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RATING REFORM

RATING is the method by which is determined the proportions in which the cost of local government in a defined area are provided by all the individuals who are the occupiers of premises in that area. The proportions are found by estimating the annual rent at which the premises they occupy might reasonably be expected to let. For example, if the rents so estimated of all the premises in the area amount to £100,000 the occupier of premises estimated to be worth £100 per year will pay one-thousandth part of the cost. Put in another way, if the total cost is £50,000 he will pay £50, or 10s. in the £ on the £100, which is estimated to be the yearly rent of the premises he occupies. Put in still another way, the rates in that area would be said to be 10s. in the £. Rating reform will therefore take one or more of three courses. It will either change the method of determining the proportions that are to be paid, or by reducing the total cost of local government, or by altering the proportions as between the individuals that have to pay. Examining these separately, it has been suggested that instead of basing the proportion on the yearly rent of the whole premises, it should be based on the capital value of the land only which is occupied. For example, assume that you have two cases where a yearly rent of £30 is based on a capital expenditure of £600. In each case at the present time the same proportion will be paid, but it may be that while the total value of the premises is the same, the capital value of land and buildings may differ; in the one case it may be land £100, buildings £500; and in the other land £200, buildings £400. In such a case if the method were altered so that the capital value of land were taken as the base the occupier of the higher-valued land would pay twice as much as the occupier of the lower-valued land.

There are many arguments for and against the change. The one mainly of interest to architects is that the present method is a check on building because the value of the buildings increases the proportion of rates to be borne. A more drastic change proposed is to drop entirely the method of basing the proportions on the value of land and buildings, either separately or together, or on either their capital or annual value, and to substitute for it a local income-tax. This would have the effect of making not only occupiers but other individuals contribute to the cost of local government. The method is in vogue on the Continent, but up to the present, although examined by Royal Commissions and departmental committees, has found no favour in this country.

The second way in which rating reform might proceed is by reducing the cost of local government. This can be done in two ways: one by economy on the part of local authorities, the other by the Imperial Government either contributing grants to the local authorities or taking over services at present performed by them. Whatever may be said about the first course, one of the latter two is already in operation. The Government does now make grants, and is continually being pressed to make larger ones, and though we are not aware of its having actually taken over any local service, it is suggested that, for instance, it should take over and maintain the roads of the country.

The last way in which rating reform can proceed is by reducing the proportion to be paid by special classes of occupiers. This may be done by reducing the proportion after it has been estimated: as it is in the case of farm land and buildings. After the rent of agricultural land is estimated it is treated for rate-collecting purposes as being only one-fourth of such rent. The same takes place with respect to farm buildings.

This does not profess to be more than the sketchiest outline of the subject, but it will be sufficient to indicate the possibilities before Mr. Churchill if he cares to transform his project of rating reform into legislative or administrative Acts. How will he do it? Will he change the method and rate on land values and not on the value of land and buildings? Will he abolish rating altogether and go for a local income-tax? Will he increase the grants to necessitous areas? Will he take over some of the services at present carried out at the charge of the local authorities? The latter course involves the diminution of rates by the increase of taxes. It will alter the incidence of the burden. Or will he proceed by giving further exemptions to industrial premises; for example, by treating them as the farmers' premises are treated, by estimating their rent, and then, for rating purposes, reducing it to some fraction of the original estimate?

All these courses have difficulties. To give increased grants may stimulate extravagance rather than economy on the part of the local authorities. The Addison housing schemes are the classic instances of this. To take over local services may not only have the same effect, but would also involve the increase of the Government departments and the growth of bureaucracy, undermining at the same time the interest in local government which is so peculiar a possession of this country. To give special exemptions to the industrialist means increasing the burden on the remaining occupiers. If the farmer and the manufacturer pay less rates, if the total cost is not reduced, the householder and shopkeeper must pay more. The task before the Chancellor is not an easy one, and no one need envy him it. It will raise a hornets' nest of problems, every one of which has a sting in it that may well prove fatal.

NEWS AND TOPICS

PRESERVATION AND DECAY—THE IMPORTANCE OF THE KITCHEN—NIGHTMARES IN STONE—THE NEW CHAIN AT ST. PAUL'S

"THERE was nothing that architects could ask men of science that was more difficult than the causes of the decay of stone," said Professor A. P. Laurie, at the R.I.B.A. on Monday night. The whole question of stone preservation and decay was a very complex one, involving many complicated physical and chemical changes, and it was a specially difficult matter of research because they were dealing with the slow actions taking place over a considerable period of time. There was, in the first place, the effect of changes of temperature, causing expansion and contraction—an effect which was most marked on stones of complex composition, such as granites, which consisted of a mass of interlocking crystals of different minerals, each with its own coefficient of expansion. There was also the mechanical effect of wetting and drying. There was the freezing of water in the pores of stone. There was also the slow chemical action due to the solvent properties of water containing carbonic acid gas.

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These might be all regarded as natural causes of decay, but under the conditions existing in our modern cities, where large quantities of coal were burnt, the burning of the sulphur results in the production of sulphur dioxide, and this gas in the presence of air and moisture was converted into sulphuric acid. "Of all methods of decay," said Professor Laurie, "there can be no question that the most active at the present day is this attack of the sulphur acids." Speaking as a purist, the professor said that the right building material for London was the London stock brick, or a brick of equal quality, which had stood centuries of exposure to London conditions with remarkably little decay. The use of limestone in London was obviously, from the scientific point of view, unjustified.

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One point in Professor Laurie's lecture was paramount—the importance of the chemist in the selection of all materials at the very outset of a job. The lecturer instanced how a certain building had been built of stone taken indiscriminately from two quarries only a mile apart, and of seemingly similar limestone. But though alike to outward appearance, they were geologically a million years apart, and the building was rendered unsightly by the disintegration of the inferior stone. One other fact, too, emerged and loomed darkly before us: as we listened to what was an absorbingly interesting paper it was borne in upon us that there is nothing constant but CHANGE, with the great Devil DECAY holding power supreme over all our works. "*No preservative would protect.*" And one great agent did the arch-fiend employ—Sulphuric Acid might be said to be the villain of the piece.

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A spirited criticism of the new Grosvenor House flats appeared in the *Daily Express* last week under the heading, "Nightmares in Stone," and though the buildings are largely faced with brick and not with stone, the criticism is not altogether beside the mark. The fear that this tall building will become a precedent for others to be erected along the margins of our parks and open spaces has a foundation in fact which has a most sinister importance. London is not on the same footing as Chicago or New York in respect to the suitability of high buildings, since the American cities stand far nearer the Equator and enjoy more nearly vertical sunshine. The interference with rights of light and air by tall buildings is very much more acute in London, where the sloping rays cast longer shadows, and where sunshine is all the more precious for its comparative rarity. Belts of tall buildings along the Thames and around the parks will undoubtedly affect adversely the health of persons condemned to live in lower buildings, or lower stories of high buildings overshadowed by them, and, apart from any question of æsthetics, the erection of such tall buildings must be regarded as an offence against the amenities of the metropolis as a whole.

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Perhaps it is just because the new flats are really not "nightmare" in the sense of being repulsively ugly that they are all the more dangerous. If it could be granted that high buildings are wanted in London, the Grosvenor House building is as good an example of suitable architectural design as is likely to be created under normal commercial conditions. It compares favourably in respect to sound economy of "architectural features" with most of the buildings erected in Park Lane within the last fifty years, and, if not exactly a thing of beauty, it need not be assumed that it is an eyesore. In certain lights the great mass of brickwork is distinctly impressive, and even in the most prosaic moments it has to be admitted that the design exhibits the important quality of suitability to its purpose. The real defects of the design are such as can only be realized by an effort of imagination which looks forward to the future and estimates the ultimate effect of high buildings in London upon such vital matters as light and air. It is easy to recognize the natural tendency for buildings on expensive sites to be built as high as the authorities permit, and it is hardly within the power of an individual architect to curtail a new design and make it a couple of stories lower than his client desires or the by-laws allow. Still, this nightmare of high buildings overshadowing London and making it unhealthy is a real menace, and realization of the danger by architects is one step towards the proper enforcement of the by-laws which should protect Londoners against it.

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A law suit in which the amount of daylight in a kitchen was involved has just raised once more the question of the importance of the kitchen relative to the other rooms of the house. The adjoining owner, whose new wall was liable to deprive the existing premises of light, took the view that, as the window in question only lighted a kitchen, no particular harm would be done. On the other hand, the owner of the existing premises was equally certain that the kitchen must enjoy ample daylight whatever other room went without! I don't know how they settled it; but there is no doubt that the kitchen is really the most important room in the house. It is possible to sit in a room that has been designed for a bedroom, or to sleep in one that has formerly

served as dining- or drawing-room; but the kitchen is a specialized apartment, and it is not practicable for a householder to decide to change kitchen to bedroom or dining-room without trouble and expense. It is essential that the kitchen should therefore be planned thoughtfully and systematically in respect to its actual functions. In the first place, it is the scene of the housewife's principal tasks on most days of the week, and when a servant is kept and no servants' hall provided, the kitchen is also a sitting-room wherein a fellow-human has to pass the bulk of her waking hours.

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As one who has frequently suffered from a stuffy church, I am glad to see that Dr. Hensley Henson, the Bishop of Durham, at a dinner recently in Newcastle of the Northern Architectural Association, took the opportunity of asking them to pay more attention to ventilation. He remarked, after making an appeal to those present to see that the ventilation was adequate in any future buildings they planned: "How often have I crawled from the pulpit, after a long sermon, almost asphyxiated by the deplorable atmosphere?"

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Major Cohen, the honorary treasurer of the British Legion, advocated recently in the House of Commons that a fund of £500,000 should be raised in order to erect memorial houses in honour of the late Lord Haig, that would be occupied mainly by disabled ex-service men. In a subsequent interview he expressed the opinion that these houses, which would be studded all over the country, should all be of the same design. He further made the ingenuous suggestion that quite probably some "eminent architect" might "like to give" the British Legion a design. While entirely sympathizing with Major Cohen's desire to help on ex-service men, I hope that he will obtain the advice of some experienced men before he goes much farther. One of the main lessons taught during the Addison housing campaign was that different parts of the country need different types of houses. There are even local prejudices in favour of special forms of kitchen ranges, and any attempt to provide a sealed pattern of cottage would be distinctly unpopular. The idea of employing an "eminent architect" should be considered in favour of employing local architects who understand housing and local requirements.

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An interesting development in craftsmanship, inspired by architecture, is reported from the United States. A Danish silversmith called Erik Magnussen has designed what he calls "skyscraper silver." His designs are directly attributable to his observation of the planes and triangular shapes which the shadow of the sun's rays cast upon skyscrapers. He uses gold to represent the golden patches of sunlight, and by a combination of mercury and gold gives the impression of shadows. The expression in silver is, of course, experimental, but shows how architecture still has its influence in silver design. For, of course, the silver teapots of the eighteenth century kept pace with the architectural developments of the age of Queen Anne and the Georges. Skyscraper silver is now being exhibited in various large cities of the United States.

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The news that a new great chain of stainless steel, to weigh 30 tons and to withstand a tensile stress of 1,000 tons, is being made to encircle the drums of St. Paul's Cathedral recalls the part played by THE ARCHITECTS' JOURNAL in connection with the controversy concerning the repair of the building in 1925. The articles by Mr. William Harvey which appeared on January 14 and 21 of that year were the first to point out the damage that the cathedral was suffering, and likely to continue increasingly to suffer, from bursting pressures generated by the enormous central mass of Sir Christopher Wren's domes and their eccentric oblique application as thrusts from arches and pendentives abutted in a complex but not altogether adequate manner by Wren's ingenious array of bastions and curtain walls. The publication of the final report of the St. Paul's Commission a month later gave practical confirmation to Mr. Harvey's investigation, for the definite, though slow, expansion of the upper parts of the cathedral was mentioned by the Commission under the name of "cumulative effects of temperature changes." Strangely enough, the great tension ring which Mr. Harvey had proposed to prevent further yielding of the material in response to the interaction of its shape and weight is now found suitable also to deal with the "cumulative effects of temperature changes." But whatever the name by which the outward expansion is accounted for, its public recognition first took place in THE ARCHITECTS' JOURNAL.

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If women in their hours of ease are uncertain, coy, and hard to please, in their hours of work, as seen in the exhibition of women artists at the Royal Institute, 195 Piccadilly, they are certain, daring, and most pleasing. Many of the six hundred exhibits are paintings in oil and watercolour of a high standard. There are a number of decorative paintings, the most distinguished of which is a large gilt and lacquer panel called "Carnival," by Madeline Wells. It is, however, the encroachment of the crafts into the domain of the arts that interests me most in this show. With accomplishments far ahead of many painters, exhibitors are in certain cases content to let themselves go on silk shawls, bead necklaces, brass doorknockers, and pot animals and bowls. All these things are admirably adapted for interior decoration, as is also much of the sculpture of which I was glad to notice a considerable section. For the adornment of the garden there were many pieces in lead, stone, and bronze, the chief contributor being Anne Acheson, seconded by Phyllis A. Clay. The pottery is good, especially the stoneware of Katharine Pleydell-Bouverie. Stoneware pottery by W. Staite Murray is the principal feature of the Seven and Five Society at the Beaux Arts Gallery, where also Maurice Lambert shows some virile sculpture, and Sidney Hunt intriguing vorticist designs in watercolour.

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One night last week I passed down Horse Guards Avenue and, out of the corner of my eye, noticed a policeman and a chauffeur inspecting a car which was parked outside one of the clubs. I paid it more attention. It was an odd-looking car, and the policeman and the chauffeur were so intrigued by it that I could have "lifted" all the other cars on the rank. And then I recognized whose car it was. It was that car of Mr. Goodhart Rendel's which was illustrated in the New Year issue of the JOURNAL. Does it always, I wonder, excite attention?

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A builder, who was speaking in public for the first time, said: "I am unaccustomed to public speaking. My proper place is on the scaffold."

ASTRAGAL

BRIDGES

[BY SIR E. OWEN WILLIAMS, K.B.E.]

OF the works of mankind few are of greater material necessity that the bridge. Its significance has compelled its veneration—even worship. Without it we should be segregated and classified into less than watersheds. With it we pass lightly and equally over brook and chasm. Towns and cities have sprung up around it, and for its possession some of the greatest battles of the world have been fought. History, however, records that the bridge is a comparatively recent activity of mankind. Its story is the story of our present civilization. The art of the Greeks hardly extended to it. Their unit of construction was the beam or lintel of stone or timber, severely restricting the limits of the bridge, which can only make its greatest leaps in other forms and other materials. The Romans, a race of engineers, developed the principle of the arch in bridges. The balancing of the arch and the founding of its abutments were long practised before they were reduced to something approaching scientific exactness.

The great revival of bridge building, together with road construction, was witnessed at the beginning of the last century, principally engineered by Smeaton, Rennie, and Telford, but still the material was largely stone, and the type of construction the arch. Rennie may be said to be of the last of the stone bridge builders, and Telford of the first of those who built in metal embodying principles other than the arch. The contrast might well be made as between Waterloo Bridge, the last of the great stone bridges, and Menai Suspension Bridge, the first of the modern metal type, as between the two types there is an entirely different conception of the nature of the bridge. In one, mass and weight are emphasized as though the object were to construct a solid rock through which holes were driven for the passage of the water; in the other, the bridge structure is conceived as a collection of forces clothed in metal with every desire and every reason to make the structure as light as possible. In a word, it is strength as against mass. To reduce this to a comparison, the weight of Waterloo Bridge per square foot of roadway is about three times as much as that of the new 3,500-ft. single span bridge being constructed over the Hudson River, New York, i.e. a single span more than three times the total length of Waterloo Bridge.

To Telford must be given the credit of grasping this fundamental change of thought, and of utilizing it so aptly as he did in the Menai Suspension Bridge.

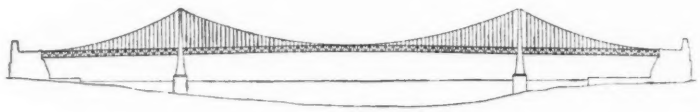
But the impulse which has compelled a still greater vision of the bridge has come from the introduction of mechanical transport both on rail and road. The steel that made mechanical transport possible was at hand as the medium for the vaster and stronger bridges that mechanical

[The above is the substance of a paper read at the R.I.B.A. on Wednesday last.]

