THE ARCHITECTS' JOURNAL

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TOWARDS A BETTER BRICK

In our issue of September 14 last we published a letter addressed to the secretary of the Royal Institute of British Architects, criticizing the *Standard of Brick Sizes*, published on pages 604-6 of the Institute *Kalendar*, and pointing out that, although this standard was only intended to apply to dimensions, the minuteness with which these were defined and the meticulous precision of the accompanying illustrations, which were stated as "applying to all classes of walling bricks," actually set up a standard of *brickwork* of a character such as no architect of taste would now tolerate. The writer, Mr. Nathaniel Lloyd, also suggested that the time was ripe for the R.I.B.A. to amplify their definitions of bricks and brickwork by including the factors of "form, texture, and colour," and by reference to jointing. It might seem that these were extending the field of the R.I.B.A. activities, but reference to the drawings in the *Kalendar* will show this is not so, for the illustrations themselves set up what we should now regard as a bad standard on precisely these points; except, of course, on the point of colour. To Mr. Lloyd's letter the Institute has promptly responded, and the whole matter is under consideration. It was recently suggested that Mr. Lloyd might now develop his views further, and this we have persuaded him to do in our last and current issues, where he has dealt with the matter constructively, instead of critically, and, we think, in the most helpful manner possible.

Our readers, having perused the articles for themselves, will, we have no doubt, sympathize with the objects at which it aims. We fear there is only too much truth in the statements that most common brick is now uglier than it was in 1904, and that there is less conscientiousness today in the choice of brick for facings, bricks being used which few would have tolerated a quarter of a century ago. The information as to practice in other countries, the class of common brick produced and used in America and Holland, suggest channels for exploration. We have seen the soft-mud-brick, of which we publish a full-size photograph, which shows everything but the colour. The colour is excellent and has that pinkish tinge found also in the Dutch Klompje brick, which Sir Edwin Lutyens has used so often. The brick lacks the irregularities which constitute one of the charms of the Klompje brick, but that is only the natural fruit of the R.I.B.A. Standard Sizes specification. Inquiry in brickmaking circles shows that special machinery is required to make these soft-mud-bricks on a large scale, but that several firms are contemplating their manufacture. We should welcome any action by the R.I.B.A. which would encourage them.

From many sources we have had suggestions that any new standard should include a thinner brick, some going so far as to advocate a brick 2 in. thick as the standard. We should rejoice to see this successfully established, but we doubt its being practicable, unless it can really be shown that a reduced price for the smaller brick and quicker handling by bricklayers would make it, at least, as economical as the present $2\frac{5}{8}$ in. thickness.

As we understand it, Mr. Lloyd invites the R.I.B.A. to inquire how far the 1904 standard should be modified to meet modern views and requirements, and, further, what can be done to produce "common brick" having better texture and colour. Having explored these matters, they should clearly add to their "Standard Sizes" suggestions on visual qualities desirable in brick and brickwork, explained by illustrations, just as they now illustrate dimensions and jointing. To our mind these ideas are quite feasible, but whether the further proposal to bring the bricklayers' union into a conference to discuss the subject of sizes in relation to output is practicable, is difficult to say. Such a conference may be ideal in theory, but whether the parties would attend it solely with the intention of arriving at facts and without suspicions or ulterior motives is doubtful. The spirit of the age favours such a conference, and a clear-headed, impartial, and tactful chairman might work wonders in getting only the best out of delegates; certainly, it would be worth trying.

We hope the Council of the R.I.B.A. may see its way to ventilating the whole matter: the reward of a successful issue is no less than the salvation of the England we are building at this moment. We have clubs, councils, and societies formed to save England from the demon of ugliness with which she is threatened. They work in channels of their own choosing. Sometimes we think they fail in really constructive work, in fact, that they do not "get down to brass tacks." To encourage the production of more seemly building materials is a practical movement of great value in which the R.I.B.A. is in a stronger position to engage than is any other similar association. The proposed improved standard for brick and brickwork seems a practicable one; it would be a great achievement to bring it into being.

NEWS AND TOPICS

ARCHITECTURAL HEADQUARTERS OF THE BRITISH EMPIRE —THE PETROL PUMP—THOMAS HARDY'S PRIZE ESSAY— ARCHITECTURE AND SOBRIETY

THERE is something to be said for the suggestion that has been discussed in architectural quarters during the past few days of the architectural headquarters of the British Empire being established on the Foundling estate. There, if anywhere, is an opportunity for those leaders of the profession who have agitated for the protection of Waterloo Bridge, and other treasures inherited from the past, to show that they are prepared to practise what they preach. On the Foundling estate we might well have the administrative headquarters of the R.I.B.A., the School of the Architectural Association, and possibly a hostel for architectural students. The scheme might not be more expensive than moving to Burlington Gardens, provided, of course, the other bodies interested—the London County Council, the University of London, and the Protection Association—took their share in preserving the remainder of the site.

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It is good news to hear that the Council for the Preservation of Rural England, at their coming meeting at the end of February, hope to discuss the problem of the petrol pump. Every architect who travels along our country roads has been painfully aware of the ugliness of these essentials to modern motor traffic and of the complete lack of taste of the stations' layout and colouring. The Ministry of Transport some time ago proudly announced that they were going to look into this matter, but their deliberations seem to have had little (if any) result, and the veil of official secrecy has fallen. The great companies who distribute petrol and oil are fortunately sympathetic, and are prepared, so it is believed, to co-operate in any practical manner to try to discover how to prevent petrol pumps and stations becoming eyesores on our countryside. Members of the Town Planning Institute, who visited Winchester in the autumn, will remember a delightful example just outside the city of a petrol station so designed that it was a thing of joy instead of being an ugly blotch of violent colours.

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More definite evidence is now forthcoming on the cost of houses. The figures provided by the Ministry of Health must necessarily be regarded with some suspicion, for the assumed reduction in the average cost of houses in contracts let by local authorities depends on many factors that are not sufficiently detailed in the Government's return. Nevertheless, the reduction of cost during the past two or three months cannot be questioned. We know of one architect building houses for a private company. These houses cost £600 each last summer. The tender just received for exactly the same sized house, with the same specifications, is for £548. This, of course, may only be a seasonal reduction. It is too early to throw our hats in the air and announce a sufficient decrease in building costs as will widely stimulate the demands of building owners, and consequently bring more clients into the offices of the profession.

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The Government are clearing the decks for this year's session of Parliament, and many useful Bills are likely to be dropped overboard in view of the approaching general election. Among the measures that will probably be abandoned is the Bill for the extension of town planning to built-up areas. This measure included, so it is believed, a number of valuable additions to our town-planning legislation, and would have been of considerable assistance to architects. It would probably not have aroused much controversy in the House of Commons, as the main principles have already been conceded in Private Acts sanctioned for Newcastle and elsewhere. Where a good precedent has been set in local legislation, our Parliamentarians do not usually cause trouble.

* * *

Colonel Levita, in the report that he has just issued, as chairman of the Housing Committee of the London County Council, on London's housing, puts forward certain facts which will have to be carefully considered by those who advocate a policy of building garden cities and satellite towns around London. He points out that a definite policy of establishing selected cottage estates has been adopted, although, owing to a lack of co-ordinated town planning, it is a matter of difficulty to find land. He states, too, that wherever possible sites for factories have been reserved on L.C.C. estates, and efforts made to encourage industries to settle on them, in order that the tenants may live close to their work. But he confesses that the industries reputed to be anxious to remove themselves from London have not yet been found, and indeed, in the solitary case when negotiations appeared to have been successfully terminated, the workpeople concerned presented an ultimatum to their employers against leaving London. Colonel Levita does not fear to record another important factor in the garden cities problem, for he emphasizes the fact that London lives on its rateable value; and it is unreasonable to expect the L.C.C., with its ever-increasing demands for social services, to expend money heavily to diminish its rateable value by persuading manufacturers to remove their works outside the county boundaries. But has he no alternative policy to remedy the increasing congestion of London, and was not the " solitary case " that he quotes a proposal to move Crosse and Blackwell's factory to Burton ?

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A new publication which is of considerable interest in connection with both architecture and the furnishing of the home is the monthly review, *La Casa Bella*, which has lately appeared at Milan, the first (January) number, being published by the firm of Modiano, with Guido Marangoni as its director. The Hon. Guido Marangoni has been for many years director of the very successful Monza exhibitions of decorative arts, the last of which was held in 1927. His experience will be of great value to the new review, which actually represents another step in the movement which has Milan, and near it Monza, as its centre, and which represents an attempt, both serious and

sustained, to revive in Italy the national effort both in architecture and all forms of the decorative arts (beaten ironwork, furniture, art fabrics), which, after the fall of the Venetian Republic and the last flicker of the national genius, came entirely under the invading influences from the French Napoleonic Empire, and from nations without. The first number of *La Casa Bella* contains articles on the Venetian House of the Renaissance, on the ironwork of Umberto Bellotto, and on furnishing aboard yachts and ships. The illustrations are excellent in selection and reproduction.

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The photograph which I reproduce shows us that part of Cheyne Walk, Chelsea, which was formerly known as Lombard Street, and which can be identified today from the fact that it is the portion of the thoroughfare

Lombard Street, Chelsea.

into which Danvers Street runs. Here some of the oldest houses in Chelsea stood, among them being that of John de Shoredich, dating from the fourteenth century, as well as the ancient Dog Inn and the " Bell," which latter stood at the corner of Danvers Street opposite the Chelsea Ferry commemorated in song by Charles Dibdin. It was in this part of Cheyne Walk, too, that existed the famous little fish shop kept by Mrs. Elizabeth Maunder, which was four doors away from the " Rising Sun," the successor of the Dog Tavern. This shop, known through Whistler's etching (1890) and the watercolour drawings of Dr. Philip Norman and Crowther, stood, curiously enough, on the site of the house built by Mr. C. R. Ashbee, in which Whistler died in 1903. The shop was demolished in 1892 and was replaced by Mr. Ashbee's residence, notable on account of its original exterior and its door of beaten copper. Chelsea is still full of picturesque " bits " beloved by artists and those who are artistic; but what it has lost in this respect is sad to dwell upon, and among its past architectural features was this little Lombard Street of the west.

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The cause of domestic architecture is well served in Germany by Alexander Koch, the publisher and art lover of Darmstadt. In his finely produced magazine, *Innen-Dekoration*, he steers a clever course in the tideway between the architect and the public, securing the attention of both. His carefully thought-out policy, which he follows in his own house and home, is to nurture the desire for the artistic amenities of modern life on the one hand, and to encourage and stimulate the efforts of the artists and craftsmen to meet this desire. Incidentally, he effects a further union between the architect, the craftsman, and the manufacturer. The best work is got out of all these producers by this effective association pursued with unwearying zeal, and nothing is left to the ignorant machinations of the mere tradesman. That is the policy; the result is seen in each successive issue of *Inner Decoration*, with its demonstrations of what satisfaction houses and their interiors may afford with the expenditure of a reasonable amount of imagination. The beautiful illustrations, including some in colour, of the initial number for the New Year, include many examples of good German work. Attention is also given to that of other countries, and an article on a new country house near Northampton (illustrated in the JOURNAL last year) draws the attention of the German architects and public to Mr. Barry Parker.

* * *

Thomas Hardy won the R.I.B.A. silver Essay Medal in 1863 for his essay on " The Application of Coloured Bricks and Terra-cotta to Modern Architecture "—but where is the essay? Curiosity led me in search of the writing, but I found it had not been published as is usual in the *R.I.B.A. Journal*. I was told confidentially (as a man who knew well how to keep such a secret) that in 1863 no one had thought the essay good enough to publish.

* * *

When they arrested a builder at Feltham and accused him of being drunk while in charge of a car, they asked him to answer the following questions as a test of his sobriety:

What is your occupation?

How far is it from Hounslow to Stanwell?

Draw plans of the Staines road from Hounslow to where it intersects the Great West Road, giving the position of the turnings on each side and the position where you are now.

Draw plans of a house you sold and draw a section of the roof.

Draw a plot of ground with 55 ft. frontage and 4 chains deep. Put a house in the middle, and show what margin you have left.

The builder was said to have answered the questions very well, and at Feltham Police Court the charge was dismissed. And it must be encouraging to all of us to know that some of the minor problems of our profession are deemed by the police to be so profound.

ASTRAGAL

AT THE PARTING OF THE WAYS: ii

[BY NATHANIEL LLOYD]

BRICKLAYING OUTPUT ABROAD

IN the UNITED STATES, data collected from fifteen cities showed that the average number of bricks laid by each bricklayer (and mate) on ordinary straightforward work in a day of eight working hours was 1,363.

The best results came from Birmingham, Ala., where the number was 1,928.

The worst results came from Indianapolis, Ind., where the number was 765.

The Architect, 5.2.25, p. 97
The Yorks. Post, 4.2.25 •

A smaller brick is used in the U.S.A., the size being $8 \times 3\frac{3}{4} \times 2$ in.

In HOLLAND. A report of an English and Scottish Housing Committee, which visited Holland, states that the output per bricklayer and mate was:

2,000 bricks daily in rough walling.
1,800 bricks daily in inner walls.
600 bricks daily in external chimneys.

A smaller brick than the English brick is used here also, the size being $8 \times 3\frac{3}{4} \times 2\frac{1}{8}$ in.

Glasgow Herald, May 20 or 28, 1925

I do not think that any thoughtful person reading these records can fail to ask himself the question: "Have these smaller bricks any relation to the speeds of bricklaying?"

Since 1904 (that is, during the last twenty-three very eventful years) many changes have occurred. Amongst these are:

i: Architects' specifications as to brickwork have been modified and eased so far as brick and brickwork are concerned; "neatness" has given way to "breadth," and non-insistence upon mathematical precision has not impaired strength.

ii: Common brick has become much more ugly.

iii: Ugly brick is now used for facings which would not have been tolerated some time ago; in this relation conscience is dead.

iv: Durability is still a factor in selection, but price (even to the saving of a very few pounds on a job) is the dominating influence.

v: For want of even a general æsthetic standard (such as the R.I.B.A. may now set) appearance is ignored in most ordinary work, though the R.I.B.A. utility standards are adopted.

At the present time there is a healthy tendency to

No. 64 Rodney Street, Liverpool.

admire and to build like the old brickwork of the Tudor period; the characteristics of which were variety of surface, variety of colour, and wide joints—unpointed. Without in any way disparaging the more precise eighteenth-century brickwork and gauged work, each of which has its proper uses, I certainly think that the Tudor type of brickwork is best suited to most purposes, and to be set up as a general standard. With a view to more clearly defining this, I give a detail of early sixteenth-century brickwork, together with photographs of: (i) An old Tudor brick; (ii) a "multi-colour old English facing" brick from Reading district; (iii) a soft-mud brick, sold from a country yard as "common brick." The last is excellent for face work and is similar to what is made and used in immense quantities in the United States as "common brick." (iv) A Dutch brick, imported into England for its qualities of form, texture, and colour. All English substitutes for this brick, which I have been offered, lacked these good qualities.

The R.I.B.A., the allied societies, and all members can exercise their influence in this matter, which must ultimately determine with what kind of brickwork England shall be covered, for she *is* being covered, often densely, mainly sparsely, as yet. Once settle the nature of the wall material and it will be possible to deal with tiles. If we can secure walls and roofs of good texture and colour we shall be safe. Improved design will take longer, but the two things needful are urgent, and the most urgent is a good standard for brick and brickwork. I cannot provide illustrations in colour, but those I give of Tudor brickwork and of brickwork complying with the obsolete 1904 standard are more eloquent than any words I can employ. Which are we to have?

The illustrations here referred to are given on the inset supplement.

Brickwork strictly in accordance with the R.I.B.A. Standard of 1904 and 1919 for brick sizes, showing how even the jobbing builder is influenced. Brick measurements are defined thus: Length—min. 8$\frac{7}{8}$ in., max. 9 in.; width—min. 4$\frac{5}{16}$ in., max. 4$\frac{3}{8}$ in.; thickness—min. 2$\frac{3}{8}$ in., max. 2$\frac{1}{16}$ in. Joints should be $\frac{1}{4}$ in. thick, and an extra $\frac{3}{16}$ in., making $\frac{5}{16}$ in., for the bed joints. The further provisions of a specification of the period of the above standard also have been carefully observed. They include: Facings to be carefully selected for their evenness of colour and face, and the visible arrises to be undamaged; to be executed in stretching bond, to break joint accurately, and all perpends to be kept strictly; to be pointed with a neat weather-joint, cut in top and bottom. This is still the ideal of the suburban builder, but as all progressive members of the R.I.B.A. have long abandoned it, the "Standard Sizes of Bricks" at least should be qualified, or entirely revised, in accordance with the best modern practice.

