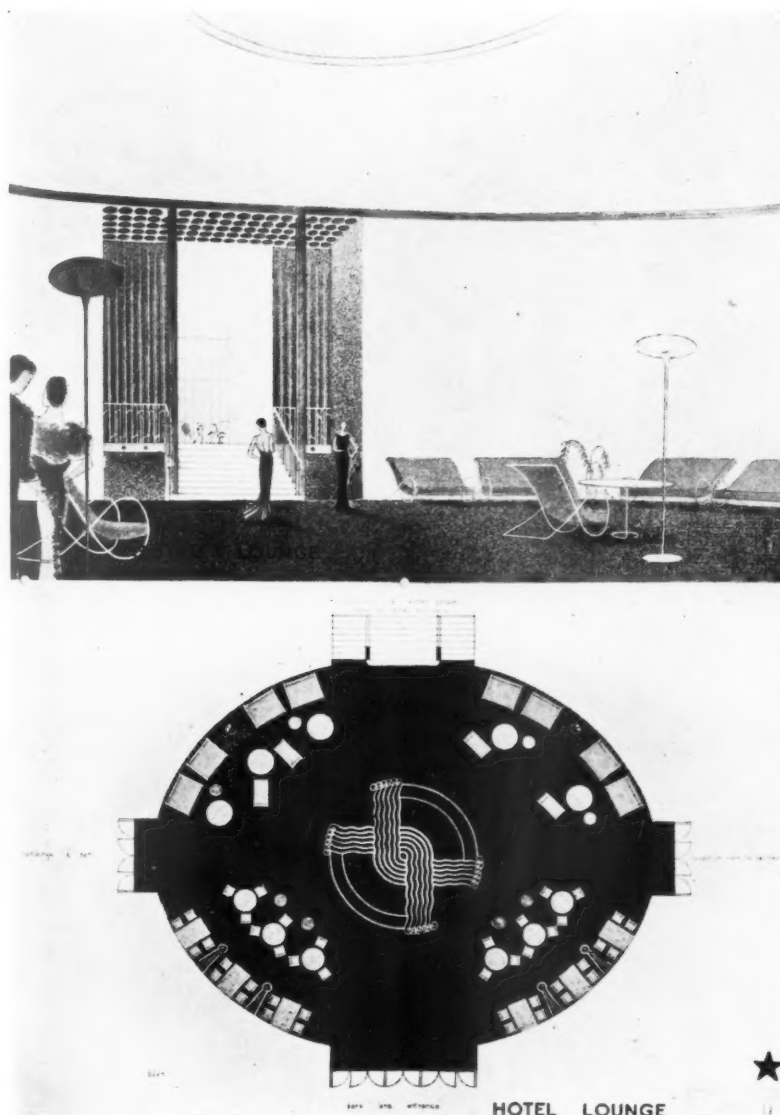
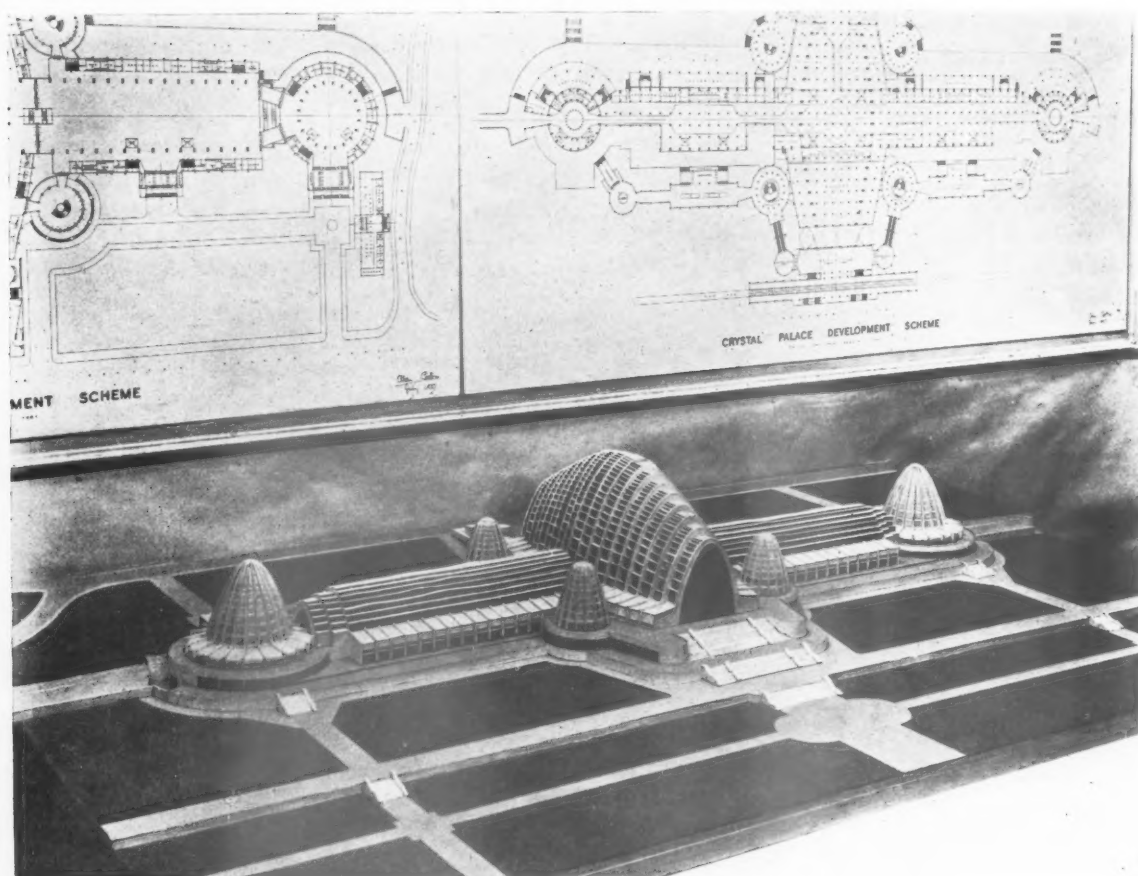


EXHIBITION OF STUDENTS' WORK

POLYTECHNIC SCHOOL OF ARCHITECTURE

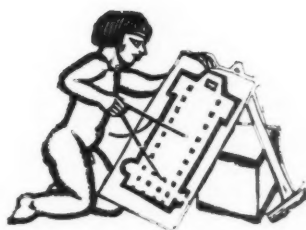


THE exhibition of the work of students of the Polytechnic School of Architecture, Town Planning and Interior Design is now being held at the Building Centre, New Bond Street, W.1. It will remain open until August 7. Above: Interior Design, Hotel Lounge. By Alan Cook (fifth year). See also pages 212 and 217.



CRYSTAL PALACE

From the exhibition of students' work of the Polytechnic School of Architecture: Model, with drawings in background, of a scheme for the development of Crystal Palace. By Alan Cook (R.I.B.A. Final Thesis).



PHYSICAL FITNESS

THE Englishman, or for that matter the Scotsman, called upon for a word picture of a typical fellow countryman, would probably be cautious in his claims. General knowledge, intellectual powers, standards of taste might all be written down to a low figure; but one exception there would be to the national passion for modesty. For it is not for nothing that "Recreations" play a large part in *Who's Who*.

Some way or another, under games or sportsmanship, the idea of the English passion for keeping fit would find a mention. Mass suggestion, as the world has learnt in the years of radio, is a tremendous force; the press and screen so continually emphasise sporting and athletic events that it is impossible not to believe that nearly everyone in Britain has a strenuous recreation of some kind; and therefore—the comfortable train of thought runs on—we must be a wonderfully fit nation.

On this one point it is hard to believe oneself mistaken. Wherever one goes in Britain, with the exception of the densest areas of large towns, every kind of person can be seen taking exercise, and when to the number of voluntary exercises one adds those whose work is hard exercise in itself, it would indeed seem that in fitness Britain ought to lead the world.

Yet it does not—or so at least the National Government has been told by its experts. For some time the ordinary citizen has been disappointed by the figures of rejections from the Army and has heard rumours of poor physique amongst school children.

Now things have gone further. The Government has set up a National Advisory Council for Physical Training and Recreation, with local area committees and a technical policy committee presided over by Lord Dawson of Penn, and two million has been set aside as a token of expenditure during the next three years.

To the Englishman there must be something shocking about all this; and after the shock is over, a great deal that is very disturbing. One begins to wonder what makes a physically fit person. Medical services to prevent and cure actual disease, sufficient suitable food, and access to exercise in healthy surroundings, either unorganised as in manual work and games, or carefully organized in a gymnasium, would seem the essentials. And by thinking of these it can be seen how, despite a liking for exercise, Britain manages to be seriously unfit.

Medical services are now extremely widely spread, but much of their preventive function fails because they are not used at an early enough stage, through the inefficient machinery and poor compensation of sick relief. Suitable food is probably the largest ingredient

of physical fitness, and at a time when "better schools" are a part of the Government programme, compulsory free milk and mid-day meals on a much extended scale is a long-term policy which ought to be carried out.

The third factor in physical fitness is suitable exercise. And it is to this alone that the Advisory Council is apparently to devote its attention. It is to build a physical training college, to organise a supply of qualified instructors and to give grants for swimming-pools, gymnasia, general athletic clubs and so on to bodies of which it approves, including local authorities.

The Council's programme is large and flexible. To achieve the most it must encourage those who at present have least opportunity to keep fit to do so in the way they want to. And how does the mass of people living on low incomes in large towns want to keep fit? Nobody can be sure; but everyone can be sure that helping them must be done with tact.

Space in cities is costly, and gymnasia and swimming baths—two of the most promising ways of giving large numbers facilities for healthy exercise in towns—are not likely to be immediate successes amongst non-swimmers with a deep dislike of being drilled. On the other hand, if the new sports' centres are on the outskirts of towns, the expense of travel at once cuts out the families who would benefit most from visiting them.

The younger generation of Britain who have any means at all have shown wonderful ingenuity in keeping fit in ways they like. By bicycle, buses, cheap trains and on their feet they have taken to the open air in enormous numbers. Additional encouragement by more hostels, aids to cheap camping, and specially cheap fares may be given by the National Council; but it should be given in the certain knowledge that it contains no remedy for the mass of poor physique.

The real problem, the JOURNAL believes, can only be tackled by providing centres for healthy recreation, and if possible, some nourishment, for the families to whom sixpence is a large outlay. And this belief calls for a longer term policy than grants to athletic clubs, and needs the co-operation of local housing authorities.

It could be done first by housing authorities determining that an adequate playground and garden for babies and parents—equipped with sandpits and swings, such attractions as a bowling green and if possible a milk canteen—should be recognised as part of the equipment of every new housing estate; while the National Council assists in preparing such centres in existing areas of dense population. And secondly, by turning existing parks into larger and better equipped centres for more vigorous recreation, as the L.C.C. is already doing in its scheme for new Lidos. These measures in the opinion of the JOURNAL would be more effective than unlimited gymnasia and expert instructors.



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N O T E S & T O P I C S

THE COUNTRY . . .

MR. BOUMPHREY'S broadcast on Wednesday evening was almost more to the point than anything he has ever said or written, and one can feel thankful that one advantage which the broadcaster possesses over other speakers is the power to preach to the unconverted. After ramming well home the undeniable facts about the fantastic condition of the countryside, Mr. Bournemouth laid the guilt at the right doors—local authorities who will not offend vested interests, industry as incorrigible as ever, and the Fighting Services.

I was glad, too, that Mr. Bournemouth stressed the important point which I mentioned only last week that "preservation" is unnecessary and irrelevant. Development must go on, but it must be made to go on in the right way.

. . . AND THE TOWN

The other point of which Mr. Bournemouth made so much was that if we are to save the country we must make the towns fit to live in. It is all depressingly late in the day to say these things, but it is nevertheless only too true that town planning or town development schemes which are entered upon boldly and with vision pay hand over fist. The tragedy is that there are so few examples with which to prove the argument.

In this connection I was very interested to see at the A.A. School Exhibition last week a town designed by a group of students to house 50,000 inhabitants. The sizes of families, numbers of cars, etc., are all based on the figures for 1950, and the whole town is a self-contained community with its factories at its back door and the open country at its front door. The buildings—flats and houses—are, I need hardly say, very very Corbusier, with a terrific outburst of romanticism in the central park with its concert house, theatre, bathing lake, etc., but as an alternative to Brixton (not to Hampstead as some of the visitors to the exhibition seemed to think) it had its attractions. If our towns are ever bombed out of existence the survivors will be more than ready for the task.

DIGGING UP THE PAST

Do any of you regret the dear dashing days of Omdurman

—illustrations by R. Caton Woodville of *Illustrated London News* fame? And do you read your *Times* agony column?

SAVING THE GUNS AT MAIWAND. Signed Proof Engraving, G. D. Giles: oak frame. —Offers to Box 761, F. Aldridge, 34 Paternoster Row, E.C.

THE NOTTINGHAM SCHOOL

The School of Architecture at Nottingham has been very fortunate, and wise, in getting Mr. George Checkley as its new head. Mr. Checkley is a New Zealander, a past Jarvis Scholar at Rome, and has unusual powers of avoiding publicity of any kind.

But that does not prevent the particularly fine qualities of his work being widely known. Checkley has not rushed into modernism; as always with its best exponents, he has come to it by elimination and his houses at Cambridge are one of the enduring British examples to the movement at its best.

Nottingham will not find its new Head an adept at hounding the slack into being passable, but those who want to learn what really matters in every branch of architecture, have now their chance.

R.I.B.A.

The annual exhibitions at Portland Place have become events of real importance, and if it is difficult to recapture the first fine careless rapture of "Everyday Things," it is, nevertheless, interesting to hear that an exhibition on "Health and Sport" is contemplated for next winter. The subject is certainly in the air, and there is lots of attractive material both from the point of view of the public and the architect.

Personally I feel that these major exhibitions would be more attractive and would assume their true importance if there were fewer minor ones. Organized by this body and that for the showing of every conceivable kind of building object and creed the world is a little exhibition mad at the moment. The result is that some of the thunder of the really important exhibitions is stolen and their value decreased.

MOVING HOUSE

We all know those slug-shaped boxes that are occasionally to be met with swaying behind a two-seater round the corner of an English lane. We all know that they are American in origin (even if, in more distant origin, they derive from the gipsy caravan), but it was a recent conversation with an American that told me how important the trailer caravan has become in American life.

It is the popularity of these, apparently, that has spoiled the market for the pre-fabricated small house, which promised a couple of years ago to develop a revolution in domestic architecture. The trailer has most of the virtues (as well as the defects) of the pre-fabricated house with the additional attraction of mobility.

And this attraction has been so appreciated that in Florida, for example (Florida is an odd instance of being the simultaneous paradise of the millionaire and the lower middle-class tourist), they have had to make special rules for the use of trailers to prevent the sanitary organization of the State (based naturally on an assumption of fixed points of discharge) from breaking down altogether.

It is even prohibited to keep a trailer in an ordinary



An experimental Green Line bus photographed while being inspected at 55 Broadway. To the casual observer the principal features of the bus were the high seat of the driver, external sliding doors, fast acceleration and a very wide lock.

garage. You have to have a special garage with a "sanitary cab" attachment.

And this leads up to the excellent story (which I am sure has a moral for all of us) of the logically-minded American citizen who has installed himself in his trailer on one of the central New York parking places. He has been very comfortable there for some time, he pays his parking fee regularly, and is thinking now of having the telephone installed.

So far the city authorities have discovered no law under which they can move him on.

IRELAND

The legends of pigs, bogs and fairies may be obsolete, but to Englishmen the Irish are still the same lovable and feckless race they always were. Occasionally, however, they present to the world a literary or cultural achievement which these amiable adjectives hardly seem to cover; Dean Swift and Mr. Bernard Shaw spring readily to mind. Simultaneously with the news of bombs and armoured cars comes another great step forward—the *Irish Architect and Engineer* has started a series of Information Sheets.

They are blue this time. Green would, I think, have been a happier touch, not that I would for one moment suggest, Mr. Editor, that colour in information sheets has the same significance that it has in shirts. It is a disappointment, however, to find that England has to be resorted to for authors—Messrs. Wallis Gilbert and Partners provide some useful notes on wallboard as shuttering for concrete.

ST. GEORGE'S

A great occasion comes nearer. What ought to be one of the events of an architectural generation is almost upon us with the announcement that the conditions of the competition for the new St. George's Hospital will be issued about the middle of September.

A million pounds, a thousand beds, a site which could not well be more prominently placed if the world was searched for it. Is it one's own poor spirit or something

wrong with British architecture that brings a twinge of misgiving at the thought of such an opportunity?

I think it must come from the feeling that in so great a job no one will dare to allow the winner to be daring. The responsibilities of the promoters and assessors, the importance of the site, the Press, the House of Commons, the Royal Fine Arts Commission, the man in the street and the smallest subscriber to the hospital—all of these will join in a terrifying pressure upon the competitors, and the thought of them will whisper "Play for safety."

And why not, the reasonable man may ask. The winner of this competition will be made for life; the promoters want a satisfactory hospital, not a public outcry over modernist fireworks.

To this the site of St. George's Hospital provides the best answer. St. George's has apparently felt that if it moved to a less conspicuous position "out of sight out of mind" might affect the great revenue it needs from voluntary sources. It is probably right.

But it is equally true that only the use, with the highest intelligence, of the most modern materials and equipment can promise a satisfactory hospital on a narrow site about two sides of which six lines of traffic revolve with a roar that can be heard in St. James's Park.

It is the question whether the winner will succeed in using modern resources fully while still coating the outside with cornices and Portland stone so adroitly that the Royal Fine Arts Commission will purr with satisfaction that causes my misgivings.

AMENITY'S MARTYR

A gentleman, a Kentish man, a private citizen, a Mr. Richard Mansell Darwall, saw a hoarding advertising a new housing estate on the Sussex Downs. He was overcome with anguish. He was consumed with fury. He picked up a stick. He dotted it one—lime-burner W. Wallstead saw him do it. Mr. Darwall had broken the law. When it came up in the magistrates' court of Steyning it was said to be the first case of its kind in England.

Mr. Darwall was not an architect. He did this because he liked the Sussex Downs and didn't like housing estates on them. To those who know that this is not a sufficient reason for knocking down other people's property, who respect and honour the law, yet who suffer some at least of this Kentish gentleman's feelings about the present plight of our funny little country, I append this appeal. Mr. Darwall committed his outrage on the spur of the moment. His expenses have been heavy. Will you send 5s. to help to defray them? Money, P.O., or cheque, made out to the ARCHITECTS' JOURNAL, 9 Queen Anne's Gate, Westminster, London. I will send it to Mr. Darwall.

SHEFFIELD REVELATIONS

From the *Sheffield Telegraph*: "It is cheering to learn from Captain R. L. Reiss, a former Socialist candidate for Colchester, who has been in the United States during the first three months of this year, that the American people frankly admit that Great Britain is 'miles ahead' in housing.

"Captain Reiss asserts that, in many American cities, municipal government is more or less corrupt." ASTRAGAL

NEWS

POINTS FROM
THIS ISSUE

"It is the popularity of the 'trailers' that has spoiled the market for the pre-fabricated small house" .. 214

"The conditions of the competition for the new St. George's Hospital will be issued about the middle of September" .. 215

"In Scotland . . . the housing situation is lamentably acute. There the cost of a house has risen by £100 between June, 1936, and June of this year" .. 240

NOTTINGHAM SCHOOL OF ARCHITECTURE APPOINTMENT

At last week's meeting of the Nottingham College of Art Committee, Mr. George Checkley, M.A. (Cantab), A.R.I.B.A., B.A.R.C.H., R.I.B.A., was appointed director of the School of Architecture, in succession to Mr. F. W. C. Gregory, who has retired.

Mr. Checkley is at present chief assistant in the Polytechnic School of Architecture, and has served a similar capacity in the School of Architecture of the University of Cambridge. A Henry Jarvis (Rome) scholar, he was also Lever Prizeman and holder of the Holt Travelling Scholarship of the University of Liverpool.

