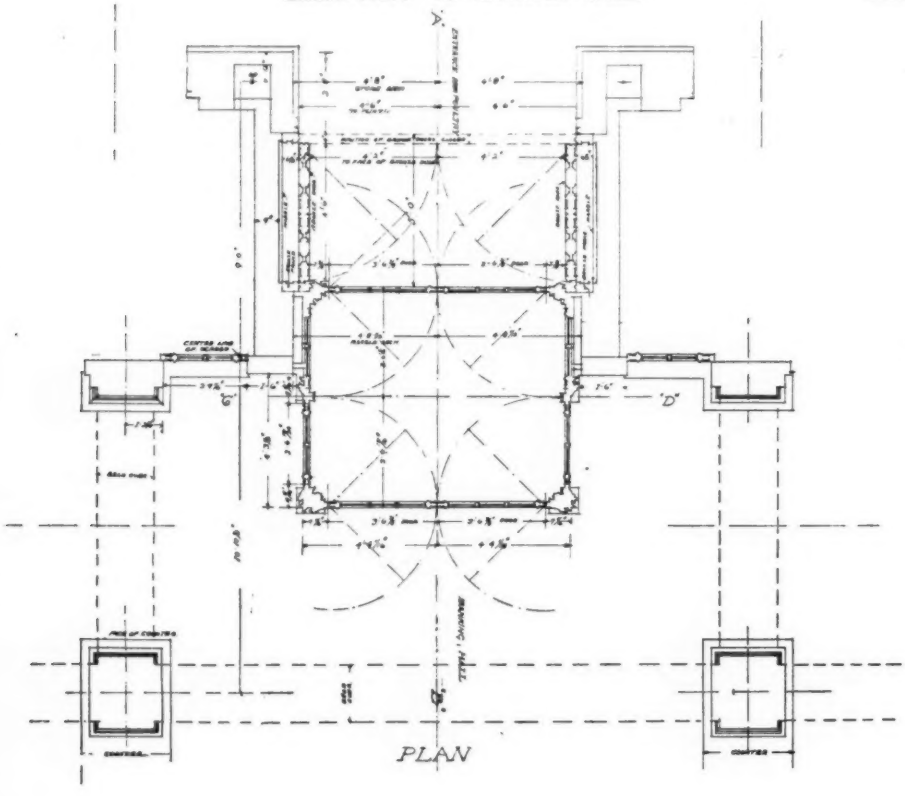


ELEVATION TO BANKING HALL

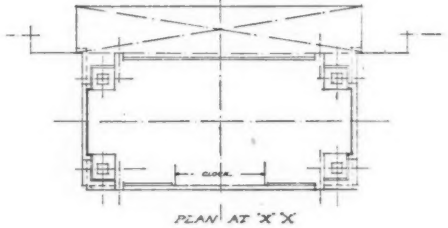
DETAIL OF ENTRANCE DOORS



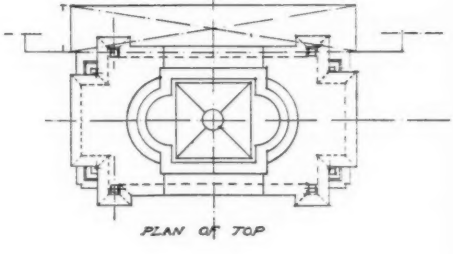
SIDE ELEVATION



PLAN



PLAN AT 'X' 'X'

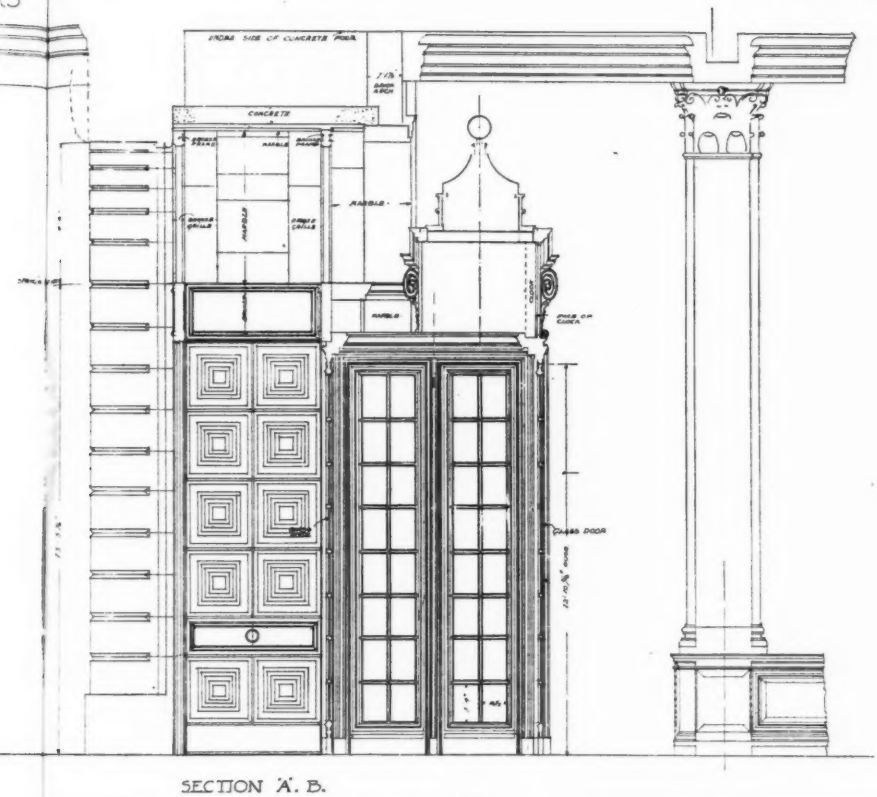


PLAN OF TOP

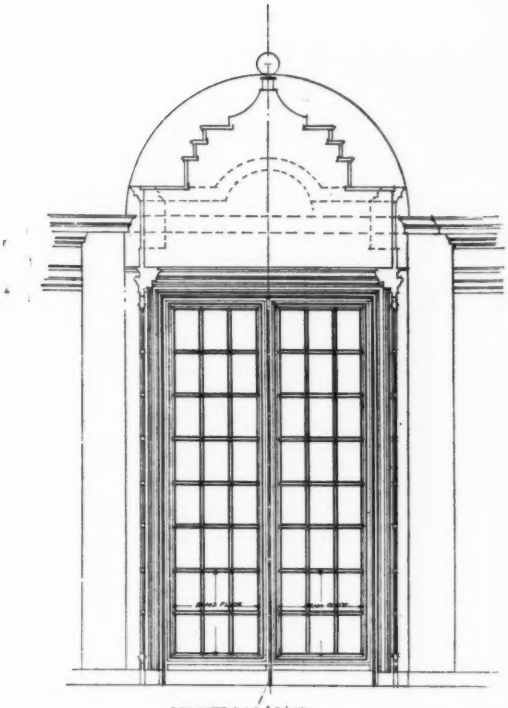
ELEVAT

HEAD OFFICES.

DRAWING No 256.



SECTION A. B.



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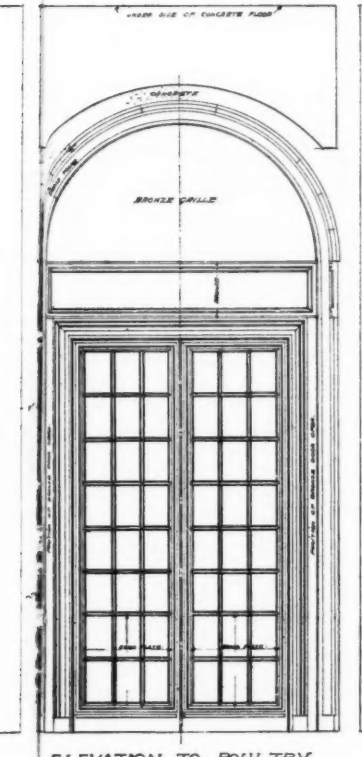
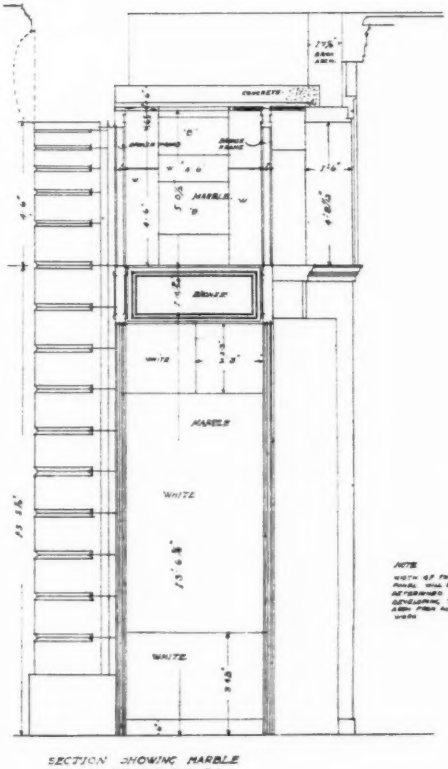
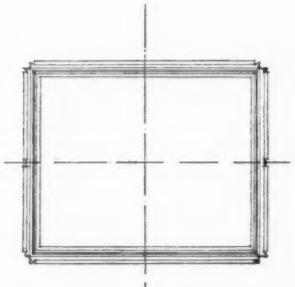


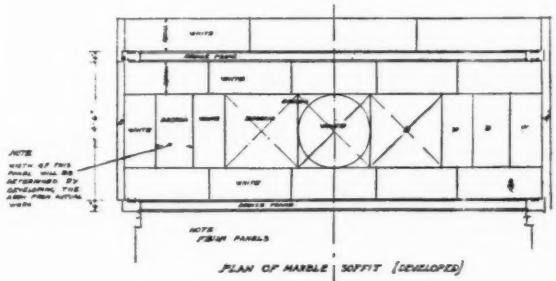
ELEVATION TO POULTRY



SECTION SHOWING MARBLE BEHIND BRONZE DOORS



PLAN OF CEILING TO ENTRANCE.



PLAN OF MARBLE SOFFIT (DEVELOPED)

THE MIDLAND BANK LTD., NEW HEAD OFFICES, LONDON, E.C. BY GOTCH AND SAUNDERS IN ASSOCIATION WITH SIR EDWIN L. LUTYENS. DETAILS OF THE ENTRANCE DOORS.

TAKING OFF QUANTITIES: ii

[BY ARTHUR J. WILLIS]

"SPOT ITEMS"

ORDER of "Spot Items." In works of alteration there are always certain items which cannot be properly priced by the estimator unless he visits the existing building, and these should be kept in a separate bill so that they are all conveniently together for him when he does so. The bill for this work must be so classified that the estimator can follow its meaning easily and with as little unnecessary walking about the premises as possible. In dealing with alterations to a building the taker-off should take each floor separately and each room as far as possible separately. Where there is no definite new addition to the building the measured work should be kept together with the descriptive items in each room, especially where this is of a "jobbing" nature, e.g. a new shelf here, a new length of skirting, or a new door there. This will give the estimator a better guide as to the value of the work than if the new pieces of skirting or new shelves were all collected together and billed in a separate joiner's bill.

Drawings for the Contractor. Where tenders are being obtained for alterations the architect should be persuaded, if possible, to supply each builder with a copy of the drawings. A copy available for inspection in the architect's office is of no use at all, a copy on the premises to be altered is of very little use, unless the estimator can take it round with him, and it is liable to get torn and dirty, and may even be taken off in error. Even supposing each builder has a copy of the drawings, the alterations may be so extensive as to make the existing building unrecognizable in parts on the drawings. It is, therefore, also often advisable to let the builder have a copy of the plans of the building as existing. All references in the "Spot" bill should be to the building as existing, each room being described by its name, or, if no names are shown on the drawing, a small key-plan should be included in the bill of quantities with each room numbered for reference purposes. In other words, the bill of quantities, together with such drawings as are supplied to the builder, must be sufficient for him properly to price the items. There is no excuse for omitting anything from a bill of quantities which affects price simply because it is clearly shown on a drawing which the builder can see at the architect's office.