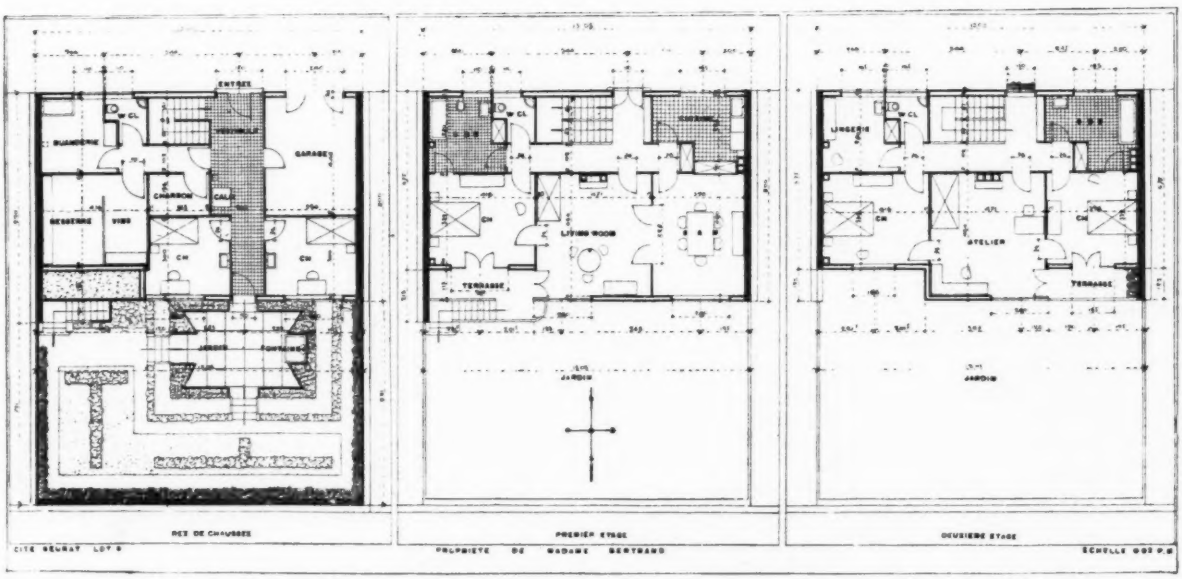
M. ANDRÉ LURÇAT

[BY P. MORTON SHAND]

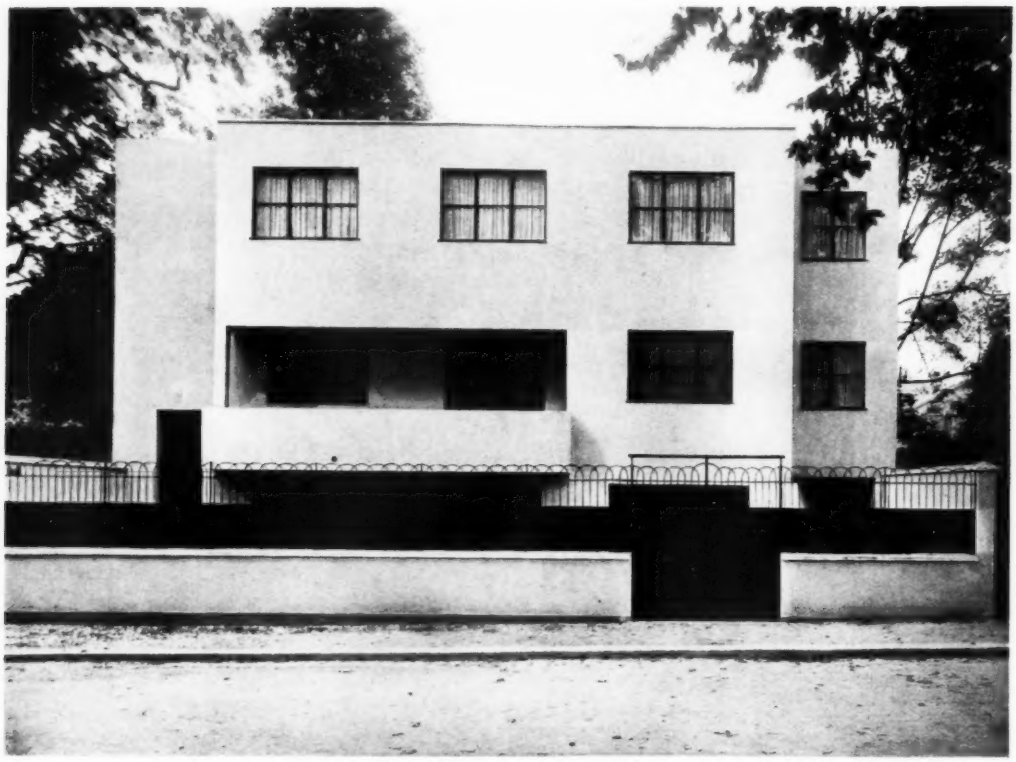
IT is a very significant fact that in France, where an even elementary appreciation of the advantages of light, air, and water for health and general physical welfare—to say nothing of ordinary hygiene and cleanliness—was lacking longer than in any other civilized country, the younger school of architects are now dominated almost to obsession by the desire to obtain the utmost profit from all three; together with the fullest benefits of modern sanitation and the adoption of as many of those numerous mechanical inventions that at once simplify and complicate our lives as can be usefully called in aid of the builder and householder. No less than MM. Mallet-Stevens and Le Corbusier, M. André Lurçat is insistent on these important aspects of modern house construction. The first of these is by birth a Belgian; the second is a Swiss. André Lurçat, who has defined architecture as the effect of the play of light on mass and outline, is essentially French. A certain indefinable, and yet characteristic, French grace informs the design of his more recent *hôtels particuliers*, at the Parc Montsouris and the Cité Seurat in Paris, as unmistakably as the two villas (coloured respectively Mediterranean-blue and cowslip-yellow) he erected near Versailles in 1925, which is wholly absent from the rather forbidding lines of his colleagues' nude and Spartan purism. Without daring to accuse M. Lurçat of such a heresy as using decorative motives deliberately, one may at least congratulate him discreetly on obtaining charming plastic effects in the porches of MM. Guggenbuhl's and Bomsel's villas, the genial and skilful fenestration of the houses for MM.

The substance of this article has been arranged from the notes of a lecture on the "Aims and Inspirations of Modern Architecture" which M. André Lurçat recently delivered in Paris.

Garden front of Mme. Bertrand's house, Cité Seurat, Paris. By André Lurçat (1925).



Mme. E. Bertrand's house, Cité Seurat, Paris. By André Lurçat (1925). Above, the staircase. Below, the plans.



Villa of M. A. Michel, Versailles. By André Lurçat (1925). Façade on the Rue Sud.

Gromaize-Goerg and Michel, and the delightful double staircase of the Maison de Couture Myrbor.

André Lurçat is not content that the countryside, instead of being banished or overwhelmed by the streets of invading suburbs, should be left unspoiled and untamed between their villas. Nature, he declares, must be transplanted on to their roofs and loggia terraces. Sky and trees must become part of the house itself. But the purity of the sky demands a sovereign beauty of proportion in the building soaring towards it worthy of its serenity, as well as a frank invitation to it to enter freely by the windows; the details of its design must not be disproportionately inferior in delicacy and grace to the delicate tracery of the gracefully branching trees surrounding it. Certain landscapes—that of Provence, for instance—assume a new and added beauty where they are dotted with examples of fine architecture. Such landscapes speak more, perhaps, to our intellects than to our senses. However lovely they may have been in their natural state, one can no longer imagine them denuded of those villas and farmsteads which so sensibly inform and enhance their charm.

As long as travelling was difficult and costly, a house remained a family asset which passed in direct succession from father to son. Railways and steamships, but especially the motor-car, have so increased possibilities of locomotion, besides enormously stimulating the appetite for it, that we are rapidly losing the taste for durable things in our personal possessions and the sense of finality in the acceptance or choice of our homes. Thus, as sentiment detaches itself more and more from all that pertains to it, the family connection with a particular house is inevitably growing looser and looser. In the light of various modern changes and inventions in the domains of comfort, convenience, and hygiene, many existing family houses are becoming uninhabitable for the present generation. It is an increasingly common custom to sell these houses in order to buy or lease more recently constructed ones instead. That is to say, the form of the instinct for house property is being modified with considerable advantage to our health and the freedom of our habits. Another characteristic modern tendency, which has assumed an immense extension since the war, is the strong desire we all of us feel periodically to get away from our own homes. The obvious deduction for the architect to draw from this impulse is that most homes fail to satisfy modern needs or tastes. The travelling habit has affected all classes. There are now not merely the annual summer migrations from the towns to the seaside, the mountains or the country; there is often the quest of a warmer climate in winter as well; besides the growing week-end exoduses and the single-day excursions on Sundays and Bank Holidays. Thus, a whole new category of architectural forms has arisen in response to the various demands of our reviving nomadic instinct: hotels, boarding-houses, restaurants, cafés, kursaals, casinos, sports clubs, country cottages or bungalows, and garages.

The economic situation has suffered such a complete upheaval in the present age that economic considerations dominate all other issues and the majority of human actions. The disappearance of domesticity leaves our homes disorganized, without there being any immediate prospect of the advent of a new social equilibrium to replace it. The growing independence of women, and their financial contribution to the family income as wage-earners, is having a profound influence in shaping the new

conception of the home—a conception in which its function seems slowly, but surely, to be suffering relegation to the rôle of a private dormitory.

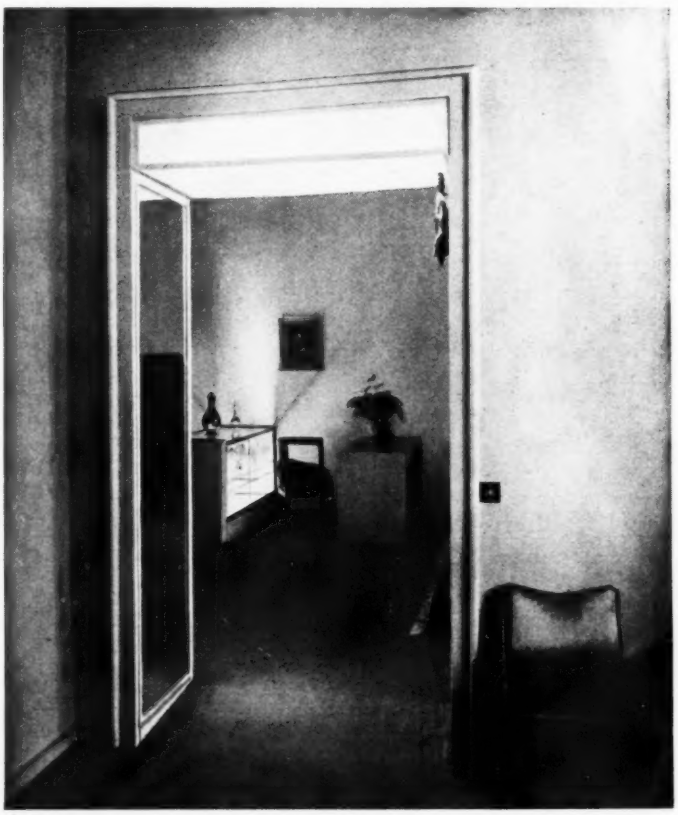
The housing problem—the most burning question in life for millions in the present day—is now so acute and universal that no suggested solution of it can be considered as more than a palliative which is not capable of the widest generalization. The city, cramped within its artificial boundaries, keeps invading the suburbs where the wage-earners have organized their dormitories, and the small householders, pensioners, and those retired from affairs their villa-retreats. Thus the chaos increases with the absorption of one belt of suburbs after another, because each fresh displacement of residential by business areas entails the throwing out of a fresh zone of suburbs inevitably doomed to absorption in turn. Speculation in urban and suburban land, which causes the minute parcellation of building plots—even the sale of the freehold of separate floors in blocks of flats—will soon result in making our towns, already stifling for lack of air, light, and room for movement, uninhabitable or incapable of further development. The existing form of private landed property in and around towns is foredoomed, because it constitutes the gravest obstacle to the amelioration of urban conditions on rational town-planning lines; besides causing an exaggerated dearness of land and building. Private building has already had its liberties seriously curtailed by local building laws, sanitary regulations, the prohibition against building houses back to back, and the restriction of the number of them that may be built to the acre. The architect struggles to build as cheaply as possible, but building has become so expensive that its cost cannot be reduced much below 3,000 francs (say, £24 4s.) per room. Moreover, the small landlords and proprietors insist on an 8 per cent. return on their land or houses. The result is an *impasse* before which the most skilful town-planners and architects are impotent. We cannot hope to build better and more wisely as long as we cling to the fundamental errors of the past in building policy and the existing system of the ownership and tenure of land. The city's plan must precede its streets; the streets themselves their buildings. But for this to become a practical possibility, it is necessary that the city itself should possess the ground it is built on.

The housing problem is an economic one and can only be solved by economic remedies. It has ceased to be a consensus of merely local difficulties, and has assumed the magnitude of a national, rather than a merely municipal, issue, which can only be overcome by the organized resources of capital employed on a very large scale, subject to strict State control. Capital expenditure in building employed on a vast scale at once produces as vast results. A glance at history shows us that the great eras of building in the past—Rome, the Middle Ages, Louis XIV, and Napoleon—were epochs of autocratic or collective effort. Today Mussolini and the Socialist municipality of Vienna are achieving almost identical practical results in comprehensive town planning and wholesale rebuilding. Housing is as essential a civic need as transport or the regular provisioning of markets. In the cities, real estate must become the property of the citizens themselves, and housing and municipal service vested in the community, like traction, gas, electricity, water, sewerage, and scavenging. A housing rate, paid in proportion to income, rather than rent, may be envisaged as a normal form of taxation for town-dwellers in the near future; in return for which the municipality will assure the housing of the different classes and professions according to their means and needs. Thus the unit of plastic expression in civic architecture may become enlarged in scope from the house to the street, or even the quarter, as the scale of planning of the cities themselves increases in spaciousness.

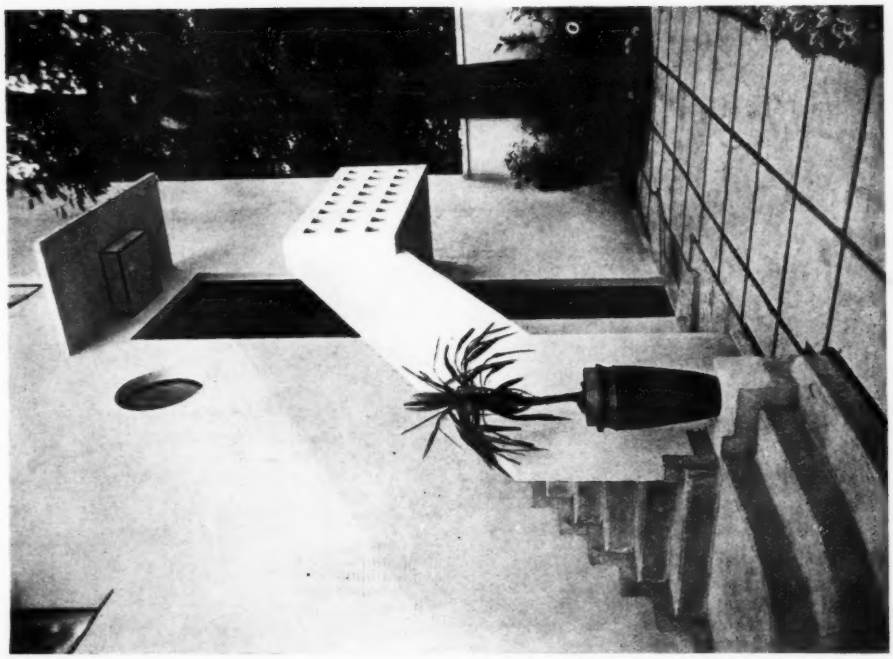
The first qualification for an architect is that he should be able to plan a solid, comfortable, and healthy house, the design of which will permit of rapid and economic erection. This is the technical problem. The second qualification is that he should know how to group and proportion the rooms in it according to the function which each is intended to fulfil. This is the social problem. The proportion of these rooms, separately and as forming a single whole, must be harmonious and agreeable to the eye. They must inspire sensations of contentment, cheerfulness or repose; they must "create emotions." This is the plastic problem.

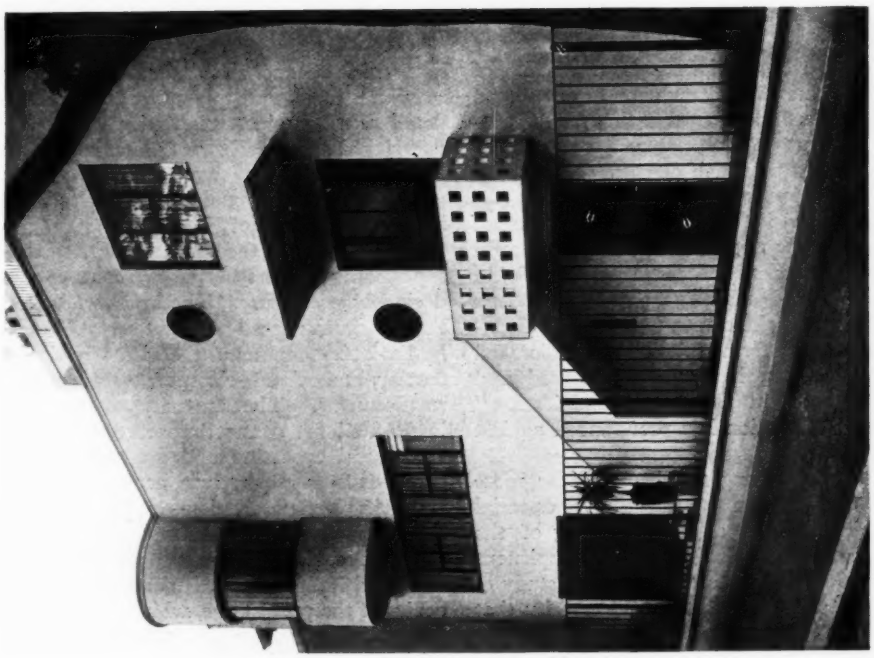
By the very nature of the universal and utilitarian necessity which it is, it is only after all the economic, technical, and social requirements of a building have been satisfied that architecture can be allowed to begin to think in æsthetic terms. None the less, the plastic expression of

Hôtel Particulier of M. Michel, Versailles. By André Lurçat (1925). The garden staircase.

