House for Eric Mackintosh Esquire, at Brooke, Norfolk. Architect : Stanley J. Wearing, F.R.I.B.A. Contractors: Thomas Gill & Son, Norwich.

The Texture of 'Phorpres' Rustics is the perfect base for colourwash. In this pleasing example the broad surfaces are lime-washed to contrast strongly with the "unwashed" brown textured bricks that form the base, the angle quoins and the strong recess of the entrance.

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(four times pressed)

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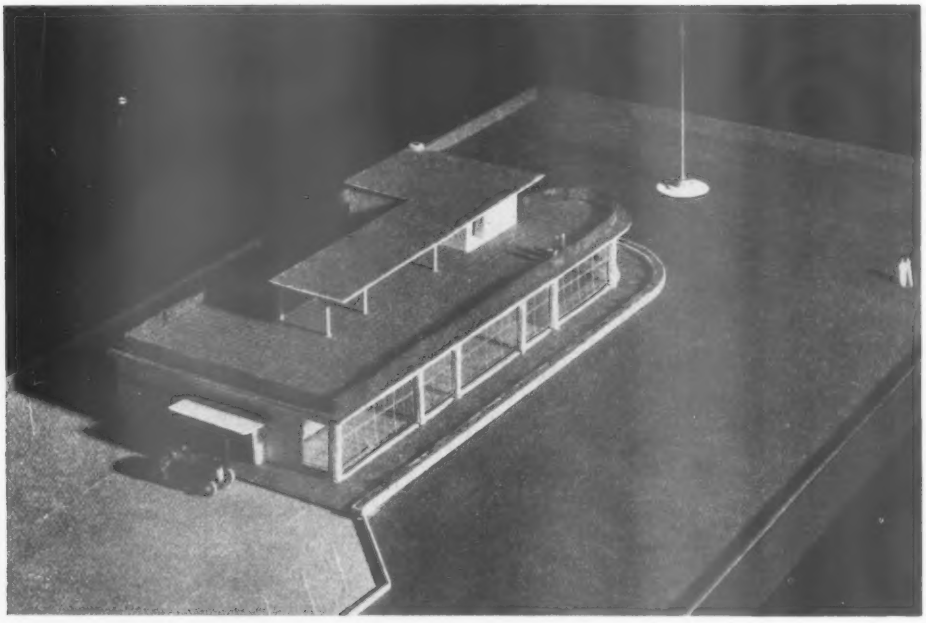
The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

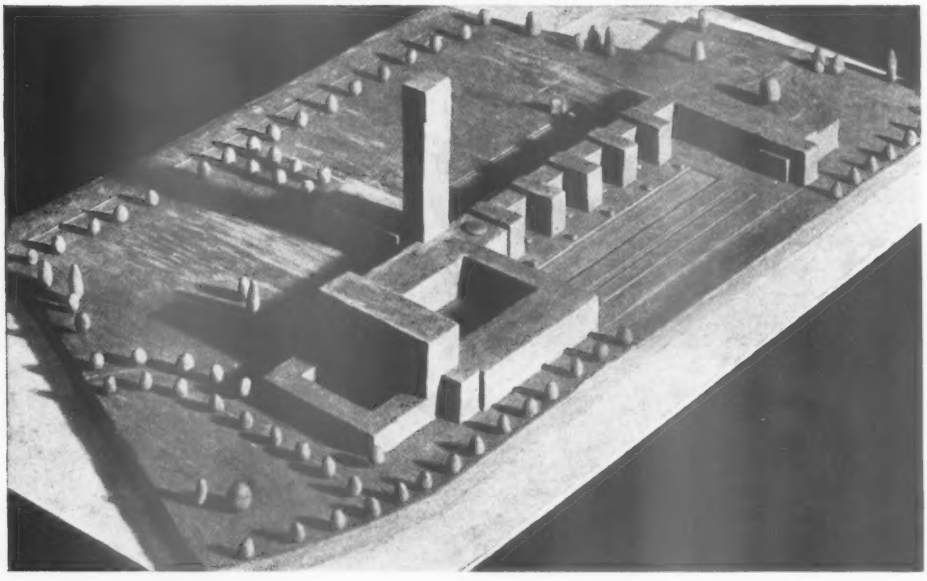
THURSDAY, December 16, 1937. NUMBER 2239 : VOLUME 86

PRINCIPAL CONTENTS

RURAL HOUSING

AN exhibition of rural housing is now being held at the Housing Centre in London; the above photograph is not included in the exhibition. It is a gypsy home at Ottery St. Mary Common near Honiton, Devonshire. The architect is unknown. (Photograph by D. Morrison.)

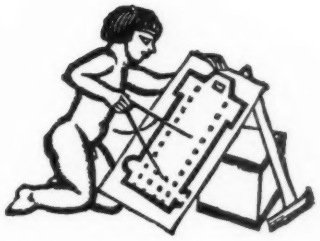




THE WORK OF THE LEEDS COLLEGE OF ART

An exhibition of works by students of the Leeds College of Art is now being held at the City Art Gallery, Leeds. The exhibition includes the work of the whole of the College, including the School of Architecture and the Departments of Sculpture, Painting, Industrial Design, Pottery, Silverware, Cabinet-making and Fabric Design.

The photographs show two of the models executed by students of the School of Architecture: top, A Flying Club, model and design, by F. O. Sykes (second year). Bottom, sketch model in plasticene of a Regional Art Gallery and Museum for Yorkshire, by Frank Booth (Thesis Design).



. . . BEFORE TONIGHT'S POST

IF architects had to have a licence to practise the JOURNAL believes there are about 16,000 people who might be able to obtain such a licence if the licensing authority were generously minded and disinclined to split hairs.

For these 16,000 tomorrow is an extremely important day. The House of Commons will then debate whether in two years' time a client who wants to be sure of having an architect of reasonable competence will only have to go to the nearest architect, or whether he will have to learn by experience or enquiry that there are both architects and Registered Architects and that only from the latter can he be certain of professional services of adequate standard. This is the question to be decided—it could hardly be simpler—and the consequences of its result for the 16,000 architects will be tremendous.

Today—at this last possible moment—the JOURNAL asks those 16,000 to think of the possible consequences. Architects are not good at taking long views. For once, because the effects of the Bill's passing or defeat tomorrow will not only be continuous but cumulative for years ahead, we ask them to make an exception and just for a quarter of an hour to look ahead.

What, to begin with, is the position now? The 16,000 have managed by years of giving clients what they want at the price they want, to gain general goodwill among the public. They have done this for smaller average financial rewards than are earned by doctors or solicitors. Slowly, very slowly, this work is producing results. Housing estate promoters, factory owners, and especially those wanting to build small houses and business premises are coming to architects as never before.

Prospects, therefore, in theory are excellent. But there is one danger. These new clients are unaware that there are two kinds of architects, the Registered and the self-styled, and because times are good for architects an increasing number of persons are calling themselves architects—there is nothing to stop them—and steadily destroying the good opinion achieved by the rest.

Some of the 16,000 may think these self-styled architects can be disregarded since their mistakes will soon put them out of business. If they think so, they are wrong. A client who has once employed an incompetent architect does not distinguish between him and other architects. He condemns architects as such to the end of his days to all who will listen and the damage he can do to other architectural practices is enormous. If in the next five years only 500 adventurers set up as architects they may easily destroy the present good opinion of architects. Not only this: they may seriously diminish the number of smaller commissions now given to architects.

These dangers the present Bill aims at ending in the fairest possible way. All present Registered Architects will be protected and all who register within two years. After that, those who wish to call themselves architects must pass one of a dozen qualifying exams.

It is possible that a number of the self-styled architects who have recently set up in practice may have to be admitted to the Register in order that injustice may not be done to *bona fide* architects who have been silly enough not to register up to now. This we cannot help. What we can do, what all the 16,000 can do, is to make certain that as they go on increasing their good reputation their efforts will not be continuously offset by adventurers.

To do this, and there can surely be no architect who does not want it done, it is necessary for the Bill to pass tomorrow. And, to ensure the Bill's passing, it is necessary for each of the 16,000 to remind his M.P. to attend the debate on the Architects Registration Bill—at 11 a.m.—and to ask him, if the case for the Bill seems to him strong enough, to remain to vote for it.

It does not seem much to expect of architects, when a matter so closely touching them is at stake. But it is one of the peculiarities of democracy that a majority rarely bothers to record its opinion; while a minority is strenuous and vocal in direct ratio to its smallness.

This is exactly the case today. 15,000 out of 16,000 are in favour of the Bill; but while the 1,000 send circulars, appeals and individual letters to every Member of the Commons, the 15,000 remain inactive, leaving everything to their societies, so conscious of their rightness that they will not spend ten minutes in aiding the passing of the Bill.

The JOURNAL hopes that, for once, the 15,000 will cease to allow others to do everything for them and try, by a letter or wire which will take them ten minutes, to get every M.P. to attend the Second Reading tomorrow.

M.P.s are very busy people. The end of the week, 11 a.m. in the morning, the debating of a purely professional matter—all combine to make a tempting time to attend to letters to constituents. For all these reasons it is essential for architects to point out that tomorrow's Bill is a national matter and that they expect their several M.P.s to attend the Commons.

Of the 15,000 architects in favour of the Bill, most have complained a score of times of what the R.I.B.A., the "unattached" representatives, or the A.A.S.T.A. have failed to do for them; most have certainly never lifted a finger to help in the doing. This time, as usual, all but the final touch has been done for them. This time, *unusually*, they must do the final touch themselves.

The 15,000 have the rest of today to do the trivial action that may matter most—to write to their M.P.s. After tonight's post it will be too late.

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NOTES & TOPICS

THE BILL

TOMORROW at 11 a.m. the Architects' Registration Bill will come before the Commons for Second Reading.

*

The time of the Commons is strictly rationed. It is only by good fortune in the Private Members' Ballot that architects have been enabled to get from eleven to four tomorrow for the discussion of a Bill which will affect their livelihood for years ahead. They are not likely to get another for a long time, if they do not take advantage of this opportunity.

*

The reasons why architects should support the Bill were given here and elsewhere in last week's issue. It is not intended to repeat them.

*

But one thing—at this last moment—ought to be repeated. About 15,000 architects desire the Bill to pass; about 1,000, for reasons amply explained, oppose it.

*

In these circumstances the average M.P. will reason thus: "Here is most of a day given up to a Bill which architects say is important, more than important, vital. I have had some letters vigorously denouncing the Bill and a good many, but not very many, supporting it. They say 15,000 out of 16,000 architects emphatically favour the Bill. Well—that may be so, but I must say I haven't seen much emphatic support. If they can't even be bothered to write to me about it when a day is at their disposal . . . ."

*

That is how a busy M.P. looks at it. He is not going to take *my* word for *your* feelings. There is no use sitting still and thinking. Ten minutes dictation will tell your M.P. what you think—that in your opinion it is vital, in the public's interest for the Bill to pass.

*

Only *your* telling your M.P. will make him attend the debate. *Today* you can do that trivial action in return for what your particular society has done for you during years. Tomorrow it will be too late. Tomorrow you can only start complaining again about what the R.I.B.A. or whichever it is, has not done for you.

THE PASSING OF THE SQUARES

Mr. Robert Byron, his wrath perhaps sharpened by his temporary seclusion, has once more entered the battle in defence of Georgian London. Last week in the *New Statesman* he again drew attention to the fate threatening London's squares, particularly Bedford, Mecklenburgh and Brunswick.

*

Their passing, which is usually accomplished in sinister secrecy, is perhaps inevitable, for they cannot at present pay fat enough dividends. But, now that flat-blocks are losing favour, surely the elegant houses of these squares, with their undoubted snob-value, would be a sound investment for some enterprising company? "Properly handled, old boy," I can almost hear them saying, "a little gold mine."

*

Mr. Byron offers a prize of five pounds to anyone who can give publishable proof of the identity of the first profiteer on the Adelphi. I think it will remain unclaimed. Mr. Byron knows, and I know. But if Mr. Byron cannot coax someone to help him speak out, no one else is likely to succeed.

*

Incidentally I was glad to see that the Adelphi Theatre has at last been refaced. That weatherbeaten façade has long been a melancholy feature of the Strand. At the time it was built, the designer could boast that there was not a single curve in the front anywhere, a state of affairs you will be glad to know, still maintained by the new façade.

THE PANTHEON

By now the portico of the Pantheon, so long a familiar feature of Oxford Street, will have disappeared. Messrs. Marks and Spencer, the new owners of the building, have, however, generously offered the main façade (in numbered pieces) plus £200 towards the cost of re-erection, to anyone who wants it. But you will have to hurry up as it is already swathed in scaffolding. The Georgian group of the S.P.A.B., whose offices are at 28 Cork Street, have all particulars.

THE SCHOOLS EXHIBITION

An event of great interest to architects will occur next week, when the first comprehensive Schools Exhibition to be held in Britain opens at the Dorland Hall, Lower Regent Street, on December 20th. It will remain open until January 12th. It is sponsored by the *News Chronicle* and models of the prize-winning schools in their recent competition will be on show, as well as the recent R.I.B.A. Schools Exhibition.

*

The adjective comprehensive is justified. There will be television, a sound-proofed classroom by the Anti-Noise Society, and live animals to help discussions on the Mendelian theory. Such distinguished experts as Gerald Barry, Edward Carter and Julian Huxley are to lecture, and there will be daily gymnasium displays by selected teams of boys and girls.

*

Architects, in these days of school building, ought to

ST. GEORGE'S DRAG-ON.

TWO UNKNOWN YOUNGSTERS WITH IDEAS OF MAKING THEIR NAMES VIA THE BIG COMP.

make a point of going. I hope the *News Chronicle* will find in the Exhibition's success full justification for their belief that the public can be interested in the things that really matter.

NATIONAL THEATRE PROGRESS

The demolition of the old Institut Français in South Kensington, where the National Theatre is to stand, is almost completed. I looked over the hoarding the other day and saw the watchman burning, with a relish I sympathized with, some exercise books and some of those nasty shiny gymnasium bars, which used to be such torture.

*

I understand that there is little likelihood of a competition being held for the design of the theatre, and the choice of architects is to be made from a limited group, selected by an unknown authority. It is typical, though unfortunate, that the names I have heard in this connection should be of firms of considerable repute in commercial work, but who have never yet done a theatre. I foresee that the controversy over this building, if it is ever erected, will be as fierce as those which raged over Genesis and the Haig horse, and probably more justified.

*

And that goes for the Imperial Airways new head-quarters building too.

SPARE TIME WORK

By a margin of seven votes to five, the Carlisle Education Committee decided, the other week, to appoint the city surveyor as architect of the new £40,000 school to be built at Currock. This decision, which cancelled a previous recommendation that the work should be undertaken by a private architect, has already provoked a good deal of criticism. A huge and important task has been handed over to an already hard-worked official, who is "to do it in his spare time, assisted by a temporary staff."

*

It is claimed that the council will thereby save over £1,000 in fees on a job which one speaker described as "less complicated then a recent addition to the Free Library, which the city surveyor had successfully carried out." It is no disparagement of his capabilities to say that it is impossible for a busy official to devote proper time and energy to the proper solution of so important a problem. When will local authorities learn that these makeshift methods are bound to have unsatisfactory results?

The Times GOES MODERN

The first portion to be built of the new building for *The Times* was opened last week. The old offices were built in the '70's by Mr. John Walter, who was his own architect. He was a born builder. Much of the materials came from his own estate, and he is reputed to have laid bricks himself during a strike. He could do without bricklayers, he said, only it might take a bit longer.

*

I wonder if he would have approved of this new building. *The Times* architectural critic is open-minded, we all know (did he not recently refer to a building as pleasant though modern?) Writing about this new wing he says, "it is clearly a machine, not for living in, but for producing newspapers in," and goes on to point out the pleasant qualities of the facade "designed in the traditional eighteenth-century manner." Like nearly every public building built this year, it contains panelling made from the foundation piles of Waterloo Bridge.

JANUARY 19—NOT DECEMBER 15

The Junior Members' Committee who have been arranging the first R.I.B.A. Informal Meeting of the Session, called "Architecture and the Next Slump," found December 15 too near Christmas for the big men to be obtainable. The date has therefore been changed to Wednesday, January 19. Lieut.-Col. C. W. D. Rowe (London Brick), Mr. R. Coppock and a representative of the A.A.S.T.A. are likely to appear.

GLASGOW

It is hard on Scotland that their vast Empire Exhibition should follow so hard on the heels of the one in Paris. Comparisons, however odious, will be almost inevitable.

*

The Paris Exhibition, whatever weaknesses there may have been, was an oasis of artistic enlightenment and Gallic flair in the chaos of present civilizations. The overwhelming brutalities of the totalitarian pavilions and the slight air of smugness in the British pavilion could not hide this. The Scots, with all their virtues, are not primarily an artistic race—it is hard on them, but there it is.

*

For instance—an "ancient castle" is rising on the shores of the Exhibition "loch." "Outwardly," I read, "the building will look exactly like one of the many ancient castles of the West Highlands. Inside, however, there will be a concert hall to seat 300 persons." Reduced prices of admission for blind persons are being considered by the authorities. Surely this is the wrong way round.

*

Fortunately for Scotland the world has long ceased to hold it responsible for the sins of Glasgow. Scotland has its own burdens.

MY PRACTICE

A client of mine the other day confessed that what he really wanted was "a house of the baronical type." The sketch designs, you will be glad to know, are going well, even if there's a touch of the ironical about the perspective.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

LEEDS COLLEGE OF ART

Lady Snowden, speaking at the opening last week of the exhibition of works by students of the Leeds College of Art, said that if artists took more interest in politics —not party politics but the nation and the nation's affairs—they would ensure that the nation's governors gave more attention and support to art. She doubted whether anyone at present ever asked a political candidate if he were interested in art.

"On the Continent, you will find they have in almost every country a Ministry of Fine Arts. There is no Ministry of Fine Arts in this country, and if you suggest it they look at you with horror. 'Another expensive Ministry,' they say. 'Won't the Board of Education do?' It will do up to a point, but the Board of Education has not been able to achieve a complete educational ladder much less interest itself to any considerable extent in the great world of art."

RE-HOUSING IN LONDON

At last Tuesday's meeting of the L.C.C., the Housing and Public Health Committee submitted proposals for securing the clearance of over 25 acres of slum areas in Battersea, Bethnal Green and Shoreditch. The cost of these proposals is estimated at over £277,000. The clearance will also involve the rehousing at a cost of £500,000 of nearly 4,500 working-class persons.

LONDON'S FIRST BOMB-PROOF SHELTERS

The first bomb-proof air-raid shelters in London are being built for the Westminster City Council by Richard Costain, Ltd., the London builders and contractors, at the Caxton Hall, Westminster. A director of Richard Costain, Ltd., said last week: "The shelters, which will give protection against gas and explosive bombs, consist of a steel-lined gallery built below street-level in front of the hall, and a converted part of the basement corridor, which is being provided with a steel ceiling. The shelters will be completed early in January."

THE ARCHITECTS' DIARY

Thursday, December 16

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C.1. Students' Annual Pantomime. 8.30 p.m. Also Dec. 17. Also Exhibition of Photographs taken by members of the A.A. Excursion to Paris.*

HOUSING CENTRE, 13 *Suffolk Street, S.W.1. Exhibition: "Rural Housing." Until the end of January.*

INSTITUTION OF STRUCTURAL ENGINEERS. *At the Institution of Civil Engineers, Great George Street, S.W.1. "Some Principles of Law Relating to Conditions of Contract." 6.30 p.m.*

INSTITUTION OF ELECTRICAL ENGINEERS, *Savoy Place, W.C. "Electrical Engineering Education." By Prof. C. L. Fortescue, Col. H. C. Fraser and F. H. Clough. 6 p.m.*

INSTITUTION OF CIVIL ENGINEERS. *At the Hotel Metropole, Leeds. "Pressure Piling." By G. I. Cope. 7.30 p.m.*

Friday, December 17

LONDON SOCIETY. *At the Royal Society of Arts, John Street, Adelphi, W.C. "London Gardens, Past and Present." By Helen Nussey. 5 p.m.*

R.I.B.A., 66 *Portland Place, W.1. Dance. 9 p.m.*

ARCHITECTS' REGISTRATION COUNCIL, 68 *Portland Place, W.1. 23rd Ordinary Meeting. 5 p.m.*

INSTITUTION OF MECHANICAL ENGINEERS (SOUTHERN BRANCH). *At the Municipal College, Portsmouth. "The San Francisco-Oakland Bay Bridge." By Professor J. Husband. 7.15 p.m.*

INSTITUTION OF MECHANICAL ENGINEERS (EAST MIDLANDS BRANCH). *At the Technical College, Lincoln. "Steel Castings." By F. Cousans. 7 p.m.*

Monday, December 20

R.I.B.A., 66 *Portland Place, W.1. "The Case for a Learned Society." By Edward J. Carter. 8 p.m.*

Tuesday, December 21

SCHOOL OF PLANNING AND RESEARCH FOR NATIONAL DEVELOPMENT. *Conference at the R.I.B.A., 66 Portland Place. 4.30 p.m.*

INSTITUTE OF WELDING. *At the Institution of Mechanical Engineers, Storey's Gate, S.W.1. "American Arc Welding Practice and its Influence on Quality and Cost." By J. H. Paterson. 6.30 p.m.*

Wednesday, December 22

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C.1. Children's Christmas Party. 3.30 p.m.*

ROYAL FINE ART COMMISSION

The annual report of the Royal Fine Art Commission is now obtainable from H.M. Stationery Office, price 4d.

EXHIBITION AT THE BUILDING CENTRE

Mr. Herbert Morrison, M.P., opened an exhibition of Interior Design by students of the L.C.C. Central School of Arts and Crafts at the Building Centre, 158 New Bond Street, W.1, yesterday. The exhibition will be open to the public (admission free) from today until January 8, between the hours of 10 a.m. and 6 p.m.

The exhibition is part of the school's new policy to give trade exhibitions away from the school premises to attract the attention of possible employers to the work of the students. Earlier in the year a modern dress display for the same purpose was given at Grosvenor House Hotel.

The exhibits show the ability of the students to design for display and exhibition purposes as well as for domestic interiors. Except the steel chairs, electric lighting fittings, and a few hangings, the articles shown have all been made and designed at the school.

The design of the exhibition has been carried out under the direction of Mr. A. L. Osborne, senior instructor for interior decoration, in conjunction with Mr. J. H. Brandt, senior instructor for furniture making, who has been responsible for the construction.

BLUE CIRCLE PLAYERS

On Tuesday, Wednesday and Thursday of last week the Blue Circle Players presented "The Late Christopher Bean" at the Arts Theatre Club, W.C. The caste gave the usual highly-polished performance which we have come to expect from this amateur society. The proceeds have been given to the Builders' Clerks' Benevolent Institution.

ON THE AIR

Monday, December 20. National Programme. 8 p.m. "Design in Everyday Things—Design Everywhere." By Anthony Bertram.

AN AIRPORT FOR THE CITY

The proposal of the City Corporation to establish a City of London airport at Fairlop, Essex, has advanced another stage (states *The Times*). After protracted negotiations with the Commissioners of Crown Lands and Ilford Borough Council agreement has been reached and the Common Council will shortly be asked to complete the contracts and obtain the consent of the Secretary of State for Air. As soon as this is done the City Lands Committee proposes to submit recommendations for the establishment and management of the airport.

The site, of more than 950 acres, is 12¼ miles from Charing Cross and 10¾ from the City.

LONDON MASTER BUILDERS' ASSOCIATION

"The R.I.B.A. 1931 Form of Contract is now recognized by all fair-minded people as a just and reasonable form of contract, and recently this Contract, in a slightly different form, has been agreed and published for the especial use of local authorities, and we ask that its adoption should now become general by municipal and local authorities throughout this metropolis and the rest of the country." These remarks were made by Major Leslie Shingleton, O.B.E., M.I.STRUCT.E., President of the London Master Builders' Association, at the Association's annual dinner in London on Thursday last. He continued:

"The building trade in London and the country during the past year, although enjoying a measure of prosperity compared with the slump years, has had difficult times, owing to the fluctuation of prices for certain materials, and great delays in the delivery of steel. This has undoubtedly restricted to some extent building in London, and may, in the opinion of some, be a blessing in disguise, by postponing non-essential work to a later date, and thus, perhaps in some measure, levelling up work and thereby helping to mitigate the effects of a possible slump in a few years' time. Prices of materials at the present time seem to have become rather more stabilised, and have permitted the withdrawal of the qualifying tender slip, and we expect deliveries of steel to improve during the next year.

"It is an extraordinary thing that although there is a fair amount of work for builders, yet we are still pricing bills of quantities at rates which, considering the difficulties and risks we run, may not, and often do not, give us a fair return on the capital we employ. We have only ourselves to blame for this state of affairs, and the remedy is in our own hands, if we would only take it.

"We have evolved an apprenticeship scheme, with which the operatives are in agreement, whereby lads will be able to be apprenticed to our Association direct, and placed by this

Association with its members, and thus overcome the difficulty our members have experienced in the past, in being unable to take as many apprentices as they would like, owing to the uncertainty of being able to give them employment during the whole period of their indenture."

The toast list was as follows: "The London Master Builders' Association," proposed by Mr. George Hicks, M.P., and responded to by Major Leslie Shingleton; "Our Guests," proposed by Mr. G. R. Holland, F.I.O.B., and responded to by Professor Patrick Abercrombie, M.A., F.R.I.B.A.

THE LATE H. T. TURNER

We regret to record the death, on December 11, at the age of eighty-four, of Mr. Hugh Thackeray Turner. Secretary for many years of the Society for the Protection of Ancient Buildings, and a member of the Committee of the National Trust.

THE CHESTER ROYAL INFIRMARY COMPETITION: NEW HOSPITAL BUILDINGS AND ALTERATIONS

Architects of British nationality domiciled in the United Kingdom are invited to submit designs in competition for new hospital buildings and alterations to existing buildings of the Royal Infirmary at Chester. Mr. Arthur John Hope, F.R.I.B.A., is the assessor and the following premiums are offered: £300, £200, and £100. Conditions of the competition and plans of site and existing buildings may be obtained on and after Monday, December 20, 1937, on application to Mr. J. Rowse Mitchell, Secretary, Chester Royal Infirmary. (Deposit £1 1s.)

Designs must be sent to the Secretary not later than Saturday, April 30.

BANNED COMPETITION

The following notice has been issued by the R.I.B.A.: "Members of the Institute and of its allied societies must not take part in the competition for the design of a bathing station for the Hornsea U.D.C., because the conditions are not in accordance with the published regulations of the Royal Institute for architectural competitions."

