THE ARCHITECTS' JOURNAL

Wednesday, May 2, 1928

THE SMOKELESS HOUSE

CONSIDERABLE progress has been made during the last few years towards a solution of the problem of smoke abatement. Careful investigation and experiment have abundantly proved the injurious qualities of the smoke which lies like a pall over our towns; it debilitates the human body even when it does not do it worse harm; it cramps vegetation; it disintegrates building materials by chemical action, and it is an important constituent in fogs. Another branch of research which also bears on this subject demonstrates and emphasizes the life-giving and life-preserving and curative powers of sunlight—which smoke only serves to enfeeble and obscure. The smoke nuisance has therefore two aspects: it does harm and it prevents good being done. The root of the matter is in the fuel, raw coal, of course, producing the greatest amount of injurious smoke. In the large manufacturing districts, of the north especially, the evil is serious. It blights whole neighbourhoods. In London, where the presence of the Thames adds a river mist, there is a general darkening of the atmosphere which the sun's rays cannot penetrate with their full strength. Serious practical efforts have been, and are being, made to grapple with the problem. Legislation, in the form of the Public Health (and Smoke Abatement) Act, 1926, provided regulations affecting factories, etc., and buildings other than domestic. Private dwellings were wisely left to be dealt with separately, in a local and private manner. Efforts were also made to inform and influence public opinion—the surest way, perhaps, to success. The question of smoke abatement, if not its elimination, was taken up by municipal and local bodies as affecting their housing schemes. As early as 1922 Manchester was fitting into houses built by the local authority special grates suitable for coal, coke, or smokeless fuel. Other municipalities, such as Glasgow and Liverpool, allowed for the extensive use of gas. One grate is generally allowed for the use of coal, as, for instance, in the chief sitting-room. The cooking and washing are done by gas, thus eliminating coal as a means of power which would consume the heaviest amount of fuel.

The Ministry of Health lent its influence and encouragement. The Housing Manual issued by the Ministry reminds municipal authorities that "the probable availability of improved coke for fuel at an early date should not be lost sight of also when choosing grates and ranges for new cottages, for the importance of diminishing, and as soon as possible abolishing, the production of smoke from dwelling-houses everywhere, but especially in large urban areas, can hardly be exaggerated."

At the same time, quite apart from official control, raw coal was being replaced to an appreciable extent by other forms of fuel, such as the use of gas or electric power or oil in business undertakings, the partial electrification of the railways, the employment of oil fuel in ships, and in private houses cooking and heating by gas or oil. In the last the lack of domestic service and improved standards of living were partly responsible. Coal in houses involves labour in carrying it, laying, stoking and raking out fires, besides the extra work caused by the deposit of fine dust and ash in the room. Gas is serviceable, reliable, and ready for immediate use, and it requires considerably less skill, while its efficiency is relatively greater. At the same time, gas in large quantities is not free from injurious emission of chemicals. Electricity is admitted, even by its most enthusiastic supporters, to be, at its present price, beyond the means of the ordinary householder. In future, when the new electricity schemes are fully matured, no doubt the price charged for current will be within the reach of general consumers, and electricity will be extensively used.

Mr. Chamberlain, speaking at the Guildhall six months ago, said that what the country wanted was a smokeless fuel which could be burnt in an open grate, "and that as soon as it appeared on a commercial scale and in a form which rendered it advantageous to the consumer it would quickly come into use." The announcement, therefore, that the Hull Corporation has decided to build 2,600 houses fitted with specially designed stoves for solid smokeless fuel marks an important step in advance, and demonstrates the practical value of such fuel now on the market. The immediate future seems to lie with solid smokeless fuel, at any rate in manufacturing or crowded districts.

It is generally admitted that the present method of using raw coal is uneconomic. Heavy and bulky material is transported at a high cost, which contains a large percentage of matter which merely becomes waste, such as ash, or is turned into smoke. Too much heat is lost in merely warming the chimney. When the processes which are being applied at the pithead come into general commercial use, waste products will be eliminated and valuable by-products extracted—and this at the source of supply—and the gain to the community will be enormous. Such considerations are engaging the minds of those who are faced with the reorganization of the coal-mining industry on a firm basis. Smokeless fuel will come into common use, though it is probable that for purposes of service, such as cooking, gas and electricity will be used. We may yet look forward to the saving of the traditional domestic hearth without injury to the community.

NEWS AND TOPICS

HOUSING TROUBLES IN NEW YORK—RURAL ENGLAND—STRUCTURAL SPRING CLEANING—WATCHING A BUILDING FALL

THERE has been a fight behind the scenes in Paris on certain proposals to build skyscrapers, similar or even higher than the new Park Lane flats. Some American speculators have suggested that a source of additional income for the French Government would be obtained if certain Government buildings in the centre of Paris could be demolished, and in their place lofty hotels or offices erected. Superficially the proposals were very attractive. It was even suggested that the materials might be bought in Germany and that a public loan should be floated to cover the cost of erection. But President Doumergue and his colleagues have refused to be persuaded. They take the view that skyscrapers built in Paris would mar the harmony of the horizon and the beauty of the landscape. Somewhat similar proposals made by the Municipal Building Committee to erect another group of skyscrapers on the former military zone have also been strongly opposed. The Urban Hygiene Committee takes the view that the site of the old fortifications should remain as open spaces laid out as gardens, and that high buildings thereon would mean replacing the fortress walls by a steel and concrete corset.

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It is tragic to note that New York is passing through the same troubles in housing as this country endured in the days of Mr. Lloyd George and Dr. Addison. Great schemes have been announced by Governor Smith and Mayor Walker. There have been banquets and public meetings. One scheme was to spend $500,000,000, and to demolish the whole of New York's lower east side. This depended upon the City and the State sharing the financial burden with private capital, but in spite of beating the big drum there have been no lines of millionaires offering to contribute. Committees have been at work and have found, as we have learned here, how difficult it is to put up new houses providing accommodation at the same rent as is now paid by those living in slums, without a heavy loss upon public funds. The schemes put forward by politicians have involved the spilling of gallons of printer's ink and mountains of talk, but the result has been but a very tiny mouse. After three years those responsible are discovering that it is impossible to pull down millions of pounds' worth of property without affecting the development of the city plan, and that it is essential to think out in advance new streets and the future trend of the city's population. New York citizens are also asking themselves whether it is better for those who now live in the so-called slums to continue indefinitely to dwell there, or to be encouraged to distribute themselves into outlying sections of the city. The scheme is now in the doldrums, and it appears to be very unlikely that any slums will be demolished at all by the operation of the new laws.

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Mr. Morley Horder, in the address that he gave on the "Menace to Rural England," at the Guildhouse, Eccleston Square, last week, was perhaps a little hard on architects in general, and on the R.I.B.A. in particular. Nevertheless, his douche of cold common sense, although it gave a shock to some of his hearers, is useful. We must realize that the bulk of the British public who want to build a small house for their own occupation are strictly limited as to capital, and are therefore a little afraid that the employment of an architect will mean extra expense. It is up to the architectural profession to take measures to teach the public that good architecture does not mean wasting, but saving, money. Mr. Horder also questioned the practicability of proposals, made by Professor Abercrombie and others, of local authorities effectively controlling the design of buildings. Those officials of the Ministry of Health who have most to do with local authorities are equally sceptical of this proposal. It is all very well for an enlightened authority to be given powers to control design, but we all know that certain councils would pass the most atrocious building, and would be likely to condemn a building designed according to certain modern theories of taste. Mr. Horder's speech, illustrated by admirable slides provided by Sir Frank Baines and terminated by an impressive appeal for the preservation of the Foundling site, was certainly stimulating.

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At a recent meeting in conference at Manchester of various northern local authorities interested in housing, one of the more important matters brought up for discussion was the housing of the low-paid worker with a large family. It was proposed that relief should be granted him at the rate of one shilling per child to enable him to pay his rent. The proposal seems just and right, though it adds yet another burden to the rates. The report does not state whether it was decided to carry it out. This question of the low-paid worker lies, of course, at the root of the whole problem of the slums, varied by the question of the casual worker and the unemployed. It is well known that the conditions under which the very poor are obliged to live are no credit to this country, and the matter has long been a burning and a vital one. Some of the most interesting efforts are being made by voluntary bodies who are in constant contact with slum-dwellers and the very poor. They are able to treat the matter from a human and personal point of view as part, though a very important part, of a larger whole—the general betterment of the very poor. If the slum-dweller is to rise in the social scale, and produce work, he and his family must be adequately housed—they must not be cramped and overcrowded and deprived of air and light. The St. Pancras House Improvement Society are doing excellent work for a very crowded and poor neighbourhood. The Church Army have been able to build by voluntary subscriptions a set of houses of which the low-paid worker with a family—the larger the better—has the first refusal, and needless to say these houses fill up with families as soon as they are built. These are voluntary efforts in the right direction; but though these will not slacken, much more remains to be done, and that as soon as possible, and it is hoped that other local authorities which are not yet active in this way, will give the question their serious and effective consideration.

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The idea of a clean St. Paul's should be all the more acceptable now that Mr. Poley's carefully rendered drawings

have shown that Sir Christopher Wren's design has great beauty without the accidental aid of sooty deposits and rain-washed high lights, and if the cathedral were only cleaned from top to bottom, what an example it would be for the rest of London. That spring-cleaning has its protective value in regard to other materials than stone can hardly be denied. Where structural members are neglected, the moth and the rust, or their equivalents, soon take the opportunity to begin their destructive operations. The discovery of wood-worm in the timbers of St. Cuthbert's Church, Darlington, should remind churchwardens that prevention is better than cure, and infinitely safer than ignoring the possibility of steady unseen internal decay. Spring is the mating time of wood-boring beetles, and the application of preservatives now is likely to prevent the multiplication of these destructive creatures. Handling and wax-polishing furniture, backs and undersides included, is also advisable at this season, for the female beetle searches for suitable crevices in the wood in which to lay her eggs so that her young may start life with something to press their backs against and so gain driving power for their jaws. A common form of tidying up which is definitely harmful, because delusive, is the superficial stopping of cracks in plaster without stopping the crack in the structure at the back of it, or dealing comprehensively with the causes which produce movement and fracture. Dear old ladies living in houses with cracked ceilings should not cease to fear a fall of plaster simply because the ceilings have been papered over, or well "stopped" with Keene's. In a large hall recently found to be in a dangerous condition, cracks an inch in width were splitting the walls into separate feeble piers, yet the periodical redecorations had invariably disguised the extent of the decay, for ten or eleven successive "stoppings" had been added in the course of a century.

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In a spring like this, when stormy winds and excessive rains have caused the collapse of buildings, it is somewhat surprising how few architects have actually been present investigating the symptoms presented by masonry on the point of falling. Here is the account of the bursting of a retaining wall as related to me by an eye-witness: "I was once invited to inspect a considerable length of retaining wall which showed minute signs of cracking, and after walking first along its base, and then back along its summit, I felt assured that its defects were such as might be dealt with by the provision of new supports at intervals. The cracks were mainly horizontal, and were accompanied by consistent bulging of the wall, but both cracks and bulges were inconspicuous to ordinary observation. The bulges practically eluded detection from ordinary eye-level, though they were more conspicuous when the wall was looked at from above downwards, when they naturally showed up in contrast to the foreshortening of the surface generally. In the night after my inspection, a portion of the wall fell, revealing imperfections in the construction. But what made me curious was the sudden nature of the fall of a wall which only a few hours previously had only seemed affected with trifling symptoms of possible failure in future. Having been almost tricked into advising the employment of repairs which might have proved inadequate, I was keen to learn how the wall set about the deluding of unwary observers. Other portions of the wall fell by daylight during the next few days, and by keeping constantly on the spot and on the watch, I was lucky enough to see the whole thing.

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"The mild little cracks and bulges grew greater by such slight degrees that only careful measurement could detect the difference, and then, without warning, would come a sudden split and a spall of material would become dislodged. From this moment to the complete collapse other spalls, dust, and crumbling mortar came away in quick succession, with appropriate bangs, roarings, and whisperings, until the wall was weakened and bulged to such an extent that whole masses fell forward and allowed the earth backing to pour out in a flood and pile itself up at the base of the wall in a heap. The wall's trick was simply to drift to bursting point, and then to burst without more ado. When the first spall fell it only allowed fair time for investigators at the wall-face to stand clear and look out for flying fragments."

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No connection of the brothers John and Paul Nash, except that he also is a Slade School man, Tom Nash proves himself at his show at the Redfern Gallery equally interesting and equally modern. He is even more singular, for he paints no pictures, but only decorations and illustrations of themes. His medium is dry flat oil-paint, his subjects scriptural. He has no faculty for technical quality, and his feeling is devotional rather than religious. His work is naïve but not crude, largely concerned with the life of Christ, and the largest is the "Crucifixion," a fine work with good colour, which, like the rest, conveys no sense of period. The "Nativity" might be in any London backyard with its associated washday. The costumes are non-committal, neither of today nor any other day. All these decorative subject panels are sincere but not sententious. At the same gallery there is some oil-painting which really has quality. It is the work of another modernist, Adrian Allinson: still flat, his colour yet glows. It is encouraging to find that the old quality of paint as paint has not been entirely forgotten in the race for draughtsmanship. Not that Allinson's drawing is not good; it is quite good, but his work is graphic rather than plastic; in one plane rather than three. It is largely indebted for subject to quite ordinary houses, mostly Continental, but made interesting in a scene by their manipulation in medium. The oil comes out best; the watercolours and drawings are sometimes perfunctory.

ASTRAGAL

ARRANGEMENTS

TUESDAY, MAY 8

Princes', *Piccadilly*. 7.15 p.m. The Artists' General Benevolent Institution Annual Dinner. The Rt. Hon. Viscount Lascelles in the chair.

WEDNESDAY, MAY 23

R.I.B.A. Annual Dinner.

JUNE 20 TO 23

R.I.B.A. and Allied Societies' Annual Conference at Bath.

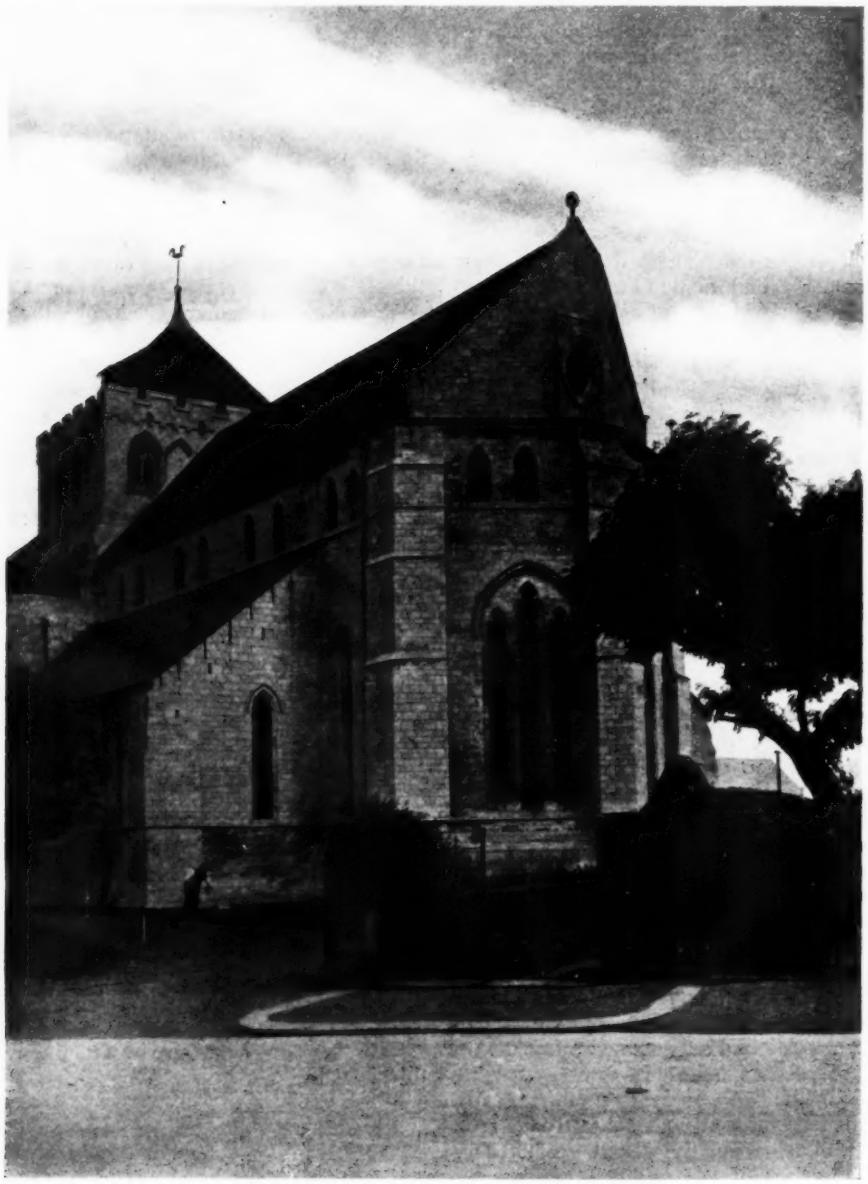
THE WORK OF TEMPLE MOORE

[BY H. S. GOODHART-RENDEL]

POPULAR criticism seems to have decided that the last hundred years have been a bad time for architecture. Buildings dating from these years cannot escape from one or other of two condemnations: if they resemble older buildings they are "mere reproductions"; if they do not they are "incorrect." Nor does the trouble end here. "Mere reproductions" are denied even a borrowed beauty —they "lose the spirit of the original." "Incorrect" buildings are declared to be even worse, their designers having presumed ridiculously in varying the sacred forms of the past. Occasionally, forgetting its severity toward presumption, popular criticism demands of architecture a "new style"—a style unlike any other style that has been. Respectable professional gentlemen can then be seen conjuring rabbits out of their top-hats, only to be told that the rabbits lack real originality and look rather ill-bred.