Placing in "Spot Items" or Measured Bill. Where the alteration work is not the chief part of the contract, and all measured items are not billed with the descriptive items in each room, it is difficult sometimes to decide what shall be included with the "Spot" bill and what shall be put in the main measured bill. Take the case of cutting an opening in a wall and putting in a new window. There are, perhaps, many similar windows in a new addition which is also to be part of the same contract. It is therefore convenient to put the window, glass, etc., in the main measured bill. The cutting of the opening is obviously a "spot" item; what about turning the arch, facing the reveals, putting in the lintel? The best guide is to consider how much work is necessary before the contractor can proceed in just as straightforward a way as if he were dealing with a new building. In the case of cutting an opening, facing up jambs, turning arch, putting in a lintel and sill are evidently not so straightforward as in forming an opening in a new wall. However, the opening once formed, it is just as easy to fix a frame in an opening to an existing wall as to a new one, and the frame once fixed it is as easy to hang a door in either case. It appears, therefore, in the case of the window that the arch, reveals, lintel, and sill should be in the "Spot" bill, the window and its fixing, glass, ironmongery, and paint in the main measured bill. In the usual item, however, of "bed and point window frame" the words should be added "to existing opening," to point out that it cannot be built in as the work proceeds. Such items of lintel

Golf club house at Llancwym, South Wales. By Edward Rimmer.

and sill may, if preferred, be inserted in the main measured bill, provided the estimator's attention is drawn to the fact when he reads the "Spot" item, he can then allow for the extra labour involved in cutting out for these instead of building them in in the ordinary way.

Measurements with Descriptions. Where measurements are possible in the "Spot" bill they should be given to help the estimator, even though they are only approximate, e.g. in an item for pulling down one or more dividing walls the approximate area should be given. Where the thickness of a wall in which an opening is to be cut can be ascertained, it should be stated (unless obvious) to save the estimator making measurements round corners and in different rooms to find out whether it is 14 in. or 18 in. thick.

SOME NOTES ON EACH TRADE

These notes are obviously not exhaustive, but refer to such points as have occurred to the writer in practice and on a consideration of the "Standard Method of Measurement."

Excavator and Concretor

Disposal of Soil. The disposal of the soil, if on the site, should be carefully described. If possible it should be ascertained exactly where it is to be deposited. In any case, it is better usually to keep the disposal of the soil separate from the excavation; one item being "excavate for . . . and throw out," the other being "dig from spoil heaps wheel average . . . yards spread and level." It should be made clear though that this "dig from spoil heaps" is measured according to the cubical contents of the soil before the original excavation and not in the heaps. The total of the various items of disposal of soil should, of course, equal the total of the various items of cube excavation.

Grubbing up Foundations. The "Standard Method" requires grubbing up brickwork and concrete foundations to be measured in yards cube, often a very difficult thing to do as the surveyor cannot know the depth of old walls. Nor, indeed, can a contractor usually price with any accuracy a general covering item of grubbing up old foundations, etc. In most cases it would no doubt be found best to measure an approximate quantity for this work and mark it "Provisional."

Concrete in Foundations. Concrete foundations less than 12 in. thick, it will be seen, are to be kept separate. With some surveyors it is customary to bill these by the yard super according to their thicknesses on the same principle as concrete beds. The system of keeping these in yards cube ignores the rather larger proportion of labour in finishing the surfaces, though this is a comparatively small matter.

Concrete at Various Levels. A thing that is often overlooked is the separation of the concrete at various levels. This is not so important on smaller work, but on a big contract the hoisting of the concrete is a serious consideration and just as important as the item of extra hoisting usually taken for brickwork over 40 ft. high.

Concrete Casing to Joists. The "Standard Method" lays down that concrete in casing to steel joists should be given in feet run with the size. This seems to involve an unnecessary number of items when one item in feet cube (the unit on which in any case the estimator would calculate his price) would be better. The volume occupied by the steel in the joist is, of course, ignored, and the shuttering is measured separately. The same remark applies to concrete steps and staircases *in situ*.

Reinforced Concrete

Beams and Stanchions. The "Standard Method" requires the concrete in beams, stanchions, etc., to be billed per foot cube and classified according to their sectional area. This subdivision, together with the question of separate levels for hoisting, is apt to multiply the number of items considerably, and is one of those things excellent in theory, but of rather doubtful value in practice. There can be little, if any, difference in value between concrete in small or large beams at the same level.

Drains

Pipes. Stoneware drains must be measured in lengths divisible by 2 ft. Particular care is necessary with iron drains which are expensive in pipes, special fittings, and joints. The "Standard Method" fully describes the system to be followed.

Excavation and Concrete. Excavation and concrete for drain trenches may be described with the drain or measured separately. The latter method is often most convenient and saves repetition of the same item in connection with both stoneware and iron drains, also providing for such cases as two drains in the same trench.

Bricklayer

Deductions for Stone and Concrete. The deduction of brickwork for all stone, etc., over 3 in. thick is important. If this is neglected it mounts up on some contracts to an unexpected total. In the case of a steel-frame building, where all walls are supported on steel beams encased in concrete, walls should not be measured the full height of the building in one dimension when they come over each other, but the walls of each floor should be measured separately, bearing in mind that the steelwork and concrete casing are done first and the walls built afterwards and pinned up to the soffit of the beams.

Rough Cutting. The amount of rough cutting measured varies considerably with different surveyors. Some insert a clause that the brickwork is to include all rough cutting, and take this literally to mean rough arches, rough-cut splays, rough-cut rebated jambs, etc., expecting the builder to judge the value of these items from the drawings. This is not proper measurement, and should not be done except in very small and quite simple work. On the other hand, obviously all rough cutting cannot be measured. There is much done that is necessary for proper bond at quoins, openings, etc., and this cannot be measured except, as is done in some parts of the country, by measuring a run item of all quoins and reveals (for plumbing and extra cutting, etc.). The usual method, however, is to include all rough cutting necessary for bond and to measure all cutting which would not be necessary in plain square straightforward work, i.e. squints, birdsmouths, splays, rebates, arches, etc. It should be noted that a running item for a squint or birdsmouth includes a depth of 4½ in., and in thick walls therefore the intervening width should be supered as "rough cutting."

Brickwork on Girders. It is difficult sometimes to decide whether a certain wall should be kept separate as brickwork in raising on girders, or whether the void is merely an opening on the lowest story. No rule can be given; common sense alone can decide. The object of keeping such work and brickwork in raising on old separate is, of course, so that the contractor can add for the additional scaffolding, which is included in his price of brickwork, and must obviously be more per rod if the brickwork starts 15 ft. above the ground and he has to scaffold this void.

Thickening Walls. In the case of thickening to old walls the method of bonding should be definitely stated, e.g. "One brick thicknessing to old wall, including cutting out every fourth course for a depth of 4½ in. and extra labour and material in bonding," or ". . ., including cutting out pockets 18 by 12 in. and 4½ in. deep (one to every yard super), and extra labour and material in block bonding."

Chases. Small chases should generally be described as "cut chase. . .," not "leave chase. . ." It is found in practice that the exact position of chases for sub-contractors' work is often not settled until the brickwork has been built, so that the contractor cannot leave them. If they are described as "leave chase" a claim for an extra may arise. If they are described as "cut chase," and the contractor gambles on being able to leave them, that is his affair, and if he finds he can leave some all the better for him. Chases for floors can usually be left, as the exact floor level and thickness of floor are known when building the walls.

Holes in Walls. In the same way holes through walls should be described as "cut holes. . . ." The organization is seldom so excellent nor the details so complete that a contractor can leave holes for pipes in the correct position when building.

Building Overhand. It should be noted that when brickwork has to be built overhand, not only the item for the brickwork but also the facings on the far side must be so described.

Facings. An effort should be made to make all items of facings extra over common brickwork, and not to have an extra

over an extra, as would be the case if an item was billed an "extra over facings." Sometimes, however, this cannot be conveniently avoided.

Asphalt Tanking. In measuring asphalt tanking to a basement care must be taken that everything is measured which is necessary to make an effective waterproof lining. Stanchions coming through a basement floor need particular care, as does the joint between basement walls and adjoining foundations of such part of the ground floor story as has no basement.

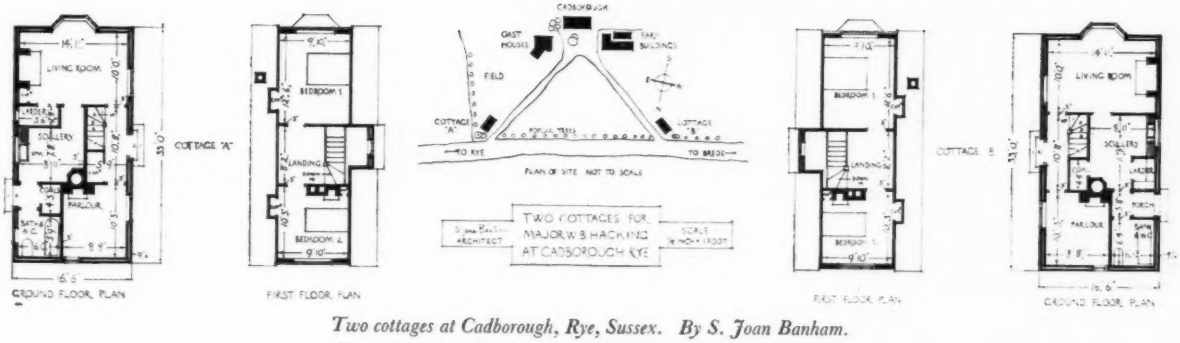
Mason

Stone and all Labour. The measurement of all labour on stonework separately is gradually giving way to a combined measurement of stone and all labour. Even then the full descriptions of all labour appear to be ignored, when, as is often the case, the whole of the stonework is bracketed together and priced at a single rate per foot cube. This is not so, however, because the price per foot cube is only reached by a consideration of the descriptions together with the drawings, and a study of the full descriptions is necessary to judge the proportion of plain or moulded work and the amount of elaborate or difficult work required.

Carpenter

Casing to Beams. The "Standard Method" lays down that casing to beams under 36 in. girth is to be measured per foot run stating the girth. The reason, no doubt, is that with the smaller beams the labour per foot super is more than in the larger. A large number of items of a similar nature like this only give extra labour to the estimator, and should, therefore, be avoided unless there is a definite advantage to be gained which cannot be gained in a simpler way. The estimator usually bases his price on the foot super, and a classification which would suit his purpose then would be to keep all casing in feet super divided into items, say, not exceeding 18 in. girth, 18 in. to 24 in., 24 in. to 30 in., 30 in. to 36 in., and above 36 in. girth. Beams, of course, must be kept separate from stanchions. Casings under 12 in. girth might be run as they would be to unusually small beams. It should be noted that allowance must be made in measuring for passings at angles, usually $1\frac{1}{2}$ in. for each angle.

Feather-edged and Weather-boarding. No mention is made in the "Standard Method" of feather-edged boarding to roofs or of weather-boarding to timber framing. These should be measured by the square and described either by the average thickness of the boards, the width being stated, or by giving the size from which



Two cottages at Cadborough, Rye, Sussex. By S. Joan Banham.
Above, west view of cottage "A." Below, plans of site and cottages.

two boards can be cut, e.g. "two out of 4 in. by 1½ in.," i.e. each board tapering from 1 in. to ½ in.

Joiner

Skirtings, etc. It will be seen that in measuring skirtings, rails, etc., internal and external mitres are to be kept separate. This is not so important in joinery as it is in plaster work, where the internal mitre necessitates a stop in running the mould. In joinery the cutting and fitting of an internal mitre differs very little from that in an external mitre. Irregular mitres, however, necessitate special setting-out in woodwork, whereas in plaster the angle is set out ready for the plasterer and the labour is little different from a regular mitre. In numbering short lengths to a break in a wood skirting or other moulding it must not be forgotten that twice the thickness must be added to the length of the break to give the necessary extra material for the internal and external mitre.

Window Boards. Where window boards are supered (over 9 in. in width) the moulding is to be included in the description. This seems to contradict the general principle that a running item cannot be included in the description of a super item.

Architraves. A similar contradiction of general principles occurs in the case of architraves, which are required to be billed in feet run, including two mitres to each set. If they are measured in this way presumably the number of sets must be stated, so why not enumerate the mitres instead? Some architraves in any case require more than two mitres to a set, e.g. round a borrowed light or trapdoor. It is simpler to measure a run of architraves and number all mitres. Fitted ends to architraves are often not measured, though there is no reason why these should not be measured just as much as to skirtings or picture rails. When a length of moulding is fixed one end only usually requires fitting, but it is usual to measure the labour to both ends.

Cross-tongued Joints. Although condoning the contradiction of general principles in the case of the window-board, the "Standard Method" states that cross-tongueing is to be measured separately. This is by custom usually included in the description of such superficial items as shelving, draining-boards, table tops, etc.

Founder and Smith

Order. The "Standard Method" adopts the order steel, wrought-iron, cast-iron, though many surveyors usually adopt the reverse order.

Cuts in Steel Joists. It is not made clear whether in measuring cuts to dead lengths of steel joists fitted between steel both ends should be measured. Presumably the cut at both ends is not usually necessary, and the surveyor should state whether he has measured one or both ends.

Iron Railings. In measuring wrought-iron railings and similar work it is a useful guide to the estimator if the length and height is given in a heading, e.g. "The following in approximately 110 ft. run of framed railing 4 ft. high." Then would follow the weights in each size of rails, standards, diagonal bars, etc., with the run of handrail or core rail.