NEED FOR ARCHITECTURAL SECTION IN BRISTOL

The Bristol Salaries Committee is of the opinion that in view of the growth of architectural work of the Corporation departments, steps should be taken to secure co-ordination, and the principal officers have conferred and reported that the question of setting up an architectural department and placing it under the control of one of the principal officers is worthy of consideration.

The Committee therefore is asking the Council to authorize it or some other committee to report on the question.

THE LATE A. G. BOND

Mr. G. D. Bond writes: "As one of the executors of the late Mr. A. G. Bond, M.A., F.R.I.B.A., I have pleasure in informing you that the executors have made arrangements for the disposal of his architectural tuition practice to Mr. Charles Wilfrid Box, A.R.I.B.A., of 115 Gower Street, W.C.1. Mr. Box has been closely associated with the late Mr. Bond in his business for upwards of fifteen years."

THE
ARCHITECTS'
DIARY

Thursday, August 5.

ROYAL ACADEMY EXHIBITION. Burlington House, W.1. Until August 7.

EXHIBITION OF THE WORK OF VAN GOGH. At the Phoenix Gallery. 10 a.m. to 7 p.m. Mondays and Thursdays until 10 p.m. Until August 22.

POLYTECHNIC SCHOOL OF ARCHITECTURE. Exhibition of the work of the School at the Building Centre, New Bond Street, W.1. Until August 7.

Tuesday, August 10.

LONDON SOCIETY. Visit to Pousis House, 45, Berkeley Square, W.1. 3 p.m.

Sunday, September 26.

BRITISH COMMERCIAL GAS ASSOCIATION. Annual Conference. At Manchester, Sunday: Evening, programme of gas publicity films; Monday: Tour of Blackpool or the Lake District; Evening, reception; Tuesday: Morning, business session, followed by luncheon and afternoon session which includes a visit to Wythenshawe; Evening dinner; Wednesday: Business session, followed by luncheon; Afternoon, Ship Canal tour or visit to Trafford Park. Until September 29.

ARCHITECTS' BENEVOLENT SOCIETY

Miss B. N. Solly has been appointed secretary of the Architects' Benevolent Society.

HANTS AND ISLE OF WIGHT
ARCHITECTURAL ASSOCIATION

When Mr. G. Grey Wornum opened the annual Exhibition of the Hampshire and Isle of Wight Architectural Association on July 21, he referred to the "Queen Mary's" third class as an example of simple and practical good taste. The work, he said, was designed by Mr. White, the architect employed by Messrs. John Brown & Co., who had never received the recognition that he deserved.

The exhibition consists of works by members of the Association, the R.I.B.A. prize drawings, and studies from the schools of architecture in the county.

SLUM CLEARANCE AND DECROWDING

During the six months ended June 30 last, Scottish local authorities in the course of their operations under the Housing Acts secured the vacation of 4,995 unfit houses. In the same period, 4,099 overcrowded families living in fit houses were transferred to larger houses, of which 3,424 were owned by local authorities and 675 by private persons.

HOUSING PROGRESS

The number of houses completed by local authorities in Scotland during June was 966, making a total of 5,973 for the half-year ended June 30. In the corresponding six months of 1936 the number completed was 7,752.

In the first half of this year private enterprise completed 3,949 houses of a working-class type, i.e. houses containing five apartments and less. The number completed in the three months, April to June, 1937, was 2,437, the highest for any quarter since the withdrawal of financial assistance to private enterprise.

The number of houses under construction by local authorities continues to increase, and at the end of June stood at 25,008.

At June 30 last the total number of working-class houses built in Scotland since 1919 was 269,116.

PRESERVATION AT LINCOLN

St. Mary's Guildhall at Lincoln, all that now remains of John of Gaunt's Palace, is to be bought and preserved by the Lincoln Corporation. Three years ago a joint appeal for £3,000 was made by the Bishop of Lincoln and the S.P.A.B., but donations are now no longer coming in, and the Corporation has therefore agreed to find the rest of the money, about £1,700, and is entering into suitable covenants with the National Trust so that the historic character of the building may be preserved.

LOCAL GOVERNMENT

Associations of local authorities have been asked by the Minister of Health for their observations on the general questions raised in the Report of the Royal Commission on Local Government in the Tyneside Area, which, published earlier this year, proposes a thorough reorganization of the present system, with "national" services entrusted to a new regional body, certain local services continuing under the care of smaller municipal bodies.

Inquiries into local government reorganization in other parts of the country—notably on Merseyside—were postponed until the Tyneside report was issued, the Tyneside area, with a multiplicity of local authorities, providing an admirable "test case." There is still no indication that the Merseyside or any other inquiry is to go on, the Minister having chosen to get the views of such bodies as the Associations of Municipal Corporations, of County Councils, and of Urban and Rural District Councils before going further into a disputatious matter.

Tyneside, in the meantime, finds itself very thoroughly divided over the proposals made, the principles behind which, however, find increasing commendation from independent students of local government.

The Minister of Health, answering a question in the House of Commons last week by Mr. Herbert Morrison, denied that H.M. Government was considering the reorganization of local government in various parts of the country, but added, "The recommendations of the Tyneside Commissioners raised certain general principles, and I thought it proper that I should have the advice on this general matter of the associations of local authorities in the provinces, with whom I accordingly communicated, as well as the observations of the local authorities particularly concerned."

"I do not expect that the associations will be in a position to furnish me with their observations for some time yet. I should add that the particular recommendations of the Commissioners in regard to the organization of local government on the Tyneside are still under consideration, and I have not yet received the observations relating to that issue of all the local authorities concerned."

ROYAL WEST OF ENGLAND ACADEMY

The following prizes were awarded at the Prize Distribution and Exhibition held on July 16:—

First Year—R.W.A. Bronze Medal and B.S.A. prize of £2 2s: B. W. B. Ball. Proxime accessit: E. A. Gardner.

Second Year—R.W.A. Silver Medal and

B.S.A. prize of £3 3s. : A. D. Geach.
Bertram Wills Prize of £2 2s. : D. I. Stratton Davis. Construction Prize : A. D. Geach.

Third Year—The Architectural Association Design Prize of £5 5s. : G. Wills. Bertram Wills Prize of £2 2s. : J. C. Gorham.

Fourth Year—Dame Janet Stancomb-Wills Travelling Studentship (£25) : T. Overbury. The Savory Design Medal : R. M. T. Tyler. Harold Todd Construction Prize of £3 3s. : T. Overbury.

Headmaster's Prize of £2 2s. for most marked progress : H. C. Parsons.

Eustace Button Measured Drawing Prize to the value of £2 2s. : T. Overbury.

Spencer Murch Measured Drawing Prize to the value of £2 2s. : E. W. Baxter.

NEW TUBE STATION AT SWISS COTTAGE

London Transport placed a contract last week for a large quantity of steelwork needed for the new Swiss Cottage tube station.

Plans for this station have just been completed. It will be connected with the existing Metropolitan station at Swiss Cottage by a pedestrian subway across Finchley Road. The entrances to the station will be at the corner of Avenue Road and Eton Avenue. There will be three escalators to the tube platforms.

The order for the steelwork has been placed well in advance to ensure that there will be no interruption of the £7,000,000 extension scheme in North-west London.

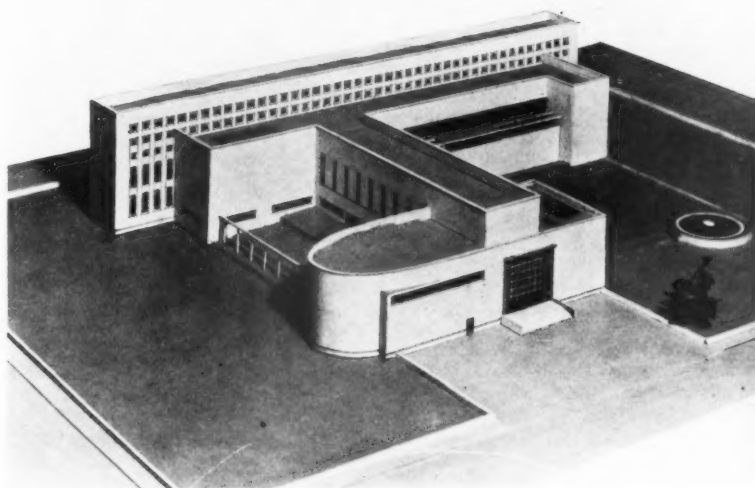
Three of the four miles of tube between Baker Street and Finchley Road have been built.

AWARD OF TRAVELLING BURSARY

The Council of the Royal Society of Arts has awarded to Mr. Cyril Kisby, A.R.C.A., of the L.C.C. Central School of Arts and Crafts, Southampton Row, London, W.C.1, the Travelling Bursary of £100, which it was able to offer through the generosity of Mr. Harold W. Sanderson to enable an art master to investigate the problem of providing better facilities for preparing art students to enter industry, and for giving a part-time training at art schools to those already engaged in industry.

KING GEORGE V MEMORIAL

Sir P. Sassoon, First Commissioner of Works, in reply to Sir R. Glyn, in regard to the question of the King George V memorial, said that the properties affected by the scheme at Abingdon Street for a memorial to King George V had not yet been transferred to the Memorial Committee : the Committee had set aside a sum of £125,000 for the purpose of the memorial, but the date for the completion of the memorial could not yet be stated : it was proposed that the memorial, when completed, should be transferred to the Office of Works for maintenance, the Memorial Fund providing an endowment. He was glad to be able, with the approval of his right hon. friend the Chancellor of the Exchequer, to take the opportunity to inform the House of the position. The Lord Mayor's Committee, having decided to adopt the Abingdon Street scheme in the modified form announced by the Lord Mayor on November 4 last, asked His Majesty's Government for a grant of assistance thereto from public funds. The Government approved the



From the exhibition of students' work, Polytechnic School of Architecture. Model of National Art Library. By Stanley Jordan. (Fourth Year).

principle of State participation in the scheme, but decided that the Government contribution should take the form not of a cash grant but of a free gift of all the State property within the area selected by the Committee, including the sites now occupied by No. 5 Old Palace Yard, Nos. 5 and 5a College Mews and No. 29 Abingdon Street. The value of these occupied sites might be put at approximately £80,000. In view of the exceptional nature of the proposed gift His Majesty's Government considered that the matter should be made the subject of specific parliamentary approval which they proposed to seek next session by means of an affirmative resolution of both Houses of Parliament.

ANNOUNCEMENT

S. S. Reuben, A.R.I.B.A., Commissariat Building, Hornby Road, Fort, Bombay, India, will be glad to receive trade catalogues, samples, charts and literature which may be useful to a practising architect and a lecturer on building materials, practical construction, sanitation, professional practice and acoustics.

COMPETITION NEWS

SENIOR MIXED SCHOOL KEIGHLEY

The Keighley Education Authority invites architects to submit, in competition, designs for a new senior mixed school proposed to be erected on the Guard House site, Keighley, Yorkshire. The assessor is Mr. Harold A. Dod, M.A., F.R.I.B.A., and the following premiums are offered : 150 guineas, 100 guineas, and 50 guineas. The last day for questions is September 4, and the last day for submission of designs is December 22. Conditions of the competition may be obtained from Mr. E. Ratcliffe, Director of Education, Education Office, Keighley, Yorks. (Deposit £2 2s.)

THE UNIVERSITY OF SHEFFIELD

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.

Prizes of twenty-five and ten guineas, respectively, will be awarded to the designs placed first and second. The author of the design finally adopted will be offered an appropriate fee for superintending its execution. 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.

EXHIBITIONS

[BY D. COSENS]

THE Exhibition of Nigerian Art at Zwemmer's Gallery is very interesting as a commentary on the reactions of traditional native art to an applied alien culture. The primitive West African sculptor, in his achievement of great emphasis on essentials by the deliberate simplification of form, has had a profound influence on contemporary European work. Now Europe, in turn, is influencing African art, and the tribal fetishes and symbolism are giving way to civilized religions and organized art teaching. The result, in art, is a reflection of the probable confusion of the individual. The old tradition remains, with the new restraints superimposed. There is still great feeling for material, but the dramatic simplifications of form, made by an extremely observant and emotional race, have gone. Instead, in such figures as the crocodile, there is an elaboration of detail that is rather meaningless. Of the work of the four young Nigerian artists only one, "Seated Man" by Enwonwu, seems to have kept something of the spirit of the best native work. Most of the paintings have a rather self-conscious *naïveté*.

The Leicester Galleries are providing good light summer entertainment, and plenty of it—a sort of Everyman's library of recent

painting compiled for all tastes. This exhibition ranges from Glyn Philpot to Salvador Dali, and still finds time for a light-hearted Dufy or Eisendieck on the way.

Gertler's strident "Merry-go-round" dominates the Hogarth room, but although this picture brought him great popularity his later "Cypresses" (93) is in many ways a far more interesting painting. There is a charming quiet Ceria (98), and a very successful Suddaby (97) in which he has seen and analysed the colours and qualities of that particular day, Raoult's "Two Clowns," which gain considerably in escaping from his usual stained glass manner, a lovely Degás crayon drawing (149), a very interesting recent Henry Moore drawing with an architectural background, a Salvador Dali drawing (176) very fluent in line and rather beautiful. Adrian Daintrey's "Salisbury Plain" (67) is very successful in its suggestion of space and distance. This is perhaps one of the most promising paintings in the exhibition. Forain's "Dancers" (80) is one of the best, and Sickert's portrait (105) in which, in the sketchiest way, he says all there is to say (the face is left blurred in deliberate understatement), is outstanding. And his colour, as always, is lovely.

There is a good carving by Modigliani, but the rest of the sculpture is disappointing, and not up to the standard of the painting. Both Underwood and Epstein are very poorly represented, and do not do themselves justice. Definitely this is Everyman's exhibition, but out of nearly two hundred works it is impossible to name more than a few.

Nigerian Art. The Zwemmer Gallery, 26 Litchfield Street. Until August 7.

Summer Exhibition of Sculpture and Paintings. The Leicester Galleries. Until September 30.

R. I. B. A.



R.I.B.A. MAINTENANCE SCHOLARSHIPS

The R.I.B.A. announces that the following maintenance scholarships have been awarded for the year 1937-1938:—

An R.I.B.A. maintenance scholarship of £70 per annum to Mr. J. S. Minton, of Shrewsbury.

An R.I.B.A. maintenance scholarship of £60 per annum to Mr. I. L. B. Hopkins, of Aberdeen.

An R.I.B.A. maintenance scholarship of £55 per annum to Mr. T. H. Lodge, of Brighouse, Yorkshire.

An R.I.B.A. maintenance scholarship of £55 per annum to Mr. P. R. Ferguson, of Runwell, Essex.

An R.I.B.A. (Houston) maintenance scholarship of £100 per annum to Mr. J. L. Ware, of London.

An R.I.B.A. (Houston) maintenance scholarship of £100 per annum to Mr. Michael Shepherd, of Liverpool.

The Ralph Knott Memorial maintenance

scholarship of £45 per annum at the Architectural Association School of Architecture, London, to Mr. S. Cruickshank, of London.

The maintenance scholarships awarded last year to the following candidates have been renewed for a further period of one year:—

Mr. F. A. R. Hill (Birmingham School of Architecture) — R.I.B.A. maintenance scholarship of £100.

Mr. A. M. Foyle (Bartlett School of Architecture, University of London) — R.I.B.A. maintenance scholarship of £70.

Mr. P. L. Cleveland (Architectural Association School of Architecture) — R.I.B.A. (Houston) maintenance scholarship of £100.

Mr. J. C. de C. Henderson (Architectural Association School of Architecture) — *Builder* maintenance scholarship of £50.

STUDENTS' VISIT TO ROME

The seven students who took part in the visit to Rome last Easter, organized by the then president of the R.I.B.A., Mr. Percy Thomas, in consultation with the allied societies and the recognized schools, have

now delivered their reports on the tour. The reports prove that the visit was an unqualified success. The students left London on the evening of March 21, arriving in Rome at midnight on March 22, where they were met by the director of the British School at Rome, Mr. C. A. R. Radford.

During their stay in Rome they visited the main monuments of the city, and they inspected some examples of modern work. The last four days of the tour were spent at Pompeii. From this centre Paestum and the towns on the Sorrentine Peninsula were visited.

Some of the students returned direct to London, and some came back by way of Venice.

The scheme started by Mr. Percy Thomas during his presidency of the R.I.B.A. provides for sending to Rome at Easter annually a party of not more than ten students, the financial provision being made by the allied society concerned, and the student being selected as a rule from the recognized school of architecture in the province of the allied society.

LETTERS FROM READERS

JOHN GLOAG.

"DISILLUSIONED"

Amenity's Martyr

SIR,—The rollicking artificiality of your campaign to raise twenty quid to pay Mr. Darwall's expenses has now brought an Irishman into the field. J. S. is obviously Irish; no one else could have referred to the peculiar genius of the English being expressed all over England and Scotland. I should not advise him to make that remark north of the Border.

What are you going to do with the £20, supposing Mr. Darwall resents your rather interfering form of charity? May I suggest that a modern martyr's memorial is erected in Queen Anne's Gate, designed jointly by the MARS Group and the Council for the Preservation of Rural England?

JOHN GLOAG

[*Astragal writes*: J. S. and his nationality are unfortunately unknown to me, but the address on his letter is Dunfermline, a town which is generally conceded to be north of the Border, I believe. In the circumstances I think Mr. Gloag will agree that he owes 5s. to the Darwall fund.]

SIR,—Your attitude in the Darwall matter has no doubt had the hearty appreciation of all right-thinking men and women, if only theoretically. It is with surprise, therefore, that they will see the whole of the back cover of the

JOURNAL for July 22 devoted to the advertising of a vast new industrial centre for the Barnet By-Pass. "... the Barnet By-Pass Road is probably the finest arterial approach road to London."—to quote from this advertisement. So it is; but may not be very soon, apparently, for will not this industrial centre, comprising 1,800 houses for workers in addition to the factories, be turning this hitherto attractive avenue into another Great West or North Circular Road? Are we to have the pleasure of sitting back and watching more ribbon development taking place under our noses? If so, we can begin to get used to the idea here and now.

Anyone can drive out Welwyn-wards and see the large advertising hoardings for himself. Advertising hoardings?—Yes.

"DISILLUSIONED"

[If "Disillusioned" re-examines the advertisement he mentions, he will see that the building illustrated is to be designed by members—distinguished members—of his own profession. "Disillusioned" may consider that this does not affect his argument, but others are at least at liberty to take another view. Messrs. John Laing and Son, the owners of the new estate, are a firm of long standing and high repute in the building trade, and it is not to be supposed that they would develop any new estate without proper architectural control.—Ed., A.J.]

WORKING-CLASS FLATS, STEPNEY, E.

