



Wednesday, October 17, 1928

THE BRITISH DUSTBIN

THE Arts and Crafts Exhibition Societies' Show is to open this month, and last month the British Association discussed mass production and skill in industry. Thus is brought under our attention a comparison of the extreme opposites in the field of the world's work. What the exhibition is this year to show us has yet to be seen. What emerged from the garnered knowledge and wisdom of leading manufacturers, engineers, physicists, and psychologists at Glasgow was that skill in the industrial worker is giving place to a generalized knowledge grafted into the machine; that industrial organization discountenances skill and even sets a premium on mental deficiency and would replace human attributes with those of the mule; that such skill as is called for, is concentrated on the making of machinery to replace skill. In other words, industry—balked by public opinion under the leadership of Ashley Cooper and the authors of "The Cry of the Children" and "Hard Times," and others; and coerced by police from destroying the bodies of the workers—is now organized to the destruction of souls.

It was further said at Glasgow that the special methods of mass production adopted in America are due to dearth of industrial skill in that country (presumably the result of the discrediting of skill), and that our chances of maintaining British industries and raising the standard of living among our workers probably depend upon concentration on products in which the higher skill of the British worker holds out the attraction of a better quality rather than of a lower price. The president, in his opening address, also offered this same view; in short, the whole array of facts and opinions emerging from the Glasgow Congress recommends a return to craftsmanship.

It will be observed that the *material* prosperity of British industry is alone above considered. It is true that Professor Pear referred to Henry Ford's abject, exculpatory theory that mechanized efficiency in mass production frees the worker for a fuller leisure; and he raised the question what place work should fill in daily life, but apparently without answering it. Clearly the answer will depend upon what we are to understand by "work." If we mean getting out of bed in response to the shriek of a hooter, and carrying out menial duties for a machine, and at the speed set by the machine and for the time it works; and if the special qualification for this work is "mental deficiency"—a dull, dumb, unfeeling automonism; and if, besides, the machine is producing the worst goods of their kind the world has knowledge of, and no one has any satisfaction either in the making of the goods or in their use when made—why,

then, the answer surely is that work has no place at all in life, but in Hell, only. An industrial system which degrades the craftsman to a "hand," and seeks to establish mental deficiency in him in order to supplant honest goods with floods of worthless rubbish bragged into notoriety, cannot continue. That is certain. If such things were possible—if the human race could yield itself to elements of self-destruction within it, it would not stand where it does.

If by "work," on the other hand, we mean employment in the performance of a task which calls for knowledge, and exercises trained skill of mind and hand, then work has a large place in life. When it involves the fashioning of a complete thing, as it does in the truer kinds of craftwork, it holds the chief place in life; and when it calls for the faculty of creation and gives existence to ideas, it becomes life itself. For a man so related to his work there is no question of hours of labour; to labour is his happiest privilege: recreations are mere relaxations. Anyone who does not know the happiness of a day's work well done knows not one of the greatest happinesses life offers, and it is a happiness he has earned—it is his deserts. How many of the industrially employed know this happiness, or ever have known it? On the other hand, how open to observation are the contentment and happiness of the craftsman even in the humblest callings—the village blacksmith, for instance, the bootmaker, when he can yet be found! This contentment is the birthright of man; the industrial system, with its greed-inspired mass production, has robbed him of it, and yet marvels at continued industrial unrest.

Another point which does not appear to have been touched upon at Glasgow is the economic aspect of mass production. It is one that would seem worth exhibiting, for, looked at broadly, the chief positive achievement of mass production seems to be the choking to overflowing of the nation's dust-heaps; in fact, were it not for the blessings of rust and decay, we should be in some danger of being buried. Is there, then, any economic principle governing mass production beyond that of competitive greed? If so, in what way is it more economical for the public to pay sixteen pounds for half a wagon-load of shoddy tinware, instead of two pounds for a right copper kettle which serves two generations? Is this activity in making shoddy kettles, and so forth, what we seek to encourage when we say, "Keep the home fires burning," and is the accumulated profit from doing a thing badly two hundred times over, instead of once well, what is meant when we speak of "the wealth of the Empire"?

NEWS AND TOPICS

THE danger of the use of coal residues in concrete in contact with steel is emphasized by the findings of a joint committee representative of the institutes responsible for practically the whole of the building industry in Great Britain. So alarmed are the committee at the possible effect of the mixture on structures in which it is at present used, that they are immediately placing their decision before the responsible building authorities in an effort to secure a revision of the building bylaws. The summary of the committee's report says:

After very careful consideration the committee unanimously arrived at the conclusion that coal residues are in general unsatisfactory materials to use as aggregates. There are three primary causes of defects.

In the first place, concretes made from coal residues are liable to expansion on setting, or later expand through becoming wet from atmospheric or other conditions. The second cause of defects lies in the high permeability of concrete made from coal residues, permitting the access of air and moisture to the steel, with consequent risk of corrosion. In the third place, the presence of sulphur compounds in the aggregate may, under conditions favourable to chemical action, lead to corrosion.

One contracting firm reported to the joint council that they had removed a steel joist from a breeze floor at White-chapel. It had been in the floor twenty years, and had almost been eaten away by rust.

* * *

The Countryside and Footpaths National Conference and Exhibition, held at Leicester at the end of last week, was widely attended by delegates of various bodies all over the country. Mr. Baldwin sent an inspiring word of confidence, and Mr. Ramsay MacDonald a long message of active support. At the opening meeting on Friday there were admirable speeches, notably by Prof. Trevelyan, of Cambridge, and Lt.-Col. Kitson Clark, of the Leeds Civic Society, who, himself an ironfounder, spent thousands of pounds experimenting to get rid of the smoke from his furnaces. At the end of the first meeting the conference applauded Mr. Clough Williams-Ellis in quoting Topsy to the Prime Minister: "Darling Stanley—Put the old pipe down and let's have a Mussolini morning about it."

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On the second day there were concise and practical speeches by Prof. Patrick Abercrombie; Mr. John Bailey, chairman of the National Trust, and others. Mr. Clough Williams-Ellis excelled himself in a reasoned attack, based on psychological grounds, on the bludgeoning system of advertising. The latter part of the conference was especially given to those who, after all, see the country most closely—those who walk or ramble. Mr. Glenn gave a very clear account of the law about footpaths as existing, and convincingly put the claims of the Rights of Way Bill, which has been put forward again and again by the Scapa Society and which was stopped on its last passage by a display of Parliamentary tactics. The Bill would clear up a thousand small complications which at present make it a very difficult and expensive business to defend a right of way that is attacked.

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The indefatigable secretary of the conference, Mr. H. H. Peach, has got together a perfectly admirable collection

of photographs, posters, and cartoons—showing vividly the rapid destruction of country beauties by obnoxious garages, petrol filling-stations, and other unpleasant "growths"—which is to be given permanent headquarters at Leicester, but can be obtained on loan for local exhibitions. A notable point in the conference was the confidence shown in the C.P.R.E.

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Nevinson's show at the Leicester Galleries is as refreshing as it is unconventional. He is still *l'enfant terrible* of English art. He is doing English art a great deal of good; he is destroying the fetish of egotism; he is defying the convention that every picture must reveal the artist. Nevinson reveals himself by his diverse individuality, not by plagiarizing himself. His several watercolour drawings are delightful. There are thirty-six of them—mostly landscapes—and there are two portraits in pastel of well-known men which justify the artist's method in portraiture. The other half of the show consists of oil paintings, and in these Nevinson shows his greatest strength. There are some rough and rather gruesome things depicting the more raucous side of contemporary life for which I do not care. For the glowing still life—flowers, candles, fruit, a bountiful array of colour which is called "Baroque"—I care greatly. It is a dominating piece of decoration. "Beaumanoir" is so quiet that its loveliness may be missed, which would be a pity; "The New Forest" is excellent English landscape, and there is fine colour in these also. The best modernist picture is painted in tempera—"London, Winter," a scene on the river which is dull, and the barges are dull, and the men working in them, but the whole is brought to life by the seagulls. They wheel and squeal and turn and twist, filling the picture with vivacious action; and I was glad to note that it has been bought for the London Museum—a most fitting purchase. Throughout, the oil pictures have been painted without illuminants. There is not a reflection in the whole show. The surfaces are all matt, and no glazing of either glass or varnish has been used. For the purposes of room decoration this is altogether admirable, and Nevinson has managed his matt surfaces so that they are not dull—an achievement.

ARRANGEMENTS

THURSDAY, OCTOBER 18, TO FRIDAY, OCTOBER 26

Russell Workshops, Ltd., Broadway, Worcs. Exhibition of a Bedroom at the Red Rose Guild Exhibition, Houldsworth Hall, Manchester.

FRIDAY, OCTOBER 26

Royal Technical College Architectural Craftsmen's Society, Glasgow. Seton Karr on "Aspects of Cement and its Manufacture." 7.45 p.m.

SATURDAY, OCTOBER 27

Royal Technical College Architectural Craftsmen's Society, Glasgow. Visit to John Cochrane's Works.

MONDAY, NOVEMBER 5

R.I.B.A. Inaugural Meeting: Presidential address. Presentation to Sir Giles Gilbert Scott of London Architecture Medal. 8.30 p.m.



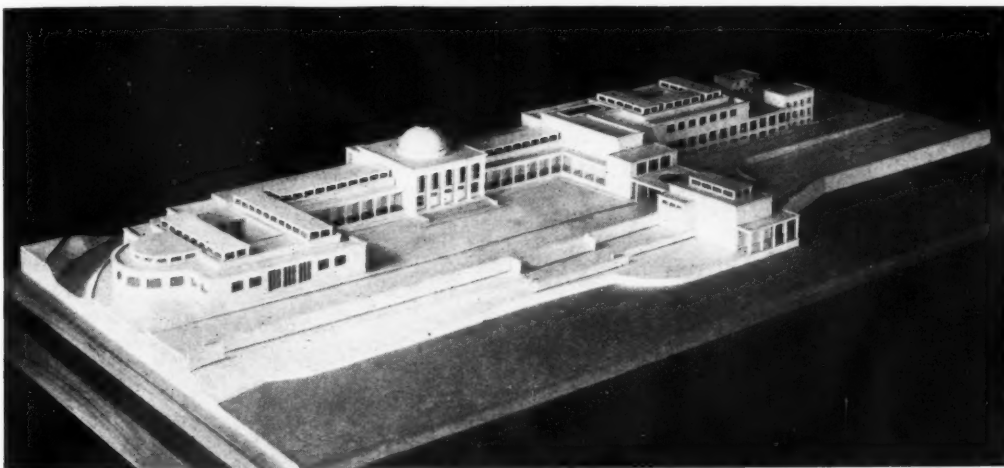
A correspondent, who sends me the two photos on this page, writes: In æsthetic matters it is impossible that there should be no sympathy between nations, and when a capital such as Prague is threatened with desecration, it is time for Europe to take heed. One of the glories of that city is the tract of old gardens, the quarter known as Kampa, that runs down to the river. This quarter was once sprinkled with the homes of the nobility surrounded by large gardens; it now remains as an essential lung in the centre of a fast-expanding city, and as a piece of living history. On this precious ground an over-progressive municipality has laid hands. An extension of the existing Art Gallery being needed, the river bank of this quarter has been chosen as the site. There are at present two galleries in Prague; one is central and the other is some way out. The first cannot be extended and the second, it is complained, is too remote to be worth extending. But in a growing city what is remote today is central tomorrow, and the authorities of a town must always take a long view. Against the prevailing scheme to build a new gallery it is urged, and rightly, not only that it will deprive the city of a very beautiful and healthy open space, but that the building, with its frankly modern design and horizontal lines, will ruin the aspect of the castle and of the churches in the background, which are old and baroque and essentially vertical. Moreover, with

the Tate Gallery, London has had experience of a riverside gallery; but London has no monopoly of fogs, and floods more frequent than ours threaten the new gallery with yearly inundations.

* * *

This scheme has been the cause of a pitched battle between the progressive authorities and the conservative inhabitants of Prague. Though it would be absurd to trespass on the internal politics of another city, it does seem that in this instance the authorities are showing such remarkable lack of foresight that any intervention is justified in the hope of averting the consequences. The Czechs have certainly as keen an æsthetic conscience and as deep a respect for the past as any other people, but for once the tide of municipalism and the unfortunate museum-mania that accompanies democracy has triumphed over good taste and culture. Any city can have an art gallery, but only Prague can have Kampa. They will dispel in a few weeks an atmosphere which it has needed centuries to create. It may be too late, but if we can at least show that English public opinion has some views on the matter, it may prove a discouragement to those whose misplaced enthusiasm for art threatens to damage not only the amenity but the beauty of the most unspoilt capital in Europe.

ASTRAGAL



Above, Kampa, Prague. Below, the art gallery proposed to be built on the river front at Kampa.

THE NEW TYNE BRIDGE

ON Wednesday last H.M. the King opened the new road bridge which has been built over the River Tyne for the Newcastle and Gateshead Corporations. It consists of a single arch with approach spans on both sides of the river, and will form an important link in the main road route to the north. The arch has a span of 531 ft. and is the largest in Great Britain. The roadway carried by the bridge is at a clear height of 84 ft. above high-water level and allows ample headroom for the passage of vessels in the river. The total length of the roadway carried by the arch and approach spans is 1,254 ft.; and the height to the top of the arch is 180 ft.

The bridge carries tramways and provides for four lines of traffic within the roadway, and two footwalks, one on either side. The width of the roadway is 38 ft., and the footwalks are each 9 ft. wide. The bridge is designed to carry very heavy traffic—as much as 100 tons on four wheels, on account of the heavy loads met with in this area, and in addition to traffic it carries under the footwalks two 2-ft. diameter water mains and two 2-ft. diameter gas mains.

For the foundations of the main arch it was necessary to sink heavy caissons measuring 84 ft. by 28 ft. to solid rock at a depth of 70 ft. below ground level: each of these caissons containing about 1,000 tons of concrete. The towers at either end of the arch are steel-framed buildings faced with granite, and may be used as warehouses.

The approach spans are supported by octagonal steel columns of a maximum height of 70 ft. Each column stands upon a concrete-filled cast-iron cylinder 21 ft. in diameter sunk to a firm bearing.

The weight of steel in the arch is 2,400 tons, and in the deck of the arch 1,600 tons, making 4,000 tons in all; and there are a further 4,000 tons in the approach spans.