Plasterer

Deductions. Deductions are not to be made in ceilings or walls unless the area exceeds 4 ft. superficial, and it is also customary not to make any deductions for fireplaces.

Cornices. It should be noted that the mean length of cornices only is to be measured, and in the case of cornices over 9 in. girth half the projection on ceiling and half the depth on wall are to be deducted. Where there are many cornices this makes a considerable difference. Decoration should be deducted the full projection on ceiling and full depth on wall, and added the girth of the full visible contour as "on cornices."

Metal Lathing. Metal lathing to beams is to be measured per foot run, giving the depth and width of soffit. This again on a large contract may multiply items unnecessarily, and might with more advantage be billed in feet superficial as "to beams," thus saving the estimator a lot of unnecessary time, as he must base his price eventually on the foot super.

Temporary Rules. There appears to be no mention in the "Standard Method" of temporary rules and battens for plastering or terrazzo work. These are necessary at the top of a terrazzo dado, for example, and are usually fixed before the finishings are begun to give a definite line to which to finish. They are, in fact, shuttering to the edge of plaster or similar work, and are measured by some surveyors by the foot run. If not measured, a covering clause should appear in the preamble to the plasterer's bill. They are not necessary in the case of a tile dado, as presumably the tiles are fixed first and the top edge of the tiling forms a stop for the plaster. In this connection claims occasionally arise where the plastering is done first and has to be left an inch or two from the top of the dado and made good afterwards. This is generally a matter of the builder's organization, provided it is not due to delay by the architect in selecting the dado, the importance of selecting which in good time is often not realized.

Plumber

Bends in Lead Pipes. Bends in lead pipes under 1½ in. diameter may be included in the description, but are to be measured where the pipes are in short lengths. It will be found, however, that these short lengths are often all bent as in the case of a lead connection to valves of fittings, and it is difficult to determine how many bends there are to the piece of pipe. It is often best to describe such pipes as "all bent."

Cast-iron Pipes. The "Standard Method" requires all short lengths in cast-iron pipes to be measured as "extra only." It is difficult to see why the method of measurement for soil pipes should differ from that for rain-water pipes, although the former are rather heavier and have more expensive joints. Moreover, in measuring from ⅛ in. scale drawings (on which soil pipes are very often not shown for artistic reasons!) the surveyor cannot tell whether a pipe taking two branches into junctions will require five short lengths or none at all; each junction may require two short lengths to be in exactly its right position, or it may need none at all, and one may be necessary at the top. Short lengths are not defined, but presumably mean lengths under 6 ft. The extra for short lengths is of comparatively small value, and might quite well be included in the builder's price in the case of soil pipes, as it is in rain-water pipes.

Glazier

Small Squares. When measuring glass in squares not exceeding 1 ft. super it is of assistance to the estimator to add after the description "(in No.....squares)." The number of squares will, of course, be more than the number of feet super and will give a guide as to the average size of the glass. This is not necessary in the case of squares over 1 ft. super each. It will be seen that lead and copper glazing in squares under 12 in. by 12 in. is in all cases to be enumerated, whereas in other glass squares of similar area are only enumerated where in irregular shapes.

Circular Cutting. When squares in irregular shapes are measured as a super item, circular cutting must be measured in addition, and is not covered by "irregular shapes."

Painter

Cornices. Distempering or painting on cornices under 18 in. girth is required to be billed in feet or yards run. As cornices are usually treated in the same way as the ceiling, this does not appear to be necessary and might quite well be measured as a superficial item, being kept, of course, separate as on cornices. Extra work on enrichments would be separately measured.

Metal Casements. A curious omission from the "Standard Method" is painting on metal casements, especially as surveyors measure this in several ways. Some measure on the same principle as in wood window-frames, squares, and casement edges. But, unlike wood windows, fixed lights are glazed direct to the frame, and the question arises whether "squares" should only be measured to opening lights. Perhaps the best method, to which contractors do not appear to object, is to measure over all (stating whether one side or both are measured), on the same principle as on ornamental railings.

[*To be continued*]

LAW REPORTS

PRESENT-DAY TRAFFIC : LIABILITY FOR ROADS

Manchester Corporation v. *Audenshaw U.D.C. Court of Appeal. Before the Master of the Rolls and Lords Justices Lawrence and Russell*

This appeal raised an interesting point as to liability for road repairs owing to the increasing traffic on the roads. The Audenshaw U.D.C. appealed against a decision of Mr. Justice Eve, sitting in the Chancery Division, in favour of the Manchester Corporation, who brought the action to have judicially determined the measure of their obligation for the maintenance of Corporation Road (substituted for Taylor Lane in 1878) in the districts of Audenshaw and Denton. The Corporation said their obligation was limited under the Manchester Corporation Waterworks and Improvement Act, 1875, and that they had only to maintain a road sufficient for ordinary traffic at the time the new road was made. The case for the defendant Council was that the traffic had greatly increased, particularly in heavy motors, and that what the Corporation was liable for was the reconstruction and maintenance of a road suitable for present-day traffic. Mr. Justice Eve held that the liability of the Corporation was only to maintain Corporation Road in the condition in which it was contemplated in April 1878, and entered judgment for the Corporation on the claim and counterclaim, with costs.

The Court, after hearing legal arguments, allowed the appeal, varying the judge's order.

The Master of the Rolls said, in his opinion the road remained a road which was made and maintained by the Manchester Corporation, and that duty remained. As the matter stood the Corporation were the body to maintain it as there had been no adoption by the Audenshaw and Denton authorities. In his opinion the same liability which fell on the Corporation to maintain the road in 1878 remained on them at the present time. He thought that the liability of the Corporation was to maintain and keep up the road to the standard suitable to the traffic in 1878; but, of course, the Corporation might think it worth while to make a more substantial road of it so as to deal with existing traffic; but that was for the Corporation to decide.

The lords justices concurred, and the order was varied accordingly.

PROPOSED NEW ROAD : OBLIGATION TO SEWER

Wallrock v. *Clare. Court of Appeal. Before the Master of the Rolls and Lords Justices Lawrence and Russell*

This appeal raised a point of construction in a covenant to sewer, and arose out of a dispute between Mr. Samuel Wallrock, a well-known surveyor and estate agent of Stanmore, Middlesex, and Mr. H. J. Clare, a local builder, tried by Mr. Justice Astbury in the Chancery Division, and dismissed by that judge.

Mr. Wallrock claimed damages for alleged breach of covenant to sewer a certain road. The action related to a new private road called The Ridgeway, which abounded the plaintiff's Croft estate on part of the south side. In selling to the plaintiff a piece of land adjoining his estate in 1926, the defendant covenanted that he would within a year make and construct a road as a builder's road fit for vehicular traffic and if necessary sewer it. The question was whether it was necessary for him to sewer the road, and if so, whether he had done it. Although the sewer had been constructed in this road it only went about one-third of its length, and the question was whether it was necessary to carry it along the whole length of the road. The purchase money which the plaintiff had paid had been ascertained upon the basis of so much per yard being charged for the sewering of the then proposed road. The plaintiff's case was that the sewer should be continued right down to the western extremity of the new road, as far as Old Church Lane, where there was a sewer laid. The defendant's case was that it was not necessary to sewer the western end because in the ordinary course of the development of the plaintiff's land houses built upon it would normally face Old Church Lane. Plaintiff disputed this. Mr. Justice Astbury dismissed the action, holding: 1: that it was not necessary in plaintiff's interest that the sewer should be carried farther than it had been, and 2: that if the plaintiff should in the future desire to build upon the land in question there was no necessity to extend the sewer as a "combined" system of sewerage to connect Old Church Lane would be sufficient and proper in the circumstances. Plaintiff appealed from this decision.

The Court allowed the appeal and entered judgment for the plaintiff, with costs.

The Master of the Rolls said the Court had to determine the meaning of the words in the covenant. The road in question had clearly to be made and had been made, and by reason of that fact the sewering had been done in the major portion of the road, so that from the defendant's point of view it had become necessary to sewer the road by reason of houses abutting on the road which had been built by the defendant. There was clear necessity shown for the sewering of the road, and he asked himself what right the defendant had to stop the continuation of the sewer which was to be a sewer throughout the whole of the road. It appeared to him that there being a necessity for the sewer the defendant had no right to stop the sewer being laid throughout. He thought the appeal should be allowed, with costs, and an inquiry must be ordered to ascertain if the plaintiff had suffered any injury by reason of the breach of covenant by the defendant.

The lords justices concurred.

NUISANCE FROM FUMES

Attorney-General at the relation of the Epsom U.D.C. v. *Rayon Manufacturing Co., 1927, Ltd. Chancery Division. Before Mr. Justice Astbury*

This was an action by the plaintiff against the defendants, who have a large factory for the manufacture of artificial silk at Ashstead, Surrey, for an injunction to restrain a nuisance by fumes or smoke.

It appeared that the factory was originally erected and used by a company called the Rayon Manufacturing Company. In January 1927, the Attorney-General brought an action against that company for a similar injunction, but the company went into voluntary liquidation, and the action was stayed. But defendant company was reorganized in 1927 and had spent a very large sum on the factory and plant, and employed a large number of workmen who would be thrown out of employment if the injunction were granted. It was not disputed that the original plant of the factory did discharge fumes which might be a nuisance to the neighbourhood; but the defendant company had installed a plant which they had obtained from Germany, and which, it was believed, would entirely prevent the fumes. The expert evidence showed that the new plant had already greatly reduced the fumes emitted, which now consisted almost entirely of sulphuretted hydrogen. Though offensive, they were not, it was stated, injurious to health. Evidence was given that the plant could not be brought to perfection for about three months, after which time it was hoped that the nuisance would be entirely abated. The defendant company did not resist the injunction, provided that its operation was suspended for three months.

His lordship said he was certain a serious nuisance was caused. He would grant the injunction, but would suspend its operation for three months on the undertaking of the defendant company to do their best in the meantime to bring the new plant to perfection; to keep it continuously in working order; and to give notice to the urban district council if at any time the plant should break down so as to prevent the treatment of the fumes, and if the company would then reduce their production of artificial silk to such an extent as would, if possible, prevent any nuisance being caused.

A housing and building exhibition is to be held at Ulster Hall, Belfast, from August 31 to September 12, under the patronage and support of the Lord Mayor and Council of the City and County of Belfast, the Ulster Society of Architects, etc. It is the second housing and building exhibition to be organized by Mr. T. Percy Bentley in that city. The exhibition offices are at 67 Scottish Provident Buildings, Belfast.

LITERATURE

WORKING UP A BILL OF QUANTITIES

A SOUND system is the keynote to the whole routine of a quantity surveyor's practice, and nowhere is system to be more encouraged than amongst the "working-up" staff, as it is here the foundation of both speed and accuracy is laid for the future career of a surveyor. In presenting this book Mr. Willis has satisfied a long-felt need for some kind of standard guidance in the finer points of the skilled operations of abstracting and billing in their varied applications.

The production of the ideal bill of quantities entails much labour and patience, and every possible help to this end is always welcome, especially to the principal of the firm whose time is otherwise better occupied than in having to correct faults which survive to the final draft bill and which should have been avoided earlier. A commencement is made with the assumption that the assistant has a set of dimensions already squared and checked for his attention, but there are a few traps for the unwary possibly hidden away even at this stage. Reference should be made to errors which have been known to arise by the insertion of dimensions subsequent to the initial squaring, also by calculations in the waste column slipping through unchecked. As these wastes are a very important part of the taking-off, it is not unreasonable to expect a good "worker-up" to detect deficiencies of this nature.

The author advocates and explains the method of abstracting and billing necessary in conjunction with the system of "taking off" which is adopted in almost every surveyor's office in London. The suggestions for order in abstracting and billing are not congested with an unnecessary number of specimen items and descriptions which are often more confusing than helpful. He concentrates more on illustrating on broad lines the principles underlying the treatment of the actual item concerned. The book deals with all aspects of the work, a few subjects deserving of special mention being: Preliminaries and preambles, items of insurances, water, etc., forms of tender, reduction estimates, variation accounts, etc. The use of sketches is criticized in a chapter headed "Final Stages of the Bill," with the remark that this practice can be overdone—a very useful piece of advice. An eminent surveyor is very fond of observing to his staff that "the man who cannot adequately describe work outlined by the drawings without the aid of a sketch will never make a surveyor."

Chapter viii, together with Appendix ii, is devoted to the subject of "P.C.'s," and provisions and the information contained therein are extremely comprehensive and useful. The question of the wording of these items is certainly "one with which some find great difficulty," and the explanations given should clear up many misunderstandings and prevent the continued misuse of the words "profit," "provide," "provisional," "allow," etc.