APPOINTMENT

With a view to co-ordinating the architectural work in Monmouthshire, the Monmouthshire County Council has accepted the recommendation of the Staffing Committee that Mr. Colin L. Jones, the present Education Architect, should be the County Architect.

All architectural work in connection with the county authority will be placed under his supervision.

R.I.B.A.

NEWS BULLETIN

"The Case for a Learned Society."—General meeting on Monday next, December 20 at 8 p.m. Mr. E. J. Carter's paper of inquiry into the Institute's ability to act as a clearing house of artistic, technical and professional learning and into the kinds of learning architects possess, require and can contribute to the common fund. Vote of thanks to be moved by Sir William Bragg, O.M.

The Architects' Benevolent Society.—The A.B.S. is faced with an overdraft in 1938. It also wants to increase its help to architects and their dependents who have fallen on hard times. It wants to build up a reserve against possible future depressions. Ten shillings per architect per annum would make these things possible.

The new President of the I.A.A.S., Sir Edwin Cooper, R.A., as seen by Mr. Fred May at the Association's Annual Dinner.

In this Christmas week write out a banker's order (the A.B.S. will supply a form) for a regular annual payment or send a cheque now; no sum is too small or too large for the A.B.S. After all, it may be a kind of personal insurance.

Presentation by Mr. Percy E. Thomas.—On December 20, Mr. Percy E. Thomas will present a silver rose bowl to the Council Dinner Club as a memento of his presidency. The bowl is the work of Mr. H. G. Murphy.

Exhibitions.—The *News Chronicle* Schools Exhibition, containing the whole of the R.I.B.A. "Modern Schools" Exhibition, opens at Dorland Hall, Regent Street, on Monday next, at 2 p.m., December 20. London architects who are interested in school design should not fail to visit the Exhibition as this is the last time it will be on view in the London area. It will be open on most week-days from 10.30 a.m. to 9 p.m., until January 12, but will be closed on December 25, 26 and 27.

"Airports and Airways" is at the Mortimer Art Galleries, Hull, until December 30.

"Civic Centres" is at the Public Library and Art Gallery, Huddersfield, until January 8.

ELECTION OF MEMBERS

At a recent meeting of the Council of the R.I.B.A. the following members were elected:

As Hon. Corresponding Member (1).—Mr. Alvar Aalto (Helsingfors, Finland).

As Fellows (10).—Messrs. R. G. Clark, H. C. Farmer, K. W. Harris, R. F. Jordan, J. E. Macgregor, F. H. Smith, J. F. Smith, E. R. Taylor, and J. A. Taylor, D.S.O., M.C., T.D. Overseas: G. Norburn (Jerusalem).

As Associates (126).—Messrs. E. Albarn, L. B. Baillon, C. P. Beauchamp, J. F. Benson, C. H. Bingham-Powell, C. T. Boucher, F. Bowman, A. C. Boyd, P. Bramley-Taylor, S. J. Bubb, I. F. Calder, A. B. Campbell, J. R. Cheyne, W. E. Claessen, C. W. Coster, C. V. Crane, J. J. Cunningham, C. J. Dixon, O. F. Eyre, R. A. Fever, D. Fletcher, J. P. Floyd, R. O. Foster, J. M. Fox, A. G. Gavin, A. E. Gerrard, H. Goolden, F. W. Griffiths, J. K. Habgood, A. A. Haggar, W. R. Hall, T. Hargreaves, C. E. Hartland, J. K. Hawkes, G. H. Heritage, E. C. Hicks, S. G. Hirst, A. P. Hodgson, D. A. Hogben, S. J. Jackson, M. K. Jadhav, A. W. Jardine, D. C. Jenkin, W. E. Johns, (Miss) A. F. Johnston, R. Kayll, R. C. Kemp, D. S. Kilner, E. Kinghorn, W. K. Laurie, R. K. Lewis, R. Little, W. D. Lougher-Goodey, A. Lumb, N. C. Machin, L. A. Macintosh, J. T. Mallorie, D. G. Martin, J. McClure, H. V. Mellor, K. B. Miller, E. W. Mitchell, N. E. Morris, D. E. Morrison, H. G. Moseley, D. B. Nield, L. Osman, F. C. Otton, W. M. Parsons, A. L. Pegg, J. W. Pickering, A. Pickford, R. A. Pickmere, T. Pilkington, R. Pitchford, H. N. Player, G. W. Pollard, M. T. Pritchard, R. P. Quennell, G. Ray, D. P. Reay, J. Robin, G. P. Scott, (Miss) S. M. Scott, B. Seddon, J. J. Shannon, J. F. Shortall, S. E. Smale, A. J. Smith, F. G. Southgate, K. A. Stevens, G. R. Stout, F. G. Sturrock, J. P. Taylor, R. W. Tippetts, F. A. Turner, F. J. Turner, F. B. Walker, P. R. Walker, L. W. Wall, R. Ward, H. Webster, G. P. Whitaker, M. F. White, J. M. Wilkinson, A. M. Wilson, C. W. Windle, B. E. Wood, R. D. Wormald, H. M. Wright, J. Wright, J. B. Wright. Overseas.—R. V. Boehm, B. A. Brogan, G. T. Dyson, H. E. Jones, B. M. McDonald, G. L. Moline, A. J. Murray, J. J. Orpen, R. R. Prentice, A. J. Retief, C. J. Shaw, H. H. Smith, R. I. Stewart, and J. C. Wade.

As Licentiates (14).—Messrs. R. W. Allen, R. R. Grant, D. Hamilton, J. E. Hammond, J. W. Hammond, J. B. Harrison, R. J. Harrison, J. H. Hobbs, I. Jeffcott, J. Jempson, F. Milnes, H. T. Rix, J. W. Spence and A. W. Whydale.

IN PARLIAMENT

Government Buildings

INTERESTING details of the way in which Government buildings are being made bomb-proof were given in the House of Commons last week during the debates in the final stages of the Air Raid Precautions Bill.

Mr. G. Lloyd, Under-Secretary to the Home Office, said that from information which had reached the Home Office it was clear that there were a number of places which would probably be perfectly suitable for use as shelters, and normally speaking it should be possible to find such shelters in existing buildings. For example, 4½ acres of cellars were recently inspected under warehouses close to Moorgate, and at Bethnal Green there existed large underground vaults which were used in the last war to provide shelter for 3,000 or 4,000 people. The Government expected factory owners and owners of business premises to consider this question and take suitable precautions for the protection of their workpeople in the case of air raids.

The Office of Works was constructing seven gas chambers in various Government buildings in the London area, so that all staff who wished to go through a gas chamber during the course of their training would have an opportunity of doing so.

The Office of Works was carrying out an extensive structural survey of existing buildings, and the most suitable accommodation would be earmarked for refuges to which the staff would be collected on receipt of an air raid warning. As regarded fire-fighting facilities, a survey was in progress, and the necessary additional fire-fighting equipment would be installed.

Structural precautions against air attack would be considered in all new Government buildings. Rather special considerations existed in the case of the new Whitehall building, and it might be of interest to give some account of what was being done. It was proposed to construct a roof of solid concrete to resist small incendiary bombs and offer some resistance to penetration of high explosive bombs generally. The floors would be of solid concrete and would offer further resistance to bombs which penetrated the roof. The second floor below the roof would be a strongly reinforced floor capable o retaining debris if the top floors collapsed, and a very strongly reinforced floor was to be provided on the ground floor level to provide protection for staff collected in the emergency refuge accommodation in the basement.

The building would be divided into 16 sections by solid cross walls extending from the foundations up to the top of the building. These walls would not only stiffen the building against the effects of an external explosion, but would limit the effects of an internal explosion and the spread of fire.

THE REGISTRATION BILL

OBJECTIONS

[Below are the reasons put forward by the Incorporated Association of Architects and Surveyors for the rejection of the Architects (Registration) Bill in its present form.]

1 *Because the Bill restricts the liberty of the subject without making equitable provision for entrance to what would be a closed profession.*

2 *Because the actual promoters of the Bill are not the Architects Registration Council (which has no power under the 1931 Act to promote legislation) but a self-seeking body of persons connected with the R.I.B.A. (Royal Institute of British Architects) who are supremely anxious to obtain for that body a paramount position which it has been unable to obtain in an open field by fair competition with other bodies devoted to the welfare of the architectural profession. In actuality it is the R.I.B.A., and not the Registration Council which seeks, via the Bill, monopolistic control of the profession.*

3 *Because of the manner in which the provisions of the 1931 Act have been abused and of the manner in which the administration of the Act has been conducted, which gravely reflects upon the conduct of those entrusted with its administration.*

4 *Because the effect of passing the new Bill would be to crystallize all the defects of the principal Act, which have been found by the Registration Council itself to exist.*

5 *Because the Registration Council, having been made conscious of these defects, appointed an Amending Act Committee to draft amendments but did not wait for the Committee to finish its job, being forced by the influence and votes of R.I.B.A. members on the Council to take precipitate action.*

6 *Because of the manner in which the funds of the Registration Council have been spent, especially having regard to the figures quoted at the end of this Memorandum.**

** Notes in regard to above :—*

The 1931 Act became operative on January 1, 1932.

In the years 1932, 1933 and 1934, £6,984 was collected (by the Registration Council) in fees. Of this sum at least a half *(see Clause 14 of the 1931 Act) should have been made available for the Scholarship Fund. Owing, however, to the extravagant manner in which the funds were expended by the Council during that period, no money was available for scholarships. The Registration Council, finding themselves in a difficult position, applied to Parliament and obtained, via the provisions of the* 1934 Act, *relief from their responsibility of paying the amounts which should have been paid to the Scholarship Fund for the years mentioned.*

In 1935, the Scholarship Fund was charged £308 10s. 0d. for administrative expenses, although only £156 10s. 0d. was awarded in scholarships!

REPLIED TO

[Below are some answers to the I.A.A.S. objections by those in favour of the Bill.]

1. In so far as this objection means anything it is replied to under 10.

2. The Architects Registration Council have no power under their Act to spend money in the promotion of legislation. They therefore appointed a Parliamentary Committee composed of representatives of all the constituent architectural bodies on the Council (with the exception of Sir Robert Tasker's opposing Association).

This committee consists of representatives of the following :—

	Representing architect members
R.I.B.A.	7,000
A.A.	1,700
Faculty	582
A.A.S.T.A.	387
Representatives of unattached architects ..	3,000

The above bodies have subscribed in proportion to their numbers the necessary funds for expert advice in drafting the Bill and presenting it to Parliament.

The Bill was before the Council on June 30, 1937, and its introduction approved by them by 22 votes to 4, the only dissentients being the three representatives of Sir Robert Tasker's Association and one other member who represents the views of the Institution of Municipal and County Engineers. The I.A.A.S., according to the latest return, contains only 1,261 architect members.

3. This statement is untrue and is not supported by evidence. The Council of the Incorporated Association of Architects and Surveyors is represented on the Architects' Registration Council by three members and have representation on all the Committees of the Council. They have had ample opportunity in Council to draw attention to any case of maladministration but have not done so. For example, the proceedings at the last meeting of the Council in September, at which the Secretary of the Incorporated Association was present as a member, were carried out with such expedition and general agreement that they lasted only half an hour.

4 & 5. There are no serious defects in the principal Act. As in every Act of Parliament there are small matters which one or other of the parties interested would like to see altered, but it is entirely untrue to say that the Act contains serious imperfections. The point of the words underlined in the print is probably that on June 9, 1932, only five months after the principal Act was passed, the then Council passed a resolution appointing an Amending Act Committee to consider possible amendments. This, it will be noted, was done at a very early stage when even members of the Council were necessarily imperfectly acquainted with the Act and its provisions. The Amending Act Committee has met from time to time, but at no time has any agreed recommendation been made upon any amendments to the provisions of the 1931 Act which could possibly be regarded as a matter of major importance. The Amending Act Committee accordingly decided, and the Council confirmed their decision, that what was wanted was not trivial amendments to the principal Act but a new measure protecting the title "Architect."

6. This paragraph, and the notes thereon, are inaccurate and misleading. While Section 14 of the principal Act required the Council to devote half of the amount of the fees received in any calendar year for the provision of scholarships, it made no provision for the preliminary expenses for setting up the machinery of the Registration Council which would be incurred before architects were able to register themselves and accordingly before any revenue was available. If the Council had been obliged to give away half of their revenue in the first three years to scholarships they would not have had sufficient funds with which to carry on. For this reason a Bill was introduced in Parliament, and duly passed, postponing the contributions to scholarships from 1932 to 1935. These facts were clearly set out in the memorandum accompanying the Bill when it was introduced. The only avoidable expenditure incurred was that necessitated by the obstruction of the Incorporated Association of Architects and Surveyors, whose actions made it necessary for the Council to take legal advice and incur heavy legal expenditure during the early years of their existence.

Scholarship Fund Finance.—The figures given in the notes are incomplete and meaningless unless the financial basis of the scholarship scheme is surveyed as a whole. On the advice of the Privy Council the whole of the revenue available in any one year is not expended in that year, but there has been established a definite scheme so that the Council shall be able to allot scholarships and grants with a greater degree of certainty than if they had to rely each year upon the income accruing in that year. The present scheme is based on the five-year period, 1935–40, in which it is estimated that £10,000 will be received in revenue. Of this, £7,500 will either be paid out in scholarship grants or put to reserve for scholarship grants, while the cost of administration for the whole period is £2,500. The administration expenses are necessarily the same throughout the period—under £500 a year. While the scholarships in the first year were considerably below that amount they expand from

OBJECTIONS

Notes in regard to above—contd.

In 1936, though only £514 was awarded in scholarships, £550 was charged against the fund for administrative expenses!

How have the scholarships been awarded? No record is available of the applicants. The particulars available in regard to successful candidates show that nine scholarships were awarded in 1935 and 1936; the youngest holder being 18 years of age and the eldest 23 years of age. The liability of the Scholarship Fund for one candidate alone is the fantastic sum of £666.

Although about £4,000 a year is collected by the Council from registered architects, no balance sheet or annual report has ever been issued to the latter, who, therefore, have no knowledge as to how the money has been or is being spent.

7 *Because the new Bill, whilst aiming at making architecture a closed profession and copyrighting the title "architect," does not even define what an architect is.*

8 *Because, whilst opening the door for two years to both the competent (and the incompetent) architect residing in the United Kingdom, the Bill makes no provision for, say, the architect now practising overseas who may return home to practise his profession here, thus denying him the use of the title "architect."*

9 *Because it would make it possible for the Registration Council to deny to engineers responsible for the design of important public buildings, e.g. railway stations, power stations, public baths, etc., the right to use the title "architect."*

10 *Because it would give to one professional body alone (the R.I.B.A.) the power to hold examinations, and to empower that body to make its own terms and stipulations in regard to its requirements and fees (including examination fees). In such circumstances the temptation to a fee-collecting body is obvious.*

11 *Because the only other avenues leading to registration, other than universities, open to students, would be by way of a few selected schools which are recognized by the R.I.B.A. and in which that body's influence is paramount, where the cost of a pupil's tuition is beyond the means of the majority of parents or guardians. The number of free scholarships is comparatively negligible.*

12 *Because, it is submitted by the Incorporated Association of Architects and Surveyors, an inquiry should be held into the administration (and defects) of the 1931 Act, before any attempt be made to amend it.*

13 *Because, it is submitted, the entrance examination should be a State examination of a uniform character for all candidates, conducted by an impartial examining board, appointed by the Registration Council. Machinery for this purpose is already included in the 1931 Act but has not been used. The Amending Bill should be so drafted as to make it obligatory for the Registration Council to make use of the existing machinery in the manner indicated.*

REPLIED TO

year to year up to as much as £1,500 in the fifth year of the scheme. The Council have administered the scheme in the most economical way possible. Had they, as they were entitled to do, engaged special premises and a special staff the cost would have been considerably higher. They have, on legal advice, in addition to the direct expenditure actually arising from advertising the scheme and holding the necessary examinations, charged a small proportion of the salaries of their staff and 10 per cent. of the overhead expenses of the Council. It should be borne in mind that the examination has to be held in eleven different centres all over the country, and that the travelling expenses of necessitous students have to be paid.

A full record of the scholarships awarded is reported to the meetings of the Council at which the Press are present, and is recorded in the minutes of the Council and circulated to the representatives of the constituent bodies on the Council, including the Incorporated Association.

The figure of £666 is not understood. No successful candidate is entitled to receive that sum, although that sum is not necessarily fantastic when spread over a five-year period. The highest scholarship at present awarded is one for £146 10s. per annum, of which £31 10s. is represented by fees, £15 by books and £100 by maintenance. The actual amounts awarded for maintenance necessarily depend upon the financial circumstances of the students.

The accounts and balance sheets of the Council are circulated to members quarterly, as well as the annual balance sheet at the end of the financial year. All the architectural organizations in the country are represented on the Council and it is open to them, if they so desire, to circulate the accounts to their members. At the same time the Press is present at meetings of the Council and is supplied with a copy of the accounts, which are also open to the inspection of any registered architect who desires to see them, although in fact no request to that effect has ever been made. The only reason why a copy of the accounts is not circulated to every registered architect is that, having regard to the total number of 12,000 architects on the register the expense of postage and printing would be in the region of £100 per quarter and would be prohibitive. Expenditure on this basis could only be made possible by raising the annual fee which registered architects have to pay for retention of their names on the register.

7. It is not necessary to include a definition of the word "architect" in the Bill. The qualification of architect is to be obtained by examination in the same way as the qualification of doctor is obtained by passing the examinations recognized by the General Medical Council.

8. The Council have power under the principal Act, section 6 (1) (*d*) to prescribe by regulations approved by the Privy Council, qualifications for registration, and the case of architects practising overseas returning home to practise in this country can be provided for by regulations in this manner.

9. If an engineer is also an architect he will obtain admission to the register. If he is an engineer but not an architect he will not obtain admission to the register and there does not appear to be any reason why he should.

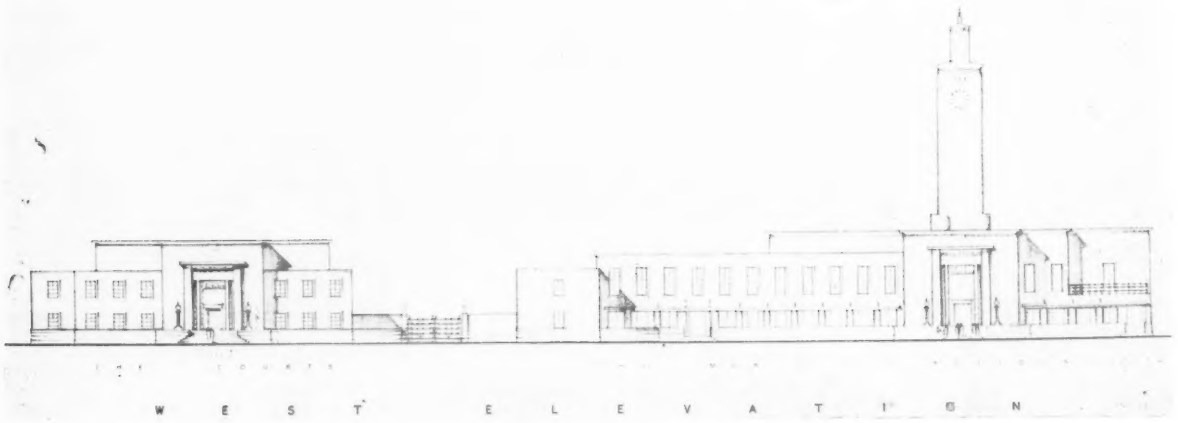
10. This is absolutely untrue. There are 13 different bodies holding examinations and any examining body is at liberty to apply to the Board of Architectural Education for the recognition of its examination. In fact, the Regent Street Polytechnic has recently made formal application for recognition of its examination and is at the present moment engaged in compiling the particulars which have to be submitted to the Board of Architectural Education before the application can be granted.

11. As evidence of the opportunities open to the poor boy it is interesting to record that of the 215 successful candidates of the two R.I.B.A. Final Examinations held in 1936, 128 had trained themselves by attending evening schools while the remaining 87 stated that they had studied at home or through correspondence courses.

12. Such an inquiry is unnecessary. It should be noted that there are on the Council not less than five representatives of Government Departments and had there been any necessity for an amendment of the Act or had there been any such abuses of administration as are suggested in the memorandum, it is inconceivable that the representatives of the departments referred to would not have drawn attention to the matter, either in Council or through the Home Office.

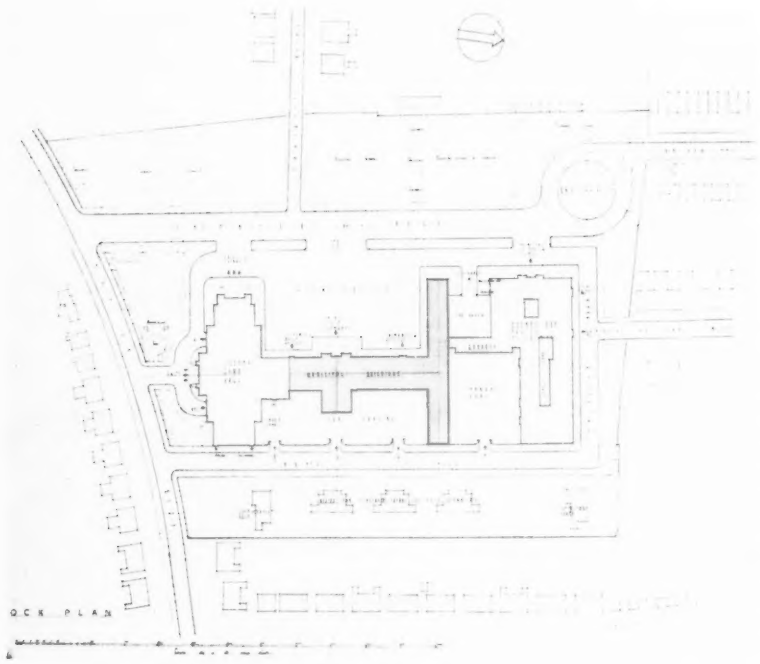
13. The Council have power under Section 6 (4) of the Act to direct the Board of Architectural Education to hold examinations if the Board so recommend, but the Board, after careful consideration, have made no such recommendation. Their policy has been to follow the example of the General Medical Council and other bodies who do not hold an independent examination of their own but are content to recognize the examinations of various colleges, universities and schools of the requisite standard. The view is held that by abstaining from holding their examinations the Board of Architectura Education are able to maintain their position of being an impartial judge of the standard reached by a number of examinations. Confining itself to its duty of watching and assessing the value of all the competing examinations the A.R.C.U.K. can retain a position of complete impartiality without complicating the system by creating a new examination of its own. If it were to do so it would be difficult to escape the suspicion, sooner or later, of having a bias in favour of its own examinations.

COMPETITION FOR MUNICIPAL BUILDINGS



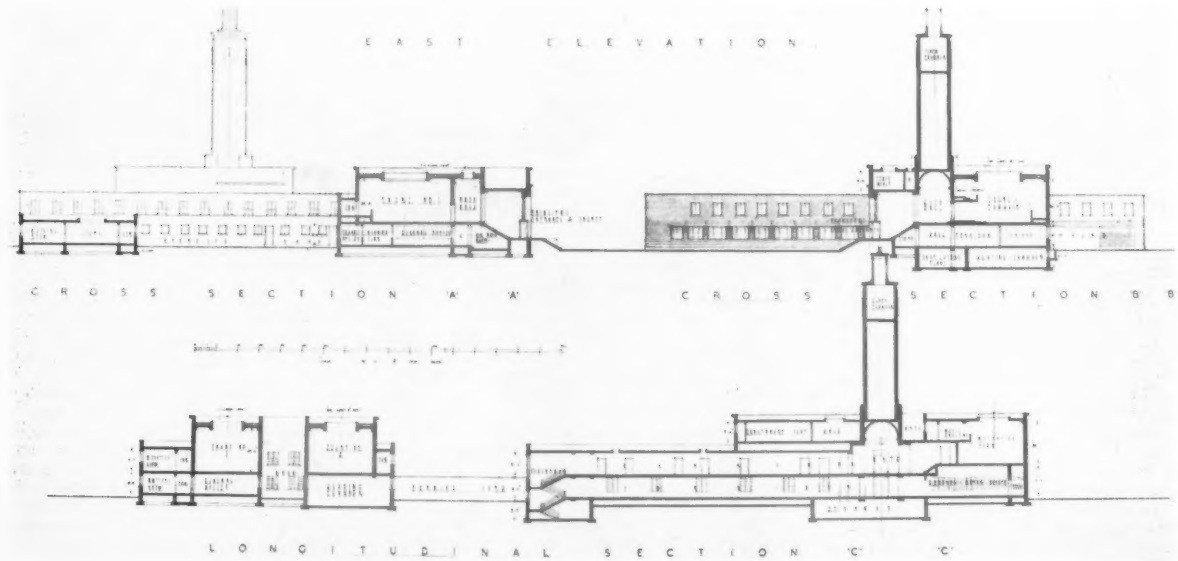
WEST ELEVATION

DESIGN PLACED FIRST: BY C. B. PEARSON AND SON



BLOCK PLAN

As announced in last week's issue, Mr. T. Cecil Howitt, F.R.I.B.A., the assessor of the competition for Scunthorpe Municipal Buildings and Lincoln and Parts of Lindsay County Council Police Buildings, to be erected at Scunthorpe, Lincolnshire, awarded the first prize of £500 to C. B. Pearson and Son, of Lancaster, and the second prize of £250 to Sir John Brown and A. E. Henson, of London. The designs placed first and second are reproduced on this and the following four pages. The full award was printed on page 947 of our last issue.



