THE ARCHITECTS' JOURNAL

Wednesday, May 16, 1928

CHARING CROSS BRIDGE

A photograph of this detail is given on the preceding page.

The engineers' report on the scheme for a new Charing Cross bridge produced by the Lee Commission is something to put heart into those whose efforts have been directed towards the finest solution of a very difficult problem; and for others who have watched with much anxiety the rise and fall of many individual schemes for a new bridge, this report is not without comfort.

The engineers were asked to examine the possibilities of carrying out the proposals of the Lee Commission and to present a report on their findings, but to the surprise of all good sceptical people they went one better, and presented a brand new scheme of their own. Instead of directing a fire of expert criticism on the rather shaky details of the double-decker bridge, they swallowed it nearly whole in their eagerness to unfold their own bright designs, and nothing could exceed the politeness with which their modifications of the earlier proposals were worded. But the heartening part of the report lies in the fact that their new scheme, far from being the creature of their sole devising, is none other than that much-dreamt-of, hardly-to-be-hoped-for plan for demolishing entirely the disgraceful mass of Victorian salvage called Charing Cross Station, and carrying over the river a single-minded monumental bridge for road traffic only, to serve a reorganized Waterloo Station on the south bank. That the engineers should have advanced by so much the fortunes of the real Charing Cross bridge of our imagining is subject for mutual congratulation. Their weighty opinion has made practical politics out of our cry in the wilderness, and it looks now as though we prophets were being pushed off our feet by the impetuous advance of our converts. This is no moment, however, for questioning the credentials of any one scheme, nor yet would it serve any very good purpose to pick holes in the fabric of the design now laid before us. Sufficient if it be fine enough to overcome the long-standing difficulty of the stations. That done, we can work towards a solution with a load of trouble off our backs, breathing more freely the rarer air of a less restricted site.

Two aspects of the programme we would stress now, before ideas have hardened into a plan of action. The first has been stressed before in a scheme advanced as far back as 1916 by Mr. John Burns, Sir Aston Webb, and Sir Reginald Blomfield. It was obvious to them then, and it must be still more patent today, that such a bridge as is proposed must do more than solve traffic problems. A plan for embanking the south bank is clearly part of the same programme. Whether it be carried out as part of the same scheme is not so much important as its inclusion in a more comprehensive plan for developing the surrounding areas by means of the new bridge and its approaches.

The second aspect is one which concerns the general conduct of the design. There have been so many schemes worked out by individuals and by groups of experts that there exists now a mass of data relevant and irrelevant, most of which is to be found within the pages of Parliamentary publications; a wide public has been educated to the point of understanding the larger issues to be decided, and the hard work of many civic-minded men has at last converged on these, the final proposals.

It is exactly here that the architectural, the monumental, aspect of the problem is of first importance. From now onwards the active participation of architects is necessary to the proper fulfilment of the design. We hope that there will be an open competition for the design of bridge and approaches, in which architects will collaborate with engineers working on broad indications of policy laid down by a jury of representative experts. This is the only way of acquiring the best man for the job, for it is evident from the schemes already submitted that the ideal solution of the problems of the construction and design of both bridge and approaches is still to be found.

We want no vainglorious compromises of steel and stone if somebody can produce something better, nor should we be prepared to accept a scheme of approaches one whit more complicated than occasion demands. The winner of such a competition would be a man capable of simplifying the at present complicated plan of southern approaches, linking it with a scheme of embankments connecting the various bridges on the southern bank. We do not suggest here that what has been arrived at so far is unnecessarily diffuse in handling, because we must regard it as a statement of the case rather than as a plan to be followed in detail. The bridge is a work of national importance. It will be a subject for international criticism or appreciation, and by reason of its size alone will be a monumental achievement of the first rank.

Let nothing therefore stand in the way of getting the best design. Let no question of style or construction hamper the conditions of competition, and let the competition be open to everyone who values his talent and his time highly enough to employ them in this great work.

NEWS AND TOPICS

CHARING CROSS BRIDGE—THE NEW GROSVENOR HOUSE —THE "FOIRE DE PARIS"—LIVERPOOL UNIVERSITY'S QUARTER CENTURY

THE latest proposals for a bridge at Charing Cross open up large possibilities for genuine improvement in respect to traffic facilities, and should afford the engineers ample scope for their constructive ability to compensate them for the lost opportunity for a new design at Waterloo Bridge. The suggestion that Charing Cross railway station should be given up and that a new terminal station should be made on the south side of the river is no new one, but until recently the suggestion was always met by the statement that the removal would be far too costly to be at all feasible. Now it is advanced in favour of economy, which is really a triumph for those who advocated the move eight or ten years ago. In passing, it may be questioned whether terminal stations are not out of date, and whether it would not be far better to plan for through circulation of railway traffic without the stopping and shunting that a terminus necessarily involves. In these days of railway amalgamation it should be possible to connect up the stopped ends of railway lines and make a continuous track without buffer stops on any main line. The economy in working would be great.

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From the architectural side it is probably all to the good that the idea of a double-decker steel bridge is not finding unqualified support. Mr. Alfred Bossom has shown how the skyscraper is entirely unsuited to our climate, and a bridge which would encourage additional height in buildings adjoining its approaches would have a pernicious effect on the amenities of London as a whole. Even as it is there will be a strong temptation to try to recoup some of the cost of the bridge by permitting high buildings to be erected on its approaches, but nothing could be more dangerous to the health of Londoners than this creeping up of the permitted height of buildings. In the last few years the theory has been brought forward that buildings which front upon large permanent open spaces may be built to a great height, and a block of offices at London Bridge and a block of flats in Park Lane have been permitted to encroach above the old skyline to a marked extent. In connection with such an important and far-reaching alteration as this of the new Charing Cross Bridge, the permissible heights of buildings should be considered very carefully if the light and air of London are not to be diminished for the future.

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The big new building in Park Lane called Grosvenor House was opened on Monday. I walked up Park Lane from Hyde Park Corner to catch sight of it for the first time. The building is not at all bad, despite what has been said about it, and is much more in keeping with one's notions of the modern Park Lane as the El Dorado of the fashionable world than any of the old mansions that might have been left lingering there. Imitation of Italian palaces, even when imitated from the best style, can easily look forlorn in London town. Sir Edwin Lutyens (who did the exteriors) has brought a feeling of the East into Park Lane with soaring pavilions, and he probably knew how delightful those pavilions would look as they suddenly came into view from the road, or were seen in glimpses through the trees in the park. Messrs. Wimperis and Simpson were the architects for the interior, and no architects in England know better what they are about when it comes to the planning of modern flats. Many people in London will fall foul of the new Grosvenor House—the old people more especially—for Grosvenor House, like all fine things, is just a little in advance of its time.

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The Foire de Paris is a regular city within a city, so to speak. It occupies and has occupied since last year, the whole of the vast Parc des Expositions, near the Porte de Versailles. It was officially opened last Saturday by Monsieur Bokanowski, Ministre du Commerce. It is to be visited by the President of the Republic and to remain open till the 28th of this month. The "Foire" is a huge exhibition embracing many trades, such as those connected with electricity (scientific methods and artistic applications), building in most of its aspects, machinery, alimentation, furniture (a large section), iron foundry, agricultural implements, the modern office, the music salon, the decorative arts and fashion, etc. etc. The show is increasing enormously in importance every year, and is taking on a decidedly international character. In 1904 it only counted 490 exhibitors. In 1920 there were over 3,000, and this year, its twentieth show, counts 7,145, of which about 600 are foreigners from thirty different nations. Spain has thirty exhibitors, Esthonia forty-two, Japan eighty-two, and Italy eighty-eight. Russia, Austria and Greece have special pavilions. It is expected that visitors and buyers will flock from all parts, not only of Europe, but from America, Australia, India, and South Africa. Convoys are already officially announced from Germany, England, Switzerland, and Denmark, etc. It is an international market of great interest from a practical point of view, bearing very largely on all the building trades as well as on the decorative arts. It is truly commercial in object, is full of serious activity, and shows something of the real life of the epoch. Its influence on engineering and architecture is yearly being felt. The exhibition, though open, is not yet completely fitted up.

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Sir Frank Baines is introducing a novel feature in the front of the great building that is springing up, almost at breakneck speed, to house the administrative staff who serve Sir Alfred Mond and the Imperial Chemical Industries. The heads of the notable figures in chemistry, science, and industry are being carved on the keystones of the arches on the front. These are on a scale four times the size of life. Some of those connected with the building suggest that Sir Alfred Mond as the creator of the idea of the chemical combine, Sir Frank Baines as his architect, and the chairman of the contractors should each take a place in this architectural portrait gallery.

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Last week Liverpool University celebrated its twenty-fifth anniversary, and the Earl of Crawford and Balcarres was made Doctor of Letters, and Sir Edwin Lutyens Doctor of Laws. Of the Earl of Crawford the Public Orator said he had proved that a man of letters and a lover of beauty might still have those qualities called practical. He had directed his disciplined taste and lent

his stray advocacy to preserving what Nature and human effort had produced of fair and lovely in this country. The noble buildings which recorded our history had in him a strong defender. And this he said of Sir Edwin: "The art of which Sir Edwin Lutyens is a consummate master has always been cherished in our university, for we have known that the fashion of a man's house is an emblem and a measure of his belief in the power of beauty to ennoble the uses of daily life." After referring to the marvellous success with which Sir Edwin had planned a new capital city in India, Professor Campagnac said: It was to him that Englishmen turned when they wanted at the heart of their Empire and their country a memorial of the men who had fought and died for home. They were justified in their confidence, for he showed, in the Cenotaph, that he could, by the generous restraint of art, give to deep passion a permanent reality, and hallow the thoroughfare of the living by building in it a home for the spirits of men whose journeying is done.

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There is still another week in which to see the interesting collection of photographs of modern German architecture which Herr Werner Hegemann has arranged around the walls of the A. A. Library. It is so good an opportunity to piece together the disjointed account of German architecture, which to most of us has arrived in sundry peeps and glances in various magazines, that I venture to call attention to it at so late a date. It is over on Saturday. In over two hundred good photographs one can trace the history of several schools of design—horizontal and vertical among them. There are new and most informing views of such well-known buildings as the Chilehaus, Paul Boratz's railway station at Stuttgart, and the great Berlin departmental stores, and many examples of German post-war housing—sane, well-mannered building of the best type. Above all, there is the national cast of feature issuing from all these works, which it has long interested me to discover. I won't disclose what I found it to be, but it is worth knowing.

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A purely architectural scene is rare in Corot's art, but the fact that he used such a subject sometimes is brought to mind by half a dozen of the 200 drawings now being exhibited at the Alpine Club Gallery. The collection is part of the private work which Corot kept for his own satisfaction, record, and reference. The drawings are mostly small, and some of them are exquisite. They include most subjects from mountains to maidservants; but the few of buildings interested me greatly, particularly a water-colour dated 1840 of a "View of a Town on a Rocky Hillside," a charming thing with the calm that an early Italian master is able to invoke. This is not so completely architectural, however, as the really fine "Venise: Vue du Quais des Esclavons," which is more like the work of the later Italians, Guardi or Canaletto. This beautiful picture, which is illustrated in Robaut's monumental *L'Œuvre de Corot*, was on exhibition earlier in the month at Amsterdam at the Van Wisselingh's Gallery, together with another architectural scene of a humbler kind of a farmyard in Normandy. A very quaint watercolour at the Alpine Gallery is "Cascatella: à Tivoli," a group of buildings at the top of a high cliff; and an example of Corot's mastery of the lead pencil point is to be seen in the attractive drawing of "Naples: Le Château de l'Œuf."

The sudden and tragic collapse of the Cofton tunnel during demolition for the widening and levelling of the L. M. and S. line between Birmingham and Bromsgrove recalls attention to the dangers associated with the alteration or repair of structures heavily loaded or subjected to lateral thrusts. The fall of a portion of the tunnel weighing about 200 tons took place fifteen minutes after the passing of a train, but also after the removal of part of the load of earth and rock in the neighbourhoood of the tunnel had very considerably affected its statical condition. The tunnel is said to have come down "without any warning," a statement which should be compared with my note on "Watching a building fall," in the JOURNAL of May 2, in which the very slight nature of the warning was insisted upon by an eye-witness of the fall of a building.

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A report issued recently by a sub-committee on the question of housing in New York strongly recommends that more attention should be given to the value of the ultra-violet rays of the sun. It is pointed out that far too little care is paid in designing for the lighting of houses or offices to the need to secure light of good quality. Possibly this is due to the fact that up till recently we have known little about the qualities of light, but it is now becoming more realized that after a ray of light has travelled 93,000,000 miles to reach the world its most valuable qualities are excluded from our homes.

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We stood upon a hill in darkness and watched the moving company of lights, swinging forward and past us in knots and clusters and long, flashing trains, moving without noise or violent motion as though rotating on some planetary orbit whose temporary path was a road over the earth's. Unceasingly the long shapes slid past below us, and never failing came the distant twinkling from afar, springing like starlight from clouds, holding its bright course in an arc across darkness to plunge at last meteor-like beyond the tree tops at our feet. We stood spellbound on the hillside, watching the vision of the arterial road.

ASTRAGAL

ARRANGEMENTS

MONDAY, MAY 21

R.I.B.A. 8 p.m. "English Hospital Planning." By H. Percy Adams.

WEDNESDAY, MAY 23

R.I.B.A. Annual Dinner.

SATURDAY, JUNE 16

Holborn Restaurant. 6.45 p.m. Association of Architects, Surveyors, and Technical Assistants. Annual Dinner.

MONDAY, JUNE 18

R.I.B.A. 8.30 p.m. Presentation of the Royal Gold Medal.

JUNE 20 TO 23

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

SCULPTURE AT THE ROYAL ACADEMY

[BY KINETON PARKES]

AFTER what was a brilliant display of contemporary British sculpture last year, when 293 works were shown, I was dismayed to find an utterly unrepresentative 128 this year. Where are the missing 165? Whose fault is it? For some years we have been accustomed to about 200 pieces; why are there this year only just over half that number? I do not believe that the Academy refuses good work, because the proportion of good to bad has been steadily increasing since the Armistice, and the Academy has consistently admitted the right things. British sculpture is being encouraged by the Press and the Public in many directions, but British sculptors, it seems, are content to go on with their clay-punching in the old unfortunate way. But where are all the carvers that were in evidence last year? This is a question of vital importance to British sculpture, and hardly less to British architecture. Where are the charming pottery pieces of yesteryear?—another factor of prime interest to the development of sculpture on proper lines. Last year there were many, as there were many wood-carvings and stone-carvings, apart from the marble pieces. This year there are two stone-carvings and one in wood, and the marble pieces catalogued number only a dozen, some of them being carvings proper, though most of them are only carvings vicarious.

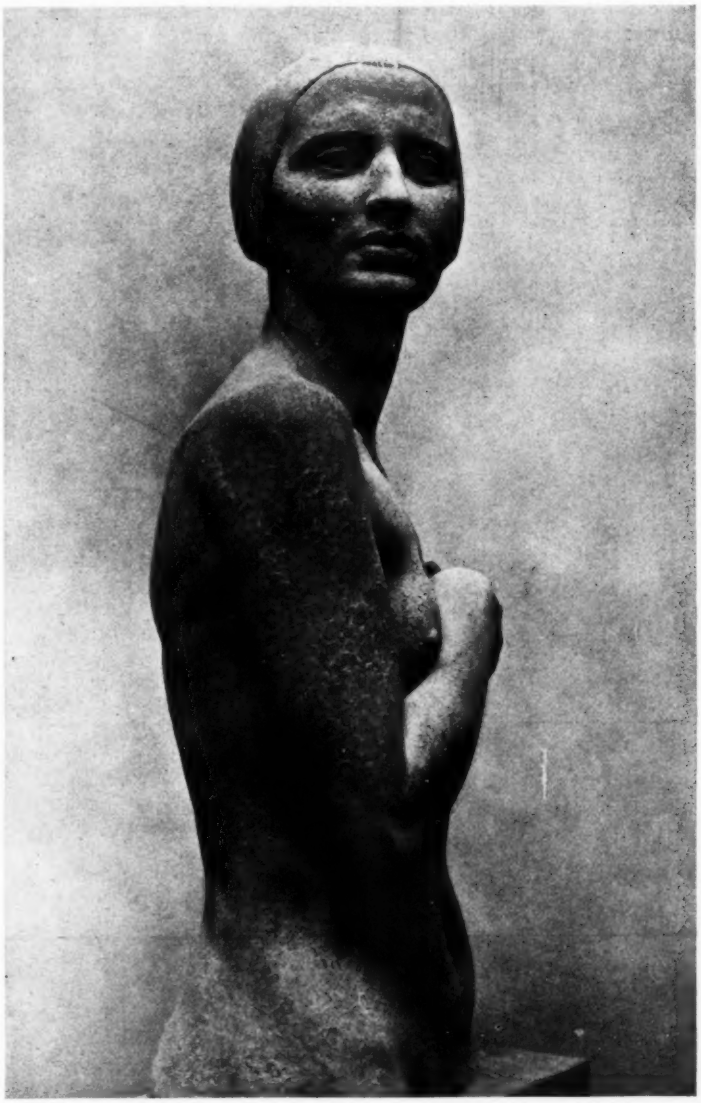
People say they go to the Academy sculpture-rooms, away

Above, part of stone frieze on the Masonic Temple, Birmingham. By Gilbert Bayes. [Architects: Crouch, Butler and Savage.] Below, bronze statuette. By Allan Howes. [Royal Academy Exhibition.]

from the crowds of the painting galleries, to rest. No one could rest amidst the scene of desolation this year. Down one side of the room is a row of busts—marble and bronze, bronze and marble; no work could look well under such conditions, but many of these would not look well under any. They are all pushed uncompromisingly back against the wall, while the wide floor space of the room is almost completely wasted. "The Guardian of the Seas," by Gilbert Bayes, gives distinction to an otherwise devastating situation. But how it suffers at the hands of the hanging committee and by the juxtaposition of pieces! What dignity could survive the same conditions as applied to the adjacent half-figure in bronze of the late Bishop of Southwell, by W. Reynolds-Stephens? This is a large and imposing decorative figure, which will make its mark in the surroundings of Southwell Minster. The bold style of this is curiously emphasized by the delicacy of the small "Entry into Jerusalem" of Alfred F. Hardiman: an equestrian group beautifully modelled in bronze and mounted on a straight, high, decorated shaft of stone.

