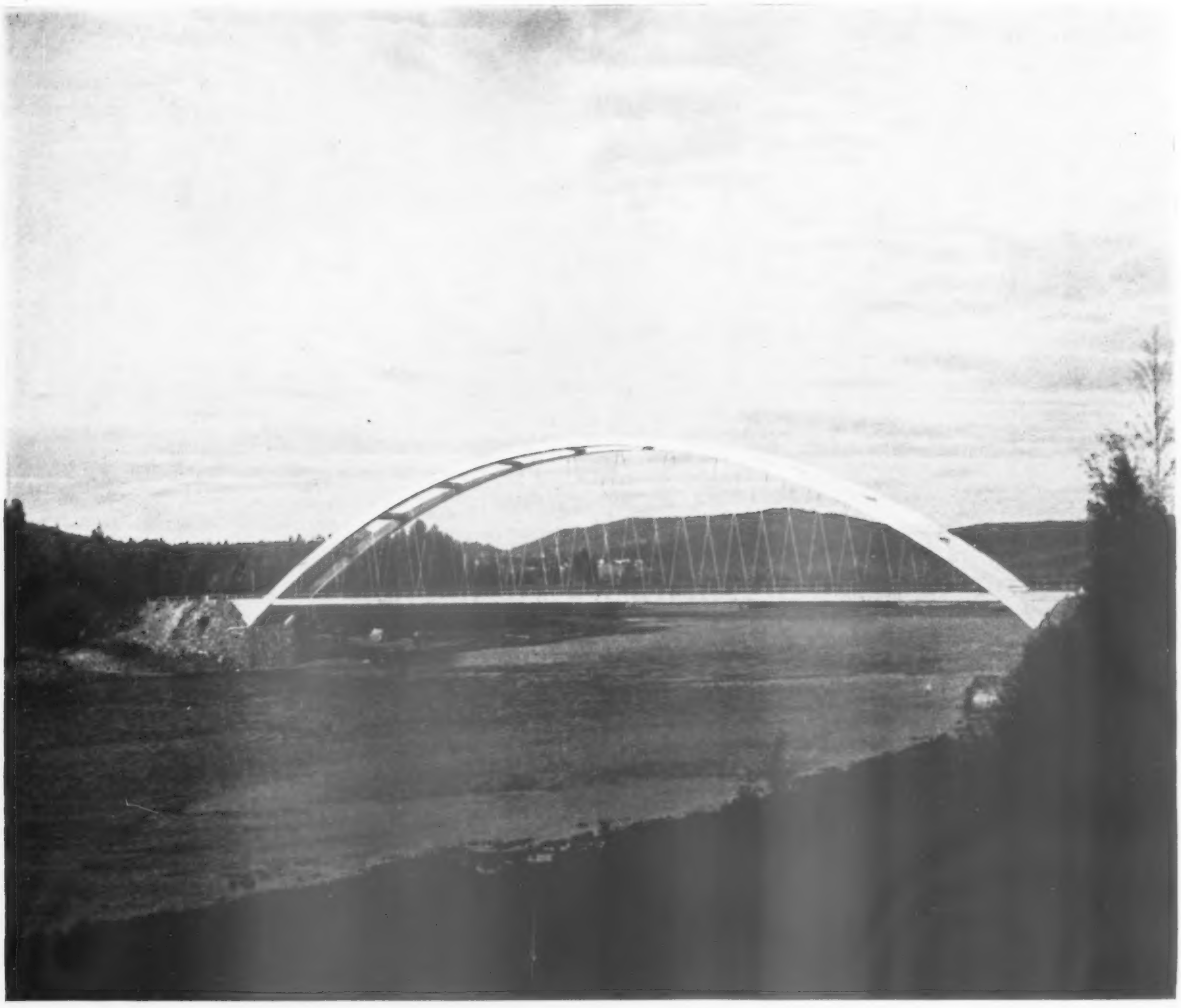
NEARING COMPLETION

A GENERAL view of the new Newgate in the City Walls, Chester. The architect is Mr. Michael Tapper.



BRIDGE NEAR BJÖRKA, SWEDEN

The two single-span arches of this bridge are constructed of reinforced concrete, from which is suspended the carriage way by means of steel ties. The photograph is by Mr. Norman Westwood.

THE NEXT SLUMP

THE title of this leader will come as a slight shock to those who are devoting themselves, without thought of the morrow, to the extraction of personal prosperity from the present relative boom, but we venture to hope that there are not many such people among our readers. For the next slump will certainly come, and it will come all the sooner, and with all the greater force, the more we blind ourselves to it by a contemplation of our present reasons for contentment. Re-armament will not last for ever, and re-armament is in any case a pretty poor reason for contentment; heavy industries and consumer industries are going further and further ahead, but the building industry has passed the turning point, the cost of living is rising rather rapidly and security prices have fallen rather rapidly.

The only intelligent conclusion that can be drawn from an examination of *all* the facts is that the further outlook is unsettled, however glorious may be the prospects of the immediate future. In this connection we drew attention last week to some of the remarks which Mr. J. M. Keynes had made at the beginning of this year; it is now appropriate to consider in somewhat greater detail the principal constructive suggestions which Mr. Keynes then put forward.* These suggestions are all developed from the premise that it is more important to avoid another slump than to stimulate (except in regard to the distressed areas) a still greater activity in the present. This scientific problem, Mr. Keynes emphasized, we have never solved before; we have never even tried to—but now that all parties have freed themselves from the philosophy of *laissez-faire* we might perhaps start now.

Mr. Keynes finds two main methods of temporarily damping down aggregate demand, to be used to stabilize subsequent activity at as high a level as possible. In the first place it is suggested that the Government should meet the main part of re-armament costs out of taxation, should raise taxes and should withhold reliefs, keeping these in hand for whenever there are signs of recession. It was advisable for the Government to *incur* debt in the *slump*—" the boom, not the slump, is the right time for austerity at the Treasury."

In the second place it is suggested that local authorities, which ought to have pressed on with capital expenditure in the slump, should now postpone new enterprises which can reasonably be held back, but have their plans for these ready, for quick release at the right moment—" the boom, not the slump, is the right time for procrastination at the Ministry of Health."

The appointment *now* of a board of public investment—to prepare sound schemes against the time that they are needed, not to launch anything at present—was considered a necessary preliminary to a policy of this kind. Such a body would examine projects which could usefully be undertaken by public and semi-public bodies and put these in order of preference so that some at least could be launched at a few months' notice, and " the rate of interest must be reduced to the figure that the new projects can afford."

It does not seem to be very difficult, in the economic sense, to put these ideas into practice. They do not seem to be terribly revolutionary, though it is true they have never been tried before. Their author does not believe in the " invisible hand," but he considers that it is also very difficult to ensure, by planning, that the amount of active investment shall be continuously of the right proportion. He regards public investment as a make-weight to supplement private investment, and thus keep aggregate investment stable.

The difficulty is undoubtedly not economic, but political and psychological. Let us look at the scheme from the angle of many a business man, and many a technical, clerical and industrial worker. We are requested to plan for the future, to consider (in a period when the Government has restored the conditions in which private enterprise can again be carried on profitably) a means for avoiding a disaster which may never recur anyway. We are asked to reduce public expenditure when it can reasonably be afforded without much harm to our pockets—at the same time we are to be asked to pay more taxes, which by common consent are not necessary. We are told that we ought not to have cut our coat according to our cloth in the last slump, but ought instead to have cheerfully exceeded our income.

The proposals we have briefly summarized appear to us to be psychologically and politically impracticable at the present stage of education in citizenship, economics and public affairs. There is a demand from the rich for public retrenchment in " bad times," a demand from the poor for expanded social services and public works schemes in " good times "; each of these demands is politically almost impossible to withstand. And yet, economically, it is essential that they be withstood. Not only, therefore, must we educate our masters, we must also, and perhaps first, educate ourselves.

* *The Times*, January 12, 13 and 14, 1937

The Architects' Journal
Westminster, S.W.1
Telephones: Whitehall
9212-7
Telegrams
Buildable
Parl
London

NOTES & TOPICS

THE NATIONAL THEATRE

THE campaign, if it can be called a campaign, in favour of a competition for the National Theatre grows steadily. This is natural enough since so many people, on these occasions, have private visions of themselves being flung from obscurity to fame in a night.

*

The A.A.S.T.A. has rushed in with a letter to the National Theatre secretary setting out some of the very excellent reasons why there should be a competition. Mr. Whitworth is by now probably only too conscious of the arguments on both sides, but the final decision rests more with the chairman, Lord Lytton, than with Mr. Whitworth.

*

Mr. Howard Robertson, interviewed by the *Liverpool Daily Post*, also thinks that there should be a competition and, like the A.A.S.T.A., thinks that it might very well be in two stages—the first very much an esquisse and financial support for the finalists.

*

What interests me a good deal more than the competition issue is the claim of the National Theatre to be national. Like most theatres it is being erected, without Government support, by a self-appointed body. Except that this body has not previously conducted its business from third floor offices in Shaftesbury Avenue, the whole enterprise seems to be much as other theatre-building ventures, save for the lack of business acumen which chooses an all but suburban site.

*

Mr. Edward Knoblock, who must have an almost unrivalled knowledge of the theatre, has pointed out that placing the National Theatre of America on 60th Street instead of on 45th Street, the heart of theatre land, was quite enough to kill that little venture—and that was way back in the nineteen hundreds.

ANOTHER BAUHAUS

A year ago Marshall Field, grandson of the Chicago merchant, presented to the Association of Arts and Industries his historic mansion on Prairie Avenue. Thus will the Association be able to bring to maturity its plans for a new Bauhaus, modelled fairly closely on its predecessor at Dessau, and thus will Chicago assume a new importance in the cultural and industrial life of the United States.

*

The Bauhaus will be opened on October 18 under the directorship of Professor L. Moholy-Nagy—perhaps the most distinguished of Professor Gropius's disciples. The Bauhaus really will be a bauhaus and not an art school masquerading under a modern name, for it has been founded deliberately in the Middle-West where there has been a growing demand both by students and manufacturers for some such institute.

COMPETITIONS—ST. GEORGE'S HOSPITAL

A few months ago we were told to expect the publication of the conditions of the competition for the reconstruction of St. George's Hospital—"about the middle of September."

*

The promoters have, near enough, kept their promise and architects will be able to obtain the conditions from the House Governor of the Hospital, deposit £2 2s., within the next fortnight.

*

The total amount of the premiums is £1,000, divided up as follows : first, £500 ; second, £300 ; and third, £200 ; and competitors have nearly eight months in which to complete their designs. The sending-in day is May 10.

*

The assessors are, of course, Messrs. Lanchester and Lodge.

—KINCORTH

I am told that Liverpool is not the only city to feel proud of Messrs. Holliday, Gardner-Medwin and Winston, the three winners of the Kincorth Competition. A correspondent informs me that Denis Winston was a lecturer in architecture at Armstrong College, Newcastle-upon-Tyne in 1934 before he became senior lecturer at Liverpool.

*

I was aware of the appointment when I wrote my note last week, but was unable, with the space at my disposal, to mention the individual achievements of each of the winners as they seem, as I said, to have collected between them most of the prizes and travelling and research scholarships available.

*

Mr. Holliday was, of course, Research Fellow in Town Planning and Civic Design at Liverpool, a position now occupied by Mr. Dougill. He has also held the appointments of civic advisor to the City of Jerusalem and town planning advisor to the Palestine Government.

*

Mr. Gardner-Medwin has been in private practice in

A progress photograph of the new cinema now being built on the site of the Alhambra, Leicester Square, London. The architects are Andrew Mather and Harry W. Weedon.

London since his return from America, where he was a Commonwealth Fund Fellow at the School of City Planning, Harvard.

*

I have also received a letter from Mr. Marcel Pinches, of Roumania, author (with Mr. G. M. Hirsch) of the design bracketed third in this competition. He writes: "I am very proud of this little success in your country." His achievement has fired him with the ambition to *win* a British competition and he has asked me to obtain for him conditions of a schools competition which is open to architects abroad.

—GLOUCESTER

Mr. Donald Walton, the winner of the Gloucester School Competition, must have read the report of the meeting of the Governors with some amusement. The assessor's report was duly received and approved—then Mr. George Pope observed that one remark of the Assessor perturbed him. He (the Assessor) had stated that there were many excellent designs that were too expensive. "Were they to understand from that that there were qualities about the other designs which might have been an advantage to the winning design or was he only thinking of elevation?" Well, well

THE NEW ALHAMBRA

The new Alhambra in Leicester Square—an Odeon Cinema—is to be ready shortly. The inside, I am told, is going to be quite a tremendous riot of colour.

In the final sketches at which I have just been looking, is a safety-curtain measuring 50 ft. by 26 ft. decorated by Mr. Bainbridge Copnall. He seems to have caught the appropriate note and made a festive pattern out of dancers and film directors, cameras, aeroplanes, motor-cars, projectors, chorus girls, revellers, and great lengths of film. When expanded to that large scale—the figures will be rather more than life-size—it should be almost worth having a fire to have the curtain down on view.

*

But perhaps the audience will see the screen without the fire.

RIVERSIDE

I attempted a riparian walk along Bankside last Saturday afternoon with a friend who has an effortless and very successful technique in polite trespass. In fact, that we saw the river at all over more than half of our walk was due chiefly to the very nice way he has with him when it comes to disarming the suspicions of a watchman surprised to find strangers admiring the river from the ground-floor-cum-wharf of the building for which he is responsible.

*

These calculated intrusions brought us, in the space of a couple of hours, three affable talks with watchmen—the grander the uniform, we found, the smaller the amount of affability—and two very fine views, one of St. Paul's and the other of the Tower. Rather more unusual was the chance of seeing how some of these considerably ancient warehouses continue in modern use with no adaptation of their structure and little of their equipment. There must be hundreds of little architectural curiosities hidden away there on the riverside, as well as such mercantile curiosities as the "genuine antique" scales we saw in one place, still used for weighing bales of hides.

*

A surprising amount of new building is going on down there in and about the liberty of the Clink. In its current skeletonic state it seemed to offer little prospect of becoming as fresh and quite as stimulating a set of additions to the amenities of the river as the Hay's Wharf building is—and that is a pity.

ROTARIANS

What the *Mid-Sussex Times* refers to as Rotarian Hugh Mackintosh has given "an erudite and arresting address on 'Frozen Music' (architecture) at the Station Hotel, Haywards Heath."

*

"How wonderful it was," said the speaker, "to think of man, the alchemist, making hard materials plastic, infusing matter with mind." Rotarian H. G. Turner observed that none of them would be able to look at a building with the same eyes as before.

SCOTLAND AGAIN

Plasterers and joiners in Scotland cannot decide which of them shall have the right to put in position large size plaster and fibre boards cut to form ceilings.

*

The result is, I am told, that important building work is held up all over Scotland.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

NEW BAUHAUS, CHICAGO

Professor L. Moholy-Nagy has been appointed Director of the New Bauhaus, an American school of design to be run on similar lines to the Bauhaus at Dessau, Germany. The school opens in the old Marshall Field Mansion in Prairie Avenue, Chicago, on October 18.

" The New Bauhaus," states the *Chicago Daily News*, " will be under the direct sponsorship of the Association of Arts and Industries, which has been formulating plans for the school for many years. Its establishment became assured a year ago when Marshall Field III, grandson of the former Chicago merchant, presented the family residence to the Association as a home for the school."

Miss Norma Stahle, Executive Director o the Association of Arts and Industries, states that " it is the aim of the Association to establish a school of design that will meet the needs of industry and reintegrate the artist into the life of the nation. We expect the new school to attract students from all over the world. The school will provide the most modern and progressive methods of art education, teaching principles of design and scientific subjects concurrently with workshop practice and giving the widest latitude to native creative abilities of American youth."

THE ARCHITECTS' DIARY

Thursday, September 16

R.I.B.A., 66 *Portland Place, W.1. Exhibition of the works submitted by candidates for the R.I.B.A. Archibald Dawnay Scholarship. Until September 17. 10 a.m. to 8 p.m.*

BUILDING CENTRE, NEW BOND STREET, W.1. *Exhibition of enlarged photographs of S.S. " Orcades." Until September 25. 10 a.m. to 6 p.m. (Saturdays, 1 p.m.)*

PUBLIC SCHOOLS ART EXHIBITION. *At the Imperial Institute, South Kensington, S.W.7. Until September 30.*

ENGINEERING AND MARINE EXHIBITION. *At Olympia, W. Until October 2.*

Monday, September 20

CROYDON SCHOOL OF ARTS AND CRAFTS. *Opening of an Exhibition of Students' Work. At the Adult School, Park Lane, Croydon. 5.30 p.m.*

Tuesday, September 21

HOUSING CENTRE, SUFFOLK STREET, S.W. *" Housing Standards." By Elizabeth Denby. 1 p.m.*

Wednesday September, 22

CROYDON SCHOOL OF ARTS AND CRAFTS. *Prize Distribution by Dr. A. Sanderson. At the Adult School, Park Lane, Croydon. 8.15 p.m.*

Friday, September 24

DESIGN AND INDUSTRIES ASSOCIATION. *Week-end Conference at the De La Warr Pavilion, Bexhill, " to consider the state of design in Britain today, the probable trend of the modern movement, and the development of D.I.A. policy." 8.45 p.m.: " Design as a Social Factor." By Prof. Herbert Read. " Design as Common Sense." By Anthony Bertram. " Design as Good Business." By Louis Otto.*

Saturday, September 25

DESIGN AND INDUSTRIES ASSOCIATION. *Week-end Conference at Bexhill. 10 a.m. : " The Enjoyment of Design at School." By J. E. Barton. " Training Tomorrow's Designers." By E. M. O'R. Dickey. 11.30 a.m.: "What the Royal Society of Arts is Doing." By John de la Valette. "Giving the Public What it Needs." By Frank Murphy. Afternoon : Motor Coach Tour of Sussex Architecture or Tennis, Golf, etc. 8.15 p.m.: "Development of the House and Flat." By F. R. Yerbury, " Development of the City." By E. Maxwell Fry.*

Sunday, September 26

DESIGN AND INDUSTRIES ASSOCIATION. *Week-end Conference at Bexhill, 2.30 p.m.: Discussion on the Future of the D.I.A. Policy, opened by M. L. Anderson, Commander V.H. Goldsmith and Howard Wadman. 8.15 p.m. : Documentary Film Show. By H. Elton.*

OVERCROWDING

The overcrowding problem was dealt with by Mr. C. J. Burr, Chief Sanitary Inspector of Newport, at the Annual Conference of the Sanitary Inspectors' Association at Brighton. " There can," he said, " be no doubt at all that the only satisfactory solution of the overcrowding problem depends on a drastic revision of the present overcrowding standards, coupled with an abundant supply of good houses capable of being let at rents within the means of the lower paid earners. The steadily increasing cost of materials makes the probability of private enterprise providing these houses even more remote than ever before, and this being so, the burden must fall on the local authorities, but they cannot be expected to undertake this work with any degree of enthusiasm unless adequate Exchequer assistance is provided.

" It is clear that the standards of overcrowding are too low and permit of sex overcrowding and gross overcrowding. The definitions are vague and do not make for uniformity of administration. On the whole the relevant sections of the Act are so loosely drawn that they can be regarded as little more than a source of anxiety to its administrators, an irritant to landlords, and a half-hearted attempt to administer a palliative to those whom it purports to relieve."

NOISE

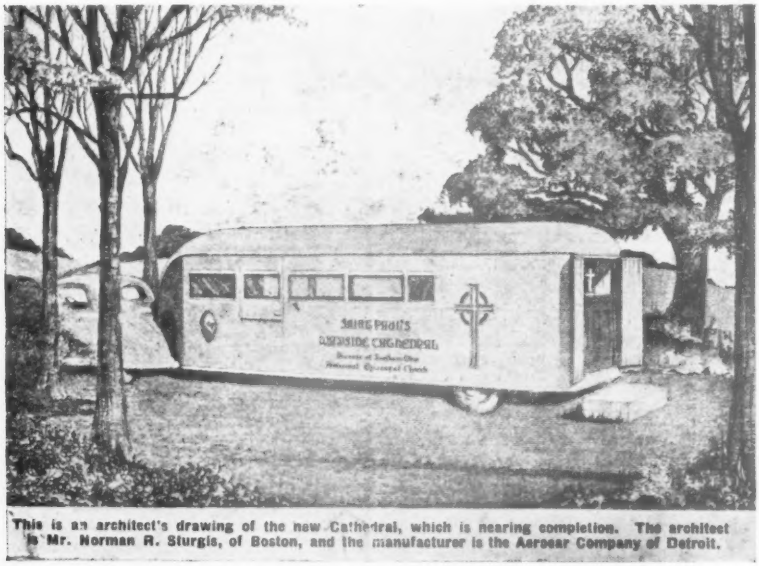
In the course of an address on " Noise and the Nation " at a meeting of the British Association at Nottingham, Dr. G. W. Kaye, Superintendent of the National Physical Laboratory, said that it had to be recognized that modern building design and materials did not provide protection from noises, whether from inside or outside, like the more solid houses of a generation ago. Many people could no longer escape from the noise of their neighbour's wireless, gramophone, vacuum cleaner, bathroom or even his conversation. The noise problem was accentuated in the case of large blocks of flats.

Local authorities should lay down building by-laws setting forth minimum standards of acoustical insulation. Reasonable acoustical privacy was obtainable provided the public was prepared to face a small proportionate increase in the rent. These precautions included double air-spaced partitions, the insulation of walls and windows and of floors by a composite structure, and sound-absorbent treatment of rooms, for which there were a great variety of materials on the market.

ROAD PLANNING

The following letter was published in *The Times* for September 3 under the above title :

" Sir,—The problem of Road Planning Schemes is of such importance to all who



This is an architect's drawing of the new Cathedral, which is nearing completion. The architect is Mr. Norman A. Sturgis, of Boston, and the manufacturer is the Aerocar Company of Detroit.