During erection the approach spans were built up at the inshore ends of the bridge and were gradually moved

forward upon rollers as more and more steel was added behind, a dead weight of as much as 2,000 tons of steel being thus moved under perfect control at a height of 70 ft. above the streets and buildings on the lower slopes of the river banks until they reached their final position.

The erection of the arch was an engineering feat of considerable magnitude, and by the method which was adopted—a method very daring and, we believe, novel in this country—it was possible to span the river at this great width of over 500 ft. without any supports from below, without any obstructions in the river, and, indeed, without hoisting any steel from vessels in the river so that river traffic was entirely unimpeded throughout the work. This was accomplished by building out from both banks simultaneously, and anchoring the two halves of the arch back to the shore by stout wire ropes, more ropes being added as construction proceeded; and the roadway was suspended from the arch as it stretched farther and farther across the river.

Cranes standing on the back of the two halves of the arch lifted the steel members from a light railway track which was laid along the suspended roadway, these members weighing on the average 20 tons apiece. As soon as the cranes had completed the construction of all parts of the bridge within their reach they erected secondary smaller

cranes by which they were themselves dismantled and moved forward, the large cranes and the small cranes thus jumping over one another as the arch grew towards mid-stream, until the two halves met with very remarkable accuracy on February 25 last. This method of erection has been watched with the greatest interest, not only by the population of the district, but by technical men in all parts of the country.

The engineers for the work were Messrs. Mott Hay and Anderson, with whom were associated Messrs. Coode Fitzmaurice Wilson and Mitchell. The architect was Mr. R. Burns Dick. The bridge has been built by Messrs. Dorman Long & Co., Ltd.



A view looking through the steelwork of the new Tyne bridge.

THE DISFIGUREMENT OF THE COUNTRYSIDE: ii

[BY ARTHUR J. PENTY]

IN America there is an institution which attempts to grapple with the small-house problem by supplying standard designs at a cheap rate. It is an institution that is not acceptable to all architects in the States, and I think rightly so; for standardized houses are not inspiring. Nevertheless, there ought to be some organization which could get to work where building operations are taking place to fight the architecture of estate agency, for against the influence of estate agencies the individual architect, unless he is supported by some such organization, will continue to be ineffective; and the public will continue for the most part to patronize estate agents. The estate agent fishes for clients with a net, and the architect will never be a serious competitor so long as he fishes with a hook. The hook may be good for catching the big fish, but a net is the thing for the little ones.

There is one other point to be mentioned here. I have spoken of the undesirability of standard houses. The same objection could not apply to standardized details for small houses, for there is no reason why doors, windows, skirtings, and other things that repeat should not be standardized.

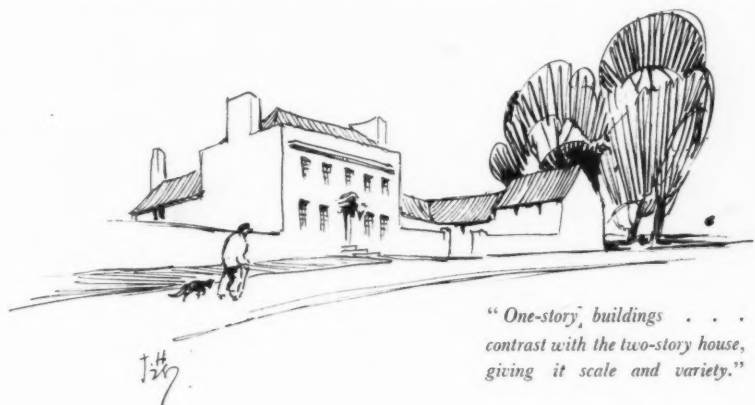
Now that we have outlined the problem confronting the production of architecture in the suburbs and rural areas, we must pass on to consider attempts that have been made to deal with it.

Of these by far the most important is the garden city and suburb movement. The superiority of the Hampstead Garden Suburb to suburban architecture generally has led many people to suppose that the architecture of the suburbs and countryside will eventually be redeemed by the spread of this movement. I regret to say that I cannot share their optimism—not only because the circumstances that brought the Hampstead Garden Suburb are exceptional and may not recur again, but because from an economic point of view the whole thing is artificial and exotic. It does not fit into the ordinary circumstances of suburban, much less rural, development, which does not usually proceed in such a wholesale manner. Moreover, apart from the fact that in consequence of no attempt being made under such schemes to make a maximum profit out of the

sale of the land, wider frontages are given to sites and the architect has more elbow-room to work in, the problem remains; while in two directions ideas associated with the garden city movement have actually increased the difficulties of design.

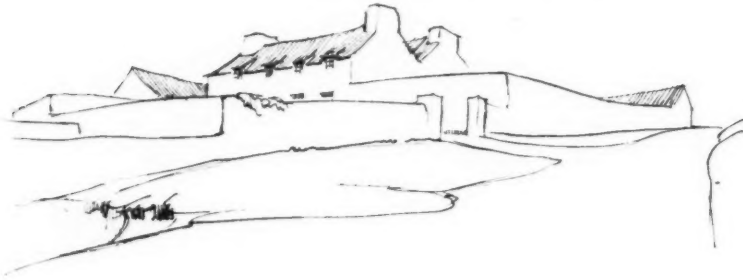
To be explicit. For some cryptic reason the movement set itself against yards and outbuildings, demanding that outbuildings should not be treated separately as one-story buildings, but incorporated as part of the main structure. Why the movement should have assumed this attitude I entirely fail to understand, for outbuildings enclosing a yard are highly desirable from both a practical and an æsthetic point of view. An enclosed yard is for practical reasons desirable, because there is in connection with every house a certain amount of dirty work to be done which is better kept out of sight and can be best done in a yard, while outbuildings are an advantage from an æsthetic point of view, because being one-story buildings they contrast with the two-story house, giving it scale and variety, and suggesting it belongs to the land. On the other hand, when the conveniences it is customary to build as outbuildings are incorporated as part of the main structure, two of the elevations are generally ruined: one by a succession of little windows and doors, and the other by compelling the architect to put windows in positions where they don't suit the elevation. I have arrived at this conclusion from the experience of designing houses on estates where outbuildings were not allowed. Why, considering that outbuildings are an advantage from both a practical and æsthetic point of view, they should be discountenanced I do not understand, except in the case of rows of cottages where the little back additions are apt to be.

The other idea associated with the garden city movement that is detrimental to architecture is its attitude towards fences. The ideal appears to be that there should be no boundary fences as in the United States, but as a concession to English prejudices, posts and chains were allowed in the Hampstead Garden Suburb. Experience, however, was to prove that there was reason at the side of the prejudice. In America, where it is not customary to erect



"One-story buildings . . . contrast with the two-story house, giving it scale and variety."

"Garden walls link
the houses to the earth."

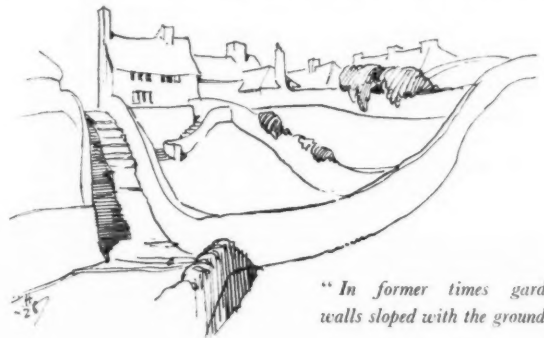


fences, the average suburban dweller does not trouble about cultivating a garden. But if there are to be gardens there must be fences. One reason is to prevent a garden being overrun with weeds which will spread from an adjoining garden if it remains uncultivated; the other is to keep out stray dogs who will run about and damage the plants. The latter was the immediate cause of the abandonment of the no-fence idea at the Hampstead Garden Suburb. The inhabitants of the suburb began to grow hedges behind the posts and chains to protect their gardens from destruction by stray dogs; and it was thus the absurd fashion came into existence of growing hedges behind posts and chains. The fashion spread because post and chains, being cheaper than a fence, naturally appealed to the speculative builder. Meanwhile the fact that the only legitimate use of a post and chain is to protect a grass lawn has been lost sight of.

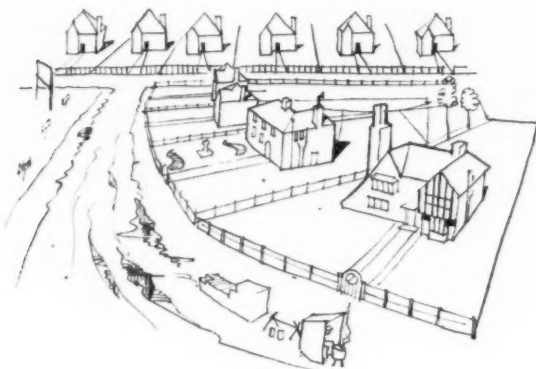
Considering how much the old English gardens and villages owe to their fence walls, it is not evident why the garden city movement should have placed a ban upon them. These walls linked the houses to the earth, and one of the reasons why houses today are so apt to look as if they had been dumped upon their sites is because garden walls are no longer in fashion. So far from wanting all fence walls abolished, like the girl who recently won the £200 prize for a brighter London, I should like to see a revival of them. But if there is to be a revival it is important that architects should give a little study to old examples, for it is extraordinary how ignorant architects in general are about fence walls. Even the best of them come to grief when they attempt to build a boundary wall. There is little to learn about them, but that little is rarely learnt. They have never given the subject a moment's thought. If they are required to build a wall on a site that slopes they adjust the levels with a succession of ramps. They appear never to have observed that *in former times*

garden walls were not ramped, but sloped with the ground. I have put that in italics in the hope that no architect who reads it will ever forget it, for nothing is more irritating than the succession of ramps with which most architects treat a wall on sloping ground.

Apart from increasing difficulties in these directions, the influence of the garden city and town-planning movements have been beneficial. Yet there are times when I am disposed to think that in our anxiety to escape from one evil we are in danger of falling into another. It is not right to



"In former times garden
walls sloped with the ground."



"Houses today are so apt to look as if
they had been dumped upon their sites."

allow things to grow up in a chaotic way. Yet there is also a danger in planning too much ahead, for it is generally impossible to foresee exactly what will happen in the future. Events have an unfortunate way of upsetting all predictions, and a plan that is right in relation to existing circumstances may be rejected to provide for some future development that may never take place. For such reasons the town-planning movement appears at times artificial. The need, it appears to me, is less grandiose schemes and more liberty for public authorities and architects to use their own common sense in dealing with problems as they arise. In this connection no single thing is more urgent than the repeal or amendment of the ruling governing frontage lines to which I referred in my last article, for even town-planning schemes are at the mercy of this irrational ruling. The law can be got round in a town-planning scheme by taking care that houses nearest the street are built before those which are set back. But this is not always practical politics, for when houses are erected singly by individuals for their own use it is practically impossible to arrange things so that the individuals who want to build will purchase their sites and start building in the particular sequence necessary to comply with the law. The consequence is that, except where building operations are undertaken on a large scale by some public body, public utility society, or company, it is practically impossible to get a reasonable scheme carried into execution. The law relating to frontages will block the way.

[To be continued]

THE CHURCH OF ST. LOUIS, VINCENNES

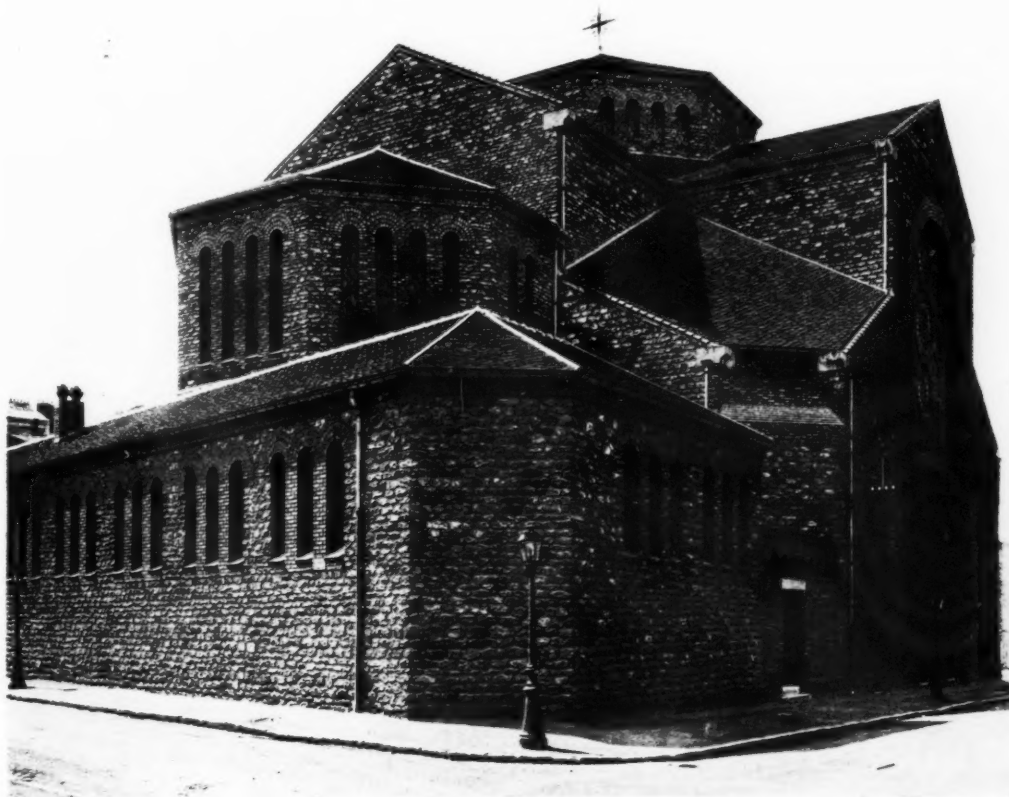
[BY MURIEL HARRIS]

IT is curious that the word "accident" should nearly always be used in an unhappy sense. For it is to accidents that many of the great discoveries are due, and the little discoveries with which one remains thrilled all one's life are always accidental. To come across hepaticas suddenly in the snow; to see unexpectedly the blue gleam of a peacock's neck against the young spring green of the park; suddenly to perceive a rare line—these are all accidents which seem proof of the highest design and are perhaps the only really permanent things in life. It is something of this accidental quality which invests the Church of St. Louis at Vincennes with its elusive beauty and it was a concrete accident which led to its particular form.

