THE ARCHITECTS' JOURNAL

Wednesday, April 25, 1928

PICCADILLY CIRCUS

The ghostly form of poor John Nash is once more abroad. It is the *Times* on this occasion who have summoned him from limbo to give evidence at his interminable trial.

The *Times* of April 4 published an article by their architectural critic, capped by a recapitulatory leader, raising the question of how and by whom the remodelling of Piccadilly Circus is to be undertaken. We are indebted to them for drawing public attention to a problem which will before long become acute, and outlining in detail the now quite respectably hoary scheme for squaring the Circus and continuing the sweep of the Quadrant into Shaftesbury Avenue. We are grateful that they should raise these pressing problems; but why raise poor John Nash as well? What has he done that he should be associated with that ungainly grotto—the London Pavilion, and in what way should it be held that his spirit should cloud the vision of those who honour his memory?

The *Times* would have us blot out all record of past achievement and forget Nash in order to attack a new problem in a new, unbiased, and personal way. This point of view is quite familiar, and would be quite reasonable, provided always that the works of Nash are in question and not the principles which directed him in their creation. But their correspondent called him up only to knock him down again, and suffered by such unwarrantable action the attacks of that valiant defender of the Regency, Mr. Trystan Edwards.

It is fitting that such loose talk of Nash should be denounced and that Mr. Edwards should be the vehicle of denunciation, for it was largely owing to his outspoken praise of the original Regent Street that the qualities of dignity, elegance, and good manners in architecture were disseminated to an ignorant public.

If modern commercial architecture can dispense with these attributes, then let Nash slip back into oblivion; but if there is to be set any sort of limit to vulgarity and vainglorious swagger, then it is foolish to imagine that the second-rate snobisms that masquerade as virtues can do anything to help the shopkeepers to good architecture.

Long after John Nash's last building has floated in brick-dust across Lower Regent Street, architects will be learning from him, and what the *Times* correspondent has missed by his hasty dismissal of Nash is exactly the inner meaning of that fine and fluent lamentation which filled the air of London when Regent Street first began to give ground to the invaders. It was the spirit of his work which we felt to be disappearing from the scene, for with the acutely realized sense of loss came, like a phœnix from the ashes, an understanding of the finest qualities of street architecture.

It must not be forgotten that there lies between the performance of Nash and the present day a long period of architectural waywardness, obscuring a point of view that might have helped us to deal with Regent Street in a more direct and surer manner, and that business men are probably the last to learn these long-forgotten lessons. It is certainly true that modern street architecture is wrong in so patently disregarding the human scale, and that architectural bombast of the kind so dear to the multiple shopkeeper will eventually destroy the feeling of awe and reverence which it seeks to create, leaving only worried indifference. As Mr. Wittaker, the editor of the *Journal of the American Institute of Architects*, says, "The 'Nash complex' might better be called the 'scale complex' . . . Old Regent Street had that friendly and intimate quality which the new street has not . . . and it is folly to suppose that when design is forced to ignore scale relationship because of pecuniary necessity the profound laws of human sensitiveness can be broken with impunity."

To forget Nash is therefore to set aside much that is basically essential to good street architecture; and, in actual fact, the outcry that centred round his name some years ago has done so much good that the street as an architectural entity has once more taken its rightful place in our minds, causing us to be dissatisfied with most of the streets we now have and to be very careful of how we design those which we project for the future.

Because of this we stand in less danger than heretofore of accepting a legacy of muddle, and can demand with more insistence that the remodelling of Piccadilly Circus be carried out in the tradition that Nash founded, presenting from all aspects a unified composition of orderly buildings that serve their varied human requirements with some regard to their environment in the street, and in some relation to the human beings who will crowd the pavements at their base.

We hope that Sir Reginald Blomfield will be allowed to continue his present scheme round a new Piccadilly Square, when the ticklish job of settling property rights has been boldly tackled by the L.C.C. His adjustment of the terrific scale of Norman Shaw's Piccadilly Hotel to the more human and bearable level of the Quadrant was a feat that has earned our gratitude and allowed us to feel confident that in him we may find the right man at the right time.

NEWS AND TOPICS

MR. WELLS'S VIEW OF BEAUTY—SIR BANISTER FLETCHER'S "HISTORY"—A MOTORIST ON MODERN ROADS—A LOT OF MONEY FOR ART'S SAKE

TOMORROW the tour of the Garden Cities and Town Planning Association to the north-east of England is concluded. As I pointed out when this Association visited Winchester a year ago, and Glasgow last autumn, the value of these tours lies, not only in the experience gained by those who take part, but in the stimulus given to town-planning ideas in the districts visited. A proof that the municipalities concerned appreciate the visits of town-planning experts is that the Corporations at Scarborough, Hull, and Doncaster have given an official luncheon. The centre of the South Yorkshire coalfield presents great possibilities of future industrial growth.

* * *

I trust, however, that the Executive of this Association will do their best to prevent these tours becoming a succession of complimentary speeches with nothing but mutual admiration expressed on both sides. No doubt speakers, when entertained by Lord Mayors, have to pay some kind of tribute to their hosts, but I thought that the real value of the Scottish tour last autumn lay in the very outspoken criticisms of Scotland's backwardness in town planning. Criticism is never popular, but in this case the revelations made in the House of Commons, not only regarding Scotland's slowness to town-plan, but also as to the complete failure of the Weir house to be accepted by local authorities, have justified every word of criticism. The Garden Cities and Town Planning Association must not be afraid to be audacious.

* * *

Architecture comes interestingly into the exhibition of five American etchers at B. F. Stevens and Brown's rooms at 4 Trafalgar Square. Samuel Chamberlain, the instructor in architectural design at Michigan University, is the one of the five who exhibits prints of buildings, dainty and clean renderings, made mostly in the South of France. The daintiest is called "Remains of Gothic Lacework"; heavier work is found in "A Side Street, Beauvais," and "Ile de Cité, Paris." Some particularly good pictures of ships in sail are shown by George C. Wales, of the architectural firm of Wales and Holt at Boston, U.S.A., who, although a practising architect rather than a professional etcher, has over eighty plates to his credit; and very good and original they are, with an unusual touch on the copper. All five etchers show a fine feeling for their medium, and the general effect is bright, sensible, and unaffected. It is much to be regretted that Spencer Gore had hardly found himself when he died at the age of thirty-six, for there is no doubt he would have been a valuable asset to the contemporary English school. All the influences of his time are to be seen in the eighty works now to be seen at the Leicester Galleries, and the real artist was about to emerge. There is one unassuming oil painting of Dieppe, a quite early one, which has strength and tone and colour, with a good sky commanding the architectural scene.

* * *

In Mr. H. G. Wells's introduction to a collection of his late wife's stories and verses he says: "For her, beauty was something very definite, a precious jewel to be discovered and treasured. For me, beauty is incidental, so surely a part of things that one need not be directly concerned about it." Both of these views I like.

* * *

One cannot go on reviewing and re-reviewing a book for ever. When a book like Sir Banister Fletcher's *History of Architecture* ("on the comparative method, for students, craftsmen, and amateurs"—"completely revised, containing nearly 1,000 pages, with about 3,500 illustrations") reaches its eighth edition, it is time to decline to review it again, and to point silently at what has been already said. The author is Officier de la Légion d'Honneur of France, Commander of the Order of Leopold II of Belgium, Commander of the Order of the Crown of Italy, Commander of the Order of the Crown of Rumania, Commander of the Order of George I of Greece, Commander of the Order of the Rising Sun of Japan, Knight Commander of the Order of Ta-Shou Chia-Ho of China, and a barrister-at-law and an architect! I know not at which to marvel more—the man or the book.

* * *

I am glad to see that the Oxford Preservation Trust are now proposing to make a further effort next July in order to raise the necessary funds for the preservation of Oxford's beauty spots. Events have been moving quickly in Oxford since the JOURNAL described the threat to spoil irrevocably St. Aldate's by erecting a row of second-rate shops. But other dangers are imminent, and the trustees have been busy behind the scenes trying to persuade those responsible to consider the future of the city before carrying out certain building developments. It is proposed, for example, to build a water-tower on the slopes of Cumnor Hill, immortalized by Matthew Arnold. We can well imagine a water-tower designed by some official that would be a blot upon the landscape, and hope that skilled architectural advice will be followed in the design selected. Part of Broad Street is also due for reconstruction, and may easily be spoilt by the atrocities of modern shop fronts, such as have appeared in the "Corn." The speakers at the luncheon of the Trust that is being arranged for next July should not hesitate to tell the public of the threats that hang over Oxford's beauty, and Lord Birkenhead, who is, I understand, to be one of the principal speakers, might use his powers of eloquence to warn those who would spoil Oxford for ever.

* * *

Nine months seems a long time to keep a book before reviewing it; but Baedeker's *Great Britain* I kept by me for three seasons, so that I might take it with me north, east, south, and west before writing about it. Karl Baedeker's handbooks were one of the real losses of the war. There were attempts to give us others "just as good," but they were not the same, and did not serve. Now that we have Baedeker again we find it handsomely up to date. Every footpath that is worth knowing is indicated, and the prices of every inn that is worth going to are marked. Last summer Lord Tennyson gave Tennyson Down to the nation. The guide was published in the summer and yet gives notice of the gift. Moreover, it is fuller than many of the local guides. With such a book, and a piece of string and a good knife and a sovereign, one might go round the world.

New York's skyline is rapidly changing. Skyscrapers that were once regarded as the climax are regarded merely as " tall " buildings. The building department of the City of New York are now considering the plans for an apartment house fifty-eight stories in height on the block bounded by Forty-first and Fortieth Streets, First Avenue, and Prospect Place. If the plans are approved and the building is erected it will be three stories higher than the Woolworth Building. Exclusive of the land, the estimate for the structure is between £1,000,000 and £2,000,000. The same is true of Manhattan. Here there is a block fifty-eight stories in height belonging to the Tudor City Development; the Chanin Office Building is fifty-three stories in height, and the Reynolds Building is now being built to a height of sixty-four stories.

* * *

Few motorists are at once so readable and informative as Major H. O. D. Segrave, not only in describing the epic of car-racing, but in chatting pleasantly about the road. He has prescient things to say and suggest about camber, concrete, and kerbs. He is indignant that most new roads are still constructed with the steep camber that used to be necessary for the old macadam road, although only the slightest fall is required for a concrete or waterproofed surface; he maintains that this useless survival is the direct cause of thousands of accidents every year. As a result, drivers tend, for their own comfort, to cling as long as they can to the crown of the road; the traffic burden is thus unevenly distributed, and few keep to their proper side except when compelled to do so. He supports the American plan for high-speed traffic of two practically flat tracks of concrete, divided by a central strip of tarmac or macadam. He further proposes that this central strip might itself be made porous (or, no doubt, drained with gulleys) and the slope of the side road surfaces might be reversed inwards.

* * *

As a surface material concrete is unrivalled, but its enormous initial cost per mile must postpone, if not prohibit, its general adoption. The advantage of a concrete surface over the slippery tarred alternative needs no stressing, and the author makes the interesting point that a white concrete road obviates the need for dazzling headlights, essential on a black road, which are a plague to motorists and pedestrians alike. From the motorists' viewpoint, no doubt a high uncompromising kerb is a peril and a nuisance; with a gently sloping kerb he can, in emergencies, save himself by overrunning the footpath. The gallant author has had considerable experience in transport, but if he wishes to widen his outlook and discover the advantages and comfort to be derived from the presence of a high, unyielding, and dangerous kerb, may we suggest that he should push a loaded perambulator for a measured mile along the footpath of a speed-haunted motor road !

* * *

The nicest and most informing art exhibition in London is the second Duveen show at the Imperial Gallery of Art in the Imperial Institute, South Kensington. The gallery is light, bright, and warm; the prints, pictures, and sculpture are generously warming. In face of such a demonstration no fear of British art is possible. India, Canada, Australia, the Irish Free State, New Zealand, are all represented, and well. There are only 205 works in all; not too many to take in on a single visit, and the graphic work is pleasantly relieved by the plastic and glyptic. The latter in particular is significant, and the carved pieces are in the majority. London sculptors have learned to do the right thing, even those in the Academy. Henry Poole and William McMillan have made a courageous effort to place cut sculpture in the forefront, with great success in the two stone pieces they show: " The Little Apple "—a mother and child—and a garden group. They have neither arrived at a perfect understanding of glyptic construction, which is better seen in the smaller piece by Allan Durst. The halfway-house between plastic and glyptic is seen in John Tweed's fine stooping statue in marble, " Latona," which I was very glad to see again in so suitable a light, and I found good modelled work in bronze in the torso by Herbert Palliser. The paintings are accomplished, and among the prints are some architectural subjects by C. W. Taylor, Francis Dodd, Henry Rushbury, Muirhead Bone, Ian Strang, and Stanley Anderson of first-class importance. I noted especially an etching by Herbert Raine, of Canada, of an " Old Courtyard in Montreal," and a line-engraving of " Orvieto Roofs," by W. E. C. Morgan.

* * *

£50,000 A YEAR FOR ART'S SAKE

It is related of the present Nizam of Haidarabad that a visitor was going round his treasure houses with him, and came to a room in which were tables piled high with golden sovereigns to the tune of £2,000,000 sterling. " But, your exalted highness," said the visitor, " don't you know that if you invested this it would bring you, at 5 per cent., £50,000 a year? " " Possibly," replied the Nizam. " But what would I have to look at? " The visitor was silent for a few seconds. Then: " We-ell," he said reflectively, " I guess that's the most expensive picture I've ever seen."

ASTRAGAL

ARRANGEMENTS

SUNDAY, APRIL 29

The Guildhouse, Eccleston Square, London, S.W. 3.30 p.m. G. K. Chesterton on " Beauty in the Commonplace."

MONDAY, APRIL 30

Architectural Association. 7.0 p.m. " Modern German Architecture." Paper by Werner Hegemann.

Royal Society of Arts. 8.0 p.m. A. G. Huntley on " Applied Architectural Acoustics." (Concluding Lecture.)

TUESDAY, MAY 8

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

WEDNESDAY, MAY 23

R.I.B.A. Annual Dinner.

JUNE 20 TO 23

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

MODERN ARCHITECTURE

[BY A. B. KNAPP FISHER]

MR. KNAPP FISHER set out to discuss the importance and attractiveness of architecture to the man in the street. By architecture was meant the art of good building; architecture was not only an art, but also a science and a business.

He looked forward to the time when the fundamental principles governing the proper appreciation of art would be taught in our schools and universities and considered almost as important as mathematics and history. For building generally was a concern of all and claimed public attention because nobody could get away from it; it surrounded one on all sides. In New York it tended to dwarf one, in a London slum it sickened, in Oxford it charmed, in a cathedral possibly it lifted one out of oneself; it was something that could not be ignored. It was one of life's essentials, it was a greater historian than Gibbon, and was always present challenging our intelligence. Moreover, architecture was the expression of an æsthetic sense which was part of the spiritual equipment of the average man.

The lecturer affirmed that the main purpose of architectural criticism was to distinguish good building from bad, and he denounced the stupid fiction that all modern work was base and everything alleged to be old was beautiful.

Among the welter of bad building which was going on today, buildings with real character and beauty were being erected which were useful and pleasing and well built, buildings which were truly fit to be compared with much of the best work of the past.

In his attempt to establish a standard of architectural judgment, the lecturer laid down three principles. In the first place a building should be fit for its purpose. If it were a town hall, it must be suitable for civic functions and the business of local government; if it were a shop, the plan must provide for the easy showing and selling of merchandise; if it were a house, to misquote the slogan, it must not be a house in which only heroes could live. Secondly, the building should be well constructed; and lastly, it should be decent and good to look at. If it failed in any one of these main essentials it failed as a work of architecture. To be decent to look at a building should be of good materials; and materials divided themselves roughly into two categories: those that were hand-made and treated by hand, and those that were machine-made or mechanically constructed. A building, even of good design, would lose much of its power if it were built with materials untouched by the human hand. The next essential was good

Report of a lecture at Laughton House, before the Artists' Guild and C.P.R.E.

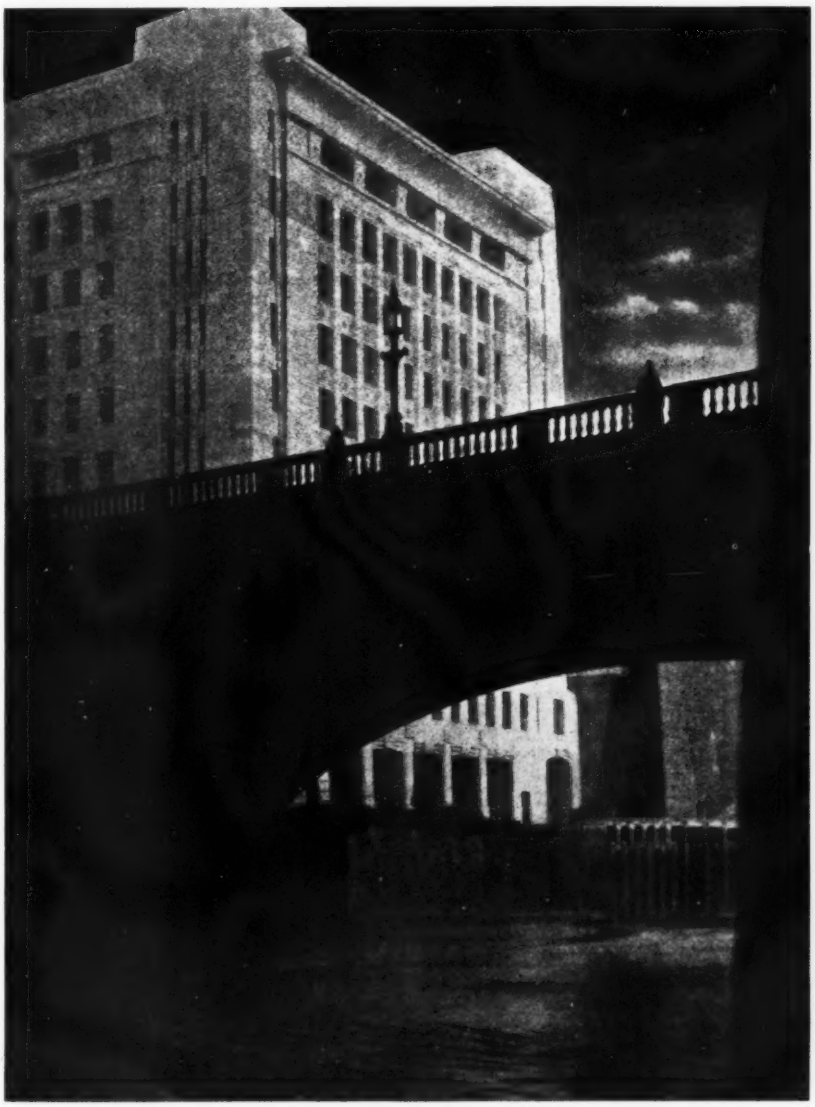
Eleventh Church of Christ Scientist, London. By Oswald P. Milne.

balance, i.e. the different parts of which a building was composed must be well balanced. Spacing and position of doors and windows and their sizes in relation to the whole must be properly regulated. Other desirable qualities were harmony and repose. The jerry-builder liked to have a little bit of everything, but a work of architecture must be restrained. Some buildings had the same kind of vulgarity which distinguished an overdressed person, while others, such as some modern examples of the crude and stark variety, were underdressed.

The lecturer defined the architect as the gentleman who makes architecture possible—or impossible. He belonged to a profession which worked in rather dim obscurity. The architect—unlike the painter and the musician—was an unknown quantity—he was sometimes jokingly referred to as the man who left the staircase out; but more than that, little was known of him, although things are certainly improving, and nowadays the names of as many as half a dozen architects were known to the man in the street. But it would undoubtedly lead to better work if people were able to associate the names of leading architects with their buildings, because then the sheep could be gradually separated from the goats, and the public could begin to recognize the men whose work was good. For people were interested in personalities first and things second—they were more interested in the picture-painter than the painted picture.

The perfect architect had a three-fold function to perform. He dealt in three dimensions: the eternal triangle of building. Just as true religion comprised the mystical, the intellectual, and the institutional, so good building could only be obtained by combining art, science, and business. For what was architecture if it were not an art? What was building if it were not a science? And what was the combination of those two if they were not truly a business?

The lecturer then proceeded to show some slides illustrative of modern architecture. He divided buildings into three categories: ecclesiastical, public, and domestic. In the time at his disposal he excused himself from attempting to discuss the thorny question of style. He pointed out, however, that about 100 years ago the period called the



Adelaide House, London. By Sir John Burnet and Partners.

Gothic Revival was in full swing, and although it produced so much hard and mechanical work, it was perhaps inevitable, and the outcome—thanks to such men as Scott, Temple Moore, Bodley, Sedding, and the like—was good, for out of the fire of the affected and cold-blooded manner of the nineteenth century came the reaction of a freer imagination. Today in church work we got a freer manner which was so often wholly delightful, and the church work of the best moderns showed very clearly that there was an individuality abroad in the ecclesiastical architecture of today which, although in many cases it was modelled on the work of the Gothic school, yet had a character of its own. In support of this contention he cited the work of Bentley, Sir Giles Gilbert Scott, and Edward Maufe.

In Victoria's reign, during the "Battle of the Styles," new influences were introduced, for the nineteenth century was bringing with it masses of new inventions, such as steam, which became the power for locomotion on land and sea, electricity, and steel construction, and reinforced concrete, with the result that today we saw a new style of architecture gradually being developed, something other than a Renaissance copy, and even adapted to local demands, and although immature and stark at times, yet scornful of revivals and original in conception. And so the Renaissance architecture of the fourteenth century in Italy was by gradual involution and absorption being made to fit in with the exigencies of the twentieth century in England.