From the " Church of Ireland Gazette."

cherish the amenities of the English countryside that I venture to draw your attention to the very unsatisfactory state of the law, which seems designed to prevent county councils from preserving the amenities even when they wish to do so. In my own case, which may possibly be of interest, I am asked to dedicate some part of my park for the purpose of allowing the adjoining road, at present a charming country byroad with almost no traffic, to be widened and straightened out. I am refusing to do so on the ground that the proposed road widening can serve no purpose whatever and merely destroys the amenities of the locality.

"In a letter which Lord Bury, the chairman of the local branch of the Council for the Preservation of Rural England, had the kindness to pass on to me, the county surveyor states the whole problem very clearly. He says that it is the policy of the county council gradually to repair and improve all unclassified roads. To prevent the total expense involved falling on the ratepayers it is necessary for the county council to apply for a grant from the Ministry of Transport. In order to obtain this grant the regulations of the Ministry must be complied with, regardless of local conditions and necessities. The regulations appear to vary from time to time, but are in general that the road must be so many feet wide, as straight as possible, and accompanied by a footpath. The footpath is perhaps the worst feature of the regulations as it means cutting down an enormous number of beautiful trees, where the making of the footpath exposes their roots and makes them dangerous, and the replacing of old fences with concrete posts, wire, and macrocarpa.

"It is easy to see that, as a result, England will eventually contain nothing but regulation roads of a regulation width, running straight as a die, and bordered by a regulation footpath, and the characteristic country roads and lanes are doomed to total extinction.

"It is hardly reasonable to ask the county councils to preserve the beauty of the countryside at the expense of the ratepayer when the Ministry of Transport is offering a bribe for its destruction at the expense of the taxpayer.

"I have personally found all the officials of the county council engaged in this work of destruction most considerate and sympathetic, but what can they do?"

OFFICIAL OPENINGS

The Queen is to open the Westminster City Council's new maternity and child welfare centre and day nursery in Bessborough Street, Pimlico, on November 25.

Riddell House, the new nurses' home that has been presented to the Treasurer and Governors of St. Thomas's Hospital by Lady Riddell as a memorial to the late Lord Riddell is to be opened by Queen Mary on October 14. The architect is Sir Edwin Cooper, R.A.

The new municipal offices at Becontree Heath, Dagenham, are to be opened by the Minister of Health on October 16.

ON THE AIR

A series of talks on "Design in Everyday Things" is to be given by Mr. Anthony Bertram in the National Programme on Mondays, October 4 to December 20, at 8.30 p.m. The talks are as follows:—

October 4: "What does the Public Want?" *October 11:* "The House." *October 18:* "In the House: Living Rooms and Kitchens." *October 25:* "In the House: Bedrooms and Bathrooms." *November 1:* "In the House: Heat, Light and Sound." *November 8:* "Housing the Workers." *November 15:* "Town and Country Planning: Our Land." *November 22:* "Town and Country Planning: Our Streets." *November 29:* "Public Buildings." *December 6:* "Places of Work." *December 13:*

THE NATIONAL THEATRE: TWO VIEWS

GREAT controversy centres around the proposal to build a national theatre on a site opposite the Victoria and Albert Museum, South Kensington. Architectural opinion is unanimously in favour of an open competition for designs for the new theatre, instead of the appointment, by the Committee, of an individual architect. Following are the views of Professor C. H. Reilly and the Association of Architects, Surveyors and Technical Assistants.

PROFESSOR C. H. REILLY:

It is unbelievable—this rumour that the design of the National Theatre is not to be put out to competition but given direct to Sir Edwin Lutyens. I am afraid there is something in it for I have had the possibility of it direct from the horse's mouth. It is, of course, as untrue as most popular sayings that one cannot have too much of a good thing. I have admired Sir Edwin's work as much and as openly as any man living. I have also admired Sir Christopher Wren's work, who in an obvious sense is Sir Edwin's colleague and friend. But I would not give the National Theatre to Wren if he were alive today. There has been a revolution in the arts as in other things—several, indeed—since his time. We are now struggling with a form of building direct and sincere and fitted to our new materials and modes of life. Most of our theatres are like the ladies of the old Empire promenade of my youth. Sir Edwin would not, of course, give us that sort of thing and his building would be sure of its kind to be something fine. But unless in the meantime he goes through a similar experience to that of St. Paul on the road to Damascus his design will not have any more or any less relation to the times we live in than the other fine things he has made. Now of all things a National Theatre built by public subscription should express not only our era, but its youthfulness and hopefulness. It must not be born tired, much less dead. On the other hand I admit, while we do not want anything like those overdressed trollops, the commercial theatres of the West End, we do not want either an angular lady from a nudist camp. We want truth, but we want elegance as well. My suggestion is a competition limited to architects under forty and assessed by a jury under fifty. Fine as the great Roman Catholic Cathedral at Liverpool promises to be, and especially its interior, I am still sorry it did not originate in a competition. I shall be more so now if there is not one for this national monument.

If we look deep enough, I am convinced, as in so many other things, the evil influence of the Royal Academy is at the bottom of this proposal.

A.A.S.T.A.:

Below is a copy of a letter which has been sent by the Council of the Association of Architects, Surveyors and Technical Assistants to the National Shakespeare Memorial Theatre Committee.

Geoffrey Whitworth, Esq.,
Hon. Secretary,
National Shakespeare Memorial Theatre Committee.

Dear Sir,—The Council of this Association, a body representative of architectural assistants and of salaried architects, wishes to submit to you the following representations regarding the appointment of an architect for the proposed National (Shakespeare Memorial) Theatre at South Kensington.

They have read with some concern the reported intention of your Committee to appoint an architect directly and not to hold an open competition for the design of the Theatre, and, in view of the special nature of the building, which is to be financed mainly from public funds and which is to house a theatre of national interest and importance, they feel they are justified in making these representations.

They wish to urge very strongly that your Committee should hold a competition for the design of the Theatre, and that it should be open to all architects. Such a competition, they feel, by offering a big incentive to research, to imagination and enthusiasm and by giving a wide choice in the selection of a solution to the problem would, particularly in view of the open site, produce a building which would be a model for theatre architecture for years to come.

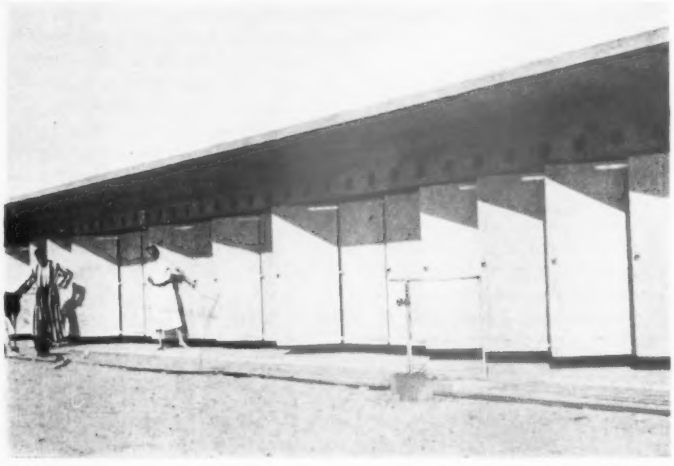
In order to widen the choice of selection, to stimulate new ideas and to give younger architects a chance, the Council would further urge that the competition should be in stages, and that all competitors passing the preliminary sketch design stage should receive a reasonable financial reward to cover expenses.

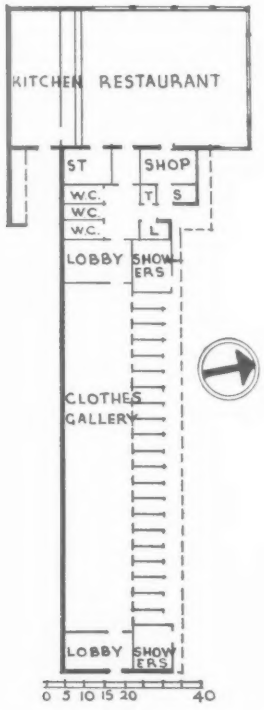
We trust you will be able to give these views your earnest consideration. We should be glad to support them with further argument and evidence should this be required.

On behalf of the Council of the Association,

R. E. COOPER, Chairman.
A. W. BARR, Secretary.

BATHING STATION, SJÄLLAND, DENMARK





This bathing station, designed by Schot Pedersen, is built on the sands, facing north on to the Cattegat. The sand from the beach was used for the concrete. The main walls are in 3½-in. concrete, the roof being supported in the restaurant on 7-in. by 5-in. joists, and between each hut door on 3-in. by 2-in. channels. Hut doors are asbestos panelled; internal walls, breeze or timber; stallboards to shops, counters, etc., vertical boarding; and restaurant windows, sash, 7 ft. by 5 ft. Two attendants, in the clothes gallery, take the clothes from each bather as required, through the slits in the back of each cubicle.

"Recreation." *December 20:* "Design Everywhere."

The talks will be concerned with design as it affects people of incomes below £8 per week.

APPOINTMENT

Mr. P. B. Haswell, B.ARCH., A.R.I.B.A., has been appointed architect to the Leeds Education Committee at a commencing salary of £850 per annum. Prior to receiving the Leeds appointment Mr. Haswell held a similar post at Middlesbrough for more than six years.

LONDON SALON OF PHOTOGRAPHY

The twenty-eighth Annual Exhibition of the London Salon of Photography is now being held at the Galleries of the Royal Society of Painters in Water Colours, 5A Pall Mall East, S.W.1.

R.I.B.A. SCHOLARSHIPS

In accordance with the terms of the will of the late Sir Archibald Dawnay, the R.I.B.A. has awarded three Scholarships of £50 for the academical year 1937–1938, one to Mr. N. B. Dant of the School of Architecture, The Polytechnic, Regent Street, London, one to Mr. G. F. Horsfall of the Liverpool School of Architecture, University of Liverpool, and the third to Mr. R. D. Hammett of the School of Architecture, The Architectural Association, London.

Mr. J. Mytton of the Birmingham School of Architecture, Mr. D. P. Thomas of the Liverpool School of Architecture, University of Liverpool, and Mr. H. Wharfe of the Leeds School of Architecture, who were awarded Scholarships of £50 each for the academical year 1936–1937, have been granted renewals of their Scholarships for the year 1937–1938.

The scholarships are intended to foster the advanced study of construction and the improvement generally of constructional methods and materials and their influence on design.

COMPETITION NEWS

RECONSTRUCTION OF ST. GEORGE'S HOSPITAL

The President, Vice-President, Treasurer and Governors of St. George's Hospital are shortly to invite architects practising in the United Kingdom and Northern Ireland to submit in competition designs for the reconstruction of St. George's Hospital, Hyde Park Corner. The assessors are: Dr. H. V. Lanchester, F.R.I.B.A., and Mr. T. A. Lodge, F.R.I.B.A.; and the following premiums will be offered: £500, £300 and £200. The last day for submission of designs will be May 10, 1938, and the last day for questions will be November 15. Conditions will be obtainable, within the next fortnight, from The House Governor, St. George's Hospital, Hyde Park Corner, London, S.W.1. Deposit £2 2s.

Competitions Open

SEPTEMBER 20—Sending-in Day. The promoters of the Liverpool Building Trades Exhibition invite architects to submit designs for bachelor flats combined with a social club. Assessors: Mr. B. M. Ward, F.R.I.B.A., President of the Liverpool Architectural Society; Mr. Leonard Barnish, F.R.I.B.A.; Lt.-Col. Ernest Gee, F.R.I.B.A. Premiums: £70, £30, and £20. The last day for submission of designs is September 20. Conditions of the competition may be obtained on application to Provincial Exhibitions, Ltd., Renshaw Hall, Liverpool, 1.

SEPTEMBER 24.—Sending-in Day. The promoters of the Birmingham Building Trades Exhibition invite architects to submit in competition designs for a multi-storey garage. Assessors: Messrs. S. N. Cooke, F.R.I.B.A., W. T. Benslyn, F.R.I.B.A., and T. M. Ashford, F.R.I.B.A. Premiums:

£60, £30 and £20. Conditions of the competition may be obtained on application to Provincial Exhibitions, Ltd., Athenæum Chambers, 71 Temple Row, Birmingham.

SEPTEMBER 29—Sending-in Day. The Royal Burgh of Kirkcaldy invites architects practising in Scotland to submit designs for new Municipal Buildings. Assessor: Mr. T. S. Tait, F.R.I.B.A. Premiums: £200, £150 and £100. The last day for submission of designs has been extended to September 29, 1937. The last day for questions was June 21. Conditions of the competition may be obtained on application to the Town Clerk, Kirkcaldy. Deposit £1.

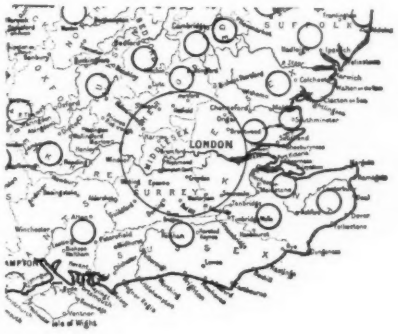
OCTOBER 15—Sending-in Day. Designs are invited for the decoration of one of the entrance halls of the new buildings of the Glass Department of the University of Sheffield, now in course of erection. Designs should provide for as full a use as possible of glass as the decorative medium. Premiums: 25 guineas and 10 guineas. The sum allocated to carrying out the work is approximately £800. The Adjudicating Committee reserves the right to make no prize award if, in its opinion, the designs submitted fall below a satisfactory standard. Designs must be submitted not later than Friday, October 15, to Mr. W. M. Gibbons, Registrar, University of Sheffield, from whom further particulars may be obtained.

NOVEMBER 19—Sending-in Day. Architects of British nationality are invited to submit designs for Scunthorpe Municipal Buildings and Lincoln and Parts of Lindsey County Council Police Buildings to be erected at Scunthorpe, Lincolnshire. Assessor: Mr. T. Cecil Howitt, F.R.I.B.A. Premiums: £500, £250, and £150. The last day for questions was September 10; and the last day for submission of designs is November 19. Conditions of the competition may be obtained on application to Mr. J. F. Auld, Town Clerk, Borough of Scunthorpe, Municipal Offices, 34 High Street, Scunthorpe, Lincs. Deposit £2 2s.

DECEMBER 22—Sending-in Day. The Keighley Education Authority invites architects to submit designs for a New Senior Mixed School, proposed to be erected on the Guard House Site, Keighley, Yorkshire. Assessor: Mr. Harold A. Dod, M.A., F.R.I.B.A. Premiums: 150 guineas, 100 guineas, 50 guineas. Last day for submission of designs: December 22. The last day for questions was September 4. Conditions of the competition may be obtained on application to Mr. E. Ratcliffe, Director of Education, Education Office, Keighley, Yorks. Deposit £2 2s.

MARCH 31, 1938—In connection with the Royal National Eisteddfod of Wales, in Cardiff, next year, the authorities propose to hold a competition for (1) a scheme comprising a physical culture centre and baths in Cardiff; and (2) a design for a group of twelve dwellings for aged people, arranged on a village green and suitable in architectural character for the Vale of Glamorgan. Mr. Percy Thomas will assess the competitions, and the following premiums will be awarded: Section 1: £60, £30, and £20. Section 2: £30 and £20.

The conditions of competition will be drawn up by the assessor and forwarded to those competitors who apply to the General Secretary, Eisteddfod Offices, 11 Park Place, Cardiff, but *no conditions will be issued later than March 31, 1938.*



ONE HUNDRED NEW TOWNS FOR BRITAIN

[By a Special Correspondent]

THE Hundred New Towns policy was born of the realization that it is by no means possible satisfactorily to remodel existing towns under the present conditions of congestion and inflated land values. Extensive research resulted in the conclusion that the minimum amount of decentralization necessary to achieve the object of instituting healthy and pleasant conditions of living in the existing towns was a migration of about 5,000,000 people to new towns. Thus, the first consideration of the scheme was the welfare of the eight-ninths of the population of Great Britain who would continue to live in the existing towns and villages. What of the one-ninth of the population who, for the benefit of the eight-ninths, are called upon to find new homes? Where should they go? A tentative answer to this question is given in the diagram on page 434, which shows sites for a hundred new towns each of approximately 50,000 people. This typical population for the new town was chosen because it represents a community which is not large enough to be unwieldy but is not too small to provide for itself the benefits which appertain to a highly developed civilization.

A word may here be said on a point of nomenclature. The proposal is for a hundred new *towns* and not for a hundred new "Garden Cities." The sponsors of the Hundred New Towns scheme do not all hold the same views concerning the merits of the "Garden City" conception of urban development, but they are united in urging that the choice of the type of lay-out for the new towns should not be prejudged at this stage. In a matter which concerns the people of England so closely as that of housing and town planning, some means should be found for ascertaining the preferences of all classes and in particular of the wage earners, who would be the principal beneficiaries under the scheme. It may be found that a majority of people will favour a more compact kind of town than that of Letchworth or Welwyn Garden City with their standardized "open development," and in such circumstances it would be a tactical error of the first magnitude to declare in advance that these hundred new urban centres must necessarily be "Garden Cities."

The suggested allocation of towns which is shown in the diagram is merely a preliminary statement put forward as a subject for discussion. It is, however, the result of consultation with a large number of people in all parts of the country who are especially well acquainted with their own districts. In this allocation of towns to the various counties the following ten points have been observed:—

1: In order that the scheme should be truly national in character, as far as conditions allow, every county in England, Scotland and Wales should be given at least one new town.

2: The apportionment of 76 new towns for England, 15 for Scotland and 9 for Wales represents an attempt to arrive at an equitable adjustment between the claims of the three main territorial divisions of Great Britain.

3: The present tendency of the industrial north to migrate to the south of England should be checked. Consequently, many of the new towns are here allocated to the seven northern counties.

4: There must be a halt to the unwieldy development of Greater London. Therefore, no new towns are placed within a radius of 25 miles from Charing Cross.

5: The maximum use should be made of the electric grid. Two-thirds of the sites here indicated are on the grid.

6: In the interests of economy nearly all the towns should be on existing railway lines. This condition could easily be fulfilled. In allocating towns to the various counties, regard has been paid to the railway facilities available.

7: As the majority of light industries are sufficiently mobile to be transferred to any locality where favourable conditions for transport, mechanical power and supply of labour may be provided, it is possible to establish new urban communities completely removed from existing congested industrial areas.

8: Advantage could be taken of the mobility of modern industry to place at least a quarter of the new towns on the sea coast where the industrial workers can enjoy the conditions for health and recreation which the sea usually affords.

9: The question of water supply has received attention. In all the counties to which new towns have been allocated an adequate supply of water would be available. But a comprehensive scheme of urban development as is here con-

templated might provide an occasion for a water grid in some parts of the country.

10 : An important consideration in distributing the new towns so widely over the area of Great Britain is that they will provide much-needed sites for aerodromes and thus greatly facilitate an efficient air service for commercial and other purposes.

It is conceivable that the first reaction to the proposal to build a hundred new towns would in the minds of some be a fear that the process of destroying the countryside will be greatly accelerated. But the very contrary will be the case. Instead of the present method of haphazard building on the highways and bye-ways, there would be a concentration of the new houses in compact townships. Each of the new towns would save England about 200 miles of ribbon development.

A detailed examination of the diagram will show that in some counties a new town has been placed in the neighbourhood of especially beautiful scenery. The justification for this is that the landscape in question has already begun to be spoilt by careless development and the only way to save it is to concentrate new buildings in a compact group a little distance away from it. Of the seaside towns already mentioned, of which about 40 are shown, very few are placed on the South Coast, which has been considerably built up already, but the vast majority are on parts of the coast which, although they have not been hitherto considered attractive in themselves, could, nevertheless, make appropriate sites for beautiful new towns. While dealing with this point, it must be observed that in many parts of the coast the sea shore is at present made useless for building purposes by the presence of a railway which skirts the beach. There is little doubt that railway companies could be induced to provide an alternative railway route where in particular cases this would facilitate the building of a new town which would itself greatly increase the amount of traffic borne upon the railway tracks in these particular localities.

While most of the sites here shown for new towns are comparatively flat, it has been considered desirable that a number of them should be in valleys or in the neighbourhood of hills.

On the ground that costly public services have already been provided in the built-up areas and should be utilized as much as possible, some correspondents who have communicated with the Hundred New Towns Association have favoured the development of existing small townships and hamlets for the new urban centres rather than the planning of completely new towns. In certain instances it is possible that there might suitably be a development of this kind, but the general consensus of opinion among the sponsors of the scheme is that if the new towns are to express in the most perfect manner possible our twentieth century civilization they should be *completely* new, and such a policy would have the advantage of enabling us to preserve the unique charm which so many of the old towns and villages still possess. The historic English villages, while they may be regarded by town-dwellers as places of pilgrimage and spiritual refreshment, should at the same time possess their inalienable right to an independent existence as centres of a unique kind of community life. They are an essential part of our national heritage and as such, they should be preserved.

Less than 1/200th of the area of Great Britain need be utilized for the hundred compact townships, each of which, including parks and open spaces, would occupy about four square miles.

It is important to note that the new urban centres are, in nearly every case, conceived as being independent and not *satellite* towns, although in the diagram on page 435, here reproduced, in which the circles indicating the approximate positions of the new towns are superimposed upon a map showing the existing towns, in a certain number of instances it will be found that a satellite town has been suggested.

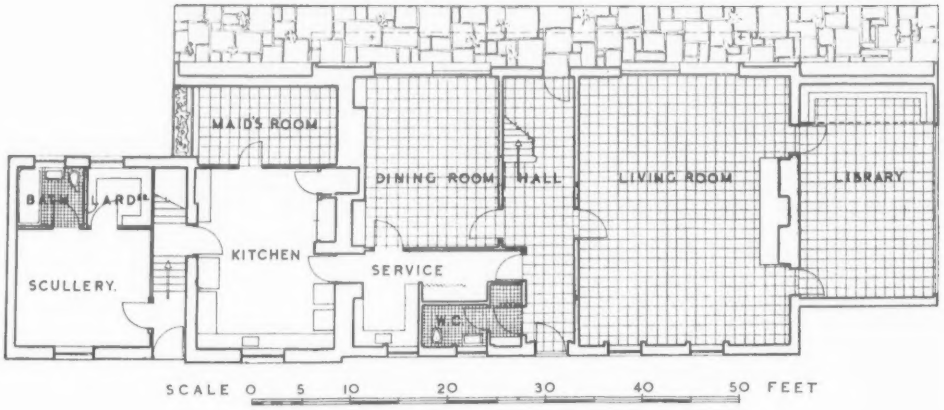
Outline plan of England, Wales and Scotland, showing the location of the proposed hundred new towns.