In a chapter on provincial practice and local customs it is observed that the author restrains from any criticism of systems other than that employed in London. It is positive that the standardization of methods of measurement will never influence the various ways of taking off with the consequent amount of working-up to each. Abstracting as advocated by Mr. Willis in some quarters is abolished in order to effect a saving in time, but it is open to question whether the dispensation of this operation is not inversely reflected in the time taken in collecting on the dimensions to the extent made necessary thereby. Experience shows, moreover, without any doubt, that when dealing with variations on the contract a clear set of dimensions supported by a well-referenced abstract on the London system are the means of much saving of time and a safeguard against error.

The subject of this book is a fortunate one in at least one direction, inasmuch as the information therein will never become out of date. The different instructions would have been just as essential to the first quantity surveyor in practice as they will be for all time. Mr. Willis shows in his work a knowledge only obtained by great experience in all that is best in his profession, and he places this knowledge at the disposal of his readers in a form simple of reference, easy of understanding, and of interest to all concerned with the intricacies of quantity surveying.

B. O. FRICKER

Working up a Bill of Quantities. By Arthur J. Willis, F.S.I. Architectural Press. Price 3s. 6d.

THE PICTURESQUE AND THE ROMANTIC

Today, when the picturesque movement is generally regarded as ancient history, one is inclined to overlook the fact that the architect's stock-in-trade has absorbed much that was directly derived from it. In other arts, too, the same may be seen to hold good. Most modern movements in painting have developed from innovations which were originally inspired by the picturesque point of view. Mr. Hussey's recently published book, *The Picturesque*, tells the story of the whole movement; but another volume, which is not so well known, might well be read with it. In *The Haunted Castle*, Mr. Eino Railo deals with the specialized field of romantic literature called by Professor Elton "the novel of suspense," and for which Mr. Railo has aptly coined the term "horror romanticism." Horace Walpole's *Castle of Otranto* is his starting point, and thenceforward the two books follow a parallel course.

Strawberry Hill is the first example of the infection of architecture, though Walpole had a romantic, rather than a picturesque, ideal in view when it was built. In it he sought to satisfy an emotional interest in the medieval, rather than a longing for architecture seen in terms of a composed picture. Strawberry Hill incorporates those elements, vaguely drawn of purpose in the novels, to form the sinister background against which the horrors oppressing the characters show in high relief. Historically accurate forms were not necessary to achieve this end; and although Walpole fancied himself as an antiquarian, Strawberry Hill was meant to provide atmosphere rather than scenery. Much of his detail is now seen to be ridiculous, but it must be remembered that it was not until James Wyatt and his Salisbury restorations that conscious scholarship entered into "Gothic" designs.

The scenic aspect of Gothic is still used by architects, though more often in America than in this country. A prominent American architect, who was going to execute a "collegiate Gothic" building, arrived at Cambridge to study the buildings there. On being introduced to the fan vault of King's College Chapel he was enthusiastic. "Gee!" he said. "Just what I want. I'll put it up over there like new, and sand-blast it until it looks just like that; but it'll be standing long after this church has fallen down, for it'll all be reinforced concrete behind." Walpole's vaults are like that; but if architecture gives place to sentiment the house is of interest as the house of a story form still popular, and which, through the works of Clare Reeve, Anne Radcliffe, Lewis, and successive writers down to Scott, paved the way for the "Gothic revival." If Strawberry Hill was little imitated, it was the seed which germinated under Wyatt at Fonthill and Ashridge.

In his "description" of the house, Walpole mentions that situated in the cloister was "the large blue and white china tub in which Mr. Walpole's cat was drowned," "the lofty vase" in which Selima, intent on piscine sport, met her untimely end, to become one of the few of her species to attain immortality. It is easy to see what each felt then—Gray wrote his ode; but Walpole, advertisement in view, raised the bowl on a pedestal, to which was attached a tablet bearing the first few lines of the poem.

Mr. Hussey's chapter on picturesque travel deals with Walpole's associations with the poet Gray, and he discusses the different reactions which "natural beauty" produced in each. "Gray summed it all up psychologically: 'I do not remember to have gone ten paces without an exclamation that there was no restraining: not a precipice, not a torrent, not a cliff, but is pregnant with religion and poetry. There are certain scenes which would awe an æsthetist into belief. . . . One need not have a fantastic imagination to see spirits here at noonday.' Walpole, while he

broke into suggestive exclamations, did not feel any depth: 'Precipices, mountains, torrents, wolves, mumblings, Salvator Rosa! . . .'"

The Picturesque discloses Gray as an early apostle of the movement. He was unable to draw, and so apart from pen pictures he had to content himself with his "Claude Glass," which accompanied him everywhere. By this means he was enabled to form some estimate of the pictorial possibilities of the landscapes he encountered. The "Claude Glass" was a plano-convex mirror which gave a reduced image of the scene, and it was used much in the same way that a double convex lens is sometimes used by architectural students in order to visualize the effect of reduction on rendered drawings. The "Claude Glass" provides a clue to the origin of the picturesque; and in his first chapter, "The Prospect," Mr. Hussey indicates the channels which lead up to ideal landscapes as painted by Claude, Salvator Rosa, and Poussin. Later, the "landscape" poets, whose influence was largely responsible for education in the new attitude towards landscape, are introduced. The new attitude was that of regarding Nature as composed pictures, and inverted by "Capability" Brown, Repton, and others, Nature was composed to conform with this ideal. Thompson's "Seasons" and "The Castle of Indolence" effected much, and treatises on æsthetics by Hogarth and Burke, Shaftesbury and Reynolds, Price, Knight, Gilpin, and others now almost forgotten, kept the ball rolling.

Reynolds it was who dared to defend Vanbrugh, who, fallen into disrepute on his death, had received much adverse criticism. In connection with Reynolds's appeal for the consideration of the relation of landscape to architecture, Mr. Hussey indicates the danger which may lie in this attitude: "Once the architect got into the habit of regarding his designs as it were from a distance, and as a mere part of a picture, he was only too apt to scamp the 'close-up.' General effect was everything. Materials, excellence of mouldings and details, convenience of plan, the constructive use of orders or other structural members, were of subsidiary account. In reaction against the long reign of symmetry, irregularity became an end in itself." This danger, unfortunately, is not always avoided in present-day work.

Vanbrugh has long been neglected; but architectural historians have had such a surfeit of Wren, in the unrelieved diet which the recent centenary produced, that they are turning their attention to the English Baroque architects. Great as was Wren's achievement, he lacked the originality of Vanbrugh and Hawksmoor—an originality, it is true, which did not always produce the happiest results, but which has contributed much to the developments of later work. During the present year several books on the English Baroque architects are to be published; the first, Mr. Geoffrey Webb's edition of Vanbrugh's letters, having appeared already, and as recent research has given these men a larger share of the work previously attributed to Wren, they may soon assume more important niches in the hall of architectural fame. Vanbrugh, like Inigo Jones, was a painter as well as an architect; but while Inigo Jones had translated formally and with social consciousness the results of his Italian tours, Vanbrugh approached his site as he might have approached a canvas. Mr. Hussey describes the so-called "movement" which appears in Vanbrugh, as turbulence. It is, he says, the *baroque*. But though the term may be used to describe the work of Vanbrugh, it differs fundamentally from Continental *baroque* of the same period. "Movement" in Vanbrugh's work has been described by one critic as a "hostile aggression of parts," and this is true enough. Vanbrugh's broken skylines, and concentration on silhouette, often result in failure to achieve successfully the ultimate dispersal or gentle restraint of the suggested movement, so that suspense results. For the stress that has been laid on Vanbrugh, one must plead that Mr. Hussey has reawakened an interest in a figure who, on account of the mystery which surrounds his entry into architectural pursuits, has always been a subject for the speculations of the curious. Mr. Hussey deals adequately with the effect of the picturesque on architecture. "Capability" Brown, Repton, and their imitators may have been pretentious prigs; and the glib reasons which they gave for all they did have, in course of time, worn rather thin; but landscape gardening was one of the larger issues. The early attempts to break away from the formal tradition are often spoiled by a too obvious reasonableness—the need for sinuosity could be, and was, explained—so was each of "Capability" Brown's clumps; but in architecture the gain was greater than one had previously suspected.

Quite apart from the works of "Capability" Brown and the "improvers," the picturesque had a great effect on rural architecture and planning, and in view of the present preservation problems the portions which are devoted to town and village planning are of particular interest. This aspect, and the discussions on irregularity often, but not *always*, considered an attribute proper to the picturesque, must be gleaned from the book.

It would be dishonest to trespass further on these domains; but no one, even in the pursuit of a most exacting profession, can be too busy to regret the time given to reading these books.

HAROLD TOMLINSON

The Picturesque: Studies in a Point of View. By Christopher Hussey London and New York: G. P. Putnam's Sons. 25s.
The Haunted Castle: a Study of the Elements of English Romanticism. By Eino Railo. London: George Routledge and Sons, Ltd. 25s.

BAPTISMAL FONTS

The Historic Monuments of England series, edited by W. A-Hamilton Thompson, of Leeds University, is increased in useful. ness by the addition of this charming and interesting volume The history of English sculpture is enriched by a valuable contribution. It is only by perseverance and painstaking on the part of devoted research workers that such records as these are made for the enjoyment of the present and the information of the future. E. Tyrrell-Green has been very thorough in his work. I do not suppose he has seen every font in the land, but he has seen most of them, and those the most important and most worth seeing.

The book is unusually well arranged for its kind and exceptionally well written. Without being lively it is never dull, as many archæological works are apt to be. Two interesting chapters on Baptism from its origination, and one on the Baptistery as a separate structure from the church, are followed by a systematic account of fonts in general and English ones in particular. It is entertaining to realize that princes and paupers were alike subjected to an immersion in a stream of living water, or tubbed. The early fonts were tubs, but as convenience came to be studied the early drastic treatment was modified and fonts became basins. Restrictions in the water supply caused the development in the form of a cup as part of, or attached to, the basin, as is seen in the intriguing example at Youlgrave in Derbyshire. This for the purpose of preserving the consecrated water.

There has been very little evolution in the history of the font, and the elaborations in its design and structure are mostly modern and outside the scope of this work. Cylindrical or basin-shaped or cup-shaped, there has been great consistency since the emergence of the English font at the Norman Conquest. Some few are known which exhibit Celtic ornament, but these, and others adapted from discarded capitals of older structures, are not indigenous to their situation. The font is curiously, but naturally, a separate item from the building in which it is placed, and may have very little relation to it. While the generalized shape is restricted and the materials—stone, marble, wood, lead, iron, brass—no more extensive, the variety of design and architectural and sculptural treatment is very varied. Sometimes uncouth, it is almost always characteristic. Crude figure-work features many a font, conventional ornament is the basis for many more, but often treated in an individualistic fashion by the craftsman who was often, I have no doubt, responsible for the whole piece. The sculpture, occasionally in the round, mostly in relief, is almost always worthy work, the subjects, of course, mostly religious and sometimes entertaining. Here and there some really fine work is shown. The index of fonts under counties, and including hundreds of examples, is comprehensive, and I commend the elaboration of the six pages of the contents, which adds greatly to the pleasure and comfort of the study of this valuable volume.

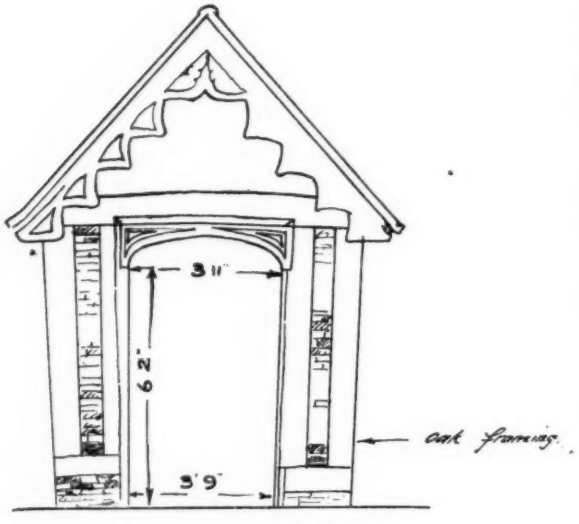
Baptismal Fonts. By E. Tyrrell-Green. London: Society for the Promotion of Christian Knowledge. Price 10s. 6d.

CORRESPONDENCE

GOTHIC AND TUDOR PORCHES

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—I have noticed in several Gothic and Tudor buildings that the entrance porches are constructed so as to give an outward slope to the jambs, from the bottom upwards (see accompanying sketch). This is noticeable in Dorney Court, Eton, and Pyrford



Porch at Pyrford, Surrey.

Church porch, and generally occurs in timber-framed buildings. It is not a case of settlement, but has actually been constructed in this way. All joints and brickwork are true. Can any of your readers give me a reason for this? It seems to me to be a matter of design rather than construction.

