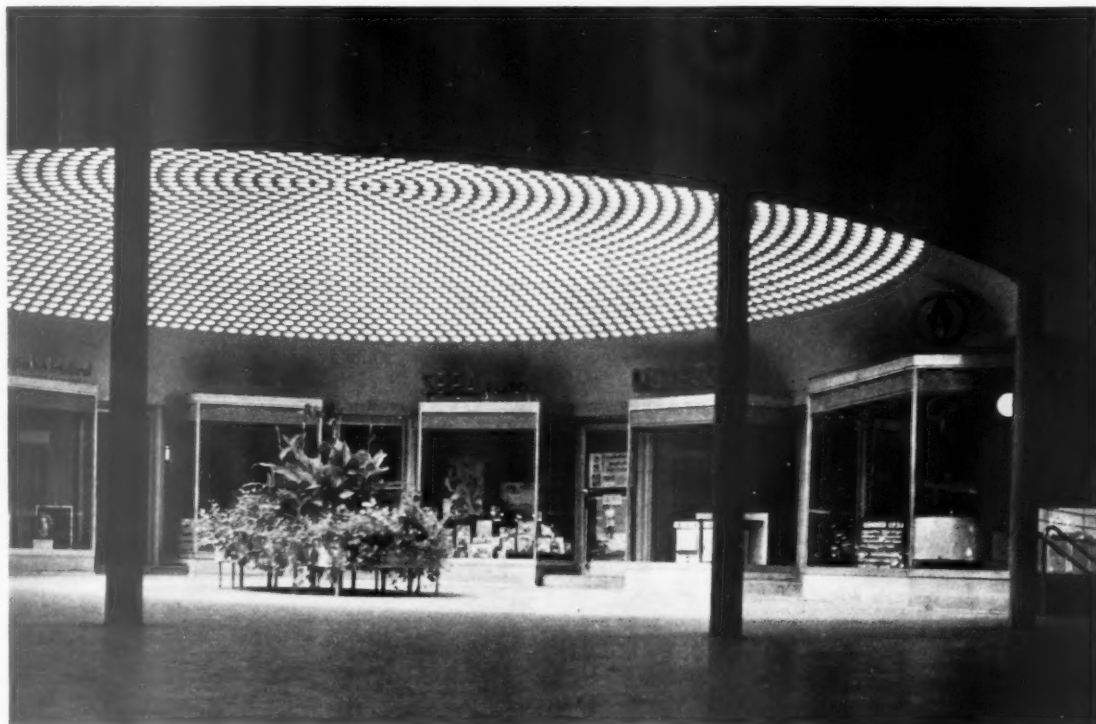


"CLOVER-LEAF" CROSSING, STOCKHOLM



ON the right is a general view of the "Clover-leaf" crossing, Stockholm, taken from the top of the Co-operative Societies' new headquarters. At the top right-hand side of the illustration is the glass concrete dome over the shopping centre. The top photograph is of the shopping centre under the "clover-leaf" crossing. The dome has a diameter of about 60 ft. The photographs are by Mr. Norman Westwood.



CORFE CASTLE

*A general view of Corfe Castle and
part of the village, taken from the
village church tower.*



BYWAYS

THE letter to *The Times* on Road Planning, which we reprinted on page 430 of last week's issue draws attention to an anomaly in its regulations which threatens to annihilate half England overnight. It points out that the Ministry of Transport will financially aid the making of roads of a certain traffic capacity (defined by width, straightness and other provisions), irrespective of whether this capacity is likely to be needed in any given case. The result is that it may be cheaper for the local authority to build a big road than a small one, even where the small one would amply suffice.

The letter describes an actual case. "A charming country by-road with almost no traffic" was to be widened and straightened at the expense of a neighbouring park, many of whose bordering trees were to be sacrificed to a footpath. There was clear evidence that the contemplated provision was excessive, and the reason for this was given in a letter from the county surveyor to the local branch of the C.P.R.E. In order to obtain the Ministry's grant, its regulations must be complied with regardless of local conditions and necessities; regardless, that is to say, of whether there is any call for a road of the traffic-carrying capacity provided for under the regulations.

This last point is perhaps in need of some emphasis, as there is a danger that the criticism being made may be set aside as one more plea for the preference of a particular landscape to the safe and healthy functioning of our traffic arteries. On the contrary, it is a criticism which may very properly be linked up, as it was linked in a further letter to *The Times* from the Editor of "Roads and Bridges," with a plea for the provision of a through-going arterial system, unhampered by misplaced preservation sentiments. The criticism does not say "look what you are spoiling to achieve your ends." It does say, "you are achieving nothing and you are spoiling something in the process; and, to introduce a hard-worked bugbear, you are paying good tax money to have this done."

The object of the Ministry's regulations is, no doubt and admirably, the encouragement of the provision of through roads of an adequate and uniform standard. It is not, presumably, the transformation of every track negotiable by motor traffic into an empty desert of unsullied tarmac. Yet this is what is happening. Instead of getting a system of clear, long-distance traffic channels, we are becoming enmeshed in a strangling system of oversized backwaters. If a man's

capillaries were all enlarged to arteries, he would be in no worse case.

One remedy for this difficulty would seem to be to distribute the Ministry's grants, not on the basis of the proposed size of the road, but on that of the amount of traffic it is carrying or could usefully carry. The traffic it is carrying is fairly easy to determine. To estimate the traffic it could usefully carry would need some sort of general plan of road development (though some other word than "plan" might be found to avoid chafing an already rather sore mental area).

And the word "usefully" means "with more use to the community than would be produced by retaining the present road with whatever value of beauty it possesses and adopting a slightly less convenient way for traffic."