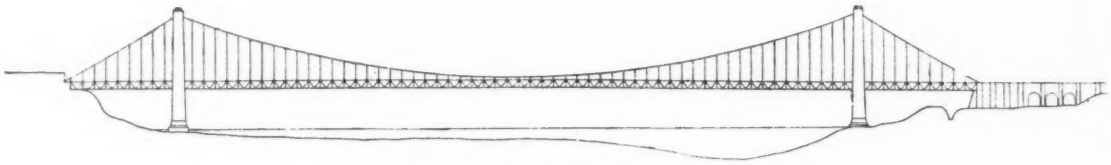
Fort Washington-Fort Lee Suspension Bridge. [From a perspective drawing.] This bridge, when completed, will have a centre span of 3,500 ft. The roadway is a double-deck structure, with ultimate provision of eight lanes for highway traffic on the upper deck. The towers will reach to a height of 625 ft. above water.

transport demanded. Railway bridges of great span were constructed, the outstanding one being the Forth Bridge, with its spans of 1,750 ft. But these were new bridges for new purposes on new routes, and meantime road bridges were falling into decay and disuse. Then appears mechanical road transport, compelling a reconstruction of the vast number of road bridges which exist in the world (averaging $1\frac{1}{4}$ to every mile of road), and adding to the problem by asking for new bridges on more difficult sites and of enormously longer spans. It is easy to understand the degree to which road bridges are chaotically outclassed, when it is recalled that twenty years ago they seldom carried more than a wagon weighing a ton or so, whilst now it is clear that we must anticipate and prepare for trains of loads each of twenty tons or more.

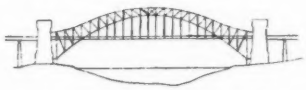
It is usual and only natural to think of a bridge as being that part of the structure that man has built, the part that



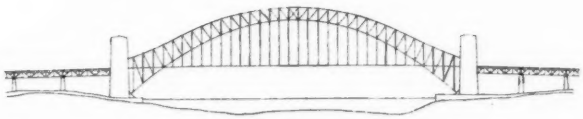
Philadelphia Bridge.



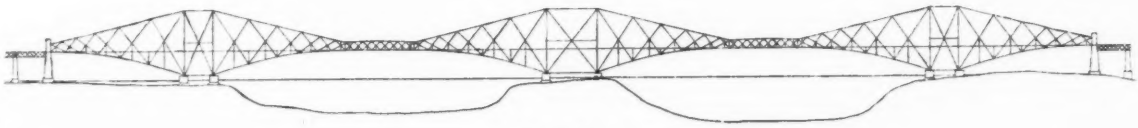
Hudson River Bridge, New York.



Hell Gate Bridge, New York.



Sydney Harbour Bridge.

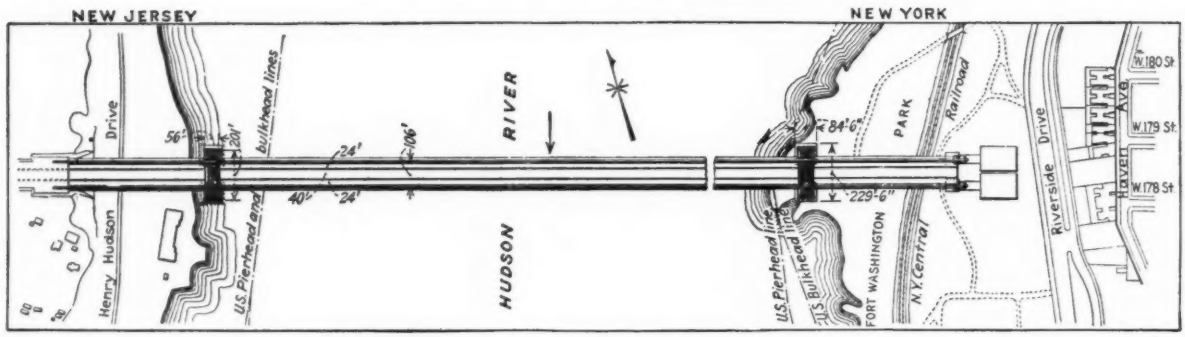


Forth Bridge.

Menai Bridge.

Waterloo Bridge.

Seven historic bridges, all drawn to the same scale.



Fort Washington-Fort Lee Suspension Bridge. Plan.

is seen. It would be better in thinking of a bridge to include in the vision a section of the earth crust, regarding such piece of the earth as an intimate part of the bridge, because it is the resistance and assistance that the earth gives which determines the type of a bridge. It is not the visible structure, but the manner in which the earth is acting that fixes the type.

Bridges have become classified into three main types, the arch, the beam, and the suspension, with other subsidiary variations of these; but when each type is viewed with an appropriate section of the earth as a part of its system, they will all be found to have a common basis. When any piece of the earth (whether it be fashioned into a bridge by man, or whether it be an overhanging piece of rock or a natural arch) has a void between it and the surface of the earth, i.e. when it spans an opening or projects beyond a vertical face, then two forces of Nature are brought into play—compression, which tends to crush material, and tension, which tends to tear material. Every structure, whatever its type may be, has these characteristics. In the arch that portion built by man is in compression, in the suspension bridge it is in tension, in the beam it is both in compression and tension; but in the arch the necessary complementary tension is found in the lateral or horizontal forces which are put on to it by the earth, and in the suspension bridge the necessary compression is again found by the horizontal actions of the earth crust. Therefore the only difference between the three types is the extent to which it makes demands on the earth. The beam is self-contained, and only requires vertical support; the arch and the suspension bridge not only require vertical support, but, in addition, horizontal support, i.e. in a sense they have to be " riveted " to the earth to prevent sideways movement. The extent of the so-called " riveting " fixes the nature of the bridge. However much a structure may look like an arch, if it has not got the necessary riveting, so-called, then the earth will act on it exactly as it does on a beam, and whatever arch-like appearance it may have, it is then in reality a beam. A curved appearance does not make an arch nor a suspension bridge. Their types are solely determined by the nature of their attachment to the earth. It is for this reason that in picturing a bridge I suggest you should also include a section of the surface of the earth.

It follows, in designing a bridge, the type should to some extent reflect the nature of the soil below, and for this reason types and forms of bridges are not a subject for fanciful imagination, but the result of the analysis of conditions, the principal one being the nature of the ground. Exploration by borings into the earth is therefore the first necessity before attempting the design of a bridge. In general the nature of the soil is a factor which will e iminate or compel the adoption of certain types. The beam or any variation of it depends on vertical resistance of the earth alone, and can be designed so that considerable settlements have not the slightest effect on its security. The arch and the suspension bridge cannot permit of any settlement or movement of the ground. In both cases movement of the ground will tend to make them into beam bridges, for which they were not proportioned, and danger or collapse would follow.

Arch-shaped structures with a rise or camber exceeding one-twelfth of the span, but not exceeding one-sixth of the span, will be found to have, in spite of whatever attachment they have to the soil, serious tensile stresses, and may be classed as semi-arches. Stone, brick, and plain concrete are no longer useful, and we come into the region of tensile materials, such as reinforced concrete, steel, and other metals.

Structures which are flatter than one-twelfth of the span will be found to have very serious tensile stresses, and when exactly horizontal, tensile and compressive stresses are equal, the true beam is reached, i.e. making no demand on the soil except for vertical support. With increasing dip the ideal suspension type is met in which all members remain constantly in tension.

Again I would emphasize that mere shape does not determine into which category the structure will come. It must be shape combined with the nature of its attachment to the soil, and its demand on the soil, that determines the type.

In the simplicity of its requirements a bridge differs from almost every other structure, except possibly a memorial. It has one single requirement imposed, and that is to carry traffic. It is therefore the more able to reflect conditions of the site both in soil and surroundings than a structure having complex functions, such as a factory or public building. The problem of designing a bridge is therefore one of saturation of the designer with site conditions, to discover that one suitable bridge and one only, which meeting all and every one of the conditions of the site is the only solution and the only bridge for that site. The soil conditions, waterways, flooding, traffic must be explored to a conclusion, and then, having collected every condition, the bridge will almost design itself. The only danger will be for the designer and all those connected with the construction of the bridge putting themselves and their own fads into it, instead of following the simple and only rule of being just to materials whether under, in, or over the foundations.

MODERNISM IN PAISLEY

[BY E. MAXWELL FRY]

IT is interesting to wonder why, when every large building today is built over a framework of steel or reinforced concrete, there should exist so startling a disparity of styles and treatments. Here is a building with nearly Cyclopian granite masonry, suggestive of Cheops and slave labour; there a great pile, built up, part upon part like some palace in a prosperous Italian hill town; here again a smooth-faced box, punctured in serried rows of die-square window openings, with walls that seem to be egg-shell thin; and then in contradiction a factory block showing its gaunt construction of beam and lintel without troubling after effect. They are all built in very much the same way—in every case a framework of steel with a covering to suit the individual taste and requirements. The important thing, so far as the stability of the building is concerned, is the steelwork, the rest is—whatever you like to make it—Renaissance scenery for Piccadilly, eighteenth century for Regent Street; brick palaces for Mayfair and Gothic fancies for Bond Street. Underneath is the steel framework, vertical stanchions and horizontal beams, all bolted and riveted firmly together without any suggestion of being built upward from the ground, and, indeed, with nothing in common with the appearance of the visible external facing. It is very difficult to decide, first, whether this framework should influence the external appearance of the building, and, secondly, in what way it can do so. The question is provocative of endless inquiry and discussion, and may, I am not quite certain, contain the essence of what troubles most architects when they set about designing a new building.

One thing is certain, and that is, that whereas in the past steelwork has given internal support to traditional forms of building and has played a very secondary part in the scheme of things, its influence as a factor in design increases daily, and with every call for greater efficiency and true economy will at last affect the external appearance of all types of building. By this I do not mean that we shall have buildings that look like greenhouses; but that in some

The Russell Institute, Paisley. By Abercrombie and Maitland. View from the south-east.

subtler way, steel-framed buildings will be recognizably such. Perhaps it will show itself in a new lightness, something opposed to the building up of heavy masses of stone; a sort of sheet construction, bound top and bottom, box-like and rigid in all directions; the sort of thing that you could imagine being grasped by a giant's hand and lifted bodily from the ground without any crumbling and clouds of brickdust; machine-like, rigid, three-dimensionally perfect.

It is because the building under review—the Russell Institute, by Messrs. Abercrombie and Maitland—is in many interesting ways removed from anything that could be called *pastiche* or stylist, and exhibits some of the qualities which we begin to recognize as native to the best modernly-designed structures, that I have been tempted into a preamble so burdened with conjecture. It is the fenestration of the side elevations that thrills one at first sight with a vision of slick, hard surfaces of finely-jointed stonework reduced to the satisfactory minimum section, with clean metal window infilling in the long vertical voids. This is absolutely first rate, and forms the high note of the building. Everything else—the corner buttresses, splayed angle treatment, and decorative sculpture—is in a descending scale, and seems to have lost purpose when viewed by the same standard as the sides, for there is established a scale and a rhythm that never gets round the corner or finds an echo substantial enough to ring in unison. The arch on the splayed face and the play of cornices are anti-pathetic to the vertical treatment of the sides, and might be said to be just a little too consciously designed to be entirely successful. From the side street it is possible to see that the wall-face above the arched window is carried up above the roof purely because of the arch and sculptured figure above it, and this discovery is a loss to the building, destroying the compactness and unity of the cube, which the sides have done so much to strengthen.

It is very doubtful whether such abstract designing as this can stand much or, indeed, any sculpture. There is less and less need for the type of figure sculpture which in the good old days of twenty or thirty years ago burst happily from a hundred little niches and crannies up and down the building. It has been used less and less, even in buildings where funds have been available for lavish decoration, and has tended to become ornament and pattern rather than isolated statuary.

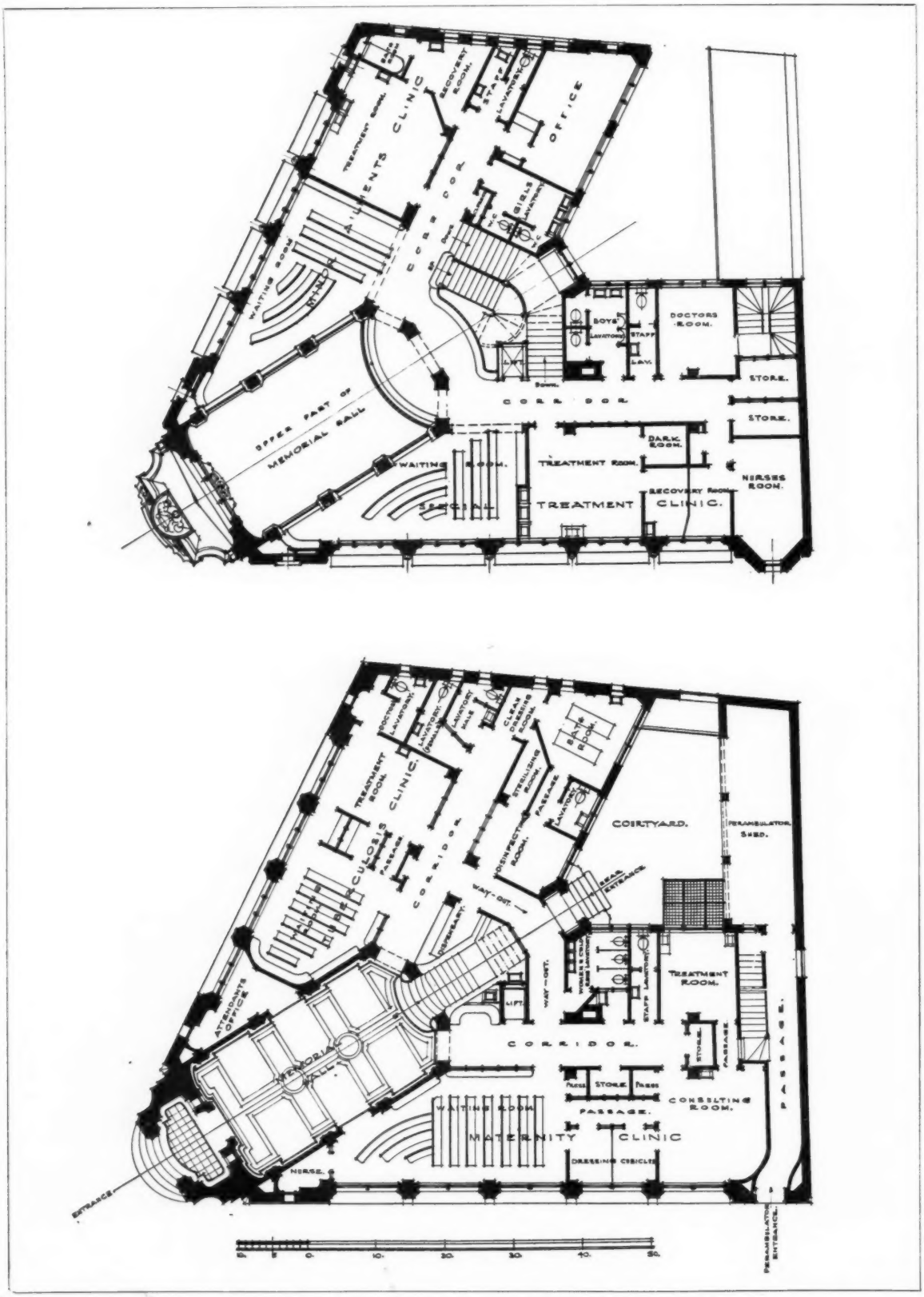
A great deal of thought has been expended upon the sculptural decoration of this building. The group of the main entrance is particularly well placed and designed. That seems to me the only possible position for figure work. The winged angel above the arched window seems doubtfully in place; I suspect her of having something to do with the screen wall, and prefer her more earthly counterpart on the doorway below. For the rest, the lions' heads and decorative shields do very little to accentuate the lines of the building, good as they are.