EAST ELEVATION

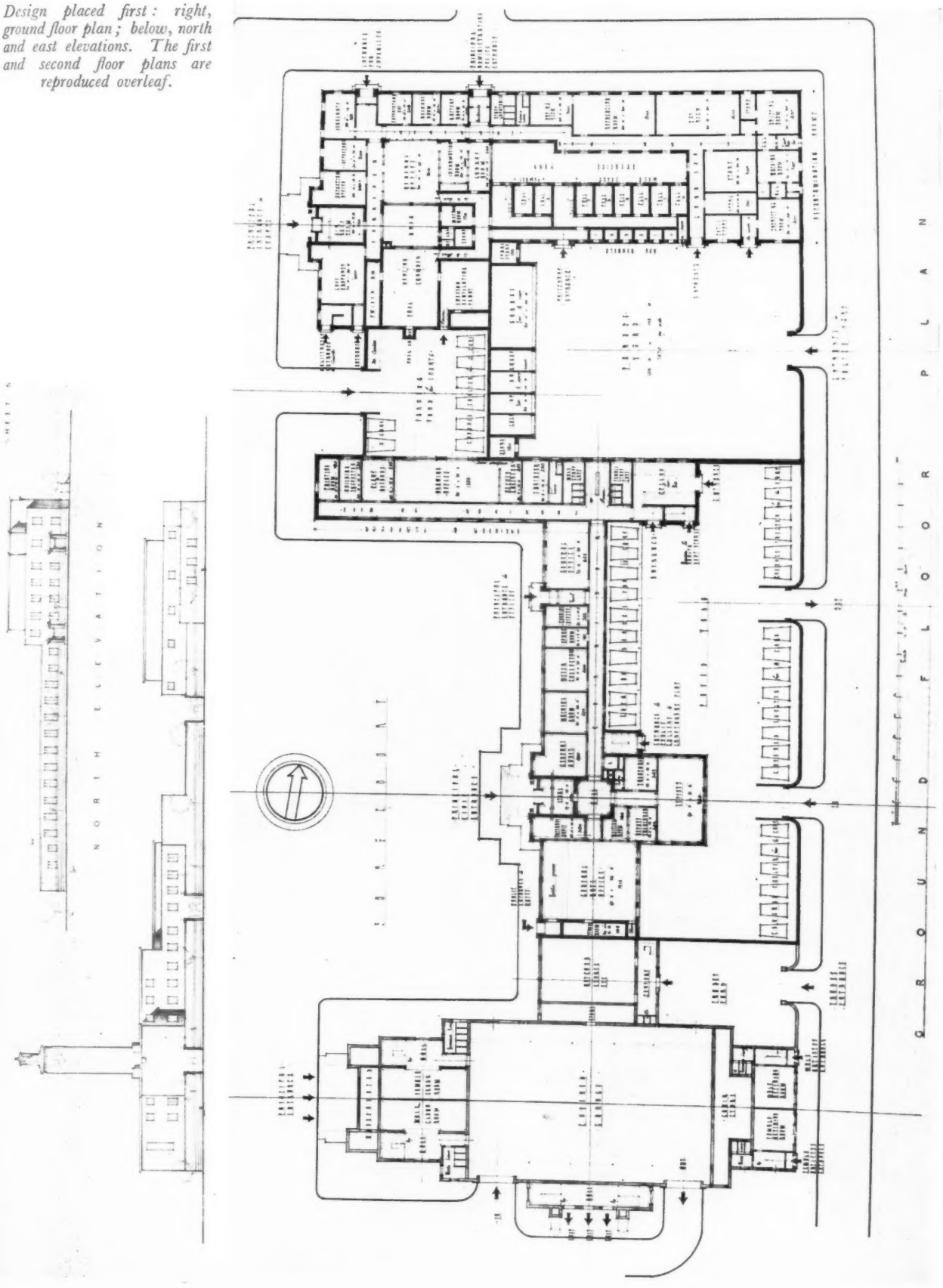
CROSS SECTION 'A' 'A'

CROSS SECTION 'B' 'B'

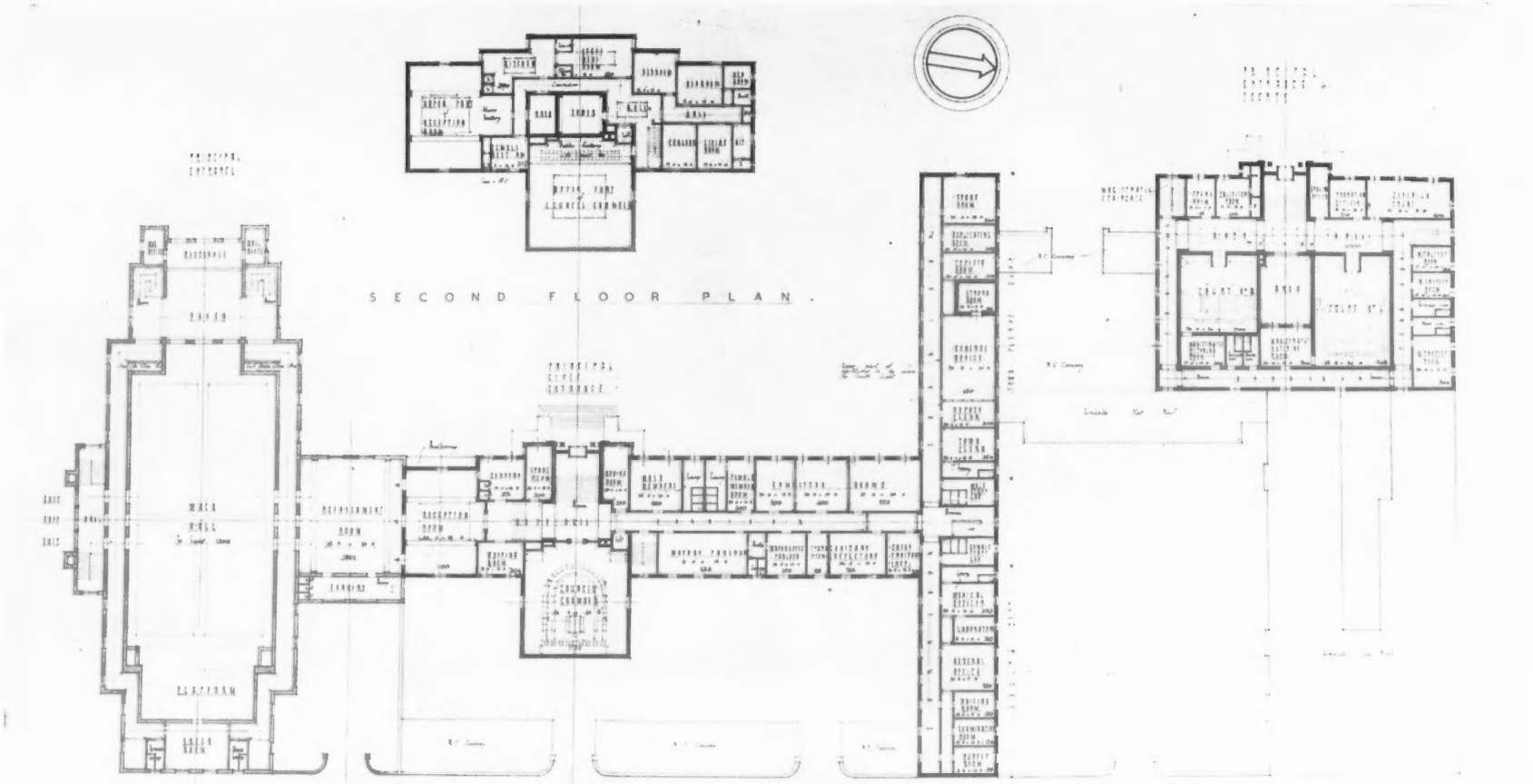
LONGITUDINAL SECTION 'C' 'C'

AND COUNTY POLICE BUILDINGS, SCUNTHORPE

Design placed first: right, ground floor plan; below, north and east elevations. The first and second floor plans are reproduced overleaf.



COMPETITION FOR MUNICIPAL BUILDINGS AND COUNTY POLICE BUILDINGS, SCUNTHORPE



DESIGN PLACED FIRST: BY C. B. PEARSON & SON

First and second floor plans

Following are some extracts from the winners' report:

GENERAL—After carefully studying the site, it was felt that the following main principles governed the design:—

That the buildings, whilst following a general grouping, should be entirely separate buildings, and capable of being erected as separate blocks; and that the proposed 40-ft. roadway running north and south should be in such a position that vehicular traffic from Laneham Street to the site should not be allowed to congest. The introduction, therefore, of a traffic roundabout to overcome any chance of congestion seems to be very necessary, especially having in mind the connecting up of a 40-ft. roadway to one much narrower. The proposed new 40-ft. roadway has been kept as far away as possible from the western boundary so as to allow for the laying out of gardens, tennis courts, bowling greens, etc. The courts and police buildings are planned at the north end of the site as asked for in the conditions.

The future town hall is planned in such a position that when erection takes place it will cause the minimum disturbance to the other buildings.

MUNICIPAL BUILDING—The building is planned with a wing running east to west, primarily as a screen to the parade yard and also for north light as required by some departments. It is suggested that those windows that overlook the parade yard might have obscured glass to the lower third of the windows.

The council suite has been planned on the first floor, having a separate civic entrance for use on ceremonial occasions, and, whilst being "en suite," has direct access to all departments. The reception room with music gallery is so placed that when the town hall is erected the civic approach from the council suite will be direct to the refreshment room, and would be of a dignified character. An outside balcony for the reception room is provided.

A separate entrance to the office departments is provided.

COURTS AND POLICE BUILDINGS—The courts are placed on the first floor, having separate principal entrances and dignified ante-hall, and separate magistrates' entrance and staircase.

The police buildings are planned on the ground floor, having a separate entrance with direct access to the charge room. All the various rooms are planned in relation to one another.

The police-houses are placed to the east of the site as a screen to the gardens of existing property.

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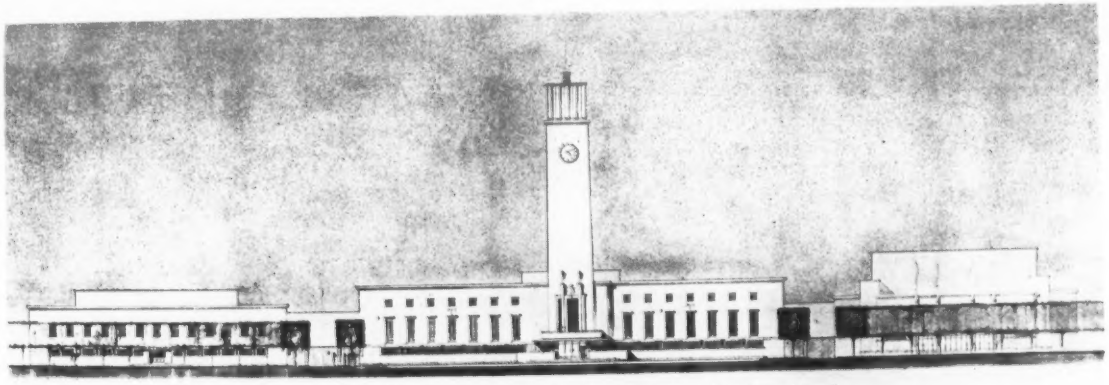
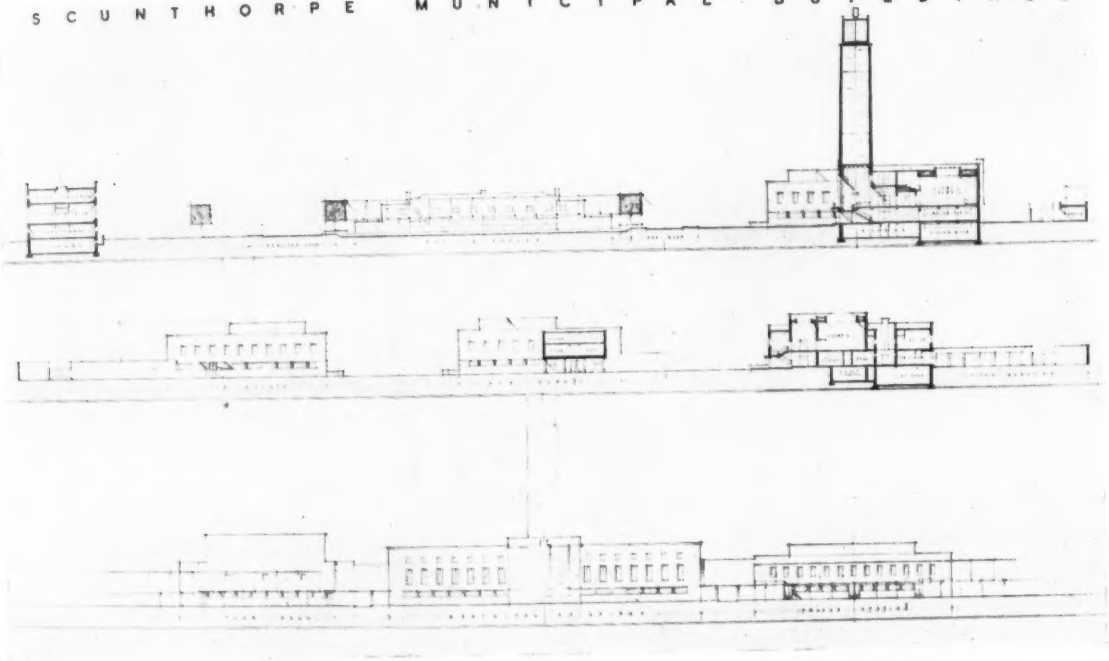


DESIGN PLACED SECOND: BY SIR JOHN BROWN AND A. E. HENSON

SCUNTHORPE MUNICIPAL BUILDINGS



Winner's Report (continued)

CONSTRUCTION—External walls of 16-ins. and 11-ins. cavity, part steel-framed, and hollow-tile floors and flat roofs. Internal partitions to be 3 ins. "Pioneer" or "Foamagg" slabs. It is not considered necessary to steel-frame the two-storey parts of the building.

EXTERNAL MATERIALS—The principal façades would be executed in a 2-ins. sand-faced brick built in cement mortar with wide struck joints. The stonework to entrances, plinths, cills, copings, etc. (which is reduced to a minimum) to be Portland, if cost will allow; alternatively a precast stone of good quality. Internal courts would be in cream facing-bricks, whilst the flat roofs would be hollow tile with asphalt finish on the built-up system. The windows would be steel in wood frames.

INTERNAL MATERIALS—The ante-hall and staircase to the council suite would be in marble or terrazzo tiles of light colour, with fibrous plaster enrichment where considered necessary. The reception rooms, committee rooms, mayor's parlour, etc., would be panelled in veneered walnut waxed and polished. The ante-hall to the courts would be finished similar to the hall to council suite, and the courts similar to council chamber. The council chamber walls, above the dado would be finished with acoustic tiles, and ¾-in. acoustic felt would be placed in the coffers of the ceilings.

The cells would be of glazed bricks, hardwood floors, fitted with bunk and w.c. Private rooms for heads of departments would have painted walls, carpeted floors and paint to ceilings. The offices generally to have lino floors, distemper plaster walls and ceilings, enamelled slate window cills with polished hardwood flush veneered doors.

COST

	£	s.	d.
Municipal Buildings—468,824 cube feet at 1s. 6d. per cube foot	35,162	0	0
Council Suite—179,895 cube feet at 1s. 9d. per cube foot	15,741	0	0
Boundary walls and Gates to Yard	300	0	0
R.C. Canopies to Covered Shelters	300	0	0
Paved Yard—1,659 sq. yds. at 6s. per sq. yd.	500	0	0
Total Estimated Cost of Municipal Buildings	52,003	0	0

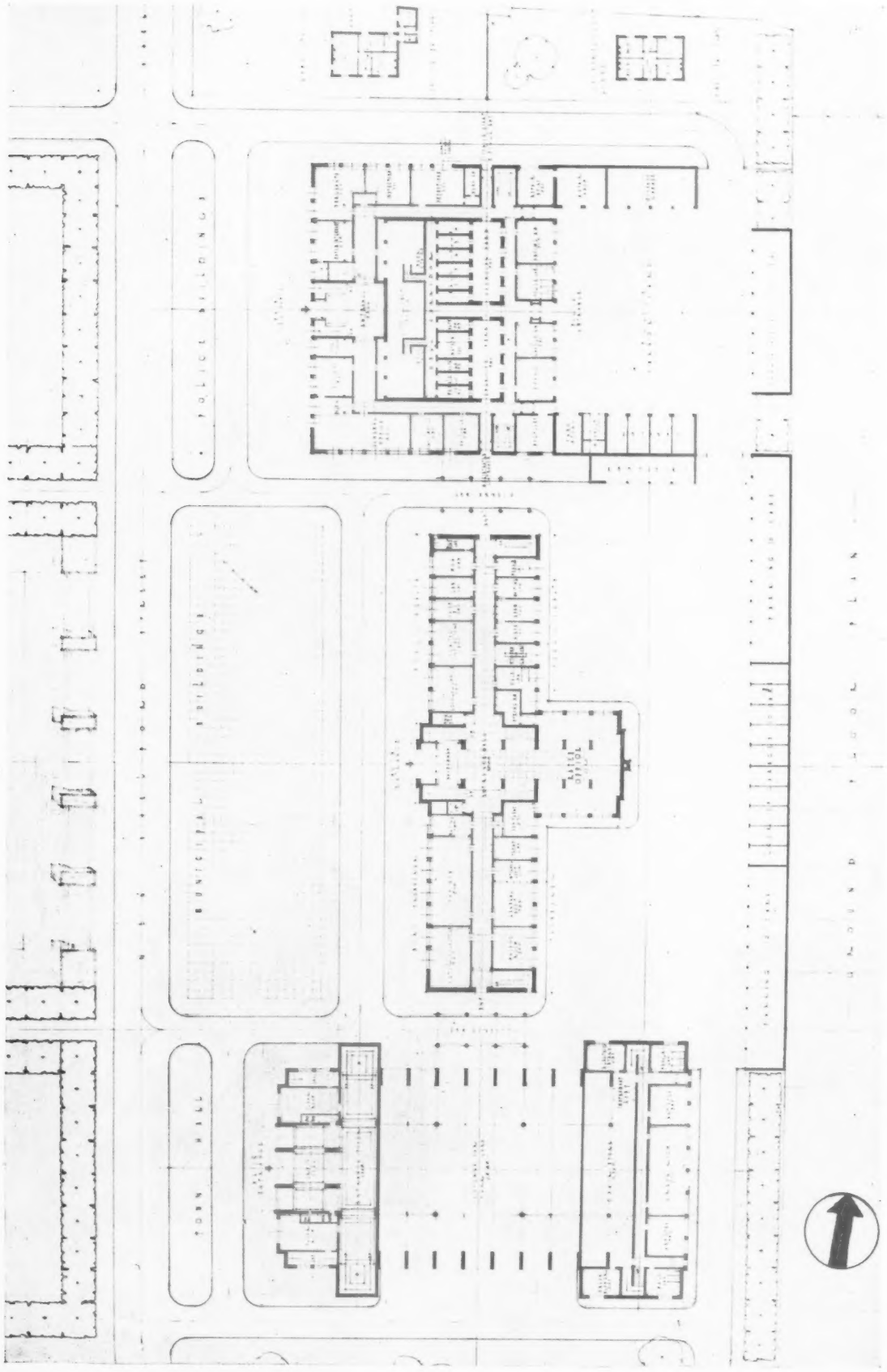
COURTS AND POLICE BUILDINGS

	£	s.	d.
Police Buildings—261,069 cube feet at 1s. 5d. per cube foot	18,492	0	0
Courts—176,999 cube feet at 1s. 9d. per cube foot	15,487	0	0
Police Houses—6 semi-detached—each 16,980 cube feet at 9d. per cube foot = £636 15s. Total for six	3,820	10	0
Superintendent and Inspectors' Houses—each 37,800 cube feet at 9d. per cube foot—£1,417 10s. Total for two	2,835	0	0
Boundary Walls and Gates	150	0	0
Paved Yard	445	0	0
Garage—28,998 cube feet at 9d. per cube foot	1,087	0	0
Total Estimated Cost of Courts and Police Buildings	42,316	10	0

ESTIMATED COST OF LAY-OUT

It is estimated that the cost of the lay-out scheme comprising roadways, sewers, paths, lawns, gardens, plantings, etc., etc., is £3,000 to £3,500.

COMPETITION FOR MUNICIPAL AND POLICE BUILDINGS, SCUNTHORPE



Ground floor plan

DESIGN PLACED SECOND: BY SIR JOHN BROWN AND A. E. HENSON

LETTERS FROM READERS

A. W. BARR,
Secretary, Association of Architects, Surveyors and Technical Assistants.

CYRIL SWEETT,
Hon. Secretary, Modern Architectural Research Group.

SIR IAN MACALISTER,
Secretary of the R.I.B.A.

WILLIAM CRABTREE, A.R.I.B.A.

C. A. MACKENZIE SKUES, F.S.I.

Registration

SIR,—The Executive of the Association endorses the very sound argument of the leader on Registration appearing in your issue for December 9 and of Astragal's notes on the same subject.

The enclosed letter, written prior to the publication of your issue of December 9, but which largely corresponds with the views stated therein, expresses the attitude of the Council of the Association on Registration, and has been sent to all the Opposition M.P.s to solicit their support for the Amending Bill.—A. W. BARR, Secretary A.A.S.T.A.

[*Below is the letter referred to by Mr. Barr.—Ed., A.J.*]

SIR,—This Association is a registered trade union, recognised by the T.U.C., and representative of architects in salaried positions and of assistants in architectural offices. We write to solicit your support in favour of the above Bill, the second reading of which is to be moved by Mr. A. Lovat-Fraser in the House of Commons on Friday, December 17.

It has come to our notice that certain persons interested in opposing the Bill have been spreading the impression that the policy behind the Bill is to make it much harder and more expensive for young people to enter the profession. This we believe to be quite untrue, and without foundation in fact. The only object of the Bill is to prevent unqualified persons from calling themselves architects, an object which is as much in the interests of assistants as of architects themselves.

The examinations at present qualifying for registration are those of the Architectural Day Schools and of the Royal Institute of British Architects. In 1936, some 165 persons became eligible for registration by passing the final examinations of the schools (whose fees range from £20 a year upwards). A further 215 persons, however, became eligible for registration by passing the Final Examination of the R.I.B.A. Of these 215, some 60 per cent. studied at evening classes (at a nominal fee of thirty shillings or so a year, plus the usual entrance fees for the R.I.B.A. Examinations), the remainder studying at home mainly by correspondence courses. We think these figures speak for themselves.

In addition, we would point out that 50 per cent. of the fees annually contributed to the Registration Council are by statute allocated to scholarships tenable at the architectural schools.

In our opinion it is obviously in the public interest that there should be a generally recognised minimum qualification for an architect, as there is for a dentist or a doctor. The public expects a man calling himself an "architect" to be qualified. At present, under an Act of 1931, a person may not call himself a "Registered Architect" unless he is registered, but he may use the title "architect" even though he has no qualifications whatever. (His building may fall to pieces in a few years). The public hardly differentiates between an "architect" and a "Registered Architect." This Bill is intended merely to make registration effective by ensuring that no-one shall call himself an architect unless he is registered.

It will have the effect also of safeguarding the status of the profession, and in our opinion this will be as much in the interests of the assistant and the salaried man as of the private architect. The Bill is actively supported by such well-known trade unionists as Mr. George Hicks and Mr. Richard Coppock of the National Federation of Building Trade Operatives.

We hope you will be able to be in the House to support the Bill on Friday, December 17. If you would like particular information on any aspect of the subject, will you kindly let us know?

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

M.A.R.S. Exhibition

SIR,—The news was first made public some months ago that the MARS (Modern Architectural Research) Group was organizing an ambitious exhibition. It was hoped then to get it ready by this summer, but the Group found that so much organization was needed to make an exhibition of the kind they had in mind as comprehensive and as thorough as they wished, that the opening was postponed until next January.

The Group is now able to announce that the exhibition will open on January 11, 1938, at the New Burlington Galleries to run for three weeks. A section of it will afterwards be included in the Building Exhibition at Olympia next autumn, and, it is anticipated, in other parts of the country.

The actual material of the exhibition is now in an advanced stage of execution by members of the Group, but the side of it that is still only in the half-way state—a side that was also largely responsible for the postponement—is the financial side. The Group has privately appealed for funds to a number of leading manufacturers and industrialists connected with building, and to the leading trade associations, who have been generous enough to contribute up to date the major portion of the total sum required. Members of the Group are making their own contribution in the form of the work they are putting into the creation of the exhibition, and the Group now appeals to the architectural profession and the interested public to help reach the amount required. The exhibition, it should be made clear, is going ahead in any case, but the money the Group is now appealing for is needed to make it as effective, as comprehensive and as far-reaching in scope as so important a subject deserves.

The MARS Group was formed in 1933 for the purpose of encouraging development of a modern architecture and of undertaking research into present day conditions, the use of new materials, and other factors that influence it; and the actual content of this exhibition is the result of the Group's work over the past few years. It sets out to show, by drawings, photographs, models and statistics, how changing conditions in every branch of life and activity should logically produce an architecture suitable to them.

The exhibition is not planned to display the products of individual manufacturers, but makes use of materials and examples of industrial production to tell a coherent story of the new architecture.

This exhibition will perform a valuable service. It should result in a better understanding of the aims of modern architecture and therefore should have the support not only of architects but also of the building industry.

The address of the Secretary is 55 Gordon Square, W.C.1.

CYRIL SWEETT, Hon. Sec.

Official Architecture

SIR,—At the meeting of the Council held on December 6 it was decided to issue a statement of the Council's policy on the subject of official architecture and to appoint a Joint Sub-Committee composed of representatives of the Executive Committee and Official Architects' Committee to prepare this statement.

Steps are being taken to appoint the Sub-Committee and it is hoped that it will meet at an early date.

IAN MACALISTER
R.I.B.A.

Professor Reilly Speaking

SIR,—When I read Professor Reilly's article on Competitions it seemed to me to be eminently sound and very much to the point. Has our present system, except for Bexhill, which was a brilliant exception, produced much in the way of fine architecture? There has been, as Professor Reilly says, the Georgian-Swedish compromise, but except for this which in capable hands is just acceptable, there has been nothing which we can call live design.

Maybe this is not altogether the fault of our competition system, but I think that very largely it is. Mr. Berry Webber's letter, in which he first excuses Professor Reilly his views as those of a sick man, which, in itself, is untrue and insulting enough, and then proceeds, to his own satisfaction,

at least so it appears, to assert that the present competition system is the best possible and produces the best possible results, is to say the least of it unconvincing and complacent. Did not the R.I.B.A. in the case of its own competition for its new building employ just this jury system which Professor Reilly wishes to see and is it not recognized that Mr. Grey Wornum's design was easily the best of those submitted?

WILLIAM CRABTREE

SIR,—In view of what other architects say in conversation, it is surprising that your correspondence columns are not overcrowded with letters taking up the lead given by Professor Reilly. We older men working in London have grateful memories of Professor Reilly's fairmindedness and helpfulness, and it is unthinkable that he should give expression even in such a gentle, kindly way to the dissatisfaction felt in the profession over the Competition System as it works out, if there were not sound reason for it and if that dissatisfaction were not profound.