In the foregoing brief comments upon the diagram, it has not, of course, been found possible to deal with all the numerous questions, economic, social and aesthetic, which a project of this nature will suggest to the mind of the reader. Suffice it to say that in the literature of the Hundred New Towns Association these questions are discussed at considerable length, and in particular the relation of the scheme to industry and agriculture has been made clear. It so happens that the existing stream of factory migration, if guided to suitable localities, would be quite sufficient to provide the required industrial nucleus for the new towns.

It is estimated that the building of the hundred new towns, spread over ten years, would cost £1,000 million, while another £1,000 million would be required for reconditioning the existing towns. As it is intended to devote £1,500 million to rearmament, an expenditure on a similar scale upon a scheme of national reconstruction, and one, moreover, which would be highly remunerative in many ways, does not seem excessive.

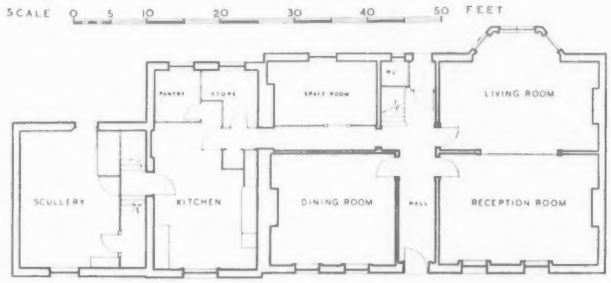
Map of England, Wales and Scotland. The circles indicate areas of ten miles diameter, in each of which a compact new town of two miles diameter might be formed. The scheme is fully described in the accompanying article. The map is reproduced by courtesy of Edward Stanford, Ltd.

CONVERSION OF EIGHTEENTH-CENTURY HOUSE AT MILL HILL

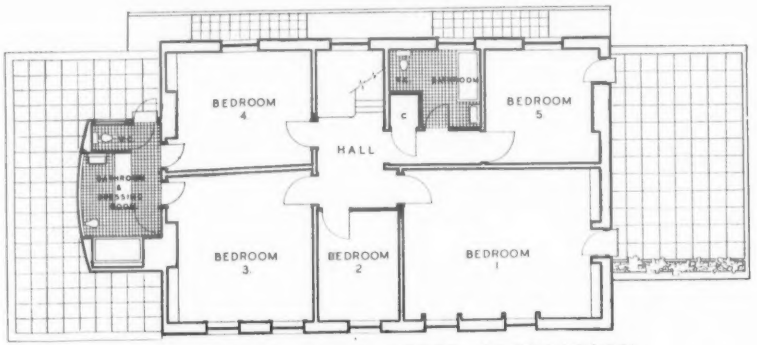


GROUND FLOOR PLAN AFTER ALTERATION

GROUND AND FIRST FLOOR PLANS BEFORE ALTERATION



DESIGNED BY MESSRS. TECTON



FIRST FLOOR PLAN AFTER ALTERATION

GENERAL—*Before the alterations, the house was of the Georgian small suburban type. It had suffered considerably by additions and alterations made in the later half of the nineteenth century. The walls had been rendered about forty or fifty years ago, and showed many signs of deterioration. When work was started, it became apparent that the structure was in a very bad state of repair, and the amount of alterations which could be executed would be limited.*

CONSTRUCTION—*The major part of the work consists of the introduction of a reinforced concrete canopy, acting as a horizontal strut to the outside wall, and helping to redistribute the load of the first floor over the foundations. This canopy also serves to separate the ground from the first floor, and so allows a freer fenestration. It also separates the existing asymmetrically disposed first-floor windows from the new elevation of the ground floor. The reinforced concrete canopy has a compression flange on the top, parabolic on span, so as to correspond in every section with the increasing bending moments towards the middle of the space. Pavement lights are inserted into the canopy to give more light to the living-room and dining-room below.*

PLAN AND ELEVATION—*The addition of a library on the north side, together with additions and alterations to the servants' quarters on the south, combine with the canopy to form a long horizontal line on the back of the house. This serves as an open-air terrace, and forms a link between the house and its large garden. The two extreme ends of this elevation are faced with black knapped flints. The house is rendered in white, and the underside of the canopy is painted blue with ochre-red reveals. Internally the alterations consisted of the demolition of several partitions to create larger rooms, the addition of two bathrooms and a central heating system, and a general re-arrangement of the planning, limited, of course, by certain structural limitations. As a pleasant view of the garden was possible from the living-room and dining-room, the metal casements of these two rooms have been made sliding and folding, so that, when they are open, there is a completely unobstructed view, while the protection against rain afforded by the canopy allows the windows to be opened without discomfort. The floors throughout had to be replaced and covered in cork, as the existing floors were in a very bad condition.*

The photographs show : above, left, the house after alteration ; and right, before alteration ; right, the reinforced concrete canopy and metal sliding and folding windows to the living room.

For list of general and sub-contractors see page 454.

TWO BLOCKS OF FLATS, LITCHAM

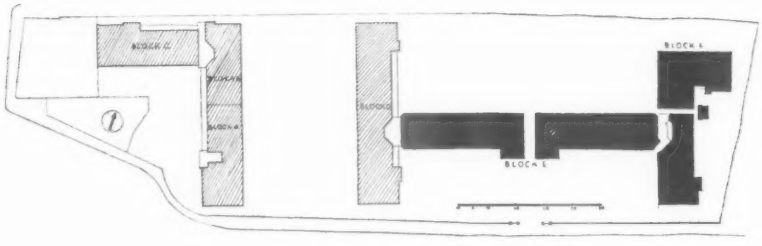
GENERAL — *This scheme comprises Athlone House (Blocks A, B and C on site plan) built in 1933–34; Pentland House (Block D) built 1936; and Priestley House and Leonard Day House (Blocks E and F) just completed, with the Sherborne Nursery School on the 4th floor of Priestley House. These blocks complete the rebuilding of the south side of Litcham Street, North St. Pancras. It is hoped eventually to develop the north side and to close Litcham Street.*

ACCOMMODATION AND PLAN—

	Flats	Habitable Rooms
Athlone House ..	35	110
Pentland House ..	20	70
Priestley House ..	24	92
Leonard Day House ..	25	70
Total	104	342

DESIGNED BY

IAN B. HAMILTON



SITE PLAN

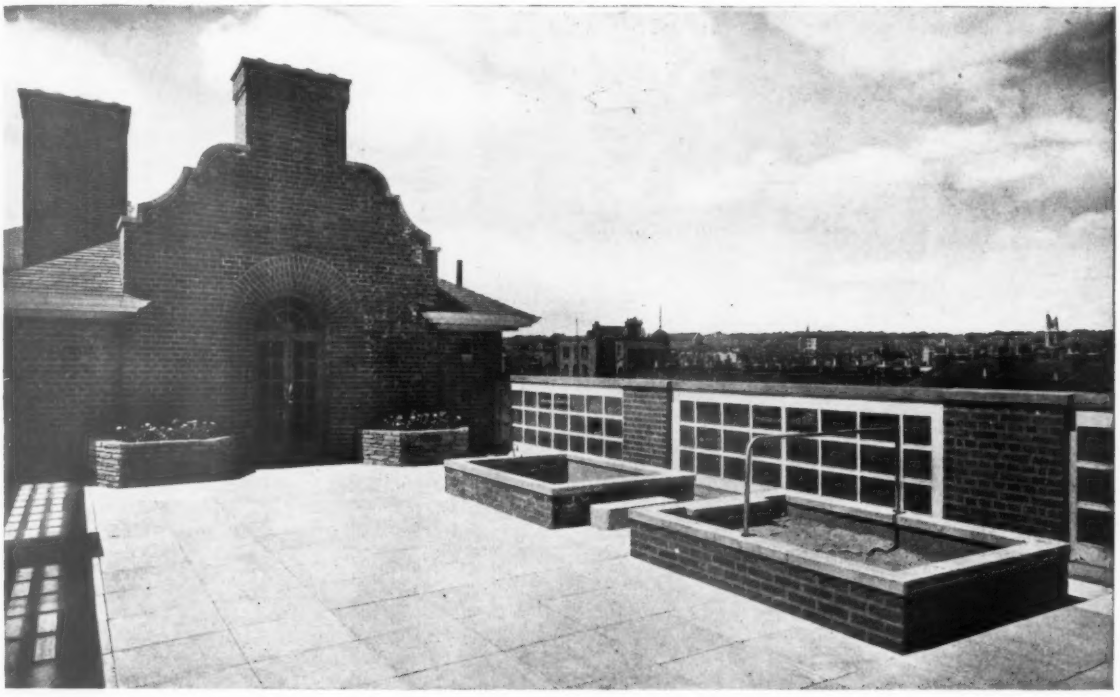
Balconies to Blocks E and F are planned off the living rooms, and have flower boxes in cedar. Individual gardens for tenants are provided in the centre and south courtyards; and there are separate playgrounds for children, and service courtyards with drying grounds. Garden courtyards have stone paving with seats and trees.

CONSTRUCTION—*Filler joist floors; one pipe plumbing throughout; and partitions between flats, where not 9-in. walls, are double breeze, insulated at all edges with cork.*

EXTERNAL FINISHES — *Multi-coloured facings with artificial stone dressings; roofs are covered with slates; and wood casement windows are fitted throughout.*

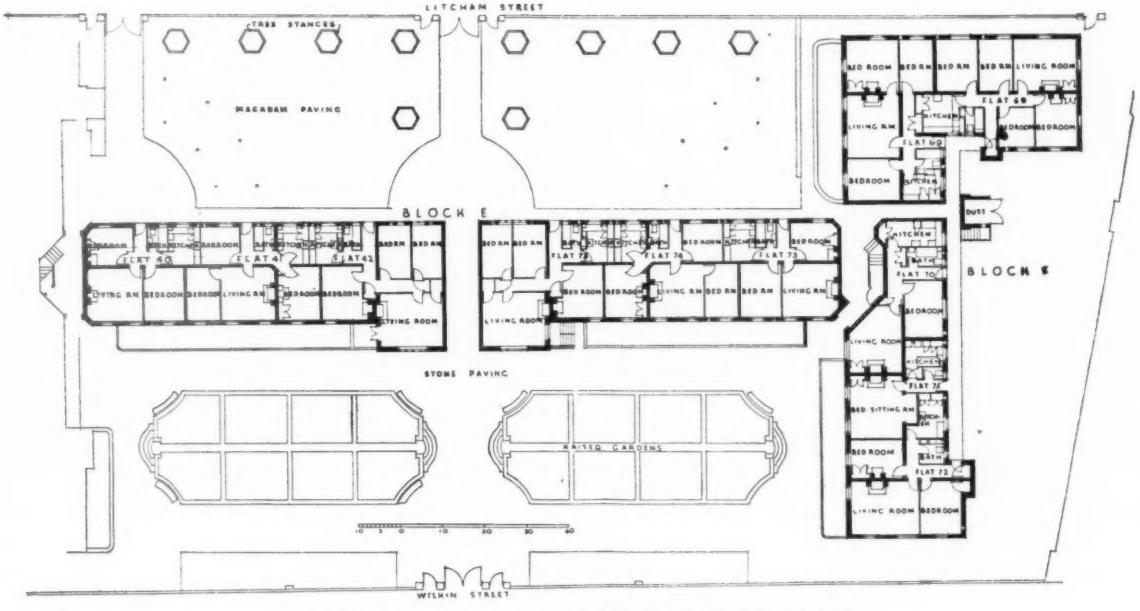
The photographs show: Top, a general view of the main front (facing north) of Block E, with, at the far end, Block F; left, the south front of Block E.

STREET ESTATE, ST. PANCRAS



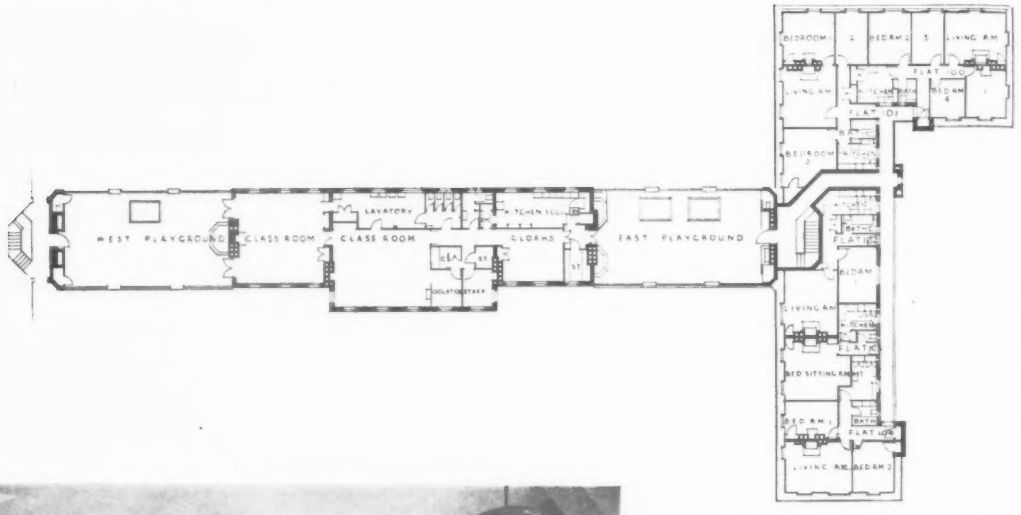
NURSERY SCHOOL—*Accommodation is provided for 40 children in two classrooms. Two playgrounds are on the flat roof of Priestley House and have flower beds, paddling pool and sand pits. To prevent penetration of sound to flats below, the playgrounds have soundproof stone paving on rebated bearers floating on rubber pads. This is used also in the Nursery School with* ¼ *in. wallboard covered with Battleship linoleum. In addition, a suspended ceiling is provided to the habitable rooms below.*

COST—*Total cost of whole scheme of 104 flats and Nursery School was approximately £90,000, including heavy site cost and external works. Average cost per room, £157 5s. 6d. Above is a view of the east playground (see fourth floor plan overleaf).*

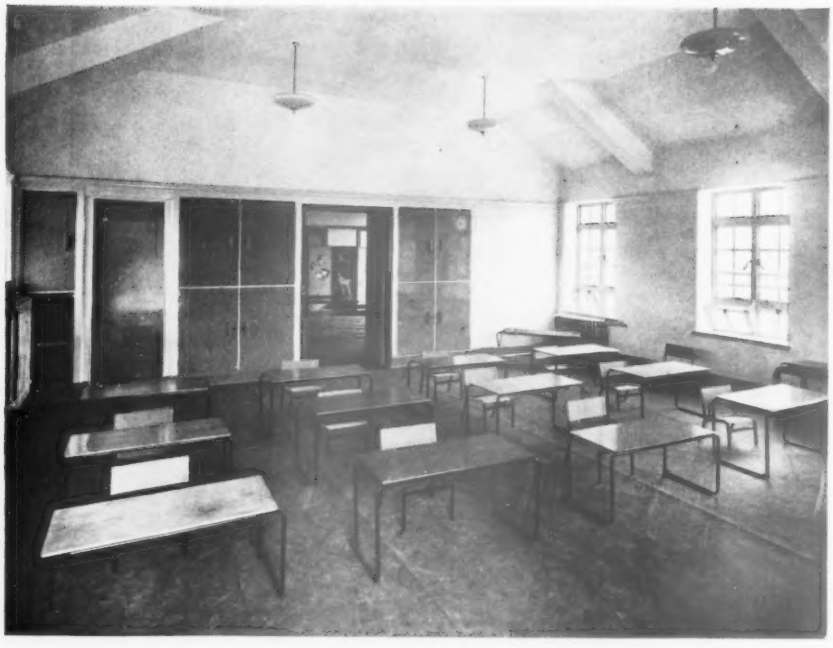


BLOCKS E AND F: GROUND FLOOR PLAN

TWO BLOCKS OF FLATS, ST. PANCRAS



FOURTH FLOOR PLAN



DESIGNED BY IAN B. HAMILTON

On the left is a view of one of the classrooms in the nursery school.

LAW REPORT

LANDS CLAUSES CONSOLIDATION ACT, 1845

Simson v. *Isle of Wight R.D.C.—Chancery Division.—Before Mr. Justice Luxmoore*

THIS matter came before the Court on a case stated by an arbitrator in a dispute between Sir John Walter Barrington Simson, Bart., of the Swainston Estate, Isle of Wight, and the Rural District Council, as to whether Sir John was entitled to a sum of £6,000 awarded him as compensation.

Sir John claimed compensation under section 68 of the Lands Clauses Consolidation Act, 1845. He had sold part of his estate at Colbourne to a Mr. Strickland, but he reserved the rights to the water under the land, and there were covenants restraining anything being done to diminish the flow or impair the purity of the supply which went to the existing waterworks of the Swainston Estate. The Rural District Council had compulsorily acquired some 15½ acres of this land and were now proposing to instal a powerful pump on the land, which would have the effect of injuring Sir John's interest in the supply of water to other places, and damage the estate as a water-bearing property. Sir John contended that the Council were bound by the restrictions imposed on Mr. Strickland.

The Council contended that there was no property in the water under the land, that Sir John had not suffered and that the restrictions were not binding upon them.

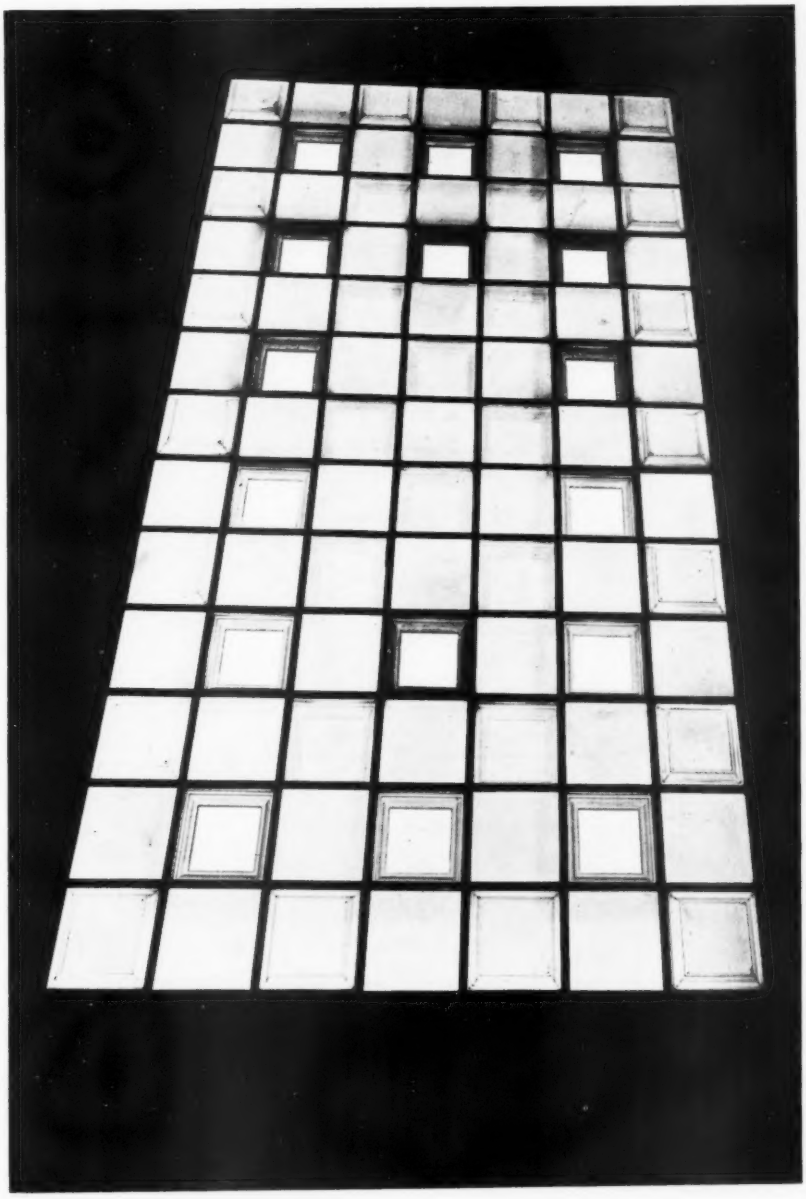
The arbitrator found that if compensation were payable to Sir John, he was entitled to £6,000.

After legal argument his lordship held that Sir John was entitled to compensation and would be awarded £6,000, with costs.

Giving judgment, his lordship said it was settled law that in cases where land was subject to a burden which ran with it for the benefit of other land, a purchaser taking under compulsory powers took it subject to its burden like any other purchaser. He had to read the covenant in the light of the rest of the conveyance, and to his mind, remembering the surrounding circumstances, the covenant could fairly be construed as imposing a contractual prohibition on the covenanter, and those deriving title under him, from doing anything to interfere with the existing or future supply of water to the existing works of Sir John. He held that injury would be caused Sir John, by the execution of the works, within the meaning of the section of the Act.

WORKING DETAILS : 591

LIGHTING • ROYAL EMPIRE SOCIETY'S BUILDING • SIR HERBERT BAKER, R.A., AND A. T. SCOTT



The lighting illustrated is in the Assembly Hall. The coffered laylight is over the auditorium, and consists of a series of square panels in which are various types of flint glass mouldings. There are ventilation spaces in the sides of alternate coffers. The lighting fitting illustrated is one of those under the gallery which are designed in combination with air extract ducts.
Details are illustrated overleaf.