There are innumerable "terrains" in the Paris suburbs, each more desolate than the last, each an untidy, shapeless piece of land which needs the eye of faith to perceive its use. More shapeless than most, situated at the crossing of three desolate streets, the "terrain" upon which the church was built was a trapezium, which of itself offered no help to the architect. It was necessary to make something out of nothing, and it was necessary to make it with the greatest possible economy. Thus hedged in, there was

nothing for it but for the architects, MM. Droz et Marrast, to transcend material characteristics and by sheer imagination to create the beauty which was so palpably lacking. The Church of St. Louis stands today upon its inhospitable "terrain," crowded in by the narrow streets, without much possibility of being clearly perceived from outside. The surprise of its interior makes one gasp. Out of the dull streets this thing of beauty has arisen; out of cramped surroundings has come this sense of space; out of the grey dinginess has been evolved this glowing colour, just as though a spring were suddenly released and imagination enabled to take to its wings.

One side of the church is flush with a street. Upon this base the architects drew what was almost a square. Upon this square they erected four enormous arches, the legs of which crossed high up. These arches form the skeleton of the church. At their base they have a span of nearly 70 ft., and in height they are rather less. The effect of them is that they are the framework of a large cube which shelters unlimited space. Their legs take the place of such supports as pillars, again enhancing the effect of spaciousness. Yet further to increase this, the four crossing arches



*The Church of St. Louis,
Vincennes. By Droz et Marrast.*

support an octagonal lantern, in which are small windows. Thus, while the eye is taking in the spaciousness around it, it is also gently attracted upwards to gain also the impression of great height. There are far larger churches than the new Church of St. Louis which convey but a small proportion of its grave and gracious grandeur.

The rest of the "terrain" falls into triangles and irregular figures which are used for the subsidiary buildings—the baptistery, the *salle de mariage*, the vestry, and so forth. Outside they cluster round the main portion of the church. One has the impression, however, that despite the effect of their various roof levels they are not very important, that it would not have mattered vitally if they had been some other shape. This is because of the predominating

with its red windows and red roofs, the church is warm in tone. Inside, architect and decorator have worked with remarkable unity. The decorating of the arches in all the rich tones of reds, browns, golds, is so carried out that it underlines their size and adds to their appearance of width and height. The ceilings, which are also the roofs—there being no intervening space anywhere between wood and tiles—are of dark wood, beautifully worked, and with some white inlay, skilfully used, give an appearance of richness and simplicity at the same time. The dark wood of the ceiling dissimulates the height in the sense of exaggerating it. The eye turns towards the light filtering through the little windows of the lantern, and is thus carried beyond the darkness of the ceiling. The colour of the woods tones



*The Church of St. Louis, Vincennes.
By Droz et Marrast. The altar.*

character of the great cube. This has such a sense of permanence that it reduces all subsidiary features to their proper proportions. Even inside, the beautiful little chapel of the Virgin and the proportions of the pentagonal apse have no being of their own. They merely enhance the effect of the four great arches.

Without dwelling immediately upon the great fresco of St. Louis, by Maurice Denis, the part played by colour in the new church is of the highest importance. The church is built of local stone, slightly yellowish in colour, of concrete, of bricks and tiles in a good shade of red. Concrete foundations support the great concrete arches, and it is used for a good deal of the apse. The windows are surrounded with fine brickwork which contrasts admirably with a certain roughness in the stones. Thus, exteriorly,

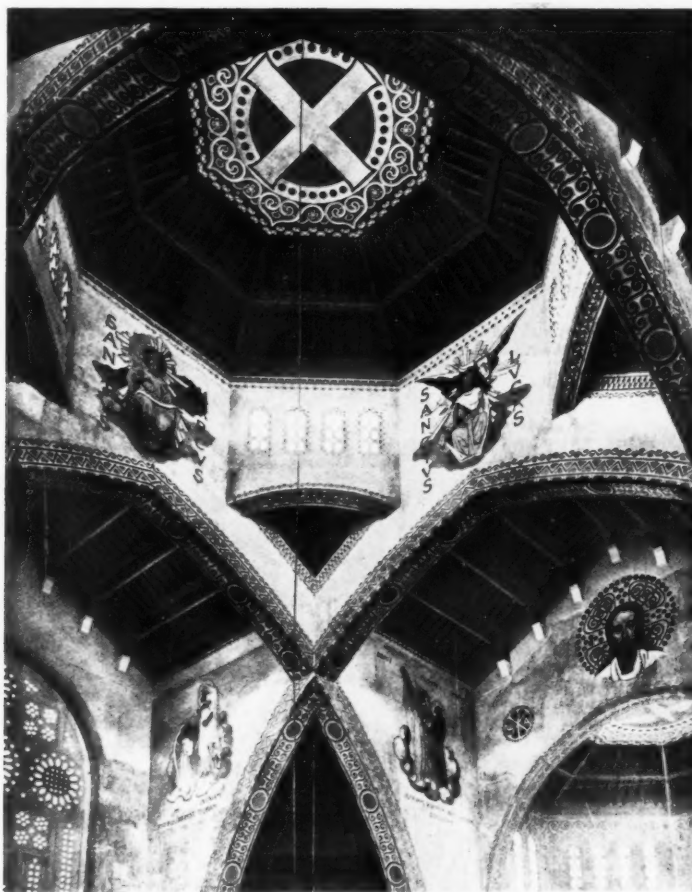
with the richness of the decoration and, with its rigid geometry, permits of greater latitude in this direction. So perfectly are colourist and architect attuned that it takes some time to realize with what skill they are all the time playing into each other's hands.

One of the difficulties of all new buildings devoted to a traditional object is to avoid, not the sense of surprise, but the sense of shock to habit and custom. Wonderful experiments have taken place in concrete buildings, and some of them are architecturally entirely successful. Emotionally, however, they are a failure. There are certain qualities demanded of a church, just as there are certain qualities demanded of a studio. Without these each must lack something, must produce a sense of disappointment. An earlier generation tried to obtain this feeling by copying

Gothic, because many Gothic churches survived and there were fewer ordinary Gothic buildings to indicate that this style was not exclusively ecclesiastical. The present generation asks, not to speak the language of Chaucer but the language of the twentieth century, albeit, it and Chaucer have many things in common. Perhaps any church dedicated to St. Louis had to be primarily Gothic. Gothic remains the skeleton of the church, while Byzantium has been freely called in with adaptations to modern needs. Just as our speech today derives from ancient roots, so MM. Droz et Marrast have used modern language always with regard to its original meaning.

and M. Pierre Bertin which has made so satisfactory the devotion of great creative art to a means of expression. "Stic B" enables concrete to be painted with the most enduring results. It has been used here by M. Maurice Denis for the "Glorification de Saint-Louis" with every prospect of avoiding the fate of the Leonardo frescoes increasingly, those of Puvis de Chavannes in the Pantheon, or of Ford Madox Brown at Manchester.

"The Glorification de Saint-Louis" had to deal with a structural problem in the apse with its five sides of which only pairs were of the same width. The church, with its bottle-glass windows, so far only tinted, is rather dark, and



The Church of St. Louis, Vincennes. By Droz et Marrast. Detail of vaulting above altar.

For the treatment of concrete MM. Droz et Marrast have turned to Byzantium, but less in the shape of their windows than in their method of treating the new material. Just as the use of brick caused the Byzantine builder to have recourse to marble linings and mosaics, so the user of concrete here turns to painting and fresco. Fresco may be the ideal means of dealing with concrete. At least, it has found a masterly supporter in M. Maurice Denis, who, like the painter of the Stations of the Cross—M. Henri Marret—has worked at his great fresco in the apse in close accord with the architects.

It is the discovery of "Stic B" by Mme. Alice Lapeyre

this also had to be taken into consideration. With these mechanical difficulties M. Maurice Denis has dealt magnificently. By his grouping of the background of the trees and the skilful arrangement of the shadows the apse still retains its characteristics, without in the least interfering with a straight view of the fresco. In colouring the tree trunks look a pale mauve with touches of orange, the two giving a vivid effect of light. Overhead trees make a consecutive roof or frame, and under them and against the background of their trunks are the various scenes from the life of St. Louis, as they might have happened, perhaps, on his Ile de la Cité in the middle of the Seine. Seated



The Church of St. Louis, Vincennes. Details of fresco. By Maurice Denis.



The Church of St. Louis, Vincennes. Details of fresco. By Maurice Denis.

under the great tree the king himself dispenses justice to all and sundry, just as the conception of him has been so popularized that it has come down almost intact to this day.

The procession of monks on the left is headed by the cross-bearer, this figure being a portrait of the Abbé Marraud, to whom the idea of the church was due, and who was killed during the Great War. It is, by the way, a curious coincidence that three persons deeply concerned with the

pictures. While some of the figures fall naturally into groups their sense of continuity with the whole fresco is never for an instant lost. Nor, indeed, great as it is, does the fresco itself break the sense of the continuity of the church. It is, perhaps, the jewel in the setting, but it has all regard to its setting, and is the piece of colouring which was one of the needs of the church.

In modern building it is often regretted that there is no sense of growth. It is sometimes forgotten that churches,



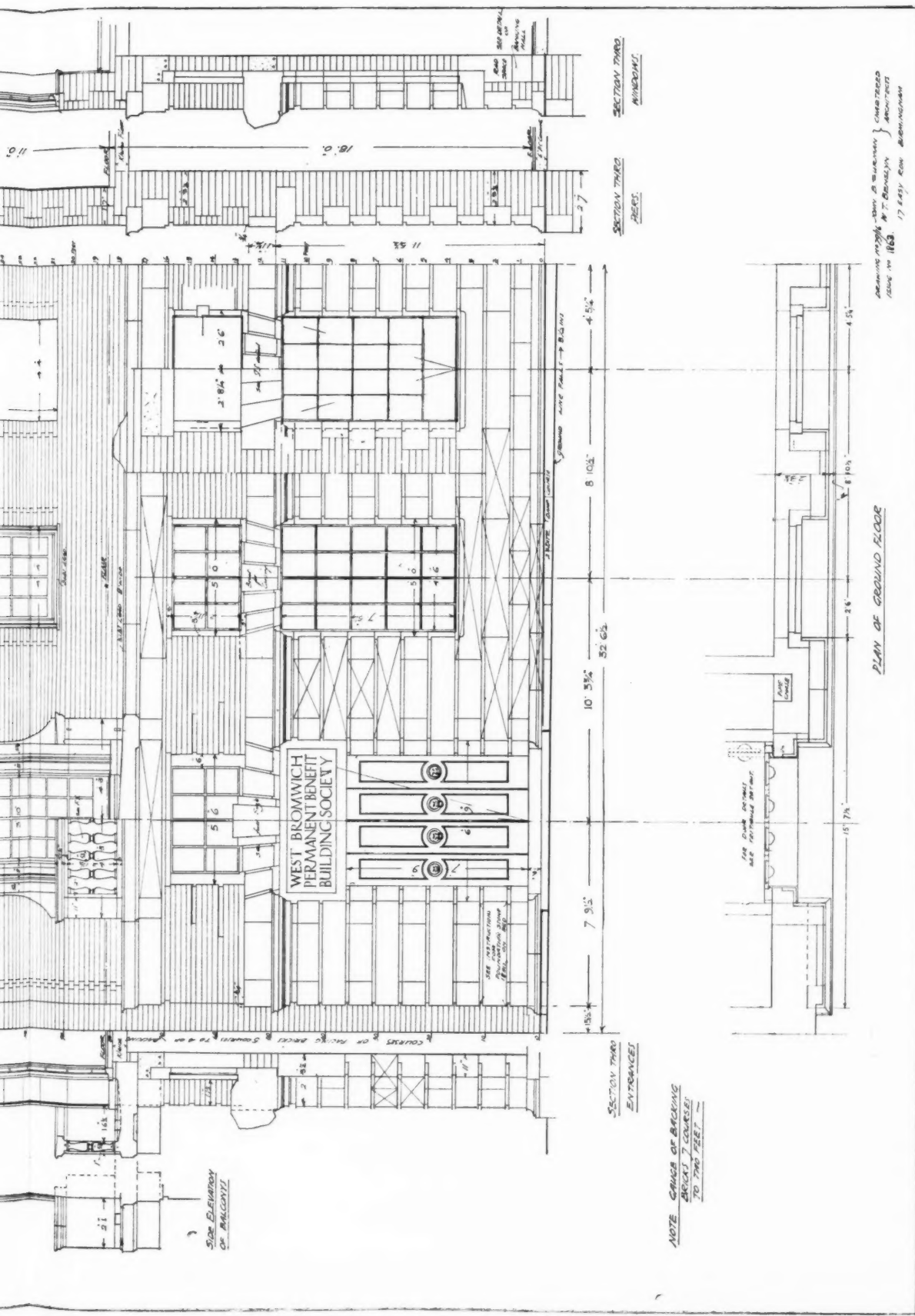
The Church of St. Louis, Vincennes.

Detail of fresco. By Maurice Denis.

building of the church should be called Marrast, Marret, Marraud.

Further to the left are the peasants, who owed so much to the saintly king, while on the right are the intellectual arts—architecture pre-eminently—and also the works of charity and pity, represented by the blind Crusader and the nuns taking in the sick man. In the background are two castles, before one of which a Crusader is riding off to the war, both of them reminiscent of the charming little scenes that occur so often in Flemish

to be old, had once to be new. Sometimes this feeling is caused by dissonances in the building, which occurred also in ancient times, but which are hidden or dissimulated by the mellowing factor of age and tradition. The structural harmonies of the Church of St. Louis, therefore, are probably primarily responsible for the entire absence of any feeling of newness, rawness, or lack of depth. And first and foremost, perhaps, must be ranked the accident of "terrain" which released the spirit of the architects to produce a masterpiece.



WEST BROMWICH BUILDING SOCIETY'S NEW PREMISES.
 BY JOHN B. SURMAN AND W. T. BENSLEY. DETAIL
 OF THE HIGH STREET FAÇADE. [SEE ALSO PAGE 541.]



ENGLISH PRECEDENT

35 *St. Mary, Tyberton, Herefordshire, 1720. Restored 1879. Apparently the unknown designer of this church liked pediments. He may not have had much learning, but he had an eye; and the porch echoes the tower-top very charmingly. The restorer of 1879 was sure that church windows ought to be pointed and corrected his predecessor's work with some severity. The proportions of the building are in the Gothic tradition—broad galleried naves had not reached country places in 1720. The brickwork here is very good.—[H. S. GOODHART-RENDEL.]*

WEST BROMWICH BUILDING SOCIETY'S OFFICES

[BY R. HUTCHINGS]

WEST BROMWICH, long since noted for hardware manufacture, possesses a new building of which it may be justly proud. It is the new head offices of the West Bromwich Building Society, designs for which were obtained in a competition promoted by the Society and won by Mr. John B. Surman, A.R.I.B.A., in partnership with Mr. W. T. Benslyn. Architecturally the main façade of the building is in scale with the new Post Office which stands on the next site but one, and forms an interesting composition in Portland stone and multicoloured hand-made bricks. Steel casements are used for the windows up to the first floor of the main façade, above which wooden sash windows have been fitted. A slightly different treatment has been given the side and rear elevations. Here multicoloured local bricks are used, the windows throughout being double-hung sashes.

