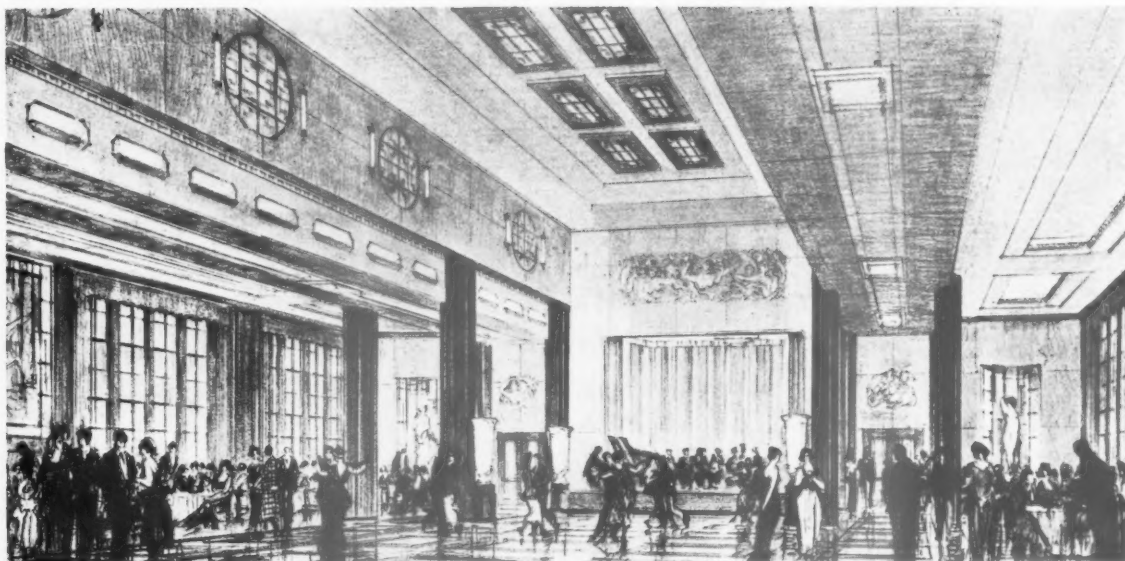
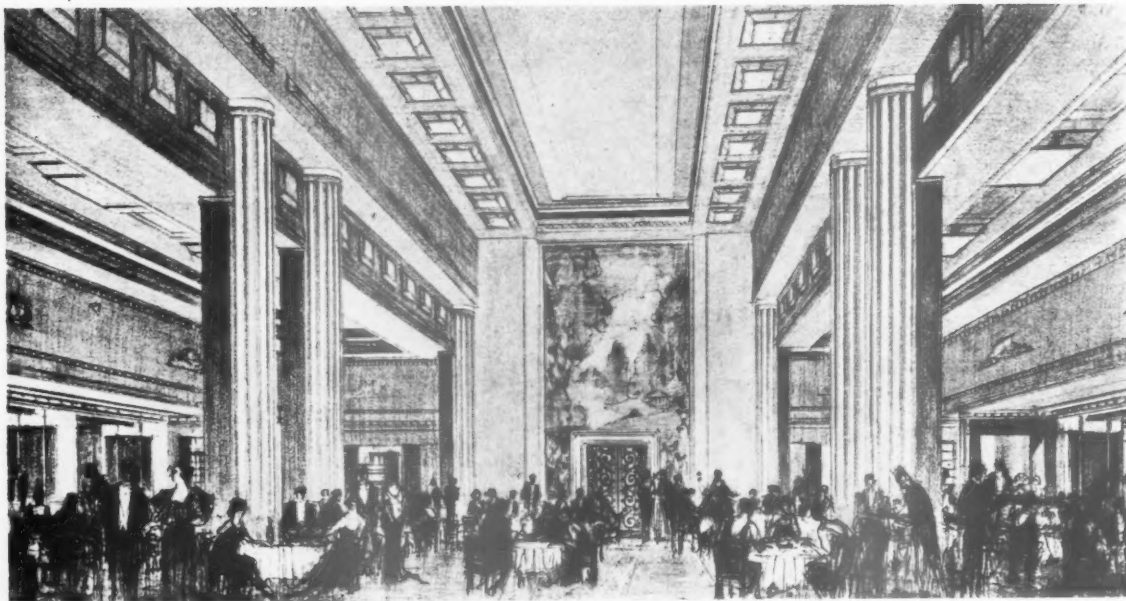


NEW PARIS AIRPORT RECONSTRUCTION OF LE BOURGET



A BIRD'S-EYE perspective of the proposed scheme for new airport buildings at Le Bourget, the Paris traffic having now outgrown the existing accommodation. The architect for the reconstruction is M. Georges Labro.



THE "QUEEN MARY"

The "Queen Mary" is now nearing completion at Clydebank and the schemes for the internal decoration are being completed. Reproduced above are perspective drawings of the proposed decorative schemes for the principal restaurant (top) and the ballroom.



BUILDING OUTLOOK

THE first point to remember in considering the building prospects for 1936 is that 1935 was *not* a "boom" year as far as the industry as a whole was concerned, although certain localities and certain branches, notably in connection with housing, may have experienced a very high level of activity as compared with previous years.

One of the most encouraging features for the coming year is that the extreme dependence of the industry on housing is declining and that non-residential building seems likely to show further important increases. This is the more encouraging in that it is not confined to one class of building, but includes industrial and commercial structures as well as public buildings such as schools, hospitals and administrative headquarters. London has to look forward to the new government offices in Whitehall, which, apart from providing considerable employment will, no doubt, prove a notable addition to the administrative centre of the Empire and an encouragement to further work of the same kind.

Perhaps, however, one of the greatest effects of this large-scale development by the Government, is that it will prove a means of educating the public authorities in the advantages and economies of the increased efficiency arising from the adequate accommodation of their staffs in modern structures.

The widening economic revival, largely due to an increased building activity, promises well for the provinces, especially industrial areas. There is every indication that industrial and commercial building will continue to increase during 1936, and not the least important aspect of this development is its widespread character, and it is likely to be particularly prominent in the newer industrial centres of the Midland, South-west and possibly Thames-side.

The activities of public authorities in housing will increase during the coming year. In the first place, 1936 should see the peak of building for slum clearance replacement under the 1930 Housing Act, according to the Government's five year plan, if a mere statement of total requirements can be called a "plan."

Secondly, the preliminary survey of overcrowding under the 1935 Housing Act is due to be completed in August, so that the coming year should see the begin-

ning of building operations under the Act, to say nothing of the interesting structural alterations carried out by private landlords in order to avoid the new criminal offence with regard to overcrowding which has been added to the Statute book.

There will thus be a considerable volume of work available to take up the supplies of available materials and labour which may be released if the rate of privately initiated building slackens. In this connection it is interesting to note that a Government spokesman stated recently that if production of houses by private enterprise fell off, the decline would be offset by increased activities in the Government's campaign against slum conditions and overcrowding.

In order to take advantage of favourable opportunities arising during the coming year, and to guard against adverse influences, more intensive concentration on organization and greater appreciation of the value of the work of existing bodies on behalf of the industry is essential. The lesson of the last three years of the value of the industry as a whole controlling its own economic destiny through its individual representative organizations should be remembered during 1936, especially in view of the possible changes, in the directions indicated above, of industrial development and economic environment.

It lies in most part with the building industry itself whether, by action during "boom" years, the hitherto inevitable succeeding "slump" remains inevitable, or becomes almost entirely an affair of history.

But it is also a matter for the Government. We have stated before in the JOURNAL that the condition of the building and allied industries has now become of predominant national importance—that its prosperity or the reverse exerts a steadying or frightening influence throughout all industrial investment. It is, therefore, to be hoped that the Government will collaborate with the industry in maintaining a steady volume of work by putting the bulk of its contracts out to tender when the industry is slack. In 1932 the Government was amongst the first to suspend its building programme; that programme is now being carried out at an increased cost. The building industry should try to ensure during 1936 that a scheme of public works will be held in reserve against such minor slumps as it may not alone be able to prevent in three years' time.



The Architects' Journal
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 London

NOTES & TOPICS

HIGH BUILDINGS

OPPPOSITION is still being expressed towards the proposal of the Post Office to put up near St. Paul's a building rivalling in height the giant in Queen Victoria Street. But this disapproval is not, curiously enough, based principally on the fact that the Post Office is abusing its freedom from L.C.C. Regulations by building too high on a restricted site, but on the grounds that another view of St. Paul's will be eliminated.

Views of St. Paul's are important, but it would seem to be going too far to prevent all sites in the neighbourhood being re-developed in order that every existing view of the Cathedral should be preserved. It does, however, seem very regrettable that the Office of Works should try to justify building high on a small site by saying that a lot of accommodation is needed. Private owners, with much smaller resources, are not allowed to use such convincing reasoning.

There is nothing wrong with high building, but the G.P.O. should buy a big enough site to show the public an example of how to build high—and well.

SHEFFIELD CHURCHES

The Provost of Sheffield Cathedral is reported to have said that a number of churches have become redundant in the inner parts of Sheffield and are to be pulled down and rebuilt in newly developed outer districts.

It may be that these churches are all worthy of preservation, although the recollection of a wet Saturday afternoon's tour of Sheffield churches, and a knowledge of the period in which many of them were built, makes one rather doubtful. If they are not of special merit it seems a pity

to rebuild them on sites which they were not designed to fit.

The reason for this proposal is, I suppose, the hope of saving cost, and, if it is carried out, I shall be very interested to hear whether it does so. My own experience is that I have never saved a penny by using old materials, except as hard core. And I cannot believe that with present labour costs the dismantling and rebuilding of brick or stone buildings can be a paying proposition.

ETON MODERNIZED

Eton, according to the daily papers, is to spend £200,000 in modernizing itself (I refer, of course, to the College, not the Town).

The first part of the work (for which fees are to be slightly raised) is to be undertaken immediately. As far as can be made out the whole modernization will take a quarter of a century to complete.

Modernization is a much over-worked word and I am left wondering what sort of modernization will result from a quarter century's effort. To some people, to have convenient sanitary equipment and daily bathing arrangements is to be modern.

In what sense, I wonder, does Eton use the word?

EVENING INTELLIGENCE

Mr. A. J. Seal's flats at Bournemouth, illustrated, I believe, elsewhere in this issue, seem to have aroused a certain amount of interest in a local evening paper: I print their remarks verbatim.

"Nearly three tons of paint is applied to the outside of the building alone, and although this is a very small proportion of the weight which the structure carries it is a consideration which the architects must take into account."

And then some people say 6 per cent. is too much.

NATURE NOTES

As I stood watching the flooded Thames scurling past and through and over the bungalows (which spoil what once was a lovely reach of the river between Staines and Windsor) and hoping against hope that the blemishes would be washed away, my mind turned pleasantly towards other methods of destruction; and I thought of aerial bombing, and the difficulty the Air Force has in finding places on to which to drop its bombs in peace.

Whatever place they choose there always is outcry after outcry, and as I watched the turbulent water and pondered on the problem I suddenly saw the solution. Let the Air Force leave the swans of Abbotsbury and the wild geese of the Essex marshes undisturbed and concentrate on Peacehaven and Canvey Island—let them leave alone the wild fowl of Budle Bay and bang away at Seahouses.

A change from birds to bungalows would be a great gain—and much more life-like for the R.A.F.

PUBLIC SPACES

Instances are always cropping up of open spaces being saved for the public benefit by the immense labour of



The Christmas card sent out by H. O. Weller, who was the first Director of the Building Research Board, now Director of Technical Education in Kenya. The photograph shows the new Town Hall at Nairobi, taken from the propyleum of the Law Courts.

groups of private individuals. I believe that it took over four years of hard work and constant appeal to raise the money to purchase the Foundling Site in Bloomsbury.

I do not wish to detract in any way from the virtues of those who undertake this work, but I do think that if a public space is needed, and goodness knows the Foundling Site was needed, it is up to the public authorities to secure it.

"QUEEN MARY"

And now at long last the perspectives for one or two of the *Queen Mary* interiors have been officially released.

Not enough to be able to tell properly what the final result will be like when seen as a whole, but enough to make me want to see what the rest of the ship is going to be like.*

NEWARK

My journey north this Christmastide was interrupted by most unforeseen visitations of fog, ice, snow, flood and frost. . . . I had to take two days over it.

Consequently I discovered Newark. Now Newark is to

* Two of the interiors referred to by Astragal are illustrated on page 38 of this issue.—ED., A.J.

most of us one of those towns on the great north road which one merely passes through on any northern journey.

This time I stayed the night and had an hour or so the following morning to study this Trent-side town of brick and stone in some detail . . . its busy shops, its urban houses, its Church steeple, its castle, its wide-planned streets.

I had no time to make a detailed study of the town, but I shall certainly stay there again when the opportunity arises.

AGRICULTURE AND FISHERIES

Glancing out of my carriage window on the way back from the North, the prevailing floods reminded me of the old story of an official of the Ministry of Agriculture and Fisheries who was asked to prepare a report on a proposed site for some cottages for agricultural workers.

On inspection the site was found to be flooded to a depth of about three feet: the report was therefore terse. "Suggest that this matter should be considered by the Fisheries Department."

ROAD ADVENTURES

Most architects of necessity do a good deal of motoring from one job to another and many must surely have road experiences to tell.

My own adventures in this direction seem chiefly to concern animals, and birds. Two battling weasels, a stoat, and a full-grown hare have leapt on my bonnet and off again in a more or less dazed condition. I have from time to time braked frantically in efforts to avoid scuttling rabbits and swooping birds. More than one chicken has been ejected clucking from my rear seats and I once had to unwind a grass snake from the spokes of my offside front wheel.

But I do not regret meeting earlier this month, on a long remote lane in Lincolnshire, none other than two elephants. My passenger will corroborate the statement, two elephants: they were doing twenty miles a day for three days, from one circus to another, so I was told.

Once I met a highland bull, in a very narrow lane . . . but that is another story, and very nearly another car.

ASTRAGAL

OUR NEW YEAR ISSUE

The *New Year Special Issue* of THE ARCHITECTS' JOURNAL will be published on Thursday next, January 16. It will contain, in addition to photographs and plans of several new buildings and progress photographs of London University, illustrated articles entitled "The Year's Work At Home," by Professor C. H. Reilly; "The Year's Work Abroad," by Philip Scholberg; "The Architect," by John Betjeman; "Housing Progress," by W. Keen; and "Architectural Books of 1935," by H. Myles Wright. Also, various other special features, including two colour plates.

NEWS

POINTS FROM
THIS ISSUE

The preliminary survey of overcrowding under the 1935 Housing Act is due to be completed in August, so that the coming year should see the beginning of building operations under the Act 39

"It seems very regrettable that the Office of Works should try to justify building high on a small site by saying that a lot of accommodation is needed. . . . There is nothing wrong with high building, but the G.P.O. should buy a big enough site to show the public an example of how to build high—and well." 40

The Wimbledon Council has refused permission for the erection of a block of flats on land now in use as a bird sanctuary. 42

GUILDFORD CATHEDRAL

Work is now to begin on the new cathedral at Guildford, from the designs of Mr. Edward Maufe. The Archbishop of Canterbury will lay the foundation stone in July.

The site is on the Portsmouth-Southampton Road. The centre part, to accommodate 1,000 people, will be built first. The total cost is estimated at £250,000.

PROTESTS AT WHITBY

Protests are being made in Whitby, Yorks., against a housing scheme which would involve the demolition of many of the town's picturesque old houses. One owner has appealed to the County Court against a demolition order, and the judge, Sir Reginald Banks, in allowing the appeal, described parts of the Council officials' reports as "grotesque and ridiculous." After certain repairs, he added, the house would be better than many council houses.

BRITISH STEELWORK ASSOCIATION

At the annual general meeting of the British Steelwork Association, held recently in London, Mr. H. B. Jacks, O.B.E., was re-elected as President, and Mr. E. Boynton, M.I.MECH.E., and Mr. A. Veitch as Vice-Presidents. As a consequence of the affiliation of the Bridge and Structural Steelwork Industry to the British Iron and Steel Federation, certain modifications of constitution will be required to conform with the progress of the general reorganization. To this end, negotiations are now in

THE ARCHITECTS' DIARY

Thursday, January 9
INTERNATIONAL EXHIBITION OF CHINESE ART. At the Royal Academy, Burlington House, Piccadilly, W.1.
ARCHITECTURAL ASSOCIATION, 36 Bedford Square, W.C.1. "Advice to Young Architects." By H. S. Goodhart-Revel. 8 p.m.
Also exhibition in connection with a recent lecture on English and Continental Working-class Housing. Until January 22.
INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "The Influence Lines for Beams Continuous Over Three Spans." By R. J. Cornish. 6.30 p.m.
TIMBER DEVELOPMENT ASSOCIATION. At the Building Centre, 158 New Bond Street, W.1. Exhibition of the designs submitted in the Association's timber house competition. Until January 25.

Friday, January 10
INSTITUTE OF WELDING, Midland Branch. At the James Watt Memorial Institute, Birmingham. "Atomic Hydrogen Arc Welding and Its Applications." By J. A. Dorrat. 7.15 p.m.

Monday, January 13
R.I.B.A., 66 Portland Place, W.1. General Meeting. Announcement of Council's Award of Prizes and Studentships, 1936. Criticism by the Hon. Humphrey Pallington on work submitted for Prizes and Studentships. Announcement of the Council's nomination for the Royal Gold Medal for 1936.
ARCHITECTS' AND TECHNICIANS' ORGANIZATION. At the Memorial Hall, Farringdon Road, E.C. "Towards a Rational Esthetic." By Professor Levy. 8 p.m.

Tuesday, January 14
R.I.B.A., 66 Portland Place, W.1. Exhibition of drawings submitted for the Prizes and Studentships. Until January 29, open daily from 10 a.m. to 8 p.m.; Saturdays, 10 a.m. to 5 p.m.
ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. "Recent Developments in Sewage Treatment and Disposal at the L.C.C. Works." By J. H. Coste. 5.30 p.m.
INSTITUTE OF WELDING. North Eastern (Tyne-side) Branch. At Newtyle Hall, Westgate Road, Newcastle-upon-Tyne. "Testing of Welded Joints, with Special Reference to X-Ray Testing." By T. Scott Glover. 7 p.m.

Wednesday, January 15
INSTITUTION OF STRUCTURAL ENGINEERS. Scottish Branch, 129 Bath Street, Glasgow. "Foundations." By S. Smith. 7.15 p.m.
LONDON SOCIETY. Visit to the Savoy Hotel Laundry, 17-19 Union Road, Clapham Road, S.W.4. 2.45 p.m.

progress as to the best means of continuing and strengthening the co-operative work of the British Steelwork Association on propaganda and market development.

WIMBLEDON PREFERS BIRDS

The Wimbledon Council has refused permission for the erection of a block of flats in Lingfield Road, by the Common, on land which the late General Sir Fenton Aylmer had turned into a bird sanctuary.

A committee had previously approved plans for 18 flats. Residents sent the Council a petition against the scheme.

CHINESE ART EXHIBITION

Visitors to the International Exhibition of Chinese Art (which opened at the Royal Academy in November) numbered 105,894 to the end of December. The record attendance so far was on Thursday, January 2, when about 7,000 visitors passed through the turnstiles.

Owing to the great interest shown by the public in certain exhibits it has been decided to show each week an important specimen as the "Object of the Week" in a special

case in the Central Hall. This will be changed weekly, and will be fully described.

The "Object of the Week" next week will be No. 320, a bronze ceremonial vessel (H) of the Shang-Yin dynasty (1766—1122 B.C.), which is one of a set of three excavated in An-yang, Honan Province.

The series of additional lectures which have been arranged in response to the great number of requests received by the Royal Academy will open on Monday, January 13, at the Meeting Room of the Royal Society, Burlington House, with "Some Reflections on the Chinese Exhibition," by Sir Percival David, Bt. A film of the scroll "Ten Thousand Miles of the Yangtze River" will be shown at this lecture.

ROYAL INSTITUTE OF
THE ARCHITECTS OF IRELAND

At the annual general meeting of the above Institute, held in Dublin, the following were elected members of the Council for 1936: Professor R. M. Butler, and Messrs. J. V. Downes, L. F. Giron, C. Harrington, F. Hayes, H. V. Millar, J. J. Robinson and T. F. Strahan. Mr. Vincent Kelly, representing the Architectural Association of Ireland, was also elected to serve on the new Council.

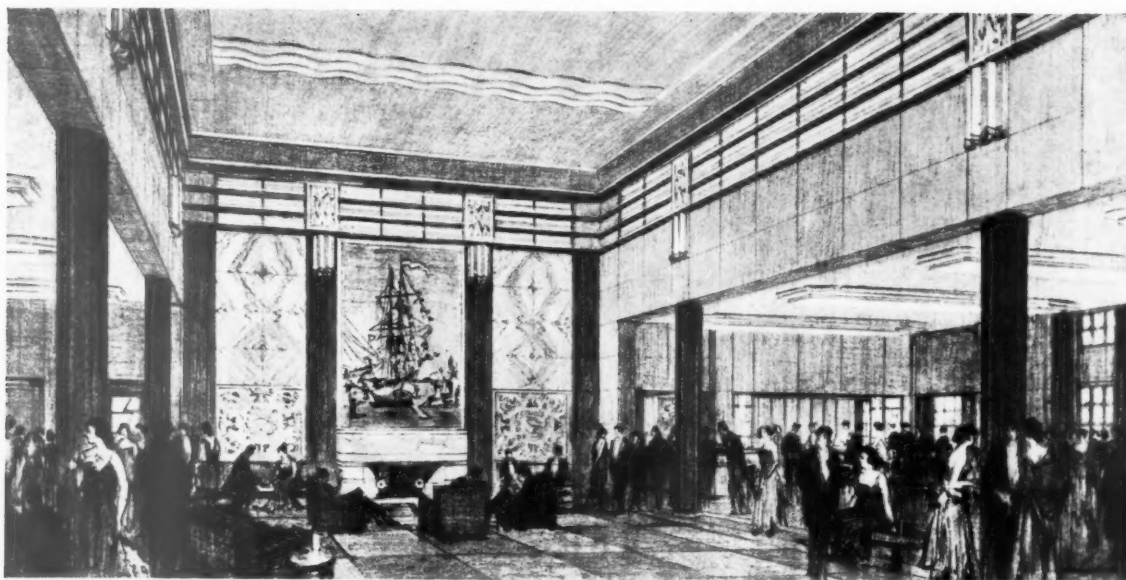
In the general discussion which followed the adoption of the annual report, reference was made to a scheme, at present under consideration by the Council, to erect a lecture hall at the rear of the Institute's premises, a proposal that was favourably received by the meeting. It was also resolved that the Institute should approach the Corporation, urging that immediate steps be taken to preserve Weavers Hall from a pending demolition or reconstruction. Mr. Sedgwick Keatinge, speaking of the recent competition for the new Government buildings in Kildare Street, thought the response—considering the number of members on the Institute's roll—was disappointing. He understood that only thirty-five sets of drawings had been submitted. He felt that the Council should see that adequate time was allowed for the preparation of the plans required by the adjudicators, and also that the number and character of such drawings should be kept within reasonable limits. He was in favour of a preliminary competition based on general principles and sketch designs, and the selection from competitors of an approved few to enter for the final competition. Mr. H. Allberry, A.R.I.B.A., presided.

HOUSING CENTRE

An exhibition entitled "Housing the Old" was opened at the Housing Centre, 13 Suffolk Street, S.W.1, on Tuesday last. Following the opening ceremony, Miss Oliver Mathews (the organizer of the exhibition) delivered a lecture on the subject.

ARCHITECTS' WILLS

Mr. Roland Wilmot Paul, F.S.A., of 37 Canynge Square, Clifton, Bristol, architect, left £16,579 (net personality, £15,203). He bequeathed such of his architectural drawings, plans, books and papers as relate to the county of Somerset, to Somers-



Perspective of the main lounge of the "Queen Mary." See page 38.

setshire Archaeological and Natural History Society, and all other architectural drawings, plans, books and papers to the Royal Society of Antiquaries of London, together with £50 to cover the cost of binding... "which are to be kept together as the Paul Collection," and £500 to the Architects' Benevolent Society.

Major Harry Barnes, F.R.I.B.A., of Thurlow Road, Hampstead, N.W., left £4,269. Mr. Arthur Conran Blomfield, F.R.I.B.A., of Kensington, left £34,450 (net personalty £33,431).