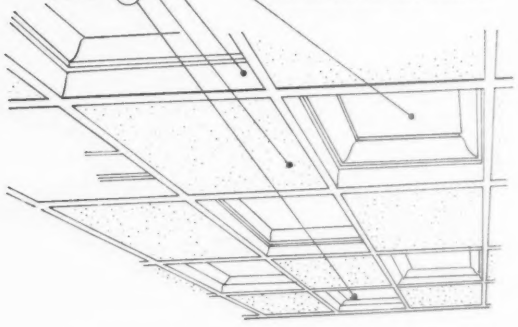
WORKING DETAILS : 592

LIGHTING • ROYAL EMPIRE SOCIETY'S BUILDING • SIR HERBERT BAKER, R.A., AND A. T. SCOTT

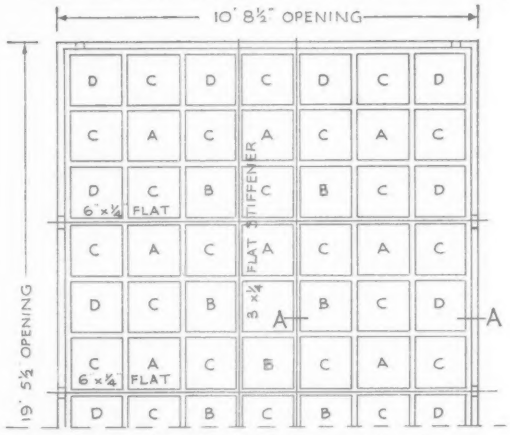
FLINT GLASS MOULDINGS

THREE TYPES A, B AND D EACH MEASURING 1'-4¾" × 1'-4¾"

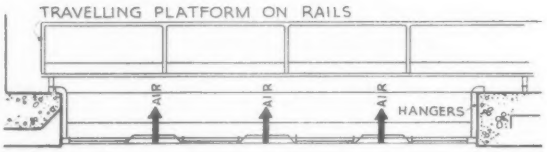
TYPE A · · OPEN TOP
TYPE B · · SANDBLASTED ON OUTSIDE
TYPE C · · FLAT OBSCURED ¼" GLASS
TYPE D · · SANDBLASTED ON INSIDE



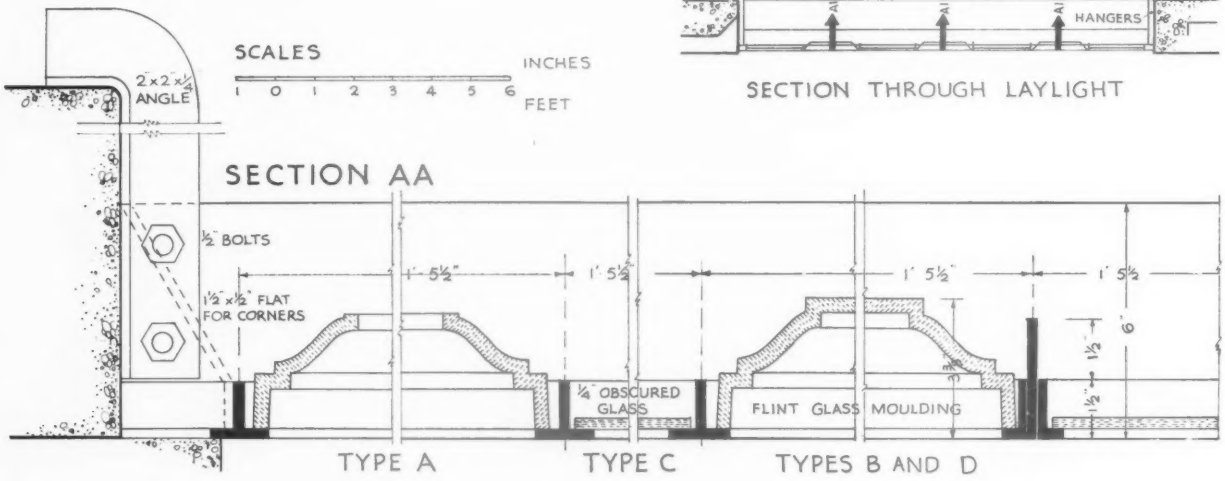
COFFERED LAYLIGHT FROM BELOW

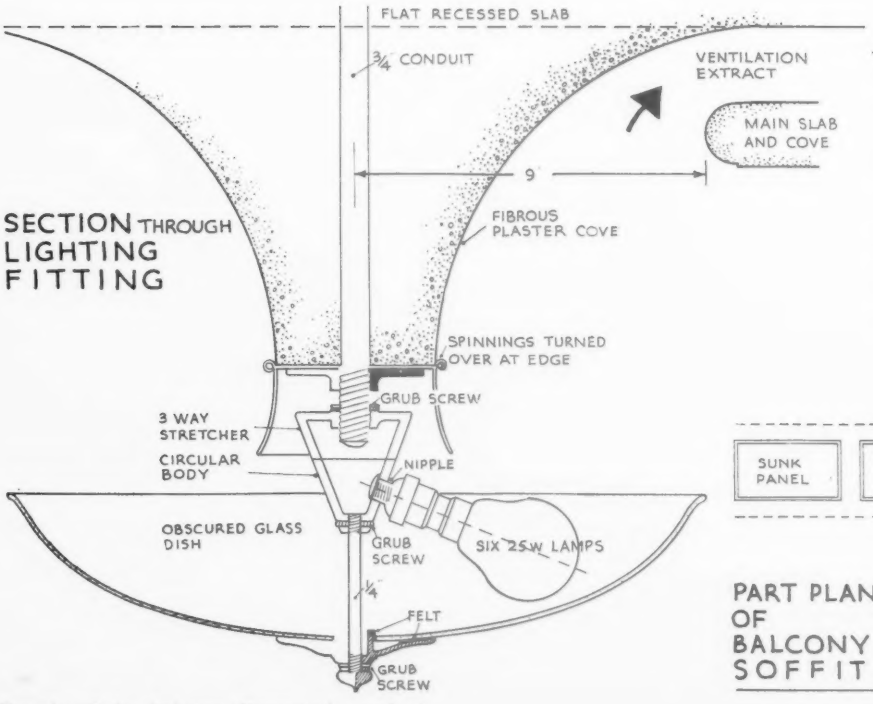


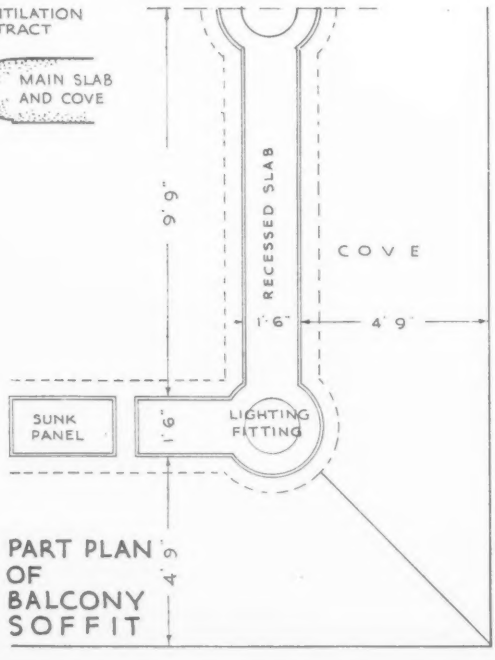
HALF PLAN SHOWING POSITIONS OF FLINT GLASS MOULDINGS



SECTION THROUGH LAYLIGHT







Details of the lighting illustrated overleaf

The Architects' Journal Library of Planned Information

INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

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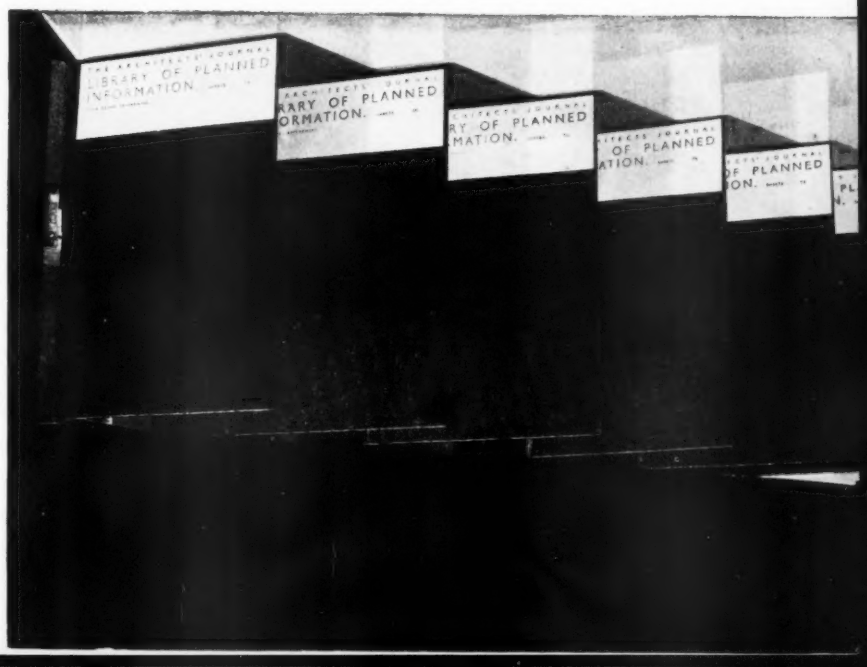
557 Asbestos Cement Roofing



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503 : Approximate Estimating—XII
504 : Aluminium
505 : Aluminium
506 : Approximate Estimating—XIII
507 : Plumbing : Jointing of Copper Pipe
508 : Roofing—Valley Flashings
509 : The Equipment of Buildings
510 : Aluminium
511 : Elementary Schools—II
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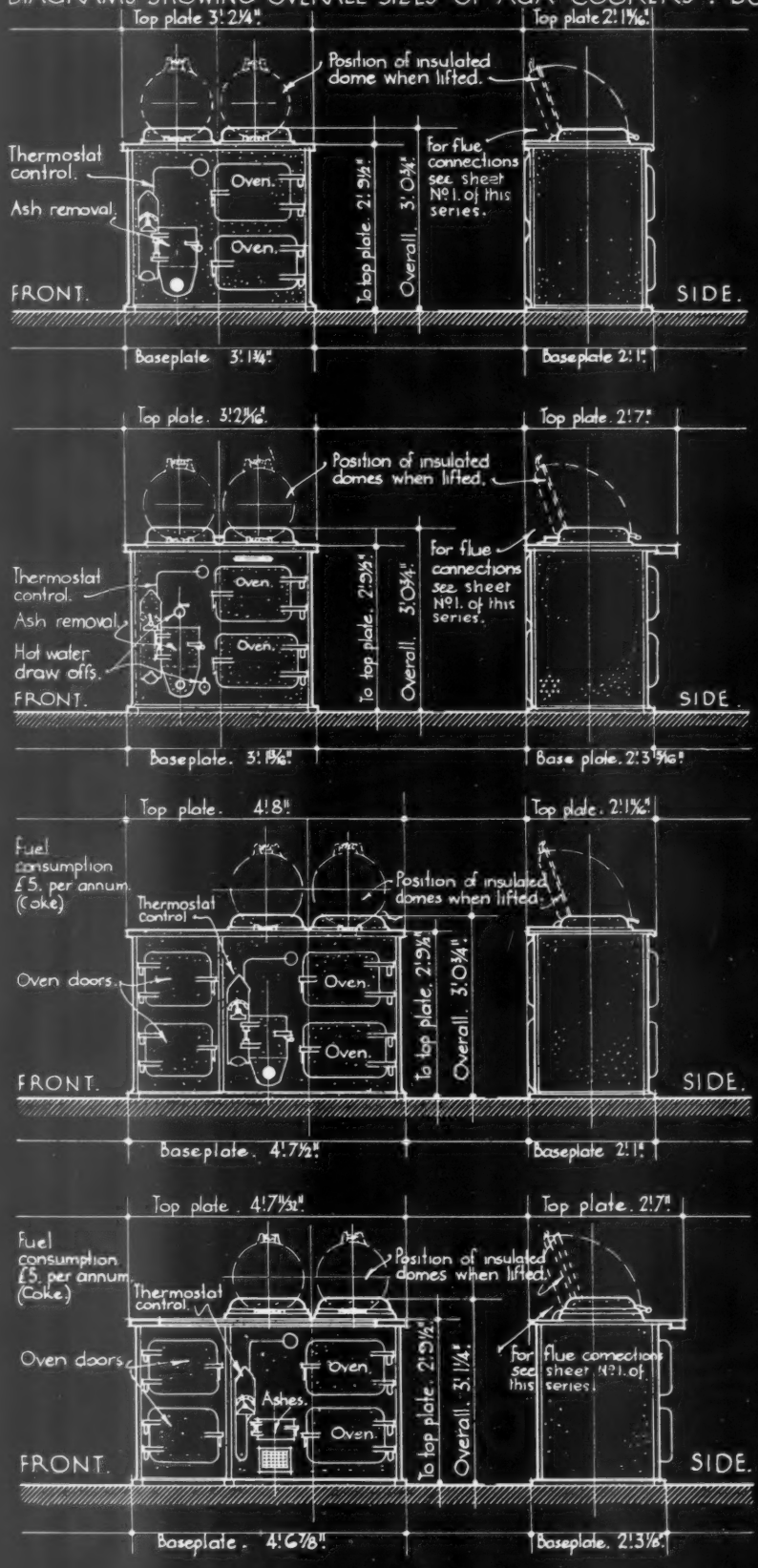
555 : A.B.M. Draining Boards

DIAGRAMS SHOWING OVERALL SIZES OF AGA COOKERS : DOMESTIC MODELS : Scale. 3/8" to 1'.0"



MODEL. 47/10.

This model has a large simmering plate & a boiling hot plate, both provided with hinged insulating lids for heat conservation.

The model has two ovens, the upper one being for roasting & measuring 10" high by 11" wide. The lower oven is the cooking oven & measures 10" high by 13¾" wide.

The fuel consumption (coke) is £4. per annum, and the fuel is fed into the magazine through the standard plug in the left hand hot plate.

The ovens have automatically controlled temperatures; the heat is controlled by a thermostatic regulator and is conducted to ovens and hot plates by means of chrome steel castings.

Approximate weight of model, 10. cwt.

MODEL. 62.

This model is similar in capacity & principle to Model N° 47/10 but is provided with an internal 10 gallon hot water tank and two draw off cocks as shown. The tank is filled through a plug in the hot plate.

Oven sizes are the same as for Model 47/10. above, and the oven temperatures are thermostatically controlled as for all other models. All exposed metal work is chromium plated. Approx. weight, 12 cwt.

Approximate fuel consumption (coke) £4. per annum.

MODEL. H.C.47.

This model is the 47/10 with a hot cupboard containing two auxillary ovens each measuring 13½" by 10⅜" by 20½".

The ovens are designed with the very useful temperatures of 230°F in the top compartment and 190° F. in the lower compartment.

The fuel cost of this model is £5. per annum approximately, using coke. The approximate weight of this model is 12½. cwt.

There are two slow cooking ovens, one roasting oven, and one plate warming oven.

MODEL. 82.

This model is provided with a 17½" by 12¾" polished aluminium hot plate at the left hand side, in addition to the boiling and simmering hot plates covered with the insulating lids.

Each of the four ovens measures 10" high by 13¾" wide and each has a temperature automatically maintained by a thermostat to suit its special purpose. Uses: top right, roasting; top left, slow oven for soups, etc.; bottom right, baking; and bottom left, warming oven.

Approximate weight of model, 14 cwt.

Information from Aga Heat Ltd.

INFORMATION SHEET : HEAT CONSERVATION COOKERS, N°. 2: DOMESTIC MODELS:
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1.

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INFORMATION SHEET

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KITCHEN EQUIPMENT

Product : The Aga Cooker

General :

Aga cookers have been designed to secure the greatest possible fuel economy, and the total maximum annual fuel consumption of all models is guaranteed. The fire burns small gas coke fuel fed into the magazine through the removable plug in the boiling hot plate, and requires attention only twice in 24 hours. As it burns continually day and night, the cooker is always ready for use.

This sheet illustrates the various domestic models available, all of which are designed for installation in new or existing kitchens. The Aga cooker may replace an existing range without structural alterations, or, if necessary, may be placed in front of, or beside, the old range. Various flue arrangements and types to suit these conditions were shown on Information Sheet No. 1 of this series.

Specification :

The whole of the fire assembly is manufactured from a special fire-resisting chrome steel alloy, and the ovens, etc., are made of cast iron. The hot-water tank incorporated in Model No. 62 is of copper, tin lined.

Each cooker is wholly insulated with an efficient insulating powder, so that no external parts, excepting the hot plates, become hot enough to cause discomfort.

Oven temperatures and heat maintenance are thermostatically controlled.

Standard finish :

The cookers are finished in non-cracking vitreous enamel, the front and sides cream, and the top black. All exterior metal parts, including the insulating lids of the hot plates, are chromium plated.

Installation :

Each cooker is assembled on the site by the trained fitter of the manufacturers, or by one of their accredited agents.

Domestic models :

(*a*) Model No. 47/10 is a two-ovened cooker large enough for the average household. The fuel consumption is two tons of coke a year, and the price is £50, ex works, plus from £5 for delivery and erection. The upper oven is 10 ins. deep by 11 ins. wide, for roasting, and the lower general cooking oven is 10 ins. high by 13¾ ins. wide.

The approximate weight of the model is 10 cwt. spread over an area of 6½ sq. ft. If desired the cooker can be raised on a perfectly level brick or cement dais flush with the front plate of the cooker. If the cooker is to stand on a wooden floor, it is recommended that an asbestos-cement base should be used as a precautionary measure.

(*b*) Model No. 62 is similar in capacity to Model 47/10, but is fitted with a 10-gallon hot water supply tank for kitchen use, and provided with two draw-off cocks at the front. This model is also panelled at the ends and has a slightly wider top plate. It is priced at £65, ex works, plus from £5 10s. for delivery and erection.

(*c*) Model H.C. 47.—This is a 47/10 cooker with an 18 ins. wide hot cupboard. The price of this combined cooker of four ovens is £65. The approximate temperature of the top *cooking* compartment of the cupboard is 220-230 deg. F., and that of the lower, plate-warming, compartment 180-190 deg. F. The fuel consumption of the H.C. 47 is 2½ tons of coke a year.

The front plate of the auxiliary oven neatly overlaps that of the cooker. The charge for delivery and fitting the oven to an existing 47/10 cooker is approximately £1 10s. The dimensions of the compartments are : 13½ ins. wide, 10⅜ ins. high, and 20½ ins. deep.

(*d*) Model No. 82 is suitable for the larger house or country mansion requirements, and large enough in many cases for small schools, etc. It is a four-oven cooker, each oven being 10 ins. high by 13¾ ins. wide, with temperatures graded for the four purposes of roasting, baking, slow cooking and warming. At the left-hand end of the top plate there is a polished aluminium hot plate measuring 17½ ins. by 12¾ ins., and maintained at a constant temperature at all times. As with other models, boiling and simmering hot plates covered with insulating lids are also provided.

The cooker should rest on a perfectly level hearth, which may be raised as previously described if required, and be fitted with an asbestos-cement base if consisting of wood.

The weight of the model is 14 cwt. approximately, spread over an area of 11 sq. ft., and it is priced at £85, ex works, plus from £6 for delivery and erection. The fuel consumption is 2½ tons of coke a year.

The word Aga is the registered trade mark of Aga Heat Limited.

Previous Sheets :

This Sheet and No. 553 supersede Sheet No. 185 which is now cancelled.

Name of Manufacturer : Aga Heat Limited

Address : Orchard House, 30 Orchard Street, London, W.1

Showrooms : 20 North Audley Street, London, W.1

Telephone : Mayfair 6131 (5 lines)

671.

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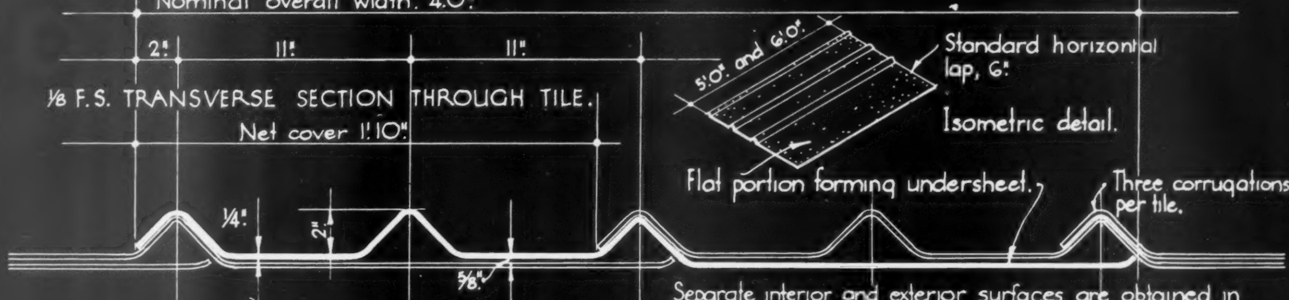
·TURNALL· ASBESTOS-CEMENT COMBINED ROOFING SHEETS:

i.e. Roofing tiles formed by an integral combination of flat and corrugated asbestos-cement sheeting.



PURLIN SPACING: 4'6" and 5'6" centre to centre.
STANDARD COLOURS: Grey, red and russet-brown.

Separate interior and exterior surfaces are obtained in one laying operation, and the enclosed air space provides efficient insulation against the exterior temperature variations and heat loss from the interior.

TYPICAL LAYING DETAIL: Scale. 1/4" to 1'0".