C. S. WHATMORE

ANCIENT LIGHTS

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—Judgments have been given in two "ancient light" cases which appear to be of some interest and importance to architects. They are: 1: Barnett *v.* London Co-operative Society, Ltd., Clauson, J., Tuesday, July 24; 2: Coutts & Co., Ltd. *v.* Turner & Co., Ltd., Eve, J., Wednesday, July 25.

Both cases were decided upon the usual contoured plans showing the conditions of lighting under different degrees of lighting material to the issues.

In Barnett's case the main points of interest were:

a: Whether injury to very small rooms can be regarded as a nuisance.

b: The limitation of penetration of adequate light as defined in Semon *v.* Bradford Corporation, which may be regarded as a legal nuisance.

c: The effects of building too quickly to afford plaintiffs time to obtain an interim injunction.

The three judgments in the Court of Appeal in the recent case of Maybury *v.* Spickernell were cited and considered.

a: The plea that the smallness of the rooms, a small living-room and small kitchen, rendered the case trivial was overruled.

b: An alteration of penetration of adequate light or of sky visible at table height from about $\frac{9}{10}$ to about $\frac{1}{2}$ of the depth of the rooms was held to be material and to give plaintiff cause of action.

c: The Court did not exercise the discretionary powers granted to it to substitute damages for the plaintiff's *prima facie* right to injunction, partly because the site damage to a possible rearranged building possessed too many variables to permit of accurate assessment and mainly because the defendants, having given an undertaking not to start the offending wall without ample notice, gave notice on a Saturday, started on the Monday following, and completed the wall in four days.

2: The case of Coutts *v.* Turner elicited a very valuable decision with regard to incorporated lights. Mr. Justice Eve overruled suggestions that: *a*: slight incorporation indicated an intention to abandon; *b*: delayed rebuilding for several years affected the plaintiff's rights; and *c*: that distant reversioners could have no material cause of action.

He stated that it was necessary to regard the destination of the light to which prescriptive rights had been acquired and to ascertain whether, at the original destination of the prescribed light, the total light which the plaintiff enjoyed from all sources which he had an indefeasible right to defend was more or less light that he had enjoyed through the ancient openings.

By comparing contoured plans, the accuracy of which was admitted, showing the two conditions, and finding that the light cut off from incorporated openings was less than the net amount remaining, he dismissed with costs the application for an injunction.

The solicitors in Barnett's case for plaintiff were Messrs. Coode & Co., 34 Bedford Row, and for the defendants in Coutts *v.* Turner were Messrs. Barlow, Lyde and Yates, 165 Fenchurch Street, and for plaintiffs, Messrs. Halsey, Lightly and Hemsley, 32 St. James' Place.

The decision in Coutts *v.* Turner as to the correct method of viewing claims in respect of incorporated light is very valuable. It is identical with a view of the law held by eminent authorities, but upon which no *ad hoc* decision was available.

PERCY J. WALDRAM

R.I.B.A. EXAMINATIONS

The Final Examination qualifying for candidature as Associate R.I.B.A. was held in London and Edinburgh from July 4 to 12. Of the sixty-two candidates examined (five of whom took part 1 only) thirty-four passed (four in part 1 only) and twenty-eight were relegated. The successful candidates are as follows:

Brown, Henry
Carr, Frank Henry (part 1 only)
Castle, James Thomas
Chaplin, Sidney George (part 1 only)
Coates, Harold John
Cordiner, Albert Dick
Cordiner, Thomas Smith
Cornford, Roger Henley Cope
Cowser, Benjamin
Crowe, George Kenneth
Culpin, Clifford Ewart (part 1 only)
Driver, Samuel Roland
Fogden, Joseph
Ford, Hugh Hubbard (part 1 only)
Fry, Francis Stephen
Gardiner, James Andrew
Garnett, George Stancliffe
Harrington, Denis Edmund
Harriss, Edward Richard Bingham
Harriss, John Dennis
Hartley, William David
Hutchison, William Martin
Lee, John William
Mount, Edward Cyril (distinction in Thesis)
Parker, Cecil James
Peacock, Kenneth John Renshaw
Raby, Laurence
Randle, Frederic Lionel
Smith, Meredith Saphir
Smith, Stanley Harold
Sunter, John Ernest
Sutcliffe, Gordon
Warren, George Pearsons
Wilson, James William Gilchrist

The Special Examination qualifying for candidature as Associate R.I.B.A. was held in London from July 4 to 10. Of the thirteen candidates examined, five passed and eight were relegated. The successful candidates are as follows:

Bennett, Charles George Gordon
Kershaw, Fred
Lusby, Arthur Milner
Wood, Roland
Woodhouse, Hubert Ollyett

The examination in Professional Practice for students of schools of architecture recognized for exemption from the R.I.B.A. Final Examination was held in London and Edinburgh on July 10 and 12. Of the fifty-two candidates examined, forty-eight passed and four were relegated. The successful candidates are as follows:

Ashford, Tolson Murray
Barker, Frances
Beck, Richard Theodore
Begg, Kenneth Andrew

Bertram, Stephen Noel
Bertram, William Raymond Boyd
Bodie, William George Rowntree
Buchanan, James Wardrop
Coglan, Brian
Conway, James Simpson
Cormack, William Arthur Smith
Dallachy, John Eadie Waddel
Davidson, Alexander John
Dicker, Alma Josephine
Docking, Stanley James
Flegg, Bruce Martin
Fletcher, Janet
Fowler, Donald Alexander
Fraser. Roderick Donald
Highet, Graeme Ian Campbell
Jackson, Ruth Knox
Jordan, Robert Furneaux
King, John Thompson
Lewis, Owain Gwynedd
Lloyd, John Trevor
Lowther, Anthony William George
McCrea, William
McEwan, Margaret Jean
Macfadyen, Irene Joanna
MacGillivray, Ian Donald
MacLean, Archibald
Moore, Charles Edward
Noble, Graham Philip
O'Rorke, Edward Brian
Owen, Alec
Parry, Henry Thomas
Preston, Constance Winifred
Ritchie, Duthie
Robbie, Henry Pearce
Roberts, Leslie Hugh Bennett
Scott, Betty
Stanley, Theodora Christine
Steele, Alexander
Thompson, Eric Langdon
Turner, Charles Austin Charlewood
Whyte, William George
Williams, David John
Williams, Lawrence Paul

The Special Examination in Design for former members of the Society of Architects to qualify for the Associateship R.I.B.A. was held in London from July 4 to 9. Of the three candidates examined, one passed and two were relegated. The successful candidate is as follows: Tracey, Leonard Walter.

The questions set at the Intermediate, Final, and Special examinations, held in May and July 1928, have been published, and are on sale at the Royal Institute, price 1s. (exclusive of postage).

OBITUARY

Mr. E. C. Adams

Plymouth has lost one of its best-known architects by the death, in a nursing home in London following an operation, of Mr. Edward Coath Adams, F.R.I.B.A., F.I.S.E., at the age of sixty-six. Mr. Coath Adams started his professional career in his native town of Plymouth by being articled to a Mr. Keets. Afterwards he went to London, where he practised for some years, but in 1894 he returned to Plymouth, where he soon established a high reputation for ability and ingenuity. He designed many prominent buildings and houses, and just before his death had completed the designs of a number of important alterations to business premises in the main streets of the town. After the war broke out in 1914, when the architectural profession was at a standstill, the members of the Devon and Exeter Architectural Society, which embraces the counties of Devon and Cornwall, and of which Mr. Coath Adams was president in 1913 and 1914, combined to carry out a civic survey of Plymouth. In this undertaking Mr. Coath Adams showed much enthusiasm and played an important part as head of the committee which dealt with the question of planning communications. His reports on this subject and the very fine maps which he prepared were objects of great admiration among his professional brethren and others interested in the schemes. He forecast the importance of Cobourg Street as an artery, and the recent alterations and improvements carried out there by the Corporation have followed closely upon the lines which he indicated. He also suggested the construction of an arterial road from east to west, linking up Embankment Road at Laira with the newly opening district to the west of Alma Road, in order to relieve the traffic congestion in the narrower streets of the town. It is quite possible that this scheme may have to be adopted at some future time. In regard to railway communication, he proposed that the main line should enter Plymouth by way of Friary, instead of Mutley, and pass through a short tunnel under Old Town Street to a central station on the site of the sugar refinery, continuing on a short viaduct at the back of Morley Street to Cornwall Junction. It was agreed that this scheme was of a particularly ingenious character, and it attracted much attention in railway circles, where it was admitted that it would have been an ideal system of development if it had been thought of in the early days of railway planning at Plymouth.

TRADE NOTES

Much has been heard of the possibilities and uses of cast stone in architecture and sculpture, yet until the issue of *The Artistic Side of Concrete* by the British Portland Cement Association, Ltd., there does not seem to have been any single publication containing information with regard to the progress made in the development of the material and practical hints as to the methods by which the most satisfactory results are obtained. This omission has now been overcome by the admirable booklet just issued. It forms a practical textbook of cast stone, coloured concrete, and stucco work, and there are many charming coloured plates of the more attractive finishes. There are also many photographic illustrations of large and small cast stone modern buildings and of cast stone sculpture, of which the largest piece in existence is "The Fountain of Time" in Chicago. Cast stone has now been actually produced in twenty-six varieties. Formulæ are given for making twenty of them, and the surfaces of nineteen can be tooled, rubbed to an ashlar surface, or wet-scrubbed when twenty-four hours old. Coloured concrete, concrete bricks, and rock-faced blocks are dealt with exhaustively, as well as modern stucco work. In connection with the latter there are particulars of finishes and styles and chapters on rough-cast and pebble-dashing. The book should form a valuable addition to the bookshelf, and the contents will be eagerly devoured by all interested in modern building methods.

For some time the Hospital Fund Committee of the employees of British Insulated Cables, Ltd., Prescot, Lancashire, has had under consideration the provision of a rest home as part of an after-care scheme for sickness and accident cases. A suitable house and estate having been located, a scheme was drawn up and submitted to the directors of the company, with the request that they should give financial assistance to the committee. The result of this appeal to the Board was that they bought the property and supplied the funds for equipment of the house, thus relieving their employees of the burden of meeting the heavy capital cost involved in such a venture. After two months' strenuous work, rendered necessary by the fact that the house had not been occupied for some years, the rest home was opened by the chairman of the company, Mr. Dane Sinclair. Mr. Sinclair, in declaring the house open, said it gave him great pleasure to perform the ceremony. They all hoped that the house would fulfil its very useful purpose. The Board of Directors were only too pleased to help the workers in the acquisition of this rest home, and he hoped that those who were unfortunate enough to fall sick would, after a stay in the home, return fitter than ever.

The home has, in consequence of the generosity of the directors, been opened free of debt, and there is now only the liability for running expenses to be met out of the funds of the hospital committee. These expenses will be met partly by voluntary weekly contributions from the employees who subscribe to the hospital fund and partly by payments received from visitors who wish to spend a holiday at the home. Preference is, of course, given to convalescent cases, who can stay at the home free of expense, visitors being accepted when there is surplus accommodation.

"Upper Downing" stands among very beautiful surroundings, and the fine scenery, pure air, and quiet must be of the greatest value to convalescents from the busy industrial districts. The property adjoins Downing Hall, the seat of the old Pennant family. The house itself is of considerable antiquity, the oldest part dating from 1539. It has, however, apparently been remodelled during the Georgian period, and little trace of original work is evident. The floors are of considerable age, and are supported by the original beams which, unfortunately, have been cased in and whitewashed during some period. There is an old ingle-nook built out from the side of the house, as an annexe, and roofed with slate. This, however, cannot be seen from the inside, as the old fireplace was covered up and a newer fireplace fitted at some unknown date.

THE WEEK'S BUILDING NEWS

The STOKE-ON-TRENT Corporation Housing Committee is negotiating for 51 acres off Uttoxeter Road, Meir, for a housing scheme.

*

Plans passed by the MARYLEBONE B.C.: Projecting architectural features, 16-24 Hallam Street, for Mr. F. P. M. Woodhouse; shop, 11 Portman Square, for Messrs. Gordon Jeeves; bridges, 142-4 Oxford Street, etc., for Messrs. Mewes and Davis; house, Grove Road, for Messrs. Fisher, Trubshawe and Fisher; building, corner of Park Road and Rossmore Road, for Messrs. Mewes and Davis; buildings, Seymour Place, Upper Dorset Street, etc., for Mr. W. E. Masters.

*

Messrs. Richardson and Gill are to erect two blocks of buildings on the sites of 140 Bishopsgate and 77-84 HOUNDSDITCH.