The metalwork is of a high order and one with all that is good in the building. Metal windows entirely fill the long, vertical voids that stretch from ground to cornice. They are finely and suavely designed, with a slight vertical emphasis that passes across the horizontal bands at floor levels, forming a thin shadow exactly proportioned to its

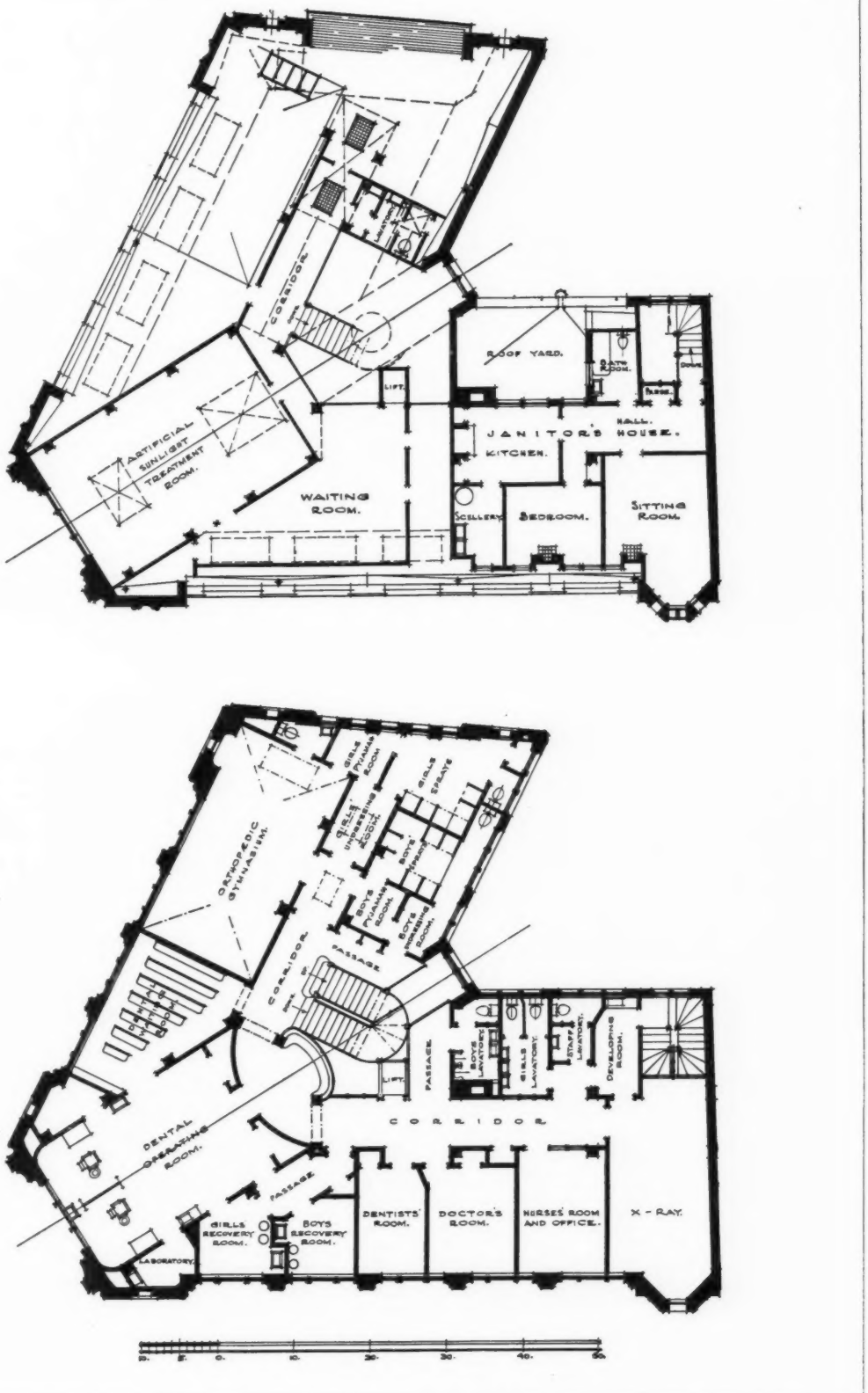
The Russell Institute, Paisley. By Abercrombie and Maitland. The entrance porch.

purpose. The modelling of sashes, panels, and transoms is very clean and good. At first-floor level there is a metal balcony extending between buttresses on the side elevations. Like the rest of the ironwork, it is sharp and clean, with a slight projection from the wall face that enables it to strengthen the design instead of being an appendage. On plan, which you should observe before considering the internal arrangements of the building, the line bisecting the angle has been made the principal axis, about which is placed a rectangular entrance hall extending through two

The Russell Institute, Paisley. By Abercrombie and Maitland. View from the south-west, looking down New Street towards Causeyside Street.



The Russell Institute, Paisley. By Abercrombie and Maitland.
Above, first-floor plan. Below, plan of ground floor.



The Russell Institute, Paisley. By Abercrombie and Maitland.
Above, plan of top floor. Below, second-floor plan.

floors. From this hall leads off a stairway that branches right and left to the clinics on the first floor, continuing to the second from another position.

The building is unique in housing under one roof the clinical requirements for the whole city of Paisley. Being the gift of an old lady of the city, and apparently an expensive gift, it has been possible to plan a wonderfully efficient institute wherein maternity, tuberculosis, mental, and special ailments, dental and orthopædic clinics work side by side with great economy of time and money.

Each wing contains one clinic, with waiting- and consulting-rooms facing the street, and lavatories and other offices on the internal well. On the top floor besides the caretaker's quarters is a large room fitted for artificial sunlight treatment. Everything seems to have been fitted in with much ingenuity, and one can imagine how happy the doctors and their staff must be working in an atmosphere of such well-ordered efficiency.

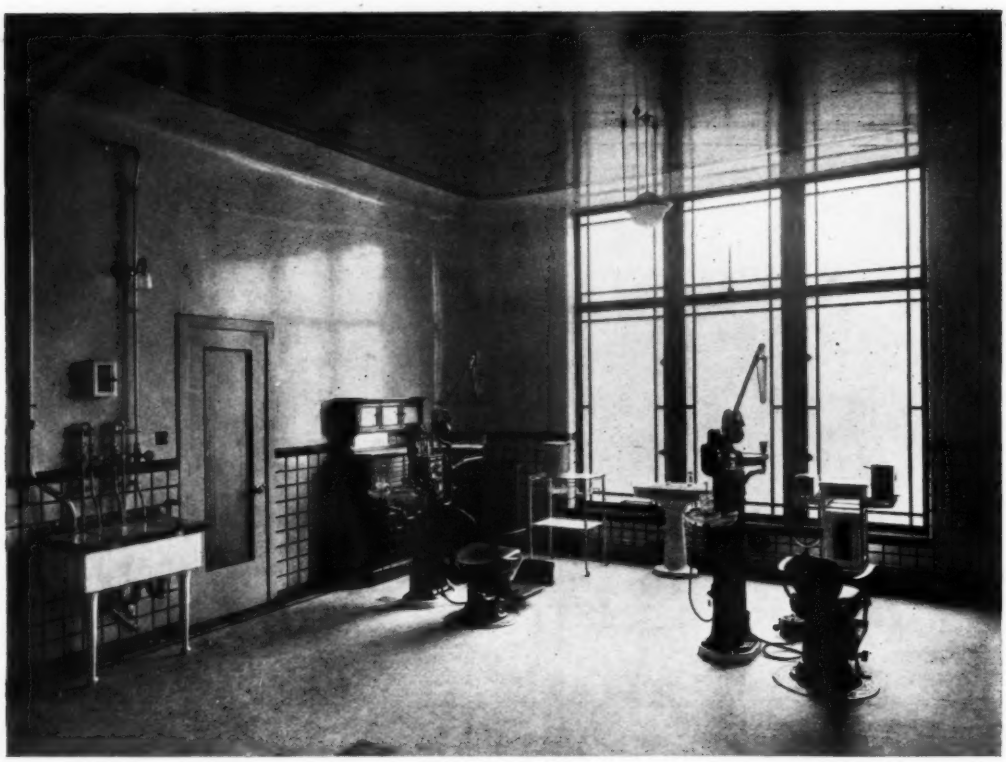
Returning to the entrance hall, which has been given a memorial character by added height and central staircase, we find, as in the outside, a strong vertical feeling, here, unfortunately, either by design or lack of means, nipped in the bud at the level of the gallery, where the marble casing of the columns finishes with a slight cornice and becomes plaster. The spatial proportions are so good that this is to be the more regretted.

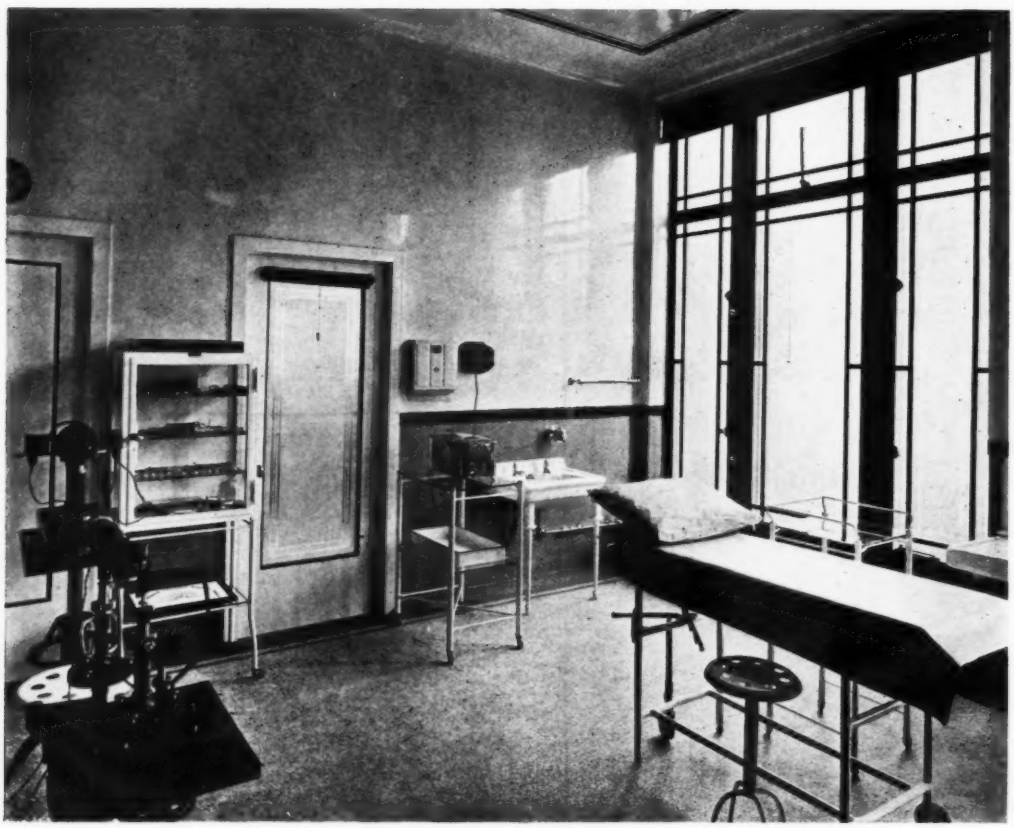
Looking towards the staircase with its suggestive raking lines in the background, one can see the groundwork of a most interesting interior. Floor walls, ceiling, supports, and supported surfaces, all are in excellent balance. Take away a bulging balcony, tighten up detail a little, and carry through without a break the marble columns, and there is a hall that is as good as anything can be. As it is, it is extremely heartening and quite to be expected from a knowledge of the external treatment.

I feel quite certain that the architects of this building have explored a line of approach towards logical building in modern materials which places them in the enviable position of having tried out a new method and found its good and bad points. How much has been consciously striven for and how much has arrived out of stress of circumstance it may be their interesting task to assess and add to experience. The successful façades of a building are not always what we intended them to be. The rear elevation of the New York Central Library on Fifth Avenue is much admired for its monumental expression of the library stack-room, and it is a very fine-looking façade. It has nothing in common with the traditionally classic front on Fifth Avenue, on which was lavished every care. This follows precedent and is quite acceptable, but the rear façade creates something new and expressive and is therefore more than ordinary. I do not suggest any haphazard origin for the good points in the building under review, but I do suggest that it is worth examining in retrospect the design of such a building as this, because if there is in it any virtue not consciously accounted for by the architect, or any experiment the results of which can be tested in fact, then these will become ten times more valuable when incorporated into his mental equipment and be instruments of power.

The Russell Institute, Paisley. By Abercrombie and Maitland. The entrance hall.

The Russell Institute, Paisley. By Abercrombie and Maitland.
Above, the artificial sunlight room. Below, the orthopædic gymnasium.





The Russell Institute, Paisley. By Abercrombie and Maitland. Above, dental operation room. Below, special treatment operating room.

WORKING UP A BILL OF QUANTITIES: vi

[BY ARTHUR J. WILLIS]

P.C. ITEMS AND PROVISIONAL SUMS

THE new clause. The previous article on the subject of p.c. items and provisional sums was written before the announcement of the possible adoption of a new standard form of contract. The two clauses in the conditions of contract referring to these have been rewritten in the new form and combined into one clause (No. 24) which reads as follows:

"All items marked p.c. 'prime cost' and 'provisional sums' in the specification or bills of quantities in respect of materials to be supplied or of work to be executed by merchants special artists or tradesmen shall be items reserved for supply or execution by persons nominated or selected by the architect and in substitution of the amounts against each of such item the contractor shall be paid in the manner and at the times set out in Clause 19 the actual sum due to such sub-contractor (without deducting any cash discount not exceeding 5 per cent. allowed by or any damage or sum due from such nominated sub-contractor to the contractor) together with

"a: Such charges for fixing attendance upon cutting away or making good for such sub-contractor, use of plant, etc. as may be detailed in the bill of quantities in manner provided by the Standard Method of Measurement of Building Works or if none, then as may be determined by Clause 6;

"b: The charges incurred by the contractor for packing carriage delivery and return of empty cases of the sub-contractor provided the contractor shall take due care of and return the same for the purpose of obtaining and shall obtain credit for the employer for the same;

"c: Such proportion of profit (if any) as has been reserved by the contractor in pricing the bills of quantities as the total cost of the items to the employer bears to the original amount of the reserved item."

It may be noted that a few stops in the first paragraph of the clause would be an advantage. Clause 19 refers to certificates and payment, Clause 6 to the method of ascertaining prices of extras and omissions.

Cash discounts. It will be seen on reference to the above quoted clause that in the proposed form there is no distinction between the methods of dealing with p.c. items and provisional sums. It is now clearly stated that in both cases the architect is to nominate or select. In both cases is the contractor allowed to retain a discount for cash. But the clause still does not make it clear whether a cash discount is guaranteed. It is still open to the architect to obtain a net quotation: if the sub-contractor will not allow a cash discount on such quotation the contractor will probably claim, if the clause stands as it is, that the amount which he would have received as discount should be added to the amount of the invoice. The clause, however, says "without deducting any cash discount not exceeding 5 per cent. allowed by . . . such nominated sub-contractor to the contractor." Obviously, if the sub-contractor does not "allow" it, the contractor has no claim. The clause in its present form will become a perpetual bone of contention between surveyors and contractors. There is a clause that the contractor may raise "reasonable objection" to any nominated sub-contractor. Is it a reasonable objection in view of Clause 24 if the sub-contractor will allow no cash discount? There are only two alternatives which will remove the ambiguity and gambling element:

1: If the architect will make a point in asking for all quotations to be given subject to a certain discount (say 2½ per cent.), a clause to that effect being inserted in the bill of quantities.

2: If the clause in the contract is so amended that no discounts are allowed at all.

Either alternative is equally fair to all builders tendering provided the intention is made quite clear *at the time of tendering*. It is difficult to see what the objection is to the absolute net basis when all contractors tendering know of it. The proposed new form makes it quite clear that no question of financing arises. Clause 25, 1(c) reads:

"That no money shall be due from the contractor to the nominated sub-contractor until the architect has issued to the contractor a certificate under this contract including the work done under the sub-contract and the same has been paid."

Why a *cash* discount?

Adjustment of p.c. prices and provisional sums. It will be noticed that Clause 24 quoted above specifies definitely what shall be set against provisional sums and p.c. prices when adjusting the account in addition to the amount due to the sub-contractor:

a: Fixing, attendance, cutting away and making good.

b: Packing, carriage, delivery and return of empty cases.

c: Profit.

a: It has always been usual for these to be added, being either measured or described in the bill of quantities. It will be noted that "The Standard Method of Measurement" has been introduced by name into the contract. Apart from the reference in this clause there is a clause which says that the "bills of quantities shall be deemed to have been prepared in accordance with the Standard Method of Measurement of Building Works last before issued by the Surveyors' Institution." This is a step which means that it will go hard with the author of badly prepared quantities if the contractor seriously takes up the cudgels. It is not difficult to pick holes in even the most carefully prepared quantities, but it would no doubt be a delightful pleasure for a surveyor acting for the contractor, with the "Standard Method" incorporated in the contract, to pull to pieces a really bad bill of quantities!

b: With regard to packing and carriage the writer has always considered that these should be included in the p.c. sum, and if carriage is paid by the contractor this should be added to the invoice. Delivery is in rather a different category. In London where goods are generally delivered to the site by the merchant the delivery charge is included in the price, and the question does not arise, unless the goods are coming by rail from manufacturers outside London. But in the country the merchant usually charges for delivery to nearest goods station (or railway carriage is paid by the contractor). The contractor himself carts from station to site. In the case of articles obtained from merchants such as stoves, sanitary fittings, ironmongery, etc., the contractor can quite easily add in his tender for cartage from station to site and unpacking, a known quantity. The difficulty arises in the case of such sub-contractors as heating engineers, kitchen plant, etc., where the contractor can only guess at what he will be required to do. Are we to have dayworks for haulage of all such materials? The cost of returning empties is a very small item generally compared with the size of the contract. If this is to be treated as part of the p.c. price the contractor will have to produce the railway company's vouchers for all empties returned—more accounting work for the surveyor.

c: Profit has, of course, always been added, except where the contractor shows that he wants none by not adding any to the provisional or p.c. sum when tendering (and this is not unknown). The clause, however, might with advantage make provision for circumstances in which a provisional sum is omitted from the contract and the work it refers to is ordered direct by the employer. The contractor loses any profit he has included in his tender, and all he saves probably is 2d. on each cheque which he would have had to draw if the payment passed through him.