A comparison between the number of architects in practice and the number who enter for competitions would, I am sure, be startling, and that is certainly not because the majority have as much work as they can do or want. In my small circle, I find that about nine out of ten have given up competing, and in the great majority of cases the reason given is that the award so frequently goes to a design in which a condition, expressed as essential, has been ignored. They do not care to play a game if the rules are not observed. Like good sportsmen, they do not question the umpire's decision when it goes against them. It is the rarest thing to see any architect rushing into print in such a case, but they get very chary of wasting time and labour again. There have been many flagrant cases in recent years.

We all know the specious plea, "Why should not the promoters get the benefit if some competitor can give them a better building by ignoring a condition?" The answer is emphatically, "Then that condition should not have been imposed."

Professor Reilly, in my view, makes a most valuable suggestion. "The conditions should be drawn up by an expert in clear and consistent drafting." It is obvious that assessors have not been careful enough in putting "must" where they should have put "may." It does not in the least follow that the man best qualified as an assessor of plans is qualified well or even at all to draw up the conditions. The sooner the two functions are divorced the better.

Much, too, might be said for Professor Reilly's suggestion of a jury instead of a single assessor. Everyone is liable to slip up at times, as has been shown by one or two notorious cases in which some glaring fault has been overlooked in making an award. It is unlikely that this would happen if there were a jury of competent assessors.

I am afraid I have already trespassed heavily on your space, but I feel strongly that it would be deplorable if the discussion were allowed to drop, for until confidence is restored a great many men who could and should compete will continue to stand aloof.

C. A. MACKENZIE SKUES

EXHIBITIONS

[By D. COSENS]

THE loveliest paintings in London at the moment are Cézanne's water colours at the Lefèvre Galleries. Everyone who is interested in painting should study these, and not only enjoy them, as is inevitable, but endeavour to make some analysis of the methods by which their perfect balance is achieved. For here, with the slightest of drawing and a few touches of pale colour of equal tone throughout, Cézanne conveys both the strength and solidity of the landscape, and an astonishing recession. He is invariably a master of the expression of form in terms of colour rather than in linear design, and in his larger works it is possible to follow his argument as well as to accept his conclusion. But in these sketches the means are not obvious, and the result, therefore, has all the appearance of a miracle. "Montaigne St. Victoire" (18) and "Paysage Montagneux" (2) are outstandingly beautiful examples of his intense feeling for landscape.

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It was perhaps a misjudgment to show the Derain paintings in the next room, for the insistence of their fiery colours is inevitably defeated by Cézanne's quiet mastery. These pictures of the Thames, painted in 1907, are any river anywhere seen through the particular pair of spectacles Derain was wearing just then—none the worse for that, and individually very interesting paintings, but less satisfying in both colour and atmosphere than much of his later work, or that in his earlier, more classical manner. Derain is at all times an uneven painter. These paintings at the Lefèvre illustrate a phase, but they do not show him at his best.

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It is many years since Mr. Wyndham Lewis held an exhibition of his painting; but his work, in isolated examples and in reproduction, is very well known. Those familiar with his writing will be ready for the cold and rather harsh dissection expressed in the uncompromising sharp and angular shapes of his design, and the under-current of a somewhat arrogant contempt for humanity in general, which, though less clearly expressed in his painting, is very definitely stated. Mr. Wyndham Lewis's work raises the question as to whether any man can be a great artist in either medium, paint or print, without sympathy as well as talent. Talent he undoubtedly possesses, and it is always to be regretted that his versatility divided it, for in his merciless way, he might have been a very great painter indeed. His exhibition at the Leicester Galleries is of great interest, and at its most successful when his grim interpretation of the cubist formula is tempered with the more wistful elements of surrealism.

Also at the Leicester is a good collection of recent paintings by Adrian Daintry. He is a young painter of considerable promise, and though a suspicion is beginning to grow that the achievement is not quite equal to the promise, still it is very definitely there in "Salisbury Plain" (17), "Dorset" (16), or "Bembridge Harbour." He should beware of portraits. The posed portrait with its flattery and fashionable trimmings is for many an economic necessity, but for few is it ever comparable with the work they are capable of doing. This is evident in comparing any of the portraits with "Studio Interior" (12) in which the impersonal and objective treatment of the figure of the model shows how good a portrait Mr. Daintry can paint when his chief aim is to construct a picture.

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In the East Room there is a very beautiful Algernon Newton, "Surrey Canal, Camberwell." Painted in the eighteenth century convention he uses so skilfully, it holds the balance admirably between the formal elements of the architectural design and a strongly-felt atmosphere of quiet luminosity.

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The inequality of Mr. Duncan Grant's painting has always been striking, and at a first glance his exhibition of recent work at Agnew's is rather disconcerting. It is difficult to reconcile such paintings as "Fandango" and "Fitzroy Street" as the work of the same artist, or, while finding the former incomparably the better painting of the two, to do justice to the genuine qualities of the latter. But a first glance is misleading, and after a time it becomes apparent that what, in spite of an assured technique, might almost be called uncertainty, is in reality the hesitation of an extremely sensitive personality. The sense of colour, and design in movement, in such paintings as "The Vintage" (52), "The Grape Gatherers" (55) or the design for the "Flower Gatherers" (39) gives justification for the claim sometimes made that Mr. Duncan Grant is one of our finest living painters. The rejected panels for the *Queen Mary*, "Seguidilla," "The Sheaf," and "The Flower Gatherers" are interesting, but the studies for these have a spontaneity that is lacking in the finished works.

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Water Colours by Cézanne, and "The Thames" by Derain. Lefèvre Galleries, 1a King Street, St. James's. Until Dec. 31.

Wyndham Lewis and Adrian Daintry. The Leicester Galleries. Until Dec. 24.

Duncan Grant. Agnew's Gallery, 43 Old Bond Street. Until Dec. 24.

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Commonwealth Fund Fellowship

Copies of the memorandum and form of application for the Commonwealth Fund Fellowships may be obtained, free, on application to the Secretary to the Committee of Award, Commonwealth Fund Fellowships, 35 Portman Square, London, W.1.

The Fellowships, which are available for architects, are confined to University graduates, but a graduate who is taking a course at a School of Architecture which is not a University School would be eligible to apply for a Fellowship.

WORKING DETAILS : 613

PROSCENIUM AND LIGHTING BOX • LONDON THEATRE STUDIO, N. • MARCEL BREUER AND F. R. S. YORKE

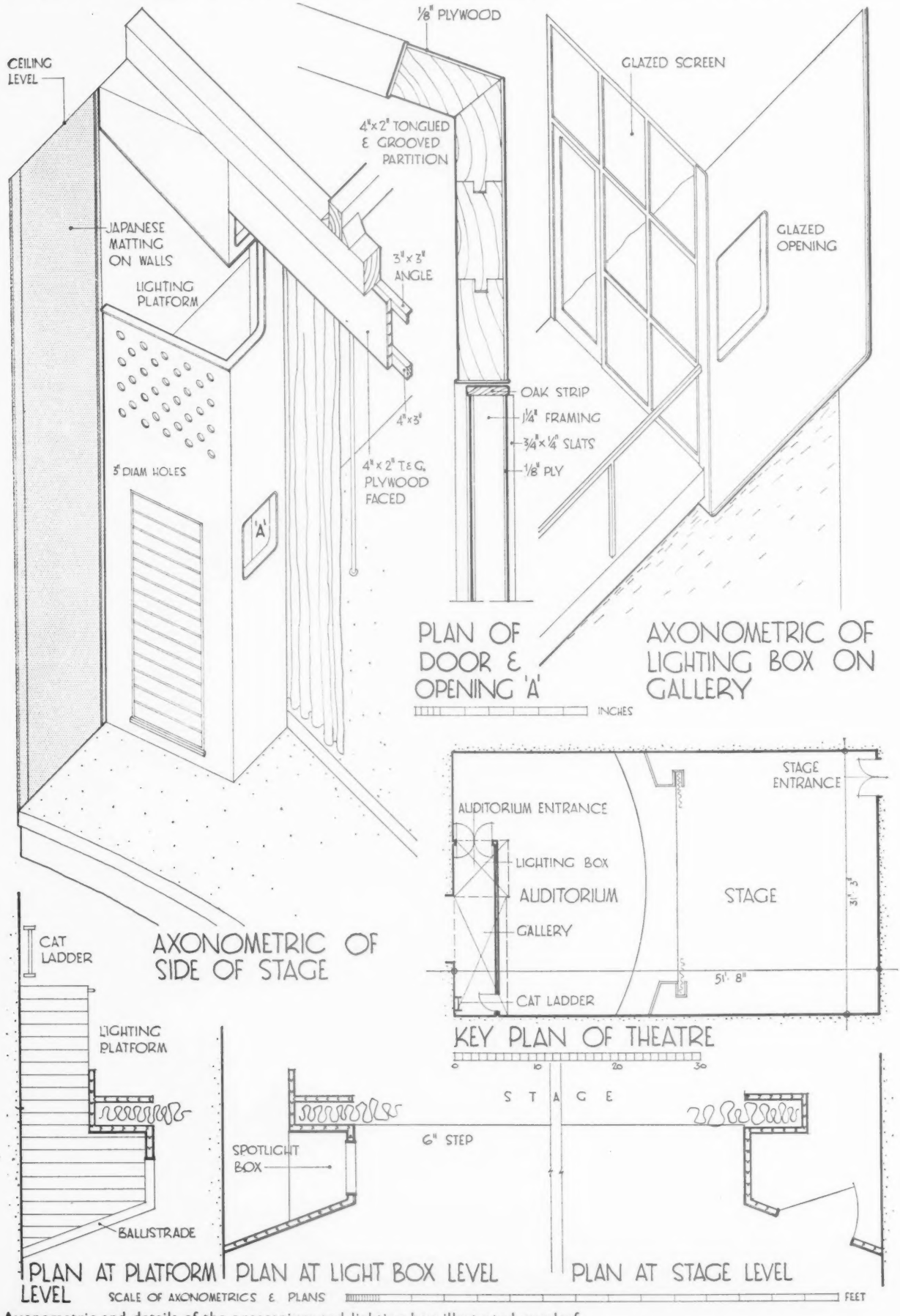
The theatre studio was reconstructed in an existing hall, and as funds were lacking the simplest possible treatment was adopted. The proscenium arch, lighting and curtain boxes are constructed of tongued and grooved partitions faced with birch plywood. The lighting boxes either side of the proscenium are used as spotlight boxes at stage level, with lighting platforms over, reached by cat ladders from the stage.

The switchboard for stage lighting is situated in the gallery at the rear of the hall, and is shown in the photograph on the right. The construction is similar to the lighting boxes. The walls of the auditorium are covered with Japanese matting.

Details are shown overleaf.

WORKING DETAILS : 614

PROSCENIUM AND LIGHTING BOX • LONDON THEATRE STUDIO, N. • MARCEL BREUER AND F. R. S. YORKE



Axonometric and details of the proscenium and lighting box illustrated overleaf.

WORKING DETAILS : 615

CHAIRMAN'S PLATFORM AND READING DESK • SENATE HOUSE, UNIVERSITY OF LONDON • CHARLES HOLDEN

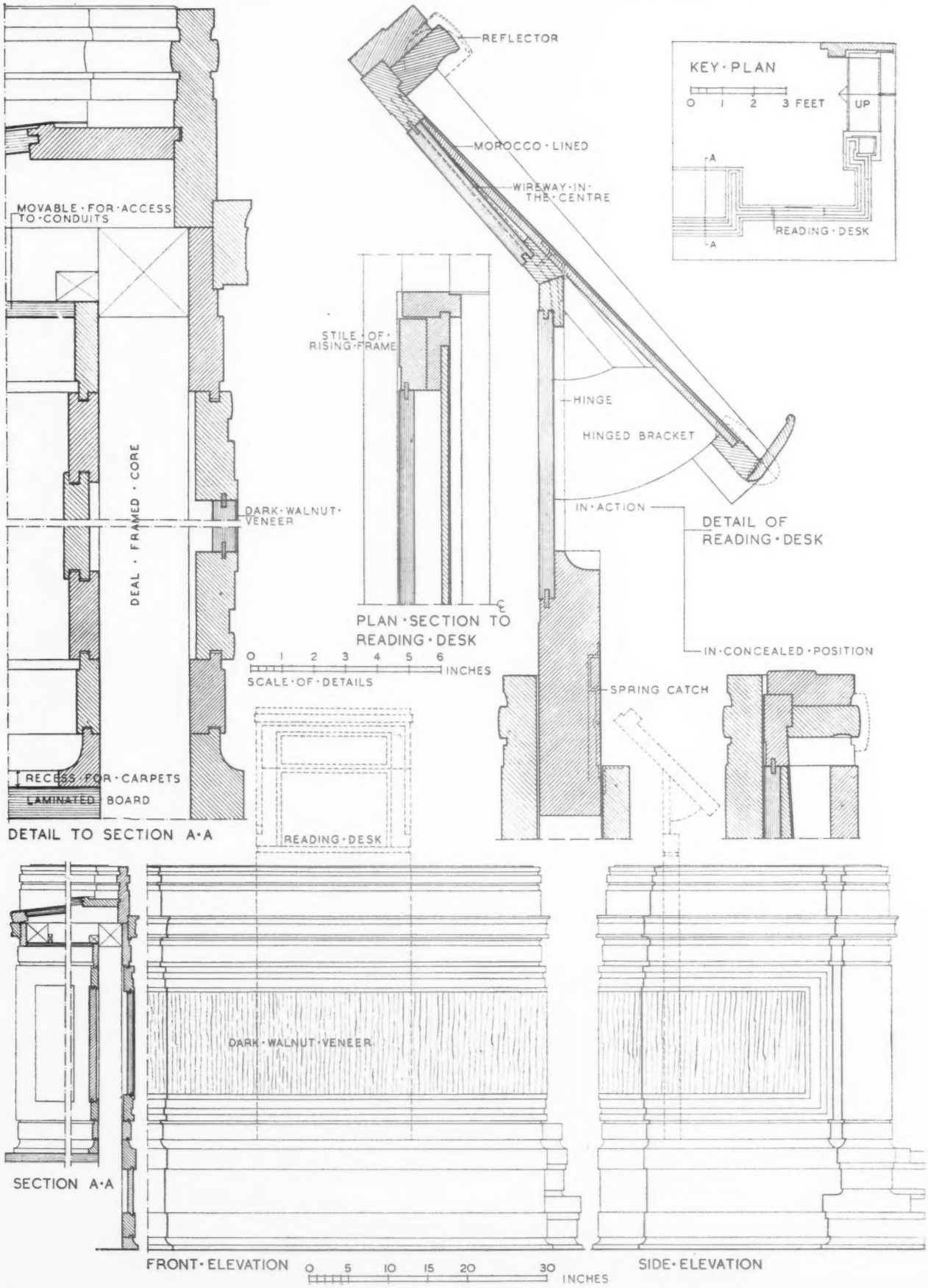
At each end of the chairman's platform are reading desks concealed in the platform front. These can be raised and opened out when required, each being fitted with a striplight and lined with morocco leather. In their concealed position they fit flush with the platform front.

Joinery construction throughout is in English walnut.

Details are shown overleaf.

WORKING DETAILS : 616

CHAIRMAN'S PLATFORM AND READING DESK • SENATE HOUSE, UNIVERSITY OF LONDON • CHARLES HOLDEN



Details of the chairman's platform and reading desk illustrated overleaf.

The Architects' Journal Library of Planned Information

INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

583 Plumbing

584 Free Standing Gas Panel Heaters

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
544 : Sheet Leadwork
545 : Elementary Schools—III
546 : Elementary Schools—IV
547 : U.S.A. Plumbing—III
548 : Wallboards
549 : Elementary Schools—V
550 : Elementary Schools—VI
551 : U.S.A. Plumbing—IV
552 : Sheet Leadwork
553 : Kitchen Equipment
554 : Burnt Clay Roofing Tiles
555 : A.B.M. Draining Boards
556 : Kitchen Equipment
557 : Asbestos-Cement Roofing
558 : A.B.M. Rainwater Pipes
559 : Flashing
560 : Kitchen Equipment
561 : Asbestos-Cement Roofing
562 : A.B.M. Rainwater Gutters and Fittings
563 : Asbestos-Cement Roofing
564 : The Equipment of Buildings
565 : Air Conditioning
566 : A.B.M. Rainwater Gutters and Fittings
567 : Plywood—I
568 : Leadwork
569 : Gas Cookers
570 : A.B.M. Moulded Gutters and Fittings
571 : Fuel Storage—I
572 : Electrical Equipment
573 : Wallboard and Insulating Board
574 : Sanitary Equipment
575 : Plywood—II
576 : Plumbing
577 : Leadwork
578 : Plumbing
579 : Sanitary Equipment
580 : Condensation in Industrial Buildings
581 : The Equipment of Buildings
582 : Heating Stoves Burning Solid Fuel—II

88.

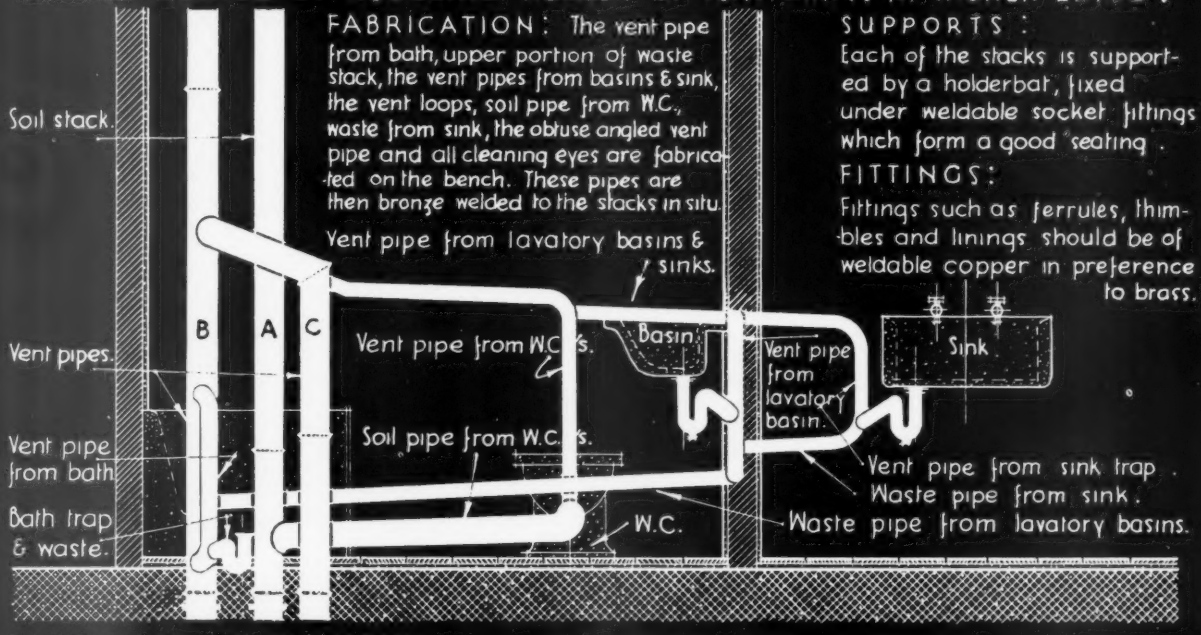
THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

PLUMBING IN WELDED COPPER PIPING TO A BATHROOM AND A KITCHEN, SHOWING METHOD OF REDUCING NUMBER OF VENT SHAFTS AT HIGHER LEVEL.

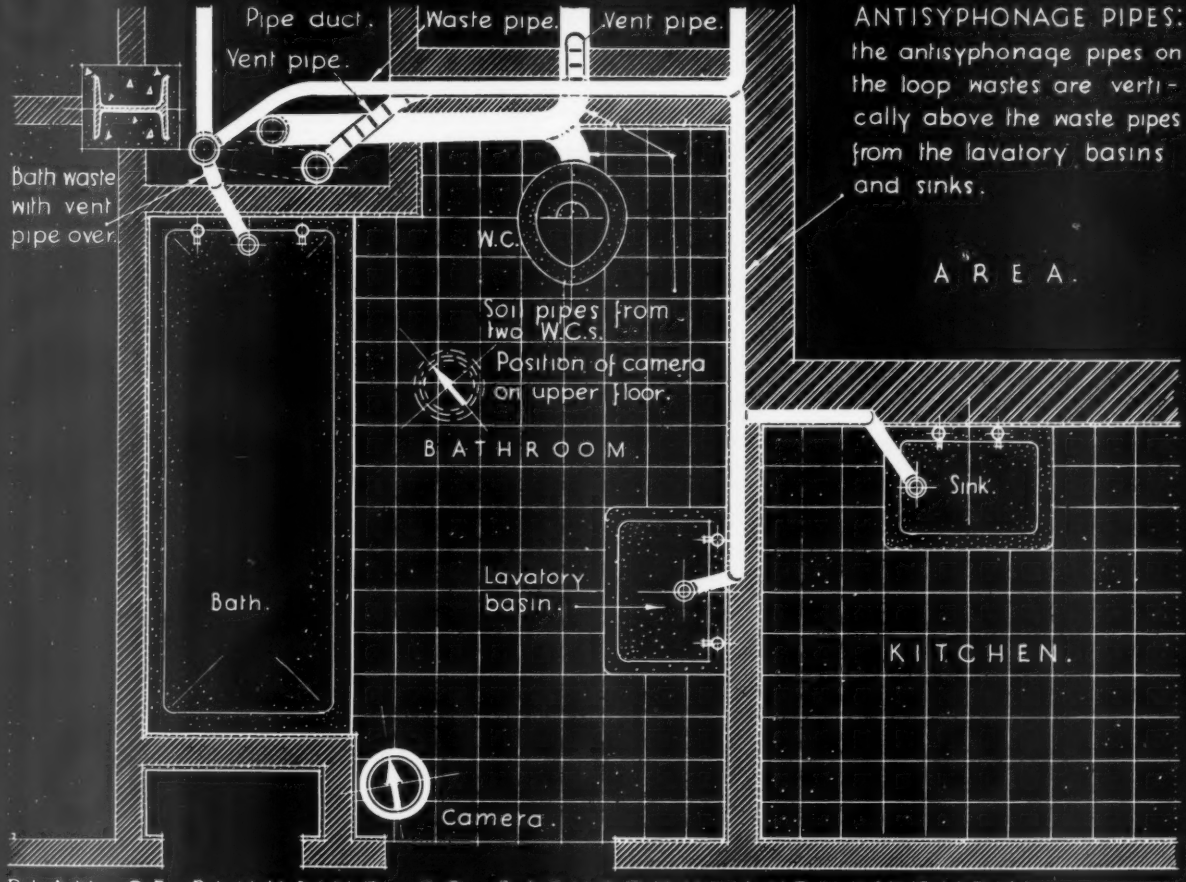
FABRICATION: The vent pipe from bath, upper portion of waste stack, the vent pipes from basins & sink, the vent loops, soil pipe from W.C., waste from sink, the obtuse angled vent pipe and all cleaning eyes are fabricated on the bench. These pipes are then bronze welded to the stacks in situ.

SUPPORTS: Each of the stacks is supported by a holderbat, fixed under weldable socket fittings which form a good seating.

FITTINGS: Fittings such as ferrules, thimbles and linings should be of weldable copper in preference to brass.



ELEVATION OF PLUMBING TO BATHROOM AND KITCHEN SINK:



ANTISYPHONAGE PIPES: the antisyphonage pipes on the loop wastes are vertically above the waste pipes from the lavatory basins and sinks.

PLAN OF PLUMBING TO BATHROOM AND KITCHEN.

Information from W.L. Kilburn, R.P., M.Inst.W. *Issued by The British Oxygen Co. Ltd.*

INFORMATION SHEET: PLUMBING IN COPPER PIPING WITH BRONZE WELDED JOINTS: No. 3.

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1.

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 583 •

PLUMBING

Subject : Bronze Welded Copper Piping

This Sheet and the accompanying photographs show the plumbing to two adjacent bathrooms and to two isolated kitchen sinks carried out in bronze welded copper piping and showing the method of reducing the number of vent shafts at a higher floor level.

Since the overhead discharge of waste becomes less in volume, the soil stack (A) is sufficient to take the supply of waste from the upper floors, allowing the stack marked (B) to become an antisyphonage stack above the level of the entry of the waste pipe from the lavatory basins. Below this point, the stack acts as a waste stack to take wastes from both baths and basins.

The vent stack (C) which is shown with an angular fabricated bend with a bronze welded joint will now be eliminated on the upper floors, and at this level the stack (B) now becomes the only vent pipe. This type of bend is permissible on air pipes, but should never be used as the connection in soil or waste pipes.

The drawing shows three service stacks running side by side in a pipe duct, the soil stack marked (A) taking the soil from two W.C.s. The W.C.s on the upper floors are similarly connected to the soil stack marked A as shown on the photograph.

The traps from these two W.C.s are connected with the soil pipe opposite one another. These traps are back vented with piping connected to the vent pipe from lavatory basins and sinks ; this vent pipe in turn is connected to the main vent stack marked (C).

A waste pipe common to both the lavatory basins and sinks is taken off the stack marked (B), carried along to the respective positions of the basin and sink fitments, carried up vertically, and returned back again as an antisyphonage pipe in the form of a loop.

On the upper floors, the waste pipe from the basins and sinks is connected to the soil stack marked (A) and the antisyphonage pipe from these same fitments is connected to the vent stack marked (B) as shown on the photograph on the back page.

These waste and vent loops were made in the workshop and jointed to the two stacks *in situ*. The traps are similarly jointed.

Another vent-waste loop is connected to the stack marked (B) to take the waste from the baths. The traps from the baths are connected to these loops *in situ*.

On the upper floors, the waste pipe from the baths is connected by means of a " loop " to the stack marked (A) and the antisyphonage vent is connected to the stack marked (B), as shown.

The antisyphonage vent pipes on all loops should be connected to their respective stacks at a point above the relative highest possible water level of the fitment.

Fixing :

The fabrication of the services is carried out partly in the workshop and partly on the site.

The loops, obtuse angle vent pipe, and waste pipe from W.C.s are all fabricated on the bench and jointed to the stacks *in situ*.

For Holderbat fixings, see the descriptions on the previous Sheets of this series Nos. 576 and 578.