*

Plans passed by the POPLAR B.C.: Additions Premier Sack Works, Stour Road, Old Ford, for Mr. William Figg; shop, adjoining Poplar Station, 172a East India Dock Road, for Mr. W. E. Sanders.

*

Plans passed by the SMETHWICK Corporation: House, Abbey Road, for Mr. J. Reece; extension to works, for Messrs. Henry Hope and Sons, Ltd.; billiard-room and ladies' lavatories, for the Smethwick Labour Social Club and Institute; church, Broomfield, for Wesleyan Trustees.

*

Mr. Martin W. Harvey, 124 Baker Street, W., is to erect a block of high-class shops and flats in Marylebone Road and Allsop Street, MARYLEBONE.

*

Plans passed by the GRAVESEND Corporation: Alterations, 16 High Street, for Messrs. Foster Bros. Clothing Co., Ltd., for Mr. L. Voisey; house, Singlewell Road, for Mr. E. Payne; additions to offices, Stuart Road, for Messrs. G. E. Wallis and Sons, Ltd.; house, Smarts Road, for Mr. S. Bridger; three houses, Portland Avenue, for Mr. C. A. Reid; construction of shop, 24 King Street, for Mr. T. Bennett.

*

The LONDON C.C. Establishment Committee recommends the Council to proceed with the completion of the New County Hall by the construction of the additional wing, for which purpose the raft foundation has already been constructed. The cost of the new wing is estimated at £661,500.

*

The L.C.C. is to erect two blocks of dwellings on the Comber estate, CAMBERWELL, at a cost of £42,000.

*

The L.C.C. is to erect blocks of dwellings on the Hughes Fields estate, DEPTFORD, at a cost of £34,366.

Plans passed by the BOURNEMOUTH Corporation: Alterations and additions, St. James's Institute, Stourfield Road, for the vicar and churchwardens; store, premises, Yelverton Road, for Messrs. Lane & Co.; additions, 16 Bath Road, for the Bournemouth Spiritualist Society; alterations, Highcliffe Hotel, St. Michael's Road, for The Highcliffe Hotel Co., Ltd.; alterations, Hampshire House, Bourne Avenue, for The Wedgewood Café, Ltd.; milk depot, Malmesbury Park Road, for the P. and B. Co-operative Society, Ltd.; two houses, Pine Road, for Mr. H. Marks; three houses and dairy, Ripon Road, for Messrs. W. Bonfield and Sons; two houses, Oakwood Road, for Mr. H. Mitchell; two houses, Newstead Road, for Mr. H. Litchfield; two shops, Holdenhurst Road, for Mr. A. Gould; three houses, Arden Road, for Mr. H. Dean; four houses, Tuckton Road, for Mr. F. Elcock; two bungalows, Tuckton Road, for Messrs. Midgely and Hardy, Ltd.; flats, Croft Road, for Mr. S. Loader; additions, club, Richmond Hill, for the Westover and Bournemouth Rowing Club; three houses and garages, The Grove, for Mr. T. Fry; four houses, Victoria Park Road, and Morden Road, for Mr. F. J. Marks.

*

The WANDSWORTH B.C. has retained Mr. G. L. Elkington, A.R.I.B.A., as the Council's architect for the erection of the twenty-four flats on the Southfields housing estate and the six maisonnettes on the Furzedown housing estate.

*

The Governors of the Maria Grey Training College, BRONDESBURY, are to enlarge the college buildings.

*

Plans passed by the WANDSWORTH B.C.: Offices, sheds, and stables, Fairfield Street, Fairfield, for Messrs. Harrison Barber & Co., Ltd.; additions to Columbia Gramophone Co.'s premises, Bendon Valley, Springfield, for Messrs. Lorden and Son; alterations and additions, "Bricklayers' Arms" public-house, River Street, Putney, for Messrs. Simmons Bros.; extension to Messrs. Stevens and Adams, Ltd., premises, Point Pleasant, Southfield, for Mr. R. A. C. Churchward; seven houses, Westleigh Avenue, Putney, for Messrs. Y. J. Lovell and Son; alterations to Putney Bridge Garage, High Street, Putney, for the London General Omnibus Company; four houses, Pendennis Road, and seven houses, Newcome Gardens, Streatham, for Messrs. Chapple and Utting; nine houses, Gressenhall Road, Southfield, for Mr. A. G. Jenkins; three shops, Streatham Vale, for Messrs. Wates, Ltd.; eight houses, Trinity Road, Springfield, and eight houses, Birchlands Avenue, Balham, for Messrs. H. and E. Wooding; addition, Messrs. Cambrell Bros.' works, Merton Road, Southfield, for Messrs. Castle and Sons.

The BIRMINGHAM Corporation has obtained sites in Tyburn Road, Birches Green Estate, and Trittiford Road, Billesley Farm Estate, for infant welfare centres.

*

The ISLINGTON B.C. Health Committee recommends the erection of a crematorium at the Council's cemetery, East Finchley, at a cost of £10,000.

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The ISLINGTON B.C. Finance Committee states that it reported in January that the cost of the proposed public hall, including furniture, fittings, architect's, and quantity surveyor's fees, and salary of clerk of works would not exceed £30,000. Tenders for the erection of the building have been invited, but, in view of the prices contained in the offers received, the committee purposes reviewing the whole question and deferring consideration of the tenders for the time being.

*

The CITY OF LONDON Corporation is to carry out the following works at the Guildhall: Sheds, etc., for headquarters of the jobbing staff at Belvedere Place, S.E., £600; alterations and additions to the offices at Guildhall occupied by the City architect and surveyor, £1,000; repairs to stonework roof of Guildhall, £500; and relaying of drains under Guildhall Yard, £1,000.

*

Plans passed by the MERTHYR Corporation: Church hall, Fidler's Elbow, St. Cynon's, for the vicar and churchwardens; additions to vestry, Brynseion Chapel, Dowlais, for the trustees; lock-up garages, old brewery site off Penry Street, for Messrs. R. and D. Price; organ chamber and committee rooms, Moriah Welsh Baptist Chapel, Mount Pleasant Street, Dowlais, for the trustees; alterations and additions, 84, 85, and 86 High Street, for Mr. Myer Shatz; six bungalows, Pleasant View, Treharris, for Mr. W. A. Blackburn.

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Plans passed by the WIMBLEDON Corporation: House, Home Park Road, for Mr. E. B. Webber; additions, Deburgh Road, for Messrs. Huntley and Sparks; warehouse for Mr. A. C. Huntley; house and garage, Woodhayes Road, for Mr. A. J. Styles; house and garage, Wool Road, for Messrs. W. Douglas and Sons, Ltd.; day nursery, "Parracombe," Burghley Road, for Messrs. H. Dakin & Co., Ltd.; alterations and additions, 10 Highbury Street, for Messrs. Jas. Burges and Sons, Ltd.; billiard hall, Haydon's Road, for Messrs. Jas. Burges and Sons, Ltd.

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The MORECAMBE Corporation has appointed a committee for the purpose of considering all matters in connection with the preparation of a scheme, etc., for the building of a town hall.

The LEICESTER Corporation is to reconstruct the Belgrave Baths in accordance with a scheme prepared by the City Surveyor at a total estimated cost of £14,000.

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The LEICESTER Health Committee recommends the erection of two villas for the accommodation respectively of sixty male adults and sixty male children, at a cost of £18,600 on land at Leicester Frith.

*

In connection with the development of the St. Helier estate, MORDEN, the L.C.C. proposes to proceed with about 225 acres, provision being made for the erection of nearly 3,000 flats at an estimated cost of £1,764,000. The complete scheme will provide for a total of 10,000 houses.

*

Plans passed by the DOVER Corporation: Workshop, Glenfield Road, for the St. Dunstan's Association for the Blind; additions, 75 and 77 Longfield Road, for Mr. W. May; back additions, Buckland Avenue, for Mr. S. G. Surridge; sanitary wing, rear of St. Martin's House, Dover College, for Mr. F. G. Hayward, for the Dover College Council.

*

The L.C.C. is to proceed with the erection of a further block of dwellings, comprising forty-four tenements on the Shore estate, HACKNEY, at an estimated cost of £22,000.

*

The LONDON C.C. Improvements Committee reports in favour of the scheme of the Ministry of Transport for the construction of a new road to the Victoria Docks at a cost of £2,518,000.

*

The Durham County Education Committee is to enlarge the council school at BILLINGHAM, to accommodate an additional 875 scholars, at an estimated cost of £18,900. It is proposed to carry out the work by direct labour.

*

The L.C.C. Education Committee has acquired land in the St. George's Road area, ISLINGTON, for the erection of a central school for 400 and a junior school for 400.

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The L.C.C. Education Committee is to remodel the Droop Street school, PADDINGTON, at a cost of £17,672.

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The L.C.C. Education Committee has prepared plans for extensions at the WESTMINSTER Technical Institute at a cost of £53,500.

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The governors of Colfe Grammar School, LEWISHAM, are to purchase adjoining premises for school extensions at a cost of about £10,500.

*

The BRISTOL Education Committee has selected a site on the St. Anne's housing estate for the erection of an elementary school.

The STEPNEY Borough Council are acquiring and clearing an insanitary area, 6-9 acres in extent, at Limehouse Fields, for rehousing purposes. The property is bounded on the north by certain premises in Elsa Street, on the east by the Regent's Canal and the London and North Eastern Railway, on the south by Repton Street, and on the west by Blount Street, Beard's Place, and Eastfield Cottages; the area referred to surrounds and includes the Dupont Street area. The Borough Council have undertaken to rehouse 1,963 persons; in other words, the new dwellings must contain not less than 982 rooms. The council have appointed Mr. Bernard J. Belsher, F.R.I.B.A. (their borough engineer and surveyor) to be the architect for the development of the scheme.

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The trustees of the Wesleyan Methodist Church (Redland Circuit) have acquired land on the Sea Mills estate, BRISTOL, for the erection of a chapel.

*

The BRISTOL Corporation Housing Committee recommends that the development of the site acquired by the council at Ridgway Road, Fishponds, should be undertaken by direct labour. The number of houses of non-parlour type proposed to be erected on this site is 170, and the estimated cost of erection is £63,750.

*

The BRISTOL Corporation has decided to arrange contracts for the erection of thirty-six parlour and 212 non-parlour houses on land adjoining Fishponds housing estate.

*

The MANCHESTER Corporation Tramways Committee recommends the expenditure of £67,500 on the provision and extension of car depots, garages, shelters, and other works.

*

Plans passed by the CHELTENHAM Corporation: Iron building, London Road, for Mr. F. Martin; timber store, Park Saw Mills, Great Norwood Street, for Mr. F. Parry; additions and alterations, Roderic House, Suffolk Square, for the Ladies' College Council; house, Moorend Park Road, for Mr. C. Giles; conversion into offices and flat, Rodney Lodge, Rodney Road, for Messrs. Healing and Overbury; two houses, Cleeve View Road, for Mr. M. Bruton.

*

The MANCHESTER Education Committee is seeking sanction to borrow £91,445 for the erection and equipment of elementary schools.

*

The WESTMINSTER City Council has adopted a revised scheme for the new baths and washhouses, maternity and child welfare centre, rate collector's office, and highways depot, on the site of Marshall Street baths and washhouses.

The TORQUAY Corporation has decided to seek a provisional order to construct a wall at an approximate cost of £30,000 across the outer harbour from the north quay to the Princess Pier, and to fill in the portion of the harbour thus reclaimed, with a view to the proposed new bandstand being erected thereon instead of at the entrance to the Princess Pier as already decided by the council.

*

The WESTMINSTER City Council has had a report on the financial aspect of the Grosvenor estate, Millbank, housing and improvement scheme, showing that the capital cost of the housing proposals is £445,650.

*

Plans passed by the CHELMSFORD Corporation: House, Galleywood Road, for Mr. M. Skilton; two houses, Wood Street, for Mr. A. E. Hawkins; house, Roxwell Road, for Mr. E. Burrell; shop front and alterations, 25 and 26 Moulsham Street, for Mr. T. H. Grew; house, Rosebery Road, for Mr. A. Furness; office building, New Street, for Marconi's Wireless Telegraph Co., Ltd.; alterations, "Waveney House," Rainsford Road, for Mr. J. C. Pryke; shop and offices, site of 10 Duke Street, for Mr. H. J. Harrison.