Cases might still arise where local authorities were tempted to overestimate the traffic stream. In other cases landowners, for instance, might have a biased esteem for local features. In any case, to weigh landscape values against traffic-flow is not a recognizable official function. To meet such difficulties there might be a possibility of encouraging the formation of country watch committees, on the lines of the advisory panels, with representatives of, say, the C.P.R.E., the motoring organizations and of commercial transport. These bodies might not always be able to present an agreed report to the responsible authorities, but they should be able to short-circuit some of the instances of our typical method of government by official proposal, followed by indignant letters to the press, followed perhaps by official enquiry and modification when the job is half done.

In the matter of "the worst feature," the footpath, there must be many cases where the authorities and the landowner could agree to avoid the standard "sidewalk" and destruction of trees, by setting back the path and winding it through the trees.

In general we seem to be devoting too much energy to developing our widespread existing system, at the expense of those few new, real motor roads, whose relative need is not now so apparent. But in fifty years' time, when our children and their children will be writing to *The Times*, when a third of the population has vanished and the remainder, when they go any distance, go by air, it is not our foresight they will be praising. It is our failure they will be damning, to provide tracks for fast, heavy goods transport and to leave them lanes to wander in.



The Architects' Journal
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NOTES & TOPICS

OVERCROWDING

A NUMBER of newspapers have been pointing out during the past fortnight that, after a comprehensive survey of overcrowding, almost nothing at all is being done about it; and this in spite of the fact that in a great many boroughs overcrowding is already illegal—the owners and tenants being saved from prosecution only by the fact that alternative accommodation cannot be offered.

This state of affairs looks as if it would continue for a long time; indeed, it must continue for a considerable time. But Mr. Philip Rathbone, Secretary of the Housing Centre, has emphasized the most disheartening factor: that no plans appear to be being prepared for tackling housing in stages compatible with the capacity of the building industry.

At present local authorities very reasonably say, "slum-clearance first." And the most able and progressive authorities are finding building costs are preventing their continuing their clearance programmes. As regards Leeds, for instance, last December the Minister of Health decided that certain tenders were so high that he would not be justified in granting a loan. Thus in 1932 the Government refuses grants because of public lack of confidence, and in 1936 it refuses grants because prices are too high. What is Leeds to do?

The ordinary man, as well as the incessantly striving Building Industries National Council, sees that adequate housing will never be achieved in snatched dribbles between private panics and booms. And a reasonable solution would seem to be to place housing contracts in advance—two years in advance if necessary—and thus make sure that public work is not crowded out by last minute decisions of private individuals. Eventually, we will have to do this or something very like it.

MODERNISM IN THE LAKES

There are times when these notes seem to complain too much about too many things. I cannot help it. A lot of the nastier things, smaller things at any rate, happen because although people dislike them they cannot be bothered to complain—and then, before they can say "Astragal," the new arrival has become a vested interest.

I could describe a walk from Howtown to Patterdale, which I squeezed in recently on a visit to the north, at considerable length. In fact, I should like to. Ullswater was specially grand in sunlight under a mist at the 2,000 foot level; and I was able to spend some time looking at it while two companions, higher up the fell, rescued each other from being lost.

The point of this note is, however, the hotel where we had a meal afterwards. It was a good hotel, in plan and exterior, for a good plain meal and no nonsense; it had large chimneys, big rooms and an ancient sign.

Internally—a sad business—it had ideas of bettering itself. Its lounge was modern with pink glass light fittings and chamber music chairs; its lavatory floor was of broken coloured tiles, each bit as big as a butter dish.

We were dressed as one would be for a long and wet walk in the Lakes, and we asked for ham and eggs. The waiter, extremely gentlemanly in a boiled shirt, said that they were serving dinner now. But after a bit they allowed us among the clientèle, who were eating four-and-sixpence worth of bits and scraps surrounded by cold and gilded central heating.

We were possibly a little intolerant for fifteen minutes or so, but no intolerance could explain our certainty that none of the twenty other people in the room had ever walked half a mile in the Lakes.

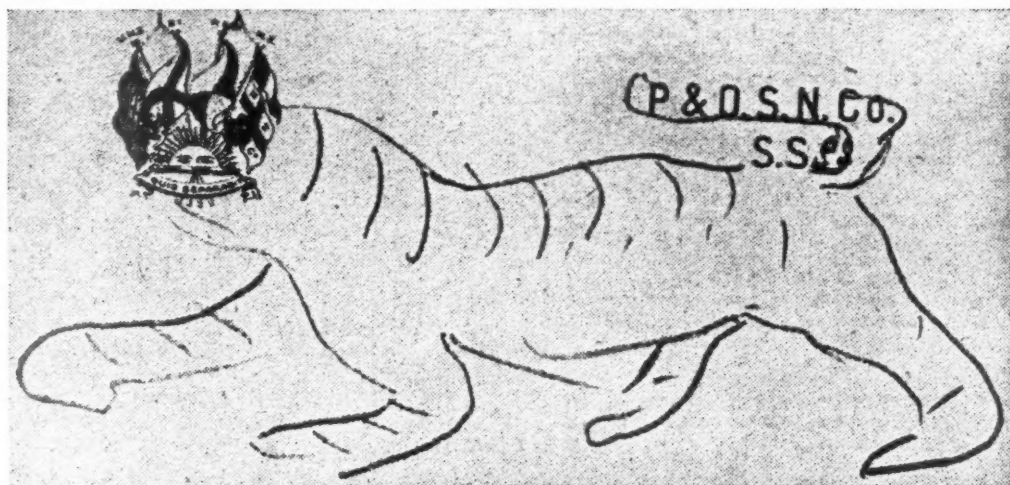
The Lakes nowadays are visited by both motorists and others. There is room for both. But the tendency of pub after pub, or hotel after hotel, to parade a mock superiority is something the Friends of the Lake District ought to take up.

JERRY-BUILDERS . . .

The jokes about jerry-builders and their products are legion; many of them are standard jests—like marrows and income-tax inspectors—amongst the season-ticket-holding victims. I for one am always prepared to exercise a little charity towards the jerry-builders, who, after all, are no worse than their betters who should know better—if you understand me.