BUILDING SOCIETY'S NEW HEADQUARTERS

The new headquarters of the Brighton and Sussex Building Society, Brighton, are to be opened by Mr. J. H. Thomas on January 17. The architects are Professor H. S. Goodhart-Rendel and Mr. H. L. Curtis.

and studentships will be on exhibition at the R.I.B.A. from Tuesday, January 14, to Wednesday, January 29 inclusive, between the hours of 10 a.m. and 8 p.m. (Saturdays 10 a.m. and 5 p.m.).

TITE PRIZE AND THE VICTORY SCHOLARSHIP, 1936

The attention of intending competitors is called to the fact that the preliminary competitions for the Tite Prize and the Victory Scholarship will be held in London and at centres in the provinces on Thursday, March 5, and Friday, March 6, 1936, respectively.

Forms of application for admission to the Preliminary Competition may be obtained at the R.I.B.A., 66 Portland Place, London, W.1. The closing date for the submission of forms of application is Wednesday, February 5.

Design placed first: J. R. Boyd Barrett, A.R.I.B.A., M.R.I.A.I., of 61 South Mall, Cork.

Design placed second: Alfred E. Jones and Stephen S. Kelly, M.M.R.I.A.I., of 17 South Frederick Street, Dublin.

Design placed third: E. G. Butler, in association with R. M. Butler, F.R.I.B.A., A.R.H.A., of 82 Merrion Square, Dublin.

The estimated cost of the scheme is £120,000. The author of the design placed first will be given charge of the work, while the second will receive a prize of £150 and the third £75.

The following paragraph is culled from the *Irish Times*: "Further and better accommodation has long been an urgent need for the various staffs of the Civil Service, who are at present working in temporary offices all over the city. The new buildings will be the headquarters of the Department of Industry and Commerce, and will be erected on the site upon which Maple's Hotel stood before it was destroyed by fire several years ago."

R. I. B. A.



THE NEXT MEETING

On Monday next, at 8 p.m., the Council's award of the R.I.B.A. prizes and studentships for the year will be announced, and the Hon. Humphrey A. Pakington, F.R.I.B.A., will deliver his criticism of the work submitted for the prizes and studentships. The Council's nomination for the Royal Gold Medal for 1936 will also be announced.

The drawings submitted for the prizes

Announcement

The partnership under the style of Messrs. Towndrow and Kaufmann, architects, has now been dissolved. Mr. F. E. Towndrow, A.R.I.B.A., will practise in future from 26 Hart Street, W.C.1 (Telephone No.: Holborn 6325). Mr. Eugen C. Kaufmann, Dipl. Ing., will continue to practise from 4 Essex Court, Temple, E.C.4 (Telephone No.: Central 2932).

COMPETITION NEWS

COMPETITION RESULT

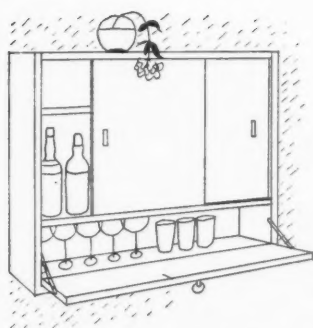
Messrs. T. J. Cullen, H. H. Hill and G. P. Sheridan, F.F.R.I.A.I., the assessors in the competition for proposed Government Offices, Kildare Street, Dublin, have made their award as follows:

TIMBER DEVELOPMENT ASSOCIATION

Conditions have just been issued by the Timber Development Association of a competition for an essay, not more than 5,000 words in length, entitled the "Romance of Wood." The assessors are: Lord Iliffe, C.B.E., Mr. N. A. Cox, M.A., Dr. Frank Jane, B.Sc., and Mr. E. H. B. Boulton, M.A.; and the following premiums are offered: First prize, £100; second prize, £25; five prizes of £5 each, and ten prizes of £2 each. The latest date for submission of manuscripts is Monday, February 24.

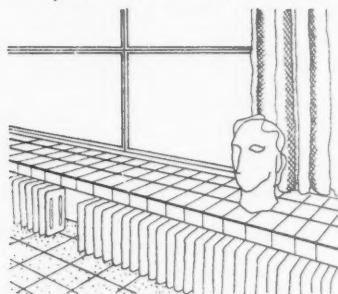
Applications for particulars and conditions of the competition should be made to the Technical Director, Timber Development Association, 69-73 Cannon Street, London, E.C.4. The envelope should be marked "Romance of Wood" Competition.

On Monday last the Association held a



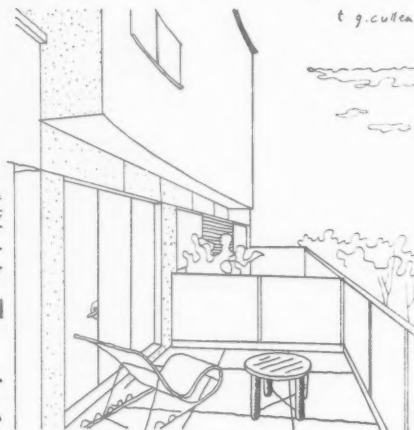
wall fitting for drinks

desk in metal with top in polished marmorite



cill and radiator detail

balcony on 7th floor screens of 3/4" plate



From Flats in L'Avenue de Versailles, Paris. Designer: Jean Ginsberg.

luncheon at Grosvenor House, Park Lane, W., when the presentation of the awards to the successful candidates in the Association's timber houses competition was made. Mr. Percy B. Meyer presided, and the speakers included Professor Walter Gropius, Mr. G. Grey Wornum, F.R.I.B.A., and Mr. John Gloag. Professor Gropius said: "The results of the competition, particularly the winning designs, provide a good answer to all those who wrongly, and with a one-sided prejudice, believe that a modern building can only be erected in steel and concrete. The modern form of a building is only conditionally dependent on the newness of the construction material. The wooden structure is the earliest form of a skeleton construction, and it has a close relationship to skeletons in steel and reinforced concrete of today. Horizontal fenestration—the 'window ribbon,' which is such a significant feature of modern architecture—is often characteristic also for wooden skeleton construction, in contrast to the brick building, unless the brick is combined with steel. The really creative architect does not tie himself up with only some special materials. It is up to him to discover new possibilities in all sorts of materials. Wood is a material which, from the time of Noah's Ark up to the pre-

sent day, has kept its inestimable value, and is favoured by most people because of its organic living qualities. Science has improved the methods of manufacturing and employment; we need only think of the new application of free spanned wooden girders for large spaces, such as halls, or, again, of the invention of plywood, which is only in the beginning of a very promising development. In many countries the idea of wooden dwellings has received a new impulse from advances in constructional technique.

"That is what we are concerned with on this occasion. I do not think that it is purely fortuitous that a great number of the younger architects took part in this excellent competition, and that the results are so good. Some of the designs are exquisite, not only in the matter of their modern appearance, but for their habitableness, their good construction and economy. I only wish that these designers could be given the opportunity to build some of these houses; for it is only from the thought and care which must be given to the practical execution of designs that the best results are achieved, and from that only can a standard be created which deserves to be multiplied. To attain standards should be the objective of all effort."

Competitions Open

January 24.—Sending-in Day. Proposed offices for the Harrow U.D.C. (Open to architects of British nationality.) Assessors: C. H. James, F.R.I.B.A., and S. Rowland Pierce, A.R.I.B.A. Premiums: £350, £250 and £150. Designs must be submitted to Mr. Vernon Younger, Clerk of the Council, Council Offices, Stanmore, Middlesex, not later than January 24.

January 31.—Sending-in Day. Proposed Parliament House, Salisbury, Southern Rhodesia, for the Government of Southern Rhodesia. (Open to architects of British citizenship.) Assessor: James R. Adamson, F.R.I.B.A. Premiums: £500, £300, £200 and £100. Conditions, etc., obtainable from the High Commissioner for Southern Rhodesia, Crown House, Aldwych, W.C.2. (Deposit £2 2s.) The designs must be sent to the Assessor at 19 Silverwell Street, Bolton, not later than January 31.

January 31.—Sending-in Day. The North British Architectural Students' Association invites members (i.e., members of Schools and/or Allied Societies at Manchester, Glasgow, Edinburgh, Leeds, Sheffield, Hull and Newcastle) to submit, in competition, designs for: (1) A Church of England Chapel. Assessor: Mr. H. L. Hicks, F.R.I.B.A. Premium: 10 guineas. (2) A Control Tower and Waiting Room for an Aerodrome. Assessor: Mr. R. Bradbury, A.R.I.B.A. Premium: 10 guineas. Conditions are obtainable from the Hon. General Secretary, N.B.A.S.A., School of Architecture, Armstrong College, Newcastle-upon-Tyne, 2. The latest date for submission of designs is January 31.

February 29.—Sending-in Day. Proposed police headquarters, fire station and courts for the Southport Corporation. Assessor: E. Vincent Harris, F.R.I.B.A. Premiums: £300, £200, £100. Conditions, etc., are obtainable from R. Edgar Perrins, Town Clerk, Town Hall, Southport. (Deposit £1 1s.) Closing date: February 29. The last day for questions was January 1.

March 1.—Sending-in Day. Proposed public hall, Harpenden, for the Harpenden U.D.C. (open to architects of British nationality domiciled in the United Kingdom). Assessor: Robert Lowry, F.R.I.B.A. Premiums: £100, £75 and £50. Last day for submission of designs: March 1. Architects were invited to submit names to the Clerk to the Council before December 15 last.

[For a list of competitions pending, see page 8 of last week's issue.]

Fine Art Commission for Scotland

The King has approved the reappointment of Mr. James Miller, R.S.A., F.R.I.B.A., as a member of the Royal Fine Art Commission for Scotland on completion of his term of office.

PALACE COURT HOTEL, BOURNEMOUTH



D E S I G N E D B Y

A . J . S E A L

A N D P A R T N E R S

GENERAL PROBLEM.—*The building is designed as an hotel upon the lower floors, with shops at ground level; as hotel bedrooms which can be easily converted into flats on the 2nd, 3rd and 4th floors; and as service flats on the 5th to 9th floors.*

SITE.—*At the time when the plans for the hotel were passed, there was no restriction on the height of buildings in Bournemouth.*

Above and right are two views of the principal front to Westover Road.



PALACE COURT HOTEL, BOURNEMOUTH:



CONSTRUCTION.—The building is completely steel-framed. All external walls are of 11 in. cavity brickwork, rendered. Floors and balconies are of reinforced concrete, roofs are of asphalt covered with composition finish on screed, and partitions are of pumice blocks.

As sound-proofing precautions, a continuous special rubber section door stop is carried round three sides of all doors in the lettable part of the building; all corridors except service are carpeted; bedrooms are close-carpeted; and tenants of flats are required to use

close-carpet by their lease agreements. As an additional precaution, cork is laid on all living and bedroom floors as a base for carpet.

Above is a detail of the south-west front overlooking the bay, showing the obscured glass divisions to the balconies. These divisions are fitted with doors so that several balconies can be thrown into one by agreement between tenants.

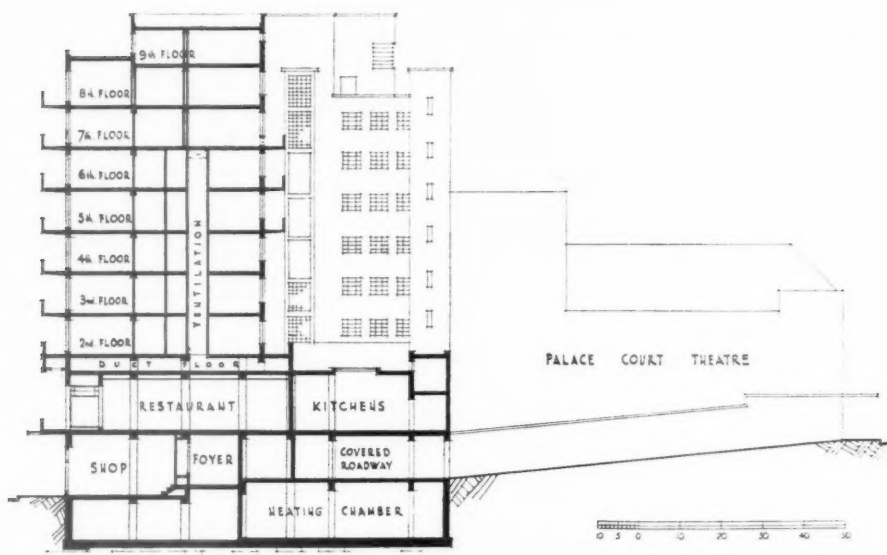
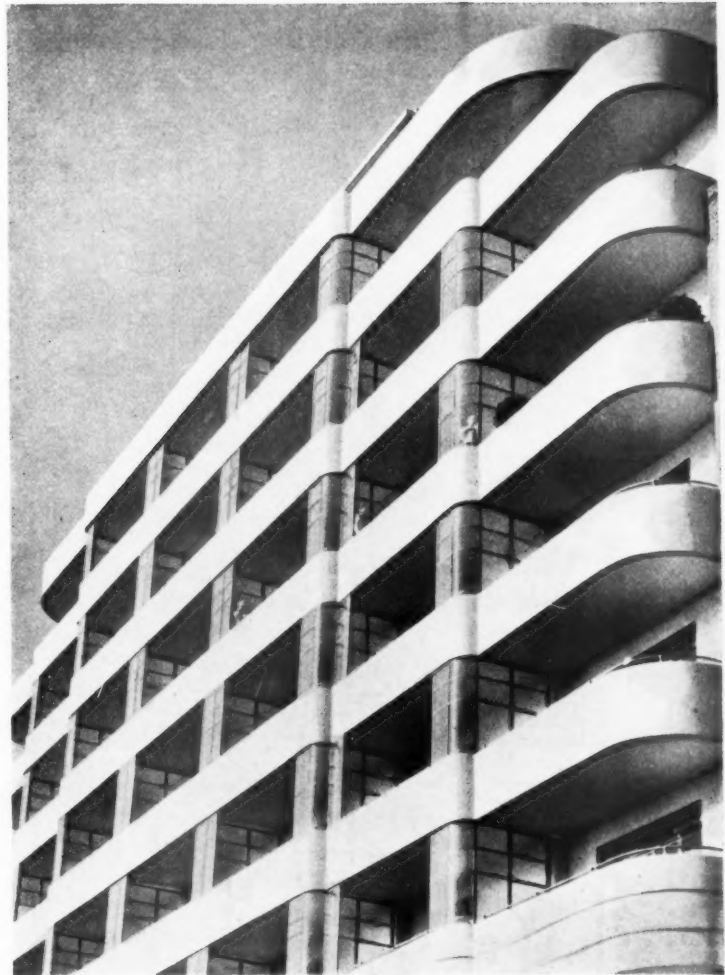
B Y A . J . S E A L A N D P A R T N E R S

PLAN.—The T plan was adopted so as to provide the main accommodation with extensive views to the south-west across the bay to the Purbeck Hills. The leg of the T was then used to accommodate the staff on floors 2, 3 and 4, and "spare" rooms for the flats or overflow accommodation for the hotel on floors 5 to 8. Inside bathrooms and kitchenettes are ventilated and have service supply from vertical ducts running from the roof to a 4 ft. high void covering the whole area of the building between the first floor ceiling and the second floor. (See Section.)

The main access is by way of an entrance on Westover Road, almost opposite the Pavilion approach. Ample service approach is given from Hinton Road, a secondary thoroughfare at the rear of the block.

Privacy on the continuous balconies is provided by metal-framed screens glazed with cross-reebed glass.

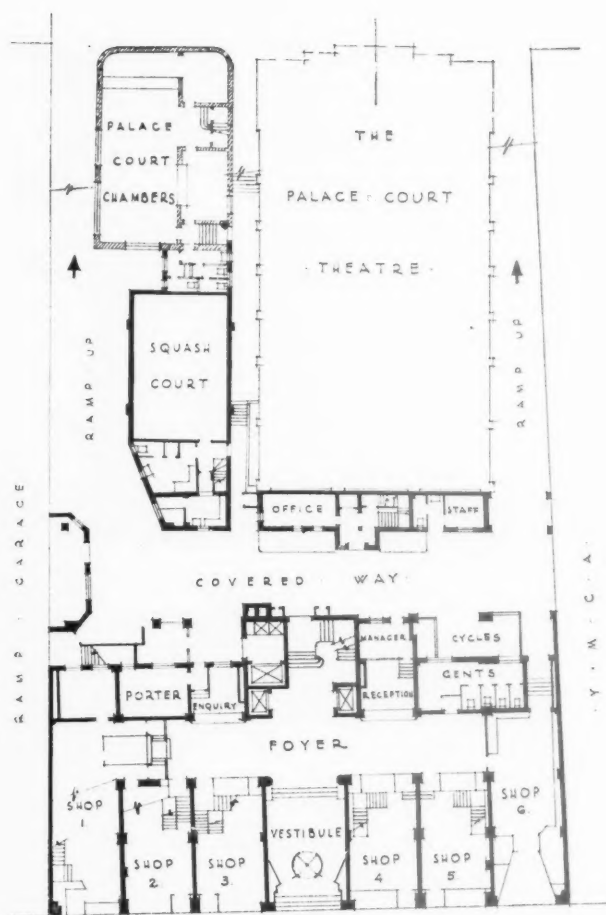
On the right is a detail of the balconies on the front to Westover Road.



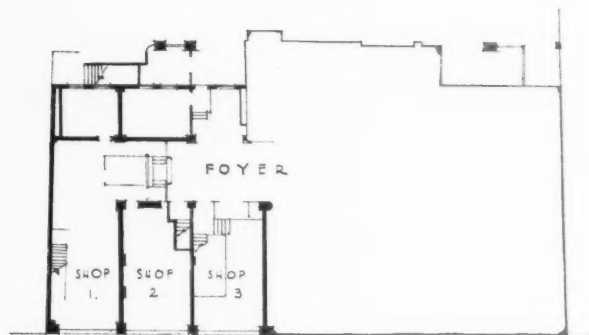
SECTION

PALACE COURT HOTEL, BOURNEMOUTH:

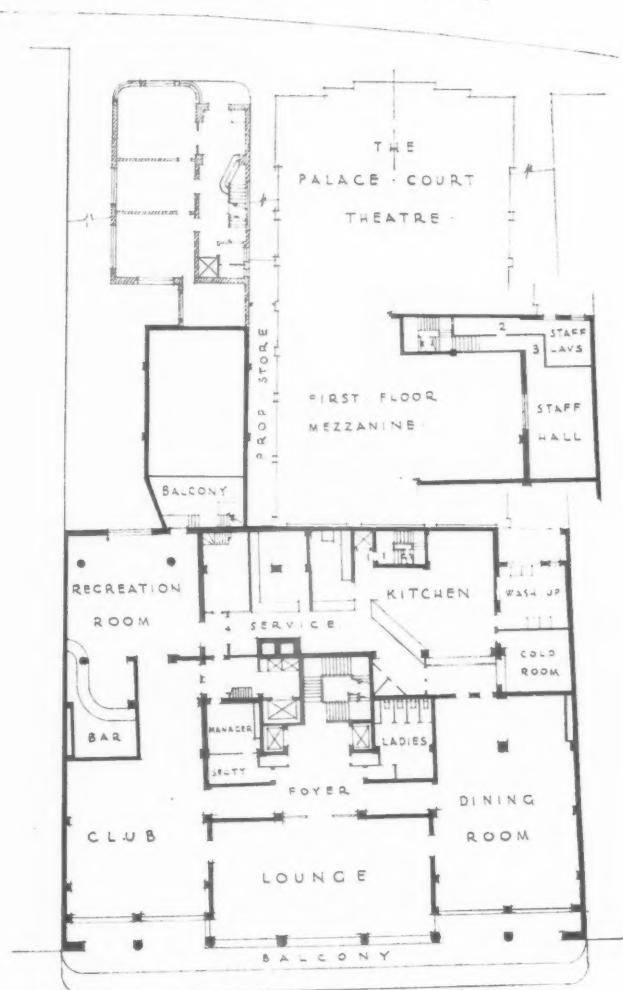
WINTON ROAD



WESTOVER ROAD
GROUND FLOOR PLAN



GROUND (MEZZANINE FLOOR) PLAN

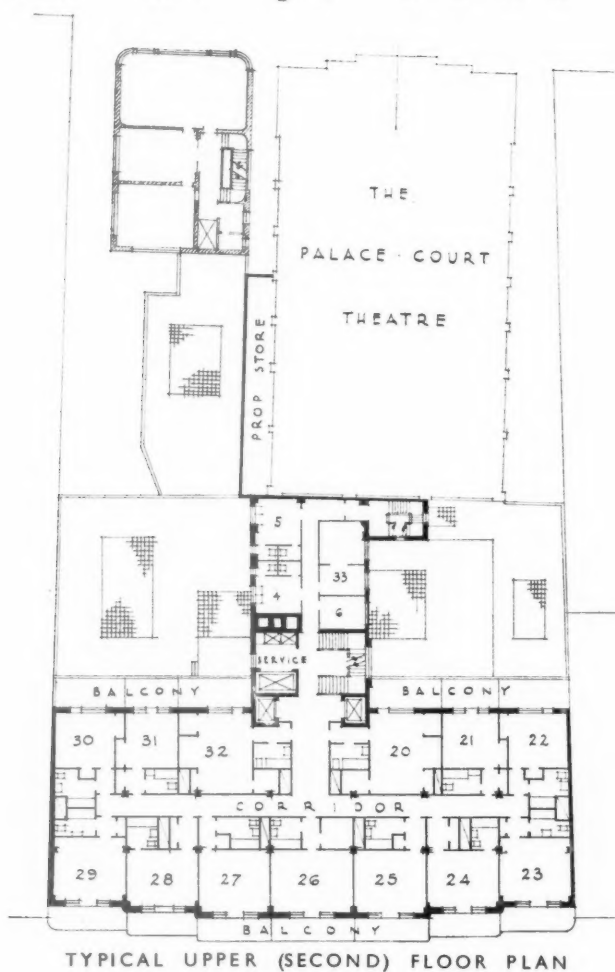


FIRST FLOOR PLAN

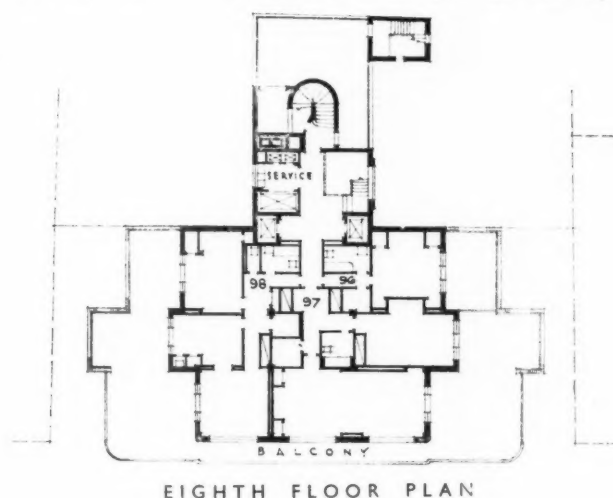


LOWER GROUND FLOOR PLAN

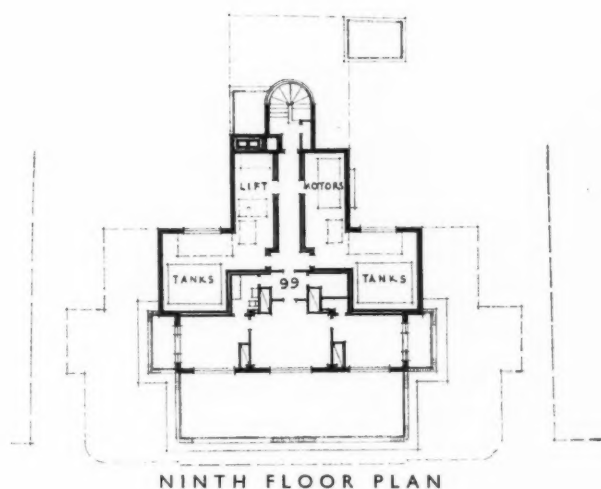
BY A. J. SEAL AND PARTNERS



TYPICAL UPPER (SECOND) FLOOR PLAN



EIGHTH FLOOR PLAN



NINTH FLOOR PLAN

SERVICES.—The flats are service flats, and there is, therefore, a service room on every floor. These service rooms contain two high speed electric food-lifts and a large goods lift. This latter allows dinner wagons to be taken complete to any flat or hotel bedroom. All these lifts go through the kitchens into the basement, a special service room on the ground floor is reserved for tradesmen who can get into touch with any flat by telephone, and can send the goods up direct to any flat without entering the main building. A special feature has been made of the lighting, a great amount of which is concealed and decorative. There are roughly 1,500 electric light points in the building and 160 heating points, and 25 motors with an approximate output of 60 h.p. are responsible for the ventilation of other services.