How does all this concern the worker up? He should see that the bill is written so that all these points are clear, that there is no uncertainty as to the conditions on which contractors are tendering, all of whom should be confident that they are tendering on the same basis as their competitors. The specimen clauses set out under Appendix II will require revision to meet the new conditions if the new form of contract is adopted.

[*Concluded*].

LITERATURE

LE PAYS DE FRANCE

THESE are companionable books. They contain no useful information as to routes, hotels, "sights," and objects of interest as do many worthy guide books, and by this very means they avoid their incredible stodginess. They are pleasant books, very well illustrated, and will awake a desire to travel and to inquire farther in the most insensitive breast. This, I take it, they are meant to do, for, without being in any sense guide-books, they are indubitably books for the tourist and, in the case of these volumes, at any rate, books for the architect, that is to say, for the intelligent amateur of architecture, as history has preserved in these two provinces of France a veritable historical cross-section of architecture from early Norman times—Bayeux and Caen—through the Middle Ages up to the glories of the seventeenth century—St. Cloud—and eighteenth century—Versailles.

Chartres is probably the most perfect specimen of the architecture of the ages of faith existing anywhere in the world; Le Petit Trianon the most perfect example of the age of artificiality.

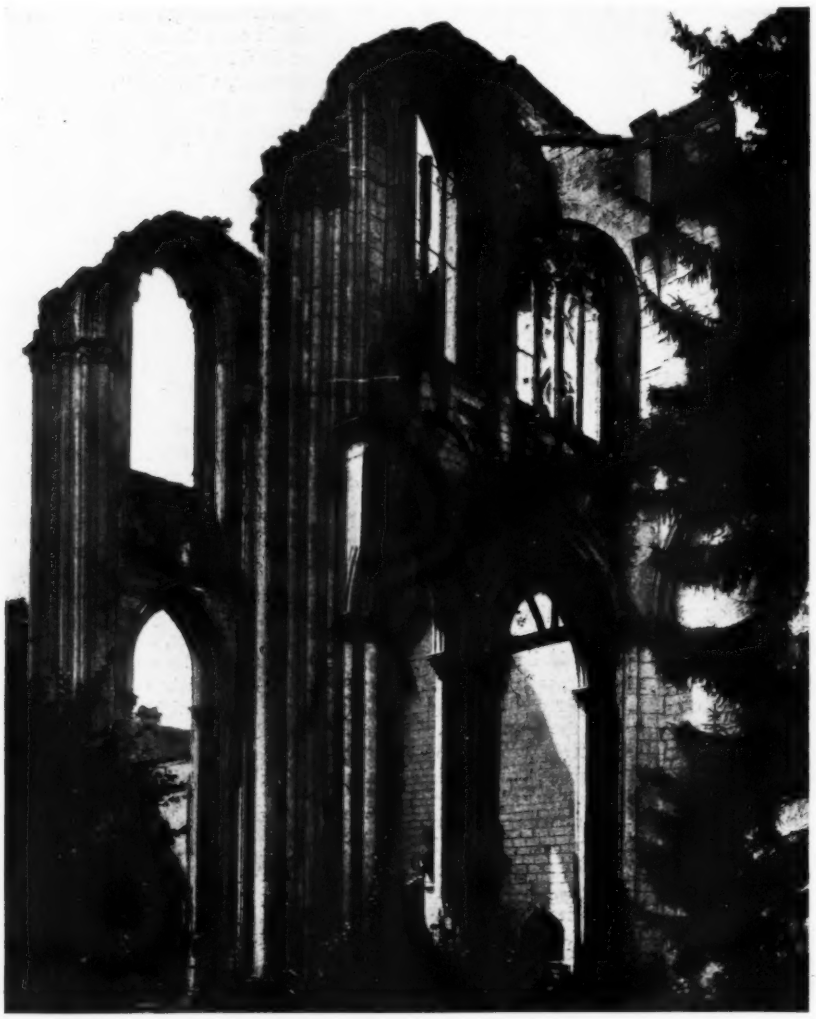
The text in each case is of little importance, consisting of amiable generalities interspersed with a few generally known facts. But the photographs are excellent, and it is for the sake of the photographs that the books will be eagerly bought by those anticipating a happy, lazy holiday, or anxious to retain the memory of one in the past.

There is, perhaps, one point on which the photographs can be criticized. The architectural sequence almost always stops at the eighteenth century, giving one the impression that Normandy and the Ile de France are but vast and magnificent museums. Occasional photographs of the ports of Dieppe and Havre are insufficient to prepare one for the busy industrial life of north-east France and give little credit to the present day, which is fully as excellent as any past age.

Le Pays de France. *Normandie and Ile de France.* London: Hachette.

TOWN PLANNING IN SURREY AND KENT

The report of the N.E. Surrey and West Kent Joint Advisory Town Planning Committee deals with the outer suburbs of London to the south, which, including the county borough of Croydon, have a population of over half a million. The area dealt with overlaps the West Kent Regional one recently reported on by Mr. Davidge, as it takes in Bromley and Beckenham; but this was desirable as, while in the regional plan these places



Saint-Wandrille. [*From* Normandie.]

demanded consideration as related to those farther out, in this joint report they are looked at in relationship to London. The report opens with a brief description of the original character of this chain of villages which have now become populous suburbs, except in a few cases towards the south-east—places like West Wickham, Keston, and Downe—which, owing to lack of communications, have retained their original character.

Details are given of the various supplies and services which cover the area fairly fully. The two principal streams which afford surface drainage are the Wandle on the west and the Cray on the east. As regards the former, the activities of the Surrey County Council and the River Wandle Open Spaces Society are mentioned; while the latter, though its lower section is utilized for power by several paper mills, has some upper stretches which might receive similar attention. Detailed schedules of existing and authorized roads are given, and similarly of existing open spaces, and those provided for in town planning schemes. Tables showing other provisions (density, etc.) in these schemes are also included, but except in very general terms the report does not go beyond this. As a whole the report is more a statement of what is actually intended by the authorities concerned than a constructive scheme to combine these activities; it is, of course, valuable in enabling them to be visualized in relation to each other. One would, however, expect something more imaginative in such a case, bearing in mind the great importance of this area in relation to the future of South London.

The reason the report takes the form it does is clear when we realize that it is drawn up by a joint committee representing the various authorities assisted by their technical advisers, each, no doubt, well informed as to the needs of their own districts, but without the incentive to study the problem as a whole. In dealing with regional or joint schemes it is always desirable to secure the appointment of an independent adviser to co-ordinate all the local demands in a broadly-conceived general scheme.

H. V. LANCHESTER

The Report of the N.E. Surrey and West Kent Joint Advisory Town Planning Committee, 1927.

WOODEN CHURCHES IN CZECHO-SLOVAKIA

This book illustrates, in great detail, the wooden churches of the eastern provinces of the Czecho-Slovak Republic—East Slovakia, Ruthenia, and the Karpathian provinces. The author, Herr Zaloziecky, attempts a close architectural analysis of these churches, dividing them into three classes, viz. those influenced by the Gothic style, those influenced by the Baroque style, and "mixed types," this last class by far the most numerous. The analysis is accompanied by ground plans and elevations of the best examples of each type.

While unreservedly recommending this book as a mine of useful information and excellent illustration of this particular type of church, I would suggest that perhaps Herr Zaloziecky has not

Le Chateau de Pierrefonds. [*From* Ile de France.]

gone quite far enough into his analysis of this essentially peasant architecture. Wooden buildings are, of necessity, impermanent as compared with stone, and it is therefore extremely difficult to determine their original type or to trace their development. The oldest of the churches illustrated dates from the close of the eighteenth century, and the oldest trace of them in literature from the fifteenth. It is clear, however, that the origin of this style is to be looked for at a much earlier date, and it seems that, in his anxiety to prove Gothic and Baroque influences in this peculiarly peasant architecture, Herr Zaloziecky has overlooked several alternative suggestions for its development.

It would be interesting, for example, to know what influence the particular service of each church has had on its exterior architecture. The Slavs of these districts are divided into Catholic Uniates and Orthodox, and a general glance at the many illustrations immediately suggests that, while some of these churches, such as Saldobosch, Sokyrnycia, and Schandrowo, are undoubtedly influenced by Western European "schools," others, for example Bystra, Krajna, and Obawa, owe much to Byzantine influences tempered by passage through the Orthodox Russian school of church architecture. This style, in its turn, derives much of its individuality from two practical necessities of Eastern Europe, conditions equally applicable to Karpathia as to Russia, viz.—1: the necessity of using wood and, consequently, the impossibility of copying stone models too closely; 2: the necessity of providing against the great weight of the snowdrifts during the winter months, which would soon break down wooden structures built on Western designs. The two most obvious parallels to Russian church architecture are, of course, the prevalence of the pineapple dome and the use of the separate wooden belfry or *kolokolnia*.

The last part of the book is taken up with a technical description of the method of building these wooden churches by a Prague architect, Mr. Vaclav Mencl. The methods of jointing, in particular, are very interesting and, incidentally, very decorative, and the pattern of the corner-beams adds greatly to the general effect. A great deal of care and a good measure of craftsmanship have evidently been exercised in the building of these churches, which are as truly representative of their people and their country as any style can be in that seething mixture of nationalities centred in the Carpathians.

Gotische und Baroche Holtzkirchen in den Karpathen Landern.

MODERN ARCHITECTURE IN GERMANY

This is an admirably comprehensive and well-illustrated account of the modern type of architecture in Germany. It traces its gradual development through, on the one side, buildings of mainly engineering provenance, and on the other the work of the crafts schools in many great German cities. It gives a reasoned statement of the aims and foundations of the style, and the basis of its æsthetic. It emphasizes its handling of the modern techniques of steel and reinforced concrete construction, and the modern programmes of great complexes of building—offices, factories, and tenements. A most valuable feature is a long list of the architects, with biographical notes.

Germany is perhaps the only country in which the development of what we call modernism has a marked continuity, not too much confused and deflected by styles and revivals; though many of the pre-war buildings excite our wonder rather than our admiration. Some such book ought, however, to be attempted for England. There are many buildings, beginning with a very important group about 1800-1830 and leading up through a long range of modest and little-known works throughout the nineteenth century, such as the later houses of E. S. Prior; many pieces of plain but thoughtful engineering; many (often crude) attempts at the solution of modern programmes. Some buildings of obviously foreign inspiration, such as Heal's or Adelaide House, are well known; but it is not these that would form the bulk, or even the landmarks of such a book. But if it were made on a basis of wide search and sensitive judgment its results would be incalculable.

H. C. HUGHES

Die Baukunst der Neuesten Zeit. By Von Gustav Adolf Platz. Berlin: Propylaen-Verlag. 1927.

A Church by Jasinia. [*From* Gotische und Baroche Holtzkirchen in den Karpathen Landern.]

ENGLISH PRECEDENT

6 *Cupola at Mereworth Castle, Kent. When, in 1723, Colin Campbell copied, with slight alterations, the mid-sixteenth-century Villa Almerigo, near Vicenza, designed by Palladio, he was compelled to recognize that the four fireplaces and flues of the original building were inadequate for a Kentish mansion. He therefore constructed his dome of three shells, one of which was a brick arch containing twenty-four flues, all discharging their smoke through the lantern immediately under the copper cupola, which stands on metal balusters. Campbell, who, notwithstanding his Palladian obsessions, was really a very able architect, was highly delighted with his own ingenuity. In* Vitruvius Britannicaus *he calls the cupola "a copper callot." He disclaims having made "improvements" upon the plan of Palladio, but "humbly submits his alterations to his learned judges." The whole of the designing and workmanship at Mereworth Castle is of the finest character, and is as good as possible in every detail, both inside and out.*—[NATHANIEL LLOYD.]

LAW REPORTS

HIGHWAY OBSTRUCTION

Cail v. *Barker. King's Bench Division. Before Justices Roche and Swift*

In this case the defendants, Wm. and John Barker, of Grange Farm, Scorton, Yorkshire, appealed from a judgment of the County Court judge of Richmond, Yorks, in favour of the plaintiff, Henry Cail, of Elmfield, Scorton.

Plaintiff claimed damages and an injunction in consequence of the defendants having pulled down a gate he had erected across a highway diverted by order of Quarter Sessions.

Mr. Malone appeared for the appellants, and Mr. Lowenthal, K.C., and Mr. Beckwith for the respondent.

Mr. Justice Roche, in giving judgment, said the defendants' act was an unwise proceeding, but he did not agree with the County Court judge that it was an unlawful one. In his view it was lawful because the true construction of the certificate of the justices of March 6, 1926, upon which the Quarter Sessions acted, and the true construction of the order of the Quarter Sessions was that a certain part of the way or road remained a public highway or right of way. The County Court judge thought it was not, but that Court held that it had been and still was a public highway. In those circumstances the plaintiff had no right to put an obstruction such as a gate there, and therefore his claim for an injunction and damages failed. The proper order was that judgment should be entered for the defendants on the claim with costs there and below, and there would be mutual undertaking by plaintiff not to obstruct the portion in question, and by defendants not to interfere with pillars which plaintiff had placed on each side of the road where the gate had stood formerly.

ALLEGED BREACH OF COVENANT

Bridges v. *Manders. Official Referee's Court. Before Sir F. Newbolt*, K.C.

This was an action by the plaintiff against the defendant to recover damages for breach of covenants in a repairing lease of a house at Coldharbour Lane, Bushey.

Defendant denied that he had been guilty of any breaches and said he was not liable to do the repairs set out in the schedule. In the alternative he paid £25 into Court in satisfaction of plaintiff's claim.

The Official Referee, after hearing a mass of evidence, said the case was important, and it drew attention to the position that so many tenants thought they were placed in by the covenants in their lease. Many lessees resented the obligation of complying with promises they had solemnly made on taking possession. After having lived in a house for years the occupier grudged what he thought to be an improvement of the landlord's property, and did not realize the effect of the covenant which the law imposed. If a tenant was wise he would agree with the landlord that before the end of the lease a valuation should be taken by an independent surveyor. If, as in this case, the tenant went out of possession without any valuation he laid himself open to instant action. Should the tenant employ a surveyor for himself he was liable to loss because surveyors valued according to the side on which they were engaged. Surveyors had no right to do so, and should act as witnesses and not as advocates. In the case before him the plaintiff's valuer assessed the work to be done as at £151 10s., which was about twice the true figure, and he, as Official Referee, gave judgment for £70, with costs.

BUILDING CONTRACT DISPUTE

Annett v. *Feltham Urban District Council. King's Bench Division. Before Mr. Justice Rowlatt*

This dispute arose out of contract to erect ten cottages on the Ministry of Health Farm under the Housing Act. The plaintiff, Mr. Wm. A. Annett, a contractor, of Walton-on-Thames, brought his action against the Feltham U.D.C. to recover £150, which he alleged was due to him under the building contract for the erection of the cottages at Feltham, being the balance of the retention fund. Defendants set up a counter-claim for damages.

Mr. Wynn Werninck, counsel for the defendants, said his clients alleged that plaintiff had committed breaches of the contract, first, in subletting portions of the contract without the consent of their architect, or, if he did obtain consent, without making under the sub-contracts similar terms as contained in the head contract; and secondly, that he did not employ apprentices in accordance with the schedule of the contract. These were breaches for which the plaintiff was liable to the Council in damages, he contended.

Mr. C. Tooth, plaintiff's counsel, contended that it was the duty of the Council during the continuance of the contract to obtain a certificate and serve him with a notice requiring him to comply with the provisions respecting apprentices, but as they had not done so his client could not be made liable in damages.