This *à propos* of two tricks of the trade, new to me at least, which have just come my way. The monotony of the "grid-iron" plan in modern estate "development" has been turned to account. One road of houses in a large scheme was comparatively decently built and each time the surveyor came to make his final inspection of a fresh section of the estate he was shown the same lot of houses—road name-plates are easily moved.

The other was a more ingenious device. Whilst the surveyor was going down one staircase and up another,



a single pair of purlins was pulled through the party walls from house to house. This taxes credulity to the utmost, but my informant assured me with absolute conviction that it takes place; which may explain local authorities' aversion from terrace houses. It is an explanation I had not thought of till now.

... AND ESTATE AGENTS

Whilst on the subject of the seamier side of suburban life, what of those sub-human beings—the Estate Agents—who haunt the underworld of Harrow and Raynham Park? I recently "inspected a property with a view to purchase," the only fishy thing being that the owner was rather ostentatiously, I thought, "going abroad." However, I discovered in time that one of Mr. Leslie Burgin's trunk roads was scheduled to destroy the adjoining fields and informed the Agent of the fact. A friend of mine inspected the same property under the ægis of the same Agent the next week—not a word about the trunk road.

MOVING HOUSES

It was the American Ambassador in Mr. Shaw's "Apple Cart," who, if I remember right, spoke of moving Ely Cathedral to the States. Mr. Ford, of course, did the same thing with his Cotswold cottage, wrapping the slates up in paper, one by one, as though they were Crown Derby. Hay was forbidden as a possible carrier of foot-and-mouth disease.

This peculiar form of architectural self-indulgence is one which we associate almost exclusively with America, and it was therefore with something of a shock that I was told that the Old Sun House, Chesham, had not been, as I thought, destroyed but merely "moved" to a field at Pednor. It was a charming old house and local opinion considered this odd procedure "worth the trouble." Needless to say the owner is a stockbroker and the original Mad Hatter also lived there in the seventeenth century.

Modern sanitation will be installed, but the wattle and daub will be panelled in glass so that the owner may show it to his friends.

SWANSEA

Architects in their desire to build with a proper regard for the future are often jeered at by lesser beings as

idealists and no doubt very properly suspected of thinking chiefly of their own pockets.

It is, therefore, with a feeling of self-justification that I find that even the most boldly planned and conceived schemes outgrow their needs on occasion. It is only three years since Mr. Thomas's great civic centre at Swansea was opened by the Duke of Kent. Now the municipal departments are all overflowing their offices and the borough architect has been asked how to get a quart into a pint pot.

SIR EDWIN DOODLES

"Doodles," according to the explanatory catchlines on an evening paper's brightness page, "are those weird scrawls and drawings which nearly everyone does, without thinking, on telephone pads while waiting for a call, or agenda sheets at board meetings, or at any other time when patience or concentration may be called for."

It is no part of my duties to give publicity to an evening paper's efforts to entertain me. I hate to do so; but I do not see how I can let the illustration on this page stand by itself.

One may suspect that the prize of ten guineas offered for the doodle of the week is starting a new industry of put-up doodles throughout the Home Counties—no such base thoughts are possible in this case; it is a doodle of long standing.

Sir Edwin Lutyens was homeward bound from India, visited the captain of the s.s. "Ranchi" and was left alone for a minute with a sheet of the P. & O.'s notepaper.

Uninterpreted the result would seem good to most of us. The *Evening Standard* goes one better—a leading psychologist analyses each doodle published. Sir Edwin's analysis is:—

Powerful, controlled and original mind. Centre of its power lies in its ability to combine ideas and forms of complete neutrality into new shapes of vital and individual interest, and to see possibilities in unexpected material. Direct and simple, has keen imagination and quick inventiveness. Decisive and deliberate, dislikes reconsidering details of a project once outlined. Is not interested in abstractions or in civic affairs; is an individualist.

ASTRAGAL

NEWS

POINTS FROM
THIS ISSUE

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GLASGOW'S GARDEN CITY
SCHEME

Arrangements to start the work on Glasgow's garden city estate at Pollok were approved by the Town Council last week.

The scheme provides for the erection of 4,000 houses on an estate of 700 acres and the total cost is estimated at £2,000,000.

APPEAL FOR LINCOLN CHURCH

An appeal has been issued at Lincoln for funds to repair the tower of the Church of St. Benedict. These were not available in 1932, when £2,000 was raised by public subscription for church renovation and maintenance, and the edifice was reopened as a Chapel of Ease to St. Mary's.

YEovil TOWN HALL

A proposal that no further steps be taken in the matter of the proposed competition for designs of a new Town Hall, Yeovil, for at least three months, and that the Borough

THE
ARCHITECTS'
DIARY

Thursday, September 23

BUILDING CENTRE, NEW BOND STREET, W.1. Exhibition of enlarged photographs of S.S. "Orcades." Until September 25. 10 a.m. to 5 p.m.

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

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

Friday, September 24

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

Saturday, September 25

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

Sunday, September 26

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

BRITISH COMMERCIAL GAS ASSOCIATION. Annual Conference. At Manchester. Until September 29.

Tuesday, September 28

HOUSING CENTRE, Suffolk Street, S.W.1. "Disinfection." By A. W. McKenny Hughes. 1 p.m.

Wednesday, September 29

ARCHITECTS' REGISTRATION COUNCIL, 66 Portland Place, W.1. Twenty-second Ordinary Meeting. 5 p.m.

Thursday, September 30

NATIONAL SMOKE ABATEMENT SOCIETY. Annual Conference. At Leeds. Until October 2.

Friday, October 1

TOWN PLANNING INSTITUTE. At the County Hall, S.E.1. Nineteenth Annual Autumn Meeting. Also, Saturday, October 2.

Surveyor furnish to each member of the Council a block plan of the site of the present municipal buildings and adjoining property, with a report as to the possibility of incorporating a Town Hall on part of the site, was defeated by 14 votes to five at a

meeting of the Yeovil Council (states the *Bristol Evening Post*).