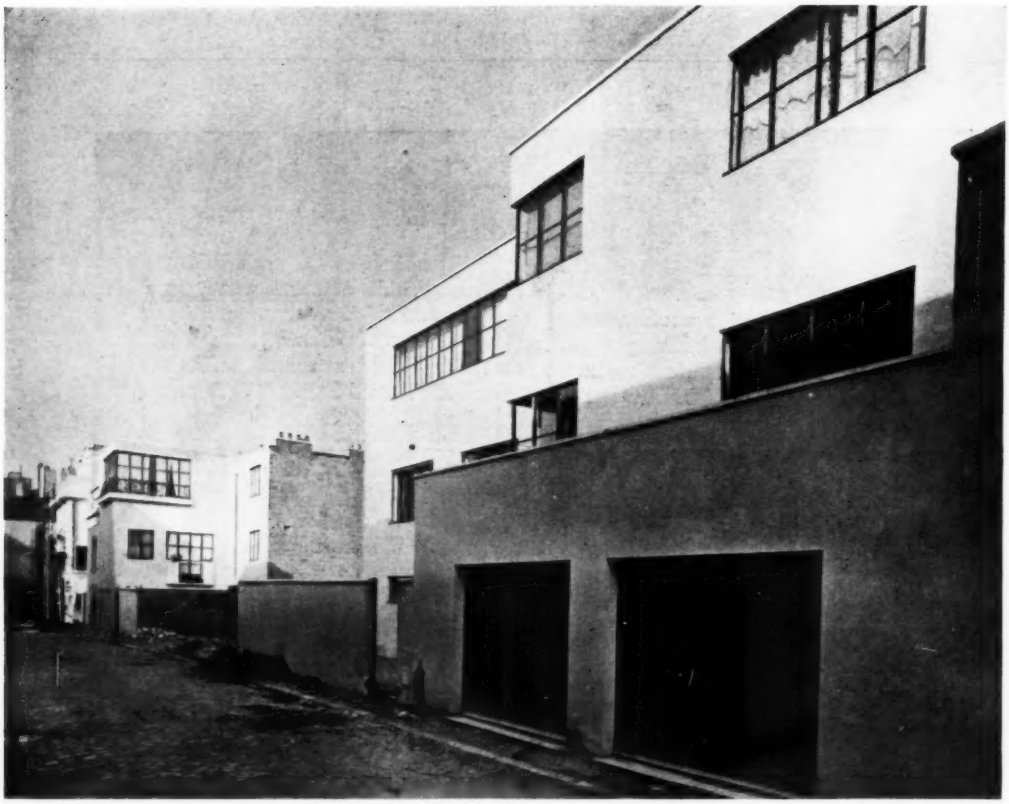


Maison de Couture Myrbor, Paris. By André Lurçat (1926). Above, the staircase. Below, a detail in the interior.





Hôtel Particulier of M. Bomsel, Versailles. By André Lurçat (1925). Left, façade on the Rue Nord. Right, entrance steps.

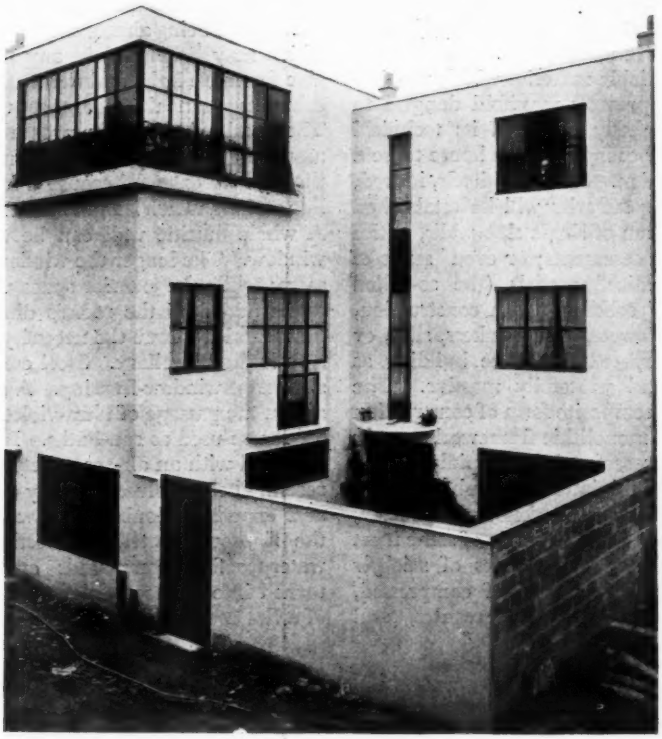


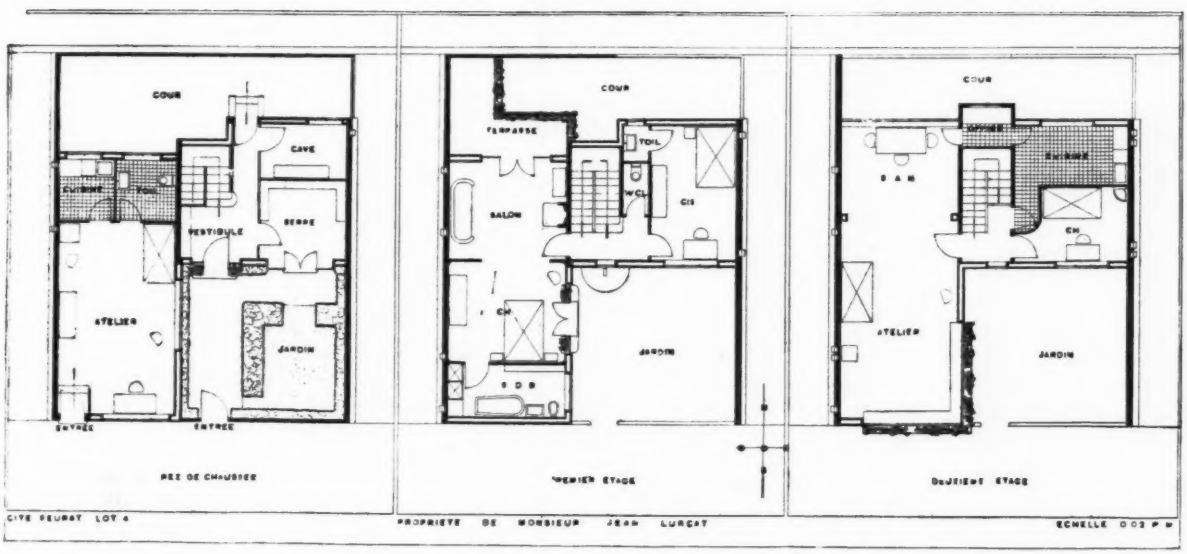
Hôtel Particulier of M. J. Lurçat and Mme. A. Guille, Cité Seurat, Paris. By André Lurçat (1924-5).

architecture remains one of the loftiest in the realm of intellectual culture. These elementary considerations had been ignored by architects for so long that those of the present age have had to recreate architecture for themselves from its most obvious and primitive origins. The reason for this neglect, or rather ignorance, of first principles (for it was more often the latter) is to be found in the nature of the instruction provided by the official schools of architecture in nearly all countries, and more particularly in France, of which Viollet-le-Duc's *Intervention de l'Etat dans les Beaux-Arts* (1864) affords the classical example. (Monsieur André Lurçat, though a former pupil and a diplomaed licentiate of the Beaux-Arts, has publicly abjured and denounced it, and glories in the "excommunication" which that celebrated institution has pronounced against him in retaliation.)

It was an early belief among architects of the more modern school that the precision and discipline so essential to all good architecture which, at the beginning of the present century, were the very qualities most conspicuous by their absence, could be recaptured by a close study of many works of irreproachable sincerity and severity that had been constructed by civil engineers with the aid of machinery during the course of the last fifty years or so. Several of these are notable for that grandeur of conception and simplicity of execution which had previously been the peculiar appanage of architecture itself. There was a general desire on the part of these young men, in conducting their researches along parallel lines to the investigations of constructional engineers, to inspire themselves with the same spirit of exact calculation in the quest of perfection in structural logic, and to acquire that habit of reasoning in detail as a stimulus to initiative which their predecessors had lacked or lost. However, the first practical experiences in this direction soon showed that this line of investigation would have to be abandoned owing to the danger of falling into extremes of frigidity and monotony. For the moment, at least, the prospect of the art of the engineer superseding the art of the architect can be dismissed as decidedly premature. The architect is not subject to the same haunting dread of minute errors in calculation, while he has at his command the aids of proportion, ornament, fantasy, and colour—resources extraneous to the engineer's requirements. The austerity of the engineer's purely intellectual art cannot impart those varying satisfactions of cultural evocation and genial fancy which humanity demands from architecture, because the essence of architecture is its plastic expression—a quality which does not enter into the engineer's problems or solutions.

The dominant sentiment of each epoch has always expressed itself in a particular form of construction. The genius of the present age, which is essentially practical and utilitarian and collective, rather than individualistic, in spirit, is expressing itself in that essentially practical, utilitarian, and composite material—reinforced concrete. Every discovery of a new building method, or a new medium of construction, implies the abandonment of pre-existing plastic values. The old-fashioned, threadbare repertory of column and cornice has clearly become obsolete, while asymmetry is assuming great æsthetic



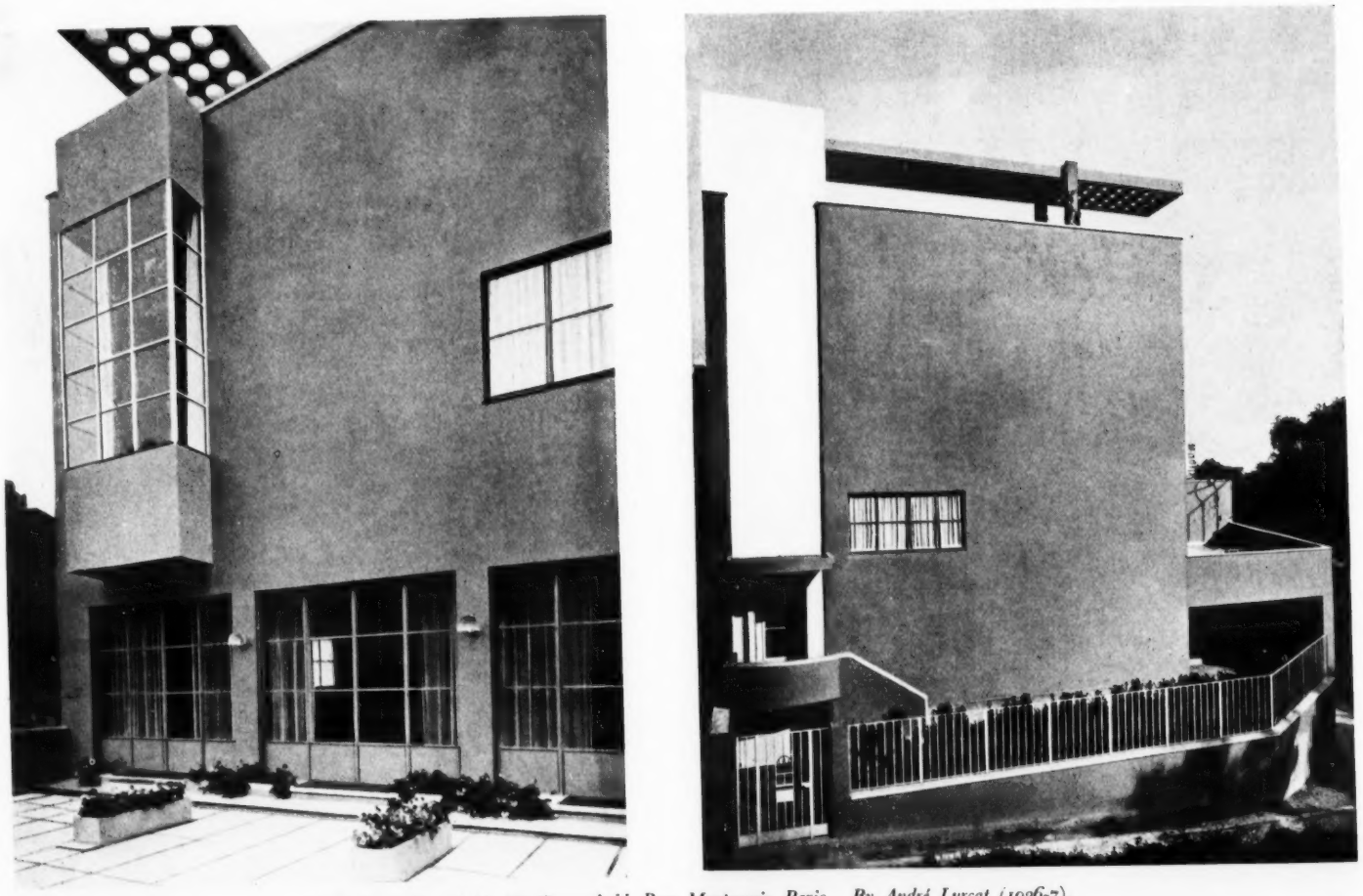


Hôtel Particulier of Monsieur J. Lurçat and Madame A. Guille, Cité Seurat, Paris. By André Lurçat (1924-5).

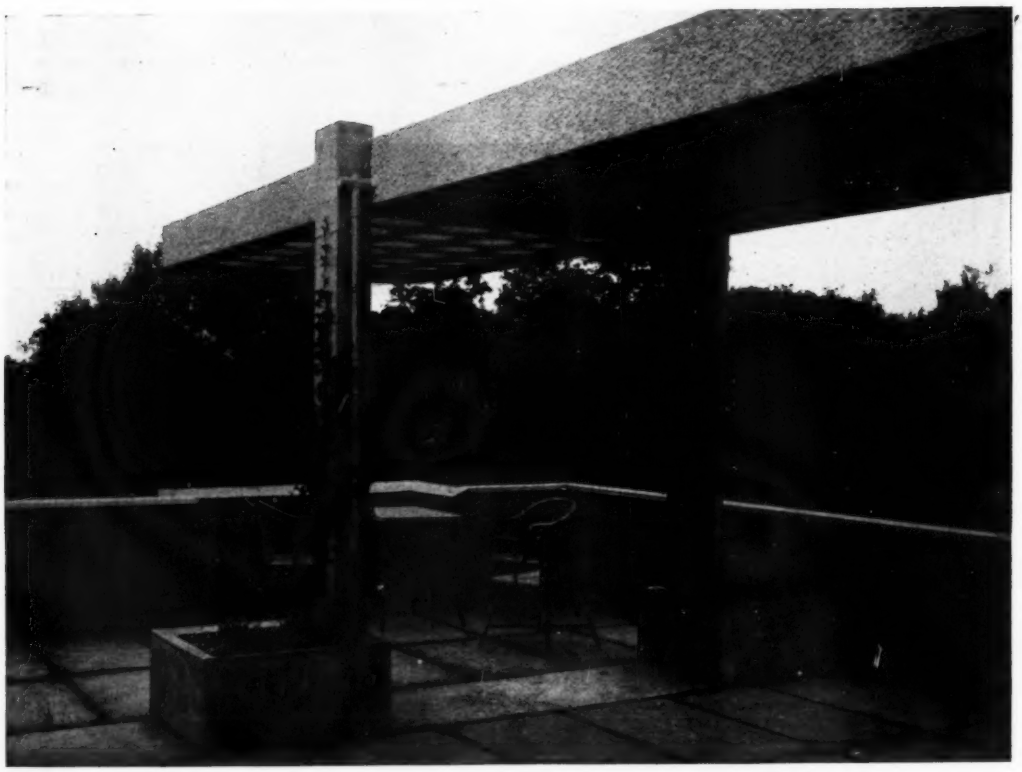
significance. In the past, architecture has always reached its highest expression when it has borrowed from no other art. Freed from the trammels of stultifying conventions and futile non-essentials alike, it is once more at liberty to develop from its own resources. Today the practical details of a building, such as staircases and windows, with scale and proportion in the balance of solids and voids, have become its cardinal æsthetic values. Such incidental decoration as remains may be considered as a concession to the less intellectual element of our mentality, just as colour is called in aid to enliven our spirits.