Modern buildings showed a steel skeleton clothed in a flesh of stone or brick—that was our modern way of building; and some said because you could not see the steel you were not building truthfully, as did the Greeks and the medieval people. But this statement was not logical. The human form did not expose its internal structural members. The slides illustrative of "public" architecture included the new Regent Street, which the lecturer described as "Art divorced from the people, the art of soulless, tawdry-minded commercial money-grubbers." Britannia House, Finsbury Circus, was specially interesting because it brought back echoes of the fourteenth- and fifteenth-century Italian Renaissance. Although a little fussy and ragged, it was yet a building of great quality and one to be wholeheartedly admired. It read a lesson in design to its neighbours who did not touch its standard.

Adelaide House, London Bridge, was modern in design and function. It was a cage, a grid. Though fitted for its purpose and well constructed, it was a little stark, rather self-conscious and monotonous.

Turning to domestic architecture, the lecturer remarked that sixty-eight years ago a man called Philip Webb built a house for his partner Morris, and so there was initiated a new movement with which such painters as Rossetti, F. M. Brown, Leighton, Morris, and such architects as Webb, Nestfield, Shaw, were connected—men who broke away from the horsehair period of the Victorian era and got back to beauty and colour in design, and leaving such things as the Randolph Hotel, Oxford and Strawberry Hill architecture behind, sought the right use of materials in house construction, and set a standard of comfort and fitness, the benefit of which we were reaping today. It might be said without fear of contradiction that the best of the domestic work of the last twenty years was very good, was, indeed, probably as good as any that had gone before, and far better than similar work in other countries. Mr. Knapp Fisher concluded by showing a number of delightful house designs by modern practitioners, which did much to convince his audience that architecture of today was worthy of public attention and patronage.

Ockendens, Birdham, Chichester. By John D. Clarke. The south front.

A MODERN COUNTRY HOSPITAL

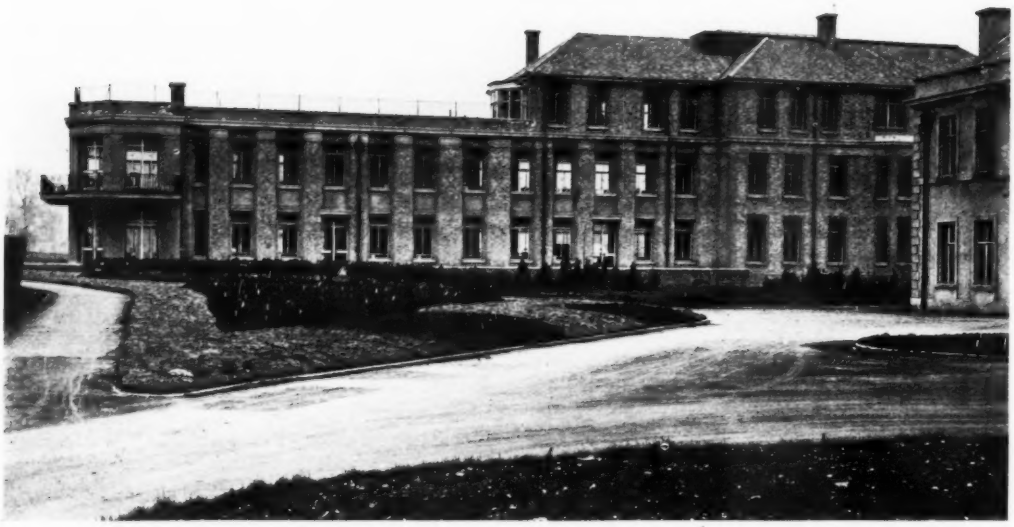
[BY D. C. MAYNARD]

THE Hendon Union, formed in 1834, serves a large area, including Hendon, Edgware, Harrow, Kingsbury, Pinner, and Stanmore. In 1841 the population in that area was 12,487, today it is 185,437. Shortly before the war it became apparent to the Guardians that the infirmary, attached to the Redhill Institute, erected in 1865, was inadequate to provide the necessary accommodation for the sick poor of the district. In 1914 an isolation block was erected to meet this growing need, but owing to the necessity for strict national economy, no further increase in accommodation could be undertaken by the Guardians for the time being. Eventually, in May 1923, the Board decided to erect, on a site at the rear of the Children's Home, Edgware, a hospital for 175 patients. This was completed recently. It is named the Redhill Hospital, and comprises an administrative block, male and female ward blocks, nurses' home, porter's lodge, and mortuary and boiler-house.

This new building has been built and equipped as a general hospital to provide accommodation and treatment for acute surgical and medical cases only. Chronic cases will continue to be treated in the original infirmary. The Guardians also administer the Redhill Institute, which dates back to 1839, and the Children's Home, Edgware, built in 1859. The general layout of the hospital was governed largely by the following factors. The site chosen was originally a play-field attached to the Children's Home, and consists of about 20 acres. Much of the land is low-lying, and is intersected by the Silk Stream, and there is a gentle slope of about 10 ft. from west to east. The Edgware Road runs along the western boundary of the site, but is separated from it by the Children's Home. It is hoped at some future date to remove this Home, and thus obtain much needed room and direct access to this road. A difficult problem was also presented by the existence of a public sewer, which runs across the site from north to south.

The main entrance is from North Road, which forms the eastern boundary of the site. The porter's lodge is situated to the left of this entrance, and from thence a drive leads to the administrative and receiving blocks. The main corridor running from south-west to north-east links up the various blocks. The main elevations of these blocks therefore face north-west and south-east, and thus obtain the maximum amount of sunlight. The two main ward blocks are on either side of the administrative block, and include accommodation for the 175 male and female patients. The female ward block, forming the south-east wing of the main group of buildings, consists of two stories. The ground floor contains one large ward for twenty-two beds, intended for surgical cases, with two two-bed side wards, and a sun-room for four beds. This portion is situated to the south-west of the main corridor, while the rear or north-east portion consists of the maternity section, containing ten beds, and on the first floor above this ward is placed a

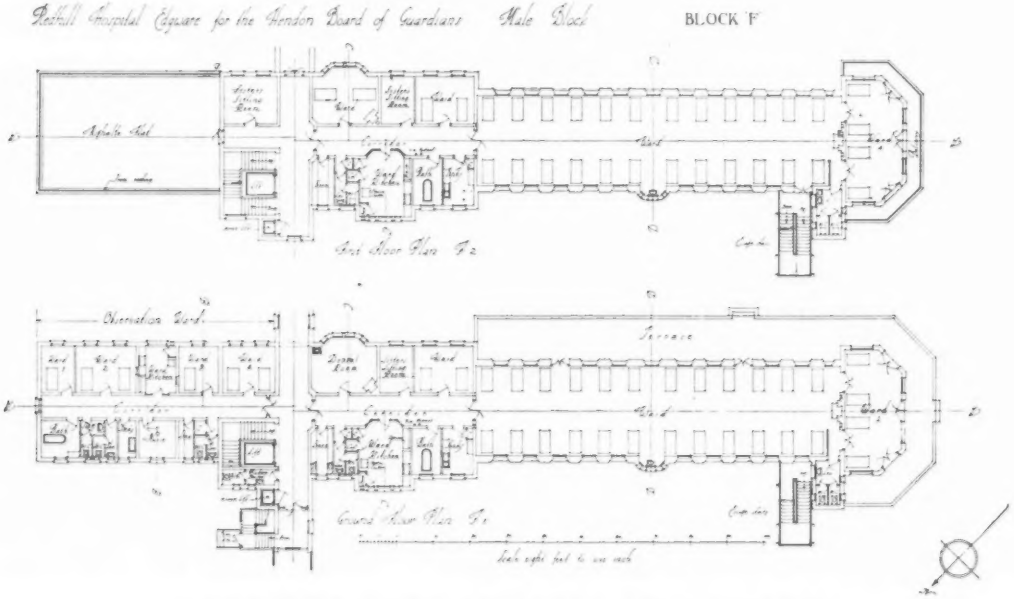
Redhill Hospital, Edgware. By Paine and Hobday. The administrative block.



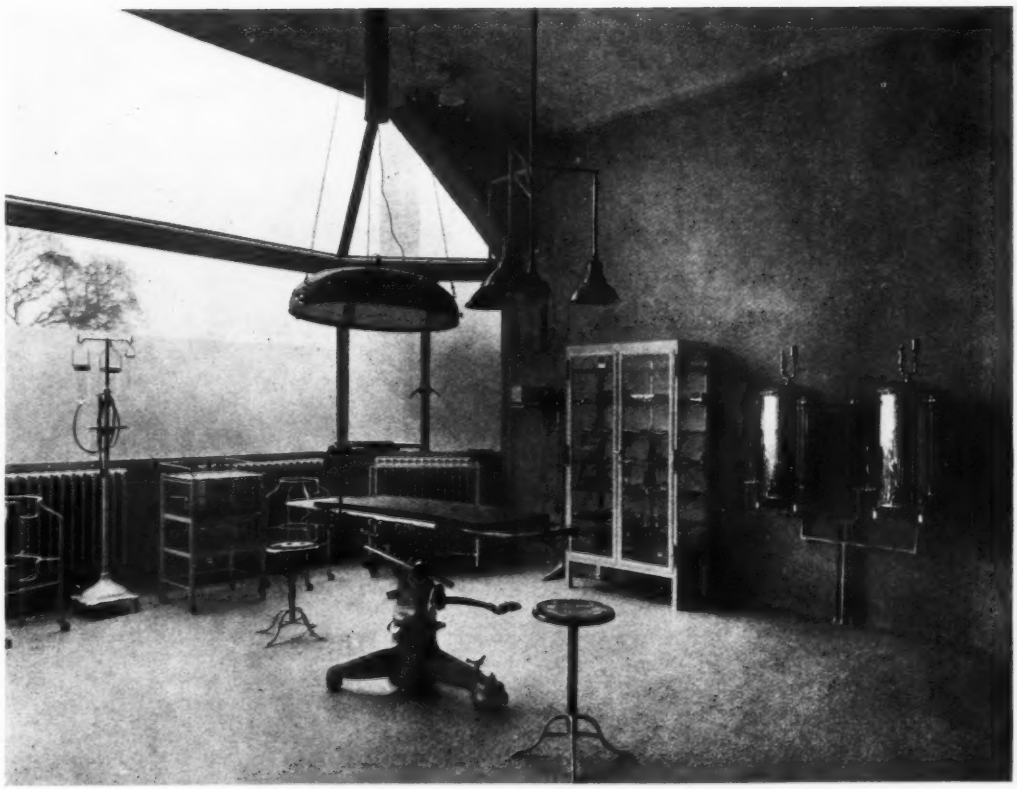
waiting maternity ward for six beds. On the first floor over the surgical ward is accommodation for thirty medical cases. A flat roof completes this block, access to which is provided by the main staircase in addition to a passenger lift, and is thus available for convalescent or tuberculous patients.

The male ward block, forming the north-west wing of the main group of buildings, is designed on similar lines to the female block, except that the rear or north-east portion provides for isolation wards on the ground floor with observation wards over. On the second floor is a children's ward for sixteen beds, with a large day-room, opening on to a flat roof, occupying the south-west and sunny end of this block, which forms an ideal position for open-air treatment. Provision has been made for adding an additional story to both these ward blocks at a subsequent date. The receiving block is placed between the administrative and female ward blocks to the south-west of the main corridor.

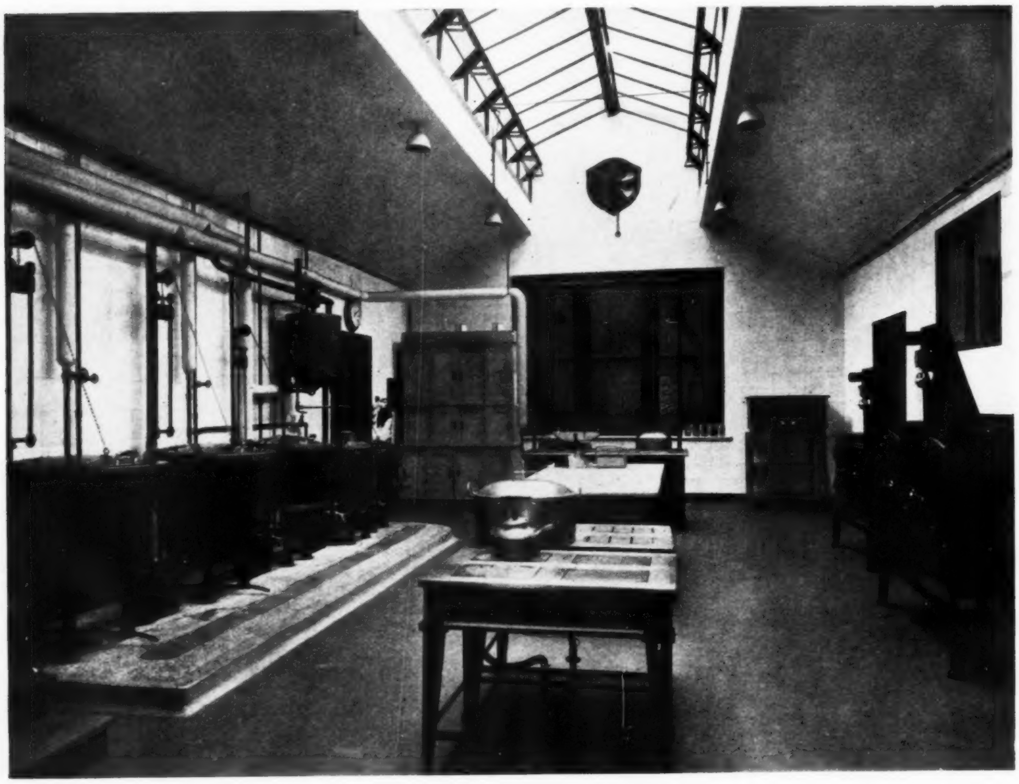
The front and south-west portion of the administrative block contains on the ground floor, close to the main entrance of the hospital, the offices of the medical superintendent and matron, and also a consulting-room, waiting-room, nurses' dining-room, and pantry, and above these rooms on the first floor are placed the committee-room and

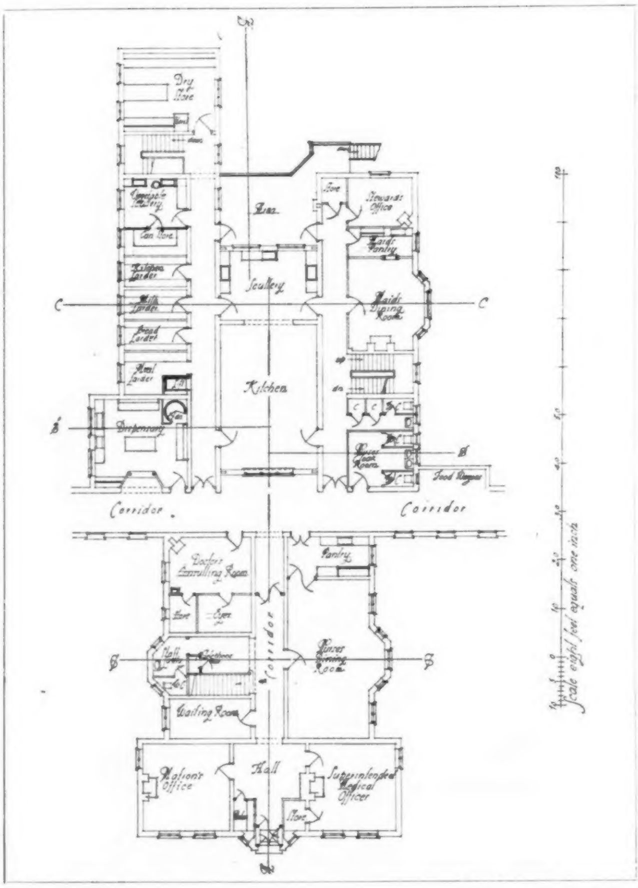


Redhill Hospital, Edgware. By Paine and Hobday The male-ward block.



Redhill Hospital, Edgware. By Paine and Hobday.
Above, the large female-ward. Below, the operating theatre.

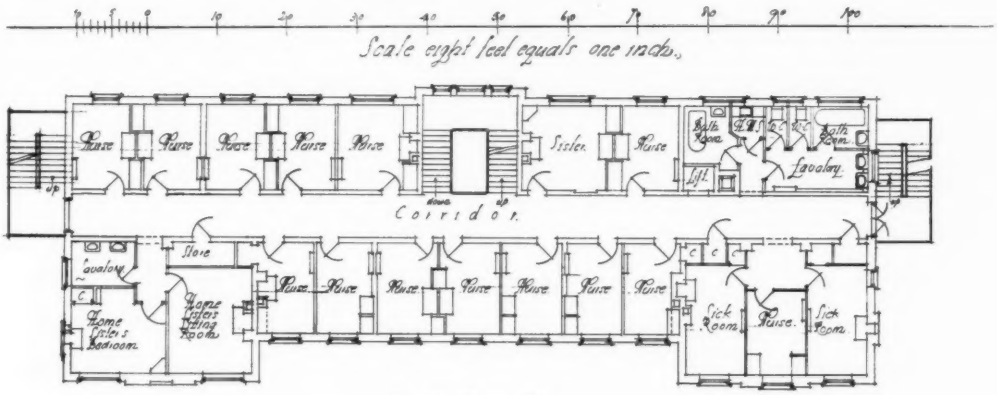


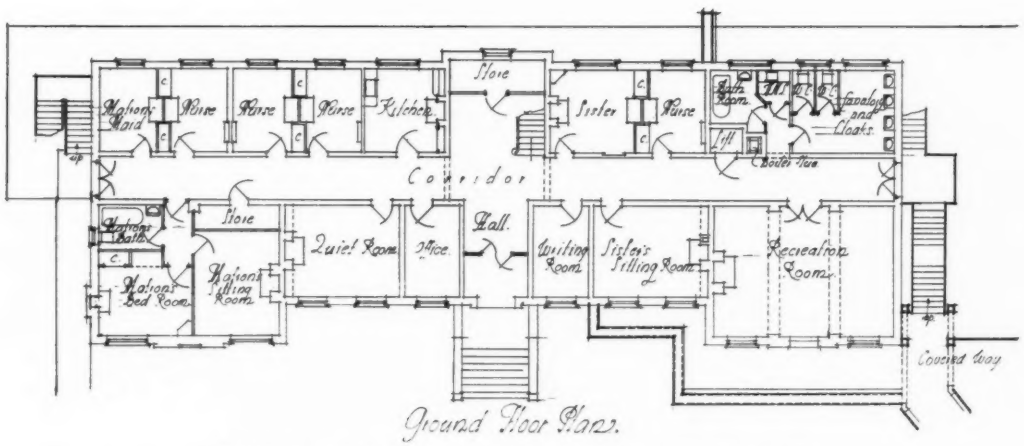


Redhill Hospital, Edgware. By Paine and Hobday. Above, the kitchen. Below, ground-floor plan of administrative block.

resident medical officer's quarters. The rear portion consists of three stories, and contains a kitchen and dispensary on the ground floor, steward's office, stores, and refrigerating and ice-making plant on the sub-ground floor, and a maids' home on the first floor.

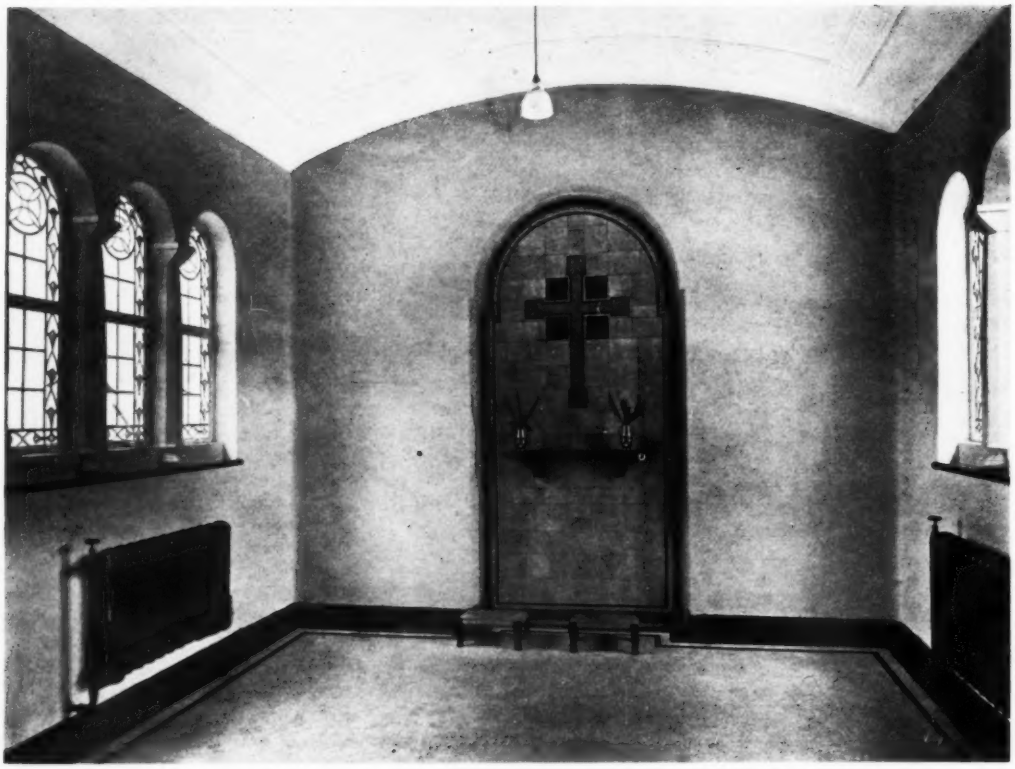
The operating theatre is situated midway between the





Redhill Hospital, Edgware. By Paine and Hobday. The nurses' home.