Councillor Pittard said the competition, which was now being promoted, meant there would be £1,000 in prize money, and £3,000 or £4,000 in architect's fees for the design accepted.

He stated that the Hendford Manor site for the proposed Town Hall, purchased by the Council for £10,000, might be utilised in other directions; and that the existing site of the old Town Hall would meet the requirements of the town at less cost.

APPOINTMENT

Mr. T. A. Maudsley, formerly Architectural Assistant to the Royal Borough of Kensington, has been appointed to the architectural staff of Mr. Percival T. Harrison, M.I.C.E., Borough Engineer and Surveyor, Finchley Borough Council.

OFFICIAL OPENINGS

The new County Sanatorium, Harefield, is to be opened by the Duke of Gloucester on October 18. The scheme was illustrated in our issue for January 14.

The extensions to the Alexandra Maternity and Nurses' Homes, St. Michael's Terrace, Devonport, are to be opened by the Duchess of Gloucester on October 19.

The Stagshaw Transmitting Station, designed to improve listening conditions in Northumberland, Durham, Cumberland, Westmorland and North Yorkshire, is to be opened by the Duchess of Northumberland on October 19.

MUNICIPAL OFFICES, FINCHLEY

Although the Minister of Health has approved in principle Finchley Borough Council's £100,000 scheme for new municipal offices, local ratepayers' organisations are persisting in their opposition, on the ground of cost. The North Finchley Association is considering organising a plebiscite.

APPOINTMENT OF COUNTY
ARCHITECT, NOTTINGHAM

The Nottinghamshire County Council invites applications from Members of the R.I.B.A. for the appointment of County Architect.

The salary will be £900 per annum increasing by annual increments of £50 to £1,100 per annum, together with a motor-car allowance.

The person appointed will be required to devote his whole time to the duties of the office and to reside within or near to the City of Nottingham; and the appointment will be subject to the provisions of the Local Government and Other Officers' Superannuation Act, 1922, and to the successful candidate passing a medical examination.

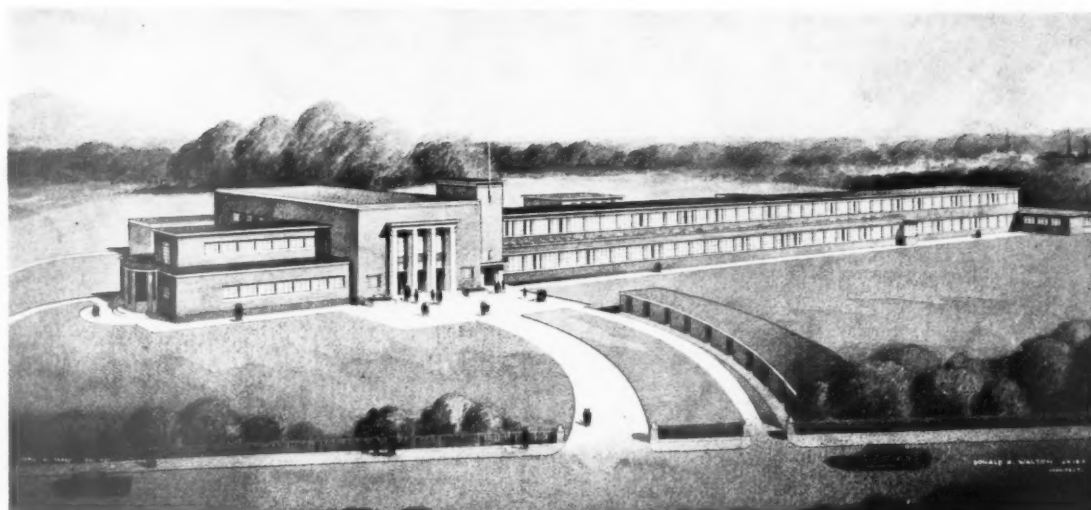
Further particulars of the appointment and forms of application may be obtained from Mr. K. Tweedale Meaby, Clerk of the County Council, Shire Hall, Nottingham. Applications endorsed "County Architect," and accompanied by copies of not more than three recent testimonials, should be sent to the Clerk not later than Friday, October 15, 1937.

I.A.A.S. EXAMINATIONS

The Intermediate and Associate Examinations of the Incorporated Association of Architects and Surveyors will be held at the end of November, 1937, commencing



A perspective, by Mr. J. D. M. Harvey, of the Palace of Arts, designed by Mr. Thomas S. Tait, for next year's Empire Exhibition at Glasgow. It will be a permanent building covering an area of 36,000 square feet, and at the end of the Exhibition will be taken over by Glasgow Corporation. Mr. Launcelot H. Ross is the supervising Architect.



Perspective, by Mr. Cyril A. Farey, of the winning design in the competition for new secondary school at Gloucester. The architect is Mr. Donald G. Walton. Elevations and plans were reproduced in our issue for September 9.

on Monday, November 22. Further particulars may be obtained from the Secretary of the Association, at 43 Grosvenor Place, Westminster.

THE NEW CHURCH HOUSE, WESTMINSTER

Satisfactory progress is being made with the building of the new Church House, Westminster, and the steel girders have reached the first floor level over the greater part of the area.

Little of archaeological interest has been discovered during the excavations, except the Norman wall which is supposed to be part of the granary of the ancient monastery; but a number of tokens of London mercantile houses have been found, and also a certain amount of pottery and glasswork; what appear to be two-handled beer-mugs which may formerly have been used by the boys of Westminster School; "Greybeard" flagons, with coats of arms stamped on them; and clay pipes of early patterns. The excavations have also revealed in the black mud of the stream which here ran into the Thames some oak piles to which barges used to be attached in former days.

NATIONAL HOUSING AND TOWN PLANNING COUNCIL

A conference under the joint auspices of the National Housing and Town Planning Council and the Scottish National Housing and Town Planning Committee is to be held in the Royal Hall, Harrogate, during the week-end November 26-29.