Reinforced concrete is a pliable material which requires great precision in use, and presents manifold dangers to those who have only imperfectly mastered its technical potentialities. It is no longer economic for a house to be a year or more under construction. Some architects, indeed, believe that before very long factories will be established devoted to the mass-production of single slab walls, entire façades, complete with their casements; or even series of rooms designed on standardized models (the so-called "cell-unit"). The type of solid monolith construction, such as is used for water-towers, coal-bunkers, silos, or culverts is already superannuated for house building as being both unpractically and wastefully massive. The solution has been found in a composite form of construction based on a light, articulated monolithic framework, nearly every part of which may be precast and then rapidly erected on the site, permitting of a minimum of timber casing, struts, and stays. Once the monolith skeleton is erected, its voids are filled in with exterior walls made of some inert substance—hollow tiles, cement bricks, slabs of *mâchefer* furnace-slag, Solonite (a material made of compressed, chopped straw), the Swedish silicate aggregates, and asbestos or tarred-felt-covered boarding—which combines great lightness with sufficient solidity, besides being a virtual non-conductor of heat and cold. Interior walls are now simply fireproof partitions, quickly and easily built up and as readily demolished at need. Plywood, or some patent boarding, replaces the luxury of plasterwork, while doors made of the former are close-fitting. Cork-dust compositions provide rapidly-laid, jointless parquet flooring. Interior fittings are of iron or other metals, the use of wood being almost entirely eliminated. Sash windows, which may be placed in any position the tenant desires, give far more light and ventilation and produce far fewer draughts than the ordinary type of French windows. These sash windows, the proportions of which are made as ample as possible, are horizontal instead of vertical in their major extent, because this shape follows the natural line of sight, which is right and left rather than up and down. A whole outside wall can be transformed into one long window. The longer the window, the larger the room will seem; while the exterior space visible from it may be said to be added to the room's dimensions. Moreover, with horizontal windows the necessity for lofty rooms disappears as a logical corollary. Steel casements permit of the very slenderest window-framing. A special type of glass which allows the passage of ultra-violet rays can now be obtained for rooms used as sun-baths. In Germany a double glass, moulded with an air-space between the delicate panes, has recently been evolved, thereby eliminating the cumbersome and expensive double-windows hitherto used throughout the rigorous winters of Northern Europe. Bituminous waterproofing compounds enable the "leads" to be turned into terrace gardens; while, thanks to the existence of a flat roof, additional stories can easily be built on with

Hôtel Particulier of M. W. Guggenbuhl, Parc Montsouris, Paris. By André Lurçat (1926-7).



Hôtel Particulier of M. W. Guggenbuhl, Parc Montsouris, Paris. By André Lurçat (1926-7).
Left, windows of the living-room and dining-room, with the terrace garden. Right, the entrance front.



Hôtel Particulier of M. W. Guggenbuhl, Parc Montsouris, Paris. By André Lurçat (1926-7). Above, the roof terrace. Below, library, living-room, and terrace overlooking the garden.

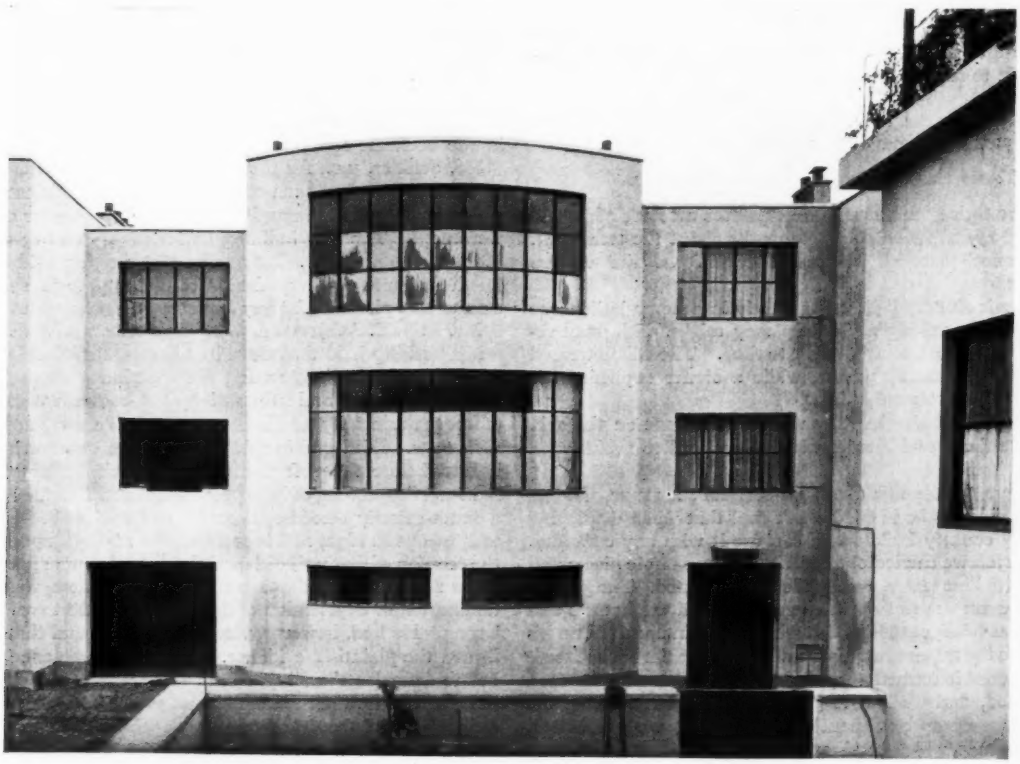
a minimum of cost and inconvenience, or destruction of the existing structure. Such a house is almost completely fireproof and can be erected on the most yielding soils.

Another great advantage of reinforced concrete is that it readily lends itself to a different distribution of rooms floor by floor, without necessitating any corresponding change in the design of the elevations. In other words, the façade has no longer to be composed to the detriment of the interior planning, which can remain unfettered and logical. Thus a better organization and layout of the dwelling-house is assured, answering to the economic and hygienic needs of the present age, without any waste on "architectural" superfluities or the outworn conventionalities of dead styles. Many details of house construction which seemed immaterial to the last few generations have been shown to have a considerable influence on our physical or moral well-being. Typical instances are the orientation of bedrooms with a south aspect as an aid to restful sleep and the immense importance of a careful choice of focal points for the proper diffusion of artificial lighting in living-rooms.

As much furniture as possible is incorporated in the actual structure of the house; cupboards, dressers, and bookcases become "fixtures" in a literal sense of the word, and are placed so that any shelf can be reached by hand without the need of a step-ladder: a practical innovation that might almost be described as revolutionary in France. The movable furniture, reduced to what is strictly necessary in quantity and bulk, ceases to obstruct the rooms on the plea of "furnishing" them. The result is a great accession of free space. The room, no longer sub-partitioned by massive cabinets, sideboards, dining-room tables, and wardrobes, regains its original size and organic unity. Its occupants are freed from being the slaves of a haphazard accumulation of different pieces of furniture blocking up the floor and walls; or cabined and confined within the diminished superficial dimensions which the last few generations preferred to endure rather than curtail the number of their heirlooms and white elephants. Such furniture as the present age finds indispensable should be made so as not to exceed 1·60 metres (5 ft. 2 in.) in height, thereby reducing it from what was often an almost Brobdingnagian scale, convenient enough for giants, to that of our average human stature.

The absence of architects technically qualified for their work, which has characterized the last few decades, resulted in the rise of a new profession known as the house decorator. The house decorator cannot satisfy the specialized requirements he is supposed to be peculiarly competent to meet, because his collaboration must result in a confusing diarchy of conception and design. The intrinsic lack of unity which this duality involves was strikingly demonstrated at the Exposition des Arts Décoratifs of 1925. All the component elements which enter into the design of a house—structure, function, and appearance—must be co-ordinated so as to obey the same master rhythm, which is the architect's conception of the whole.

With light, air, and logical proportions the smallest house can partake of the immensity of sky and earth. The room itself, exchanging a masonry wall for one of glass, passes into the street or garden through its ample casements. The walls vanish into space. Their inmates are no longer imprisoned by the immediate limits of these barriers, or the sense of their constrictive physical presence. Architecture, which has for so long been the arch-enemy of mankind, encroaching on its light, air and space, and banishing colour, sunshine, and vegetation from its sight, once again becomes the great benefactor of humanity—a benefactor at once economic, hygienic, and æsthetic.



MM. Gromaize and Goerg's house, Cité Seurat, Paris. By André Lurçat (1925).

CORRESPONDENCE

OLD PALACE GARDENS, WEYBRIDGE

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—We feel bound to point out that the plan illustrated on page 140 of your issue of January 18 shows, over the names of Messrs. de Soissons and Kenyon, substantially the layout planned and carried out by us in 1921.

We consider this should have been acknowledged, and would have notified you last week but for the fact that a legal action was then pending. This action has now been decided in our favour, and we therefore ask you to be so kind as to make the necessary correction.

LANCHESTER, LUCAS AND LODGE

MACHINE-MADE BUILDING

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—It is with interest that I notice your comments in your issue of January 4, particularly with reference to the machine-made building. That, of course, is one of those statements capable of tremendous latitude in interpretation, but I think there will be few who would cavil at the advantage of doing the very mechanical repetition work, which every modern building has to contain and which is unquestionably a bore to the mechanic, by a mechanical process. Such things as the spraying of walls, the running of mouldings, planing of floors, etc. etc., all these things are done on the latest buildings, but there are still a great many structures put up where much time and money could be saved by adopting those principles which today are left for the somewhat exclusive few.

The day of organization in building has arrived. It is practised by the leaders in the activity, but the great investment in building, one of the most stupendous that England annually undertakes, is largely in the hands of other than the leaders, and they are not following the methods indicated, and are thereby spending their own money and also that of their clients without any commensurate benefit to anyone involved.

ALFRED C. BOSSOM

THE TREATMENT OF INTERNAL OAKWORK

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—After trying various experiments over a course of several years, I find myself in considerable doubt about the treatment, for appearance sake, of internal oakwork. Of the various alternatives:

i: Leaving it alone. I did this recently in a house built three or four years ago, telling my clients they might, with great restraint, apply a little wax from time to time. The oak so treated has become unpleasantly yellow, while a corner cupboard left unwaxed looks unpleasantly pink.

ii: Fuming. I don't generally want a dark tone on the oak, and I dislike the greenish tinge which is so hard to avoid when this process is used.

iii: Liming. While this gives, on occasion, a range of tones which I consider to be ideal, I don't find that when employing the ordinary country builder one can use it with any certainty. On a recent job we carried out experiments on sample pieces and obtained, with lime water, exactly the tone I wanted. The general colour of the oak was not much changed, but all the hotness and crudeness was taken out of it. But when the painter mixed up his lime water to the required strength and tried it on the back of some cupboard doors it seemed to produce a different tone on each piece of wood, and we had to give up the idea of treating the general work—doors and panelling. Instead, we brushed it down with water, which produced a very pleasant effect, slightly darkening the oak. This remained very satisfactory for a year, but the effect has gradually gone and the oak is much as it was to start with. The darkening effect of *hot lime* also seems to be transient in some cases: I noticed a case recently in which, after two years, the colour had changed entirely, from a purple-grey to something like the original rather brown tone.

Is there any way in which the oak mentioned in (i), now unpleasantly yellow, can be brought to a decent tone?

Is *white* wax perhaps the solution for the oak in (ii) which has so far only had what the builder described as "the hydropathic treatment"?

What are the facts about the permanence of lime treatment in general?

A. L. N. RUSSELL

LAW REPORTS

ANCIENT LIGHTS DISPUTE

Savage, Cooper and Wright v. *Daily Mirror Newspapers, Ltd. King's Division. Before Mr. Justice Salter*

This action arose out of the erection of the new premises of the *Daily Mirror* at Rolls Buildings, Fetter Lane. The plaintiffs were a firm of solicitors carrying on business at Lonsdale Chambers, Chancery Lane, which back on to the rear of the defendants' new building, and their claim was for damages for alleged obstruction of their ancient lights.

Mr. Charles, K.C., for the plaintiffs, said his clients had occupied the rooms in the chambers since 1899. Two of their rooms were affected by the defendants' wall, which was 72 ft. high, as compared with the wall 60 ft. high, which existed prior to the erection of the defendants' building. The rooms had always received sufficient light to be useful for the plaintiffs' purposes. In 1925 defendants began the erection of their building, when plaintiffs, contemplating interference with their light, communicated with their landlords, who approached the defendants. Defendants made certain suggestions as to improving the lighting with patent lights. Plaintiffs did not accept the suggestion as a satisfactory solution, and ultimately brought this action. Since the erection of defendants' building the sky was practically obscured, and one could not read or write in one of the rooms without electric light.

Mr. W. H. Hayward, surveyor, of Hayward & Co., Strand, stated that now one could not read or write at all in the middle of one of plaintiffs' rooms without electric light, and the books in the bookcase could not be seen without artificial light.

Mr. Schiller, K.C., for the defendants, admitted that a certain amount of light had been obstructed, but not sufficient to render the rooms in question unsuitable for the purposes for which they were used. The new building had made no real or substantial difference to plaintiffs. He argued that the £35 paid into Court by defendants, with a denial of liability, was sufficient to compensate plaintiffs for any loss they might have sustained.

Mr. A. S. E. Ackermann, B.Sc., gave evidence for the defence.

His lordship held that there had been material and substantial diminution in the light coming to the plaintiffs' rooms, rendering them appreciably and substantially less convenient as solicitors' offices in the locality, and he awarded the plaintiffs £200 damages, with costs. His lordship said the rooms in question were badly lighted before the defendants erected their building, the only light worth speaking of being that which reached the rooms from a south-easterly direction over the top of a wall. Defendants' wall was 72 ft. high, and it could not be and was not denied that the erection of that wall did diminish the amount of light reaching these rooms. Defendants contended that there was not such diminution or deprivation of light as to amount to an actionable wrong. He had, however, viewed the rooms and that view confirmed the plaintiffs' evidence. He came to the conclusion that before defendants' wall was built there was barely enough light in the rooms for their reasonable use as solicitors' offices in Chancery Lane, and that in consequence of the erection of defendants' wall there was a material and substantial diminution to the plaintiffs' light.

ENGLISH PRECEDENT

3 *A rustic belle tricked out in garments from Bond Street might be charming, but certainly would be remarkable. The village church at Billesley, Warwickshire, has a homely frame embellished with sophisticated dressings. The latter are sometimes a little overpowering, as the gable finials to the porches, but all the kneeler finials are in better proportion. The quoin treatment and the great round-headed window (with its admirable glazing divisions) are worthy of attention. Altogether, an interesting document.*—[NATHANIEL LLOYD.]

A NATIONAL SHAKESPEARE THEATRE AND A SUGGESTED SITE

[FROM A CORRESPONDENT]

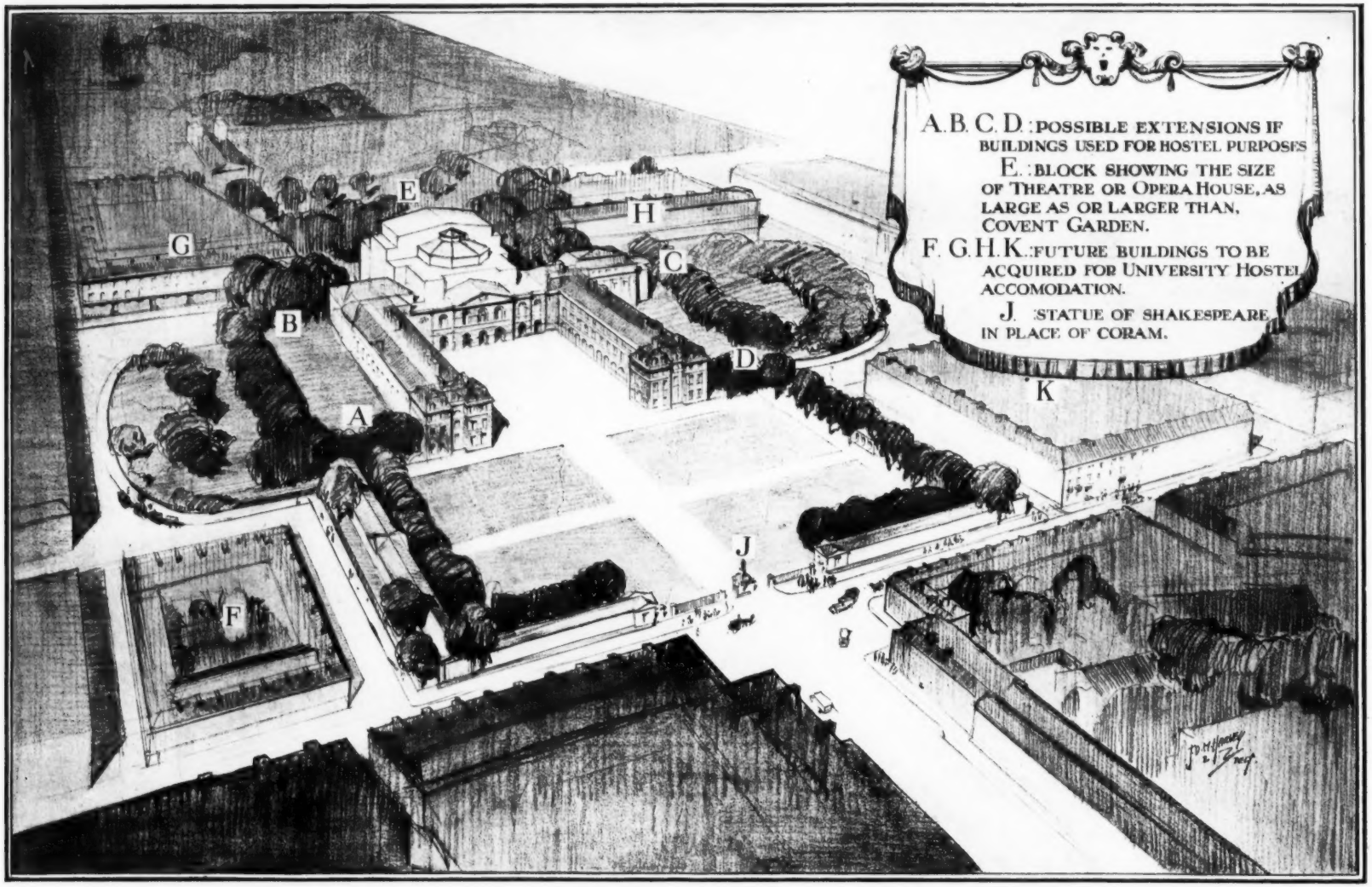
A SITE for the Shakespeare National Theatre was originally acquired in Bloomsbury before the war. This was sold and acquired by the London School of Hygiene and Tropical Medicine; the funds for which, and the building, were given by the Rockefeller Trust.