The planning is excellent. Two main entrances are provided, each opening into a vestibule, from which the main office is reached through revolving doors. The vestibule on the south side is for the sole use of the building society, and the secretary is placed with convenient access from this entrance. The vestibule on the north side provides easy access to 1: the main office of the building society; 2: the main staircase for tenants of first- and second-floor offices; and 3: a separate entrance for the committee and staff

of the building society. A short corridor connects the vestibule with the main corridor of the non-public portion of the building society's accommodation, which is cut off from it by swing doors. Occupants of the first- and second-floor offices can also use this corridor for access to and from cars and cycles stored at the rear of the site.

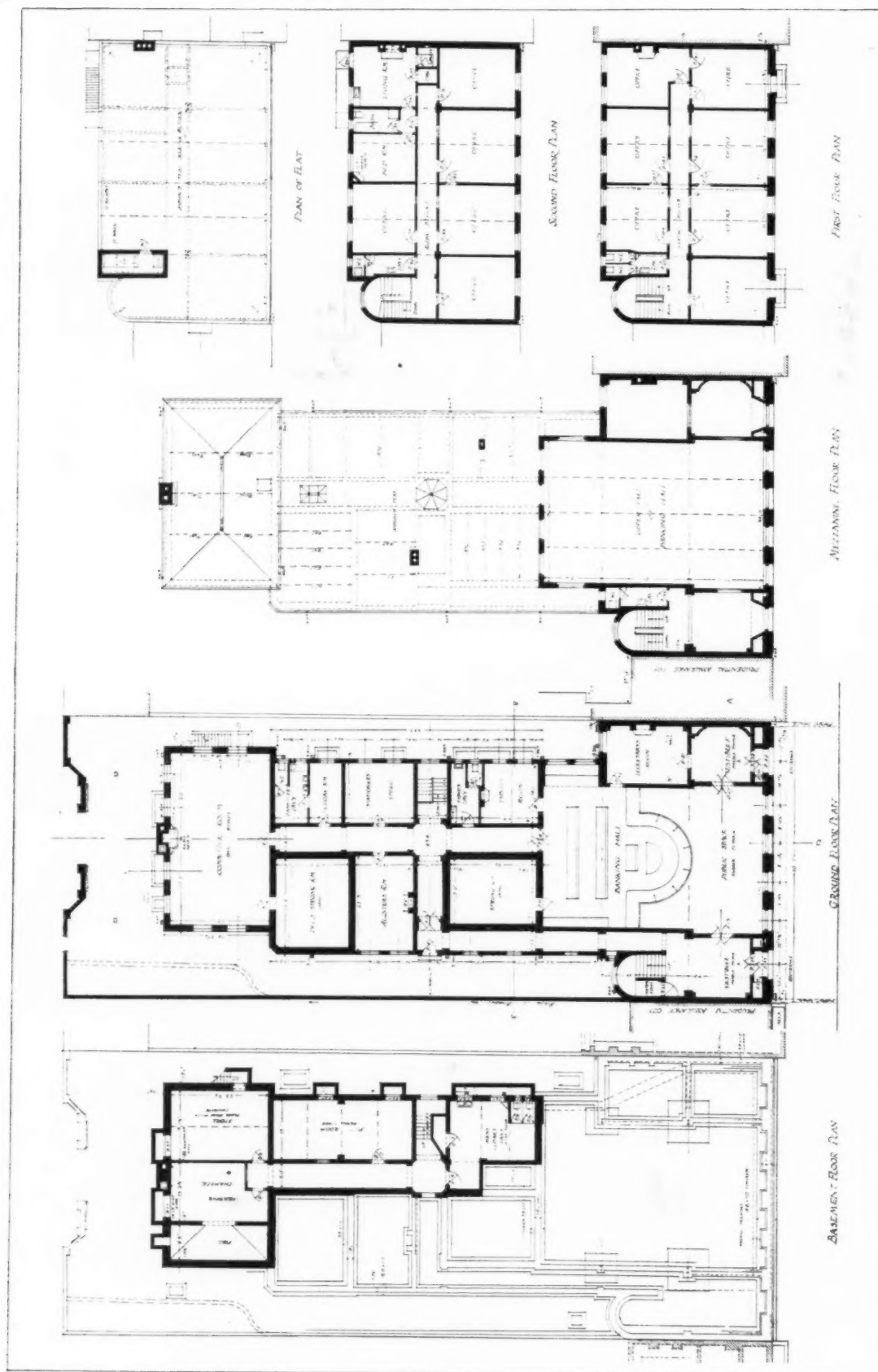
The main office occupies the central portion of the front of the site and is provided with ample public space and counter accommodation. The lighting of this office has been carefully studied to obtain both a satisfactory internal and external effect. The windows opening into the street are divided into two tiers, the upper tier being carried round and forms a clerestory at the rear of the offices—thus a steady light is given to all clerks' desks. The window area is approximately one-sixth of the floor area. The secretary is centrally placed, in easy communication with the public, main office staff, and typists, with a sunny aspect. The typists' office has direct access from the main office and from the corridor.

The committee room has been placed at the rear of the site, well away from the main office and general public.

The first and second floors of the building are exactly similar, each providing four suites of offices approached by a central



*West Bromwich Building
Society's new building.
By J. B. Surman
and W. T. Benslyn.
The main façade.*



West Bromwich Building Society's new premises. By J. B. Surman and W. T. Benslyn. The plans.



*West Bromwich Building
Society's new premises.
By J. B. Surman and W.
T. Benslyn. Above, the
banking hall. Below, the
passage from the banking
hall to the board room.*

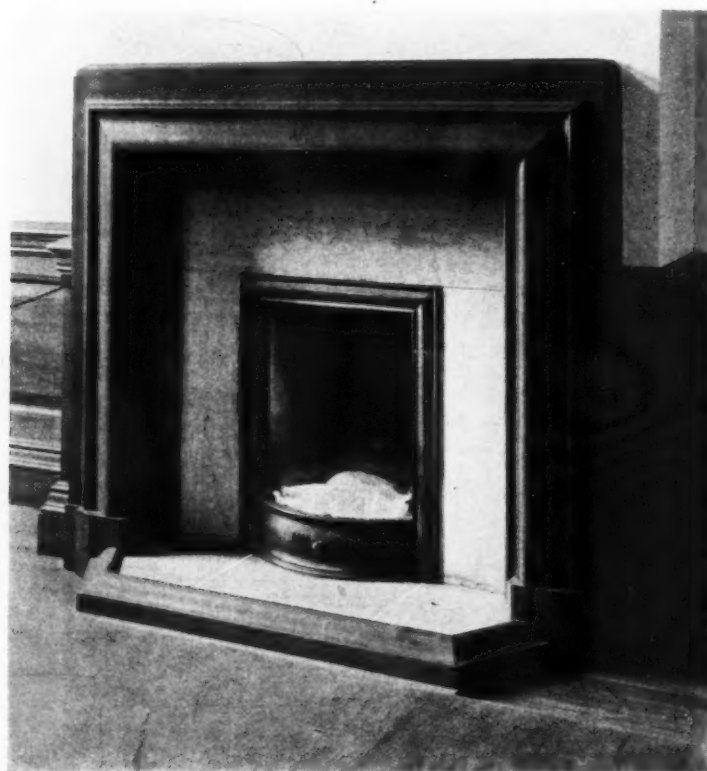


corridor, lighted from a staircase at the end, and with borrowed lights. ■■

The vestibules and main office are finished with marble floorings with skirtings to match, and the walls in painted plaster. All woodwork in these parts is in bleached oak. The fittings to doors, lamps, grilles to counter, etc., are all in bronze. The ceilings

are finished in low relief plaster. The committee room is finished with deal painted doors and panelling to dado height.

The new building is a notable addition to the architecture of West Bromwich, and will set a high standard in the design, planning, and decoration of building society's offices for some time to come.



*West Bromwich Building
Society's new premises.
Above, the board room.
Below, the fireplace
in the manager's room.*

ARTIFICIAL ILLUMINATION IN ARCHITECTURE

[BY R. WALDO MAITLAND]

BEFORE defining and explaining this new element it would be well to imagine ourselves at the Paris Exhibition of 1925. This exhibition introduces to us illumination in architecture, which in the last years has covered a great field of experiment throughout Europe, especially in France and Germany. It will be remembered by those who visited this exhibition that the designs submitted should be of an original character and that the artists and artisans should express and interpret their own conception of modern art. With this scope the artists made many interesting experiments, of which lighting was an important feature, inasmuch that the lighting was designed as part of the architecture, forming either a luminous element playing a decorative part, or that of the actual illuminating element. Since light plays such an important part in our lives, this collaboration with architecture makes us realize it all the more. There was also, in 1926, an exhibition called the "Gesolte" in Germany, which showed many developments, such as the application of light on textured surfaces and eventually reaching a high standard of what is called "painting with light."

Architectural illumination can be roughly defined as a creation of an architectural effect by means of light. It is an element which, when applied, is inseparable from the rest of the composition, and has, in a certain degree, as much importance as an element, such as a door or window, in its relation to other elements in the whole. Therefore, if this element, looked at from this point of view, were omitted it would leave the design definitely incomplete; whereas in the usual form of lighting the element can be removed without any great sense of incompleteness. Also the light, that is the luminant, must be an integral part of the structure and should not be moved unless suitably controlled. Two noticeable features of this new method of lighting are the use of obscured glass and the building-in of fittings in the form of panels and appliques, which are part of the design forming luminous decorations on the one hand and a decorative luminant on the other, and which give

one or more of the three following systems of lighting known to us as—1: direct; 2: indirect; 3: semi-indirect.

Direct lighting may be obtained chiefly from the ceiling, that is, either from lighted panels repeated over the surface or when the whole surface is luminous. In a case where panels are placed in the ceiling the lighting is direct leaving the space between them dark, and in cases where the ceiling is low, light should be introduced between the panels, either projected from the frieze or elsewhere. With high ceilings this may not be necessary as the contrast may be required.

Indirect lighting can be obtained from floor standards and floor vases, and must be part of the design so that the luminant is fixed. Then there are fittings whose undersides are opaque. To obtain a good result, the light should be projected obliquely to the surface. A further result may be effected by the introduction of moulded or textured surfaces. A good example of indirect lighting is shown in figure three.

Semi-indirect lighting is obtained when light passes through a diffusing medium direct to the floor and the remainder is sent in an upward direction towards the ceiling and is there re-directed. This is obtainable from floor standards placed in a fixed position over the floor, and also from moulded glass cornices.

The following lines will be taken up in showing and explaining the use of one or more of the above methods of lighting and showing the results which may be obtained from them.

Figure one shows the first-class dining-room on the *Ile de France*, belonging to the *Compagnie Générale Transatlantique*—a recent achievement in modern design. We have here, in use, two of the above methods. The centre ceiling provides direct lighting from a symmetrical arrangement of glass panels, while other glass panels on the side walls give semi-indirect light, making the whole of the space a mass of light. The whole effect is good, and it is very stimulating to see so successful a progress.

Figure two is of the first-class lounge, and has both direct and



Figure one



Figure two

indirect lighting. The ceiling panel in the centre is composed of squares, egg-shape in section, and light is projected from the centre of each. The central portion under this ceiling is made effective by the introduction of a light-coloured carpet of greens and yellows, the same size as the ceiling panel above. The upholstery is worked out in the same tones, and the result is that the centre of the room is very brilliantly illuminated, but this cannot be seen to its full advantage in the photograph. The rest of the room, in marked contrast, is worked out in dark tones, red being the dominant colour. There are brilliant recesses at intervals with superimposed carved figures illuminated from the back. The other ceiling panels are lighted by the indirect method on to a heavily-moulded ceiling. Sharp contrasts of light and dark are obtained in this way giving a rich effect. This room is one of the most delightful on the boat, and is sumptuous in every particular.

Figure three shows the tea-room on the same boat, which is a



Figure three

most satisfactory apartment. The lighting is obtained solely from six large Sèvres vases distributed round the walls of the room, and the light is projected from the centre of these to the white ceiling, which is in low relief. The chairs are covered with grey velvet. The colours are sombre, but delicate; the walls are made of white ash, giving a rich grey tone. There is also a feature on the end wall—an excellent painting by Dupas. The treatment is modern and very pleasing, and the whole atmosphere of the room is fragrant and feminine.

Figure four shows another good example of what is probably the simplest method of lighting a small room. The major portion of the light is indirect in character, since the light is projected through glass panels, which occur on the four sides of the room at frieze level; these light the ceiling, and the light is then redirected to the floor. All the illumination of this room is obtained by this means and has proved very satisfactory. The decorator was Monsieur Boll, and the lighting technician was Monsieur Dourgnon of the Société pour le Perfectionnement de l'Eclairage.

In the above illustrations light has been chiefly obtained by means of a repetition of luminous units of elements on a given surface either moulded or painted. If a repetition of equal value is desired, it can be obtained by lighting each unit in the same way.