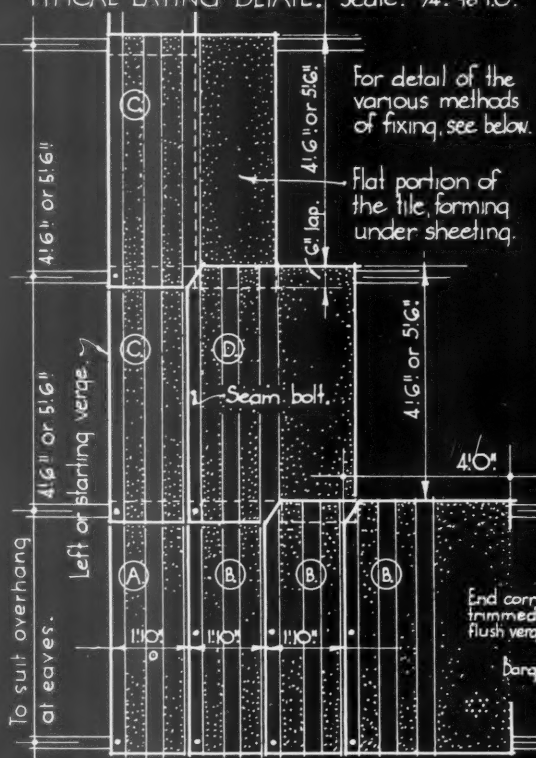
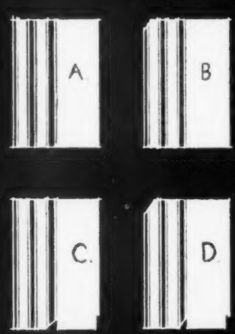


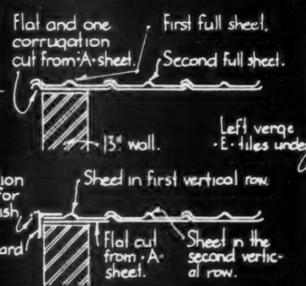
DIAGRAM OF TILE UNIT TYPES ACCORDING TO MITRING & CUTTING.



Tiles are supplied in types ·A·, B·, C, and ·D· for laying 6" horizontal lap.

- ·A· type tile being the start and the finishing tile.
- ·B· type tile for use at the eaves and right hand verges.
- ·C· type tile for use at the eaves and left hand verges and top course.
- ·D· type tile for intermediate courses.

The roof tiling is commenced at the left verge by fixing the flat half tile portion of type ·A· and laying from eaves to ridge before the full tiling is commenced. The right hand verge is completed by using the corrugated half tile cut from type ·A· and fixing over type ·B· tile.



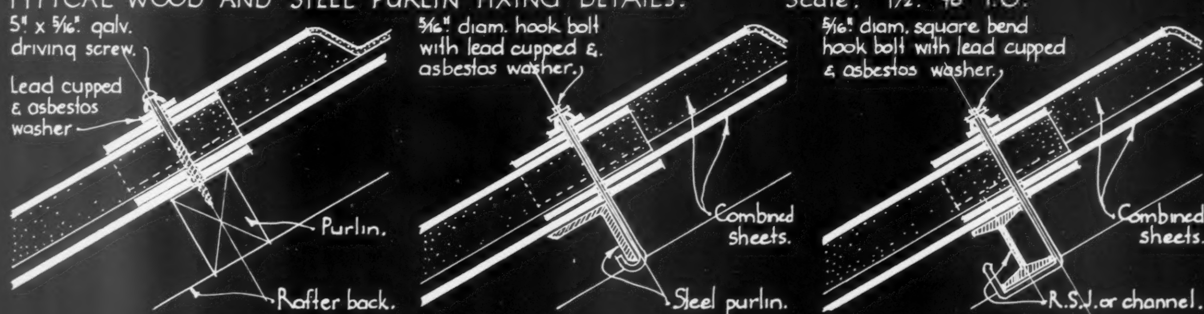
METHODS OF FINISHING AT THE VERGES SHOWING ALTERNATIVES FOR STARTING WITH A FLAT OR CORRUGATION.

1. Ridge course.
2. Intermediate course.
3. Bottom course.
4. Roof glazing.
5. Upper course.
6. Intermediate course.
7. Eaves course.

C	C	C	C	C						C	C	C	C	C	A	1.
C	D	D	D								D	D	D	D	B	2.
C	D	D	B	B	B	B				B	B	B	D	D	B	3.
C	D	D	B									C	D	D	B	4.
C	D	D	D	C	C					C	C	C	D	D	B	5.
C	D	D	D								D	D	D	D	B	6.
A	B	B	B	B	B					B	B	B	B	B	B	7.

TYPICAL PLAN OF ROOF SLOPE SHOWING SET OUT OF UNITS.

TYPICAL WOOD AND STEEL PURLIN FIXING DETAILS: Scale. 1½" to 1'0".



Information from Turners Asbestos Cement Co. branch of Turner & Newall Ltd.

INFORMATION SHEET: COMBINED FLAT & CORRUGATED ASBESTOS-CEMENT ROOFING TILES:
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1· Oscar A. Bayne

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ASBESTOS CEMENT ROOFING

Product : "Turnall" Combined Roofing Sheets (Provisional Patent No. 14783/36) (Patent No. 416840/34)

General :

These roofing tiles are designed to give a double thickness of asbestos-cement when laid, with subsequent increase in protection, insulation and strength. Each tile is a single sheet of material, half the width having three corrugations, and the other half being flat to form the soffit member under the adjoining tile when laid. This flat portion forms a smooth ceiling on the underside of the finished roof.

Material :

The sheets are milled from a combination of British Standard Specification Portland cement and natural mineral rock white asbestos fibre. The fibre imparts to the cement certain characteristics such as toughness and flexibility, which permit it to be used in the form of sheets, capable of being cut and sawn. In the process of manufacture the fibres are thoroughly and uniformly coated with fine cement particles. The sheets are not moulded, but are built up in rolling mills in the form of layers or films of asbestos and cement regularly distributed and interlaced to constitute a kind of tough woven fabric.

Size, Lap and Weight :

"Turnall" Combined Sheets are made in standard lengths of 5 ft. and 6 ft. by 4 ft. nominal width, and $\frac{1}{4}$ in. thickness. There are three corrugations per tile, pitched at 11 in. centre to centre and having an overall depth of 2 in. The tiles are laid with an end or horizontal lap of 6 in. and have a net covering width of 1 ft. 10 in.

The weight of 100 square feet of laid roofing is approximately 600 lb., and 20 square yards of the tiling are required to cover 100 square feet of the roof.

Purlin Spacing :

The wood or steel purlins supporting this form of roofing may be spaced at 4 ft. 6 in. or 5 ft. 6 in. centre to centre, and this figure may be used also for the side or gable rail spacing on side-cladding work.

Fixing :

Fixing to steel purlined roofs is by means of the usual $\frac{5}{16}$ in. diameter, galvanised hook-bolt, capped with a "Serval" asbestos washer and a lead-cupped washer beneath the tightening nut. To find the length of hook-bolt add 4 in. to depth of purlin at mitred laps and ridge, and add $3\frac{1}{2}$ in. at verges and eaves. When timber framing is used, the sheets are drilled for 5 in. long by $\frac{5}{16}$ in. diameter galvanised driving screws, these also having the washers already mentioned.

The vertically lapped corrugations of each tile are also drilled intermediately for a seam bolt between the purlins, the bolt being $3\frac{1}{2}$ in. long by $\frac{5}{16}$ in. diameter, cup headed and bolted beneath the flat portion of the adjoining tile. The bolt is capped with a "Serval" asbestos washer and a lead-cupped washer, whilst beneath the tightening nut is a $1\frac{1}{4}$ in. diameter galvanised washer. A joiners' hand-brace and gauge-bit are used for drilling the tiles, and this is always done through the crown of the corrugation.

If the structure is near the sea, a manufacturing town, railway or works giving off acid fumes, all galvanised fastenings should have a coating of bituminous solution before and after erection.

Method of Laying :

As shown in the diagrams Combined Sheets are laid from left to right. In order that only three thicknesses of material shall occur at purlin fixings, tiles are supplied ready mitred for a 6-in. lap only to suit their actual position on the roof, and are given unit letters.

The tiles are laid as shown and described overleaf.

If the length of the roof is not an exact number of net-covering tile widths, it will be necessary to trim back both the flat portions of the last tier of full-width tiles, and the finishing tiles ; the latter being cut along the nearest suitable corrugation.

Roofing Accessories :

Asbestos-cement ridge and hip cappings, ridge finials, expansion joints, apron and bottom glazing flashing pieces, corner pieces, barge boards, louvre blades, etc., for use in conjunction with "Turnall" Combined Sheets are shown in general principle on previous Information Sheets Nos. 397, 400, 426 and 427, dealing with "Turnall" Trafford Tiles. The fittings manufactured for the Combined Sheets are similarly placed and fixed, being modified in detail only to suit the special pitch and depth of the corrugations.

Information from : Turners Asbestos Cement Co. (Branch of Turner & Newall Ltd.)

Address : Central Office : Trafford Park, Manchester, 17

Telephone : Trafford Park 2181 (8 lines)

London Office : Asbestos House, Southwark Street, S.E.1

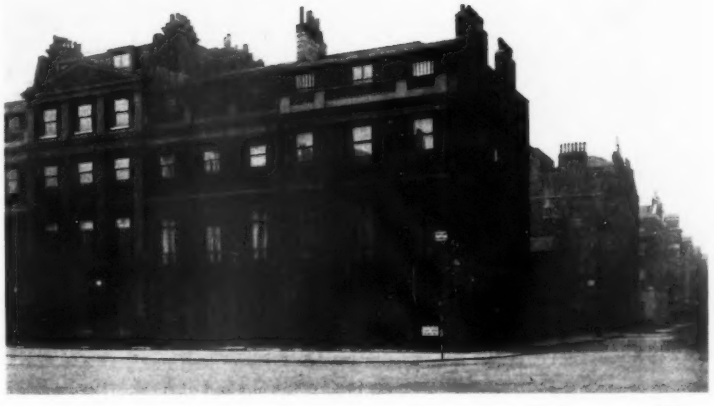
Telephone: Waterloo 4041

OFFICE PREMISES, PORTLAND PLACE, W.1

DESIGNED BY NEWBERRY AND FOWLER

GENERAL PROBLEM—*Office premises at 23 and 25 Portland Place, W.1, for the General Nursing Council for England and Wales. Prior to the demolition of the buildings previously occupying the site, which were erected in 1776–78, a wish was expressed that features of particular interest were to be re-used. These included the lead fan-light over the front door.; the paintings, attributed to Cipriani, on the ceilings; and a number of marble mantelpieces and carved mahogany doors. It was therefore considered essential that the new building should be designed in a style that would make a suitable setting for these features. Sash windows also were asked for throughout.*

CONSTRUCTION—*Steel frame with grillage foundations, supported on piles. The elevations to Portland Place and New Cavendish Street are faced with Portland Stone; those to Duchess Mews, the lighting area and the internal walls of the sub-basement and basement, are in sandlime bricks. Floors are hollow tile; partitions, hollow block. The photographs show: Above, a general view of the present building; right, the buildings formerly existing on the site.*



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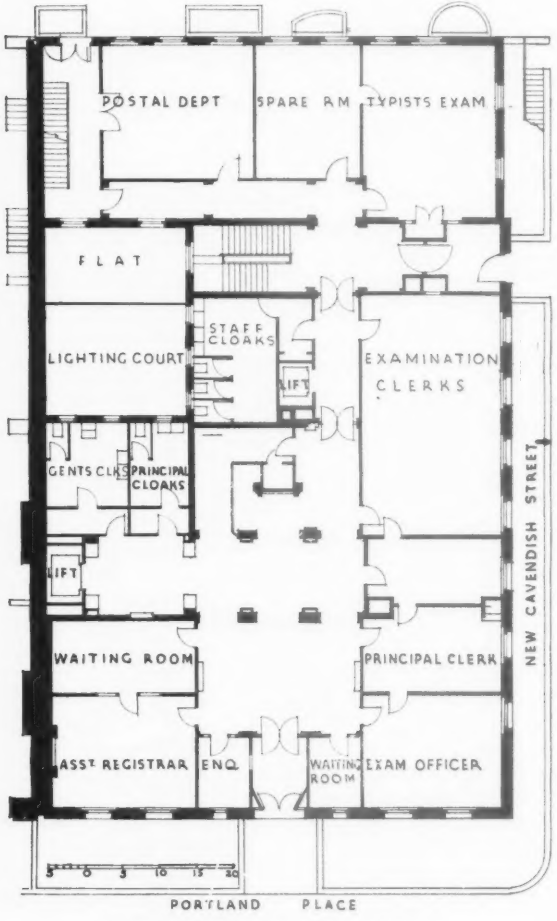
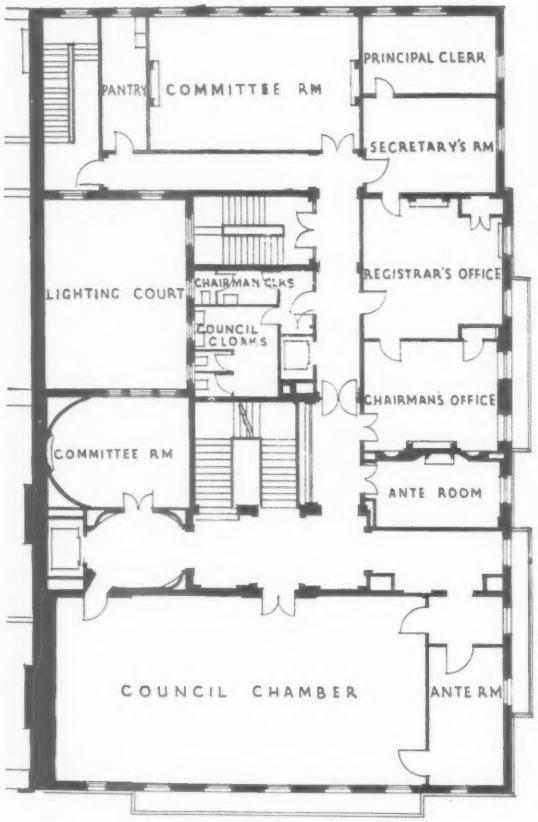
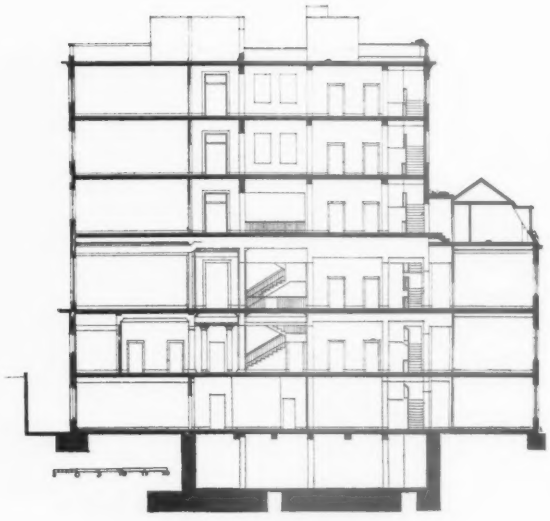
OFFICES FOR THE GENERAL NURSING COUNCIL



GROUND FLOOR PLAN



FIRST FLOOR PLAN



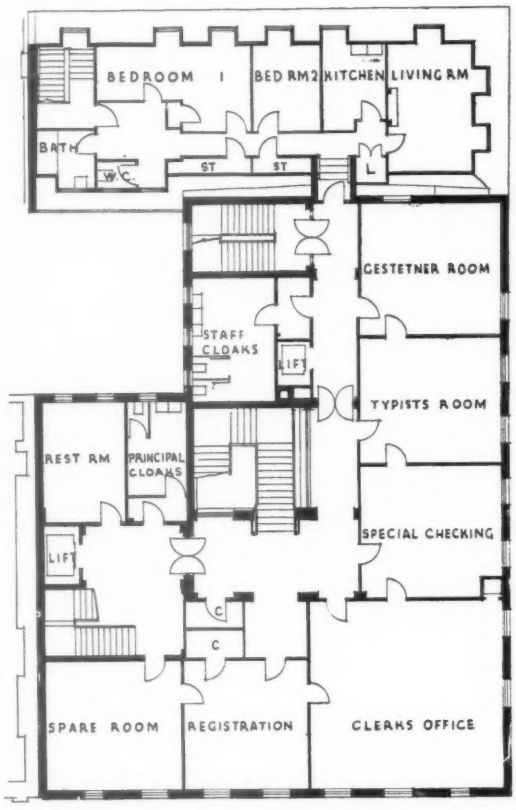
CROSS SECTION

PLAN—*It was desired that each department should, as far as possible, be placed on separate floors, and that lavatories and cloakrooms should be provided on each floor. The accommodation is as follows: Sub-basement, heating, hot water and ventilation plant; basement, storage; ground floor, assistant registrar, waiting rooms, examination and postal departments; first floor, council room, committee room, chairman and registrar; second floor, registration department, rest room and caretaker's flat; third floor, accounts and uniform departments and committee room. At present the fourth floor is unoccupied. Internal casements to the rooms on the ground and first floors minimize street noises. The rear portion of the building is restricted to an attic storey above first floor level. An angle of 40 degrees of light had to be retained to the adjoining properties. The building is designed and constructed so that three additional floors can be added when necessary.*

INTERNAL FINISHES—*Panelling on the first floor is in the following woods: Council room, sycamore; ante and committee room, cherry; ante room, Indian laurel; chairman's room, English walnut; registrar's room, Honduras cedar. The walls of the entrance hall and the main staircase to second floor level are lined with polished Subiaco marble. The assistant registrar's office on the ground floor and the committee rooms on the first and third floors are plaster panelled. Floor finishes are: Basement, larger part of the ground floor and staff staircase, granwood; entrance hall and first floor landing, Roman stone paving; principal rooms on first floor, Austrian oak strip; remainder of office floors, cork; lavatories, terrazzo tiles.*

FOR ENGLAND AND WALES, PORTLAND PLACE, W.1

DESIGNED BY NEWBERRY AND FOWLER



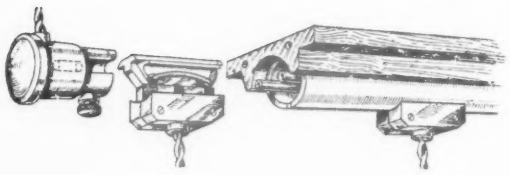
SECOND FLOOR PLAN

SERVICES—*Two passenger lifts, with automatic push-button control, serve all floors. The main lift is panelled in sycamore and has a speed of 300 ft. per minute. The secondary lift is panelled in mahogany and has a speed of 250 ft. per minute. Two service lifts connect the stores in the basement with the respective departments on the upper floors. Heating is by an electrical thermal storage apparatus in the sub-basement with accelerators to circulate the heat through the horizontal mains in the basement and the vertical risers in the window chases to serve the heaters, which are placed generally under the windows. Filtered fresh air is circulated to the heaters in the first-floor rooms (except to the council room, which is heated from the sub-basement), the vitiated air being extracted at ceiling level. On the upper floors natural cross ventilation is provided into the corridors, which are connected to an extract shaft carried up to roof level and fitted with an extract fan. Domestic heating also is by an electrical thermal storage apparatus. The heating and hot water services are automatically controlled by thermostatic switches. Electric clocks are fitted in every room and on the dials is arranged a system of staff location of coloured lights. All the old fireplaces have been fitted with electric radiators.*

CONTRACT PRICE—*£73,000.*

The photographs show: Top, the main staircase; centre, council chamber; right, the large committee room.

For list of general and sub-contractors, see page 454.



TRADE NOTES

[EDITED BY PHILIP SCHOLBERG]

Movable Lighting

NEARLY every drawing office seems to possess contraptions of wire running hither and thither across the ceiling to support lamps for the draughtsmen. Not an altogether ideal system, for there are still long festoons of flex to hang down and get in the way, and spiders find the wires a handy structural frame. The drawing at the head of these notes shows one way out of the difficulty, for the sliding member picks up current from the longitudinal bus-bars inside the tube and only a short drop of flex to the lampholder is necessary, while this could easily be arranged to include an adjustment for height. This fitting is sold in standard lengths of 40 in., but further lengths can be added as required and the number of moving units is only limited by convenience and the carrying capacity of the circuit.—(*Electrav Co., Ltd., 54 Campo Lane, Leeds.*)

Alterations at the Lighting Service Bureau

Mr. Sutherland and the various experts of the Electric Lamp Manufacturers' Association have produced a whole lot of new ideas in the Lighting Studio at Savoy Hill, the show of them opening at the beginning of this week and going on more or less indefinitely. Two examples are illustrated on this page, and give some idea of the sort of thing they have been doing, though as the display space is limited, it is inevitable that more than one fitting should appear in each photograph. To the left, for example, are two fittings, the top one made up out of two nutmeg graters, and designed to show how back reflection prevents the shape of the light source from being seen, for each of the vertical units contains two lamps, a blue and a red ; below this is a grille made up of Woolworth bracelets sweated together and colour lighted by the two lamps in front. The other photograph shows a simple arrangement of tubular lamps, and a small hood with louvred fittings in the soffite. There are also two interesting panels designed with a pattern in fluorescent powder and oil paint, illuminated alternately by ultra-violet and tungsten light.

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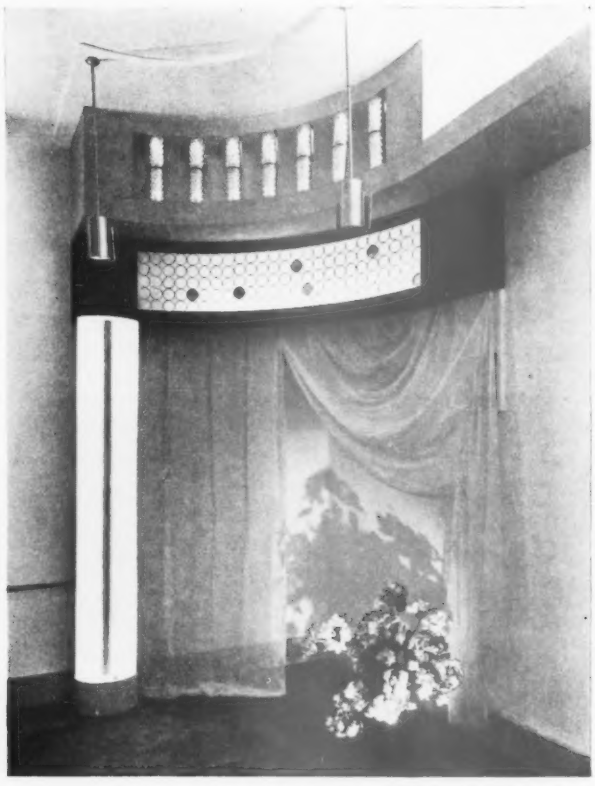
For some years I have imagined that the Lighting Service Bureau exists to make three or more lamps grow where one grew before, and to a certain extent this is true, but Mr. Sutherland has a most unfortunate way of producing facts and figures to show that he is right. Faced with a newspaper and a rheostat-controlled lamp, I have, much against my will, consistently chosen an illumination intensity which agrees pretty well with Mr. Sutherland's recommendations and which proves to me that I normally live in a squalid semi-darkness. A depressing thought, but there is no reason why anybody's clients should suffer in the same way.