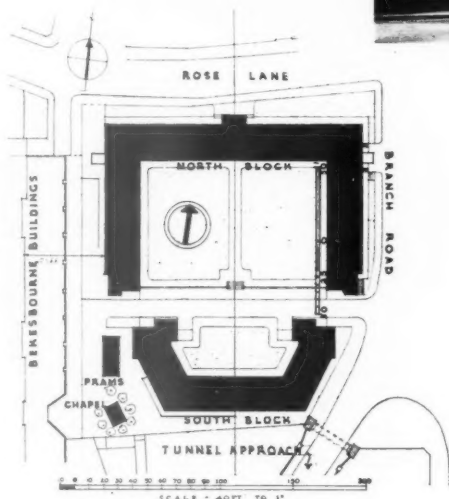


DESIGNED BY

A D S H E A D

AND

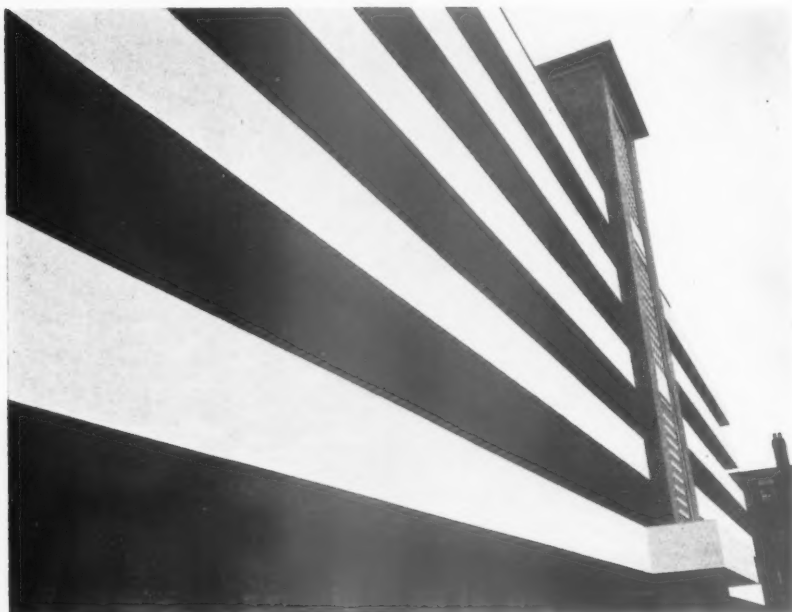
R A M S E Y



GENERAL PROBLEM—Accommodation comprises 119 working-class flats in two blocks, as follows: north block, 10 four-room flats, 34 three-room flats, 26 two-room flats, 14 one-room flats; south block, 6 four-room flats, 29 three-room flats. There are also a workshop, caretaker's store, mortuary chapel and pram shelters. The scheme is planned on six floors with an automatically controlled lift to each block and access balconies. A roof playground is provided on the north block, and drying-rooms in both blocks. There are private balconies to all, except twelve, flats.

The photographs show: top, the Rose Lane front; above, the Branch Road front.

WORKING-CLASS FLATS, STEPNEY, E.:



PLAN—The principal rooms in the north block face the courtyard, and those in the south block a children's playground and St. James's Gardens on the southern boundary of the site.

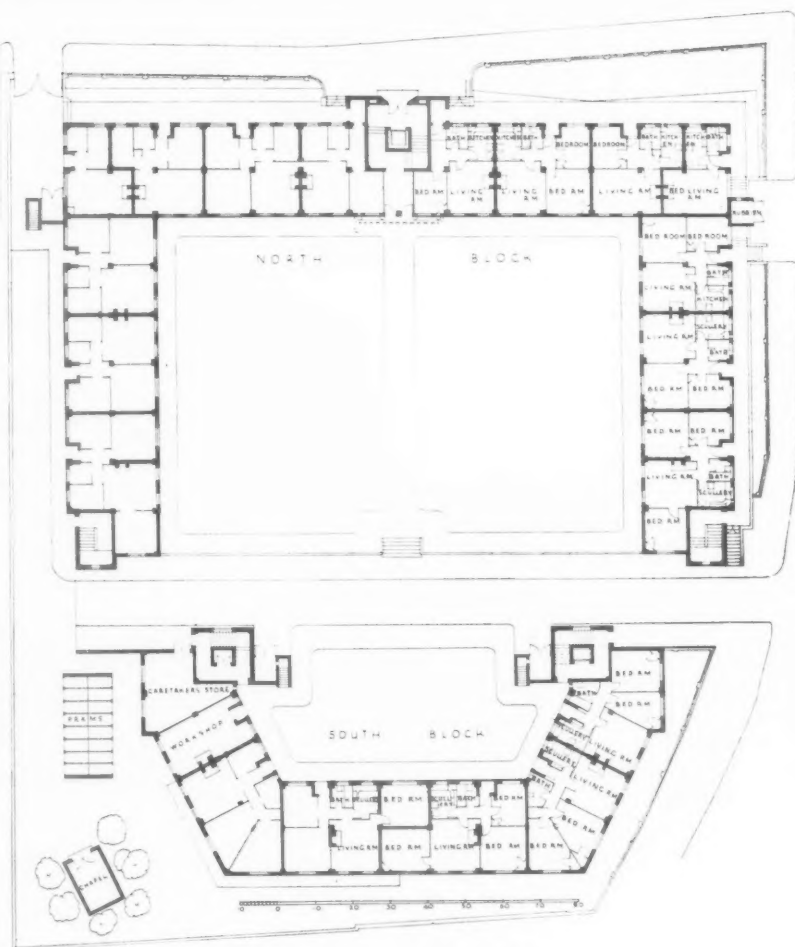
CONSTRUCTION—Steel-framed building on pile foundations with 11 ins. hollow panel walls and 13½ ins. to staircases of brick; internal party walls, cellular flettons; internal partitions, breeze. Roofs, floors and balconies, including fronts, are of reinforced concrete.

ELEVATIONAL TREATMENT—Facing bricks are specially selected flettons without bar marks; concrete balconies, cornices, etc., treated with cream waterproof paint. The window to the main staircase of the north block is of concrete and glass. Metal casements, iron grilles and balustrades are painted blue; entrance doors to flats, yellow with black frames.

INTERNAL FINISHES—Kitchens and bathrooms are painted; bedrooms, living-rooms and halls, distempered. There are composition floors to bathrooms and kitchens; battleship linoleum on living-room, bedroom, and hall floors on ground floor only, deal on other floors in these positions. Picture rails are metal; internal doors are two-panel stock pattern, and skirtings, cement.

WEEKLY RENTS—One-room flat, 6s. 5d.; two rooms, 10s.; three rooms, 13s.; four rooms, 15s. 11d.

The photograph is of the balconies on the Rose Lane front.

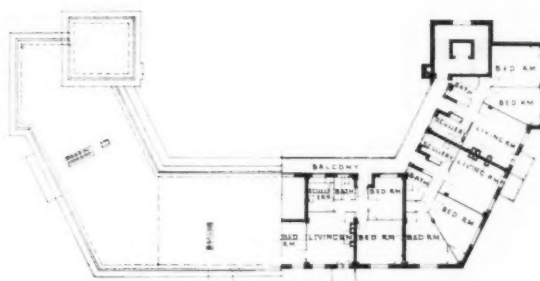
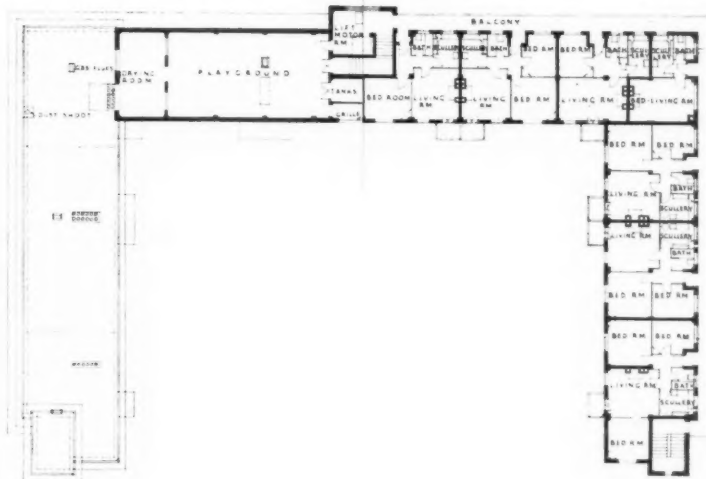


GROUND FLOOR PLAN

DESIGNED BY ADSHEAD AND RAMSEY

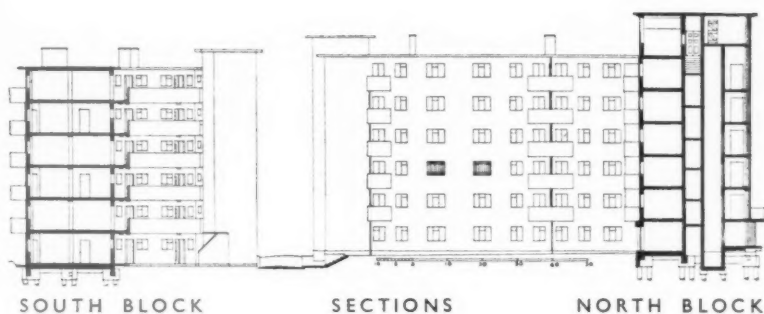


The photographs show two views in the courtyard of the north block.



ROOF PLAN

THIRD (TYPICAL) FLOOR PLAN



SOUTH BLOCK

SECTIONS

NORTH BLOCK



WORKING - CLASS FLATS, STEPNEY, E.

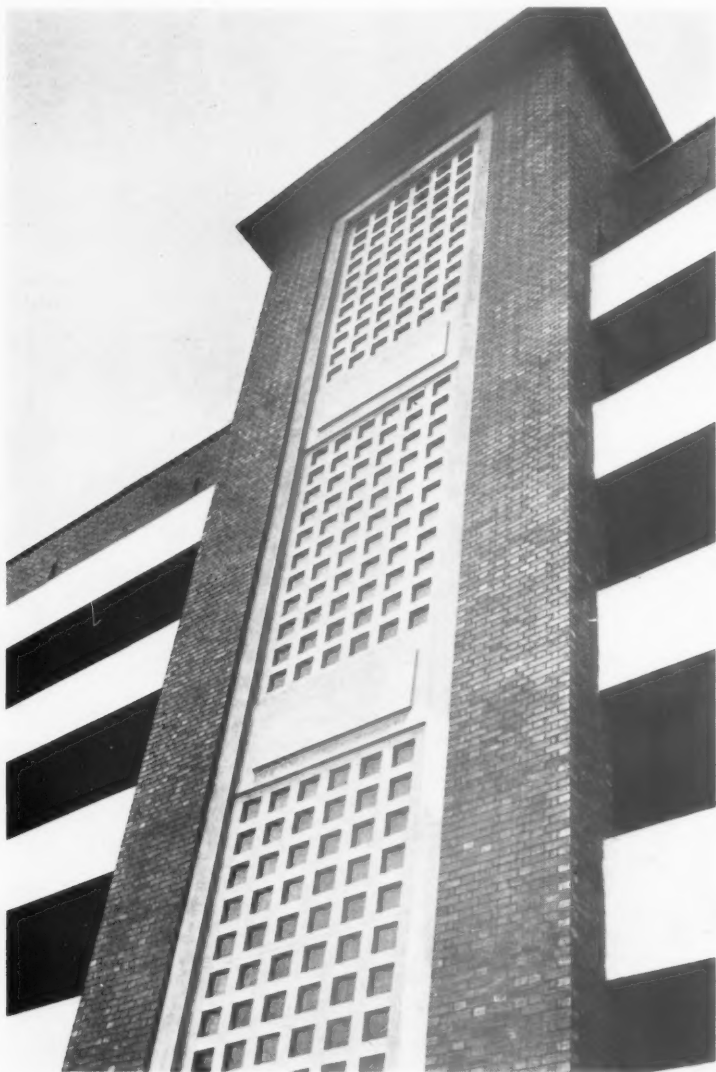
DESIGNED

BY

ADSHEDA

AND

RAMSEY



SERVICES—One passenger lift serves all floors to each block; dust chutes from all floors connect into containers on the ground floor; and hot water is supplied from boilers behind the living-room grates. There are grates with ovens over in the living-rooms. Electric power points are provided in the bedrooms instead of fireplaces.

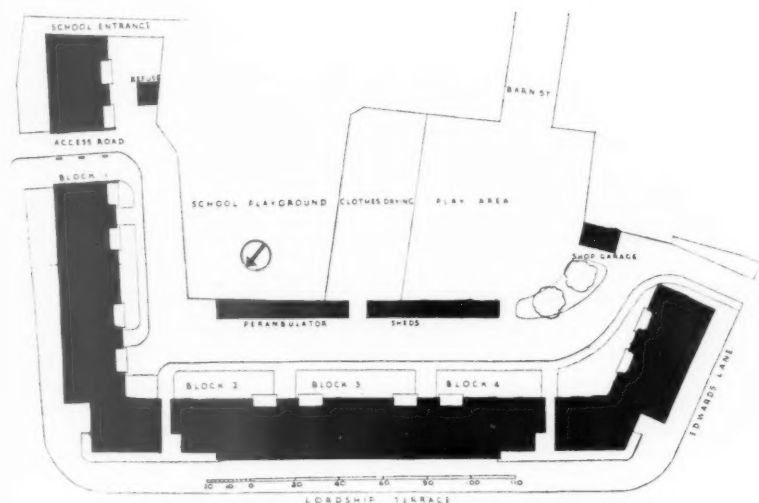
CONTRACT PRICE—£68,666.

The photographs show: above, the staircase window on the Rose Lane front; right, the entrance hall and lift on the same front.

For list of general and sub-contractors see page 241.

A black and white photograph of the Parkview Hotel, a large, multi-story brick building. The building features a prominent corner entrance with a curved facade. The facade is composed of dark brick with numerous windows, some of which are grouped in vertical columns. The building is situated on a street corner, and a sidewalk is visible in the foreground. The overall style is that of a mid-20th-century urban hotel.

The photographs show: above, a view of the north corner of Lordship Terrace; right, a staircase window in the courtyard.



D E S I G N E D

 $B \quad \gamma$

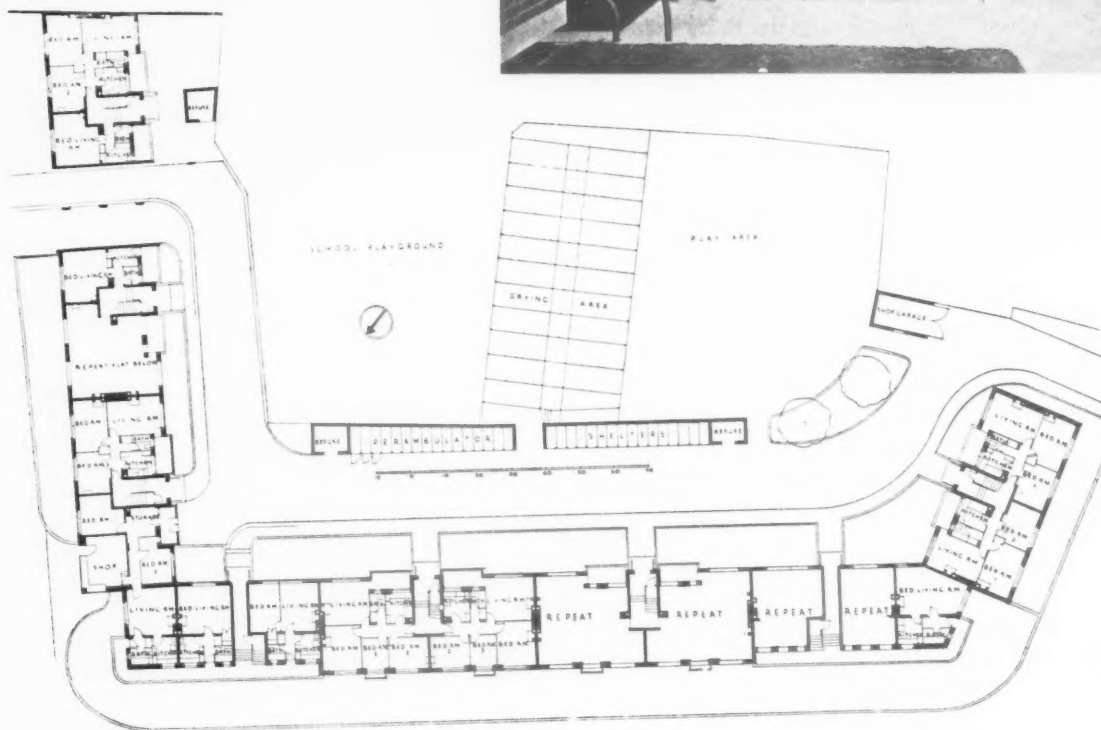
E D W A R D

A R M S T R O N G

WORKING-CLASS FLATS, STOKE NEWINGTON, N.:



The photographs show : above, balconies at the north corner of Lordship Terrace; right, general view in the courtyard.



DESIGNED BY EDWARD ARMSTRONG



CONSTRUCTION—External walls are in brickwork, $13\frac{1}{2}$ ins. thick for the full height. Internally, in the case of the larger flats, a reinforced concrete frame is used to divide the floor spans. Floors are reinforced concrete hollow tile construction, and partitions 2 ins. hollow tile. Owing to the relatively sturdy construction of the buildings and the placing of the chimney stacks on division walls between flats, noise transmission has been reduced to a minimum.

INTERNAL FINISHES—The following finishings have been adopted as a precaution against the harbouring of vermin. All door frames are of steel, grouted solid to the partitions. Windows are steel throughout. Floors to kitchens and bathrooms are in granolithic,

coved up to the plaster. In the working space in the kitchen a heavy quality lino is used. All other floors are of wood block laid in mastic direct upon the screed; and all skirtings are in granolithic coved up against the walls. Picture rails consist of 1 in. by $\frac{1}{2}$ in. flat metal bars, fastened clear of the walls and terminating 12 ins. short of all corners of the rooms. Fireplaces are finished with flat tile slabbed surrounds. Baths are built in on three sides with a flush metal panel to the front extending to the cover of the skirting.

RENTS (per week, approx., exclusive of rates)—1-room, 5s. 6d.; 2-room, 8s.; 3-room, 10s.; 4-room, 11s. 6d.

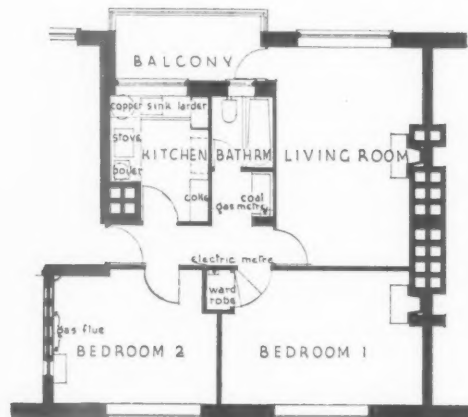
The photograph is of an entrance from the courtyard.

WORKING-CLASS FLATS, STOKE NEWINGTON, N.



SERVICES—Each flat is equipped with its own hot-water installation, run from a small coke-burning boiler in the kitchen, and supplying hot water direct to the bath, sink and copper at a minimum cost to the tenant. The boiler also burns a proportion of refuse and will keep a kettle warm. Every living-room and principal bedroom is provided with an open fuel fire with gas-poker point. Secondary bedrooms have gas fires. Cooking is by gas.

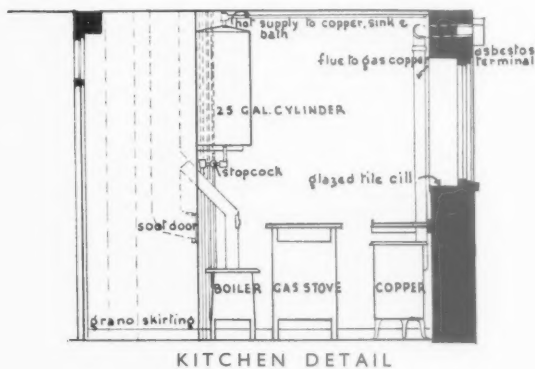
The photograph is taken looking from a living-room towards a balcony. For list of general and sub-contractors see page 241.