Previous Sheets :

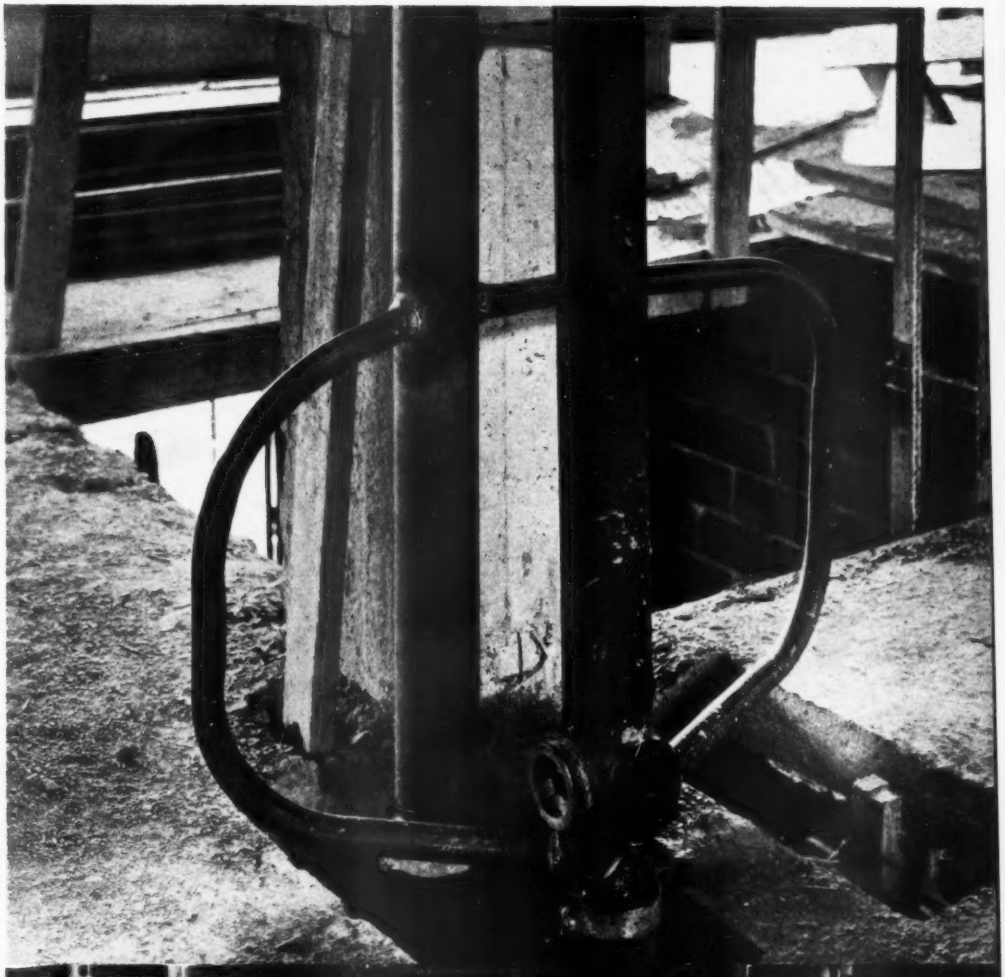
The numbers of previous Sheets dealing with weldable copper piping are as follows :—

1 ...	225	5 ...	259	9 ...	418
2 ...	234	6 ...	268	10 ...	576
3 ...	243	7 ...	321	11 ...	578
4 ...	251	8 ...	413		

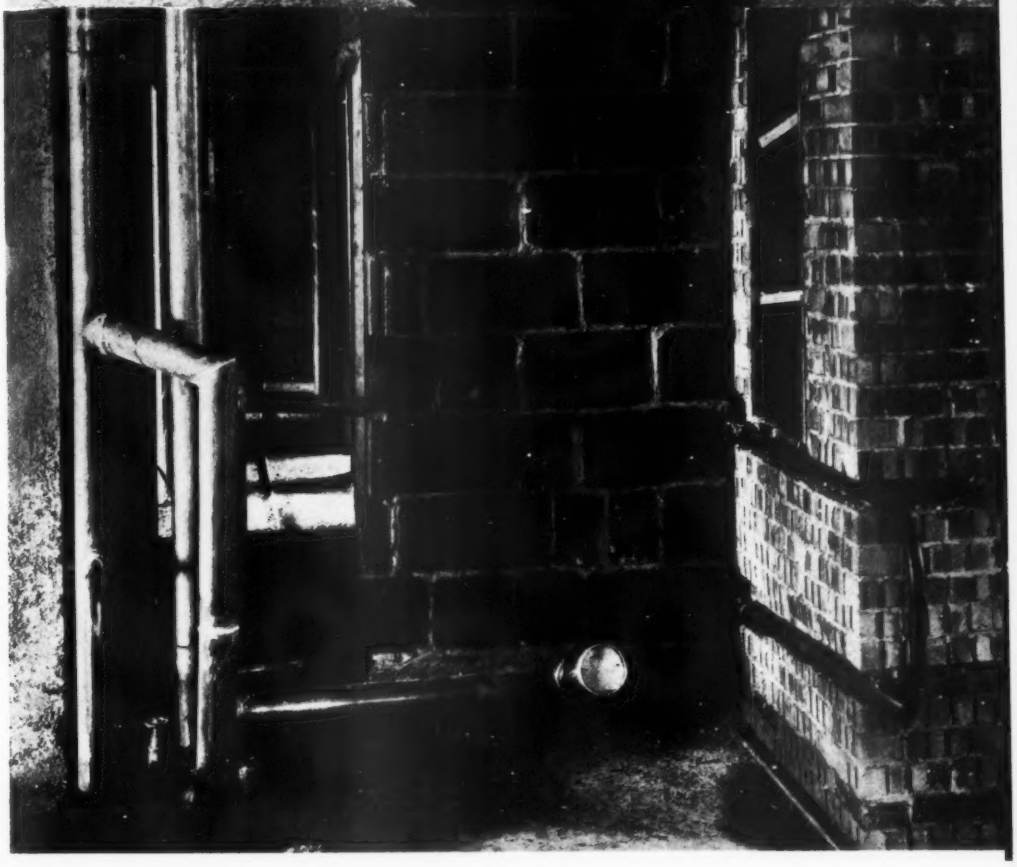
Issued by : The British Oxygen Co., Ltd.
Address : Thames House, Millbank, S.W.1
Telephone : Victoria 9225

PLUMBING

This is a view of the installation as it appears on the upper floors with normal, single vent and soil stacks. The same number and disposition of fittings occur as on the lower floors, but it will be noticed that at this level the combined wastes from the sink and basin and also the bath now enter the main soil stack just above and below the W.C. branch, respectively, while the vents from these fittings are taken directly into the original left-hand waste stack, now become a vent



The photograph shows the copper waste, vent and soil stacks coming up from the lower floors at the level at which the vent is carried across into the waste stack above the entry of the last branch vent. The loop forming the combined waste and vent from one of the baths can be seen on the waste stack in the left foreground, while the larger loop to the basin and sink and the branch to the two W.C. fitments are partly visible on the right.



PLUMBING

This photograph was taken on one of the higher floors before the erection of the duct and bathroom partitions, and gives a comprehensive idea of the installation at this level. The arrangement of the combined branch wastes and loop vents for the adjacent bathroom and kitchen suites can be seen, the bronze welded copper piping being chased into the brickwork of the area wall and connected *in situ* to the main copper soil and vent stacks.

A welded cleaning eye is provided on the single branch from the W.C. fitments, and it will be noticed that only one vent serves these two traps.

The bronze welded, copper hot and cold water service piping is shown by the lagged runs across the structural floor slab.

3

718.

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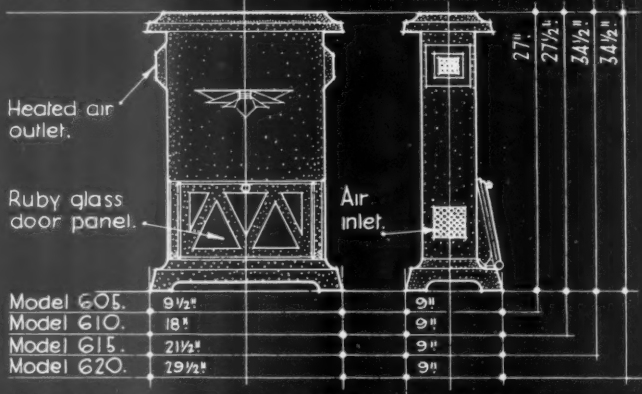
DIAGRAMS ILLUSTRATING THE •SUPERVECTOR• PANEL HEATER:

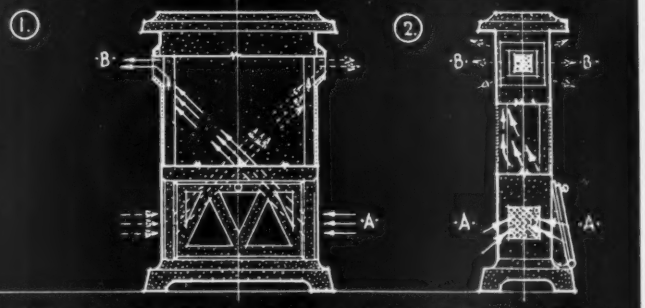
A flue fixed to the heater is not essential for the operation of this model.



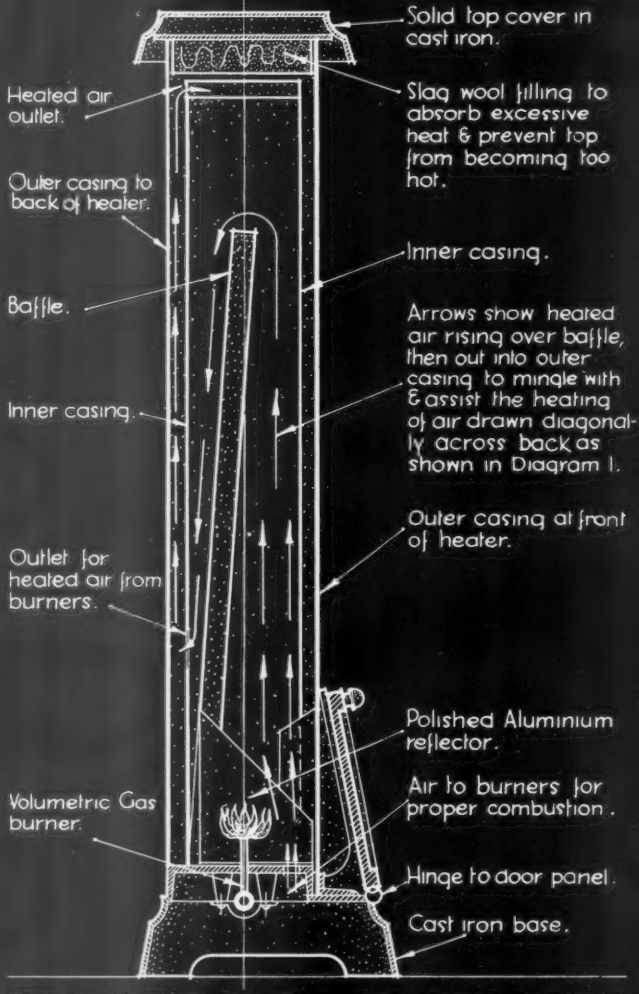
FRONT AND SIDE ELEVATIONS OF TYPICAL HEATER GIVING OVERALL SIZES OF MODELS.

The arrows show the air current passing upward from the bottom right-hand panel •A• across the back of the inner casing & out into room at top panel •B•

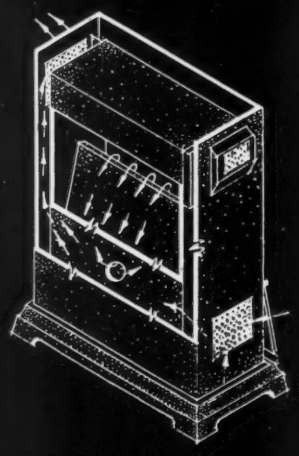
Side view showing path of air travel, in at the bottom •A• & out at •B• on the opposite side of heater.



TYPICAL DIAGRAMS SHOWING CIRCULATION OF HEATED AND INDRAWN AIR.

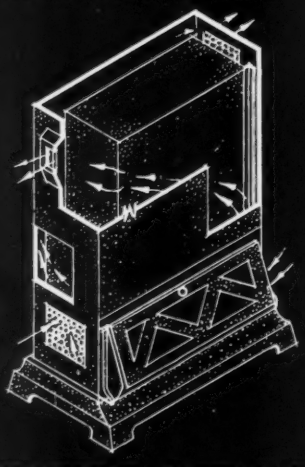


DETAIL OF TYPICAL CROSS SECTION SHOWING OPERATING PRINCIPLES: SCALE 2" to 1' 0"



③ The arrows show the heat from the burners passing over the baffle downwards and out through the opening in the inner casing, then circulating round the side to the perforated outlet at the top. This heat mingles with the current of air passing diagonally across the back.

ISOMETRIC SKETCH SHOWING THE PATH OF THE AIR CURRENTS: FRONT VIEW.



④ The arrows indicate the path of the air travelling from the inlet panels at the bottom, then diagonally across & upwards towards the outlets at the top. The heated air passes out of the perforated panel on the opposite side at top to which it had entered, passing in between the inner and outer casings of the heater.

ISOMETRIC SKETCH SHOWING THE PATH OF THE AIR CURRENTS: BACK VIEW.

Information from Falk Stadelmann and Co., Ltd.

INFORMATION SHEET: FREE-STANDING GAS PANEL HEATERS:
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1• Oscar A. Bayne.

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 584 •

FREE STANDING GAS PANEL HEATERS

Product : The "Supervector" Panel Heater

General :

This model of gas heater is suitable for installation in practically all classes of public buildings, shops, churches and factories, etc. The unit may be easily and quickly installed, and occupies a minimum of space.

The heat is maintained evenly and constantly by governed gas burners, which may be connected to the usual gas service in the building.

Models :

This type of gas heater is obtainable in four different sizes, the overall dimensions of which are shown overleaf.

The models are constructed with walls and casings of light pressed steel with cast-iron top and base. The whole frame is solidly welded together and the faces of the casing in the interior are finished in porcelain enamel.

The gas burners near the bottom of the unit are of the volumetric type with a gas consumption of approximately 4 cubic feet per hour, per burner.

A glass panelled door, hinged at the bottom and fitted to the base of the model, is conveniently placed to facilitate quick and easy lighting of the unit, and for inspection and possible cleaning.

A polished aluminium reflector, placed directly behind the burner, deflects the incoming air at the base up into the outer shell of the model, as well as reflecting and diffusing the heat to the inner walls.

The sloping baffle forces the gas-heated air to be well distributed throughout the inner chamber before it escapes through a small hole in the inner casing of the front.

At the top of the unit, just below the cover, a filling of slag wool, which absorbs any excessive heat, is placed to prevent the cover from becoming overheated.

The Supervector heaters can be supplied with either one, two, three or five burners.

Flues :

These heaters work efficiently with or without a flue stack, but can be supplied with flue outlet if so desired.

Air Circulation :

The system of heating the air by the Supervector is done by convection and conduction and has double heating capacity, i.e. air is heated by means of the gas burner and rises over the top of the baffle and down and out of the opening in the inner shell.

This heated air, besides heating the walls of the inner chamber, heats the conducted air which crosses its path in circulating up diagonally from the inlet to the outlet.

In turn the heated walls of the inner chamber also assist in heating the conducted air current.

A small hole, shown in the base of the heater to the right of the gas burner, forms an inlet for air, thereby ensuring proper combustion.

Heating Capacities :

These heaters are capable of maintaining a temperature of 60° F. in a space of 600 cubic feet ; or in a room 8′ high by 10′ long by 7′ 6″ wide.

The figures below represent the volume of air in a building which one radiator will heat. Adjustments should be made for local conditions, such as abnormal areas of glass, thicknesses of walls, exposure, etc.

Type of Building	Temperature required	No. 605 1 Burner	No. 610 2 Burners	No. 615 3 Burners	No. 620 5 Burners
		Cubic ft.	Cubic ft.	Cubic ft.	Cubic ft.
Vestibules, churches, factories, workshops	55″ F.	720	1,440	2,160	3,600
Shops, offices, public halls, schools	60″ F.	600	1,200	1,800	3,000

Price List :

Ref. No.	No. of Burners	Art Black Stove Enamel	Biscuit-shaded Vandyke Brown	Dark Oak Grained
		? s. d.	? s. d.	? s. d.
605 ...	1	2 17 6	3 3 0	3 7 3
610 ...	2	4 10 6	4 18 9	5 3 6
615 ...	3	5 2 9	5 11 0	5 16 0
620 ...	5	6 14 6	7 4 3	7 11 0

If required without enamelled interior :
No. 605 ... 5/9 less No. 615 ... 9/- less
No. 610 ... 7/6 less No. 620 ... 10/3 less

Heaters are supplied with flue outlets without extra charge, all prices being subject to current advances.

Finishes :

The Supervector Heaters are obtainable finished in stove enamel in three colours, art black, biscuit-shaded Vandyke brown, and oak grained. All models are fitted with a ruby-coloured glass panelled door and with, or without, flue outlets.

Manufacturers : Falk, Stadelmann & Co., Ltd.

Address : Head Office : 91 Farringdon Road, London, E.C.1, and Works—Rainhill, near Liverpool

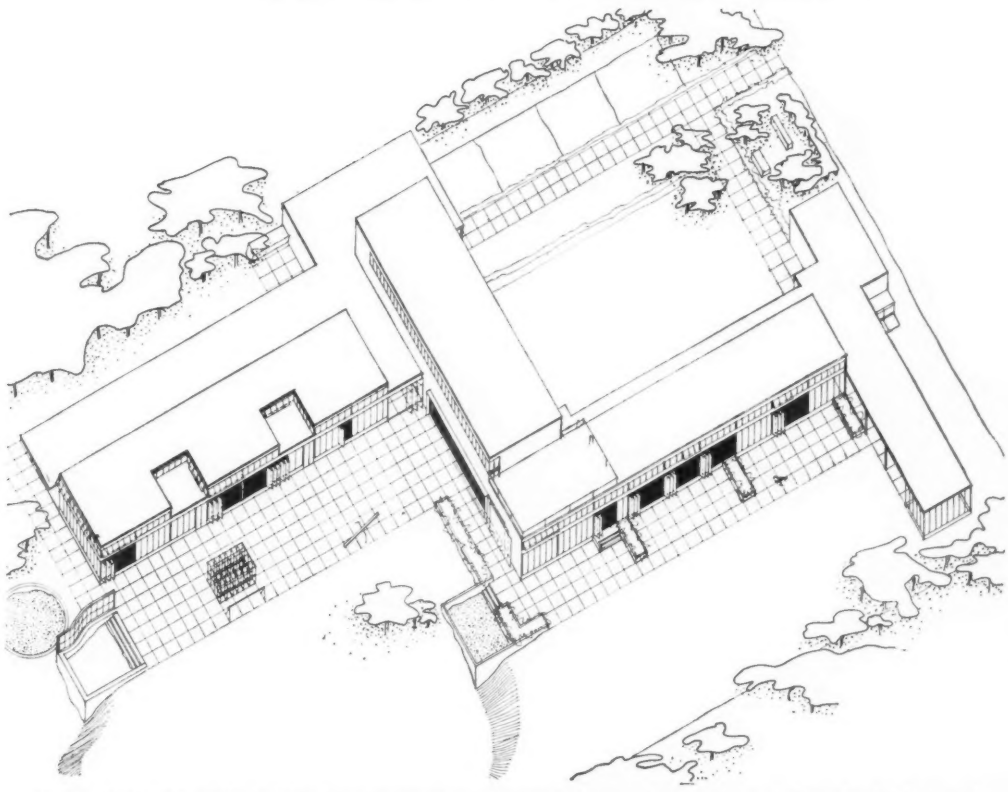
Telephone : Holborn 7654

SCHOOLS

The Architects' Journal Library of Planning

Nursery-Infant Schools

STAFF ROOMS AND NURSERY CLASSES



Nursery-Infant School designed to incorporate the recommendations made in the text. The plan is illustrated on page 1010. Designed by R. Gardner-Medwin and H. Myles Wright. Axonometric by Leo Desyllas.

Staff Rooms

ACCOMMODATION required for the staff is as follows :

Superintendent's room (about 150 sq. ft.).
*Staff common room (200–300 sq. ft.).
Staff coat room.
Staff lavatory.

Superintendent's room should be easily accessible from the entrance for interviews, and at the same time should be well placed from the point of view of control.

All of the staff accommodation can well be placed on an upper floor, particularly if it overlooks the play spaces as it does at the Chelsea school. Here the raised portion forms an outdoor sleeping porch below.

** Observation Rooms*

Some Nursery Schools are run as child study training centres. Where this is so, or where visitors are frequent, observation corridors alongside the playrooms are an excellent feature. The proposed plan of the "pre-school laboratory" at Ann Arbor, Michigan, is a good example of an American building specially adapted for this purpose. Here, and at Dr. Gessel's child centre at Yale, a special screen with one-way visibility separates playroom from corridor so that the children can play unobstructed and unaware that their antics are being carefully charted and used as data in the new-made science of child behaviour.

* *Optimum* accommodation has been listed here. Asterisks indicate units which can be eliminated when great economy is necessary.

** Laundry*

It is usual for washing of children's overalls and rompers to be done on the premises. A small laundry is required fitted when possible with electric clothes washer and drying cabinet. These are usually economical to run.

Adjacent to the laundry an extremely useful asset is a hospital hopper for soiled clothes.

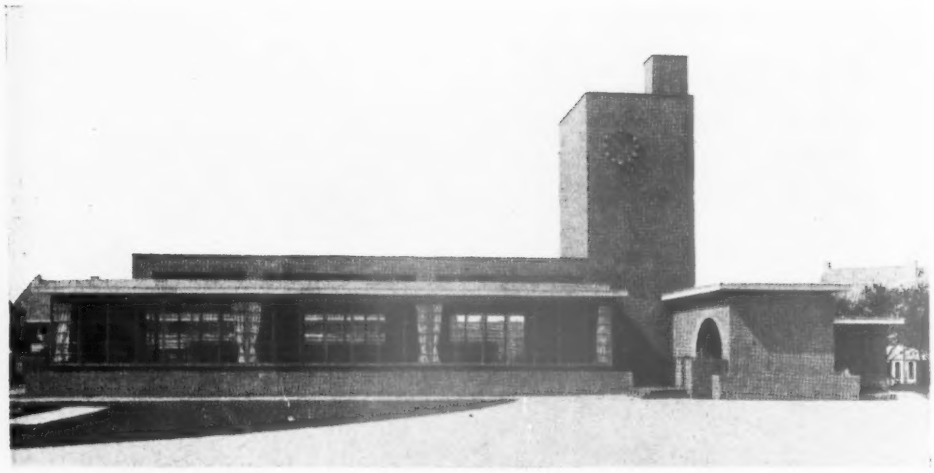
When nearby, the domestic science department of the local Senior School can sometimes take care of the washing of the Nursery children's clothes.

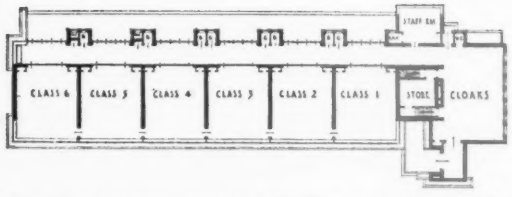
Boiler-room

Where coke, oil or gas-fired boilers are used a boiler-room will be necessary. It should be placed so that it is inaccessible to the children, and for this reason, if for no other, should not be used as a drying-room.

Storage

The provision of properly planned storage is very important. Full requirements are grouped





Infant school at Ammersfoort. Sensible plan, but expensive method of achieving asymmetrical balance.

together here for convenience. Some of it is interchangeable and need not necessarily come under the sections in which it is listed, provided that it is suitably placed and accessible.

(*a*) In each playroom :

1 : Cupboards for teachers' store of toys and equipment.

2 : Long, low cupboards about 3 ft. high and 1 ft. 3 ins. deep for small toys, shelves varying from 8–12 ins. apart. Lightly running sliding doors, easily handled by children, are good.

3 : Cupboard for large toys, with deeper shelves and plenty of floor space, fitted with curtains or doors, accessible to children.

4 : Storage for beds and blankets. This should be in a well-ventilated compartment adjacent to each playroom. As beds are often used out of doors, this store should be planned accordingly. Slots to take the beds upright and a shelf for blankets above is a suitable arrangement. The beds are usually 4 ft. 6 ins. by 2 ft., though some metal types with spreading legs are 5 ft. 6 ins. by 1 ft. 9 ins.

5 : For mats, dusters, overalls. Accessible to children.

6 : For crockery instead of or in addition to storage in kitchen. If in playroom, all shelves should definitely be accessible to children.

(*b*) In lavatories and bathroom :

1 : For storage of towels, clothes, soap.

2 : First-aid cabinet.

(*c*) In the kitchen :

1 : For groceries.

2 : For crockery and cutlery.

3 : For cleaning materials.

4 : For kitchen utensils.

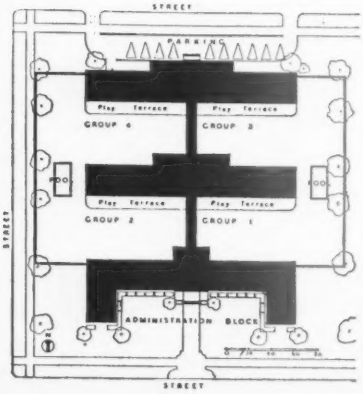
5 : Refrigerator.

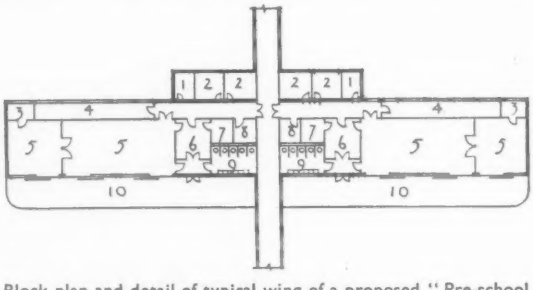
(*d*) Cleaner's cupboard with floor sink.

Additional Notes on Separate Infant Schools

The Hadow Report recommends combined Nursery-Infant Schools, or separate Infant Schools run on Nursery School lines. Large concentrations of very young children in schools attached to Junior and Senior Departments are deprecated even when complete separation of the younger children can be achieved.