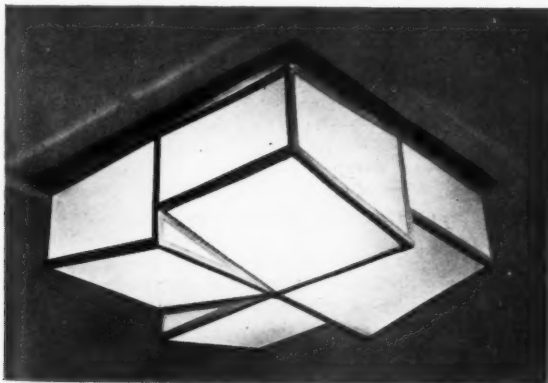
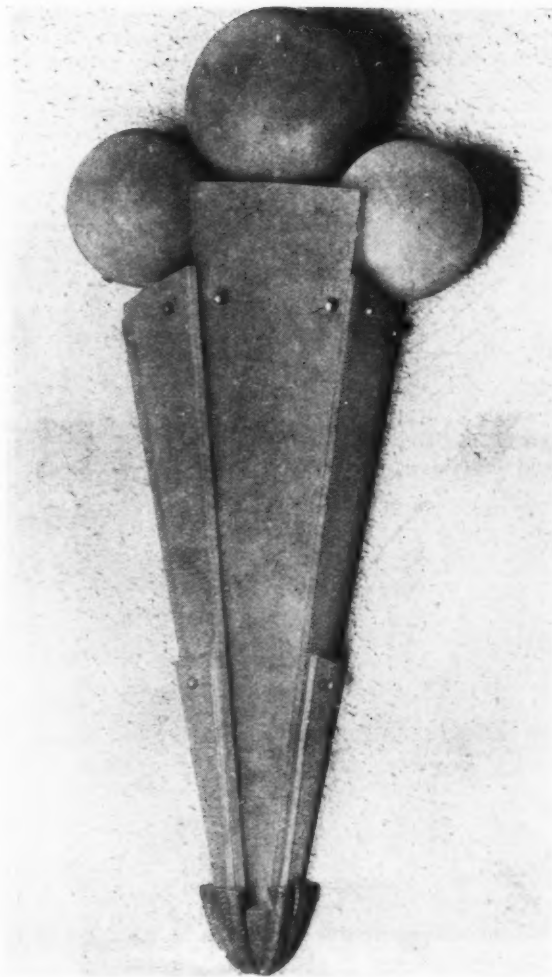
It is here where symmetry is essential, as the whole effect will be lost by uneven illumination. It often happens that, where the total number of lights are not required at certain periods, care should be taken in the switching arrangement of the circuits to light the panels, so that the lighting in the room can be reduced without upsetting the symmetry.

Bossed and pitted walls and ceilings are effective when they are lighted obliquely to the surface, and the application of this method of lighting results in a sweep of powerfully cast shadows and reflections. This manner of getting an effect is subtle, but must be carefully applied. Other elements, such as specially designed wall brackets and lighted mirrors, are not intended as illuminants, but are part of the luminous design in harmony with every other luminant and are, at the same time, inseparable elements of the whole. It is this correlation of light, with every other element in architecture, which is the essential point in this new attitude towards light. There is also a wide field for experiment in luminous gardens. There were a few sketches in *Art and Industry* which

*Figure four*

showed the immense scope in this particular branch, but I am not aware of any actual examples existing.

Lighting elements may be classified into two categories: 1: hanging fittings and appliques; 2: built-in lighting. These two are often combined, but it will be usually found that one or the other predominates. Figures five and six illustrate two of the modern appliques which are used. The lamps are enclosed, and, since diffused glass is used, visibility of the filament is avoided. Figures seven and eight show two fittings, one of which is made of obscured glass, and the other of clear cut glass. It may be mentioned that the glass covering placed over these types of fittings would be an improvement, as it would prevent dust getting into the actual bowl and enable easy cleaning. These particular fittings are applicable to domestic or public buildings, but careful consideration should be given to see that the choice of fitting will be in complete harmony with the room. Panels in walls and ceilings, either flush or slightly projecting, can be employed to any size desired, and patterns formed of these elements. Other means of luminous decoration take the form of slots, triangles, circles, etc., fixed so that they may be removed in order to change the lamps and clean the glass. All this shows that the field of experiment is endless. The careful choice of material is very important, while the correct position of lamps must receive careful consideration to arrive at a satisfactory result. It is always helpful to experiment

*Figure five**Figure six*

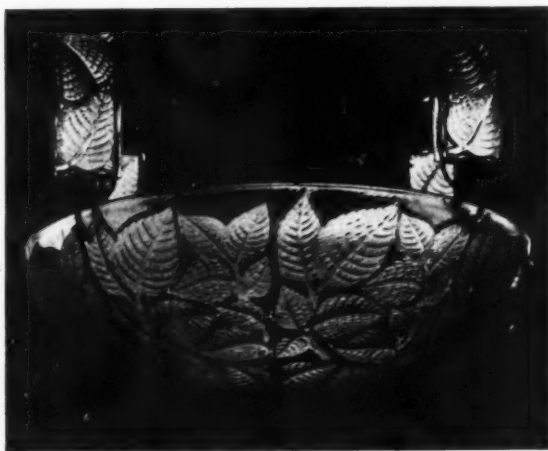


Figure seven

with a lamp of the strength required and place it behind the glass with a sheet of paper behind the lamp (since the back of the fitting will invariably be whitened); one is then able to estimate the final effect. Several firms are making moulded-glass cornices and picture rails in length of about 15 in. which can be repeated *ad lib.*, and also used to form patterns (see figure nine).

In adopting this unit system greater freedom in design is obtainable, and their arrangements are endless. Experiments are now being made to determine the position of the lamp behind such diffused glass which will ensure even brightness over the surface. It is hoped that this data will be available within a short period. Luminous columns may be employed in entrance lobbies to restaurants, bars, theatres, and cinemas, giving excellent results. Here, again, great importance must be attached to the placing of lamps. Ceiling lights whose undersides are opaque cause



Figure nine

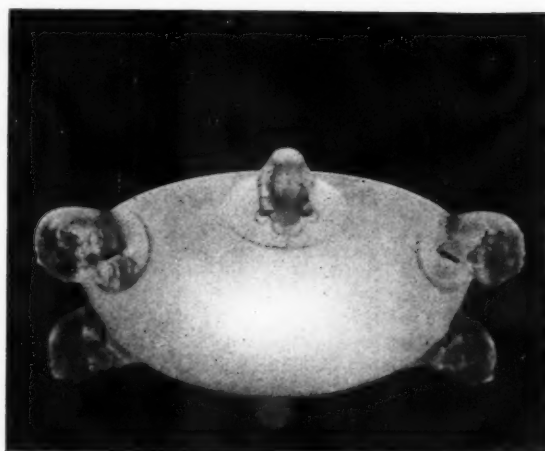


Figure eight

excellent results when the light is projected obliquely to the surface on to a flat or textured ceiling, but, in choosing the fitting, consideration should be given to its silhouette as it is seen on a light ground.

Von J. Teichmüller, of Karlsruhe, adopted a method of painting with light when he used light purely as a means of decoration and employed no paintwork whatsoever in his scheme. Bults were contrived in the capitals of a truncated column which illuminated part of the architrave, giving a curious effect. In direct contrast to this was the Rhein Palace in the Gesolie Exhibition, which had recessed strips over the windows. These strips were painted yellow, and the bulbs were hidden at the base. This resulted in a series of vertical lighted lines on a horizontal building.

Another means of painting with light is that of projecting pictures on to ceilings and walls, the walls being painted a light colour. Von J. Teichmüller made the experiment at the Gesolie Exhibition. He had a domed hall built for him, 11 yds. in diameter, with plain walls headed by a frieze, behind which bults were placed for the coloured illumination of the dome. Hanging from the centre of the dome was an apparatus which served to throw rays of light downwards and, at the same time, to project light for the purpose of ornamenting the dome. Of course, a large number of different light pictures could be projected from the apparatus on to the dome and could be changed by outside control. In this way you are able to change the character of the hall so that it would harmonize with the particular function taking place. As lighting fixtures are as much a part of the whole in the daytime as in the evening, it is essential that its daytime aspect should be considered; in fact, it should form part of the decoration in just the same degree as it does at night.

In conclusion, I should like to say how important it is to institute early co-operation between architect and engineer so as to ensure that the lighting will be given its proper importance in the building. This new lighting gives a new expression which is endless in its application, and there is no reason why, in the future, lighting should not become an essential factor in the design of buildings. Light affords an excellent means of creating an atmosphere and will be thought to be a perfectly natural element.

The Royal Sanitary Institute Congress

The Council of the Royal Sanitary Institute have accepted the invitation of the Sheffield City Council to hold its fortieth Congress and Health Exhibition at Sheffield from July 13 to 20, 1929. A public meeting to inaugurate the arrangements will be held in the Town Hall, Sheffield, on Friday, October 19, at 3 p.m., under the chairmanship of the Right Hon. the Lord Mayor of Sheffield.

RIDDINGTON'S SHOP FRONT

The shop front, illustrated below, was designed for a modern French *patisserie* which has just been opened in Dover Street, W. A striking feature of the design is the four broad, horizontal bands of white opal glass running across the opening and projecting over the green-tiled surround in the form of lamps on either jamb. Separating the white bands are horizontal strips of colour and embossed glass, slightly recessed. In the doors are four small, square panels of the same material. The steel framework, which is of special window construction, is painted in Chinese vermilion, and the general effect is telling and simple, the window itself acting as an advertisement without detracting from its display value. This design has the striking virtue of fitting into its surroundings. Although modern in treatment, the effect has none of the loudness which some people associate with the modern manner. The shop is perfectly at home in the rich atmosphere of Dover Street, and provides a very good instance of the way in which modern methods of design are capable, when well-handled, of capturing the spirit of even the most conservative and select localities.

LAW REPORTS

INSURANCE AGAINST FIRE: INDEMNITY COVENANT

Thomas Executors v. Varieties Theatres, Ltd. Court of Appeal. Before Lords Justices Scrutton, Lawrence, and Greer

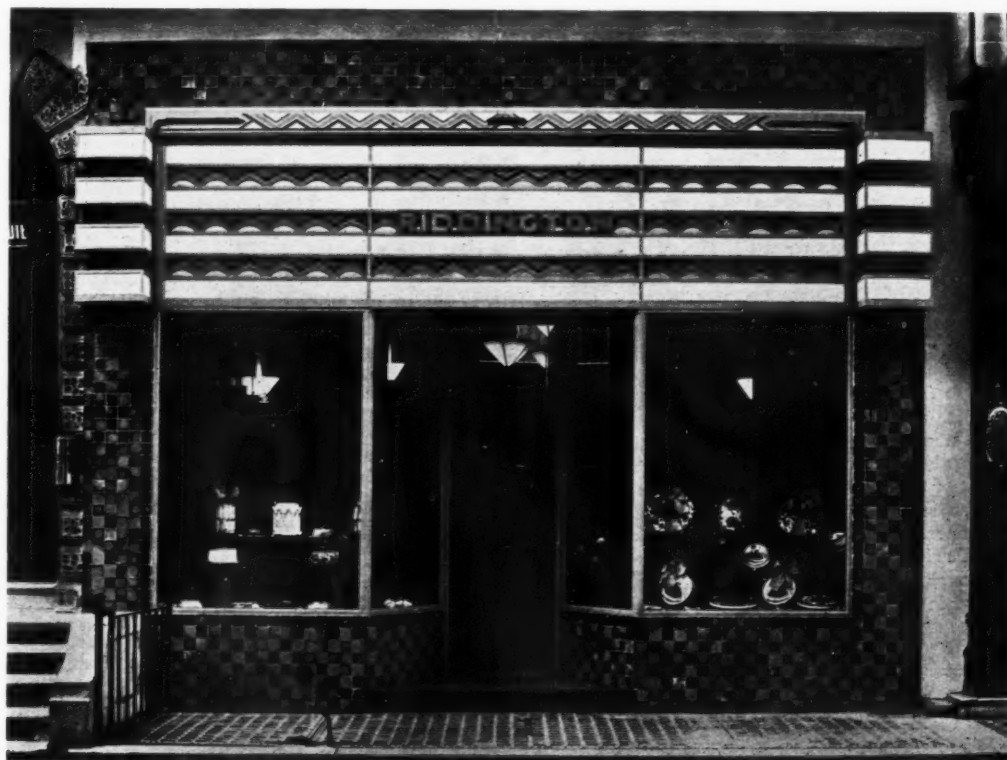
This appeal raised interesting questions as to the liability to rebuild a burnt-out theatre under certain covenants in a lease.

The appeal was by the defendants, from a judgment of Mr. Justice Mackinnon, sitting in the King's Bench Division, in favour of the plaintiffs, the executors of the late Mr. Oliver Hugh Thomas, who brought the action to recover £154 arrears of rent at £7 per week of the Hippodrome, Neath, Glamorgan. His Lordship

dismissed a counterclaim by the defendants for specific performance of a covenant to rebuild by the lessees, the plaintiffs.

The plaintiffs' case was that they were lessees of the property in question, under a lease for ninety-nine years from 1885, in which they covenanted to rebuild in case of fire. In 1912 they underlet to the defendants who covenanted that they would insure the premises against fire. They were not to rebuild—and in the event of fire they were to lay out the policy money in rebuilding and reinstating the premises. In the under-lease there was a covenant by the executors to observe the covenants in the head lease and keep the defendants indemnified in respect of them. In 1918 the premises were burnt down, and owing to the difficulty at the time of getting permission for building the parties agreed that the policy money should be invested and defendants were to have the dividends and pay the rent. The rent fell into arrear, and the plaintiffs brought the present action to recover it. In 1927 the plaintiffs purchased the site from the lessors in their personal capacity. By the defence the defendants denied that they knew that in the head lease the plaintiffs had covenanted with the superior landlord to rebuild in the event of fire, but when they found out the terms of the head lease, as they did for the first time after the issue of the writ, they at once intimated that they were not going to pay any rent until the building was reinstated. They contended that there was a definite undertaking entered into by the plaintiffs' predecessor to make this reinstatement which defendants alleged was a covenant they could enforce. They accordingly counterclaimed for specific performance of the covenant to rebuild. Mr. Justice Mackinnon said there was really no defence to the claim for rent. As to the counterclaim, his lordship said in his view that was really a covenant of indemnity and not an independent undertaking to do these things for the benefit of the under-lease.

Lord Justice Scrutton, in giving judgment, said the question raised was a difficult one, but he thought it was covered by a decision of the House of Lords in respect of a covenant in a sub-lease which was almost identical with the question raised in the present case. Mr. Justice Mackinnon had taken an erroneous



Riddington, 45 Dover Street, W.

view of that decision. The sub-lessees here were entitled to get the substantial benefit from the covenant in their sub-lease that was more than their obligation to the lessees. The sub-lessees got the benefit of the lessees' covenant to reinstate whereas the sub-lessees were only liable to apply the insurance money towards reinstatement. The defendants' counterclaim succeeded, but as the Court could not order specific performance by directing the carrying out of the building agreement, the defendants must have damages which must be assessed if they could not be agreed. The defendants would have the costs of the appeal and of the counterclaim in the Court below.

The other Lords Justices agreed.