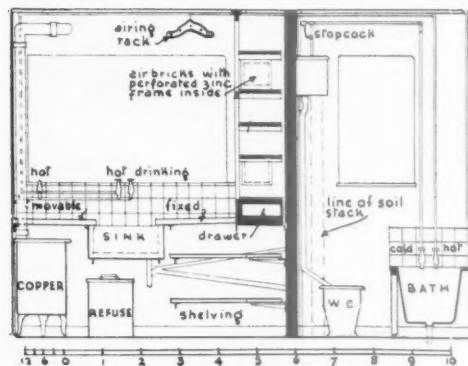
TYPICAL 3-ROOM FLAT



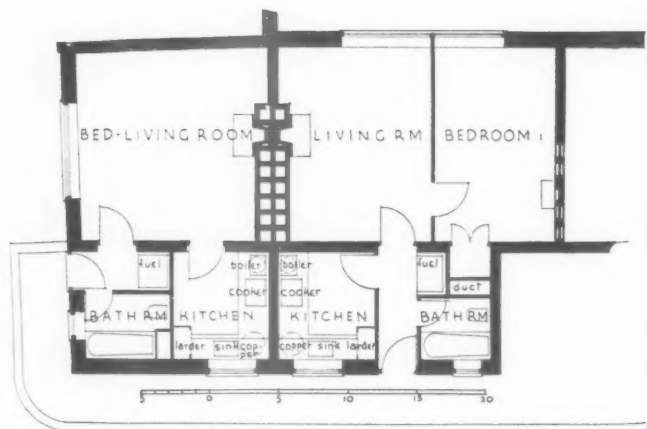
TYPICAL 4-ROOM FLAT



KITCHEN DETAIL



KITCHEN AND BATH DETAIL



TYPICAL ONE-BEDROOM TYPE AND SINGLE-ROOM TYPE

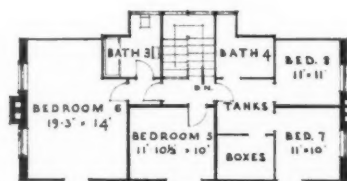
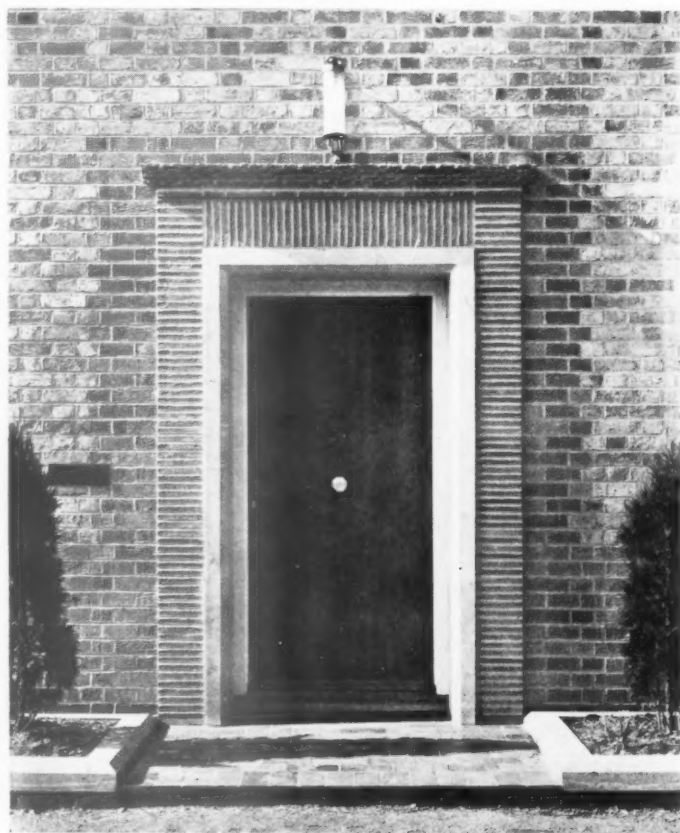
D E S I G N E D B Y
E D W A R D A R M S T R O N G

HOUSE, PRINCES WAY, WIMBLEDON

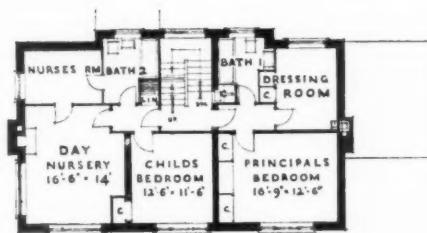
CONSTRUCTION—Concrete footings, reinforced at angles; 14-in. solid brick walls, faced with London stocks. Floors are joisted, except fuel, etc., extension, which is solid concrete, and the roof is covered with slates. The flat roof is covered with bituminous felt on boards and wall board, and finished with cement and gravel wash. Dormers are finished with copper flats and slate cheeks, and the attic is lined with fibre board as insulation. Walls and stacks are faced with yellow London stocks, except for plinth and jambs to doors and windows, which are brown. Windows are metal with large panes in wood surrounds (wood painted cream, metal light blue) with brown tile cills. The front door is solid teak with a surround of stone and Roman tiles set edgewise.

INTERNAL FINISHES—Floors generally are deal boards; kitchen, lino on asphalt and concrete; bathrooms, cork lino. Walls generally are plaster, finished smooth. Decoration has been left for six months, but will be simple distemper in most rooms. There are tile splash backs in the kitchen and bathrooms; and the entrance hall is panelled in birch and waxed. The kitchen is oil-painted. The photographs show: right, the entrance front; below, the entrance doorway.

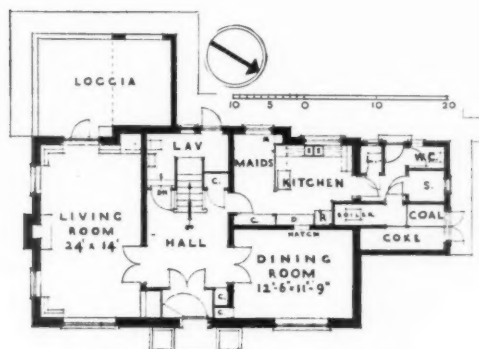
For list of general and sub-contractors see page 241.



SECOND FLOOR PLAN



FIRST FLOOR PLAN



GROUND FLOOR PLAN

DESIGNED BY ASTBURY,
MINOPRIO AND SPENCELY

LAW REPORTS

ALLEGED INFRINGEMENT OF TRADE MARK

Ravenhead Brick Co., Ltd. v. The Ruabon Brick and Terra Cotta Co., Ltd. Chancery Division. Before Mr. Justice Symonds.

THIS was an action by the Ravenhead Brick Co., Ltd., of Ravenhead Works, St. Helens, and Upholland Works, near Wigan, Lancashire, against the Ruabon Brick and Terra Cotta Co., Ltd., of Ruabon, Denbighshire, to recover damages for the alleged wrongful imitation by them of the plaintiffs' trade mark and for an injunction restraining the defendants from such wrongful imitation.

The plaintiffs' case was that they had carried on business at the Ravenhead and Upholland works as brick and tile manufacturers for upwards of 60 years, and that they were the registered proprietors of the trade mark consisting of the word "Rus" and registered on March 19, 1913, being No. 350,585 in Class 16, in respect of all goods comprised in the said class, viz., porcelain and earthenware, etc. Plaintiffs said they had used the trade mark upon and in connection with the goods, including bricks and tiles manufactured and or sold by them, and that by reason thereof the trade mark used for many years had become well known in the trade and to the public as distinctive of the goods of the plaintiffs and their predecessors.

Plaintiffs said they had recently ascertained that the defendants, who carried on business at Ruabon as brick and tile manufacturers, had put on the market under the trade mark "Sanrus," bricks not of plaintiffs' manufacture or merchandise, and in particular the plaintiffs complained defendants had offered for sale bricks under the name of "Sanrus facing bricks."

Plaintiffs alleged that the trade mark "Sanrus" so closely resembled theirs that it was calculated to deceive and that the use of the mark "Sanrus" as a trade mark for bricks not of plaintiffs' manufacture or merchandise, constituted an infringement of their trade mark and was calculated to deceive the trade and the public and to lead to the belief that the goods marketed by the defendants were those of the plaintiffs and to be passed off as the goods of the plaintiffs.

The defence was a denial of the plaintiffs' allegations. Defendants said that the word "Sanrus" was not used as a trade mark, but to indicate that the bricks referred to were of a new pattern, recently devised by them and so understood. Defendants further said that they had never used the word "Sanrus" as a trade mark and had no intention of so using it. Defendants also pleaded that the plaintiffs had been aware since November, 1936, and prior to the delivery of their statement of claim of such absence of intention on the part of the defendants.

Mr. R. Burrell, k.c., and Mr. Shaw appeared for the plaintiffs and Mr. Shelley, k.c. and Mr. Aldous for the defendants.

His lordship, at the conclusion of the evidence and arguments, in giving judgment, said that the plaintiffs were an old-established company which had carried out the manufacture of bricks and tiles for many years. Some time at the beginning of the

present century the plaintiff company began to manufacture a new kind of brick, which had a nice rustic appearance and that brick they had put on the market under the name of the "Rus" brick. That brick had a remarkable success and the plaintiffs then applied for the registration of the word "Rus" as a trade mark and the word was so registered in March 19, 1913, under No. 350,585 in Class 16. The plaintiffs had sold enormous quantities of those bricks and had advertised them under the name "Rus bricks."

The defendants also carried on business as brick makers in North Wales and in 1936 it came to the knowledge of the plaintiffs that the defendants were putting on the market a brick under the name of the "Sanrus brick."

His lordship having referred to proceedings by the Registrar of Trade Marks on an application by the defendants to register as a trade mark in connection with their goods the word "Sanrus," said that the evidence which had been called before him proved to his satisfaction that if anybody in the trade saw the word "Sanrus" in connection with bricks, they would come to the conclusion that those bricks were bricks made by the plaintiff company.

His lordship came to the conclusion that the use of the word "Sanrus" by the defendants would lead to confusion and that in the circumstances it was an infringement of the plaintiffs' trade mark "Rus." He held that the plaintiffs were entitled to an injunction on the issue as to infringement.

On the second part of the case as to the allegations of passing off, his lordship found the evidence too slender to grant the injunction claimed.

On the evidence as to damages he came to the conclusion that the defendants in doing what they had done had invaded the legal rights of the plaintiffs, and there must be an inquiry as to the damages. The defendants must pay the general costs of the action and the plaintiffs must pay the costs of the issue on which they had failed, and the costs of the inquiry as to damages would be reserved.

APPLICABILITY OF PRIVATE STREET WORKS ACT

Hemel Hempstead Corporation v. South London Real Estate Co., Ltd.—King's Bench Division. Before Mr. Justice Swift.

THIS action raised a novel point of law on the construction of the Private Street Works Act, 1892.

The Hemel Hempstead Corporation owned some land, which they had purchased as the housing authority for the borough. It was sold in 1925 and the Corporation's case was that it was agreed that the purchasers would complete the road laid out on the land to the satisfaction of the Corporation's surveyor. As this was not done they made up the road, named Deaconsfield Road, under the Private Street Works Act and they now sued the South London Real Estate Co., Ltd., for £117 odd, being part of the cost of making up the road.

Defendants denied liability and contended that in the circumstances of the case the road was repairable by the public. Their submission was that all land was sold under an agreement to persons from whom they acquired it, that those persons would

complete the road, defendants were not liable. It was also urged that the Private Street Works Act was not applicable to the case and in the alternative they pleaded that the Corporation had either abandoned or waived any rights they had under the Act.

Mr. Simes, for the Corporation, submitted that this was a clear case of liability on the part of the defendants. The defendants had failed to make up the road satisfactorily and in 1932 the Corporation found it necessary to do the work, and they proceeded under the Private Street Works Act.

Mr. Walker-Smith, for the defendants, argued that the Private Street Works Act did not apply because this was a case in which the road came under the Housing Act, 1925, which provided for the method to be followed in the construction and making up of roads governed by that Act. The Corporation were wrong, he submitted, in acting under the Private Street Works Act, in view of the fact that an alternative procedure was laid down by the Housing Act, under which the Corporation acquired the land.

His lordship, in giving judgment, reviewed the facts of the case and said the defendants' case was that the Corporation had proceeded under the wrong Statute. He did not think so. It was true that there might be an obligation on the Corporation when selling land acquired under the Housing Act, 1925, to see that proper conditions were inserted in the conveyance as to the building of houses and the making of roads; but that did not exclude the operation of the Private Streets Works Act if the Corporation thought it right to put it into force, which they did in this case. That being so it was clear that the Corporation were authorized by Statute to do the work they did here. To his mind there was no defence to the claim and he entered judgment for the Corporation with costs.

Changes of Address

Mr. Winston Walker, A.A.DIP., A.R.I.B.A., has moved his office to 3 Trafalgar Studios, Manresa Road, Chelsea, S.W.3. Telephone: Flaxman 9877.

Mr. Raymond C. White, A.R.I.B.A., of Brooke House, Market Square, Aylesbury, has opened a branch office at 16 High Street, Banbury, where he would be glad to receive catalogues and samples.

The Leeds School of Architecture

The Leeds Architectural Travelling Scholarship for the year 1937 has been awarded to Mr. Alec Burton Lacy, of York.

Mr. Lacy, who is 24 years of age, was educated at Archbishop Holgate's School and has just completed the third year of his course in architecture.

The Scholarship, which is awarded jointly by the Leeds Education Committee and the West Yorkshire Society of Architects, is of the annual value of £60 and is open to students who are attending the Leeds School of Architecture in the College of Art.

The successful candidate is required to travel for eight weeks and it is understood that Mr. Lacy intends to visit France, Germany and Sweden.

WORKING DETAILS : 579

ELECTRICAL SHOWROOMS • CANNON STREET, E.C. • WALTER GROPIUS AND E. MAXWELL FRY

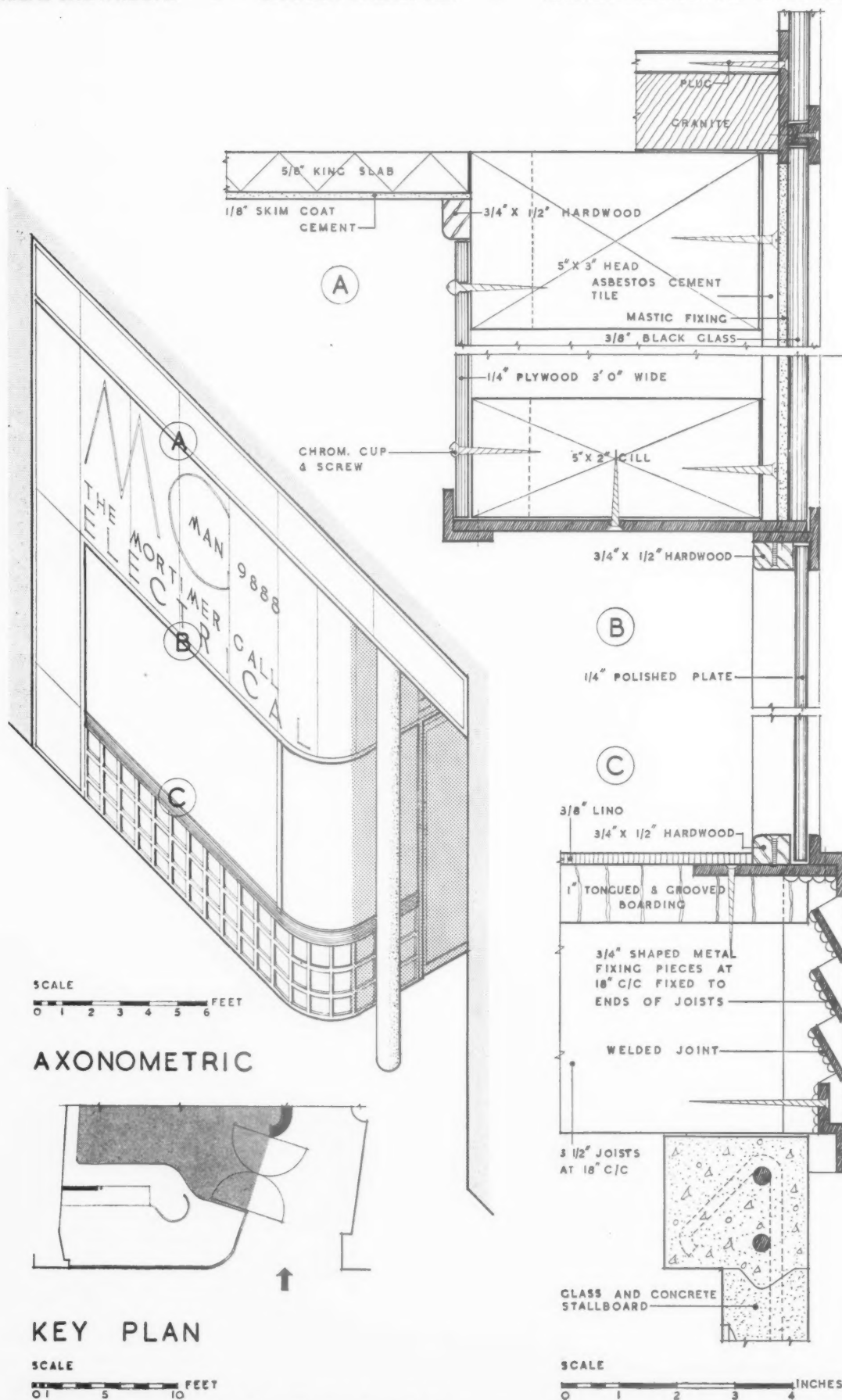


The shop-front facing is of black glass, with glass-concrete stall-board and continuous metal louvres in cellulosed metal as a stall-board capping. Entrance doors are in stainless steel, satin finish, with cellulosed pull handles.

The photographs show, above, the existing shop front, and below, before alteration. Details are illustrated overleaf.

WORKING DETAILS : 580

ELECTRICAL SHOWROOMS • CANNON STREET, E.C. • WALTER GROPIUS AND E. MAXWELL FRY



Axonometric and details of the shop front illustrated overleaf.