If this kind of criticism were just, the practice of those today who look to new materials to produce the novelty they cannot themselves create would be the only reasonable thing for any architect to do. If, for a century past, all buildings that have not been mere copies have been merely

[Extracts from a paper read before the R.I.B.A.]



St. Wilfrid, Harrogate. By Temple Moore.

St. Anne, Royton (Oldham), Lancashire. By Temple Moore.

bad copies, let us by all means fly to the architecture of reinforced concrete, in which little that can be copied has yet come into existence. Let us make everything of this seductive material, from the walls and ceilings down to the kitchen-dresser, and see whether new charms cannot be secured in this way. If the critics sneer at our mouldings, let us give them no mouldings at all; if they find our construction old-fashioned, let us cast our buildings in one piece.

The great architect whose art is the subject of this lecture never seems to have been troubled by criticism that could lead to such conclusions as these. His buildings most certainly often have been called " mere reproductions " by the many to whom every Gothic arch is like every other. There also must have been critics perceptive enough of the peculiarities of his designs to pronounce them " incorrect." He never attempted to meet the demands for a new style, regarding the making of new styles as less his business than the making of new beauties. He used new methods of construction only when he considered them superior to the old ones. Where the merits of a new and of an old method seemed equal, he would choose the old one as the better consonant with the conservative genius of English architecture.

In those works of Temple Moore that adhere most closely to the forms of the medieval styles, no critics could be so unintelligent as to maintain that the " spirit of the original " has been lost. In most of them it is apparent to anyone with a knowledge of the Middle Ages that the spirit has been retained and transmuted into modern terms. A critic, however, need not be unintelligent to object that the adherence to medieval forms is often closer than was necessary, or even, from our present point of view, desirable. It cannot be proved that any beauty has been lost by it, but it equally cannot be proved that by it anything has been gained—and in the anti-Gothic reaction that we are now living through, the slightly archæological flavour of some of Moore's churches is unwelcome to many people.

Yet it is very foolish to miss—because of a superficial distaste—the experience and pleasure that a great work of art can give; and most of Moore's churches can claim to be great works of art. Style is the least important of all the unimportant elements of architecture, and generally has less relation to the merits of a building than the cut of a man's clothes to the condition of his soul. To object unconditionally to a style is unworthy of national criticism —no style that is a style at all is incapable of being a fit vehicle for the expression of a noble idea.

It may be—it probably is—true that for us today a simplicity approaching stylelessness is the direction in which our finest and sincerest art naturally proceeds. The riches and the enthusiasm of the last century are spent, and their place is taken by a pretension and false sentiment against which all true artists are in revolt. Ornament that was formerly a wonder of human patience is now more than ever the ceaseless vomit of machines, so that the word " ornamental " has almost become a reproach. Such buildings as Moore's church at Sledmere, though perfectly appropriate to the days and circumstances in which they were built, are not of the kind that our present mood helps us to appreciate. Others of Moore's churches, such as the

noble St. Columba's, at Middlesbrough, built many years ago, seems to have anticipated preferences in an astonishing way. If we love St. Columba's Church we love an essential part of Moore's mind; but if we do not also love the Sledmere Church, we have missed a great deal else that his mind can give. The whole body of his work is singularly harmonious and consistent, and can only be properly valued by those who take a little trouble to understand that part of it which might be hastily passed over as less attractive than the rest.

Moore's master in his art was George Gilbert Scott, son of the architect of the St. Pancras Hotel, and father of the architect of Liverpool Cathedral. Gilbert Scott, junior, as he used to be called, was a man of exceptional ability, whose too short career has not yet been properly chronicled.

To him more than to any other church architect is due the break-up of the Victorian Gothic convention that his father had had so large a share in establishing. His works were few, but each of them had great influence with his contemporaries. The first of them to be illustrated in the architectural press—the church of St. Agnes, at Kennington Park—caused a storm of protest among the less imaginative of his confrères, and is only not strange to us because its once novel excellences have since been freely imitated. When it was built, few, if any, churches, save those of Bodley, were being built in England of English style. The styles of France and Italy, anglicized perhaps, but unmistakable, provided the dominant flavour in the Gothic stew-pot of the Victorians when Street was head-cook; and the return to English fare recommended by Bodley, Gilbert Scott, junr., and Micklethwaite and Somers Clarke necessitated a great rising of vessels.

Nevertheless, the regime of these men prevailed, and by the time Temple Moore took over his master's practice, Street's eclecticism was discredited, and the traditions of English Gothic were everywhere re-established. In all the designs of Moore there is no hint of inspiration from other countries, no more evidence that he had ever left these islands than in the work of the Yorkshire abbey builders that he loved so well. Probably there is no building, old or new, that is more exclusively and characteristically English than St. Wilfrid's Church, at Harrogate, and there certainly is no other building that is so characteristically Moore's. Neither Bodley nor Micklethwaite and Somers Clarke made any mature re-use of the English style of the thirteenth century, but chose rather to clothe their creations in the garments of the late fourteenth: Moore, indeed, would have been alone among the great churchbuilders of his generation in his choice of style at St. Wilfrid's if his master, Gilbert Scott, had not tried the same experiment some years earlier at St. John Baptist, Norwich.

There are some similarities of character in the two churches, but there are many more of difference. Moore spoke Gothic with a strong Yorkshire accent wherever he found himself, and St. Wilfrid's is, in consequence, unlike any building by other architects in other countries. Built on a moorland ridge, that has been utterly defaced by horrible villadom, the church seems an outcrop of the noble rock beneath, a church rough-hewn by Nature before it was shaped by man.

All Saints, Upper Tooting, Surrey. By Temple Moore.

THE NEW LLOYD'S

[BY E. MAXWELL FRY]

SIR EDWIN COOPER'S new building for Lloyd's introduces a slightly novel and very interesting form of plan into the library of architectural design. It is in effect an Exchange, with some adjustments of function peculiar to the type of business carried on by Lloyd's, and its particular significance can be best explained by an examination of the antecedents upon which rests the present and perfected form.

The story of the foundation of Lloyd's is interesting mainly because the founder, whose name has been received with honour in the world these hundreds of years, was utterly unconscious of the institution he was founding, and died without realizing the homage due to him. He was, in fact, a coffee-house keeper in the time of the Stuarts, and he it was who provided the first room in which the business of marine insurance was carried on. That this present hall should preserve the title of "room" is not modesty, but only another example of the tenacity of nomenclature in a world constantly on the move. It is evidence also of the unchanged nature of the business carried on within its walls. So little has this altered that the underwriters' desks spread out over the floor of the vast hall still retain the character of coffee-house furniture and are arranged back to back in pairs.

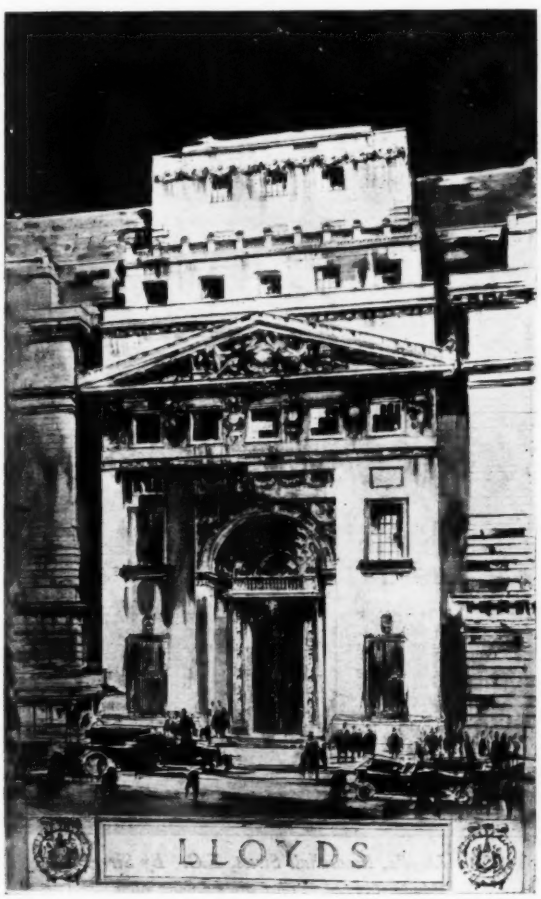
The present plan, as the foregoing information suggests, is very simple, consisting on the ground floor of the enormous underwriting hall, called the "room," of minor entrances to it from Lime Street, a monumental entrance and approach from Leadenhall Street, staircases at each corner, and small departments ringing it round on all sides.

By comparison with the "room" the space occupied by offices, board rooms, etc., is small, until the third story is reached, when offices occupy all but the central lighting space.

The chairman's and vice-chairman's room and the board room are situated on the first floor on each side of the great entrance in Leadenhall Street, removed from the general circulation of the building.

Externally the building consists of a large central block, standing within a lower three-storied ring. The bounding walls of the great "room" are carried up as the outer walls of the central block, and though the staircase towers are given expression in strong pylon-like pavilions, the "room" itself lies too deeply bedded beneath the mass of the building to be identified from without. Instead, the walls are regularly pierced for unmistakable office windows, and the general appearance is that of a monumental and stately hive. The "zoning," necessitated by the narrowness of Lime Street, gives to this façade a calm and dignified appearance. The lower portion is without cornice, as though it were intended that it should form a base to what stands within it, and I feel it rather a loss to the whole that the compactness which this lopping-off of redundant members brings to the base should not have been similarly applied to the upper stories. As it is, perspective foreshortening brings the heavy upper cornice in sharp contrast with the suave lines of the lower block, and there is a drop in the distinct unity of the whole. This severance of form is still further accentuated by the staircase pavilions, which project laterally and vertically, while still the strong mass of the building with its level skyline seems to carry on behind them, leaving their contribution to the resultant effect merely one of avoirdupois.

This is on the Lime Street front. The façade to Leadenhall Street is not so markedly zoned, and the character of the design is bolder and broader in scale, in preparation for the massive entrance composition, which runs through four stories, and is echoed through two more in a series of very significant set-backs. In this, the design reaches its culminating point, and here Sir Edwin Cooper has expressed with much nobility and purpose the dignity and importance of Lloyd's. The regular and severe walls of the lateral blocks become a foil to an ordered richness of decoration, strongest in the carved figures of the flat-pitched pediment, and most intense in the finer enrichment of the archivolt that frames the Renaissance entrance doorway. The whole is set within a break of the main wall surface, and all cornices, both high and low, return on themselves, leaving the entrance block to stand alone as a central and monumental entrance block.



Pass between the bronze gates, and you find yourself within a long, barrel-vaulted approach, which opens out in the centre into a little hall where the vaulting gracefully accentuates the entrances to banks, one on each side. Beyond you see the lines of an elliptical hall that rises through a well to the mezzanine floor above.

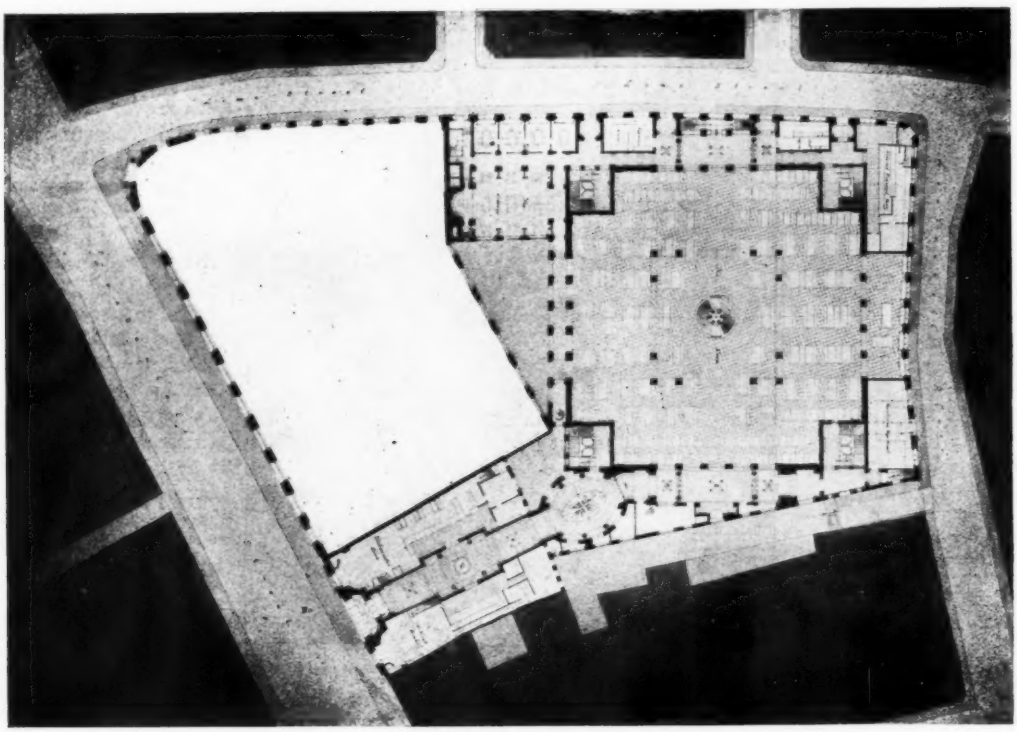
Lloyd's, Leadenhall Street, E.C. By Sir Edwin Cooper. An entrance. From a drawing by William Walcot.

The character here is restrained and very firm, yet of a lightness of touch that is wholly satisfying. Very skilfully the pendentive surface of the shallow-coffered vault narrows to the elliptical well, topped with slim columns and ringed around with Early Renaissance balustrades, each standing free within its bay. The soft, even-grained marble of the walls, combining with white plaster in the vaulting, makes it possible to indulge the fancy with decoration of an order that would be insignificant in heavier work. Nowhere is there to be found the deep coffers and beetling cornices of an earlier period. Even when you move into the greater spaces of the "room" itself you find the same lightness of touch, but here it is combined with a vertical treatment in the supports, and serves a new purpose in lightening the work which the free-standing piers are called upon to do. Twelve well-placed piers carry the great areas of ceiling with the utmost grace and decorum. This is an achievement that would be impossible with any but a scheme of surface decoration. The piers are slim, and stand between floor and ceiling without the intermediation of heavy entablature, while the areas bounded by the shallow beams and cornices are covered with a pattern of coffers that speak rather of decoration than of construction. The feeling of lightness which results gives a corresponding sense of ease to the piers, and produces in the observer a confidence in the stability of the structure and a feeling of unity in the whole.

The wall pilasters, doubled at all corners, preserve the same elongated proportion, allowing no piece of wall to stray outside the limits set by the spacing of the central piers, so that looking on every side there is no weakening of the supporting members and the design closes round united on all fronts. A word may be said for the arrangement of the various departments which serve this "room."

Standing in the centre under the dome is a wooden rostrum from which announcements are made by loud-speaker to the underwriters, whose desks face on to the aisle running from street entrance to ante-room. From this feature circular stairs lead separately down to and up from a telephone-room immediately underneath, from which there is access to lavatories, cloakrooms, and a series of strong-rooms. Between pairs of entrance doors on the Lime Street front are a post office and a reference reading-room, while the members' library, a sombre room, wood-panelled and orientated with apsidal end, is approached either from the outer passage or from the "room" itself. The planning of these subsidiary elements of the plan is as simple as that of the Port of London Authority building, and even one as unacquainted as I am with the mysteries of Lloyd's and unaccompanied by cicerone of any kind was able to find my way about without inquiry, and return without loss of time to the starting point. In a building that is in the nature of a market or exchange, ease of circulation is a point of first magnitude, not only as touching its day-to-day organization, but also the length of its useful service. One would hesitate to imagine how Lloyd's could expand so as to find their new quarters cramping, and yet with all the vastness of floor area and cubical space, there still exists some sense of intimacy, suggesting an atmosphere not far removed from the club.