Following is the programme of the conference:—

Friday, November 26, 3.30 p.m.-4.30 p.m.: Address by The Right Hon. Sir Kingsley Wood, M.P., Minister of Health. *5 p.m.-7 p.m.:* Subject, "Housing Finance. Subsidies, Building Costs and Rents." (A separate Session for Scottish delegates will be held from 5 p.m. to 7 p.m. in the Grand Hotel). *9 p.m.:* Civic Reception in the Royal Hall.

Saturday, November 27, 10 a.m.-1 p.m.: Subject, "The Requirements of Modern

Housing (urban and rural)." *2.30 p.m.-5 p.m.:* Subject, "Problems arising from the Administration of Planning Schemes." *5.45 p.m.:* Joint Meeting of the Executive and General Committees of the National Council at the Grand Hotel.

Sunday, November 28, 1.30 p.m.-4.15 p.m.: Motor Coach Excursion to York, including a visit to the Earswick Garden Village (Messrs. Rowntree's). *5.15 p.m.-6.30 p.m.:* Lantern Lecture at the Grand Hotel by Mr. Ernest Morgan, F.R.I.B.A., Borough Architect, Swansea. Subject, "Hillside Development of Housing Schemes."

ARCHITECTURAL ASSOCIATION

Following is a list of the lectures and discussions arranged by the Architectural Association for the forthcoming session:

October 26: Address by the President, Mr. L. H. Bucknell, F.R.I.B.A. *November 30:* "The A.A. Excursion to Paris, 1937." By Mr. Eric L. Bird, A.R.I.B.A. *January 11:* To be announced. *February 1:* Debate on "Publicity for Architects." To be opened by Mr. Stanley C. Ramsey, F.R.I.B.A. *February 22:* "The Training of an Architect." By Mr. H. S. Goodhart-Rendel, F.R.I.B.A. *March 22:* To be announced. *May 3:* "Housing in an Industrial City." By Mr. R. A. H. Livett, A.R.I.B.A. (Housing Director of the City of Leeds). *May 31:* To be announced.

ANNOUNCEMENT

Mr. David Ospalak, Chartered Architect, is now in practice on his own account, at 25 Victoria Street, S.W.1, telephone, Victoria 9262, and would be glad to receive catalogues at this address.

A CORRECTION

We regret that in the notes on the Methodist Mission, Colliers Wood, published in our issue for September 9, the work executed by Messrs. Dunbrik, Ltd., was incorrectly described. This firm were responsible for the concrete bricks.

EXHIBITIONS

[BY D. COSENS]

IN art the documentary is tedious. Once the social commentaries of such painters as Zoffany or Hogarth were necessary to illustrate their world, but painters still stray into what is now indisputably the territory of the photographer. And the photographer, not content with the vast resources open to him to found a new art, bases his experiments on the time-worn traditions of painting and the stage. In this outlook he defeats himself, for he cannot hope to compete.

A photograph, whether still or in sequence, has a very real function—to show us, by deliberate arrangement and selection, the things we don't really see, the shadows and shapes of actual happenings. The eye does not always register what it is used to and, as René Clair realised years ago, commonplace things seen from unusual angles take on a different significance. Photography should be illustration, documentation, today's equivalent of the Conversation Piece, or else in its other function, the servant of science.

Judging from that standpoint it is interesting to compare the work of the London Salon of Photography, the Professional Photographers' Association, and the Royal Photographic Society, all of whom are holding their annual exhibitions. Of these, the work of the London Salon is by far the freest and most imaginative, and throughout it shows an understanding of the limits and potentialities of photography. The unusual angle business is not overdone, and is very successful in some, excellent street scenes (104, 107, 110 and 273).

The Professional Photographers' exhibition is devoted to commerce and industry. That should give almost unlimited scope, but the photography, though undoubtedly good, is on the whole very conventional. There is perhaps rather a surfeit of close-ups of those beautiful young women, supposed, by some obscure connection of thought known only to the advertising trade, to induce one



The foundation-stone of the London Midland and Scottish Railway Company's School of Transport, at Osmaston Park, Derby, was laid yesterday by Sir Josiah Stamp. Above is an elevational drawing. The architect is Mr. W. T. Hamlyn.

to buy this or that immediately. But there are a lot of straightforward photographs of buildings, and a really grand panorama of London by Aerofilms. The high-speed film of a falling drop of milk, showing the effects of surface tension, opens up unlimited fields to the camera.

The Royal Photographic Society's exhibition covers much of the same ground as the other two. The natural history section is by far the most successful, and here again the camera has no competitors. No. 202, "Streamlines," is perhaps the best photograph in the exhibition, and there is an astonishing record of the destruction of the Hindenburg.

In all three exhibitions the standard is high, but there is a surprising absence of experiment in detached light and form, and a general timidity in exploring the full possibilities of the camera.

International Exhibition of the London Salon of Photography, 5A Pall Mall East. Until October 9.

Photography in Commerce and Industry,

Royal Institute Galleries, Piccadilly. Until September 29.

Royal Photographic Society's Exhibition, 35 Russell Square. Until October 9.

COMPETITIONS OPEN

SEPTEMBER 24.—Sending-in Day. Competition designs for a multi-storey garage for the promoters of the Birmingham Building Trades Exhibition. Designs to Provincial Exhibitions, Ltd., Athenæum Chambers, 71 Temple Row, Birmingham.

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

OCTOBER 15.—Sending-in Day. Designs are invited for the decoration of one of the

entrance halls of the new buildings of the Glass Department of the University of Sheffield, now in course of erection. Premiums: 25 guineas and 10 guineas. Designs must be submitted not later than Friday, October 15, to Mr. W. M. Gibbons, Registrar, University of Sheffield, from whom further particulars may be obtained.