ERECTION OF HOUSES: SEWER POINT

Grant v. Derwent. Chancery Division. Before Mr. Justice Astbury

This was an action by Mr. Geo. Grant, of Cottenham Park Road, Wimbledon, against Mr. Sidney Derwent, of Worple Road, Wimbledon, for an injunction to restrain defendant from erecting on land owned by him fronting Durham Road and Melbury Gardens houses of such a size and type as to cause a breach of covenant entered into by him. Plaintiff also sought to restrain defendant trespassing on the land at Melbury Gardens for the purpose of connecting the drains of the houses he had erected to the sewer in Melbury Gardens.

Mr. Naldrett, K.C., for the plaintiff, said his client bought land on the Cottenham Park estate in 1905, and the defendant purchased his land in 1927, both deriving their property from a common vendor. Plaintiff owned a strip of land now known as Melbury Gardens on the south of which defendant had erected his houses. Plaintiff had erected houses of a substantial character on the north side of the gardens. Plaintiff attempted to keep Melbury Gardens as a private street, but it was taken over by the local authority and declared to be a public highway. As the owner of the soil, however, Mr. Grant alleged that defendant had trespassed on his land by connecting his drains to the sewer in Melbury Gardens. Plaintiff also said that the houses defendant had erected contravened a covenant he had entered into with his predecessor in title who had put himself under an obligation not to build houses at a less cost price than £800 for single houses and £1,200 for a semi-detached pair.

Mr. Archer, K.C., for the defendant, contended that as the sewer was vested in the local authority they had the right to make connections with it. Plaintiff could not have suffered any injury.

His lordship, in giving judgment, said there was no covenant in the conveyance to either plaintiff or defendant by the respective grantees to observe and perform those covenants. In an identical case, Mr. Justice Romer had held that in those circumstances the plaintiff had no right to sue the defendant on the covenants in question and his lordship proposed to follow that decision in the present case. In any event the covenants had not been broken by defendant with respect to the class of property erected, and the covenants could only be enforced if there was a building scheme in connection with the property. No building scheme was pleaded by plaintiff. In so far as he asked for relief in respect of the covenants the action wholly failed. In his judgment there was power under the Wimbledon Corporation Act, if not under the Public Health Acts also, for the Corporation to have acted as they did at the request of the defendant to connect the drains to the sewer. If the Corporation had exceeded its powers and were liable to pay compensation nothing in the present case would affect the plaintiff's right to obtain such compensation from the Corporation, although it was difficult to see how the compensation could be estimated in money. The action was misconceived on both points, and he dismissed it, with costs.

The Autumn List issued by The Architectural Press of their new and forthcoming books is now ready, and will be sent on receipt of a post card addressed to the Publishers at 9 Queen Anne's Gate, Westminster, S.W.1.

SOCIETIES AND INSTITUTIONS

The R.I.B.A.

The exhibition of black-and-white and colour work by members of the R.I.B.A. has proved so successful that in response to many requests to extend the period, the R.I.B.A. has decided to re-open the exhibition on Monday, November 19, to Monday, December 3, inclusive. The exhibition will be open free from 10 a.m. to 8 p.m. (Saturdays 5 p.m.).

The new session of the R.I.B.A. opens on November 5, when the president, Mr. Walter Tapper, A.R.A., will deliver his inaugural address, and an interesting programme of work will be begun. The list of lectures to be delivered is of an unusually varied character. Major-General Sir Fabian Ware will read a paper on "The Work of the Imperial War Graves Commission"; Mr. H. Percy Adams will lecture on "English Hospital Planning"; Dr. Leonard Hill on "Modern Methods of Heating and Ventilation"; Mr. J. Alfred Gotch on "Modern Banks"; Mr. Basil Ionides on "Modern Glass"; Sir Arthur Evans on "The Palace of Knossos in the Light of Recent Reconstitutions"; and Mr. John Begg will deliver an appreciation of the work of the late George Wittet, of Bombay.

At the office of the R.I.B.A. two registers are kept: 1: containing the names of advanced students of recognized schools; and 2: containing the names of architects willing to take such students. The intention of the R.I.B.A. is in this way to assist advanced students up to the stage of the completion of their qualifications for exemption from the final examination; one of the qualifications for exemption from the final examination being twelve months' experience in an office during the fourth and fifth years of the school course. The Council of the R.I.B.A. hope that general use will be made of the registers, and that as many architects as possible will place their names upon the register.

Renaissance Architecture

Sir Banister Fletcher, F.S.A., F.R.I.B.A., gave the first of a series of twenty-four university extension lectures on Renaissance architecture, to be given every Wednesday at 6 p.m., at the Central School of Arts and Crafts, Southampton Row, W.C.1. Sir Banister reviewed the evolution of ancient and medieval architecture that led to the Renaissance style. Coming to the latter, the theme of this course of lectures, he dealt with some of its influences which helped to promote that new spirit of inquiry which led to the Reformation and the Renaissance in literature and art. The lecturer graphically illustrated Renaissance buildings in Italy, France, Germany, Belgium, Spain, and England, and said that he would endeavour to introduce the atmosphere of the Renaissance and show the connection between architecture and history, and hoped that the lectures would help to an appreciation of old buildings, and so lead to an improvement in English architecture.

The Institution of Heating and Ventilating Engineers

"What are the requisites of a good system of heating and ventilation for schools?" asked Dr. H. M. Vernon, M.D., M.I.H.V.E., investigator for the Industrial Fatigue Research Board, in a paper, "Methods of Heating and Ventilating Schools and their Influence on Health," read before the Institution of Heating and Ventilating Engineers. He considered that it should keep the children sufficiently warm to enable them to reap the full benefit of the instruction which is being imparted to them. That is to say, the air must not be so cold that their hands get numbed and their feet get chilled, nor must it be so warm that they tend to get indolent and sleepy. If possible, the temperature of the air at foot level should be equal to that at head level, if not above it; i.e. cool heads and warm feet are better than the reverse relationship of warm heads and cool feet. There should be a fair degree of air movement, as moving air is more invigorating than stagnant air, and it is important that the air should not smell stuffy and unpleasant.

TRADE NOTES

Messrs. Helliwell & Co., Ltd., Brighouse, Yorkshire, manufacturers of patent glazing and steel casements, announce that they have appointed Mr. J. Evans Morgan, 11 Royal York Crescent, Clifton, as their agent for Bristol and the county of Gloucester, in succession to Mr. C. H. W. Davey, of the Metal Agencies Co., 31 Queen Square, Bristol, who has had to resign owing to pressure of other business.

Modern Building Construction, Series No. 1. Standard Practice for the Manufacture of Concrete Blocks, is a useful textbook. The particulars given are based on technical and practical experience, and its pages should be well worth the study of those interested in building projects. The book is presented for the purpose of promoting the manufacture of concrete blocks of the highest quality. The notes are a compilation of the processes and methods followed in various block factories, briefly described, so that if desirable they may be adapted to the needs of any block-making plant. The book may be obtained, free of charge, on application to the Portland Cement Selling and Distributing Co., Ltd., 20 Buckingham Gate, S.W.1.

It is doubtful whether any building material is subjected to more scientific investigation than window glass. Scientific opinion has resolved that some buildings, such as hospitals, schools, factories, workshops, require a glass that is transparent to those ultra-violet rays especially potent in promoting human well-being; others, such as provision warehouses and shops, meat markets and butcher shops, need a glass that will be as effective in preventing the heat passing into a building as it is in other cases required in checking heat transmission outwards. Then, among other buildings, are museums and picture galleries, where the glass must be of such a nature as to prevent the fading of delicate and valuable materials and textures.

Degrees of perfection in the production of window glass have been reached that media capable of performing all these conditions are obtainable. To transmit the ultra-violet rays of the sun and at the same time to allow to pass all the ordinary visible light there is Vioray, a glass claimed to be so transparent that 90 per cent. of the intensity of the rays is transmitted by a sheet $\frac{1}{11}$ in. thick.

Hence, with good ventilation, one should be able to enjoy behind a screen of this glass practically the whole advantages of the open air. It is sometimes thought that ultra-violet rays are present only in the direct beams of the sun. That, scientists inform us, is not correct; they are also present in the light from a blue sky, and, indeed, in greater proportion than in the direct rays. Hence, it seems that the applicability of this glass is just as great in the side windows of a building as in a glass roof.

For the elimination of heat energy there is Thermex glass, which has been specially devised to transmit ordinary light while absorbing the heat rays present in every beam of artificial or sunlight.

This glass should be found particularly suitable for cold storage establishments and apartments where perishable and other goods are exposed; also, for factory roofs, side windows, and partitions, the inside windows to railway carriages, motor-cars, motor-omnibuses, etc., etc., in tropical countries for the purpose of excluding the excessive heat rays.

Museums, picture galleries, and buildings housing goods, the colours of which are liable to fade by exposure to the ultra-violet rays of the sun, present a different problem. For buildings of this class there is Fadosan, an almost colourless glass, claimed to be an exceptionally good absorber of ultra-violet rays and an excellent transmitter of daylight. The percentage of deterioration on such materials as genuine and artificial silk, etc., through ultra-violet rays is enormous, and the use of a glass which will absorb these rays in buildings where these delicate goods are manufactured and stored can be readily appreciated.

Tests conducted by Dr. S. Judd Lewis, D.Sc., F.I.C., London, show that where heat radiation is of little consequence, and the ultra-violet is to be absorbed, Fadosan glass is to be preferred

since it absorbs 99 per cent. of the radiation at such a long wave length as 3,550 (where Thermex absorbs approximately 80 per cent.); but in all cases where maximum absorption of heat is required irrespective of ultra-violet absorption, the use of Thermex glass is strongly recommended.

THE ARCHIBALD DAWNAY SCHOLARSHIPS

In accordance with the terms of the will of the late Sir Archibald Dawnay, the R.I.B.A. have awarded one scholarship of £75 for the academical year 1928-1929 to Mr. L. A. Chackett, of the School of Architecture, Birmingham, and one scholarship of £50 for the academical year 1928-1929 to Mr. John Hughes, of the School of Architecture, University of Liverpool. Mr. W. G. Plant, of the School of Architecture, University of Liverpool, who was awarded a scholarship of £50 for the academical year 1927-1928 has been granted a renewal of his scholarship for the year 1928-1929. The scholarships are intended to foster the advanced study of construction and the improvement generally of constructional methods and materials and their influence on design.

ANNOUNCEMENTS

Mr. Leonard G. Stokes, A.R.I.B.A., has commenced practice at 9 Portland Terrace, Portsmouth, at which address he will be glad to receive trade catalogues.

Messrs. Cleland and Hayward, architects and surveyors, have moved to 36 Waterloo Road, Wolverhampton, where they would be glad to receive the latest trade catalogues.

During October, Sir John Soane's Museum, 13 Lincoln's Inn Fields, W.C.2—an interesting house and art collection—will be open free on Thursdays and Fridays from 10.30 a.m. to 5 p.m., and during November, on the same days, from 10.30 a.m. to 4 p.m.

WEST BROMWICH BUILDING SOCIETY'S OFFICES

Following are the names of general contractors and sub-contractors for the new head offices of the West Bromwich Permanent Benefit Building Society, illustrated on pages 541 to 544: General contractors, T. Elvins and Sons, Handsworth, Birmingham; clerk of works, Mr. S. Willis; general foreman, Mr. Pickthall; contract price, £19,970, plus furniture and fittings. Sub-contractors: S. and E. Collier, bricks; Redpath, Brown & Co., Ltd., structural steel; Kleine Fire Resisting Floor Co., Ratner Safe Co., fireproof construction; Martin Dunn, Ltd., glass; John Gibbs, Ltd., patent glazing; W. Macfarlane & Co., cast lead; Patent Oak Flooring Co., wood-block flooring; Venetian Flooring Co., F. A. Hughes & Co., Chas. Macintosh & Co., Ltd., patent flooring; Midland Heating and Ventilation Co., Ltd., central heating; Parker, Winder and Achurch, Ltd., grates, sanitary fittings, tiling, and mantels; West Bromwich Gas Department, gas fixtures; Reynolds and Bradwell, electric wiring; Louis Dernier and Hamlyn, Ltd., Osler and Faraday, Ltd., Best and Lloyd, Ltd., electric light fixtures; Dow Bros., stairtreads; Parker, Winder and Achurch, Tonks (Birmingham) Ltd., door furniture; John Gibbs, Ltd., Crittalls, casements; Reynolds and Bradwell, joinery and stonework; Fenning & Co., Ltd., marble; John P. White and Sons, Ltd., textiles; F. Restall, Ltd., furniture; John P. White and Sons, Ltd., F. Restall, Ltd., office fittings; Martin Dunn, Ltd., Birmingham Guild, Ltd., signs.

THE WEEK'S BUILDING NEWS

The MARYLEBONE B.C. has now completed the agreement with the L.C.C. relative to the Carlisle Street improvement scheme which provides for the rehousing of 2,777 persons at an estimated cost of £410,000.

The MARYLEBONE B.C. Baths Committee is now considering two further schemes prepared by the architects, Messrs. Cross and Cross, for the provision of new baths and washhouses.

Plans passed by the BERMONDSEY B.C.: Alterations, factory, 289 Tooley Street, for Messrs. Almond Francy and Son; reconstruction after fire, 11-17 Bermondsey Street, for Mr. Howell J. Williams; new buildings for Maxwell Laundry, Long Lane, for Messrs. Andrews and Peascod, architects.

The YORK Corporation has approved a design for alterations and extensions at the electricity showrooms in Clifford Street.

The YORK Corporation has obtained sanction for loans of £42,740 for the erection of 108 houses on the Tang Hall estate, and £8,433 for the erection of twenty-eight under the Hope Street improvement scheme.

Plans passed by the AUDENSHAW U.D.C.: Eight houses, Asheton Road, and two in Droyliden Road, for Mr. A. J. Franks; two houses, Woodbridge Avenue, for Messrs. Z. Pike and Sons; dairy, King's Road Farm, for Manchester Corporation.

The Anniesland Co-operative Society, Ltd., has obtained land from the GLASGOW Corporation in Baldwin Avenue, Knightsbridge, for the erection of shops.

Plans passed by the BIRKENHEAD Corporation: Ten houses, Smith Avenue; alterations, institute, corner of Brassey Street and Bray Street; additions, lodge at Birkenhead School; two shops and houses next to 32 Hoylake Road; ten houses, Westdale Road; tall office building site of 2, 4, and 6 Prince Street, adjoining Hamilton Terrace.

The BIRKENHEAD Education Committee is considering the provision of nursery schools.