For some time the beautiful Foundling estate has been the subject of public controversy, and many suggestions have been made as to the best use for these buildings, which would rally public interest. The suggestion that they could be adapted for a university hostel for colonial students seems to meet with general approval, especially as the existing buildings do adapt themselves for this purpose and could be added to by the throwing out of wings.

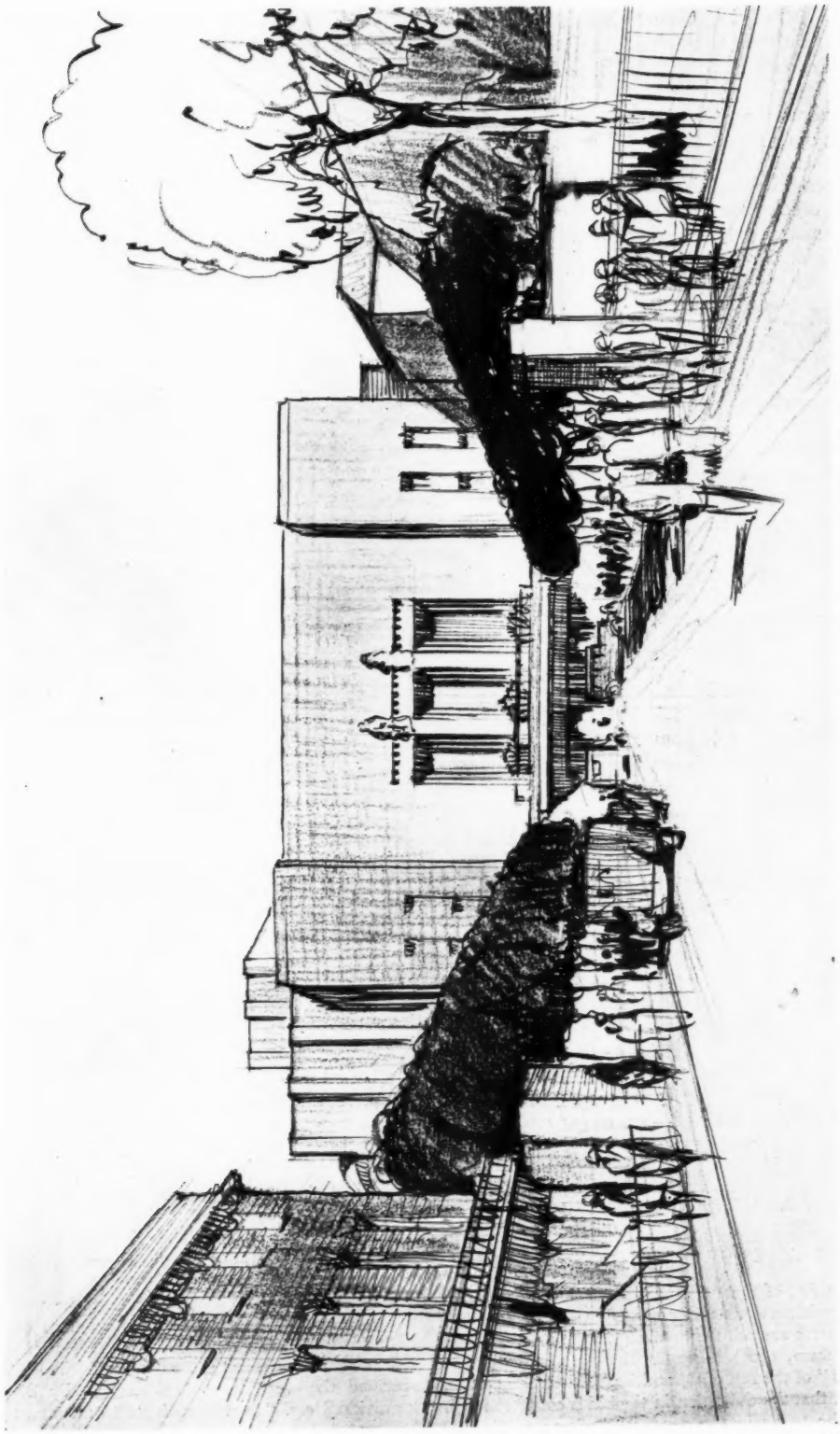
The buildings themselves have no particular architectural value, but it is, as Mr. Turner has pointed out in the *New Statesman*, "the 'picture' as a whole that must be preserved," that is to say, any preservation scheme must include not only the Foundling site—and the gardens and the squares—but the houses in Mecklenburgh and Brunswick Squares, which overlook them. There would be no point in saving the Foundling site and leaving the houses fringing this to be dealt with by irresponsible builders.

To preserve the whole of the picture would be a considerable financial proposition; but in view of the necessarily growing needs of the university, it is a scheme that might be faced by Londoners, or even the British Empire. It will be some years before the university develops sufficiently for the need to be apparent. Meantime, is it not possible for the Shakespeare National Theatre to consider whether the Foundling site is not ideal for its purposes? The funds at their disposal are, probably, inadequate to acquire even a portion of the Foundling site, but they might be sufficient to start a movement to settle this vexed question.

Scheme for a National Shakespeare Theatre adjoining the Foundling Hospital, Bloomsbury. By P. Morley Horder. Above, sketch showing the main front of the Foundling Hospital converted into a foyer to the proposed theatre, which would be erected behind it. The existing entrance hall to the hospital would be most suited architecturally for its new purpose.



Scheme for a National Shakespeare Theatre adjoining the Foundling Hospital, Bloomsbury. By P. Morley Horder. A bird's-eye view of the design. If blocks F, G, H, and K are not preserved as well as the old buildings and gardens, the whole composition can easily be destroyed by irresponsible rebuilding of the houses. The preservation of these buildings is vital.



Scheme for a National Shakespeare Theatre adjoining the Foundling Hospital, Bloomsbury. By P. Morley Horder. Side approaches to the proposed theatre from Mecklenburgh and Brunswick Squares.

The associations of the Foundling site with Hogarth, Handel, and other interesting people connected with the arts, make it suitable for arousing public interest, and if this could be combined with a scheme for converting the surrounding houses into good hostel accommodation for students, it seems difficult to think of a more appropriate site for the building of a great national theatre in memory of Shakespeare.

The difficulty about the matter is that the syndicate which owns the large area of land acquired for the Foundling estate must obviously release some of the money it has invested. Its present proposition is to build a block of flats, which will occupy the whole area of the Foundling site, leaving the squares as lighting areas for flats to accommodate 2,000. It will not build over the squares because it needs them for lighting purposes. Whether the syndicate is serious or not about this does not really matter; it cannot deal with the remaining portion of the property easily as there are two years' leases on most of the houses, and although these are falling in they cannot be dealt with immediately, and in consequence the Foundling site is in jeopardy.

The hostel proposition (however good it may be) will take some time to materialize; and, indeed, it cannot until the university scheme develops.

On the other hand, the Shakespeare National Theatre proposition has been before the public for years, and a site must eventually be found for this, and, I understand, two propositions are under consideration. I do not believe they can be of such interest as the saving of this beautiful piece of London, and I suggest that serious consideration be given to this proposal.

Sir Arthur du Cros—who is chairman of the Foundling Estate Company—has expressed his desire to consider any reasonable proposition that is put before him; and I am not sure that he would not consider favourably some deposit to secure this site for the purposes of the Shakespeare National Theatre if, behind it, there were a sufficient number of responsible people who would set to work to secure the necessary funds to acquire the site for the future development for this purpose. If there is any reality in the national admiration for Shakespeare it should not be difficult to raise the sum required for this purpose. By being linked up to a proposition to save this beautiful piece of eighteenth-century architecture, the Shakespeare National Theatre would get a fresh lease of life.

WORKING UP A BILL OF QUANTITIES: iii

[BY ARTHUR J. WILLIS]

P.C. ITEMS AND PROVISIONAL SUMS

To be defined in Bill of Quantities. The distinction between p.c. items and provisional sums is one with which some find difficulty. These terms are not fully defined in the usual form of contract (R.I.B.A. form, 1909), and must therefore be defined in the "Preliminaries" of the Bill of Quantities. At the same time, care must be taken that the definition in the bill is consistent with the reference to the terms in the conditions of contract. The clauses concerned in the conditions of this particular form of contract are:

"Prime Cost," Meaning of

27. The words "Prime Cost" or the initials P.C. applied in the Specification and Bills of Quantities to goods to be obtained and fixed by the Contractor, shall mean, unless otherwise stated in the Specification and Bills of Quantities, the sum paid to the merchant after deducting all trade discount for such goods in the ordinary course of delivery, but not deducting discount for cash, and such sum shall be exclusive of special carriage, the cost of fixing and Contractor's profit.

Provisional Sums.

28. The provisional sums mentioned in the Specification for materials to be supplied or for work to be performed by special artists or tradesmen, or for other works or fittings to the building, shall be paid and expended at such times and in such amounts, and to and in favour of such persons as the Architect shall direct, and sums so expended shall be payable by the Contractor without discount or deduction or (.....) by the Employer to the said artists or tradesmen.

P.C. Items. The reference to the term p.c. in clause 27 suggests that it applies only to such goods as are obtained *and fixed* by the contractor. It does not state that the goods in question shall be obtained from a firm to be appointed by the architect, nor that the architect shall select the particular article required, both of which are usually intended and should be made clear in the bill. Moreover, the clause implies that the term p.c. is not used in connection with work to be executed on the site by a special firm, and therefore it is not strictly correct to use it for such measured items as slating or terrazzo, billing each item at a p.c. price to which the contractor is to add for attendance, etc.

Provisional Sums. Clause 28 implies that provisional sums apply to work to be done on the building by special artists or tradesmen of which the Contractor is relieved except for the necessary attendance, etc. It will not, however, be inconsistent with the clause to insert in the bill a provisional sum for materials to be fixed by the Contractor.

Cash Discounts. The importance of the distinction between the two terms lies in the fact that under clause 27 the contractor is able to retain a discount for cash (though not a trade discount), whereas under clause 28 no discount of any kind is allowed. It must not, however, be overlooked that cash discounts under clause 27 are not guaranteed; if the contractor gambles in his tender on receiving a cash discount, and the particular firm selected does not allow a discount, there is no responsibility on the building owner to reimburse the contractor for such loss. As, however, it is the normal custom for merchants supplying goods to a contractor to allow a cash discount of 2½ per cent. to 5 per cent. for monthly account, the estimator should know when tendering whether any particular item will come under the clause which allows him to retain such discount, as he may want to reduce his percentage of profit accordingly.

Provisional Quantities. Besides p.c. items and provisional sums for goods or work, the particulars of which are not settled at the time of tender, there appear in some bills "provisional quantities." These are indicated by the addition of "(provisional)" after a measured item. For example, it may be uncertain at the time of tender how much pipe-casing will be required and an item of, say, 250 ft. run of pipe-casing fully described is billed and marked provisional. A price is thus obtained, and the pipe-casing executed can be adjusted against the provisional quantity.

Wording. It is recommended that the words provide, provisional, provision should be kept entirely for their special meaning both in the Bill of Quantities and Specification, referring to provisional sums or quantities as defined. When an item is fully specified the word "supply" can usually be used instead of "provide," e.g. "Supply and fix to all eaves 4½ in. cast-iron, half-round, socketed eaves gutter. . . ." It should be remembered that, when a provisional sum or p.c. price is inserted for an item, it is unnecessary to give a full and detailed description of the

work or item, except in so far as it is essential to enable a builder to price work in connection therewith which he is called upon to do, e.g. cutting away and making good after the sub-contractor, or fixing the goods; any other details are superfluous. All provisional sums and p.c. prices should be underlined as this makes them easily found, and there is no fear of one being overlooked in adjusting the accounts. For the same reason the word provisional in the case of provisional quantities should be unerlined.

Specimen Clauses. Specimen clauses in regard to p.c. items, provisional sums, and provisional quantities are given in Appendix II.

Included Sums. It should always be made clear whether the Contractor is expected to add his profit to a given sum. In the case of such sums as "contingencies," or sums to be included in the estimate for builder's work to be subsequently measured and valued according to the schedule prices, the estimator is not required to add any profit, and this can be made quite plain by the use of the word "include" instead of "provide," and by carrying the amount to the cash column, e.g.:

Include for contingencies to be used as directed by the architects the sum of Two hundred and fifty pounds	£250 0 0

FINAL STAGES OF THE BILL

Approximate Check. Before the bills are sent out an approximate check should be made of the main measurements, e.g. floor and roof areas, number of windows and doors, etc. The work of the taker-off cannot be accurately checked without the expenditure of a lot of time, but such an approximate check of the bill will very often bring to light any omission to "times" items, as well as any serious errors in working-up which may have been passed over in checking. A general look through the bill will also sometimes bring to mind something omitted, and it is therefore advisable that the taker-off should have an opportunity of reading it through. It is a great mistake to make the taking-off and working-up watertight compartments with no co-operation between them. The taker-off, like every one else, sometimes makes mistakes, which he would probably detect at once if he were given the opportunity. Finally, all provisional sums should be again checked with estimates, any p.c. sums left blank when billing filled in, and any outstanding queries in descriptions settled.

Inserted Items. It often happens that items have to be inserted after the draft bill has been written. The draft should be written on one side of the paper only; the extra paper necessary is a very small expense, and the convenience of having the back available for additional items is well worth while. Such items should be clearly referenced to show their exact position in the bill, so that they will not be misplaced by the typist.

Division into Bills. It is the custom to describe each trade as a separate "bill," and to head it as Bill No. .... Contractors often find it convenient to dissect the Bill of Quantities so that each trade can be sent to a particular estimator who specializes in that trade. The typing and binding of bills must allow for this, although such a practice is not so common in London as in the North. The pages of a Bill of Quantities should all be numbered, if possible in one series, from beginning to end, when reference is much easier. If, as sometimes happens, each trade is paged separately, referencing becomes awkward and involves the finding of a trade before one can find the page required.

Proofs. Any surveyor who is particular about the style and appearance of documents sent out from his office will have a proof of the typing before the bills are lithographed or duplicated. If a number of uncorrected typist's errors appear in the finished bill, one is led to the presumption that there are other and more important errors. Moreover, a proof gives the surveyor an opportunity of seeing that headings are properly written and that the carrying over from page to page has been properly done. In this connection it should be noted that the first item on a page should not contain the word "ditto," but any reference to the previous item should be made in words, e.g. "all as last."

Addenda. An addenda bill should be regarded as a sign of weakness—at any rate, in so far as it corrects errors which have been discovered. It is often necessitated by altered or additional instructions from the architect, in which case it is unavoidable. Its pages should be numbered in continuation of the main bill, with which it will eventually be bound in. If the necessity for an addenda bill is known in time, provision will be made in the general summary for its total; if not, it should be made clear where the total is to be carried.

Reduction Bills. The tendency of architects and surveyors at the present time seems to be to underestimate the cost of proposed works, with the result that tenders are often too high and must be cut down. The search for something to cut down then begins, and the reduction bill is the result. This bill must be an amending bill of omissions and additions, full enough in detail to make it quite clear how far the original quantities are altered. It is not sufficient to name as an omission, say, "Saving by substitution of deal-cased frames in lieu of metal casements, £100." This should be billed in proper form by omitting the provision for metal casements, fixing casements, glass, paint, etc., and adding the necessary area of deal-cased frames, glass, paint, etc., with prices agreed. Should a variation arise during the progress of the works, say, in the glass, it will be quite clear how much glass is provided for the windows in question in the contract and what its value is, and there will be no dealing with fictitious quantities and prices. It is, of course, in the case of some items practically impossible to make a proper reduction bill except at very great length, e.g. when the length of a building is to be reduced or part is replanned. To make a bill of the items involved by this would be a lengthy procedure, and in such cases the only thing to do is to put down a lump sum as the agreed saving. The reduction bill being completed, it is to be hoped that the contract will be signed, when the surveyor rests from his labours until the adjustment of variations has to be dealt with.