F



Redhill Hospital, Edgware. By Paine and Hobday. The mortuary chapel.

administrative and male ward blocks in the quietest part of the hospital to the north-east of the main corridor. The theatre itself obtains unobstructed light from this ideal quarter. The floor and walls are covered with pale-green terrazzo, and the ceiling is finished with enamelled plaster. Every fitting and arrangement has been most carefully designed in accordance with the latest medical practice and embodies the last word in theatre construction. Adjoining the operating room are the anæsthetic and sterilizing rooms, and rooms for the surgeons and nurses. To the south-west of the corridor lie the X-ray and pathological departments, including rooms especially equipped for eye and dental work. This concludes the present accommodation provided in the main block. Space has been allocated for a further male and female ward block should occasion arise at a future date. For this reason it was decided to erect the nurses' block well to the north-west of the main groups, to which it is connected by a covered way. The accommodation provides a suite of rooms for the matron and assistant matron respectively, as well as sitting-rooms and bedrooms for thirty-nine sisters and nurses on the two upper stories, while the ground floor includes a lecture-room and large common rooms, also ample box-room and cycle accommodation on the lower ground floor.

The boiler-house is erected on the low-lying ground to the north-east of the site, and is approached by a side entrance from East Road. It is of mass concrete with a reinforced concrete chimney shaft, and is fitted with two Lancashire and one Cornish boilers. Either of the Lancashire boilers may be used for heating or domestic hot water service. The fuel is delivered to underground coal-bunkers, and the ash and clinker are raised by hand lift to the ground level. The heating installation is accelerated by a centrifugal pump, which supplies the mains, radiators, and 4-in. pipes which are carried down both sides of the wards. The steam from the Cornish boiler supplies the cooking apparatus, disinfector, sterilizers, etc. The mortuary block is situated to the south-east of the boiler-house, and consists of a mortuary, viewing chapel, post-mortem room, disinfector house, ambulance, garage, and store room.

The buildings are built with London stocks having red dressings to quoins, windows and door openings. Steel casements have been used throughout all buildings. Cornices and window sills are of artificial stone. Pitched roofs are constructed of timber and covered with red tiles, flat roofs being covered with asphalt. Floors are of fire-resisting construction finished with oak blocks to all wards, materials elsewhere being terrazzo, tiles, "Granwood" asphalt, and jointless flooring. The wards lighting is carried out by special fittings on the direct-indirect principle, and so arranged that the wards are evenly illuminated. Great care has been taken to prevent glare, no bright filaments are visible to worry the patients' eyes. Wall sockets are supplied between each alternate bed. The hospital is provided with a series of electric clock dials controlled by a master clock in the entrance hall of the administrative block. A complete system of intercommunicating telephones is installed in addition to the General Post Office telephones.

Great credit must be given to the architects, Messrs. Paine and Hobday, of Westminster, who designed and superintended the erection of the hospital. It is a very complete and interesting example of a thoroughly modern and scientifically equipped hospital. The general layout presented considerable difficulties which have been ably overcome, while full use has been taken of the advantages of the site.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

The question of rural housing was raised in the House of Commons by Colonel Crookshank, who moved: "That this House is of opinion that, in the interests of agriculture and the nation at large, every effort should be made to improve and increase the housing accommodation of the workers in rural districts." He said that the Housing (Rural Workers) Act needed a stimulus. Such a stimulus would benefit agriculture, would improve the conditions of rural workers, and would add to the picturesqueness of the countryside by repairing old cottages rather than building new ones.

In the discussion which followed, the motion was supported from all parts of the House. Mr. Greenwood, on behalf of the Labour Party, declared that there was not the remotest possibility of bringing rural housing up to the new and rising level of urban housing except by the assistance of public money. Although everything should be done to improve existing rural cottages and to prevent the countryside being besmirched with the odds and ends of ugly buildings, it was necessary to spend public money on a generous scale in order to provide cottages that were in harmony with their particular surroundings.

Sir Kingsley Wood, Parliamentary Secretary to the Ministry of Health, who replied, agreed that the problem of housing in rural districts was a very difficult one, and was entirely different from that presented in urban areas. The shortage of housing accommodation in rural areas was not, as it was in the urban areas, a legacy of the war. For decades before the war there had been a stagnation of house building for rural workers. The Minister of Health had been criticized for reducing the subsidy, but when the subsidy was at its highest, when Dr. Addison was Minister of Health, the cost of housing went sky high. Did hon. members want to go back to those days? One of the greatest needs of the moment in connection with housing was the erection of houses at such a reasonable cost that they could be let at a rent that the lower-paid workers could afford to pay. He did not know whether it was suggested that there was any other way of getting rents on a lower basis than by a reduction of the subsidy. In the twelve months since the announcement of the reduction of the subsidy was made, the prices of non-parlour houses included in contracts let by rural district councils had fallen by some £60 per house. Surely that was a step in the right direction. Complaint had been made that the rate of building had fallen since the reduction of the subsidy, but what had happened was that in the months immediately before the subsidy was cut down, there was a great rush by builders to obtain the full subsidy, and in the month before the subsidy was cut the number of houses built was as many as had been built very often in a period of twelve months before the war. It would be unfair, when a great effort of that kind was made, to say that they were not continuing to build at that particular rate. So far as rural housing was concerned, hon. members could not complain with regard to the operation of the 1924 Act. As at present advised, the Minister had no intention other than to see that Act operate, and he hoped that any houses that could be built under the Wheatley Act would be built.

It was true that the figures of houses completed in rural districts was not the same thing as houses erected in agricultural parishes, but it did give some idea of the situation. Out of the total of 1,065,000 houses erected in England and Wales since the armistice, 278,000, or about 26 per cent., had been completed in the rural districts, and some 108,000 of these had been built without any State assistance. Very useful work had also been done by the rural councils, partly in co-operation with owners. The latest figures were for the year 1926, and they showed that 147,870 houses were inspected. Of that number 3,021 were found to be unfit for habitation, and 31,452 were found not to be reasonably fit. In consequence of informal action by the rural councils 29,013 of these houses were made fit by agreement with the owners, and that was a considerable step in meeting the housing situation in rural districts. The number rendered fit in consequence of action under statutory powers was 17,298. The Housing (Rural Workers) Act was supplementary to the effort made to erect new houses, and provided a liberal subsidy for the reconditioning of old cottages. They were hoping for some improvement in that connection. More progress could be made under the Act if more publicity were given in connection with it. The number of counties which had submitted schemes was forty-five, and the number which had not submitted schemes was sixteen. In the case of thirteen of those counties, some or all of the district councils had been declared authorities under the Act. Of the lesser authorities, 132 had submitted schemes. He was glad to hear of the action which the Council for the Preservation of Rural England had taken and was taking in the matter of preserving the rural character of England. The Minister of Health would do all he could to assist in that connection. He did not desire to see, in connection with housing efforts, the amenities of the countryside interfered with, and he regretted to see some of the erections called houses that had been put up.

After a Labour amendment to add to the motion the words "and in particular to encourage local authorities to make such provision as will free agricultural labourers from the tyranny of the tied-house system" had been defeated by 165 votes to 77, the motion was agreed to.

At question time, Viscount Sandon asked the Under-Secretary of State for the Home Department, as representing the First Commissioner of Works, why no provision was made in the estimates for work on the structural alterations of the Houses of Parliament; when that would be started; and whether he was satisfied that delay would not cause further deterioration and ultimately create expense?

Sir Vivian Henderson replied that a sum of £10,000 was inserted in the estimates under class VII, vote (3), sub-head B4. The First Commissioner hoped to be able to commence the repairs during the autumn recess; meanwhile he was satisfied that any delay in starting the work would not involve additional expense.

LAW REPORTS

ACQUISITION OF LAND. NOTICE GIVEN TO TREAT WITHDRAWN. PRINCIPLE OF COMPENSATION

Kerman and another v. *London County Council. King's Bench Division. Before the Lord Chief Justice and Justices Salter and Roche*

This matter came before the Court in the form of a special case stated by an arbitrator, and raised an important question in regard to a claim under the Acquisition of Land, Assessment, and Compensation Act, 1919. A dispute between Mr. Hyman Kerman, who was now dead, and his administrators, and the defendants, the L.C.C., arose under the Act, and the arbitrator now asked for the opinion of the Court whether the principle on which he had come to his decision was the right and proper one. He asked the Court on what principle was compensation to be ascertained when the local authority had given a notice to treat and then withdrawn it under special powers given by the Act.

Mr. Topham, K.C., appeared for the claimants, and Mr. Stafford Cripps, K.C., for the L.C.C.

Mr. Topham stated that Mr. Kerman negotiated for the sale of certain land in Edgware on a building estate for £15,000. The negotiations had proceeded as far as a contract, although possibly it might not have been an enforceable one, when the L.C.C. started a housing scheme, and in pursuance of it they gave Mr. Kerman a notice to treat in regard to certain land and a house. Mr. Kerman claimed damages for a compulsory acquisition of the land and house and then the Council withdrew their notice to treat. In the circumstances the question that arose was: How was the compensation to be assessed? The arbitrator had made an award that was partly in favour of both sides.

Counsel contended that his clients were entitled to compensation assessed on the money that the applicants had lost because, by the action of the Council, the land was held up until a falling market made the chance of profitable building a speculation, while the value of the house also fell. Before the notice to treat

was received house building was contemplated on which it was hoped to make a reasonably good profit. The notice stopped the persons concerned from pursuing that course and held their operations up, and when the notice was withdrawn the applicants were left in a worse position than even they were in before.

The Lord Chief Justice: You contend this: that, if a local authority includes land in its provisional order and gives notice to treat it must purchase at its peril or otherwise pay for the diminished value that ensued because of the scheme?

Mr. Topham said he did. The arbitrator had awarded claimant some compensation under that head. A man had contracted to buy the land, but had backed out of it when the notice to treat was given.

The Court, after hearing Mr. Cripps, remitted the case to the arbitrator to decide whether, if there had been no notice to treat, the claimants would have been willing to complete the contract.

The Lord Chief Justice said the arbitrator had addressed his mind to the question of the saleability of the land, having regard to the uncompleted bargain for sale because of the notice to treat. There nevertheless remained the question for consideration whether, if there had been no notice to treat, the claimants would have been willing to complete the contract. In the circumstances the case would go back to the arbitrator for his decision on that point.

ANCIENT LIGHTS DISPUTE. DAMAGES AWARDED

Westhall v. *Ellis. Chancery Division. Before Mr. Justice Tomlin*

This was an action for a declaration that the defendant's house in Jameson Road, Bexhill, obstructed the ancient lights of the plaintiff's house, "Portelet," which adjoined. The plaintiff also claimed damages.

Mr. Nesbit, for the defendant, said his client denied that her house caused a nuisance to the plaintiff. She, however, admitted that there was some obstruction.

Mr. C. Stevens, for the plaintiff, said it was admitted that his client's house had a right to an uninterrupted access of light and air from December 1904. The defendant's house was completed in July 1926, and the west wall was only 8 ft. from the east wall of "Portelet." The four ground-floor windows were affected, and the complaint was that the hall, larder, and kitchen were darkened and the comfortable enjoyment of the house seriously interfered with. The plaintiff's house was let furnished for £218 a year, but owing to the obstruction of light the rent had to be reduced to £200.

Plaintiff gave evidence in support of counsel's opening statement.

Expert evidence was given by Mr. John Douglas Scott, A.R.I.B.A., and Mr. J. A. J. Keynes, architect, of Brompton Road, for the plaintiff. They stated that the light now was wholly insufficient for the comfortable enjoyment of the rooms. They estimated that the enlargement of the windows would cost £160. They put the capital depreciation of the house at £300.

Mr. Percy John Waldram, architect and daylight illumination expert, was called for the defence. He expressed the opinion that the windows of the plaintiff's house were ridiculously small. The light was insufficient, but rather more than semi-detached villas usually got with windows of this size. Rooms could have inadequately lighted portions and still be reasonably lighted. In his view, the cost of enlarging plaintiff's windows should not exceed £40.

His lordship held that a nuisance had been proved, and he assessed damages at £125. Judgment for plaintiff for £125 and costs.

COMPENSATION CLAIM FOR BY-PASS ROAD

Hewett and others v. *Essex County Council. King's Bench Division. Before the Lord Chief Justice and Justices Salter and Roche*

This matter came before the Court on a case stated by an arbitrator under the Lands Clauses Act upon a claim for compensation failing the erection by the Council of a bridge carrying the East Ham and Barking by-pass road over Barking Creek. The claimants were Mr. and Mrs. R. M. Hewett, the freeholders of Hewett's Wharf, which was below the bridge, Miss Emily Hewett, a mortgagee, and the River Roden Co., occupiers of the wharf.

For the defendants, the Essex County Council, the Solicitor-General said the arbitrator had stated that the claimants claimed for depreciation in the value of the wharf, and for damage to the business carried on there, the access to the wharf having been greatly obstructed by the bridge so far as certain classes of vessels were concerned. The result had been that the plaintiffs equipped another and more accessible wharf at considerable expense. They claimed the repayment of that expense. The contention of the Council was that when, as was the case here, no land had been acquired, the measure of compensation for injurious affection was merely depreciation in the market value of the property concerned, irrespective of the particular business carried on. The arbitrator awarded claimants £1,400 in respect of depreciation in the value of the property and left to the Court for decision the question whether claimants were entitled to compensation under the other points of claim. If they were so decided in favour of claimants he assessed the sum of £3,750 as the amount of compensation, etc. The Council, continued the Solicitor-General, did not complain of the award with regard to the finding as to the depreciation in value of the wharf because of the erection of the bridge, but they did object to that part of it that assessed the compensation, in the event of the Court finding the Council liable with regard to loss of business and trade and the expenses of starting a new wharf.

The Court awarded the claimants £1,400, the Council to have the costs of the argument, expressing the opinion that the claimants were not entitled to recover compensation in respect of items other than depreciation in value of the wharf, such as loss of trade, etc.

EMPIRE TIMBERS

Lt.-Gen. Sir William Furse, K.C.B., D.S.O., director of the Imperial Institute, has asked the Council of the R.I.B.A. to draw the attention of members to a recently issued publication of the Imperial Institute dealing with a selection of useful timbers derived from overseas countries of the Empire. Under the title of *A Descriptive List of Some Empire Timbers Recommended by the Imperial Institute Advisory Committee on Timbers*, the book represents the result of inquiries carried out by the Advisory Committee, on which the R.I.B.A. is represented, with the object of bringing to the notice of users of timber in this country selected Empire woods which, in the committee's opinion, merit wider attention than at present obtains, either as substitutes for foreign woods or as "new" timbers. In each case the trade and botanical names of the timber are given, followed by a brief account of the characters and working qualities of the wood, the purposes for which it is suitable, and a statement regarding the sizes in which it is obtainable and the approximate market price. The book contains in addition reprints of a number of official reports of the committee which have been published in the *Bulletin of the Imperial Institute*, and a table of mechanical strengths of a number of the woods. Sir William Furse has kindly sent a limited number of copies of the book, which will be sent to members interested on application to the secretary. The publication is on sale at the Imperial Institute, South Kensington, S.W.7, price 2s. Sir William Furse also issues a cordial invitation to members to visit the exhibition of Empire timbers which is now open at the Imperial Institute, and which includes samples of the woods mentioned in the *Descriptive List*. The exhibition will remain open daily until the end of May from 10 a.m. to 5 p.m. (Sundays 2.30 p.m. to 6.0 p.m.); admission is free. A special visit of architects to the exhibition has been arranged by the R.I.B.A. This will take place at 2.30 p.m. on May 23, and the party will be conducted by Mr. H. D. Searles-Wood, representative of the R.I.B.A. on the Imperial Institute's Advisory Committee on Timbers, and by Dr. Chandler of the Imperial Institute. Architects who wish to take part in this visit are requested to send their names to the secretary, R.I.B.A., not later than May 21, when further particulars will be sent to them. Copies of the catalogue of the exhibits are available at the R.I.B.A., and will be sent to members on application to the secretary.

LITERATURE

MEDIEVAL LONDON

EVERYONE who already possesses Major Gordon Home's *Roman London* will want to acquire this sequel to it; and everyone who in *Medieval London* makes a new acquaintance in its author will be eager to read the earlier volume. Of the two books together it is no exaggeration to say, as the *Spectator* said of the first: "London's record has hitherto been a thing of archæological shreds and patches, but now it has body and lives in Major Home's pages." There has been no lack, of course, of admirable works on separate periods and separate regions, such as C. L. Kingsford's *London in the Fifteenth Century*, and Mr. Bruce Williamson's fascinating book on the Temple; but the history of Roman and Medieval London has never before been told in a continuous narrative at once so vivid, so authoritative, and so complete.

Vividness is all-important in such books, and Major Home's style has this quality in a marked degree. He brings Medieval London before us cinematographically. How pleasant it would be to wrest one of our great cinema theatres out of the grasp of Hollywood and to hand it over to Major Home, with a million or so, and *carte blanche* to do what he liked with it! I can imagine a delightful series of moving pictures of ancient London life woven by him in the requisite dramatic form out of the facts chronicled and the figures depicted in these two volumes. What a boon such a thing would be in itself! And what a welcome change from the senseless and tasteless productions with which America floods us!

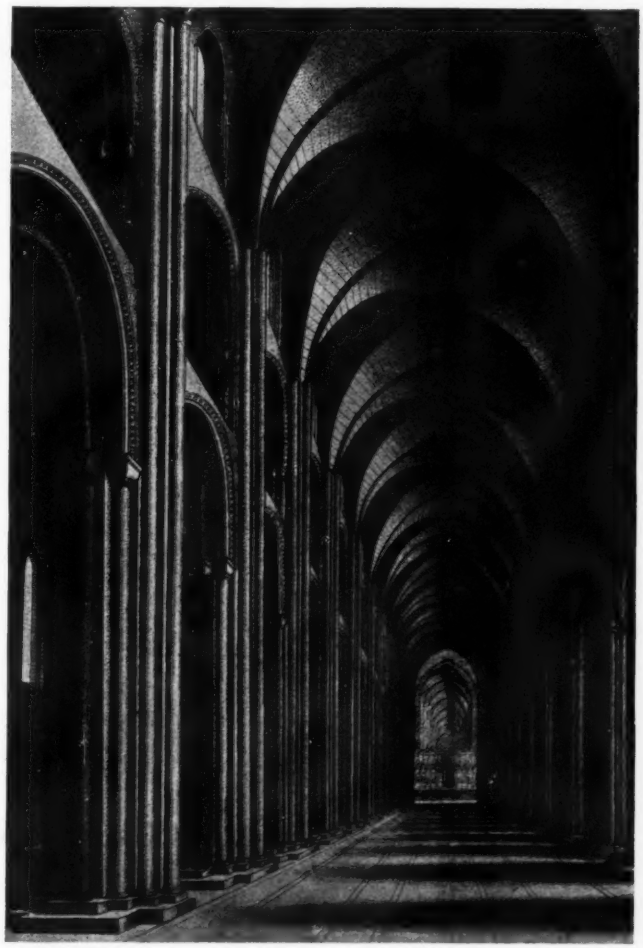
Major Home begins this second volume of his very aptly and effectively by reproducing in full—transcribing it carefully from the Harleian MS.—the fifteenth-century poem, "London Lyckpeny," which is generally attributed to Dan John Lydgate, the Bury St. Edmund's monk. The experiences of that penniless poet on his way through Westminster to London, and from London, forlornly, to Kent, would lend themselves excellently to exploitation in the cinema. Listen to him:

> In Westmynster hall I found out one
> which went in a long gown of raye
> I crowched and kneled before him anon
> for Maryes love of help I hym praye.
> I wot not what thou meanest, gan he say
> to get me thence he dyd me bede.
> For lack of mony I cold not speede.
>
> Within this hall nether rych nor yett poore
> Wold do for me ought, although I shold dye
> which seing, I gat me out of the doore
> where flemynges began on me for to cry
> "Master what will you copen or by?
> fyne felt hats or spectacles to reede
> lay down your sylver and here you may speede."
>
> Then to Westmynster Gate I presently went
> When the soun was at hyghe pryme.
> Cookes to me, they tooke good entent,
> and profered me bread with ale and wyne
> rybbs of befe, both fat and ful fyne
> A fayre cloth they gan for to sprede
> but wanting mony I might not then speede.

One is glad to be reintroduced to "London Lyckpeny," but it seems a pity that Major Home has not helped us to visualize the course of that pilgrimage by including among the illustrations to his book some old engravings of Westminster Hall and Westminster Gate; the author has a good excuse, however, for not having done so, for Westminster as a whole does not come into his province; even without Westminster—which in Roman and medieval days was quite separate from London—he found it difficult to cope with the magnitude of his theme. "References to the Abbey and the Royal Palace on Thorny Island are numerous because unavoidable," he explains in his Preface, "but no descriptions of events taking place at Westminster nor of the building there are given."

The detailed descriptions of old dwelling-houses in London proper are among the most interesting things in the volume and are the subjects of some of the best illustrations. On the last page but one there is a charming representation of an old house in the Minories, which dated from 1480. The author ends his book with a sketch of the life of the City about the time when that house was built—"a time when no one made mistakes in architecture, when all men seemed subconsciously to produce what they required in wood, stone, and iron, as though they had mastered the whole principles of art"; and, having conjured up a vision of that picturesque old-world London, "a compact hive of human industry and enterprise, working in the midst of colourful and admirably designed surroundings," with its forest of steeples chiming and tolling, he proceeds to imagine for himself and for us the effects of nightfall upon the scene. "Closing time has come for the taverns," he writes; "the merry-making cronies have called for the last time to the tapster, and as the familiar notes of the last bell of the day falls on their ears they are hurrying homewards.