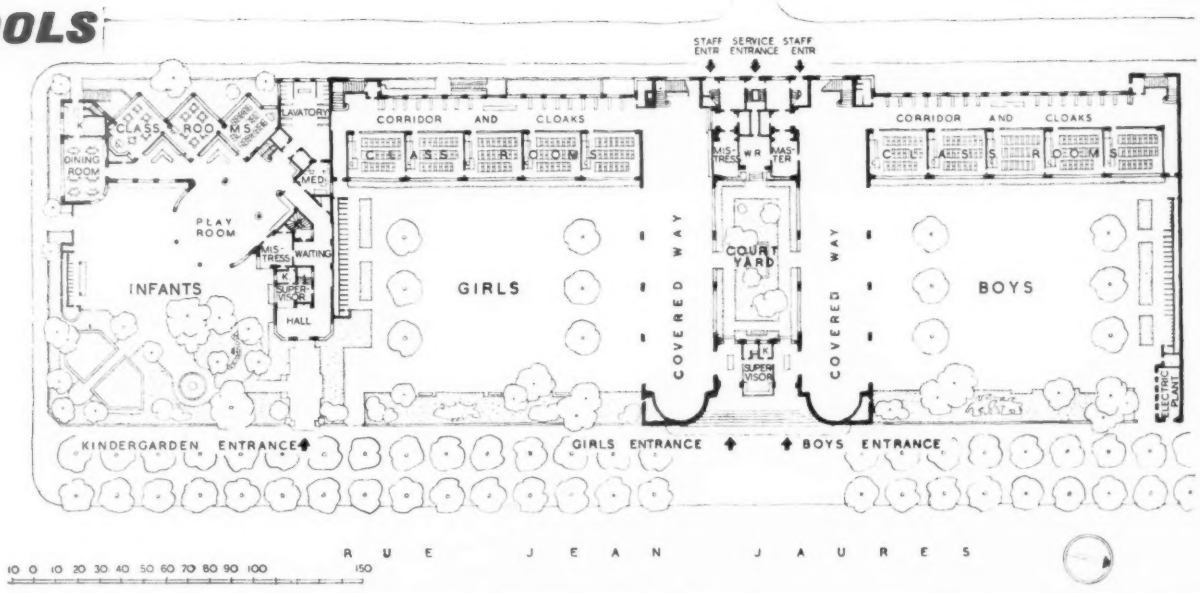
However, local education authorities, because





Block plan and detail of typical wing of a proposed "Pre-school Laboratory" at Michigan, U.S.A. The school will be attached to the university and will exist primarily for purposes of child study. Observation corridors are planned behind playrooms and, for convenience in charting, children will be grouped strictly according to age. From the child's point of view, such grouping is not ideal.
Key to plan: 1, store; 2, test room; 3, isolation room; 4, observation corridor; 5, playroom; 6, coats; 7, kitchen; 8, office; 9, lavatory; 10, play terrace.

SCHOOLS



Jules Ferry School, Paris, by A. Dubreuil and R. Hummel. Clean planning in a combined Junior and Nursery-Infant school which has its departments well separated. Typical of common French practice are corridor coatrooms and supervisor's boxes. The photograph is of the spaciously planned, attractively decorated central play space. Competently detailed and executed, this school is well worth studying.

of the need for more and better Senior Schools, are tempted to go slow on reforms in the Junior departments and frequently combine in one building the Junior School and the Infant School with an attached "Nursery Class."

The authors' recommendations for Nursery-Infant schools may be taken as valid also for schools of this kind, but the following few additional notes cover the Board of Education's suggestions for Infant Schools and Nursery Classes :—

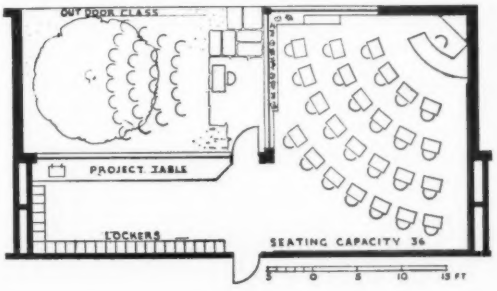
Site : When attached to a Junior School, independent entrance and complete separation of work and play spaces is important. At least two acres for each department of a combined school is recommended. A separate outdoor play-space should be provided for the children in the Nursery Class, part of it grass and garden.

Size : A size of four to six classes of not more than 40 children each is recommended for two-stream schools. Unfortunately classes up to 50 often have to be catered for.

Nursery Classes : One or more rooms as large as possible for children under five, with a minimum of 520 sq. ft. These rooms would contain fewer children than the ordinary classroom, say 25–30, and should have their own lavatories, w.c.s, and coat-rooms adjoining. (In details of planning and equipment they would be similar to the Nursery-Infant playrooms described above.)

Reception Classes : One or more rooms for children of five years on first attending school. Not less than 520 sq. ft. Furniture should be light and of different sizes and there should not

Classroom layout, admirably suited to Infant and Junior children, in one of Neutra's experimental schools in California.

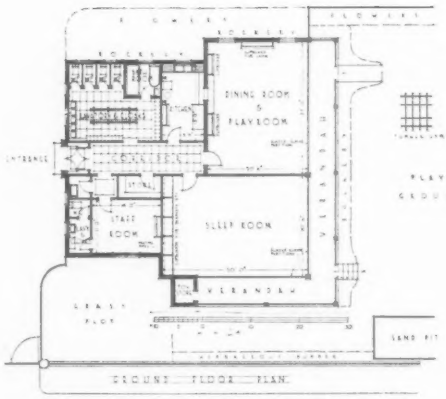


be more than 30 children in any one class. (For all practical purposes the requirements of these rooms are the same as for the Nursery Classes and Nursery-Infant playrooms described above.)

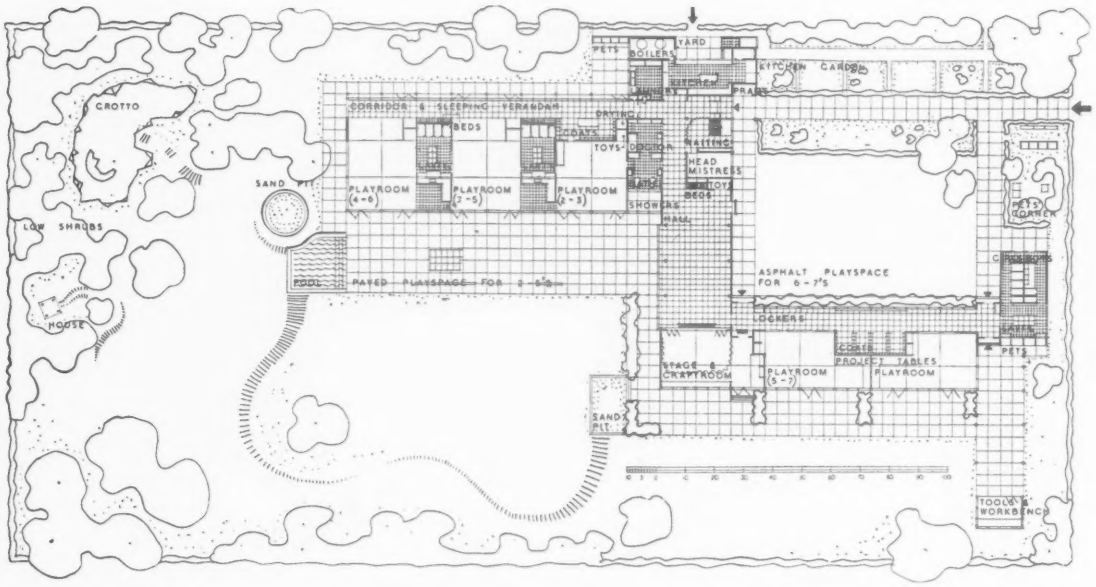
Ordinary Infant Classrooms: Minimum size 480 sq. ft., preferably 520. These rooms differ from those for the younger children only by the fact that coat-rooms, lavatories and w.c.s may be grouped at a greater distance from them. Space, light furniture and ample storage are the chief requirements.

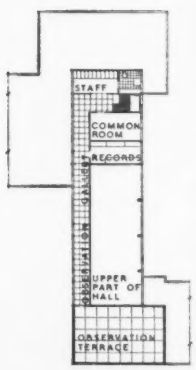
Elementary Handicrafts: One or more of the Infant classrooms may desirably be equipped for elementary art and handicrafts by the provision of sink and draining boards, one or two heavier tables and two storage cupboards adjoining for materials and incomplete work. Fitted cupboards round the walls, accessible to the children, are also useful.

Canteen: A canteen with kitchenette for heating milk and, in some cases, for providing mid-day meals, should be provided. Recommendations are similar to those under Nursery-Infant plan units.



Moray House Nursery School, Edinburgh, designed by Frank Wood.





Nursery-Infant School for 140-160 children on a typical 1½ acre site (120 × 60 yds). Since special requirements of site and programme must necessarily dominate any architectural solution, this plan must not be thought of as "model" or "ideal." It has been designed to illustrate the following main recommendations in the text :—

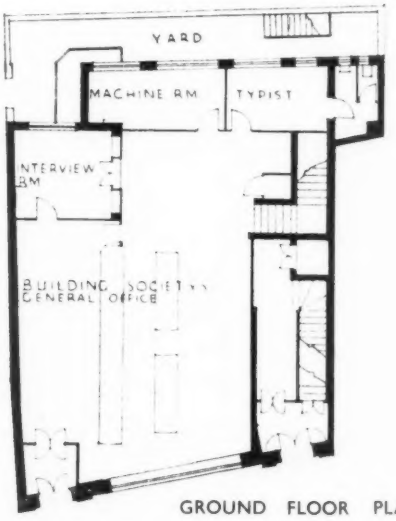
1 : Surroundings spacious yet sufficiently intimate and in scale for small children.
2 : Building planned in units adapted to simple frame-and-panel prefabrication. (Units of 4 ft. are used, with principal floor and roof beams at 12 ft. intervals.)
3 : Easily supervised entrance.
4 : Nursery playrooms, coat lobbies and lavatories, planned as self-contained units to help supervision and allow easy expansion as the non-compulsory nursery department grows popular.
5 : Rooms for more advanced children essentially linked to rest of school yet sufficiently separated to make quiet lessons possible.
6 : Hall planned for general assembly, circulation between older and younger children's rooms, open-air community play in wet weather, elementary dramatics and eurhythmics, dining-room for 4-7s, welfare meetings for parents after school hours.
7 : Corridor to playrooms convertible into shaded sleeping veranda.
8 : Playrooms beneficially, not dangerously airy.
9 : Simplest possible circulation.
10 : Centrally placed kitchen.

Also recognizable are some of the minor details suggested in the list. Main window walls of playrooms face south-east.

On the left : upper floor plan showing a suspended observation gallery from which staff or visitors can watch children in hall or other play spaces.

An axonometric is shown on page 1007. Architects : R. Gardner-Medwin and H. Myles Wright.

BUILDING SOCIETY'S OFFICES, NOTTINGHAM



GROUND FLOOR PLAN

DESIGNED BY CYRIL F. W. HASELDINE

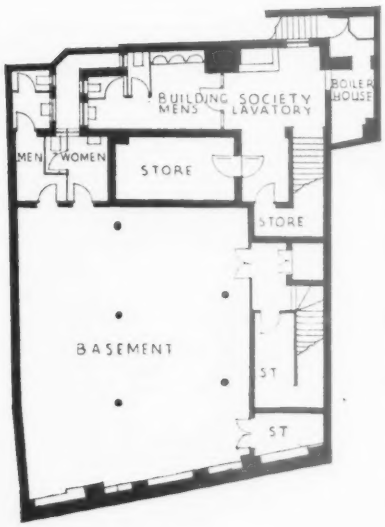
GENERAL—*This building was designed to accommodate the Halifax Building Society on the ground floor, with separate entrance to the offices on the floors above.*

SITE—*The building has been erected on the site of an old building, and it was not possible to arrange any windows on the sides of the site, but only on the front and back. As the depth from back to front is rather considerable, windows have been made as large as possible, and lantern lights introduced into the flat roof.*

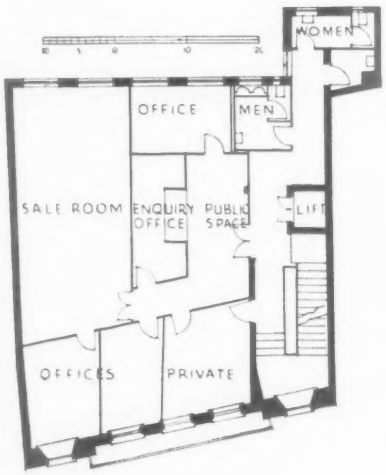
EXTERNAL FINISHES—*The front elevation has a large bronze window on the ground floor, with bronze entrance doors each side and coloured cast bronze medallions over each door bearing the arms of the Halifax Building Society. An internal bronze grille is arranged at the back of the large window and a bronze display frame is incorporated in this grille, the frame being illuminated by night. The windows on the upper floors of the front elevation are also in bronze. A projecting stone balcony is arranged over the ground floor window, and behind this are fixed floodlights which illuminate the centre portion of the front.*

The photographs show: above, the main front to Milton Street; right, one of the entrances to the Building Society's offices.

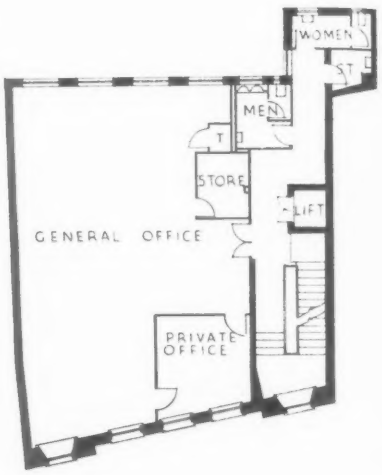
BUILDING SOCIETY OFFICES, NOTTINGHAM



BASEMENT PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN

CONSTRUCTION—*The construction of this building is steel framed, and the internal walls in most cases are hollow brick construction, and the majority of the floors are joists and boards. The ground floor offices have been treated with acoustic tiles which are fixed on to the ceiling joists, and a sound-deadening blanket has been laid between the joists.*

PLAN — *The rear part of the basement communicates with the Building Society's premises and is used for male staff lavatories and cloakroom, strong room, etc. The front portion of the basement has a separate entrance from the street and is let separately.*

Below, the public space, showing the door to the manager's room.

DESIGNED BY CYRIL F. W. HASELDINE

INTERNAL FINISHES — *On the ground floor the premises are panelled in veneered wood, relieved by cross banding and a black marble skirting. This panelling extends to a height of 8 ft. above the floor level. Above this height the walls are plastered. The two entrance lobbies are panelled in Hopton wood stone, and a floor of the same material has been laid. Sponge rubber flooring has been used in the public space on the ground floor. The walls of the staircases leading to the offices have been spray painted and finished with an uneven texture. The remainder of the walls are plastered and colour washed. A suite of lavatories for each sex has been arranged for the Building Society's premises, and the offices over. These are tiled throughout in cream tiles with a dark tile skirting.*

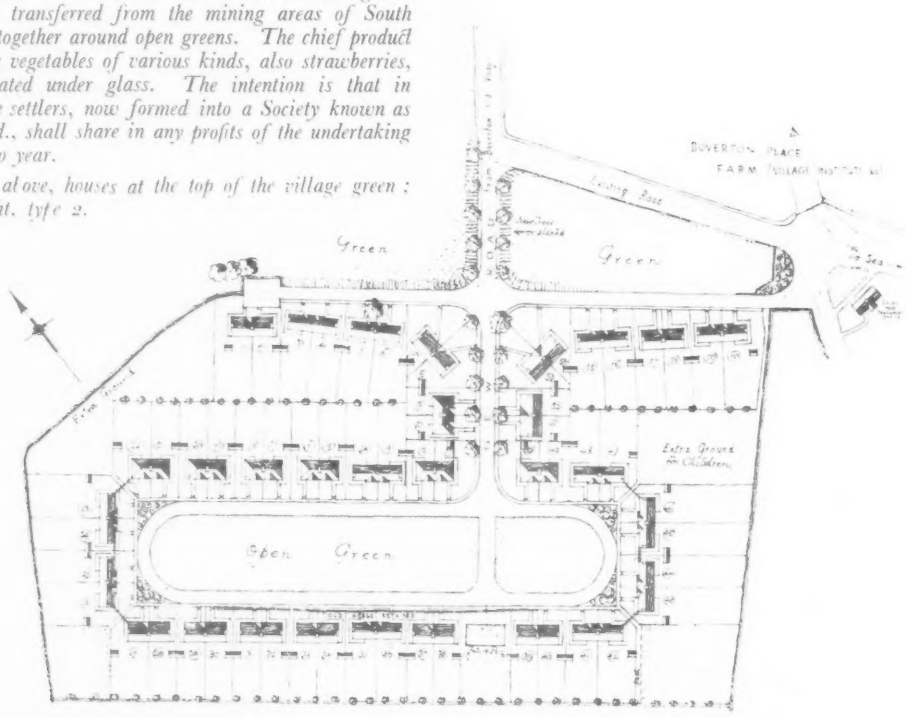
SERVICES — *The lift leading to the offices is entirely automatic, being of the push button type. Synchronized electric clocks are installed throughout. The heating of the building is by means of pump-accelerated low-pressure hot water, the heat unit being a magazine boiler. The photographs show : right, the manager's office ; below, the general office.*

For list of general and sub-contractors see page 1019.

COTTAGES AT BOVERTON, GLAMORGAN:

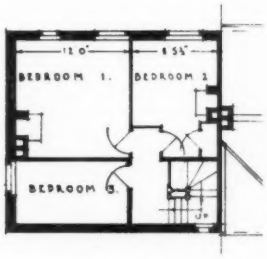
GENERAL—*This new village for the Welsh Land Settlement Society in the Vale of Glamorgan, called by the old Welsh name "Tre Beferad," was sited on high ground conveniently placed in relation to the old farm buildings and well away from the main road. The land settlement scheme, comprising some 650 acres, is worked as a co-operative farm, not as small holdings, and in line with this idea the 60 new cottages to accommodate the families transferred from the mining areas of South Wales have been grouped together around open greens. The chief product of the co-operative farm is vegetables of various kinds, also strawberries, tomatoes and fruit cultivated under glass. The intention is that in addition to wages, etc., the settlers, now formed into a Society known as Boverton Co-operators, Ltd., shall share in any profits of the undertaking as ascertained from year to year.*

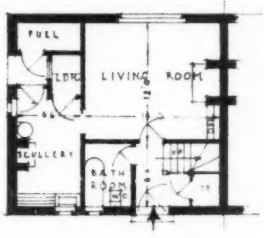
The photographs show: above, houses at the top of the village green: below, left, type 1: right, type 2.



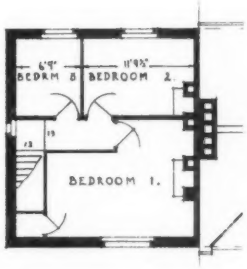
LAYOUT PLAN

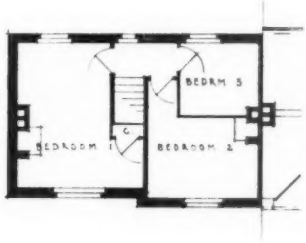
DESIGNED BY T. ALWYN LLOYD

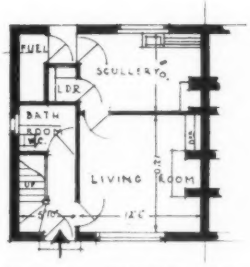




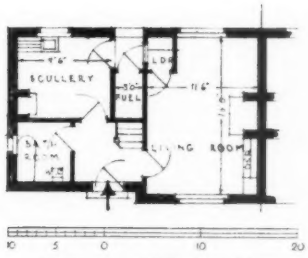
TYPE 3: GROUND AND FIRST FLOOR PLANS







TYPE 1: GROUND AND FIRST FLOOR PLANS



TYPE 2: GROUND AND FIRST FLOOR PLANS

CONSTRUCTION AND FINISHES—*Local materials have been used in the buildings and an endeavour has been made to follow the architectural traditions of the Vale of Glamorgan. The walls are of 11 in. brickwork covered with roughcast, colour-washed in cream, buff, pink, and other shades, such as is the prevailing custom in farmhouses and cottages in the locality. The roofs are covered with local made sand-faced concrete tiles of a mixed grey stone colour. There are wood block floors in the living rooms and tiles elsewhere on the ground floor. Standard steel windows in wood surrounds, with horizontal panes, have been used throughout.*

PLAN—*The cottages are of three types containing living-room, kitchen and three bedrooms. There is a modern combination range in the living room, and a small stove for drying and kettle boiling in the kitchen. Each cottage has a bathroom-w.c. on the ground floor, opening off the hall; each has a back porch, enabling the fuel store to be entered under cover. In the garden there is a store and cycle shed of timber construction.*

COST—*The contract price averaged £344 per cottage, including paths, drains, fences and electric wiring, but exclusive of new roads and sewers; and the price per foot cube was 8d.*

RENTS — *The rents, fixed by the Agricultural Wages Committee, are 4s. per week, including rates, in order that the rent shall bear its reasonable proportion of the farm labourer's wage, which the settlers receive.*

The photograph shows houses at the entrance to the village.

For list of general and sub-contractors, see page 1019.

POSITION OF THE BUILDING INDUSTRY

"THE general position of the building industry is virtually unchanged this month, apart from the effects of normal seasonal influences, activity continuing at a very high level," states the current issue of *The Building Industries Survey*, published by the Building Industries National Council.

"The latest building-plan figures make good showing, especially in regard to dwelling-houses, but to base any extended argument on them would be to repeat the mistake, made by certain commentators of earlier figures, of drawing conclusions from one month's figures. In fact, the figures for the three summer months are apt to be misleading, as many authorities do not meet to pass plans during August. It is largely fortuitous whether plans can be pushed through in July or have to wait until September.

"Nevertheless, the housing figures are very encouraging. Increased plans for houses to be built by local authorities have probably played a considerable part in the rise, but the position will be clarified when the figures of the actual number of houses built during the six months ended September 30 are available. In the meantime, there is no reason to believe that the pessimistic forecasts put forward in certain quarters of a marked decline in housing in the near future will be borne out, since, as the Chancellor of the Exchequer pointed out in the House of Commons, 'there is a very great deal of housing work still to be done, particularly in connection with the carrying out of the Government's plans . . . for dealing with slum clearance, overcrowding, and the like.'

"Activity in connection with industrial and commercial building continues at a high level, and the contracting sections of the industry are very busy.

"The improved position of public works contracting is maintained, allowing for normal seasonal movements. The policy advocated by the Building Industries National Council that plans should be prepared now for works to be released as re-armament activity slackens is receiving increasing support. It must be emphasized, however, that plans should be prepared now as a matter of immediate urgency.

"The building materials industries are very active, allowing for the normal seasonal decline. The position in regard to steel supplies is somewhat easier, and increased quantities of the essential steel-making materials are forthcoming, largely as a result of declining activity in the American steel industry. The uncertainty as regards delivery and future prices, however, continues, though an official statement on price policy is expected in the near future."

L I T E R A T U R E

FIVE HANDBOOKS

[*By GEORGE FAIRWEATHER*]

Brickwork. By A. J. W. Garrett. Price 2s. 6d.
Plumbing. By H. G. Warren. Price 2s. 6d.
Plastering. By J. Mason. Price 2s. 6d.
Structural Steelwork. By H. P. Smith. Price 2s. 6d.
Reinforced Concrete. By J. McHardy Young. Price 2s. 6d. London: Lockwood.

THIS new series is planned to fulfil the demand by tradesmen and students for a series of practical handbooks based on present-day practice.

Each volume is confined to the study of one trade only and whether or not any useful amount of instruction on matters concerned with one branch of the building trade can be given without reference to the other trades can only be decided when the nature of the instruction needed is clearly determined.

The tradesman, if he is to learn to do his work well, must become acquainted with the materials he uses and must also know how to use them in whatever manner the needs of the job require. It is only by practice in the work and training under a good master that this working knowledge of a building trade can be acquired.

Text-book instruction on the arrangement of bricks in the bonding of a wall can teach the tradesman very little, if any more than the reason why certain bonds are used in preference to others. Scanty instruction on the practice of building in the different trades can have very little educational value to the tradesman if it doesn't provide him with the reason why he carries out the work in the way he does. This has been fully recognized by the authors of this series and each has attempted to explain the scientific factors that come more and more into modern practice by the introduction of new materials and methods of building. New materials and methods are being introduced to the builder daily, craftsmanship in its traditional sense loses a lot of its identity under the strain of present-day working conditions and it will not be long before the trades themselves will disappear and a hundred or so specialized building operations will take their place.

In the past, the craftsman had to become acquainted with the materials he used and had to learn how to use them by contact with the material and from instruction provided by the accumulation of practical knowledge passed down from generation to generation. The drawback to this form of training becomes quite apparent under modern conditions of building as it is slow to accommodate itself to changing conditions. We shall have to recognize this fact very soon if we are to provide for some systematized training for the tradesman.

Craftsmanship in building as we used to know it has almost completely gone. In the light of new knowledge of the nature and behaviour of material under a given set of circumstances, accurate determination of structure by scientific means has taken the place of the craftsman's experience which was the only guide we had in the past. The tradesman of today becomes acquainted with the materials he uses before he handles them and the chemist provides him with a set of instructions for their proper use.

The volume dealing with brickwork gives the student very little instruction that he cannot learn from the job. The tools used by the bricklayer, bonding, jointing and pointing are fully discussed. Building Act stipulations on the thickness of walls and other matters are given and a brief section of the volume gets down to the facts of constructional detailing. The broader issues that govern the nature and thickness of a wall to a building are barely mentioned. An analysis of brick building practice based on first principles would surely have proved a sufficiently comprehensive supplement to the bricklayer's practical training and would at the same time have been of value to all who are interested in building.

The volume dealing with plumbing covers a very wide field including some instruction on drawing and mathematics. The author sets out to instruct the working plumber in that side of his craft that cannot be learned on the job or in the workshop. He explains the nature of the materials that are used for plumbing work and also explains why they are used for the purposes they are. Water, heating and ventilation are among the broader questions that are discussed and though there may be a degree of inadequacy under the heads dealing with the more specifically plumbing side of the plumber's work, the volume should prove extremely useful to the student and is very clearly written.