Trailers and Bye-Laws

The trailer problem, which seems to be causing a good deal of worry in America, has not yet reached serious proportions in this country, though there are doubtless plenty of Acts which could be invoked if necessary. Actors, I believe, are still legally classed as vagrants under some fourteenth-century statute which has never been repealed, and there must be innumerable ordinances against gipsies which could be made to apply to anyone living in a trailer. Professor Thornton-White used to



Two photographs taken at the exhibition now being held by the Electric Lamp Manufacturers' Association. See note on this page.

keep a caravan permanently embedded in some Sussex field, but the law was apparently satisfied as long as all four wheels were caused to make one complete revolution every twelve months, for then the caravan maintained its status and could not be classed as a dwelling-house, even though its cubic capacity was far below the Minister of Health's mystic figure.

•

Much the same confusion exists over the house-boat question. Nobody seems quite to know when a house-boat becomes a dwelling-house in the ordinary sense of the word. No regulations about minimum cubic capacity are in force anywhere, though the Port of London Authority are in process of producing regulations which will probably come into force during the next twelve months. But the P.L.A. only controls the river as far as Teddington Lock, and elsewhere round the coast it is a matter for the local authority. And even then it is quite likely that a house-boat could be allowed to drift 100 yards each way on the top of the tide and thus legally become a sea-going ship.

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But the American vision of vast municipally-owned trailer parks with water, electricity and telephones are hardly likely over here, for there would be an instant howl from the speculative builders and the boarding-house proprietors about unfair competition, and everybody knows what *that* means. Besides, no municipality could very well encourage a type of shelter which would almost certainly be well below the normal overcrowding standards. If the problem becomes really acute, the solution will probably lie in some sort of agreement between the manufacturers and the appropriate authority, constructional details and dimensions being controlled in much the same way that the police now control London taxicabs.

Cleaning Rubber Floors

At last somebody has taken the trouble to evolve a cleaner specially for rubber floors.

•

Several of the popular proprietary cleaners contain caustic soda, which tends to dissolve the rubber, and therefore leaves a slightly tacky surface which picks up the dirt worse than ever. This new cleaner, which is called Soapene, contains nothing harmful and is an entirely vegetable product designed not only to clean rubber floors but to preserve them as well. The process is quite simple—apply it with a damp cloth, leave it for a few minutes, and then wipe it off again. As a cleaner it works well, for I have tried it both on rubber and linoleum floors; how good it is as a preservative I do not know, but it is recommended by several of the rubber flooring people, who are in a position to know what they are talking about.

•

Price is fairly high, 7s. for a 7-lb. tin, but in larger quantities it becomes progressively cheaper, 80s. for a hundredweight keg, and, being a liquid, a little of it goes a long way. And it survives the severest test of all, for it will remove the marks of rubber heels.—(*Rubber Improvement, Ltd., 29 Hythe Road, Willesden, London, N.W.10.*)

Italy's Steel Ban

Germany started to discourage the use of steel in buildings some six months ago, and now Italy has followed suit, for the Secretary of the Fascist Party has "instructed the Fascist Federation of ex-Servicemen and all organizations dependent on the Fascist Party to refrain from the use of iron or steel in the erection of new buildings." So what? No steel frames or windows, presumably no reinforcement for concrete either, just good traditional construction in timber or weight-carrying brick. Nobody has any suggestions for the proper construction of a large commercial building, the only logical person being Sir Thomas Inskip, who suggested that we just shouldn't have any at all until the armaments rush was over.

•

Just at this moment I would gladly see steel frames banned for ever, for I have had ten days of machine-gun rattle from a pneumatic riveter on a small flat block less than fifty yards away. The clerk of works said it was the law and he couldn't do anything else, and that he'd never heard of bolts being allowed in all his thirty years' experience. Asked whether he would use bolts if I could prove with a copy of the London Building Act that they were allowed, he replied with a firm "No." Thus is the general public sent about its business. But I implore all architects and steelwork draughtsmen to use bolts rather than rivets whenever they can. On a visit to the job the noise sounds quite exciting and only gives the impression that there is a lot of work going on, but it's death to the neighbours whether they are trying to work or sleep.

CONSTRUCTION OF WORKING-CLASS FLATS

THE final report of the Departmental Committee of the Ministry of Health on the Construction of Flats for the Working Classes was published a fortnight ago by H.M. Stationery Office, price 1s.

The Committee was appointed in July, 1934, "to enquire into and report upon materials and methods of construction suitable for the building of flats for the working-classes with special reference to efficiency and cost." The Committee published an Interim Report in 1935. The Committee comprised the following architects and engineers: Sir George Humphreys, K.B.E., M.INST.C.E. (Chairman), and Messrs. Edward S. Andrews, B.SC., M.INST.C.E.; Henry V. Ashley, F.R.I.B.A.; Oscar Faber, O.B.E., D.SC., M.INST.C.E., M.I.STRUCT.E.; G. Topham Forrest, F.R.I.B.A., F.R.S.E., ASSOC. (HON.) I.STRUCT.E.; Ian B. M. Hamilton, B.A., A.R.I.B.A.; B. L. Hurst, M.INST.C.E.; L. H. Keay, O.B.E., F.R.I.B.A.; Francis Lorne, F.R.I.B.A.; J. A. MacIntyre, O.B.E., B.SC., M.INST.C.E.; R. Travers Morgan, M.ENG., M.INST.C.E., A.M.I.MECH.E., M.I.STRUCT.E.; Stanley C. Ramsey, F.R.I.B.A.; A. Scott, M.B.E., F.R.I.B.A., M.I.STRUCT.E.; W. L. Scott, M.INST.C.E., M.I.STRUCT.E.; R. E. Stradling, C.B., M.C., D.SC., PH.D., M.INST.C.E., and John Wilson, F.R.I.B.A., F.R.S.E. Secretary, Mr. A. Zaiman.

In its Final Report the Committee reviews a variety of modern methods of construction, and also discusses the best means of preventing noise, the best method for providing hot water supply, and the value of lifts.

In the section devoted to modern methods of construction the Committee states that with a view to making as close a comparison as possible of the costs of different forms of construction, it decided to secure estimates of the costs by asking sponsors of new systems to come forward and submit their proposals in a definite form, i.e. by providing the accommodation represented by a unit group of five-storey flats. The plan of this block, together with the brief specification and instructions for tendering, was given in an Appendix of the Interim Report (published in 1935), and the Committee arranged to obtain estimates from building contractors, specialist firms and individual inventors. The Report continues: "We expressed the hope that the scheme would give an opportunity of examining all forms of construction that offer reasonable promise, and we indicated our readiness to encourage the sponsors of new systems to come forward and submit their proposals in this definite form. From the response to our invitation and the information collected generally, we have no reason to believe that any important system of construction has not been brought to our attention.

"The systems submitted may be described as follows:—

(*a*) Steel-framed buildings with outer walls of 4½ in. rustic facing bricks and an inner leaf of gypsum plaster blocks.

(*b*) Reinforced concrete frame and monolithic reinforced concrete filling, with walls faced externally with pre-cast concrete slabs having an imitation brick finish and lined internally with cork.

(*c*) Steel or reinforced concrete-framed building with panel walls of light-weight concrete blocks.

(*d*) Welded steel-framed building with outer wall formed over the frame by a thin reinforced concrete skin consisting of jute cloth fixed to small steel angles, bars, etc., and cement-rendered, internally and externally, with an inner leaf of breeze concrete blocks. Also an amended scheme comprising a welded steel-framed building with outer walling formed of 4½ in. brickwork outside the frame.

(*e*) Steel-framed building with outer walls formed of precast vibrated reinforced concrete slabs externally, and gypsum plaster slabs internally.

(*f*) Steel-framed building with outer walls filled in with brickwork. (The steel framing in the walls has been regarded as unnecessary and on this account the figures worked out for comparison of costs have excluded this framing.)

(*g*) Reinforced concrete-framed building, with outer walls formed of pre-cast hollow concrete blocks with hydraulically pressed cast stone facing.

(*h*) Reinforced concrete framed building with reinforced concrete panel filling,

internally lined with gypsum plaster slabs used as permanent shuttering.

"It will be seen that several of these systems, notably (*b*), (*d*), (*e*) and (*g*), are novel. As regards (*e*) two main problems present themselves. First, it is necessary to secure adequate supervision, probably entailing some method of routine testing to ensure that the very slender reinforced concrete units are sufficiently dense throughout to provide adequate protection to the steel reinforcement, which has a very shallow cover indeed. Secondly, the question arises as to whether it is possible to predict with certainty what will be the cost of manufacture of the reinforced concrete units under British conditions. It would seem that a satisfactory answer to this question will only be feasible when work has been undertaken and carried to completion in England on a sufficiently large scale. In this connection it is to be noted that the system is being used for a block of municipal flats at Leeds, but there are some variations in the scheme as submitted to the Committee. The novelty of system (*b*) lies in the special method of climbing shuttering, and in the use of the pre-cast concrete facing and cork lining instead of wrought shuttering. It should be noted that this system has proceeded beyond the academic stage and that a block of 'luxury' flats has already been erected in London; moreover, the system gained first prize in a recent competition for working class flats at Birmingham. System (*g*) is another interesting novel design; in an early form this system has been used for a block of shops, etc., in the London area.

"The estimates were intended to provide for the building of the 60 flats, excluding private balconies, drainage, heating, cooking and lighting services and sanitary equipment, detailed prices being based on London rates for materials and labour. The total figures as submitted vary from £14,500 to £18,000, and on their face suggest that some schemes might prove cheaper than normal brickwork construction, whilst others are obviously more expensive."

The Committee reaches the conclusion that, apart from normal brick construction, several of the systems discussed above have "distinct promise," and that several of them should be given a trial.

Noise

Dealing with the subject of noise prevention, the Report lays it down that the standard of insulation against air-borne sounds for the dividing walls between flats should be at least equivalent to that given by a brick wall 8½ ins. thick plastered on both sides. Certain arrangements of lighter and cheaper materials, however, such as a cavity partition consisting of 2-in. clinker slabs appear to give the necessary standard of insulation.

The insulation of floors against sound presents a more difficult problem. There appears to be no way of providing adequate insulation at present unless financial provision is made for the purpose. "Floating" floors and "suspended ceilings," though giving some results, are not considered at present practicable on grounds of expense for widespread use in working-class flats.

Lifts

In the section devoted to lifts it is stated that in a block of flats up to four storeys, a lift might be regarded as a luxury at the present time, but for six storeys it becomes almost a necessity. Five-storey blocks can be regarded as on the border-line. It is estimated that a lift for a five-storey or six-storey block will cost about £800 for the engineering portion of the work apart from that necessary to form the well. The extra price for additional storeys is not much.

The type of lift most convenient will be found to be that equipped with push-button control suitable for operation by the tenants at normal times and with an alternative car-switch control which can be taken over by the flat attendant when the lift is required for the handling of goods or for any special purpose.

Cookers

Dealing with the subject of cookers, the Committee finds that, pending the introduction of cheap insulated ovens using solid fuel, cooking by gas or by electricity should be encouraged, and that the choice between the two methods can only be made after consideration of the comparative local charges.

The Committee points out the popularity and advantage of the common type of kitchen range with boiler, oven and boiling plate all warmed from one fire, and inclines to the view that this type is better adapted for use in a kitchen which can be used also as a sitting room, than an open fire which involves a sacrifice of efficiency. The practice of combining heating, cooking and hot water service by the use of the kitchen range, should not, however, be generally encouraged where the heat from the fire would produce uncomfortable conditions during the summer season.

Supply of Hot Water

It is also concluded that the independent solid fuel boiler is satisfactory where the quantity of hot water required is about 300 gallons per week and where cleaning and maintenance are not too expensive, but that in cases where tenants are satisfied with half that quantity of hot water, gas or electric water heaters can be so controlled as to allow economical use in most districts.

Central heating, according to the Report, cannot generally be justified in working-class flats on grounds of cost, though a central hot water service can be justified where the layout of an estate is such that 100 flats or more can be supplied with hot water from one boiler room.

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C.P.R.E. Conference

The annual conference organized by the Council for the Preservation of Rural England will take place this year at Leamington from October 14–17. The conference sessions will be held at the Town Hall.

The conference will be opened by Brigadier-General Lord Henry Seymour, D.S.O., and, under the chairmanship of the Earl of Crawford and Balcarres, K.T. (President), the opening session will be devoted to Green Belts. Professor Patrick Abercrombie, M.A. (Hon. Secretary), will deliver an address and a discussion will follow. At other sessions Mr. G. Langley Taylor, F.R.I.B.A., F.S.I., F.L.A.S., M.T.P.I., will speak on some problems of Rural Housing and Professor G. M. Trevelyan, O.M., will open a debate on National Parks.

All the usual advantages will be offered to delegates taking part in the conference; tours will be made to Bournville, by arrangement with Messrs. Cadbury, and to the country round Stratford-on-Avon as far as the North Cotswolds.

Full details of the Conference may be obtained from the Secretary, C.P.R.E., 4 Hobart Place, S.W.1.

THE BUILDINGS ILLUSTRATED

CONVERSION OF HOUSE AT MILL HILL (pages 436–437). Architects: Messrs. Tecton. The general contractors were J. L. Kier & Co., Ltd., who were also responsible for the demolition, excavation, foundations, dampcourses, asphalt, concrete blocks, reinforced concrete and bricks. The sub-contractors and suppliers included: Herbert Edwards, Flint Knappers, stone; Martin Van Straaten & Co., tiles in bathrooms; British Vitrolite Co., glass in bathroom; Armstrong Cork Co., Ltd., cork-block flooring; T.S.W., Ltd., Mortone rendering; G. N. Haden and Sons, Ltd., central heating and plumbing; Phœnix Electrical Co., electric wiring; Oswald Hollman, electric light fixtures; Shanks & Co., Ltd., sanitary fittings; Williams and Williams, Ltd., casements.

PRIESTLEY HOUSE AND LEONARD DAY HOUSE, ST. PANCRAS (pages 438–440). Architect: Ian B. Hamilton. The general contractors were Wheeler Brothers, and the sub-contractors and suppliers included: Enfield Stone Co., artificial stone; Smith Walker, Ltd., steelwork; A. H. Herbert & Co., Ltd., slating; Roberts Adlard & Co., wall tiling; T. S. Knight and Sons, Ltd., central heating; Pinching and Walton, Ltd., electrical work; F. Clubb and Sons, Ltd., and T. W. Palmer & Co., wrought ironwork; W. N. Froy, Ltd., and General Light Castings, sanitary fittings.

OFFICES, PORTLAND PLACE, W.1 (pages 449–451). Architects: J. E. Newberry and C. W. Fowler. The general contractors were Ashby and Horner, Ltd., and the sub-contractors and suppliers included: Goodman Price, Ltd., demolition; Pressure Piling Co., Ltd., foundations; General Asphalte Co., Ltd., dampcourses and asphalt; Grovebury Brick Works Co., facing bricks; Broadcroft Quarry, Portland stone; Patent Impervious Stone and Construction Co., Ltd., paving and artificial stone; Redpath Brown & Co., Ltd., structural steel; Building and Insulating Materials Co., Ltd., Bimol blocks; Luxfer, Ltd., patent glazing; Granwood Flooring Co., Ltd., and Cork Insulation Co., Ltd., flooring; Mumford Bailey and Preston, Ltd., central heating, boilers, ventilation and plumbing; G. W. Franklin and Son, electric wiring and light fixtures; Pontifex and Emanuel, sanitary fittings; J. Whitehead and Sons, Ltd., marble and stairtreads; F. Knight & Co., Ltd., door furniture, metalwork and window furniture; R. E. Pearse & Co., Ltd., casements; Siemens Bros. & Co., Ltd., telephones; John Tann, Ltd., fireproof doors; Haywards, Ltd., pavement, lantern lights and iron staircases; F. de Jong & Co., Ltd., decorative plaster; Sidney Laughton, textiles; Fredk. Tibbenham, Ltd., furniture; Express Lift Co., Ltd., lifts; Synchronome Co., Ltd., clocks.

THE WEEK'S BUILDING NEWS

EASTERN COUNTIES

ESSEX. *Small holdings.* The Essex C.C. has obtained sanction to borrow £10,583 for the purchase and equipment of Street Farm, South Ockendon, for purposes of small holdings.

IPSWICH. *School.* The Ipswich Education Committee has obtained sanction to borrow £13,863 for the erection of an elementary school at Priory Heath.

SOUTHERN COUNTIES

HOVE. *Houses, etc.* Plans submitted at the Hove Corporation: Ten houses, Holmes Avenue, extensions, Mr. A. Gordon; 12 bungalows, Poplar Avenue, Mr. P. E. Keating; 10 bungalows, Lark Hill, Braybons, Ltd.; 20 houses, Winchester Estates, Ltd., Mr. E. G. H. Jays; 18 houses, Poplar Avenue, Mr. H. L. Ford; hotel, "Hotel Ambassador," Flag Court, Kingsway, Jackson and Greenen; 24 bungalows, Hangleton Estate, Dale View.

LITTLE STANMORE. *School.* The Middlesex Education Committee has obtained sanction to borrow £21,300 for the purchase of land at Little Stanmore as a site for an elementary school.

SOUTH-WESTERN COUNTIES

BRISTOL. *Dock extensions.* The Bristol Corporation Docks Committee is to rearrange and extend the sidings at the Avonmouth Dock at a cost of £11,100.

BRISTOL. *Social centres.* The Bristol Corporation is to erect social centres on the Horfields, Fishponds and Bedminster housing estates, at a cost of £2,000 each.

BRISTOL. *Housing.* The Bristol Corporation has acquired five acres for the extension of the Knowle housing estate.

BRISTOL. *Houses, etc.* The Bristol Corporation is to construct roads and sewers on the Knowle estate, where an additional 152 houses are to be erected.

BRISTOL. *Houses.* Mr. John Bryant is to erect 20 additional houses in Wingfield Road, Bristol.

PLYMOUTH. *Houses, etc.* Taylor Woodrow Estates, Ltd., are to erect 70 houses and 18 bungalows in Colebrook Road, Ferrers Road, and Moor Lane, Plymouth.

SWANSEA. *Cinema, etc.* Plans passed by the Swansea Corporation: 14 houses, Plough Road, for Mr. A. J. Anthony; nine houses, Vivian Street, for Messrs. Owen and Nicholas; cinema, Bobun Street, for Manor Cinemas (Swansea), Ltd.; 10 houses, Terrace Road, for Mr. J. Hixon: six houses, Emlyn Terrace, for Mr. J. C. Oliver.

NORTHERN COUNTIES

BLACKPOOL. *Houses.* Plans submitted to the Blackpool Corporation: 17 houses, Preston New Road, etc., Ramsden Bros., Ltd.

BOOTLE. *Houses.* Bootle Corporation is to erect 14 houses in Well Lane, by direct labour, at a cost of £6,335.

BRADFORD. *Cinema.* The Bradford Watch Committee has agreed to grant a licence for a Ritz cinema proposed to be erected in the vicinity of the Broadway.

BRADFORD. *School alterations, etc.* The Bradford Education Committee has approved plans by the city architect for alterations and improvements at Great Horton school, at a cost of £8,550.

BUCKNALL. *Housing.* The Northmere Building Company is to develop land off Fellbrook Lane and North St Bucknall, Staffs.

BURTON-ON-TRENT. *Market Hall reconstruction.* The Burton-on-Trent Corporation has approved plans by the Borough Surveyor for the reconstruction of the Market Hall, at an estimated cost of £5,976.

ECCLES. *Bungalows.* Plans passed by the Eccles Corporation: 10 bungalows, Parrin Lane, W. H. Fletcher & Co.

MARKET WEIGHTON. *Small holdings.* The East Riding C.C. is to purchase and equip Grange Farm, Market Weighton, for purposes of small holdings, at a cost of £10,749.

NEWTON. *School.* The Hyde Education Committee is to provide a new school at Newton and Godley.

OSSETT. *School.* The Ossett Education Committee is to purchase land in Station Road for the erection of a senior school.

OLDHAM. *Library, etc.* The Oldham Corporation is to develop Stoneleigh Park and erect a pavilion and library, shelter and conveniences, at a cost of £15,414.

SCARBOROUGH. *Electricity Showrooms, etc.* The Scarborough Corporation has arranged to acquire land in Northway for the proposed electricity offices and showrooms.

SHEFFIELD. *Houses.* Mr. J. Samuel proposes to erect 34 houses in Grimesthorpe Road, Sheffield.

SHEFFIELD. *Houses.* Mr. D. Hurrell has prepared a scheme for the erection of 30 houses in Aysgarth Road and Lyminster Road, Sheffield.

STALYBRIDGE. *Housing.* The Stalybridge Corporation has obtained sanction to borrow £62,428 for the erection of 164 houses on the Brushes Road site.

STRETFORD. *Houses.* The Stretford Corporation is seeking sanction to borrow £74,928 for the erection of 108 houses in Barton Road.