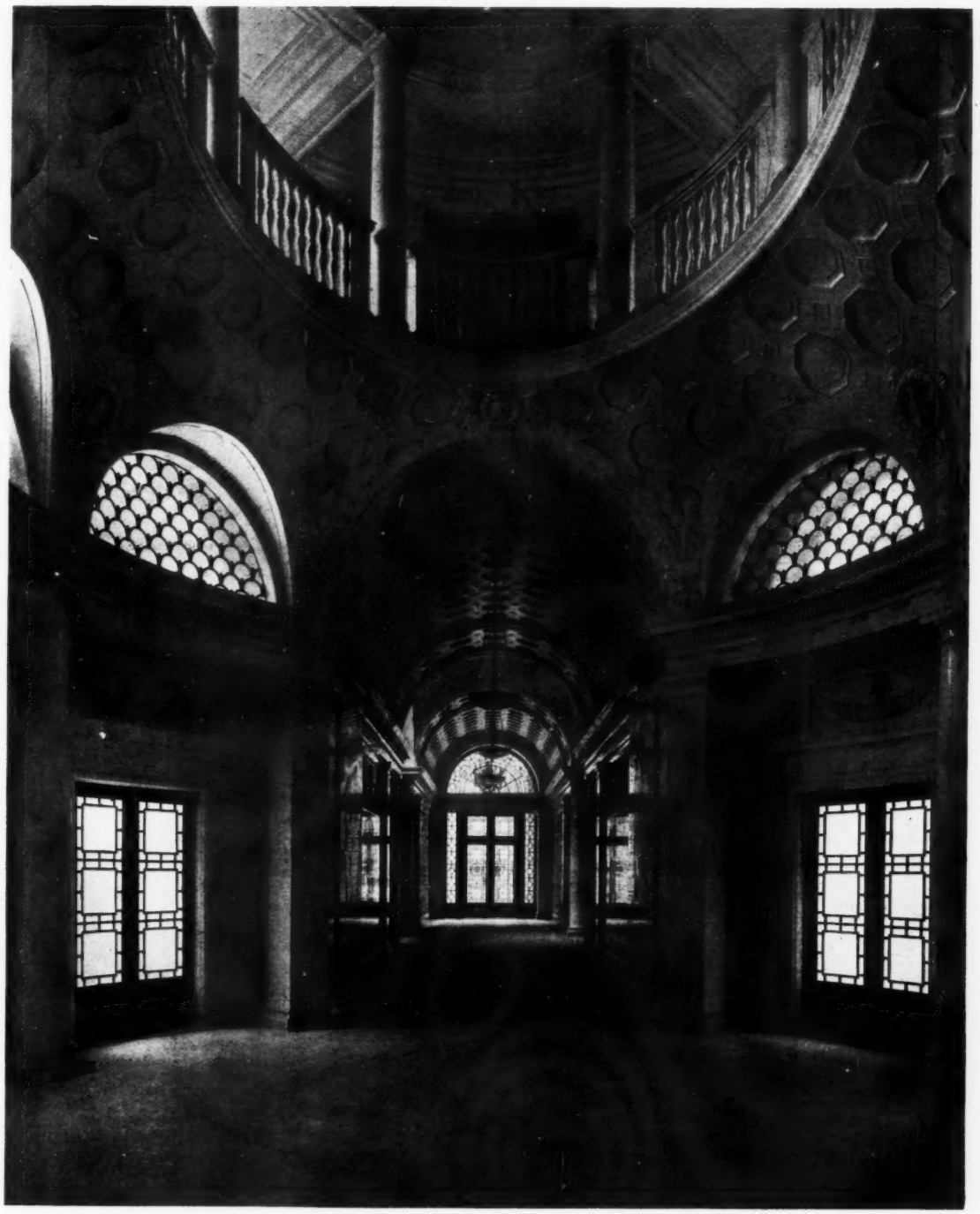
As street architecture the building will always be interesting. The exact effect of the *abrupt* zoning of the side street is a little hard to gauge; the reason why an entrance so very grand as Lloyd's is should occur in the incidence of the street façade is also not at once apparent, but these allowed, the forms in which they are expressed are much above the common level and more than worthy of the City of London.



Lloyd's, Leadenhall Street, E.C. By Sir Edwin Cooper. The ground-floor plan.

Lloyd's, Leadenhall Street, E.C. By Sir Edwin Cooper. Above, a general view of the Lime Street façade. From a drawing by William Walcot. Below, an entrance.

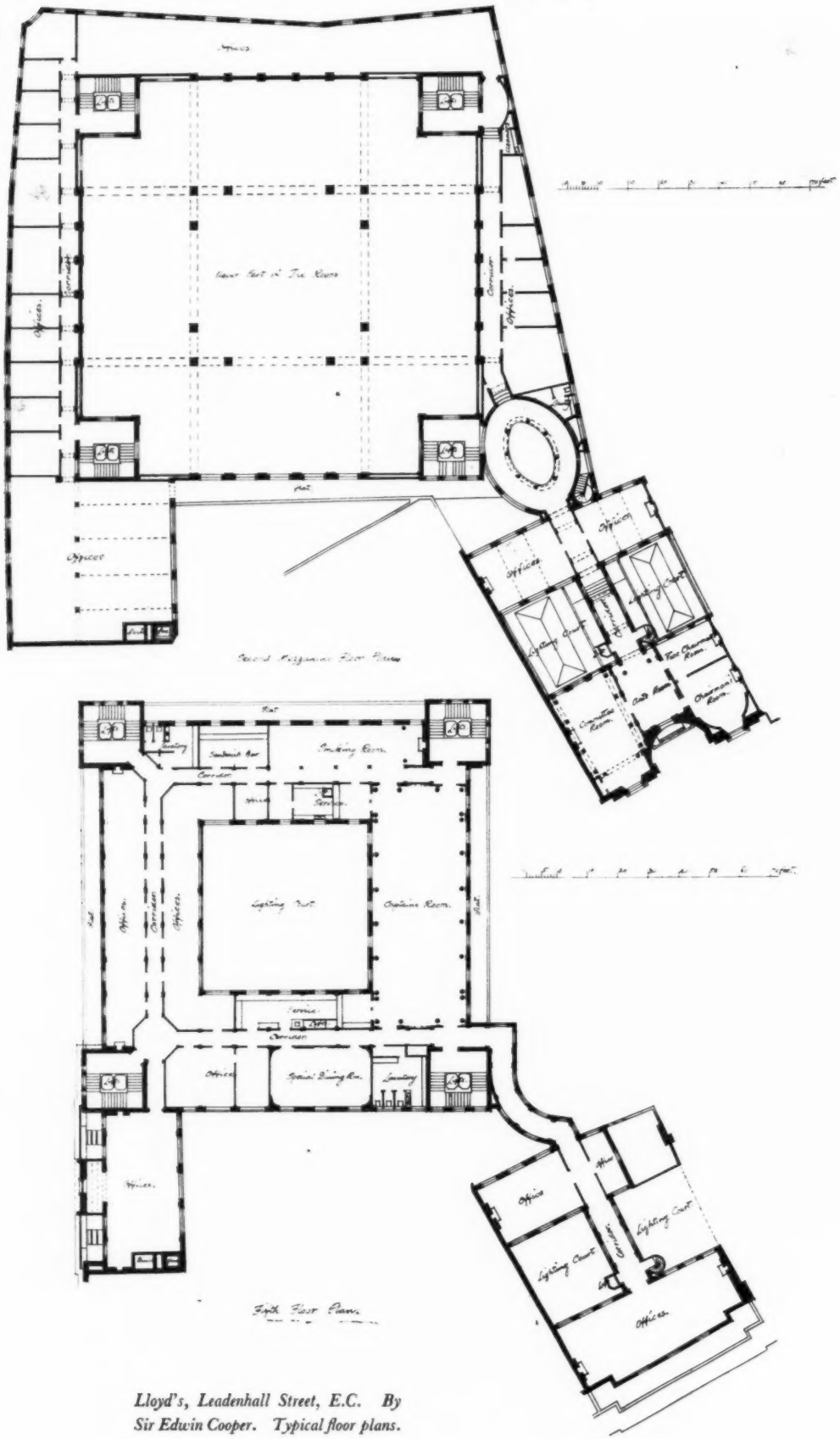
Lloyd's, Leadenhall Street, E.C. By Sir Edwin Cooper.
The main hall, looking towards the entrance.



Lloyd's, Leadenhall Street, E.C. By Sir Edwin Cooper. The entrance approach, looking towards door.

Lloyd's, Leadenhall Street, E.C. By Sir Edwin Cooper. Above, the smoking-room. Below, detail of fireplace.

Lloyd's, Leadenhall Street, E.C. By Sir Edwin Cooper. Above, the main hall, showing central columns. Below, a detail of the plasterwork.



Lloyd's, Leadenhall Street, E.C. By Sir Edwin Cooper. Typical floor plans.

ENGLISH PRECEDENT

13 *Shell door-hoods are not common, and one does not see one of them to every hundred contemporary doorways one passes. This, from an old "woolman's" house, at Amberley, Glos., has the added interest of being semi-elliptic. The date, 1710, would itself indicate that it was becoming late in the shell-hood period, which is confirmed by the quality of design and workmanship. The consoles are clumsily adequate to what they have to support. An unusual feature is the breaking forward of the hood cymatium.*—[NATHANIEL LLOYD.]

THE WILLIAM WALCOT EXHIBITION

[BY KINETON PARKES]

OMITTING purely architectural drawings of the draughtsman, there are two main classes into which pictures with architecture as their subject may be divided—the one which consists of portraits of architectural monuments, great or humble; the other which includes idealizations of architecture, those in which the architectural interest is subordinated to the pictorial. The one is not better than the other, only different in intention and result; as portraits of men and women, as such, are no better but only different from the introduction of men and women into genre.

William Walcot's work is genre ; architecture is his subject and he uses it in a fashion of his own. He shares it with no one; for no other has just the sensibility to the impact of the architectural motive. He is an individualist; he is original; he is creative. He is creative, not in the sense of making form out of void, but rather in the synthetic sense of building up new form from old elements. He takes his stand on the basis of an architectural construction, and reconstructs. The process is not simple, and it is complicated in Walcot's case by the fact that he has a riotous imagination. It might easily be understood if this carried him into realms in which constructional architecture found no place. In point of fact, he curbs this imaginative propensity and makes it serve the legitimate purpose of representation. His works are therefore not abstract creations, but metamorphic; a changing of form into idealizations, which, however, have all the authenticity of actuality.

Walcot travels in lands where architecture persists as well as perishes; which is the way of all architecture. But he seizes on the perishing if it is fine, and makes it persist, the remnants that remain furnishing him the motive for the reconstruction of that which has passed into limbo. The colossi are there, and he makes them the entrance beyond which his vision extends, and he sees the Temple of Amenophis as his imagination and knowledge prompt him: pure vision.

Imagination is tempered by knowledge, and so Walcot is truthful. A knowledgeable artist, whether of human nature, landscape or architecture, is a treasure. The more knowledge he puts into his work the more true and satisfying it will be. But it is not mere knowledge that enables an artist to show the truth to his fellow-men, but knowledge illumined by inspiration. When William Walcot went to Karnak, he was equipped as to information as a groundwork for his paintings: it remained for the suggestion of time, the time of 1500 B.C., and that of place to set his inspiration to work. The result is the series of oil and tempera

A Vision of Amenophis's Palace at Thebes.
From an etching by William Walcot.

paintings, watercolour drawings, and etchings at present being exhibited at the Fine Art Society in New Bond Street.

It has to be remembered that Walcot has been exhibiting pictures and etchings for twenty years; that he was born in St. Petersburg, studied at the Imperial Academy there; that he commenced architecture, and that he was an architectural draughtsman. With him architecture is wedded to archæology, and, with a studio in Rome, he has pursued research into the classical schools. But his architecture and archæology are subordinated to his artistry. Now he is a painter and draughtsman first, a scientist afterwards. He has depicted the glory that is Rome some few years ago; now he has depicted the glory that is Egypt no less successfully and, it must be said, no less flamboyantly. To his earlier classical studies he gave too much blazing colour perhaps; to me, in this Egyptian series, he seems to have given too little. If the temples of Greece were as highly coloured as those which Walcot reconstructed, they were indeed vivid; but in Egypt his colour sense was kept too much on the leash. There is vivid colour in these canvases and drawings, but it is in some cases heavier than even the weight of the monster building of which it is the occasion. The skies, especially in the watercolour drawings, give promise of an all-pervading, vivid sunlight, and the dull colour of some of the pictures is not compensated for by the form-representation of their subjects. This Egyptian series is undoubtedly heavier than the Roman and Greek; more consequential and by no means less expressive. The rigidity of the buildings, whether done from actually existing examples or revealed by the artist's imaginative reconstructive faculty, matches their portentous size; but, cunningly, the artist has tempered them to present-day human nature's daily needs by the busy crowds of people at their bases. The colossal size of them is therefore impressive without being depressing, and the slightly-put-in-humans are alive in the shadows of these formidable monuments.

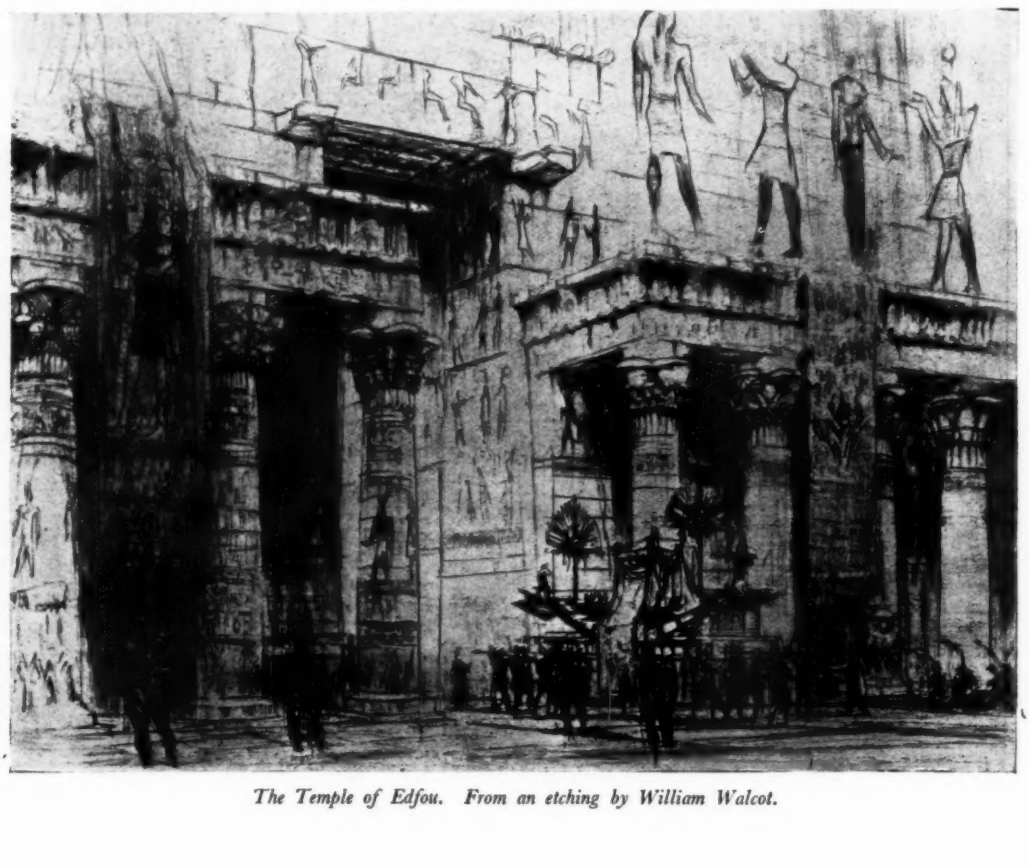
Seeing how large are the subjects of Walcot's art, it is surprising that he has been so successful in conveying the sense of a large scale on so small an area, without crowding of space. He has a peculiar aptitude for filling his spaces and yet keeping them devoid of superfluities. It is this, largely, that render his pictures, despite their large subjects, still quite intimate. The great temples of these paintings, drawings, and etchings hang on the walls of a room quite comfortably without looking at all awkward, a contrast to those old gallery pictures which are not entirely forgotten today in which it was supposed that a great subject required a great canvas. Walcot proves that there can be no loss of impressiveness in treating a great subject on a small scale.

As examples of Walcot's architectural portraits the studies of Edfou, the best preserved of all the Egyptian temples, serve. He exhibits several, the watercolour drawing of the Temple of Horus being the best. The finest examples of reconstruction are the Temple of Amenophis and the Great Hypostyle Hall at Karnak, built by Seli and Rameses II, 1300 B.C., which is in oil. Another of great human interest is the busy scene depicted at Carthage.