The Architects' Journal Library of Planned Information



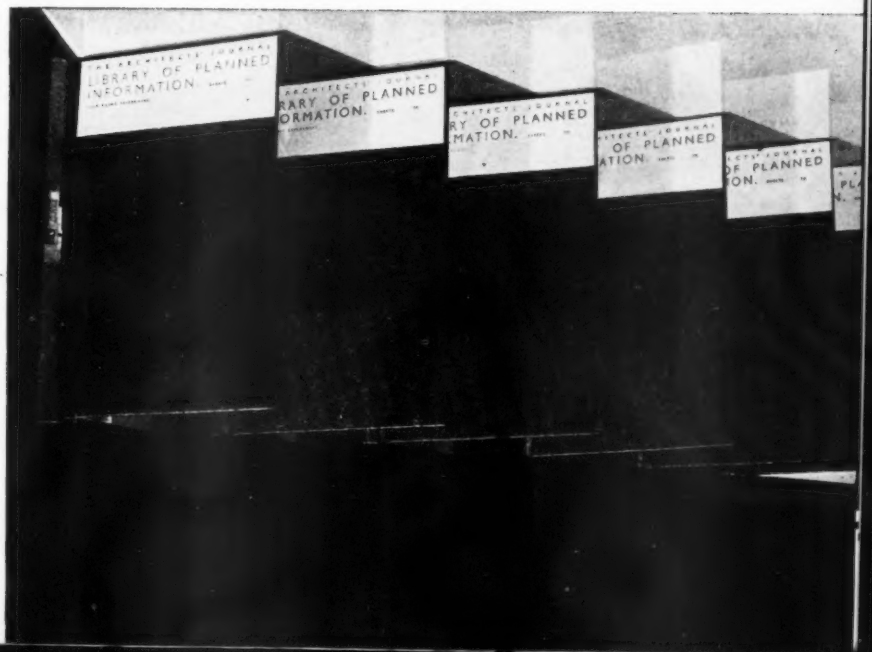
INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

544 Sheet Leadwork

545 Elementary Schools—III

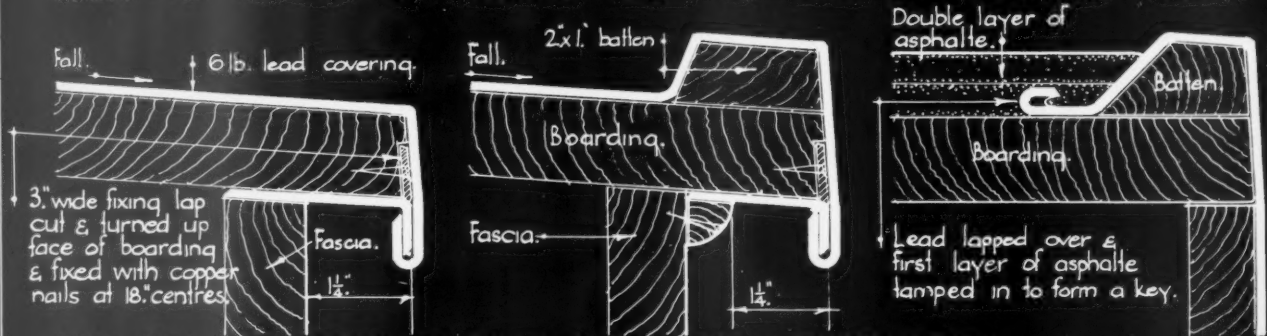


Sheets Issued since Index :

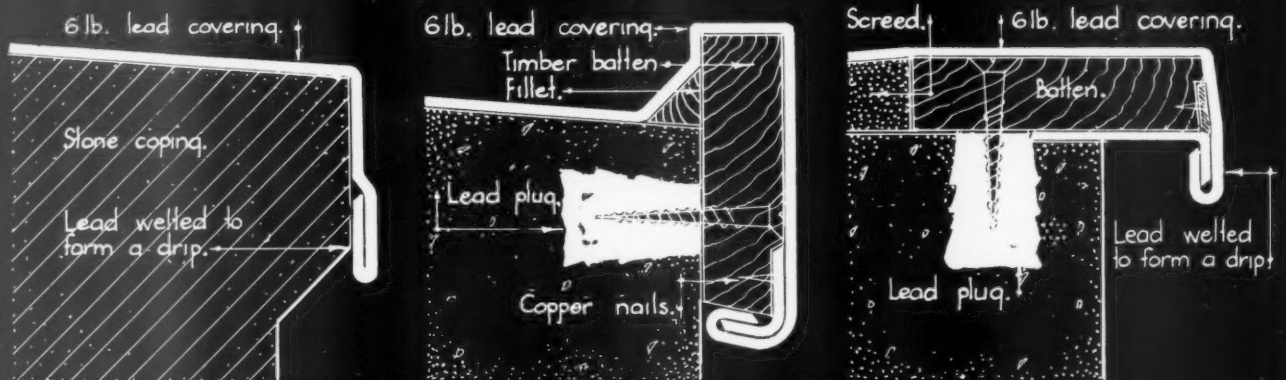
- 501 : Aluminium
- 502 : Fixing Blocks
- 503 : Approximate Estimating—XII
- 504 : Aluminium
- 505 : Aluminium
- 506 : Approximate Estimating—XIII
- 507 : Plumbing : Jointing of Copper Pipe
- 508 : Roofing—Valley Flashings
- 509 : The Equipment of Buildings
- 510 : Aluminium
- 511 : Elementary Schools—II
- 512 : School Lighting
- 513 : Approximate Estimating—XIV
- 514 : Air Conditioning
- 515 : Insulation of Buildings
- 516 : Cycle Parks
- 517 : Cycle Parks
- 518 : Plumbing Systems—II
- 519 : Kitchen Equipment
- 520 : Roofing—Flashings
- 521 : Motor Cycle Parks
- 522 : Reinforced Asbestos-Cement Roofing Tiles
- 523 : Poison Gas Precautions
- 524 : Kitchen Equipment
- 525 : Metal Reinforced Asbestos Cement
- 526 : Leadwork to Photographic Developing Tanks
- 527 : Asbestos-Cement Corrugated Sheets
- 528 : Cycle Parks
- 529 : Kitchen Equipment
- 530 : Asbestos-Cement Corrugated Sheets
- 531 : Plumbing
- 532 : Roofing—Flashings
- 533 : Asbestos-Cement Corrugated Sheets
- 534 : Insulation of Buildings
- 535 : The Equipment of Buildings
- 536 : Asbestos-Cement Ventilators
- 537 : Slate Window Cills, etc.
- 538 : Petroleum Storage
- 539 : Linoleum
- 540 : Plumbing
- 541 : Linoleum
- 542 : Garage Equipment
- 543 : The Equipment of Buildings

2. THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

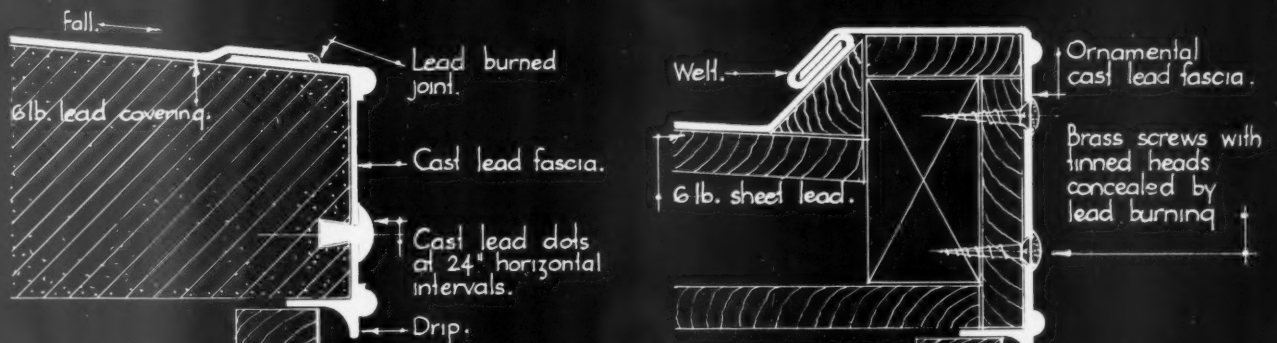
DETAILS OF METHODS OF FINISHING EDGES OF SMALL LEAD COVERED HOODS.



HALF FULL SIZE DETAILS OF FINISHES TO WOOD CONSTRUCTION.

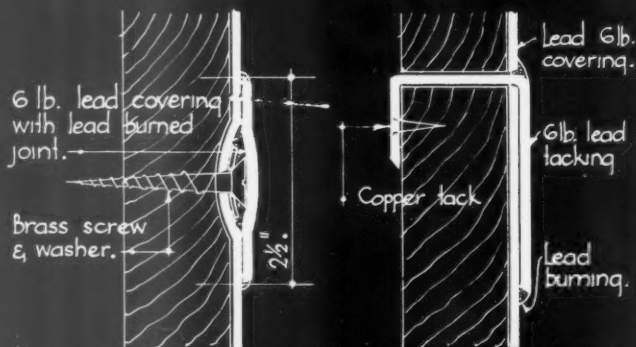


HALF FULL SIZE DETAILS OF FINISHES TO MASONRY CONSTRUCTION.



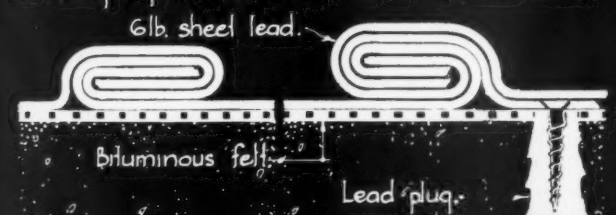
1/4. FULL SIZE DETAIL OF FIXING FOR DEEP CAST LEAD FASCIA.

1/4. FULL SIZE DETAIL OF FIXING CAST LEAD FASCIA TO WOODEN CONSTRUCTION.



1/2. F.S. DETAIL OF LEAD BURNED VERTICAL FIXING.

The welled joint is used as an expansion joint on lead covered flat roofs where a roll is not desirable. It may be used as a fixing by the inclusion of a 2" lead tack.



1/2. F.S. DETAIL OF WELTED EXPANSION JOINTS.

Information from Lead Industries Development Council.

INFORMATION SHEET: LEAD COVERED HOODS & FASCIAS: No 38.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WCI • *Edwin R. Bayne*

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 544 •

SHEET LEADWORK

Subject : Lead-covered Hoods and Fascias

This Sheet deals with methods of covering small hoods with sheet lead, and methods of fixing milled or cast sheet lead to vertical faces.

Wooden Construction:

The first three details deal with hoods of wooden construction, and show alternative methods of finishing the edges of the hood.

(a) The first detail is of a hood with a fall towards the edge, with a plain drip formed as follows :—

A strip of lead about 3 ins. deep is fixed at 18 ins. centres by means of 3 ins. wide fixing laps, cut and turned up the face of the wood boarding a minimum of $\frac{3}{4}$ in. and tacked with copper nails. The remainder is then turned down a minimum of $\frac{3}{4}$ in. and the 6-lbs. lead covering is then carried round and the two are welted together to form a drip.

(b) The second detail is of a similar hood, but has a check along the edge formed by a shaped batten. The lead is carried over this batten, turned under to form a drip and welted as in the previous detail.

This method of constructing the drip is only used when the clear projection does not exceed $1\frac{1}{4}$ ins.

(c) The third detail shows the method of concealing the lead under a double layer of asphalt covering. The lead is carried over a shaped batten and turned back about $\frac{3}{4}$ in. and the first layer of asphalt is poured and well tamped round the lead to form a key. The final layer of asphalt is then poured, making a perfectly waterproof finish.

Masonry Construction :

The next three details show similar treatment for masonry hoods, in two cases a wooden batten being used as a check and drip ; the batten is fixed to the masonry by means of lead plugs and screws. The lead is dressed over the battens and close copper nailed, or welted to form a drip as previously described.

Lead Fascias :

Two details are given showing the fixing of lead fascias, one for masonry construction and one for wooden construction. For fixing to masonry, lead dots are used. A square or circular dovetail hole is cut in the masonry, and molten lead run in, after the fascia is in position ; the head of the dot is formed in a mould, giving a hemispherical shape.

For fixing a lead fascia to wooden construction, secret brass screws are used. The screws are fixed after the fascia is in position and their heads are then tinned ; the exposed surface is then covered by lead-burning, which adheres to the adjoining lead fascia.

In the first of these two details, the sheet lead covering to the hood is lead-burned to the cast lead fascia. In the second detail, the cast lead is carried back on to the top of the hood and welted to the sheet lead covering.

Fixing to Vertical Faces :

Where a large sheet of lead on a vertical face requires intermediate support, three methods may be used. Either a soldered lead dot or a secret tack, or by lead-burning, as shown in the details.

A lead-burned dot is made as follows :—A circular sinking of about $2\frac{1}{2}$ ins. diameter is made in the surface of the backing material, and the sheet lead dressed into it. A screw with a brass washer is driven through the centre of the sinking in the lead. A circular-shaped patch of sheet lead is then dressed over the exposed screw head, and the edges lead-burned to the vertical face.

The method of fixing by a lead-burned tack is as follows :—

A strip of lead about 2 ins. wide is passed through a slit in the vertical lead covering, and lead-burned to the face thereof ; the other end is passed through a joint in the wood boarding and copper nailed.

Joints in Hood Coverings :

Where the hood is too large to be covered by one sheet of lead, a welted joint may conveniently be used, as shown in the detail at the bottom of this Sheet. If a fixing is required at the welt, a tack may be used. It is advisable to lay the lead to fall from either side of the welt.

Protection of Lead :

Where the lead is to be used in contact with concrete, it should be protected by bituminous paint or felt.

Information from :

Lead Industries

Development Council

Address :

Rex House, 38 King William
Street, London, E.C.4

Telephone :

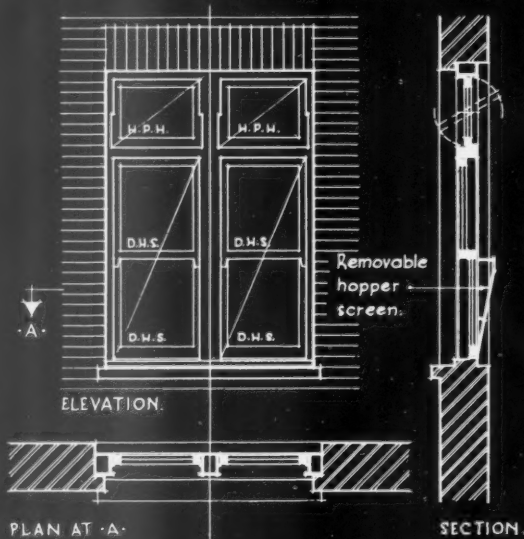
Mansion House 2855 (3 lines)

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TYPES OF OPENING WINDOWS FOR SCHOOL CLASSROOMS:

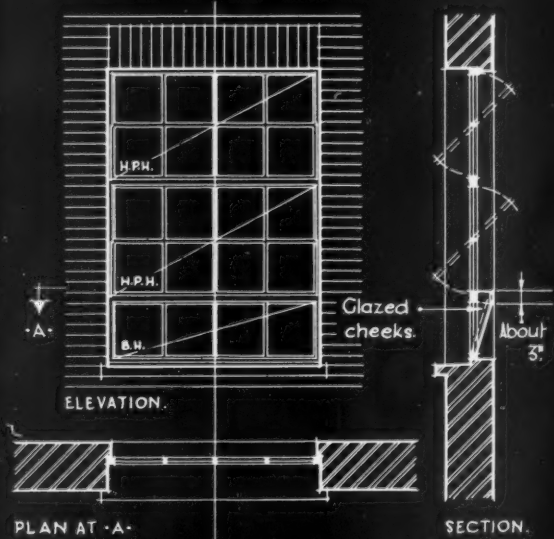
Windows should, as far as possible, conform to the following principles:-

1. It should be possible to throw open at once at least half, and preferably the whole, of their area.
2. The openings should be so arranged that the amount and direction of the incoming air can be regulated to the changes of the wind.
3. All elaborate or expensive fittings or gearing should be eliminated and the openings should be easily adjustable.



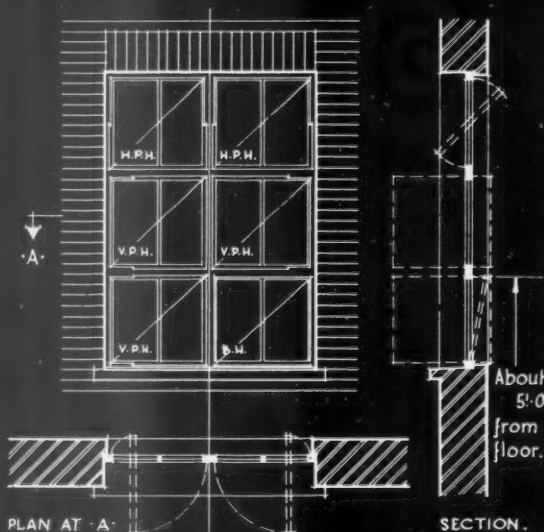
Double hung vertically sliding sashes may be fitted with glazed hopper screens, which can be removed in warm weather.

① DOUBLE-HUNG SASHERS & PIVOT-HUNG CASEMENTS:



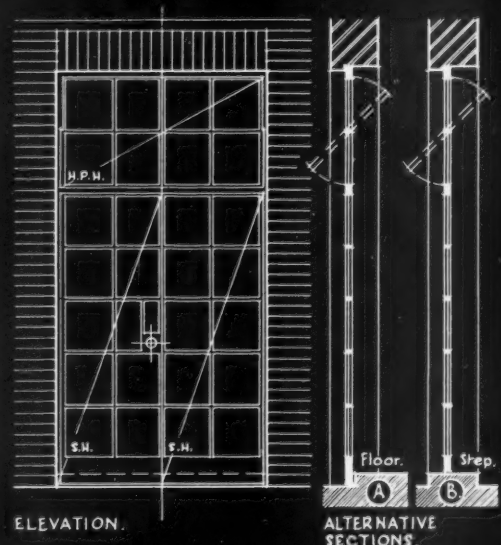
Hoppers should be fitted with glazed cheeks, and a vertical glazed baffle plate 3' high, to deflect the draught upwards.

② PIVOT-HUNG CASEMENTS & BOTTOM-HUNG HOPPER.



The width of the opening at the top of the hopper should be about 4" when open, measured horizontally from the face of the window.

③ HORIZONTAL & VERTICAL-HUNG CASEMENTS & A HOPPER.



Draughts along the floor can be avoided by allowing the doors to continue below a step as at (A), or by providing a step above the floor level as at (B).

④ DOUBLE FRENCH CASEMENTS WITH A PIVOT-HUNG LIGHT.

Extracts from 'Elementary School Buildings' issued by the Board of Education, 1936.

INFORMATION SHEET: ELEMENTARY SCHOOL BUILDINGS: No 3.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WCI. Oscar. A. Bayne.

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 545 •

ELEMENTARY SCHOOLS—III

Subject : Types of Windows for General Classrooms

The information on this Sheet is a summary of the recommendations regarding windows for general classrooms, contained in the Board of Education's Pamphlet No. 107, "Suggestions for the Planning of Buildings for Public Elementary Schools," published in 1936, by His Majesty's Stationery Office, and reproduced here by permission of the Controller.

General :

Although windows may be of several types, it is recommended that they should conform to the following requirements as far as possible :—

- 1 : It should be possible to throw open at once at least one-half, and preferably the whole, of their area.
- 2 : The openings should be so arranged that the amount and direction of the incoming air can be regulated to the changes of the wind.
- 3 : All elaborate or expensive fittings and gearing should be eliminated and the openings easily adjusted.

Types of Windows :

The diagrams on the front of this Sheet illustrate some of the various types of windows recommended for general classrooms.

Double-hung, vertically sliding sashes, with or without a pivot-hung casement over the transome, which are in common use do not allow more than about one-half their area

to open ; when used they may be fitted across the bottom of the lower sash with a hopper screen, made to be removable in warm weather.

A type of window recommended as being more suitable, is one divided horizontally into three, the centre and upper lights being hung on pivots to swing horizontally and the bottom light opening on the hopper principle. If this type is sub-divided vertically, the centre lights, and one of the bottom lights, may be side-hung casements opening outwards, the other bottom light being a hopper.

Another type of window which is recommended is the double French casement, extending down to, or close to the floor. The advantages claimed for this type of window are that one of the casements may be set at an angle to back on to the wind blowing in either direction along the wall, and that in warm weather the whole of the area can be opened. Disadvantages are that there is a tendency to draughts along the floor, and the contingency of a strong wind blowing direct on to the doors, making the opening of them uncomfortable. These disadvantages can be overcome; the first, by allowing the casements to continue below the floor level ; and the second by the provision of horizontally pivot-hung-casements above a transome.

Hoppers :

Where hoppers are used, the opening at the top when open should be about 4 ins. measured horizontally from the face of the window, and glazed cheeks should be fitted to prevent draughts from the sides. A vertical glazed baffle plate about 3 ins. high should be fitted to deflect the air from the window upwards.

It is recommended that the height of the hopper when open should be about 5 ft. from the floor. Hoppers are not recommended for top lights of windows, as the air striking the ceiling causes down draughts, and also the top light of a window should open to its fullest extent.

Previous Sheets :

The first two Sheets in this series are Nos. 486 and 511.

IN THAT CONTINGENCY

The following are abstracts of inquiries recently submitted to the Building Research Station. The information given in the replies quoted is based on available knowledge. It has to be borne in mind that further scientific investigations may in the course of time indicate directions in which the replies might be supplemented or modified. Moreover, the replies relate to the specific subject of each inquiry, and are not necessarily suitable for general application to all similar problems. (Crown Copyright Reserved.)

Paint Failure

A BOROUGH engineer asked for an opinion regarding the failure of paint on the internal faces of the main walls of a building erected near the sea shore. It was stated that the walls were of solid 14-in. brickwork and that the building was in use only during the summer. It was closed during the other seasons. Condensation had latterly been prevented by installing a heating apparatus and the walls were then redecorated with a green paint. They were thoroughly cleaned before the paint was applied and every care had been taken to obtain a satisfactory result, but almost immediately after decoration the paint had become discoloured and had peeled from the brickwork. Samples of the paint were forwarded.

The samples of paint were examined microscopically and were found to be encrusted with crystals of a salt which was identified as sodium sulphate. The examination showed also that it was the growth of these crystals beneath the paint coating which had caused the peeling of the latter; in many places, moreover, the crystals had pierced the lower coat and, through the apertures so produced, alkalis from the cement had passed into contact with the green paint, saponifying and discolouring this coat.