WAKEFIELD. *Housing.* The Wakefield Corporation has asked the housing architect to prepare a scheme for the erection of houses, by direct labour, utilising some alternative form of construction, in connection with the submission of proposals for the accommodation of 866 persons.

WAKEFIELD. *Houses.* Plans passed by the Wakefield Corporation: 10 houses, Bromley Mount, Mr. A. Squires.

YORK. *Houses.* Plans passed by the York Corporation: 24 houses, Maple Grove, Mr. W. S. Mobley; 6 houses, Heslington Lane, Granger and Challis; house, Lawrence Street, Sorrell and Scaife, Ltd.

YORK. *School.* The managers of the York St. George's R.C. School are to erect a senior school for boys in Margaret Street, York.

YORK. *Municipal Offices.* The York Corporation is seeking sanction to borrow £152,800 for the erection of the new municipal offices at the Castle.

YORK. *School of Art, etc.* The York Education Committee recommends a site in Scarcroft Road, for the proposed Technical Institute, School of Art and Day School of Commerce.

ISLE OF WIGHT

ISLE OF WIGHT. *School.* The Isle of Wight Education Committee is to erect an elementary school at Freshwater, at a cost of £19,332.

ISLE OF MAN

RAMSEY. *Town Hall improvements.* The Ramsey Town Commissioners (I.O.M.) are to improve the town hall, at a cost of £2,000.

HOUSING

SLUM CLEARANCE AND REHOUSING

The most recent figures showing the position of slum clearance and rehousing are summarized below.

Clearance Areas and Orders.—During August local authorities declared areas comprising 5,984 houses representing the displacement of 21,696 persons, as compared with 4,760 houses and a displacement of 19,446 persons in July.

The Orders submitted during August covered 4,669 houses and the displacement of 16,396 persons, as compared with 4,998 houses and the displacement of 16,979 persons in July.

The Orders confirmed during August covered 3,407 houses and 13,040 persons as compared with 4,792 houses and 20,555 persons in July. The total number of houses in confirmed Orders is now 155,004, involving the displacement of 662,651 persons.

Rehousing Progress.—The latest available figures are those for July. At the end of that month there were 66,380 houses under construction, as compared with 64,108 at the end of June and 61,954 at the end of May. 6,353 houses were completed during July as compared with 5,857 during June and 5,904 during May.

The great majority of these houses are being provided for rehousing persons displaced in connection with slum clearance schemes.

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Sir Kingsley Wood, the Minister of Health, during his official visit to South Wales last week addressed the representatives of the Welsh Local Authorities at Cardiff.

He said there was still a considerable housing programme to be undertaken which must be again substantially advanced during the year. At least 300,000 new houses were required to complete the present slum clearance and overcrowding programme within the present statutory standard. New financial housing provision would have to be determined by Parliament early next year, in connection with which he would fully consult the local authorities.

The important matter of rent restriction would also have to be considered by Parliament in the light of the Report of the Committee now sitting under the chairmanship of Lord Ridley.

Hammersmith School of Building

Evening classes at the L.C.C. School of Building and Arts and Crafts, Hammersmith, will commence on September 27. The prospectus, which has just been published, gives full particulars of all the subjects for which courses of instruction have been arranged. Courses are organized for the following professional examinations: The R.I.B.A., the Institute of Builders, the National Certificate, the Chartered Surveyors' Institution, the Royal Sanitary Institute and the Institution of Sanitary Engineers.

Full particulars of all classes can be obtained upon application to the Principal, at the School, Lime Grove, W.12.

RATES OF WAGES

The initial letter opposite every 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. s.	I. d.	II. s.	II. d.
A	ABERDARE ...	S. Wales & M.	1	7	1	2½
A	Aberdeen ...	Scotland	1	7	1	2½
A_1	Abergavenny ...	S. Wales & M.	1	6½	1	2
A_2	Abingdon ...	S. Counties	1	5½	1	1½
A	Accrington ...	N.W. Counties	1	7	1	2½
A_2	Addlestone ...	S. Counties	1	6	1	1½
A	Adlington ...	N.W. Counties	1	7	1	2½
A	Airdrie ...	Scotland	*1	7	1	2½
C	Aldeburgh ...	E. Counties	1	3	0	11½
A	Altrincham ...	N.W. Counties	1	7	1	2½
B_2	Appleby ...	N.W. Counties	1	3½	0	11½
A	Ashton-under-Lyne	N.W. Counties	1	7	1	2½
B	Aylesbury ...	S. Counties	1	5	1	0½
B	BANBURY ...	S. Counties	1	5	1	0½
B_1	Bangor ...	N.W. Counties	1	4½	1	0½
A_2	Barnard Castle	N.E. Coast	1	5½	1	1½
A	Barnsley ...	Yorkshire	1	7	1	2½
B	Barnstaple ...	S.W. Counties	1	5	1	0½
A	Barrow ...	N.W. Counties	1	7	1	2½
A	Barry ...	S. Wales & M.	1	7	1	2½
B	Basingstoke ...	S.W. Counties	1	5	1	0½
A_2	Bath ...	S.W. Counties	1	6	1	1½
A	Batley ...	Yorkshire	1	7	1	2½
A_2	Bedford ...	E. Counties	1	6	1	1½
A_2	Berwick-on-Tweed	N.E. Coast	1	6	1	1½
A_2	Bewdley ...	Mid. Counties	1	6	1	1½
B	Bicester ...	S. Counties	1	5	1	0½
	Birkenhead ...	N.W. Counties	*1	8	1	3
A	Birmingham ...	Mid. Counties	1	7	1	2½
A_1	Bishop Auckland	N.E. Coast	1	6½	1	2
A	Blackburn ...	N.W. Counties	1	7	1	2½
A	Blackpool ...	N.W. Counties	1	7	1	2½
A	Blyth	N.E. Coast	1	7	1	2½
B	Bognor ...	S. Counties	1	5	1	0½
A	Bolton ...	N.W. Counties	1	7	1	2½
A_2	Boston ...	Mid. Counties	1	5½	1	1½
A_2	Bournemouth...	S. Counties	1	6	1	1½
B_2	Bovey Tracey	S.W. Counties	1	4	1	0
A	Bradford ...	Yorkshire	1	7	1	2½
A_1	Brentwood ...	E. Counties	1	6½	1	2
A	Bridgend ...	S. Wales & M.	1	7	1	2½
B	Bridgwater ...	S.W. Counties	1	5	1	0½
A_1	Bridlington ...	Yorkshire	1	6½	1	2
A	Brighouse ...	Yorkshire	1	7	1	2½
A	Brighton ...	S. Counties	1	6	1	1½
A	Bristol ...	S.W. Counties	1	7	1	2½
B	Brixham ...	S.W. Counties	1	5	1	0½
A	Bromsgrove ...	Mid. Counties	1	7	1	2½
B	Bromyard ...	Mid. Counties	1	5	1	0½
A	Burnley ...	N.W. Counties	1	7	1	2½
A	Burslem ...	Mid. Counties	1	7	1	2½
A	Burton-on-Trent	Mid. Counties	1	7	1	2½
A	Bury	N.W. Counties	1	7	1	2½
A_1	Buxton ...	N.W. Counties	1	6½	1	2
A_1	CAMBRIDGE	E. Counties	1	6½	1	2
B_1	Canterbury ...	S. Counties	1	4½	1	0½
A	Cardiff ...	S. Wales & M.	1	7	1	2½
A	Carlisle ...	N.W. Counties	1	7	1	2½
B	Carmarthen ...	S. Wales & M.	1	5	1	0½
B	Carnarvon ...	N.W. Counties	1	5	1	0½
A_1	Carnforth ...	N.W. Counties	1	7	1	2½
A	Castleford ...	Yorkshire	1	7	1	2½
A_2	Chatham ...	S. Counties	1	5½	1	1½
A_2	Chelmsford ...	E. Counties	1	5½	1	1½
A_2	Cheltenham ...	S.W. Counties	1	5½	1	1½
A	Chester ...	N.W. Counties	1	7	1	2½
A	Chesterfield ...	Mid. Counties	1	7	1	2½
B	Chichester ...	S. Counties	1	5	1	0½
A	Chorley ...	N.W. Counties	1	7	1	2½
B_1	Cirencester ...	S. Counties	1	4½	1	0½
A	Clitheroe ...	N.W. Counties	1	7	1	2½
A	Clydebank ...	Scotland	1	7	1	2½
A	Coalville ...	Mid. Counties	1	7	1	2½
A_2	Colchester ...	E. Counties	1	6	1	1½
A_1	Colne	N.W. Counties	1	6½	1	2
A_2	Colwyn Bay ...	N.W. Counties	1	6	1	1½
A_1	Consett ...	N.E. Coast	1	6½	1	2
A_2	Conway ...	N.W. Counties	1	6	1	1½
A	Coventry ...	Mid. Counties	1	7	1	2½
A_2	Crewe	N.W. Counties	1	6	1	1½
A_2	Cumberland ...	N.W. Counties	1	5½	1	1½
A	DARLINGTON	N.E. Coast	1	7	1	2½
A	Darwen ...	N.W. Counties	1	7	1	2½
B_1	Deal	S. Counties	1	4½	1	0½
A_2	Denbigh ...	N.W. Counties	1	5½	1	1½
A	Derby	Mid. Counties	1	7	1	2½
A	Dewsbury ...	Yorkshire	1	7	1	2½
B	Didcot ...	S. Counties	1	5	1	0½
A	Doncaster ...	Yorkshire	1	7	1	2½
B_1	Dorchester ...	S.W. Counties	1	4½	1	0½
A_2	Driffield ...	Yorkshire	1	5½	1	1½
A_2	Droitwich ...	Mid. Counties	1	6	1	1½
A	Dudley ...	Mid. Counties	1	7	1	2½
A_2	Dumfries ...	Scotland	1	6	1	1½
A	Dundee ...	Scotland	1	7	1	2½
A	Durham ...	N.E. Coast	1	7	1	2½
A_2	EASTBOURNE	S. Counties	1	6	1	1½
A_1	Ebbw Vale ...	S. Wales & M.	1	6½	1	2
A	Edinburgh ...	Scotland	1	7	1	2½
A_2	Exeter ...	S.W. Counties	*1	6	1	1½
B	Exmouth ...	S.W. Counties	1	5	1	0½
A_2	FELIXSTOWE	E. Counties	1	5½	1	1½
A_2	Filey	Yorkshire	1	5½	1	1½
A	Fleetwood ...	N.W. Counties	1	7	1	2½
B_1	Folkestone ...	S. Counties	1	4½	1	0½
A	Frodsham ...	N.W. Counties	1	7	1	2
B_2	Frome ...	S.W. Counties	1	4	1	0
A	GATESHEAD	N.E. Coast	1	7	1	2½
B	Gillingham ...	S. Counties	1	5	1	0½
A_1	Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1	6½	1	2
A	Glasgow ...	Scotland	1	7	1	2½
A_2	Gloucester ...	S.W. Counties	1	6	1	1½
A_2	Goole	Yorkshire	1	6	1	1½
A_2	Gosport ...	S. Counties	1	6	1	1½
A_2	Grantham ...	Mid. Counties	1	5½	1	1
A_1	Gravesend ...	S. Counties	1	6½	1	2
A	Greenock ...	Scotland	*1	7	1	2
A	Grimsby ...	Mid. Counties	1	7	1	2
B	Guildford ...	S. Counties	1	5	1	0
A	HALIFAX ...	Yorkshire	1	7	1	2½
A	Hanley ...	Mid. Counties	1	7	1	2½
A	Harrogate ...	Yorkshire	1	7	1	2½
A	Hartlepools ...	N.E. Coast	1	7	1	2½
B	Harwich ...	E. Counties	1	5	1	0½
B	Hastings ...	S. Counties	1	5	1	0½
A_2	Hatfield ...	S. Counties	1	6	1	1½
B	Hereford ...	S.W. Counties	1	5	1	0½
A_2	Hertford ...	E. Counties	1	6	1	1½
A	Heysham ...	N.W. Counties	1	7	1	2½
A	Howden ...	N.E. Coast	1	7	1	2½
A	Huddersfield ...	Yorkshire	1	7	1	2½
A	Hull	Yorkshire	1	7	1	2½
A	ILKLEY ...	Yorkshire	1	7	1	2½
A	Immingham ...	Mid. Counties	1	7	1	2½
A_2	Ipswich ...	E. Counties	1	6	1	1½
B_2	Isle of Wight ...	S. Counties	1	4	1	0
A	JARROW ...	N.E. Coast	1	7	1	2½
A	KEIGHLEY ...	Yorkshire	1	7	1	2½
A_2	Kendal ...	N.W. Counties	1	5½	1	1½
A_2	Keswick ...	N.W. Counties	1	5½	1	1½
A_1	Kettering ...	Mid. Counties	1	6½	1	2
A_2	Kidderminster	Mid. Counties	1	6	1	1½
B_1	King's Lynn ...	E. Counties	1	4½	1	0½
A	LANCASTER ...	N.W. Counties	1	7	1	2½
A_1	Leamington ...	Mid. Counties	1	6½	1	2
A	Leeds	Yorkshire	1	7	1	2½
A	Leek	Mid. Counties	1	7	1	2½
A	Leicester ...	Mid. Counties	1	7	1	2½
A	Leigh	N.W. Counties	1	7	1	2½
B	Lewes	S. Counties	1	5	1	0½
A_2	Lichfield ...	Mid. Counties	1	6	1	1½
A	Lincoln ...	Mid. Counties	1	7	1	2½
	Liverpool ...	N.W. Counties	*1	8½	1	3½
A_2	Llandudno ...	N.W. Counties	1	6	1	1½
A	Llanelly ...	S. Wales & M.	1	7	1	2½
	London (12-miles radius)		1	8½	1	3½
	Do. (12-15 miles radius)		1	8	1	3
A	Long Eaton ...	Mid. Counties	1	7	1	2½
A	Loughborough ...	Mid. Counties	1	7	1	2½
A_1	Luton	E. Counties	1	6½	1	2
A	Lytham ...	N.W. Counties	1	7	1	2½
A_1	MACCLESFIELD	N.W. Counties	1	6½	1	2
A_2	Maidstone ...	S. Counties	1	5½	1	1½
A_2	Malvern ...	Mid. Counties	1	5½	1	1½
A	Manchester ...	N.W. Counties	1	7	1	2½
A	Mansfield ...	Mid. Counties	1	7	1	2½
B_1	Margate ...	S. Counties	1	4½	1	0½
A_2	Matlock ...	Mid. Counties	1	5½	1	1½
A_1	Merthyr ...	S. Wales & M.	1	6½	1	2
A	Middlesbrough ...	N.E. Coast	1	7	1	2½
A_2	Middlewich ...	N.W. Counties	1	6	1	1½
B_2	Minehead ...	S.W. Counties	1	4	1	0
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1	4	1	0
A	Morecambe ...	N.W. Counties	1	7	1	2½
A_2	NANTWICH ...	N.W. Counties	1	6	1	1½
A	Neath	S. Wales & M.	1	7	1	2½
A	Nelson	N.W. Counties	1	7	1	2½
A	Newcastle ...	N.E. Coast	1	7	1	2½
A	Newport ...	S. Wales & M.	1	7	1	2½
A	Normanton ...	Yorkshire	1	7	1	2½
A	Northampton	Mid. Counties	1	7	1	2½
A	North Shields...	N.E. Coast	1	7	1	2½
A	North Staffs ...	Mid. Counties	1	7	1	2½
A_1	Norwich ...	E. Counties	1	6½	1	2
A	Nottingham ...	Mid. Counties	1	7	1	2½
A	Nuneaton ...	Mid. Counties	1	7	1	2½
A_2	OAKHAM ...	Mid. Counties	1	5½	1	1½
A	Oldham ...	N.W. Counties	1	7	1	2½
A_2	Oswestry ...	N.W. Counties	1	5½	1	1½
A_1	Oxford ...	S. Counties	1	6½	1	2
A	PAISLEY ...	Scotland	*1	7	1	2
B_2	Pembroke ...	S. Wales & M.	1	3½	0	11½
A	Perth	Scotland	*1	7	1	2½
A_1	Peterborough....	E. Counties	1	6½	1	2
A	Plymouth ...	S.W. Counties	*1	7	1	2½
A	Pontefract ...	Yorkshire	1	7	1	2½
A_1	Pontypridd ...	S. Wales & M.	1	6½	1	2
A_2	Portsmouth ...	S. Counties	1	6	1	1½
A	Preston ...	N.W. Counties	1	7	1	2½
A	QUEENSFERRY	N.W. Counties	1	7	1	2½
A_2	READING ...	S. Counties	1	6½	1	2
B	Reigate ...	S. Counties	1	5½	1	1½
A_2	Retford ...	Mid. Counties	1	5½	1	1½
A_1	Rhondda Valley	S. Wales & M.	1	6½	1	2
A_2	Ripon	Yorkshire	1	5½	1	1½
A	Rochdale ...	N.W. Counties	1	7	1	2½
B	Rochester ...	S. Counties	1	5	1	0½
A_1	Ruabon ...	N.W. Counties	1	6½	1	2
A	Rugby ...	Mid. Counties	1	7	1	2½
A_2	Rugeley ...	Mid. Counties	1	6	1	1½
A	Runcorn ...	N.W. Counties	1	7	1	2½
A_1	ST. ALBANS ...	E. Counties	1	6½	1	2
A	St. Helens ...	N.W. Counties	1	7	1	2½
B_2	Salisbury ...	S.W. Counties	1	3½	0	11½
A_1	Scarborough ...	Yorkshire	1	6½	1	2
A	Scunthorpe ...	Mid. Counties	1	7	1	2½
A	Sheffield ...	Yorkshire	1	7	1	2½
A	Shipley ...	Yorkshire	1	7	1	2½
A_2	Shrewsbury ...	Mid. Counties	1	6	1	1½
A_2	Skipton ...	Yorkshire	1	6	1	1½
A_2	Slough ...	S. Counties	1	6	1	1½
A_1	Solihull ...	Mid. Counties	1	6½	1	2
A_2	Southampton...	S. Counties	1	6	1	1½
A_1	Southend-on-Sea	E. Counties	1	6½	1	2
A	Southport ...	N.W. Counties	1	7	1	2½
A	S. Shields ...	N.E. Coast	1	7	1	2½
A_1	Stafford ...	Mid. Counties	1	6½	1	2
A	Stirling ...	Scotland	1	7½	1	2½
A	Stockport ...	N.W. Counties	1	7	1	2½
A	Stockton-on-Tees	N.E. Coast	1	7	1	2½
A	Stoke-on-Trent	Mid. Counties	1	7	1	2½
B	Stroud ...	S.W. Counties	1	5	1	0½
A	Sunderland ...	N.E. Coast	1	7	1	2½
A	Swansea ...	S. Wales & M.	1	7	1	2½
A_2	Swindon ...	S.W. Counties	1	5½	1	1½
A_1	TAMWORTH ...	N.W. Counties	1	6½	1	2
B	Taunton ...	S.W. Counties	1	5	1	0½
A	Teesside Dist....	N.E. Counties	1	7	1	2½
A_2	Teignmouth ...	S.W. Coast	1	6	1	1½
A	Todmorden ...	Yorkshire	1	7	1	2½
A_1	Torquay ...	S.W. Counties	1	6½	1	2
B_2	Truro	S.W. Counties	1	4	1	0
A_2	Tunbridge Wells	S. Counties	1	5½	1	1½
A	Tunstall ...	Mid. Counties	1	7	1	2½
A	Tyne District....	N.E. Coast	1	7	1	2½
A	WAKEFIELD	Yorkshire	1	7	1	2½
A	Walsall ...	Mid. Counties	1	7	1	2½
A	Warrington ...	N.W. Counties	1	7	1	2½
A_1	Warwick ...	Mid. Counties	1	6½	1	2
A_1	Wellingborough	Mid. Counties	1	6½	1	2
A	West Bromwich	Mid. Counties	1	7	1	2½
A_2	Weston-s.-Mare	S.W. Counties	1	6	1	1½
A	Whitby ...	Yorkshire	1	7	1	2½
A	Widnes ...	N.W. Counties	1	7	1	2½
A	Wigan ...	N.W. Counties	1	7	1	2½
B	Winchester ...	S. Counties	1	5	1	0½
A_2	Windsor ...	S. Counties	1	6	1	1½
A	Wolverhampton	Mid. Counties	1	7	1	2½
A_2	Worcester ...	Mid. Counties	1	6	1	1½
A_2	Worksop ...	Yorkshire	1	5½	1	1½
A_1	Wrexham ...	N.W. Counties	1	6½	1	2
A_2	Wycombe ...	S. Counties	1	5½	1	1½
B	YARMOUTH ...	E. Counties	1	5	1	0½
B	Yeovil ...	S.W. Counties	1	5	1	0½
A	York	Yorkshire	1	7	1	2½

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

The rates for every trade in any given area will be sent on request. The rates of wages have been revised consequent upon the increase in wages which came into operation on February 1, together with all revisions following authorized annual regradings.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality and include delivery to site in Central London area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. 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. The whole of the information given is copyright.