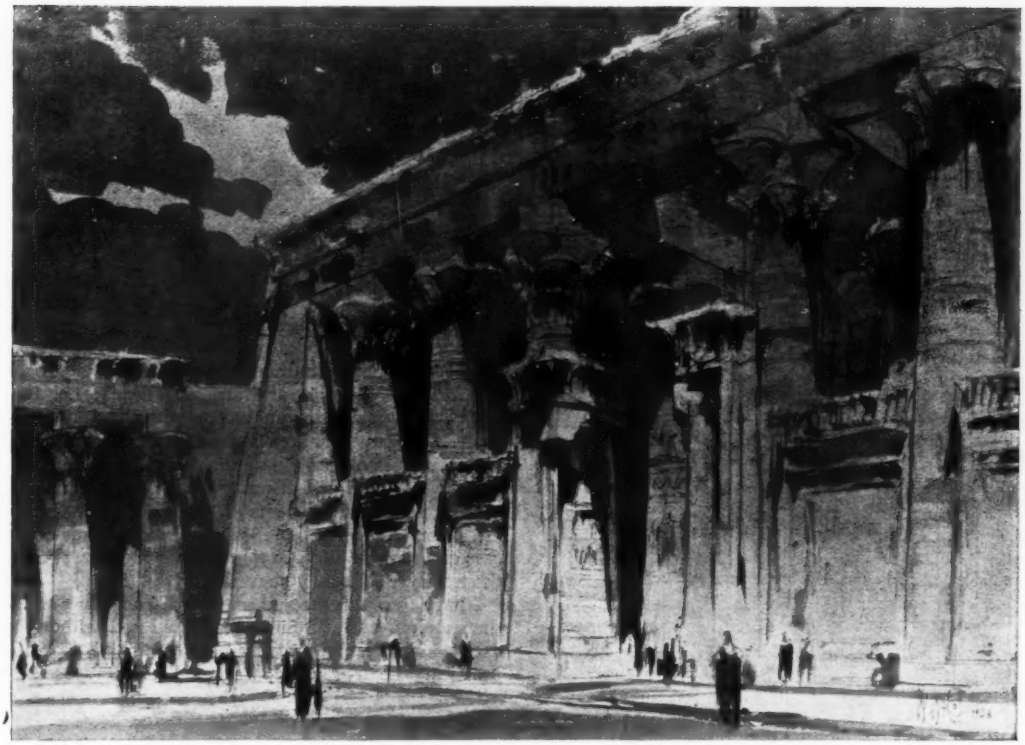
Katisha, that aspiring lady, sings in the "Mikado":

> Yes, in spite of all my meekness,
> If I have a little weakness,
> It's a passion for a flight of thunderbolts.

William Walcot in Greece and Egypt has a similar passion. He loads his pictures with explosives. He sees the



The Temple of Edfou. From an etching by William Walcot.



The Temple of Horus at Edfou.
From an etching by William Walcot.

remains of what was once a fine building—as Katisha was the remains of a fine woman; ponders over it; reconstructs it in his mind, and then with all the exuberance of his imagination, architectural and human, sets to work to build up his own expression of magnificence. The results are magnificent: they may be reconstructions, but they are made on a thoroughly sound basis; they are evocations of architecture, not mere pictures. They are more, for they never evade the implication that architecture was made by man for man. He peoples his pictures, but without exaggerating the human element, without, indeed, exaggerating the architectural. The human element makes a special appeal in Walcot's art and qualifies the purely architectural aspect of it: he makes a nice adjustment which aids the general appeal of his art. At the same time there is in most of his work an appeal, startling in itself; a thunderbolt which serves to startle and arrest the attention, and indeed in some cases to frighten by the intensity of its reverberation. It is seen in his paintings more than in the etchings. The constricting technique of the latter curbs his natural exuberance, and the prints are subject to a not unwholesome repression which the paintings ignore.

William Walcot, F.R.I.B.A. and R.E., is a quiet little man with a dark pale face, iron-grey bearded; rather inscrutable. He has gone up and down the world, observing things and making mental notes of them. He does not say much, but thinks a good deal and paints more. It is very difficult to get him to talk; the best incentive is to provide a subject for denunciation; he talks then. But his job is to draw, not to be drawn. There is none of the expansiveness of his subjects in his personality; his real nature proclaims itself only in the luxuriance of his work.

CORRESPONDENCE

SURFACE TREATMENT OF OAK

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—The following recipe was given to me by the late Mr. Franklin, of Deddington, well known to many of us as a master of building work, and especially in oak:

"Dissolve 2½ lb. of soda in a pail of water; add a knob of quicklime, and let it boil. The mixture should be as thick as whitewash. Brush on to the oak, leave for 10-15 minutes, then wash off with clean water. The oak will turn blackish at first, but in two or three days will assume a pleasant silvery-grey colour or brownish grey."

I have found this method good. I quite endorse what Mr. Lloyd says about abstaining from wax at first on untreated oak.

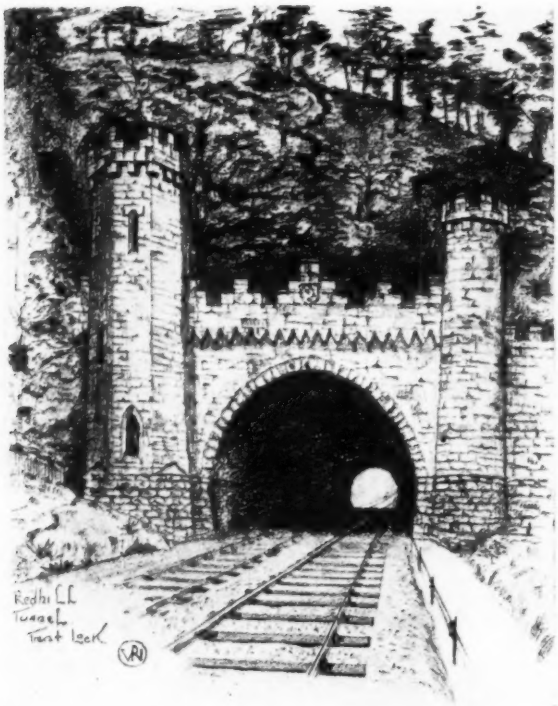
W. B. HOPKINS

RAILWAY POSTERS

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—Having read with interest in your issue for April 4, under the heading "News and Topics," your remarks upon the satisfactory artistic developments made in railway posters, I am prompted to question the advisability of producing a poster depicting the Forth Bridge, which, while admittedly being an apt example of the mathematical exactness of engineering knowledge and skill, cannot be called artistic especially when so many structures exist upon the railroads which in themselves have a natural as well as æsthetic beauty.

We all realize that bridges of architectural beauty in many instances would not lend themselves appropriately to railroad service owing to the conditions which would be imposed upon them, and I feel therefore, realizing this state, that it is somewhat a misprision to illustrate an expanse of steelwork as an advertisement of "The Beauties to be Seen" on this or that particular railway.



From the accompanying sketch by myself of Redhill tunnel on the Nottingham to Leicester route, it seems easy to imagine the beautiful picture which could have been produced by such an artist as Mr. H. G. Gawthorn.

May I tentatively suggest that structures of such colossal proportions (and with which we are all familiar) as the Forth Bridge are not required as an illustration to bring before the uninitiated the beauties of these great railroads, but some of the lesser-known and more artistic examples of British art, such as the Redhill tunnel. Again, this tunnel is surrounded by exquisite wooded scenery and has in very close proximity a most picturesque weir, upon the beauty of which the soul of man could feast.

W. R. N. OLIVER

CITY GARAGES

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—From time to time details are published of garages erected under conditions calling for the accommodation of the maximum number of cars per floor on a restricted site. Turntables are often adopted as a solution of the parking problem in such cases, and there is one lift at least which combines a rotary movement at each floor level.

One does not hear much (why?) of a system which seems extraordinarily simple and straightforward; i.e. traversers, on each floor, working in conjunction with lifts; number of lifts and traversers to suit floor area and shape of site. This system provides the greatest ease of any in parking or withdrawing cars, is speedy, and the traversers and lifts may be made to take one, two or more cars as circumstances demand. The traverser is carried in the lift. The track may be set below the adjacent floor level in the case of a new building, so that cars may run on or off the level, or the traverser sides may be ramped.

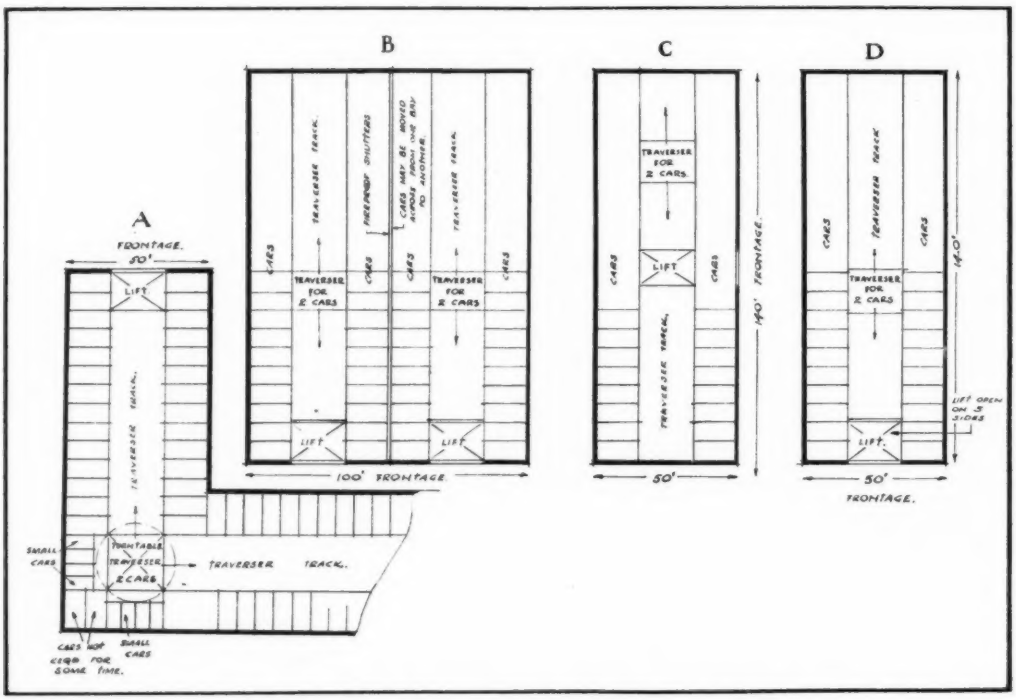
I have tried this method on several imaginary and irregularly-shaped sites, and cars may be parked and withdrawn far more easily, and a larger number accommodated, than in any other practical system. The accompanying sketches are self-explanatory.

F. CLEMES

THE GRADING OF PLYWOOD

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—During a visit to the Building Exhibition I was very much struck by the exhibit of Messrs. Venesta, Ltd., at which they are introducing their new grading policy. It is a pity, however, that this policy could not have been introduced throughout



Above, Redhill tunnel, Trent Lock. From a sketch by W. R. N. Oliver. Below, type plans of traverser garage. By F. Clemes.

the whole of the plywood industry, but I understand that this has been found to be impossible.

There is no doubt that the naming and fixing of the grades is going to be a tremendous help. It has always been a great difficulty to know what particular grade of plywood should be used for a specific purpose. In fact, no one seemed to know what grades were the best for specific purposes; but now it seems that not only are the grades named, but that each board itself will be named individually, so that any user can always be certain that he is getting what he has ordered.

There is only one snag which I can see in this policy, and that is that the boards are being marked "Venesta" and not by the grade name; but perhaps Messrs. Venesta, Ltd., intend doing this at a later date.

Those of your readers who went to the Exhibition cannot have failed to see this stand. It was an outstanding example of how a manufacturer can assist an architect. GERVASE N. LINLEY

BACHELORS AND BALUSTERS

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—The interesting and beautiful staircases, details of which were shown in your issue for April 11, were, I am prepared to wager, in view of the distance between the balusters, designed by a bachelor. PATERFAMILIAS

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

The House of Commons spent some little time in discussing the Petroleum (Amendment) Bill on the report stage. It will be remembered that, in committee, a provision was inserted enabling local authorities to make by-laws in regard to unsightly petrol-filling stations. On report, Col. Lambert Ward, a Unionist member, moved an amendment which would have the effect of requiring the local authority to bear the expense of any alteration which it might be necessary to make to one of these stations. While agreeing that it was high time that there should be some definite authority responsible for the control of these stations, Col. Ward said that the object of his amendment was to prevent injustice being done to small men who had invested in many cases their capital and credit in these stations.

Sir W. Joynson-Hicks, the Home Secretary, however, said he could not accept the amendment. The House ought to consider the rights of the public as well as the rights of individuals. Everybody had been talking about the abominable disfigurement of our country districts and places of historic interest by these petrol pumps. Lady Oxford and Mr. Guy Dawber had written to the *Times* on the subject. It was not a mere question of public utility. These stations might have been made just as useful without being such abominable disfigurements. If the amendment were accepted it would impose the expense of the alterations on the local authorities, and they could not expect the Councils all over the country to pay for the cost of remodelling buildings. On the other hand, the cost of those alterations to the individual proprietors was not likely to be heavy. The owners of these filling-stations had now had a run of two years, and they knew the kind of agitation that had been going on for some time. The Bill had been before Parliament for a long period. It would be another six months before the by-laws were made, and these individual proprietors would have another two years' grace after that. Consequently, they would be able to reap three years' profit on the filling-stations before they could be called on to make any alteration in the style of their buildings. As those people had chosen to put up erections which had spoiled the artistic beauty of the country scenery, and which had proved to be objectionable to the community, surely Parliament had a right to say that if a responsible authority like the County Council made by-laws dealing with the matter, and the Secretary of State approved them, that the County Council should have the power to order the alteration of these stations.

The amendment was negatived, and, later, the Bill was read a third time.

At question time, Mr. E. Brown asked the Minister of Health if he would state the number of local authorities, to the latest available date, who were taking advantage of the Act of 1923 to co-operate with building societies in the provision of houses?

Mr. Chamberlain said he presumed that the hon. member had in mind the power given to local authorities to guarantee the repayment of any advances, with interest thereon, made by building and other societies. Up to September 30 last, the latest date for which complete information was available, eighty-four local authorities had given such guarantee.

Sir W. Joynson-Hicks informed Mr. Brown that the number of societies under the Building Societies Acts was:

England and Wales	966
Scotland	82
Total	1,048

Captain Crookshank asked the Secretary of State for Dominion Affairs whether his attention had been called to the exhibition of Empire timber, now showing at the Imperial Institute; and, if so, whether he had taken any and, if so, what steps to bring it to the notice of traders generally in this country?

Mr. H. Williams, Parliamentary Secretary to the Board of Trade, who replied, said that all trade associations likely to be interested in this exhibition had been circularized, as well as a number of other bodies, including architects' associations and technical schools. Many of those bodies had sent representatives to visit the exhibition.

The stand of Messrs. Marb-L-Cote (Great Britain) Ltd., at the Building Exhibition, Olympia. From a sketch by J. D. M. Harvey.

LAW REPORTS

CONSTRUCTION OF "HOUSE"—IMPORTANT DECISION AS TO WATER SUPPLY

Sunderland and South Shields Water Co. v. Hilton and others. King's Bench Division. Before Mr. Justice Wright

A point of much interest was raised in a special case stated for the opinion of the Court arising out of a dispute as to the water supply to a "house" constructed to give accommodation as two "separate flats."

The special case stated the facts as follows. The Water Company were the authority for supplying water to the district in which the "house" was situated. Section 36 of the Company's Act of 1921 provided that: "The company shall not be bound to supply more than one house by means of the same communication pipe and they may if they think fit require that a separate pipe be laid from the main into each house supplied by them with water."

The premises consisted of a building of two floors, each floor having its own separate entrance and being entirely without connection with the other floor. At the back of the building was a yard, to which each floor had a separate access. In the yard were

a washhouse and other conveniences, which were used in common by the occupiers of the separate floors. On the farther side of the yard was a wall in which there was a door leading into a back street. The water main passed along the back street, and a single pipe brought water into the premises. A branch from the pipe supplied the conveniences and a tap in the yard, which was used by the occupiers of both floors. The pipe went on to the scullery on the ground floor and passed up to the scullery on the floor above.

In November 1926 the occupiers of both floors were in arrears with their water rates, and the company cut off the supply of water. On January 10, 1927, the occupier of the ground floor left the premises and the arrears then due from him had never been paid. The ground floor was then relet by the owners. On January 17 the occupier of the upper floor paid up his arrears of water rate and half the cost of cutting off and disconnecting the supply, and on January 24 the occupiers of both floors applied to the company for a supply of water, but the company refused to give it. On March 4 the company informed the owners of the premises that the water had been cut off and that the supply would not be renewed unless they installed at their own expense a separate pipe to each floor, or undertook to be responsible for the water rates instead of the occupiers.

On May 11 the occupiers made a formal demand for a supply of water, but the company refused to supply it until their demands had been complied with, contending that each floor was a separate house within the meaning of section 36, and that persons entitled under section 53 of the Waterworks Clauses Act, 1847, to demand a supply, could only do so subject to the provisions of section 36 set out above.

The company sought a declaration that the two flats were separate houses within the meaning of the section and that they were entitled to act as they had done.

Mr. W. Hedley argued the case for the company, and Mr. W. T. Monckton for the owners and occupiers.

His lordship refused the declaration asked for by the company, and entered judgment for the defendants, with costs. Proceeding, his lordship said the question here was what was the meaning of the word " house " in section 36 of the Act of 1921. The company's contention that each floor was a separate " house " because it was entirely unconnected with the other ignored the very important fact that the occupiers of the two floors had a common user of the yard and of the washhouse and conveniences in it, that common user being essential for the reasonable enjoyment of the premises. It would be impossible for the company to cut off the supply of one occupier without affecting the other, and that would be so even if there were separate supply pipes to each floor, because each occupier was entitled to use the washhouse and the conveniences. He held, therefore, that the premises were not two separate houses for the purposes of the company's Act and that the company's contentions were ill-founded. He came to the conclusion that the whole of the premises here constituted only one house for the purposes of the case, and the occupier of each floor had a right to his separate supply of water, so long as he fulfilled the conditions on which the company undertook to supply water. There must therefore be judgment for the defendants.

ANNOUNCEMENTS

Mr. Geo. H. Shipley, architect, has moved to more commodious and central offices at Vinces Chambers, 53 Victoria Square (facing Town Hall), Leeds.