The effects seen could not have taken place if the walls had been perfectly dry when painted and had remained so subsequently. It appeared that the amount of sodium sulphate was abnormally large, in which case the presence of but little moisture would be sufficient to produce harmful effects on the paint.

It was significant that chlorides, which would have been present if the walls had become contaminated with sea salt, were not found in the paint samples. The possible source of sodium sulphate in the large amount found is the bricks themselves, but a more detailed investigation would be required before this suggestion could be established.

No coating applied directly to the brickwork in its existing condition could be expected to remain adherent and seal in the salts indefinitely. The remedy therefore lies in allowing the walls to dry thoroughly after removing the paint. The access of further supplies of moisture from sources such as condensation, or penetration from the outside, would, of course, defeat this object. In this connection it should be noted that solid 14-in. brick walls may, under severe conditions of exposure, permit the penetration of moisture. The salt already deposited on the surface should be removed by wire brushing and the surface kept under

observation for further deposits during the drying period.

When deposits have ceased to appear, a priming coat and paint of the type already employed could be successfully applied, provided the wall surface is hard and sound, but if there is any evidence of penetration through the brickwork it would be advisable to render externally so as to minimize the possibility of defects arising from this cause.

Bedding of Bricks

AN inquiry was received from a brick manufacturer regarding the relative merits of bedding bricks with frogs upwards and frogs downwards, a problem on which there has often been much discussion. It is the more usual practice to adopt the former method but no experimental evidence was available to show what would be the effects of the two methods on the properties of brickwork.

In view of the general interest of the inquiry some tests were put in hand.

Compressive strength and water penetration tests have been made to obtain some information about the possible effects of the two methods of bedding.

The strength tests were made on small piers 3 ft. by 1 ft. 6 ins. by 1 ft. 6 ins. Four piers were tested, two of which were built in Portland cement mortar and two in a cement-lime mortar (1:2:9), the same type of brick being used in all the tests. The frog was laid upwards and downwards respectively in each pair. The results obtained are given in the table below:—

Frog	Mortar	Crushing load
Up Down	Cement mortar	Tons
		33·1 24·8
Up Down	Cement- lime mortar	34·1 18·9

There is obviously a marked and somewhat surprising increase in the strength of brickwork with frogs laid upwards.

The moisture penetration tests were made on two panels each 9 ft. by 4 ft. 6 ins. built into a steel frame. The walls were tested seven weeks after building by allowing water from a perforated pipe fixed horizontally near the top of the wall to trickle over the face of the brickwork for 24 hours. Observations were made of the number and approximate area of wet patches which appeared on the inner face after that period. The results indicated that the wall built in the

normal manner was slightly better than the wall built with frogs laid downwards, but it is doubtful whether the difference is of any material significance.

Sound Insulation

AN architect sought advice with regard to the prevention of the transmission of noises set up by w.c. apparatus to the room below. He stated that the floor had been insulated to some extent and asked whether the provision of a cork base to the w.c. pedestal would result in improvement.

The transmission of noise from w.c.'s to adjacent rooms is, of course, a common trouble in buildings of all kinds, and one which it is extremely difficult to remedy by structural means. Consequently good planning to ensure, for example, that w.c. noises will not obtrude where they are most objectionable, i.e. in living-rooms, is of first importance. Where, in existing cases, this has not been done the following recommendations may be useful, though it must be realized that complete satisfaction may not be obtainable in this way.

(1) Ensure that the structure surrounding the w.c. is as air-tight and massive as possible (e.g. heavy and tight-fitting doors, puggings in timber floors, etc.).

(2) Employ silent-acting fittings. The noise of flushing varies with different systems but may be reduced to a minimum with a syphonic pan in conjunction with a low-level cistern. The noise of refilling the cistern can usually be modified by reducing the pressure in the supply pipe. In some cases this may be done by feeding the cistern from the storage tank instead of the main supply. Alternatively the flow may be restricted by partially screwing down a stop-cock in the branch pipe to the cistern, but this necessarily reduces the rate of refilling.

The method of isolating the pedestal and its connections from the surrounding structure by means of a resilient seating and resilient fixings is theoretically sound, but there is the practical difficulty of obtaining a suitable junction between the soil pipe and the outgo from the pan. A practical method of overcoming this difficulty has not yet been brought to the notice of the Building Research Station, and for this reason it is not possible to recommend the use of a cork or other resilient seating for a w.c. except as a method which might be tried to see whether, under the particular conditions, it does give any advantage.

Wall Tiling on Breeze Block Partitions

The failure of wall tiling fixed to breeze block partitions is one which has been dealt with previously in this series. However, owing to the number of inquiries which are received and in view of the further knowledge on the subject of tiling which is now available as the result of recent investigations, a review of the problem is opportune.

It should be emphasized that breeze concrete partitions cannot be considered an ideal backing for glazed tiling. Where, however, wall tiling must be fixed to such a partition it has been found that the risk of failure may be minimized by adopting certain precautions. The principal causes of failure are to be found in movements of

the breeze concrete combined with weak adhesion of the tiling. The properties of breeze and clinker concretes are fully discussed in Building Research Bulletin No. 5—"The Properties of Breeze and Clinker Aggregates and Methods of Testing Their Soundness," revised edition, 1936 (obtainable from H.M. Stationery Office, price 6d.). In brief, the most significant factors to be taken into account are:—

(1) The possibility of unsoundness of the aggregate due to the presence of unburnt or partially unburnt coal. This may lead to overall expansion of the partition with consequent loosening of the tiles if the adhesion is weak.

(2) Excessive shrinkage of the blocks. The shrinkage on drying of all cement products is a well-known property, but breeze and clinker concretes are liable to a considerably greater shrinkage than normal gravel concretes. As the shrinkage of a well-fired clay product such as a wall tile is negligible, considerable differential stresses may be set up between tiling and breeze concrete when the work dries. Unless the adhesion of the tiling is extremely good, failure results. The shrinkage of clay bricks on drying is negligible. Therefore when tiling is fixed to brick partitions differential stresses are not set up and failure seldom occurs. In order to reduce the risk of failure of tiling on breeze partitions it is necessary (a) to avoid expansion by the use of sound breeze only, (b) to minimize, as far as possible, the shrinkage of the breeze concrete, (c) to secure good adhesion between the tiling and the partition.

Methods of testing the soundness of breeze aggregates are described in the Bulletin referred to above.

The reduction of the shrinkage of the breeze concrete is by far the most difficult problem. It is necessary to ensure that the blocks are well and carefully made and allowed to dry out for as long as possible before fixing the tiles. They should be stored on the job under dry conditions. Even in the most favourable circumstances, however, it is probably not possible entirely to eliminate shrinkage and it must be realized that some risk of failure always exists.

Preliminary experiments at the Station have indicated that the adhesion of the tiling may be considerably improved by the use of a bituminous material with Portland cement for bedding and jointing the tiles instead of the more usual Portland cement. The cost is likely to be greater, but this would be offset by the greater degree of security from failure obtained. A bituminous Portland cement bedding and jointing material allows a certain amount of movement, either expansion or contraction, to take place in the partition without the tiling being forced off, because the joints of the tiling are slightly plastic. In the experiments the material used was a bituminous emulsion and cement composition.

A further programme of work on the general problem of the adhesion of tiles to various backings is in progress and it is hoped that definite information regarding the adhesion given by various bedding materials will be obtained. In the particular experiments at the Station it was found impossible, by using a chisel inserted along the edge of the tiles, to remove any of them

in large areas after a period of three weeks. The tiles merely chipped off in pieces about 1 in. square. The adhesion appeared

to be greater than that achieved in similar tests using a cement slurry and cement mortar bedding.



TRADE NOTES

[EDITED BY PHILIP SCHOLBERG]

A Portable Electric Cooker

AN altogether new type of cooker is illustrated at the head of these notes.

While it cannot, since it has no boiling-plate, ever replace the ordinary cooker, it is claimed that, used in conjunction with a separate boiling ring for kettles and such like, it will do all the work of the ordinary cooker and do it a great deal more simply. Basically the cooker consists of a large oval oven, the temperature of which is thermostatically controlled; inside this, as can be seen in the illustration, is placed a series of containers to hold the different things to be cooked and the thermostat does the rest, the only wait being while the cooker warms up to the proper temperature. Frying and such things as jam-making can be done in the whole oven, free from containers, and the lining lifts out to be cleaned with ordinary soap and water in the sink.

Constructionally the cooker is finished in vitreous enamel, and the bottom and sides are lagged with insulating material so that food will keep hot for an hour or more after the current is switched off. And since the whole thing is quite pleasantly designed it can be brought bodily into the dining-room, saving quite a lot in the washing up of dishes. While I do not think for a moment that this type of cooker will replace the normal type on jobs of any size, it seems to have great possibilities for small houses and flats where both space and labour are worth saving. The price is £7 10s., and the rating is 1,000 watts, though with the thermostat this load is by no means continuous. (H.M.V. Household Appliances, Ltd., 363 Oxford Street, London, W.1.)

Humidity in Cinemas

Research on humidity in cinemas carried out by Professor Axel Marin of the University of Michigan College of Engineering,

has produced some interesting results. The normal evaporation from an adult is about one-tenth of a pound of moisture per hour, and this, according to Mr. Kell, is the figure to which heating engineers generally work in this country. Powerful emotion, however, be it G-men being violent with sub-machine guns or Ginger Rogers just being Ginger Rogers, puts the humidity figure up with a bang from 100 to 150 lbs. of moisture per hour per 1,000 audience.

Whether or not this excessive moisture output is continuous throughout the run of a full-length film is not stated, but it would appear that heating engineers in this country may have to revise their ideas somewhat. But what an opportunity for the film trade papers, who for years have had to confine themselves to mere words which, possessing only comparatives and superlatives, can never convey as much as a simple statement—Emotional Appeal: + 22 per cent. humidity. Producers, too, could take humidigraph records of a private showing to a test audience and discover exactly where their films started to flop. Professor Marin has produced a measuring standard of immense possibilities which I had better leave for others to explore.

Atmospheric Corrosion

A note published two or three weeks ago on the sacrificial properties of zinc in the presence of certain aluminium alloys leads us again to the question of atmospheric corrosion and electrolytic action generally. Consider for a moment the question of zinc and tin coatings on iron. So long as these surface coatings are continuous the corrosion of the underlying iron is prevented, but should they become abraded or otherwise imperfect, and moisture or air be allowed to come in contact with the iron, the rate of corrosion of the iron will be accelerated or retarded, depending upon

the coating metal. The iron of tinned iron will corrode, leaving the tin, while the zinc of galvanized iron will dissolve and finally disappear. This sacrificing of the zinc retards the corrosion of the iron, but once the zinc coating has disappeared the corrosion of the iron follows its normal course. Which metal will survive and which metal will be sacrificed depends on the "nobility" or electrolytic potential of the metals concerned, the more noble metal acting as the positive electrode and the more reactive metal as the negative electrode, the more noble metal (cathode) being preserved at the expense of the reactive metal (anode).

Mr. Johnston of the Building Centre has provided me with a list of metals in their order of resistance, and it is reproduced below. Alloys (e.g. brass) do not appear, as their placings are dependent on the respective proportions of the metals used in their manufacture.

Noble (Cathode)	Silver
	Copper
	Nickel
	Tin
	Iron
	Lead
	Zinc
Base (Anode)	Aluminium

Theoretically, when any two metals are in contact in the presence of moisture, the more noble metal will accelerate the corrosion of the more reactive metal. It is possible, however, for the reactive metal to form a protective surface film and be able to resist the electrolytic action. For example, according to the table of electrolytic potentials, when iron and lead come into contact in the presence of moisture the lead should be sacrificed in an attempt to prevent the corrosion of the iron, but in practice the lead forms a protective coating and resists the attack.

Under normal atmospheric action the protective and non-protective films formed are as follows:—

Silver becomes black and forms a sulphide in the presence of sulphur dioxide.

Copper darkens initially and ultimately forms a protective film of copper sulphate.

Nickel readily forms a protective film of oxide.

Tin forms a surface film, the composition of which is not exactly known, but which is assumed to be a compound of tin, sulphur dioxide and oxygen.

Iron forms a non-protective film of ferric oxide (rust) and the corrosive action is continuous.

Lead forms a protective film of lead carbonate by combining with carbon dioxide and further oxygen from the atmosphere.

Zinc forms a protective skin of zinc sulphate.

Aluminium forms a protective film of oxide, though it corrodes continuously in sea air.

The table above is, none the less, useful, for when two metals are in contact in a moist atmosphere the electrolytic action between them may be such that the corro-

sion of one metal is assisted by the cathodic action of the other. Thus, if copper and iron are in contact, the copper is the cathode and assists the corrosion of the iron; similarly with copper and lead the copper assists in corrosion, i.e., it quickens the formation of the protective film. But with iron and lead the iron at first hastens the formation of a protective film on the lead, but after a time corrosion is more noticeable in the iron.

IN PARLIAMENT

Further concessions to building societies in relation to the new N.D.C. tax were announced during the report stage of the Finance Bill.

Sir J. Simon, the Chancellor of the Exchequer, moved:—

"(1) The amount of the national defence contribution chargeable on the profits arising in any chargeable accounting period from the business of a building society shall not exceed one and one-half per cent. of the amount of those profits computed in accordance with the provisions of Part III of this Act, but without allowing any deduction for interest paid on money borrowed by the society from members or depositors.

"(2) For the purpose of this section the expression 'building society' means a society regulated by any of the Acts regulating building societies, or a society registered under the Industrial and Provident Societies Acts, 1893 to 1928, which carries on a business of such a nature that it could have been established under any of the Acts regulating building societies, and no other business."

He said that the income of a building society consisted of the interest which was received on advances made to borrowers and also of any interest it might receive on investments by way of mortgages or investments in Government securities, and so on. How was that income disposed of? It was disposed of in three different ways, which he would call A, B and C. The first, which was A, was in payment of interest on loans and deposits. The second, which was B, was payment of interest on share capital. The third, which was C, was in part allocated to reserve and became undistributed income. If the National Defence Contribution were applied to building societies without any variation, it would be applied to the sum of B and C. A would be subtracted.

This new clause proposed to modify the charge, which would be at the rate of 1½ per cent., not on the total merely of B plus C, but on the total of A, B and C. It was estimated that the duty so payable would be about £400,000. The difference between that and the ordinary application of the tax would be about £500,000. The grounds on which the proposal would be justified were these. Building societies stood in a class by themselves. They were not in competition with retail traders. They were not engaged in ordinary trade activities. They played an important part in the solution and treatment of the housing problem. They had constantly been regarded by Parliament as entitled to consideration on those grounds. They were, indeed, from the beginning exempted from the Corporation Profits Tax, and from the first edition of the National Defence Contribution. The reserves which they had were not calculated to carry any additional heavy demand. He thought there would be a general feeling that it would be undesirable for the rate of interest of building societies to be put up against those engaged in building their houses. While he could not see his way to exempt the building societies altogether, this being a contribution which he had to ask from all and sundry, he thought the reasons he had given justified this modified treatment.

Mr. Lees-Smith said that the Labour Party

would accept the new clause, but he was not impressed with the actual formula. It was a tax by itself.

Mr. Holdsworth said that if the tax had been left as it was it would have had a very serious effect on building operations in the country. He did not think it was correct to say that mortgage rates would necessarily have risen, because the position would have been tackled in other ways. For instance, the depositor would have been allowed a smaller interest, and those holding shares might have had to take a smaller interest, but the most serious effect would have been that the reserves of building societies would have been depleted. He was very sorry indeed that building societies should have been brought within the scope of such a tax as this, although at the same time he felt rather grateful that they were not going to be punished—the first proposal was almost a criminal punishment—and he must say "Thank you" for the lessened amount which building societies were called upon to pay.

Major Milner said the position was now clear, and it was a very serious one from the point of view of building societies. The new clause provided specifically that no deduction should be made for interest paid on money borrowed by a building society from members or depositors. That insisted on a principle which hitherto the building societies had declined to admit, and in his view rightly so. This new principle inserted the thin edge of the wedge, and might create a very serious position for building societies in the future. It might well be that the actual imposition upon building societies was on this occasion 1½ per cent., but it might become 3 or 5 per cent., or might extend to the whole range of income tax in the future. Personally, he did not think building societies need feel under any great obligation to the Chancellor in this matter.

Mr. Mabane asked whether, under this clause, a building society would be entitled to regard the amount they paid as compounded income tax on distributed income as an expense, or whether they would be compelled to pay National Defence Contribution on the amount they had already paid as compounded income tax.

Lieut.-Colonel Colville said the answer was "No; they will not be able to regard it as an expense."

Mr. A. V. Alexander said that while he welcomed the concession to the building societies he could not understand why the greater demands of other social organizations had been resisted.

Sir I. Albery said that he sympathised with the object of the Chancellor, but he felt some anxiety as to the method adopted in making the concession. He did not like the variation in the rate of tax nor in the basis on which the tax was leviable.

Sir J. Simon said that there was nothing novel or mysterious or contrary to principle, when one was seeking to give some relief to building societies, in adopting this principle. The proposal afforded building societies substantial relief.

The Clause was read a second time and added to the Bill.

Mr. Graham White moved a new clause to exempt from import duties the following materials used in house-building: Timber, bricks, lime, cement, plaster, tiles, slates, chimney pots, drainpipes and fittings, glass, wallboards, fire bricks and tiles, sanitary ware and sinks and fittings, baths, water heaters, fireplaces, independent hot water boilers, stoves, door and window furniture and fittings, locks, latches and bolts, hinges and sundry builders' fittings, garage door outfits, iron air-bricks and ventilators, sundry general light castings, cast iron rainwater and soil goods, zinc and sheet iron, copper tubes and fittings, plumbers' brass, stop cocks, ball valves, etc., wrought iron tubes and fittings, tanks and cisterns, screws and nails, bolts and nuts, wire

goods, india-rubber goods, sheet iron, sashline cords, pumps, paints, colours, varnishes, and wallpapers.

He said that there had been considerable anxiety about the rise in the price of building materials which had been taking place spasmodically but insistently during the last 18 months. It was proper that the House should watch very jealously anything which affected the building industry, for one thing because of its importance to the great social service of assisted house building, and bearing in mind that in many parts of the country, particularly in Scotland, there was still an urgent need for houses to be built at the lowest possible cost. And apart from that they could not forget that the building industry had been a very important element in our national recovery. It was the core of industrial life and led to a very substantial reduction in unemployment, because it must be remembered that the building industry employed a very large amount of labour in proportion to the total cost of its output.

Among many competent observers there had been speculation as to whether costs had not reached the point where a slackening in the rate of building must inevitably take place. From such inquiries as he had been able to make and from his personal knowledge the time had come when the rise in prices was leading to a slackening of building activities. That was certainly so in the case of commercial buildings. He had heard of several projected undertakings which had been postponed, and might never be put in hand on account of the increase in costs, and that was in the last nine months only. Where building was not immediately necessary and could be undertaken when trade generally was slackening there was no evil in such a postponement, but it was the case that many buildings which were urgently required for commercial purposes had been postponed. Further, the rise in prices was causing considerable anxiety to local authorities, who must feel concern about whether they would be able to carry through their housing schemes. The matter must also be of concern to the Government, because building costs would affect the whole of their Estimates for the Defence Services.

Proceeding, the hon. member said: "It is difficult to give accurate figures, because they vary so much in different parts of the country, but the cost of a non-parlour three-bedroom house in this country was £338 in June of this year, as compared with £311 in June, 1936. Of that increase only £3 is due to the increased cost of labour. In Scotland, where I understand the housing situation is lamentably acute, the position is so much worse. There the cost of a house has risen by £100 between June, 1936, and June of this year. I am quoting the figures which were given in the course of a discussion in April of this year. The Government admit that they feel concern about this rise, because the Secretary of State for Scotland said that he was looking not only into the question of costs but also into the supply of materials. On that occasion I think he said that something like 60 per cent. of the rise in Scotland was due to the fact that contractors were asking higher prices because they did not want the business. The reason why they did not want the business was that they were afraid; they had to protect themselves against rising prices, which in the case of some materials was at that period almost phenomenal.