"A gleam of light lingers in the west, and between the high-pitched gables shows the silhouette of a graceful church-tower—clear-cut against the pale primrose yellow which fades into the blue-black vault overhead. Here and there a bright band of light falls upon the uneven paving, and elsewhere a sound of a sweet voice singing can be heard in the darkness. And so, as



Norman Nave from old St. Paul's. From an engraving by Hollar. [*From* Medieval London.]

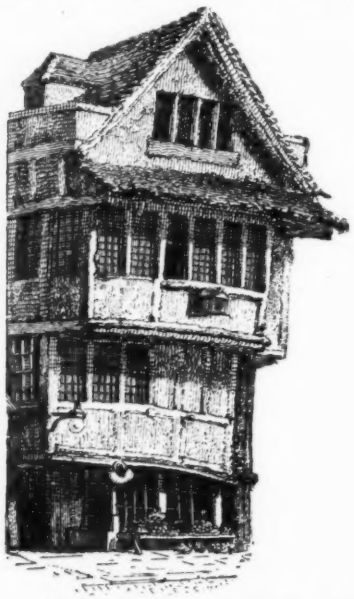
night falls and all the crude sounds of daylight are silenced, the curtain comes down on that wonderful London of the Middle Ages which is the parent of the vast and amazing city of today."

F. W.

Medieval London. By Gordon Home. Ernest Benn, Ltd. Price 18s.

ENGLISH ORNAMENT

The origin and achievement of English ornament in the seventh and eighth centuries furnishes Mr. Peers with a theme of perennial interest to all students of æsthetic culture. The period which



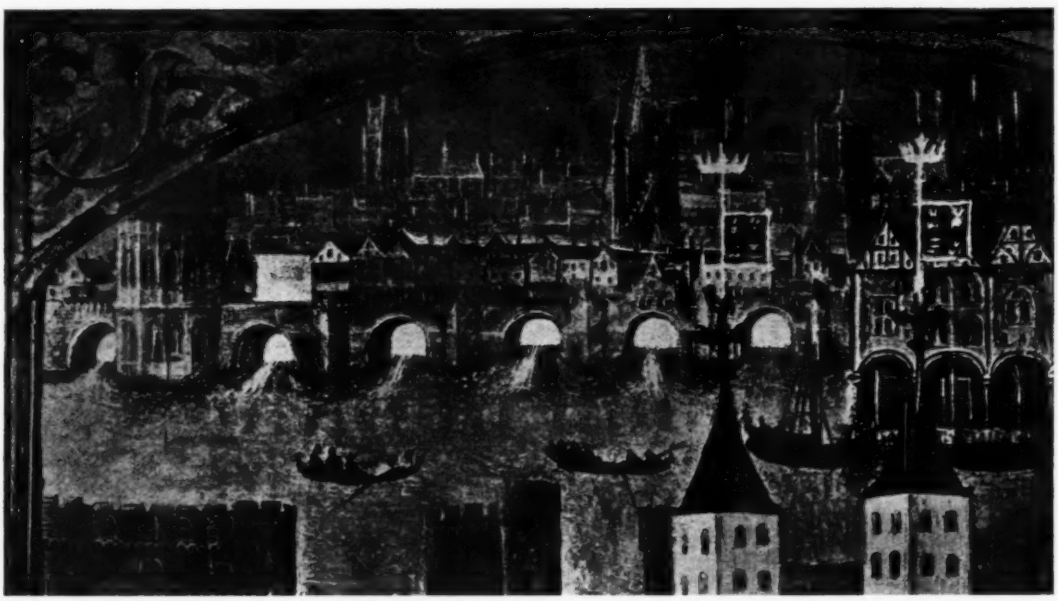
elapsed between the departure of the Romans and the coming of the Normans was of tremendous formative importance in the development of our national character, and to the cultural content then evolved may be traced the inspiration of much subsequent indigenous work. Gaul, Italy, Ireland, and the Germanic lands were all contributing their quota of ideas, which, after passing through the alembic of the native craftsman's mind, re-emerged transformed as national art.

The reintroduction of Christianity into Britain in A.D. 597 was an event of supreme consequence, and among its indirect effects was the great impetus given to sacred art, which henceforth was to engage the artist's ripest powers. Of the extant relics of the next two centuries the crosses of Northumbria form the principal examples, and Mr. Peers lucidly discusses the intriguing question as to whether native or foreign artists were employed in their production. On stylistic grounds he would ascribe the Otley and the Bewcastle crosses to local talent, while he thinks the Ruthwell cross was probably designed, if not executed, by a foreign artist. The sculpture on this cross includes Christ in Glory with a moustache but no beard, which non-classical detail Mr. Peers considers the patron may have enjoined upon the sculptor. In the development of the vine motif from the natural climbing form found in the earlier examples, to the conventional pattern surrounding panels containing birds and animals usual in the later work, one is reminded of the similar sequence observable in decorated and perpendicular foliage. The marshalling of the evidence of an all-pervading Irish influence upon Northumbrian art is a brilliant piece of analytical scholarship.

Mr. Peers describes at length the ivory casket with gabled top in the museum at Brunswick, but no mention is made of the very interesting casket of whale's bone, probably made in Northumbria about A.D. 700. Concluding an illuminating discussion on the several surviving relics of this period, the author observes: "This, then, I venture to think, is the course of the opening chapter in the history of English art. There is no question of a triumphant progress from archaism to perfection; both here and later the story is one of adaptation of outside influences, and there are backslidings as well as progress. But the individuality is there." We look forward with interest to the author's next paper on the subject.

E. R. B.

English Ornament in the Seventh and Eighth Centuries. A Lecture by C. R. Peers, C.B.E. London: Humphrey Milford, Oxford University Press, Amen House, E.C. Price 1s. net.



Above, a house with heavy overhanging stories, formerly standing in the Minories. Below, the earliest known drawing of London, probably circa 1475–1500. [*From* Medieval London.]

Funchal Cathedral, Madeira. *From a drawing by* KEITH MURRAY.

THE BUILDING EXHIBITION

SUPPLEMENT THE THIRD

Science in Building

AT intervals one hears someone discourse on the importance of science in the building industry. The R.I.B.A. possesses a Science Standing Committee; yet, in the main, building is still very largely a matter of rule-of-thumb. The application of scientific discoveries to building has been mainly secondary. Excepting those two great achievements of the nineteenth century, the discovery of Portland cement and steel, it is in the minor matters only, such as plumbing and electrical fitting, that we differ from our ancestors. We still build laboriously by hand, our tests of materials are empirical, and the waste of them enormous.

Science is revolutionizing the production of all the great universal necessities. Fuel and light, transport, food—in all their branches—are produced under conditions which would astonish our grandfathers. But not so building. Yet the change is upon us, many of the old methods are too slow, too costly, and too uncertain in their application of the new materials offered us in increasing numbers.

These thoughts are evoked by the lecture given at Olympia by Dr. Stradling on the work of the Building Research Station. Although very young, the Station has already done some excellent work. Naturally, full results are not yet to be looked for until the lengthier tests have come to fruition, and experience and apparatus accumulated. Its possibilities are immense; one would like it to be to the building industry what Greenwich is to the sailor, a guide, a reference, and a scientific heart. Dr. Stradling's remarks indicate that work is proceeding on right lines. He says: "We have been inclined too much to regard all testing as that for strength, whereas the important property is very often not this at all. In the majority of our buildings the construction is much too heavy when judged from strength requirements alone—the requirements of weathering-resistance, heat insulation, and the like, make demands oftentimes very much more serious than those demanded by strength." In other words, the architect's requirements are different from those of the engineer. The latter is concerned almost solely with strength, the former with a number of points of which strength may be the least important. Dr. Stradling is also well aware that laboratory tests do not always produce the same results as practice; a mistake made too frequently by chemists in the past.

The supremacy of the old standard materials is being challenged by a host of new, and mainly synthetic, ones; information is urgently needed on them. In these days of exaggeration in advertising one looks with a mild suspicion on the claims of the manufacturers, and it is good to have an impartial scientific opinion to which to turn. Science is going to give us yet many more synthetic materials—the possibilities of colloidal chemistry, for example, seem almost boundless—and we shall need guidance in their use. But here another question enters. What is permanence? Certainly for most purposes we do not wish to build such structures as the Pyramids or the Pantheon; on the other hand, steel houses seem to have too short a life in the opinion of many. Can the Station set up a scale of permanence; alternatively, what are its standards? We are living in a period of acceleration of thought, ideas, opinions, and with them the functions of buildings are changing more rapidly than in the past. The newer schools of thought among architects hold that a high degree of permanence is not a desirable thing in itself. Buildings should be made to last just as long as their purpose lasts, and they should be capable of being easily scrapped when the latter is fulfilled. After all, the permanence of our domestic building is the chief hindrance to slum clearance. There is a possibility that easy replacement may become a more important factor than permanence.

Finally, referring to Dr. Stradling's remarks, quoted above, on the question of waste in strength, the researches of his staff will be largely discounted while we have our existing restrictive, ambiguous, and varying by-laws. The time has come when these should be co-ordinated for the whole country, and revised by some central authority, such as the Ministry of Health, in consultation with the Building Research Station.

The Exhibition

THREE NOTES BY ONE WHO DID NOT GO

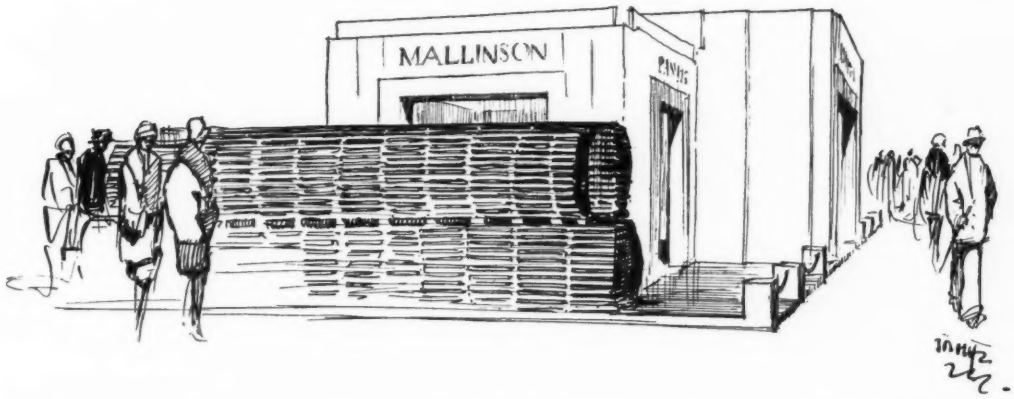
I have not been to the big Building Exhibition. I listen to what all my friends tell me about it, I read of it in the newspapers, and I stay at home. Concrete, they tell me, can now be made hard as rock in twenty-four hours; there are woods from all parts of the Empire of which I had never before heard the names—woods with queer native names that convey nothing to my senses of sight or touch. Iroko, Lagos, Benin and Sapele mahoganies; Arere, Opepe, African walnut and Abura from Nigeria; red and white Serayah and Borneo teak from North Borneo State.

*

It would seem that a revolution is going on in the home. There is a clamour for all things to be made new. Reconstructed Portland stone, substitutes to take the place of brick, interior finishes that are just as good as marble or tiles. When I hear of these things I am gladdened by the hope that they will yet succeed in making better weather itself. The old type of kitchen range has been displaced, I am told, and rustless steel is used. Then there is paper stucco, a material which is said to be fire-resisting and designed to take the place of heavy plaster; and there is a dancing floor of glass lit from below by many coloured lamps that must give the feeling that one is dancing in the halls of paradise.

*

And now the stairs will not creak any more at night, for there is something at Olympia, I am told, that will prevent this in the very oldest (or even in the very newest) house. And there is something else which will stop the rattling of casements, and keep rain from driving in. Farewell, all ye ghosts who have stalked night by night up the ancient staircase, or clamoured at the windows for admittance from the storm! Farewell! for at last, oh, at last have you been laid. And yet, amongst so many things new, I am told there are still those who hanker after the Past, who look back with sad eyes to things ancient and worn. For an exhibit of mark at Olympia, I am told, is an architect's loan exhibition of antiques—furniture and pottery, and valued at over £20,000. And Mr. Stanley Hall has kept a brick from Ur of the Chaldees which, according to my informant, is dated 2,000 (B.C.). Why is it that we shout for things newer, and still more new, and yet come to look at, and pay heavy prices for things of old age?



The Other Side

iii: A BRICK MAKER SPEAKS UP

FOR an exhibitor to give a free and hearty expression of his feelings about the architect in an architectural paper is almost unique, and it is with a considerable amount of diffidence that one attempts to give concrete form to such impressions. To record merely the appreciation of years of contact with the profession, of kindliness and help in troubles and difficulties, would surely be just and pleasant, but would not serve the constructive purpose of this article. It is therefore almost imperative that the trend of one's thoughts should be critical, and to those who read these lines one must plead, as their inspiration, honesty, good intent and the desire for the betterment of an industry in which both architect and exhibitor are vitally interested.

EXHIBITIONS AS MEANS OF ADVERTISEMENT

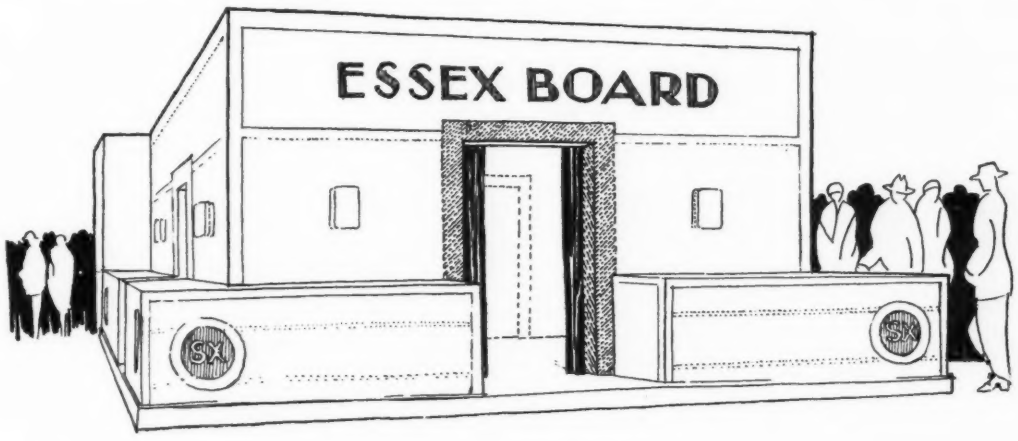
Much has been written on the ways and means of attracting the architect, and, in these days of strenuous publicity, manufacturers, in whose industries advertisement (twenty years ago) was practically unknown, realize that the virtues of their products can be pushed into the professional mind by more direct methods than the steady appreciation of merit over a period of years. Bearing this in mind, it is not surprising that there has been a corresponding growth in the importance of trade exhibitions. Manufacturers have been compelled to study more and more closely the psychological effect of their exhibits on the minds of those of the public who are more particularly interested in their industry.

To the exhibitor in a building exhibition the most important section of the visiting public is undoubtedly the architects. It may seem strange to place them before the actual buyers of commodities, but it must be remembered that as professional men they are difficult to approach and, in London particularly, etiquette, impatience, and lack of time combine to make direct touch between architects and manufacturers almost an impossibility. To the manufacturers, therefore, an important exhibition combining all that is best in an industry affords a golden opportunity of explaining and demonstrating both from an artistic and practical side the merits of their products.

THE ARCHITECT AND THE EXHIBITOR

It must be confessed that to the exhibitor the architect largely appears as a distinguished potentate whose powers over the use of materials are much greater than his actual knowledge of them. Such an attitude may seem criminal, but when you consider the multitudinous diversity of knowledge that a modern architect may be called on to display it is almost inevitable that his acquaintance with the many and various materials used in building construction should be somewhat sketchy.

Even in basic materials, such as bricks, lime, and cement, it is seldom that one finds an architect who is at all well informed about the varieties produced or the processes of manufacture. A request from an architect to be shown over a works is a rarity, and amongst some it would almost seem that such a visit might be construed unfavourably as evincing an improper



Above, the stand of William Mallinson and Sons, Ltd. Below, the stand of Thames Board Mills, Ltd. From sketches by J. D. M. Harvey.

interest in the firm so unusually honoured. Not so long ago, at the instigation of a manufacturer, a party of some fifty architects paid an official visit under the auspices of their association to a large works in the Midlands. It appeared to be a very successful day, and the members of the party were extremely interested in the processes of manufacture and delighted at the hospitality shown them. One would have thought that some attempt would have been made, by way of an article in the official journal of the society, to extend the knowledge gained by the party to the general body of members, but in point of fact the only mention of the visit was contained in two lines.

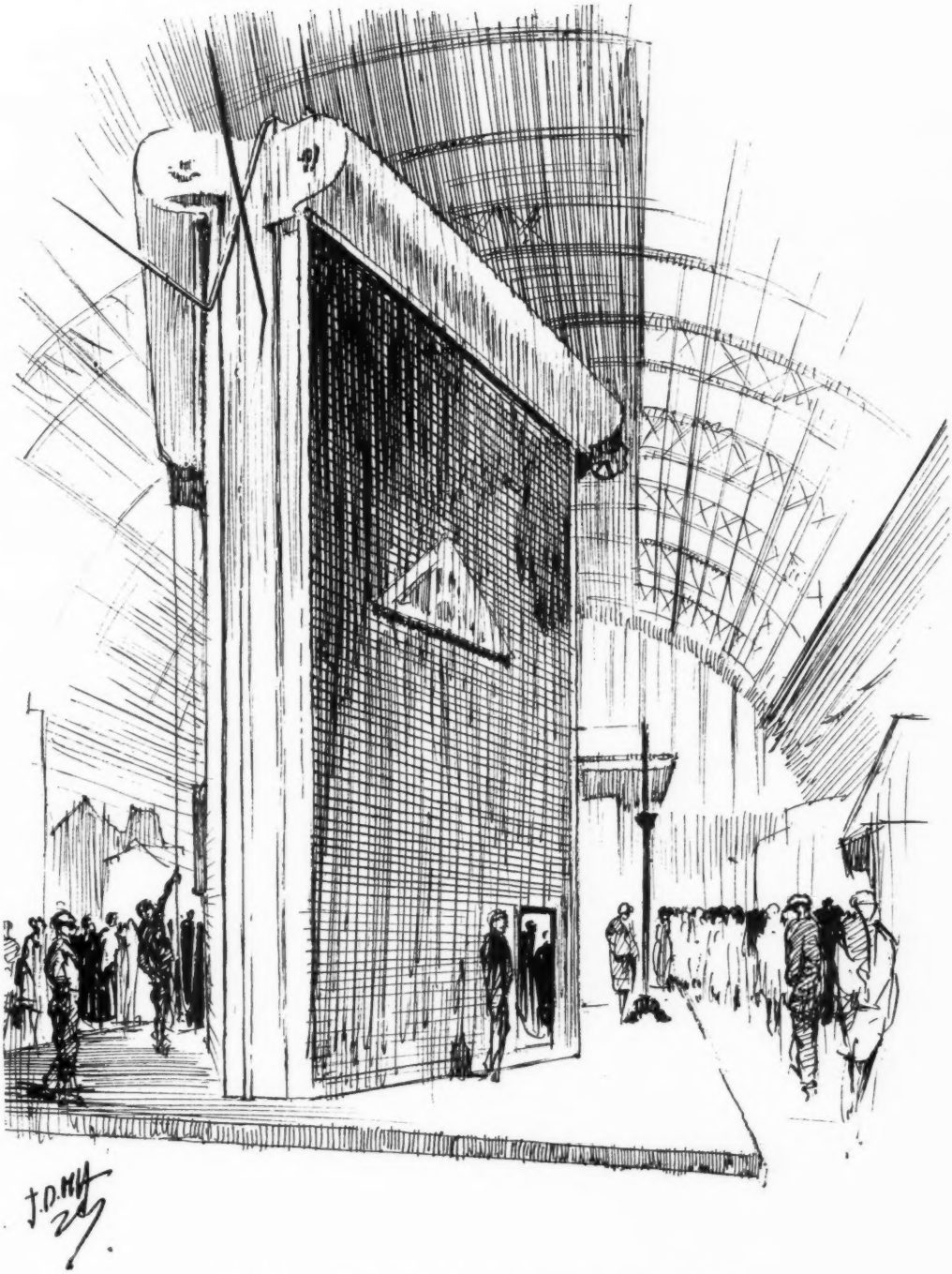
At dinner one night in London, the managing director of a very well-known brick company was introduced to a young architect bearing a famous name, and the host laughingly said: "You must know this fellow's company, as I believe millions of its bricks are used in your buildings." The remark evoked no response—the name of the firm conveyed nothing to the architect, and he had not the slightest idea where or how the bricks were made, and certainly no appreciation of their merits or demerits.

Above, the stands of William Wadsworth and Sons, Ltd., and the Etna Engineering Company. Below, the stand of the Yorkshire Copper Works, Ltd. From sketches by J. D. M. Harvey.

CONSERVATISM AND NEW MATERIALS

The approach therefore of an architect to a stand in the exhibition is regarded as a special opportunity, not only of ocular demonstration of the products shown, but as a chance of explaining the actual nature of the article and of introducing its merits. This is naturally even more the case with a new product. How to get the architect to appreciate something new? Manufacturers suffer somewhat from being told at one moment that there is nothing like the product of a hundred years ago, and the next by being reproached for never altering their methods. In reality we, as a nation, are depressingly conservative, and architects are no exception to the rule. At an exhibition literally hundreds of them will come and admire and discuss a new product, but that is as far as it goes. In any material that really matters it is surprisingly hard to get over the risk of adopting a new product. There is the inevitable tendency to be safe. The passing interest is allowed to evaporate; the busy office swallows up the exhibition visitor, and the manufacturers' "follow up" literature goes into the wastepaper basket. Recollection fades and the next specification contains the same old names.