His lordship, in giving judgment, said the schedule to the contract made it incumbent on the contractor to employ apprentices according to its provisions, but the defendant Council had not taken the trouble to understand or work the schedule. Under the circumstances they had suffered no damage, and there must be judgment for the plaintiff for the amount claimed, with costs. He dismissed the counter-claim, with costs.

ANCIENT LIGHTS DISPUTE

Griffin v. *Clisby. Chancery Division. Before Mr. Justice Tomlin*

This action raised a question as to whether a mandatory injunction should be granted and not damages. The plaintiff is Mr. Harold Griffin, a well-known South London surveyor, and he brought his action against Mr. Edward Terence Clisby, of Frith Street, Soho, for a mandatory order to pull down so much of the building at 29 Montpelier Road, Knightsbridge, as interfered with plaintiff's lights.

Mr. M. Tucker appeared for the plaintiff, and Mr. R. Fortune for the defendant.

Plaintiff's case was that the defendant's building would create a nuisance or an obstruction to the ancient lights at the rear of his premises at No. 18 Montpelier Road, which he had purchased with a view to development.

Defendant denied interference with plaintiff's lights, and alternatively pleaded that it was a case for assessment of damages.

His lordship, in his judgment, said he paid a visit to the house and inspected it, and he found that the sill of one of plaintiff's windows was just above the yard level. There was a light in a door beside it and a window on each of three floors above. The front of the house was somewhat dark, being overlooked, but the back part was light until this wall went up five times as high as a previous 6 ft. wall. In February last, Mr. Roberts, the defendant's surveyor, communicated with Mr. Smith, the former owner, and sent to his agents a party wall notice. There were further notices and an amended notice, and when the plaintiff bought the house for something under £1,000, the title to damages for possible obstruction was transferred to him. When, upon the counter-notice, surveyors were appointed to deal with the difference, the defendant was not entitled to proceed to remove the old wall or build in its place until the matter had been adjudicated. Mr. Griffin went to see the statutory tenant, and he was astonished to find the new wall up. The building had been erected before the expiry of the statutory notice under the Act. The work, when it was once commenced, was done with meritorious rapidity, and it was completed more speedily than fell to the lot of those who usually employed builders. But the defendant's answer to a claim for mandatory order was that the plaintiff had been "lying by." But he could not accept that. He found that the defendant's wall was 28 ft. high at a distance of 10 ft. The light to the two upper windows was not diminished, but the staircase light had become insufficient. The light through the door was so inadequate as to make the stairs not reasonably safe, and the kitchen seemed to be a room the value of which had been largely destroyed. For kitchen uses it would now require artificial light. The damage was of such a kind as to alter the character of the house. He could not find that the plaintiff's surveyor had omitted anything he should

have done. The counter-notice was given and the plaintiff was then entitled to say the next move was with the defendant—that nothing would happen till the difference between them had been settled by the surveyors. But Mr. Roberts, four days after the appointment of surveyors, proceeded with the work, not only in breach of his duty to the plaintiff, but in contravention of the Act. There was much to be said for the view that this was one of those cases where the defendant, by his conduct, or the conduct of those acting for him, had acted with reckless disregard of the plaintiff's rights, and had disentitled himself from asking that damages might be assessed in substitution of an injunction. His lordship found that a case of nuisance by obstruction of light having been made out, the plaintiff was entitled to a mandatory order for the reduction of the offending building to such an extent that no nuisance would be occasioned, with costs. He made a declaration to that effect, and counsel must consult to see whether the parties could agree the extent of the pulling down. After that the ultimate form of the order could be defined. If the parties could not agree the Court itself would appoint a surveyor.

SOCIETIES AND INSTITUTIONS

R.I.B.A. New Members

At the last general meeting of the R.I.B.A. the following members were elected:

As Fellows : 9

Crowley, Walter St. Leger; Doddington, William; Grice, William Stanley, M.C.; Makins, Clifford Copeman; Scott, Bernard Wardlaw Habershon; Stenner, William James; Sutton, Basil Hope; Fenn, Frederick, J.P.; Packer, Goodwin Simpson.

As Associates : 4

Englefield, Ian Ulmer; Hereward, Guy Edgar Septimus; Howard-Leicester, Osborne; King, Jack Ian.

As Hon. Associates : 4

Ashmole, Bernard, M.C., M.A., B.LITT.; Heaton, Noel, B.SC., F.C.S.; Laurie, Arthur Pillans, M.A.(Cantab.), D.SC.(Edin.), F.R.S.E., F.C.S.; Townroe, Bernard Stephen, M.A.

Studentship of the R.I.B.A.

The Council of the R.I.B.A. have decided that students R.I.B.A. shall only hold the studentship as long as they are *bona-fide* students of architecture and not engaged in other occupations.

The R.I.B.A. Examinations

The Final Examination qualifying for candidature as Associate R.I.B.A. was held in London and Edinburgh from December 7 to 15, 1927. Of the forty-eight candidates examined (four of whom took part 1 only, and one part 2 only), twenty-three passed (three in part 1 only, and one in part 2 only), and twenty-five were relegated. The successful candidates are as follow:

Benham, Helen M.
Brown, H. J.
Byers, John
Chapman, E. W. (distinction in Thesis)
Cohen, Jacob
Dain, Cecil
Edwards, D. T. (part 2 only)
England, N. R.
Gardiner, K. E. F.
Garthside, Eric
Gough, G. C. P.
Hatcher, B. A. (part 1 only)
Hobday, Ralph
Jeffrey, John
Lloyd-Thomson, Stewart
Mowbray, W. B. (part 1 only)
Paterson, E. A.
Phillips, R. A.
Robertson, G. W.
Saise, A. J.
Sherren, B. C.
Tatam, Reginald (part 1 only)
Weir, W. G.

The Special Examination qualifying for candidature as Associate R.I.B.A. was held in London from December 7 to 13, 1927. Of the nineteen candidates examined (two of whom took part 1 only, and one part 2 only), eight passed (one part 1 only) and eleven were relegated. The successful candidates are as follow:

Childs, W. C.
Farman, A. L.
Garrett, A. J. W. (part 1 only)
MacGeagh, John
Morgan, R. G.
Stackhouse, E. S.
Waterman, Frederick
Watson, C. S. O.

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 December 13 and 15, 1927. Of the thirty-five candidates examined, thirty passed and five were relegated. The successful candidates are as follow:

Armstrong, F. B.
Beale, E. H.
Brinton, W. R.
Bull, H. A. H.
Chippindale, Frank
Crawford, D. L.
Crickmay, C. R.
*Day, R. F. R.
de Quincey, M. A.
Drury, H. M. R.
Ellerton, E. M. K.
Ellis, M. F. R.
*Forbes, Ian
Hamilton, J. V.
Kendall, Henry
Lipp, Alexander
*Maitland, R. W.
McGrath, Raymond
Mirams, D. G.
Rigg, Mary F.
Scott, Mary F.
*Smart, G. D.
Stokes, L. G.
Trubshawe, W. V.
Varcoe, L. C. F.
Walker, R. M.
Walker, S. T.
Ward, B. R.
*Westendarp, R. T.
Wilkinson, Mary L.

* These candidates have not yet completed school course.

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 December 7 to 12. Of the three candidates examined, one passed and two were relegated. The successful candidate is as follows: Buchan, W. J.

R.I.B.A. Statutory Examinations

The R.I.B.A. Statutory Examinations for the office of district surveyor under the London Building Acts, or building surveyor under local authorities, will be held at the R.I.B.A., London, on May 2, 3, and 4, and on October 17, 18, and 19. The closing dates for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., are April 11 and October 1 respectively. Full particulars of the examinations and application forms can be obtained from the secretary, R.I.B.A.

R.I.B.A. Examinations

Following is a list of the R.I.B.A. examinations to be held this year:

Intermediate Examination:

May 11, 12, 14, 15, and 17, 1928. (Last day for receiving applications, April 11, 1928.)

November 9, 10, 12, 13, and 15, 1928. (Last day for receiving applications, October 9, 1928.)

Final Examination:

July 4, 5, 6, 7, 9, 10, 11, and 12, 1928. (Last day for receiving applications, June 4, 1928.)

December 5, 6, 7, 8, 10, 11, 12, and 13, 1928. (Last day for receiving applications, November 5, 1928.)

Special Examination:

July 4, 5, 6, 7, 9, and 10, 1928. (Last day for receiving applications, June 4, 1928.)

December 5, 6, 7, 8, 10, and 11, 1928. (Last day for receiving applications, November 5, 1928.)

Special Examination in Design for former Members of the Society of Architects:

July 4, 5, 6, 7, and 9, 1928. (Last day for receiving applications, June 4, 1928.)

December 5, 6, 7, 8, and 10, 1928. (Last day for receiving applications, November 5, 1928.)

Special Examination of Licentiates to qualify as Fellows:

April 16, 17, 18, 19, and 20, 1928. (Last day for receiving applications, March 16, 1928.)

November 19, 20, 21, 22, and 23, 1928. (Last day for receiving applications, October 19, 1928.)

Statutory Examination for the Office of District Surveyor in London and Building Surveyor under Local Authorities:

May 2, 3, and 4, 1928. (Last day for receiving applications, April 11, 1928.)

October 17, 18, and 19, 1928. (Last day for receiving applications, October 1, 1928.)

Town Planning Examination:

June 27, 28, 29, and July 2, 1928. (Last day for receiving applications, March 1, 1928.)

The Annual Conference of the R.I.B.A. and Allied Societies

All members and students of the R.I.B.A., and all members of the Architectural Association and of the allied societies, are cordially invited to attend the conference to be held in Bath from June 20 to 23 inclusive. Further particulars will be issued by the R.I.B.A. in due course.

The Faraday Medal

The Council of the Institution of Electrical Engineers have made the seventh award of the Faraday Medal to Professor J. A. Fleming, M.A., D.SC., F.R.S., honorary member of the Institution. The Faraday Medal is awarded by the Council of the Institution not more frequently than once a year either for notable scientific or industrial achievement in electrical engineering or for conspicuous service rendered to the advancement of electrical science without restriction as regards nationality, country of residence, or membership of the Institution. Professor Fleming who is well known as the inventor of the first wireless valve, was Professor of Electrical Engineering in the University of London from 1910 until his retirement in 1927, and has played a notable part in the development of a great many applications of electrical science.

COMPETITION CALENDAR

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

February 29. Municipal offices, shops, private offices, and other buildings proposed to be built on a site in Narrow Street, for the Corporation of the City and Borough of Peterborough. Total cost not to exceed £200,000. Assessor, Sir Reginald Blomfield, R.A., F.R.I.B.A. Premiums, 500 guineas, 250 guineas, and 150 guineas. Particulars from Town Clerk, Town Hall, Peterborough. Deposit £1 1s.

March 10. Senior school at Birkdale, Southport. Assessor, Professor S. D. Adshead. Premiums, £100, £75, and £50. Particulars from Director of Education, Municipal Buildings, Southport. Deposit 10s. 6d.

March 30. Extension of the College of Technology proposed to be erected on a site adjoining the present College of Technology building in Sackville Street and Whitworth Street, Manchester. Assessors, Messrs. Alan E. Munby, M.A., F.R.I.B.A., Henry M. Fletcher, M.A., F.R.I.B.A., and Francis Jones, F.R.I.B.A. Premiums, £500, £400, and £300. Particulars from Town Clerk, Town Hall, Manchester. Deposit £1 1s.

No date. The Lewisham Borough Council invite architects of British birth and nationality to submit designs in competition for the Town Hall, shops, and offices on the site adjoining the existing Town Hall Buildings at the junction of Catford Road and Rushey Green, Catford. Assessor: Mr. Winton Newman, F.R.I.B.A. Premiums: £350, £250, and £150. Particulars, together with a plan of the site, can be obtained from the Town Clerk, Town Hall, Catford, S.E.6, on and after March 1, 1928. Deposit two guineas.

ANNOUNCEMENTS

Mr. J. Roger Preston, M.R.S.I., M.I.H.V.E., consulting engineer, has moved to 7 Southampton Street, Bloomsbury Square, W.C.1. Telephone: Holborn 4443.

The attention of intending competitors is called to the fact that the preliminary competitions for the Tite Prize and the Victory Scholarship will be held in London and at centres in the provinces on Tuesday, March 27, and Wednesday, March 28, respectively. Forms of application for admission to the preliminary competitions may be obtained at the R.I.B.A., 9 Conduit Street, W.1. The closing date for the submission of forms of application is Monday, March 5.

The will of Mr. Edward Hall Harbottle, principal of Messrs. Harbottle and Sons, Exeter, and one of the best-known architects in the West of England, who was for many years architect and surveyor to the Dean and Chapter of Exeter, and who died on July 28 last, aged eighty-three, has been proved at £20,698 gross, with £4,528 net personalty.

CORRESPONDENCE

TOWARDS A BETTER BRICK

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—In your issue for February 1 you published a supplement showing four bricks, one of which is a Dutch (Klompje) brick, which you state is of good shape, texture, and colour. The illustration (from what we have seen of the actual bricks), we quite agree, is a good one, but we should not like to visit architects in some parts of the country and take with us a brick of this type, nor should we like to send on to a job a load of such bricks to be passed by some clerks of works we know.

There are bricks manufactured in this country of a better type and quality, but there are many architects who are simply copyists of work in other countries, who do not take the trouble to find out what is made at home, and who cannot bring forward ideas to make their designs applicable to the use of the home-made article.

BRICKMAKERS

WORKING UP A BILL OF QUANTITIES

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—I quite agree with Mr. Gardner as to the position of insurance items and water. When drawing attention to the Conditions of Contract in the preliminary bill I generally add "for insurances see Summary." In the case of water, I generally insert the clause in the preliminary bill and in the cash column write "See Summary." The summary then has three clauses:

1: Water for the works.

2: Fire insurance.

3: Workmen's Health and Unemployment Insurances, and insurances against risks for which the contractor may be liable under the Workmen's Compensation Acts, any other Act of Parliament or at common law.

As an old Oxford man I am glad that Oxford appreciates the articles.

ARTHUR J. WILLIS

M. ANDRÉ LURÇAT

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—In reply to your correspondent E. G., I must decline to commit myself to any verdict on so grave and invidious a question as the propriety, or impropriety, of walls—beyond remarking that Oscar Wilde advised people who live in glass houses to be careful to pull down the blinds. The statement E. G. quotes should not be taken as necessarily reflecting my own opinion. This passage was a literal translation of one among many vivid phrases employed by M. Lurçat himself in a lecture that he recently delivered in Paris on the aims and ideals of the more modern school of architects; phrases which I merely rendered and arranged in my article, as I deliberately pointed out in an initial note. In other words, my humble rôle was confined to being the interpreter of André Lurçat's own ideas. The only personal observation I permitted myself was to draw attention to the relative elegance of M. Lurçat's elevations compared to those of his colleagues, MM. Mallet-Stevens and Le Corbusier. I hold no brief for or against the modernist school, though I confess, impenitently, that I am keenly interested in its progressive developments from the rank heresy of yesterday to the state of grace of tomorrow.

In conclusion, I can only say that if E. G. had had to live in the average French flat for as long as I have had to do, he would be grateful for any changes in their design, however revolutionary, tending to produce greater ingress to its rooms of light and air, elements hitherto considered positively destructive and dangerous in France, and almost religiously banished by the French architect, ably seconded by the French householder.

P. MORTON SHAND

A.A.S.T.A. TOURS

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—May I call the attention of your readers to a side of the work of the Association of Architects, Surveyors, and Technical Assistants which should be more widely known? We organize periodically tours abroad to places of interest to architects, etc., on a cost basis that cannot be approached by individual travel, and therefore of special interest to those members of the profession who, by reason of cost or language difficulties, would otherwise be debarred the professional, etc., benefit of such foreign experience. This Easter, trips are being arranged to North Italy (including Milan, Como, Brescia, Verona, Vicenza, and Venice) for fourteen days at a cost of £16 16s., and to Paris for five or twelve days at about £5 5s. to £7 10s. Both trips are open to members of the profession as well as to others interested—not forgetting the wives, etc., of members who are doubly welcomed.

I shall be glad to send particulars to anybody applying, but as the two lists close on March 3, early application is absolutely essential.

O. H. COOKE,
Secretary, A.A.S.T.A., 26 Buckingham Gate, S.W.1.

LONDON SQUARES

LORD LONDONDERRY presided last week over a meeting of the Royal Commission on London Squares, held at the House of Lords.