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

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

MAY 10, 1938.—Sending-in Day. The President, Vice-President, Treasurer and Governors of St. George's Hospital invite architects practising in the United Kingdom and Northern Ireland to submit in competition designs for the reconstruction of St. George's Hospital, Hyde Park Corner. Assessors: Dr. H. V. Lanchester, F.R.I.B.A., and Mr. T. A. Lodge, F.R.I.B.A. Premiums: £500, £300 and £200. The last day for submission of designs is May 10, 1938, and the last day for questions is November 15. Conditions are obtainable from The House Governor, St. George's Hospital, Hyde Park Corner, London, S.W.1. Deposit £2 2s.



A general view of the new Health Services Building adjoining Southwark Town Hall, Walworth Road, S.E., which is to be opened by the Mayor of Southwark on Saturday next. The site of the new building designed by Mr. P. Smart was acquired some years ago for the extension and rebuilding of the Town Hall; a limited competition was held; and the design of Mr. C. Cowles-Voysey was placed first. This project was eventually abandoned.

TWO BUILDINGS IN SOUTHAMPTON

DESIGNED

BY

SUTCLIFFE,

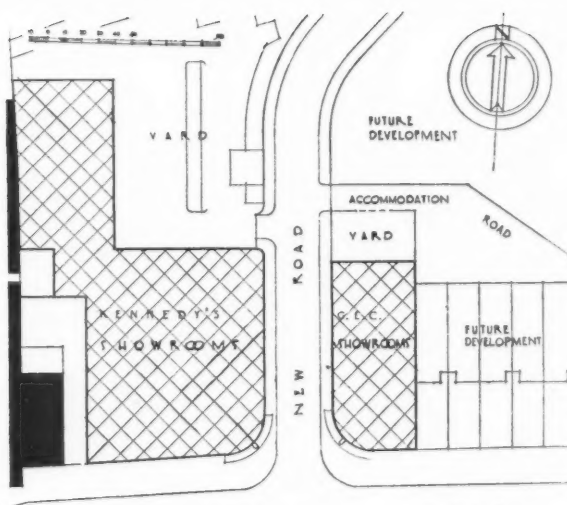
TAYLOR

AND

FARMER



1: GENERAL ELECTRIC
COMPANY'S PREMISES



COMMERCIAL ROAD
SITE PLAN OF BOTH BUILDINGS

GENERAL PROBLEM—The General Electric Company's building forms part of the entrance to an important new road opening up land for development. On the opposite corner the builders merchants' building, p. 469, has been designed so that when the proposed second storey is added, the two corners will balance. The G.E.C.'s building accommodates the offices and depot for a large area. Office space, showrooms, trade sales and ample space for stock with good loading facilities were required. Advantage was taken of the sloping site to plan the loading bay at first-floor level with a chute to deliver the long lengths of conduit to the racks on the ground floor. Above is a view, taken by night, of the General Electric Company's building.

TWO BUILDINGS IN SOUTHAMPTON: DESIGNED

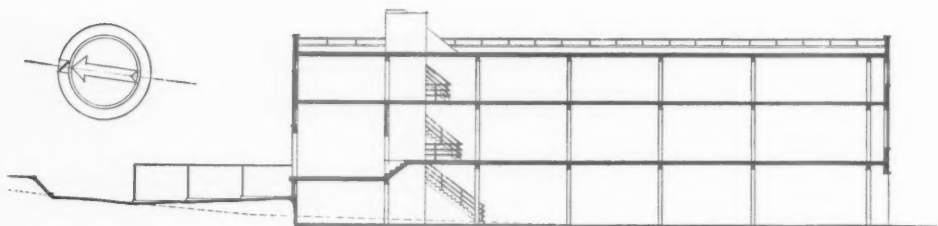
1: GENERAL ELECTRIC
COMPANY'S PREMISES

CONSTRUCTION—Steel frame, with brick hollow wall filling; precast floor slabs; reinforced concrete stairs; asphalt flat and glass canopy.

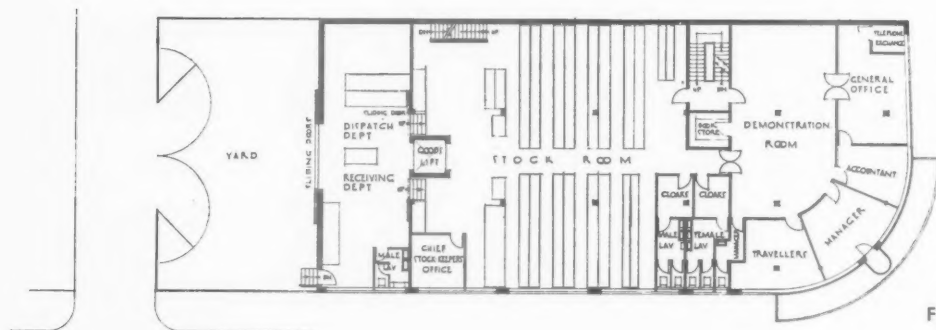
EXTERNAL TREATMENT—Precast coping and cills; rendering of buff faience to fascia and pilasters; metal windows, painted cream. The long vertical window has green tinted opal glass, lit from the inside with parallel lines of blue neon tubing.

INTERNAL FINISHES—There are oak block floors in the showrooms and the trade sales department; and granolithic floors in all stock rooms. The stairs are in yellow stone terrazzo; the wrought iron balustrading and hand rail being painted green.