Nothing, I suppose, has been criticized more, in recent years, than the cost of building. For a time materials bore the brunt of it, and to read some articles you might have thought that the cost of bricks, lime, and cement, with a "light casting" or two thrown in, constituted the major portion of the expense of building. This fallacy has, I am thankful to say, been sufficiently



The stand of S. Haskins Bros., Ltd. From a sketch by J. D. M. Harvey.

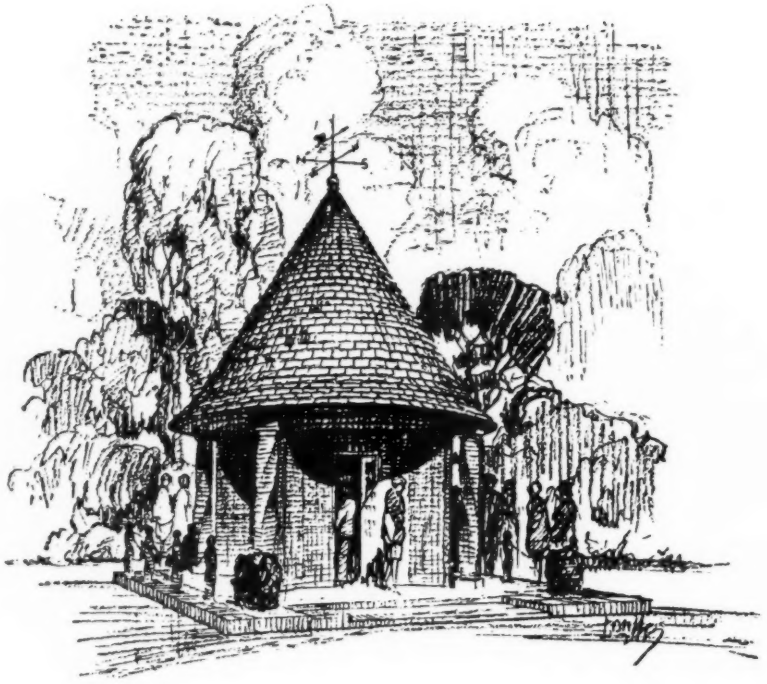
exploded, and the cost of labour exposed as the chief bugbear of post-war construction.

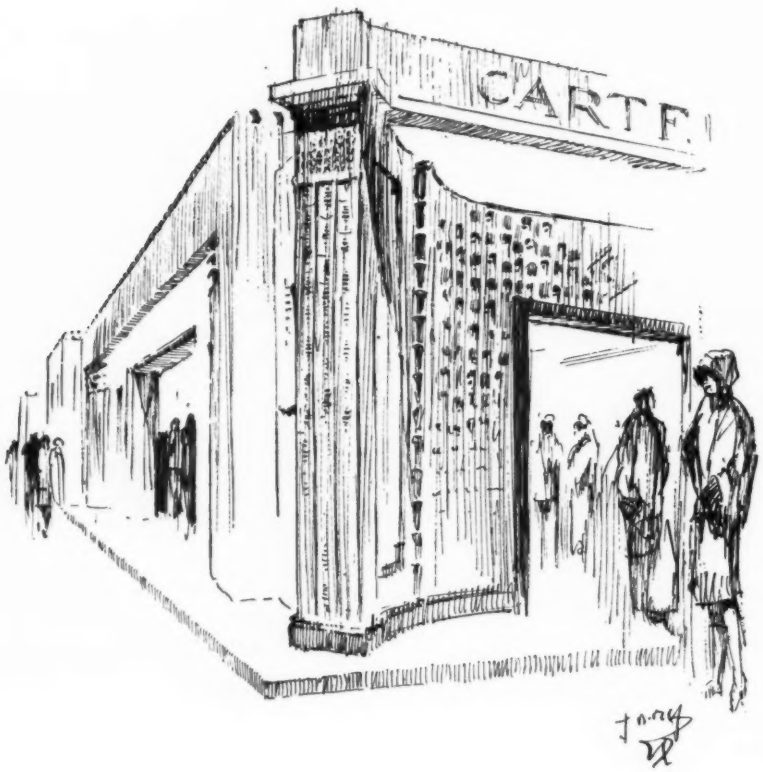
THE COST OF LABOUR

But the inter-relation between materials and labour has a bearing on cost which is but little appreciated. Strength and appearance are two of the first qualifications of any material, but economy in handling must follow close behind. Exhibitions are the homes of labour-saving devices, and it is the dream of every exhibitor to get an architect really interested in his own.

But is due appreciation given to the labour aspect in the drawing of specification or the choice of materials? Two kinds of bricks may be equal in strength and appearance: one is easier to cut and lay. Two kinds of cement are equally up to the standard, but one sets more quickly. One sort of stove is as nice as the other, but takes more time to fix. One product can be bought near the job; another has to be brought a hundred miles. The other day a common brick from one town was specified for use in another, many miles away. It was an excellent brick and well advertised, but I don't suppose the architect realized that the railway carriage was more than the brick was worth.

A hospital was being built recently, and the rooms, for the sake of cleanliness, were designed to have rounded corners.





Above, the stand of W. T. Lamb and Sons. Below, the stand of Carter & Co., Ltd. From sketches by J. D. M. Harvey.

Very laboriously the corners were all filled in with plaster, whilst two miles away a brickyard had a nice stock of interior angle bricks. They would have saved all the trouble, and had been shown for years at each building exhibition.

THE APPRECIATION OF THE ARCHITECT

Appreciation of the labour aspect of materials is therefore one of the directions in which the exhibitor hopes to interest the architect, and it is far better to obtain appreciation from the architect than to rely on the experience of the builder.

The Building Exhibition is held every two years, and the same basic materials hold the floor time and again. The conscience of the architect and his desire for knowledge of materials appears to be satisfied by a hurried tour of Olympia. Otherwise, in the words of a recent article in this JOURNAL: "Architects are a conservative-minded profession; many of us have not the time to make investigations; some of us do not even try."

It may be a dream, but if architects could be persuaded to acquire, during the time intervening between each exhibition, a working knowledge of even one basic material, it would, I think, give them a marvellous increase in the interest of their work and a far better appreciation not only of the difficulties but the achievements of manufacturers.

Notable Exhibits: iii

The exhibit of MESSRS. H. J. AND C. MAJOR, LTD. (Row J, Stand 170), consists of their well-known roofing tiles and ridges of various patterns, interlocking and multi-coloured, Valley tiles, multi-coloured facing bricks, oven tiles, flooring squares, etc.

*

MESSRS. JOHN M. NEWTON AND SONS, LTD. (Row K, Stand 172), exhibit plate glass of every description, table tops, leaded lights and copper lights, together with their special "Vioray" health-giving glass.

*

MESSRS. STAINES KITCHEN EQUIPMENT CO., LTD. (Row L, Stand 211), exhibit Staines patent "Splendid" crockery washer, Blakeslee spray crockery-washing machine, "Peha" vegetable-cutting machine, Staines "Victoria" cabinets and dressers, and Staines patent combined racks for plates, cups and saucers, etc.

*

THE "HURRY" WATER HEATER CO. (Row K, Stand 182), show the "Hurry" furnace for subsidy houses, coal and gas heated designs. Hot water is supplied to baths and for washing clothes. The firm claim that three hot baths are to be obtained for 3d. with the "Hurry" furnace, gas heated design, for non-parlour type. The firm claim that no scum or sediment is delivered to the bath. No. 10 "Hurry" cylinder is also shown. It gives a continuous supply to all hot taps, including kitchen sink, without, it is claimed, pressure danger. It is claimed to be ideal for subsidy houses, and suitable for all waters. "Hurry" geysers are made in attractive designs suitable for ordinary villa residences.

*

MESSRS. SAMUEL SMITH AND SONS, LTD. (Row L, Stand 214), are makers of "Foresight" combination ranges and stoves, the "Foresight" twin-oven combination grate, grates and ranges of every description, interiors, portable stoves, tile registers, and mantel registers. Particular attention is drawn by the firm to the new patent "Twin-oven" grate. It will cook, bake, boil, and supply hot water for all domestic needs. It has two large ovens, which are controlled by dampers grouped together for easy access. The H.P. boiler will supply two to three baths per hour. There is a hob-curved round fire, that will hold four large pots or pans for boiling. When fitted with surround and hearth, and mahogany shelf, it makes a useful grate for any room. The various models of the "Foresight" ranges are being shown. Several new improvements have been made, including the patent griller under oven flue, and new pedal-opener for oven door.

THE BEAVER BOARD CO., LTD., are exhibiting in Row E, Stand 94, Beaver wall board, a British Empire manufacture from raw material to finished product. The panels are scientifically constructed in order that they shall meet satisfactorily all normal conditions. It is claimed to be sound-, fire-, and damp-resisting, and, owing to its natural elasticity, to be entirely unaffected by any ordinary strain, shock, or concussion. The panels are made in convenient sizes of 3 ft. and 4 ft. wide, in even foot lengths of 8 ft., 9 ft., 10 ft., 12 ft., 14 ft., and 16 ft. In new work the panels can be nailed direct to the studding and ceiling joists, or fixed over brick or concrete walls. It can be applied over old plaster walls and ceilings when remodelling. The pebbled matt surface makes artistic effects possible after treatment with oil or water paint or distemper. The company's latest introduction of the heavy surface coating renders the board much more non-absorbent and greatly increases the rigidity of the panels. Jumbo weight Beaver wall board possesses all the assets of the standard board, but, being thicker, has added strength and is particularly adaptable where a thicker board would prove an advantage. Beaver tile board is similar to the standard Beaver wall board, but is scored to give the tile effect. It can be enamelled and the finished surface can be washed. Beaver insulating board is claimed to be suitable where special insulation is needed. This board is claimed to provide high heat and sound resistance plus structural strength that makes for enduring and economical construction. To the special

A general view of the Exhibition.

process by which Beaver insulating board is constructed is due the large number of small air cells which, it is said, help to account for its eminently efficient insulation properties, as well as its great density and rigidity.

*

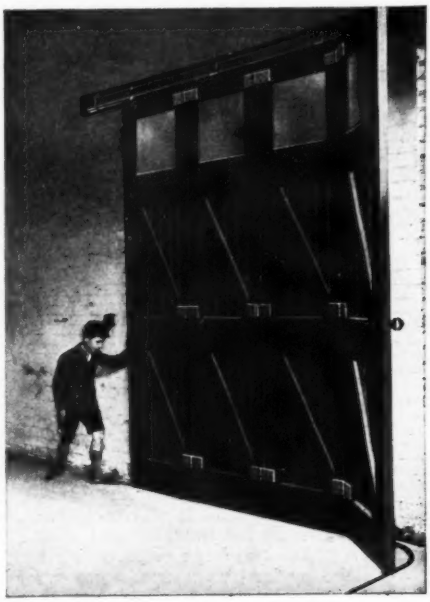
MESSRS. ARCHIBALD KENRICK AND SONS, LTD. (Row V, Stand 310), show patent smokeless stoves, ranges and domestic boilers, designed to burn cheap coal and slack; porcelain enamelled cast-iron baths; cast-iron flushing cisterns; and builders' ironmongery and brassfoundry.

*

The exhibits of MESSRS. HENRY WYNMALEN & CO., LTD. (Row V, Stand 318), include the following: Roofing tiles (as sole importers): Honnechy-du-Nord tiles, Honnechy-Boulet tiles, Honnechy-Beauvais tiles, Honnechy-Burgundy tiles, Harskirch-Mulden tiles, Charentes-Marseilles tiles (Perusson de Fontafie, etc.). Bricks (as sole importers): Tiglia hand-made rustic bricks, 2⅝ in.; Tiglia hand-made rustic bricks, 2 in.; Tiglia hand-made rustic glazed bricks. Bricks (as makers): Wynmalen hand-made multi-coloured bricks, 2⅝ in.; Wynmalen hand-made multi-coloured bricks, 2 in.; Wynmalen common bricks. Floor-tiles (as sole importers): Honnechy red floor quarries; Tiglia red, blue, and yellow floor quarries. Wall tiles (as sole importers): Tiglia multi-coloured rustic sand-faced glazed wall tiles.

*

MESSRS. SCAFFOLDING (GREAT BRITAIN), LTD. (incorporating The Tubular Scaffolding Co., Ltd., and The Patent Rapid Scaffold Tie Co., Ltd.), who are exhibiting in Row D, Stand 52, are manufacturers and patentees of tubular scaffolding "Tubeshors" and "Scaffixer" scaffold ties. They are sole concessionnaires for patent heavy and light suspended scaffolds, and manufacturers and patentees of "Conforms" stamped steel shuttering. Demonstrations are given daily to show the advantages attaching to the use of tubular scaffolding, comprising patented sprocketed steel tubes, patent universal couplers and patent reinforced putlogs (which eliminate putlog holes), "Tubeshors," suspended scaffolds, and "Scaffixer" ties. Photographs of contracts executed are on view and are well worthy of the special attention of contractors, decorators, and the trade generally. Demonstrations are also being given of "Conforms," patent adjustable stanchion plates, which centre a column or pilaster to any dimension in a few seconds.



The "Coburn" sliding door.
By O'Brien Thomas & Co.

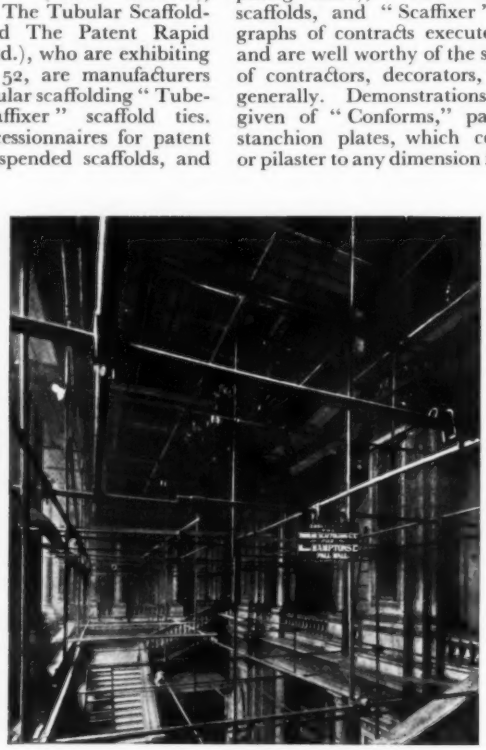
On the stand of MESSRS. O'BRIEN THOMAS & CO. (Row O, Stand 238), are the "Coburn" system of sliding, folding, and "slide-inside" door fittings, particularly as applied to the garage door. The great advantage of this type of sliding door gear is that any builder or contractor can fix it without having to employ specialists. There are various sizes of track made to carry doors up to any weight which enable architects to specify Coburn system sliding door gear in all cases where this method is practicable. The garage doors shown on the stand are hung on No. 1 track with No. 197A hangers, the bottom channel being Fig. "B" channel. They are suitable for the owner-driver, as the entire weight of the doors is carried on the top track, and little effort is required to move them.

*

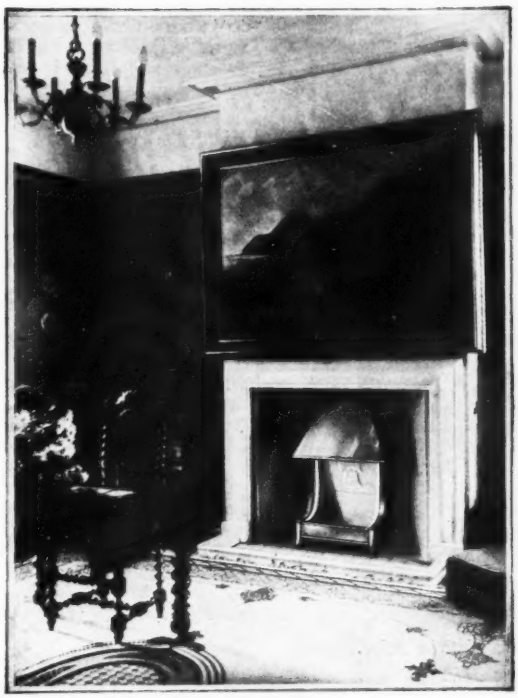
MESSRS. CANDY & CO., LTD. (Row K, Stand 184), show "Devon" fireplaces in designs suitable for any style of room, made in artistic designs and colourings with bright or dull-glazed mottled antiques. The "Devon" fire is made in various types—the "sunk" or open barless type, flat bottom or front bar type, and the raised type. The "Devon" fire is claimed to embody the correct principles of construction. The firm state that the back and sides are composed of specially prepared fireclay, which, being a bad conductor, retains the heat and acts as an added source of radiation. The firebrick sides slope away from the back at a suitable angle, the area of the room receiving direct radiation being thereby greatly increased. The upper part of the back slopes towards the hearth and causes heat radiated from the fuel to be reflected well out into the centre of the room. The sloping back effects further saving, inasmuch as combustible gaseous matter leaving the fuel is raised to its ignition point by contact with the hot firebrick and burns in close proximity to the fuel. In all cases the fire burns directly upon a solid block of fireclay, and it is claimed that the incandescent heat resulting from this arrangement is productive of perfect combustion. Suggestions for interior wall tiling are shown in a variety of glazing effects. Vitreous flooring tiles in buff and red, including Candy's White City pattern embossed paviors, are also shown.

*

MESSRS. SAML. HASKINS AND BROS., LTD. (Row G, Stand 140), are makers of shutters, rolling, steel and wood of all types for all purposes. "Firola" fire-resisting rolling shutters for party-wall openings, lift wells, and the like are in compliance with the requirements of the L.C.C. Other specialities of the firm include shopfronts and showcases, Kalamein and solid bronze mouldings, bronze castings, and hardwood joinery. The exhibits of the firm include the following: A rolling shutter of galvanized steel, electrically operated, similar to those constructed for the shops of the Underground Railway; a rolling shutter of wood of heavy lath and mechanically operated, as constructed for breweries, wharves, loading banks, etc; a rolling shutter of wood, manually operated, especially designed for a lock-up garage; a "Firola" shutter for party-wall openings, bronze and white metal shopfronts and showcases, and bronze castings.



Scaffolding in the Foreign Office, London.
By Scaffolding (Great Britain), Ltd.



A "Bell" dog grate. By A. Bell and Company, Ltd.

The exhibit of MESSRS. A. BELL & CO., LTD. (Row V, Stand 316), consists of a range of designs of the "Bell" Dutch tile fireplaces, which are shown in a variety of colourings and with various types of "Bell" fires. There is also exhibited a range of the "Bell" faience gas fires—a new production in gas heating. These fires are glazed in a variety of colours, and eliminate all visible metalwork. There are also shown some fine examples of wall tiling and faience.

★

The steel doors, shutters, screens, shelving, cupboards, etc., exhibited by MESSRS. RONEO, LTD. (Row F, Stand 102), illustrate how it is possible to obtain any architectural treatment that may be desired. Finished in stoved enamels of any colour that may be desired, the steel is claimed to be thoroughly protected against changing climatic conditions. It is possible, if desired, to finish the work to look like mahogany, walnut or other woods, and samples are exhibited. The Midland Bank head office has been recently equipped with steel desks, screens, and other fittings, and various photographs of this equipment are shown. The economy of space by the use of steel shelving and drawers for the storage of records, etc., is also demonstrated. The drawers exhibited are on ball-bearing suspension slides, and can be operated easily when fully loaded. Roneo fire-resisting shutters, manufactured entirely at Roneo Works, Romford, have recently been installed in the central section of the Selfridge building, which is the third contract received by the firm in connection with this building.

★

MESSRS. CARTER & CO., LTD. (Row F, Stand 100), show glazed wall tiling for the interior and exterior of every description of building, and floor tiles for all purposes and of all kinds, including plain, vitreous, and mosaics (Roman, circles, etc.). They are also showing examples of their Ceramic constructional materials in Ceramic marble (glazed terra-cotta) and faience, which have been extensively used for theatre, cinema, shop, public buildings, and hotel façades. Samples of this firm's all-tile fireplaces, designed to give a maximum of fuel economy and radiation of heat, with a minimum of labour, together with designs which can be adapted to any style of decoration, complete the exhibit. All classes of marble work, terrazzo floors, and walls, "Caterite" patent flooring and sanitary fittings are shown on the stand of MESSRS. CARTER & CO. (LONDON), LTD., Row R, Stand 273.

★

The exhibit of MESSRS. THOMAS POTTERTON (HEATING ENGINEERS), LTD. (Row C, Stand 40), contains a selection of the standardized types of "Victor" gas boilers, and gives a working example of a system supplying hot water for general domestic use. A small installation for warming purposes, with circulating water radiators heated by gas, controlled automatically, is in operation as an instance of supplementary heating equipment for residences or offices, or as an example of treatment for small conservatories, etc. "Thermostats" for the automatic regulation of gas consumption, both water type and atmospheric type, can be seen in action. Another exhibit is the "Victor" combination boiler, using coke or other smokeless fuel, or gas. Other exhibits include an example of combined

Steel equipment in the head office of the Midland Bank, London. By Roneo, Ltd.

heating and domestic supply, with coke and gas boilers working in conjunction, having indirect action for domestic hot water supply from the coke section; domestic hot water supply for bungalows or single-story pavilions, with circulating towel-dryer at low level. A new sectional gas boiler for central heating is shown. A new system of radiant panel heating by hot water circulation fired by gas is shown, together with an alternative method with gas-fired panels, of which both are working examples. Another panel is shown for direct gas heating. Standard types of sectional boilers for central heating and allied equipment are also included.