Mr. H. T. Goodwin, A.R.I.B.A., has opened an office at 43 Old Queen Street, Queen Anne's Gate, Westminster, S.W.1. Telephone: Victoria 3394.

Mr. Herbert Kenchington, A.R.I.B.A., who has succeeded to the practice of Messrs. Nevinson and Newton, AA.R.I.B.A., has moved to the offices they occupied at 7 Staple Inn, Holborn, W.C.1. Telephone: Holborn 7275. Mr. Kenchington will continue to give personal attendance at his office, at 108 High Road, Wembley, each morning from 9 till 10 o'clock. Telephone: Wembley 1446.

Mr. William Cecil Jackson, of The Cringles, Woodland Avenue, Boscombe, architect, of Messrs. Jackson and Fryer, of Chesterfield, left £15,375 (net personalty £11,348).

The stand of Messrs. Arthur Sanderson and Sons, Ltd., at the Building Exhibition, Olympia.

SOCIETIES AND INSTITUTIONS

The Victory Scholarship and the Tite Prize

As a result of the preliminary competitions for the Victory Scholarship and the Tite Prize, the following have been selected to take part in the final competitions:

The Victory Scholarship

T. Murray Ashford (Birmingham School of Architecture and School of Architecture, The Architectural Association); Harold Bramhill (School of Architecture, University of Liverpool); J. W. Buchanan (School of Architecture, The Architectural Association); E. G. Gardner (School of Architecture, The Architectural Association); A. B. Grayson (School of Architecture, The Architectural Association); G. I. C. Highet (School of Architecture, The Architectural Association); G. C. Hough (School of Architecture, University of Liverpool); J. L. Hughes (School of Architecture, University of Liverpool); Allan Johnson (School of Architecture, Leeds College of Art); J. T. Lloyd (Bartlett School of Architecture, University of London); D. H. McMorran; Alec Owen (School of Architecture, University of Liverpool); E. B. O'Rorke (School of Architecture, The Architectural Association); Miss Betty Scott (School of Architecture, The Architectural Association); D. B. Solomon (School of Architecture, University of Liverpool).

The Tite Prize

C. J. Bartlett (School of Architecture, The Technical College, Cardiff); John Beloe (School of Architecture, The Architectural Association); J. N. Cowin (School of Architecture, University of Liverpool); W. Crabtree (School of Architecture, University of Liverpool); S. E. T. Cusdin (School of Architecture, The Architectural Association); H. G. Ellis (School of Architecture, University of Liverpool); P. G. Freeman (School of Architecture, University of Liverpool); E. C. Gilham (School of Architecture, University of Liverpool); Herbert Jackson (School of Architecture, Birmingham); S. W. Kelly (School of Architecture, University of Liverpool); B. Lightfoot (School of Architecture, University of Liverpool); R. G. Madeley (School of Architecture, Birmingham); J. L. Martin (School of Architecture, University of Manchester); Thomas Mitchell (School of Architecture, Glasgow); John V. Nisbet (School of Architecture, The Architectural Association); C. St. C. R. Oakes (School of Architecture, The Northern Polytechnic); P. S. Pelham-Morter (School of Architecture, University of Liverpool); J. A. Ritchie (School of Architecture, The Architectural Association); Gordon Stephenson (School of Architecture, University of Liverpool); H. W. Whiteman (School of Architecture, Birmingham); Lawrence Wright (School of Architecture, University of Liverpool); F. R. S. Yorke (School of Architecture, Birmingham).

South Wales Architects

At the ninth annual meeting of the Western Branch of the South Wales Institute of Architects, held at Swansea, Mr. J. Herbert Jones, F.R.I.B.A., of Swansea, was elected chairman for the ensuing year. He is a partner in the firm of C. S. Thomas and Herbert Jones, and has been honorary secretary of the branch since its inception nearly ten years ago. The following officers were also elected: Honorary secretary, Mr. G. R. H. Rogers, L.R.I.B.A.; honorary treasurer and librarian, Mr. Oliver S. Portsmouth, A.R.I.B.A.; honorary auditor, Mr. Ernest E. Morgan, A.R.I.B.A.; committee: Messrs. H. C. Portsmouth, F.R.I.B.A.; Charles S. Thomas, F.R.I.B.A.; C. Russell Peacock, F.R.I.B.A.; Sidney R.

The stand of the London Brick Company and Forders Ltd., at the Building Exhibition, Olympia.

Crocker, L.R.I.B.A.; Edwin Smith, A.R.I.B.A. (Neath); corresponding member: Captain D. F. Ingleton, L.R.I.B.A. (Haverfordwest); students' representatives: Messrs. C. W. Geddes and B. W. Ellis, P.A.S.I. The following officers were elected to serve on the Council of the South Wales Institute of Architects: Messrs. J. Herbert Jones, Oliver S. Portsmouth, G. R. H. Rogers, Sidney R. Crocker, C. Russell Peacock, Edwin Smith, D. F. Ingleton; and as associates' representative, C. W. Geddes. The president of the South Wales Institute of Architects then presented prizes to the students who were successful in the annual competition for measured drawings. The prize winners were: Messrs. W. Gwyther Thomas, Haverfordwest; Elwyn J. Rees, Pontardawe; and D. Eric Stephens, Swansea.

MR. WALTER TAPPER'S GAS-FLUE SUGGESTIONS

Mr. Walter Tapper, A.R.A., P.R.I.B.A., has prepared for the Gas Light and Coke Company a series of five detailed drawings showing suggestions for the satisfactory construction of gas flues. These drawings, together with Mr. Tapper's written suggestions on the subject, have been reproduced in a new booklet just issued by the company under the title *Gas-Flue Construction*. This announcement was made by Mr. Henry Woodall, M.INST.C.E., the deputy governor, at a luncheon given by the governor and directors of the company at Horseferry Road, Westminster. In paying a tribute to the assistance which Mr. Tapper had rendered to the company, Mr. Woodall laid stress upon the importance of the gas flues being properly designed and constructed from fireplace to terminal. That was the point which the firm wished to make clear in their exhibit at the Building Exhibition at Olympia. He also issued a warning against the omission of a baffle and flue in the installation of geysers. He pointed out that every geyser must consume a considerable amount of gas in a short time, and was generally fitted in a relatively small bathroom. For these reasons, he said, it was absolutely imperative that a properly constructed baffle and flue, having a direct and efficient outlet into the open air, should be fitted in every case.

THE NEW LLOYD'S

Following are the names of the contractors and sub-contractors for the new Lloyd's building, illustrated on pages 623 to 630: General contractors, John Mowlem & Co., Ltd. Sub-contractors: John Bolding and Sons, Ltd., sanitary fittings; Joseph Chater and Sons, Ltd., mirrors; Cope & Co., wall and floor tiling; Crittall Manufacturing Co., metal casements; F. De Jong & Co., Ltd., fibrous plaster; Dewrance & Co., lavatory valves; Dorman Long & Co., constructional steelwork; T. and W. Farmiloe, Ltd., glazing; Jas. Gibbons, Ltd., ironmongery, steel cabinets, etc.; Gubb and Winn, Ltd., roof railings and balconies; J. W. Gray and Son, lightning conductors; Matthew Hall & Co., Ltd., plumbing and sanitary work; Haughton Bros., wood carving; Haywards Ltd., pavement lights; W. H. Heywood & Co., Ltd., skylights, lantern lights, and dome; Higgins and Griffiths, Ltd., electric light fittings and telephones; Hollis Bros., Ltd., and Joseph Ebner, wood-block floors; Lawford & Co., asphalt; Le Grand, Sutcliffe and Gell, artesian wells; Leyland and Birmingham Rubber Co., india-rubber floors; Wm. Mallinson and Sons, Ltd., veneers; G. Matthews, Ltd., stoves; Herbert Morris, Ltd., crane and overhead runway; Mumford, Bailey and Preston, Ltd., heating, ventilation, gas services, and kitchen equipment; F. A. Norris & Co., Ltd., iron staircases and ladders; Geo. Rome & Co. (London), Ltd., plastering; William Smith, ornamental ironwork and special glazing; Smith, Major and Stevens, Ltd., lifts; J. P. White and Sons, Ltd., flush hospital doors, lift cages, furniture, and fittings; J. Whitehead and Sons, Ltd., carving Portland stone, marble work, and terrazzo pavings; scaffolding by Scaffolding, Ltd. Messrs. B. Goodman, Ltd., carried out the whole of the demolition and excavating for the rebuilding. The demolition contract was executed three weeks under time, and approximately 3,000,000 bricks, 40,000 cube yards of hardcore, and 38,000 cube yards of excavating were dealt with.

The Stand of The Sussex Brick Co., at the Building Exhibition at Olympia.

OBITUARY

Mr. George Dale Oliver

We regret to record the death of Mr. George Dale Oliver, F.R.I.B.A., architect, of Carlisle, at the age of seventy-seven. Mr. Oliver was the son of Mr. Thomas Oliver, a distinguished architect of Newcastle, who was president of the Northern Architectural Association for two periods. Mr. George Dale Oliver was a pupil in London of George Street, R.A., and did work for him at the new Law Courts in London, where he met his life-long friend, and afterwards his partner, the late Mr. Edward J. Dodgshun. After his London experience he undertook work at Birkenhead, and went to Carlisle about fifty years ago as assistant to Mr. Crosby Hetherington, with whom he subsequently went into partnership. After the death of Mr. Hetherington, Mr. Oliver and Mr. Dodgshun, who was in practice at Leeds, arranged to join interests, and when Mr. Dodgshun returned to Leeds to take charge of that branch of the firm's work, Mr. H. E. Ayris came to the Carlisle office as manager. On Mr. Oliver's retirement in 1919, Mr. Ayris succeeded to the practice. Mr. Oliver, during his early years in Carlisle, designed and superintended the erection of some important works in the city and neighbourhood, especially in connection with churches, chapels, and schools. Mr. Oliver was the first president of the Cumberland branch of the Northern Architectural Association, and was, up to the time of his death, one of their representatives on the Allied Societies' Conference.

Mr. J. T. Cackett

The death took place at Newcastle of Mr. James Thoburn Cackett, of the firm of Cackett and Burns Dick, architects and surveyors. He was sixty-seven years of age. Mr. Cackett was one of a band of men who were all notable in the 'nineties of last century as experts in the valuation of land and buildings. As an architect he figured prominently for over forty years and, with his firm, had to his credit many important buildings locally and in other districts, such as the Laing Art Gallery, the Northern Conservative and Unionist Club, Armstrong College Union Building, and Cross House. Perhaps the largest and most important undertaking for which he acted professionally was the architectural and engineering layout of the Armstrong Naval Yard, including the construction of the various shipbuilding berths for the famous battleships turned out from Walker. During the war Mr. Cackett was responsible for the design and construction of the finest airship works in the country, viz. those at Cardington, Bedford, now in the hands of the Government, where the largest airships are constructed, and extensive seaplane works at Rochester for Messrs. Short Brothers.

TRADE NOTES

In the new British Embassy at Washington, designed by Sir Edwin Lutyens, Ruud heaters are installed to provide a constant supply of hot water throughout the building.

A spectacular feature in connection with Carliol House, the new home of the Newcastle Electric Supply Company, is its floodlighting. This is the first occasion on which floodlighting of the exterior of a building in the North of England has been attempted on such a large scale, and its effect can be seen at a distance of five miles from the city. The idea of floodlighting the building originated with the engineers of the Newcastle Electric Supply Company, and the planning of the scheme was carried out by them in conjunction with the lighting engineers of the British Thomson-Houston Company, who supplied the necessary equipment. The work of installation was carried out by Gray Bros. (Newcastle), Ltd., under the supervision of the supply company's engineers. The floodlighting equipment consists of a battery of twelve B.T.H. floodlight projectors fitted with 1,000-watt Mazda lamps.

Messrs. E. Pollard & Co., Ltd., of St. John Street, London, E.C.1, have just issued a new catalogue to illustrate the mechanical principles and constructional details and the many applications of the Rolador steel shutter. The Rolador has two features which stand out pre-eminently: 1: An entirely new type of lath of double thickness; 2: the special method of perfectly balancing the weight. The Rolador shutter should be used wherever special protection is necessary, and in every case its special features should prove of estimable value. In the catalogue are full details of the construction of the entire shutter, fully illustrating its very many improvements; also there is contained much general information of service. All parts of the Rolador are thoroughly tested before leaving the works, and the firm are always ready to send erecting engineers to any part of the country to superintend erection. A section has also been included in the book for wood lath shutters and blinds, in consideration of their allied nature and interest. A copy of the new catalogue can be obtained from Messrs. Pollard & Co.

The following advice on the prevention of condensation or sweating on interior walls is given in the *Handbook of Cement Waterproofing* just published by Messrs. Kerner-Greenwood & Co., Ltd.: "To prevent condensation or sweating on interior walls, that are finished with cement, use a wood trowel (float). This gives a granular surface. It is, however, much better to skim over the cement with a 3: 6: 1 mixture of plasterer's setting stuff as given below. The following specification is recommended for extreme conditions: Rough render the walls, using cement and sand, with the addition of 'Pudlo' brand waterproofing powder and mixed to the specification recommended for the situation. Thoroughly scratch to form a key. Follow with the second coat as soon as the first coat is hard enough to hold it. Scratch as before, then, if no more than two coats of waterproofed cement are necessary, leave it to harden and give a coat of ordinary cow-haired plastering mortar ('coarse stuff,' usually about 3 of sand to 1 of lime), to which a little plaster of paris is added at the time of using. (The plaster of paris hastens the setting and assists the adhesion.) This coat is left scored from the wood nail float in the usual manner to receive the final coat of plasterer's skimming. The final skimming coat given below should be applied when the lime mortar floating coat is hard enough to receive it. It may be faced either with the wood trowel (float), or the steel trowel, etc., to produce a granular, stippled, or smooth surface, according to the finish desired. The best finishing coat to prevent condensation is plasterer's skimming or gauged 'setting stuff,' also known as 'Limed Plaster.' It is the usual mixture of lime putty, sand, and plaster of paris. The proportion depends on the quality or fatness of the lime, which varies in different districts, but after exhaustive experiments we find the following mixture is the most absorptive of condensation. It gives a good finish, sets well, and works quickly: 3 parts of lime putty run from Buxton or other pure chalk lime; 6 parts of washed sand; 1 part of plaster of paris. (This to be added at the time of using.) Oil paint should not be applied to lime plastering (which, unlike Keen's, produces a soft face), until the alkali has become inert—it usually requires some months. If such walls must be decorated, use a reliable water paint or distemper which will form a good ground for a later application of oil colour. Painted surfaces are especially liable to condensation." The handbook from which this advice is extracted contains specifications and directions for the prevention or remedy of all kinds of structural dampness and flooding by the use of Portland cement and 'Pudlo' brand cement waterproofing powder. In compiling the specifications regard has been given to obtain the greatest economy consistent with successful results. The experience of waterproofing with 'Pudlo' brand powder that the firm are now able to offer extends over a period approaching a quarter of a century in duration. The specifications cover every type of work that is likely to occur in everyday practice.

A new departure in the patching of wood-block carriageways with concrete was first undertaken some six months ago by Mr. Armand D. Ward, A.M.INST.C.E., surveyor to the Woodford U.D.C., which has, it is claimed, proved eminently satisfactory. Portions of the main Epping Road, carrying some 8,000 tons of traffic daily, were repaired in the following manner. All the wood blocks over the bad areas were taken up and the old concrete base removed so that a total depth of 6 in. was given. This space was then filled with concrete laid in two layers, the bottom being mixed in the proportion of 4:2:1, and the top 2 in. composed of 3 parts granite chippings, 1½ parts sand, and 1 part cement. In order that the patches would be sufficiently strong to withstand traffic at the earliest possible time, Ferrocrete rapid-hardening Portland cement was used. The surveyor states that repairing by this method is cheap.

NEW INVENTIONS

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

LATEST PATENT APPLICATIONS

8058. Craig, E. N. Building elements, &c. March 16.
7752. Evans Bros. (Concrete), Ltd. Floors, roads, &c. March 13.
7584. Godenir, A. Reinforced concrete, &c., buildings. March 12.
7991. Kragt, W. J. van der. Constructional blocks. March 15.
7715. Makins, W. B. Preservation of wood, &c. March 13.

SPECIFICATIONS PUBLISHED

286772. Hadfield, G. H. Brick-making.
286833. Goodall, C. Apparatus for drying, dyeing, fire-proofing or otherwise treating timber.
286886. Gardiner, H. C. Preservation of timber.
286892. Gunn, G. Preserving wood, timber, and other materials.
286963. Riddlesworth, J. Windows.

ABSTRACT PUBLISHED

284503. Hoffman, E., 149 Erlachgasse, Vienna. Reinforced concrete.

THE WEEK'S BUILDING NEWS

Plans passed by the PRESTWICH U.D.C.: Showroom, store, cabinet-making and joinery workshops, Bury Old Road, for Messrs. Jones and Rawlinson; additions, offices, Warwick Street, for Prestwich Co-operative Society; twelve garages, Mowbray Avenue, for Prestwich Co-operative Society; additions, soap works, Kersal Vale, for Messrs. Cussons, Sons & Co., Ltd.; new premises, Bury New Road, for Prestwich Garage, Ltd.