The monumental, so meant, pieces are mostly monstrous in size and without dignity and plastic quality. In the central hall, however, is one conspicuous large panel, which has claims to serious attention. It is the modelled relief by Edgar S. Frith for a stone panel. It is imposing and imbued with the modern spirit, and it is only on account of its technique that criticism of it may be offered. It is surprising that in a plastic work so much glyptic feeling has been incorporated. It was modelled, no doubt, with the full intention of exploiting all the character of carving at a later stage, and it will be carved by its author, I should think. Considering the difficulties of thus combining plasticism with glypticism, the work must be regarded as a success. As carving, the bust in stone, "The Blacksmith," by E. Roland Bevan, is interesting as is also the beautiful marble work which Henry Poole has deposited as his diploma work. The technique is good, which cannot be said for the bust of the late Sir George Parkin in *bianco del mare* marble, modelled by E. Whitney-Smith, whose fine plastic touch is well exercised in the charming half-figure, partly draped, of "Miss Molly Le Bas." Bevan's bust of Henry Rushbury is one of the best portraits in the sculpture section.

Another half-figure is that of "Mlle. Olga Pavlovna



Portrait half-figure in bronze of Mlle. Olga Pavlovna Ilèna. By C. W. Dyson-Smith. [Royal Academy Exhibition.]

Ilèna," in bronze, by C. W. Dyson-Smith, a very accomplished work with exquisite lines and mobile planes, an excellent exercise in pure form and fine portraiture. Richard Garbe's sound sense of decoration is shown in three works: two statuettes, " The Song of the Sea " and " The Greek Mask," and a life-size mask in ivory of St. Agnes, exquisitely cut, the most important piece of carving in the exhibition. Next to it is the silver model of The 15th Imperial Service Cavalry Brigade War Memorial, by Leonard Jennings, a sound piece of craftwork by a clever modeller, intimating how much better it is to combine both functions and emphasizing the fact that in much craft metalwork this happy result is seldom quite satisfactorily achieved. The bronze statuette of the Christ with pierced hands, by Allan Howes, shares this distinction, for it is obviously intended for ecclesiastical purposes and is much more artistically valuable than most works destined for this purpose.

In the main sculpture gallery the two most arresting works are by the same artist, and, what is of more importance, they are both architectural. Gilbert Bayes dominates both the south wall and the floor. He, at any rate, may be congratulated on being well hung. On the floor in the centre is " The Guardian of the Seas," which is a life-size statue of bronze in two patinas: one copper for the figure, and the other green for the draperies. It is decorative, dynamic, and possesses great charm. It is symbolic, for the graceful figure of the young man holds a trident and is supported by a base of sea lions. The other work, seen high up on the wall, is the model of one of a pair of carved friezes of the Masonic Temple at Birmingham, by Crouch, Butler and Savage, and is 32 ft. in length; only parts of the friezes were modelled, the rest traced direct upon the stone and carved, the finishing being done by the artist. The treatment of the figures, carts, and bullocks is simple, primitive, and severe for a severe structure which can stand it. There is very little else architectural in the wider sense of any account, for W. McMillan's " Sun and Moon Fountain " is a fountain pool only; but his lead " Garden Figure," on a decorative stone base, is good. The most important ideal work is the beautiful static " Silence," of W. Reid Dick, in *bianco del mare* marble, which I am very glad to see in that fine material after its wait of so long for translation. The statuette, " Hertha," another piece in the same material, and the same sculptor's bust of Sir Reginald Blomfield are excellent, and so is the little group of bronze greyhounds.

I can but express the pious hope that next year sculpture will be restored to the status it has enjoyed at the Academy during the last few years.

Song of the Sea: bronze decorative group. By Richard Garbe. [*Royal Academy Exhibition.*]

DEPTFORD'S NEW PUBLIC BATHS

[BY J. E. DIXON-SPAIN]

THE latest achievement of anyone who has by precept and practice come to be regarded as the authority in a specialized type of planning always commands attention. Mr. A. W. S. Cross's *Public Baths and Washhouses* is a book which has been used widely and continuously since its publication, and it still holds the field. Probably there is no more heavily-thumbed volume in the library of the R.I.B.A.

It is therefore with unusual inquisitiveness that we focus our attention on the new Evelyn public baths at Deptford to see in what direction advance has been made in technique, or on what lines development is to be expected. It is disappointing to find that a portion only of the full plan has been carried out, and that the swimming pond halls are included in the work which has been postponed. However, the plans exist, and it is to be hoped that the borough will soon see its way to complete this fine bathing establishment. It is also disappointing to find nothing very new or novel in the baths; but this disappointment is compensated for by the confirmation, after so long a test period, of the well thought-out general principles laid down in Mr. Cross's book.

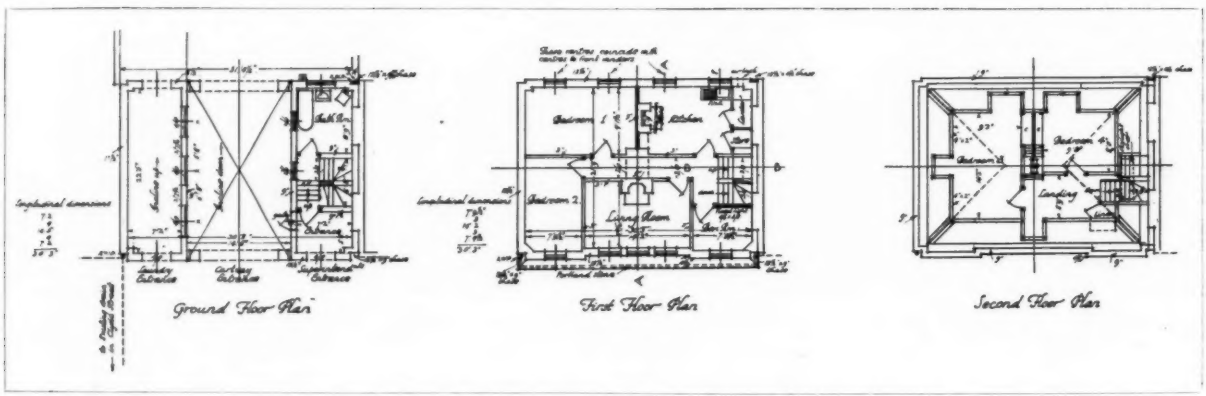
The general plan is simple, and its arrangement has been subject to limitations and special local requirements, which will account for what may appear to be a lack of orderliness from a strict academic point of view. The site was, moreover, extended while the work was in progress.

The block already built is known as the Clyde Street section, and includes four suites of slipper baths, a Russian bath, and a public laundry. The slipper suites include eighteen men's first class and twenty-three second class, and five women's first class and seven second class. The latter are to be increased proportionately when the postponed or Evelyn Street section comes into being. The special department consists of a vapour bath with twelve cubicles in the cooling-room.

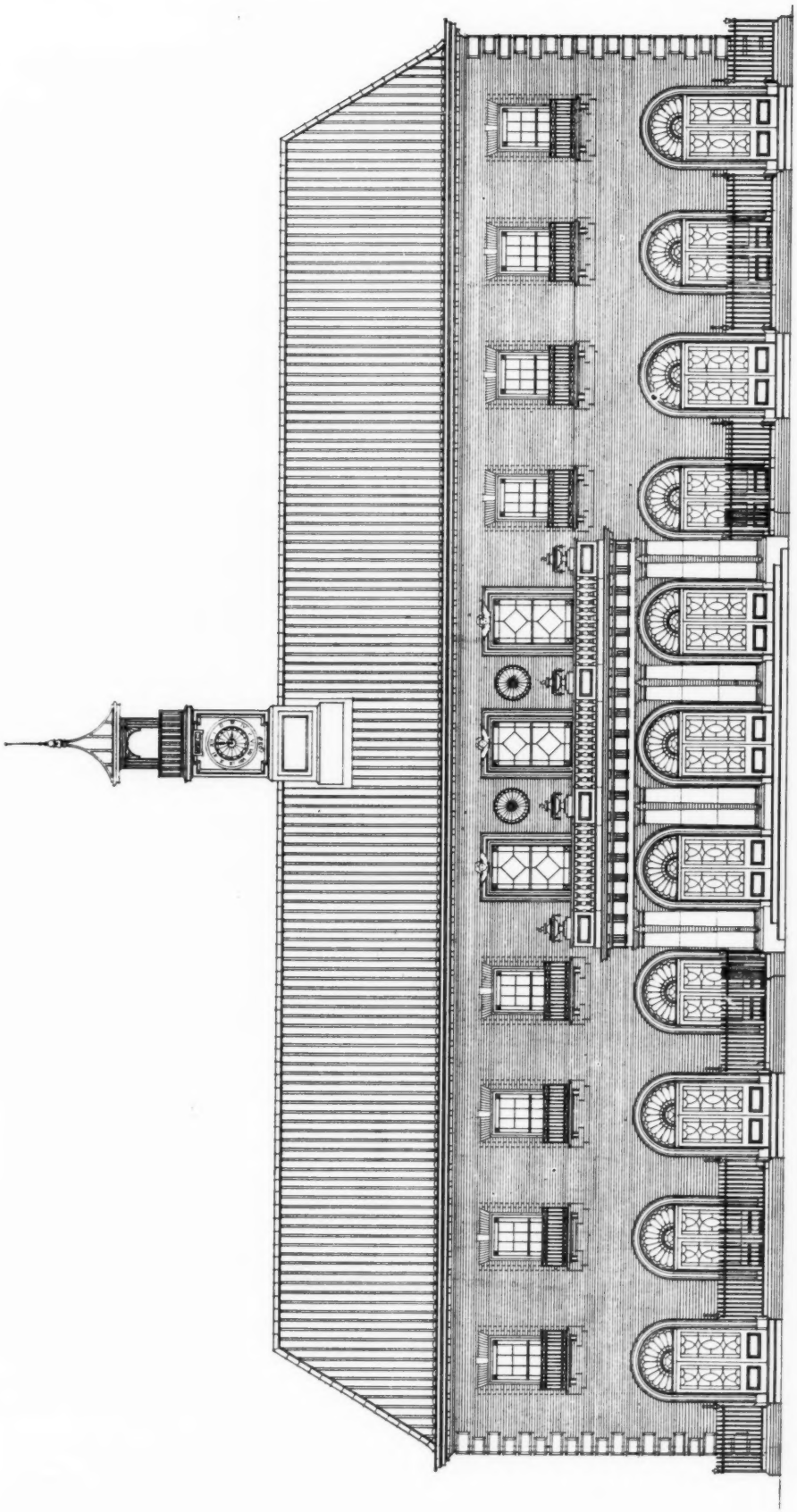
The laundry has twenty-six washing compartments, twenty-six drying-horses, three hydro-extractors, and a well-planned mangling and ironing room equipped with electric irons. The laundry is well worth study by authorities contemplating the provision of public washhouses as well as by those whose duty it may be to plan such establishments.

The washhouse is lighted by a roof lantern with an overhead fan to disperse and clear the steam. Each washing compartment has two troughs, one for handwork and the other for boiling. The three 26 in. hydro-extractors are driven separately. The drying-horses are seven-rail, 6 ft. long. At the entrance level is a perambulator store, and a

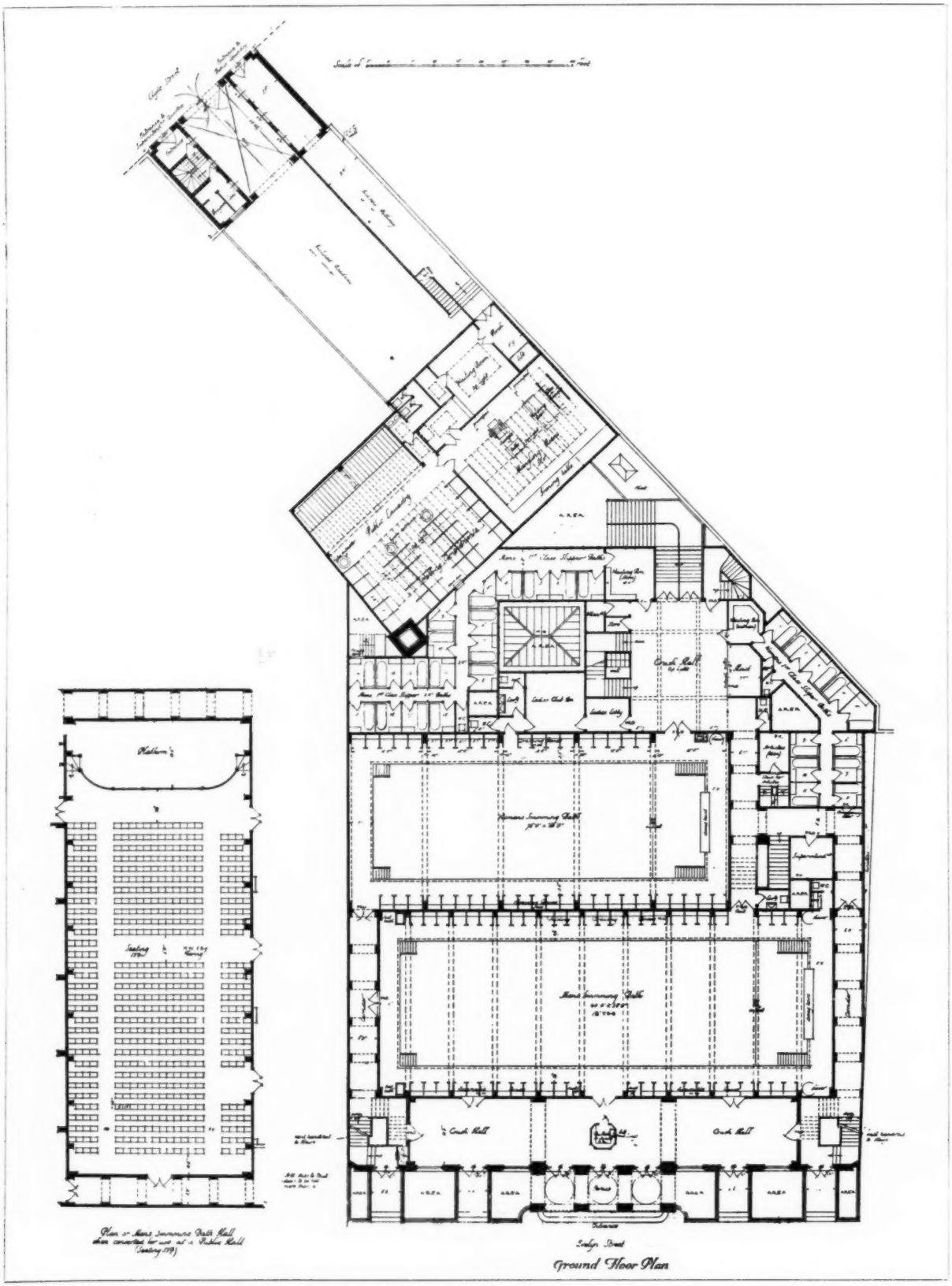
New Public Baths at Deptford: the Clyde Street section. By A. W. S. Cross and K. M. B. Cross. A corner of the shampooing-room.



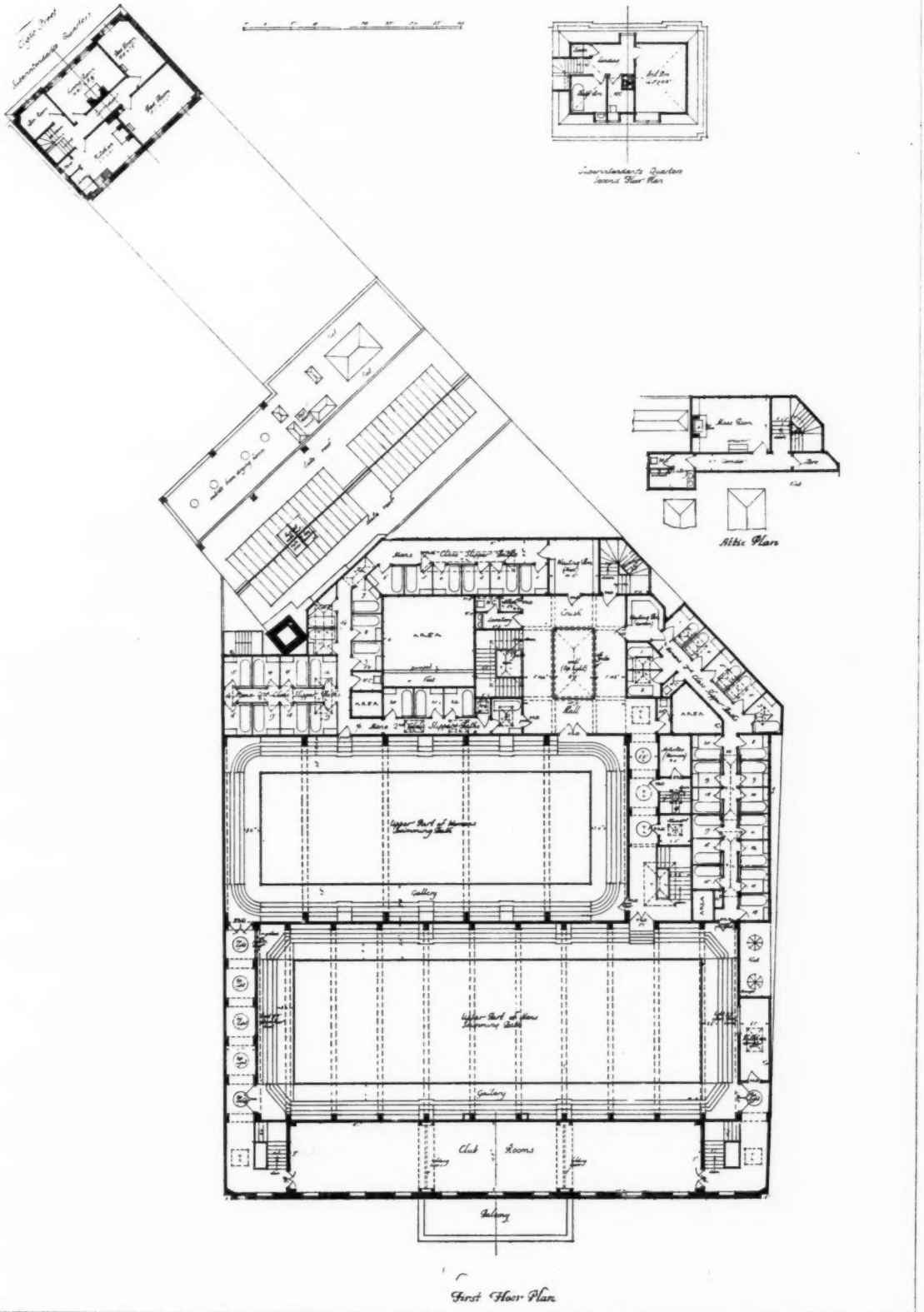
New Public Baths at Deptford: Clyde Street section. By A. W. S. Cross and K. M. B. Cross. Superintendent's quarters and the Clyde Street entrance.