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Plans passed by the ILFORD Corporation: Alterations, 302 Green Lane, for Messrs. J. E. Austin, Ltd.; twenty houses, Waverley Gardens, for Mr. J. Aldridge; alterations, 157-161 High Road, for Messrs. Hobden and Porri; eleven houses, Ellesmere Gardens, for Mr. T. Anders; alteration, 196 and 198 High Road, for Messrs. Cuthbert Lake and Sutton; alterations for the United Dairies, Ltd., 275 High Road, for Mr. F. T. Dear; dark room and new offices for Ship Carbon Co., Ltd., Grove Road, for Messrs. J. T. Luton and Son, Ltd.; ten houses, Benton Gardens, for Mr. J. W. Lohden; twelve houses, Church Road, for Mr. J. Aldridge; eight houses, Rochester Gardens, for Mr. A. P. Griggs; four houses, Chater Avenue, and one shop and house, Ward's Road West, for Mr. J. W. Lohden; three shops, Aldborough Road, for Mr. E. A. Russell; additions, 15, 16, 17, 18, and 25 King's Gardens, for Messrs. Haines and Warwick, Ltd.; vestries, St. Mary's Chapel, High Road, for Messrs. Steadman Bros.; eighteen houses, Coniston Gardens, for Messrs. Brand and White, Ltd.; seven houses, Ashurst Drive, for Mr. W. Fallows; nine houses, Derwent Gardens, for Messrs. Brand and White, Ltd.

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The WHICKHAM U.D.C. has passed a layout plan for the development of part of the Whickham Chase estate.

*

Plans have been prepared by the manager of St. John's School, CHELMSFORD, for alterations so as to provide for 350 junior children.

RATES OF WAGES

			I	II
			s. d.	s. d.
A	ABERDARE	S. Wales & M.	1 7½	1 2½
A1	Abergavenny	S. Wales & M.	1 7	1 2½
B	Abingdon ..	S. Counties	1 5½	1 1½
A	Accrington	N.W. Counties	1 7½	1 2½
A3	Addlestone	S. Counties	1 6	1 1½
A	Adlington ..	N.W. Counties	1 7½	1 2½
A	Airdrie ..	Scotland	*1 7½	1 2½
C1	Aldeburgh	E. Counties	1 3	1 1½
A	Altrincham	N.W. Counties	1 7½	1 2½
B3	Appleby ..	N.W. Counties	1 4	1 0
A	Ashton-under-Lyne	N.W. Counties	1 7½	1 2½
A3	Atherstone	Mid. Counties	1 6	1 1½
B3	Aylesbury ..	S. Counties	1 4	1 0
B3	BANBURY ..	S. Counties	1 4	1 0
B2	Bangor ..	N.W. Counties	1 4½	1 0½
A	BarnardCastle	N.E. Coast	1 7½	1 2½
A	Barnsley ..	Yorkshire	1 7½	1 2½
B1	Barnstaple	S.W. Counties	1 5	1 0½
A	Barrow ..	N.W. Counties	1 7½	1 2½
A	Barry ..	S. Wales & M.	1 7½	1 2½
B3	Basingstoke	S.W. Counties	1 4	1 0
B	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7½	1 2½
B	Bedford ..	E. Counties	1 5½	1 1½
A2	Berwick-on-Tweed	N.E. Coast	1 6½	1 2
A2	Bewdley ..	Mid. Counties	1 6½	1 2
B3	Bicester ..	Mid. Counties	1 4	1 0
A	Birkenhead	N.W. Counties	*1 7½	1 2½
A	Birmingham	Mid. Counties	1 7½	1 2½
A	Bishop Auckland	N.E. Coast	1 7½	1 2½
A	Blackburn	N.W. Counties	1 7½	1 2½
A	Blackpool	N.W. Counties	1 7½	1 2½
A	Blyth ..	N.E. Coast	1 7½	1 2½
B3	Bognor ..	S. Counties	1 4	1 0
A	Bolton ..	N.W. Counties	1 7½	1 2½
A2	Boston ..	Mid. Counties	1 6	1 1½
B1	Bournemouth	S. Counties	1 5	1 0½
B2	Bovey Tracey	S.W. Counties	1 4½	1 0½
A	Bradford ..	Yorkshire	1 7½	1 2½
A2	Brentwood	E. Counties	1 6½	1 2
A	Bridgend ..	S. Wales & M.	1 7½	1 2½
B2	Bridgwater	S.W. Counties	1 4½	1 0½
A1	Bridlington	Yorkshire	1 7	1 2½
A	Brighouse ..	Yorkshire	1 7½	1 2½
B1	Brighton ..	S. Counties	1 5	1 0½
A	Bristol ..	S.W. Counties	1 7½	1 2½
B3	Brixham ..	S.W. Counties	1 4	1 0
A2	Bromsgrove	Mid. Counties	1 6½	1 2
C	Bromyard ..	Mid. Counties	1 3½	11½
A	Burnley ..	N.W. Counties	1 7½	1 2½
A	Burslem ..	Mid. Counties	1 7½	1 2½
A2	Burton-on-Trent	Mid. Counties	1 6½	1 2
A	Bury ..	N.W. Counties	1 7½	1 2½
A1	Buxton ..	N.W. Counties	1 7	1 2½
B	CAMBRIDGE	E. Counties	1 5½	1 1½
B3	Canterbury	S. Counties	1 4½	1 0½
A	Cardiff ..	S. Wales & M.	1 7½	1 2½
A	Carlisle ..	N.W. Counties	1 7½	1 2½
B	Carmarthen	S. Wales & M.	1 5½	1 1½
B2	Carnarvon	N.W. Counties	1 4½	1 0½
A1	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7½	1 2½
B1	Chatham ..	S. Counties	1 5	1 0½
B1	Chelmsford	E. Counties	1 5	1 0½
A3	Cheltenham	S.W. Counties	1 6	1 1½
A	Chester ..	N.W. Counties	1 7½	1 2½
A	Chesterfield	Mid. Counties	*1 7½	1 2½
B3	Chichester	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7½	1 2½
B3	Cirencester	S. Counties	1 4½	1 0½
A	Clitheroe ..	N.W. Counties	1 7½	1 2½
A	Clydebank	Scotland	1 7½	1 2½
A	Coalville ..	Mid. Counties	1 7½	1 2½
B	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7½	1 2½
A3	Colwyn Bay	N.W. Counties	1 6	1 1½
A	Consett ..	N.E. Coast	1 7½	1 2½
A3	Conway ..	N.W. Counties	1 6	1 1½
A	Coventry ..	Mid. Counties	1 7½	1 2½
A3	Crewe ..	N.W. Counties	1 6	1 1½
A3	Cumberland	.....	1 6	1 1½
A	DARLINGTON	N.E. Coast	1 7½	1 2½
A	Darwen ..	N.W. Counties	1 7½	1 2½
B2	Deal ..	S. Counties	1 4½	1 0½
A3	Denbigh ..	N.W. Counties	1 6	1 1½
A	Derby ..	Mid. Counties	1 7½	1 2½
A	Dewsbury	Yorkshire	1 7½	1 2½
B	Didcot ..	S. Counties	1 5½	1 1½
A	Doncaster	Yorkshire	1 7½	1 2½
C1	Dorchester	S.W. Counties	1 3	11½
A3	Driffield ..	Yorks	1 6	1 1½
A3	Droitwich	Mid. Counties	1 6	1 1½
A1	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7½	1 2½
A	Durham ..	N.E. Coast	1 7½	1 2½
B1	EASTBOURNE	S. Counties	1 5	1 0½
A	Ebbw Vale	S. Wales & M.	1 7½	1 2½
A	Edinburgh	Scotland	1 7½	1 2½
A	E. Glamorganshire & Monmouthshire	S. Wales & M.	1 7½	1 2½
B	Exeter ..	S.W. Counties	*1 5½	1 1½
B1	Exmouth ..	S.W. Counties	1 4½	1 0½
B	FELIXSTOWE	E. Counties	1 5½	1 1½
A3	Filey ..	Yorks	1 6	1 1½
A	Fleetwood ..	N.W. Counties	1 7½	1 2½
B2	Folkestone	S. Counties	1 4½	1 0½
A	Frodsham ..	N.W. Counties	1 7½	1 2½
B3	Frome ..	S.W. Counties	1 4	1 0
A	GATESHEAD	N.E. Coast	1 7½	1 2½
B1	Gillingham	S. Counties	1 5	1 0½
A3	Gloucester	S.W. Counties	1 6	1 1½
A2	Goole ..	Yorkshire	1 6½	1 2
B	Gosport ..	S. Counties	1 5½	1 1½
A3	Grantham	Mid. Counties	1 6	1 1½
A1	Gravesend	S. Counties	1 7	1 2½
A	Greenock ..	Scotland	*1 7½	1 2½
A	Grimsby ..	Yorkshire	1 7½	1 2½
B1	Guildford ..	S. Counties	1 5	1 0½
A	HALIFAX ..	Yorkshire	1 7½	1 2½
A	Hanley ..	Mid. Counties	1 7½	1 2½
A	Harrogate	Yorkshire	1 7½	1 2½
A	Hartlepools	N.E. Coast	1 7½	1 2½
B2	Harwich ..	E. Counties	1 4½	1 0½
B2	Hastings ..	S. Counties	1 4½	1 0½
B1	Hatfield ..	S. Counties	1 5	1 0½
B	Hereford ..	S. W. Counties	1 5½	1 1½
B	Hertford ..	E. Counties	1 5½	1 1½
A1	Heysham ..	N.W. Counties	1 7	1 2½
A	Howden ..	N.E. Coast	1 7½	1 2½
A	Huddersfield	Yorkshire	1 7½	1 2½
A	Hull ..	Yorkshire	1 7½	1 2½
A	ILKLEY ..	Yorkshire	1 7½	1 2½
A	Immingham	Mid. Counties	1 7½	1 2½
B	Ipswich ..	E. Counties	1 5½	1 1½
C1	Isle of Wight	S. Counties	1 3	11½
A	JARROW ..	N.E. Coast	1 7½	1 2½
A	KEIGHLEY	Yorkshire	1 7½	1 2½
B1	Kendal ..	N.W. Counties	1 5	1 0½
B1	Keswick ..	N.W. Counties	1 5	1 0½
A3	Kettering ..	Mid. Counties	1 6	1 1½
A2	Kidderminster	Mid. Counties	1 6½	1 2
B2	King's Lynn	E. Counties	1 4½	1 0½
A	LANCASTER	N.W. Counties	1 7½	1 2½
A2	Leamington	Mid. Counties	1 6½	1 2
A	Leeds ..	Yorkshire	1 7½	1 2½
A	Leek ..	Mid. Counties	1 7½	1 2½
A	Leicester ..	Mid. Counties	1 7½	1 2½
A	Leigh ..	N.W. Counties	1 7½	1 2½
B3	Lewes ..	S. Counties	1 4	1 0
A3	Lichfield ..	Mid. Counties	1 6	1 1½
A	Lincoln ..	Mid. Counties	1 7½	1 2½
A	Liverpool ..	N.W. Counties	*1 10	1 4½
A2	Llandudno	N.W. Counties	1 6	1 1½
A	Llanelly ..	S. Wales & M.	1 7½	1 2½
.	London (12 miles radius)		1 9	1 4
.	Do. (12-15 miles radius)		1 8½	1 3½
A	Long Eaton	Mid. Counties	1 7½	1 2½
A	Loughborough	Mid. Counties	1 7½	1 2½
A3	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7½	1 2½
A1	MACCLESFIELD	N.W. Counties	1 7	1 2½
B	Maidstone	S. Counties	1 5½	1 1½
A3	Malvern ..	Mid. Counties	1 6	1 1½
A	Manchester	N.W. Counties	1 7½	1 2½
A	Mansfield	Mid. Counties	1 7½	1 2½
B2	Margate ..	S. Counties	1 4½	1 0½
A3	Matlock ..	Mid. Counties	1 6	1 1½
A	Merthyr ..	S. Wales & M.	1 7½	1 2½
A	Middlesbrough	N.E. Coast	1 7½	1 2½
A3	Middlewich	N.W. Counties	1 6	1 1½
B2	Minehead ..	S.W. Counties	1 4½	1 0½
A	Monmouth	S. Wales & M.	1 7½	1 2½
A1	S. and E. Glamorganshire Morecambe	N.W. Counties	1 7	1 2½
A3	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7½	1 2½
A	Nelson ..	N.W. Counties	1 7½	1 2½
A	Newcastle ..	N.E. Coast	1 7½	1 2½
A	Newport ..	S. Wales & M.	1 7½	1 2½
A	Normanton	Yorkshire	1 7½	1 2½
A1	Northampton	Mid. Counties	1 7	1 2½
A	North Staffs.	Mid. Counties	1 7½	1 2½
A	North Shields	N.E. Coast	1 7½	1 2½
A3	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7½	1 2½
A	Nuneaton ..	Mid. Counties	1 7½	1 2½
B	OAKHAM ..	Mid. Counties	1 5½	1 1½
A	Oldham ..	N.W. Counties	1 7½	1 2½
A3	Oswestry ..	Mid. Counties	1 6	1 1½
B	Oxford ..	S. Counties	1 6	1 1½
A	PAISLEY ..	Scotland	*1 7½	1 2½
C	Pembroke	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7½	1 2½
A2	Peterborough	Mid. Counties	1 6	1 1½
A	Plymouth	S.W. Counties	*1 7½	1 2½
A	Pontefract	Yorkshire	1 7½	1 2½
A	Pontypridd	S. Wales & M.	1 7½	1 2½
B	Portsmouth	S. Counties	1 5½	1 1½
A	Preston ..	N.W. Counties	1 7½	1 2½
A	QUEENSFERRY	N.W. Counties	1 7½	1 2
A3	READING	S. Counties	1 6	1 1½
B	Reigate ..	S. Counties	1 5½	1 1½
A3	Retford ..	Mid. Counties	1 6	1 1½
A	Rhondda Valley	S. Wales & M.	1 7½	1 2½
A3	Ripon ..	Yorkshire	1 6	1 1½
A	Rochdale ..	N.W. Counties	1 7½	1 2½
B	Rochester ..	S. Counties	1 5½	1 1½
A1	Ruabon ..	N.W. Counties	1 7	1 2½
A2	Rugby ..	Mid. Counties	1 6½	1 2
A3	Rugeley ..	Mid. Counties	1 6	1 1½
A	Runcorn ..	N.W. Counties	1 7½	1 2½
A3	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7½	1 2½
B3	Salisbury ..	S.W. Counties	1 4	1 0
A1	Scarborough	Yorkshire	1 7	1 2½
A	Scunthorpe	Mid. Counties	1 7½	1 2½
A	Sheffield ..	Yorkshire	1 7½	1 2½
A	Shipley ..	Yorkshire	1 7½	1 2½
A3	Shrewsbury	Mid. Counties	1 6	1 1½
A2	Skipton ..	Yorkshire	1 6½	1 2
A3	Slough ..	S. Counties	1 6	1 1½
A2	Solihull ..	Mid. Counties	1 6½	1 2
A3	South'pton	S. Counties	1 6	1 1½
A2	Southend-on-Sea	E. Counties	1 6½	1 2
A	Southport ..	N.W. Counties	1 7½	1 2½
A	S. Shields ..	N.E. Coast	1 7½	1 2½
A2	Stafford ..	Mid. Counties	1 6½	1 2
A	Stockport ..	N.W. Counties	1 7½	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7½	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7½	1 2½
B	Stroud ..	S.W. Counties	1 5½	1 1½
A	Sunderland	N.E. Coast	1 7½	1 2½
A	Swadlincote	Mid. Counties	1 7½	1 2½
A	Swansea ..	S. Wales & M.	1 7½	1 2½
B	Swindon ..	S.W. Counties	1 5½	1 1½
A1	TAMWORTH	N.W. Counties	1 7	1 2½
B1	Taunton ..	S.W. Counties	1 5	1 0½
A	Teeside Dist.	N.E. Counties	1 7½	1 2½
B	Teignmouth	S.W. Coast	1 5½	1 1½
A	Todmorden	Yorkshire	1 7½	1 2½
A2	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3½	11½
B1	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7½	1 2½
A	Tyne District	N.E. Coast	1 7½	1 2½
A	WAKEFIELD	Yorkshire	1 7½	1 2½
A1	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7½	1 2½
A2	Warwick ..	Mid. Counties	1 6½	1 2
A	Wellingborough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 7½	1 2½
B	Weston-s-Mare	S.W. Counties	1 5½	1 1½
A2	Whitby ..	Yorkshire	1 6½	1 2
A	Widnes ..	N.W. Counties	1 7½	1 2½
A	Wigan ..	N.W. Counties	1 7½	1 2½
B2	Winchester	S. Counties	1 4½	1 0½
A3	Windsor ..	S. Counties	1 6	1 1½
A	Wolverhampton	Mid. Counties	1 7½	1 2½
A3	Worcester	Mid. Counties	1 6	1 1½
A3	Worksop ..	Yorkshire	1 6	1 1½
A1	Wrexham ..	N.W. Counties	1 7	1 2½
B	Wycombe	S. Counties	1 5½	1 1½
B1	YARMOUTH	E. Counties	1 5	1 0½
B2	Yeovil ..	S.W. Counties	1 4½	1 0½
A	York ..	Yorkshire	1 7½	1 2