*

THE MERCHANT TRADING CO., LTD., in conjunction with The Celotex Company of Great Britain, Ltd., are demonstrating in Row Q, Stand 259, some of the technical applications of Celotex insulating lumber, the insulating and sound-deadening board. Commencing with Celotex as a medium for highly decorative effects, the following various applications of Celotex are demonstrated, e.g.: As a ceiling and wall lining; as a sound deadener in partitions or floors; as a means of changing cold hard floors into warm floors with a comfortable tread; as permanent shuttering to ensure a warm dry concrete wall or ceiling; as insulating medium on concrete roofs, preventing condensation; applied to church, hall, school, etc., as a means of improving hearing conditions. Celotex is claimed to ensure a dry house, a warm house, a healthier and more comfortable house, from the very first day of occupancy. The various applications enumerated are substantiated by reference to photographs of actual work carried out. These photographs demonstrate the application of Celotex under every variation of climatic conditions in different countries throughout the world.

*

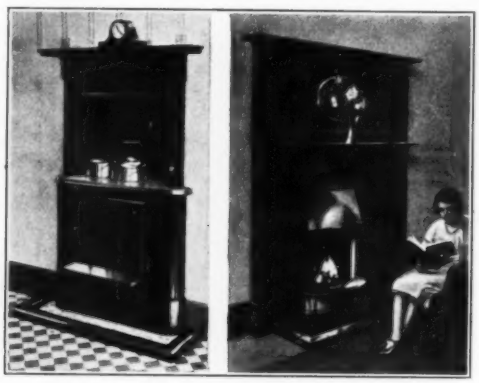
MESSRS. ALLAN URE & CO. (Row L, Stand 208), show the "Ure" back-to-back grate, as supplied to housing schemes and private builders, also the "Ure" interior cooker.

*

MESSRS. BELLMAN, IVEY AND CARTER, LTD. (Row D, Stands 77 and 78), specialize in Scagliola (manufactured) marble for columns, pilasters, moulded work; also, "Marbic" for wall linings, and flat work

The "Ure" interior cooker. By Allan Ure & Co.

generally. This material is made by an old Italian process which was revived in the early part of the sixteenth century. It is not a surface decoration, the markings and vein going right through the same as in real marble. It was largely used by the Florentines in some of their most elaborate works, and was introduced into this country by Mr. J. Wyatt about 1750. It has been manufactured by this firm for the last 125 years, and fixed in many of the most important buildings in the kingdom. Steel stanchions can be surrounded without showing joint. The exhibit on the stand includes about 150 different varieties of Scagliola marble, columns, pilasters, pedestals for statuary, etc. Particular attention is called to the circular column, which has been cut and fixed round a steel stanchion. Other exhibits include marbic slabs for wall lining, etc., and fibrous plaster caps and cement bases, both bronzed by the firm's special hand process.



The "Ure" back-to-back grate. By Allan Ure & Co.

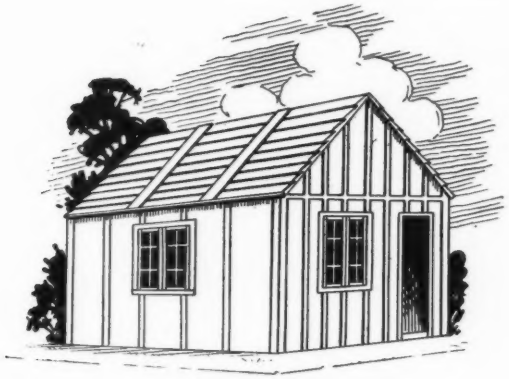
The "O.F.A." (One For All) back to back combination ranges exhibited by MESSRS. YATES, HAYWOOD & CO. (Row B, Stand 15), are claimed to bake beautifully, to provide ample supply of hot water, to be economical and easy to use, and to increase the size of the living-room, and reduce building costs. The "Hot-Brik" combination grate is specially designed for housing schemes. All flues are in cast iron, to eliminate the risk of faulty setting. It provides a sitting room fireplace, combined with the advantages of an ordinary kitchen range. The "Prior" self-contained combination grate has a specially constructed smoke-consuming arrangement, and top and bottom heat to oven may be acquired by means of a reversible damper with indicator. The combustion arrangement is simple, and the fire is adaptable for both open and closed. The "Rutland" combination grate is constructed on the old-fashioned Yorkshire range principle, which is claimed to ensure perfect cooking and baking, and at the same time to give absolute control of heat with an ample supply of hot water. An example is also exhibited of the latest design in stainless steel hooded dog grate, together with an "Adam" dog grate in all stainless steel, in which the firm specialize.

*

The exhibit of the TEN-TEST FIBRE BOARD CO. (Row R, Stand 275), demonstrates the decorative possibilities of "Ten-Test" from both artistic and practical points of view. The firm also illustrate the possibilities of the material for outside work on bungalows, pavilions, garages, etc., and its usefulness as an insulator against both heat and sound. Other points that are made are as follows: The strength of its adherence to concrete for poured work on walls and solid or hollow floors; its property of preventing condensation; its acoustic properties, etc. "Ten-Test" is an insulating board, used extensively in place of plaster. It is made from wood fibre pressed into separate sheets, each $\frac{7}{16}$ in. thick. Its name is derived from ten successful practical tests originally carried out by an independent authority before the material was placed on the market. It is manufactured in Ontario, Canada, from carefully selected fir. This is specially ground and pulped, and all sap, resin, and other impurities are removed. A quantity of waterproofing material is then added, and the mixture is compressed under hydraulic pressure, and so moulded into one sheet. The interlocking of the fibres is said to make it a very exceptionally strong material, which will not laminate and which is not affected by vibration. The sheets are then faced on one side, thus giving a surface which will take on any kind of decoration, and it is adaptable to a variety of decorative effects.

*

THE NOVOCRETE AND CEMENT PRODUCTS CO., LTD. (Row R, Stand 274), exhibit the Novocrete building, a type of construction suitable for bungalows, garages, sports pavilions, and club houses. It is built of Novocrete lumber, which is claimed to be fireproof, weatherproof, verminproof, rotproof, and which can be nailed, sawn, and screwed. Novocrete can be used as timber. The building shown is comprised of hollow



A Novocrete building. By Novocrete and Cement Products Co., Ltd.

walls of 1½ in. panelling, the outside in natural state and colour, the interior in various coloured scoured and polished Novocrete panels. A stack of Novocrete gas flue blocks is shown, and the roof is in Novocrete "Industrial Roofing." Various types of Novocrete Broseley pattern roof tiles are also shown.

*

The exhibit on Stand 256, Row Q. has been prepared by the CABLE MAKERS' ASSOCIATION to illustrate the various types of cable used for power and lighting purposes, as also some of the more ordinary types of underground telephone cable. Among the many exhibits are the following: Rubber insulated cables: This case shows the various types of rubber insulated cables, including lead-covered and armoured cables and certain types of flexible cords. Flexible cables: This case shows the various types of flexible cables with external braiding, flexible armouring, spiral wire armourings, and other methods of protection. House-wiring systems: This exhibit shows the various types and methods of interior wiring for houses, shops, and factories, etc., and includes rubber insulated braided cables run in special conduit tubing. Metal sheathed cables used for surface wiring, types of fittings used for connecting such cables, making branches, etc., and non-metallic (cab tyre sheathed) protected cables are also shown. Each of these types has its use depending on the place and purpose for which they are required.

*

Crittall metal windows for all types of buildings are included in the exhibit of THE CRITTALL MANUFACTURING CO., LTD. (Row G, Stand 135), examples being shown of the Universal casement window, as used in modern banks, stores, city offices, and public buildings. Other exhibits include a range of specially designed school and hospital windows; Crittall standard metal windows for all domestic work, including examples of French doors, bay windows, and metal windows and doors complete in wood surrounds with oak sills; a range of standard windows specially designed for use in tropical countries; Crittall standard fenestra sashes for warehouses, factories, agricultural and industrial buildings, architectural bronze work, and roof glazing.

Designed by Prof. Richardson, the stand of THE ARCHITECTURAL PRESS (Row E, Stand 89) is a breast-high enclosure having panelled sides; it is mounted on a raised platform, the whole measuring 20 ft. by 16 ft. Sloping counters covered with green baize cloth have been adopted, which afford every convenience for viewing publications.

A very pleasing and efficient lighting is effected by the introduction of six lamps, 18 in. high, mounted on the uppermost ledges of the stand, having opal globular shades. In addition, there are four standard lamps placed at each corner of the platform bearing the firm's titles.

All architects are cordially invited to inspect our publications, many of which have been recently issued from the press.

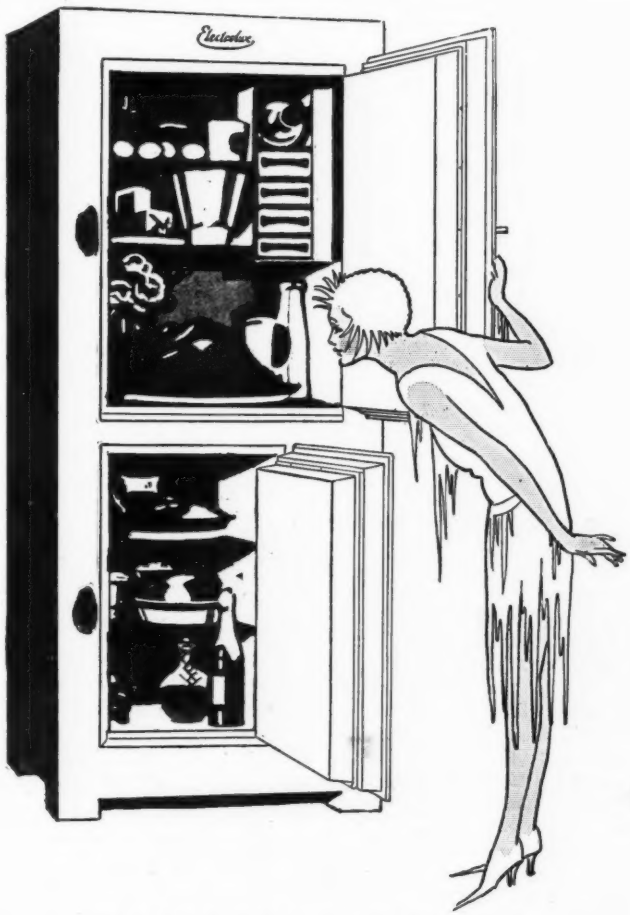
*

THE BRITISH WOOD IMPREGNATING CO., LTD. (Wall Space, Stand 21), exhibit pieces of building timber which have been treated with Wolman salts as affording protection against dry-rot and acting as fire-retardant. Pieces of timber painted and varnished after they have been treated with Wolman salts are also shown, as well as other untreated pieces of timber showing decay and damage done due to rust.

*

MESSRS. CARRERAS'S NEW FACTORY

We are asked to state that the coloured concrete work carried out to the architect's design on the façade of Messrs. Carreras's new factory in Mornington Crescent, to which reference was made in our last week's issue, when commenting on the exhibit of the Adamite Co., Ltd., was actually executed by the Art Pavements and Decorations, Ltd., of St. Paul's Crescent, Camden Town, N.W., who made extensive use of crushed Venetian glass in various colours in obtaining the wonderful results described.



The "Electrolux" refrigerator. By Electrolux, Ltd.

READERS' QUERIES

SOME POINTS OF GOOD CONSTRUCTION

R. H. writes: "*1: a: In the case of a fairly large four-storied building to be used as a shop or stores, what would be the most satisfactory and economical floor, the structure being of steel framing and the stanchions so disposed that the main bays are about 22 ft. by 20 ft.?* b: *It is required to install automatic sprinklers, and there will be various other piercings required through the floors. In order to run the various services and to obtain access thereto, is it most expedient to lay the finished floor with joists and boarding on the top of the suspended floor?* 2: *It is proposed to construct the outer retaining walls, against the street, of the basement, of the building abovementioned, in reinforced concrete, the depth of the basement being about 11 ft. These walls, together with the basement floor, have to be made watertight. If the concrete walls are left without an inside lining of brick, is there likely to be trouble from condensation? Is it essential to run the floor asphalt up on the inside face of the wall and then line inside with a thin wall, or might the asphalt be taken up on the outer face of the concrete wall, in which case there would be (in effect) a horizontal joint running through the base of the concrete wall?*

1: *a*: If it is desired to make the large, almost square bays tell as single architectural units of true exposed construction, the tile-arch system might be adopted, and a vault or square "dome" constructed on the main girders. Or, ordinarily, the main beams follow the outlines of the bays, and subordinate beams are used to divide the greater dimension into convenient spans for the floor slabs. In this case the 22 ft. would be divided by means of two subordinate girders into three spans of a trifle over 7 ft. apiece. Unless the girders can be made to take their place in a satisfactory architectural scheme of constructional decoration, it may be best to suspend a ceiling under them. The advantage of a plain ceiling in throwing reflected light should be considered, as well as the avoidance of unwanted breaks in the architectural scheme.

1: b: The pipe ducts may be arranged either below the structural floor and above the ceiling if a suspended ceiling is employed, or joists and floorboarding may be used to raise the finished floor level sufficiently to clear pipes laid on top of either a solid or a hollow floor. To determine a question of this sort it is well to draw out the plan of the pipe runs and find the exact points at which supplies enter the spaces available between floor and ceiling levels. It is often possible to avoid an unsightly and cumbrous disturbance to the floor surface by preparing manholes for threading pipes into position. The position of pipe ducts should also be drawn out on the section of the building, so that if the webs of girders have to be perforated, the fact may be realized in time for the structural members to be specially strengthened. One useful expedient is to make a low suspended ceiling to the main corridors and so obtain space to give any pipes a proper "fall" should their purpose require it.

2: The strength of a reinforced concrete retaining wall is absolutely bound up with the continuity of its structure. These walls are made far thinner than would be safe with massive brickwork, and the whole idea of the reinforcement is to apply the earth pressures on the surface of the walls to the edges of adjoining floors and walls which act as buttresses. It would defeat this object if a joint filled with asphalt were to be made just where the bursting pressures are near their maximum and shearing stresses are intense. The only safe way to keep water out of a basement built in a damp soil is to erect the structural shell of sufficient strength to stand the earth pressures, using a rich concrete so as to exclude the moisture in the first instance. This is necessary in defence of the reinforcing bars themselves. Such a wall may be perfectly successful as a water-excluding device by a combination of good luck and good management, but success cannot be guaranteed. It is only reasonable to expect a certain amount of seepage at the convex parts of the bulges, as the wall deflects under stress, or at seams where different batches of concrete have been added to build up the wall in its shuttering.

The inner face of the wall should be kept open to inspection and, if it proves adequate throughout a damp season, nothing more may be needed, though a continuous coat of asphalt and an inner lining of brick must be considered necessities under normal conditions of indifferent workmanship. To bond the inner lining of brick to the reinforced concrete, pockets may be left large enough to contain the end of the bonder, together with a continuous surrounding layer of asphalt. Possibly bond hooks of metal might be inset in the concrete (through holes in the shuttering), which would serve the purpose of bonders.

The projecting ends of the hooks would be coated with asphalt after the shuttering is taken down, and each might be made to bind in half a square yard of the lining wall by being connected to reinforcement in its horizontal joints. The keenest scrutiny of the work in all its stages is demanded, and the lining wall should not be erected until each portion of the asphalt has been inspected and passed. An almost invisible weephole sometimes means returning to the work several times to trace the source of leakage. Condensation water, as distinct from seepage through the wall from the waterlogged earth, is dealt with by warmth and ventilation, and by the texture and porosity of the surface finish. If the basement walls are cold and the air is stagnant there will certainly be condensation, though this may not show up in beads if the surface is rough and porous.

W. H.

The Editor welcomes readers' inquiries on all matters connected, directly or indirectly, with architectural practice. These inquiries are dealt with by a board of experts, to which additions are constantly being made as, and when, need arises. No charge is made to readers for this expert service. Diagrams must be clearly and legibly drawn out and lettered in black ink. Querists must enclose name and address. — Ed. A. J.

DECORATION OF A HOUSE

X. writes: "*About eighteen months ago I requested a firm of local builders to undertake certain redecorations of a private house for me. I met one of the firm on the premises and pointed out what was required, and informed him that it must be a cheap job in any event. No price was given, but an understanding come to that, if left to them, the matter would be done at the lowest cost. The work was practically all inside, and comprised knocking off some loose plaster to ground-floor brick partition walls, in all not exceeding 20 yds. super, and replastering, setting one small new register grate, making up new cement and tile hearth, laying 4 in. concrete floor 6 ft. by 6 ft., and erecting 4½ in. brick wall to form one side of small coal house. The painters' and paperhangers' work comprised stripping walls, preparing and repapering, rubbing down, preparing, touching up, painting one or, in some cases, two coats, and in certain instances finishing, in enamel, all interior woodwork usually painted. Owing to shortage of labour the work was kept in hand eight weeks. The account rendered shows that the plasterers' wages are 450 per cent. on the cost of materials, and that the painters' wages are over 500 per cent. on the cost of materials. The total cost of £353 19s. is over 800 per cent. on the cost of materials supplied, or every 1s. worth costing 8s. The number of hours charged for the two trades is 3,770, representing eleven men working full time for eight weeks, their output in materials being 2d. per man per hour. The work entailed was of the plainest and most straightforward possible. I have disputed the account most emphatically, pointing out the obvious errors, but no notice has been taken and no redress offered. I am now threatened with immediate legal proceedings. There is also a charge of 10 per cent. for establishment charges, on which again 25 per cent. profit is shown. May I ask if you are aware of any precedent for such extraordinary prices? Have you or any of your expert advisers knowledge whereby such figures can possibly be justified?*"

The proportion of labour to materials in work of this nature varies considerably in accordance with the amount of preparatory work to be done, and in the absence of the complete facts it is not possible to give a definite opinion. The charges for "Labour" compared with those for "Materials" are certainly greatly in excess of such as would be found in work approaching anything of a normal character. The percentages added for "Establishment" charges and "Profit" are far heavier than those settled upon by the Builders' Federation to be

charged on jobbing work. "X" is advised to place himself in the hands of a quantity surveyor, so that a fair value of the work executed may be ascertained, primarily with the object of convincing the builder that his charges are grossly excessive. In the unlikely event of failure to effect a settlement by this means, the surveyor would be able to give advice and take all necessary steps in the event of the builder deciding to substantiate his charges by any threatened legal proceedings. Had "X" availed himself of the services of a surveyor, to obtain and scrutinize estimates for the work required to be done in the first instance, the settlement of a final account would have been a simple and straightforward matter, satisfactory to all concerned, and the small fees payable by his having done this would have been expenditure of the best and most economic description.

A SYPHON FROM COPPER TO BATH

S. writes: "Please give a description of the method of syphoning water from a copper to a bath by means of a pipe with two taps—where bath and copper are fixed at same level."

If "bath and copper are fixed at the same level" no syphonic action would take place, for it is the extra weight of water in the longer leg of the syphon that supplies the motive power for drawing up the water from the copper. Taking it that the bath and the copper are of ordinary construction, and stand upon the same *floor* level, the bottom of the copper pan might be above the water-level in the full bath, and a syphon could be installed to draw bath-water from the copper. The simplest form of syphon consists of a flexible tube with a sinker to keep one of its ends steady in the bottom of the copper, and a cork or a spring clip to seal up the other end.

The tube is allowed to sink under water in the copper with both ends open until it becomes filled with water, when the upper end is sealed and lifted over the rim of the copper and brought down below the level of the overflow of the bath. On the bath end of the pipe being unstopped the water will flow up the pipe from the copper and out into the bath until the water in the copper is so low that air can get into the pipe, or until a common water-level is attained in bath and copper.

If fixed pipes are used instead of flexible ones it is necessary to provide means for filling them with water and then sealing them from the admission of air. This may be accomplished by providing a tap at each end, and turning the cold supply into the syphon pipe through an airtight connection. The expulsion of air from the syphon is speeded up by the installation of an adjustable air aircock at the highest point in the system, for a certain amount of time and water is wasted in expelling the contained air merely by running the cold supply and turning on the tap at the bath end of the syphon. The tap in the copper being submerged below water at something like boiling-point, a non-conducting lever is used to turn it, in case of forgetfulness. It may be opened, of course, while the bath tap is off as soon as the syphon is full of water and before heat is applied.

W. H.

DRAINING A BASEMENT

J. A. writes: "An existing basement is not properly built. It is in clay soil and fills with water several feet high. It has been decided to fill it in. The area of the basement is about 750 sq. ft. and it is 6 ft. 6 in. high. The side walls are 9 in. by 14 in. (not waterproofed), and the floor is of concrete. The level of the existing storm water drain is about 5 ft. above floor of basement. It is proposed to build at intervals (about 6 ft. apart) 4½ in. brick walls filled in between with earth brought up to a height to enable a 4 in. agricultural drain to discharge into an existing s.w. drain. The whole will then be covered with 6 in. of concrete reinforced with mesh, keeping the latter free from the agricultural drain. Will this, in your opinion, eliminate the trouble?"

The suggested remedy might keep out water from the upper part of the basement, but there would still be a strong liability to damp and condensation of moisture which will ooze imperceptibly even through 6 in. of concrete. Added to this, the space in the basement would be wasted. It is better to cut off the trouble at the source, if possible, by draining the ground around the exterior. If this is impracticable for any reason, it will still be possible to make the walls of the basement damp-proof by lining them with asphalt on the outside and providing them with adequate damp-courses. Should the exterior of the building be inaccessible, there remains the alternative of lining them on the inside with asphalt and building an interior lining of brickwork or reinforced concrete to keep it from blistering off the face of the wall. The floor may be treated in a similar way with a layer of asphalt and a covering of concrete.