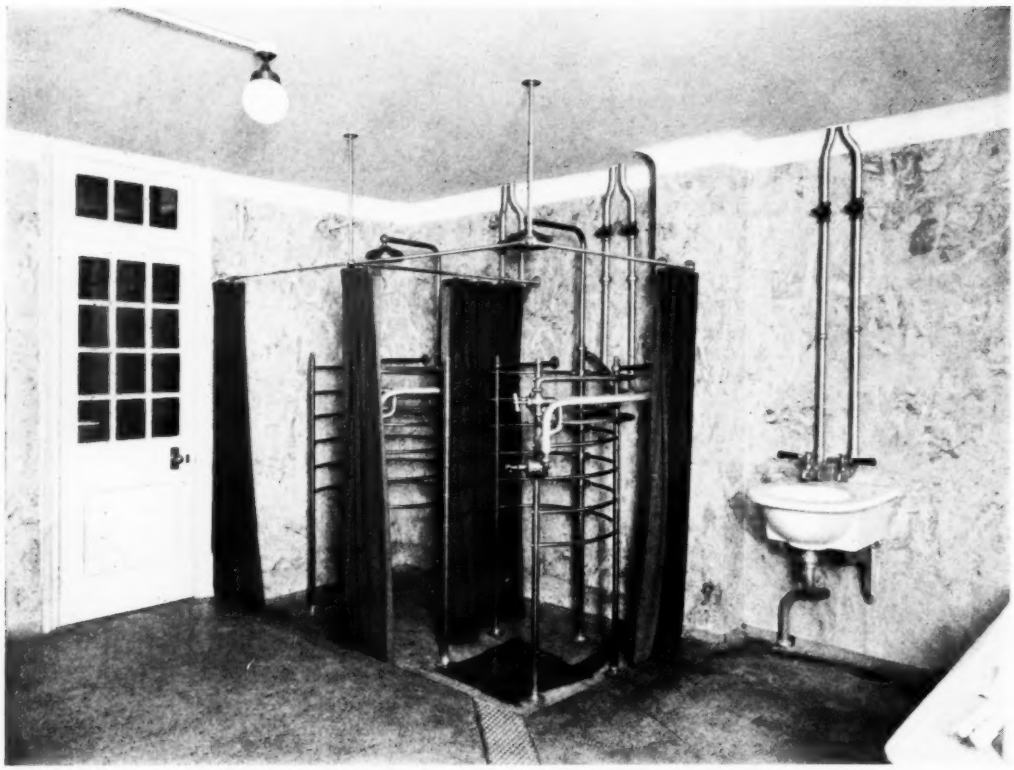
New Public Baths at Deptford : the Clyde Street section. By A. W. S. Cross and K. M. B. Cross. The main elevation to Evelyn Street.



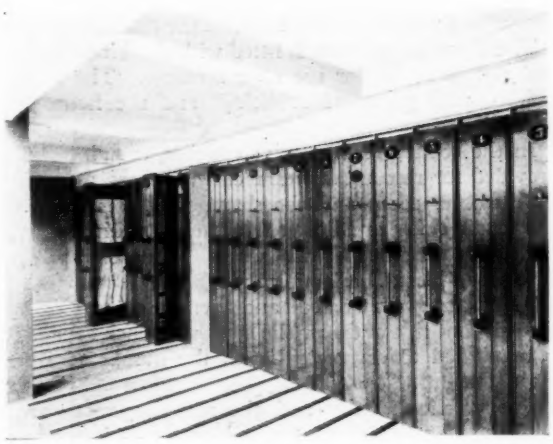
New Public Baths at Deptford: the Clyde Street section. By A. W. S. Cross and K. M. B. Cross. The ground-floor plan.

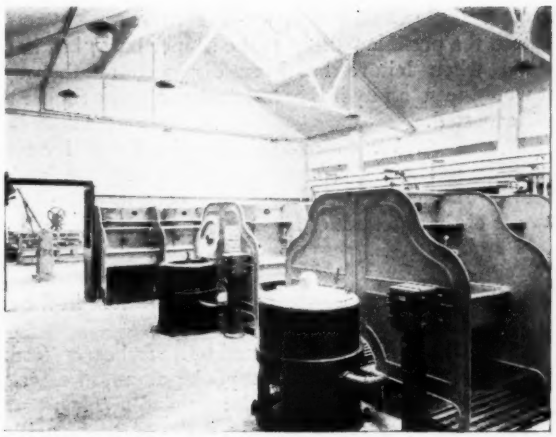


New Public Baths at Deptford: the Clyde Street section. By A. W. S Cross and K. M. B. Cross. First-floor and other plans.



New Public Baths at Deptford: the Clyde Street section. By A. W. S. Cross and K. M. B. Cross. Above, the shampooing-room. Below, the cooling-room.





hoist for getting clothing to the washhouse floor over. On this floor is a convenient waiting-room. There is to be a resident superintendent, whose house is now in course of erection.

The Clyde Street section has the distinction of being entirely constructed in reinforced concrete. One would suppose from the nature of the plan and the irregularity of the site that there was no obvious quality to recommend it for the purpose. It was, in fact, no free choice of the architects, but was due to the requirements of the Ministry of Health.

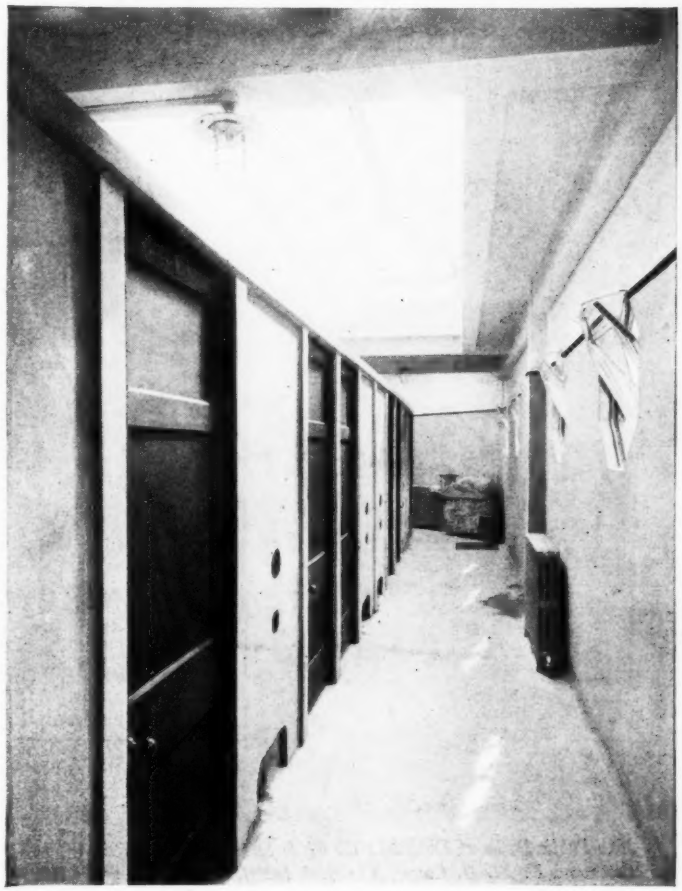
Mr. A. W. S. Cross's influence in organizing the planning of public baths and standardizing the requisite accommodation stands alone, and he with Mr. K. M. B. Cross now appear to be pursuing a keen exploration in the matter of "finishings." They are ever improving detail, and testing out more durable floorings, linings, and the like.

In this latest block of public baths the windows and lanterns throughout are of steel, with condensation channels, and the joinery in the slipper baths is of teak. The floors of the cooling-room, waiting-room, etc., are of hard-wood blocks, and the other floors are in terrazzo, and the walls and partitions, 6 ft. 6 in. high, are in terrazzo, with plaster above. The crush hall has a terrazzo floor and dado, the main stairs are in granolithic with terrazzo dado, and the washhouse and mangling-room floors are granolithic and carborundum, with terrazzo dado and white tiling over. The shampoo and vapour rooms are lined with green "Marbliola," and the cooling-room with white terrazzo.

The boiler plant is interesting, and is the result of much experience in the installation of plants for public bathing establishments. Batteries of sectional steam boilers working at low pressure (5 to 10 lbs.) are coupled with calorifiers, through which the water passes and through which it is mechanically circulated. The heating system is similarly circulated through its independent calorifier. This patented "Economic" system has many advantages in the important matters of control, fuel consumption, and running cost, as well as in initial outlay.

The Evelyn Street block, when carried out, will consist of main entrances with cloakrooms under, and a separate establishment laundry.

An open portico in Evelyn Street fronts an unusually fine crush hall, 14 ft. 6 in. wide and 84 ft. long. There will be two bath halls—the men's pond 90 by 28 ft., and the women's 75 by 26 ft. The floor of the former is specially hollowed for high diving.



New Public Baths at Deptford: the Clyde Street section. By A. W. S. Cross and K. M. B. Cross. Above (left), a range of drying-horses, and (right) a corner of the public laundry, with the mangling-room beyond. Below, the corridor of the men's first-class slipper baths.

In a paper published in the *Journal of the Royal Sanitary Institute* (vol. xlviii, No. 4, 1927), Mr. K. M. B. Cross discussed the possible passing of the slipper bath; but in these days, when leisure has been displaced so thoroughly, it would seem a pity if that last stronghold, the slipper bath, were ousted.

Messrs. A. W. S. and K. M. B. Cross have done yeoman work in the cause of public hygiene, and the source of their enthusiasm is the contemplation of the *thermæ* of that greatest of all civilizations—Rome.

* * *

Following are some notes on the illustrations in the order in which they are reproduced:

Sicilian marble slabs on shaped terrazzo bearers form the principal feature of the shampooing-room, the walls of which are lined with green "Marbliola." The floors are finished in terrazzo. Specially designed basins with hot and cold supplies are provided for each bather.

The ground-floor plan of the complete building, the first portion of which has recently been opened by the mayor, includes two large covered swimming baths, which have not yet been erected, one of which is to be coverted in the winter months for use as a concert hall. Access to the present portion of the building is from Clyde Street, where there is an entrance gateway and superintendent's house above. Access to the public laundry is also obtained from this street. The entrance to the swimming baths will be from Evelyn Street.

The first-floor plan shows the upper part of the swimming baths and various suites of slipper baths ingeniously planned on a difficult site. Reinforced concrete construction is employed throughout the building in accordance with the requirements of the Ministry of Health.

The shampooing-room is fitted with combination shower and needle baths, for use after massage. The walls are finished with green "Marbliola," and the floors are of terrazzo.

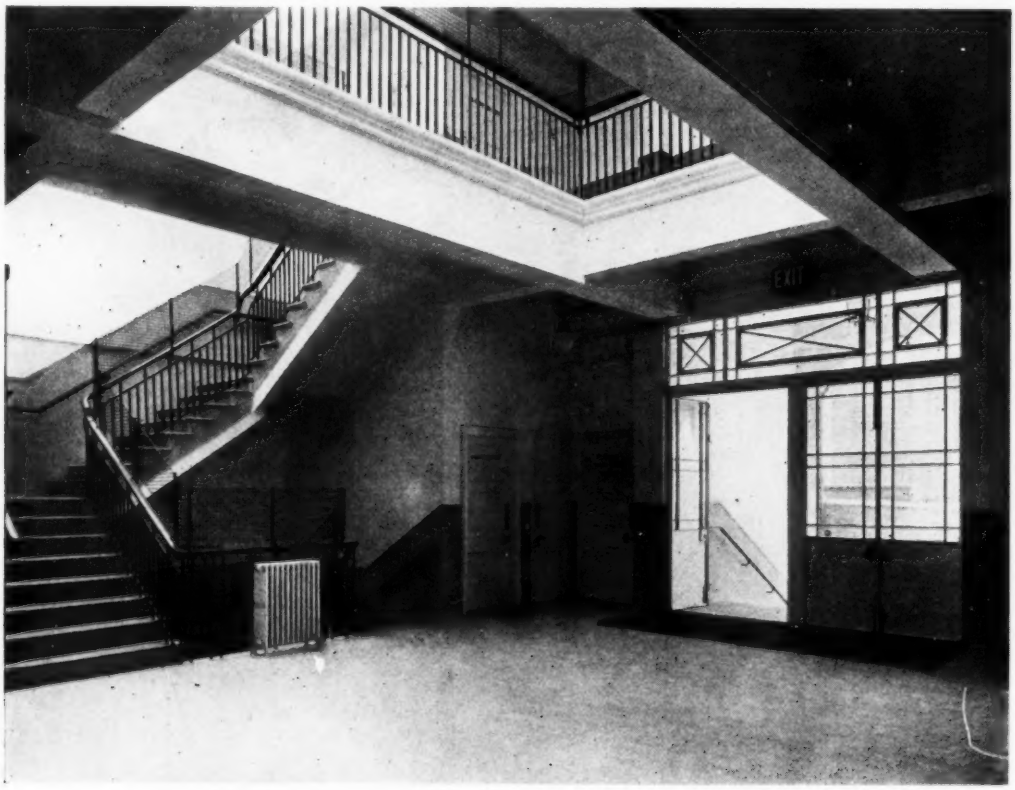
In the cooling-room, twelve couches, curtained off, are provided for rest and refreshment. Bathers, after visiting the steaming-room and the shampooing-room adjoining, can obtain coffee and light refreshments in this room. The walls are finished with white terrazzo. "Bagac" hard-wood block flooring is employed.

The range of heated and ventilated drying-horses occupies one side of the public laundry. Each drying-horse is numbered to correspond with the numbered washing compartments.

The public laundry and the mangling-room are top lighted, and artificial ventilation is employed in the former. Two electrically driven hydro-extractors are to be seen in the foreground, and the washing compartments, with cast-iron galvanized partitions, are planned in parallel ranges across the width of the room.

The corridor of the men's first-class slipper baths. The slipper bath compartments are formed of white and green terrazzo pre-cast slabs, and the doors and frames are of teak. The mixing-valve fittings and waste fitting, which are operated by the attendant, are visible. The floors are finished in green and white terrazzo.

The crush hall, forming the emergency exit from the future swimming baths, provides access to the two classes of men's and women's slipper baths. The floors are finished in granolithic, and the dado in terrazzo.



New Public Baths at Deptford: the Clyde Street section. By A. W. S. Cross and K. M. B. Cross. The crush hall forming the emergency exit.

15 *St. Magnus, London Bridge, stands literally "in the shadow of" its monstrous new neighbour, Adelaide House. The details of the tower, gallery, and lantern are of a richer and more easily comprehended nature than the more reticent and subtle details of the tower of St. Vedast's, and the fact that St. Magnus is a building readily appreciated by the man in the street, makes its semi-obliteration the more deplorable. The admirable weathering qualities of the right bed of Portland stone are apparent in the portion of the tower illustrated.*—[NATHANIEL LLOYD.]

ENGLISH PRECEDENT

THE VALUE OF PAINT IN ACOUSTICS

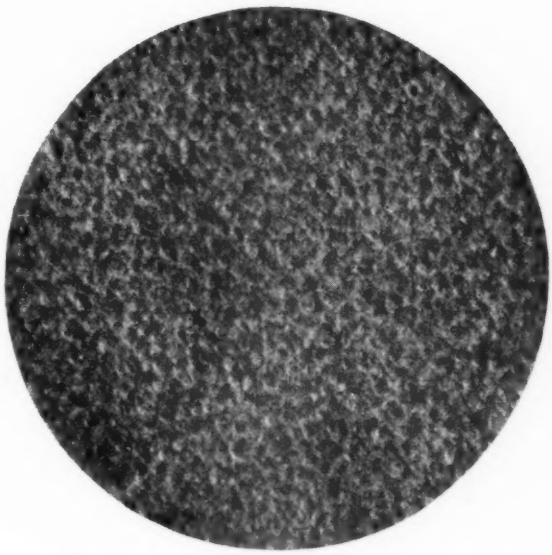
[BY CHARLES H. BUTCHER]

It is well known that ordinary materials of construction will influence the acoustical properties of a room, but the extent to which paint may be utilized to remedy minor acoustical defects has yet to be fully realized.