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.

* In these areas the rates of wages for certain trades (usually Painters and Plasterers) vary slightly from those given. The rates for each trade in any given area will be sent on request.

PRICES CURRENT

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 4d. *per hour*; LABOURER, 1s. 4d. *per hour*; NAVVY, 1s. 4d. *per hour*; TIMBERMAN, 1s. 5½d. *per hour*; SCAFFOLDER, 1s. 5d. *per hour*; WATCHMAN, 7s. 6d. *per shift.*

*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	11	0
Pit gravel, per yd.	0	18	0
Pit sand, per yd.	0	14	6
Washed sand	0	15	0
Screened ballast or gravel, add 10 per cent. per yd.			
Clinker, breeze, etc., prices according to locality.			
Portland cement, per ton	£2	15	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	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup..	0	0	5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.			
If left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	2	3	0
DO. 6-2-1, per yd. cube	1	18	0
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	16	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete 4 2-1 in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	2	6
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1s. 4d. *per hour*; TIMBERMAN, 1s. 5½d. *per hour*; BRICKLAYER, 1s. 9d. *per hour*; PLUMBER, 1s. 9d. *per hour*; WATCHMAN, 7s. 6d. *per shift.*

*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	6
Portland cement and sand, see "Excavator" above.			
Leadwool per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

*

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	8	0
DO. 6 in., per ft.	0	10	0

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

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

BRICKLAYER

BRICKLAYER, 1s. 9d. *per hour*; LABOURER, 1s. 4d. *per hour*; SCAFFOLDER, 1s. 5d. *per hour.*

*

London stocks, per M.	£4	15	0
Flettons, per M.	3	0	0
Midhurst white facing bricks, per M	5	0	0
T.L.B., multi-coloured facings, per M	7	7	9
DO. *red best facings, per M*	7	7	9
DO. *rubbers 9¾ in., per M*	12	0	6
Staffordshire blue, per M.	9	10	0
Firebricks, 2½ in., per M.	11	3	0
Glazed salt, white, and ivory stretchers, per M.	24	10	0
DO. *headers, per M.*	24	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	17	0
Mixed lime mortar, per yd.	1	6	0
Damp course, in ro ⩽ 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.			
DO. in backing to masonry, add 12½ per cent. per rod.			
DO. in raising on old walls, etc., add 12½ per cent. per rod.			
DO. in underpinning, add 20 per cent. per rod.			
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side per ft. run	0	0	6
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
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano, paving to old, per ft. run	0	0	4
Extra for dishing grano, or cement paving around gullies, each	0	1	6
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, ½ 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
BREEZE fixing bricks, extra for each	0	0	3

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. 9d. *per hour*; DO. *fixer*, 1s. 10d. *per hour*; LABOURER, 1s. 4d. *per hour*; SCAFFOLDER, 1s. 5d. *per hour.*

*

Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	7
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. 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
ARTIFICIAL stone paving, 2 in. thick, per ft. sup..	0	1	6
DO. 2½ in. thick, per ft. sup.	0	1	9

SLATER AND TILER

SLATER, 1s. 9d. *per hour*; TILER, 1s. 9d. *per hour*; SCAFFOLDER, 1s. 5d. *per hour*; LABOURER, 1s. 4d. *per hour.*

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

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Slates, 1st quality, per 1,200:			
Portmadoc Ladies	£14	0	0
Countess	27	0	0
Duchess	32	0	0

Old Delabole	*Med.*	*Grey*		*Med.*	*Green*
24 in. × 12 in.	£42	11	3	£45	1 0
20 in. × 10 in.	31	4	3	33	0 6
16 in. × 10 in.	20	18	0	22	4 9
14 in. × 8 in.	12	1	0	12	16 3

Green Randoms, per ton	8	3	9
Grey-green do., per ton	7	3	9
Green peggies, 12 in. to 8 in. long, per ton	6	3	9
In 4-ton truck loads, delivered Nine Elms station.			
Clips, lead, per lb.	£0	0	6
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. lap, 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

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey			Med. Green	
24 in. × 12 in.	£5	0	0	£5	2 0
20 in. × 10 in.	5	5	0	5	10 0
16 in. × 10 in.	4	15	0	5	1 0
14 in. × 8 in.	4	10	0	4	15 0

Green randoms	6	7	0
Grey-green do.	5	9	0
Green peggies, 12 in. to 8 in. long	4	17	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. 9d. *per hour*; JOINER, 1s. 9d. *per hour*; LABOURER, 1s. 4d. *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.	33	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	2	6
DO. *T. and G., 1 in., per sq.*	1	2	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	4
Mahogany, Honduras, per ft. sup. of 1 in.	0	1	3
DO. *Cuba, per ft. sup. of 1 in.*	0	2	3
DO., *African, per ft. sup.*	0	1	0
Teak, per ft. sup. of 1 in.	0	1	3
DO., *ft. cube*	0	12	6

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FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	5	6
DO. framed in floors, roofs, etc., per ft. cube	0	6	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	7	6
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.	2	10	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over per ft. sup.	0	1	2

continued overleaf.

CARPENTER AND JOINER: *continued.*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ¾ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one ply, per yd. sup.	0	2	3
DO. two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¾ in. with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labours, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	6
If ramped, per ft. run	0	5	0
SHORT ramps, extra each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1¼ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick and bedding, per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
To DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

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

*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	19	0	0
Corrugated sheets, galvd., per ton	18	10	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

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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

PLUMBER

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

*

Lead, milled sheet, per cwt.	£1	9	0
DO. *drawn pipes, per cwt.*	1	10	0
DO. *soil pipe, per cwt.*	1	12	0
DO. *scrap, per cwt.*	1	0	0
Copper, sheet, per lb.	0	1	3
Solder, plumber's, per lb.	0	1	3
DO. *fine, per lb.*	0	1	9
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in., per yd.	0	4	0
DO. *4 in. per yd.*	0	4	9½
R.W.P., 2½ in., per yd.	0	2	2
DO. *3 in., per yd.*	0	2	7
DO. *4 in., per yd.*	0	3	6½
Gutter, 4 in. H.R., per yd.	0	1	6½
DO. *4 in. O.G., per yd.*	0	1	10½

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MILLED LEAD and labour in gutters, flashings, etc. per cwt.	3	0	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	0
DO. ¾ in., per ft.	0	2	3
DO. 1 in., per ft.	0	3	0
DO. 1¼ in., per ft.	0	4	0
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
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO. ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	7
DO. 3 in., per ft. run	0	2	0
DO. 4 in., per ft. run	0	2	10
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	2	0
DO. O.G., 4 in., per ft.	0	2	3
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	4	6
DO. 3 in., per ft.	0	3	6
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 9½*d. per hour (plus allowances in London only)* ; LABOURER, 1*s.* 4*d. per hour.*

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Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	0	0
Sand and cement see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
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

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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, ¾ 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	3
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 8*d. per hour.*

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Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. *26 oz.*	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *¼ in. per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0

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GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO. 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	1
DO. 26 oz., per ft.	0	1	4

Small sizes slightly less (under 3 ft. sup.).
Patent glazing in rough plate, normal span, 1*s.* 6*d.* to 2*s.* per ft.

LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, per ft. sup. and up	£0	3	0

Glazing only, polished plate 6½*d.* to 8*d.* per ft. according to size.

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 8*d. per hour* ; LABOURER, 1*s.* 4*d. per hour* ; FRENCH POLISHER, 1*s.* 9*d. per hour* ; PAPERHANGER, 1*s.* 8*d. per hour.*

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Genuine white lead, per cwt.	£2	7	6
Linseed oil, raw, per gall.	0	3	6
DO., *boiled, per gall.*	0	3	8
Turpentine, per gall.	0	4	0
Liquid driers, per gall.	0	3	6
Knotting, per gall.	0	18	0
Distemper, washable, in ordinary colours, per cwt., and up	2	5	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	12	6
DO., *flat, per gall.*	1	2	0
DO., *paper, per gall.*	0	16	0
French polish, per gall.	0	17	6
Ready mixed paints, per gall. and up	0	15	0

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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
WAX POLISHING, per ft. sup.	0	0	6
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	0	9
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

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.
The measured work price is on the same basis . . . per ft. sup. £0 0 2½

FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds per ft. sup. . . . from 3d. to	0	0	6
Plaster board, per yd. sup. . from	0	1	7
PLASTER BOARD, fixed as last, per yd. sup. . . . . from	0	2	8
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ¼ 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, per ft. sup.

Thickness	⅜ in.			½ in.			⅝ in.			¾ in.		
Qualities ..	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2½	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine	5	4	—	5½	5	—	6	—	—	—	—	—