[*To be continued*]

THE INDUSTRIAL DESIGNS COMPETITION

Particulars of the fifth annual competition of industrial designs, to be held at the Imperial Institute, South Kensington, London, S.W., in June 1928, have now been issued, and can be obtained from the secretary of the Royal Society of Arts, John Street, Adelphi, London, W.C.2. Intending competitors must apply to the secretary of the society between May 1 and May 12 for the necessary entry forms. In all, scholarships and prizes amounting to nearly £1,600 are offered in connection with the 1928 competition. The Empire Marketing Board are offering in connection with this competition three prizes for a design in four colours for a shop-window bill, with the lettering "Buy Empire Produce from Home and Overseas." The Royal Society of Arts offers a prize of £50 for designs for an entrance hall to a cinema, and a prize of £25 for a design for a silver cup for the Swiney prize for the best published work on jurisprudence. Four scholarships will also be awarded—the James Hyde Scholarship of £100 for architectural decoration or textiles; one of £75 for designs for printed and woven dress-goods and printed furnishings offered by the Tootal Broadhurst Lee Company; the Lewis Berger Scholarship of £60, open to apprentices, students or craftsmen in the craft of painting and decorating; and the Art Congress Studentship of £50 for practising craftsmen or designers, founded by the late Sir William Cuthbert Quilter. Among the other competitions, for which prizes ranging from £5 to £52 10s. are offered, are the following: In the architectural decoration section for designs for a wrought-iron canopy for the entrance to a theatre, a decorative fountain, a petrol-filling station, and a bathroom. In the furniture section for dining, drawing and bedroom furniture, dining chairs, wireless cabinet, and panels for a baby carriage.

R.I.B.A.
FINAL EXAMINATIONS

ALTERNATIVE PROBLEMS IN DESIGNS

Following is the list of R.I.B.A. problems in design for 1928:

1. The drawings, which should preferably be on uniform sheets of paper of not less than imperial size, must be sent to the secretary of the Board of Architectural Education, Royal Institute of British Architects, 9 Conduit Street, W., on or before the dates specified below.

2. Each set of drawings must be signed by the author, AND HIS FULL NAME AND ADDRESS, and the name of the school, if any, in which the drawings have been prepared, must be attached thereto.

3. All designs, whether done in a school or not, *must be accompanied by a declaration* from the student that the design is his own work and that the drawings have been wholly executed by him. In the preparation of the design the student may profit by advice.

4. Drawings for subjects *a* are to have the shadows projected at an angle of 45 deg. in line, monochrome, or colour. Drawings in subjects *b* are to be finished as working drawings. Lettering on all drawings must be of a clear, scholarly, and unaffected character.

XCVII

a: A design for a *Block of Small Flats.* The building is intended to be part of an estate development scheme in South London for the housing of Government clerks.

The site selected is level and faces north on to a quiet road.

The building is to be 70 ft. long and will be set back 18 ft. from the pavement.

The two end walls are to be left as party walls for purposes of future development of the estate.

There is a large garden at the back of the site for the use of tenants on the estate. Pedestrians will require access to this through the main entrance of the building.

The building will contain two flats on each of the ground, first and second floors, and four self-contained maisonettes in all are to be comprised in the third and attic (fourth) floors.

Access to the upper residences may be by means of external balconies.

No caretakers' quarters are required.

A boiler room and fuel store are to be included for the provision of central hot water.

A small laundry room (about 100 sq. ft.) is required on the second floor for the use of tenants.

It is required that each residence contains:

- Living-room (with coal fire).
- Kitchen.
- Bath and w.c.
- Two to three bedrooms (one bedroom at least to have a gas fire).

A back door is not required.

Facilities must be made for the collection of household refuse.

The total floor area (measured within the external or containing walls) of each residence must conform with the following dimensions:

Flats	Minimum	550 sq. ft.
	Maximum	880 sq. ft.
Maisonettes	Minimum	620 sq. ft.
	Maximum	950 sq. ft.

Drawings required :—

Plans of all floors, one cross section and two elevations to $\frac{1}{8}$-in. scale. A half imperial sheet of exterior detail in plan, elevation and section to $\frac{1}{2}$-in. scale.

b: Working drawings for Subject No. XCV, *A Vicarage.*

The design for a vicarage may, after it has been approved, be resubmitted with the addition of complete details to $\frac{1}{2}$-in. scale of the treatment of the panelled dining-room, with one sheet of full-size details of joinery.

XCVIII

a: A design for *A Small Cinema.* To be situated in a country town on a site which has a frontage of 90 ft. and is 150 ft. deep, with a fall of 1 in 40 from front to back.

This frontage is on a main street which is to be built to a co-ordinated design.

The cinema should be planned on the assumption that the frontage will eventually be linked up to public buildings on either side, and alley ways approximately 10 ft. wide should be provided for access at the ground-floor level to the side entrances and exits of the building. It should be assumed that these alleys will, upon the completion of the whole scheme, be built over to a depth of about 40 ft. from the front boundary line. Light is only available from the main street.

Accommodation required :—

- Entrance vestibule.
- Foyer.
- Manager's office.
- Advance booking office.
- Ticket office.
- Cloak and lavatory accommodation for both sexes.
- Auditorium. Total seating approximately 900.
- Stage. This should be large enough to enable variety turns to be presented.
- Orchestra pit.
- Dressing-rooms and lavatory accommodation.
- Projector room.
- Re-winding room.
- Electrical room.
- Boiler room and fuel store.
- Office accommodation on the first and second floors of the frontage, approximately 2,000 ft. super., exclusive of lavatory accommodation for both sexes, which must be provided. These offices are to be sublet and should be separate from the cinema; access thereto being provided from the street.

The building is to conform with the usual County Regulations with regard to cinema theatres.

Drawings required :—

- Plans of all floors.
- Two elevations.
- Cross and longitudinal sections.
- $\frac{1}{8}$-in. scale.
- Cross section through auditorium, $\frac{1}{2}$-in. scale.

b: Working drawings for Subject No. XCVI, *A Small Housing Scheme.* The design for a small housing scheme may, after it has been approved, be resubmitted with the addition of working drawings of one complete block of flats, including $\frac{1}{2}$-in. scale cross section, and $\frac{1}{4}$-in. scale plan of one complete flat, indicating the places intended for the chief furniture, and a detail of the type of window proposed to the 1-in. scale.

XCIX

a: A design for *A Housing Scheme for a Rural District Council in Cornwall.* In a wide village street, running north and south, and rising at a grade of 1 in 12 to the north. There is on the east side a cleared and vacant plot having a frontage to the road of 150 ft. The depth from the street line to the end of the gardens of the houses adjacent to the plot is 100 ft. Beyond, to the east, is a large open field having a slope from north to south similar to that of the road, but rising about 1 in 60 from west to east.

It is desired to build 24 houses at a density not exceeding on the average 10 to the acre, and sufficient land can be taken from the field for this purpose in any reasonable shape desired. In addition, one acre of the land may be taken free for a green or open space of any kind.

Four village shops are to be provided either as detached lock-up shops, or attached to four of the cottages.

A water main and sewer (7 ft. deep) already exists in the village street.

Drawings required :—

A complete lay-out and block plan of the site, showing any roads, footways, sewers, and all the proposed buildings to a scale of $\frac{1}{500}$ (41·66 ft. to 1 in.).

Outline plan and complete front elevations in their relative positions of all the buildings fronting on the different roads to a scale of 16 ft. to 1 in. Plans and two elevations of one block or group of the cottages to a scale of 8 ft. to 1 in.

b : Working drawings for Subject No. XCVII, *A Block of Small Flats.*

The design for a block of small flats may, after it has been approved, be resubmitted with the addition of $\frac{1}{2}$-in. scale section of the building showing both the roof construction and the design of the main staircase.

C

a : A design for *Administrative Offices for an Industrial Company.* This company has its works in a country district.

During the erection of the works the administrative work has been done from existing buildings and temporary sheds, but the company has developed to such an extent that it has become necessary to erect administrative offices of a permanent character.

The company is likely to further develop and the new offices are to be planned to allow for a development up to twice the area to be provided at present.

The present requirements are to allow for four (4) stories each of about 15,000 ft. super, with a basement in addition for services such as sprinkler plant, heating and ventilating vacuum, electric light, etc.

The building should be so planned that it may be easily divided into sections of varying sizes.

Generally, the accommodation is to be as follows :

Ground Floor.

Entrance hall.
Porter and waiting-rooms.
Dining-room for about 300 staff.
Kitchen accommodation to suit.
The remainder of this floor is to be used for general offices and records.

First Floor.

Board room for twenty members.
Four directors' rooms, each of about 320 ft. super., and general offices.

Second Floor.

General offices.

Third Floor.

Drawing offices with north light.

The site is not restricted in any way.

The administrative office block will have a frontage facing a private road leading to the company's general works. The direction of the road is east and west, and the new building is to be on the north side of the road.

Drawings required :—

Site plan showing proposed offices and development to twice such area. Ground-floor plan of offices and section to $\frac{1}{16}$-in. scale. Elevation to road to $\frac{1}{8}$-in. scale. Half-inch detail of entrance.

b : Working drawings for Subject No. XCVIII, *A Small Cinema.*

The design for a small cinema may, after it has been approved, be resubmitted with the addition of a $\frac{1}{2}$-in. section through the front portion of the building.

CI

a : A design for *A Flight of Steps.* This flight of steps is to be a connection between two levels of road in a great city, and should be of such a character as to form a decorative element of the city.

Such "steps" exist in Rome in the Scala di Espana and in other hilly towns.

The site is as follows:

An important street leads to a small "place." On the axis of this street and on the opposite side of the "place" is situated a church 60 ft. above the "place," and the steps are to form an approach to the plateau on which this church is situated.

The steps are not to be in a direct straight flight, but should be arranged to give interesting and pleasurable "pauses" to alleviate the fatigue of climbing to such a height.

The site is not in any way restricted.

Drawings required :—

Plan to $\frac{1}{16}$-in. scale. Elevation and section to $\frac{1}{8}$-in. scale. Half-inch detail of portion of steps and balustrade.

b : Working drawings for Subject No. XCIX, *A Housing Scheme for a Rural District Council in Cornwall.*

The design for a housing scheme for a Rural District Council in Cornwall may, after it has been approved, be resubmitted with the addition of working drawings complete for the group or groups of buildings fronting on or adjacent to the village street. Plans and elevations to be to the scale of 8 ft. to 1 in., sections and details to the scale of 2 ft. to 1 in.

CII

a : A design for *A Large Public Garage.* A town garage is to be built on a site bounded by roads on three adjacent sides, and a party wall on the fourth side. It is a rectangle, 180 ft. by 120 ft., one long side facing the main road and the other being on the party wall.

The accommodation required on five floors is as follows:

Ground Floor.

Part of site to be used as an open-air filling station, but a portion of this to be under cover. A control lodge or lodges are to be provided. A small shop for motor accessories with display window. Washing space. General repair shop with lock-up workshop adjoining. Locker room. Offices comprising manager's office, typist's room and general office with waiting space. Heating chamber, etc., and waste and rubbish stores are to be placed in the basement.

The ground-floor space is to be as open as possible, and consideration is to be paid to the convenient spacing of stanchions or other supports. The remaining floor space in the building is to be planned with separate lock-up spaces.

The basement, first and second floors, in addition to staircases, are to be approached by ramps for cars, and the third floor by means of a lift. This floor will be used for the storage of cars for long periods.

In addition, accommodation must be provided in suitable positions, for mess room, reading-room and dressing-room for chauffeurs, petrol, oil and other stores, and lavatory accommodation where necessary.

Two maisonettes or flats for resident mechanics are required, each comprising living-room, sitting-room, two bedrooms, bathroom, kitchen and the usual offices.

Drawings required :—

$\frac{1}{16}$-in. scale plans, two elevations and one cross section to $\frac{1}{8}$-in. scale, and $\frac{1}{2}$-in. detail of a portion of the main elevation.

(*b*) Working drawings for Subject No. C, *Administrative Offices for an Industrial Company.*

The design for administrative offices for an industrial company may, after it has been approved, be resubmitted with the addition of working drawings, $\frac{1}{2}$-in. elevation and section of entrance portion.

Dates for Submission of Designs in 1928.

Subj.	XCVII	.. 29 Feb.	Subj.	C	.. 31 Aug.
,,	XCVIII	.. 30 April	,,	CI	.. 31 Oct.
,,	XCIX	.. 29 June	,,	CII	.. 31 Dec.

* * * *

The questions set at the intermediate, final, and special examinations held in November and December 1927 have been published and are on sale at the Royal Institute, price 1s. 6d. (exclusive of postage).

COMPETITION CALENDAR

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

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

TRADE NOTES

Gaze's have secured a contract to erect factories at Ham for Messrs. The Cellon (Richmond) Limited. The architects are Messrs. Bishop and Etherington Smith.

On Wednesday, Thursday, and Friday of last week, the Merchant Trading Co., Ltd., of 52 Bishopsgate, E.C.2, held a convention at their offices of some 130 of their distributors and representatives through whom the well-known building board, Celotex, is marketed in England, Wales, and Ireland.

Messrs. Hobdell, Way & Co., Ltd., of 45 Church Street, Minories, London, E.1, announce that they have taken over the sole selling rights in this country and colonies of the Karnak, Krodeproof, and Korkseal, manufactured by the Lewis Asphalt Engineering Corporation, of New York.

Mr. L. Hall, timber importer and moulding manufacturer, of Leytonstone, E., has acquired the old-established business of Boardman & Co., North Street, Romford, Essex. Under the new management, increased stocks of timber, mouldings, and doors will be held at Romford, and greater facilities for delivery will be available.

Messrs. Dorman Long & Co., Ltd., have decided to stencil the words "British Steel" on all the steel that they manufacture and erect themselves, and have also displayed a "Union Jack" notice board on all their structural steelwork contracts in course of erection, bearing the inscription "British Steel only."

We have received from the Portland Cement Selling and Distributing Co., Ltd., 27 Buckingham Gate, London, S.W.1, a copy of their *Red Triangle Diary* for 1928. It has been designed specially for architects, surveyors, structural engineers, borough engineers, builders and contractors, to whom it will be of inestimable value. The company will gladly send a copy to anyone applying for one at the above address who is engaged in any of the above trades.

Messrs. A. Reyrolle & Co., Ltd., electrical engineers and manufacturers, of Hebburn-on-Tyne, have just issued a new booklet, No. 726, which gives a complete range of prices during 1928 for all designs of Reyrolle protected type plugs and sockets, and Reyrolle B.S.S. protected type plugs and sockets to specification No. 196–1927. A copy of the booklet may be had on application to the company. The plug and socket attachments differ from each other in details according to the service for which they are designed. The type of earthing-connection also varies. In some designs a scraping connection is used, in others a separate pin is provided, but all designs comply with the Home Office Regulations made under the Factory and Workshop Acts. The material and design of the casings vary. There are brass-cased and cast-iron-cased types, each designed in two patterns, namely, dust-proof and weather-proof. The dust-proof pattern is converted into the weather-proof pattern by the addition of a screwed coupling ring between the plug and the socket, which makes a weather-proof joint. When the plug is removed, the socket may be protected by means of a brass cap screwed on to the thread provided to take the clamping ring. The outlet sockets of the firm can be fitted to any of the standard boxes supplied by the manufacturers of surface wiring systems or to a cast-iron box to suit a conduit system. For domestic use, some types can be mounted in a recessed box so that the whole fitting projects beyond the wall by only a very small distance.

An interesting announcement has recently been made of the amalgamation, on January 1 this year, of the old-established companies, The Val de Travers Asphalte Paving Co., Ltd., and Messrs. Thos. Faldo & Co., Ltd., of Windsor House, Kingsway. The Val de Travers Company, which has important mining interests in France, Switzerland, Sicily, and Germany, was established in 1871, and is one of the largest producers of natural asphalt rock in the world, supplying each year thousands of tons of the rock to many British and Continental users. This company has undertaken and completed many of the largest asphalt contracts ever placed, and it is interesting to learn that they are carrying out all asphalt work at the Bank of England; Westminster Bank, Lothbury; Middlesex Hospital; Spitalfields Market; Bournemouth Pavilion; and in many other important buildings. Messrs. Thos. Faldo & Co. were founded in 1851, and have for many years been recognized as specialists in all asphalt work in connection with buildings. They are the sole concessionaires for Great Britain and North America of the Seyssel Mines, known as Les Mines de Bourbonges à Lovagny Bassin de Seyssel (Haute Savoie), France. At the present time they are engaged with the asphalt work required in connection with Lloyds Bank, Cornhill; Peabody Estate, Acton; Horticultural Hall, Westminster; new silk mills at Lancaster; and a sanatorium at Milford. Mr. W. T. Faldo has been appointed to act with Mr. James A. Scott as joint managing directors.

THE MIDLAND BANK LIMITED

The directors of the Midland Bank Limited report that, full provision having been made for all bad and doubtful debts, the net profits for the year ended December 31, 1927, amount to £2,554,650, which, with £825,022 brought forward, makes £3,379,672 for appropriation as follows: To interim dividend for the half-year ended June 30 last, paid July 15, and dividend for the half-year ended December 31 last, payable February 1 next, each at the rate of 18 per cent. per annum less income tax, £1,823,874; to bank premises redemption fund, £500,000; to officers' pension fund, £220,000; leaving to be carried forward a balance of £835,798. For the year 1926 the dividend was at the same rate, £500,000 was placed to bank premises redemption fund, £200,000 to officers' pension fund, and £825,022 was carried forward.

CORRIGENDA

We regret that we omitted to state that the illustration of the old slate house, published on page 175 of our last issue, was reproduced from a photograph which was specially taken by Mr. C. Lovatt Gill for Messrs. Richardson and Gill's excellent work on *Regional Architecture in the West of England.*

In the list of contractors for the new obstetric block, University College Hospital, London, published on page 177 of our last issue we omitted to mention that the Educational Supply Association supplied the folding windows for the solarium. These windows were illustrated on pages 166 and 167 respectively.