Let us first consider some of the fundamentals of sound and the constructional features which give rise to good or bad acoustics. Sound is distributed in the form of waves, and these waves, like light waves, may be reflected or absorbed by different surfaces with which they come into contact. The relative extent of this reflection and absorption determines the actual time taken for the sound to die out, a proportion of the energy in the individual sound waves being lost each time these waves strike the surrounding wall surface, or any obstacles which are directly in their path. The actual nature of the surroundings may alter the quality or tone of the sound, but loudness or intensity—for any given sound—is dependent upon the distance the sound has travelled from its source, and also upon the number and nature of the obstacles which are encountered before the sound waves actually reach the listener. Distinctness, on the other hand, is more or less determined by the number of times the sound is reflected, so far as these reflections give rise to echo (which is the distinct repetition of the sound), or to reverberation (which is an undue prolongation, or lengthy period of persistence).

We all know—or should know—that hard solids are, generally speaking, the best reflectors of sound waves, whilst soft, porous media are the best absorbers, and that the voice in a room where the walls are of concrete is louder and persists longer than the voice in a room which is lined with felt. In other words, hardness of the exposed wall and ceiling surface aids in making a room "noisy," in that each individual sound is reflected many times before it dies out. We know, too, that so far as plaster is concerned a hard plaster is generally considered to be a good reflector of sound waves in contrast to porous plaster, which is a good absorber of them.

Now, the surfaces to be obtained with various types of paint are somewhat comparable with the surfaces given by various types of plaster. Just as a hard plaster surface will reflect sound, so will a paint surface which is equally hard and smooth and free from surface pores. A paint surface which contains a number of fine pores, on the other hand, is like porous plaster in being a good absorber of sound waves, reducing them in intensity and in the extent to which it is possible for them to be reflected. It is not only the porosity of the surface, however, which enters into this question of the extent to which reflection and absorption takes place. Sound is like light in more than one respect—it is reflected from a smooth surface to a greater extent than from a rough surface, and it may be proved experimentally that the matt surface given by a "flat" paint will absorb a greater proportion of sound than does the glazed surface which is obtained by the use of a "gloss" paint. The relative thickness of the film is also a matter of importance.



Above, a mixture of wood flour and fine sand sprayed upon a "tacky" undercoat over which a finishing coat of some desired colour has been applied. Below, finely-ground cork dust applied to a "tacky" undercoat with thick coats of flat paint to give the finished surface.

The use of thick coats of flat paint, or some other paint which will give a soft "porous" surface, therefore suggests itself as a remedy for the correction of minor acoustical defects. The sound-reducing properties of such coats of paint are also worthy of consideration in dealing with the internal decoration of factories where there is an excessive amount of noise due to the operation of machinery, spinning mills and the machine-rooms of printing works being two instances which may be cited. In those cases where a flat finish is undesirable, it should be possible to use an "egg-shell" finish over an undercoat, or "cushion," built up from an extra number of coats of flat paint, with almost equally good results.

In addition to the use of thick coats of paint, some modification of the acoustical conditions may be obtained by incorporating a suitable sound-absorbing medium, such as finely-ground cork, into the paint coating, or by imparting a "texture" to the finished surface, similar to those used for cement renderings. For instance, a heavy paste paint of good drying qualities may be applied and finished with the aid of a sponge which is pressed against the surface and quickly removed. In other cases, finely-ground cork or fine sand may be sprayed upon a "tacky" priming coat, over which finishing coats of any desired colour may be applied when the priming coat has dried. Surface finishes of this nature act in much the same way as carpets and curtains, which are so often used as a remedy to reduce the amount of reverberation which is present in a room, the roughness of the surface having more or less the same effect as the interstices of the carpets and curtains.

Where there is just a little too much reverberation, a

sound-absorbing surface of paint can do much to correct it. Paint is cheaper and easier to apply than a superficial coating of plaster, and it is much less costly than *constructional* alterations which might be deemed to be necessary to eliminate some acoustical defect. In any case, where the acoustical properties prove to be unsatisfactory it is no great risk to try the effect of paint before any other course is adopted.

To remedy minor defects it is generally a matter of experiment, and paint fits in with the general routine of building practice so far as internal decoration is concerned. Even without any particular selection of the paint which is employed it will be found that the acoustics can be materially improved, especially in those cases where two additional coats of flat paint are applied, and the surface is finished with a stipple. Paints with a lithopone or a zinc oxide base are preferable to others in their sound-reducing qualities; porosity and flexibility are especially desirable, and since internal paintwork is decorative rather than protective (as compared with external paintwork), "porosity" is not an objectionable feature.

In those cases where reverberation is excessive, the surface of the walls and ceilings may be changed from a smooth plaster finish to a rough plaster finish, using a barbed trowel or an electrically driven scratch-brush, and then coated with flat paint and stippled. Echo, which is just as liable to come from the walls of a room as from a high ceiling, can also be reduced by the application of paint so that the wall surface presents a different factor of reflection to that given by the ceiling. It is, however, in its minor acoustical virtues that the chief value of paint in this connection should be found; for even if a concert hall is free from echo and reverberation, paint is a medium which can be utilized to give that slight touch to the acoustical conditions which is so necessary if speakers are to feel quite at ease and music is to receive a perfect dispersion to all parts of the hall so far as that is possible.

It should be borne in mind that it is of little value to model new halls on the lines of those already built—in the hope of obtaining equally good acoustical properties, where such exist—unless the same materials of construction are used throughout. The materials in use today are not identical with those which were used a few years back; lime plaster on wood lath, for instance, is giving place to gypsum plaster on metal lath, and the resulting surfaces are different so far as their acoustical properties are concerned.

NOISE

Shall our cities be noiseless? How noisy are they, and where does the noise come from? Does it really do any harm? These questions can now be answered, or are in a fair way to be answered, we are told by Dr. E. E. Free in the New York *Forum*. Two years ago that magazine instituted a "noise survey," which is believed to be the first on record. This was followed by a similar survey in Chicago, and by more restricted investigations in Washington, Boston, St. Louis, and other cities. These have brought out very interesting facts, and we are now in a position, Dr. Free thinks, to make our cities noiseless if we want them to be so, and if we care to pay the bill. Some of our most annoying noises are really expensive, and their abolition would actually save money. The noisy machine is a machine that is feeling the effects of undue wear.

The only real obstacle to quiet lives is an imaginary one. We think them impossible. In a decade or two, when another thought shall have come to us, it may be considered as clear a sign of bad municipal housekeeping to permit noisy streets as it is now to get along without sewers. Landlords who build or maintain dwellings that admit too much noise may then be held as much at fault as those who now allow the roofs to leak or gas to seep into the basement. Noise, indeed, is even easier to keep out of a properly built house than rain or sewer gas. Just as soon as enough people demand quiet, they can have it.

The blanket of noise that covers a modern city has been weighed and measured. A noise map of virtually any city may now be drawn from only a few actual measurements; it is almost identical, in fact, with a map of the traffic on the streets. We now know, also, approximately, how much of a city's noise comes from specified sources: from automobiles, street-cars, riveters, and the rest. The pressing uncertainties are now the psychological ones. It is evident that noise in itself is not especially harmful, for even the most nervous individuals often enjoy noises that they themselves make, from tapping their feet on the floor at a concert to tooting their automobile horns at every corner. It is always the other fellow who is annoyed. That the annoyance is real enough, there can be no question, nor does any psychologist who has studied noise imply that noises ought not to be stopped whenever possible. The uncertainties arise in deciding just which noises should be stopped first, which are most annoying and most harmful to average people. Is the single rooster that wakes up the city visitors in the country more of a menace to peace and comfort, or is it the continual deep-toned roar with which the city keeps awake its country cousins but lulls its own sons and daughters to rest?

Fortunately these problems of noise psychology have now been taken for their own by the Committee on the Elimination of Harmful Noise, of the National Safety Council of the United States. Thanks to the programme of psychological studies proposed by the chairman of this committee, we may expect some day to know just which kinds of noise are the most important to kill, as well as something about how to kill them.

A general fact about street noise is that it spreads little from its birthplace. There are interiors of blocks in the city that are as quiet as the average country town, although the four streets that surround these oases may be among the city's noisiest. The sound-waves generated in such plenitude on these streets are absorbed and reflected upward by the house fronts. Backyards may be actually shaded from the street noise as they would be from the sun.

As one ascends floor by floor in the high skyscrapers of New York and Chicago, the noise entering the windows decreases little for the first eight or ten floors. Tall buildings standing alone are more fortunate, but such are rare nowadays, and if tall structures line both sides of a street, the street noise echoes upward with little diminution for perhaps as much as the first dozen floors. Between the tenth or twelfth floors, and about the twentieth or twenty-fifth, the street noise gradually dies away. At the same time, in New York, there becomes evident another noise which is negligible on the street-level—the noise of the whistles of tug-boats and other vessels in the harbour.

The average street noise of a normal busy street in New York or Chicago, Dr. Free tells us, makes the ordinary individual about one-third deaf. The noisiest streets may make him half-deaf, or even two-thirds so. Night noises, which many people find most annoying, are seldom louder than the equivalent of one-tenth deafness. The psychological effects are not determined exclusively by intensity. He goes on:

Among noise-making devices, a good word must be said for one commonly imagined to be the archdevil of them all—the riveting hammer used in the construction of steel buildings. The annoyance caused by these hammers to most individuals is altogether out of proportion to the physical intensity of their noise. Within distances of 15 ft. or 20 ft. the noise emitted by these devices is intense, but no one except the machine's own trainers and attendants is apt to get so near to it as that. As measured under ordinary conditions on the street-level, the noise due to these machines is almost always less than the noise of traffic on a busy street itself. One possible explanation of why it seems so much louder than this is that the noise of the riveter is added to the noise from other sources, making the sum unbearable; for it is one of the physical properties of noise that two separate noises reinforce each other in the ear, like adding weights.

The most probable explanation of the extraordinary annoyance created by riveter noise is its intermittence. The ear has no chance to protect itself by forming a habit. Into the midst of comparative silence bursts the sudden rat-tat-tat like the explosions of a machine-gun. Riveting might actually be less annoying if it were louder but more continuous.

Nobody knows what noise costs, and nobody is going to discover except by some more hard scientific work.

LITERATURE

MR. BELLOC ON ARCHITECTURE

MR. BELLOC is one of those writers—or perhaps he is the one writer—who compels you to exclaim, every time he produces a new book: "This surely is his *métier*! Why was he ever allowed to write in any other!" And you find yourself deploring that extraordinary versatility which has led one of the greatest of our travel-writers, poets, satirists (or whatever the subject may be) into wandering over so many different fields.

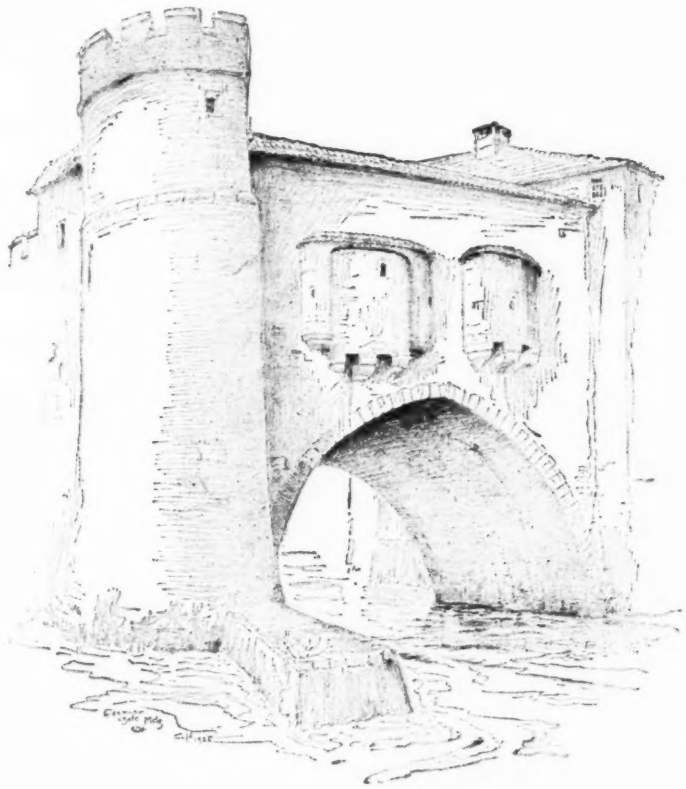
But it may safely be said, without offence, that of all the subjects which Mr. Belloc might have been expected to make his own, he has up to the present devoted least space and time to architecture. He has, of course, only a limited interest in the technique of any art, save that of writing. But, as an historian and writer of travel books, it has been impossible for him to avoid the great buildings which express so much better than any words—even his—can do, that essential spirit of a civilization which is always the object of his pursuit. He has not shirked the subject, for he shirks nothing. But until the appearance of this present book, I cannot remember that he has ever made a consistent and deliberate use of architecture to illustrate his theory—of course, he always has a theory—and to press home his points. This book, indeed, might almost be said to be mainly about architecture, so naturally and inevitably do the buildings fall into the first place as Mr. Belloc passes on from town to town—through Spain and Portugal and Sicily and North Africa, where East and West have fought, and then back to France and the Rhine March. Everywhere it is a building—a cathedral, a castle, a town hall—which inspires him to talk, and points the moral of his tale. And if he could not have designed any of these buildings himself, he approaches them with a keen appreciation of their real meaning and "atmosphere," which every architect must admire, and a power of putting these things into words which might drive the experts to despair.

It is interesting to note some of his predilections. He is against Saracenic art—that we knew, or could have guessed. But when he says that it is "insignificant," unimpressive, aiming always at lavish decoration and "an appearance of lightness," he is scoring against the Moors, certainly, but not against "all things Oriental"—not, for instance, against the old Cairo mosques, such as that of Ibn Tulun. "The perpetual intricacy of pattern, the vivid delicacy of colour, the worship of seclusion and silence," is a better summary of Eastern art. It is a foreign thing in Europe, as Mr. Belloc says, and foreign it once was in North Africa, and may be again. It would have been interesting, by the way, to have had his views on the new French architecture in Africa, so Oriental in spirit yet so well adapted to Western use. Would he have approved—he who can forgive the French almost anything, even the most reckless of their restorations among the ruined Roman cities? I should like to know.

But it is in the Christian churches that we get Mr. Belloc at his masterly best. Of Tarragona he writes:

"As you pass the doors you come suddenly out of the glare into a very cold, black void. At first you can see nothing. You are in what seems to be the complete darkness of a vast cavern, very wide and as icy as might be some subterranean refuge. . . . The medieval architects of Catalonia delighted in the two effects of gloom and breadth: a breadth which seems beyond the capacity of stone; an arch which seems in the gloaming almost too flat for so great a span. . . . They desired a place wherein the soul of man should enter at once into a profound contemplation, and be wholly cut off from the consideration of external things. They desired to put over and around the soul of man, roofing him and guarding him all about, a mystery of silence and immensity. Certainly they achieved what they desired."

He recognizes the defects of Spanish ecclesiastical architecture. Referring to the familiar difficulty of the Coro, he observes that



Metz: The German Gate.
[*From* Many Cities.]

in Salamanca alone has it been possible to introduce this bulky enclosure or pen for the choir, without breaking the effect of height. That is an effect which he values highly, praising it especially in the Palace of the Popes at Avignon. But of all Christian architecture he is a kindly critic. Not even with the disappearance of the Middle Ages and the fading of the sixteenth century into the seventeenth does his enthusiasm abate. His natural preference is probably for the Gothic; but he has a good word for our own Inigo Jones and the "noble architecture" of the Late Renaissance. Such catholicity of task may indicate, it is true, a mind not primarily concerned with problems of art; but it comes also from a mind so richly stored, so well equipped to form its own conclusions, that disputatious artists, the followers of this school or that, of this revival or the other, might well pause and consider whether Mr. Belloc's is not the better to a full appreciation of architecture.

C. WILKINSON

Many Cities. By Hilaire Belloc. Illustrated by Edmond L. Warre. Constable. Price 21s.

THE ACROPOLIS OF ATHENS

This book traces in outline the history of the buildings on the Athenian Acropolis from the Ægean age up to recent times. In describing these works, the uses which they fulfilled and the vicissitudes they experienced, the author relates something also of the political and social history of Greece in general and of Athens in particular: and he manages to combine these demands in an easy, readable manner. It is obvious that he is writing for a general and not a specially informed public. The book contributes nothing new to archæological knowledge or to the critical appreciation of Greek art. Rather, it is a simple, unpretentious introduction to a field of study, the deeper exploration of which is left to other guides. The author shows some skill in maintaining the balance of the various interests with which he deals. He is at his best in his accounts of the sculpture found on the Acropolis. On this aspect of his subject he writes with the surest insight. Where he is concerned with the architecture of the buildings, with their planning, composition and detail, his approach seems more literary and less certain. One odd and serious omission occurs in the architectural portion of the work. Whilst the plan of the Propylæa, as it was originally projected, is described and illustrated, only the existing form of the Erechtheum is discussed and represented. The architect of the Erechtheum is criticized because "he had not found for the execution of his uncommon task a solution that would satisfy our modern demands for architectural uniformity: he was surely too strictly hampered by the demands of the ancient cults." But there is neither reference to nor illustration of Dörpfeld's convincing restoration of the Erechtheum as it was intended to be—a restoration which harmonizes with all the known facts and completely explains the inorganic form of the building as actually erected. This singular omission is the more remarkable in view of the fact that the bibliography appended to the text includes at least three sources from which the information could have been obtained—the *Mitterlungen des Deutschen Archäologischen Instituts in Athens*, Elderkin's *Problems in Peridean Buildings*, and D'Ooge's *Acropolis of Athens*.

The photographic plates comprise general views, architectural forms and details, sculpture, painting and vases. They are all excellent and add greatly to the value of the book.

LIONEL B. BUDDEN

The Acropolis of Athens. By M. Schede. Translated from the German by H. T. Price. London: B. T. Batsford, Ltd. Price 12s. 6d.

A CUBIC RECKONER

A "Swift Cubic Reckoner" (Rectangular), for timber, stone, cases, freights, excavations, etc., has been devised by Mr. J. Gall Inglis, F.R.S.E.