Instead of asphalt a rendering of Portland cement, with the addition of a waterproofing material, might be tried. Renderings of this nature can be made waterproof if the workmanship is sound, provided that the pressures on the walls and floor are not great enough to induce bending of their surfaces which will open up hair cracks in the rendering.

The advantage of keeping the basement open is twofold, in that it is still a useful chamber and also that it is a well ventilated space (or can be made into one) between the waterlogged moisture-producing clay and the rest of the house. Its floor can be drained into a sump pit in one corner if the purpose for which it will be used implies that large quantites of water will be swilled about in it. The sump may be fitted with a removable bucket or with a hand pump as necessary to meet the needs of the case. If the cost of filling in and of making the basement watertight are compared there will probably not be a great deal of difference in the outlay on either scheme. Should the local authority refuse to sanction the use of a basement below sewer level, this might be considered as an argument in favour of filling it in, and the district surveyor's views should be obtained before further steps are taken.

BUILDING LINES

Curious writes: "I shall be glad of some advice on a question of building line. The particular case concerns a wedge-shaped site in a rural district with a main road on one of the converging sides and a boundary road at the point of the wedge. There are no existing buildings which might be taken as fixing the building lines. The rural district authority has taken upon itself to fix a building line of 60 ft. from the centre of both roadways. Is the authority empowered to do this? If so, under which Act?"

The old law about building lines was contained in sections 155 and 156 of the Public Health Act, 1875, but the powers of both urban and rural district councils have been extended a good deal by various amending Acts since. The latest authority is by sections 33 and 34 of the Public Health Act, 1925, which gives considerable powers to prescribe an "improvement line" for arterial road-making purposes.

F. S. I.

ESTIMATING BUILDING PROPERTIES

W. B. writes: "Is it necessary for an architect who occasionally is asked to report upon and estimate as to the value of building properties, for the information of a building society or public body before they decide to consent to applications for advances to borrowers, to be the holder of an 'Appraisers' and Valuers' Licence'?"

A report for the specific purpose referred to is exempt from stamp duty, and therefore need not necessarily be undertaken by a licensed valuer. The exemption under the Stamp Duties Act covering such valuations reads as follows: "A valuation made for the information of one party only and not being in any manner obligatory as between parties either by agreement or operation of law."

F.

ROOFING MATERIAL TO RESIST HIGH WINDS

V writes: "Which of the following roofing materials would be the more secure and durable against abnormally high winds on a sea front: a: Westmorland 'Ladies' slating on 1¼ in. boards, 4 in. lap, copper nails; b: split oak shingles fixed with brass screws on boards? What is the respective life of a and b, and what preservative is most advisable for oak shingles?"

Unquestionably Westmorland slating would be the more secure and durable—in fact, practically everlasting so long as the timber roof below remains sound. The life of split oak shingles would be very much less at ordinary pitches; on the steep pitch of a broach spire they might go to eighty to one hundred years. It is not usual to apply preservative.

THE WEEK'S BUILDING NEWS

Plans passed by the TORQUAY Corporation: Bungalow, Audley Avenue, for Mr. E. Buswell; two bungalows, Audley Avenue, for Messrs. Shobbrook; six houses, Audley Park estate, for Mr. A. Palk; four houses, Leys Road, Chelston, for the Chelston Building Co.

*

The TORQUAY Education Committee is seeking sanction to purchase a site at Barton for an elementary school.

*

Messrs. Charlesworth and Bennett have submitted plans to the TORQUAY Corporation for a greyhound racing track in Newton Road.

*

Plans passed by the EAST HAM Corporation: Alterations, 337 Green Street, for Mr. A. H. Middleton; six houses, Church Road, and Fourth Avenue, for Mr. A. R. Upsdale, F.S.I.; additional floors to laundry, Hall's Laundry, Church Road, for Mr. G. N. Kent; additions to sub-station, London Co-operative Society premises, Whitta Road, for the Electricity Department; three houses, Church Road, for Mr. A. R. Upsdale, F.R.I.; alterations, 339-341 Green Street, for Messrs. Clemens Bros.; sixteen shops, Green Street, for Mr. G. Coles, F.R.I.B.A.; cinema, St. George-in-the-East school site, Green Street, for Mr. G. Coles, F.R.I.B.A.; forty-four houses, Shaftesbury Road and Dorset Road, for Mr. H. W. Binns.

*

In connection with the proposal for the erection of a hospital for tuberculosis and infants' diseases, the LEEDS Corporation Health Committee has appointed a committee to inspect similar institutions at Sheffield, Ascot, Northampton, and Alton.

*

Plans passed by the OXFORD Corporation: Two houses, Hill Top Road, for Mr. T. Everard; four shops and hotel, Park End Street, for Mr. J. R. Wilkins; corn and hay store, Abingdon Road, for Mr. H. C. Wiggins; nine garages, Collins Street, for Mr. T. A. Hicks; four houses, Glanville Road, for Mr. F. Organ; two houses, Bainton Road, for Messrs. Wooldridge and Simpson.

*

The Donnington Trustees are to develop a portion of their estate at IFFLEY.

*

The George Hotel Company has asked the OXFORD Corporation for land in George Street for the re-erection of their hotel.

*

The Corporations of PORTSMOUTH, Southampton, and Bournemouth have arranged to provide accommodation for mental defectives by the acquisition of the "Fair Oak Park" estate. The cost of adaptation of existing premises and erecting new buildings is estimated at £162,000.

The BRISTOL Corporation Housing Committee is seeking sanction to borrow £22,095 for housing sites at Thicket Road, Fishponds; Ridgeway Road, Fishponds; Speedwell Road and Plummer's Hill; and Filton Avenue, Horfield.

*

Plans passed by the BRISTOL Corporation: Twenty-four houses, Brooklyn Road, Bedminster Down, for Mr. W. J. Kew; four houses, Queen's Road and Talbot Road, Knowle, for Mr. G. Sanders; twelve houses, Jubilee Road, Knowle, for Mr. C. Malone; fourteen houses, Muller Road, Horfield, for Mr. D. Cottrell.

*

The BRIGHTON Corporation has obtained sanction to erect sixteen staff houses at the mental hospital.

*

The BRIGHTON Corporation has obtained sanction to borrow £9,000 for the purchase of the Dyke estate.

*

Plan of the Chilswell estate has been submitted by the bursar of New College to the OXFORD Corporation.

*

At a meeting of the LEEDS Corporation Property Committee, the city engineer submitted alternative schemes for the lay-out of public buildings on a central site on the Middleton housing estate, and the committee selected the scheme making provision for sites for a police-station, public library, and public baths.

*

Plans passed by WIMBLEDON Corporation: Nine garages, Spencer Hill Road, for the Triangular Construction Co.; classrooms, dining hall, etc., King's College School, South Side, The Common, for Mr. A. Stratton; alterations, 29 Merton Road, for the Sycamore Works Co.; alterations, Holy Cross Convent, Southey Road, for Messrs. Norris and Shattock; twenty-eight houses, The Quadrant, Merton Hall Gardens estate, for Messrs. H. Coombs and Son; extension to factory, Spencer Hill Road, for Messrs. R. J. and J. S. Thomson; two houses, Copse Hill, for Mr. G. J. Morriss Viner; alterations and additions, 43 The Broadway, for Messrs. Bleach and Dorey, Ltd.; additional floor to centre court stand to All-England Lawn Tennis Club, Church Road, for The Trussed Concrete Steel Co.; showroom and offices, Hartfield Road, for Messrs. North, Robin and Wilsdon.

*

Plans are being prepared by Mr. J. Ross Will, L.R.I.B.A., for buildings at the junction of Worple Road West and Pepys Road, WIMBLEDON.

*

Mr. J. W. Stanley Burmester, F.R.I.B.A., is preparing plans for buildings in Coombe Lane and Pepys Road, WIMBLEDON.

The Essex Education Committee has purchased a site at SOUTH WOODHAM for the erection of a junior school.

*

The MANCHESTER Corporation Town-Planning Committee has approved proposals for the erection of shops on the Lathom estate, Withington.

*

The TORQUAY Corporation is negotiating for land on the Hilly estate, St. Marychurch, for a housing scheme.

*

The city architect of HULL has prepared plans for structural alterations at the central telephone buildings.

*

The EASTBOURNE Corporation recommends the Entertainments Committee to consider the provision of a bathing pool on the sea front.

*

The HULL Corporation is seeking sanction for a loan of £20,000 for the erection of a bus garage.

*

The HULL Corporation has obtained the sanction of the Ministry of Health to the erection of 400 houses.

*

Mr. H. S. Wilson, secretary-steward, United Methodist Church, Hull Circuit, has obtained a site on the WEST HULL estate for the erection of a chapel.

*

Messrs. Wm. Jackson and Son, Ltd., have acquired premises at the corner of South Street and Paragon Street, HULL, which they are about to demolish and rebuild.

*

The HULL Corporation has acquired land in Holderness Road for the purpose of the erection of a clinic for the maternity and child welfare school medical and tuberculosis services.

*

The CARLISLE Corporation is seeking sanction to grant a further ninety housing subsidies.

*

The HULL Corporation is considering a proposal for the establishment of a migration training hostel for lads.

*

Plans passed by the DARTFORD U.D.C.: Laboratories, Temple Hill, for Messrs. Burroughs, Wellcome & Co.; two houses, Havelock Road, for Mrs. B. E. Ellard; two houses, Wayville East, for Mrs. Mackbey; additions and alterations, 12 East Hill, for Mr. J. C. Jarvis; two bungalows Manor Avenue, for Mr. W. J. Brise.

*

The SWANSCOMBE U.D.C. proposes an alternative site in the Avenue for the proposed swimming bath.

Plans passed by the DORCHESTER Corporation: House and garage, Edward Road, for Rev. J. Mead; house, Queen's Avenue, for Miss Barker; oil store and garage, for The Shell Mex Co., Ltd.

*

The DARTFORD U.D.C. has decided to grant a further thirty housing subsidies.

*

Mr. John Hughes is to proceed with the development of the Manor House estate, HAMPTON.

*

At a meeting of the WEYMOUTH Corporation, the Joint Harbour and Street and Works Committee reported that the Board of Trade had intimated that it had no objection to the Corporation proceeding with the execution of the work at the Town Bridge forthwith on its own responsibility if the Corporation furnished the Board of Trade with an undertaking that it would apply at the earliest possible opportunity to Parliament for the authorization by Act of Parliament of the reconstruction of the bridge, plans for which have been prepared by the Corporation's consulting engineer.

*

The CARLISLE South End Co-operative Society, Ltd., has obtained from the Corporation three shop sites on the Longsowerby housing estate.

*

The SWANSCOMBE U.D.C. has asked a committee to draw up a scheme for the provision of a library.

*

The WAKEFIELD Corporation has agreed to plans for the extension of the maternity hospital in Blenheim Road, and decided to submit them to the Ministry of Health.

*

The Church of England authorities are purchasing a site from the CHESTERFIELD Corporation on the Boythorpe housing estate for the erection of a church.

*

Plans passed by the NEWPORT (I. o. W.) Corporation: New road from Shide Villa to Cypress Road, for Messrs. Stratton and Millgate, architects on behalf of Queen's College.

*

Plan passed by the TRURO Corporation: Store, Boscawen Bridge, for Messrs. Hosken, Trevithick, Polkinhorn & Co.

*

Plans passed by the CHELMSFORD Corporation: Two houses, Wood Street, for Mr. Robert Howe; transformer chamber, Tower Gardens, Roxwell Road, for the Electric Supply Corporation, Ltd.; four houses, Van Diemans Road and Lady Lane, for Mr. W. Campen; alterations and additions to "Rose and Crown" public-house, Rainsford Road, for the Baddow Brewery Co.; four houses, Lady Lane, for Mr. A. J. Gozzett.

The LEEDS Corporation Health Committee has visited the Elmet Hall estate in connection with the consideration of the draft plans for the utilization of the estate as a hospital for surgical tuberculosis, orthopædics, and infants' diseases.

*

Plans passed by the PORTSMOUTH Corporation: New College buildings, London Road, Hilsea, for Mr. J. E. Jones; shop, Hayling Avenue, for Mr. C. C. Coles; shop and flats, adjoining Blue Anchor Hotel, Kingston Cross, for Messrs. Geo. Peters & Co., Ltd.; four houses, Tangier Road, for Messrs. Mouncher and Son; eight garages, St. Colman's Avenue, for Messrs. C. W. Stigant and Son; additions, "Brewers Arms" public-house, Milton Road, for Messrs. Portsmouth United Breweries, Ltd.; shop and houses, Burrfield Road, for Mr. H. J. Cook; business premises, High Street, Cosham, for Mr. W. S. B. Cox; four shops, High Street, Cosham, for Mr. R. J. Winnicott; hall and offices, 226-230 Fratton Road, for The Ancient Order of Foresters; twenty houses, Target Road, for Messrs. McCormick; nine houses, Target Road, for Messrs. McCormick and Son; three shops and flats, Osborne and Serpentine Roads, for Messrs. E. and A. Sprigings; six houses, Glenthorne Road, for Messrs. Brown and Fuller; offices, Haslemere Road, for Messrs. Parks of Portsmouth, Ltd.; alterations, Queen Street, for Messrs. Holbrook and Son, Ltd.; six houses, Lichfield Road, for Mr. A. H. Le Santo; six houses, off Langstone Road, for Mr. W. A. Roberts; four houses, Goldsmith Avenue, for Messrs. Cake and Macpherson; business premises, Copnor Road, for Mr. F. Elliott.

*

The BOLTON Education Committee has asked a special committee to report as to the provision of school accommodation at Smithhills and Heaton.

*

On behalf of the Heaton Park Wesleyan Church trustees, plans have been prepared for the erection of a Wesleyan Church in Roden Lane, PRESTWICH.

*

Plans passed by the HASTINGS Corporation: Alterations, 3 and 4 Grand Parade, St. Leonards, for Westminster Bank, Ltd.; additions, 76 St. Helen's Road, for Mr. E. A. Denyer (architect); twelve houses, Amherst Road, St. Leonards, for Mr. H. M. Jeffery (architect); bungalow, Battle Road, St. Leonards, for Messrs. H. Ward and Son (architects); two houses, Elphinstone Road, for Mr. H. M. Jeffery (architect); bank and residence over 144 London Road, St. Leonards, for the Westminster Bank, Ltd.; six houses, Elphinstone Road, for Messrs. Fryer and Sons; layout of building land, Belmont Road and Barley Lane, for Mr. H. M. Jeffery (architect); houses, Hollington Park, St. Leonards, for Mr. Harold Burleigh (architect); additions, "Glade Royal," St. Helens Park Road, for Mr. J. S. D. Hicks (architect).

The LEEDS Corporation has had a letter from the American Consul asking terms for land for consulate premises at the corner of Guildford Street and Cross Fountaine Street. The Corporation has quoted prices.

*

At a meeting of the LEEDS Corporation Libraries Committee, the city engineer submitted plan and estimate of the cost of the provision of the proposed branch library at Hunslet. Consideration was deferred for one month.

*

The LEEDS Corporation has asked the baths superintendent and the city engineer to prepare a scheme for the utilization for baths purposes of the vacant land and dilapidated property adjoining Kirkstall Road baths.

*

The NORTHFLEET U.D.C. has decided to proceed with the negotiations for the acquisition of the Wombwell Park estate.

A MODERN COUNTRY HOSPITAL

Following is a list of the contractors and chief sub-contractors for the Redhill Hospital, Edgware, Middlesex, illustrated on pages 587-592: General contractors, Geo. Parker and Sons, Ltd., excavation and foundations, also plumbing; Ragusa Asphalte Co., asphalt and special roofings; Monolithic and General Constructions, Ltd., reinforced concrete; Eastwoods, Ltd., and London Brick Co. and Forders, bricks; Malcolm McLeod & Co., Ltd., artificial stone; Measures Bros., Ltd., structural steel; G. E. Wallis and Sons, Ltd., "Armatubular" fireproof flooring; Roberts Adlard & Co., tiles; Hemel Hempstead Patent Brick Co., Ltd., partitions; E. Davis and Son, glass; Standard Patent Glazing Co., glazing; Hollis Bros. & Co., Ltd., wood block flooring; Diespeker & Co., Ltd., Terrazzo flooring; Thomas Anderson, Ltd., Coalexe flooring; Granwood Flooring Co., Granwood flooring; G. N. Haden and Sons, Ltd., heating, hot water and steam installations; Bratt Colbran & Co., stoves and grates; Daniel Adamson & Co., boilers; Edmundson's Electricity Corp., electric wiring, heating, and bells; Osler and Farraday, electric light fixtures; Shanks & Co., Ltd., and Dent and Hellyer, Ltd., sanitary fittings; James Gibbons, Ltd., Wolverhampton, door furniture, steel casements, and window furniture; Relay Automatic Telephone Co., telephones; Marryatt and Scott, folding gates; F. A. Norris & Co., iron staircases; J. H. Jenner, plaster; William Morris & Co., decorative plaster; James Gibbons, Ltd., Wolverhampton, metalwork; John P. White and Sons, Bedford, flush hospital doors; Carter & Co. (London), Ltd., tiling; Geo. Johnson, Ltd., Marryatt and Scott, Express Lift Co., lifts; The Synchronome Co., clocks.

RATES OF WAGES

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

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

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

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

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

PRICES CURRENT

EXCAVATOR AND CONCRETOR

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

*

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

*

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube	0	3	0
Exceeding 6 ft., but under 12 ft., add 30 per cent.			
In stiff clay, add 30 per cent.			
In underpinning, add 100 per cent.			
In rock, including blasting, add 225 per cent.			
If basketed out, add 80 per cent. to 150 per cent.			
Headings, including timbering, add 400 per cent.			
RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.			
If left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	2	3	0
DO. 6-2-1, per yd. cube	1	18	0
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	16	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete 4 2-1 in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	2	6
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

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

*

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

*

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

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

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

BRICKLAYER

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

*

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

BRICKWORK in stone lime mortar, Flettons or equal, per rod	£33	0	0
DO. in cement do., per rod	36	0	0
DO. in stocks, add 25 per cent. per rod.			
DO. in blues, add 100 per cent. per rod.			
DO. circular on plan, add 12½ per cent. per rod.			
DO. in backing to masonry, add 12½ per cent. per rod.			
DO. in raising on old walls, etc., add 12½ per cent. per rod.			
DO. in underpinning, add 20 per cent. per rod.			
HALF-BRICK walls in stocks in cement mortar (1-3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano, paving to old, per ft. run	0	0	4
Extra for dishing grano, or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

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

MASON

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

*

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

*

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

HALF SAWING, per ft. sup.	£0	1	0
Add to the foregoing prices, if in York stone, 35 per cent.			
DO. Mansfield, 12½ per cent.			
Deduct for Bath, 33½ per cent.			
DO. for Chilmark, 5 per cent.			
SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	9	0
YORK SILLS, W. & T., ft. cub. fixed	1	13	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	6
DO. 2½ in. thick, per ft. sup.	0	1	9

SLATER AND TILER

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

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

*

Slates, 1st quality, per 1,200:			
Portmadoc Ladies	£14	0	0
Countess	27	0	0
Duchess	32	0	0
Old Delabole *Med. Grey*	*Med. Green*		
24 in. × 12 in. £42 11 3	£45	1	0
20 in. × 10 in. 31 4 3	33	0	6
16 in. × 10 in. 20 18 0	22	4	9
14 in. × 8 in. 12 1 0	12	16	3
Green Randoms per ton	8	3	9
Grey-green do., per ton	7	3	9
Green peggies, 12 in. to 8 in. long, per ton	6	3	9
In 4-ton truck loads, delivered Nine Elms station.			
Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	1	10
Cement and sand, see "Excavator," etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

*

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

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

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

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	5	6	0
DO., machine-made do., per square	4	17	0
Vertical Tiling, including pointing, add 18s. 0d. per square.			
FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

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

*

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

*

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	5	6
DO. framed in floors, roofs, etc., per ft. cube	0	6	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	7	6
PITCH PINE, add 33½ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO. 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	10	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over per ft. sup.	0	1	2

continued overleaf

CARPENTER AND JOINER: *continued.*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	8
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ 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	17	0	0
DO., *galvd., per ton*	19	0	0
Corrugated sheets, galvd., per ton	18	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0

*

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

PLUMBER

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

*

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

*

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

PLASTERER

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

*

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

*

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

GLAZIER

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

*

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

*

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

Small sizes slightly less (under 3 ft. sup.).

Patent glazing in rough plate, normal span. 1*s.* 6*d.* to 2*s.* per ft.

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

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

PAINTER AND PAPERHANGER

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

*

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

*

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

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.

The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds per ft. sup. . . . from 3d. to	0	0	6
Plaster board, per yd. sup. . from	0	1	7
PLASTER BOARD, fixed as last, per yd. sup. . . . . from	0	2	8
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casement in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

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

PLYWOOD, per ft. sup.