Heating is by self-feeding coke boilers. The whole plant, where a break-down is possible, has been duplicated.

Ventilation has also been carried out on an elaborate scale, there being separate installations for the main hotel kitchens, and the bathrooms and flat kitchens, the restaurant and public rooms are

again entirely separate. This arrangement makes sure that no kitchen smells can invade the building through ventilation sources.

The domestic hot water installation is capable of an output of 3,000 gallons of hot water per hour. The two large storage calorifiers are each of 1,000 gallons capacity.

Cleaning: Points have been placed on landings, services, and all flats for portable vacuum cleaning apparatus, this system being considered the most suitable for this particular building. Every room in the building is wired for a telephone, there being 110 points in all.

The radio installation has only one main aerial at the top of the building, feeding through amplifiers all flats and hotel rooms, and allowing a large number of sets to be in operation at the same time without any interference from the Neon installation, lift motors, or from each other.

All pipe runs are enclosed in ducts that run throughout the building. This leaves all elevations free from drainage piping. All fires are electric.

PALACE COURT HOTEL, BOURNEMOUTH



INTERNAL FINISH.—The majority of the internal walls have been sprayed with a textured cement finish.

All floors in the flats and hotel bedrooms have been covered with a thick cork carpet as a sub-floor. The corridors have a similar treatment but have margins and skirtings of terrazzo with a large cove to facilitate cleaning. The staircases are similar with solid balustrading and stainless steel handrail.

The living rooms of the flats have been decorated according to the taste of the tenants.

The bathrooms are tiled in various schemes blending with the coloured sanitary ware of either green or primrose. The floors of the bathrooms are of rubber, and the doors are flush panel and have long bar handles of synthetic material resembling glass.

The flat kitchens have been fully equipped with metal cabinets, and contain refrigerators, the tenants having the option of gas or electric cookers. All the kitchens are floored with rubber.

The photographs show: left (top) the lounge; left, a typical bedroom; above, a typical corridor.

D E S I G N E D B Y

A. J. SEAL AND PARTNERS

For list of general and sub-contractors, see page 69.

LETTERS

FROM

READERS

Architectural Education

SIR,—In the discussion on architectural education now appearing in your correspondence columns, it seems there are two main currents of thought. Besides the desire for a more liberal curriculum in line with modern building technique and requirements it is implied that the fundamental outlook of the schools on the "architect's responsibility and on towards society" is unprogressive. But is Mr. Lasdun, who uses this phrase, right in suggesting the failure comes principally from *within* the schools? The failure is surely traceable to a higher source in the general body of the profession and, in fact, reflects the policy which continues to put a premium on individualist private practice, while ignoring the changing position of the architect in a world whose problems are assuming ever-widening scope and scale.

R. R. TOMALIN

SIR,—My idea of elementary education is to teach the students to think (generally). It does not matter very much why King Canute burned the cakes and why King William was unable to stop getting his feet wet. Just so with architectural education; it does not matter very much if a student cannot remember why the Ptolemies preferred bull-headed columns instead of incorporating a stylobate (unless the student is after a professorship) or that the radius of gyration is equal to the sum of the squares on the other two sides, *providing* he has been taught to *think* (architecturally) and not to develop into a non-thinking copyist.

Further, what does G. H. Kent mean when he says: "I am full of appreciation for the De La Warr Pavilion at Bexhill: the sweep of that staircase is glorious to behold."—Is this an architectural critic's summing up?

J. EDWARD TYRRELL

Hours of Sunshine

SIR,—In view of the publicity which has been accorded to the potentialities of the Heliodon, it is somewhat strange to find anyone apparently unaware of the fact that it can measure

R. R. TOMALIN
J. EDWARD TYRRELL
PERCY J. WALDRAM, L.R.I.B.A.
JOHN GLOAG
FRANK HEATHORN
JOHN BARTON

hours of sunshine inside a building just as easily as it can measure that which falls on the outside walls, to which the enquiry in your issue of December 19 was directed.

Anyone who has tried by means of any point-to-point method, photographic or otherwise, and by the Heliodon, to contour any room in hours of possible and probable sunshine—like the hospital wards illustrated in the R.I.B.A. report on the Orientation of Buildings—would appreciate that the former involves days of tedious labour to secure approximate results which the Heliodon obtains exactly and more or less mechanically in a lesser number of hours.

In cases where the nature of obstructions renders the models required by the Heliodon too complicated to be practicable, the necessary photographs can be taken with any ordinary camera. Instructions and methods of setting out the grilles required will be found in a reprint published by Messrs. P. S. King and Co. of some articles in the *R.I.B.A. Journal* on the use of photographs in town planning and design.

PERCY J. WALDRAM

Timber Houses

SIR,—In the two letters published in your issue of January 2, both Mr. G. N. Kent and Mr. I. L. James disclose that they regard the modern movement in design as a "style," and not as an unhampered and lucid way of thinking about all building problems and materials. The "modern style," so-called, has been helped by such materials as concrete, but it has not been created by new materials. It has been created by adventurous minds that were sick of "styles." May I remind both your correspondents who want to tie up "modernism" with concrete, that years before the war one of the leaders of the modern movement, Frank Lloyd Wright, was building in brick and wood and stone, and the results, if they were whitewashed and photographed dramatically, would be hailed as the latest children of the modern movement today, even by some of its present practitioners. This great American architect was giving bland, expansive, horizontal lines, and

large windows that drank up sunlight and air, to houses built at Highland Park, Illinois, in 1903; at Birchwood, Illinois, in 1909; at Oak Park, Illinois, in 1902; and these characteristics were foreshadowed in a house in Woodland Avenue, Chicago, as early as 1896. Creative minds are never cramped by the feeling that materials should always be used in the same traditional way.

I am not bandying technicalities with Mr. Kent for two reasons: I am not technically competent to do so, and even if I were, I have more respect for the judgment and technical knowledge of the eminent architects who acted as assessors in the Timber House Competition than I have for my own. But I enjoyed Mr. Kent's letter, which had a lot of real wisdom in it, adulterated unfortunately by misunderstanding of the meaning of the modern movement. Now it is his turn, unless the editor gets tired of it.

JOHN GLOAG

SIR,—I imagine that the Timber Development Association cannot be overjoyed to find that the assessors in the Timber House Competition share the belief of the first prizewinner that timber cannot be efficiently used as columns or as an internal finish.

That a concrete student should evolve so ill-conceived a structural design as that shown by an examination of the working details for this house is quite amazing. Compare the floor and roof design with that of the walls:—

9 in. by 2 in. joists are specified on the first floor with a span of 11 ft. Allowing a total loading of $\frac{3}{4}$ cwt. per super foot these joists have to carry about 8 cwt. each; whereas the standard formula $\frac{2 \times k \times b \times d^2}{l \times fs}$, in which

$k=4$ and $fs=6$, gives a safe load of some 20 cwt. It is true that these joists are apparently extended as cantilevers to carry the gallery, but if the cantilevered portion is computed separately it will be found that the margin is still extremely generous, as will also be the case if the whole of each joist is considered as a continuous beam, partly cantilever.

One could, however, accept such conservative design were it not for the construction of the west elevation, which is evidently not designed at all. It is flabby to the last degree, no provision whatsoever having been made for wind pressure normal to the vertical surface.

The cross section shows that the west front, with its height of 17 ft., has nothing more substantial as an intermediate transverse member than the bottom boom of the top lattice girder, this boom being two joists with effective thickness of $1\frac{1}{2}$ in. each for a span of

some 20 ft. The transom over the top of the sliding doors is pitiful. Assuming a horizontal wind pressure of 28 lb. per super foot, this miserable piece of 2 in. or 3 in. by 4 in. (or perhaps 5 in.) has to sustain a load of 30 cwt. over its 20 ft.

These inconsistencies are the more remarkable in view of the elaborate vertical bracing which must have been carefully thought out.

I will not lengthen this letter further, except to observe that, whilst the open top part of the living area is very attractive, I can imagine a large majority of people preferring to have this space devoted to better accommodation on the first floor; and I can also imagine the owner and principal guests feeling an objection to a journey all along the passage when wishing to make use of bathroom or w.c.

FRANK HEATHORN

Milk and Architecture

SIR,—I have just read "Milkman" in your issue for December 26. In case "Milkman" is an old acquaintance of mine, belonging racially, as one might say, to that profession (if I must single him out, he is a Williams from Wales), I proffer a word of advice.

M. has obviously been standing upon a peak (of cyclostyled correspondence-course letters) and gazing in a wild surmise at the unpacific architectural scene. It's all quite simple, M., if you know the currents.

Architects' "jobs"—but wait a moment, he talks of being a *builder*. Architects can be *speculators*, can invest money in their buildings—that's the best way of getting any work—but they cannot be *builders*. For one thing, they know nothing of plumbing, M. Architects' "jobs," then, are apportioned out among the three main unions that you have discovered, viz.:

(i.) Town halls, piers at the sea-side, town plans. These are very strictly reserved to the M.I.C.E. If FF. are found doing a town hall it is generally on condition that they turn out a genuine-looking M.I.C.E.—or Struct.E.—design.

(ii.) "Schemes." A "scheme" is a "job" that is really worth doing. FF. undertake "schemes" at full Institute scale of fees. Occasionally, however, LL. get there first.

(iii.) Just "jobs." These are done by A.A.Dip. (not A.R.I.B.A., they only do working drawings for other people, M.). A.A.Dip. have a vast circle of friends who are always "settling down," enlarging the nursery, or wanting a small factory down the line. The password is "Old So-and-so." ("Just a small factory down the line for Old So-and-so.")

And if you are the Williams who played Rugger for Wales, M., you can join some unions very easily.

By the way, M., before I close (as they used to say), I hope that if you're a man of keen sensibilities you don't read Ecclesiasticus. Of the "artificers" he said this: "*And in the handiwork of their craft is their prayer.*" To be a successful architect, M., you will have to turn out just one long string of expletives.

JOHN BARTON



School Building

The Administrative Programme of Educational Development issued this week by the Board of Education as Circular 1.444 envisages a considerable amount of new building of several types of schools.

So far as elementary schools are concerned, the board hopes shortly to issue Building Suggestions for Public Elementary Schools, based on current practice and designed to meet the demand which has been frequently expressed by authorities, managers and architects for an authoritative document to replace the Building Regulations which were withdrawn in 1926.

If the proposed Bill for raising the school age is passed, the Circular states, extra accommodation for the additional children will be needed in many cases. But this is only one of the problems of school building which present themselves. The reorganization of schools needs to be completed, wherever practicable, and action is called for to remedy defective premises and to reduce the size of over-large classes where these still exist.

In the interests of both efficiency and economy these various problems should, so far as possible, be considered together and not in isolation. To assist authorities in carrying out the programme of building thus involved, the Board is proposing shortly to issue regulations increasing the rate of grant payable on expenditure on buildings (including sites, playing fields and equipment) from 20 to 50 per cent. as from January 1, 1936. The grant will be for a limited period . . . (and it) will be payable in respect of expenditure to which the authority becomes contractually committed within the period, either on council school building or on aiding voluntary school building under any powers which may be conferred upon them by the Bill.

Dealing with nursery schools, the Circular states that the Board is anxious that all authorities, and particularly those authorities in whose areas few such facilities at present exist, should survey the local needs and consider how far they call for expansion

or improvement, whether in nursery schools or in elementary schools. In either case, it is of the first importance that simplicity should characterize both the planning and equipment of the premises and their maintenance; and, in order to avoid unnecessary expenditure on staffing and upkeep, the accommodation should, as far as practicable, be in units of an economical size.

For both types the requirements are sunny, well-lighted, warm and airy premises, sufficiently spacious for the development of activities of mind and body, convenient accommodation for training in personal hygiene and opportunities for playing in safety out of doors. . . . The present cost of provision and upkeep of nursery schools is not generally extravagant, but there is little doubt that the high cost in individual cases has acted as a serious deterrent to a more rapid increase in the number of nursery schools.

There are, however, a large number of children whose needs will be met by less specialized provision, and for whom accommodation can most readily be found in separate classes in the infant departments of public elementary schools. Experience shows that where these young children are accommodated in public elementary schools the arrangements need not be costly or elaborate, and that parts of the existing premises of many infant departments can be adapted at comparatively small expenditure so as to provide all that is required for the training, play and rest of the children. The essentials for this purpose are adequate and suitable space indoors and outdoors, including ready access to the playground, and, wherever possible, a separate playground, however small. There should also be easily accessible cloakroom, lavatory and washing accommodation with hot and cold water, the means of preparing and serving a simple milk-meal in the middle of the morning, and suitable equipment, including beds for use during the rest period and play material.

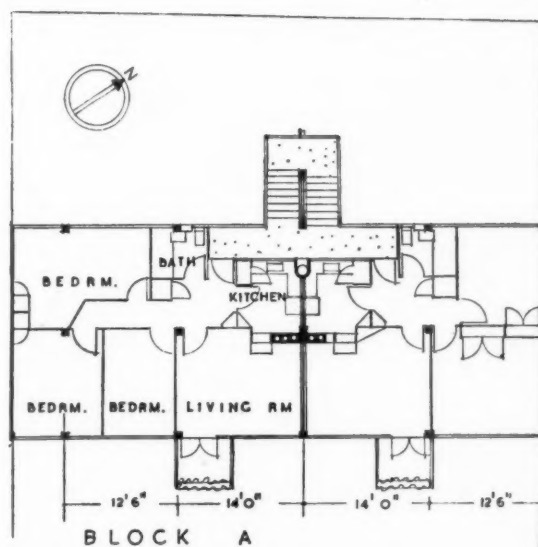
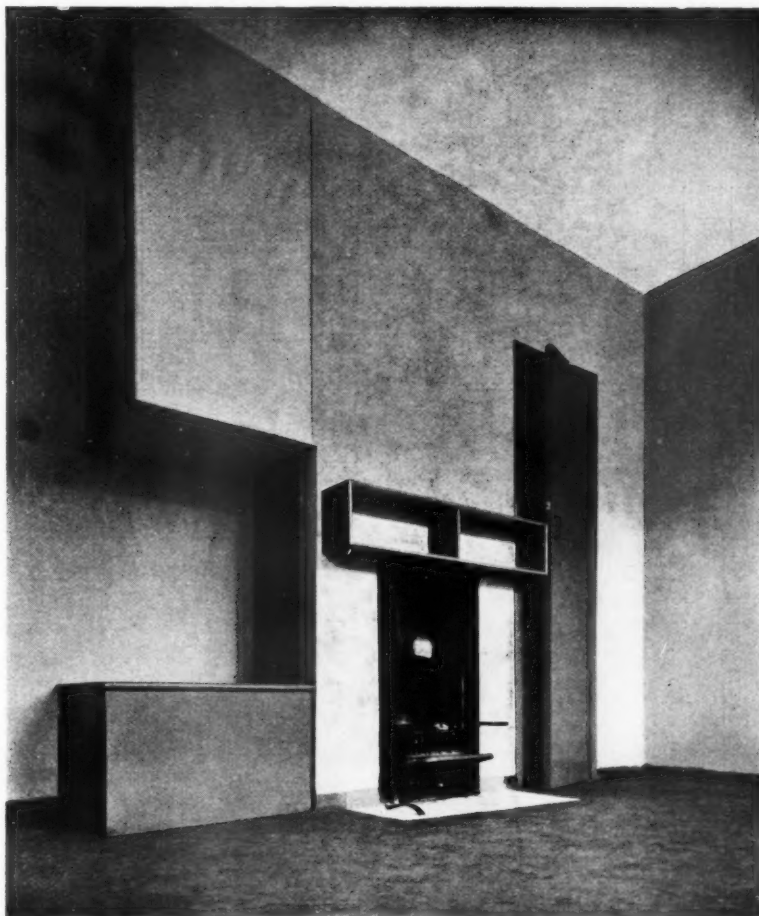
On Technical and Art Education the Circular states that the results of a recent survey indicate that, over the country as a whole, there are serious deficiencies of accommodation and equipment notwithstanding the new and important buildings that have been erected in recent years. In many areas technical education is still handicapped by inadequate, unsuitable or scattered premises, while in others there is urgent need for new provision. The problems involved call for early consideration and action to ensure that facilities for technical training are brought up to the best standards obtaining in other countries.

The Board will shortly communicate with individual authorities indicating the directions in which improved provision or further development appears to be specially called for. It will at the same time invite proposals for making good these deficiencies and for taking the steps necessary to give effect, within a definite period, to such schemes as well as to any other schemes already in hand but not yet carried out.

Turning to the school medical service and special schools, the Circular states that there are many industrial areas where day open-air schools do not exist or their number is inadequate, and the Board would welcome proposals for increasing the number of such schools.

WORKING • DETAILS : 387

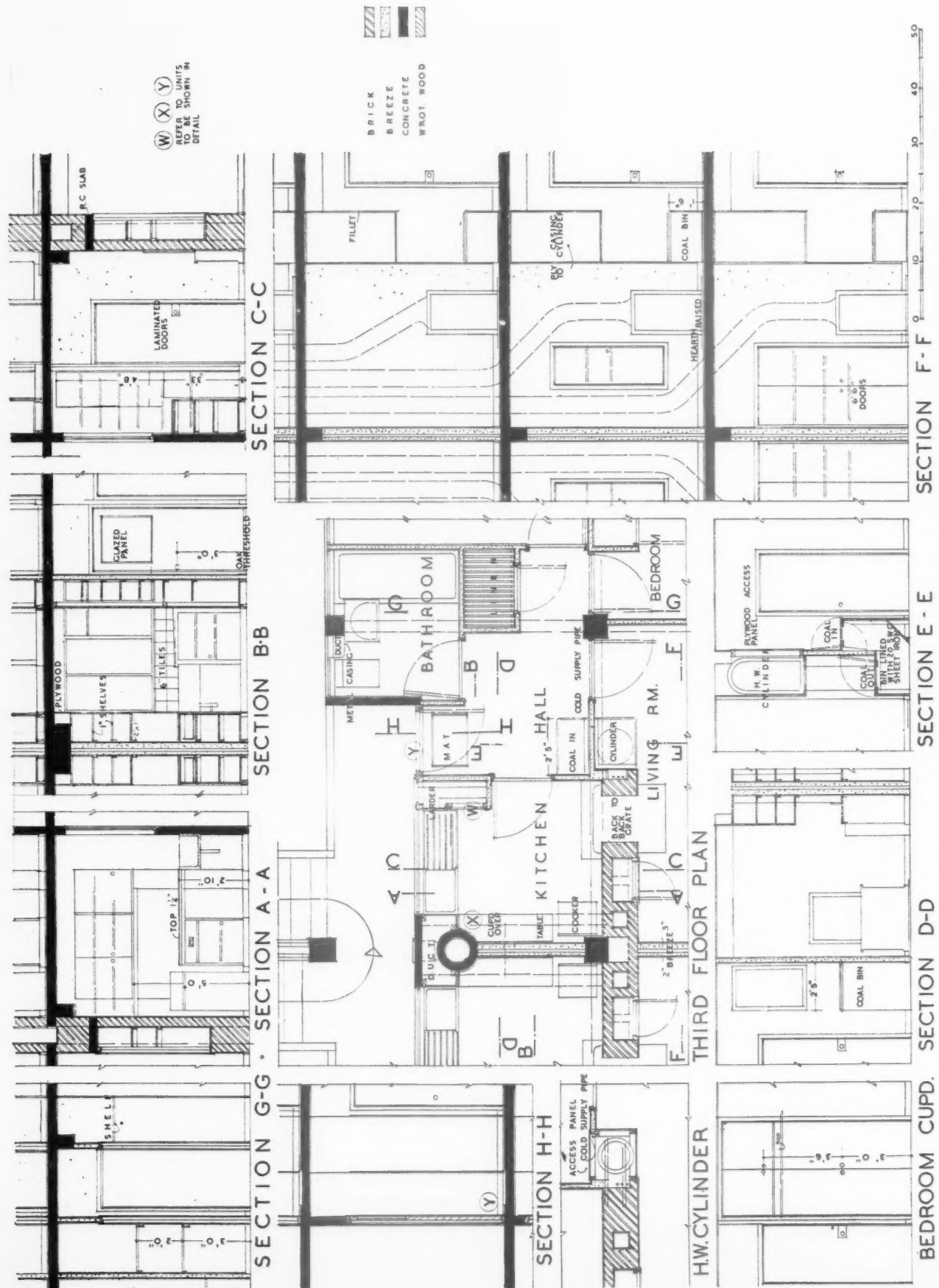
SERVICES • FLATS IN ST. PANCRAS • CONNELL, WARD AND LUCAS



Above is a plan and a living room interior in a block of working-class flats. Overleaf is a plan of the hall, living room, kitchen and bathroom area, with the essential sections showing materials and built-in fittings. Hot water is supplied from the living room fire, the hot-water cylinder being also provided with an electric immersion heater for summer use.

WORKING DETAILS : 388

SERVICES • FLATS IN ST. PANCRAS • CONNELL, WARD AND LUCAS



WORKING DETAILS : 389

SHOP FRONT • SHOP AT EALING • CLIVE ENTWISTLE

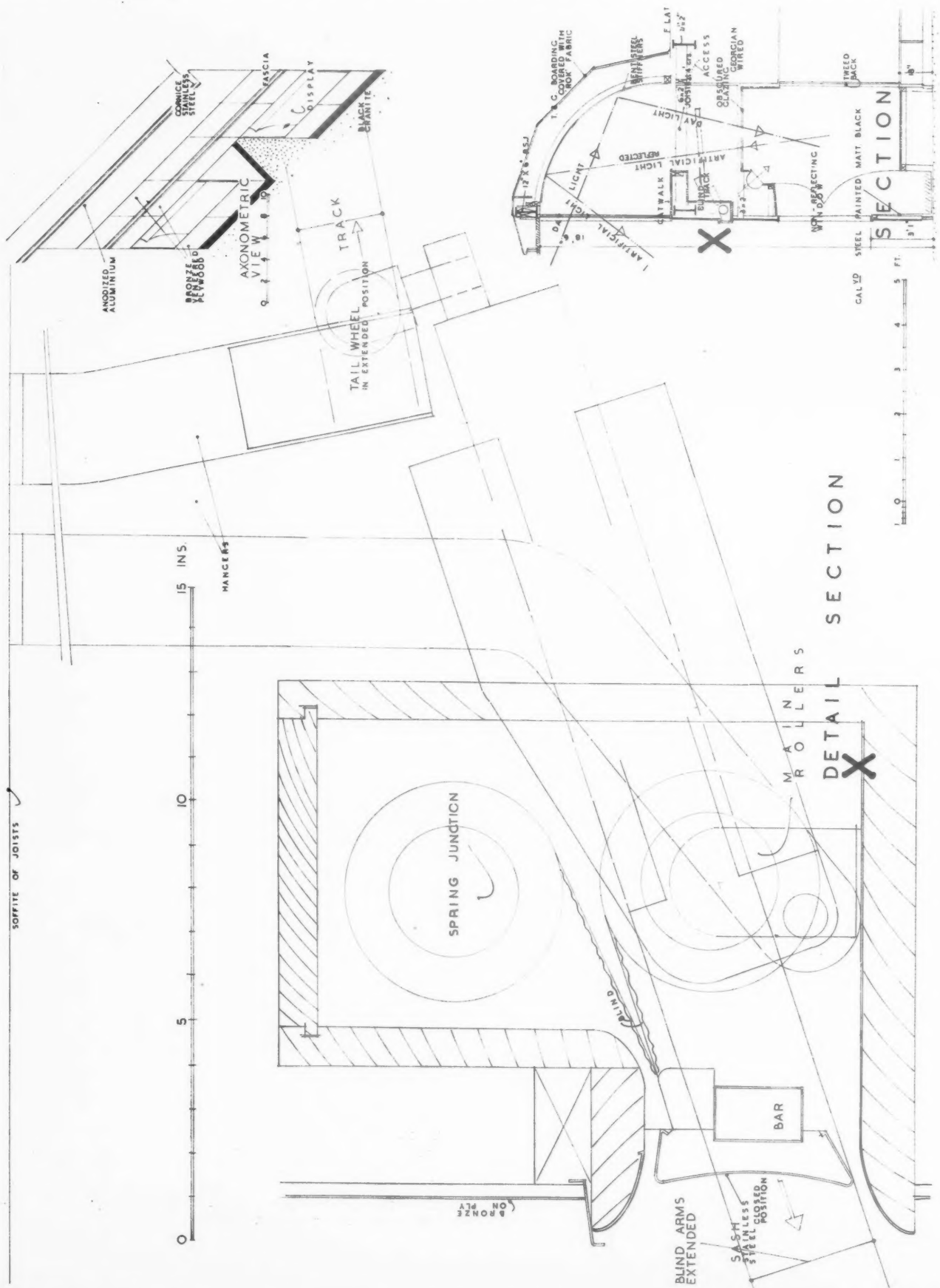


The form and construction of the shop front illustrated was governed by considerations of lighting. The showcases fronting on the street are lit during the day both directly and also by light which, entering the continuous window above the fascia, is reflected downwards from its curved and polished inner surface; displays are thus amply lighted during daylight without artificial aid. At night the showcases are illuminated from behind the fascia immediately above them, and this light, filtering upwards, also illuminates the surface behind the upper window; thus the whole front is efficiently lighted from the showcases alone.