It consists of a simple arrangement of headings which enables a considerable range of dimensions to be included in a small compass, and which enables the answers to any problem needing solution to be read off without any mental addition or subtraction. Anyone, therefore, who will take the trouble to learn the very simple rule governing the use of the headings will have at his command a large range of useful figures in a book which can be easily carried in the pocket. It is difficult to see how the book could have been kept to at least twice the size by any other system than that devised by the author. There are three main sections in the book. 1: cube feet tables, for small widths and thicknesses up to 12 in. by 12 in., and lengths up to 120 ft.; 2: cube feet tables, for lengths up to 72 in., rising by inches, and up to 144 in. by 2 in.; 3: cube yard tables, for dimensions given in feet, up to 100 ft. in length, for excavations, etc. A fourth section gives some useful reference tables. To eradicate typographical errors the proofs have been read three times. Mr. Inglis, who is responsible for the valuable reckoner, will be remembered by many of our readers as the compiler of the *Ideal Ready Reckoner*, and the *Express Percentage Reckoner*, etc.

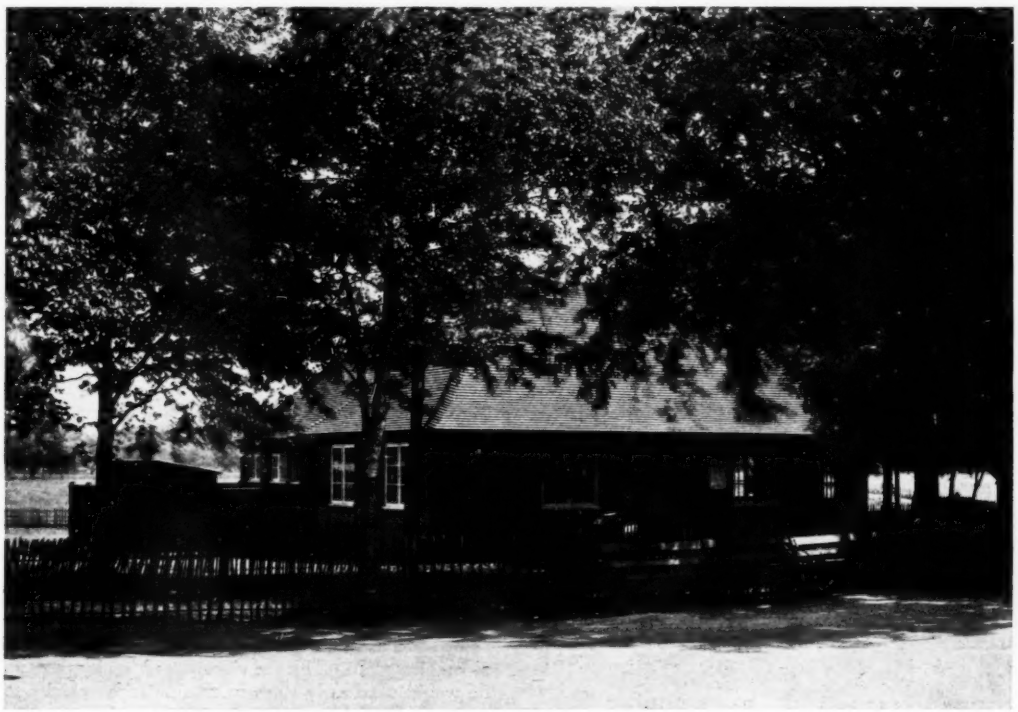
The Swift Cubic Reckoner (Rectangular). For timber, stone, cases, freights, excavations, etc. By J. Gall Inglis. London: Gall and Inglis. Price 4s.

Churchell: The Roman Theatre, Moorish Baths, and Christian Church. [*From* Many Cities.]

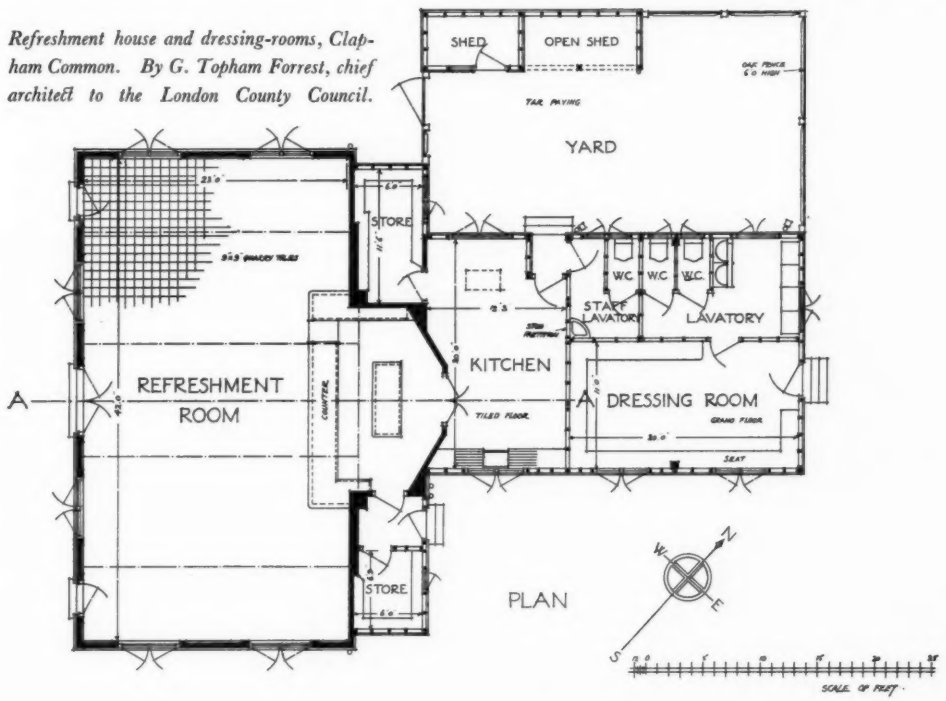
A REFRESHMENT HOUSE ON CLAPHAM COMMON

The accompanying illustrations show the new refreshment house and dressing-rooms which have been erected near the bandstand on Clapham Common from designs prepared in the L.C.C. architect's department, under the supervision of Mr. G. Topham Forrest, F.R.S.E., F.R.I.B.A., F.G.S., chief architect to the Council. The accommodation comprises a refreshment room, 42 ft. by 23 ft., with a centrally placed servery adjacent opening into a kitchen 20 ft. by 12 ft. The latter is installed with gas-cooking apparatus, and is provided with the necessary stores, etc., and staff lavatory. At the rear is a dressing-room for use in connection with the adjacent play areas, with lavatory accommodation adjacent. An enclosed tar-paved service yard is also provided.

The walls of the refreshment room portion of the building are constructed of timber framing, on a brick base, filled in with nogging of "multi-coloured" bricks. The casement windows



Refreshment house and dressing-rooms, Clapham Common. By G. Topham Forrest, chief architect to the London County Council.



are provided with shutters for protective purposes. The floor is of 9 in. by 9 in. red quarry tiles laid on concrete. The rear portion of the building, comprising the kitchen, stores, dressing-rooms, and lavatories, is of timber construction finished on the outside with stained weather boarding. The floor of this portion of the building is also of concrete, with tile finish in the case of the kitchen, the latter being also finished internally with asbestos sheeting. The refreshment room has an open roof sealed in plaster at the underside of the common rafters and collar above the queen-post trusses. Externally the roofs are covered with plain red tiles. The contractors for the building were Messrs. W. J. Dixon and Son.

CORRESPONDENCE

THE RHODES MEMORIAL

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—In the last issue of your JOURNAL you have reproduced a perspective of the Rhodes Memorial which I did for Sir Herbert Baker, A.R.A. This photo was taken before my work was finished, and if you visit the Academy you will see the difference with shadows, reflections, shimmers of light, etc.

The reason I write you is that several friends of mine have said: "Wilson, this perspective is not the same as your finished work."

J. F. WILSON

[We gladly publish this letter, and regret that it proved impossible to delay the photographing until the last touches had been added.—ED. A.J.]

RAILWAY POSTERS

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—Surely Mr. W. R. N. Oliver cannot be serious in suggesting that the entrance to the Redhill tunnel is to be preferred to the Forth Bridge as a poster subject.

The Forth Bridge says exactly what it means—grandly, beautifully, and precisely. The only part of the Redhill tunnel that tells truth is its opening. And that it can't help.

F. L. HELTHORN

THE GRADING OF PLYWOOD

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—It is very good to hear of Mr. Linley's appreciation of our new grading policy, and while we do not agree, naturally perhaps, with his first paragraph in which he says it is a pity that the whole industry has not been covered by this grading policy, we would like to reassure him that steps are being taken eventually to mark each individual board with its particular grade.

Should any of your readers care to have the little chart we have prepared, we shall be pleased to supply it. This chart shows which type of board should be used for any particular job.

VENESTA LIMITED,
E. I. REID, *Director*

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Mr. Chamberlain informed Mr. Wellock that the prices of non-parlour houses included in contracts let by local authorities during the month of March last ranged from £263 to £459, in the most extreme cases, although the bulk of the houses in question came within a comparatively narrow range of prices grouped round the average of £365. The differences in prices might be due to several factors, chief of which were variations in size of houses and in building costs in different areas; nature of site; and standard of construction and amenity. Prices were also influenced by the extent of the demand on the building industry in any area.

The average prices of parlour and non-parlour houses included in contracts let by local authorities during the quarter ending in March last were £437 and £368 respectively. These prices do not include the cost of land and development.

In reply to Mr. Stephen, Sir John Gilmour, the Secretary for Scotland, gave the following statement in regard to Scottish housing, showing as at March 31, 1927, and March 31, 1928, specified particulars of houses being erected under the Housing Acts of 1923 and 1924, respectively:

Date.	Housing, etc., Act, 1923 (including Slum Clearance Schemes).		Housing (Financial Provisions) Act, 1924.	
	Number of subsidized houses under construction.	Number of houses authorized but not commenced.	Number of subsidized houses under construction.	Number of houses authorized but not commenced.
As at—				
March 31, 1927	5,721	2,839	14,115	4,501
March 31, 1928	5,474	2,267	12,627	6,451

There is a distinct possibility that, as a result of the second reading debate on the Petroleum Amendment Bill in the House of Lords, local authorities may be given more stringent powers for dealing with unsightly petrol pumps and filling-stations. It will be remembered that the Bill, as it left the Commons, empowered certain local authorities to make regulations prohibiting or altering such structures, but that existing structures shall not be touched for two years.

The Government, during the second reading debate in the Lords, promised to consider whether it might not be possible to take some immediate action in regard to these offenders against the amenities of the countryside, and also to see whether urban authorities might not also be given powers. Lord Hunsdon expressed the hope that something stronger than permissive provisions might be inserted in the Bill, and pointed out that certain local authorities already possessed powers, but had failed to make use of them.

At question time in the House of Commons, Sir P. Richardson asked the Minister of Transport whether he had received any complaints as to the speed of heavy motor vehicles and of damage to buildings caused by the vibration set up by them; and whether he would take early steps to confine such vehicles to their legal speed limits and to protect the owners of houses adjacent to main roads?

Colonel Ashley said there was some reason to hope that vibration caused by heavy traffic would decrease in the future owing to the improvements which were continually being made in road surfaces and in the design and construction of heavy motor vehicles. As regarded the driving of vehicles at excessive speeds, the enforcement of the law was a matter for the police.

Mr. Hacking, replying for the Department of Overseas Trade, informed Mr. Kelly that the Underground Railway Company contemplated erecting an exhibition building on the Earl's Court site, and, should that scheme materialize, his department would discuss with the company the possibility of the annual British Industries Fair being held in the new building. The Government would have no financial responsibility for the building.

Sir Walter de Frece asked the Minister of Health whether any centres of population, over 25,000, now regarded their requirements with respect to the provision of new houses as having been substantially met?

Mr. Chamberlain said he had not received any formal statements to the effect indicated, but very great progress had been made in the provision of houses in the last two or three years.

Dr. Salter asked the Minister of Health whether he was aware that, following the reduction in the subsidy, there had been a marked falling off in the number of houses under construction or authorized under the 1923 and 1924 Acts; and whether, with a view to stimulating local authorities to undertake wide schemes of building for letting, he would give an early assurance that the present rates of Exchequer assistance would be available for all houses completed by September 30, 1929?

Mr. Chamberlain said he was aware that, as compared with the

abnormally high rate of house construction just before the reduction of the subsidy became operative, the subsequent statistics showed a falling off in the rate of house building. The latest figures indicated that the rate was now increasing again. With regard to the last part of the question, although he could not, of course, anticipate what the result would be of the statutory review of the subsidy at present payable, which must be undertaken after October 1 next, he had in the meantime decided that houses completed by March 31, 1929, should, if otherwise eligible, qualify for subsidy at the existing rates.

LAW REPORTS

ALLEGED OBSTRUCTION OF ANCIENT LIGHTS

Maybury v. *Spickernell. Chancery Division. Before Mr. Justice Clauson*

This was an action by the plaintiff, owner and occupier of 69 Bradford Road, Southsea, Dr. A. V. Maybury and Mr. B. Ware, against the defendant, the owner of a cinema at the corner of Bradford Road and Victoria Road, Southsea, for a mandatory order to pull down so much of his western wall as obstructed the ancient lights of plaintiffs' premises, and for damages.

Mr. Jenkins, K.C., for the plaintiffs, stated that before the defendant's cinema was erected in November last, the site was occupied by two small cottages 80 ft. away from plaintiffs' house with a nicely kept garden between. The western wall of the cinema was 34 ft. to 35 ft. high, and was only 10 ft. away from plaintiffs' windows. The case for the plaintiffs was that whereas before the cinema was erected the living-room, sitting-room, and scullery of their house were bright and cheerful, they were now "dark, dismal, and depressing," and that the staircase was positively dangerous.

Mr. Percy John Waldram, the daylight illumination expert, expressed the opinion that this was one of the worst cases of light obstruction he had known.

Mr. Tutte, architect, of Portsmouth, said defendant's premises had considerably lessened the comfort and enjoyment of plaintiffs' house and depreciated it in value.

Mr. Manning, K.C., said the defendant's contention was that there was sufficient light left for the ordinary requirements of mankind. His client paid £3,250 for the site, and the building, furnishing, etc., cost £38,000. Dr. Maybury had refused to sell the defendant the property.

Mr. Alfred Ackerman, Victoria Street, Westminster, expert on light affecting buildings, said there was a deprivation of light, but no substantial deprivation except in the case of the living-room, and he did not feel confident as to whether there was sufficient there to make the room uncomfortable.

Other evidence to the same effect was called for the defence, and also to show that the house would sell for as much now as before the cinema was built.

His lordship dismissed the action, with costs. In giving judgment, he pointed out that no injunction was applied for by the plaintiffs and the writ was not served until November 30, when the wall was for all practical purposes completed. Under those circumstances it was impossible for the plaintiffs to obtain any form of injunction, and the action resolved itself into one of damages. He had therefore to consider whether the interference which the wall made to the access of light to plaintiffs' premises amounted to an actionable nuisance. With regard to the sitting-room and staircase windows he found that there was no substantial interference with the light, but that in the case of the living-room and scullery the standard had fallen from good light to inadequate light. The point, then, was whether there was sufficient light left for the ordinary purposes of inhabitancy according to the ordinary notions of mankind having regard to the locality and surroundings. He had to determine that acting as a juryman and he had to distinguish between partial inconvenience and real injury to the plaintiffs' enjoyment of the premises. He was told that if all the houses in this road were decontrolled the others would let at 25s. a week and this only at 12s. 6d., but as a juryman he was unable to accept that view. If matters were as bad as stated he would have expected the occupants of the house to have been driven into other rooms. He came to the conclusion that the case fell on the side of partial inconvenience and not real injury, and plaintiffs having no cause of action it must fail, and he dismissed it with costs.

COMPETITION CALENDAR

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

September 1. The Council of the R.I.B.A. have accepted an offer from the directors of the Gloster Aircraft Co., Ltd., and Messrs. H. H. Martyn & Co., Ltd., to give a prize for the best imaginative scheme for a London aircraft terminus suitable to the supposed requirements of air traffic fifteen years hence. The competition is open to Associates, elected Students, or registered Probationers of the R.I.B.A. below the age of thirty years on September 1. The competition will be in two stages. From the preliminary competition ten competitors will be selected for the final, and each will be paid £5 for his expenses. The closing date for the final is January 10. There will be two prizes in the final, a first prize of £125 and a second prize of £25. The following have consented to form the jury to award the prizes: Sir Sefton Brancker, K.C.B., Mr. C. Cowles-Voysey, Mr. E. Vincent Harris, Sir Edwin Lutyens, R.A., Major R. Mayo (consulting engineer, Imperial Airways, Ltd.), Mr. T. S. Tait, Mr. Maurice E. Webb, Mr. G. E. Woods-Humphery (general manager, Imperial Airways, Ltd.). Particulars may be obtained free on application at the R.I.B.A.

September 5. School at Rickmansworth to accommodate 400 senior girls, for the governors of Royal Masonic Institution for Girls. Assessor: Mr. H. V. Ashley, F.R.I.B.A., Premiums: £750, £500, £400, £300 and £200. Particulars from Mr. M. Beachcroft, 31 Great Queen Street, W.C.2. Deposit £2 2s.

September 29. The British Portland Cement Association, Ltd., is offering awards for the best concrete houses erected during the current year. These awards are offered for work that has been actually designed and constructed. The prize awards will be as follows: To architects, 1st prize, £100; 2nd prize, £50; to builders, to the builder of the house awarded the 1st prize, £50; 2nd prize, £25. Assessor: Mr. E. Guy Dawber, A.R.A. Any concrete house or bungalow, the contract price of which is from £500 to £2,000, designed and erected in Great Britain under the supervision of an architect, is eligible. Houses must conform to the following requirements: 1: Only cement of British manufacture shall have been specified and used, with the exception of white cement which only may be used for obtaining special effects; 2: Concrete must be used for the roof of houses where a flat roof is called for. The covering for other types of roof must be pre-cast concrete tiles except where extra expense is entailed by the employment of this latter form of covering. The actual construction must be completed by the end of 1928 in order that the prizes may be awarded early in 1929. Further particulars from The British Portland Cement Association, Ltd., 20 Dartmouth Street, London, S.W.1.