A memorandum was submitted by a committee of owners of some of the principal squares, setting forth the conditions on which they would agree to the preservation of the squares from building. In the cases of a certain number of the squares the right to build on part of the area was reserved, and a further list of squares was excluded from the offer altogether. On some parts of these squares it was stated that building was contemplated at some time in the future. The owners' offer concerned forty garden squares, in addition to the eight in regard to which reservations were made. The owners said they were willing that the squares should be sterilized without compensation on certain conditions. They stipulated that they should be entitled to build on them, provided that they offered an equivalent area of open space within a specified distance of the buildings, unless they obtained the leave of the Court to the contrary. This was essential if the estates were to be remodelled with advantage from time to time. They asked to be indemnified against any taxation or any rating for municipal purposes of the surface of the sterilized squares and claimed the right of the owners to deal with the subsoil in any way they liked. This was important in the public interest, in order that underground garages might be constructed. The owners reserved the right to use part of any of the squares for road widening, and they asked that in any future compulsory acquisition of the squares that compensation should not be reduced on account of the sterilization. The control and maintenance of their squares should remain in all respects as at present. They made this provision in the interests of the owners and of the inhabitants, because if the squares were thrown open to the public, and the peace and quietness at present enjoyed in connection with them destroyed, not only would the value of the adjacent houses be greatly deteriorated, but great injustice would be inflicted upon the inhabitants. In regard to the smaller list of squares, the committee reserved to the owners the right to build on a portion of the present gardens. In Cadogan Place they reserved an area not exceeding 40 per cent. of the present gardens; in Cleveland, Gloucester, and Porchester Squares they claimed the right to build to a depth of 20 ft. from the existing buildings; and in Cranley Gardens to a depth of 30 ft. behind the existing buildings.

Mr. Steward (Messrs. Hunt and Steward), in giving the reasons of the owners for reserving to themselves the right of building on certain parts of some of the squares, said that in regard to Cadogan Place the idea was that in time Sloane Square would become a shopping street throughout its length, and the owners wanted to be able to build shops on the Sloane Street side of the gardens. In the case of Eaton Square, the leases of which would not fall in until 2002, it was thought that the property might ultimately become commercial, and when all the houses had been turned into offices some of the open space would probably be wanted for building. The northern portion of Lowndes Square would also probably become commercialized.

After hearing further evidence, the Commission adjourned.

THE EMPIRE TIMBER EXHIBITION

THE Timber Exhibition, opened by Lord Lovat at the Imperial Institute, is the second of a series arranged by the Imperial Institute to direct attention to specific resources of the Empire, with the object of increasing the utilization of Empire raw materials in this country. It is not intended to be a "beautiful" exhibition, but a practical one, which illustrates the utilization of overseas Empire timbers in modern industry and commerce. The exhibition affords an interesting example of collaboration between the Forest Products Research Laboratory (Department of Scientific and Industrial Research), the Imperial Forestry Institute at Oxford, and the Imperial Institute. It serves to show the co-operation which exists between these scientific and semi-scientific bodies for the common purpose of providing information likely to be of service to timber producers overseas and home manufacturers. There is no overlapping; all three bodies have their own sphere of work, which dovetails one into the other to form a comprehensive and authoritative source of information both for the forester and the industrialist.

The exhibits of the Imperial Forestry Institute, Oxford, illustrate principles of silviculture, forest management, tree growth, and the diseases and pests of trees. Those of the Forest Products Research Laboratory, Princes Risborough, have been planned to illustrate aspects of timber utilization (including conversion of timber, seasoning, grading, etc.), timber mechanics (the strength of timber), wood technology, and diseases and pests of timber. The joint exhibit of these two bodies indicates the liaison between the two institutions dealing with the structure and identification of wood. The exhibits arranged by the Imperial Institute include samples of principal timbers of the Empire which are already known and established in commerce, together with those whose merits are not yet adequately recognized.

The industrial use of timber is closely bound up with problems affecting forestry and also the properties and qualities of wood. The aid of Professor R. S. Troup, C.I.E., M.A., D.SC., F.R.S., director of the Imperial Forestry Institute, Oxford, and of Mr. R. S. Pearson, C.I.E., F.L.S., director of the Forest Products Research Laboratory, Princes Risborough, was sought in illustrating at the exhibition these important aspects of the question, and Mr. W. T. Furse, director of the Imperial Institute, records in the catalogue, among other acknowledgments, his appreciation of their valuable co-operation in organizing the exhibition. The Imperial Institute also place on record their deep debt of gratitude to their Advisory Committee on Timbers, under the chairmanship of Mr. H. Searles-Wood, F.R.I.B.A., on which are represented architects, builders, furniture makers, motor-carriage builders, representatives from the dominions and colonies, and scientific associations. Examples of furniture, joinery, musical instruments, motor bodies, and other work manufactured from a number of Empire timbers are shown. These exhibits have for the most part been furnished by manufacturers and firms who have made a point of experimenting in the utilization of Empire timbers. There is also a series of photographs illustrating the trees yielding the timbers and the methods of felling and extraction. The exhibition will be of undoubted interest to architects, builders, and contractors. In fact, the exhibition is of such value to architects that it deserves to be sent round the country and found a permanent home on its return to London. Its dispersal would be a great loss. The exhibition will be open until April 30. Week days 10 a.m. to 5 p.m. Sundays 2.30 p.m. to 6 p.m. There is no charge for admittance.

TRADE NOTES

Messrs. W. H. Gaze and Sons, Ltd., have secured a contract from the London County Council for ticket-checking offices at Brixton.

Messrs. Bryce, White & Co., Ltd., the joinery and timber merchants, of Deseronto Wharf, Wharf Road, London, N.1, have opened a new branch at River Works, River Road, Bristol. Their increasing circle of customers in the West of England will, consequently, now be able to enjoy equal facilities with London customers and those on the South Coast who are served by the Southampton branch of this firm. The Bristol branch is under experienced management, and has its own transport service to ensure the rapid delivery so essential. Large stocks are carried of the many lines for which this firm is so well known. Next year the firm will be celebrating their jubilee.

The directors of Radiation, Ltd., have presented the balance sheet of the company as at December 31, 1927. After bringing in £120,888 2s. 5d. brought forward from 1926, the balance of the revenue account is £401,180 7s. After deducting the interim dividends (£82,662 19s. 6d.) paid in October last, there remains at disposal the sum of £318,517 7s. 6d., which the directors recommend be appropriated as follows: To pay a final dividend of 3 per cent. to December 31, 1927, on the preference shares, less income tax, £26,100 12s.; to pay a final dividend of £9 7s. 6d. per cent. to December 31, 1927, on the ordinary shares, less income tax, making a total gross dividend of 12½ per cent. for the year, £169,688 18s. 6d.; to carry forward to next year, £122,727 17s. The interim dividend of 2½ per cent., free of income tax, paid in October 1927, on the ordinary shares, was equivalent to a gross dividend of £3 2s. 9d. per cent.

The subscription lists open today, Wednesday, and will close on or before Friday, February 24, for an issue of 150,000 8 per cent. cumulative preferred ordinary shares of £1 each, and 300,000 deferred shares of 1s. each, in the International Brick Company Limited. Capital, £200,000, divided into 150,000 8 per cent. cumulative preferred ordinary shares of £1 each and 1,000,000 deferred shares of 1s. each. The preferred ordinary shares confer the right to a fixed cumulative preferential dividend at the rate of 8 per cent. per annum on the capital for the time being paid up thereon, and also in respect of each year after the deferred shares have received a dividend for that year at the rate of 8 per cent. per annum on the capital paid up thereon to a participation to the extent of 25 per cent. in the surplus profits of the company available for dividend in respect of such year. The directors are Messrs. Charles William Rivers Pantlin, 4 Belsize Road, N.W.6, Chairman and Joint Managing Director of F. McNeill & Co., Limited (chairman); Walter Bernard Hopkins, M.INST.C.E., M.I.E.E., 34 Warwick Gardens, Kensington, W.14, Director, Aux Classes Laborieuses, Limited; Arthur Robert (Belgian), 2 Place des Barricades, Brussels, Managing Director, Briqueteries Réunies du Rupel et de la Nethe (Société Anonyme); Thomas Wallis, F.R.I.B.A., M.I.STRUCT.E., F.I.S.Arb., 29 Rowland Gardens, S.W.7, Partner in Wallis, Gilbert and Partners, Architects, London and Brussels. Full particulars of this issue are published in the prospectus, copies of which can be obtained from Messrs. Henry J. Garratt & Co., 3 Great Winchester Street, London, E.C.2; George E. Green, Prudential Buildings, Nottingham; Barclays Bank Limited, Head Office and Branches; James Todd, Adams and Wilcock, 1 Great Winchester Street, London, E.C.2; and from the registered offices of the company, 87 Bishopsgate, London, E.C.2. The prospectus will show that: *a*: The company has at the present time an output of 55,000,000 bricks per annum; *b*: the dividend on the preferred shares is covered more than one and a-half times on the certified profits for 1927.

Many new and novel features have been introduced in the new works canteen at the Trafford Park Works, Manchester, of Messrs. Turner Brothers Asbestos Co., Ltd. The canteen has been erected from the designs of Messrs. Butterworth and Duncan, of Rochdale, architects, working in collaboration with the owners, and stands in a commanding position at the entrance to the works. It has a frontage of 80 ft., a depth of 100 ft., is two stories high, and is capable of dining 1,000 persons. On the ground floor the accommodation consists of a garage for twenty-four cars, storage for 500 cycles, two sets of drying-rooms (men and women), and cloak-rooms with lavatories and bathrooms. On the first floor are the dining-rooms. In the main dining-room, a lofty apartment 80 ft. long by 60 ft. wide, a continuous row of windows fills the whole front, giving a light and airy appearance, which is added to in a marked degree by the scheme of decoration adopted. The floor is of maple boards polished for dancing, laid on wood joists which are underlined with Turners' asbestos wood sheets and packed solid with asbestos dust for the full depth of joists, thus reducing any risk of fire to a minimum and rendering the floor soundproof. Movable screens are used to divide this room. There are also male and female staff dining-rooms; these, in addition to the main dining-room, have direct serving hatches arranged from the kitchen. This latter room is centrally situated and leaves nothing to be desired in the matter of rapidity of service. All the kitchen fittings are on the most modern lines, and a washing-up room adjoins, from which an iron emergency staircase gives access to the open air. In addition, a private dining-room occupies part of the first floor in close proximity to the kitchen. This room has been panelled with the firm's asbestos-cement sheets painted in pale vellum tints and lined out with enamelled wood moulds. In the construction of the building, steel framing has been adopted, the walls being formed of Turners' asbestos-cement sheets on wood framing between stanchions, and the joints of sheets are covered with dressed wood splats arranged in panels and painted black. The roofs are covered with "Serval" multiple tiles, manufactured on the premises.

THE RUSSELL INSTITUTE

The principal contractors for the Russell Institute, Paisley, illustrated on pages 291 to 298, were as follows: Melville, Dundas and Whitson, Glasgow, reinforced concrete work; John Bryce & Co., Paisley, mason, brick, etc., works; G. and T. Houston and Sons, Paisley, carpenter, joiner, etc., works; Thomas Watt, Paisley, plumber, etc., works; Wm. Gillespie and Son, Paisley, slater, etc., works; Galbraith and Winton, Glasgow, terrazzo floors, tile work, etc.; James Boyd and Sons, Ltd., Paisley, heating installation, etc.; David S. Lang, Paisley, lath, plaster, etc., works; Jas. Kilpatrick and Son, Ltd., Paisley, electrical, etc., works; Crittall Manufacturing Co., Ltd., Braintree, bronze and steel windows, etc.; Vitrolite Construction Co., London, vitrolite work; David Murray and Son, Paisley, painter work; Charles Henshaw, Edinburgh, bronze grilles, caps, bases, etc.; Daniel Mellis, Partick, Glasgow, gymnasium apparatus; D. B. Selkirk & Co., Glasgow, X-ray apparatus; Down Brothers, London, instruments, etc.; James Cassels and Sons, Paisley, railings, etc.; J. W. Singer and Sons, Ltd., Frome, bronze figures (castings), enamelled work, and bronze guard rails, etc.; Walter Macfarlane & Co., Ltd., Glasgow, cast-iron window fascia work; Galbraith and Winton, Glasgow, marble work; Blaxter Quarries, Northumberland, stonework.

WESTMINSTER BANK PROFITS

The net profits of Westminster Bank Limited for the past year, after providing for bad and doubtful debts and all expenses, amount to £2,132,815 9s. 10d. This sum, added to £508,522 6s. 8d. brought forward from 1926, leaves available the sum of £2,641,337 16s. 6d. The dividend of 10 per cent. paid in August last on the £20 shares, and 6¼ per cent. on the £1 shares, absorbs £678,137 11s. A further dividend of 10 per cent. is now declared in respect of the £20 shares, making 20 per cent. for the year; and a further dividend of 6¼ per cent. on the £1 shares will be paid, making the maximum of 12½ per cent. for the year. £200,000 has been transferred to bank premises account, £150,000 to rebuilding account, £200,000 to contingent fund, and £200,000 to officers' pension fund, leaving a balance of £535,062 14s. 6d. to be carried forward.

THE WEEK'S BUILDING NEWS

The BOURNEMOUTH Corporation has obtained sanction to grant another fifty housing subsidies.

*

The GLASGOW Corporation has promised the subsidy to Messrs. Mactaggart and Mickel, Ltd., in respect of seventy-four houses to be erected at King's Park.

*

The GLASGOW Corporation has purchased about 70 acres at Carnwadric for housing purposes.

*

The GLASGOW Corporation Housing Committee has acquired 6 acres at Tollcross for the erection of houses.

*

A Roman Catholic School is to be erected at Beckenham Hill, LEWISHAM.

*

The Kent Education Committee is to erected an elementary school for about 800 children at PENGE.

*

The L.C.C. is preparing plans for the erection of further dwellings on the Comber estate, CAMBERWELL.

*

The L.C.C. Housing Committee recommends leasing sites at BECONTREE for the erection of public-houses as follow: Messrs. Barclay, Perkins & Co., Ltd., Five Elms and at Gale Street; Glenny's Brewery, Ltd., at Heathway; Messrs. Watney, Combe, Reid & Co., Ltd., at Porters Lodge; and Improved Public House Co., Ltd., at Longridge Road.

*

Plans submitted by Messrs. Glasier and Sons have been passed for the laying out of streets on the Wimbledon Park estate, PUTNEY.

*

Plans passed by the CLAPHAM B.C.: Additions, Queenswood Court, King's Avenue, for Mr. H. P. Sanders; eleven houses, Queensville Road, for Mr. F. H. Hooper.

*

Having had a report that at least 1,000 flats are needed for housing requirements, the WANDSWORTH B.C. has asked the Housing Committee to prepare a comprehensive report on the subject with schemes for dealing expeditiously with slum areas.

*

Plans passed by the BEXHILL Corporation: Three houses, Collington Lane, for Mr. J. E. Maynard; three houses, Plemont Gardens, for Mr. W. P. Glessing; sixteen garages, Dorset Road, for Harrison-Smith Buildings, l td.; alterations, 33 St. Leonards Road, for Messrs. Callow and Callow.

*

The BEXHILL Corporation has appointed a subcommittee to consider the provision of a public abattoir.

The BEXHILL Corporation Electricity Committee has discussed the question of the provision of showrooms for the department, and requested the electrical engineer to report on the subject.

*

The BEXHILL Corporation Housing Committee proposes to erect a further fifty houses on the Sidley estate.

*

The BEXHILL Corporation is making an offer for a housing site in Springfield Road.

*

The FULHAM B.C. is urging the Ministry of Transport to arrange for the construction of a railway bridge at Cromwell Road, and the construction of two relief traffic roads.

*

The BRIGHTON Corporation has agreed upon a scheme for improving Preston Park at a cost of £18,500. The scheme includes the erection of a refreshment hall and the provision of bowling-greens and tennis courts.

*

The BRIGHTON Corporation has obtained sanction to borrow £10,000 for further housing grants.

*

The SEAHAM HARBOUR U.D.C. is to obtain estimates for alterations at the municipal offices and the rearrangement of the accommodation.

*

Barclays Bank, Ltd., has acquired a lease from the NEWCASTLE Corporation of a site on the shopping centre of the High Heaton estate for the erection of a bank.

*

Plans passed by the TYNEMOUTH Corporation: Eight houses, Cartington Road, for Mr. W. Stockdale; garage, Hawkeys Lane, for Coast Road Motor Company; shops and flats, corner of St. George's Crescent and Churton Green, for Messrs. F. R. N. Haswell and Son; four houses, Chirton Green estate, for Messrs. Chisholm & Co.; fourteen houses, Houghton Avenue, for Messrs. J. and J. Robison; extensions, Tynemouth Laundry, Tynemouth Road, for Messrs. Dixon and Bell; alterations, "Uncle Tom's Cabin" public-house, Bedford Street, for Messrs. Hails & Co.