Plans passed by the ROTHERHAM Corporation: Premises, College Street, for Messrs. F. W. Woolworth & Co., Ltd.; warehouse, Westgate, for Mr. Horace Brook; shop and bakehouse, 120 Middle Lane, for Mr. William Ling; workshop, Redcliffe Street, for Mr. John Barker; furniture stores, New Zealand and Frederick Street, for Mr. G. T. Thompson; extensions, 31 College Street, for Meadow Dairy Co., Ltd.; house, Old Wortley Road, for Mr. A. H. Taylor.

The YORK Corporation is purchasing eleven acres at Tang Hall for housing purposes.

The BOLTON Corporation Baths Committee has appointed a deputation to visit Hull to inspect the public washhouses recently erected there.

The Broadcast Relay Service, Ltd., is to establish a broadcast relay station in OLDHAM.

The SHEFFIELD Corporation has obtained sanction to borrow £16,000 for the erection of the proposed branch library at Firth Park.

The MORECAMBE Corporation has asked the borough engineer to make trial holes near the Old Harbour in connection with the proposal for the construction of a bathing pool.

The MORECAMBE Corporation has decided to erect forty-eight houses on the football field site.

The MORECAMBE Education Committee is acquiring land for the extension of the central school.

The WARRINGTON Corporation has asked the borough engineer to report in regard to slum property and the rehousing of the tenants.

Plans passed by the STRETFORD U.D.C.: Roads on de Trafford estate for Trustees; two houses, Ayres Road, for Mr. T. Butterworth; fourteen houses, Stanmore Avenue, for Messrs. Howard and Waring; ten houses, Gorse Avenue, for Messrs. G. H. Brown and Sons; two houses, Urmoston Lane, for Messrs. Hampton & Co.; paint shop extensions, Park Road, for Messrs. D. Anderson and Son, Ltd.; stables, Texilose Road, for Messrs. Courtaulds, Ltd.; post office, King Street, for Postmaster-General.

Plans passed by the HARWICH Corporation: Four houses, Dovercourt Green, for Messrs. Smith and Son; twenty-two houses, Grafton Road, for Mr. E. D. Saunders; ten houses, Limè Avenue, for Messrs. Fisher and Woods.

The MARYLEBONE B.C. has under consideration proposals for extensions at the power-station involving an expenditure of £350,000.

Plans passed by the KENSINGTON B.C.: Building site of 105-6-7 Lancaster Road; building site of 46 Holland Villa Road; alterations, Gooch's stores, 63-7 Brompton Road; alterations, St. Barnabas Church, Addison Road.

Plans passed by the EASTBOURNE Corporation: Two houses, Milton Road, and two in Brompton Road, for Mr. A. Ford, architect; garages and workshops, Tidewell Road, for Mr. W. R. Hamblyn, architect; four houses, Dillinburgh Road, for Mr. A. J. Fellowes, architect; house, Summerdown Road, for Mr. S. Box, architect; two houses, Decoy Drive, for Mr. F. C. Benz, architect; three houses, Downs Avenue, and dairy in St. Leonards Road, for Messrs. P. D. Stoneham and Son, architects; three houses, Le Brun Road, for Mr. C. Ford, architect; twenty-two houses, Downs Avenue and West Crescent, for Mr. A. Ford, architect; alterations, Eastbourne College, Carlisle Road, for Messrs. Tatchell and Wilson, architects; alterations, Glastonbury Hotel, Royal Parade, for Mr. A. Ford; sixteen houses, Rotunda Road, for Mr. S. G. Scales, architect; flats, St. Leonards Road, for Mr. G. E. Holditch, architect; alterations, Elliot's Stores, Furness Road, for Messrs. P. D. Stoneham and Son.

Plans passed by the MARYLEBONE B.C.: Extensions, 36 Lorne Gardens, for Alfa-Romeo British Sales, Ltd.; vaults, etc., corner of New Cavendish Street and Westmoreland Street, for Mr. E. A. Stone; alterations, Royal Regent garage, Park Road, for Messrs. Mewes and Davis; building, Seymour Place, etc., for Mr. W. E. Masters; additions, 478 Oxford Street, for Messrs. A. Hawkes & Co.; additions, 30 St. John's Wood Road, for Messrs. Howard and Partners; workshop, etc., 2-4 Hardington Street, for Mr. J. M. Shepherd; building, corner of Hall Road and Grove End Road, for Messrs. Fisher, Trubshawe and Fisher; garages, rear 4 Hall Road, for Mr. S. A. S. Yeo; layout of site, 34-6 Maida Vale, for Mr. W. Potts; new building lines, Finchley Road, Grove End Road, etc., for Messrs. T. P. Bennett and Son.

The DUDLEY Corporation is selling about five acres of the Priory estate, fronting Nith Place, to the Dudley Co-operative Society, Ltd.

The borough engineer of DUDLEY has prepared a scheme for the erection of 126 houses on the Netherton estate and tenders for their erection are shortly to be obtained.

Plans passed by the DUDLEY Corporation: Extensions, Fountain Arcade, Market Place, for Mr. T. W. Tanfield; house, Hinley Road, for Mr. John Hick; extensions, Vine Inn, Harts Hill, for Messrs. Truman, Hanbury, Buxton & Co., Ltd.; extensions warehouse, The Parade, for Messrs. T. A. Collins, Ltd.; bungalow, Cradley Road, for Mr. William Roberts.

The Board of Education has approved the proposals of the MANCHESTER Education Committee for alterations and additions at the old training college in Princess Street, for purposes of the High School of Commerce.

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The MANCHESTER Education Committee has obtained the sanction of the Board of Education for the erection of new buildings for the Openshaw junior technical school.

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The EASTBOURNE Central Electricity Board is seeking a site at Eastbourne for the erection of a generating station.

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The EASTBOURNE Corporation has obtained sanction to borrow £50,000 for further housing advances.

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The LLANDUDNO U.D.C. is selecting a site for the construction of a bathing pool.

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The LLANDUDNO U.D.C. has further considered the question of providing a reservoir at Nant-y-gamar and instructed the surveyor to prepare alternative plans and estimates for a reservoir to hold one and alternatively two million gallons of water, which can be utilized for the supply to the eastern parts of the town as well as elsewhere in cases of emergency.

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The LLANDUDNO U.D.C. has arranged to lay out part of the Maesdu estate in building plots for sale.

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The HARWICH Corporation is seeking sanction to borrow £25,000 for further housing advances.

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Plans passed by the MORECAMBE Corporation: House, Mount Avenue, for Mr. W. Huddleston; house, Lancaster Road, for Messrs. H. Hillman and Son; house, Lancaster Road, for Mr. J. A. Kenyon; ten houses, Victoria Parade, for Mr. J. E. Roscoe; fourteen houses, Pemberton Drive, and two in Bare Lane, for Messrs. Wm. Gardner & Co.

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The borough engineer of EASTBOURNE hopes at the next meeting to submit plans and estimates for the erection of Turkish baths.

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Plans passed by the SHEFFIELD Corporation: Twelve houses, Edale Road, for Mr. J. Ramsden; six houses, Endowood Road, for Mr. J. W. Bailey; six houses, Straun Road, for Mr. C. G. Robinson; six houses, Falkland Road, for Mr. A. J. Belton; four houses, Strelley Avenue, for Mr. J. T. Redmile; six houses, Abbey Lane, for W. C. Mander; ninety-four houses, Longley estate, for Corporation Estates Committee.

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The SHEFFIELD Corporation Markets Committee recommends proceeding with a modified scheme for the extension of the wholesale meat market at a cost of £39,000.

Plans passed by the HULL Corporation: Club, Maybury Road, for Mr. H. Stout; four houses, Gilshill Road, for Mr. S. Bays; wooden church, James Reckitt Avenue, for Congregational Board; six houses, Highfield, for Messrs. F. Sewell and Son; seventy-four houses, Inga Road, for Messrs. G. T. Spruit and Son; twelve houses, Springfield Road, for Mr. G. E. Kirkwood; seven houses, Woldcarr Road, for Messrs. R. W. and J. H. Barnett; six houses, Pickering Road, for Mr. G. H. Shields; six houses, Claremont Avenue, for Mr. W. Garbutt; eight houses, Belgrave Drive, for Mr. J. Emmerson; twelve houses, Woldcarr Road, for Mr. C. H. Smith; four houses, Belgrave Drive, for Messrs. A. H. Evans & Co.; ten houses, Belgrave Drive, for Mr. F. C. Polley; nine houses, Savery Street, for Mr. H. Barnett; ten houses, Parkfield Drive, for Mr. S. H. Wrightson; four houses, Eastfield Road, for Mr. E. B. Greensides; six houses, Farraday Road, for Mr. J. E. Barnett; four houses, Brindley Street, for Mr. H. Barnett; four houses, Laburnum Avenue, for British Legion Committee; ten houses, Belgrave Drive, for Mr. A. Sash; six houses Belgrave Drive, for Messrs. T. Dixon & Co.; eight houses, Rosmead Street, for Messrs. Backwell and Foster; six houses, Faraday Street, for Mr. R. Ashton.

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Plans passed by the LEWISHAM B.C.: Twenty-six garages, Bromley Road, for Messrs. Humphries Hollom, Ltd.; additions, factory, Comington Road, for Mr. H. E. Kennard; twelve houses, Exbury Road, for Mr. E. H. Wilkins; open-air market and shops, rear of Rushey Green, for Mr. G. T. Harman; ten houses, Holme Lacey Road, for Messrs. W. J. Scudamore, Ltd.; new street off Montacute Road, for Messrs. Beaumont, Son and Rigden; new street off Bromley Road, for Mr. J. Everington.

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Plans passed by the BRADFORD Corporation: Ten houses, Thorn Lane, for Messrs. A. and J. Chippindale; twenty-eight houses, Moore Avenue, for Mr. F. Wray; two bungalows, Ashbourne Drive, for Messrs. H. Sugden, Son & Co.; ten houses, Briarwood Crescent, for Mr. J. A. Groves; four houses, St. Leonards Grove, for Messrs. F. P. Leach and Sons, Ltd.; fourteen houses, Lynton Drive, for Messrs. Foster Bros.; ten houses, High Park Drive, for Mr. H. Proctor; ten houses, Willowfield Crescent, for Mr. T. E. Feather; four houses, Cyprus Drive, for Mr. J. E. Keighley; four houses, Rooley Lane, for Messrs. Rochester and Ungham; four houses, Elder Street, for Mr. C. S. Hiley; three bungalows, Hawes Mount, for Mr. S. Priestley; four houses, Victoria Drive, for Mr. A. Dickinson.

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Plans passed by the SANDERSTEAD Corporation: Additions and alterations, clubhouse, Purley Downs Road, for Purley Downs Golf Club; house, Briton Hill, for Rev. F. W. Walker; two bungalows, Kingswood Way, for Mr. Robert Kevan.

Plans passed by the WESTMINSTER City Council: Additions, 22 Essex Street, to abut on Milford Lane, for Messrs. Elms and Jupp; additions, Royal Geographical Society, Kensington Gore and Exhibition Road, for Messrs. Kennedy and Nightingale; alterations and additions, 39 Park Lane, abutting on North Row and Norfolk Street, for Mr. G. Thrale Jell; additions, 4 and 5 Grosvenor Street, abutting on Avery Row, for Messrs. Gordon, Jackson and Lambert; balconies, India House, Aldwych and Montreal Place, for Sir Herbert Baker; buildings, 37-41 Charing Cross, for Messrs. Wimperis, Simpson and Guthrie; reconstruction, Cock Tavern, Market Street, and 6, 7, and 8 Norris Street, Haymarket, for Messrs. Ingram and Oliver; alterations and additions, 61 Eaton Mews North, for Mr. C. Little Owen; rebuilding, Army and Navy Stores, Howick Place, for Sir Aston Webb and Son.

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Plans passed by the PLYMOUTH Corporation: Eleven houses, Browning Road, for Messrs. Pengeley Bros.; two shops, Ford Park Lane, for Mr. C. A. Edmonds; two houses, Tavistock Road, for Mr. H. L. Pile; two houses, Southdown Road, for Mr. W. Andrews; additions, Bedford Street, for Messrs. C. A. and W. Goodbody; fourteen houses, Edith Avenue, for Messrs. Bond, Pearce, Thomson and Pearce; extensions, shop premises, Cornwall Street and Bank Street, for Messrs. Dingle & Co.; estate layout, Manor Lodge, Stoke, for Mr. I. Fredman; additions to hospital, for South Devon and East Cornwall Hospital Committee; four houses, Stangray Avenue, for Mr. T. W. Box; four houses, Venn Grove, for Mr. R. T. Hortop; drainage, Lipson estate, for Messrs. Prance and Prance; six shops, North Road and Cobourg Street, for Mr. R. J. Howe; six houses, Torr View Avenue, for Mr. T. H. Morrish; workshops and office, Cemetery Road, for Messrs. J. Geach and Sons; four houses, Burnham Park Road, for Mr. S. Steer; two houses, Burnham Park Road, for Mr. E. A. Davy; additions, Alexandra Nursing Home, St. Michaels Terrace, for matron; club, North Prospect estate, for Mrs. Drew; alterations, Constitutional Club, Mutley Plain, for club secretary; five houses, St. Barnabas Terrace, for Mr. J. T. Capell.

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The BRISTOL Corporation Electricity Committee is now to proceed with the second instalment of the Portishead power-station at a total cost of £790,000, of which £127,000 is in respect of new buildings.

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The BRISTOL Corporation Housing Committee has decided on the erection of fifty houses on a new site at Whitehall.

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Messrs. E. Hill, Adams & Co., Ltd., are in negotiation with the Corporation regarding a scheme for the erection of factory buildings on land off Acuba Road, WIMBLEDON.

PRICES CURRENT

EXCAVATOR AND CONCRETOR

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

Broken brick or stone, 2 in., per yd.	£0 11 6
Thames ballast, per yd.	0 11 0
Pit gravel, per yd.	0 18 0
Pit sand, per yd.	0 14 6
Washed sand	0 15 0
Screened ballast or gravel, add 10 per cent. per yd.	
Clinker, breeze, etc., prices according to locality	
Portland cement, per ton	£2 15 0
Lias lime, per ton	2 10 0
Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.	
Transport hire per day:	
Cart and horse	£1 3 0
Trailer	£0 15 0
3-ton motor lorry	3 15 0
Steam roller	4 5 0
Steam lorry, 5-ton 4	0 1 5 0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basic price, per yd. cube, 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0 1 6
SPREAD and level, including wheeling, per yd.	0 1 6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0 10 6
TRIMMING earth to slopes, per yd. sup.	0 0 6
HACKING up old grano, or similar paving, per yd. sup.	0 1 3
PLANKING to excavations, per ft. sup., do. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.	0 0 5
If left in, add to above prices, per ft. cube	0 2 0
HARDWARE, 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
Fix concrete benching to bottom of manholes, per ft. cube	0 2 6
FINISHING surface of concrete spade face, per yd. sup.	0 0 9

DRAINER

LABOURER, 1s. 4d. per hour; TIMBERMAN, 1s. 5d. per hour; BRICKLAYER, 1s. 9d. per hour; PLUMBER, 1s. 9d. per hour; WATCHMAN, 7s. 6d. per shift.