ANNOUNCEMENTS

Mr. Vivian Saunders, who has been with Messrs. Healing and Overbury for the past eight years as managing assistant and quantity surveyor, has set up in practice as an independent quantity surveyor. His office is in Marshall's Chambers, 4 Clarence Street, Cheltenham, at which address he will be pleased to receive trade catalogues.

It has been decided to hold an exhibition of black-and-white and colour work by members of the R.I.B.A. at the Institute Galleries from October 1 to 11. All works sent in for exhibition will be submitted to the judgment of the Selection and Hanging Committee, whose decision will be final. Exhibitors will be required to pay the cost of carriage and insurance during transit and to make arrangements for the collection of their works at the close of the exhibition. In order that the committee may be in a position to formulate some idea of the amount of work available, members who are willing to submit black-and-white drawings, original etchings, or engravings, and colour sketches for consideration by the committee are requested to write to the secretary, R.I.B.A., not later than June 1, giving the following particulars: 1: sizes; 2: subjects (these need not necessarily be architectural); 3: names of draughtsmen; 4: whether black-and-white or colour; 5: approximate value of each work. A provisional limit of 15 sq. ft. per exhibitor has been fixed, but this may be revised when the committee learn how much work is available.

TRADE NOTES

Messrs. Wood Russell & Co., Ltd., of 34 Oxford Street, London, W.1, have just put on the market two new and improved patterns of their "Sentry" hot water boilers. These are known as sizes "C" and "D," and follow in general appearance and style their well-known patterns, sizes "A" and "B," thus extending the series of the square type boiler with large rectangular open

The Sentry hot water boiler, "C" pattern.

fire. The modern demand is for an exceptionally large open fire, and it is for this reason that the new sizes "C" and "D" have been produced, so that this feature may be available in larger-sized boilers than hitherto. The size of the open fire in the "Sentry" boilers, sizes "C" and "D," is 10 in. wide and 8½ in. high. These boilers are fitted with ashpans and can be supplied if required with white porcelain, enamelled tiled, pattern metal panels, as illustrated on this page. A new feature which has not been adopted hitherto, is the provision of means whereby the firebar level can be permanently raised for summer work when less hot water is required. This is a distinct advantage in boilers in any but the very small sizes, as it permits the cooking to be carried out on the hot-plate just as efficiently in summer as in winter, although there may be only a small fire in the boiler. The resultant fuel economy is self-evident. Sizes "C" and "D" are both designed to take the "Sentry" oven.

Considerable use is now being made by architects commissioned to undertake the erection of hospitals, schools, and other buildings of Duramit, a comparatively new material for the construction of all floor surfaces subjected to the hardest wear. Among the many uses to which the material has already been put is the construction of floors, pavements, platforms, and roads. The material is composed of crystals and crystalloids which, according to the Mohs scale, approximate to the ninth degree of hardness. Thus the manufacturers, the Kleine Patent Fire-Resisting Syndicate, Ltd., claim that a surface composed of this material will withstand the heaviest traffic and remain waterproof and non-slippery, and free from dust, whether laid under cover or in the open. The binding material is rapid-hardening Portland cement. The surface is laid either *in situ* on a cement and sand screeding, or can be used as a surface by slab makers. It can be equally well laid on old work, provided it forms a suitable sound foundation, and sufficient depth is allowed for the cement and sand screeding. Owing to the small particles of which Duromit is composed—the largest passing a $\frac{1}{12}$ in. mesh—and the perfect grading, it is claimed to work very easily. The ingredients are all of practically the same specific gravity, thus eliminating the danger of an irregular mixture. The surface varies in thickness from $\frac{1}{4}$ to $\frac{3}{8}$ in., according to the nature of the traffic it has to withstand. As the minimum screeding on which the surface is laid is about $\frac{3}{4}$ in. thick, the total thickness of a surface floor will vary between 1 in. and 2 in.—depending upon the more or less perfect level of the foundation to be made up in the screeding, and also on the severity of the traffic. Duromit is particularly recommended by the manufacturers for roads, courtyards, docks, railway platforms, pavements, warehouses, factories, machine shops, garages, silos, staircases, and wherever flat or sloping surfaces are exposed to severe wear and are wanted to be free from dusting and to remain non-slippery.

DEPTFORD'S NEW BATHS

Following are the names of the contractors and sub-contractors for the Deptford Public Baths (Clyde Street Section), illustrated on pages 687 to 694 : General contractors, Wylie and Lochhead, who also carried out the demolition, excavation, reinforced concrete, plumbing, fireproof doors, plaster work, joinery, and water supply; clerk of works, Mr. A. J. Disbury; general foreman, Mr. J. Bailey; contract price, £43,000 (including superintendent's house and gateway, which cost £1,989). Sub-contractors: Ragusa Asphalte Co., asphalt; Stone and Marble Co., stone, stonework, and marble; Westwood & Co., roof trusses and reinforced concrete steel rods; Brookes, Ltd., tiles, patent flooring, and tiling; Young and Croydon, slates; Elgood & Co., terra-cotta partitions; Newton and Sons, glass; Crittall Manufacturing Co., patent glazing, casements, and window furniture; Acme Flooring Co., wood-block flooring; Z. D. Berry and Sons, central heating, boilers, and ventilation; Tyler and Freeman, electric wiring, electric light fixtures, electric heating, and bells; Oates and Green, sanitary fittings; Carter and Ainsley, door furniture, folding gates, and railings; Haywood, iron staircases; Deptford Co-operative Society, textiles and furniture; London Lift Co., lifts; Birmingham Guild, commemoration tablet. Messrs. Mouchell and Partners were the consulting engineers for the reinforced concrete work.

NEW INVENTIONS

[These particulars of new inventions have been 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, London, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

7227. Anderson, G. Making bricks. March 8.
6872. Browne, E. H. S. Cementitious material. March 5.
7054. Emra, F. H. Concrete building construction. March 6.
6825. Frank, A. Process for producing iron-framed walls. March 5.
7306. Walsh, F. Binding-block for building construction. March 9.

SPECIFICATIONS PUBLISHED

286321. Willis, F. W. Fireplaces.
286336. Lessing, R. Treatment of materials with binders, and briquetting said material.
286510. Tirifahy, L. Armoured or reinforced-concrete structures.
278691. International Copperclad Co. Building material and method and apparatus for making same.

ABSTRACT PUBLISHED

284157. Chedburn, N. S., Glovaled, Pembroy, Carmarthenshire. Casting concrete walls.

THE PRINCIPLES OF PLANNING BUILDINGS

In reviewing *The Principles of Planning Buildings*, by Mr. Percy L. Marks, on page 423 of our issue for March 21, our contributor stated that the book had reached its *second* edition. This should read *fourth*. It should also have been stated that the price of the book is 21s.

THE WEEK'S BUILDING NEWS

Estimates of £30,500 have been passed by the Cheshire Education Committee for improvements and new buildings at the Grammar School, CALDAY GRANGE.

*

The L.C.C. has passed plans submitted by Messrs. F. A. Saunders & Co., Ltd., for alterations to buildings at 7-13 Lavington Street, SOUTHWARK.

*

The L.C.C. has agreed to plans submitted by Mr. W. H. Ansell, on behalf of Mr. F. C. Heley, for new buildings on a site in Wilton Road, HACKNEY.

*

The Cheshire Education Committee has voted a sum of £97,000 in connection with land and buildings for the new secondary school at BEBINGTON.

*

The Cheshire Education Committee is enlarging the high school for girls at ALTRINCHAM.

*

The Cheshire Education Committee has voted £15,000 for extensions to the secondary school at HYDE.

*

Messrs. Wright and Hamlyn are to erect a church in Ellesmere Road, STOCKTON HEATH, Cheshire.

*

The Cheshire Education Committee has purchased land at SALE for the erection of a secondary school for boys, and also for the extension of the high school for girls.

*

The Birkenhead Brewery Company are to erect an hotel in Hoylake Road, MORETON.

*

The Baxter estate is to develop an estate at SHARSTON, Cheshire.

*

The Office of Works is to erect a telephone exchange at HESWELL.

*

The District Bank is to erect a bank in Church Road, NORTHENDEN, Cheshire.

*

The ATHERSTONE R.D.C. is to proceed with the erection of seventy houses on the Westwood estate.

*

The Warwickshire Education Committee is seeking a loan for the purchase of a site at KENILWORTH for the erection of a central school.

*

The BOLTON Corporation has obtained sanction to borrow £42,174 for the erection of 104 houses on the Paulhan Street and Morrison Street site, and £32,268 for the erection of ninety-eight houses on the Back Tonge Moor Road site, also £35,038 for the erection of ninety-eight houses at Quebec Street.

The BIRKENHEAD Corporation Gas Committee has received from the Ministry of Health approval of the proposals for the erection of new offices and stores at the gasworks.

*

Plans passed by the SHEFFIELD Corporation: Eight houses, Truswell Road, for Mr. W. F. Gracie; six houses, Hutcliffe Wood Road, for Messrs. A. J. Belton, Ltd.; four houses, Bingham Park and Greystones Hall Roads, for Messrs. M. Malthouse, Ltd.; seven houses, Dykes Hall Road, for Mr. G. M. Gill; three houses, Barnsley Road, for Messrs. Oxspring Bros.; two houses and shops, Stubbin Lane, for Mr. G. M. Payling; eight houses, Struan Road, for Messrs. H. and E. E. Plant.

*

The BIRKENHEAD Co-operative Wholesale Society, Ltd., is to demolish premises in Park Road South and erect a dairy building for the treatment of milk and cream.

*

The Baptist Church are purchasing a site in Wood Lane, BECONTREE, for the erection of a church.

*

The WANDSWORTH B.C. is acquiring land at the rear of the public baths in High Street for the provision of additional washing baths.

*

The St. Marylebone Housing Association, Ltd., are to erect sixty-three flats on a site facing Salisbury Street, ST. MARYLEBONE.

*

The L.C.C. has decided to raise no objection to a proposal to construct a new subway under Foley Street, MARYLEBONE, connecting the institute of bio-chemistry and the new nurses' home of the Middlesex Hospital.

*

The Minister of Health has now directed that a local inquiry shall be held with reference to Carlisle Street, MARYLEBONE, clearance scheme.

*

The SHEFFIELD Corporation has asked the city architect to prepare specifications, plans, and estimates for washhouses at Upperthorpe and Wincobank and to obtain tenders for the work.

*

The London Baptist Property Board, Ltd., are purchasing a site in Downham Way, DOWNHAM, for the erection of a church and Sunday school.

*

The trustees of the PURLEY Baptist Church are to erect additions at their church in Banstead Road.

*

The Birmingham and Midland Motor Omnibus Company are to erect new premises in Southgate Street, LEICESTER.

The COVENTRY Corporation Housing Committee has decided to acquire two sites for the purpose of the ten years' housing programme at the price of £15,925 and £9,000 respectively.

*

The LEEDS Corporation Housing Committee has approved the layout plan of the Henconner Lane housing estate, Bramley, and asked the city engineer to prepare plans for the erection of 160 houses and fifty-six flats on the estate; a further fifty houses on the Meanwood housing estate, and sixty-two houses and twenty-four flats on the York Road and Selby Road housing estate.

*

Plans passed by the BOLTON Corporation: Two houses, Belmont Road, for Mr. J. Cheadle; extension to bakery, 2 and 4 Kimberley Road, for Messrs. J. T. Young and Sons; almshouses, Mackenzie Street, for Alderman J. F. Steele; extension to pavilion, Manchester Road, for Y.M.C. Association; alterations, Bridgwater Arms, Manchester Road, for Messrs. W. Tong and Sons, Ltd.; chemical and ash mixing-rooms, Mortfield Bleachworks, for Messrs. Thomas Cross & Co., Ltd.; twenty-two houses, Crompton Way and Highfield Road, for Messrs. Leigh Bros., Ltd.; nine houses, Lever Edge Lane, for Mr. T. P. Smith; twenty-five garages, Springfield Garage, Bradford Street, for Messrs. Edwards Bros.; extensions, Kirkbrook Road, for Messrs. Joseph Johnson (Bolton), Ltd.; extension to veranda, Higher Bridge Street, for the Palladium Cinema, Ltd.

*

At a meeting of the LEEDS Corporation Libraries Committee the city engineer submitted plans and estimate of the cost of the provision of a branch library for the Hunslet district on a portion of the site at the junction of Branch Church Street, Waterloo Road and Chapel Walk, and tenders are to be obtained for all or separate trades in connection with the erection of the building.

*

The BIRKENHEAD Education Committee has obtained the approval of the Board of Education to the plans for the new Trinity Street Council School at a cost of £20,409.

*

Plans passed by the ILKESTON Corporation: Addition, Corporation Road, for Mr. Geo. Noble; addition, Cotmanhay Road, for Messrs. T. Shipstone and Son; rebuilding of barn, Rutland Farm, Heanor Road, for Manners Colliery Co., Ltd.

*

Plans passed by the BIRKENHEAD Corporation: Mission hall, Storeton Road; two houses, Hesketh Avenue; seven houses and shops, Borough Road; eight houses, Mona Street; addition, Rock Ferry Baptists Assembly Hall, Bedford Road.

At a meeting of the BIRKENHEAD Corporation Estates Committee, the borough engineer reported upon plans and estimates for the erection of thirty-two non-parlour houses adjoining the Dell, Rock Ferry, and the demolition of the present buildings. The plans were approved and tenders are to be invited by advertisement for the demolition of the existing buildings and for the erection of the proposed houses.

*

Plans passed by the LEEDS Corporation: Four houses, Woodliffe Crescent, Scott Hall Road, for Mr. G. H. Woodliffe; two houses, Henconner Lane, Bramley, for Mr. Harry Brown; two houses, Grove Hall Drive, Beeston, for Mr. Alfred Todd; two houses, Stanmore Crescent, Burley, for Mr. Joseph Greenwood; four houses, Gipton Wood Road, Harehills, for Messrs. F. Reddyhoff and Son; eight houses, Stanmore Crescent, Burley, for Mr. Joseph Greenwood; two houses, Green Lane, Cookridge, for Mr. R. P. Ellis; two houses, Mivis Lane, Cookridge, for Mrs. R. Seddon.

*

The MANCHESTER Corporation has obtained sanction to borrow £816,669 for the purchase of land at Barlow Moor Road and the erection thereon of 1,404 houses.

*

Plans have been approved and the licensing justices have agreed to additions and alterations at the Red Lion Hotel, Flixton; Gale Hotel, Pace; Bridge Inn, Failsworth; Wellington Inn, Walker Street, Manchester; and Albert Hotel, Oldham Street, Manchester. Mr. J. B. Langley, of PRESTBURY, is the architect.

*

The Cheshire Education Committee has voted £25,000 for the erection of an elementary school in Heathfield Road, ELLESMERE PORT.

*

Plans passed by HERNE BAY U.D.C.: Three houses, Bournemouth Drive, for Mr. H. C. Box; alterations to ambulance station, New Street, for Messrs. G. R. Brown and Sons; three houses, Belinge Road, for Messrs. G. R. Brown and Sons; alterations, The Creameries, Sea Street, for Messrs. J. Howell and Son; six garages, "Shasta," The Broadway, for Mr. E. Edwards; house and shop, Sea Street, for Mr. A. G. Sturt.

*

Plans passed by the BRIGHTON Corporation: Motor showrooms, 21 Bedford Square, for University Motors, Ltd.; two houses, Alexandra Villas and Alfred Road, for Mr. Joseph Cohen; alterations, Royal Spa, Queen's Park, for Messrs. Hooper, Struve & Co., Ltd.; partial reconstruction, 92 London Road, for Mr. T. Birch; twenty-five houses, Baden Road, for Messrs. Braybons, Ltd.; showroom, 19 and 20 Meeting House Lane, for Messrs. Hanningtons, Ltd.; six houses, Kimberley Road, for Mr. G. Ayling; alterations, &c., 104 London Road, for Messrs. Young, Henderson and Sadler.

Plans passed by the HACKNEY B.C.: Workshop, garage, and stable, Amhurst Road, for Commercial Structures, Ltd.; addition to workshop, De Beauvoir Road, for Messrs. Keetch and Sons; garages, 236 and 238 Amhurst Road, for Messrs. Boxall and Boxall; synagogue, Grove Lane, for Mr. G. Coles; post office and telephone exchange, Paragon Road, for the Triangular Construction Company; boiler-house, Hackney Hospital, High Street, Homerton, for Messrs. Hood Bros.; shops, 125 and 123 Haggerston Road, for Mr. E. Cannell; addition to offices, Oak Wharf, for Messrs. J. and J. Dean; buildings, Middlesex Place, for Messrs. Crickmay and Wintle.

*

The LEICESTER Corporation is to proceed with the first section of the public abattoir at a cost of £69,000 for buildings and £3,000 for machinery. Mr. R. Stephen Ayling is the architect.

*

The Cheshire Education Committee has voted £25,500 for the erection of an elementary school in Grove Street, NEW FERRY.

*

The premises of 12, 14, and 16 Northumberland Alley, and Lloyds Avenue, LONDON, are to be demolished and new buildings erected.

*

The managers of the St. George's R.C. School are to provide a new public elementary school for about 200 children at the junction of Fifth Avenue and Melrosegate on the Tang Hall estate, YORK.