*

The HERNE BAY U.D.C. is urging the Kent Education Committee to proceed with the scheme for the erection of a secondary school.

*

The BIRMINGHAM Corporation is to provide new engineering equipment and reconstruct buildings at Winson Green mental hospital at a cost of £22,000.

*

The BIRMINGHAM Corporation has selected a site at Bordesley Green for the erection of a branch bank.

The BIRMINGHAM Civic Society has given the Corporation £200 towards a scheme for the erection in Aston Park of a building to take the form of an amphitheatre and modern stage for music, school plays, and other entertainments.

*

The BIRMINGHAM Corporation is to lay out land in Keeley Street as a recreation ground and erect pavilions and other buildings at a cost of £14,000.

*

Plans passed by the HACKNEY B.C.: Warehouse and office, 73-75 Shacklewell Lane, for Messrs. Woodward & Co.; factory, 5 and 7 Wellington Road, for Messrs. A. J. King, Ltd.; twenty shops, Ridley Road, for Mr. A. Tate.

*

Plans passed by the FULHAM B.C.: Garage, Greyhound Road, for Mr. A. E. Black; houses, Peterborough Road, for Messrs. Norris and Shatlock; garages, Jervis Road and Chestnut Alley, for Mr. Frank Potter; garage, showrooms, and offices, Fulham Palace Road and Rosedew Road, for Sinclair Automobiles, Ltd.; offices, Townmead Road, for Messrs. Macfarlane, Lang, & Co., Ltd.

*

Plans passed by CHELTENHAM Corporation: Additions, St. Paul's Training College, Swindon Road, for the Committee; garage, Corpus Street, for The United Chemists' Association, Ltd.; lavatory, Thirlestaine Road, for the Council of Cheltenham College; alterations, 13 Promenade, for Royal Insurance Co.; hall, St. James's Parade, for St. Gregory's Church; showroom, Bath Road, for Wicliffe Motor Co.; extension of printing works, Montpellier Street, for Messrs. Burrow's Press, Ltd.

*

Plans passed by EASTBOURNE Corporation: Two houses and garage, Brodrick Road, Hampden Park, for Messrs. W. K. Cole and Sons; alterations and additions, Grove Road Fire Station, for the Borough Engineer; two houses, Brampton Road, Hampden Park, for Mr. B. Stevens (architect); extension, Burlington Hotel, Grand Parade, for Mr. P. D. Stonham, architect; six houses and garages, Victoria Drive, for Mr. C. Ford, architect; alterations and additions, Cavendish Hotel, Grand Parade, for Mr. T. H. Smith; boiler-house, Willingdon Laundry, Brassey Avenue, for Mr. A. Ford.

*

At the CHELTENHAM Corporation Housing Committee, Mr. Rainger submitted a design for the erection of new houses in Spenser Road, and it was decided to invite tenders for the erection of thirty-eight.

*

The PLYMOUTH Corporation has obtained sanction to grant another 200 housing subsidies.

Plans passed by the ROTHERHAM Corporation: Public-house, Meadow Bank Road, for Mappin's Masbro' Old Brewery Co., Ltd.; building, Temperance Terrace, Westgate, for The Don Table Water Co., Ltd.; alterations, Midland Road, for Messrs. Mappin's Brewery, Ltd.; rebuilding, "Britannia Inn," Lindley Street, for Messrs. Mappin's Brewery, Ltd.; additions, Wortley Road, for Messrs. Robert Jenkins, Ltd.; new club premises, Brinsworth Street, for The Workers' Union Club and Institute; new road (Newsum Road), for Mr. J. B. Kesteven; two houses, Newsum Road, for Mr. J. B. Kesteven.

★

The CHELSEA B.C. has prepared a scheme for the reconstruction of the World's End Passage area.

★

The OLDHAM Education Committee is to select a site on the Limeside estate for the erection of an elementary school.

★

Mr. Frank Lord has submitted to the OLDHAM Corporation plans for the erection of fifty-five houses in Vulcan Street.

★

Plans passed by the CAMBERWELL B.C.: Garages, County Grove, for Mr. J. R. C. Bathurst; billiard hall and garage, 62 Queen's Road, for Mr. W. F. Blake; lock-up garage, "Alleyn's Head" public-house, Park Road, for Mr. G. E. Dunnage; rebuilding at "Crown" public-house, 24 Wells Street, for Mr. W. C. Ingram; erection of buildings, Rye Lane, for Mr. P. J. Westwood; building, Queen's Road, for Messrs. Culpin and Bowers.

★

Plans passed by the SOUTH SHIELDS Corporation: Extension, 214 Ocean Road, for Mr. Howard Hill; alterations, "Wagon Inn" public-house, Commercial Road, for Messrs. Spence Bros.

★

The Metropolitan Asylums Board has agreed to revised plans for the modernization of LEAVESDEN Mental Hospital. The cost is estimated at £97,165.

★

A site at PELTON has been purchased by the Durham County Education Committee for the erection of an elementary school.

★

The Board of Education has approved the plans of the Durham County Education Committee for the erection of an elementary school at LUDWORTH.

★

The Board of Education has approved the plans of the Durham County Education Committee for a new elementary school at BILLINGHAM, and tenders will shortly be invited.

★

The Board of Education has passed final plans for a new elementary school at BRANDON, and tenders are now to be invited by the Durham County Education Committee.

The Durham County Council has acquired a site in Bullion Street, CHESTER-LE-STREET, for the erection of an elementary school.

★

Mr. Horace T. Bonner has prepared plans for new public offices and fire station for the CHINGFORD U.D.C.

★

Plans passed by the SHIPLEY U.D.C.: Additions, premises in Briggate, for Amalgamated Society of Dyers; two shops, Otley Road, for Messrs. S. Firth & Co., Ltd.; alterations, warehouse, Dale Road, for Messrs. Firth & Co., Ltd.; two houses, Nab Wood Drive, for Messrs. William Pitts and Sons.

★

The SHIPLEY U.D.C. Estates Committee has decided to develop the Northcliff estate by stages, and now the surveyor is to obtain designs for entrance gates.

★

The STOCKTON U.D.C. is to extend the infectious diseases hospital.

★

H.M. Office of Works proposes to proceed with the erection of the new sorting office adjoining Leeman Road, YORK.

★

Plans passed by the YORK Corporation: Tanks and sheds, Foss Islands Road, for Anglo-American Oil Co., Ltd.; new streets, Fulford Grane estate, for Mr. R. J. Pulleyn; alterations, 16 Bridge Street, for Messrs. W. Whittaker and Sons, Ltd.

★

Plans passed by the PLYMOUTH Corporation: Sanitary conveniences, "Big Lamp Inn," Treville Street, for Messrs. Worthingtons, Ltd.; five houses, Glendower Road, for Mr. E. Hender; two houses, West Down Road, for Mr. H. L. Pile; ten houses, off Gwyn Road, for Messrs. Hayter and Coles; addition, rear of Westminster Hotel, The Crescent, for Mr. A. C. Cockerton; new streets, Higher Compton, for Mr. W. G. Heath; conveniences, Empire Picture House, Union Street, for Mr. A. C. Ellis; assembly hall, etc., off 28-32 Mutley Plain, for Mr. J. R. Randall; store, Belle Vue Terrace, Cobourg Street, for Mr. J. H. Prowse; additions, rear of 66 Old Town Street, for Messrs. S. Stephens and Risdons, Ltd.

★

Plans passed by the BIRKENHEAD Corporation: Thirty-six houses, Bankside Road, for Mr. A. H. Boulton; extensions, premises in Cathcart Street, for Co-operative Society.

★

The BIRKENHEAD Corporation is considering a scheme for the demolition of houses and the erection on the site of thirty-two houses.

★

Plans passed by the BOLTON Corporation: Twenty-four houses, Somerset Road, for Mr. Joseph Uttley; development of estate, Chassen Road, for Messrs. A. E. Hargreaves, Ltd.

The BOLTON Corporation is to obtain tenders for the erection of 104 houses on the Paulham Street site, and ninety-six at Tonge Moor.

★

The BOLTON Watch Committee has considered amended plans for the proposed Capital Cinema at Churchgate and approved of them.

★

The BOLTON Education Committee is to discuss with the Board of Education the accommodation to be provided at the proposed new elementary school at Brightmet.

★

The HULL Education Committee has purchased a site in Endyke Lane for the erection of an elementary school.

★

The HULL Corporation Electricity Committee is to extend the buildings at the Sculcoates Lane power station at an estimated cost of £129,500.

★

The HULL Corporation Housing Committee has decided to obtain fresh tenders for the erection of 400 houses on the West Hull estate.

★

Plans passed by the HULL Corporation: Five houses, Springfield Road, for Mr. G. E. Kirkwood; two houses, Belgrave Drive, for Mr. F. C. Polley; fourteen houses, Springfield Road, for Mr. T. R. Barnett; fourteen houses, Wold Carr Road, for Messrs. R. W. and J. H. Barnett.

★

The SHEFFIELD Corporation has agreed to grant the subsidy to the Sutton Trustees for the erection of a further 176 houses.

★

The MANCHESTER Corporation is to allocate £25,000 for additions at the destructor works, and meanwhile the city architect is to prepare plans and estimates for the work.

★

Plans passed by the OLDHAM Corporation: Extensions, premises, Glodwick Road, for Messrs. Lees and Wrigley; twenty-four houses, Oriel Avenue, for Messrs. Hawthorne and Bloor, Ltd.; twelve houses, Esther Street, for Mr. Frank Lord; five houses, Burlington Avenue, for Messrs. A. Redfern and Sons.

★

The city engineer of LEEDS is to prepare plans for the erection of 300 houses and 100 flats on the York Road and Selby Road housing estate, 208 houses on the Meanwood estate, and 150 houses on the Middleton estate.

★

The Ministry of Health has now sanctioned the plans of the proposed new block at the mental hospital, and the DURHAM C.C. is to proceed with the work without delay.

★

Lloyds Bank Ltd. is to reconstruct their premises at the junction of Lowerhead Road and Vicar Lane, LEEDS.

RATES OF WAGES

			I	II
			s. d.	s. d.
A	ABERDARE	S. Wales & M.	1 7½	1 2¾
A₁	Abergavenny	S. Wales & M.	1 7	1 2¼
B	Abingdon ..	S. Counties	1 5½	1 1¾
A	Accrington	N.W. Counties	1 7½	1 2¾
A₂	Addlestone	S. Counties	1 6	1 1½
A	Adlington ..	N.W. Counties	1 7½	1 2¾
A	Airdrie ..	Scotland	*1 7½	1 2¾
O₁	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7½	1 2¾
B₂	Appleby ..	N.W. Counties	1 4	1 0
A	Ashton-under-Lyne	N.W. Counties	1 7½	1 2¾
A₂	Atherstone	Mid. Counties	1 6	1 1½
B₂	Aylesbury ..	S. Counties	1 4	1 0
B₂	BANBURY	S. Counties	1 4	1 0
B₂	Bangor ..	N.W. Counties	1 4½	1 0½
A	BarnardCastle	N.E. Coast	1 7½	1 2¾
A	Barnsley ..	Yorkshire	1 7½	1 2¾
B₁	Barnstaple	S.W. Counties	1 5	1 0¾
A	Barrow ..	N.W. Counties	1 7½	1 2¾
A	Barry ..	S. Wales & M.	1 7½	1 2¾
B₂	Basingstoke	S.W. Counties	1 4	1 0
B	Bath ..	S.W. Counties	1 5½	1 1¼
A	Batley ..	Yorkshire	1 7½	1 2¼
B	Bedford ..	E. Counties	1 5½	1 1¼
A₂	Berwick-on-Tweed	N.E. Coast	1 6½	1 2
A₂	Bewdley ..	Mid. Counties	1 6½	1 2
B₂	Bicester ..	Mid. Counties	1 4	1 0
A	Birkenhead	N.W. Counties	*1 7½	1 2¾
A	Birmingham	Mid. Counties	1 7½	1 2¾
A	Bishop Auckland	N.E. Coast	1 7½	1 2¾
A	Blackburn	N.W. Counties	1 7½	1 2¾
A	Blackpool	N.W. Counties	1 7½	1 2¾
A	Blyth ..	N.E. Coast	1 7½	1 2¾
B₂	Bognor ..	S. Counties	1 4	1 0
A	Bolton ..	N.W. Counties	1 7½	1 2¾
A₂	Boston ..	Mid. Counties	1 6	1 1½
B₁	Bournemouth	S. Counties	1 5	1 0¾
B₂	Bovey Tracey	S.W. Counties	1 4½	1 0½
A	Bradford ..	Yorkshire	1 7½	1 2¾
A₂	Brentwood	E. Counties	1 6½	1 2
A	Bridgend ..	S. Wales & M.	1 7½	1 2¾
B₂	Bridgwater	S.W. Counties	1 4½	1 0½
A₁	Bridlington	Yorkshire	1 7	1 2¼
A	Brighouse	Yorkshire	1 7½	1 2¾
B₁	Brighton ..	S. Counties	1 5	1 0¾
A	Bristol ..	S.W. Counties	1 7½	1 2¾
B₂	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 2¾
A	Burslem ..	Mid. Counties	1 7½	1 2¾
A₂	Burton-on-Trent	Mid. Counties	1 6½	1 2
A	Bury ..	N.W. Counties	1 7½	1 2¾
A₁	Buxton ..	N.W. Counties	1 7	1 2¼
B	CAMBRIDGE	E. Counties	1 5½	1 1¼
B₂	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7½	1 2¾
A	Carlisle ..	N.W. Counties	1 7½	1 2¾
B	Carmarthen	S. Wales & M.	1 5½	1 1¼
B₂	Carnarvon	N.W. Counties	1 4½	1 0½
A₁	Carnforth ..	N.W. Counties	1 7	1 2¼
A	Castleford	Yorkshire	1 7½	1 2¾
B₁	Chatham ..	S. Counties	1 5	1 0¾
B₁	Chelmsford	E. Counties	1 5	1 0¾
A₂	Cheltenham	S.W. Counties	1 6	1 1¼
A	Chester ..	N.W. Counties	1 7½	1 2¾
A	Chesterfield	Mid. Counties	*1 7½	1 2¾
B₂	Chichester	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7½	1 2¾
B₂	Cirencester	S. Counties	1 4½	1 0½
A	Clitheroe ..	N.W. Counties	1 7½	1 2¾
A	Clydebank	Scotland	1 7½	1 2¾
A	Coalville ..	Mid. Counties	1 7½	1 2¾
B₁	Colchester ..	E. Counties	1 5	1 0¾
A	Colne ..	N.W. Counties	1 7½	1 2¾
A₂	Colwyn Bay	N.W. Counties	1 6	1 1½
A	Consett ..	N.E. Coast	1 7½	1 2¾
A₂	Conway ..	N.W. Counties	1 6	1 1½
A	Coventry ..	Mid. Counties	1 7½	1 2¾
A₂	Crewe ..	N.W. Counties	1 6	1 1½
A₂	Cumberland	.....	1 6	1 1½
A	DARLINGTON	N.E. Coast	1 7½	1 2¾
A	Darwen ..	N.W. Counties	1 7½	1 2¾
B₂	Deal ..	S. Counties	1 4	1 0
A₂	Denbigh ..	N.W. Counties	1 6	1 1½
A	Derby ..	Mid. Counties	1 7½	1 2¾
A	Dewsbury ..	Yorkshire	1 7½	1 2¾
B	Didcot ..	S. Counties	1 5½	1 1¼
A	Doncaster	Yorkshire	1 7½	1 2¾
O₁	Dorchester	S.W. Counties	1 3	11½
A₂	Driffield ..	Yorks	1 6	1 1½
A₂	Droitwich ..	Mid. Counties	1 6	1 1½
A₁	Dudley ..	Mid. Counties	1 7	1 2¼
A	Dundee ..	Scotland	1 7½	1 2¾
A	Durham ..	N.E. Coast	1 7½	1 2¾
B₁	EASTBOURNE	S. Counties	1 5	1 0¾
A	Ebbw Vale	S. Wales & M.	1 7½	1 2¾
A	Edinburgh	Scotland	1 7½	1 2¾
A	E. Glamorganshire & Monmouthshire	S. Wales & M.	1 7½	1 2¾
B	Exeter ..	S.W. Counties	*1 5½	1 1¼
B₂	Exmouth ..	S.W. Counties	1 4½	1 0½
B	FELIXSTOWE	E. Counties	1 5½	1 1¼
A₂	Filey ..	Yorks	1 6	1 1½
A	Fleetwood ..	N.W. Counties	1 7½	1 2¾
B₂	Folkestone	S. Counties	1 4½	1 0½
A	Frodsham ..	N.W. Counties	1 7½	1 2¾
B₂	Frome ..	S.W. Counties	1 4	1 0
A	GATESHEAD	N.E. Coast	1 7½	1 2¾
B₁	Gillingham	S. Counties	1 5	1 0¾
A₂	Gloucester	S.W. Counties	1 6	1 1¼
A₂	Goole ..	Yorkshire	1 6½	1 2
B	Gosport ..	S. Counties	1 5½	1 1¼
A₂	Grantham	Mid. Counties	1 6	1 1½
A₁	Gravesend	S. Counties	1 7	1 2¼
A	Greenock ..	Scotland	*1 7½	1 2¾
A	Grimsby ..	Yorkshire	1 7½	1 2¾
B₁	Guildford ..	S. Counties	1 5	1 0¾
A	HALIFAX ..	Yorkshire	1 7½	1 2¾
A	Hanley ..	Mid. Counties	1 7½	1 2¾
A	Harrogate	Yorkshire	1 7½	1 2¾
A	Hartlepools	N.E. Coast	1 7½	1 2¾
B₂	Harwich ..	E. Counties	1 4½	1 0½
B₂	Hastings ..	S. Counties	1 4	1 0
B₁	Hatfield ..	S. Counties	1 5	1 0¾
B	Hereford ..	S. W. Counties	1 5½	1 1¼
B	Hertford ..	E. Counties	1 5¾	1 1½
A₁	Heysham ..	N.W. Counties	1 7	1 2¼
A	Howden ..	N.E. Coast	1 7½	1 2¾
A	Huddersfield	Yorkshire	1 7½	1 2¾
A	Hull ..	Yorkshire	1 7½	1 2¾