The shop front plinth is of black granite and the stall-boards and fascia of bronze-veneered plywood, butt-jointed and sealed behind with bituminous strip, and secured with aluminium rivets. The showcase windows are of the non-reflecting type. The blind-lath and glazing frames are of bronze, the cornice of stainless steel satin-finished, and the curved reflecting surface of anodized aluminium. A battened catwalk behind the fascia allows the upper window and the reflector to be easily cleaned. Detail drawings are shown overleaf.

WORKING DETAILS : 390

SHOP FRONT • SHOP AT EALING • CLIVE ENTWISTLE



Details of the shop front illustrated overleaf.



The Admiralty, in 1731. From "Charing Cross: the Parish of St. Martins-in-the-Fields."

L I T E R A T U R E

WREN IN WHITEHALL

[BY HUBERT FITCHEW]

Charing Cross (Survey of London, Vol. XVI).
Edited by G. H. Gater and Walter H. Godfrey.
London: Country Life, Limited, for L.C.C.
Price £2 12s. 6d.

THE Charing Cross was one of the twelve erected by Edward I to mark the passage of his beloved Queen Eleanor's embalmed body, in December, 1290, from her death-place near Lincoln to Westminster Abbey. Three survive: Geddington, Northampton, Waltham. That at Charing, the most costly, was in the charge of Richard of Crundale, the king's mason at Westminster, and, he dying, of Roger of Crundale, and bore statuary by Alexander of Abingdon.

"An Ordinance (of 1643) for the utter demolishing, removing and taking away of all Monuments of Superstition or Idolatry" decreed its doom; but it remained till 1647. The cross in the yard of Charing Cross Station, dating from 1863 and designed by E. M. Barry, with sculptures by Thomas Earp, was intended as a replica, and is 200 yards from the original site, which was "lett" for a time to a fishmonger, then to an Italian for "keeping his sport of polichinello" and so forth; though what was to occupy it until now had already been in existence for some time.

Hubert Le Sueur's equestrian statue of Charles I was, in fact, fashioned in 1633. It was quite natural that the Protectorate parliament should sell it to a brazier, appropriately named John Rivet, with orders to break it up. Rivet produced some scrap metal to indicate compliance but, Royalist or not, kept the piece intact. In the course of time's revenges out it came (Charles II paid away £1,600 to recover it, though whether Rivet saw any of this is conjectural), to be erected in 1675. Close by was set up a public pillory where, in 1703, one prisoner, Defoe, received an ovation from the spectators and, in 1723, another, John Middleton, was manhandled to death by the crowd.

Such is an outline of the eventful history of a few square yards of the area dealt with at large in this sixteenth volume of the *Survey of London*, a luxurious quarto production (nearly half of it Plates which will be a delight to the architect) with the sub-title, "The Parish of St. Martin-in-the-Fields": (Part I).

Now, the parish of St. Martin was divided from that of St. Margaret, Westminster, by Henry VIII. We begin at this southern boundary, which passes down the middle of Horse Guards Avenue and of the Horse Guards itself, and continue northwards along both sides of Whitehall and Charing Cross, then westwards as far as

Warwick House Street, Cockspur Street.

King Henry added land to Crown land, all the way from Downing Street to Charing Cross and beyond, and made a tiltyard on the future site of the Horse Guards and Admiralty; in the seventeenth century this was much in resort for bear-baiting.

About this time occurs the first reference to the "Surveior of ye works his lodgs," which were in a house to the north-west of Scotland Yard, occupied successively by Sir John Denham, Simon Basil, our father Inigo Jones, and Wren, who, incidentally, on his supersession and removal in 1718, was written to by the Board of Works *in re* several chimney pieces, etc., "to know if they were taken away by his directions" and to require their return as Crown property.

Wren had had a finger in the first Admiralty Office, having been ordered, on the demolition of Wallingford House, to submit a report on the site. The building put up in 1695 was, however, condemned less than thirty years later. Thomas Ripley, a protégé of Sir Robert Walpole and architect of the recently completed Custom House, built the new (present) Admiralty. It was occupied in 1725, and in 1728 he was called before the Board of Admiralty to explain why "the Ex-pence hath very much exceeded the Estimate"—a predicament that gives us a fellow-feeling for him. The screen was, of course, added later (1759-61) by Robert Adam.

Wren must also have had a finger in the royal poultry-yard. The Board of Green



The Old Horse Guards from Whitehall. From "Charing Cross: the Parish of St. Martin's-in-the-Fields."

Cloth wrote to him in 1689: "Wee have great occasion to use a considerable quantity of New laid Eggs daily for his Ma^y own eating" and required him to enclose a suitable run hard by Whitehall Palace.

He certainly reported in 1712-13 on the condition of the then Horse Guards, lineal descendant of a small Guard House built in a corner of the tiltyard in 1649. The new and noble Horse Guards came a little later (1750-60) to the designs of William Kent, himself a Wren disciple, and John Vardy. They are generally held responsible for the western and eastern groups respectively (the 30 plates in illustration include many of the architects' drawings).

I have attempted to lift a corner of the curtain on the histories of but two buildings. It is buildings, buildings, all the way, with pedigrees as complete as vast documentary researches can make them, and many of them vastly interesting to the architect.

Here shall he read the queer legend of "Scotland's" origin (the "Yard" is merely a descriptive addition), the tale of hostelries and coffee-houses by the score (and dark deeds some of them saw); visualize the parish pound at the west end of Cockspur Street giving place to almshouses, with their infirm occupants, a round house (prison), stocks and whipping post, with their pestilential visitors, where now, perchance, he calls to pay an insurance premium or book for a cruise; make a shrewd deduction of the domesticities practised by the folk, gentle and other, who once dwelt in Charing Cross and Spring Gardens—in fine,

envisage our London civilization hitherto.

MOATED HOUSES OF ENGLAND

Moated Houses of England. By R. Thurston Hopkins. London: Country Life, Ltd. 10s. 6d.

AUTHOR, standing by Sally-port in south-east bend of wall at Pevensey Castle (not formerly, as now, a mile inland). "Think what generations of boats and vessels have bumped the landing-stage outside the gate since the first

primitive ships nosed along the shelving shore: Phœnician and Roman trader; Alfred's ships, England's first navy; the long double-ended galleys down the north-east wind from Denmark and the Baltic; the rough Sussex fishing boats bringing fish for the table of Gilbert de Aquila—Lord of the Eagle; the yachts and barges of Lord Dacre, loaded with goods for the Castle of Hurstmonceux; the fleet of William the Conqueror. . . . What fiction can compete with the history of this 1-acre plot?"

There is no finer writing than this



Carrington House: elevation to Whitehall (1886). From "Charing Cross: the Parish of St. Martin's-in-the-Fields."



Fourteenth-century fireplace in Markenfield Hall, Yorkshire.
From "*Moated Houses of England*."

anywhere in a book that eludes classification. History and sentiment are ill to drive in double harness except a literary stylist holds the reins. Perhaps sentiment has been yoked in an attempt to make it "eminently readable" (see "blurb"). It is history that pulls the weight. When he confines himself to relating facts sheer interest compels the author to a simple clarity in which other considerations are forgotten, so that we are left free (apart from accidents, of which more anon) to appreciate the fruits of his learning—which embraces a wide knowledge of architecture—and his researches.

Hereby the analysis of Portchester's story becomes fascinating; so does the account of Eltham, with its underground passages, which (like others elsewhere) turn out to have served no more romantic purpose than that of household drains. He recalls that Wolsey was granted a 99-year lease of Hampton Court, with its 2,000 acres, at a yearly rental of £50. Of Ightham Mote (the "Mote" here stands for "council place," not defensive ditch) he supposes the place-name may have come from its being built on a little island or "eyot."

Incidentally, he starts out by giving sound reasons for the conclusion that a moated site does not of itself presuppose a castle or dwelling; many still in existence must date from a remote period when they could never have been more than enclosures for safeguarding cattle, women and children in times of pressing danger.

For more real stuff like this we would barter the formulæ of sentiment—the "little stabs at the heart" that recur on these 270 odd short pages, the hotness in the throat, the pseudo-pathetic

tale of Herbert, the (hen-) pigeon, and so forth. The space they occupy would have been better devoted to making the subject-matter systematic and comprehensive. That it is neither will disappoint alike the sightseer and the serious student.

The pictures are lovely, being 58 *Country Life* photographs. But, disregarding the frontispiece—which shows Hurstmonceux as it stands today, its moat proudly full of water—the subjects of the very first two (Anderson Manor and Kentwell Hall) are not so much as referred to in the

text nor their localities indicated; the same applies to Helmingham Hall, Rushbrook Hall and Parham Hall (unless Parkham, on page 205, may be a misprint), while Crow's Hall has one line only. Conversely, Hampton Court, Eltham Palace, Portchester and Pevensey Castles and several more houses of which considerable descriptions are given remain unpictured. It can hardly be claimed, therefore, that the book is "profusely illustrated." Moreover, the lists of lesser places in Suffolk, Cheshire and Lancashire are neither alphabetized nor taken account of in the index; there are no lists for other rich counties, such as Sussex, where Laughton, for example, a seat of the Pelhams, should repay expert investigation.

The letterpress betrays many signs of dictation unfortified by revision of the MS. And there are many, far too many, misprints for a book produced by the publishers of this.

Publications Received

Structural Survey of the Church of the Nativity, Bethlehem. By William Harvey. Oxford University Press. Price 36s.

Structural Survey and Final Report of the Church of the Holy Sepulchre, Jerusalem. By William Harvey. Oxford University Press. Price 36s.

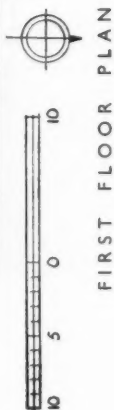
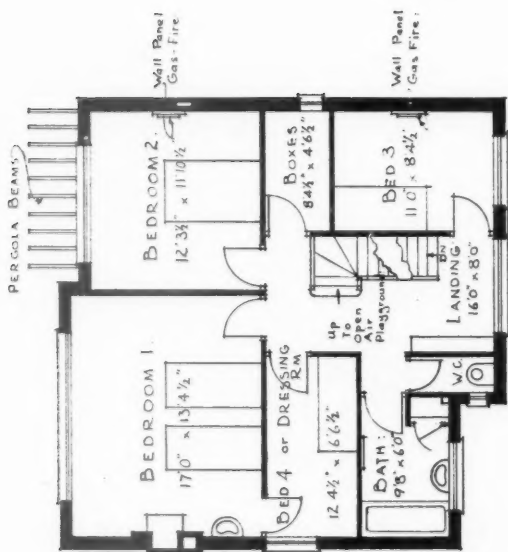
Annual Report of the Department of Industrial and Scientific Research for the Year 1934-1935. London: H. M. Stationery Office. Price 3s.



Beckley Park, Oxfordshire. From "*Moated Houses of England*."

H O U S E S I N H A M P S T E A D G A R D E N S U B U R B





FIRST FLOOR PLAN



GROUND FLOOR PLAN

PURPOSE.—Four houses built as an experiment to cater for those people looking for a soundly constructed “ready-made” house, compactly planned for ease of running. They also provide an alternative design to the more stereotyped speculative houses adjoining.

SITE.—The plots run north and south, with entrances on the north.

PLAN.—All possible living rooms on the south side. In the semi-detached pair the two living rooms are not together against the party-wall.

CONSTRUCTION.—Rendered brick, 1 1/2 in. ground floor, and 9 in. above. Floors and roofs of wood joists, roofs asphalt. Ceilings skim coat of plaster on double layer of insulation board; windows, standard steel casements; partitions of pumice blocks.

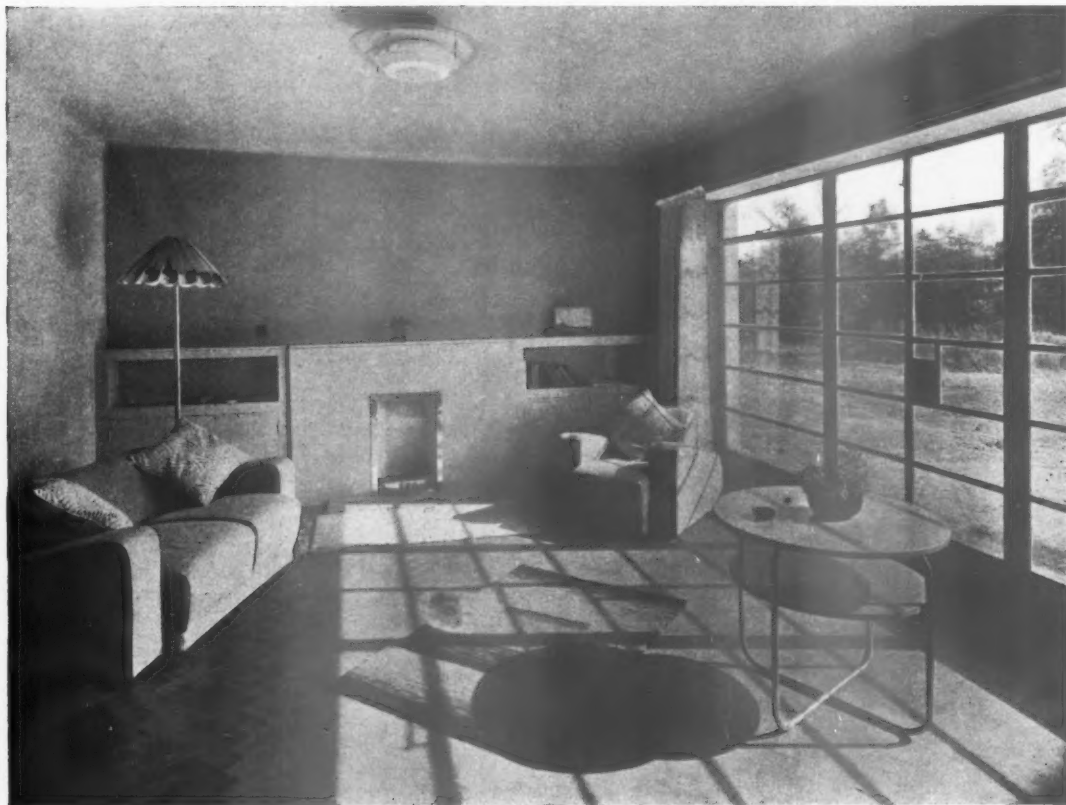
INTERNAL FINISH.—Wood block floors in all ground floor rooms, standard flush doors throughout, and plaster walls.

SERVICES.—Hot water heated by automatic gas-heaters. Coal fires in living room and one bedroom. Wall-panel gas fires in dining-rooms and bedrooms 2 and 3. Protected cold water tanks on roofs, with access by trap-doors.

COST.—Contract price for four houses £4,388. Price per cubic foot 1s. 1d.

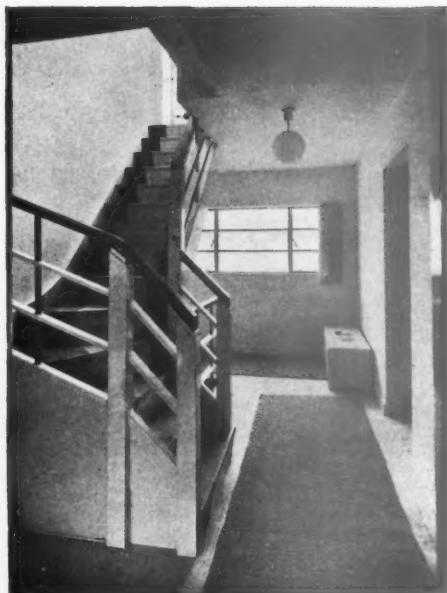
Above are two views of the entrance elevations, and on the facing page a general view of the south elevations.

HOUSES IN HAMPSTEAD GARDEN SUBURB



DESIGNED BY

G. BRIAN HERBERT



*The photographs show: one of the living rooms;
an entrance hall and stair; and a dining room.
For list of general and sub-contractors, see page 69.*



LOADING DOCK, STORE IN KENSINGTON, W.

D E S I G N E D

B Y

B . G E O R G E

PURPOSE.—Dispatch dock with packing accommodation in the basement, and stock rooms and office space on upper floors. Provision had to be made for the addition of another floor at a later date.

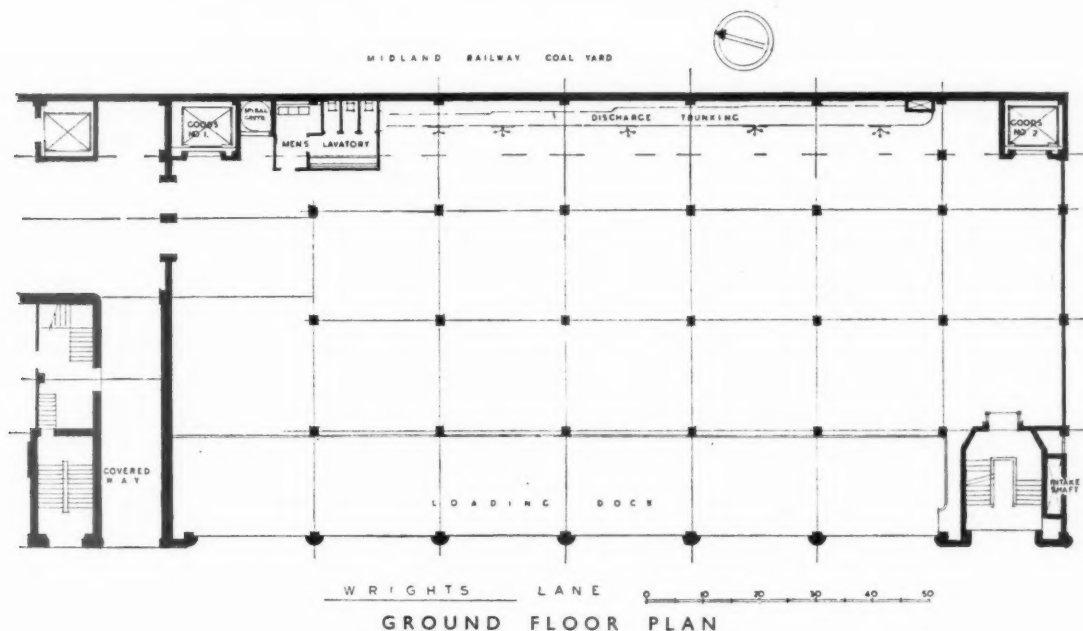
CONSTRUCTION.—R.C. retaining walls and foundations and steel frame. Reinforced hollow block floors and roof. 14 in. external walls and 9 in. to lifts and staircase enclosures. External finish is of Bath stone and multi-coloured bricks.

INTERNAL FINISH.—Loading dock floor, 1½ in. asphalt blocks. Loading platform, steel-clad flags, as are thresholds to goods lifts. Upper floors are of 1 in. jarrah. Staircases are of steel, with terrazzo treads and risers. Walls are of buff tiles to a height of 4 ft. 6 ins. Beams and columns are left from wrought shuttering, and ceilings and walls are plastered and all painted two coats. Doors are 2 in. teak.

Above is a view of the main front.



For list of general and sub-contractors, see page 69.



THE NEW HOUSING ACT

Following are some extracts from a paper entitled "The Housing Act, 1935," read by Mr. H. A. Hill, B.A., at a general meeting of the Auctioneers' and Estate Agents' Institute in London on January 2.

I NEED hardly point out that the 1935 Act does not itself form a complete code of Housing Law. It must be read as one of a series of three Acts closely related and interconnected—the Housing Act, 1925, the Housing Act, 1930, and the Housing Act, 1935. I understand that these three Acts will, at some future time, be consolidated into one Act; for all practical purposes and indeed, for legal purposes, they may be regarded as one Act.

ACQUISITION OF LAND FOR HOUSING PURPOSES

I propose first to bring to your notice the wide powers which have been conferred on local authorities by the Housing Acts in connection with the acquisition of land. The following summary of these powers may be useful to you:

A local authority may acquire by agreement (Housing Act, 1925, sect. 63) or compulsorily (Housing Act, 1925, sect. 64; Housing Act, 1935, sect. 20);

(1) Land (including any houses or other buildings thereon) required as a site for the erection of houses.

(2) Houses which are, or may be made, suitable as dwelling houses for the working classes, together with any lands occupied with such houses.

(3) Other buildings which may be made suitable as dwelling houses for the working classes, together with any lands occupied with such buildings.

(4) Land for the purpose of the lease or sale of the land with a view to the erection thereon of dwelling houses for the working classes by persons other than the local authority.

(5) Land for the purpose of the lease or sale of any part of the land acquired with a view to the use thereof for purposes which in the opinion of the authority are necessary or desirable for or as incidental to the development of the land as a building estate, including the provision, maintenance and improvement of houses and gardens, factories, workshops, places of worship, places of recreation and other works or buildings for the convenience of persons belonging to the working classes and other persons.

(6) Land for any of the above purposes notwithstanding that the land is not immediately required for those purposes (Housing Act, 1925, sect. 58, as amended by Housing Act, 1935, sects. 20 and 68).

A county council has power to acquire or appropriate land for the purpose of providing dwelling houses for persons in their employ (Housing Act, 1925, sect. 72).

A local authority who have declared an area to be a clearance area may proceed to secure the clearance of the area by purchasing the land comprised in the area and themselves undertaking, or otherwise securing, the demolition of the buildings thereon (Housing Act, 1930, sect. 1), in which case they may purchase the land by agreement or they may be authorized to purchase the land by means of a compulsory purchase order made and submitted to the Minister of Health and confirmed by him (Housing Act, 1930, sect. 10).

A local authority may also purchase by agreement, or be authorized to purchase compulsorily, land which is surrounded by a clearance area, and the acquisition of which is reasonably necessary for the purpose of securing a cleared area of convenient shape and di-

mensions; also any adjoining land the acquisition of which is reasonably necessary for the satisfactory development or user of the cleared area (Housing Act, 1930, sect. 3).

Instead of purchasing the land comprised in a clearance area, a local authority may proceed to secure the clearance of the area by ordering the demolition of the buildings in the area (Housing Act, 1930, sect. 1), in which case they make a clearance order. Where land has been cleared of buildings in accordance with the requirements of a clearance order, the local authority may, at any time after the expiration of eighteen months from the date on which the clearance order became operative, by resolution determine to purchase any part of the land which has not been or is not in process of being developed in accordance with plans approved by the local authority (Housing Act, 1930, sect. 6).

Where any person has appealed against a notice under Part II of the Housing Act, 1930, requiring the execution of works to a dwelling house, and the judge or court in allowing the appeal has found that the house cannot be rendered fit for human habitation at a reasonable expense, the local authority may purchase that house by agreement or may be authorized to purchase it compulsorily by means of a compulsory purchase order. The Minister of Health, however, must not confirm the compulsory purchase order if the owner or mortgagee undertakes to carry out the works specified in the notice unless the person fails to carry out his undertaking (Housing Act, 1930, sect. 23).

When the Minister's approval of a re-development plan has become operative, the local authority may, with the approval of the Minister, purchase by agreement, or may be authorized to purchase compulsorily by means of a compulsory order:

(a) Land in the re-development area.

(b) Any land outside that area which they may require for the purpose of providing accommodation for persons occupying premises within that area which they have purchased or agreed to purchase or in respect of which they have submitted compulsory purchase orders. (Housing Act, 1935, sect. 15.)

RESTRICTION ON ACQUISITION OF COMMONS, OPEN SPACES AND ALLOTMENTS

In view of the controversy which has arisen over the proposed acquisition by the L.C.C. of a portion of Hackney Marshes, sect. 103 of the Housing Act, 1925, is not without topical interest. This section as amended by the Housing Acts, 1930 and 1935, reads as follows:

Provisions as to commons and open spaces.