OBITUARY

Mr. Charles Day

It is with much regret that we record the death of Mr. Charles Day, of 33 Tresco Road, Nunhead. Mr. Day will be well known to many by reason of his long connection as an engineer in the service of Waygood-Otis, Ltd., in the manufacture and installation of their lifts. He was connected with that company for nearly fifty years, having entered the service of R. Waygood & Co. in 1871, and he retired about seven years ago. His father, the late Mr. J. M. Day, together with Mr. Henry C. Walker, the present chairman of the company, and the late Mr. W. R. Green, purchased the business in 1875 from Mr. Richard Waygood, who founded it in 1833, and it was carried on by them for twelve years. Mr. Charles Day became a partner in 1887, and afterwards a director with the other partners, when the business of R. Waygood & Co. was formed into a limited liability company in 1894. The business of R. Waygood & Co., Ltd., and Otis Elevator Co., Ltd., of London, were amalgamated in 1914, and the name changed to Waygood-Otis, Ltd. Mr. Day was generally to be seen at any social or sporting function of the company. He was of a genial and generous disposition, was esteemed by all, and will be missed by many.

THE WEEK'S BUILDING NEWS

The Northants C.C. has now agreed upon a scheme prepared by Messrs. Brown and Fisher, architects, of Wellingborough, for the provision of increased office accommodation at the county buildings, NORTHAMPTON, at a cost of £22,000.

*

Plans passed by HACKNEY B.C.: One-story additions, fronting 1-8 Anton Street, for Mr. C. G. Smith; additions, "Duke of Clarence," Clarence Road, for Messrs. Truman, Hanbury, Buxton & Co., Ltd.; additions, 7 Fox's Lane, for Messrs. Hallett, Fox and White; club room, All Souls' Church, Rushmore Road, for Mr. A. Rubens Cole; workshop and offices, Sidney Road, for Messrs. Reader Bros.; ten garages, Tranby Place, for Mr. M. M. Shire.

*

The governors of the HEMSWORTH Secondary School have prepared revised plans for extensions estimated to cost £12,500.

*

The West Riding Education Committee has decided to acquire a site at Sleah Hall, BRIGHOUSE, for the erection of a technical school and a secondary school.

*

The governors of King's School, PONTEFRACT, have prepared plans for the erection of new buildings at a cost of £31,000.

*

The Board of Education has approved the plans of the governors for the erection of new buildings for THORNE Grammar School. In this connection the governors of Brooke's School, which will be closed when the new school is opened, are giving the clock in the tower for embodiment in the new buildings.

*

The West Riding Education Committee has approved amended plans for new premises for the Harrogate Secondary School, the cost being estimated at £65,500.

*

The West Riding Education Committee has acquired a larger site for the proposed new elementary school at SILKSTONE.

*

The West Riding Education Committee has purchased land at RAWMARSH for the erection of a middle school, which is to be built as soon as possible.

*

Plans passed by the WESTMINSTER City Council: Shop, 37 Wilton Place, for Mr. Benjamin H. Bernton; shelter, Piccadilly Hotel, Piccadilly, for Messrs. Galsworthy, Ltd.; shelter, Victoria Station, for Metropolitan District Railway Company; bridge connecting King's College and proposed additions over Aldwych Station, Strand Lane, for Mr. F. W. Troup; north block, Grosvenor House site, for Messrs. Wimperis, Simpson and Guthrie.

The WESTMINSTER City Council recommends various improvements at the Grosvenor Canal, at a total cost of £54,000, in accordance with a scheme prepared by Mr. G. J. Griffiths, Thames Conservancy engineer. The work comprises the enlargement of the river entrance, £25,000; the construction of a new lock, £19,000; the construction of light wharfing, £4,000; and extension of the west quay, £6,000.

*

The MARYLEBONE B.C. Baths Committee now recommends a site at the corner of Ashmill Street and Exeter Street for the erection of baths.

*

The George Ellis trustees are to erect a voluntary school for 340 children at BRAMPTON BIERLOW, Yorkshire.

*

The West Riding Education Committee is acquiring a site at DALTON for the erection of a junior mining centre.

*

The West Riding Education Committee is building a middle school at ROSSINGTON, at a cost of £18,000.

*

The West Riding Education Committee is erecting a senior department at ARMTHORPE School at a cost of £16,750.

*

Plans passed by the LOWESTOFT Corporation: Showrooms and garages, Belvedere Road, for Messrs. D. Leighton and Sons; two bungalows, Hall Road, for Mr. William Meal; two bungalows, Chestnut Avenue, for Mr. P. Huckle; curing-houses, rear Stanley Street, for Messrs. Johnson and Knudtzon.

*

Plans passed by the BEDFORD Corporation: Four houses, Westfield Road, for Messrs. H. Young and Son; two shops, St. Mary Street, for Mr. F. Bonugli; porter's lodge, Poor Law Institution, Kinbolton Road, for Mr. W. E. G. Hull; alterations, 20 High Street, for National Provincial Bank, Ltd.

*

Plans passed by the BERMONDSEY B.C.: Offices, Queen Elizabeth Street, for Mr. F. M. Kirby, surveyor for Messrs. Courage & Co., Ltd.; alterations, Southern Railway offices, Joiner Street, for Mr. E. J. Logan; garage, Lower Road, for Messrs. A. Franey and Son, Ltd.

*

The Corporations of MERTHYR and Swansea have now decided to proceed with the scheme for the provision of joint mental hospital accommodation.

*

The BIRMINGHAM Corporation has obtained sanction to borrow £15,500 for the erection of bungalow annexes and day-rooms at the Rubery Hill and Hollymoor Asylums.

The BIRMINGHAM Corporation has obtained sanction to borrow £2,000,000 for housing purposes and £200,000 for subsidies.

*

The BIRMINGHAM Corporation has obtained sanction for a loan of £41,250 for the erection of two pavilions at Little Bromwich Hospital.

*

The BIRMINGHAM Corporation Gas Committee has obtained sanction for loans of £12,000 for meter and stove shops at Windsor Street Gasworks, and £8,000 for branch offices, etc., at Albert Road, Harborne.

*

Plans passed by the LEWISHAM B.C.: Seven shops, Bromley Road, for Mr. A. Frampton; eleven houses, Polstead Road and Montacute Road, for Messrs. Middletons (Builders), Ltd.; stores and flats Bromley Road, for Messrs. Bethell, Swanell & Co.; nine houses, Blacklands Road, for Mr. A. J. Glock; twenty-six houses, Boveney Road, for Messrs. Wm. Wilmot, Ltd.; warehouse, rear of 305 High Street, for Messrs. Carrington Thomas & Co., Ltd.; additions, Stanstead Picture Theatre, Wastdale Road, for Messrs. F. Matcham & Co.; additions, "Black Bull," High Street, for Messrs. Thomas and Edge.

*

Plans passed by the SWANSEA Corporation: Lavatory accommodation, St. Illtyd's School, Danygraig Road, for Rev. B. D. Collingwood; rebuilding, 15 Waterloo Street, for Cash Hardware Stores, Ltd.; alterations and additions, 29 Waterloo Street, for Messrs. J. Plosker & Co.; two shops and offices, Park Street, for Messrs. H. Billings and Sons; four houses, Goitre Fawr Road, for Messrs. Rosser and Bedford; two shops, Tycoch Road, for Mr. John; shops and living accommodation, Coedsaeson Crescent and Frogmore Avenue, for Mr. T. C. Nelmes.

*

The SWANSEA Corporation is granting the following building leases: Mr. Sydney Davies, for the erection of twenty-one houses at Cocket Road; Messrs. Rogers and Davies, for the erection of a house in Penygraig Road; Mr. T. J. R. Gibbs, for the erection of a butcher's shop at Teilo Crescent; and Messrs. Thomas and Benyon, for the erection of two houses at Cwm Gwyn.

*

The Midland Bank is to erect a bank at MORETON, Cheshire.

*

Mr. J. T. Donkers is to erect a Roman Catholic school for about 300 children at East Woodlands, ADWICK-LE-STREET.

*

The CHESTERFIELD Corporation librarian has been asked to report on suitable accommodation for a branch library for the Whittington area.

RATES OF WAGES

			I	II
			s. d.	s. d.
A	ABERDARE	S. Wales & M.	1 8	1 3½
A₁	Abergavenny	S. Wales & M.	1 7½	1 2½
B	Abingdon ..	S. Counties	1 6	1 1½
A	Accrington	N.W. Counties	1 8	1 3½
A₂	Addlestone	S. Counties	1 6½	1 2
A	Adlington ..	N.W. Counties	1 8	1 3½
A	Airdrie ..	Scotland	*1 8	1 3½
C₁	Aldeburgh	E. Counties	1 4	1 0½
A	Altrincham	N.W. Counties	1 8	1 3½
B₂	Appleby ..	N.W. Counties	1 4½	1 0½
A	Ashton-under-Lyne	N.W. Counties	1 8	1 3½
A₂	Atherstone	Mid. Counties	1 6½	1 2
B₂	Aylesbury ..	S. Counties	1 4½	1 0½
B₂	BANBURY	S. Counties	1 4½	1 0½
B₂	Bangor ..	N.W. Counties	1 5	1 1
A	BarnardCastle	N.E. Coast	1 8	1 3½
A	Barnsley ..	Yorkshire	1 8	1 3½
B₁	Barnstaple	S.W. Counties	1 5½	1 1½
A	Barrow ..	N.W. Counties	1 8	1 3½
A	Barry ..	S. Wales & M.	1 8	1 3½
B₂	Basingstoke	S.W. Counties	1 4½	1 0½
B	Bath ..	S.W. Counties	1 6	1 1½
A	Batley ..	Yorkshire	1 8	1 3½
B	Bedford ..	E. Counties	1 6	1 1½
A₂	Berwick-on-Tweed	N.E. Coast	1 7	1 2½
A₂	Bewdley ..	Mid. Counties	1 7	1 2½
B₂	Bicester ..	Mid. Counties	1 4½	1 0½
A	Birkenhead	N.W. Counties	*1 10	1 4½
A	Birmingham	Mid. Counties	1 8	1 3½
A	Bishop Auckland	N.E. Coast	1 8	1 3½
A	Blackburn	N.W. Counties	1 8	1 3½
A	Blackpool	N.W. Counties	1 8	1 3½
A	Blyth ..	N.E. Coast	1 8	1 3½
B₂	Bognor ..	S. Counties	1 4½	1 0½
A	Bolton ..	N.W. Counties	1 8	1 3½
A₂	Boston ..	Mid. Counties	1 6½	1 2
B₁	Bournemouth	S. Counties	1 6	1 1½
B₂	Bovey Tracey	S.W. Counties	1 5	1 1
A	Bradford ..	Yorkshire	1 8	1 3½
A₂	Brentwood	E. Counties	1 7	1 2½
A	Bridgend ..	S. Wales & M.	1 8	1 3½
B₂	Bridgwater	S.W. Counties	1 5	1 1
A₁	Bridlington	Yorkshire	1 7½	1 2½
A	Brighouse	Yorkshire	1 8	1 3½
B₁	Brighton ..	S. Counties	1 6	1 1½
A	Bristol ..	S.W. Counties	1 8	1 3½
B₂	Brixham ..	S.W. Counties	1 4½	1 0½
A₂	Bromsgrove	Mid. Counties	1 7	1 2½
C	Bromyard ..	Mid. Counties	1 4	1 0½
A	Burnley ..	N.W. Counties	1 8	1 3½
A	Burslem ..	Mid. Counties	1 8	1 3½
A₂	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 8	1 3½
A₁	Buxton ..	N.W. Counties	1 7½	1 2½
B	CAMBRIDGE	E. Counties	1 6	1 1½
B₂	Canterbury	S. Counties	1 4½	1 0½
A	Cardiff ..	S. Wales & M.	1 8	1 3½
A	Carlisle ..	N.W. Counties	1 8	1 3½
B	Carmarthen	S. Wales & M.	1 6	1 1½
B₂	Carnarvon	N.W. Counties	1 5	1 1
A₁	Carnforth ..	N.W. Counties	1 7½	1 2½
A	Castleford	Yorkshire	1 8	1 3½
B₁	Chatham ..	S. Counties	1 5½	1 1½
B₁	Chelmsford	E. Counties	1 5½	1 1½
A₂	Cheltenham	S.W. Counties	1 6½	1 2
A	Chester ..	N.W. Counties	1 8	1 3½
A	Chesterfield	Mid. Counties	*1 8	1 3½
B₂	Chichester	S. Counties	1 4½	1 0½
A	Chorley ..	N.W. Counties	1 8	1 3½
B₂	Cirencester	S. Counties	1 5	1 1
A	Clitheroe ..	N.W. Counties	1 8	1 3½
A	Clydebank	Scotland	1 8	1 3½
A	Coalville ..	Mid. Counties	1 8	1 3½
B₁	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 8	1 3½
A₂	Colwyn Bay	N.W. Counties	1 6½	1 2
A	Consett ..	N.E. Coast	1 8	1 3½
A₂	Conway ..	N.W. Counties	1 6½	1 2
A	Coventry ..	Mid. Counties	1 8	1 3½
A₂	Crewe ..	N.W. Counties	1 6½	1 2
A₂	Cumberland	.....	1 6½	1 2
A	DARLINGTON	N.E. Coast	1 8	1 3½
A	Darwen ..	N.W. Counties	1 8	1 3½
B₂	Deal ..	S. Counties	1 4½	1 0½
A₂	Denbigh ..	N.W. Counties	1 6½	1 2
A	Derby ..	Mid. Counties	1 8	1 3½
A	Dewsbury ..	Yorkshire	1 8	1 3½
B	Didcot ..	S. Counties	1 6	1 1½
A	Doncaster	Yorkshire	1 8	1 3½
C₂	Dorchester	S.W. Counties	1 4	1 0½
A₂	Driffield ..	Yorks	1 6½	1 2
A₂	Droitwich ..	Mid. Counties	1 6½	1 2
A₁	Dudley ..	Mid. Counties	1 7½	1 2½
A	Dundee ..	Scotland	1 8	1 3½
A	Durham ..	N.E. Coast	1 8	1 3½
B₁	EASTBOURNE	S. Counties	1 6	1 1½
A	Ebbw Vale	S. Wales & M.	1 8	1 3½
A	Edinburgh	Scotland	1 8	1 3½
A	E. Glamorganshire & Monmouthshire	S. Wales & M.	1 8	1 3½
B	Exeter ..	S.W. Counties	*1 7	1 2½
B₂	Exmouth ..	S.W. Counties	1 5	1 1
B	FELIXSTOWE	E. Counties	1 6	1 1½
A₂	Filey ..	Yorks	1 6½	1 2
A	Fleetwood ..	N.W. Counties	1 8	1 3½
B₂	Folkestone	S. Counties	1 5	1 1
A	Frodsham ..	N.W. Counties	1 8	1 3½
B₂	Frome ..	S.W. Counties	1 4½	1 0½
A	GATESHEAD	N.E. Coast	1 8	1 3½
B₁	Gillingham	S. Counties	1 5½	1 1½
A₂	Gloucester	S.W. Counties	1 6½	1 2
A₂	Goole ..	Yorkshire	1 7	1 2½
B	Gosport ..	S. Counties	1 6	1 1½
A₂	Grantham	Mid. Counties	1 6½	1 2
A₁	Gravesend	S. Counties	1 7½	1 2½
A	Greenock ..	Scotland	*1 8	1 3½
A	Grimsby ..	Yorkshire	1 8	1 3½
B₁	Guildford ..	S. Counties	1 5½	1 1½
A	HALIFAX ..	Yorkshire	1 8	1 3½
A	Hanley ..	Mid. Counties	1 8	1 3½
A	Harrogate	Yorkshire	1 8	1 3½
A	Hartlepools	N.E. Coast	1 8	1 3½
B₂	Harwich ..	E. Counties	1 5	1 1
B₂	Hastings ..	S. Counties	1 4½	1 0½
B₁	Hatfield ..	S. Counties	1 5½	1 1½
B	Hereford ..	S. W. Counties	1 6	1 1½
B	Hertford ..	E. Counties	1 5½	1 1½
A₁	Heysham ..	N.W. Counties	1 7½	1 2½
A	Howden ..	N.E. Coast	1 8	1 3½
A	Huddersfield	Yorkshire	1 8	1 3½
A	Hull ..	Yorkshire	1 8	1 3½