Plastering is discussed as a craft that has been developed and enriched by the experience handed down from generation to generation. The art of plastering well is not merely a matter of doing the work according to rule, nor can science alone determine the course to be adopted by the craftsman in carrying out his work. The plasterer must know the behaviour of the building, the weather, his tools and the materials he uses. Science can at best give an indication to the plasterer that certain conditions must be observed in carrying out the work and the plasterer must interpret these indications as his experience only can do. These factors are made very clear to the student and the different materials that the plasterer may be asked to use are discussed so far as they are known today.

Structural steelwork and reinforced concrete are very ably discussed by the authors. They give very clear explanations and instruction on the practical as well as the scientific facts from which present-day practice in steel and concrete work is calculated.

PAINTING SINCE WHISTLER

[*By D. COSENS*]

Modern Painting in England: By Mary Chamot. London: Country Life. Price 10s. 6d.

MOST of the books which deal with the development and significance of recent movements in painting verge on philosophy. They assume a considerable knowledge and appreciation of æsthetics in the reader, and sometimes disguise their meaning still further from the uninitiated by the use of a peculiar jargon. Today there is probably a more widespread interest in contemporary art than there has ever been, and an increasingly large number of people want to understand what it is all about, and why painters must paint in this way instead of going on in that. It is here that Miss Chamot with her "Modern Painting in England" fills a real gap in the available sources of information. Perhaps she fills it with almost too bewildering completeness, for her tastes are catholic in the extreme, and she sets before us in turn, with godlike impartiality, almost every English painter who during the last eighty years has had, or appeared to be about to have, some success. From time to time she intimates that the success may have been overrated, but she passes no severe judgments, and whatever her own convictions, chooses to show all points of view dispassionately, and to hope for the best reactions in her readers. It is a pity perhaps that she has not spread her net even wider and touched at somewhat greater length on vital movements to which the illustrations from the work of Wadsworth, Paul Nash, and Julian Trevelyan alone give some clue.

"Modern Painting in England" is as nearly as may be an unbiased, uncritical survey of the development of English painting since Whistler, and it serves a very useful purpose as a general

textbook, provided its readers do not lose their heads in such confusingly mixed company as Muirhead Bone, Stanley Spencer, Glyn Philpot, Ben Nicholson, Brangwyn, Wyndham Lewis, Clausen and Christopher Wood. But it must be remembered that art is as international as politics or history. No book on painting can be entirely successful which ignores the wider movements, and confines itself to local manifestations.

ARCHITECTS' SALARIES

A PUBLIC MEETING held under the auspices of the Association of Architects, Surveyors and Technical Assistants at the Friends' Meeting House, Euston Road, on November 25, was attended by a representative gathering of architectural assistants including non-members as well as members of the Association.

Mr. R. T. F. Skinner, A.R.I.B.A., who took the chair, emphasized in his opening remarks the fact that the recently published R.I.B.A. Scale for Salaried Architects and Assistants had received very little public discussion. This meeting provided those present with the opportunity for the expression of their opinions upon it.

Mr. G. W. Thomson, Member of the T.U.C. General Council, President of the National Federation of Professional Workers, and Editor of *The Draughtsman*, organ of the Association of Engineering and Shipbuilding Draughtsmen, made the principal speech of the evening. In giving an account of the way in which the A.E.S.D. had built up its present strength of 17,000 members, representing 75 per cent. of engineering and shipbuilding draughtsmen, he compared the experiences and difficulties of his Association with those of the A.A.S.T.A. Both engineering draughtsmen and architectural assistants tended to become engrossed in the technical interest of their work to the exclusion of their economic interests. It had succeeded, however, in securing for its members a considerable measure of control over the conditions of their employment.

Every year, by means of statistical schedules, the A.E.S.D. obtained from its members accurate information of salaries and conditions, covering 70–80 per cent. of offices throughout the country. It had begun by blacklisting the bad employers, taking the "key men" away, and boycotting these offices. It had established "starting minimum salaries" of £5 10s. in the Provinces, £6 in London, for men aged 25 years—but the average rates were now higher than these minima. It did not now, however, attempt to enforce "scales of salaries" but attempted to raise average salaries in any office to the standards prevailing in the better offices.

Mr. F. J. Maynard, A.R.I.B.A., President of the A.A.S.T.A. gave an account of the efforts of the Association since its inception to achieve satisfactory salaries for assistants. The present A.A.S.T.A. scale was based on a survey of salaries of members and on existing scales in architectural offices. In part it was already an accomplished fact since it had been partly adopted by a number of commercial firms employing architects. He asked those present for criticisms of the scale in the light of their own experiences, and appealed to them to pass on general information on salaries to the Secretary, A.A.S.T.A.

Mr. V. L. Nash, A.R.I.B.A., member of the Council of the A.A.S.T.A., spoke on the scale recently adopted by the R.I.B.A., and the efforts of the A.A.S.T.A. in the past which had resulted in the formation of the R.I.B.A. Salaried Members Committee. This scale was vague and impracticable. The salaries suggested for assistants were so general that any employer could say with confidence that he was paying the R.I.B.A. scale. This being so, the scale could be used by unscrupulous employers to justify low salaries. There was a remarkable bias in the rates suggested for "Architects" as compared with those for the assistant.

After the discussion, the following resolution was put to the meeting and unanimously carried. It was stated that the representatives of the A.A.S.T.A. on the Salaried Members Committee of the R.I.B.A. would raise the matter further.

Resolution

"This meeting of salaried architects and assistants, convened by the A.A.S.T.A., welcomes in principle the new Salary Scale of the R.I.B.A. but considers that both the rates and the grading are inadequately defined. It holds that until these defects are remedied the scale will be prejudicial to the interests of salaried men and calls on the Institute to revise the Scale, and to co-operate with the A.A.S.T.A. and other bodies in securing its general adoption."

TRADE NOTES

[*EDITED BY PHILIP SCHOLBERG*]

Lifts for Flat Blocks

THE obvious saving in operating costs produced by the absence of lift attendants has led to some rather unsatisfactory efforts on the part of lift manufacturers. Who does not know the old-fashioned lift in the out-of-date flat block with the badly-lettered notice saying, Please close *both* doors quietly on leaving lift? And who has not been left marooned on the top landing because someone on the floor below has forgotten to do those very things? But nowadays lifts are almost capable of thinking for themselves, certainly they seem as much capable of thought as the average passenger, who should now find it almost impossible to do anything wrong.

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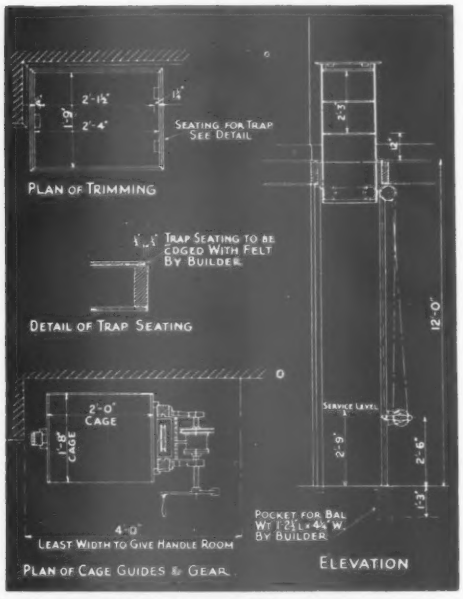
But there are still one or two disadvantages from the point of view of the flat owner, whose running costs are considerably increased by the impatient tenant who insists on pressing all the call buttons and brings all the lifts to his floor so as to make certain that he gets one car with the minimum of delay; with this method one or two lifts may do plenty of running up and down and yet never carry a single passenger. A control system which gets over this difficulty has been evolved by Marryat and Scott and has been installed at Athenæum Court in Piccadilly. Here there are two lifts serving 152 flats, but on each landing there is a single call button which will bring whichever lift is not in use, or the master lift if both are stationary. After use both lifts "home" to street level, so that it is almost certain that one car will always be available for tenants arriving. The point of having a master lift is not immediately obvious, but the reasons for it are interesting. All lift manufacturers will produce formulæ for the size and speed of lift required to take a given load, and as long as the morning and evening chaos is not unbearable it is assumed that the service is adequate. Tenants in luxury flat blocks, however, are liable to be tiresome if they have to wait for any length of time even at rush

Two photographs showing the control system of the lifts in Athenæum Court, Piccadilly, described in the accompanying notes.



Disappearing type hand-power lift. See note on this page.

points. If, therefore, you arrange things so that one lift does most of the work the other is used merely as a stand by, and if at the same time you put separate meters on the two motors you can compare the amount of current used by each and thus arrive at some idea of how often the lift system is likely to be causing delays, for it is obvious that delays are not possible except when the stand-by lift is working. And not always then, for in actual practice it is apparently possible for the current consumption of the stand-by lift to be about a quarter that of the master lift, and tenants will still say that the service is excellent.

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It has already been said that both lifts home automatically to the ground floor. but it seems to me that a further saving in current might be made if the stand-by lift remained wherever the passenger left it and only homed when the master lift *left* the ground floor. This, however, would probably only be worth while if the call button summoned the *nearest* lift, and this would mean doing away with the master system and its resultant check up on service. Lift makers can nowadays provide the solution to any problem that is clearly stated to them, but this installation seems particularly well thought out, and the detail work is good. Landing doors open in pairs when either is pulled and are closed by gravity and not by a spring. There is also a system of collective calling which enables tenants on the floor below to stop the lift on its way down, and there is an automatic sign saying, "Stopping to collect passengers," so that you have some warning of what is happening.—(*Marryat and Scott Ltd., 75 Clerkenwell Road, London, E.C.1.*)

Hand-Power Lifts

At the other end of the lift scale there has just been published a list of hand-power lifts by Hammond and Champness. These are suitable for a variety of purposes, particularly where existing houses or shops have been converted into restaurants, and where the total length of travel is generally small, seldom more than a single floor, and the loads are light and well within the compass of hand power. For not too tall blocks of flats they are also useful as tradesmen's lifts, for here again loads are as a rule fairly light. The catalogue shows a number of different types from the small single lift with a maximum load of 15 lb. to basement hoists and goods lifts where the load may be anything from 2 cwt. to a ton. The drawing shown above is of a disappearing type lift for use in the older type of house where the kitchen is in the basement and immediately under the dining-room, though it would be equally applicable to a restaurant where service had to be done from under the counter or from an existing built-in fitting. All the lifts in the catalogue are illustrated with drawings of this kind, so that it is quite simple to see how they should be fitted, and the prices are set out in a sensible way with figures for the extra cost per foot of travel and for other refinements such as hardwood cages. As a result it is easily possible to arrive at an accurate cost figure for the job in hand, and this is exactly the sort of information the architect needs.—(*Hammond and Champness, Ltd., Haskins Works, Walthamstow, London, E.17.*)

Flueless Heaters

A note published in these columns a week or two ago on the subject of flueless heaters has produced some protests both from the B.C.G.A. and the Gas Light and Coke Company, and it therefore seems only fair that the findings of the Royal College of Physicians Committee should be reproduced as fully as possible. The recommended maximum gas rates per 500 cub. ft. of room space are :—

Air changes/hour	Gas cub. ft./hour
½	1·5
1	3
1½	4·5
2	6
3	9

These figures are based on 20-grain sulphur content gas (London gas is about 15 grains, and this figure is steadily falling with improvements in technique), and the products of combustion in the room will then not exceed the suggested maximum concentrations. Simple arithmetic will give permissible consumption rates for other sulphur contents.

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Quoting again from the report: "Any form of heating in small unventilated rooms which tends to lead to accumulations of hot stagnant air is objectionable. In this respect flueless gas heaters are no better and no worse than alternative appliances. Any risk to health from the inhalation of products of combustion from flueless gas heaters is discounted by the fact that, even with an air change as low as one per hour, discomfort from overheating would be experienced long before harmful concentrations of such products would be reached."

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The report also doubts whether an air change as low as one per hour, met with in some flueless rooms, "can be regarded as satisfactory whatever the nature of the heating, and whether this modern tendency in housing construction is, from the point of view of health and comfort, in the best interests of the community." The blame for this state of affairs, however, rests on the architect and the speculative builder, and cannot be laid at the door of the gas industry. Some of the electrical interests, too, are beginning to suspect that adequate ventilation is essential, and this in spite of the fact that electricity is often recommended on the grounds that absence of flues will produce a saving in building costs.

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The report gives 4 per cent. of CO_2 as the average amount likely to produce a headache, and maintains that under the worst conditions a flueless heater will not put the CO_2 content up by more than 1 per cent. The B.C.G.A. suggests that anybody who gets a headache in a room with a flueless heater would do so whether the heater were there or not, and that it is therefore unjustifiable to blame the gas heater without comparing it with an oil stove or an electric fire under the same conditions, and that a room in which a flueless heater cannot be comfortably used is almost certainly unfit for human habitation anyway.

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Assuming that CO_2 is *not* the villain of the piece why should people get headaches at all in an ill-ventilated room, and why, since we are on the subject, should air get stale in a room without any people in it at all?

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The Gas Light and Coke people do a great deal of excellent research as well as routine testing and the chivvying of recalcitrant manufacturers whose products are not as efficient as they should be, and it is therefore unfair to ask them questions which are more the concern of physiologists. The building industry knows quite well what constitutes comfortable conditions, and given a certain amount of money and

trouble it is easy to keep these conditions constant. But what produces the *malaise* of a crowded room? CO_2? Apparently not. Humidity or lack of air movement or just temperature? Nobody seems to know with any degree of certainty; will somebody come forward with a good rational explanation?

THE WEEK'S BUILDING NEWS

LONDON & DISTRICT (15 MILES RADIUS)

ISLINGTON. *Flats.* The L.C.C. is to erect flats on a 20-acre site in Highbury Quadrant, Islington, at a cost of £275,000.

LONDON. *Pavilions.* The L.C.C. is to erect pavilions at the Bec School, Tooting, at a cost of £2,864; at Roehampton playing fields, at a cost of £5,430, and at Shooter's Hill Secondary School, at a cost of £1,955.

MARYLEBONE. *Library.* The Marylebone B.C. has obtained sanction to borrow £52,182 for the erection of a public library adjoining the town hall.

MARYLEBONE. *Flats, etc.* Plans passed by the Marylebone B.C.: Garage with flats over, Townshend Road, Sir Herbert Baker and A. T. Scott; 6 houses, Springfield Road, Riches and Blythin.

SHOREDITCH. *Housing.* The L.C.C. is to redevelop an area near Britannia Gardens, Shoreditch, and erect dwellings at a cost of £67,000.

SOUTHWARK. *Flats, etc.* Plans passed by the Southwark B.C.: Block of 42 flats and three lock-up shops, St. George's Road, Wates, Ltd.

SOUTHWARK. *Flats.* The L.C.C. is to erect blocks of flats in Orb Street, Southwark, at a cost of £98,000.

WEMBLEY. *Municipal Offices.* The Ministry of Health has sanctioned the proposal of the Wembley Corporation to erect new municipal offices and assembly hall at a cost of £157,565.

SOUTHERN COUNTIES

CATERHAM. *Houses.* Plans passed by the Caterham U.D.C.: Six houses, Spencer Road, Mr. C. H. Harrington; 30 flats, Godstone Road, Whyteleafe, Mr. L. F. Halton; 12 flats, Godstone Road, Mr. P. Surridge.

EASTBOURNE. *Houses, etc.* Plans passed by the Eastbourne Corporation: 31 houses, Freeman Avenue, Davis Estates, Ltd.

HOVE. *Electricity Offices.* The Hove Corporation is to erect electricity offices at Hove Street, at a cost of £9,000.

HOVE. *Houses, etc.* Plans submitted to the Hove Corporation: 10 houses, Nevill Avenue, H. W. Adams, Ltd.; block of 55 flats, The Upper Drive, Mr. A. Feldman, for the Highgate Builders, Ltd.; 12 houses, Holmes Avenue, Mr. A. Gordon; block of 42 flats, Kingsway, B. Marshall and Partners.

WHYTELEAFE. *School Extension.* The Surrey Education Committee has obtained sanction for a loan of £23,096 for extensions at the Whyteleafe county girls school.

SANDERSTEAD. *Houses.* Plans passed at Sanderstead. 11 houses, Derwent Drive, J. Laing and Son, Ltd.

SOUTH-WESTERN COUNTIES

CHELTENHAM. *Y.M.C.A. Building.* Plans have been prepared by the Cheltenham Y.M.C.A. for the erection of a two-storied building on the site of the present Y.M.C.A. Dept., in Royal Well Road, at an estimated cost of £4,800.

CHELTENHAM. *Houses, etc.* Plans passed by the Cheltenham Corporation: 11 houses, Greenhills Road and Arle Road, Charlton Kings, Goddard and Hunt; block of flats, Cambray House, John Davies Estates, Ltd.; 15 houses, Hales Road, G. A. M. Hall, Ltd.

PLYMOUTH. *Houses.* Plans passed by the Plymouth Corporation: Six houses, Blandford Road, Pillar and Gill; 18 houses, Ladysmith Road, Mr. J. Rendle; 36 houses, Churchway, Davis Estates, Ltd.

SWINDON. *Enlargement of School.* The Swindon Education Committee has obtained sanction for a loan of £36,756 for the enlargement of the Pinehurst school.

TORQUAY. *Houses.* The Torquay Corporation has approved plans by the borough surveyor for the erection of 188 houses on the Watcombe Estate.

MIDLAND COUNTIES

BIRMINGHAM. *Transport Depot.* The Birmingham Corporation is to erect a transport depot at Hockley at a cost of £39,000.

BIRMINGHAM. *Reservoir.* The Birmingham Corporation is to construct a covered service reservoir at a cost of £75,000, at Perry Barr.

BIRMINGHAM. *Water Mains.* The Birmingham Corporation is to extend water mains at a cost of £250,000.

BIRMINGHAM. *Housing.* The Birmingham Corporation is to purchase Wells Farm Estate, Sheldon, of 141 acres for a housing scheme.

BIRMINGHAM. *School.* The Birmingham Education Committee has purchased land in Sundridge Road and Queslett Road, Perry Barr, for the erection of a school.

BIRMINGHAM. *Civic Centre.* The Birmingham Corporation is to spend £20,000 upon the layout and site works at the civic centre and proceed with the portion of such work relating to the building now in course of erection, at a cost of £9,200.

BIRMINGHAM. *Pavilion.* The Birmingham Education Committee is to erect a pavilion on the George Dixon Secondary School playing field, at a cost of £3,050.

BIRMINGHAM. *School.* The Birmingham Education Committee is to erect an elementary school at Mill Pool Hill, at a cost of £4,650.

BIRMINGHAM. *School.* The Birmingham Education Committee is to erect an elementary school at Stanville Road, Sheldon, at a cost of £23,340.

DUDLEY. *Houses.* Plans passed by the Dudley Corporation: Nine houses, Pensnett Road, Lloyd Bros.; 10 houses, The Broadway, Mr. S. Brookes.

DUDLEY. *Houses.* The Dudley Corporation has approved plans by the borough engineer for the erection of 144 houses on the Cole Street site.

NORTHAMPTON. *Houses.* Plans passed by the Northampton Corporation: 114 houses, T. Wilson and Son, Ltd.; 18 houses, Duston Road, Chowns, Ltd.

WARRINGTON. *Houses.* Plans passed by the Warrington Corporation: 91 houses, Hallows Avenue, Messrs. R. and S. Smith.

NORTHERN COUNTIES

BARROW-IN-FURNESS. *Houses, etc.* Plans passed by the Barrow-in-Furness Corporation: 142 houses, Hollow Lane, Mr. T. Mellor; 22 houses, Ormsgill Lane, Winnemore and Sugden; 50 houses, Harrogate Street, Miss F. G. West; 44 houses, off West Avenue, Mr. A. Peet; 42 houses, Balmoral Drive, Russell Bros., Ltd.; 8 houses, Alfred Street, Mr. A. Ingham; 26 houses, Hawcoat Lane, J. Parkinson and Sons, Ltd.

BLACKPOOL. *Houses.* The Blackpool Corporation has instructed the borough surveyor to prepare plans for the erection of 46 houses on Bispham Housing Estate.

BLACKPOOL. *Gas Works.* The Blackpool Corporation is seeking sanction to borrow £380,000 for the proposed gas works at Marton.

BLACKPOOL. *Cinema.* Mr. T. L. Hay is to erect a cinema at the corner of Red Bank Road and Devonshire Road, Blackpool.

BLACKPOOL. *Houses.* Plans passed by the Blackpool Corporation: 12 houses, Napier Avenue, Mr. Edgar D. Dennis; eight houses, Bentinck Avenue, Mr. J. W. Anderson; 26 houses, Blairway Avenue, Mr. T. Parkinson; six houses, Collins Avenue, Mr. J. V. Marsh; 37 houses, Towneley Avenue, Mr. T. Southworth; 50 houses, Poulton Road, etc., R. Fielding and Son; 12 houses, Henson Avenue, Yates and Walsh; 12 houses, Napier Avenue, Beardshaw & Co.; eight houses, Bentinck Avenue, Blackpool Pre-Cast Stone Co., Ltd.

HULL. *Housing.* The Hull Corporation is to erect, by direct labour, 64 homes for the aged on the Bilton Grange estate, and 28 homes for the aged in Boothferry Road, at a cost of £25,730.

ILKESTON. *Houses.* The Ilkeston Corporation is to erect 52 houses on the clearance areas.

LEEDS. *Flats.* The Leeds Corporation has approved plans by the housing director for the erection of 22 flats for single women and 22 houses on the Potternewton housing estate.

LEEDS. *Housing.* The Leeds Corporation is to erect during the next 12 months 250 houses for the re-housing of persons to be displaced by the carrying out of street improvements.

LEEDS. *Schools.* The Leeds Education Committee has selected sites on the Middleton housing estate for the erection of three schools.

LEEDS. *Cinema.* The Leeds Watch Committee has approved plans by Messrs. C. H. and F. Lax, for the erection of a cinema in Roundhay Road.

LEEDS. *Baths.* The Leeds Corporation is to proceed with the scheme for the new central baths at a cost of £138,356.

MANCHESTER. *Cinema.* Plans passed by the Manchester Corporation: Cinema, Church Street, Newton Heath; rebuilding of Empire Cinema, Factory Lane, Blackley.

MORECAMBE. *Café, etc.* The Morecambe Corporation recommends alterations to the band arena at Happy Mount Park, at a cost of £2,000, and the construction of the central portion of the proposed café, without the sun colonnade or two side tea parlours, at a cost of £9,630.

SCOTLAND

GLASGOW. *Houses.* The Glasgow Corporation is to erect 24 houses in Shawholm Street and 16 in Florida Drive.

GLASGOW. *Fire Station.* The Glasgow Corporation has approved plans by the City engineer for the proposed fire station at Berkeley Street, at an estimated cost of £65,000.

GLASGOW. *Housing.* The Glasgow Corporation has purchased 57 acres at North Cardonald for a housing scheme.

GLASGOW. *Health Department.* The Glasgow Corporation is to convert premises in Ingram Street and Montrose Street into health department offices, at a cost of £8,000.

GLASGOW. *Cinema, etc.* Plans passed by the Glasgow Corporation: offices, hall of exhibits and cinema, Bellahouston Park, Scottish Oil, Ltd.

THE BUILDINGS ILLUSTRATED

HALIFAX HOUSE, MILTON STREET, NOTTINGHAM (pages 1011–1013). Architect: Cyril F. W. Haseldine, F.R.I.B.A. The general contractors were John Cawley, Ltd., for demolition, excavation, foundations and dampcourses. Sub-contractors: Pask and Thorpe, stone; The Ruberoid Co., Ltd., roofing felt; Henry Hope and Sons, patent glazing; Acme Flooring and Paving Co., Ltd., wood block flooring; Peradin, Ltd., Patent Flooring (Rubber); J. Hughes & Co., Ltd., central heating; Lumbys, Ltd., boilers; Blackburn Starling Co., Ltd., electric wiring; W. Knight, Ltd., plumbing; Shanks & Co., sanitary fittings; Chas. Smith & Co., door furniture; Henry Hope and Sons, steel casements; H. H. Martyn & Co., bronze casements and metalwork; H. Smart, plaster; The Birmingham Guild, metalwork; J. Cawley, Ltd., joinery; Pask and Thorpe, marble; Frederick Tibbenham, Ltd., office fittings; Waygood-Otis, Ltd., lifts; Conway, Ltd., wall tiles.

NEW VILLAGE AT BOVERTON, GLAM. (pages 1014–1015). Architect: T. Alwyn Lloyd, F.R.I.B.A. The general contractors were Vickery Bros., who were also responsible for the wood block flooring and joinery. The sub-contractors and suppliers included Cambrian Tile and Cement Products, Ltd., tiles; Eagle Range and Grate Co., stoves; H. R. Paul and Son, Ltd., building materials; R. Hudson, electric wiring; John Williams and Sons (Cardiff), Ltd., steel casements; Honeywill and Stein, plaster and "Gyproc" plaster boards for ceilings; Mid-Glam. Water Board, water supply.