103. (1) Where any order under this Act authorises the acquisition or appropriation to any other purpose of any land forming part of any common, open space, or allotment, the order, so far as it relates to the acquisition or appropriation of such land, shall be provisional only, and shall not have effect unless and until it is confirmed by Parliament, except where the order provides for giving in exchange for such land other land, not being less in area, certified by the Minister after consultation with the Minister of Agriculture and Fisheries to be equally advantageous to the persons, if any, entitled to commonable or other rights and to the public.

(2) Before giving any such certificate, the

Minister shall give public notice of the proposed exchange, and shall afford opportunities to all persons interested to make representations and objections in relation thereto, and shall, if necessary, hold a local inquiry on the subject.

(3) Where any such order authorises such an exchange, the order shall provide for vesting the land given in exchange in the persons in whom the common, open space or allotment was vested, subject to the same rights, trusts and incidents as attached to the common, open space or allotment, and for discharging the part of the common, open space, or allotment acquired or appropriated from all rights, trusts, and incidents to which it was previously subject.

(4) For the purposes of this Act the expression "common" includes any land subject to be enclosed under the Inclosure Acts, 1845 to 1882, and any town or village green; the expression "open space" means any land laid out as a public garden or used for the purposes of public recreation, and any disused burial ground; and the expression "allotment" means any allotment set out as a fuel allotment or a field garden allotment under an Inclosure Act.

There are also special protective provisions relating to land in the neighbourhood of Royal Palaces or parks (Housing Act, 1925, sect. 104), and land which is the site of an ancient monument or other object of archaeological interest (ibid. sect. 105). But, save for such protective provisions, local authorities have a free hand to acquire compulsorily anybody's property if they obtain the Minister's consent—and in the past this has not been very difficult to obtain.

COMPENSATION

Compensation is payable on the basis of market value under the Acquisition of Land (Assessment of Compensation) Act, 1919, subject to the modifications contained in Part II of the Third Schedule to the Act of 1930, where land (including buildings) is acquired:—

(1) Under Part III of the Housing Act, 1925, i.e., land for housing purposes (including re-conditioning).

(2) Under sect. 3 of the Housing Act, 1930, i.e., land adjoining, or surrounded by, a clearance area.

(3) Under sect. 6 of the Housing Act, 1930, i.e., land subject to a Clearance Order, which the owners have failed to re-develop within eighteen months from the date on which the order became operative. (The compensation payable in this case, however, will only be site value, as the buildings will have been demolished in accordance with the requirements of the Clearance Order.)

(4) Under sect. 15 of the Housing Act, 1935, i.e., land purchased for re-development purposes, other than houses which are unfit for human habitation and which are not capable at a reasonable expense of being rendered so fit.

(5) Under sect. 60 of the Housing Act, 1935, i.e., land purchased in order to secure the removal of an obstructive building.

Compensation is payable on the basis of site value only (see sect. 46, Housing Act, 1925), but otherwise in accordance with the Acquisition of Land (Assessment of Compensation) Act, 1919, where land, including buildings, is acquired.

(1) Under Part I of the Housing Act, 1930, as land included in a clearance area (unfit houses).

(2) Under sect. 15 of the Housing Act, 1930, as land purchased for re-development purposes, where the houses thereon are unfit for human habitation and are not capable of being rendered so fit.

Under sect. 64 of the Housing Act, 1935, special provision is made for the payment of compensation to owners whose houses are

deemed unfit for human habitation but which have nevertheless been well maintained.

AMENDMENT AS TO BUILDING IN CLEARANCE AREA ON GROUND OF BAD ARRANGEMENT ONLY (SECT. 62)

Under sect. 1 of the Housing Act, 1935, the following buildings may be included in a clearance area :—

- (1) Dwelling-houses which are unfit for human habitation.
- (2) Dwelling-houses which, by reason of their own bad arrangement or the narrowness or bad arrangement of the streets, are dangerous or injurious to the health of the inhabitants of the area.
- (3) "Other buildings" (i.e., buildings other than dwelling-houses) which, by reason of their own bad arrangement or the narrowness or bad arrangement of the streets, are dangerous or injurious to the health of the inhabitants of the area.

Such buildings may still be included in a clearance area, but this sub-section provides that if the local authority decides to deal with the area by making a Clearance Order they must exclude from the Clearance Order :—

- (1) all "other buildings" ;
- (2) all dwelling-houses included in the clearance area solely on the ground that, by reason of their bad arrangement or the narrowness or bad arrangement of the streets, they are dangerous or injurious to the health of the inhabitants of the area.

When the local authority makes a compulsory purchase order and include buildings of the two classes mentioned above, the compensation payable for such buildings must be assessed in accordance with the provisions of Part II of the Third Schedule to the Act of 1930, i.e., the owner will receive as compensation a sum approaching the market value instead of "site value" under sect. 46 of the Act of 1925.

A building constructed as a dwelling-house or partly for the purpose of a dwelling-house and partly for other purposes, and used partly as a dwelling-house and partly for another purpose, is not protected by the sub-section if any part (other than the part used for purposes other than a dwelling-house) is by reason of disrepair or sanitary defects unfit for human habitation.

It may be wondered why the legislature did not simply provide that no house or building should be included in a clearance area on the ground of bad arrangement. I think the answer is that, as the law now stands, it enables the Minister to reject proposals for the reconditioning or repair of dwelling-houses which are badly arranged. As you know, quite frequently at local inquiries owners admit to the Inspector that the house is unfit as it stands, but state that they are willing to carry out works of repair or improvement in order to make it fit. The Minister may accept the contention that the proposed works would make the house itself fit for human habitation but may, nevertheless, reject the undertaking because of the bad arrangement. I can only say from my practical experience that it seems to be a waste of time and money to go to a local inquiry offering to repair or recondition houses which are badly arranged ; which have no proper air space ; which are badly ventilated and badly lighted ; and which are situated in narrow streets.

REMOVAL OF OBSTRUCTIVE BUILDINGS

Only buildings which are dangerous or injurious to health by reason of their contact with, or proximity to, other buildings are obstructive buildings, within the meaning of the Act (sect. 58). The term "building" is wider than the term "dwelling-house" and would, I think, include

a high wall which obstructs light and ventilation to adjacent dwelling-houses. It will suffice for the local authority to prove that the building is dangerous to health without showing that it is also injurious to health.

Before making a demolition order for the removal of an obstructive building, the local authority must hear the owner or owners. An owner appearing before the local authority with the object of resisting a demolition order under these provisions could put forward the following (among other) points :—

- (1) That the building is neither dangerous nor injurious to health.
- (2) That it is unnecessary to demolish the whole of the building ; that the obstruction can be removed by demolishing part only of the building, or by alteration.
- (3) That the building is used for business purposes, and that its demolition will seriously interfere with trade and employment.
- (4) That the buildings alleged to be obstructed have been erected at a more recent date than the alleged obstructive buildings, and that for this and other reasons (such as interference with trade or business) it would be better policy to remove the other buildings.

Note that under section 59, the owner or owners of the obstructive building may offer to sell the building to the local authority at a price to be assessed as if it were compensation for compulsory purchase under Part II of the Third Schedule to the 1930 Act (approximating "market value" for both land and buildings—not bare site value).

RE-DEVELOPMENT BY LOCAL AUTHORITIES

The powers conferred by the Housing Act, 1935, in respect of re-development by local authorities, are very important indeed. The time at my disposal does not permit me to do more than indicate to you the kind of objections which may be made by owners or persons on behalf of owners (1), to a re-development plan ; (2) to a compulsory purchase order made with respect to land required for the purpose of carrying out the plan.

OBJECTIONS TO RE-DEVELOPMENT PLAN

The following would appear to be possible grounds of objection :

- (1) That the conditions existing in the proposed re-development area do not justify its treatment as a re-development area.
- (2) That the social and industrial conditions of the district are not such that the area should be used to a substantial extent for housing persons of the working classes.
- (3) That it is not expedient in connection with the provisions of housing accommodation for the working classes that the area should be re-developed as a whole.
- (4) That the formalities of sub-sect. (2) of sect. 13 and of sub-sect. (3) of sect. 14 of the 1935 Act have not been complied with by the local authority.
- (5) That the proposed method of re-developing the area is not the best method.
- (6) That the objector's property has been unnecessarily included in the area and ought to be excluded.

OVERCROWDING

Under this head I propose to give you two summaries, (1), a summary of the rights and duties of landlords and occupiers in relation to overcrowding ; (2) a summary of the offences which may be committed under the Act in relation to overcrowding :

Duties of Landlords.

- (1) Duty not to cause or permit overcrowding [sect. 3 (1)].

- (2) Duty to take such steps as it is reasonably open to him to take for securing the abatement of overcrowding, including, if necessary, legal proceedings for possession of house. This arises after notice in writing has been served on the landlord or his agent that the house is overcrowded in such circumstances as to render the occupier guilty of an offence.

- (3) Duty to make inquiries of proposed occupier regarding the number, etc., of the persons who will sleep in the house [sect. 3 (5)].

- (4) Duty to cause certain entries to be made in rent book or other similar document [sect. 6 (1)].

Rights of Landlords.

- (1) Right to be served with copy of any licence or notice determining licence under sect. 5.

- (2) Right to be informed in writing by the local authority of the number of persons permitted to occupy the house [sect. 6 (2)].

- (3) Right to obtain possession of overcrowded house notwithstanding the Rent and Mortgage Interest Restrictions Acts [sect. 9 (1)].

Duties of occupiers relating to overcrowding.

- (1) Duty not to cause or permit overcrowding [sect. 3 (1)].

- (2) Duty to produce rent book or other similar document for inspection of local authority [sect. 6 (1)].

- (3) Duty to permit entry of local authority's officers for purpose of measurement of the rooms [sect. 6 (3)].

- (4) Duty not to obstruct persons authorised to enter house in the performance of their duties (H. A., 1925, sect. 123).

- (5) Duty under sect. 10 of the Act to supply local authority with a statement in writing of the number, ages and sexes of persons sleeping in the house.



LAW REPORTS

INJURED BY FALL OF IRON FROM A BUILDING—LIABILITY

Hiller v. J. and D. Sherman—King's Bench Division. Before Mr. Justice Talbot.

THE plaintiff in this case, Mrs. Amelia Hiller, of Abercorn Place, London, brought an action against Messrs. J. and D. Sherman, of Wentworth Street, London, E., to recover damages for personal injuries sustained through the negligence of the defendants.

Mr. Harris, for the plaintiff, said in September, 1934, Mrs. Hiller was walking along the pavement in Wentworth Street when a piece of iron fell from the defendant's premises on her head. She suffered from concussion and shock and was laid up for a long period.

Defendants appeared in person and, whilst admitting that the accident occurred, denied that Mrs. Hiller had suffered as she alleged.

His lordship said he was satisfied that a heavy piece of iron from defendants' premises dropped on the plaintiff and

that it was due to some want of care on the part of a servant of defendants or some want of repair of the defendants' premises. He awarded the plaintiff £600 and he entered judgement for her for that amount, with costs.

ALLEGED NUISANCE AND TRESPASS

Matania v. National Provincial Bank, Ltd., the Elevenist Syndicate, Ltd., and T. H. Adamson and Sons—King's Bench Division. Before Mr. Justice Charles.

THIS was an action by Mr. C. F. Matania, a professor of music, against the National Provincial Bank, Ltd., for an injunction and damages for the alleged breach of a covenant for quiet enjoyment, contained in a lease dated May 25, 1933, of 25 Nutford Place, London, W., and also for an injunction and damages against the Bank and Elevenist Syndicate, Ltd., and Messrs. T. H. Adamson and Sons, builders, of 145 High Street, Putney, for alleged nuisance and trespass.

The facts of the case were that the Bank, the owners of 25 Nutford Place, leased the second floor to the plaintiff as a studio by a lease of May 25, 1933. In March, 1934, the Elevenist Syndicate (a Christian Science body) became the tenants of the first floor of the premises, and by the permission of the Bank, as the landlords, the Syndicate proceeded to carry out alterations in its part of the premises, employing Messrs. Adamson and Sons for that work. The plaintiff alleged that during these operations heaps of sand and cement were deposited in the front hall, that mortar was mixed and carried upstairs and that portions of it dropped from the boots and hods of the workmen. The plaintiff also complained that owing to a failure to take proper precaution dust penetrated into the second floor, with the result that his business suffered, and he sustained considerable loss.

All the defendants denied liability. The Bank said that they gave the Elevenist Syndicate permission to make the alterations subject to the consent of the other tenants being obtained. The Syndicate pleaded that the builders were liable for nuisance, if any, as they were employed as independent contractors, and the builders denied that they had committed any nuisance or trespass in carrying out the alterations.

Mr. Trevor Hunter, k.c., and Mr. C. Edwards, appeared for the plaintiff, Mr. P. B. Morle and Mr. Knight for the National Provincial Bank, Mr. J. W. Morris, k.c., and D'Arcy de Ferrars for the Elevenist Syndicate, and Mr. Stable, k.c., and Mr. Stevenson for Messrs. T. H. Adamson, Ltd., the builders.

His lordship, after hearing evidence, in giving judgment said the plaintiff gave lessons in singing to pupils and took the premises in Nutford Place as being suitable for that purpose and for holding concerts there. When he got into touch with the Bank at No. 25 there were three or four rooms on the second floor and some were thrown into one large room where the plaintiff could hold an operatic society. These matters were known to the Bank when they entered into the lease. The lease contained covenants by the lessee that he would permit the lessors at all times to enter upon the premises for the purpose of executing structural and other works on

the said premises and adjoining premises, and in the lease there was a somewhat wide covenant for quiet enjoyment. The plaintiff entered into possession on August 25, 1933, and began to carry on his work of giving singing lessons. All went well until the early part of 1934, when the Elevenist Syndicate came along and became the lessees of the first floor for the purpose of holding meetings. That lease was granted in March, 1934. The Bank had let the second floor to the plaintiff for a certain purpose. The evidence was that neither the Bank, the Syndicate nor anybody else had got the plaintiff's consent to the alterations made by the Syndicate. This work, which commenced in March, went on until July 4, 1934, during which time the plaintiff alleged that it was absolutely impossible for him to carry on his music lessons on account of the noise of hammering, dust, and so on, which became an intolerable nuisance. His lordship was satisfied that the nuisance from noise and dust was so great that it made the second floor really uninhabitable. However, he did not think he would be justified in finding the contractors had not carried out the works properly and carefully. They had done everything possible to avoid unnecessary noise or inconvenience from dust. That being so, the plaintiff must fail on that head of claim against all the defendants.

The plaintiff, however, did not fail on his claim against the Bank for breach of the covenant for quiet enjoyment, because the work had actually interfered with his enjoyment of the use of the second floor by the hammering and the dust which came to the plaintiff's rooms. He found that during the time the work was going on—March to July—the plaintiff's premises were rendered uninhabitable and in these circumstances he was of opinion that the Bank had committed a breach of the covenant. During that period there had been a complete frustration of the plaintiff's contract. On the question of damages he thought the plaintiff's claim of £400 grossly excessive. He gave judgment for plaintiff against the Bank for £150 with costs, and judgment for the Syndicate and Messrs. Adamson, but as he came to the conclusion that both those parties were properly joined in the action, any costs that the plaintiff might have to pay in respect of the joinder must be paid by the Bank.

The Bank were granted a stay for 14 days pending a possible appeal by them to the Court of Appeal.

REHOUSING SCHEME—SERVICES OF NOTICES

Corporation of Liverpool v. Rose—Court of Appeal. Before the Master of the Rolls, Lord Justice Romer and Mr. Justice Eve.

IN this case the defendant, Mr. B. Rose, appealed from a judgment of the Liverpool County Court, giving the Liverpool Corporation possession of premises at St. James' Street, Liverpool, which the Corporation required in connection with a rehousing scheme.

It was argued in support of the appeal that the judgment could not stand, because under the relevant section of the Housing Act the Corporation were required first to serve upon the occupier notices to treat and of intention to enter, and that this had not been properly carried out, as Mr. Rose first read the notice to re-enter. Both

notices were received in a registered envelope.

After hearing the arguments the Court dismissed the appeal with costs, holding that it was clear that the whole matter was a technicality.

The Master of the Rolls said it was clear that on a careful consideration of the section applicable to the matter that there was no express provision as to the order in which the notices must be served. In his view, in strict law there could be no objection to putting the two notices in the same envelope and thus serving them simultaneously. Should he be wrong in this conclusion, then he held that on the facts the County Court Judge was right in his decision.

Lord Justice Romer took the view that the notices were served not when the letter was opened but when it was delivered in the ordinary course of post, in which case it was quite immaterial that one notice was taken out before the other by the appellant.

Mr. Justice Eve agreed.

LAND ADJACENT TO CLEARANCE AREA.—COMPULSORY PURCHASE—HOUSING ACT, 1930

Burgesses of Sheffield v. Minister of Health—King's Bench Division. Before Mr. Justice Swift.

THIS was an application by the Burgesses of Sheffield, a charitable Corporation, founded in 1554, asking that a compulsory purchase order confirmed by the Minister of Health under the Housing Act, 1930, should be quashed on the ground that it was not within the powers of the Act.

It appeared that on November 11, 1934, the Sheffield Corporation passed a resolution that four areas in the city of Sheffield should be dealt with by means of compulsory purchase orders. The point in the case only affected one area—a certain part of which had been declared a clearance area, and the other part did not form part of any clearance area.

Mr. Linton Thorp, k.c., for the applicants, said the question in dispute was whether the local authority had power to make, and the Minister had power to confirm, a compulsory purchase order dealing with land not forming part of a clearance order. The section of the Housing Act, 1930, which it was alleged conferred that power, was section 3, which gave the local authority power to purchase also any land which was surrounded by the clearance area and the acquisition of which was reasonably necessary for the purpose of securing a cleared area of convenient shape and dimensions and any adjoining land, the acquisition of which was reasonably necessary for the satisfactory development of the user of the area.

The Corporation in August, 1935, considered the area in question necessary for the satisfactory development of the area, and the Minister considered that that fact brought the case within the section and he confirmed the Order.

Counsel for the applicants contended that the section gave no power to purchase the surrounding land merely because its acquisition was required in connection with the development of the other three areas.

The Solicitor-General, Sir Donald Somer-

vell, k.c., for the Minister, submitted that it was impossible to consider the development of any piece of property without taking into account the state of affairs in neighbouring areas.

His Lordship, in giving judgment, said that when the Sheffield Corporation made the Order for purchase of the area in question, they desired to use that area in conjunction with other land they were acquiring and to carry out one development scheme for the whole. The question he had to decide was whether they were entitled to do that under the Act of 1930. When one considered section 3 of the Act it appeared that it dealt with two different positions. The first was where the clearance area land surrounded the other land, and that clearly had no application to the present case. The second was where the clearance area land was adjacent to the other land, and the acquisition of that other land was reasonably necessary for the development scheme. Before the Corporation could make the Order to buy the land in question they had to be reasonably satisfied that it was necessary to do so in order to develop the other land and the Minister would have to be satisfied of the reasonableness of their action before confirming the Order. If there was an appeal to the Court for the decision of the Minister, it was the duty of the Court to see whether there was any material on which the Minister could have founded his decision.

His Lordship, continuing, said approaching the matter in that light it was impossible to say that there was not ample material justifying the Minister in deciding that, for the development of the land in question, it was reasonably necessary to acquire the other land. When deciding what to do with any land one must not build a wall round it and say he would not look over the wall. It might well be that the best way to develop that land was to do so in conjunction with the neighbouring land.

In the present case the Corporation had to deal with land cumbered with a number of insanitary houses and they had divided the land, as they were bound to do, into several distinct areas. In his view it was wrong to say that, in deciding what to do with the land in question, they must not look at or consider the position in the other three areas. In his opinion they were entitled to treat all those areas as one for the purpose of developing them. That, as a matter of fact, was what they had done and what the Minister had approved of and in doing so the Corporation had not infringed any of the powers of the Act. Under those circumstances he dismissed the application.

CLEARANCE ORDERS.—OBJECTOR'S RIGHT TO SEE INSPECTOR'S REPORT

Baildon Urban (Park Lane Areas) Confirmation Order, 1935, and Baildon Urban Tong Park No. 1 Housing Confirmation Order, 1935—King's Bench Division. Before Mr. Justice Swift.

THIS was an appeal under the Housing Act, 1930, which raised the question whether a person who objected to a clearance order was entitled to see the report made to the Minister of Health by the inspector appointed by the Minister to inquire into the matter.

On June 12, 1934, the urban district council of Baildon, near Leeds, Yorkshire, made two clearance orders under the

Housing Act, 1930. The owners of the properties affected by the orders were Wm. Denby and Sons, Ltd., and they caused notice of objection against the inclusion of their properties in the orders to be lodged with the Minister of Health.

On July 17, 1934, the Minister, in pursuance of paragraph 4 of the first schedule to the Act, caused a public local inquiry to be held. The company were represented at the inquiry by a solicitor, and evidence was given on their behalf and on behalf of the local authority.

On October 5, 1934, the Minister confirmed the clearance orders, only excluding from them a portion of the properties belonging to the company.

The company applied to the court under section 11 of the Act to question the validity of the orders on the ground that they were not within the powers of the Act or that some requirement of the Act had not been complied with, the contention being that the confirming orders were made by the Minister without giving the company an opportunity of seeing the report made to the Minister by the inspector who held the inquiry. On their behalf it was alleged that, as the Minister had confirmed the clearance orders with the exception mentioned, the company feared that the report contained statements which the company had had no opportunity of contradicting or of offering observations on to the Minister.

Mr. H. A. Hill appeared for the company, and the Solicitor-General, Sir Donald Somervell, k.c., and Mr. Essenhugh for the Minister.

His lordship, in giving judgment, said that the application raised the sole point whether a person whose property was affected by a clearance order made under the Housing Act, 1930, was entitled to see the report made to the Minister by the person whom he caused to hold a public local inquiry as required by the first schedule to the Act.

On behalf of the company it was said that the Minister was a person exercising quasi-judicial duties; that he had to decide between the local authority and the property owners whether or not a clearance order should be confirmed; that it was therefore his duty to hear both sides and not to receive anything behind the back of one without giving him an opportunity of explaining or controverting such evidence; and finally that, if he received a report from somebody whom he had appointed to inquire, he must let the parties know what that report was before he acted on it, so as to give them an opportunity of making such answer as they might desire.

There was no doubt that once notice of objection had been given to a clearance order the Minister of Health must be regarded as a person exercising quasi-judicial functions and that he was bound by the rules of conduct applicable to such a person. But that did not dispose of the matter. It was not right to say that the Minister, or any other officer of the State who had to administer an Act of Parliament, was a judicial officer. He was an administrative officer carrying out the duties of an administrative office and administering the provisions of an Act of Parliament. From time to time in the course of his administrative duties he had to perform acts which required him to interfere with the rights and property of individuals, and in

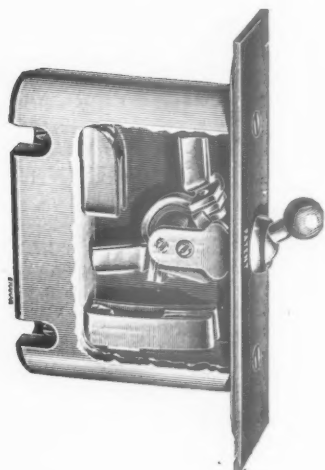
doing that the courts had said that he must act fairly and reasonably, not capriciously, but in accordance with the ordinary dictates of justice.

To describe the qualities which he must exercise in carrying out that part of his administrative duties the courts had referred to them as quasi-judicial. Although that was a convenient term for describing the principles by which he must be guided in performing certain of his duties, it did not mean that he at any time occupied the position of a judge, and what was true of him was equally true of persons from whom he was empowered to obtain assistance in the discharge of his duties.

It had been argued that the person who held the inquiry was not a judicial functionary, but merely a collector of information which the parties were entitled to see and comment on before the Minister made his decision. That was not the right view to take of the position of the person who held the inquiry. He was an administrative officer helping in the administration of an Act of Parliament, but he came more nearly to the position of a judicial functionary, or as near to that position as the Minister himself did. In discharging his duties he must be bound by the dictates of natural justice. He must hear everything and be fair to all parties. The obligation of the Minister was to cause an inquiry to be held and to consider the report made to him as the result of that inquiry. It had been held that an appellant was not entitled to see the report made by a Board's inspector in a case against the old Local Government Board. It was contended that the Legislature meant to draw a distinction between the position of the Local Government Board under the Act of 1909 and that of the Minister of Health under the Act of 1930, and that the report of an inspector under the earlier Act differed from the report made to the Minister under the later Act. No such distinction could be properly drawn. The Minister of Health, like the President of the Local Government Board, was an administrative officer who had imposed upon him the duty of deciding whether an order of the local authority should or should not be effective. In deciding the matter both must act in accordance with the dictates of natural justice. There was nothing in the changed phraseology of the Acts creating the two different authorities which either obliged or entitled the court to hold that, while the report made by one subordinate to his principal was not subject to disclosure, the other was. Therefore there was no reason in the present case for holding that the report was liable to disclosure. His lordship, on the other hand, was of opinion that it was not. He dismissed the appeal with costs.