WAGES

	£ s. d.
Bricklayer . . . . . per hour	1 8½
Carpenter . . . . . ,,	1 8½
Joiner . . . . . ,,	1 8½
Machinist . . . . . ,,	1 9½
Mason (Banker) . . . . . ,,	1 9½
,, (Fixer) . . . . . ,,	1 8½
Plumber . . . . . ,,	1 8½
Painter . . . . . ,,	1 7½
Paperhanger . . . . . ,,	1 7½
Glazier . . . . . ,,	1 8½
Slater . . . . . ,,	1 8½
Scaffolder . . . . . ,,	1 4½
Timberman . . . . . ,,	1 4½
Navvy . . . . . ,,	1 3½
General Labourer . . . . . ,,	1 3½
Lorryman . . . . . ,,	1 6½
Crane Driver . . . . . ,,	1 7½
Watchman . . . . . per week	2 10 0

MATERIALS

EXCAVATOR AND CONCRETOR

	£ s. d.
Grey Stone Lime . . . . . per ton	2 2 0
Blue Lias Lime . . . . . ,,	1 18 6
Hydrated Lime . . . . . ,,	2 5 0
Portland Cement, in 4-ton lots (d/d site, including Paper Bags) . . ,,	1 19 0
Rapid Hardening Cement, in 4-ton lots (d/d site, including Paper Bags) . ,,	2 5 0
White Portland Cement, in 1-ton lots ,,	8 15 0
Thames Ballast . . . . . per Y.C.	6 6
¾" Crushed Ballast . . . . . ,,	7 0
Building Sand . . . . . ,,	7 6
Washed Sand . . . . . ,,	8 6
2" Broken Brick . . . . . ,,	8 0
¾" ,, ,, ... ,,	10 3
Pan Breeze ,, ... ,,	6 6
Coke Breeze . . . . . ,,	8 9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

	4" s. d.	6" s. d.
Straight Pipes . . . per F.R.	0 9	1 1
Bends . . . . each	1 9	2 6
Taper Bends . . . ,,	3 6	5 3
Rest Bends . . . ,,	4 3	6 3
Single Junctions . . ,,	3 6	5 3
Double . . . . ,,	4 9	6 6
Straight channels . . per F.R.	1 6	2 6
¾" Channel bends . . each	2 9	4 0
Channel junctions . . ,,	4 6	6 6
Channel tapers . . ,,	2 9	4 0
Yard gullies . . . ,,	6 9	8 9
Interceptors . . . ,,	16 0	19 6
IRON DRAINS:		
Iron drain pipe . . per F.R.	2 3	3 8
Bends . . . . each	6 4	13 1
Inspection bends . . ,,	11 5	14 4
Single junctions . . ,,	11 2	22 10
Double junctions . . ,,	17 2	30 9
Lead Wool . . . . lb.	6	—
Gaskin . . . . . ,,	5	—

BRICKLAYER

	£ s. d.
Flettons . . . . . per M.	2 12 0
Grooved do. . . . . ,,	2 14 0
Phorpres bricks . . . . ,,	2 15 0
,, Cellular bricks . . . ,,	2 15 0
Stocks, 1st quality . . . ,,	4 11 0
,, 2nd ,, ... ,,	4 2 6
Blue Bricks, Pressed . . . ,,	8 14 0
,, Wirecuts . . . ,,	7 12 6
,, Brindles . . . ,,	7 0 0
,, Bullnose . . . ,,	9 0 0
Red Sand-faced Facings . . ,,	6 18 6
Red Rubbers for Arches . . ,,	12 0 0
Multicoloured Facings . . ,,	7 10 0
Luton Facings . . . . ,,	7 10 0
Phorpres White Facings . . ,,	3 17 3
,, Rustic Facings . . ,,	3 12 3
Midhurst White Facings . . ,,	4 0 0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:	
Stretchers . . . . . ,,	21 0 0
Headers . . . . . ,,	20 10 0
Bullnose . . . . . ,,	27 10 0
Double Stretchers . . . ,,	29 10 0
Double Headers . . . . ,,	26 10 0
Glazed Second Quality, *Less* . ,,	1 0 0
,, Buffs and Creams, *Add* . ,,	2 0 0
,, Other Colours . . . ,,	5 10 0
2" Breeze Partition Blocks . . per Y.S.	1 7
2½" ,, ,, ,, . . . ,,	1 10
3" ,, ,, ,, . . . ,,	2 1
4" ,, ,, ,, . . . ,,	2 6

MASON

	s. d.
The following d/d F.O.R. at Nine Elms:	
Portland stone, Whitbed . . F.C.	4 4½
,, ,, Basebed . . . ,,	4 7½
Bath stone . . . . . ,,	2 10
York stone . . . . . ,,	6 6
,, ,, Sawn templates . .	7 6
,, ,, Paving, 2" . . . F.S.	1 8
,, ,, ,, 3" . . . ,,	2 6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

	£ s. d.
24" × 12" Duchesses . . . per M.	28 17 6
22" × 12" Marchionesses . . ,,	24 10 0
20" × 10" Countesses . . . ,,	19 5 0
18" × 10" Viscountesses . . ,,	15 10 0
18" × 9" Ladies . . . . ,,	13 17 6
Westmorland green (random sizes) . per ton	8 10 0
Old Delabole slates d/d in full truck loads to Nine Elms Station:	
20" × 10" medium grey . per 1,000 (actual)	21 11 6
,, ,, green ,, ,,	24 7 4
Best machine roofing tiles . ,, ,,	4 5 0
Best hand-made do. . . ,, ,,	4 17 6
Hips and valleys . . . . each	9
,, hand-made . . . ,,	9½
Nails, compo . . . . . ,,	1 4
,, copper . . . . . ,,	1 6

CARPENTER AND JOINER

	£ s. d.
Good carcassing timber . . F.C. 2s. 7d.	– 2 10
Birch . . . . . as 1" F.S.	9
Deal, Joiner's . . . . ,, ,,	5
,, ,, 2nds . . . ,, ,,	4
Mahogany, Honduras . . ,, ,,	1 3
,, African . . . ,, ,,	1 1
,, Cuban . . . ,, ,,	2 6
Oak, plain American . . ,, ,,	1 0
,, Figured ,, . . ,, ,,	1 3
,, plain Japanese . . ,, ,,	1 2
,, Figured ,, . . ,, ,,	1 5
,, Austrian wainscot . . ,, ,,	1 6
,, English . . . . ,, ,,	1 11
Pine, Yellow . . . . ,, ,,	1 0
,, Oregon . . . . ,, ,,	4
,, British Columbian . . ,, ,,	4
Teak, Moulmein . . . ,, ,,	1 3
,, Burma . . . . ,, ,,	1 2
Walnut, American . . . ,, ,,	2 3
,, French . . . . ,, ,,	2 3
Whitewood, American . . ,, ,,	1 1
Deal floorings, ⅝" . . . Sq.	18 6
,, ¾" . . . ,,	1 1 6
,, 1" . . . ,,	1 2 0
,, 1¼" . . . ,,	1 5 0
,, 1½" . . . ,,	1 10 0
Deal matchings, ⅝" . . ,,	14 0
,, ¾" . . ,,	15 6
,, 1" . . ,,	1 4 0
Rough boarding, ⅝" . . ,,	16 0
,, 1" . . ,,	18 0
,, 1¼" . . ,,	1 6 0
Plywood, per ft. sup.:	

Thickness	⅛"			¼"			⅜"			½"		
Qualities	A	B	BB	A	B	BB	A	B	BB	A	B	BB
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch 60 × 48	4	2½	2	5	3	2½	7	5	4	8	6	5
Cheap Alder .	–	2	1½	–	3½	2	–	–	–	–	–	–
Oregon Pine .	–	2½	–	3	2½	–	4	3½	–	5	4½	–
Gaboon Mahogany	4	3½	–	5	4½	–	7	6½	–	8	7	–
Figured Oak .	6½	5	–	7½	5½	–	10	8	–	1/–	9	–

	d.
Scotch glue . . . . . lb	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices from which should be deducted the various percentages as set forth below.)

	½"	¾"	1"	1½"	2"
Tubes 2'–14' long per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"–23" long . each	10	1/1	1/11	2/8	4/9
,, 3"–11½" long . ,,	7	9	1/3	1/8	3/–
Long screws, 12"–23½" long ,,	11	1/3	2/2	2/10	5/3
,, ,, 3" M–½" long ,,	8	10	1/5	1/11	3/6
Bends . . . . ,,	8	11	1/7½	2/7½	5/2
Springs not socketed . ,,	5	7	1/1½	1/11½	3/11
Socket unions . . ,,	2/–	3/–	5/6	6/9	10/–
Elbows, square . . ,,	10	1/1	1/6	2/2	4/3
Tees . . . . ,,	1/–	1/3	1/10	2/6	5/1
Crosses . . . . ,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples ,,	3	4	6	8	1/3
Diminished sockets . ,,	4	6	9	1/–	2/–
Flanges . . . ,,	9	1/–	1/4	1/9	2/9
Caps . . . . ,,	3½	5	8	1/–	2/–
Backnuts . . . ,,	2	3	5	6	1/1
Iron main cocks . . ,,	1/6	2/3	4/2	5/4	11/6
,, with brass plugs . ,,	—	4/–	7/6	10/–	21/–

Discounts	TUBES Per cent.		Per cent.
Gas . . .	66⅔	Galvanized gas .	56⅔
Water . . .	61⅔	,, water .	51⅔
Steam . . .	58⅓	,, steam .	46⅔
	FITTINGS		
Gas . . .	57⅔	Galvanized gas .	48⅔
Water . . .	53⅓	,, water .	46⅔
Steam . . .	48⅔	,, steam .	41⅔

	s. d.
Rolled steel joists cut to length . . cwt.	15 6
Mild steel reinforcing rods, ⅜" . . . ,,	16 0
,, ,, ,, ½" . . . ,,	15 9
,, ,, ,, ⅝" . . . ,,	15 3

SMITH AND FOUNDER—*continued*

	s. d.
Mild steel reinforcing rods, ¾" . . . cwt.	15 3
,, ,, ,, 1" . . . ,,	15 3
,, ,, ,, 1¼" . . . ,,	15 3
,, ,, ,, 1½" . . . ,,	15 3

Cast-iron rain-water pipes of ordinary thickness metal	3" s. d.	4" s. d.
	F.R. 8	10
Shoes . . . . each	2 0	3 0
Anti-splash shoes . . ,,	4 6	8 0
Boots . . . . ,,	3 0	4 0
Bends . . . . ,,	2 7	3 9
,, with access door . ,,	—	6 3
Heads . . . . ,,	4 0	5 0
Swan-necks up to 9" offsets . ,,	3 9	6 0
Plinth bends, 4½" to 6" . ,,	3 9	5 3
Half-round rain-water gutters of ordinary thickness metal .	F.R. 5	6
Stop ends . . . . each	6	6
Angles . . . . ,,	1 7	1 11
Obtuse angles . . ,,	2 0	2 6
Outlets . . . . ,,	1 9	2 3

PLUMBER

	s. d.
Lead, milled sheets . . . cwt.	33 6
,, drawn pipes . . . ,,	33 0
,, soil pipes . . . ,,	36 0
,, scrap . . . . ,,	21 0
Solder, plumbers' . . . lb.	1 1½
,, fine do. . . . ,,	1 4
Copper, sheet . . . ,,	1 0½
,, tubes . . . ,,	1 2½

L.C.C. soil and waste pipes:	3"	4"	6"
Plain cast . . F.R.	1 0	1 2	2 6
Coated . . . ,,	1 1	1 3	2 8
Galvanized . . ,,	2 0	2 6	4 6
Holderbats . . each	3 10	4 0	4 9
Bends . . . ,,	3 9	5 3	10 3
Shoes . . . ,,	2 10	4 4	9 6
Heads . . . ,,	4 8	8 5	12 9

PLASTERER

	£ s. d.
Lime, chalk . . . . per ton	2 0 0
Plaster, coarse . . . ,,	2 15 0
,, fine . . . ,,	4 7 6
Hydrated lime . . . ,,	3 0 9
Sirapite . . . . ,,	3 8 0
Keene's cement . . . ,,	5 0 0
Gothite plaster . . . ,,	3 6 0
Pioneer plaster . . . ,,	3 6 0
Thistle plaster . . . ,,	3 6 0
Sand, washed . . . Y.C.	11 6
Hair . . . . lb.	6
Laths, sawn . . . bundle	2 4
,, rent . . . ,,	3 9
Lath nails . . . . lb.	3

GLAZIER

	s. d.	s. d.
Sheet glass, 24 oz., squares n/e 2 ft. s. F.S.		2½
,, ,, 26 oz. ,, ,, ,,		3½
Flemish, Arctic, Figures (white)* ,,		7½
Blazoned glasses . . . ,,		2 6
Reeded: Cross Reeded . . ,,		11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite ,,		8
Crown sheet glass (n/e 12" × 10") . ,,		2 0
Flashed opals (white and coloured) . ,,	1 0 and 2	0
¼" rough cast; rolled plate . . ,,		6
¼" wired cast; wired rolled . ,,		10½
¼" Georgian wired cast . . ,,		11½
¼" Polished plate, n/e 1 ft. . . ,,	†10 to ‡1	1
,, ,, 2 . . ,,	†1 2 ,, ‡1	4
,, ,, 4 . . ,,	†2 3 ,, ‡2	6
,, ,, 8 . . ,,	†2 9 ,, ‡3	2
,, ,, 20 . . ,,	†3 1 ,, ‡3	9
,, ,, 45 . . ,,	†3 3 ,, ‡4	0
,, ,, 100 . . ,,	†4 0 ,, ‡4	10
Vita glass, sheet, n/e 1 ft. . . ,,		1 0
,, ,, ,, 2 ft. . . ,,		1 3
,, ,, ,, over 2 ft. . . ,,		1 9
,, ,, plate, n/e 1 ft. . . ,,		1 6
,, ,, ,, 2 ft. . . ,,		3 0
,, ,, ,, 5 ft. . . ,,		4 0
,, ,, ,, 7 ft. . . ,,		5 0
,, ,, ,, 15 ft. . . ,,		6 0
,, ,, ,, over 15 ft. . . ,,		7 6
"Calorex" sheet 21 oz., and 32 oz. ,,	2 6 and 3	6
,, rough cast ⅛" and ¼" . ,,	8½ ,, 1	0
Putty, linseed oil . . . lb.		3

* *Colours, 1d. F.S. extra.*

† *Ordinary glazing quality.* ‡ *Selected glazing quality*

PAINTER

	£ s. d.
White lead in 1-cwt. casks . . cwt.	2 17 9
Linseed oil . . . . gall.	3 2
Boiled oil . . . . ,,	3 5
Turpentine . . . . ,,	3 9
Patent knotting . . . ,,	14 0
Distemper, washable . . cwt.	2 6 0
,, ordinary . . ,,	2 0 0
Whitening . . . . ,,	4 0
Size, double . . . firkin	3 0
Copal varnish . . . gall.	13 0
Flat varnish . . . ,,	14 0
Outside varnish . . ,,	16 0
White enamel . . . ,,	1 15 0
Ready mixed paint . . ,,	13 6
Brunswick black . . . ,,	7 6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.	2	9
" to reduce levels n/e 5' 0" deep and cart away	Y.C.	8	6
" to form basement n/e 5' 0" and cart away	"	9	0
" " 10' 0" deep and cart away	"	9	6
" " 15' 0" deep and cart away	"	10	0
If in stiff clay	add		6
If in underpinning	"	4	0
Planking and strutting to sides of excavation	F.S.	1	0
" " to pier holes	"		5
" " to trenches	"		5
" " extra, only if left in	"		3
Hardcore, filled in and rammed	Y.C.	10	0
Portland cement concrete in foundations (6–1)	"	1	6	0
" " (4–2–1)	"	1	12	6
" " underpinning	"	1	16	0
Finishing surface of concrete, space face	Y.S.			7

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
" junctions	"	3	9	4	6
Gullies and gratings	"	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	5	9	8	3
Extra, only for bends (cast iron)	Each	11	3	18	4

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	26	10	0
" " in cement	"	27	12	6
" Stocks in cement	"	34	0	0
" Blues in cement	"	50	0	0
Extra only for circular on plan	"	2	0	0
" backing to masonry	"	1	10	0
" rising on old walls	"	2	0	0
" underpinning	"	5	10	0
Fair Face and pointing internally	F.S.			1½
Extra over fletton brickwork for picked stock facings and pointing	"			8
" " " red brick facings and pointing	"			11
" " " blue brick facings and pointing	"	1	4	
" " " glazed brick facings and pointing	"	3	6	
Tuck pointing	"			7½
Weather pointing in cement	"			3
Slate dampcourse	"			10
Vertical dampcourse	"	1	1	

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	9
½" Vertical dampcourse	"	7	9
½" paving or flat	"	6	3
1" paving or flat	"	7	6
1" × 6" skirting	F.R.	1	0
Angle fillet	"		2½
Rounded angle	"		2½
Cesspools	Each	5	6

MASON

	£	s.	d.
Portland stone, including all labour, hoisting, fixing and cleaning down, complete	F.C.	17	9
Bath stone and do., all as last	"	13	6
Artificial stone and do.	"	13	0
York stone templates, fixed complete	"	10	6
" thresholds	"	13	6
" sills	"	1	0	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	"	3	7	0
Do., 24" × 12"	"	3	17	0
Westmorland slating, laid with diminished courses	"	6	0	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	"	3	0	0
Do., all as last, but of machine-made tiles	"	2	16	0
20" × 10" medium Old Delabole slating, laid to a 3" lap (grey)	"	2	16	0
" " " " " " (green)	"	4	15	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	2	6
Shuttering to sides and soffits of beams	F.S.			7
" to stanchions	"			7
" to staircases	"		1	6
Fir and fixing in wall plates, lintols, etc.	F.C.	3	9	
Fir framed in floors	"		4	6
" " roofs	"		6	6
" " trusses	"		7	6
" " partitions	"		8	6
⅞" deal sawn boarding and fixing to joists	Sqr.	1	14	6
1" " " " " "	"	1	17	6
1½" " " " " "	"	2	3	0
3" × 2" fir battening for Countess slating	"		9	6
Do., for 4" gauge tiling	"		12	0
Stout feather-edged tilting fillet	F.R.			4½
Patent inodorous felt, 1 ply	Y.S.	2	3	
" " " 2 "	"	2	9	
" " " 3 "	"	3	3	
Stout herringbone strutting to 9" joists	F.R.			10½
1" deal gutter boards and bearers	F.S.	1	2	
1½" " " " " "	"	1	6	
2" deal wrought rounded roll	F.R.			8
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	1	0
1¼" do.	"	2	10	0
1½" do.	"	2	17	0
1" deal moulded skirting fixed on, and including grounds plugged to wall	F.S.	1	6	
1½" do.	"	1	9	

CARPENTER AND JOINER—*continued*

		s.	d.
1¼" deal moulded sashes of average size	F.S.	1	0½
2" " " " " "	"	1	11½
1¼" deal cased frames double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅝" parting beads, and with brass faced axle pulleys, etc., fixed complete	"	3	7
2" " " " " "	"	3	10
Extra only for moulded horns " " "	Each		6
1¼" deal four-panel square, both sides, door	F.S.	2	0
2" " " " " "	"	2	8
1¼" " but moulded both sides	"	2	4
2" " " " " "	"	3	0
4" × 3" deal, rebated and moulded frames	F.R.	1	0
4½" × 3½" " " " " "	"	1	4
1½" deal tongued and moulded window board, on and including deal bearers	F.S.	1	9
1½" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	"	2	6
1½" deal moulded wall strings	"	2	1
1½" " " outer strings	"	2	4
Ends of treads and risers housed to string	Each	1	9
3" × 2" deal moulded handrail	F.R.	1	3
1" × 1" deal balusters and housing each end	Each	2	0
1½" × 1½" " " " "	"	2	9
3" × 3" deal wrought framed newels	F.R.	1	3
Extra only for newel caps	Each	6	0
Do., pendants	"	6	0

SMITH AND FOUNDER

		s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.	18	8
Riveted plate or compound girders, and hoisting and fixing in position	"	1	3	0
Do., stanchions with riveted caps and bases and do.	"	1	2	0
Mild steel bar reinforcement, ¼" and up, bent and fixed complete	"	1	2	0
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.			11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats	cwt.	2	4	0
Do. in flashings	"	2	7	6
Do. in covering to turrets	"	2	13	0
Do. in soakers	"	1	18	9
Labour to welted edge	F.R.			3½
Open copper nailing	"			3
Close " "	"			4

		½" s.	½" d.	¾" s.	¾" d.	1" s.	1" d.	1½" s.	1½" d.	2" s.	2" d.	4" s.	4" d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	4	1	5½	2	7	3	6	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		7	3
Extra, only to bends	Each	—		—		—		—		2	3	7	6
Do. to stop ends	"		6½		8		9		11	1	0	—	
Boiler screws and unions		3	3	3	9	5	8	8	0	—		—	
Lead traps		—		—		—		8	0	11	6	—	
Screw down bib valves	"	6	9	9	6	11	0	—		—		—	
Do. stop cocks	"	7	0	9	6	12	6	—		—		—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	0
Extra, only stop ends	Each	1	0
Do. angles	"	1	6
Do. outlets	"	2	9
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	2
Extra, only for shoes	Each	1	3
Do. for plain heads	"	5	6

PLASTERER AND TILING

		s.	d.
Expanded metal lathing, small mesh	Y.S.	2	0
Do. in n/w to beams, stanchions, etc.	"	2	9
Lathing with sawn laths to ceilings	"	1	3
½" screeding in Portland cement and sand or tiling, wood block floor, etc.	"	1	5
Do. vertical	"	1	7
Rough under on walls	"	1	2½
Render, refloat and set in lime and hair	"	1	9
Render and set in Sirapite	"	1	11
Render backing in cement and sand, and set in Keene's cement	"	2	9
Extra, only if on lathing	"		4
Keene's cement angle and arris	F.R.		6
Arris	"		1½
Rounded angle, small	"		3
Plain cornices in plaster, including dubbing out, per 1" girth	"		1½
1" granolithic pavings	Y.S.	3	6
1½" " " " "	"	4	6
6" × 6" white glazed wall tiling and fixing on prepared screed	"	17	6
9" × 3" " " " "	"	1	2	6
Extra, only for small quadrant angle	F.R.			8

GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		6½
26 oz. do. and do.	"		7½
Flemish, Arctic Figured (white) and glazing with putty	"	1	1
Cathedral glass and do.	"	1	2
Glazing only, British polished plate	"		7
Extra, only if in beds	"		2
Washleather	F.R.		4

PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6
Do. and distemper walls	"		9
Do. with washable distemper	"	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	"	3	3
Do. on woodwork	"	3	6
Do. on steelwork	"	3	0
Do. and brush grain and twice varnish	"	5	6
Stain and twice varnish woodwork	"	1	11
Stain and wax polish woodwork	"	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper	from "	2	9