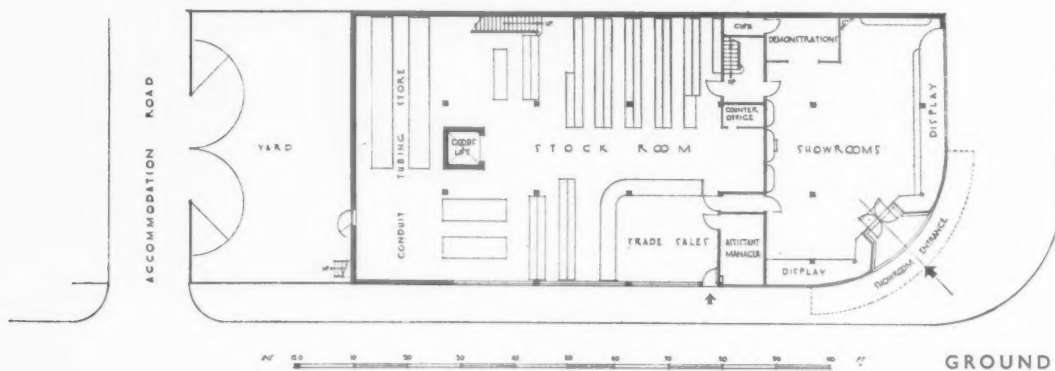
On the left is a photograph of the main front.



SECTION



FIRST FLOOR PLAN



GROUND FLOOR PLAN

BY SUTCLIFFE, TAYLOR AND FARMER

2: KENNEDY'S PREMISES



GENERAL PROBLEM—In the building for Messrs. Kennedy's, builders' merchants, an unobstructed area was called for with facilities for rapid and easy handling of a big and varied stock. Other requirements were ample display space in a prominent position for the retail customers; counters for trade sales to be in close touch with the administration offices; the whole of the stock to be inspected easily by customers; and the maximum window display and advertising space. It was agreed that all lettering and signs should be incorporated in the architectural design. All heavy stock is handled at loading bay level, both in the yard sheds and in the store building.

CONSTRUCTION, MAIN BUILDING—Steel frame, with 20 ft. bays. The external walls on the street elevations are cantilevered an average of 5 ft. to obtain the maximum unobstructed window space on both floors. Floors are reinforced concrete precast hollow units; stairs are reinforced concrete; and asphalt flat. The building is designed for the addition of an extra floor, and the stanchions, projecting through the roof, are drilled to receive further extensions. As a temporary insulation of the asphalt flat, which is laid without falls and is intended as the future floor, the outlets have been raised and the roof is flooded with 2 ins. of water.

CONSTRUCTION, BACK BUILDING AND YARD—Steel-frame, with timber floors and asbestos roof with patent glazing. The yard has a precast unit concrete wall, and light steel storage racks and sheds.

The photographs show: a general view and the glass canopy over the main entrance.



TWO BUILDINGS IN SOUTHAMPTON: DESIGNED

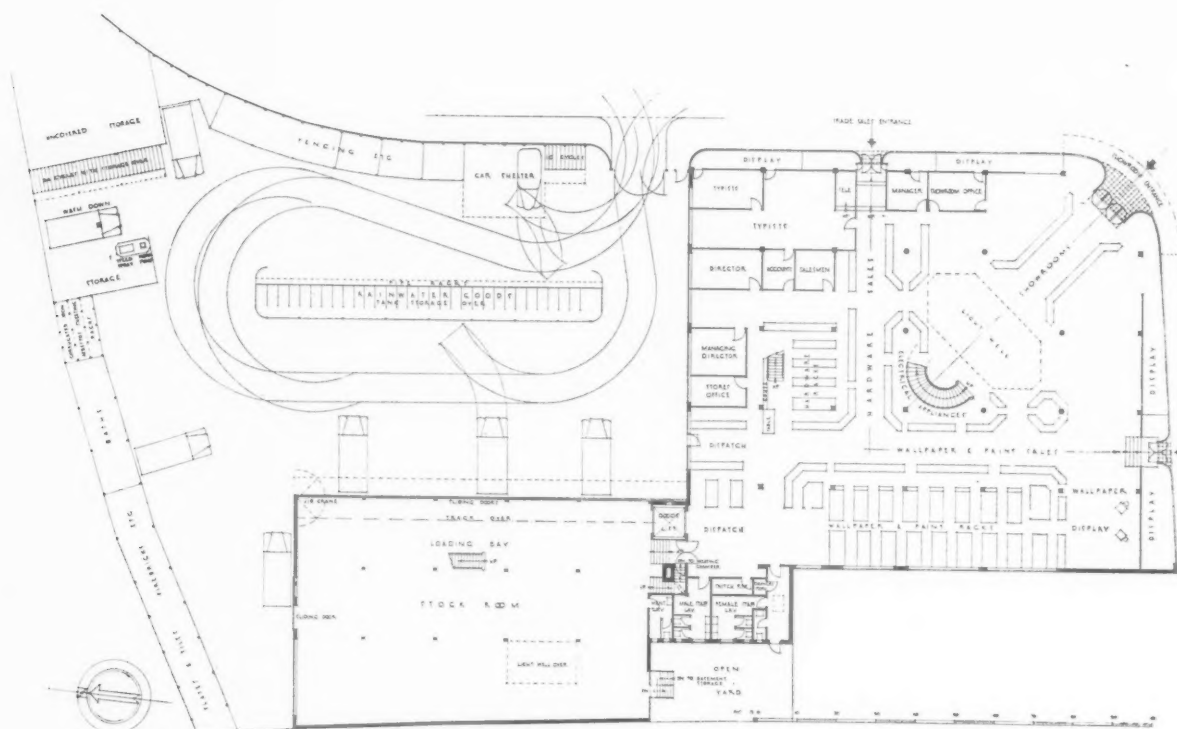


2: KENNEDY'S PREMISES

ELEVATIONAL TREATMENT—Precast concrete coping; cream rendering; buff coloured faience fascia; and metal windows, painted cream. The canopy is cast in situ, with the concrete left from the wrought shuttering, and has glass pavement lights. The metal and opal glass feature on the main elevation is lit at night with internal ray reflectors, arranged for three colours. The

shop front is in stainless steel and black armour plate glass, and the metal letters in the transome are interchangeable.

INTERNAL FINISHES—The floors in the main showrooms are polished birch strips, those portions of the store block which receive heavy wear are in end grain deal cubes. Counters and window backs are natural oak; storage rack and office partitions metal. To simplify changes in internal planning the whole of the fittings are standardized and movable. Above is a view taken from the north.