Correction

We are informed by Messrs. Joseph Sankey and Sons, Ltd., that they were responsible for supplying the door frames and skirtings for the house at Chalfont St. Giles, Bucks., illustrated on pages 9-14 of our issue for January 2, and that they were also responsible for the door frames, picture rail and metal trim used in the block of flats in Uxbridge Road illustrated on pages 27-28 of the same issue. We much regret that Messrs. Sankey's name should have been omitted from the list of contractors for the latter building.



TRADE NOTES

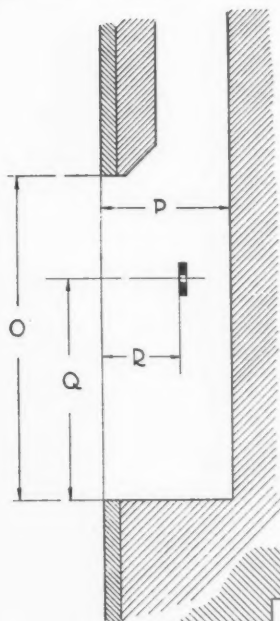
[EDITED BY PHILIP SCHOLBERG]

Gas Fires

THE built-in gas fire is by no means a new invention, for the Davis Gas Stove Company first produced the original Panella fire six or seven years ago. This type of fire is generally a little more expensive in first cost than the usual free-standing type, and fixing costs are naturally higher, but the result generally looks well, and if the fire is set a foot or so above

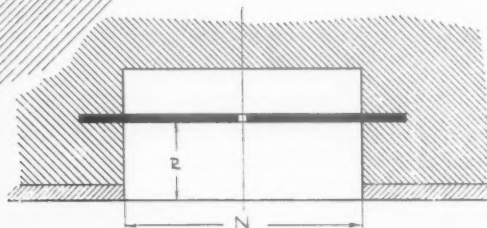
floor level there is no need to provide a hearth or allow for the slight complications of the usual trimmer joists.

A new range of this type of fire has recently been introduced by John Harper and Co., Ltd., of Willenhall, Staffs. Fixing is normal, the fires being bolted to a built-in fixing strap. The diagram on this



Essential wall recess dimensions for built-in gas fires. See note on this page.

SIZE OF FIRE	DIMENSION CODE				
	N	O	P	Q	R
Nº 3112 - 5 Radiant	12"	16"	7"	14½"	4½"
Nº 3113 - 7 Radiant	12"	16"	7"	14½"	4½"



page shows the essential dimensions of the wall recess.

Prices are very reasonable, 36s. and 44s. for 5- and 7-radiant fires finished in black. The designs are extremely simple, with a commendable absence of frills, and, as a piece of purely personal prejudice, I like the manufacturers' explanation of their design which is "as plain as possible, to prevent the collection of dust and to make cleaning easy." No nonsense about contemporary aesthetics or "modern art shapes."

Electrical Gear

A new switchgear catalogue has just been issued by A. P. Lundberg and Sons, Ltd., giving details of the usual types of tumbler switch which everyone knows.

Most of the catalogue, however, shows special purpose switches of all kinds, from the narrow flush fixing type for use where space is limited (the one shown at the head of these notes is 2½ in. by 1½ in. by 1½ in. deep) to combined pendants and sockets and cupboard switches for bolt, lock or door operation.

This catalogue is useful as a reference book for showing exactly what can be done in the way of switchgear, and should provide plenty of new ideas for people who take an interest in mechanical equipment. It is seldom realized how much of this specialists' stuff is available as a standard product through the ordinary trade channels.

Unit Weights of Building Materials

An exceedingly useful publication has just been issued by the British Standards Institution entitled "Unit Weights of Building Materials." The object of the schedule is "not so much to afford more accurate data for calculations, but to standardize the data employed, in order to avoid the confusion which arises when comparing calculations based on different data."

Plans submitted to local authorities are sometimes unavoidably limited in the description of the materials employed; the roofing may be described merely as slates or tiles, or the gutters simply as cast iron. This limitation is often due to the fact that at the time the actual details are not definitely decided. Some agreement as to the weights which should be used in such cases is obviously necessary, and the schedule is an attempt to secure that agreement by indicating the weight to be assumed.

It is emphasized that the weights given do not represent the weight of any particular sample, but are essentially an arbitrary figure, fixed solely as representing a fair average for the particular material. Where accurate calculations are required then the weight of the actual material to be used should naturally be determined precisely.

There is also an appendix which will probably be found as useful as the main schedule. The Committee, in attempting to arrive at the figures to be specified for each particular material, collected a considerable amount of information—such as the variation in weight with thickness and with moisture. It was felt that this information would prove useful and interesting, and it has therefore been included. In other cases the information in the appendix is an amplification of that in the schedule. For example, in the main schedule the weights for stone and timber have been given for general classes of these materials; in the appendix, however, the actual weights of numerous different sample timbers and stones are given, those for stone being given in both the dry and wet state.

THE BUILDINGS ILLUSTRATED

PALACE COURT, BOURNEMOUTH (pages 45 to 50). The general contractors were: Y. J. Lovell and Son. The principal sub-contractors and suppliers included:—

Structure.—Rubery Owen & Co., Ltd., constructional steel engineers; Caxton Floors, Ltd., concrete floors; J. and A. Steane, Ltd., windows and shopfronts; Permanite, Ltd., asphalt; Val de Travers Asphalt Paving Co., coloured asphalt; Cullacorts, Ltd., coloured surfacing for asphalt flats; Ragusa Asphalt Paving Co., Ltd., undercoating to flats; W. H. Heywood & Co., Ltd., lantern light (squash court); G. R. Speaker & Co., Ltd., pumice partition blocks; J. Jennings and Dorset Brick Co., bricks; Sykes and Son, special white bricks.

Finishes.—Sherry and Haycock, special masonry flooring; Hawkins Bros., theatre entrance; Carter & Co., Ltd., tiles; Roanoid, Ltd., counter tops; Kennedy's, Ltd., paint and Petrumite; Pinchin, Johnson & Co., Ltd., paint; Marble Mosaic Co., Ltd., terrazzi work; W. A. Telling, Ltd., plaster work.

Equipment.—Aish & Co., electricians, supplied switchgear and neon lighting; G. N. Haden and Sons, Ltd., heating engineers; Hartley and Sugden, Ltd., Gravigo boilers; Best and Lloyd, Ltd., Hume Atkins & Co., Ltd., and Harcourts, Ltd., electric light fittings; Hovenden and Sons, specialist work to hairdressing saloon; Hammond Bros. and Champness, Ltd., lifts; Merchant Trading Co., Ltd., doors; Cramwell, Ltd., door handles; Kennedy's, Ltd., door furniture, sanitary equipment; C. J. Caslake, Esq., metalwork; Haskins, Ltd., roller shutters; Dent and Hellyer, Ltd., flushing valves; Arthur Scull and Sons, plumbing; Benham and Sons, Ltd., hotel kitchen equipment; Frigidaire, Ltd., refrigerators; G. H. Carter, Ltd., squash court equipment; Saml. Elliott and Sons, Ltd., revolving doors; The Bournemouth Gas and Water Co., special Parkinson gas cookers; Radio Service Co. and Kolster Brandes, Ltd., wireless; Mrs. Wm. A. Buckley, special fireplaces.

24-30, VIVIAN WAY, HAMPSTEAD GARDEN SUBURB (pages 60 to 62). The general contractors were Haymills, Ltd. (contract

department). The principal sub-contractors and suppliers included:—

Hitchins Flush Woodwork, Ltd., flush doors; Parker Winder and Achurch, Ltd., ironmongery, door furniture etc.; Ewart and Son, Ltd., water heater; Rownson Drew and Clydesdale, Ltd., sanitary fittings; Henry Hope and Sons, Ltd., standard steel casements; Conner and Ribbans, electrical work; Peerless Kitchen Cabinets, Ltd., kitchen cabinets.

The interior photographs show a temporary show house, the furniture being by The Rowley Gallery of Decorative Art, and the electric light fittings by the Merchant Adventurers of London, Ltd.

PONTINGS' LOADING DOCK, WRIGHT'S LANE, W.8 (page 63). The general contractors were John Barker & Co., Ltd. The principal sub-contractors and suppliers included:—

Structure.—Greenham Demolition Co., Ltd., demolition, excavation, foundations, reinforced concrete; Limmer and Trinidad Lake Asphalt Co., Ltd., foundation

asphalt; General Asphalt Co., Ltd., asphalt to roof; W. T. Lamb and Sons, Ltd., bricks; F. J. Barnes, Ltd., stone; A. D. Dawney and Sons, Ltd., structural steel; Caxton Floors, Ltd., fireproof construction; Henry Hope and Sons, Ltd., casements; Fredk. Braby & Co., Ltd., iron staircases.

Finishes.—Wotton and Son, glass and patent glazing; Jos. Ebner, Ltd., wood block flooring; Diespeker & Co., Ltd., stairtreads; G. J. Green and Sons, plaster; Waltham Cross Joinery Co., joinery; F. J. Barnes, Ltd., stonework; Carter & Co. (London), Ltd., tiling.

Equipment.—J. Jeffreys & Co., Ltd., central heating and ventilation; Grierson, Ltd., electric wiring; Benjamin Electric Ltd., electric light fixtures; John Barker and Co., plumbing and telephones; Adamsez, Ltd., sanitary fittings; Carter and Aynsley, Ltd., door furniture; Henry Hope and Sons, Ltd., window furniture; Haskins, Ltd., rolling shutters; Waltham Cross Joinery Co., fireproof doors; Express Lift Co., Ltd., lifts.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILES RADIUS)

BETHNAL GREEN. *Tenements.* The L.C.C. is to erect 150 tenements on the Waterloo House site, Bethnal Green, at a cost of £158,800.

DARTFORD. *Houses, etc.* Plans passed by the Corporation: 10 houses, North Road, for Mr. W. G. Cooper; two bungalows, Wilmot Road, for Mr. J. C. Colley; three houses, Devonshire Avenue, for Messrs. Pearson Bros; four houses, Fleet Road, for Messrs. J. Franklin (Erith), Ltd.; 102 houses, Heath Farm estate, for Mr. A. V. G. East; 12 houses, East Hill House estate, for Messrs. B. Holroyd and Son; six shops and houses, Chastilian Road, for Mr. A. H. S. Newell; gymnasium, County Hospital, for Kent County Architect; eight houses, Brent Close estate, for Mr. W. F. Summers; 12 houses, Denver Road, for Blenner Properties, Ltd.; two houses, Heather Drive, for Mr. J. Smith; 18 houses, Swaisland Road, for Messrs. Norman and Son; two houses, Wilmot Road, for Mr. R. P. S. Firman; house, Wilmot Road, for Mr. E. Wilson; four houses, Chastilian Road, for Mr. E. Charlson; 104 houses, St. Vincent's estate, for Mrs. M. J. Orr; two houses, Princes Road, for Mr. R. J. Clifford; flats Burnham Crescent estate, for Maisonette Construction Co., Ltd.

EALING. *Houses.* The London and Provincial Building Co., Ltd., are to erect 26 houses and 54 garages at Court Farm Road.

EALING. *Church and Hall.* Messrs. Hall-Jones and Partners, Ealing, have prepared plans for the proposed erection of a church and hall for the Ealing Spiritualist Church, at Bakers Lane.

HACKNEY. *Baths.* The B.C. is to prepare a scheme for the reconstruction of the central baths in Lower Clapton Road.

NORTHOLT. *Shops and Flats.* Mr. R. Vaughan, 105, Boundaries Road, S.W.12, is the architect for the proposed erection of 28 shops with flats over by the North West London Estate Co., at Ruislip Road.

NORTHOLT. *Estate Development.* The Ealing T.C. has acquired the West End Estate, comprising 54 acres. 20 acres are for housing purposes, 10 for allotments, and 24 for an open space. The council has also under consideration the acquisition of the Rectory Estate at Northolt, which comprises 150 acres.

PUTNEY. *Factory Extensions.* Plans have been submitted to the B.C. by Mr. S. A. S. Yeo for proposed additions to the premises of Messrs. K.L.G. Sparking Plugs, Ltd., at Roehampton Vale.

SOUTHFIELDS. *Flats.* Mr. F. C. Flack proposes to erect 25 flats at Ash Tree Grove and Frogmore, plans for which have been approved.

TOOTING. *Flats.* A block of flats is to be erected on the south-western side of Tooting Grove by Messrs. L. F. Hawkins and Co., Ltd.

WANDSWORTH. *Houses.* Messrs. W. J. Marston and Son are to erect 28 houses in Titchwell Road, plans for which have been approved.

SOUTHERN COUNTIES

GUILDFORD. *Houses.* Messrs. H. Gaze & Co., of Kingston, are to develop an estate at Womers Park, Guildford, where it is proposed to build 90 houses at a cost of £1,200 each.

EASTERN COUNTIES

IPSWICH. *Development.* Mr. W. A. Keys is to develop the Springfield estate, Springfield Lane, Ipswich.

MIDLAND COUNTIES

CHESTERFIELD. *Flats.* The Corporation is to prepare plans for the erection of a block of firemen's flats in New Beetwell Street.

CHESTERFIELD. *Houses, etc.* Plans passed by the Corporation: Two houses, Paxton Road, for Messrs. Clarke Bros.; four houses, Highfield Lane, for Mr. A. Clarke; shop extensions, Derby Road, for Chesterfield Co-op Society, Ltd.; four houses, Walton Road, for Messrs. F. Wale, Ltd.; two houses, Smithfield Avenue, for Mr. A. Smith; office extensions, St. Mary's Gate, for Mr. T. H. Johnson; four houses, Walton Road, for Messrs. Revell and Beresford; two houses, Hunloke Ave, for Mr. S. Wheatcroft; three houses, Hady Lane, for Mr. J. Brimelow; sweet factory, Holme Road, for Mr. L. Windle; five houses, Vincent Crescent, for Mr. B. Hattersley; four houses, Chatsworth Road, for Mr. L. W. Crossley.

KIDDERMINSTER. *Isolation Hospital.* The Corporation recommends the erection of an isolation hospital with accommodation for 30 patients.

NORTHERN COUNTIES

BLACKPOOL. *Baths and Health Centre.* The Corporation is seeking sanction to borrow £150,000 for the erection of baths and health centre on the Pembroke Estate.

WARRINGTON. *Houses, etc.* Plans passed by the Corporation: 14 houses, Chester Road, for Messrs. Woosley and Walton; 19 houses, Catherine Street, for Mr. J. F. Simm; four houses, Wilderspool Causeway, for Messrs. W. and A. Ashton; two houses, Wilderspool Causeway, for Messrs. W. E. Hatch and Son; six houses, Smith Drive, for Messrs. R. and S. Smith; buildings, Vernon Street, for Castle Rubber Co., Ltd.; brewery extensions, Owen Street, for Mr. B. Cunningham; two houses, Nook Lane, for Messrs. J. Twiss and Son.

RATES OF WAGES

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

		I	II			I	II			I	II
		s. d.	s. d.			s. d.	s. d.			s. d.	s. d.
A ₁	ABERDARE .. S. Wales & M.	1 5½	1 1½	A ₂	EASTBOURNE .. S. Counties	1 5½	1 1½	A	Northampton .. Mid. Counties	1 6½	1 2
A ₁	Aberdeen .. Scotland	1 6½	1 2	A ₁	Elbow Vale .. S. Wales & M.	1 6	1 1½	A	North Staffs .. Mid. Counties	1 6½	1 2
A ₁	Abergavenny .. S. Wales & M.	1 6	1 1½	A ₁	Edinburgh .. Scotland	1 6½	1 2	A	North Shields .. N.E. Coast	1 6½	1 2
A ₃	Abingdon .. S. Counties	1 5	1 0½	A ₁	E. Glamorgan .. S. Wales & M.	1 6	1 1½	A ₁	Norwich .. E. Counties	1 6	1 1½
A ₃	Accrington .. N.W. Counties	1 6½	1 2		shire, Rhondda Valley District			A ₁	Nottingham .. Mid. Counties	1 6½	1 2
A ₃	Addlestone .. S. Counties	1 5	1 0½	A ₂	Exeter .. S.W. Counties	*1 5½	1 1½	A	Nuneaton .. Mid. Counties	1 6½	1 2
A ₃	Adlington .. N.W. Counties	1 6½	1 2	B	Exmouth .. S.W. Counties	1 4½	1 0½				
A	Aldrie .. Scotland	*1 6½	1 2					A	OKHAM .. Mid. Counties	1 5	1 0½
C	Aldeburgh .. E. Counties	1 2½	11	A ₃	FELIXSTOWE .. E. Counties	1 5	1 0½	A ₃	Oldham .. N.W. Counties	1 6½	1 2
A	Altrincham .. N.W. Counties	1 6½	1 2	A ₃	Filey .. S.W. Counties	1 5	1 0½	A ₃	Oswestry .. N.W. Counties	1 5	1 0½
B ₃	Appleby .. N.W. Counties	1 3	1 1½	A ₃	Fleetwood .. N.W. Counties	1 6½	1 2	A ₁	Oxford .. S. Counties	1 6	1 1½
A	Ashton-under-Lyne .. N.W. Counties	1 6½	1 2	B ₁	Folkestone .. S. Counties	1 4	1 0				
B ₁	Aylesbury .. S. Counties	1 4	1 0	B ₂	Frome .. N.W. Counties	1 6½	1 2				
				B ₂	Frome .. S.W. Counties	1 3½	1 1½				
B ₁	BANBURY .. S. Counties	1 4	1 0					A	PAISLEY .. Scotland	*1 6½	1 2
B ₁	Bangor .. N.W. Counties	1 4	1 0	A	GATESHEAD .. N.E. Coast	1 6½	1 2	B ₃	Pembroke .. S. Wales & M.	1 3	1 1½
A ₃	Barrow-in-Furness .. N.E. Coast	1 5	1 0½	B	Gillingham .. S. Counties	1 4½	1 0½	A	Perth .. Scotland	*1 6½	1 2
A ₃	Barnsley .. Yorkshire	1 6½	1 2	A	Glasgow .. Scotland	1 7	1 2½	A ₁	Peterborough .. E. Counties	1 6	1 1½
A	Barnstaple .. S.W. Counties	1 4½	1 0½	A ₂	Gloucester .. S.W. Counties	1 5½	1 1½	A	Plymouth .. S.W. Counties	*1 6½	1 2
A	Barrow .. N.W. Counties	1 6½	1 2	A ₂	Goole .. Yorkshire	1 5½	1 1½	A	Pontefract .. Yorkshire	1 6½	1 2
A	Barry .. S. Wales & M.	1 6½	1 2	A ₂	Gosport .. S. Counties	1 5½	1 1½	A ₁	Pontypriid .. S. Wales & M.	1 6	1 1½
B ₁	Basingstoke .. S.W. Counties	1 4	1 0	A ₂	Grantham .. Mid. Counties	1 5	1 0½	A ₂	Portsmouth .. S. Counties	1 5½	1 1½
A ₁	Bath .. S.W. Counties	1 5½	1 1½	A ₁	Gravesend .. S. Counties	1 6	1 1½				
A	Batley .. Yorkshire	1 6½	1 2	A ₁	Greenock .. Scotland	*1 6½	1 2	A	QUEENSFERRY .. N.W. Counties	1 6½	1 2
A ₂	Bedford .. E. Counties	1 5½	1 1½	A	Grimsby .. Yorkshire	1 6½	1 2				
A ₂	Berwick-on-Tweed .. N.E. Coast	1 5½	1 1½	B	Guildford .. S. Counties	1 4½	1 0½				
A ₂	Bewdley .. Mid. Counties	1 5½	1 1½					A ₂	READING .. S. Counties	1 5½	1 1½
B ₃	Bicester .. S. Counties	1 3	1 1½	A	HALIFAX .. Yorkshire	1 6½	1 2	B	Reigate .. S. Counties	1 4½	1 0½
A	Birkenhead .. N.W. Counties	*1 7½	1 2½	A	Hanley .. Mid. Counties	1 6½	1 2	A	Retford .. Mid. Counties	1 5	1 0½
A	Birmingham .. Mid. Counties	1 6½	1 2	A	Harrogate .. Yorkshire	1 6½	1 2	A ₁	Rhonda Valley .. S. Wales & M.	1 6	1 1½
A ₁	Bishop Auckland .. N.E. Coast	1 6	1 1½	A	Hartlepool .. N.E. Coast	1 6½	1 2	A	Ripon .. Yorkshire	1 5	1 0½
A	Blackburn .. N.W. Counties	1 6½	1 2	B ₁	Harwich .. E. Counties	1 4½	1 0½	A	Rochdale .. N.W. Counties	1 6½	1 2
A	Blackpool .. N.W. Counties	1 6½	1 2	B ₁	Hastings .. S. Counties	1 4	1 0	A	Rochester .. S. Counties	1 4½	1 0½
A	Blyth .. N.E. Coast	1 6½	1 2	A ₂	Hatfield .. S. Counties	1 5½	1 1½	A	Ruabon .. N.W. Counties	1 6	1 1½
B ₁	Bognor .. S. Counties	1 4	1 0	B	Hereford .. S.W. Counties	1 4½	1 0½	A ₂	Rugby .. Mid. Counties	1 6½	1 2
A	Bolton .. N.W. Counties	1 6½	1 2	A ₂	Hertford .. E. Counties	1 5½	1 1½	A ₂	Rugeley .. Mid. Counties	1 5½	1 1½
A ₂	Boston .. Mid. Counties	1 5	1 0½	A ₂	Heysham .. N.W. Counties	1 6½	1 2	A	Runcorn .. N.W. Counties	1 6½	1 2
A ₂	Bournemouth .. S. Counties	1 5½	1 1½	A	Howden .. N.E. Coast	1 6½	1 2				
B ₂	Bovey Tracey .. S.W. Counties	1 3½	1 1½	A	Huddersfield .. Yorkshire	1 6½	1 2				
A	Bradford .. Yorkshire	1 6½	1 2	A	Hull .. Yorkshire	1 6½	1 2	A ₁	ST. ALBANS .. E. Counties	1 6	1 1½
A ₁	Brentwood .. E. Counties	1 6	1 1½	A	ILKLEY .. Yorkshire	1 6½	1 2	A ₁	St. Helens .. N.W. Counties	1 6½	1 2
A	Bridgend .. S. Wales & M.	1 6½	1 2	A ₂	Immingham .. Mid. Counties	1 6½	1 2	B ₃	Salisbury .. S.W. Counties	1 3½	1 1½
A ₁	Bridgewater .. S.W. Counties	1 4½	1 0½	A ₂	Ipswich .. E. Counties	1 5½	1 1½	A	Scarborough .. Yorkshire	1 6	1 1½
A ₁	Bridlington .. Yorkshire	1 6	1 1½	B ₂	Ile of Wight .. S. Counties	1 4½	1 0½	A	Scunthorpe .. Mid. Counties	1 6½	1 2
A ₁	Brighouse .. Yorkshire	1 6½	1 2					A	Sheffield .. Yorkshire	1 6½	1 2
A ₂	Brighton .. S. Counties	1 5½	1 1½					A	Shipley .. Yorkshire	1 6½	1 2
A	Bristol .. S.W. Counties	1 6½	1 2	A	JARROW .. N.E. Coast	1 6½	1 2	A ₂	Shrewsbury .. Mid. Counties	1 5½	1 1½
B	Brixham .. S.W. Counties	1 3½	1 1½	A	KEIGHLEY .. Yorkshire	1 6½	1 2	A ₂	Skipton .. Yorkshire	1 5½	1 1½
B	Bromsgrove .. Mid. Counties	1 5½	1 1½	A ₃	Kendal .. N.W. Counties	1 5	1 0½	A ₂	Slough .. Mid. Counties	1 6	1 1½
B	Bromyard .. Mid. Counties	1 5	1 1½	A ₃	Keswick .. N.W. Counties	1 5	1 0½	A ₁	Sollihull .. Mid. Counties	1 6	1 1½
A	Burnley .. N.W. Counties	1 6½	1 2	A ₂	Kettering .. Mid. Counties	1 6	1 1½	A ₂	Southampton .. S. Counties	1 5½	1 1½
A	Burslem .. Mid. Counties	1 6½	1 2	A ₁	Kidderminster .. Mid. Counties	1 5½	1 1½	A ₁	Southend-on-Sea .. E. Counties	1 6	1 1½
A	Burton-on-Trent .. Mid. Counties	1 6½	1 2	B ₁	King's Lynn .. E. Counties	1 4	1 0	A	Southport .. N.W. Counties	1 6½	1 2
A	Bury .. N.W. Counties	1 6½	1 2					A	S. Shields .. N.E. Coast	1 6½	1 2
A	Buxton .. N.W. Counties	1 6	1 1½					A ₁	Stafford .. Mid. Counties	1 6	1 1½
				A	LANCASTER .. N.W. Counties	1 6½	1 2	A	Stirling .. Scotland	1 6½	1 2
A ₁	CAMBRIDGE .. E. Counties	1 6	1 1½	A	Leamington .. Mid. Counties	1 6	1 1½	A	Stockport .. N.W. Counties	1 6½	1 2
B ₁	Canterbury .. S. Counties	1 4	1 0	A ₁	Leeds .. Yorkshire	1 6½	1 2	A	Stockton-on-Tees .. N.E. Coast	1 6½	1 2
A	Cardiff .. S. Wales & M.	1 6½	1 2	A ₁	Leek .. Mid. Counties	1 6½	1 2	A	Stoke-on-Trent .. Mid. Counties	1 6½	1 2
A	Carlisle .. N.W. Counties	1 6½	1 2	A ₁	Leicester .. Mid. Counties	1 6½	1 2	B	Stroud .. S.W. Counties	1 4½	1 0½
B	Carmarthen .. S. Wales & M.	1 4½	1 0½	A	Leigh .. N.W. Counties	1 6½	1 2	A	Sunderland .. N.E. Coast	1 4½	1 0½
B	Carnarvon .. N.W. Counties	1 4½	1 0½	A	Lewes .. S. Counties	1 3	1 1½	A	Swansea .. S. Wales & M.	1 6½	1 2
A	Carnforth .. N.W. Counties	1 6½	1 2	A ₂	Lichfield .. Mid. Counties	1 5½	1 1½	A	Swindon .. S.W. Counties	1 5	1 0½
A	Castleford .. Yorkshire	1 6½	1 2	A ₂	Lincoln .. Mid. Counties	1 6½	1 2				
A ₃	Chatham .. S. Counties	1 5	1 0½	A ₂	Liverpool .. N.W. Counties	*1 8	1 3	A ₁	TAMWORTH .. N.W. Counties	1 6	1 1½
A	Chelmsford .. E. Counties	1 5	1 0½	A ₂	Llandudno .. N.W. Counties	1 5½	1 1½	B ₁	Taunton .. S.W. Counties	1 4½	1 0½
A	Cheltenham .. S.W. Counties	1 5	1 0½	A	Llanelli .. S. Wales & M.	1 6½	1 2	A ₂	Teesside Dist. .. N.E. Counties	1 6½	1 2
A	Chester .. N.W. Counties	1 6½	1 2		London (12-15 miles radius)	1 8	1 3	A ₂	Teignmouth .. S.W. Coast	1 6½	1 2
A	Chesterfield .. Mid. Counties	1 6½	1 2	A ₂	Loughborough .. Mid. Counties	1 6½	1 2	A ₂	Todmorden .. Yorkshire	1 6½	1 2
B ₁	Chichester .. S. Counties	1 4	1 0	A	Luton .. E. Counties	1 6	1 1½	A ₁	Torquay .. S.W. Counties	1 6	1 1½
A	Chorley .. N.W. Counties	1 6½	1 2	A ₁	Lymington .. N.W. Counties	1 6½	1 2	B ₂	Truro .. S.W. Counties	1 3½	1 1½
B ₁	Cirencester .. S. Counties	1 4	1 0					A ₃	Tunbridge Wells .. S. Counties	1 5	1 0½
A	Cliithroes .. N.W. Counties	1 6½	1 2	A	Long Eaton .. E. Counties	1 6½	1 2				
A	Clydebank .. Scotland	1 6½	1 2	A ₁	Luton .. N.W. Counties	1 6½	1 2	A	Tunstall .. Mid. Counties	1 6½	1 2
A	Coalville .. Mid. Counties	1 6½	1 2					A	Tyne District .. N.E. Coast	1 6½	1 2
A ₂	Colchester .. E. Counties	1 5½	1 1½								
A	Colne .. N.W. Counties	1 6	1 1½	A ₁	MACCLESFIELD .. N.W. Counties	1 6	1 1½				
A ₂	Colwyn Bay .. N.W. Counties	1 5½	1 1½	A ₁	Maldstone .. S. Counties	1 5	1 0½	A	WAKEFIELD .. Yorkshire	1 6½	1 2
A ₁	Consett .. N.E. Coast	1 6	1 1½	A ₃	Malvern .. Mid. Counties	1 5	1 0½	A	Walsall .. Mid. Counties	1 6½	1 2
A ₂	Conway .. N.W. Counties	1 5½	1 1½	A ₃	Manchester .. N.W. Counties	1 6½	1 2	A	Warrington .. N.W. Counties	1 6½	1 2
A	Coventry .. Mid. Counties	1 6½	1 2	A ₃	Mansfield .. Mid. Counties	1 6½	1 2	A ₁	Warwick .. Mid. Counties	1 6	1 1½
A ₂	Crew .. N.W. Counties	1 5½	1 1½	B ₁	Margate .. S. Counties	1 4	1 0	A ₁	Wellington .. Mid. Counties	1 6	1 1½
A	Cumberland .. N.W. Counties	1 5	1 0½	A ₁	Matlock .. Mid. Counties	1 5	1 0½	A ₂	West Bromwich .. Mid. Counties	1 6½	1 2
				A ₁	Middlesbrough .. S. Wales & M.	1 6	1 1½	A ₂	Weston-s.-Mare .. W. Counties	1 5½	1 1½
A	DARLINGTON .. N.E. Coast	1 6½	1 2	A ₂	Middlehead .. N.W. Counties	1 5½	1 1½	A ₂	Whitby .. Yorkshire	1 5½	1 1½
A	Darwen .. N.W. Counties	1 6½	1 2	B ₂	Monmouth .. S. Wales & M.	1 3½	1 1½	A	Widnes .. N.W. Counties	1 6½	1 2
B ₁	Deal .. S. Counties	1 4	1 0					A	Wigan .. N.W. Counties	1 6½	1 2
A ₂	Denbigh .. N.W. Counties	1 5	1 0½					A ₂	Winchester .. S. Counties	1 4½	1 0½
A	Derby .. Mid. Counties	1 6½	1 2					A ₂	Windsor .. S. Counties	1 5½	1 0½
A	Dewsbury .. Yorkshire	1 6½	1 2					A ₂	Wolverhampton .. Mid. Counties	1 6½	1 2
B	Didcot .. S. Counties	1 4½	1 0½					A ₂	Worcester .. Mid. Counties	1 5½	1 1½
A	Doncaster .. Yorkshire	1 6½	1 2					A ₃	Workop .. Yorkshire	1 5	1 0½
B ₁	Dorchester .. S.W. Counties	1 4	1 0					A ₁	Wrexham .. N.W. Counties	1 6	1 1½
A	Driffield .. Yorkshire	1 5	1 0½	A ₂	NANTWICH .. N.W. Counties	1 5½	1 1½	A	Wycombe .. S. Counties	1 5	1 0½
A ₂	Droitwich .. Mid. Counties	1 5½	1 1½	A	Neath .. S. Wales & M.	1 6½	1 2				
A ₂	Dudley .. Mid. Counties	1 6½	1 2	A	Nelson .. N.W. Counties	1 6½	1 2				
A ₂	Dunfermlie .. Scotland	1 6	1 1½	A	Newcastle .. N.E. Coast	1 6½	1 2	B	YARMOUTH .. E. Counties	1 4½	1 0½
A	Dundee .. Scotland	1 6½	1 2	A	Newport .. S. Wales & M.	1 6½	1 2	B	Yeovil .. S.W. Counties	1 4½	1 0½
A	Durham .. N.E. Coast	1 6½	1 2	A	Normanton .. Yorkshire	1 6½	1 2				