*

Plans passed by the YORK Corporation: Two houses, Oakland Avenue, Stockton Lane, for Mr. H. C. De Burgh; additions, Feasegate Restaurant, for the York Coffee House Co.; additions, 4 Market Street, for Mr. H. L. B. Pawson; two houses, Grange estate, Fulford Road, for Messrs. R. J. Pulleyn and W. Farrar; shop and offices, Melrosegate, for Mr. O. Colbert; three houses, Finsbury Street, for Mr. W. Johnson; additions, 42 Fossgate, for Merchant Adventurers Co.; additions, Bishophill, for Messrs. Cooke, Troughton and Simms, Ltd.; library, Clifton, for the committee of St. Peter's School.

*

The HULL Corporation has sold land at Askew Avenue to the United Methodist Church (Hull circuit) for the erection of a chapel.

*

The Board of Education has approved the preliminary plans for the proposed new technical college at WORKSOP, and detailed plans have now been prepared by the Notts Education Committee, and submitted to the Board. The total cost is estimated at £18,350.

*

The HULL Corporation has obtained sanction to grant a further 100 housing subsidies.

The LEEDS Corporation is seeking sanction to borrow £67,481 for the construction of new workshops in New York Road for the gas department.

*

The BOLTON Corporation has appointed a committee to consider the question of the provision of a boating lake.

*

The BIRKENHEAD Corporation is obtaining a large site at King's Road, Bebington, for another housing scheme.

*

The LEEDS Corporation has decided to reserve for baths purposes a site on the Compton Road estate.

*

Plans passed by the COLCHESTER Corporation: Alterations and additions, Head Street and Church Street, for Mr. T. H. Baker; shop, East Street, for Mr. A. T. Brown; alterations and shop front, Crounch Street, for Mr. R. W. Beales; two houses, Ipswich Road, for Mr. C. A. Ellis.

*

The LEEDS Corporation is seeking sanction to borrow £140,000 in connection with the erection of houses and flats on housing estates at York Road and Selby Road, Meanwood and Middleton.

*

The LEEDS Corporation has granted the application of the Anglo-American Oil Co., Ltd., for permission to make alterations and extensions to their depots in Clarence Road and Knowsthorpe Lane.

*

The WIMBLEDON Corporation has obtained sanction for a loan of £50,000 for further housing advances.

*

Plans passed by the PLYMOUTH Corporation: House and shop, Higher Compton Road, for Mr. Cannon; four houses, Tavistock Road, Hartley, for Mr. W. H. Joce; four shops and one house, Beauchamp Road and Tavistock Road, Peverell, for Mr. J. H. Endean; house and shop, Tor View Avenue, for Messrs. G. G. Shellabear and Son; five houses, Ford Park Road, for Mr. J. Waycott; alterations and additions 63 Mutley Plain, for National Provincial Bank, Ltd.; two houses, Higher Venn estate, for Mr. J. H. Dyer; extension of Abbey Garage, St. Andrew Street, for Messrs. W. Mumford, Ltd.; four houses, Browning Road, for Mr. W. H. Heath; seven houses, Wolseley Road, St. Budeaux, for Mr. J. Evans; timber store, Halwell Street, for Messrs. Coles Bros.; six houses, Salisbury Road, for Mr. Joshua; amended layout, Swilly estate, for Mr. F. Westcott.

*

Plans passed at PURLEY: Eight houses, Woodcote Valley Road, Smitham Bottom Lane, for Mr. A. T. Bate; twenty garages, junction of Grovelands and Brighton Roads, for Mr. R. O. Baker; two houses, Brancaster Lane, for Messrs. Gridrah Estates, Ltd.

READERS' QUERIES

CONVERTING TWO BUILDINGS INTO ONE

R. D. J. writes: "I intend converting two semi-detached buildings into one, by taking the centre wall or party-wall down. As the buildings are about thirty years old and built of stone, would the removal of this centre in any way weaken the entire structure? What do you recommend for sound-deadening between two rooms, one over the other? These are existing, and I am of opinion that pugging between ceiling and floorboards between joists would deaden the sound, but I should like your opinion and advice, as I want to make the floor as near sound-proof as possible."

The alteration is bound to weaken the structure to some extent, since a very important cross-wall will be removed and the face walls will be left without its buttressing effect.

The areas of the central piers which will be left in the back and front walls are not indicated upon the plan, but it may be assumed that they will each amount to about 10 sq. ft. to support the weights of the piers themselves, and the weights of first and second floors and roof.

At a rough calculation each pier may be required to support approximately 45 tons at usual allowances for weights of floors, roofs, and masonry, which will give a load of 4·5 tons per sq. ft. of surface at the base of the pier.

This is half as much again as the 3 tons maximum for rubble in lime mortar advised in the textbooks, and suggests that additional area should be given, either by leaving responds projecting from the piers where the party-wall now stands, or by introducing stanchions to carry the floor beams.

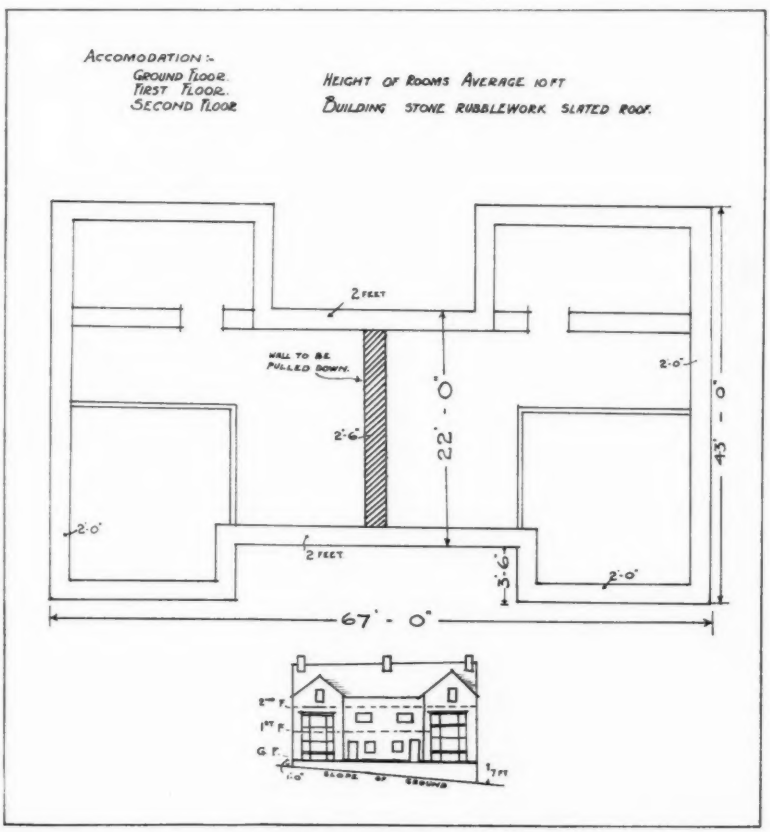
Before commencing operations it will be well to discover the type of mortar used in the construction of the wall, as in some districts road-sweepings are still considered good enough to act as mortar by country builders. In such cases the allowance of a maximum load of 3 tons to the foot is decidedly risky except where the length of the wall is divided up by efficient cross-walls and the heights of the stories are kept down to the minimum.

Sound-proofing the floors by means of pugging has the objection that it favours the rotting of the joists by obstructing the free access of air to their sides.

It is better in this respect to add the sound-proofing material in the form of a continuous layer or quilt over the tops of the joists and beneath the floorboards. Several fibre boards and building felts are on the market which can be used in this manner without the expense involved in filleting the sides of the joists and inserting supports for the pugging.

If the existing floorboards are old and uneven it might be worth while to apply the sound-deadening material over them and to lay down a new floor on top.

W. H.



Converting two buildings into one. [*See answer to R. D. J.*]

A HOT BATH

X writes: "Please inform us 1: what is the temperature which is generally assumed for the normal requirements of a hot bath, and 2: the average number of gallons required for a bath at this temperature?"

Slight variations exist in the amounts and temperatures allowed by different authorities. The following tables are given by W. J. Hadley, M.D., 1902, and by Henry Jellett, M.D., 1908:

	Hadley.	Jellett.
Cold bath	33°- 65°	33°- 65°
Cool bath	65°- 80°	65°- 85°
Tepid bath ..	80°- 90°	85°- 92°
Warm bath ..	90°-100°	92°- 98°
Hot bath	100°-112°	98°-110°

Both tables are in degrees Fahrenheit (F.). A full-length standard bath filled to a depth of 1 ft. contains approximately 10 cu. ft. of water, or 62·5 gallons. The bather's body, partially submerged, brings the water-level up to overflow height with this amount, but if renewal of hot water is anticipated during bathing the allowance should be increased. Except where it is considered desirable that the bather should be able to lie at length, there are several advantages in adopting shorter baths which may be comfortably filled by about 30 to 40 gallons of water. A full-size bath is liable to overtax the boiler of a small kitchen range, and the water runs cold before the bath is filled to a level high enough to submerge the bather. A short bath is also a safeguard against accidental drowning of persons whose weak hearts predispose them to faint when in hot baths.

W. H.

SKYLIGHTS AND LIGHT AND AIR

E. C. B. writes: "Regarding the question of light and air in relation to skylights, what corresponds in case of skylights to the angle of 45 deg. which is a rough guide to safety when dealing with windows? We have heard it stated that as skylights derive their light from the sky in a vertical direction, they are not subject to loss of light for encroachment in a lateral direction as would be the case with windows. Could you refer us to any light and air cases dealing with skylights?"

In every instance the only natural right to light is that obtained from the space vertically over the land concerned; but an "easement" may be acquired, within certain limits of reasonableness, over the adjoining property. The right of light and a skylight is, for all practical purposes, the same as to a vertical aperture; but inasmuch as the rule of thumb test of 45 deg. is "with the horizon," the value of the easement is naturally very greatly reduced.

F. S. I.

RATES OF WAGES

			I	II
			s. d.	s. d.
A	ABERDARE	S. Wales & M.	1 7½	1 2½
A1	Abergavenny	S. Wales & M.	1 7	1 2½
B	Abingdon ..	S. Counties	1 5½	1 1½
A	Accrington	N.W. Counties	1 7½	1 2½
A9	Addlestone	S. Counties	1 6	1 1½
A	Adlington ..	N.W. Counties	1 7½	1 2½
A	Airdrie ..	Scotland	*1 7½	1 2½
C1	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7½	1 2½
B3	Appleby ..	N.W. Counties	1 4	1 0
A	Ashton-under-Lyne	N.W. Counties	1 7½	1 2½
A9	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 2½
A	Barnsley ..	Yorkshire	1 7½	1 2½
B1	Barnstaple	S.W. Counties	1 5	1 0½
A	Barrow ..	N.W. Counties	1 7½	1 2½
A	Barry ..	S. Wales & M.	1 7½	1 2½
B2	Basingstoke	S.W. Counties	1 4	1 0
B	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7½	1 2½
B	Bedford ..	E. Counties	1 5½	1 1½
A9	Berwick-on-Tweed	N.E. Coast	1 6½	1 2
A9	Bewdley ..	Mid. Counties	1 6½	1 2
B2	Bicester ..	Mid. Counties	1 4	1 0
A	Birkenhead	N.W. Counties	*1 7½	1 2½
A	Birmingham	Mid. Counties	1 7½	1 2½
A	Bishop Auckland	N.E. Coast	1 7½	1 2½
A	Blackburn	N.W. Counties	1 7½	1 2½
A	Blackpool	N.W. Counties	1 7½	1 2½
A	Blyth ..	N.E. Coast	1 7½	1 2½
B2	Bognor ..	S. Counties	1 4	1 0
A	Bolton ..	N.W. Counties	1 7½	1 2½
A9	Boston ..	Mid. Counties	1 6	1 1½
B1	Bournemouth	S. Counties	1 5	1 0½
B2	Bovey Tracey	S.W. Counties	1 4½	1 0½
A	Bradford ..	Yorkshire	1 7½	1 2½
A9	Brentwood	E. Counties	1 6½	1 2
A	Bridgend ..	S. Wales & M.	1 7½	1 2½
B2	Bridgwater	S.W. Counties	1 4½	1 0½
A1	Bridlington	Yorkshire	1 7	1 2½
A	Brighouse	Yorkshire	1 7½	1 2½
B1	Brighton ..	S. Counties	1 5	1 0½
A	Bristol ..	S.W. Counties	1 7½	1 2½
B1	Brixham ..	S.W. Counties	1 4	1 0
A1	Bromsgrove	Mid. Counties	1 6½	1 2
C	Bromyard ..	Mid. Counties	1 3½	11½
A	Burnley ..	N.W. Counties	1 7½	1 2½
A	Burslem ..	Mid. Counties	1 7½	1 2½
A9	Burton-on-Trent	Mid. Counties	1 6½	1 2
A	Bury ..	N.W. Counties	1 7½	1 2½
A1	Buxton ..	N.W. Counties	1 7	1 2½
B	CAMBRIDGE	E. Counties	1 5½	1 1½
B2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7½	1 2½
A	Carlisle ..	N.W. Counties	1 7½	1 2½
B	Carmarthen	S. Wales & M.	1 5½	1 1½
B2	Carnarvon	N.W. Counties	1 4½	1 0½
A1	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7½	1 2½
B1	Chatham ..	S. Counties	1 5	1 0½
B1	Chelmsford	E. Counties	1 5	1 0½
A9	Cheltenham	S.W. Counties	1 6	1 1½
A	Chester ..	N.W. Counties	1 7½	1 2½
A	Chesterfield	Mid. Counties	*1 7½	1 2½
B2	Chichester	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7½	1 2½
B2	Cirencester	S. Counties	1 4½	1 0½
A	Clitheroe ..	N.W. Counties	1 7½	1 2½
A	Clydebank	Scotland	1 7½	1 2½
A	Coalville ..	Mid. Counties	1 7½	1 2½
B1	Colchester ..	E. Counties	1 5	1 0½
A	Colne ..	N.W. Counties	1 7½	1 2½
A9	Colwyn Bay	N.W. Counties	1 6	1 1½
A	Consett ..	N.E. Coast	1 7½	1 2½
A9	Conway ..	N.W. Counties	1 6	1 1½
A	Coventry ..	Mid. Counties	1 7½	1 2½
A9	Crewe ..	N.W. Counties	1 6	1 1½
A9	Cumberland	.....	1 6	1 1½
A	DARLINGTON	N.E. Coast	1 7½	1 2½
A	Darwen ..	N.W. Counties	1 7½	1 2½
B2	Deal ..	S. Counties	1 4	1 0
A9	Denbigh ..	N.W. Counties	1 6	1 1½
A	Derby ..	Mid. Counties	1 7½	1 2½
A	Dewsbury ..	Yorkshire	1 7½	1 2½
B	Didcot ..	S. Counties	1 5½	1 1½
A	Doncaster	Yorkshire	1 7½	1 2½
C1	Dorchester	S.W. Counties	1 3	11½
A9	Driffield ..	Yorks	1 6	1 1½
A9	Droitwich ..	Mid. Counties	1 6	1 1½
A1	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7½	1 2½
A	Durham ..	N.E. Coast	1 7½	1 2½
B1	EASTBOURNE	S. Counties	1 5	1 0½
A	Ebbw Vale	S. Wales & M.	1 7½	1 2½
A	Edinburgh	Scotland	1 7½	1 2½
A	E. Glamorganshire & Monmouthshire	S. Wales & M.	1 7½	1 2½
B	Exeter ..	S.W. Counties	*1 5½	1 1½
B2	Exmouth ..	S.W. Counties	1 4½	1 0½
B	FELIXSTOWE	E. Counties	1 5½	1 1½
A1	Filey ..	Yorks	1 6	1 1½
A	Fleetwood ..	N.W. Counties	1 7½	1 2½
B2	Folkestone	S. Counties	1 4½	1 0½
A	Frodsham ..	N.W. Counties	1 7½	1 2½
B2	Frome ..	S.W. Counties	1 4	1 0
A	GATESHEAD	N.E. Coast	1 7½	1 2½
B1	Gillingham	S. Counties	1 5	1 0½
A9	Gloucester	S.W. Counties	1 6	1 1½
A2	Goole ..	Yorkshire	1 6½	1 2
B	Gosport ..	S. Counties	1 5½	1 1½
A9	Grantham	Mid. Counties	1 6	1 1½
A7	Gravesend	S. Counties	1 7	1 2½
A	Greenock ..	Scotland	*1 7½	1 2½
A	Grimsby ..	Yorkshire	1 7½	1 2½
B	Guildford ..	S. Counties	1 5	1 0½
A	HALIFAX ..	Yorkshire	1 7½	1 2½
A	Hanley ..	Mid. Counties	1 7½	1 2½
A	Harrogate	Yorkshire	1 7½	1 2½
A	Hartlepools	N.E. Coast	1 7½	1 2½
B2	Harwich ..	E. Counties	1 4½	1 0½
B2	Hastings ..	S. Counties	1 4	1 0
B1	Hatfield ..	S. Counties	1 5	1 0½
B	Hereford ..	S. W. Counties	1 5½	1 1½
B	Hertford ..	E. Counties	1 5½	1 1½
A1	Heysham ..	N.W. Counties	1 7	1 2½
A	Howden ..	N.E. Coast	1 7½	1 2½
A	Huddersfield	Yorkshire	1 7½	1 2½
A	Hull ..	Yorkshire	1 7½	1 2½