*

The PRESTWICH U.D.C. is to grant another fifty housing subsidies.

*

The PRESTWICH U.D.C. has passed plans submitted by the Rev. Father Browne for the erection of a Roman Catholic Church in Fairfax Road, Prestwich.

*

The vicar and churchwardens are to extend St. Hilda's Church, PRESTWICH.

*

Plans passed by the LEEDS Corporation: Ten houses, Wensley Road, Chapel-Allerton, for Mr. William H. Hylton; two houses, Butt Lane, Farnley, for Mr. Eli Marwood; two houses, Water Lane, Farnley, for Mr. Thomas Thompson; four houses, Stanmore Crescent, Burley, for Mr. Joseph Greenwood; ten houses, Wensley Road, Chapel-Allerton, for Mr. Mark Bristow; two houses, Greenhill Place, Bramley, for Messrs. Arthur Lambert and Son, Ltd.; two houses, Hough Grove, Hough Lane, Bramley, for Mr. William Bentley; two houses, Copgrove Road and Hetton Road, Harehills, for Mr. William Corker; four houses, Gipton Wood Place, Harehills, for Mr. Harry Hick; ten houses, Stainbeck Lane, for Mr. Horace Broadbent; two houses, Stainbeck Road, for Messrs. Hudson and Crossfield; two houses, Stainbeck Road, for Mr. George Stocks; four houses, Park Spring Gardens, Bramley, for Messrs. A. Gibbs and Sons; four houses, Parkland Crescent, off Stonegate Road, for Mr. Joseph Carlton; sixteen houses, Rookwood Avenue, York Road, for Mr. William Jowitt; two houses, Newport View, Headingly, for Mr. George Wheatley; two houses, Stanmore Crescent and Stanmore Terrace, for Mr. Joseph Greenwood; twenty-two houses, Burley Hill and Woodside View, for Messrs. Walter Ripley and Sons, Ltd.; two houses, Harrison Crescent, York Road, for Mr. Wilfred Davison; two houses, Piece Wood Road, Tinshill, for Mr. Samuel Drake; two houses, Vesper Walk, Kirkstall, for Mr. T. and W. Broderick; two houses, Pudsey Road, Bramley, for Messrs. C. Richardson and C. W. Musgrave; two houses, Skelton Road, White Horse estate, York Road, for Mr. Albert Cryer; two houses, Butt Lane, Farnley, for Mr. Eli Marwood.

The LEEDS Corporation is considering the advisability of acquiring a site on the Compton Road estate for the erection thereon of baths, etc.

*

The BRADFORD Education Committee has interviewed representatives of the governors of the Bradford Grammar School upon their application for a grant towards the cost of the erection of a new school on the Clock House estate.

*

The BRADFORD Education Committee has agreed to plans of the city architect for the sites on the Swain House estate for the erection of a secondary school and an elementary school.

*

The BRADFORD Education Committee has asked the city architect to prepare a rough draft plan of proposed schools to be erected at Thornton.

*

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

*

The CHESTERFIELD Corporation has decided to erect another thirty-four houses on the housing estates.

*

Plans passed by the WAKEFIELD Corporation: Two houses, Horbury Road, for Mr. H. Dobson; additions, workshop, Denby Dale Road, for Mr. W. Hill; three houses, Horbury Road, for Mr. C. M. Wainwright; additions, warehouse, Southgate, for Messrs. W. Wrigley and Son; additions, Albion Inn, Stanley Road, for Smith's Old Brewery (Tadcaster), Ltd.; offices, Stennard Isle, for British Jeffery Diamond, Ltd.; two shops, Horbury Road, for Mr. W. Sturdy.

*

The WAKEFIELD Corporation housing architect has prepared sketch plans for the proposed new elementary school at Snapethorpe and alterations at premises at Thornes House for its conversion into a gymnasium.

*

Plans passed by the HAMPTON U.D.C.: Eight flats, Holly Bush Lane, for Try Concrete Slab and Partition Co., Ltd.; bakery extension, Station Road, for Mr. E. J. Clayton; additions to works, Oldfield Road, for Messrs. Hall and Hall.

*

The OSSETT Corporation has purchased land on the Swithenbank estate for another housing scheme.

*

Messrs. Andrews and Andrews have prepared plans for the development of the Radipole Spa building estate, WEYMOUTH.

*

The WEYMOUTH Corporation has selected a site on the Blackwater Embankment for the erection of a welfare centre.

The STALYBRIDGE Corporation has decided to take steps to secure the erection of cheaper type houses on a site at Hevrod.

*

Plans passed by the STALYBRIDGE Corporation: Semi-detached houses, Astley Road, for Messrs. Allen and Sims; premises in Chapel Street, for British Petroleum Co., Ltd.; alterations, "Hare and Hounds," Stamford Street, for Messrs. Frederic Robinson, Ltd.

*

The STALYBRIDGE Corporation has prepared amended plans for improvements at the borough police headquarters, and tenders are now to be invited.

*

Plans passed by the CARLISLE Corporation: Additions, prison site, Borough Street, for Mr. J. Forster, on behalf of the Cumberland County Council; extensions, Albion Street, for Mr. S. W. B. Jack, architect; offices and stores, Blake Street, for Mr. H. E. Scarborough, architect.

*

The HULL Education Committee has agreed to the layout of the education director for the site of the proposed secondary and elementary schools at West Hull.

*

The HULL Education Committee has approved plans for the erection of an elementary school for 920 scholars at Belgrave Drive.

*

The SHEFFIELD Corporation has decided to grant a further 150 housing subsidies.

*

At a meeting of the HULL Corporation Libraries Committee the city architect submitted plans of the proposed Baker Street elevation of the central library extension, and these were approved.

*

The OLDHAM Corporation is to grant a further 150 housing subsidies.

*

The OLDHAM Corporation has asked the cleansing superintendent to obtain designs and estimates for the reconstruction of the whole of the destructor works at Robin Hill, and also for the provision of screening and salvage plant.

*

The OLDHAM Education Committee has now selected a site on the Limeside housing estate for the erection of an elementary school.

*

The WATFORD Corporation Improvements Committee has considered alternative layouts of the market, but proposes to keep to the original plan with the exception that certain stalls shall be made removable so as to facilitate the cartage of goods to the market.

The borough engineer of WATFORD is to report as to a further housing scheme in Eastbury Road, the Ministry of Health not favouring the erection of flats in the district.

*

The WATFORD Corporation has passed plans submitted by the Purple Picture Palace (Watford), Ltd., for the erection of a cinema and shops at The Parade.

*

Plans passed by the WATFORD Corporation: Riding-school, Clarendon Road, for Mr. A. Masser; additions, Brixton Road, for Watford Co-operative Society; Church Hall, Leggats Way, for Vicar of Christ Church; four houses, St. Alban's Road, for Messrs. William King and Sons; four houses, The Coppice, for Mr. W. King; additions, Rose and Crown Hotel, High Street, for Messrs. Bass & Co.; fifty-one houses, Leggats Rise estate, for Messrs. Kempster and Williams; four houses, The Coppice, for Mr. G. Miles; additions, High Street, for Messrs. C. H. Peacock, Ltd.; offices, Watford Fields, for Benskins Watford Brewery Co.; four houses, Hempstead Road, for Mr. L. Raymond; pavilion, Cassio Road, for West Herts Tennis Club; factory, Cherry Tree Road, for Messrs. Kempster and Williams.

*

The MARKET HARBOROUGH U.D.C. is to grant another twenty housing subsidies.

*

Plans passed by MARKET HARBOROUGH U.D.C.: Extensions, club, High Street, for United Trades Club Committee; factory extensions, Caxton Street, for Mr. Walter Haddon; shop and house, Church Street, for exors. of H. Wood; four houses, Hill Crescent Avenue, for Messrs. Jarman and Sons; extensions, Hill Crest Lodge, for Messrs. Jarman and Sons.

*

The STRETFORD U.D.C. Electricity Committee has decided to erect a sub-station at Urmston.

*

Plans passed by STRETFORD U.D.C.: New roads on de Trafford estates, for Trustees; fifteen houses, Kendal Road, for Mr. J. Maunders; ten houses, Low Moss Lane, for Messrs. Howard and Waring; showroom, Trafford Park, for Ford Motor Co. (England), Ltd.; extensions, wire-drawing-room, Warwick Road, for Messrs. W. T. Golver & Co., Ltd.

*

The STRETFORD U.D.C. is to grant another 100 housing subsidies.

*

The STRETFORD U.D.C. has obtained sanction for a loan of £12,750 for the erection of baths at Trafford Park.

*

The Essex Education Committee has passed plans for the provision of additional laboratory accommodation at BRAINTREE County High School.

The Essex Education Committee has decided to erect a hostel at GRAYS Palmer's Endowed School for Girls, to accommodate thirty-six boarders and include head mistress's residence.

*

The CHESTERFIELD Corporation has decided upon the construction of a railway siding at the highways depot.

*

Plans passed by the CHESTERFIELD Corporation: Five almshouses, Hasland, for Mr. B. C. Lucas; workshop and warehouse, Silkmill Yard, for Mr. W. Yeomans; two houses, Springfield Avenue, for Mr. A. Clarke; two houses, Storrs Road, for Mr. G. Webber; two houses, Barkers Lane, for Mr. F. Wilkins; two houses, off Newbold Road, for Mr. A. Needham; estate layout, off Old Road, for Mr. William Rhodes; bus station, Tontine Road, for United Automobile Services, Ltd.; two houses, Storforth Lane, for Messrs. Heath & Co.; alterations and additions, Primitive Methodist Chapel, Stonegravels, for Trustees; additions, premises in West Barns and in Chatsworth Road, for Chesterfield Co-operative Society, Ltd.

*

The SMETHWICK Corporation has decided to lay out the Old Chapel estate at a cost of £45,000.

*

Plans passed by the BOURNEMOUTH Corporation: Alterations and additions, South Western Hotel, Holdenhurst Road, for Messrs. Eldridge Pope & Co., Ltd.; alterations, Wimborne Road, for Messrs. Lloyds Bank, Ltd.; alterations and additions, "Grovely Manor School," Beechwood Avenue, for Miss A. C. Gaskins; alterations, *Echo* office, Albert Road, for the directors of Southern Newspapers, Ltd.; three stores, 48 Avon Road, for Mr. H. T. Hobern; additions, Lee Motor Works, Wimborne Road, for Mr. J. V. Lee; alterations, Hampshire House, Bourne Avenue, for Messrs. Rumsby and Rodd; four houses, Morden Road, for Mr. F. J. Marks; eight houses, Norton Road and Jameson Road, for Mr. H. Wilmott; four houses, Ashton Road, for Messrs. G. J. Luckhan and Son; garage, bakehouse, and stores, Portman Terrace, Fisherman's Walk, for Mr. E. Osman Brown; seven houses, Clifton Road and Belle Vue Road, for Messrs. A. F. Clarke and Sons; flats, Kimberley Road, for Mr. E. G. Stay; additions, 94 Kimberly Road, for Mr. W. A. Williams.

*

The borough engineer of BOURNEMOUTH has prepared plans for the layout of the Charminster Hill estate.

*

The WAKEFIELD Corporation Housing Committee has agreed to lease sites to the Congregational Union for a Congregational church on the Lupset estate, and to the Primitive Methodist Church on the Snapethorpe estate fronting Dewsbury Road, for the purpose of erecting a church.

The WAKEFIELD Corporation has further considered the question of the provision of a new joint police and fire station, and had particulars of several available sites in the city owned by the Corporation. The pig market site is favoured for the purposes, and the city surveyor is to prepare plans for the laying out of the site.

*

The OXFORD Corporation has passed plans submitted by the Oxford Electric Company, Ltd., for the erection of extensions at the electricity works in Arthur Street, Osney.

*

The following plans have been submitted to the ILFORD Corporation: Greyhound racing track, Ilford Lane, for Messrs. Hobson and Withington; public-house, Longbridge Road, for Mr. T. F. Ingram.

*

The city architect of MANCHESTER, in consultation with the medical officer of health, has prepared a plan of the new tuberculosis offices and dispensary which it is proposed to erect. The cost is estimated at £24,000.

*

The LEEDS Education Committee has received sanction to borrow £15,211 for the erection of an elementary school in Bentley Lane, Meanwood.

*

Plans passed by the SWANSEA Corporation: Two houses, Grenfell Park estate, for Messrs. Jones Bros.; rifle range, Sketty Park Drive, for Mr. C. G. P. Haines; paint stores, Sway Road, Morriston, for Mr. T. Philips; additions to institute, Mumbles Road, Blackpill, for Mr. Hearn; Sunday school, Trewyddfa Road, for Mr. W. T. Lloyd; waiting-room, Port Tennant Road, for the Swansea Improvements and Tramways Company; clubroom, Cockett Road, for Mr. Daniel Jones; Mission Church, Mayhill, for the Vicar of St. Jude's, Mount Pleasant; Gospel Hall, Swansea Road, Dunvant, for the Christian Brethren; two houses, Hazel Road, for Messrs. D. J. Price and Son; six houses, Moorside Road, for Mr. G. Symons; sub-stations, Gower Road and Casell Road, for the Electricity Committee; twelve houses, Graiglwyd Road, for Messrs. T. and G. Spragg; four houses, Druslyn Road, West Cross, for Mr. S. W. Davie; two houses, Pentregethin Road, for Mr. H. E. Thomas; workshop, Bellvue Street, for Mr. Wm. Brown.

*

The HULL Corporation is seeking sanction to grant a further 100 housing subsidies.

*

The KENSINGTON Housing Trust, Ltd., is about to carry out the clearance of a site comprising Bloomfields Yard and part of Mary Place, and the erection of working-class dwellings thereon.

*

The FINCHLEY U.D.C. is to borrow £50,000 for further housing advances.