* 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 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, adjust-

ment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

Bricklayer	.	"	"	"	.	per hour	s.	d.
Carpenter	.	"	"	"	"	"	1	8
Joiner	.	"	"	"	"	"	1	8
Machinist	.	"	"	"	"	"	1	8
Mason (Banker)	.	"	"	"	"	"	1	8
" (Fixer)	.	"	"	"	"	"	1	9
Plumber	.	"	"	"	"	"	1	8
Painter	.	"	"	"	"	"	1	7
Paperhanger	.	"	"	"	"	"	1	7
Glazier	.	"	"	"	"	"	1	8
Slatcr	.	"	"	"	"	"	1	4
Scaffolder	.	"	"	"	"	"	1	4
Timberman	.	"	"	"	"	"	1	3
Navyy	.	"	"	"	"	"	1	3
General Labourer	.	"	"	"	"	"	1	3
Lorryman	.	"	"	"	"	"	1	5½
Crane Driver	.	"	"	"	"	"	1	7
Watchman	.	"	"	"	"	per week	2	10

Grey Stone Lime . . .	per ton	£	s.	d.
Blue Lias Lime . . .	"	2	0	0
Hydrated Lime . . .	"	1	16	6
Portland Cement, in 4 ton lots (d/d site, including Paper Bags)	"	3	0	0
Rapid Hardening Cement, in 4-ton lots (d/d site, including Paper Bags)	"	1	19	0
White Portland Cement, in 1-ton lots	"	2	5	0
Thames Ballast . . .	per Y.C.	8	15	6
Crushed Ballast . . .	"	7	0	0
Building Sand . . .	"	7	6	0
Washed Sand . . .	"	8	6	0
Broken Brick . . .	"	12	8	0
Pan Breeze . . .	"	19	3	0
Coke Breeze . . .	"	6	6	0
	"	8	9	0

		4"	6"
		s. d.	s. d.
Straight Pipes	per F.R.	0 9	1 1
Bends	each	1 0	2 6
Taper Bends	"	3 6	5 3
Rest Bends	"	3 6	5 3
Single junctions	"	3 6	5 3
Double	"	4 9	6 6
Straight channels	per F.R.	1 6	2 6
3" 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.	1 6	2 6
Bends	each	5 0	10 0
Inspection bends	"	9 0	15 0
Single junctions	"	8 9	18 0
Double junctions	"	13 6	30 0
Lead Wool	lb.	6	—
Gaskin	"	5	—

						£	s.	d.
Fletton	"	"	"	"	per M.	2	15	0
Grooved do.	"	"	"	"	"	2	17	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	17	6
" Wirecuts	"	"	"	"	"	7	17	6
" Brindles	"	"	"	"	"	7	0	0
" Bullnose	"	"	"	"	"	9	0	0
Red Sand-faced Facings	"	"	"	"	"	6	18	6
Red Rubbers for Arches	"	"	"	"	"	13	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	"	"	"	"	"	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality :	"	"	"	"	"	21	0	0
Stretchers	"	"	"	"	"	20	10	0
Heads	"	"	"	"	"	27	10	0
Bullnose	"	"	"	"	"	26	10	0
Double Stretchers	"	"	"	"	"	29	10	0
Double Heads	"	"	"	"	"	26	10	0
Glazed Second Quality, Less	"	"	"	"	"	1	0	0
" Buffs and Creams, Add	"	"	"	"	"	5	10	0
" Other Colours	"	"	"	"	"	5	10	0
2" Breeze Partition Blocks	"	"	"	"	per Y.S.	1	10	0
2 1/2"	"	"	"	"	"	1	10	0
3"	"	"	"	"	"	2		
4"	"	"	"	"	"	2		

The following d/d F.O.R. at Nine Elms:			
Portland stone	Whitbed	.	F.C.
"	Basebed	.	"
Bath stone	"	.	"
York stone	"	.	"
"	"	Sawn templates	.
"	"	Paving, 2"	F.S.
"	"	"	"

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

[illegible]

	4"	3"	1"	2"
Tubes, 2'-14" long, per ft. run	4	5 1/2	9 1/2	11 1/2
Pieces, 12'-23" long each	10	11 1/2	11 1/2	8 1/2
" " 3'-11 1/2" long "	7	9	1 1/3	2/8
Long screws, 12'-23 1/2" long,	11	13 1/2	2 1/2	2 1/2
" " 3'-M 1/2" long "	8	10	1 5/8	1 1/2
Bends " "	8	11 1/2	2 1/2	5/2
Springs not socketed " "	5	7 1/2	1 1/2	3 1/2
Socket unions " "	2 1/2	3 1/2	5/6	6/8
Elbows, square " "	10	11 1/2	1 6/8	2 1/4
" " " " " "	1 1/2	1 1/2	1 1/2	2 1/2
Crosses " "	2 1/2	2 1/2	4 1/2	5 1/2
Plain sockets and nipples " "	4	4	6	8
Diminished sockets " "	3 1/2	4	4	1 1/2
Flanges " "	9	1 1/2	1 1/2	2 1/2
Caps " "	3 1/2	5	8	1 1/2
Backnuts " "	2	3	5	6
Iron main cocks " "	1 1/2	2 3/4	4 1/2	11 1/2
" " with brass plugs "	—	4 1/2	7 1/2	21 1/2

Gas	65	Galvanized gas	52
Water	61	" water	47
Steam	57	" steam	42

FITTINGS.			
Gas	57	Galvanized gas	47
Water	52	" water	42
Steam	47	" steam	37

Rolled steel joists cut to length	"	"	CWT.	12	9
Mild steel reinforcing rods,	3"	"	"	10	6
"	3 ¹ / ₂ "	"	"	10	3
"	3"	"	"	10	3
"	3 ¹ / ₂ "	"	"	9	6
"	3"	"	"	9	6
"	3 ¹ / ₂ "	"	"	9	6
"	3"	"	"	9	6
"	3 ¹ / ₂ "	"	"	9	6
"	3"	"	"	9	6
Cast-iron rain-water pipes of ordinary thickness metal	"	F.R.	s. d.	s. d.	
Shoes	"	each	8	10	
Anti-splash shoes	"	"	4	6	8
Boots	"	"	3	9	4
Bends	"	"	2	7	0
" with access door	"	"	—	0	0
Heads	"	"	4	0	5
Swan-necks up to 9" offsets	"	"	3	9	0
Plinth bends, 4½" to 6"	"	"	3	9	5

Lead, milled sheets				cwl.	24	6
" drawn pipes					24	6
" soil pipe				"	30	0
" scrap					16	0
Solder, plumbers'				lb.	97	0
" fine do.					1	0
Copper, sheet					8	0
" tubes					11	0
L.C. soil and waste pipes:		3"	4"			
Plain cast	"	F.R.	1	0	1	2
Coated	"		1	1	1	3
Galvanized	"		2	0	2	6
Holderbats	"	each	3	10	4	0
Bends	"		3	9	5	3
Shoes	"		2	10	4	4
Heads	"		2	10	4	4

Line, chalk	per ton	2 5	0
Plaster, coarse	"	2 10	0
" fine	"	4 15	0
Hydrated lime	"	3 0	9
Sirapite	"	3 6	6
Keene's cement	"	5	0
Gothite Plaster	"	3 6	0
Pioneer Plaster	"	3 6	0
Thistle plaster	"	3 6	0
Sand, washed	Y.C.	11	6
Hair	lb.		6
Laths, sawn	bundle		4
" rent	"	3	3
Lath nails	lb.		3

Sheet glass, 21 oz., squares n/e 2 ft. s. F.S.	3
" " 26 07. " " " " " "	3
Flemish, Arctic, Figures (white)* " " "	3
Blazoned glasses " " " " " "	2
Reeded : Cross Reeded " " " " " "	11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite,, Crown sheet glass, (white, 1 to 1 in.)	6
Flashed opals (white and coloured) " " " " " "	2
1/2" rough cast : rolled plate " " " " " "	1 o and 2
2/3" wired cast : wired rolled " " " " " "	3
3/4" Georgian wired cast " " " " " "	11
3/8" Polished plate, n/e 1 ft. " " " " " "	11 to 2 11

??	??	2	"	"	11	2	11	4
??	??	4	"	"	12	3	12	6
??	??	8	"	"	12	9	13	2
??	??	20	"	"	13	7	14	2
??	??	45	"	"	13	11	14	7
??	??	100	"	"	15	0	15	7
Vita glass, sheet, n/e		1 ft.	"	"			1	0
??	??	2 ft.	"	"			1	0
??	??	2 ft.	"	"			1	0
??	??	1 ft.	"	"			1	0
??	??	plate, n/e	"	"			3	0
??	??	3 ft.	"	"			5	0
??	??	7 ft.	"	"			7	0
??	??	15 ft.	"	"			7	6
??	??	15 ft.	"	"			7	0
" Calorex "	sheet 21 oz., and 32 oz.				2	6	3	0
	rough cast 17 and 18				8	11	3	0

Putty, linseed oil 1b.
 * Colours, id. F.S. extra.
 † Ordinary glazing quality. ‡ Selected glazing quality.

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

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ELSAN PORTABLE (CONTAINER) TYPE CHEMICAL CLOSETS:

OVERALL DIMENS. OF STAND² MODEL:

Model	33.	44.	55.	88.	i.	j.	k.	l.	m.
33.	16 1/4"	17"	17 1/2"	16 1/2"	14"	17 1/2"	25"	15"	16"
44.	17"	17 1/2"	19 1/2"	16 1/2"	14"	17 1/2"	25"	15"	16"
55.	17 1/2"	19 1/2"	25"	16 1/2"	14"	17 1/2"	25"	15"	16"
88.	16 1/2"	13 1/2"	17 1/2"	15"	14"	17 1/2"	25"	15"	16"

(l - overall width.)

DESCRIPTION OF FLUSHING CLOSET:

A. Steel P.E. self-flushing pan in position. A1. Tipped for flushing. B. Steel enamelled vent chamber with detachable front. C. Steel P.E. overflow container. D. Steel P.E. sewage container. E. Polished seat cover. F. Overflow pipe. G. Polished seat.

MODEL 66. (CHEMICAL-FLUSH) CLOSET:
Operation. After each use soil is flushed into the container for treatment in the chemical by lifting the steel P.E. pan as at A1. On replacement the pan A is automatically replenished with chemical solution.

MODEL 77. (WATER-FLUSH) CLOSET:
Operation. Similar in effect to Model 66 but flushes with clean supply of water (obtained from jacketed bowl) instead of chemical solution.

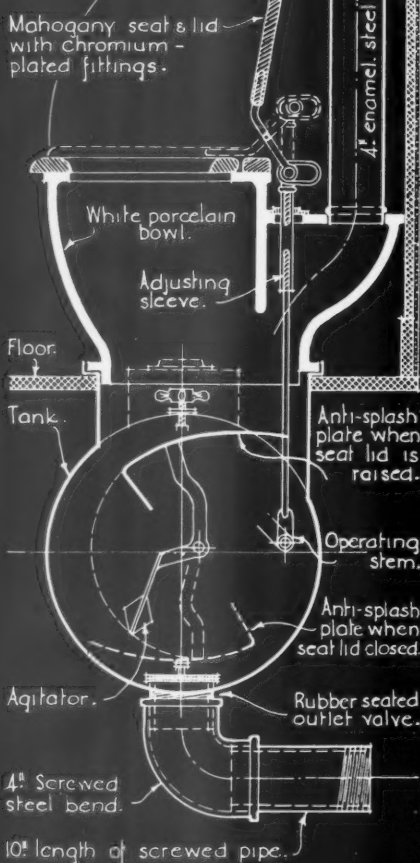
Side elev. of Standard model.

Section through flushing type closet.

TYPE OF FINISH TO STANDARD MODELS:

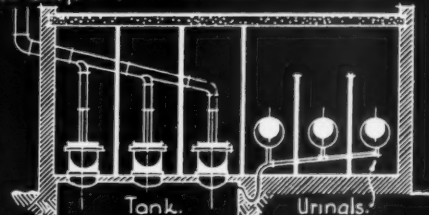
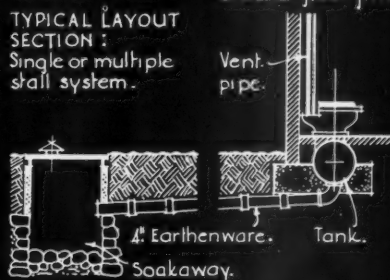
Letter and description.	A. VENT CHAMBER	B. URINAL GUARD	C. SEWAGE CONTAINER	D. SEAT	E. SEAT COVER	F. PIPE BEND	G. VENT PIPING	H. COWL
33. Round galv'd enamel	Galvanised	Galvanised	Galvanised 4 gall.	Polished 1"	Polished	One galvan'd	6' 0" Galvan'd	Galvanised
44. Oval	Galv. enamel	Galv. enamel	Porc. enam. 5 ..	.. 1"	..	Two ..	..	..
55.	Porcelain ..	Porcelain ..	.. 5 ..	.. 1 1/4"	..	.. enameld	7' 0" Enameld	..
88.	Galv'd ..	Galv'd ..	.. 4 ..	.. 1"	..	..	..	..

1" SCALE DIAGRAMMATIC SECTION THROUGH LAVATORY BOWL AND TANK OF UNDER-GROUND MODEL.



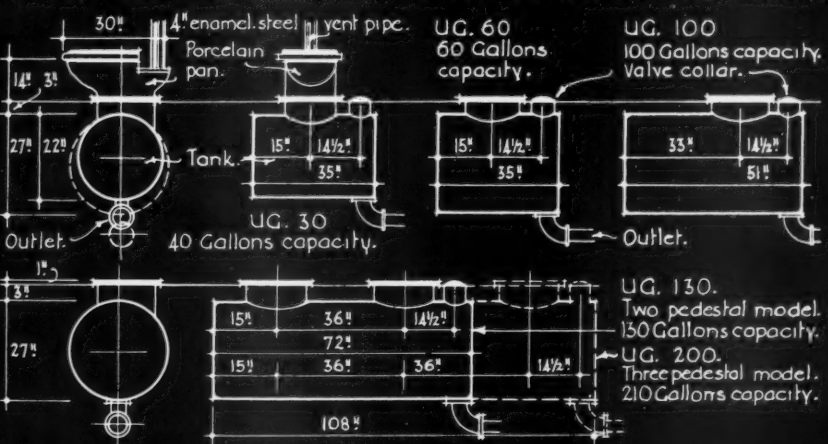
THE ELSAN SELF-DRAINAGE FLUSHLESS ANTISEPTIC TANK SYSTEM:
Ground floor fitment only.

TYPICAL LAYOUT SECTION:
Single or multiple stall system.

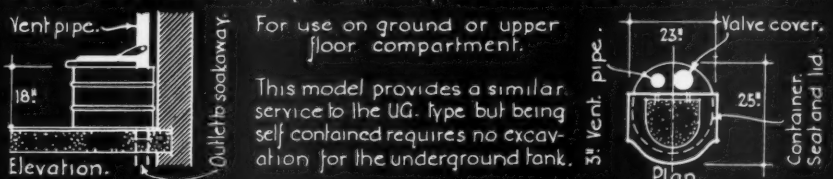


TYPICAL LAYOUT FOR Multiple system with urinal stalls :

TYPES, SIZES & CAPACITIES OF STANDARD UNDERGROUND TANKS :



ELSAN OVERGROUND (TYPE 'OG') MODEL CHEMICAL CLOSET :



Information from the Elsan Manufacturing Co.

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INFORMATION SHEET

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CHEMICAL
SANITATION

Name of Product : Elsan Chemical Closet

Types Illustrated :

- (a) Standard open-container type
- (b) Portable self-flushing (chemical) type
- (c) Permanent self-drainage tank type

These systems are designed for use in all classes of buildings in unsewered areas. Sewage is reduced by a chemical process into harmless matter which is guaranteed to be odourless and germ-free; this matter requires disposal only when the container or tank is filled.

Standard Open Container Types :

General.—This unit consists of ventilation chamber, sewage container, urinal guard, ventilation pipe, seat and lid. The fitting is first charged with one gallon of water and one pint of Elsanol chemical, and then needs no attention until the container is full; the chemical sterilizes and deodorises the contents.