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 2½
A	Immingham	Mid. Counties	1 7½	1 2½
B	Ipswich ..	E. Counties	1 5½	1 1½
C1	Isle of Wight	S. Counties	1 3	11½
A	JARROW ..	N.E. Coast	1 7½	1 2½
A	KEIGHLEY	Yorkshire	1 7½	1 2½
B1	Kendal ..	N.W. Counties	1 5	1 0½
B1	Keswick ..	N.W. Counties	1 5	1 0½
A3	Kettering ..	Mid. Counties	1 6	1 1½
A9	Kidderminster	Mid. Counties	1 6½	1 2
B2	King's Lynn	E. Counties	1 4½	1 0½
A	LANCASTER	N.W. Counties	1 7½	1 2½
A2	Leamington	Mid. Counties	1 6½	1 2
A	Leeds ..	Yorkshire	1 7½	1 2½
A	Leek ..	Mid. Counties	1 7½	1 2½
A	Leicester ..	Mid. Counties	1 7½	1 2½
A	Leigh ..	N.W. Counties	1 7½	1 2½
B2	Lewes ..	S. Counties	1 4	1 0
A9	Lichfield ..	Mid. Counties	1 6	1 1½
A	Lincoln ..	Mid. Counties	1 7½	1 2½
A	Liverpool ..	N.W. Counties	*1 10	1 4½
A3	Llandudno	N.W. Counties	1 6	1 1½
A	Llanelly ..	S. Wales & M.	1 7½	1 2½
	London (12 miles radius)		1 9	1 4
	Do. (12-15 miles radius)		1 8½	1 3½
A	Long Eaton	Mid. Counties	1 7½	1 2½
A	Loughborough	Mid. Counties	1 7½	1 2½
B	Luton ..	E. Counties	1 5½	1 1½
A	Lytham ..	N.W. Counties	1 7½	1 2½
A1	MACCLESFIELD	N.W. Counties	1 7	1 2½
B	Maidstone	S. Counties	1 5½	1 1½
A9	Malvern ..	Mid. Counties	1 6	1 1½
A	Manchester	N.W. Counties	1 7½	1 2½
A	Mansfield ..	Mid. Counties	1 7½	1 2½
B2	Margate ..	S. Counties	1 4	1 0
A9	Matlock ..	Mid. Counties	1 6	1 1½
A	Merthyr ..	S. Wales & M.	1 7½	1 2½
A	Middlesbrough	N.E. Coast	1 7½	1 2½
A9	Middlewich	N.W. Counties	1 6	1 1½
B2	Minehead ..	S.W. Counties	1 4½	1 0½
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7½	1 2½
A1	Morecambe	N.W. Counties	1 7	1 2½
A9	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7½	1 2½
A	Nelson ..	N.W. Counties	1 7½	1 2½
A	Newcastle ..	N.E. Coast	1 7½	1 2½
A	Newport ..	S. Wales & M.	1 7½	1 2½
A	Normanton	Yorkshire	1 7½	1 2½
A1	Northampton	Mid. Counties	1 7	1 2½
A	North Staffs.	Mid. Counties	1 7½	1 2½
A	North Shields	N.E. Coast	1 7½	1 2½
A9	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7½	1 2½
A	Nuneaton ..	Mid. Counties	1 7½	1 2½
B	OAKHAM ..	Mid. Counties	1 5½	1 1½
A	Oldham ..	N.W. Counties	1 7½	1 2½
A9	Oswestry ..	Mid. Counties	1 6	1 1½
B	Oxford ..	S. Counties	1 5½	1 1½
A	PAISLEY ..	Scotland	*1 7½	1 2½
C	Pembroke	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7½	1 2½
A9	Peterborough	Mid. Counties	1 6	1 1½
A	Plymouth	S.W. Counties	*1 7½	1 2½
A	Pontefract	Yorkshire	1 7½	1 2½
A	Pontypridd	S. Wales & M.	1 7½	1 2½
B	Portsmouth	S. Counties	1 5½	1 1½
A	Preston ..	N.W. Counties	1 7½	1 2½
A	QUEENSFERRY	N.W. Counties	1 7½	1 2
B	READING ..	S. Counties	1 5½	1 1½
B	Reigate ..	S. Counties	1 5½	1 1½
A9	Retford ..	Mid. Counties	1 6	1 1½
A	Rhondda Valley	S. Wales & M.	1 7½	1 2½
A9	Ripon ..	Yorkshire	1 6	1 1½
A	Rochdale ..	N.W. Counties	1 7½	1 2½
B	Rochester	S. Counties	1 5½	1 1½
A1	Ruabon ..	N.W. Counties	1 7	1 2½
A2	Rugby ..	Mid. Counties	1 6½	1 2
A9	Rugeley ..	Mid. Counties	1 6	1 1½
A	Runcorn ..	N.W. Counties	1 7½	1 2½
A9	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens	N.W. Counties	1 7½	1 2½
B3	Salisbury	S.W. Counties	1 4	1 0
A1	Scarborough	Yorkshire	1 7	1 2½
A	Scunthorpe	Mid. Counties	1 7½	1 2½
A	Sheffield ..	Yorkshire	1 7½	1 2½
A	Shipley ..	Yorkshire	1 7½	1 2½
A9	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
A3	South'pton	S. Counties	1 6	1 1½
B1	Southend-on-Sea	E. Counties	1 5	1 0½
A	Southport ..	N.W. Counties	1 7½	1 2½
A	S. Shields ..	N.E. Coast	1 7½	1 2½
A2	Stafford ..	Mid. Counties	1 6½	1 2
A	Stockport ..	N.W. Counties	1 7½	1 2½
A	Stockton-on-Tees	N.E Coast	1 7½	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7½	1 2½
B	Stroud ..	S.W. Counties	1 5½	1 1½
A	Sunderland	N.E. Coast	1 7½	1 2½
A	Swadlincote	Mid. Counties	1 7½	1 2½
A	Swansea ..	S. Wales & M.	1 7½	1 2½
B	Swindon ..	S.W. Counties	1 5½	1 1½
A1	TAMWORTH	N.W. Counties	1 7	1 2½
B1	Taunton ..	S.W. Counties	1 5	1 0½
A	Teeside Dist.	N.E. Counties	1 7½	1 2½
B	Teignmouth	S.W. Coast	1 5½	1 1½
A	Todmorden	Yo kshire	1 7½	1 2½
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 0½
A	Tunstall ..	Mid. Counties	1 7½	1 2½
A	Tyne District	N.E. Coast	1 7½	1 2½
A	WAKEFIELD	Yorkshire	1 7½	1 2½
A1	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N W. Counties	1 7½	1 2½
A2	Warwick ..	Mid. Counties	1 6½	1 2
A3	Wellingborough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 7½	1 2½
B	Weston-s-Mare	S.W. Counties	1 5½	1 1½
A9	Whitby ..	Yorkshire	1 6½	1 2
A	Widnes ..	N.W. Counties	1 7½	1 2½
A	Wigan ..	N.W. Counties	1 7½	1 2½
B2	Winchester	S. Counties	1 4½	1 0½
B	Windsor ..	S. Counties	1 5½	1 1½
A	Wolverhampton ..	Mid. Counties	1 7½	1 2½
A9	Worcester ..	Mid. Counties	1 6	1 1½
A9	Worksop ..	Yorkshire	1 6	1 1½
A1	Wrexham ..	N.W. Counties	1 7	1 2½
B	Wycombe ..	S. Counties	1 5½	1 1½
B1	YARMOUTH	E. Counties	1 5	1 0½
B2	Yeovil ..	S.W. Counties	1 4½	1 0½
A	York ..	Yorkshire	1 7½	1 2

* 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.*

*

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

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

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

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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 salt, white, and ivory stretchers, per M.	24	10	0
DO. *headers, per M.*	24	0	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0

Cement and sand, see "Excavator" above.

Lime, grey stone, per ton	2	17	0
Mixed lime mortar, per yd.	1	6	0
Damp course, in rolls of 4½ in., per roll	0	2	6
DO. *9 in. per roll*	0	4	9
DO. *14 in. per roll*	0	7	6
DO. *18 in. per roll*	0	9	6

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

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

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, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
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.

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

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

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

HALF SAWING, per ft. sup.	£0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33½ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	8
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:	*Med. Grey*			*Med. Green*		
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

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

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

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

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

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

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

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

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

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

*

Timber, average prices at Docks, London Standard.

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

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FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	5	6
DO. framed in floors, roofs, etc., per ft. cube	0	6	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	7	6
PITCH PINE, add 33½ 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, 1¾ in. thick, per ft. sup.	0	2	6
DO. moulded both sides per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labours, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	6
If ramped, per ft. run	0	5	0
SHORT ramps, extra each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ 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.*

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

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

PLUMBER

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

*

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

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MILLED LEAD and labour in gutters, flashings, etc. per cwt.	3	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

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

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

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

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

PAINTER AND PAPERHANGER

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

*

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

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

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity. The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . . from 3*d.* to	0	0	6
Plaster board, per yd. sup. . from	0	1	7
PLASTER BOARD, fixed as last, per yd. sup. . . . . from	0	2	8
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., 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

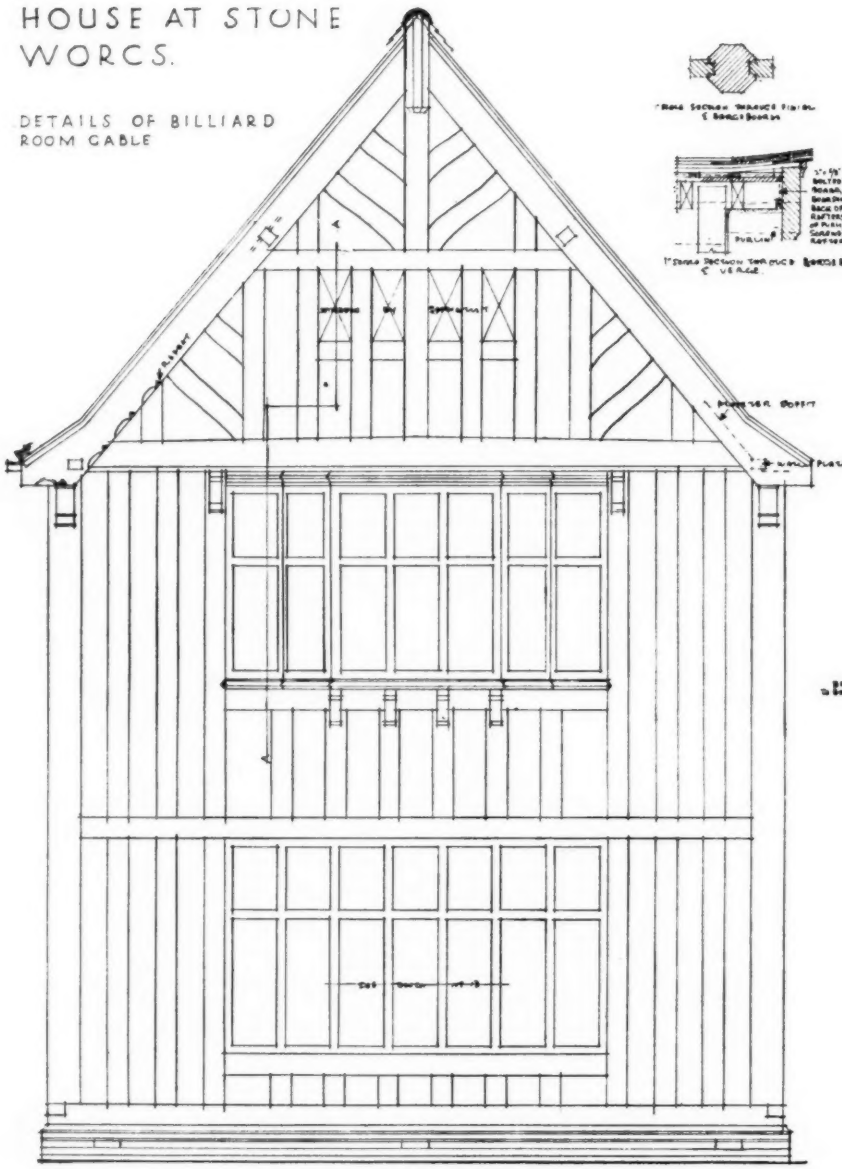
Waterproofing compounds for cement.
Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

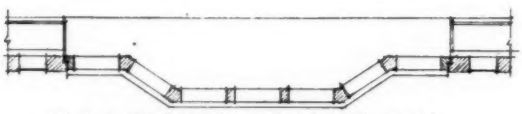
Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ..	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon												
Mahogany	4	3	3	6½	5½	4	9½	7½	—	10½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine	5	4	—	5½	5	—	6	—	—	—	—	—

HOUSE AT STONE WORCS.

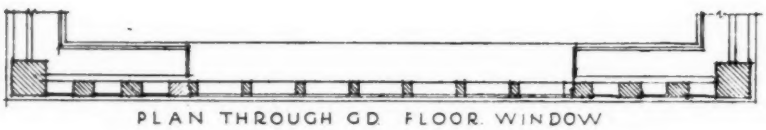
DETAILS OF BILLIARD ROOM GABLE



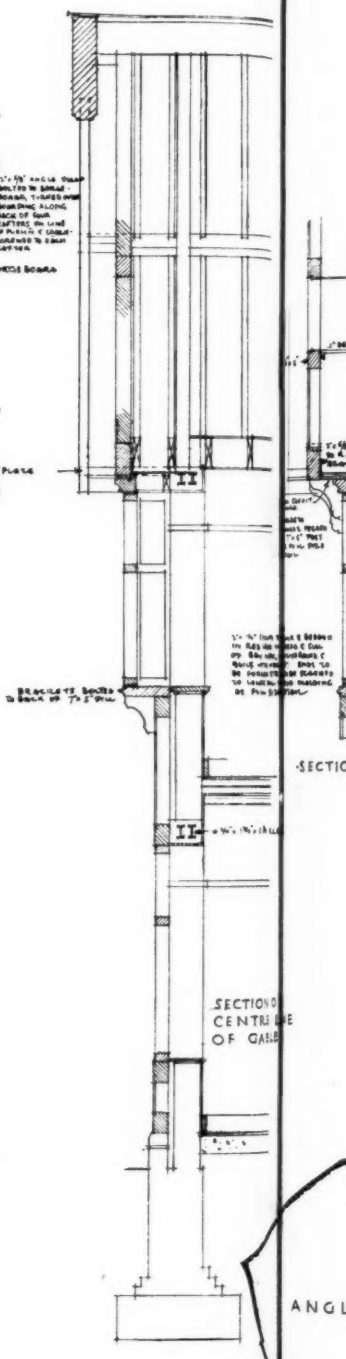
ELEVATION

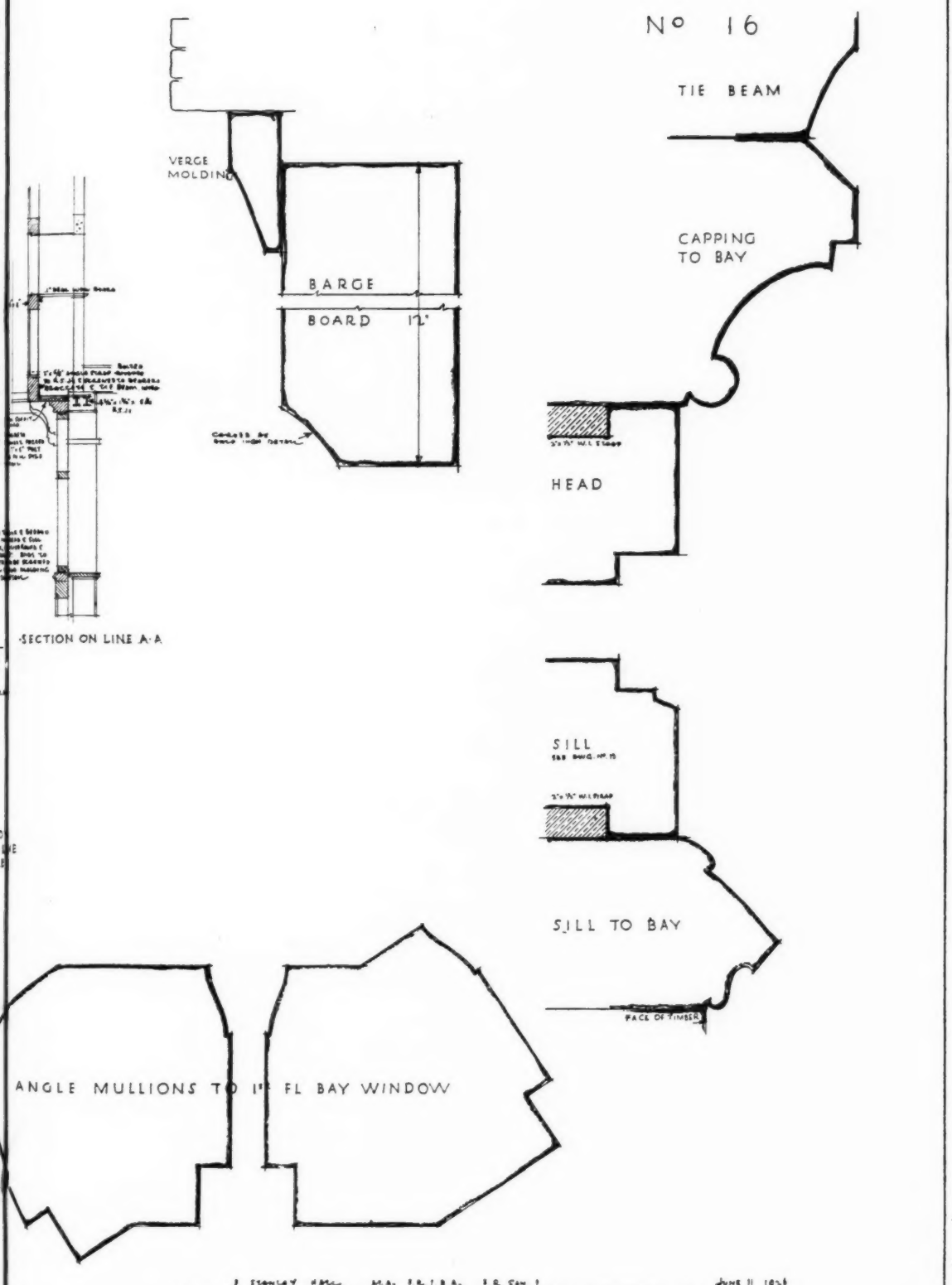


PLAN THROUGH 1ST FLOOR BAY



PLAN THROUGH GD FLOOR WINDOW





HOUSE AT STONE, WORCESTERSHIRE. BY E. STANLEY HALL. DETAILS OF THE BILLIARD-ROOM GABLE