RATES OF WAGES

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

			I. s. d.	II. s. d.
A	ABERDARE ...	S. Wales & M.	1 7	1 2½
A	Aberdeen ...	Scotland	1 7	1 2½
A1	Abergavenny ...	S. Wales & M.	1 6½	1 2
A2	Abingdon ...	S. Counties	1 5½	1 1½
A	Accrington ...	N.W. Counties	1 7	1 2½
A2	Addlestone ...	S. Counties	1 6	1 2
A	Adlington ...	N.W. Counties	1 7	1 2½
A	Airdrie ...	Scotland	*1 7	1 2½
C	Aldeburgh ...	E. Counties	1 3	0 11½
A	Altrincham ...	N.W. Counties	1 7	1 2½
B2	Appleby ...	N.W. Counties	1 3½	0 11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
B	Aylesbury ...	S. Counties	1 5	1 0½
B	BANBURY ...	S. Counties	1 5	1 0½
B1	Bangor ...	N.W. Counties	1 4½	1 0½
A2	Barnard Castle	N.E. Coast	1 5½	1 1½
A	Barnsley ...	Yorkshire	1 7	1 2½
B	Barnstaple ...	S.W. Counties	1 5	1 0½
A	Barrow ...	N.W. Counties	1 7	1 2½
A	Barry	S. Wales & M.	1 7	1 2½
B	Basingstoke ...	S.W. Counties	1 5	1 0½
A2	Bath	S.W. Counties	1 6	1 1½
A	Batley ...	Yorkshire	1 7	1 2½
A2	Bedford ...	E. Counties	1 6	1 1½
A2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A2	Bewdley ...	Mid. Counties	1 6	1 1½
B	Bicester ...	S. Counties	1 5	1 0½
	Birkenhead ...	N.W. Counties	*1 8	1 3
A	Birmingham ...	Mid. Counties	1 7	1 2½
A1	Bishop Auckland	N.E. Coast	1 6½	1 2
A	Blackburn ...	N.W. Counties	1 7	1 2½
A	Blackpool ...	N.W. Counties	1 7	1 2½
A	Blyth	N.E. Coast	1 7	1 2½
B	Bognor ...	S. Counties	1 5	1 0½
A	Bolton... ...	N.W. Counties	1 7	1 2½
A2	Boston ...	Mid. Counties	1 5½	1 1½
A2	Bournemouth...	S. Counties	1 6	1 1½
B2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ...	Yorkshire	1 7	1 2½
A1	Brentwood ...	E. Counties	1 6½	1 2
A	Bridgend ...	S. Wales & M.	1 7	1 2½
B	Bridgwater ...	S.W. Counties	1 5	1 0½
A1	Bridlington ...	Yorkshire	1 6½	1 2
A	Brighouse ...	Yorkshire	1 7	1 2½
A	Brighton ...	S. Counties	1 6	1 1½
A	Bristol... ...	S.W. Counties	1 7	1 2½
B	Brixham ...	S.W. Counties	1 5	1 0½
A	Bromsgrove ...	Mid. Counties	1 7	1 2½
B	Bromyard ...	Mid. Counties	1 5	1 0½
A	Burnley ...	N.W. Counties	1 7	1 2½
A	Burslem ...	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury	N.W. Counties	1 7	1 2½
A1	Buxton ...	N.W. Counties	1 6½	1 2
A1	CAMBRIDGE	E. Counties	1 6½	1 2
B1	Canterbury ...	S. Counties	1 4½	1 0½
A	Cardiff... ...	S. Wales & M.	1 7	1 2½
A	Carlisle ...	N.W. Counties	1 7	1 2½
B	Carmarthen ...	S. Wales & M.	1 5	1 0½
B	Carnarvon ...	N.W. Counties	1 5	1 0½
A1	Carnforth ...	N.W. Counties	1 7	1 2½
A	Castleford ...	Yorkshire	1 7	1 2½
A2	Chatham ...	S. Counties	1 5½	1 1½
A2	Chelmsford ...	E. Counties	1 5½	1 1½
A2	Cheltenham ...	S.W. Counties	1 5½	1 1½
A	Chester ...	N.W. Counties	1 7	1 2½
A	Chesterfield ...	Mid. Counties	1 7	1 2½
B	Chichester ...	S. Counties	1 5	1 0½
A	Chorley ...	N.W. Counties	1 7	1 2½
B1	Cirencester ...	S. Counties	1 4½	1 0½
A	Clitheroe ...	N.W. Counties	1 7	1 2½
A	Clydebank ...	Scotland	1 7	1 2½
A	Coalville ...	Mid. Counties	1 7	1 2½
A	Colchester ...	E. Counties	1 6	1 1½
A1	Colne	N.W. Counties	1 6½	1 2
A2	Colwyn Bay ...	N.W. Counties	1 6	1 1½
A1	Consett ...	N.E. Coast	1 6½	1 2
A2	Conway ...	N.W. Counties	1 6	1 1½
A	Coventry ...	Mid. Counties	1 7	1 2½
A2	Crewe	N.W. Counties	1 6	1 1½
A2	Cumberland ...	N.W. Counties	1 5½	1 1½
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ...	N.W. Counties	1 7	1 2½
B1	Deal	S. Counties	1 4½	1 0½
A2	Denbigh ...	N.W. Counties	1 5½	1 1½
A	Derby	Mid. Counties	1 7	1 2½
A	Dewsbury ...	Yorkshire	1 7	1 2½
B	Didcot... ...	S. Counties	1 5	1 0½
A	Doncaster ...	Yorkshire	1 7	1 2½
B1	Dorchester ...	S.W. Counties	1 4½	1 0½
A2	Driffield ...	Yorkshire	1 5½	1 1½
A2	Droitwich ...	Mid. Counties	1 6	1 1½
A	Dudley ...	Mid. Counties	1 7	1 2½
A	Dumfries ...	Scotland	1 6	1 1½
A	Dundee ...	Scotland	1 7	1 2½
A	Durham ...	N.E. Coast	1 7	1 2½
A2	EASTBOURNE	S. Counties	1 6	1 1½
A1	Ebbw Vale ...	S. Wales & M.	1 6½	1 2
A	Edinburgh ...	Scotland	1 7	1 2½
A2	Exeter... ...	S.W. Counties	*1 6	1 1½
B	Exmouth ...	S.W. Counties	1 5	1 0½
A2	FELIXSTOWE	E. Counties	1 5½	1 1½
A2	Filey	Yorkshire	1 5½	1 1½
A	Fleetwood ...	N.W. Counties	1 7	1 2½
B1	Folkestone ...	S. Counties	1 4½	1 0½
A	Frodsham ...	N.W. Counties	1 7	1 2½
B2	Frome ...	S.W. Counties	1 4	1 0
A	GATESHEAD	N.E. Coast	1 7	1 2½
B	Gillingham ...	S. Counties	1 5	1 0½
A1	Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1 6½	1 2
A	Glasgow ...	Scotland	1 7	1 2½
A2	Gloucester ...	S.W. Counties	1 6	1 1½
A2	Goole	Yorkshire	1 6	1 1½
A2	Gosport ...	S. Counties	1 6	1 1½
A2	Grantham ...	Mid. Counties	1 5½	1 1½
A1	Gravesend ...	S. Counties	1 6½	1 2
A	Greenock ...	Scotland	*1 7	1 2½
A	Grimsby ...	Mid. Counties	1 7	1 2½
B	Guildford ...	S. Counties	1 5	1 0½
A	HALIFAX ...	Yorkshire	1 7	1 2½
A	Hanley ...	Mid. Counties	1 7	1 2½
A	Harrogate ...	Yorkshire	1 7	1 2½
A	Hartlepools ...	N.E. Coast	1 7	1 2½
B	Harwich ...	E. Counties	1 5	1 0½
B	Hastings ...	S. Counties	1 5	1 0½
A2	Hatfield ...	S. Counties	1 6	1 1½
B	Hereford ...	S.W. Counties	1 5	1 0½
A2	Hertford ...	E. Counties	1 6	1 1½
A	Heysham ...	N.W. Counties	1 7	1 2½
A	Howden ...	N.E. Coast	1 7	1 2½
A	Huddersfield ...	Yorkshire	1 7	1 2½
A	Hull	Yorkshire	1 7	1 2½
A	ILKLEY ...	Yorkshire	1 7	1 2½
A	Immingham ...	Mid. Counties	1 7	1 2½
A2	Ipswich ...	E. Counties	1 6	1 1½
B2	Isle of Wight ...	S. Counties	1 4	1 0
A	JARROW ...	N.E. Coast	1 7	1 2½
A	KEIGHLEY ...	Yorkshire	1 7	1 2½
A2	Kendal ...	N.W. Counties	1 5½	1 1½
A2	Keswick ...	N.W. Counties	1 5½	1 1½
A1	Kettering ...	Mid. Counties	1 6½	1 2
A2	Kidderminster	Mid. Counties	1 6	1 1½
B1	King's Lynn ...	E. Counties	1 4½	1 0½
A	LANCASTER ...	N.W. Counties	1 7	1 2½
A1	Leamington ...	Mid. Counties	1 6½	1 2
A	Leeds	Yorkshire	1 7	1 2½
A	Leek	Mid. Counties	1 7	1 2½
A	Leicester ...	Mid. Counties	1 7	1 2½
A	Leigh	N.W. Counties	1 7	1 2½
B	Lewes	S. Counties	1 5	1 0½
A2	Lichfield ...	Mid. Counties	1 6	1 1½
A	Lincoln ...	Mid. Counties	1 7	1 2½
	Liverpool ...	N.W. Counties	*1 8½	1 3½
A2	Llandudno ...	N.W. Counties	1 6	1 1½
A	Llanelly ...	S. Wales & M.	1 7	1 2½
	London (12-miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton ...	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A1	Luton	E. Counties	1 6½	1 2
A	Lytham ...	N.W. Counties	1 7	1 2½
A1	MACCLESFIELD	N.W. Counties	1 6½	1 2
A2	Maidstone ...	S. Counties	1 5½	1 1½
A2	Malvern ...	Mid. Counties	1 5½	1 1½
A	Manchester ...	N.W. Counties	1 7	1 2½
A	Mansfield ...	Mid. Counties	1 7	1 2½
B1	Margate ...	S. Counties	1 4½	1 0½
A2	Matlock ...	Mid. Counties	1 5½	1 1½
A1	Merthyr ...	S. Wales & M.	1 6½	1 2
A	Middlesbrough	N.E. Coast	1 7	1 2½
A2	Middlewich ...	N.W. Counties	1 6	1 1½
B2	Minehead ...	S.W. Counties	1 4	1 0
B2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 4	1 0
A	Morecambe ...	N.W. Counties	1 7	1 2½
A2	NANTWICH ...	N.W. Counties	1 6	1 1½
A	Neath	S. Wales & M.	1 7	1 2½
A	Nelson... ...	N.W. Counties	1 7	1 2½
A	Newcastle ...	N.E. Coast	1 7	1 2½
A	Newport ...	S. Wales & M.	1 7	1 2½
A	Normanton ...	Yorkshire	1 7	1 2½
A	Northampton	Mid. Counties	1 7	1 2½
A	North Shields...	N.E. Coast	1 7	1 2½
A	North Staffs ...	Mid Counties	1 7	1 2½
A1	Norwich ...	E. Counties	1 6½	1 2
A	Nottingham ...	Mid. Counties	1 7	1 2½
A	Nuneaton ...	Mid. Counties	1 7	1 2½
A1	OAKHAM ...	Mid. Counties	1 7½	1 1½
A	Oldham ...	N.W. Counties	1 7	1 2½
A2	Oswestry ...	N.W. Counties	1 5½	1 1½
A1	Oxford ...	S. Counties	1 6½	1 2
A	PAISLEY ...	Scotland	*1 7	1 2½
B2	Pembroke ...	S. Wales & M.	1 3½	0 11½
A	Perth	Scotland	*1 7	1 2½
A1	Peterborough	E. Counties	1 6½	1 2
A	Plymouth ...	S.W. Counties	*1 7	1 2½
A	Pontefract ...	Yorkshire	1 7	1 2½
A1	Pontypridd ...	S. Wales & M.	1 6½	1 2
A2	Portsmouth ...	S. Counties	1 6	1 1½
A	Preston ...	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A2	READING ...	S. Counties	1 6½	1 2
B	Reigate ...	S. Counties	1 5½	1 1½
A2	Retford ...	Mid. Counties	1 5½	1 1½
A1	Rhondda Valley	S. Wales & M.	1 6½	1 2
A2	Ripon	Yorkshire	1 5½	1 1½
A	Rochdale ...	N.W. Counties	1 7	1 2½
B	Rochester ...	S. Counties	1 5	1 0½
A1	Ruabon ...	N.W. Counties	1 6½	1 2
A	Rugby ...	Mid. Counties	1 7	1 2½
A2	Rugeley ...	Mid. Counties	1 6	1 1½
A	Runcorn ...	N.W. Counties	1 7	1 2½
A1	ST. ALBANS ...	E. Counties	1 6½	1 2
A	St. Helens ...	N.W. Counties	1 7	1 2½
B2	Salisbury ...	S.W. Counties	1 3½	0 11½
A1	Scarborough ...	Yorkshire	1 6½	1 2
A	Scunthorpe ...	Mid. Counties	1 7	1 2½
A	Sheffield ...	Yorkshire	1 7	1 2½
A	Shipley ...	Yorkshire	1 7	1 2½
A2	Shrewsbury ...	Mid. Counties	1 6	1 1½
A2	Skipton ...	Yorkshire	1 6	1 1½
A2	Slough ...	S. Counties	1 6	1 1½
A1	Solihull ...	Mid. Counties	1 6½	1 2
A2	Southampton	S. Counties	1 6	1 1½
A1	Southend-on-Sea	E. Counties	1 6½	1 2
A	Southport ...	N.W. Counties	1 7	1 2½
A	S. Shields ...	N.E. Coast	1 7	1 2½
A1	Stafford ...	Mid. Counties	1 6½	1 2
A	Stirling ...	Scotland	1 7½	1 2½
A	Stockport ...	N.W. Counties	1 7	1 2½
A	Stockton-on Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B	Stroud ...	S.W. Counties	1 5	1 0½
A	Sunderland ...	N.E. Coast	1 7	1 2½
A	Swansea ...	S. Wales & M.	1 7	1 2½
A2	Swindon ...	S.W. Counties	1 5½	1 1½
A1	TAMWORTH ...	N.W. Counties	1 6½	1 2
B	Taunton ...	S.W. Counties	1 5	1 0½
A	Teeside Dist. ...	N.E. Coast	1 7	1 2½
A2	Teignmouth ...	S.W. Counties	1 6	1 1½
A	Todmorden ...	Yorkshire	1 7	1 2½
A1	Torquay ...	S.W. Counties	1 6½	1 2
B2	Truro	S.W. Counties	1 4	1 0
A2	Tunbridge Wells	S. Counties	1 5½	1 1½
A	Tunstall ...	Mid. Counties	1 7	1 2½
A	Tyne District...	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ...	Mid. Counties	1 7	1 2½
A	Warrington ...	N.W. Counties	1 7	1 2½
A1	Warwick ...	Mid. Counties	1 6½	1 2
A1	Wellingborough	Mid. Counties	1 6½	1 2
A	West Bromwich	Mid. Counties	1 7	1 2½
A2	Weston-s.-Mare	S.W. Counties	1 6	1 1½
A2	Whitby ...	Yorkshire	1 6	1 1½
A	Widnes ...	N.W. Counties	1 7	1 2½
A	Wigan ...	N.W. Counties	1 7	1 2½
B	Winchester ...	S. Counties	1 5	1 0½
A2	Windsor ...	S. Counties	1 6	1 1½
A	Wolverhampton	Mid. Counties	1 7	1 2½
A2	Worcester ...	Mid. Counties	1 6	1 1½
A2	Worksop ...	Yorkshire	1 5½	1 1½
A1	Wrexham ...	N.W. Counties	1 6½	1 2
A2	Wycombe ...	S. Counties	1 5½	1 1½
B	YARMOUTH ...	E. Counties	1 5	1 0½
B	Yeovil ...	S.W. Counties	1 5	1 0½
A	York ...	Yorkshire	1 7	1 2½

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

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

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality and include delivery to site in Central London area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

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

MATERIALS

EXCAVATOR AND CONCRETOR

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

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

	4" s. d.	6" s. d.
Straight Pipes . . . per F.R.	0 9	1 1
Bends . . . . . each	1 9	2 6
Taper Bends . . . . ,,	3 6	5 3
Rest Bends . . . . ,,	4 3	6 3
Single Junctions . . . ,,	3 6	5 3
Double . . . . . ,,	4 9	6 6
Straight channels . . per F.R.	1 6	2 6
¼" Channel bends . . each	2 9	4 0
Channel junctions . . ,,	4 6	6 6
Channel tapers . . ,,	2 9	4 0
Yard gullies . . . . ,,	6 9	8 9
Interceptors . . . . ,,	16 0	19 6
IRON DRAINS :		
Iron drain pipe . . . per F.R.	2 3	3 8
Bends . . . . . each	6 4	13 1
Inspection bends . . ,,	11 5	14 4
Single junctions . . ,,	11 2	22 10
Double junctions . . ,,	17 2	30 9
Lead Wool . . . . . lb.	6	—
Gaskin . . . . . ,,	5	—

BRICKLAYER

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

MASON

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

SLATER AND TILER

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

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

CARPENTER AND JOINER

	£ s. d.
Good carcassing timber . . F.C. 2s. 7d.	–2 10
Birch . . . . . as 1" F.S.	9
Deal, Joiner's . . . . ,, ,,	5
,, 2nds . . . ,, ,,	4
Mahogany, Honduras . . ,, ,,	1 3
,, African . . ,, ,,	1 1
,, Cuban . . ,, ,,	2 6
Oak, plain American . . ,, ,,	1 0
,, Figured ,, . . ,, ,,	1 3
,, plain Japanese . . ,, ,,	1 2
,, Figured ,, . . ,, ,,	1 5
,, Austrian wainscot . . ,, ,,	1 6
,, English . . . . ,, ,,	1 11
Pine, Yellow . . . . ,, ,,	1 0
,, Oregon . . . . ,, ,,	4
,, British Columbian . . ,, ,,	4
Teak, Moulmein . . . ,, ,,	1 3
,, Burma . . . . ,, ,,	1 2
Walnut, American . . . ,, ,,	2 3
,, French . . . . ,, ,,	2 3
Whitewood, American . . ,, ,,	1 1
Deal floorings, ⅜" . . . Sq.	18 6
,, ½" . . . ,,	1 1 6
,, 1" . . . ,,	1 2 0
,, 1¼" . . . ,,	1 5 0
,, 1½" . . . ,,	1 10 0
Deal matchings, ⅞" . . ,,	14 0
,, 1" . . . ,,	15 6
,, 1" . . . ,,	1 4 0
Rough boarding, ¾" . . ,,	16 0
,, 1" . . . ,,	18 0
,, 1¼" . . . ,,	1 6 0

Plywood per ft. sup. :

Thickness	¼"			¼"			⅜"			½"		
Qualities	A	B	BB	A	B	BB	A	B	BB	A	B	BB
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch 60 × 48	4	2½	2	5	3	2½	7	5	4	8	6	5
Cheap Alder .	–	2	1½	–	3½	2	–	–	–	–	–	–
Oregon Pine .	–	2½	–	3	2¾	–	4	3½	–	5	4½	–
Gaboon Mahogany	4	3¼	–	5	4½	–	7	6¼	–	8	7	–
Figured Oak .	6½	5	–	7½	5¾	–	10	8	–	1/–	9	–

	d.
Scotch glue . . . . . lb.	8

SMITH AND FOUNDER

Tubes and Fittings :

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

	¼"	½"	1"	1¼"	2"
	d.	d.	d.	d.	d.
Tubes 2'–14' long per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"–23" long . each	10	1/1	1/11	2/8	4/9
,, 3"–11½" long . ,,	7	9	1/3	1/8	3/–
Long screws, 12"–23½" long ,,	11	1/3	2/2	2/10	5/3
,, ,, 3" M–½" long ,,	8	10	1/5	1/11	3/6
Bends . . . . ,,	8	11	1/7½	2/7½	5/2
Springs not socketed . ,,	5	7	1/1½	1/11½	3/11
Socket unions . . ,,	2/–	3/–	5/6	6/9	10/–
Elbows, square . . ,,	10	1/1	1/6	2/2	4/3
Tees . . . . ,,	1/–	1/3	1/10	2/6	5/1
Crosses . . . ,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples ,,	3	4	6	8	1/3
Diminished sockets . ,,	4	6	9	1/–	2/–
Flanges . . . ,,	9	1/–	1/4	1/9	2/9
Caps . . . . ,,	3½	5	8	1/–	2/–
Backnuts . . . ,,	2	3	5	6	1/1
Iron main cocks . ,,	1/6	2/3	4/2	5/4	11/6
,, with brass plugs ,,	—	4/–	7/6	10/–	21/–

Discounts	TUBES Per cent.		Per cent.
Gas . . .	66½	Galvanised gas .	56½
Water . . .	61½	,, water	51½
Steam . . .	58¾	,, steam	46½
	FITTINGS		
Gas . . .	57½	Galvanised gas .	48½
Water . . .	53½	,, water	46½
Steam . . .	48½	,, steam	41½

	s. d.
Rolled steel joists cut to length . . cwt.	15 6
Mild steel reinforcing rods, ⅜" . . . ,,	18 0
,, ,, ,, ½" . . . ,,	17 9
,, ,, ,, ⅝" . . . ,,	17 6

SMITH AND FOUNDER—*continued*

	s. d.
Mild steel reinforcing rods, ¾" . . . cwt.	17 6
,, ,, ,, ⅞" . . . ,,	17 6
,, ,, ,, 1" . . . ,,	17 6
,, ,, ,, 1¼" . . . ,,	17 6
,, ,, ,, 1½" . . . ,,	17 6

Cast-iron rain-water pipes of ordinary thickness metal	3" s. d.	4" s. d.
	F.R. 1 0	1 3½
Shoes . . . . . each	2 0	3 0
Anti-splash shoes . . ,,	4 6	8 0
Boots . . . . . ,,	3 0	4 0
Bends . . . . . ,,	2 7	3 9
,, with access door . ,,	—	6 3
Heads . . . . . ,,	4 0	5 0
Swan-necks up to 9" offsets . ,,	3 9	6 0
Plinth bends, 4½" to 6" . ,,	3 9	5 3
Half-round rain-water gutters of ordinary thickness metal	F.R. 5	6
Stop ends . . . . each	o	6
Angles . . . . . ,,	1 7	1 11
Obtuse angles . . . ,,	2 0	2 6
Outlets . . . . . ,,	1 9	2 3

PLUMBER

	£ s. d.
Lead, milled sheets . . . Cwt.	1 7 3
,, drawn pipes . . . ,,	1 6 9
,, soil pipes . . . ,,	1 9 9
,, scrap . . . . ,,	18 0
Solder, plumbers' . . . lb.	1 1½
,, fine do. . . . ,,	1 4
Copper, sheet . . . ,,	1 0½
,, tubes . . . ,,	1 2½

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

PLASTERER

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

GLAZIER

	s. d.	s. d.
Sheet glass, 24 oz., squares n/e 2 ft.	s. F.S.	2½
,, ,, 26 oz. ,, ,, ,,	,,	3½
Flemish, Arctic, Figures (white)*	,,	7½
Blazoned glasses . .	,,	2 6
Reeded : Cross Reeded .	,,	11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite	,,	6½
Crown sheet glass (n/e 12" × 10")	,,	2 0
Flashed opals (white and coloured)	,, 1 0 and	2 0
⅛" rough cast ; rolled plate	,,	6
⅛" wired cast ; wired rolled	,,	10½
⅛" Georgian wired cast	,,	11½
⅛" Polished plate, n/e 1 ft.	,, †1 0 to	‡1 3
,, ,, 2	,, †1 4 ,,	‡1 9
,, ,, 4	,, †2 6 ,,	‡2 9
,, ,, 8	,, †2 11 ,,	‡3 4
,, ,, 20	,, †3 1 ,,	‡3 9
,, ,, 45	,, †3 3 ,,	‡4 0
,, ,, 100	,, †4 0 ,,	‡4 10
Vita glass, sheet, n/e 1 ft.	,,	1 ●
,, ,, 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. rough cast ⅛" and ¼"	,, 2 6 and	3 6 1 0
Putty, linseed oil . .	lb.	3

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

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

PAINTER

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

CURRENT PRICES FOR MEASURED WORK

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

EXCAVATOR AND CONCRETOR

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

DRAINLAYER

		4" s. d.	9" s. d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1 6	2 3
Extra, only for bends	Each	2 8	3 9
,, junctions	,,	3 9	4 6
Gullies and gratings	,,	16 6	18 0
Cast iron drains, and laying and jointing	F.R.	8 9	8 3
Extra, only for bends (cast iron)	Each	12 3	18 4

BRICKLAYER

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

ASPHALTER

		s. d.
½" Horizontal dampcourse	Y.S.	4 9
½" Vertical dampcourse	,,	7 9
¼" paving or flat	,,	6 3
1" paving or flat	,,	7 6
1" × 6" skirting	F.R.	1 0
Angle fillet	,,	2½
Rounded angle	,,	2½
Cesspools	Each	5 6

MASON

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

SLATER AND TILER

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

CARPENTER AND JOINER

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

CARPENTER AND JOINER—*continued*

		s. d.
1½" deal moulded sashes of average size	F.S.	1 9½
2" ,, ,, ,, ,, ,,	,,	1 11½
1½" deal cased frames, double hung, of 6" × ⅞" rock sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ¾" parting beads, and with brass faced axle pulleys, etc., fixed complete	,,	3 7
2" ,, ,, ,, ,, ,,	,,	3 10
Extra only for moulded horns	Each	6
1⅜" deal four-panel square, both sides, door	,,	2 6
2" ,, ,, ,, ,,	,,	2 8
1⅜" ,, but moulded both sides	,,	2 4
2" ,, ,, ,, ,,	,,	3 0
4" × 3" deal, rebated and moulded frames	F.R.	1 0
4½" × 3½" ,, ,, ,, ,,	,,	1 4
1¼" deal tongued and moulded window board, on and including deal bearers	F.S.	1 9
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	2 6
1¼" deal moulded wall strings	,,	2 1
1¼" ,, ,, outer strings	,,	2 4
Ends of treads and risers housed to string	Each	1 9
3" × 2" deal moulded handrail	F.R.	1 3
1" × 1" deal balusters and housing each end	Each	2 0
1¼" × 1¼" ,, ,, ,, ,,	,,	2 9
3" × 3" deal wrought framed newels	F.R.	1 3
Extra only for newel caps	Each	6 0
Do., pendants	,,	6 0

SMITH AND FOUNDER

		£ s. d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.	18 0
Riveted plate or compound girders, and hoisting and fixing in position	,,	1 6 6
Do. stanchions with riveted caps and bases and do.	,,	1 2 0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	,,	1 4 6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g	F.S.	11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1 10 0

PLUMBER

		£ s. d.
Milled lead and labour in flats	cwt.	1 18 0
Do. in flashings	,,	2 1 6
Do. in covering to turrets	,,	2 7 0
Do. in soakers	,,	1 12 9
Labour to welted edge	F.R.	3½
Open copper nailing	,,	3
Close ,, ,,	,,	4

		½" s. d.	¾" s. d.	1" s. d.	1½" s. d.	2" s. d.	4" s. d.
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 6
Do. to stop ends	,,	6½	8	9	11	1 0	—
Boiler screws and unions	,,	3 3	3 9	5 0	8 0	—	—
Lead traps	,,	—	—	—	8 0	11 6	—
Screw down bib valves	,,	6 9	9 6	11 0	—	—	—
Do. stop cocks	,,	7 0	9 6	12 6	—	—	—

		£ s. d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1 0
Extra, only stop ends	Each	1 0
Do. angles	,,	1 6
Do. outlets	,,	2 9
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1 7
Extra, only for shoes	Each	1 3
Do. for plain heads	,,	5 6

PLASTERER AND TILING

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

GLAZIER

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

PAINTER

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