Thickness	⅜ in.			½ in.			⅝ in.			¾ in.		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine	5	4	—	5½	5	—	6	—	—	—	—	—

Six Staircases

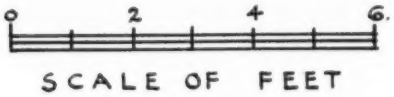
by

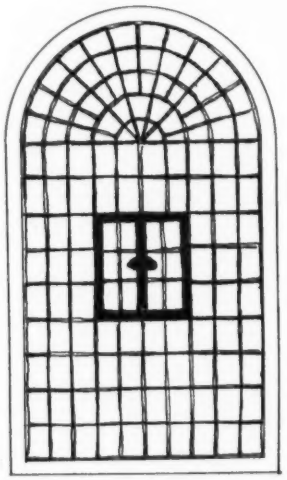
OLIVER HILL

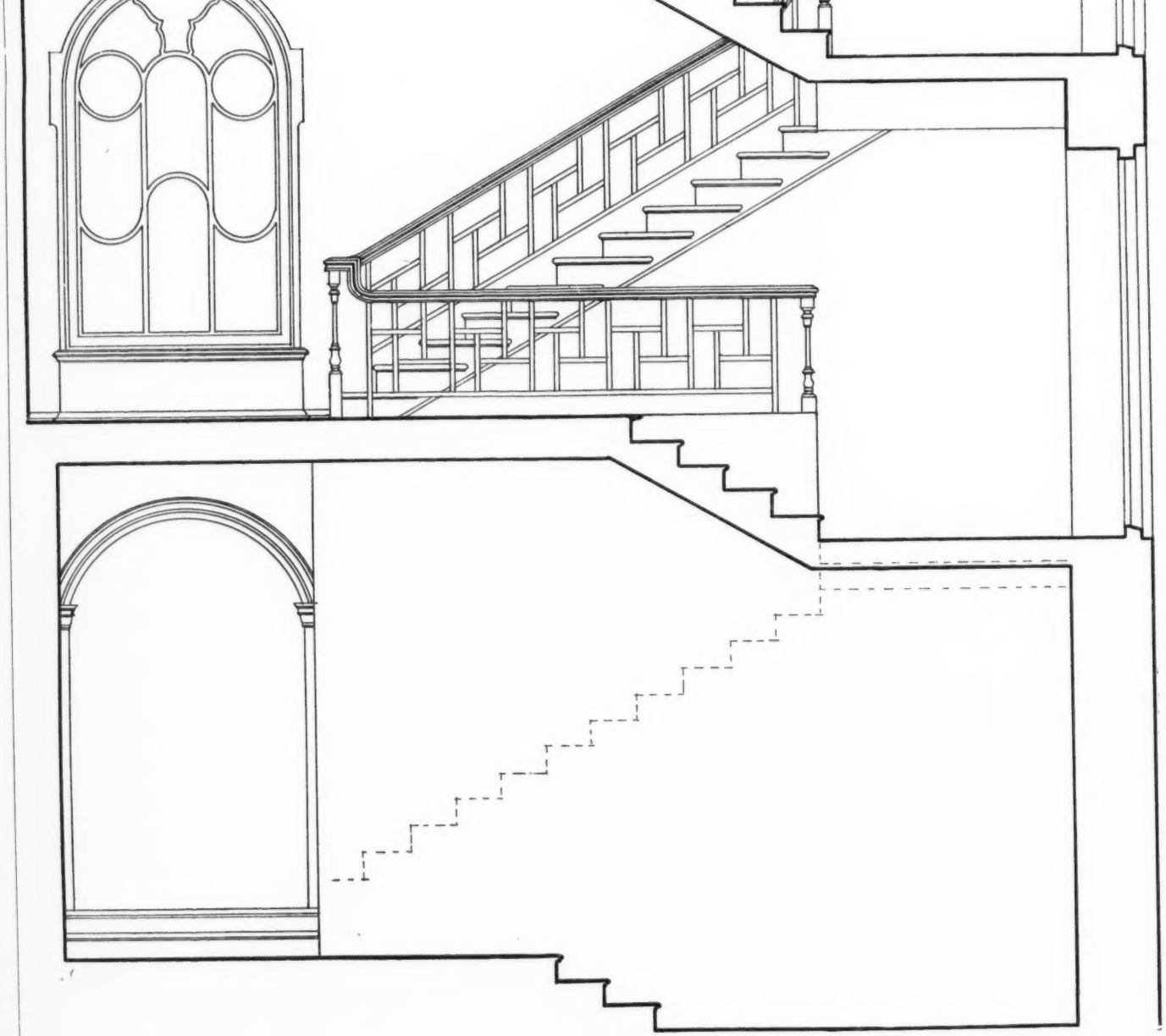
Part Two

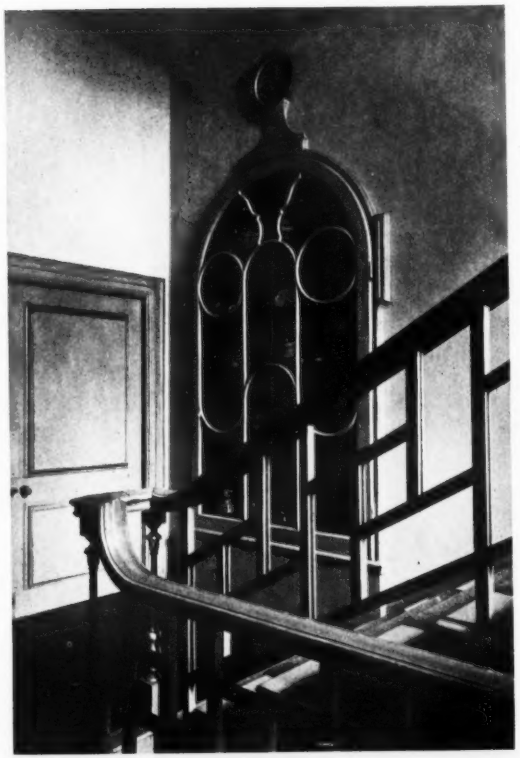
VENICE YARD HOUSE S.W.

THE STAIRCASE



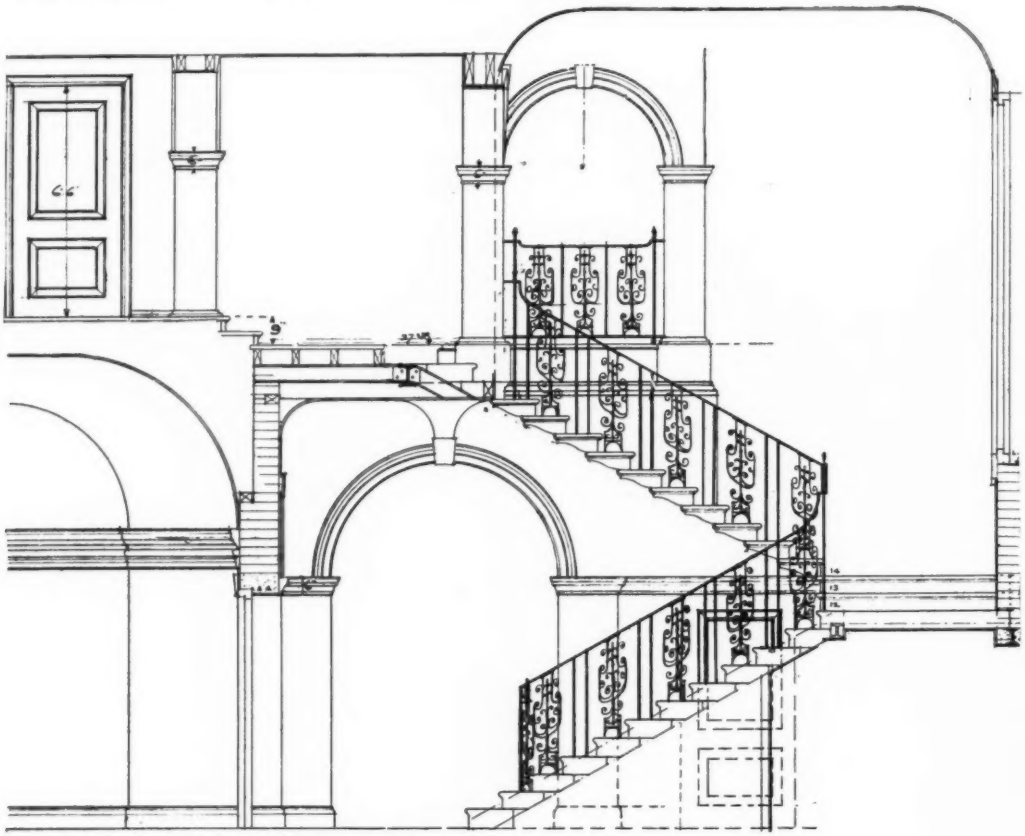




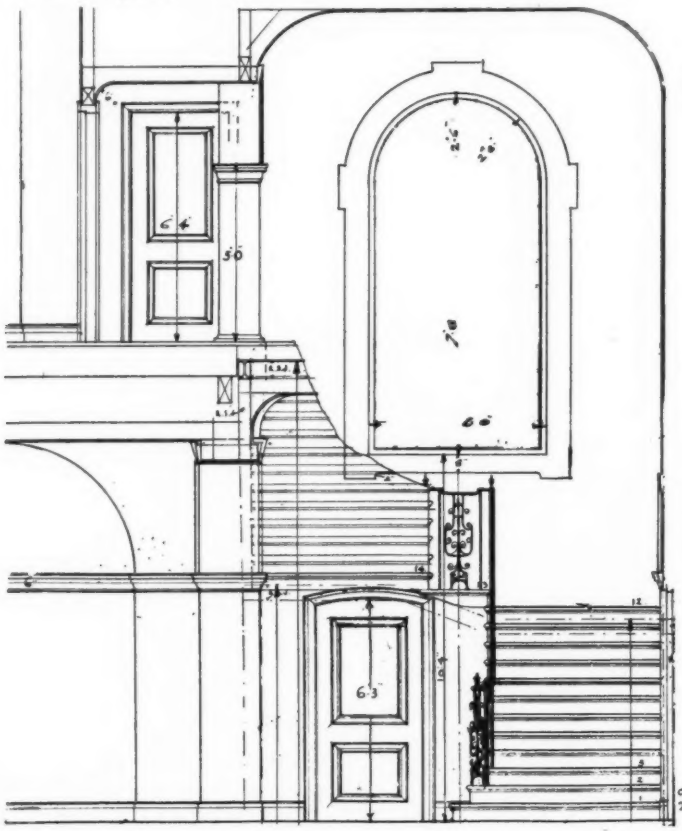


SIX STAIRCASES BY OLIVER HILL. 6.
STAIRCASE, VENICE YARD HOUSE, S.W.

WILBRAHAM HOUSE THE MAIN STAIRCASE



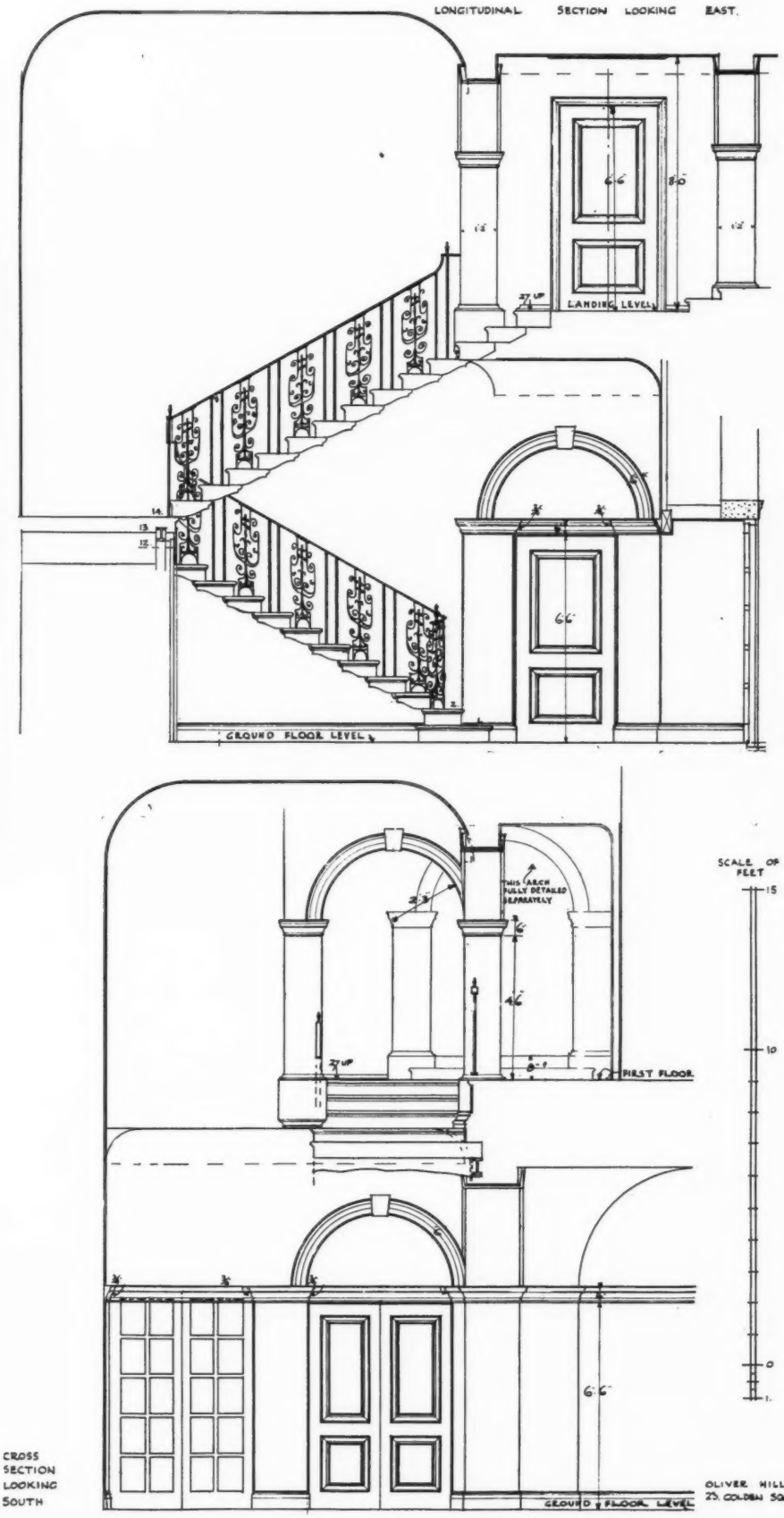
LONGITUDINAL SECTION LOOKING WEST



SCALE OF FEET 15 10 0

CROSS SECTION LOOKING NORTH

OLIVER HILL FRIBA 23, GOLDEN SQUARE W1.

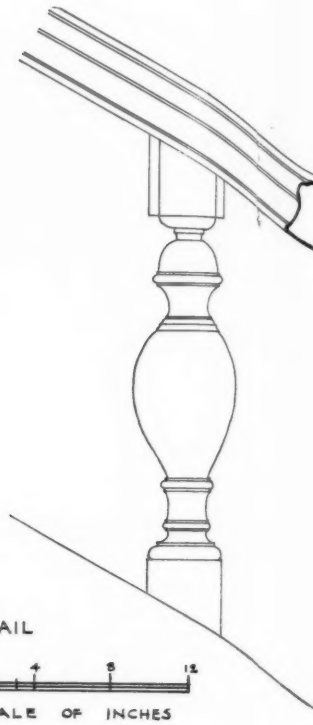


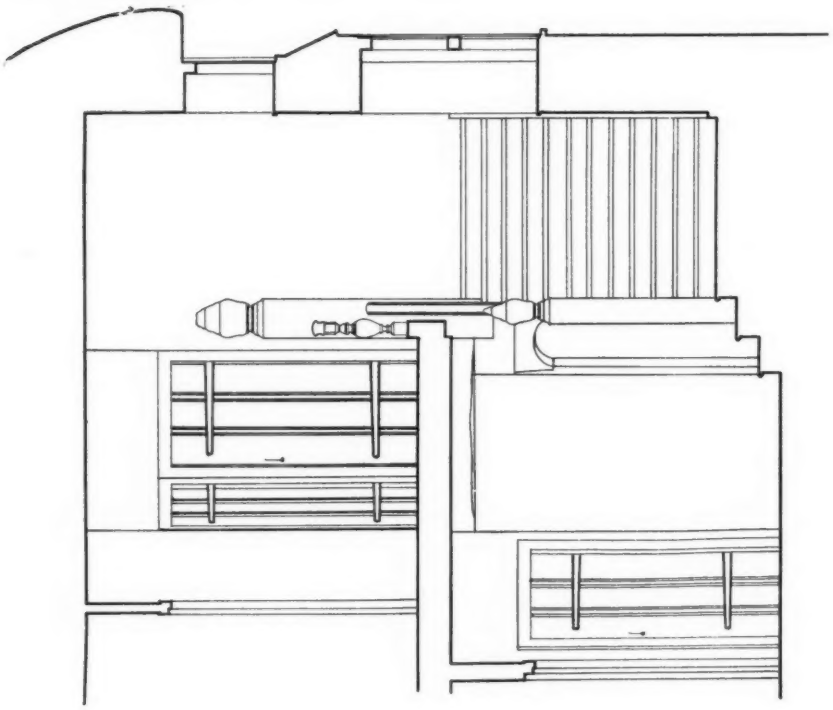
CROSS SECTION LOOKING SOUTH

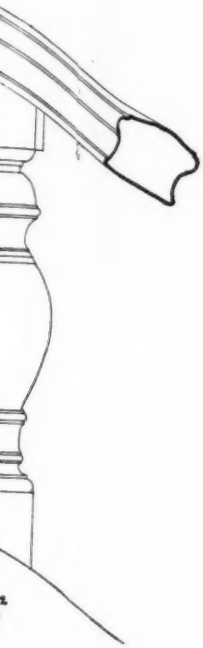
SIX STAIRCASES BY OLIVER HILL. 4.
MAIN STAIRCASE, WILBRAHAM HOUSE.

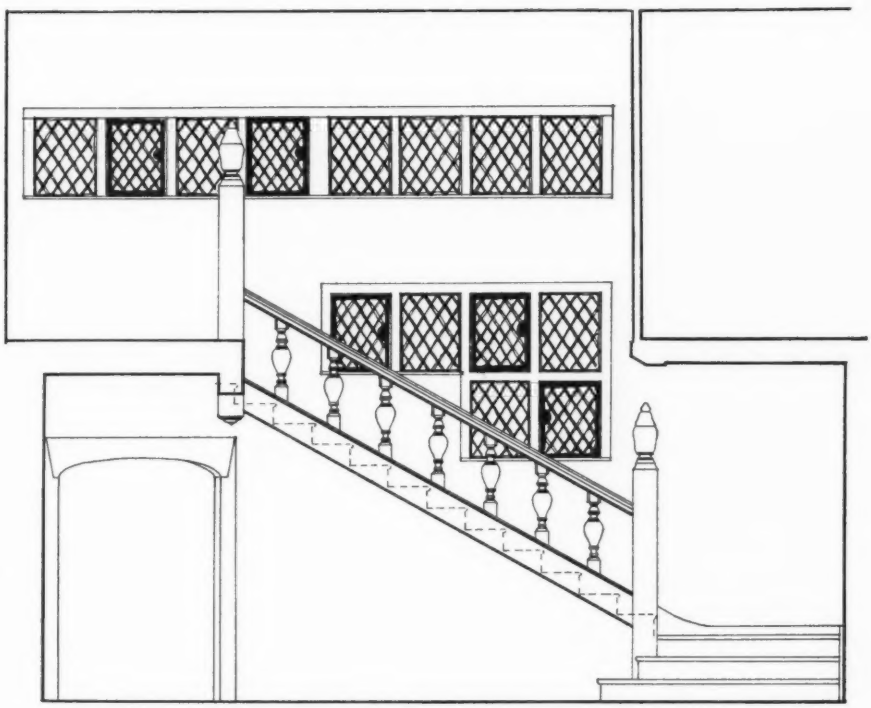
KNOWLE WARWICKSHIRE

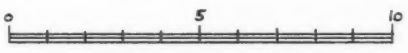
THE STAIRCASE

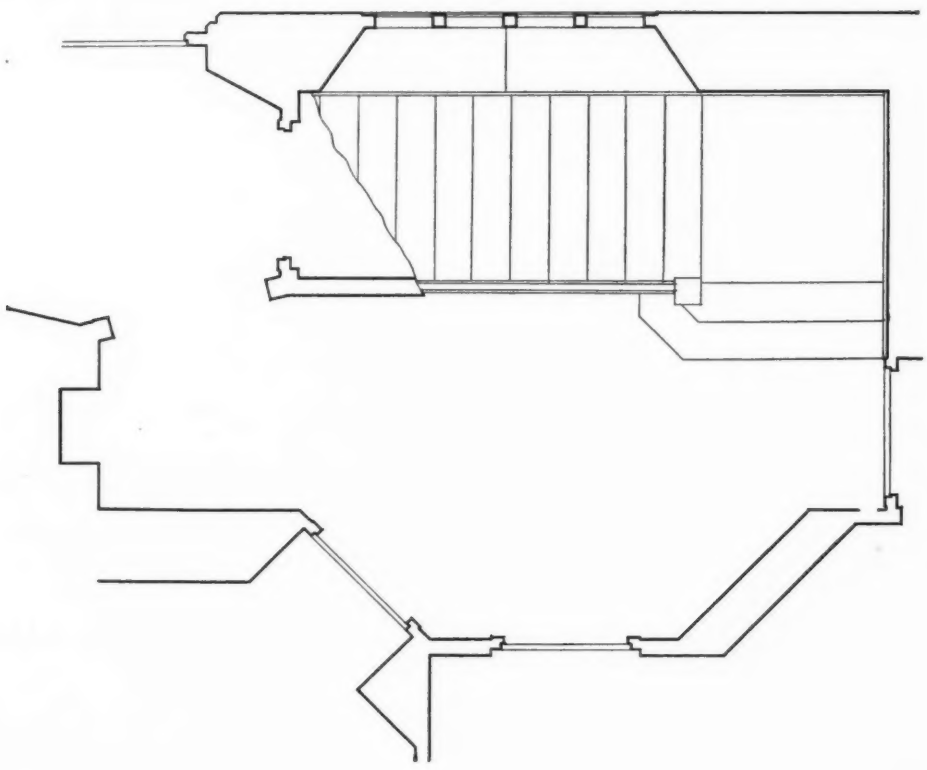












SIX STAIRCASES BY OLIVER HILL. 5.
STAIRCASE AT KNOWLE, WARWICKSHIRE.