RATES OF WAGES

			I	II
			s. d.	s. d.
A	ABERDARE	S. Wales & M.	1 7½	1 2¾
A₁	Abergavenny	S. Wales & M.	1 7	1 2½
B	Abingdon ..	S. Counties	1 5½	1 1½
A	Accrington	N.W. Counties	1 7½	1 2¾
A₂	Addlestone	S. Counties	1 6	1 1½
A	Adlington ..	N.W. Counties	1 7½	1 2¾
A	Airdrie ..	Scotland	*1 7½	1 2¾
O₁	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7½	1 2¾
B₂	Appleby ..	N.W. Counties	1 4	1 0
A	Ashton-under-Lyne	N.W. Counties	1 7½	1 2¾
A₂	Atherstone	Mid. Counties	1 6	1 1½
B₂	Aylesbury ..	S. Counties	1 4	1 0
B₂	BANBURY	S. Counties	1 4	1 0
B₂	Bangor ..	N.W. Counties	1 4½	1 0½
A	BarnardCastle	N.E. Coast	1 7½	1 2¾
A	Barnsley ..	Yorkshire	1 7½	1 2¾
B₁	Barnstaple	S.W. Counties	1 5	1 0¾
A	Barrow ..	N.W. Counties	1 7½	1 2¾
A	Barry ..	S. Wales & M.	1 7½	1 2¾
B₂	Basingstoke	S.W. Counties	1 4	1 0
B	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7½	1 2¾
B	Bedford ..	E. Counties	1 5½	1 1½
A₂	Berwick-on-Tweed	N.E. Coast	1 6½	1 2
A₂	Bewdley ..	Mid. Counties	1 6½	1 2
B₂	Bicester ..	Mid. Counties	1 4	1 0
A	Birkenhead	N.W. Counties	*1 7½	1 2¾
A	Birmingham	Mid. Counties	1 7½	1 2¾
A	Bishop Auckland	N.E. Coast	1 7½	1 2¾
A	Blackburn	N.W. Counties	1 7½	1 2¾
A	Blackpool	N.W. Counties	1 7½	1 2¾
A	Blyth ..	N.E. Coast	1 7½	1 2¾
B₂	Bognor ..	S. Counties	1 4	1 0
A	Bolton ..	N.W. Counties	1 7½	1 2¾
A₂	Boston ..	Mid. Counties	1 6	1 1½
B₁	Bournemouth	S. Counties	1 5	1 0¾
B₂	Bovey Tracey	S.W. Counties	1 4½	1 0½
A	Bradford ..	Yorkshire	1 7½	1 2¾
A₂	Brentwood	E. Counties	1 6½	1 2
A	Bridgend ..	S. Wales & M.	1 7½	1 2¾
B₂	Bridgwater	S.W. Counties	1 4½	1 0½
A₁	Bridlington	Yorkshire	1 7	1 2¼
A	Brighouse	Yorkshire	1 7½	1 2¾
B₁	Brighton ..	S. Counties	1 5	1 0¾
A	Bristol ..	S.W. Counties	1 7½	1 2¾
B₂	Brixham ..	S.W. Counties	1 4	1 0
A₂	Bromsgrove	Mid. Counties	1 6½	1 2
C	Bromyard ..	Mid. Counties	1 3½	11½
A	Burnley ..	N.W. Counties	1 7½	1 2¾
A	Bursiem ..	Mid. Counties	1 7½	1 2¾
A₂	Burton-on-Trent	Mid. Counties	1 6½	1 2
A	Bury ..	N.W. Counties	1 7½	1 2¾
A₁	Buxton ..	N.W. Counties	1 7	1 2¼
B	CAMBRIDGE	E. Counties	1 5½	1 1½
B₂	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7½	1 2¾
A	Carlisle ..	N.W. Counties	1 7½	1 2¾
B	Carmarthen	S. Wales & M.	1 5½	1 1½
B₂	Carnarvon	N.W. Counties	1 4½	1 0½
A₁	Carnforth ..	N.W. Counties	1 7	1 2¼
A	Castleford	Yorkshire	1 7½	1 2¾
B₁	Chatham ..	S. Counties	1 5	1 0¾
B₁	Chelmsford	E. Counties	1 5	1 0¾
A₂	Cheltenham	S.W. Counties	1 6	1 1½
A	Chester ..	N.W. Counties	1 7½	1 2¾
A	Chesterfield	Mid. Counties	*1 7½	1 2¾
B₂	Chichester	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7½	1 2¾
B₂	Cirencester	S. Counties	1 4½	1 0½
A	Clitheroe ..	N.W. Counties	1 7½	1 2¾
A	Clydebank	Scotland	1 7½	1 2¾
A	Coalville ..	Mid. Counties	1 7½	1 2¾
B₁	Colchester ..	E. Counties	1 5	1 0¾
A	Colne ..	N.W. Counties	1 7½	1 2¾
A₂	Colwyn Bay	N.W. Counties	1 6	1 1½
A	Consett ..	N.E. Coast	1 7½	1 2¾
A₂	Conway ..	N.W. Counties	1 6	1 1½
A	Coventry ..	Mid. Counties	1 7½	1 2¾
A₂	Crewe ..	N.W. Counties	1 6	1 1½
A₂	Cumberland	.....	1 6	1 1½
A	DARLINGTON	N.E. Coast	1 7½	1 2¾
A	Darwen ..	N.W. Counties	1 7½	1 2¾
B₂	Deal ..	S. Counties	1 4	1 0
A₂	Denbigh ..	N.W. Counties	1 6	1 1½
A	Derby ..	Mid. Counties	1 7½	1 2¾
A	Dewsbury ..	Yorkshire	1 7½	1 2¾
B	Didcot ..	S. Counties	1 5½	1 1½
A	Doncaster	Yorkshire	1 7½	1 2¾
C₁	Dorchester	S.W. Counties	1 3	11½
A₂	Driffield ..	Yorks	1 6	1 1½
A₂	Droitwich ..	Mid. Counties	1 6	1 1½
A₁	Dudley ..	Mid. Counties	1 7	1 2¼
A	Dundee ..	Scotland	1 7½	1 2¾
A	Durham ..	N.E. Coast	1 7½	1 2¾
B₁	EASTBOURNE	S. Counties	1 5	1 0¾
A	Ebbw Vale	S. Wales & M.	1 7½	1 2¾
A	Edinburgh	Scotland	1 7½	1 2¾
A	E. Glamorganshire & Monmouthshire	S. Wales & M.	1 7½	1 2¾
B	Exeter ..	S.W. Counties	*1 5½	1 1½
B₂	Exmouth ..	S.W. Counties	1 4½	1 0½
B	FELIXSTOWE	E. Counties	1 5½	1 1½
A₂	Filey ..	Yorks	1 6	1 1½
A	Fleetwood ..	N.W. Counties	1 7½	1 2¾
B₂	Folkestone	S. Counties	1 4½	1 0½
A	Frodsham ..	N.W. Counties	1 7½	1 2¾
B₂	Frome ..	S.W. Counties	1 4	1 0
A	GATESHEAD	N.E. Coast	1 7½	1 2¾
B₁	Gillingham	S. Counties	1 5	1 0¾
A₂	Gloucester	S.W. Counties	1 6	1 1½
A₂	Goole ..	Yorkshire	1 6½	1 2
B	Gosport ..	S. Counties	1 5½	1 1½
A₂	Grantham	Mid. Counties	1 6	1 1½
A₁	Gravesend	S. Counties	1 7	1 2¼
A	Greenock ..	Scotland	*1 7½	1 2¾
A	Grimsby ..	Yorkshire	1 7½	1 2¾
B₁	Guildford ..	S. Counties	1 5	1 0¾
A	HALIFAX ..	Yorkshire	1 7½	1 2¾
A	Hanley ..	Mid. Counties	1 7½	1 2¾
A	Harrogate	Yorkshire	1 7½	1 2¾
A	Hartlepools	N.E. Coast	1 7½	1 2¾
B₂	Harwich ..	E. Counties	1 4½	1 0½
B₂	Hastings ..	S. Counties	1 4	1 0
B₁	Hatfield ..	S. Counties	1 5	1 0¾
B	Hereford ..	S. W. Counties	1 5½	1 1½
B	Hertford ..	E. Counties	1 5½	1 1½
A₁	Heysham ..	N.W. Counties	1 7	1 2¼
A	Howden ..	N.E. Coast	1 7½	1 2¾
A	Huddersfield	Yorkshire	1 7½	1 2¾
A	Hull ..	Yorkshire	1 7½	1 2¾

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

			I	II
			s. d.	s. d.
A	ILKLEY ..	Yorkshire	1 7½	1 2¾
A	Immingham	Mid. Counties	1 7½	1 2¾
B	Ipswich ..	E. Counties	1 5½	1 1½
C₁	Isle of Wight	S. Counties	1 3	11½
A	JARROW ..	N.E. Coast	1 7½	1 2¾
A	KEIGHLEY	Yorkshire	1 7½	1 2¾
B₁	Kendal ..	N.W. Counties	1 5	1 0¾
B₁	Keswick ..	N.W. Counties	1 5	1 0¾
A₂	Kettering ..	Mid. Counties	1 6	1 1½
A₂	Kidderminster	Mid. Counties	1 6½	1 2
B₂	King's Lynn	E. Counties	1 4½	1 0½
A	LANCASTER	N.W. Counties	1 7½	1 2¾
A₂	Leamington	Mid. Counties	1 6½	1 2
A	Leeds ..	Yorkshire	1 7½	1 2¾
A	Leek ..	Mid. Counties	1 7½	1 2¾
A	Leicester ..	Mid. Counties	1 7½	1 2¾
A	Leigh ..	N.W. Counties	1 7½	1 2¾
B₂	Lewes ..	S. Counties	1 4	1 0
A₂	Lichfield ..	Mid. Counties	1 6	1 1½
A	Lincoln ..	Mid. Counties	1 7½	1 2¾
A	Liverpool ..	N.W. Counties	*1 10	1 4½
A₂	Llandudno	N.W. Counties	1 6	1 1½
A	Llanelly ..	S. Wales & M.	1 7½	1 2¾
	London (12 miles radius)		1 9	1 4
	Do. (12-15 miles radius)		1 8½	1 3½
A	Long Eaton	Mid. Counties	1 7½	1 2¾
A	Loughborough	Mid. Counties	1 7½	1 2¾
B	Luton ..	E. Counties	1 5½	1 1½
A	Lytham ..	N.W. Counties	1 7½	1 2¾
A₁	MACCLESFIELD	N.W. Counties	1 7	1 2¼
B	Maidstone	S. Counties	1 5½	1 1½
A₂	Malvern ..	Mid. Counties	1 6	1 1½
A	Manchester	N.W. Counties	1 7½	1 2¾
A	Mansfield ..	Mid. Counties	1 7½	1 2¾
B₂	Margate ..	S. Counties	1 4	1 0
A₂	Matlock ..	Mid. Counties	1 6	1 1½
A	Merthyr ..	S. Wales & M.	1 7½	1 2¾
A	Middlesbrough	N.E. Coast	1 7½	1 2¾
A₂	Middlewich	N.W. Counties	1 6	1 1½
B₂	Minehead ..	S.W. Counties	1 4½	1 0½
A	Monmouth	S. Wales & M.	1 7½	1 2¾
	S. and E. Glamorganshire			
A₁	Morecambe	N.W. Counties	1 7	1 2¼
A₂	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7½	1 2¾
A	Nelson ..	N.W. Counties	1 7½	1 2¾
A	Newcastle ..	N.E. Coast	1 7½	1 2¾
A	Newport ..	S. Wales & M.	1 7½	1 2¾
A	Normanton	Yorkshire	1 7½	1 2¾
A₁	Northampton	Mid. Counties	1 7	1 2¼
A	North Staffs.	Mid. Counties	1 7½	1 2¾
A	North Shields	N.E. Coast	1 7½	1 2¾
A₂	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7½	1 2¾
A	Nuneaton ..	Mid. Counties	1 7½	1 2¾
B	OAKHAM ..	Mid. Counties	1 5½	1 1½
A	Oldham ..	N.W. Counties	1 7½	1 2¾
A₂	Oswestry ..	Mid. Counties	1 6	1 1½
B	Oxford ..	S. Counties	1 5½	1 1½
A	PAISLEY ..	Scotland	*1 7½	1 2¾
C	Pembroke	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7½	1 2¾
A₂	Peterborough	Mid. Counties	1 6	1 1½
A	Plymouth	S.W. Counties	*1 7½	1 2¾
A	Pontefract	Yorkshire	1 7½	1 2¾
A	Pontypridd	S. Wales & M.	1 7½	1 2¾
B	Portsmouth	S. Counties	1 5½	1 1½
A	Preston ..	N.W. Counties	1 7½	1 2¾
A	QUEENSFERRY	N.W. Counties	1 7½	1 2
B	READING ..	S. Counties	1 5½	1 1½
B	Reigate ..	S. Counties	1 5½	1 1½
A₂	Retford ..	Mid. Counties	1 6	1 1½
A	Rhondda Valley	S. Wales & M.	1 7½	1 2¾
A₂	Ripon ..	Yorkshire	1 6	1 1½
A	Rochdale ..	N.W. Counties	1 7½	1 2¾
B	Rochester ..	S. Counties	1 5½	1 1½
A₁	Ruabon ..	N.W. Counties	1 7	1 2¼
A₂	Rugby ..	Mid. Counties	1 6½	1 2
A₂	Rugeley ..	Mid. Counties	1 6	1 1½
A	Runcorn ..	N.W. Counties	1 7½	1 2¾
A₂	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens	N.W. Counties	1 7½	1 2¾
B₂	Salisbury	S.W. Counties	1 4	1 0
A₁	Scarborough	Yorkshire	1 7	1 2¼
A	Scunthorpe	Mid. Counties	1 7½	1 2¾
A	Sheffield ..	Yorkshire	1 7½	1 2¾
A	Shipley ..	Yorkshire	1 7½	1 2¾
A₂	Shrewsbury	Mid. Counties	1 6	1 1½
A₂	Skipton ..	Yorkshire	1 6½	1 2
B	Slough ..	S. Counties	1 5½	1 1½
A₂	Solihull ..	Mid. Counties	1 6½	1 2
A₂	South'pton	S. Counties	1 6	1 1½
B₁	Southend-on-Sea	E. Counties	1 5	1 0¾
A	Southport ..	N.W. Counties	1 7½	1 2¾
A	S. Shields ..	N.E. Coast	1 7½	1 2¾
A₂	Stafford ..	Mid. Counties	1 6½	1 2
A	Stockport ..	N.W. Counties	1 7½	1 2¾
A	Stockton-on-Tees	N.E. Coast	1 7½	1 2¾
A	Stoke-on-Trent	Mid. Counties	1 7½	1 2¾
B	Stroud ..	S.W. Counties	1 5½	1 1½
A	Sunderland	N.E. Coast	1 7½	1 2¾
A	Swadlincote	Mid. Counties	1 7½	1 2¾
A	Swansea ..	S. Wales & M.	1 7½	1 2¾
B	Swindon ..	S.W. Counties	1 5½	1 1½
A₁	TAMWORTH	N.W. Counties	1 7	1 2¼
B₁	Taunton ..	S.W. Counties	1 5	1 0¾
A	Teeside Dist.	N.E. Counties	1 7½	1 2¾
B	Teignmouth	S.W. Coast	1 5½	1 1½
A	Todmorden	Yorkshire	1 7½	1 2¾
A₂	Torquay ..	S.W. Counties	1 6½	1 2
C	Truro ..	S.W. Counties	1 3½	11½
B₁	Tunbridge Wells	S. Counties	1 5	1 0¾
A	Tunstall ..	Mid. Counties	1 7½	1 2¾
A	Tyne District	N.E. Coast	1 7½	1 2¾
A	WAKEFIELD	Yorkshire	1 7½	1 2¾
A₁	Walsall ..	Mid. Counties	1 7	1 2¼
A	Warrington	N.W. Counties	1 7½	1 2¾
A₂	Warwick ..	Mid. Counties	1 6½	1 2
A₂	Welling-borough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 7½	1 2¾
B	Weston-s-Mare	S.W. Counties	1 5½	1 1½
A₂	Whitby ..	Yorkshire	1 6½	1 2
A	Widnes ..	N.W. Counties	1 7½	1 2¾
A	Wigan ..	N.W. Counties	1 7½	1 2¾
B₂	Winchester	S. Counties	1 4½	1 0½
B	Windsor ..	S. Counties	1 5½	1 1½
A	Wolverhampton	Mid. Counties	1 7½	1 2¾
A₂	Worcester ..	Mid. Counties	1 6	1 1½
A₂	Worksop ..	Yorkshire	1 6	1 1½
A₁	Wrexham ..	N.W. Counties	1 7	1 2¼
B	Wycombe ..	S. Counties	1 5½	1 1½
B₁	YARMOUTH	E. Counties	1 5	1 0¾
B₂	Yeovil ..	S.W. Counties	1 4½	1 0½
A	York ..	Yorkshire	1 7½	1 2

* In these areas the rates of wages for certain trades (usually Painters and Plasterers) vary slightly from those given.

The rates for each trade in any given area will be sent on request.

PRICES CURRENT

EXCAVATOR AND CONCRETOR

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

*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	11	0
Pit gravel, per yd.	0	18	0
Pit sand, per yd.	0	14	6
Washed sand	0	15	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	15	0
Lias lime, per ton	2	10	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.
Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

*

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube	0	3	0

Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.			
IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	2	3	0
DO. 6-2-1, per yd. cube	1	18	0
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	16	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete 4 2-1 in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	2	6
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

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

*

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

*

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

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

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

*

London stocks, per M.	£4	15	0
Flettons, per M.	3	0	0
Staffordshire blue, per M.	9	10	0
Firebricks, 2½ in., per M.	11	3	0
Glazed sail, white, and ivory stretchers, per M.	24	10	0
DO. *headers, per M.*	24	0	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see "Excavator" above.			
Lime, grey stone, per ton	2	17	0
Mixed lime mortar, per yd.	1	6	0
Damp course, in rolls of 4½ in., per roll	0	2	6
DO. 9 *in. per roll*	0	4	9
DO. 14 *in. per roll*	0	7	6
DO. 18 *in. per roll*	0	9	6

BRICKWORK in stone lime mortar, Flettons or equal, per rod	£33	0	0
DO. in cement do., per rod	36	0	0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano, paving to old, per ft. run	0	0	4
Extra for dishing grano, or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ½ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

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

MASON

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

*

Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	7
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super	0	6	6
York templates sawn, per ft. cube	0	6	9
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see "Excavator," etc., above.			

*

HOISTING and setting stone, per ft. cube	£0	2	2

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

PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	6
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4

HALF SAWING, per ft. sup.	£0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	9	0
YORK SILLS, W. & T., ft. cub. fixed	1	13	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	6
DO. 2½ in. thick, per ft. sup.	0	1	9

SLATER AND TILER

SLATER, 1s. 9d. *per hour*; TILER, 1s. 9d. *per hour*; SCAFFOLDER, 1s. 5d. *per hour*; LABOURER, 1s. 4d. *per hour.*
N.B.—Tiling is often executed as piecework.

*

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

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

Green Randoms per ton	8	3	9
Grey-green do., per ton	7	3	9
Green peggies, 12 in. to 8 in. long, per ton	6	3	9
In 4-ton truck loads, delivered Nine Elms station.			
Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	1	10
Cement and sand, see "Excavator," etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

*

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

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

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

	Med. Grey			Med. Green		
24 in. × 12 in.	£5	0	0	£5	2	0
20 in. × 10 in.	5	5	0	5	10	0
16 in. × 10 in.	4	15	0	5	1	0
14 in. × 8 in.	4	10	0	4	15	0
Green randoms				6	7	0
Grey-green do.				5	9	0
Green peggies, 12 in. to 8 in. long				4	17	0

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	5	6	0
DO., machine-made do., per square	4	17	0

Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.

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

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

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

*

Timber, average prices at Docks, London Standard.