Ventilation.—The ventilation system is designed to draw in air at the bottom of the fitting in the front, the draught drawing across and around the fitting to the vent stack.

Models :

Models 33, 44, and 55 are three sizes of the portable type of standard open container.

Self-flushing Portable Types :

Chemical Flush Closet.—This unit consists of a lavatory bowl with automatic flushing of the soil into the container below; ventilation chamber and vent pipe; sewage container; overflow container; seat and lid; and Elsan auto-flush vitreous enamelled steel bowl, which automatically supplies a flush without any separate supply tank.

The unit is first charged with water and chemical, and thereafter until the container is full, a chemical-water flush is obtained automatically each time the bowl is tipped.

Water Flush Closets :

The general principle of this unit is the same as that of the chemical-flush type except that the chemical is put in the container below, and the flush is obtained from a separate pure water tank incorporated in the bowl fitting. This tank holds $1\frac{1}{2}$ gallons of water, which provides 30 flushes.

In any of the preceding types the only fixing required is the 3-in. ventilation pipe, which should be carried up through the wall or roof of the compartment or building to the open air, and a cowl fitted to the top.

Self-drainage Tank Type :

This type of installation is capable of receiving soil, etc., from one or a number of closets, and consists of a closet pan, vent, underground tank and drain to a soakaway. The size of the underground tank is determined by the number of closets to be served; the standard sizes of these tanks are set out on this Sheet.

Two models of closet are made for this system, the underground and the over-ground model.

The underground model is suitable for use only on the ground floor; in this the soil is conveyed direct from the closets into a common underground tank, where chemical treatment takes place before drawing off to the soakaway, on the former becoming full.

In the overground model, chemical treatment takes place in a container in each closet. Each container is connected to drain away to the soakaway independently.

Other Models not shown in this Sheet are :

Types B.C.1 and B.C.2, specially designed without a ventilating pipe for use in camps, etc.

Model 88. Sizes of which are given on this Sheet, has been specially designed for caravans, boats, etc. Fitted with anti-spill rim.

Type C.C. is a collapsible model for use in caravans and other vehicles.

Prices :

Model No.	Description.	List Price. £ s. d.
55	Portable (open-container type)	5 5 0
44	Portable (open-container type)	3 18 6
33	Portable (open-container type)	2 7 6
66	Portable (automatic chemical flush)	7 7 0
77	Portable (automatic water flush)	7 7 0
UG.30	Underground (1 bowl) self-drainage tank, size 22 in. diameter by 34 in. long	17 10 0
UG.60	Underground (1 bowl) self-drainage tank	22 10 0
UG.130	Underground (2 bowls) multiple self-drainage system	42 10 0
UG.200	Underground (3 bowls) self-drainage tank	62 10 0
OG. ..	Overground self-drainage tank	13 10 0
Elsanol Chemical (for use with portable models), 5s. gal.		
Elkol Chemical (for use with self-drainage models) :—		
for UG.30	6s. 6d. per charge	
" UG.60	9s. 6d. " "	
" UG.130	16s. 0d. " "	
" UG.200	25s. 0d. " "	
" OG.	6s. 6d. 3 charges	

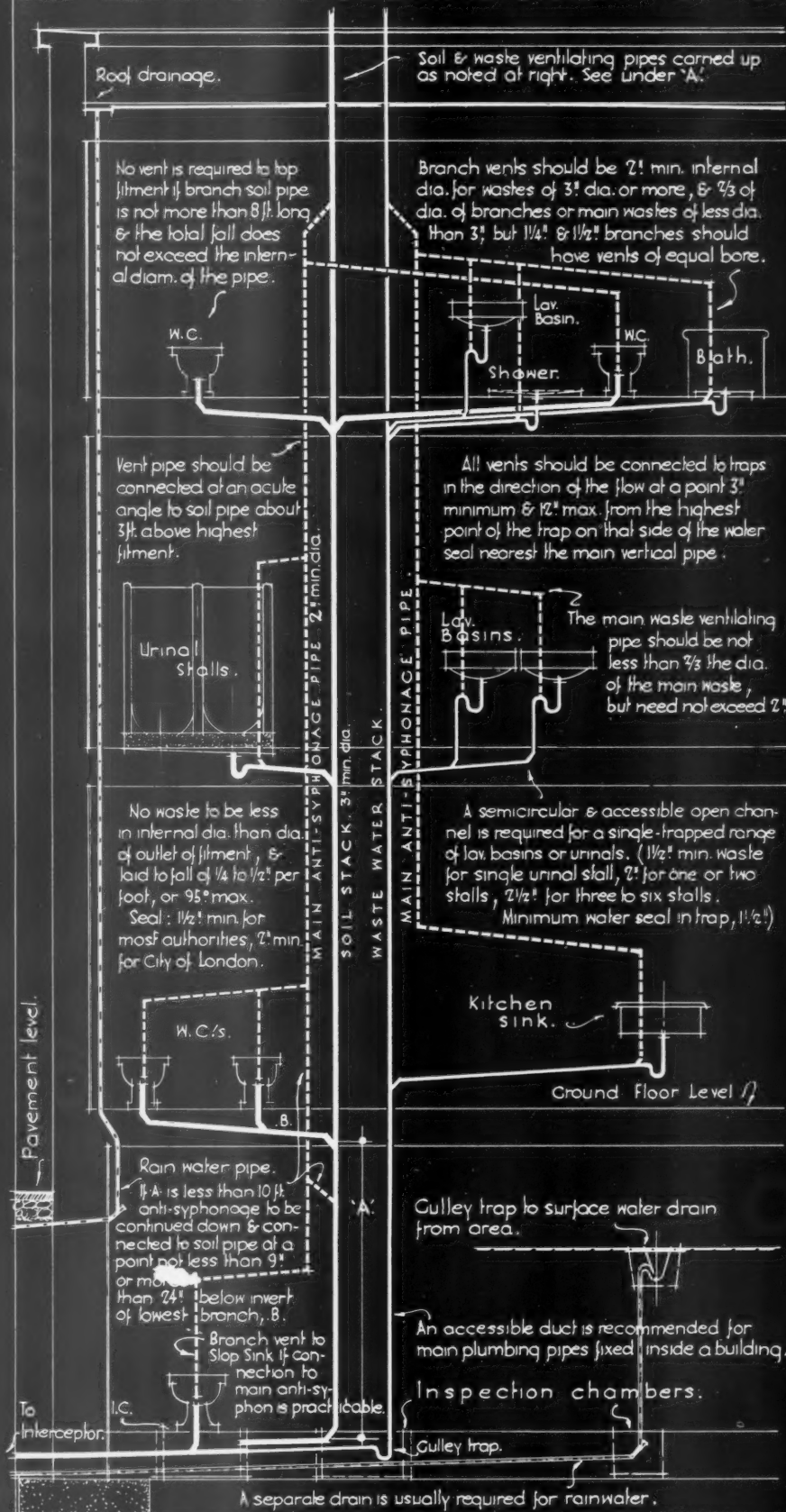
Manufacturers : Elsan Manufacturing Co.

Address : 51, Clapham Road, London, S.W.9

Telephone :

Reliance 2801

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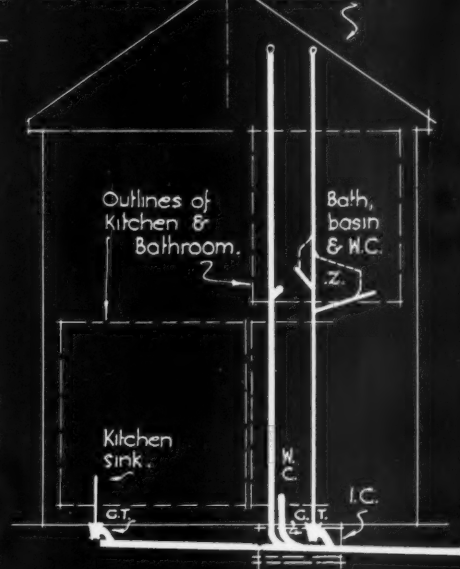
TYPICAL ARRANGEMENT OF EXTERNAL PLUMBING TO A SMALL ONE-STORY HOUSE.



Ventilating pipe 'A' connected to drain as far as practicable from the intercepting trap or sewer & carried up vertically to such a height & position as to prevent nuisance, injury or danger to health (L.C.C.).

A height of not less than 2' 0" (preferably 3' 0") above the tops of any windows within a distance of 15' (preferably 20') is usually required.

TYPICAL ARRANGEMENT OF PLUMBING TO A SIMPLE TYPE OF TWO STOREY HOUSE.



Z. Where two or more fitments fixed on different storeys are connected to one waste pipe, suitable trap ventilating pipes should be provided & carried up to the same height as the main ventilating pipe or connected thereto above the highest fitment.

A waste pipe from a bath or lavatory basin may discharge into or connect with a hopper head fixed at Ground or First floor level in a two-storey building only, but this is not considered good practice.

Information from the Lead Sheet & Pipe Development Council.

INFORMATION SHEET • PLUMBING • THE TWO-PIPE SYSTEM • 15.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 • *Ordn. & Bayne*

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INFORMATION SHEET

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PLUMBING

Subject : The two-piece "Separate" System of Plumbing

A diagrammatic lay-out of the One-pipe system of plumbing is given on Sheet No. 261 and this Sheet deals similarly with the system of plumbing which has, until recent years, been standard practice in this country.

The uses of the One-pipe and the Two-pipe System :

Practically throughout the whole of this country, the regulations of Local Authorities are based upon the two-pipe system and do not, therefore, permit of the one-pipe system. In recent years, some authorities have amended or modified their regulations to allow the use of either system.

The following notes on the plumbing system are based on the requirements of the drainage bye-laws of the London County Council, so far as they apply to the two-pipe system.

Ventilation of Drains :

If an intercepting trap is provided, at least two ventilating pipes shall be provided, one connected to the drain at a point as near as practicable to and on the inlet side of the intercepting trap, and the other at a point as far distant as practicable from the intercepting trap.

If an intercepting trap is not provided, at least one ventilating pipe shall be provided, connected to the drain at a point as far distant as practicable from the sewer to which the drain is connected. Such vents should be carried up vertically to such a height and position as to prevent any nuisance or injury or danger to health arising from the emission of foul air from the vent.

Such vents should be not less than three inches in internal diameter and should be fitted at the foot with an airtight access cap or cover.

Such vents should be of material, weight and construction as required for soil or soil ventilating pipes.

Soil and soil ventilating pipes may be used to provide the ventilation to the drain if they occur in suitable positions and also conform to the requirements set out above. The tops of all vents must be fitted with gratings with a clear aperture area equal to the sectional area of the pipe.

Soil Pipes and Soil Ventilating Pipes :

Such pipes should be circular, of not less than three inches internal diameter, and not less than the internal diameter of the outlet of any soil fitment discharging into it, fixed without unnecessary bends, and should be carried up without reduction in diameter to a height sufficient to prevent any nuisance occurring, and should be fitted with a grating as above.

Ventilation of Traps to W.C.'s :

If more than one w.c. is connected to a branch, or to a soil track, then the trap or branch of each w.c. must be ventilated with a vent pipe carried up to the same height as the soil ventilating pipe, or else carried up and turned into the soil ventilating pipe at a point above the highest fitting.

Where the vertical distance between the invert of the outlet of the lowest trap connected with the soil pipe and the invert of any horizontal pipe or drain into which the soil pipe discharges or is connected, is less than ten feet, then the vent should be carried down and connected with the soil pipe or with a manhole in the line of the drain.

If connected with the soil pipe, the connection should be made at a point not less than nine inches and not more than two feet below the invert of the lowest branch connection and adequate means of inspection at the point of connection should be provided.

Ventilation of Waste Traps :

Traps of fittings should be ventilated wherever it is necessary to prevent the seal of the trap being broken.

Vents from fittings on the same floor should be carried out to a position in the open air where they will not cause a nuisance.

Vents if connected to fittings on different floors must be carried up as high as the top of the waste ventilating pipe, or be joined into it at a point above the highest fitting.

Plumbing in Lead :

The whole of the plumbing work set out on this Sheet may be carried out in lead pipe, and in good work the pipe used for each purpose (soil, wastes, vents, etc.) should conform in size, weight and specification to the requirements laid down in the relative British Standard Specifications.

Methods of jointing, fixing, etc., have been dealt with in previous Information Sheets.

Information from : The Lead Sheet and Pipe Development Council

Address : Golden Cross House,
Duncannon Street, W.C.2

Telephone : Whitehall 3715

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DIAGRAMS OF VARIETIES OF OUTFIT FOR DRIVING ROTINOFF SHELL-PILES :

Large Contracts :



Steam Hammer type, 2 to 4 ton, for vertical or raking drive (up to 1 in 3 rake). 8 to 12 piles per day. This outfit is on rollers, & moves in any direction.

Small Contracts :

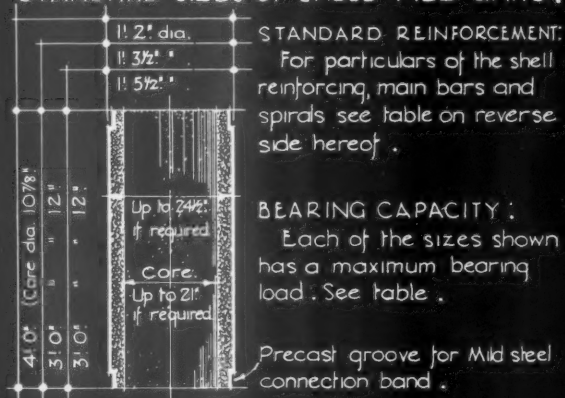


Excavator type, 2 to 3 ton drop hammers. Immediate start on any site. 4 to 8 piles per day.

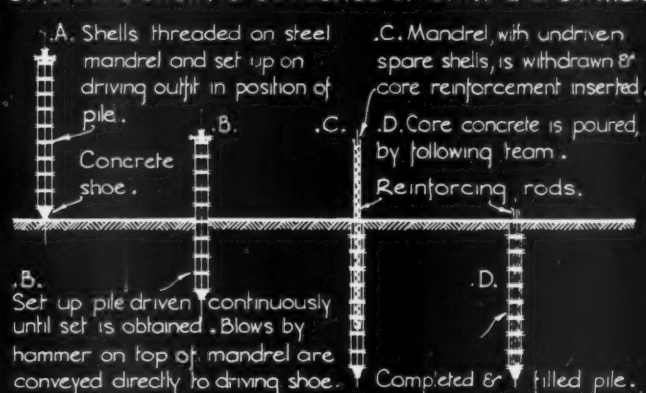
Lorry outfit, 2 ton hammer. For level sites & lightly loaded piles. 4 to 8 piles per day.

NOTE: In addition to the above mobile outfits, steel piling frames, Scotch or Guy Derricks with hanging leaders, may also be used for driving the Rotinoff shell-piles. For sites where the headroom is restricted a special twelve foot driving frame is obtainable.

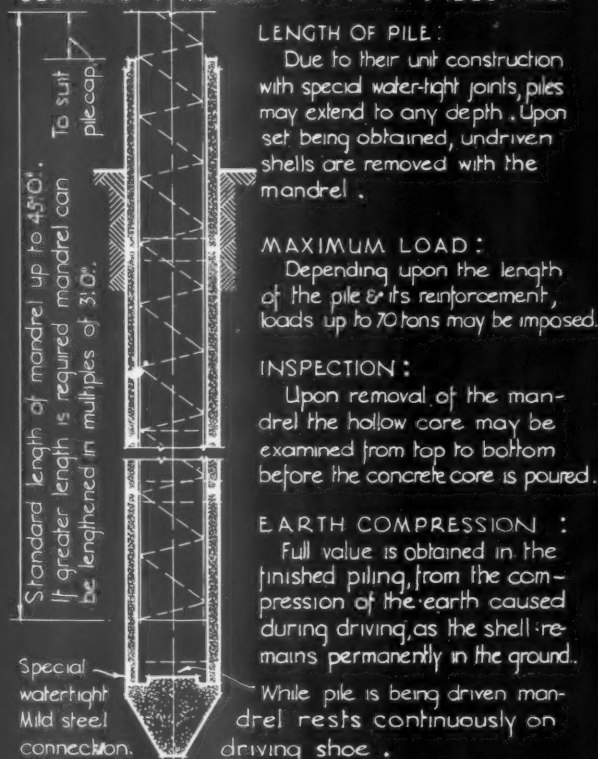
STANDARD SIZES OF SHELL-PILE UNITS :



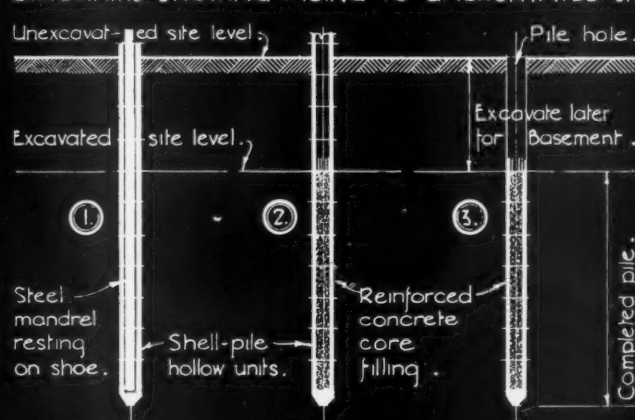
DIAGRAMS SHOWING SEQUENCE OF DRIVING OPERATIONS:



SECTION THROUGH TYPICAL SHELL-PILE:



DIAGRAMS SHOWING PILING TO UNEXCAVATED SITE:



FIRST OPERATION:

Shells are threaded on to the steel mandrel and the pile driven till the required set is obtained. See explanation on reverse side hereof.

SECOND OPERATION:

Mandrel is withdrawn, core reinforcement placed, and the core concrete poured to the level required for the basement floor level.

THIRD OPERATION:

The spare shells between the existing site level & the future basement level are removed & reused for pile No. 2. Site excavation may be commenced at once.

Information from West's Rotinoff Piling and Construction Company Ltd.

INFORMATION SHEET : ROTINOFF CONCRETE SHELL PILING :
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WCI. *Drawn by A. Bayne.*

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INFORMATION SHEET

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FOUNDATION WORK

Product : Rotinoff Shell Piling

The Pile:

The pile is formed by driving into the ground precast reinforced concrete tubular sections, about 3 ft. long, or longer (known as shells) preceded by a concrete shoe.

Driving :

The shells are driven into the ground by means of a steel mandrel which passes through them and rests on the shoe.

Thus the blows of the hammer delivered on the top of the mandrel are conveyed through the mandrel direct on to the shoe, and, at the same time, through a special patented arrangement on the mandrel sufficient force is applied to the shells (which are already threaded on the mandrel) to overcome the skin friction on the shell and drive them into the ground at the same rate as the shoe penetrates.

After the "set" is obtained the mandrel is withdrawn from the shells, taking with it any shells remaining above the ground. These shells can then be used in the next pile, thus avoiding any waste.

Joints :

The joints between the shoe and the bottom shell and the various shells are made water-tight by special means.

Pouring :

This leaves a hole in the ground perfectly protected by the rigid concrete shells, which can be inspected from top to bottom before the reinforced concrete core is poured.

Reinforcement :

As the brunt of the driving is taken by the steel mandrel the reinforcement of the cores need only be very light and not necessarily the full length of the pile.

Standard Piles :

Ext. Dia.	Shell Reinforcement	Core Main Dia.	Main Bars	Spirals	Shell Lengths	Max. Load Subject to Length
17½"	2" dia. 6 vert. 7 rings	12"	6-½"	1½" 9" pitch	3' 0"	70 Tons
15½"	9	12"	6-½"	—	3' 0"	50 Tons
14"	12	10½"	4-½"	—	4' 0"	40 Tons

Methods of Driving :

The method of driving selected depends upon the site conditions and the nature of the work. Several of the various methods and machines which may be used are diagrammatically set out on this Sheet.

Speed of Driving :

The speed at which piles can be driven is dependent on the site conditions and on the size of the piles required, the figures given on this Sheet are an indication only of the speed of driving under average conditions.

Small Jobs :

The character of the pile and the mobile machines used for driving enable small jobs (of 20 to 100 piles) to be undertaken and carried out with the maximum speed.

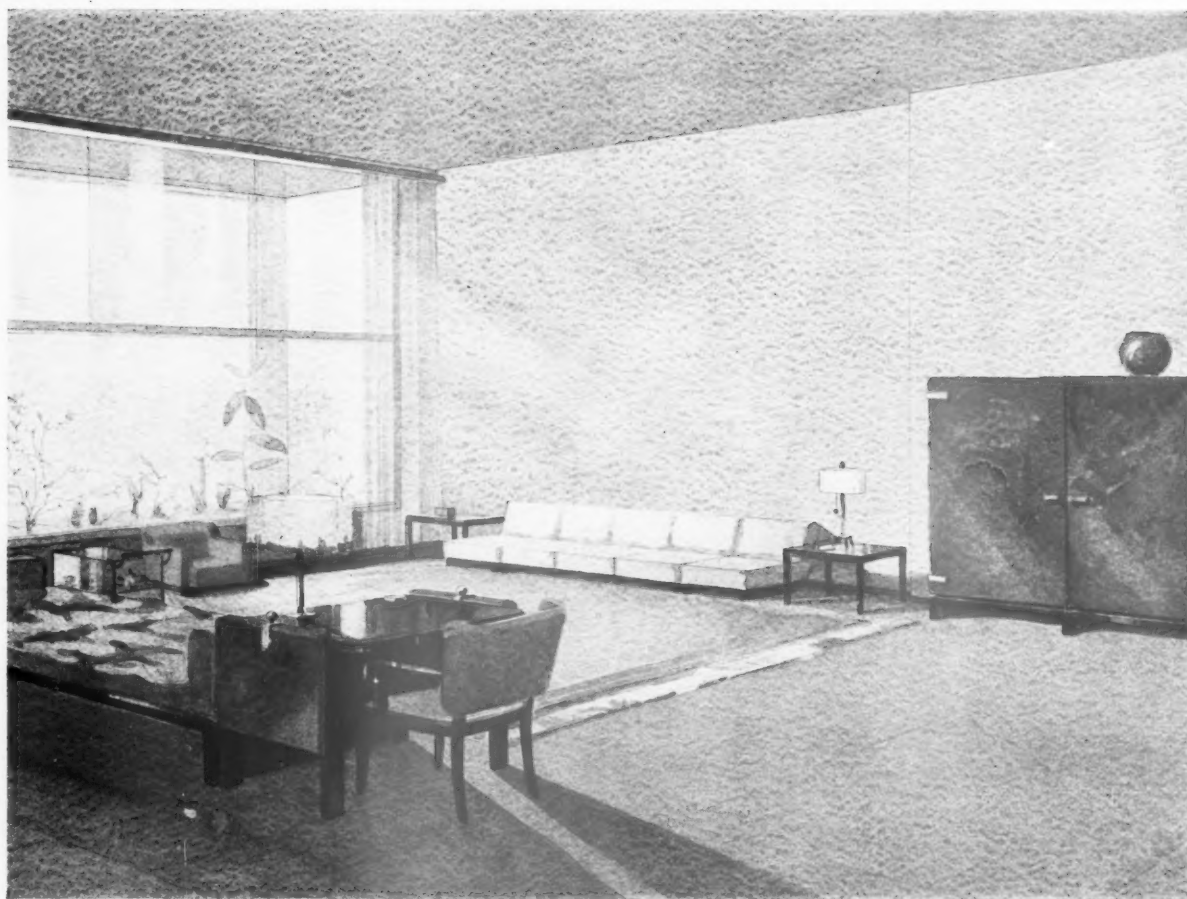
The Advantages of the System :

1. Bearing capacity of the pile can be definitely calculated because the compression of the soil caused through driving is left undisturbed when the mandrel is withdrawn from the rigid concrete shells.
2. The final cross-section of the pile is predetermined.
3. The pile can be inspected from top to bottom after driving.
4. The green concrete in the core is thoroughly protected by the rigid concrete shells when adjoining piles are being driven.
5. There is no waste owing to piles being shorter than anticipated, and there is no expensive building up and redriving piles which are found to be longer than anticipated.
6. The method of driving which carries the impact of the blows through a mandrel direct to the shoe, results in a great reduction in vibration as compared with precast piles, so that the system is frequently used close to or inside existing buildings.
7. Rapid driving operations are possible as the concreting of the cores is carried out by a separate gang following behind the driving gang.

Manufacturers : Wests' Rotinoff Piling and Construction Co., Ltd.

Address : Columbia House, Aldwych,
London, W.C.2

Telephone : Holborn 4196



*I N T E R I O R
D E C O R A T I O N*

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