"Plumbing has had a rapid and heavy rise. The cost of plumbing two months ago, though it may have receded somewhat with the decline in the price of copper, was 150 per cent. above the point touched when costs were at their lowest. It is clear there is great danger that local authorities will be hampered in carrying out their housing schemes, and there is a danger of jams being created in the general business of the country, owing to the shortage of material and to the state of feeling, which makes people put higher and higher prices in order to protect

themselves not only against an immediate rise in prices, but against rises which they anticipate will take place later, and which their experience indicates are almost certain to take place."

Sir Percy Harris, who seconded, said that the success of the housing programme depended on their being able to build houses at rents which the slum dwellers and overcrowded people could pay. If they could not build down to their pockets the whole housing campaign was bound to break down.

Captain Euan Wallace, Parliamentary Secretary to the Board of Trade, in resisting the new clause, said that there already existed machinery which was not only adequate but was eminently suitable for the purpose. It was suggested that the function of the Import Duties Advisory Committee was to re-adjust a duty here and there on some particular item, but the Import Duties Advisory Committee was empowered by Statute to deal not only with particular items but with whole classes of goods. The Advisory Committee had within the last week or two dealt very drastically with a very large class of steel imports into this country.

Even the most cursory examination showed that the new Clause was drawn up without any expectation that it would be accepted. For instance, the Schedule began by referring to articles used in the production of houses and dwelling-houses. It did not say anything about shops, cinemas or commercial buildings. What were the Customs officers to do when a consignment of tiles was brought into this country? How are they to know whether the tiles would be used in the construction of a dwelling-house, a shop or a cinema? Any hon. Member who had had experience of administration would know that to attempt to follow those tiles to their destination and to the site in order to decide whether they should be exempted from duty, was proposing an impossible burden.

Mr. White: "We do it in the shipyards," Captain Wallace: "We need not do it more than is necessary, and in this case it would be an almost impossible task."

One or two other matters (he added) called for comment. There was a reference to independent hot water boilers; was that description restricted to geysers or did it include kettles? What are "garage door outfits"? What were the Customs officers to do when the articles mentioned came into the country, "plumbers' brass, stop cocks, ball valves, etc." Then there was the question of timber. They had just concluded a very important and advantageous agreement with the Dominion of Canada, binding them to maintain a duty on certain classes of timber from abroad. Was it suggested that all timber should be exempted from duty? As to tiles, the duty was approved not very long ago in this House. In putting forward their recommendation for a duty on foreign imported tiles, the Import Duties Advisory Committee said that there was an increase of imports attended by foreign price-cutting below the level of the British prices, which the Committee regarded as reasonable. They thought it would be possible for the United Kingdom manufacturers to make reductions in prices, and he understood the reductions were made in those prices after the Order was made.

Iron sheets are mentioned. He did not know why they should have been selected. His information did not confirm that there had been an increase in cement prices. His researches went to show that although certain items undoubtedly have risen considerably, cement, tiles, bricks, slates and sheet glass were cheaper today than they were in 1930.

Mr. McEntee regretted that the Minister had been unable to accept the new clause. There had been a serious rise in the cost of building materials and, as a consequence, the building of houses had been entirely stopped in many of the principal cities of the country. From his personal knowledge of the building trade generally he knew, and the Government knew

and the Minister of Health in particular knew, that many local authorities in addition to those already quoted were very seriously concerned in regard to the future of building working-class houses and of slum-clearance schemes. They had not yet come to a decision, but they were seriously considering whether they would not have to stop building. That would mean greater unemployment, and it would mean that many of those people who today lived in slum areas would have to remain there, possibly for some years to come.

Mr. David Adams said that in the matter of house-building, they had reached a national crisis. A considerable number of local authorities, the larger ones in particular, had petitioned the Ministry of Health for protection against the rise in costs, and there was no diversity of opinion that the Import Duties Advisory Committee were in a large measure responsible for the present situation. Dear housing was having a serious effect on the cost of living of the working classes. A house built next year was bound to bear a heavier rental than one built before this rise took place, and that meant that during the existence of that house, possibly a period of 60 years, the tenants would be called upon to bear this heavier charge because of the lack of protection afforded to the municipalities by the House of Commons.

If the Government were serious in the matter, they were bound to deal with the situation.

The new Clause was negatived by 198 votes to 112.

Mr. C. Williams moved a new clause relating to the exemption from death duties of land transferred to the National Trust. He said that this clause had been worked out by certain bodies concerned, and it would probably meet with unanimous support. At present, in certain circumstances, land given or devised to the National Trust could be, with the consent of the appropriate authorities, exempted from death duties. The new clause sought in the first place to give a permanent exemption from death duties in respect of land that went to the National Trust, instead of a discretionary exemption. This clause would make it possible for exemption from death duties to be given in respect of a house or land transferred ultimately to the National Trust, but where the donor wished to continue his occupation for life and to bequeath a life interest either to his wife or to one of his children.

In such a case, the National Trust at present might have to pay death duties both on the death of the donor and on the death of the person who succeeded him; and there had been cases where the National Trust had had to pay death duties twice in this way. He did not think that the donor of a property to the National Trust would benefit very much from this proposal except that the property transferred would not be aggregated with the rest of the donor's estate for the purpose of death duty. There was wide support for the work being done by the National Trust in preserving for the nation places of historic or architectural interest and this clause would remove one of the great difficulties of the Trust in the matter of its liability for death duties, in certain circumstances, on properties transferred to its keeping. He believed that such a provision would accelerate the acquisition by the National Trust of houses and lands worth preserving.

Sir J. Simon said he was pleased to accept the new clause. The proposal was that if a testator left property to the National Trust but interposed a life interest to a second person, say son or daughter, death duty would be payable on the testator's death when the property passed to the next person, but death duty would not be payable on that second person's death when the property passed to the Trust. The duty would be payable on the testator's death on the capital value of the estate and not on the value of the next person's life interest in it.

The Clause was read a second time, and added to the Bill.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICT (15 miles radius)

CITY. Nurses' Home. Plans passed by the City of London Corporation: Nurses' hostel, Cock Lane, St. Bartholomew's Hospital.

CROYDON. School Enlargement. The Croydon Education Committee is to enlarge the Woodside School, at an estimated cost of £19,500.

CROYDON. Houses, etc. Plans passed by Croydon Corporation: 64 houses, Tideswell Road, Addington, Bennett, Worksett and Bennett; two factories, Progress Way, Croydon Factory Estate, Ltd.; shops with maisonettes over, Lodge Lane, Addington. The Oak Property Co., Ltd.; 15 houses, Parkfield Estate, Wickham Road, Mr. F. Fowles; 10 houses, Ash Tree Way, Mrs. F. S. Pym; eight flats, Brighton Road, Haling Down Estate, Ltd.; 10 houses, Links View Road, T. Markwick & Co.; factory, Purley Way, Mr. L. Izzett, Waddon Concrete Co.

CROYDON. Showrooms, etc. The Croydon Corporation is to engage an architect to prepare plans for the erection of showrooms and offices for the electricity department in Wellesley Road, the cost being estimated at £10,000.

FRIERN. Hospital Alterations. The L.C.C. is to make alterations at the Friern Hospital, at a cost of £2,025.

MARYLEBONE. Flats. Plans passed by Marylebone B.C.: Block of flats, 27-37 Cochrane Street, Mr. A. F. Benjamin.

PADDINGTON. Balconies on Hospital, etc. The L.C.C. is to erect balconies and sanitary annexes, at Paddington Hospital, at a cost of £8,890.

SOUTHGATE. Houses, etc. Plans passed by the Southgate Corporation: 22 houses, Abbotshall Avenue, Mr. H. A. Nash; 26 flats, adjoining L.N.E. Railway, Bowes Road, Mr. F. R. Gould; 76 houses, Chaseville Park Road, New Ideal Homesteads, Ltd.; 48 flats, Chase Road, Mr. E. W. Palmer; 13 shops, Chase Side, Marshall and Tweedy; 12 flats, adjoining New River, Barrowell Green Temple Estate Co.

STEPNEY. Housing. The L.C.C. is to re-develop the Chicksand Street area of Stepney at a cost of £71,000.

ST. PANCRAS. Hospital Block. The L.C.C. is to erect a maternity ward block at the St. Pancras Hospital at a cost of £70,000.

ST. PANCRAS. Flats, etc. Plans passed by the St. Pancras B.C.: Block of flats, Queen's Crescent site, Prince of Wales Road; block of flats, Downing Court, Bernard Street; building for headquarters of the Pharmaceutical Society of Great Britain, Brunswick Square and Hunter Street; factory, 12-26 Mount Pleasant and 2 Gough Street.

WESTMINSTER. Technical Institute Enlargement. The L.C.C. is to enlarge the Westminster Technical Institute, at a cost of £62,780.

WHITE CITY. School. The L.C.C. is to erect an elementary school on the White City site.

WIMBLEDON. Hospital Extensions. The governors of the Wimbledon Hospital are to extend the premises at a cost of £30,000.

WIMBLEDON. Flats. Harold Samuel Properties, Ltd., are to convert premises at Langham Court, Wyke Road, Wimbledon, into one-room flats.

WOOD GREEN. Flats. Plans passed by the Wood Green Corporation: 12 flats, Brownlow Road, Mr. George P. Bath; 26 flats, Clarence Road, C. J. Pilgrim and Sons; 14 flats, Newnam Road, Mr. F. F. Tomlin.

WOOLWICH. Reconstruction. The L.C.C. is to reconstruct the Rope Yard Rails areas, Woolwich, at a cost of £50,000.

SOUTHERN COUNTIES

FELTHAM. School. The Middlesex Education Committee has purchased land in High Street, Feltham, for an elementary school.

GUILDFORD. Houses. Plans passed by the Guildford Corporation: 18 houses, Hillview Estate, Mr. H. Ashenden.

HAYES. School. The Middlesex Education Committee has purchased a site for a senior elementary school in Pinkwell Lane, Hayes.

LITTLE STANMORE. School. The Middlesex Education Committee is to acquire a site for the erection of an elementary school on the Queensbury Estate, Little Stanmore.

MIDDLESEX. Cinemas, etc. The Middlesex C.C. Entertainments Committee has approved the following plans: Proposed cinema, Lawrence Street, Mill Hill (opposed); proposed Gloria Cinema, Uxbridge Road, Hillingdon; proposed Rowland Hill Senior School, Tottenham; proposed cinema, Fieldend Road, Eastcote.

MIDDLESEX. Hospital. Middlesex C.C. is to purchase a site for the erection of a new county hospital.

REDHILL. Hospital Extensions. The Middlesex C.C. is to furnish and equip the extensions to Redhill County Hospital, at a cost of £45,000.

SUNBURY. School. The Middlesex C.C. has purchased a site in Vicarage Road, Sunbury, for an elementary school.

SOUTH-WESTERN COUNTIES

BRISTOL. Improvements at Hospital. The Bristol Corporation is to improve the heating and hot water services at Ham Green Hospital, at a cost of £7,000.

PLYMOUTH. Houses, etc. Plans passed by the Plymouth Corporation: 10 houses and 6 shops, Beacon Castle Estate, The Western Builders; eight houses, Pikes Estate, Mr. A. J. Osbourne; 16 houses, Overton Gardens, Mr. M. Solomon; boiler-house, Lomas Works, Prince Rock, Brit's Glues and Chemicals; cinema, shops, dance hall and car park, Wolsley Road, Sound Movement Cinemas, Ltd.; flats, Buckingham Place, Millbay, Western Counties Agricultural Association.

PLYMOUTH. Hospital Reconstruction. The Plymouth Corporation has approved plans for the reconstruction of the City Hospital, at a cost of £225,000.

MIDLAND COUNTIES

BIRMINGHAM. Houses. Mr. R. P. Garner is to erect 12 houses in Court Oak Road and Tennal Lane, Harborne, Birmingham.

BIRMINGHAM. Housing. The First National Housing Trust, Ltd., propose to develop the Peasey Farm Estate of 268 acres, at Perry Barr, Birmingham, by the erection of houses to be let to the working classes.

BIRMINGHAM. Hangar, etc. The Birmingham Corporation is to provide a terminal building and hangar at the Edmdon Airport, together with certain other buildings, for the purposes of the airport scheme, at a cost of £89,250.

MANSFIELD. School. The Mansfield Education Committee has purchased a site in Big Barn Lane, for the erection of a school.

NORTHERN COUNTIES

MANCHESTER. Airport Development. The Manchester Corporation is to develop the Ringway Airport, at a cost of £61,912.

MANCHESTER. Rehousing. The Manchester Corporation is to clear and re-develop the Ardwick and New Cross areas, at a cost of £110,084.

MORECAMBE: Houses, etc. Plans passed by the Morecambe Corporation: 14 houses, Walton Avenue, Widdup and Ladell; fire station and firemen's houses, Clark Street, Morecambe and Heysham Corporation Fire Dept.; 12 houses, Woodhill Drive, Lambert and Atkinson; 22 houses, Burlington Grove, Westgate Estates (Morecambe), Ltd.; 14 houses, Combermere Road, Mr. W. E. Brown.

WALLASEY. School. The Rev. Father J. McNally is to provide a new Roman Catholic School for about 200 at St. George's Road, Wallasey.

WALLASEY. Gymnasium. The Wallasey Education Committee is to proceed with the erection of a gymnasium at the Coronation Avenue New Central Council School, at a cost of £4,000.

WALSALL. Sanatorium Extensions. The Walsall Corporation has approved plans for extensions at Goscote sanatorium at a cost of £36,000.

WIGSTON. School. The Leicestershire Education Committee has obtained sanction to borrow £61,966 for the erection of an elementary school at Wigston.

THE BUILDINGS ILLUSTRATED

JOHN SCURR HOUSE, STEPNEY (pages 219-222). Architects: Adshead and Ramsey, Consulting Engineer: Bernard Geen. The general contractors were the Demolition and Construction Co., Ltd., and the principal sub-contractors and suppliers included: West's Rotinoff Piling and Construction Co., Ltd., foundations; Permanite, Ltd., asphalt; Trussed Concrete Steel Co., reinforced concrete; London Brick Co., bricks; Liverpool Artificial Stone Co., Ltd., artificial stone; Powers and Deane, Ransomes, Ltd., structural steel; H. G. Hilliard, Ltd., partitions; Catesby's, Ltd., patent flooring; Eagle Range and Grate Co., grates; British Commercial Gas Co., gas fitting; Metropolitan Borough of Stepney, electricity; Mathew Hall & Co., Ltd., plumbing; Carron Company, sanitary fittings; Walter Cassey, Ltd., door furniture; Henry Hope and Son, Ltd., steel casements; Haywards, Ltd., ferro-concrete window and casements; J. H. Jenner & Co., Ltd., Pioneer plaster; E. C. Blackmore, metalwork; T. W. Palmer & Co., handrails to staircases; A. E. Lindsey and Sons, Ltd., joinery; Merchant Trading Co., internal doors; Keighley's Lifts, Ltd., lifts.

DENHAM HOUSE, STOKE NEWINGTON (pages 223-226). Architect, Edward Armstrong. The general contractors were Holliday and Greenwood, and the principal sub-contractors and suppliers included: Masonite, Ltd., Masonite sheeting; Stuarts Granolithic Co., Ltd., granolithic concrete; W. Macfarlane & Co., Ltd., cast iron air bricks; John Knowles & Co., Ltd., drainpipes, fireplaces, etc.; Girling's Ferro-Concrete Co., Ltd., gas flue blocks; A. H. Herbert & Co., Dorking pressed bricks; Sussex Brick Co., Lingfield facings; Ames and Finnis, black glazed facings; W. J. Jackson, quarry tiles; A. H. Herbert & Co., roof tiling; Vigers Brothers, wood-block flooring; John Archer, linoleum; Bryce, White & Co., Ltd., doors; Nicholls and Clarke, ironmongery; Haskins, sun blind; Light Steelwork Co., balcony railings; Joseph Sankey & Sons, Ltd., pressed steel door frames; Crittall Manufacturing Co., Ltd., steel windows; W. B. and H. C. Cables, Ltd., electrical installations; Gas Light and Coke Co., Ltd., gas installations; J. Freeman, Sons & Co., Cementone; General Light Castings, sanitary fittings; S. Mulliner, Ltd., hot and cold water installations; Nobel Chemical Finishes, Ltd., distemper and paint; John Mills, drainpipes.

HOUSE AT WIMBLEDON (page 227). Architects: Astbury, Minoprio and Spencely. The general contractors were Messrs. Chapman, Lowry and Puttick, who were also responsible for the demolition, excavation, foundations, damp-courses, asphalt, plaster and joinery. The sub-contractors and suppliers included: A. H. Herbert & Co., tiles; Robert Adlard, slates and special roofings; Thomas Potterton, central heating; T. Clark, electric wiring; Troughton and Young, Ltd., electric light fixtures; J. Bolding and Sons, Ltd., sanitary fittings; J. D. Beardmore & Co., door furniture; Williams and Williams, Ltd., casements.