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

			I	II
			s. d.	s. d.
A	ILKLEY ..	Yorkshire	1 7½	1 2¾
A	Immingham	Mid. Counties	1 7½	1 2¾
B	Ipswich ..	E. Counties	1 5½	1 1¼
C₁	Isle of Wight	S. Counties	1 3	11½
A	JARROW ..	N.E. Coast	1 7½	1 2¾
A	KEIGHLEY	Yorkshire	1 7½	1 2¾
B₁	Kendal ..	N.W. Counties	1 5	1 0¾
B₁	Keswick ..	N.W. Counties	1 5	1 0¾
B	Kettering ..	Mid. Counties	1 5½	1 1¼
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 2¾
A₂	Leamington	Mid. Counties	1 6½	1 2
A	Leeds ..	Yorkshire	1 7½	1 2¾
A	Leek ..	Mid. Counties	1 7½	1 2¾
A	Leicester ..	Mid. Counties	1 7½	1 2¾
A	Leigh ..	N.W. Counties	1 7½	1 2¾
B₂	Lewes ..	S. Counties	1 4	1 0
A₂	Lichfield ..	Mid. Counties	1 6	1 1½
A	Lincoln ..	Mid. Counties	1 7½	1 2¾
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 2¾
	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 2¾
A	Loughborough	Mid. Counties	1 7½	1 2¾
B	Luton ..	E. Counties	1 5½	1 1¼
A	Lytham ..	N.W. Counties	1 7½	1 2¾
A₁	MACCLESFIELD	N.W. Counties	1 7	1 2¼
B	Maidstone	S. Counties	1 5½	1 1¼
A₂	Malvern ..	Mid. Counties	1 6	1 1½
A	Manchester	N.W. Counties	1 7½	1 2¾
A	Mansfield ..	Mid. Counties	1 7½	1 2¾
B₂	Margate ..	S. Counties	1 4	1 0
A₂	Matlock ..	Mid. Counties	1 6	1 1½
A	Merthyr ..	S. Wales & M.	1 7½	1 2¾
A	Middlesbrough	N.E. Coast	1 7½	1 2¾
A₂	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 2¾
	S. and E. Glamorganshire			
A₁	Morecambe	N.W. Counties	1 7	1 2¼
A₂	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7½	1 2¾
A	Nelson ..	N.W. Counties	1 7½	1 2¾
A	Newcastle ..	N.E. Coast	1 7½	1 2¾
A	Newport ..	S. Wales & M.	1 7½	1 2¾
A	Normanton	Yorkshire	1 7½	1 2¾
A₂	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs.	Mid. Counties	1 7½	1 2¾
A	North Shields	N.E. Coast	1 7½	1 2¾
A₂	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7½	1 2¾
A	Nuneaton ..	Mid. Counties	1 7½	1 2¾
B	OAKHAM ..	Mid. Counties	1 5½	1 1¼
A	Oldham ..	N.W. Counties	1 7½	1 2¾
A₂	Oswestry ..	Mid. Counties	1 6	1 1½
B	Oxford ..	S. Counties	1 5½	1 1¼
A	PAISLEY ..	Scotland	*1 7½	1 2¾
C	Pembroke	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7½	1 2¾
A₂	Peterborough	Mid. Counties	1 6	1 1½
A	Plymouth	S.W. Counties	*1 7½	1 2¾
A	Pontefract	Yorkshire	1 7½	1 2¾
A	Pontypridd	S. Wales & M.	1 7½	1 2¾
B	Portsmouth	S. Counties	1 5½	1 1¼
A	Preston ..	N.W. Counties	1 7½	1 2¾
A	QUEENSFERRY	N.W. Counties	1 7½	1 2¾
B	READING ..	S. Counties	1 5½	1 1¼
B	Reigate ..	S. Counties	1 5½	1 1¼
A₂	Retford ..	Mid. Counties	1 6	1 1½
A	Rhondda Valley	S. Wales & M.	1 7½	1 2¾
A₂	Ripon ..	Yorkshire	1 6	1 1½
A	Rochdale ..	N.W. Counties	1 7½	1 2¾
B	Rochester	S. Counties	1 5½	1 1¼
A₁	Ruabon ..	N.W. Counties	1 7	1 2¼
A₂	Rugby ..	Mid. Counties	1 6½	1 2
A₂	Rugeley ..	Mid. Counties	1 6	1 1½
A	Runcorn ..	N.W. Counties	1 7½	1 2¾
A₂	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens	N.W. Counties	1 7½	1 2¾
B₂	Salisbury	S.W. Counties	1 4	1 0
A₁	Scarborough	Yorkshire	1 7	1 2¼
A	Scunthorpe	Mid. Counties	1 7½	1 2¾
A	Sheffield ..	Yorkshire	1 7½	1 2¾
A	Shipley ..	Yorkshire	1 7½	1 2¾
A₂	Shrewsbury	Mid. Counties	1 6	1 1½
A₂	Skipton ..	Yorkshire	1 6½	1 2
B	Slough ..	S. Counties	1 5½	1 1¼
A₂	Solihull ..	Mid. Counties	1 6½	1 2
A₂	South'pton	S. Counties	1 6	1 1½
B₁	Southend-on-Sea	E. Counties	1 5	1 0¾
A	Southport ..	N.W. Counties	1 7½	1 2¾
A	S. Shields ..	N.E. Coast	1 7½	1 2¾
A₂	Stafford ..	Mid. Counties	1 6½	1 2
A	Stockport ..	N.W. Counties	1 7½	1 2¾
A	Stockton-on-Tees	N.E. Coast	1 7½	1 2¾
A	Stoke-on-Trent	Mid. Counties	1 7½	1 2¾
B	Stroud ..	S.W. Counties	1 5½	1 1¼
A	Sunderland	N.E. Coast	1 7½	1 2¾
A	Swadlincote	Mid. Counties	1 7½	1 2¾
A	Swansea ..	S. Wales & M.	1 7½	1 2¾
B	Swindon ..	S.W. Counties	1 5½	1 1¼
A₁	TAMWORTH	N.W. Counties	1 7	1 2¼
B₁	Taunton ..	S.W. Counties	1 5	1 0¾
A	Teeside Dist.	N.E. Counties	1 7½	1 2¾
B	Teignmouth	S.W. Coast	1 5½	1 1¼
A	Todmorden	Yorkshire	1 7½	1 2¾
A₂	Torquay ..	S.W. Counties	1 6½	1 2
C	Truro ..	S.W. Counties	1 3½	11½
B₁	Tunbridge Wells	S. Counties	1 5	1 0¾
A	Tunstall ..	Mid. Counties	1 7½	1 2¾
A	Tyne District	N.E. Coast	1 7½	1 2¾
A	WAKEFIELD	Yorkshire	1 7½	1 2¾
A₁	Walsall ..	Mid. Counties	1 7	1 2¼
A	Warrington	N.W. Counties	1 7½	1 2¾
A₂	Warwick ..	Mid. Counties	1 6½	1 2
B	Wellingborough	Mid. Counties	1 5½	1 1¼
A	West Bromwich	Mid. Counties	1 7½	1 2¾
B	Weston-s-Mare	S.W. Counties	1 5½	1 1¼
A₂	Whitby ..	Yorkshire	1 6½	1 2
A	Widnes ..	N.W. Counties	1 7½	1 2¾
A	Wigan ..	N.W. Counties	1 7½	1 2¾
B₂	Winchester	S. Counties	1 4½	1 0½
B	Windsor ..	S. Counties	1 5½	1 1¼
A	Wolverhampton	Mid. Counties	1 7½	1 2¾
A₂	Worcester ..	Mid. Counties	1 6	1 1½
A₂	Worksop ..	Yorkshire	1 6	1 1½
A₁	Wrexham ..	N.W. Counties	1 7	1 2¼
B	Wycombe ..	S. Counties	1 5½	1 1¼
B₁	YARMOUTH	E. Counties	1 5	1 0¾
B₂	Yeovil ..	S.W. Counties	1 4½	1 0½
A	York ..	Yorkshire	1 7½	1 2¾

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

	£	s.	d.
Broken brick or stone, 2 in., per yd.	0	11	6
Thames ballast, per yd.	0	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.

	£	s.	d.
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:

	£	s.	d.		£	s.	d.
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.

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

	£	s.	d.
Stoneware pipes, tested quality, 4 in., per 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. 9½d. *per hour*; LABOURER, 1s. 4½d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour*.

	£	s.	d.
London stocks, per M.	£4	15	0
Flettons, per M.	3	0	0
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 rolls of 4½ in., per roll	0	2	6
DO. *9 in. per roll*	0	4	9
DO. *14 in. per roll*	0	7	6
DO. *18 in. per roll*	0	9	6

BRICKWORK in stone lime mortar, Flettons or equal, per rod — £33 0 0
DO. in cement do., per rod — 36 0 0
DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
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.

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

	£	s.	d.
Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	7
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. 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

	£	s.	d.
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.

	£	s.	d.
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. 9½d. *per hour*; TILER, 1s. 9½d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour*; LABOURER, 1s. 4½d. *per hour*.
N.B.—Tiling is often executed as piecework.

	£	s.	d.
Slates, 1st quality, per 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

	£	s.	d.
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:

	£	s.	d.
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

	£	s.	d.
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 18*s.* 0*d.* per square.

	£	s.	d.
FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

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

Timber, average prices at Docks, London Standard Scandinavian, etc. (equal to 2nds):

	£	s.	d.
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
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.

	£	s.	d.
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, ⅞ 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, 1¾ 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

*

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	9
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

*

MILLED LEAD and labour in gutters, flashings, etc.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	0
DO. ⅝ 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. ⅝ 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. ⅝ 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.* 4½*d. per hour.*

*

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

*

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, ⅜ 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.* 8½*d. per hour.*

*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7
Polished plate, British ¼ in., up to 2 ft. sup. per ft.	0	1	6
DO. *4 ft. sup.* „	0	2	9
DO. *6 ft. sup.* „	0	3	0
DO. *20 ft. sup.* „	0	3	7
DO. *45 ft. sup.* „	0	3	9
DO. *65 ft. sup.* „	0	3	11
DO. *100 ft. sup.* „	0	4	4
Rough plate, ⅛ in., per ft.	0	0	6½
DO. *¼ in. per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0

*

GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO. 2 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.* 8½*d. per hour ;* LABOURER, 1*s.* 4½*d. per hour ;* FRENCH POLISHER, 1*s.* 9*d. per hour ;* PAPERHANGER, 1*s.* 8½*d. per hour.*

*

Genuine white lead, per cwt.	£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	8	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

*

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	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

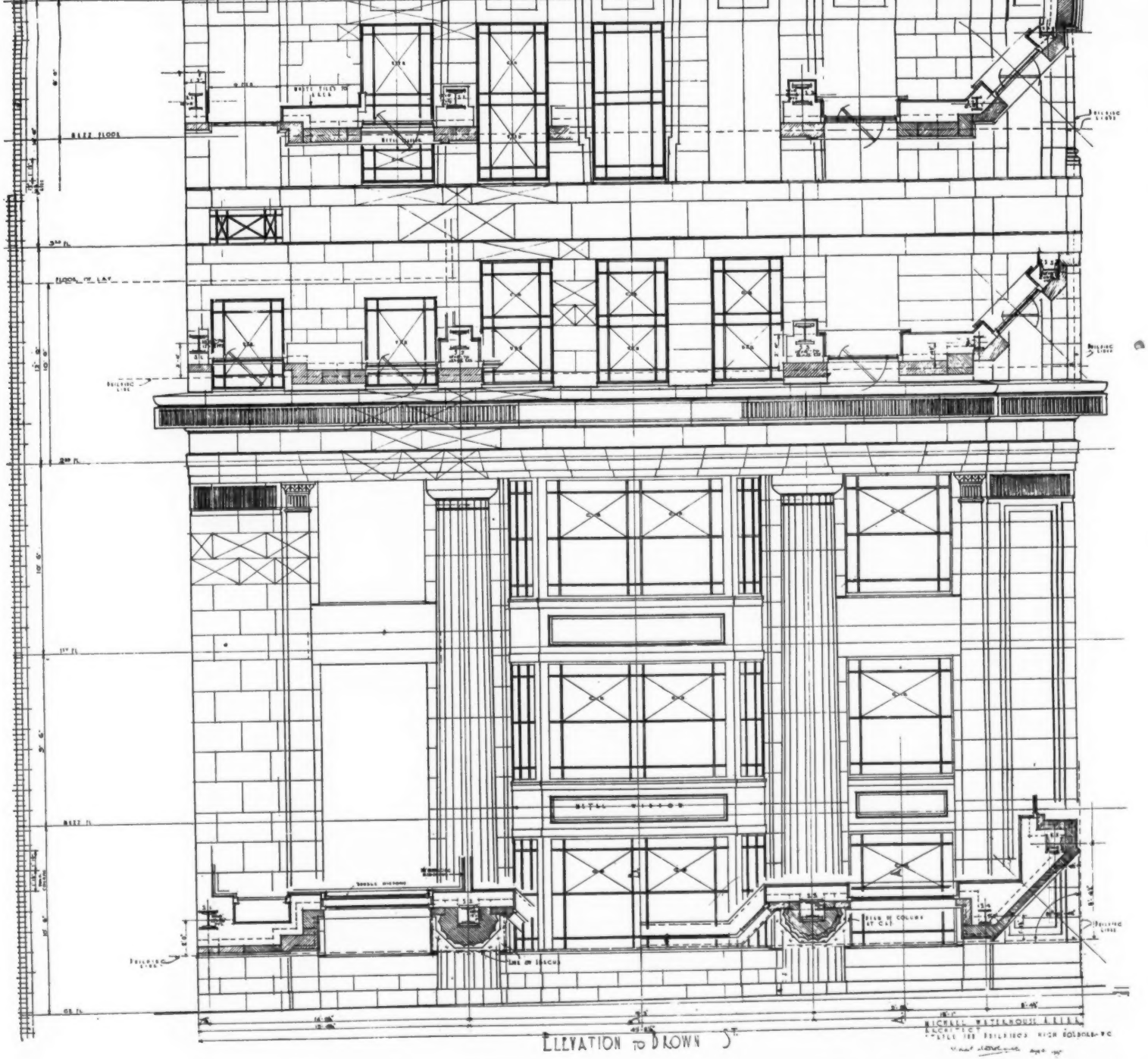
SUNDRIES

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, $\frac{5}{32}$ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, $\frac{5}{32}$ in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average ⅜ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casement in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	$\frac{3}{16}$ in.			¼ in.			⅜ in.			½ 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	2	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	3	4	—	3½	3	—	6	—	—	—	—	—



NEW BUILDING FOR THE ATLAS ASSURANCE COMPANY, MANCHESTER. BY MICHAEL WATERHOUSE. DETAILS OF ELEVATION TO BROWN STREET.