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

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft.	0 4 3
do. 6 in., per ft.	0 5 0
do. 9 in., per ft.	0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0 8 0
do. 6 in., per ft.	0 10 0

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

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

BRICKLAYER

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

London stocks, per M	£1 15 0
Flettons, per M	3 0 0
Midhurst white facing bricks, per M	5 0 0
T.L.B., multi-coloured facings, per M	7 7 9
do. red best facings, per M	7 7 9
do. rubbers 9½ in., per M	12 0 6
Staffordshire blue, per M	9 10 0
Firebricks, 2½ in., per M	11 3 0
Glazed sills, 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	£23 0 0
do. in cement do., per rod	36 0 0
do. in stocks, add 25 per cent. per rod.	
do. in blues, add 100 per cent. per rod.	
do. circular on plan, add 12½ per cent. per rod.	
do. in backing to masonry, add 12½ per cent. per rod.	
do. in raising on old walls, etc., add 12½ per cent. per rod.	
do. in underpinning, add 20 per cent. per rod.	
HALF-BRICK walls in stocks in cement mortar (1-3), per ft. sup.	£0 1 0
BEDDING plates in cement mortar, per ft. run	0 0 3
BEDDING window or door frames, per ft. run	0 0 3

LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run

CUTTING do. in old walls in cement, per ft. run

OUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.

TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run

do. 14 ft. by 9 in. do., per ft. run

FLAUNCHING chimney pots, each

CUTTING and pinning ends of timbers, etc., in cement

FACINGS fair, per ft. sup. extra

do. picked stocks, per ft. sup. extra

do. red rubbers gauged and set in putty, per ft. sup. extra

do. in salt white or ivory glazed, per ft. sup. extra

TUCK pointing, per ft. sup. extra

WEATHER pointing, do. do.

TILE creasing with cement fillet each side per ft. run

GRANOLITHIC PAVING, 1 in., per yd.

do. 1½ in., per yd. sup.

do. 2 in., per yd. sup.

If coloured with red oxide, per yd. sup.

If finished with carborundum, per yd. sup.

If in small quantities in finishing to steps, etc., per ft. sup.

Jointing new grano, paving to old, per ft. run

Extra for dishing grano, or cement paving around gullies, each

BITUMINOUS DAMP COURSE, ex. rolls, per ft. sup.

ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.

do. vertical, per yd. sup.

SLATE DAMP COURSE, per ft. sup.

ASPHALT ROOFING (MASTIC) in two thicknesses, ½ in., per yd.

do. SKIRTING, 6 in.

BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.

do. do. 3 in.

BREEZE fixing bricks, extra for each

do. do. 3 in.

do. do. 3 in.

do. do. 3 in.

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HALF SAWING, per ft. sup.

Add to the foregoing prices, if in York stone 35 per cent.

do. Mansfield, 12½ per cent.

Deduct for Bath, 33½ per cent.

do. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.

RUBBED round nosing to do., per ft. lin.

YORK STEPS, rubbed T. & R., ft. cub.

YORK SILLS, W. & T. ft. cub. fixed

ARTIFICIAL stone paving, 2 in. thick, per ft. sup.

do. 2½ in. thick, per ft. sup.

SLATER AND TILER

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

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

Slates, 1st quality, per 1,200:

Portmadoc Ladies

Countess

Duchess

Old Delabole

Med. Grey

Med. Green

24 in. x 12 in.

20 in. x 10 in.

16 in. x 10 in.

14 in. x 8 in.

Green Randoms, per ton

Grey-green do., per ton

Green pebbles, 12 in. to 8 in. long, per ton

In 4-ton truck loads, delivered Nine Elms station

Clips, lead, per lb.

Nails, copper, per lb.

Nails, compo, per cub.

Nails, copper, per lb.

Cement and sand, see "Excavator," etc., above.

Hand-made tiles, per M.

Machine-made tiles, per M.

Westmorland slates, large, per ton

do. Peggies, per ton

SLATING, 3 in. lap, compo nails, Portmadoc or equal

Ladies, persquare

Countess, persquare

Duchess, persquare

WESTMORLAND, in diminishing courses, persquare

CORNISH do., persquare

Add, if vertical, persquare approx.

Approx.

Double course at eaves, per ft. approx.

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

Med. Grey

Med. Green

24 in. x 12 in.

20 in. x 10 in.

16 in. x 10 in.

14 in. x 8 in.

Green randoms

Grey-green do.

Green pebbles, 12 in. to 8 in. long

TLING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average persquare

do. machine-made do., persquare

Vertical Tiling, including pointing, add 18s. 6d. persquare

FIXING lead soakers, per dozen

STRIPPING old slates and stacking for re-use, and clearing away surplus

do. rubbish, persquare

LABOUR only in laying slates, but including nails, persquare

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

CARPENTER, 1s. 9d. per hour; JOINER, 1s. 9d. per hour; LABOURER, 1s. 4d. per hour.

Timber, average prices at Docks, London Standard

Scandinavian, etc. (equal to 2nds):

7 x 3, per std.

11 x 4, per std.

Memel or Equal. Slightly less than foregoing.

Flooring, P.E., 1 in., per sq.

do. T. and G., 1 in., per sq.

Planned boards, 1 in. x 11 in., per std.

Wainscot oak, per ft. sup. of 1 in.

Mahogany, Honduras, per ft. sup. of 1 in.

do. Cuba, per ft. sup. of 1 in.

do. African, per ft. sup.

Teak, per ft. sup. of 1 in.

do., ft. cube

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube

do. framed in floors, roofs, etc., per ft. cube

do. framed in trusses, etc., including ironwork, per ft. cube

PITCH PINE, add 33½ per cent.

FIXING only boarding in floors, roofs, etc., per sq.

SARKING FELT laid, 1-ply, per yd.

do. 3-ply per yd.

CENTRING for concrete, etc., including horsing and striking, per sq.

TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run

do. 9 in. wide and over per ft. sup.

continued overleaf

MASON

MASON, 1s. 9d. per hour; DO. FIXER, 1s. 10d. per hour; LABOURER, 1s. 4d. per hour; SCAFFOLDER, 1s. 5d. per hour.

Portland Stone:

Whitbed, per ft. cube

Bashed, per ft. cube

Bath stone, per ft. cube

Usual trade extras for large blocks.

York paving, av. 2½ in., per yd. super

York templates sawn, per ft. cube

Slate shelves, rubbed, 1 in., per ft. sup.

Cement and sand, see "Excavator," etc., above.

HOISTING and setting stone, per ft. cube

do. for every 10 ft. above 30 ft. add 15 per cent.

PLAIN face Portland basis, per ft. sup.

do. circular, per ft. sup.

SUNK FACE, per ft. sup.

do. circular, per ft. sup.

do. sunk, per ft. sup.

do. do. circular, per ft. sup.

CIRCULAR-CIRCULAR work, per ft. sup.

PLAIN MOULDING, straight, per inch of girth, per ft. run

do. circular, do. per ft. run

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 strappings 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
SECOND boarding, 1 in. thick and fillets nailed to sides of joists (joists measured over), per square	2 0 0
RUBBEROID 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, 1 1/2 in. thick, laid complete with splayed headings, per square	2 5 0
DEAL skirting torus, moulded 1 1/2 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 mastie:	
Deal 1 in. thick, per yd. sup.	0 10 0
DO. 1 1/2 in. thick, per yd. sup.	0 12 0
Maple 1 1/2 in. thick, per yd. sup.	0 15 0
DEAL moulded sashes, 1 1/2 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, 1 1/2 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. x 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 1 1/2 in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0 2 6
DEAL wall strings, 1 1/2 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
4 1/2 in. x 3 in. oak fully moulded handrail, per ft. run	0 5 6
1 1/2 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
1 1/2 in. beaded cupboard fronts, moulded and square, per ft. sup.	0 2 9
TEAK grooved draining boards, 1 1/2 in. thick and bedding, per ft. sup.	0 4 6
IRONMONGERY:	
Fixing only (including providing screws):	
To DEAL—	
Rings 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 1s. 9d. per hour; MATE, do. 1s. 4d. per hour; ERECTOR, 1s. 9d. per hour; FITTER, 1s. 9d. per hour; LABOURER, 1s. 4d. per hour.	
Mild Steel in British standard sections, per ton	
Sheet Steel:	
Flat sheets, black, per ton	£12 10 0
DO., galv., per ton	17 0 0
Corrugated sheets, galv., per ton	19 0 0
Driving screws, galv., per grs.	18 10 0
Washers, galv., per grs.	0 1 10
Bolts and nuts per cut. and up	0 1 18
MILD STEEL in trusses, etc., erected, per ton	
DO., in small sections as reinforcement, per ton	25 10 0
DO., in compounds, per ton	16 10 0
DO., in bar or rod reinforcement, per ton	17 0 0
WROUGHT-IRON in chimney bars, etc., including building in, per cwt.	20 0 0
DO., in light railings and balusters, per cwt.	2 0 0
Fixing only corrugated sheeting, including washers and driving screws, per yd.	2 5 0

PLUMBER

PLUMBER, 1s. 9d. per hour; MATE OR LABOURER, 1s. 4d. per hour.

Lead, milled sheet, per cut.	£1 9 0
DO. drawn pipes, per cut.	1 10 0
DO. soil pipe, per cut.	1 12 0
DO. scrap, per cut.	1 0 0
Copper, sheet, per lb.	0 1 3
Solder, plumber's, per lb.	0 1 3
DO. fine, per lb.	0 1 9
Cast-iron pipes, etc.:	
L.C.C. soil, 3 in., per yd.	0 4 0
DO. 4 in. per yd.	0 4 9
R.V.P., 2 1/2 in., per yd.	0 2 2
DO. 3 in., per yd.	0 2 7
DO. 4 in., per yd.	0 3 6
Cutler, 4 in. H.R., per yd.	0 1 6
DO. 4 in. O.G., per yd.	0 1 10
MILLED LEAD and labour in gutters, flashings, etc. per cwt.	
LEAD PIPE, fixed, including running joints, bends, and tacks, 1/2 in., per ft.	3 0 0
DO. 1/2 in., per ft.	0 2 0
DO. 1 in., per ft.	0 2 3
DO. 1 1/2 in., per ft.	0 3 0
DO. 2 in., per ft.	0 4 0
LEAD WASTE or soil, fixed as above, complete, 2 1/2 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, 1/2 in., each	0 2 6
DO. 1 in., each	0 3 2
DO. 1 1/2 in., each	0 3 8
BRASS screw-down stop cock and two soldered joints, 1/2 in., each	0 11 0
DO. 1 in., each	0 13 6
CAST-IRON rainwater pipe, jointed in red lead, 2 1/2 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 H., 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, 1s. 9d. per hour (plus allowances in London only); LABOURER, 1s. 4d. per hour.

Chalk time, per ton	£2 17 0
Hair, per cut.	2 0 0
Sand and cement see "Excavator," etc., above.	
Lime putty, per cut.	£0 2 9
Hair mortar, per yd.	1 7 0
Fine stuff, per yd.	1 14 0
Sawn laths, per bd.	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.	
METAL LATHING, per yd.	0 2 3
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, 1/2 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 dubbink 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, 1s. 8d. per hour.

Glass: 4ths in crates:	
Clear, 21 oz.	£0 0 4 1/2
DO. 26 oz.	0 0 5 1/2
Cathedral white, per ft.	0 0 7 1/2
Polished plate, British 1/2 in., up to 2 ft. sup., per ft.	0 1 2
DO. 4 ft. sup.	0 2 3
DO. 6 ft. sup.	0 2 6
DO. 20 ft. sup.	0 3 1
DO. 45 ft. sup.	0 3 3
DO. 65 ft. sup.	0 3 5
DO. 100 ft. sup.	0 3 5
Rough plate, 1/2 in., per ft.	0 0 6 1/2
DO. 1/2 in. per ft.	0 0 6 1/2
Linseed oil putty, per cut.	0 15 0
GLAZING in putty, clear sheet, 21 oz.	
DO. 26 oz.	0 0 11

GLAZING in beads, 21 oz., per ft. £0 1 1
 DO. 26 oz., per ft. 0 1 4
 Small sizes slightly less (under 3 ft. sup.).
 Patent glazing in rough plate, normal span, 1s. 6d. to 2s. per ft.
 LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, per ft. £0 3
 sup. and up
 Glazing only, polished plate 6d. to 8d. per according to size.

PAINTER AND PAPERHANGER

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

Genuine white lead, per cut.	£2 7 6
Linseed oil, raw, per cut.	0 3 6
DO., boiled, per gall.	0 3 8
Turpentine, per gall.	0 4 0
Liquid driers, per gall.	0 8 6
Knottling, per gall.	0 18 0
Distemper, washable, in ordinary colours, per cut., and up	2 5 0
Double size, per fricton	0 3 6
Pumice stone, per lb.	0 0 4 1/2
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 2 1/2
 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 £0 0 2 1/2
 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, 3/2 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, 3/2 in. punched per M. grey 16 0 0
 DO., red 18 0 0
 ASBESTOS COMPOSITION FLOORING: Laid in two coats, average 1/2 in. thick, in plain colour, per yd. sup. 0 7 0
 DO., 1/2 in. thick, suitable for domestic work, unpainted, 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	3/4 in.	1 in.	1 1/4 in.	1 1/2 in.	2 in.	2 1/2 in.	3 in.
Qualities	A.A.	A.	B.	A.A.	A.	B.	A.A.
Birch	4	8	2 5	4	8	7 6	4 8
Alder	5 1/2	8	2 5	4	8	5 1/2	4 8
Gaboon	4	8	2 5	4	8	5 1/2	4 8
Figured Oak	8 1/2	7	10	8	11 1/2	10	10
Plain Oak	8 1/2	6	4	7 1/2	7	9 1/2	10
Oregon Pine	8 1/2	4	4	5 1/2	7	8	10

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