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.	II.				I.	II.			I.	II.	
			s.	d.	s.	d.		s.	d.			s.	d.	
A	ABERDARE	S. Wales & M.	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Aberdeen	Scotland	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Abergavenny	S. Wales & M.	1	6½	1	2	A	1	7	1	2½	A	1	7
A	Abingdon	S. Counties	1	5½	1	1½	A	1	6	1	1½	A	1	7
A	Accrington	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Addlestone	S. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Adlington	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Airdrie	Scotland	1	7	1	2½	A	1	6	1	1½	A	1	7
C	Aldeburgh	E. Counties	1	3	0	11½	A	1	6	1	1½	A	1	7
A	Altrincham	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Appley	N.W. Counties	1	3½	0	11½	A	1	6	1	1½	A	1	7
A	Ashton-under-Lyne	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Aylesbury	S. Counties	1	5	1	0½	A	1	6	1	1½	A	1	7
B	BANBURY	S. Counties	1	5	1	0½	A	1	6	1	1½	A	1	7
B	Bangor	N.W. Counties	1	4½	1	0½	A	1	6	1	1½	A	1	7
A	Barnard Castle	N.E. Coast	1	5½	1	1	A	1	6	1	1½	A	1	7
A	Barnsley	Yorkshire	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Barnstaple	S.W. Counties	1	5	1	0½	A	1	6	1	1½	A	1	7
A	Barrow	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Barry	S. Wales & M.	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Basingstoke	S.W. Counties	1	5	1	0½	A	1	6	1	1½	A	1	7
A	Bath	S.W. Counties	1	6	1	1½	A	1	6	1	1½	A	1	7
A	Batley	Yorkshire	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Bedford	E. Counties	1	6	1	1½	A	1	6	1	1½	A	1	7
A	Berwick-on-Tweed	N.E. Coast	1	6	1	1½	A	1	6	1	1½	A	1	7
A	Bewdley	Mid. Counties	1	6	1	1½	A	1	6	1	1½	A	1	7
B	Bicester	S. Counties	1	5	1	0½	A	1	6	1	1½	A	1	7
B	Birkenhead	N.W. Counties	1	8	1	3	A	1	6	1	1½	A	1	7
A	Birmingham	Mid. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Bishop Auckland	N.E. Coast	1	6½	1	2	A	1	6	1	1½	A	1	7
A	Blackburn	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Blackpool	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Blyth	N.E. Coast	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Bognor	S. Counties	1	5	1	0½	A	1	6	1	1½	A	1	7
A	Bolton	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Boston	Mid. Counties	1	5½	1	1½	A	1	6	1	1½	A	1	7
A	Bournemouth	S. Counties	1	6	1	1½	A	1	6	1	1½	A	1	7
B	Bovey Tracey	S.W. Counties	1	4	1	0	A	1	6	1	1½	A	1	7
A	Bradford	Yorkshire	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Brentwood	E. Counties	1	6½	1	2	A	1	6	1	1½	A	1	7
A	Bridgend	S. Wales & M.	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Bridgwater	S.W. Counties	1	5	1	0½	A	1	6	1	1½	A	1	7
A	Bridlington	Yorkshire	1	6½	1	2	A	1	6	1	1½	A	1	7
A	Brighouse	Yorkshire	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Brighton	S. Counties	1	6	1	1½	A	1	6	1	1½	A	1	7
A	Bristol	S.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Brixham	S.W. Counties	1	5	1	0½	A	1	6	1	1½	A	1	7
A	Bromsgrove	Mid. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Bromyard	Mid. Counties	1	5	1	0½	A	1	6	1	1½	A	1	7
A	Bury	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Burslem	Mid. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Burton-on-Trent	Mid. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Bury	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Buxton	N.W. Counties	1	6½	1	2	A	1	6	1	1½	A	1	7
A	CAMBRIDGE	E. Counties	1	6½	1	2	A	1	6	1	1½	A	1	7
B	Canterbury	S. Counties	1	4½	1	0½	A	1	6	1	1½	A	1	7
A	Cardiff	S. Wales & M.	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Carlisle	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Carmarthen	S. Wales & M.	1	5	1	0½	A	1	6	1	1½	A	1	7
B	Carmarvon	N.W. Counties	1	5	1	0½	A	1	6	1	1½	A	1	7
A	Carnforth	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Castleford	Yorkshire	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Chatham	S. Counties	1	5½	1	1½	A	1	6	1	1½	A	1	7
A	Chelmsford	E. Counties	1	5½	1	1½	A	1	6	1	1½	A	1	7
A	Cheltenham	S.W. Counties	1	5½	1	1½	A	1	6	1	1½	A	1	7
A	Chester	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Chesterfield	Mid. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Chichester	S. Counties	1	5	1	0½	A	1	6	1	1½	A	1	7
A	Chorley	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Cirencester	S. Counties	1	4½	1	0½	A	1	6	1	1½	A	1	7
A	Cliethorpe	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Clydebank	Scotland	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Coalville	Mid. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Colchester	E. Counties	1	6	1	1½	A	1	6	1	1½	A	1	7
A	Colne	N.W. Counties	1	6½	1	2	A	1	6	1	1½	A	1	7
A	Colwyn Bay	N.W. Counties	1	6	1	1½	A	1	6	1	1½	A	1	7
A	Consett	N.E. Coast	1	6½	1	2	A	1	6	1	1½	A	1	7
A	Conway	N.W. Counties	1	6	1	1½	A	1	6	1	1½	A	1	7
A	Coventry	Mid. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Crewe	N.W. Counties	1	6	1	1½	A	1	6	1	1½	A	1	7
A	Cumberland	N.W. Counties	1	5½	1	1½	A	1	6	1	1½	A	1	7
A	DARLINGTON	N.E. Coast	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Darwen	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Deal	S. Counties	1	4½	1	0½	A	1	6	1	1½	A	1	7
A	Denbigh	N.W. Counties	1	5½	1	1½	A	1	6	1	1½	A	1	7
A	Derby	Mid. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Dewsbury	Yorkshire	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Didcot	S. Counties	1	5	1	0½	A	1	6	1	1½	A	1	7
A	Doncaster	Yorkshire	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Dorchester	S.W. Counties	1	4½	1	0½	A	1	6	1	1½	A	1	7
A	Driffield	Yorkshire	1	5½	1	1½	A	1	6	1	1½	A	1	7
A	Droitwich	Mid. Counties	1	6	1	1½	A	1	6	1	1½	A	1	7
A	Dudley	Mid. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Dumfries	Scotland	1	6	1	1½	A	1	6	1	1½	A	1	7
A	Dundee	Scotland	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Durham	N.E. Coast	1	7	1	2½	A	1	6	1	1½	A	1	7
A	EASTBOURNE	S. Counties	1	6	1	1½	A	1	6	1	1½	A	1	7
A	Ebbw Vale	S. Wales & M.	1	6½	1	2	A	1	6	1	1½	A	1	7
A	Edinburgh	Scotland	1	7	1	2½	A	1	6	1	1½	A	1	7
A	Exeter	S.W. Counties	1	6	1	1½	A	1	6	1	1½	A	1	7
B	Exmouth	S.W. Counties	1	5	1	0½	A	1	6	1	1½	A	1	7
A	FELIXSTOWE	E. Counties	1	5½	1	1½	A	1	6	1	1½	A	1	7
A	Filey	Yorkshire	1	5½	1	1½	A	1	6	1	1½	A	1	7
A	Fleetwood	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Folkestone	S. Counties	1	4½	1	0½	A	1	6	1	1½	A	1	7
A	Frotham	N.W. Counties	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Frome	S.W. Counties	1	4	1	0	A	1	6	1	1½	A	1	7
A	GATESHEAD	N.E. Coast	1	7	1	2½	A	1	6	1	1½	A	1	7
B	Gillingham	S. Counties	1	5	1	0½	A	1	6	1	1½			

Union rates of wages
ne of publication. The
erials of good quality and
tral London area, unless
outside this area, adjust-

ment 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.

	s.	d.
Bricklayer	per hour	1 8
Carpenter	10	1 8
Joiner	10	1 8
Machinist	10	1 9
Mason (Banker)	10	1 8
" (Fixer)	10	1 9
Plumber	10	1 8
Painter	10	1 7
Paperhanger	10	1 8
Glazier	10	1 8
Slater	10	1 8
Scaffolder	10	1 4
Timberman	10	1 4
Navy	10	1 3
General Labourer	10	1 3
Lorryman	10	1 6
Crane Driver	10	1 7
Watchman	per week	2 10

Grey Stone Lime	"	"	"	per ton	£	s.	d.
Blue Lias Lime	"	"	"	"	2	2	0
Hydrated Lime	"	"	"	"	1	18	6
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
Thomas Ballast	"	"	"	per Y.C.	7	6	0
Crushed Ballast	"	"	"	"	7	6	0
Building Sand	"	"	"	"	7	6	0
Washed Sand	"	"	"	"	8	6	0
Broken Brick	"	"	"	"	8	0	0
Pan Breeze	"	"	"	"	10	3	6
Coke Breeze	"	"	"	"	6	6	0
					8		

			s. d.	s. d.
Straight Pipes	.	per F.R.	0	1
Bends	.	each	1	2
Taper Bends	.	"	3	3
Rest Bends	.	"	4	3
Single Junctions	.	"	3	5
Double	.	"	4	5
Straight channels	.	per F.R.	1	6
Channel bends	.	each	2	9
Channel junctions	.	"	4	6
Channel tapers	.	"	2	9
Yard gullies	.	"	6	9
Interceptors	.	"	16	0
IRON DRAINS:				
Iron drain pipe	.	per F.R.	2	3
Bends	.	each	6	4
Inspection bends	.	"	11	5
Single junctions	.	"	12	14
Double junctions	.	"	17	2
Lead Wool	.	lb.	30	9
Gaskin	.	"	5	—

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

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

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				
leads to Nine Elms Station :				
20" × 10" medium grey	per 1,000 (actual)	21	11	6
20" × 10" green	"	24	7	6
Best machine roofing tiles	"	4	5	0
Best hand-made do.	"	4	17	6
Hips and valleys	each	9		
Hand-made	"	9		
Nails, compo	"	1		
copper	"	1		

				£	s.	d.
Good carressing timber	"	"	F.C.	2	2	0
Birch	"	"	as 1 st F.S.	9		
Deal, Joiner's	"	"	"	5		
"	"	"	"	4		
" 2nds	"	"	"	1		
Mahogany, Honduras	"	"	"	1		
" African	"	"	"	1		
" Cuban	"	"	"	2		
Oak	"	"	"	1		
" plain American	"	"	"	1		
" Figured	"	"	"	1		
" plain Japanese	"	"	"	1		
" Figured	"	"	"	1		
" Austrian wainscot	"	"	"	1		
" English	"	"	"	1		
Pine, Yellow	"	"	"	1		
" Oregon	"	"	"	4		
" British Columbian	"	"	"	3		
Teak, Moulinein	"	"	"	1		
" Burma	"	"	"	2		
Walnut, American	"	"	"	1		
" French	"	"	"	2		
Whitewood, American	"	"	"	1		
Deal floorings,	"	"	Sq.	18		
" 1 st	"	"	"	1		
" 2 nd	"	"	"	1		
" 3 rd	"	"	"	1		
" 4 th	"	"	"	1		
Deal matchings,	"	"	"	1		
" 1 st	"	"	"	1		
" 2 nd	"	"	"	1		
" 3 rd	"	"	"	1		
Rough boarding,	"	"	"	1		
" 1 st	"	"	"	1		
" 2 nd	"	"	"	1		
" 3 rd	"	"	"	1		

Tubes and Fittings :		(The following are the standard list prices from which should be deducted the various percentages as set forth below.)			
		3"	1"	1 1/2"	2"
Tubes 2'-14' long	per ft. run	4	5 1/2	9 1/2	1 1/2
Pieces, 12'-23' long	each	10	1 1/2	1 1/2	4 1/2
2'-14' long	"	7	1 1/2	1 1/2	3
Long screws, 12'-23' long	"	11	1 1/2	2 1/2	2 1/2
3" M-3' long	"	8	10	1 1/2	1 1/2
Bends	"	8	11	2 1/2	2 1/2
Springs not socketed	"	5	7	1 1/2	1 1/2
Socket unions	"	2-3	3	5 1/2	6 1/2
Squares, square	"	1-2	1 1/2	6	4 1/2
Tees	"	1-1	3 1/2	1 1/2	2 1/2
Crosses	"	2-2	2 1/2	4 1/2	5 1/2
Plain sockets and nipples	"	3	4	6	1 1/2
Diminished sockets	"	4	6	9	1-2
Flanges	"	9	1-1	1 1/2	2 1/2
Caps	"	3 1/2	5	8	1-2
Backnuts	"	5	3	6	1
Iron main cocks	"	1 1/2	2 1/2	4 1/2	11 1/2
" with brass plugs	"	—	4	7 1/2	5 1/2

		Per cent.			Per cent.
Gas	.	66½	Galvanized gas	.	56½
Water	.	61½	"	water	51½
Steam	.	58½	"	steam	46½
FITTINGS					
Gas	.	57½	Galvanized gas	.	48½
Water	.	53½	"	water	46½
Steam	.	48½	"	steam	41½
					S. d.
Rolled steel joists cut to length			"	cwt.	15
Mild steel reinforcing rods,			"	"	16
"	"	"	"	"	9
"	"	"	"	"	15

Mild steel reinforcing rods,	$\frac{1}{8}$ "	cwt.	15	9
" "	"	"	15	3
" "	$\frac{1}{4}$ "	"	15	9
" "	$\frac{3}{8}$ "	"	15	3
" "	$\frac{1}{2}$ "	"	15	3
" "	$\frac{5}{8}$ "	"	15	3
Cast-iron rain-water pipes of ordinary thickness metal	F.R.	s. d.	s. d.	
Shoes	each	2	0	10
Anti-splash shoes	"	4	6	8
Boots,	"	3	0	0
Bends	"	2	7	3
" " with access door	"	—	6	9
Heads	"	4	0	5
Swan-necks up to 6" offsets	"	3	0	6
Plinth bends, $\frac{1}{4}$ "	"	3	9	5
Half-round rain-water gutters of ordinary thickness metal	F.R.	5	6	3
Stop ends	each	1	7	11
Angles	"	2	0	2
Obtuse angles	"	1	9	2
Outlets	"	1	9	2

Lead, milled sheets				cwt.	33	6
" drawn pipes				"	33	0
" soil pipes				"	36	0
" scrap				"	21	0
" solder, plumbers'				lb.	1	14
" fine do.				"	1	4
Copper, sheet				"	4	1
" tubes				"	4	2
L.C.C. soil and waste pipes :						
Plain cast	F.R.	1	0	1	2	3
Coated	"	1	1	1	3	2
Galvanized	"	2	9	2	6	4
Holderbats	each	3	10	4	10	6
Bends	"	3	9	5	4	9
Shoes	"	2	10	4	9	6
Heads	"	4	8	8	5	12

Lime, chalk	per ton	2	0	0
Plaster, coarse		2	15	0
" fine		4	7	6
Hydrated lime		3	0	9
Sirapite		3	6	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	3	

Sheet glass, 24 oz., squares n/e 2 ft. s. F.S.					
" " 26 oz.					38
Flemish, Arctic, Figures (white)	"	"	"	"	78
Blazoned glasses					2 6
Reeded : Cross Reeded	"	"	"	"	11
Cathedral glass, white, double-rolled,					
plain, hammered, rimped, verwrite,	"	"	"	"	2 6
Crown sheet glass (n/e 3' x 10')					2 0
Flashed opals (white and coloured)			I	and 2	6
" rough cast; rolled plate	"	"	"	"	6
" wired cast; wired rolled	"	"	"	"	10
" Georgian wired cast	"	"	"	"	11
" Polished plate, n/e 1 ft.					10 to 21
" " 2	"	"			11 2
" " 4	"	"			12 3
" " 8	"	"			14 6
" " 20	"	"			19 13
" " 45	"	"			31 9
" " 100	"	"			43 4
" " 100	"	"			4 0 12 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 1' and 1 1/2'				8 1/2	1 0
Putty, linseed oil					lb.

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

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	0
" 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
Planning and strutting to sides of excavation	F.S.	1	0
" " to pier holes	"		5
" " to trenches	"		5
" " extra, only if left in	"		5
Hardcore, filled in and rammed	Y.C.	10	0
Portland cement concrete in foundations (6-1)	"	1	6
" " (4-2-1)	"	1	12
" " underpinning	"	1	16
Finishing surface of concrete, space face	Y.S.		0

	s.	d.	6
DRAINLAYER			
Stoneware drains, laid complete (digging and concrete to be priced separate)	F.R.	1 #	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	12 3	18 8

BRICKLAYER		f	s.	d.
Brickwork, Flettons in lime mortar	" " " " " "	26	10	0
" " " " " "	" " " " " "	27	12	6
" " " " " "	" " " " " "	34	0	0
" " " " " "	" " " " " "	50	0	0
Extra only for circular on plan	" " " " " "	2	0	0
" " " " " "	" " " " " "	1	10	0
" " " " " "	" " " " " "	2	0	0
" " " " " "	" " " " " "	5	10	0
Fair Face and pointing internally	" " " " " "	F.S.		
Extra over fletton brickwork for picked stock facings and pointing	" " " " " "			1
" " " " " "	" " " " " "			11
" " " " " "	" " " " " "			1
" " " " " "	" " " " " "			6
Tuck pointing	" " " " " "			7
Weather pointing in cement	" " " " " "			3
Slate dampcourse	" " " " " "			10
Vertical dampcourse	" " " " " "			1

ASPHALTER										s.	d.
Horizontal dampcourse	.	.	.	.	.	.	.	.	Y.S.	4	9
Vertical dampcourse	.	.	.	.	.	.	.	.	"	7	9
paving or flat	.	.	.	.	.	.	.	.	"	6	3
paving or flat	.	.	.	.	.	.	.	.	"	7	0
1" x 6" skirting	.	.	.	.	.	.	.	.	F.R.	1	6
Angle fillet	.	.	.	.	.	.	.	.	"	2	2
Rounded angle	.	.	.	.	.	.	.	.	"	2	2
Cesspools	.	.	.	.	.	.	.	.	Each	5	6

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

SLATER AND TILER		ℓ	s.	d.
Slating, Bangor	or equal to a 3" lap, and fixing with rompo			
nails, 20" x 10"	"	Sgt.	3	10
Do., 18" x 9"	"	"	3	7
Do., 24" x 12"	"	"	3	17
Westmorland slating, laid with diminished courses	"	"	6	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	"	"	3	0
Do., all last, but of machine-made tiles	"	"	2	16
20" x 10" medium Old Delabole slating, laid to a 3" lap (grey)	"	"	2	16
" (green)	"	"	4	75

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

CARPENTER AND JOINER—continued		s.	d.
1½"	deal moulded sashes of average size	F.S.	1 0
2"	"	"	1 11½
1½"	deal cased frames double hung, of 6" × 3" oak sills, 1½" pulley styles, 1½" heads, 1" inside and outside linings, 1" parting beads, and with brass faced axle pulleys, etc., fixed complete	"	3 7
2"	Extra only for moulded horns	"	3 10
1½"	deal four-panel square, both sides, door	Each	6
2"	"	F.S.	2 0
1½"	" but moulded both sides	"	2 8
2"	"	"	2 4
4"	× 3" deal, rebated and moulded frames	"	3 0
4½"	× 3½"	F.R.	1 0
1½"	deal tongued and moulded window board, on and including deal beads	"	1 4
1½"	deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	F.S.	1 9
1½"	deal moulded wall strings	"	2 6
1½"	" outer strings	"	2 1
	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
1"	× 1½"	"	2 9
	× 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 6
Riveted plate or compound girders, and hoisting and fixing in position	"	13 0
Do., stanchions with riveted caps and bases and do.	"	12 0
Mild steel bar reinforcement, $\frac{1}{2}$ " and up, bent and fixed complete	"	12 0
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts do. &c.	F.S.	11
Wrot-iron caulked and cambered chimney bars	Per cwt.	12 0

PLUMBER										£	s.	d.
Milled lead and labour in flats	"	"	"	"	"	"	"	"	cwt.	2	4	0
Do. in flashings	"	"	"	"	"	"	"	"	"	2	4	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"		1½"		2"		4"
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	4	1	8½	2	7	3	6	—
Do. soil pipe and fixing with cast lead tacks		—	—	—	—	—	—	—	—	7	3	—
Extra, only to bends	Each	—	—	—	—	—	—	—	—	2	3	7
Do. to stop ends	"	6½	8	9	—	—	—	—	—	11	0	—
Boiler screws and unions		3	3	3	9	5	0	8	0	—	—	—
Lead traps		—	—	—	—	—	—	—	—	11	6	—
Screw down bib valves	"	6	9	9	6	11	0	—	—	—	—	—
Do. stop cocks	"	7	0	9	6	12	6	—	—	—	—	—
4" cast-iron ½-rd. gutter and fixing		—	—	—	—	—	—	—	—	F.R.		1
Extra, only stop ends		—	—	—	—	—	—	—	—	Each		1
Do. angles		—	—	—	—	—	—	—	—	"		1
Do. outlets		—	—	—	—	—	—	—	—	"		2
4" dia. cast-iron rain-water pipe and fixing with ears cast on		—	—	—	—	—	—	—	—	F.R.		1
Extra, only for shoes		—	—	—	—	—	—	—	—	Each		1
Do. for plain heads		—	—	—	—	—	—	—	—	"		5

PLASTER AND TILING	s.	d.
Expanded metal lathing, small mesh	Y.S.	2 0
Do. in n/w to beams, standards, etc.	"	2 9
Lathing with sawn laths to ceilings	"	1 3
1" 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, refoat 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
Arriis	"	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"	"	2 6
Extra, only for small quadrant angle	F.R.	8

GLAZIER		s.	d.
21 oz. sheet glass and glazing with putty	" " " " " " " "	F.S.	61
26 oz. do. and do.	" " " " " " " "	" "	7
Fluinnish, Arctic Figured (white) and glazing with putty	" " " " " " " "	" "	1
Cathedral glass and do.	" " " " " " " "	" "	1
Glazing only, British polished plate	" " " " " " " "	" "	7
Extra, only if in beds	" " " " " " " "	" "	2
Washleather	" " " " " " " "	F.R.	4

PAINTER		s.	d.
Clearcolle and white 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 0
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 polish	" " " " " " " " " " " "	F.S.	1 2
Stripping off old paper	" " " " " " " " " " " "	Piece	0
Hanging ordinary paper	" " " " " " " " " " " "	from	2 0