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 8	1 3½
A	Immingham	Mid. Counties	1 8	1 3½
B	Ipswich ..	E. Counties	1 6	1 1½
C₁	Isle of Wight	S. Counties	1 4	1 0½
A	JARROW ..	N.E. Coast	1 8	1 3½
A	KEIGHLEY	Yorkshire	1 8	1 3½
B₁	Kendal ..	N.W. Counties	1 5½	1 1½
B₁	Keswick ..	N.W. Counties	1 5½	1 1½
B	Kettering ..	Mid. Counties	1 6	1 1½
A₂	Kidderminster	Mid. Counties	1 7	1 2½
B₂	King's Lynn	E. Counties	1 5	1 1
A	LANCASTER	N.W. Counties	1 8	1 3½
A₂	Leamington	Mid. Counties	1 7	1 2½
A	Leeds ..	Yorkshire	1 8	1 3½
A	Leek ..	Mid. Counties	1 8	1 3½
A	Leicester ..	Mid. Counties	1 8	1 3½
A	Leigh ..	N.W. Counties	1 8	1 3½
B₂	Lewes ..	S. Counties	1 4½	1 0½
A₂	Lichfield ..	Mid. Counties	1 6½	1 2
A	Lincoln ..	Mid. Counties	1 8	1 3½
A	Liverpool ..	N.W. Counties	*1 10	1 4½
A₂	Llandudno	N.W. Counties	1 6½	1 2
A	Llanelly ..	S. Wales & M.	1 8	1 3½
	London (12 miles radius)		1 9½	1 4½
	Do. (12-15 miles radius)		1 9	1 4
A	Long Eaton	Mid. Counties	1 8	1 3½
A	Loughborough	Mid. Counties	1 8	1 3½
B	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 8	1 3½
A₁	MACCLESFIELD	N.W. Counties	1 7½	1 2½
B	Maidstone	S. Counties	1 5½	1 1½
A₂	Malvern ..	Mid. Counties	1 6½	1 2
A	Manchester	N.W. Counties	1 8	1 3½
A	Mansfield ..	Mid. Counties	1 8	1 3½
B₂	Margate ..	S. Counties	1 4½	1 0½
A₂	Matlock ..	Mid. Counties	1 6½	1 2
A	Merthyr ..	S. Wales & M.	1 8	1 3½
A	Middlesbrough	N.E. Coast	1 8	1 3½
A₂	Middlewich	N.W. Counties	1 6½	1 2
B₂	Minehead ..	S.W. Counties	1 5	1 1
A	Monmouth	S. Wales & M.	1 8	1 3½
	S. and E. Glamorganshire			
A₁	Morecambe	N.W. Counties	1 7½	1 2½
A₂	NANTWICH	N.W. Counties	1 6½	1 2
A	Neath ..	S. Wales & M.	1 8	1 3½
A	Nelson ..	N.W. Counties	1 8	1 3½
A	Newcastle ..	N.E. Coast	1 8	1 3½
A	Newport ..	S. Wales & M.	1 8	1 3½
A	Normanton	Yorkshire	1 8	1 3½
A₂	Northampton	Mid. Counties	1 7	1 2½
A	North Staffs.	Mid. Counties	1 8	1 3½
A	North Shields	N.E. Coast	1 8	1 3½
A₂	Norwich ..	E. Counties	1 6½	1 2
A	Nottingham	Mid. Counties	1 8	1 3½
A	Nuneaton ..	Mid. Counties	1 8	1 3½
B	OAKHAM ..	Mid. Counties	1 5½	1 1½
A	Oldham ..	N.W. Counties	1 8	1 3½
A₂	Oswestry ..	Mid. Counties	1 6½	1 2
B	Oxford ..	S. Counties	1 6	1 1½
A	PAISLEY ..	Scotland	*1 8	1 3½
C	Pembroke	S. Wales & M.	1 4½	1 0½
A	Perth ..	Scotland	*1 8	1 3
A₂	Peterborough	Mid. Counties	1 6½	1 2
A	Plymouth	S.W. Counties	*1 8	1 3½
A	Pontefract	Yorkshire	1 8	1 3½
A	Pontypridd	S. Wales & M.	1 8	1 3½
B	Portsmouth	S. Counties	1 6	1 1½
A	Preston ..	N.W. Counties	1 8	1 3½
A	QUEENSFERRY	N.W. Counties	1 8	1 3½
B	READING ..	S. Counties	1 6	1 1½
B	Reigate ..	S. Counties	1 5½	1 1½
A₂	Retford ..	Mid. Counties	1 6½	1 2
A	Rhondda Valley	S. Wales & M.	1 8	1 3½
A₂	Ripon ..	Yorkshire	1 6½	1 2
A	Rochdale ..	N.W. Counties	1 8	1 3½
B	Rochester ..	S. Counties	1 5½	1 1½
A₁	Ruabon ..	N.W. Counties	1 7½	1 2½
A₂	Rugby ..	Mid. Counties	1 8	1 3½
A₂	Rugeley ..	Mid. Counties	1 6½	1 2
A	Runcorn ..	N.W. Counties	1 8	1 3½
A₂	ST. ALBANS	E. Counties	1 6½	1 2
A	St. Helens	N.W. Counties	1 8	1 3½
B₂	Salisbury	S.W. Counties	1 4½	1 0½
A₁	Scarborough	Yorkshire	1 7½	1 2½
A	Scunthorpe	Mid. Counties	1 8	1 3½
A	Sheffield ..	Yorkshire	1 8	1 3½
A	Shipley ..	Yorkshire	1 8	1 3½
A₂	Shrewsbury	Mid. Counties	1 6½	1 2
A₂	Skipton ..	Yorkshire	1 7	1 2½
B	Slough ..	S. Counties	1 5½	1 1½
A₂	Solihull ..	Mid. Counties	1 7	1 2½
A₂	South'pton	S. Counties	1 6½	1 2
B₁	Southend-on-Sea	E. Counties	1 5½	1 1½
A	Southport ..	N.W. Counties	1 8	1 3½
A	S. Shields ..	N.E. Coast	1 8	1 3½
A₂	Stafford ..	Mid. Counties	1 7	1 2½
A	Stockport ..	N.W. Counties	1 8	1 3½
A	Stockton-on-Tees	N.E. Coast	1 8	1 3½
A	Stoke-on-Trent	Mid. Counties	1 8	1 3½
B	Stroud ..	S.W. Counties	1 5½	1 1½
A	Sunderland	N.E. Coast	1 8	1 3½
A	Swadlincote	Mid. Counties	1 8	1 3½
A	Swansea ..	S. Wales & M.	1 8	1 3½
B	Swindon ..	S.W. Counties	1 6	1 1½
A₁	TAMWORTH	N.W. Counties	1 7½	1 2½
B₁	Taunton ..	S.W. Counties	1 5½	1 1½
A	Teeside Dist.	N.E. Counties	1 8	1 3½
B	Teignmouth	S.W. Coast	1 6	1 1½
A	Todmorden	Yorkshire	1 8	1 3½
A₂	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 4	1 0½
B₁	Tunbridge Wells	S. Counties	1 5½	1 1½
A	Tunstall ..	Mid. Counties	1 8	1 3½
A	Tyne District	N.E. Coast	1 8	1 3½
A	WAKEFIELD	Yorkshire	1 8	1 3½
A₁	Walsall ..	Mid. Counties	1 7½	1 2½
A	Warrington	N.W. Counties	1 8	1 3½
A₂	Warwick ..	Mid. Counties	1 7	1 2½
B	Wellingborough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 8	1 3½
B	Weston-s-Mare	S.W. Counties	1 6	1 1½
A₂	Whitby ..	Yorkshire	1 7	1 2½
A	Widnes ..	N.W. Counties	1 8	1 3½
A	Wigan ..	N.W. Counties	1 8	1 3½
B₂	Winchester	S. Counties	1 5	1 1
B	Windsor ..	S. Counties	1 6	1 1½
A	Wolverhampton ..	Mid. Counties	1 8	1 3½
A₂	Worcester ..	Mid. Counties	1 6½	1 2
A₂	Worksop ..	Yorkshire	1 6½	1 2
A₁	Wrexham ..	N.W. Counties	1 7½	1 2½
B	Wycombe ..	S. Counties	1 6	1 1½
B₁	YARMOUTH	E. Counties	1 5½	1 1½
B₂	Yeovil ..	S.W. Counties	1 5	1 1
A	York ..	Yorkshire	1 8	1 3

* 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.

All the prices given above have been reduced by ½d. as from February 1.

PRICES CURRENT

EXCAVATOR AND CONCRETOR

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

*

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 19 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. 4½d. *per hour*; TIMBERMAN, 1s. 6d. *per hour*; BRICKLAYER, 1s. 9½d. *per hour*; PLUMBER, 1s. 9½d. *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.

Lead for caulking, per cwt.	£2	5	6
Gaskin, per lb.	0	0	4½

*

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

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

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

BRICKLAYER

BRICKLAYER, 1s. 9½d. *per hour*; LABOURER, 1s. 4½d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour.*

*

London stocks, per M.	£4 15 0
Flettons, per M.	2 18 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	8
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. 9½d. *per hour*; DO. *fixer*, 1s. 10½d. *per hour*; LABOURER, 1s. 4½d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour.*

*

Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	7
Bath stone, per ft. cube	0	3	0

Usual trade extras for large blocks.

York paving, av. 2½ in., per yd. super	0	6	6
York templates sawn, per ft. cube	0	6	9
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6

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

*

HOISTING and setting stone, per ft. cube	£0	2	2
DO. for every 10 ft. above 30 ft. add 15 per cent.			
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	£0	1	0

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

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

SLATER AND TILER

SLATER, 1s. 9½d. *per hour*; TILER, 1s. 9½d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour*; LABOURER, 1s. 4½d. *per hour.*

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

*

Slates, 1st quality, per 1,200:

Portmadoc Ladies			£14	0	0	
Countess			27	0	0	
Duchess			32	0	0	
Old Delabole	*Med.*	*Grey*	*Med.*	*Green*		
24 in. × 12 in.	£42	11 3	£45	1	0	
20 in. × 10 in.	31	4 3	33	0	6	
16 in. × 10 in.	20	18 0	22	4	9	
14 in. × 8 in.	12	1 0	12	16	3	
Green Randoms per ton			8	3	9	
Grey-green do., per ton			7	3	9	
Green peggies, 12 in. to 8 in. long, per ton			6	3	9	

In 4-ton truck loads, delivered Nine Elms station.

Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	1	10

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

Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

*

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

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

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

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

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

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

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

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

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

*

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

7 × 3, per std.	£20	0	0
11 × 4, per std.	30	0	0

Memel or Equal. Slightly less than foregoing.

Flooring, P.E., 1 in., per sq.	£1	5	0
DO. *T. and G., 1 in., per sq.*	1	5	0
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1 in.	0	1	4
DO. *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	6
DO., *ft. cube*	0	15	0

*

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	5	6
DO. framed in floors, roofs, etc., per ft. cube	0	6	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	7	6

PITCH PINE, add 33⅓ per cent.

FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO. 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	10	0
TURNING pieces to flat or segmenta soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over per ft. sup.	0	1	2

continued overleaf

CARPENTER AND JOINER: *continued.*

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

*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	19	0	0
DO., *galvd., per ton*	20	0	0
Corrugated sheets, galvd., per ton	20	0	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0

*

MILD STEEL in trusses, etc., erected, per ton	25	10	0
DO., in small sections as reinforcement, per ton	16	10	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	20	0	0
WROUGHT-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	13	6
DO. *drawn pipes, per cwt.*	1	14	0
DO. *soil pipe, per cwt.*	1	17	0
DO. *scrap, per cwt.*	1	5	6
Copper, sheet, per lb.	0	1	9
Solder, plumber's, per lb.	0	1	3
DO. *fine, per lb.*	0	1	9
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in., per yd.	0	4	0
DO. 4 *in. per yd.*	0	4	9½
R.W.P., 2½ in., per yd.	0	2	2
DO. 3 *in., per yd.*	0	2	7
DO. 4 *in., per yd.*	0	3	6½
Gutter, 4 in. H.R., per yd.	0	1	6½
DO. 4 *in. O.G., per yd.*	0	1	10½

*

MILLED LEAD and labour in gutters, flashings, etc.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	0
DO. 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, ¾ 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.* 4½*d. per hour.*

*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	1	15	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	9
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Thistle plaster, per ton	3	9	0
Lath nails, per lb.	0	0	4

*

LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	3
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock. 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.* 8½*d. per hour.*

*

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

*

GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO. 2 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	1
DO. 26 oz., per ft.	0	1	4

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

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

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

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 8½*d. per hour ;* LABOURER, 1*s.* 4½*d. per hour ;* FRENCH POLISHER, 1*s.* 9*d. per hour ;* PAPERHANGER, 1*s.* 8½*d. per hour.*

*

Genuine white lead, per cwt.	£2	7	6
Linseed oil, raw, per gall.	0	3	6
DO., *boiled, per gall.*	0	3	8
Turpentine, per gall.	0	4	0
Liquid driers, per gall.	0	8	6
Knotting, per gall.	0	18	0
Distemper, washable, in ordinary colours, per cwt., and up	2	5	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	14	0
DO., *flat, per gall.*	1	2	0
DO., *paper, per gall.*	0	16	0
French polish, per gall.	0	17	6
Ready mixed paints, per gall. and up	0	15	0

*

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

SUNDRIES

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

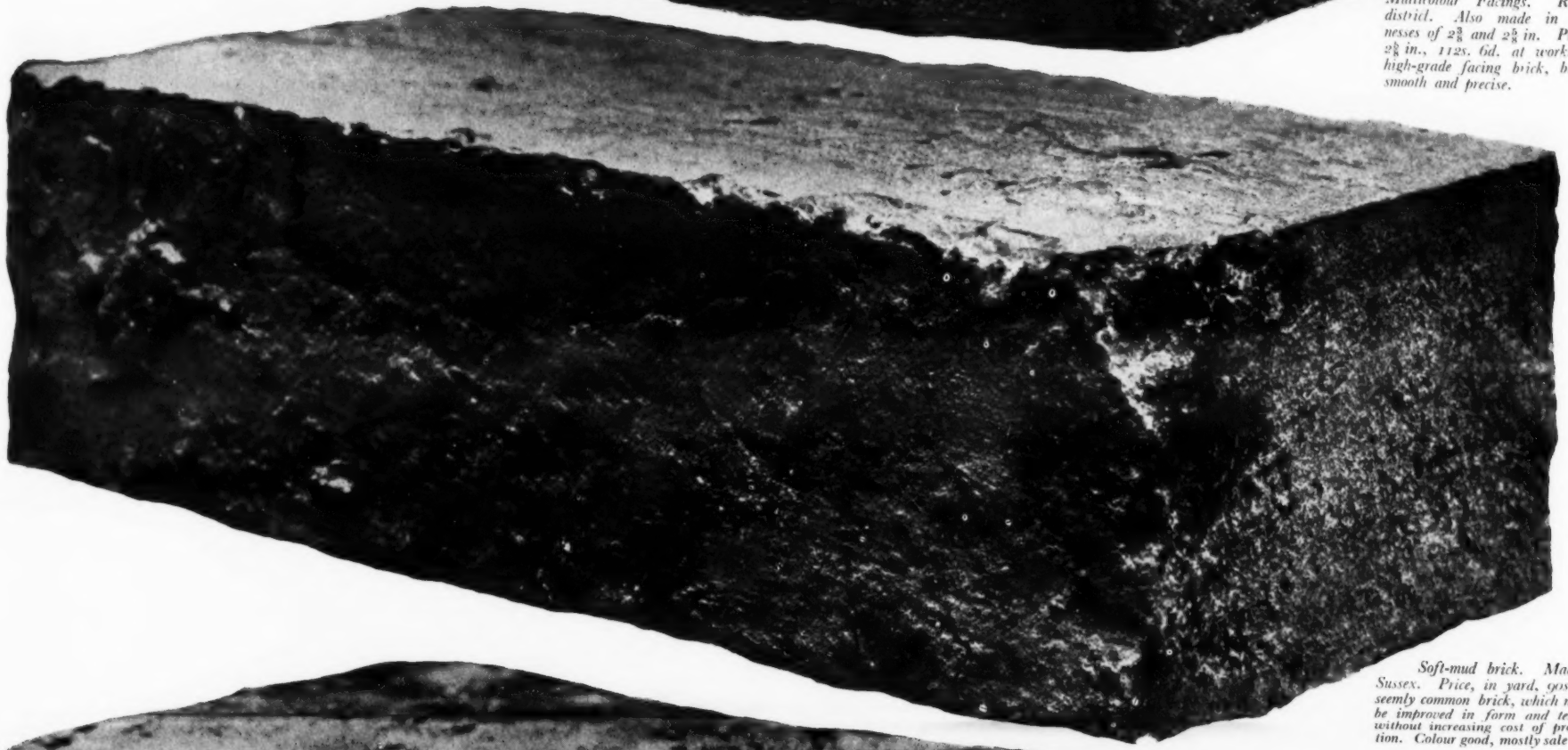
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds per ft. sup. . . . from 3d. to	0	0	6
Plaster board, per yd. sup. . from	0	1	7
PLASTER BOARD, fixed as last, per yd. sup. . . . . from	0	2	8
Asbestos sheeting, $\frac{5}{32}$ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, $\frac{5}{32}$ in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average 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	$\frac{3}{16}$ in.			¼ in.			$\frac{3}{8}$ in.			½ in.		
Qualities ..	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	4	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine	5	4	—	5½	5	—	6	—	—	—	—	—

Multicolour Facings. Reading district. Also made in thicknesses of $2\frac{3}{8}$ and $2\frac{5}{8}$ in. Price of $2\frac{3}{8}$ in., 112s. 6d. at works. A high-grade facing brick, but too smooth and precise.



Soft-mud brick. Made in Sussex. Price, in yard, 90s. A seemly common brick, which might be improved in form and texture without increasing cost of production. Colour good, mostly sale reds.

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Dutch (Klompie) brick. Also made $8\frac{1}{2} \times 3\frac{3}{4} \times 2\frac{1}{8}$ in. Good shape, texture, and colour, for which qualities it is imported in large quantities.

Old Tudor brick. Rough in form, texture, and of deep colour. The old brickwork, so much admired, is built with these bricks laid

Full-size photo illustrations of brick types, showing former textures. [*See article on page 190.*]