Scandinavian, etc. (equal to 2nds):			
7 × 3, per std.	£21	0	0
11 × 4, per std.	33	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	2	6
DO. *T. and G., 1 in., per sq.*	1	2	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	4
Mahogany, Honduras, per ft. sup. of 1 in.	0	1	3
DO. *Cuba, per ft. sup. of 1 in.*	0	2	3
DO., *African, per ft. sup.*	0	1	0
Teak, per ft. sup. of 1 in.	0	1	3
DO., *ft. cube*	0	12	6

*

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	5	6
DO. framed in floors, roofs, etc., per ft. cube	0	6	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	7	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO. 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	10	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over per ft. sup.	0	1	2

continued overleaf

CARPENTER AND JOINER: *continued.*

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

SMITH

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

*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	19	0	0
Corrugated sheets, galvd., per ton	18	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0

*

MILD STEEL in trusses, etc., erected, per ton	25	10	0
DO., in small sections as reinforcement, per ton	16	10	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	20	0	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

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

*

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

*

MILLED LEAD and labour in gutters, flashings, etc. per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	0
DO. ¾ in., per ft.	0	2	3
DO. 1 in., per ft.	0	3	0
DO. 1¼ in., per ft.	0	4	0
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	0
DO. 3 in., per ft.	0	7	0
DO. 4 in., per ft.	0	9	9
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO. ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	7
DO. 3 in., per ft. run	0	2	0
DO. 4 in., per ft. run	0	2	10
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	2	0
DO. O.G., 4 in., per ft.	0	2	3
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	4	6
DO. 3 in., per ft.	0	3	6
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

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

*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	0	0
Sand and cement see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Thistle plaster, per ton	3	9	0
Lath nails, per lb.	0	0	4

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LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	3
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock. ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	7
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	9
RENDER and set in Sirapite, per yd.	0	2	5
DO in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	3
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

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

*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ⅛ in., per ft.	0	0	6½
DO. *¼ in. per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0

*

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

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

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

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

PAINTER AND PAPERHANGER

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

*

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

*

LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	10
DO., subsequent coats, per yd. sup.	0	0	9
DO., enamel coat, per yd. sup.	0	1	2½
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	2
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.
The measured work price is on the same basis . . . per ft. sup. £0 0 5½

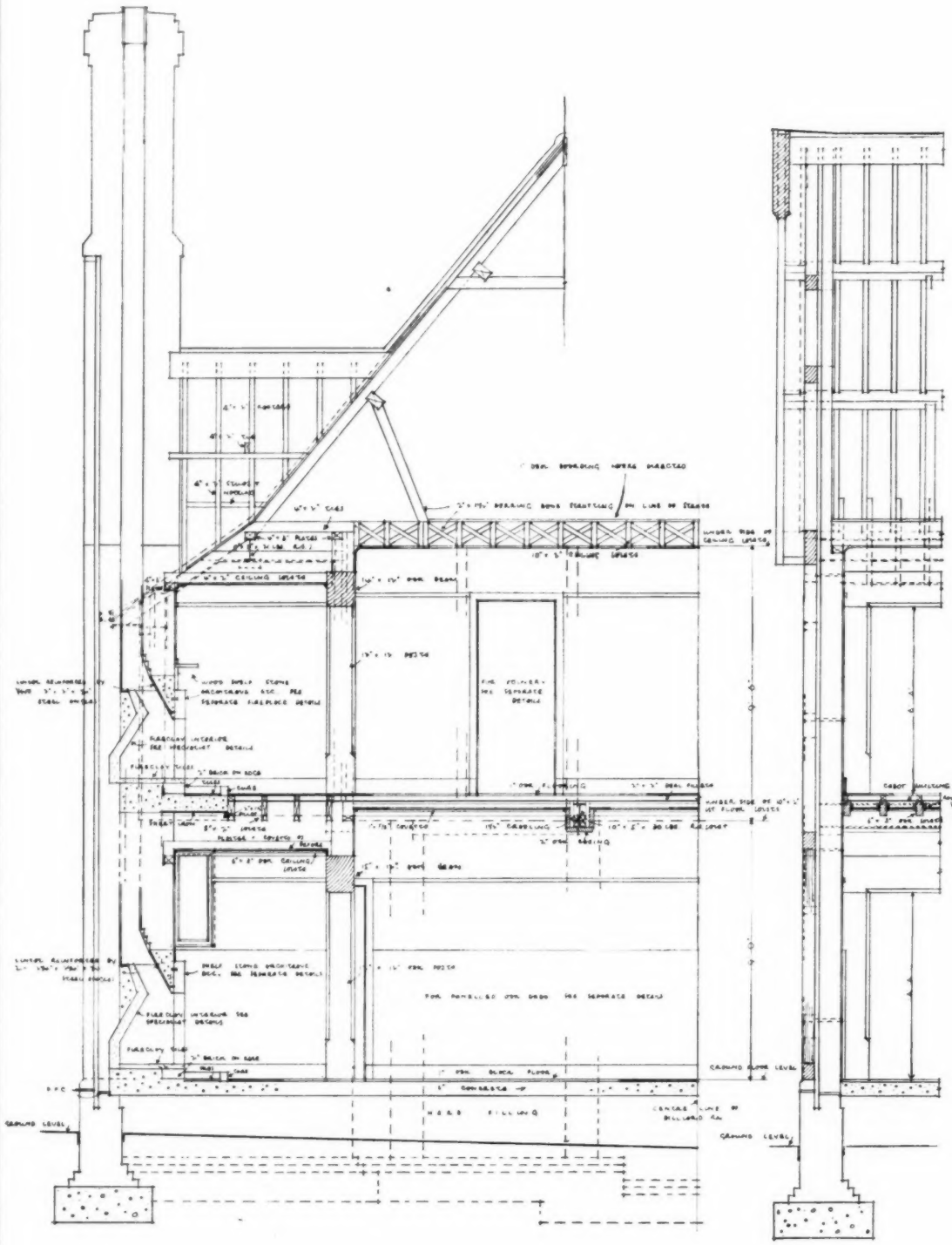
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds per ft. sup. . . . from 3d. to	0	0	6
Plaster board, per yd. sup. . from	0	1	7
PLASTER BOARD, fixed as last, per yd. sup. . . . from	0	2	8
Asbestos sheeting, 5/32 in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, 3/32 in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casement in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

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

PLYWOOD, per ft. sup.

Thickness	3/16 in.			½ in.			3/8 in.			½ in.		
Qualities ..	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	9½	7	5
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine	5	4	—	5½	5	—	6	—	—	—	—	—

HOUSE AT STONE WORCS FOR J C HILL ESQ



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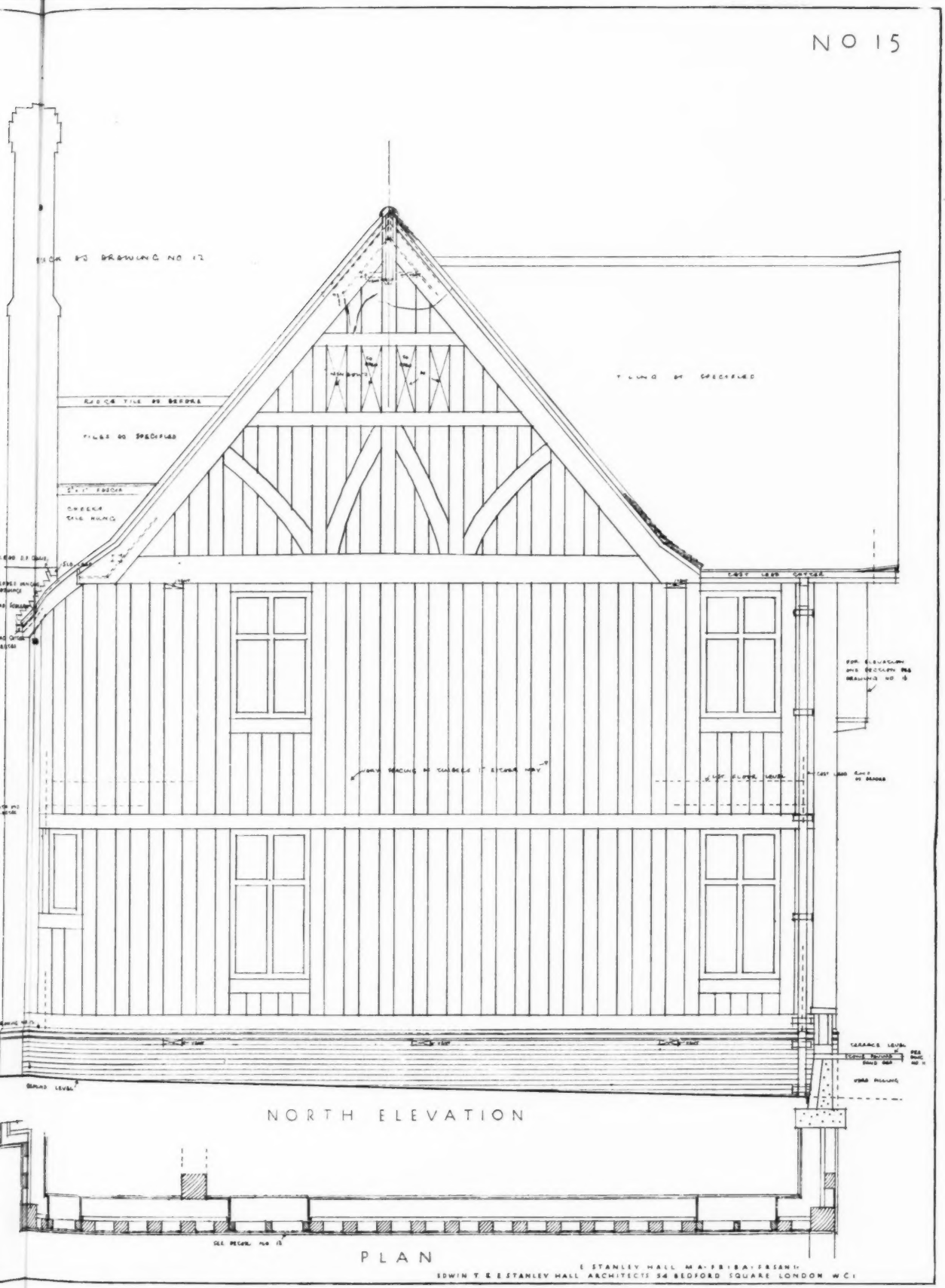
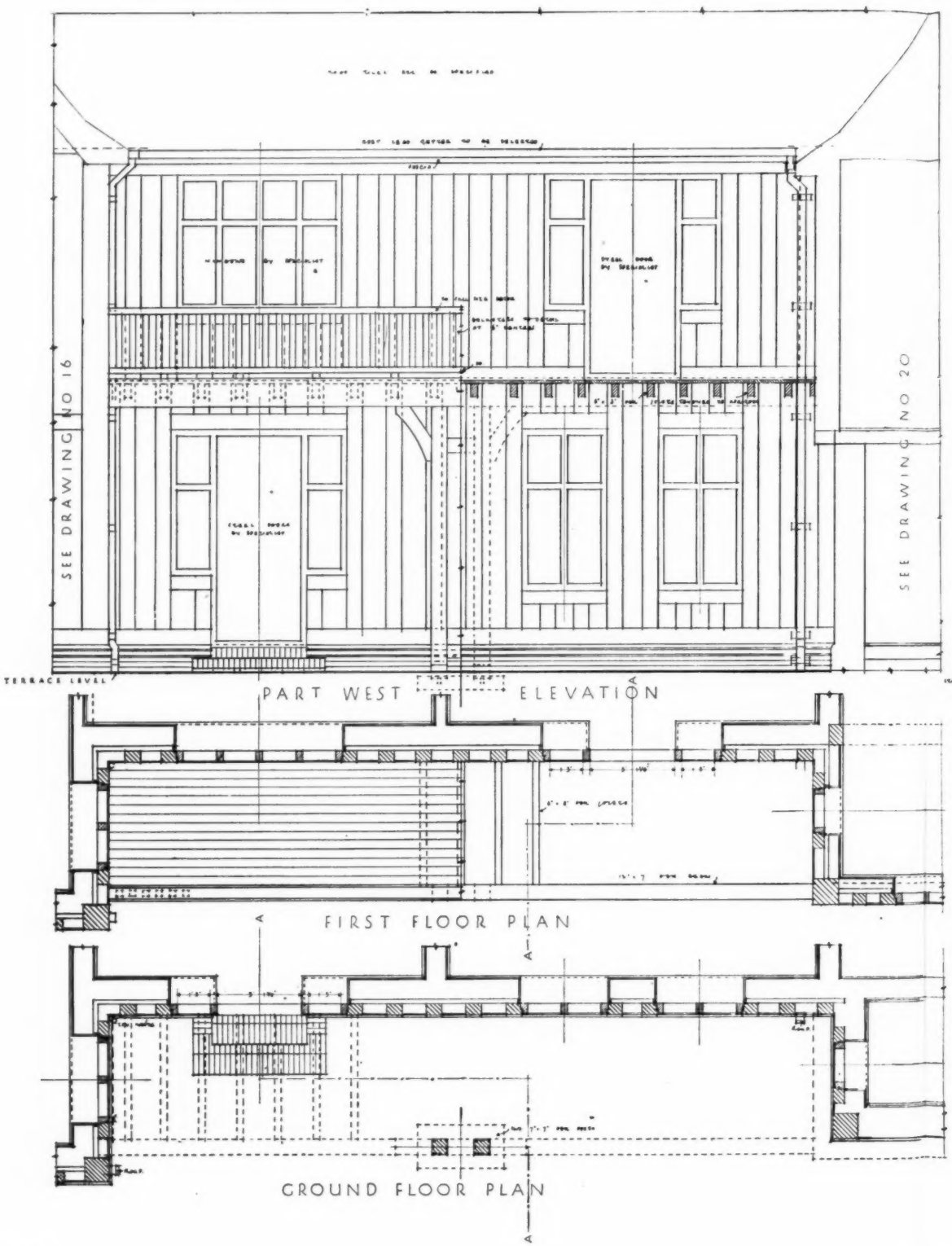


HOUSE AT STONE, WORCESTERSHIRE. BY E. STANLEY HALL. DETAILS OF GABLE FRONT.

HOUSE AT STONE WORCS FOR J·C HILL ESQ



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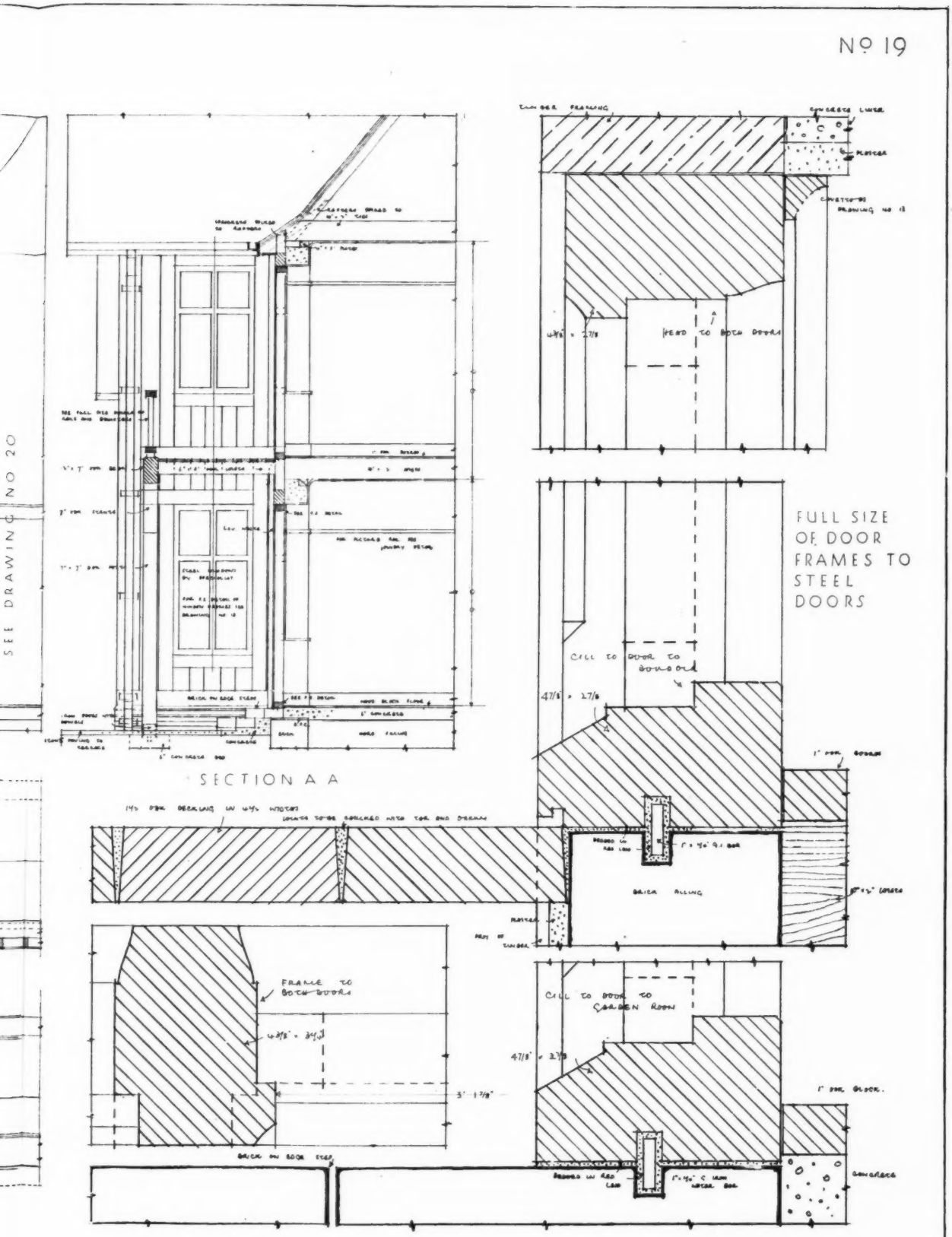

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