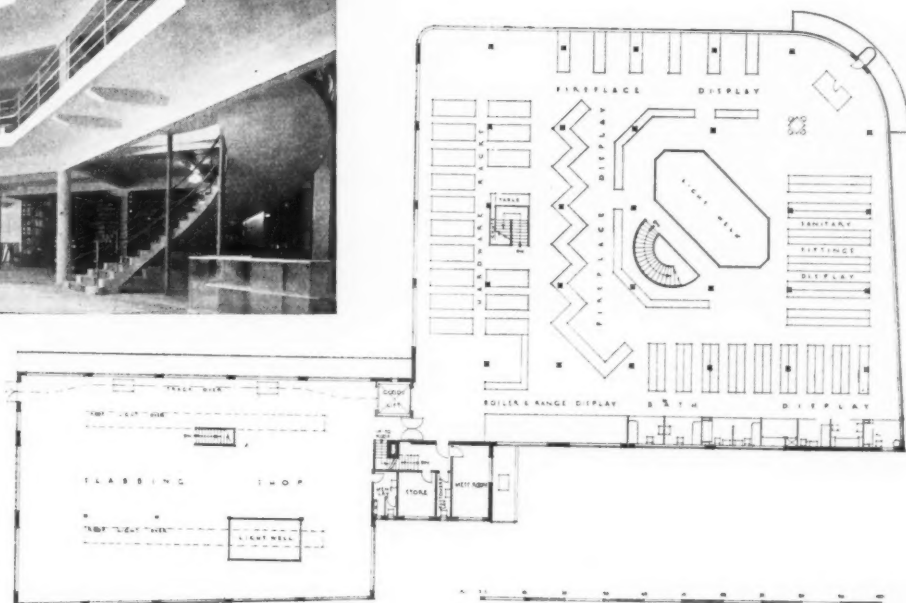
GROUND FLOOR PLAN

BY SUTCLIFFE, TAYLOR AND FARMER

The photographs show: right, the main staircase in the showroom; below, the showroom. For list of general and sub-contractors, see page 488.

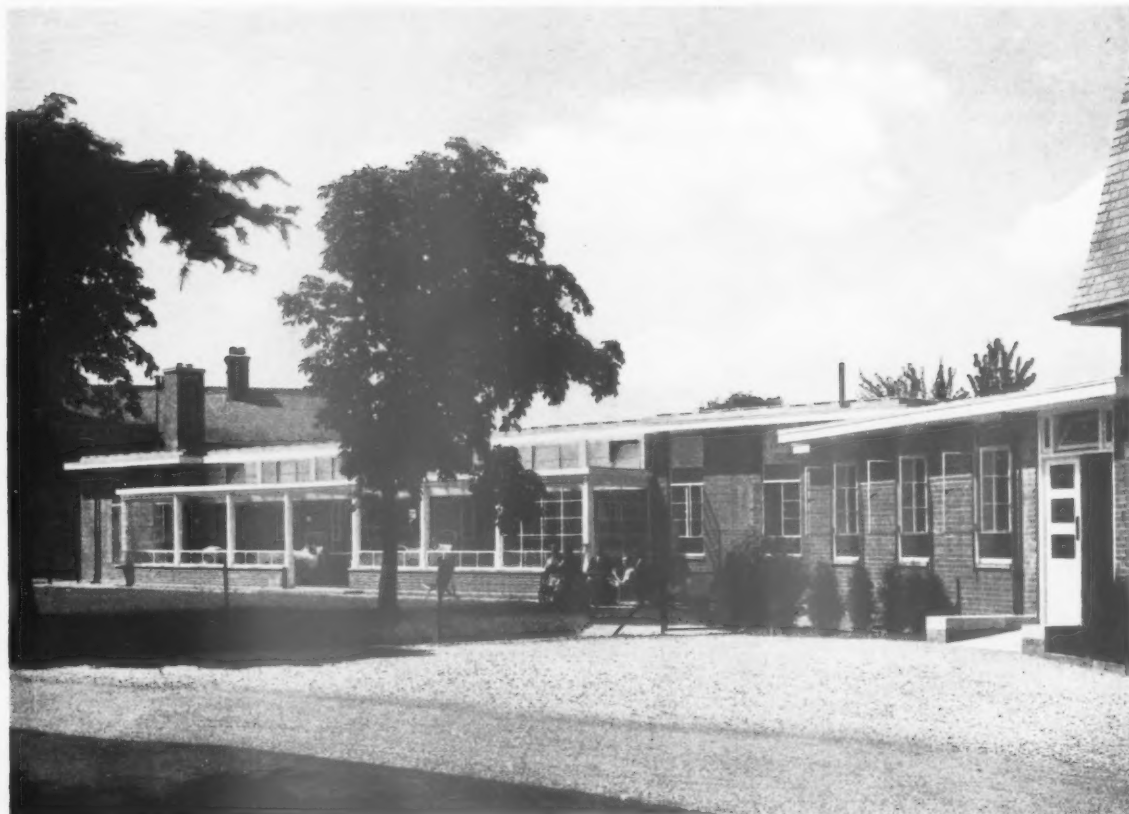


2: KENNEDY'S
PREMISES



FIRST FLOOR PLAN

NEW WARDS, NEWBURY DISTRICT HOSPITAL:



GENERAL PROBLEM—Provision of new men's, women's, and children's wards; single bed wards and nurses' bedrooms, and the reorganization of the planning of the old hospital. The men's and women's wards are connected by the main corridor, from which all the other departments and services radiate.

CONSTRUCTION—Weight carrying brick walls; floors and

roofs of precast reinforced concrete units. All the internal walls and ceilings are finished in special plaster.

ELEVATIONAL TREATMENT—Hand-made sand-faced facing bricks as used on existing building; windows and doors are metal, and the roof over the administration block is covered with green slates.

The photograph is of the men's ward.

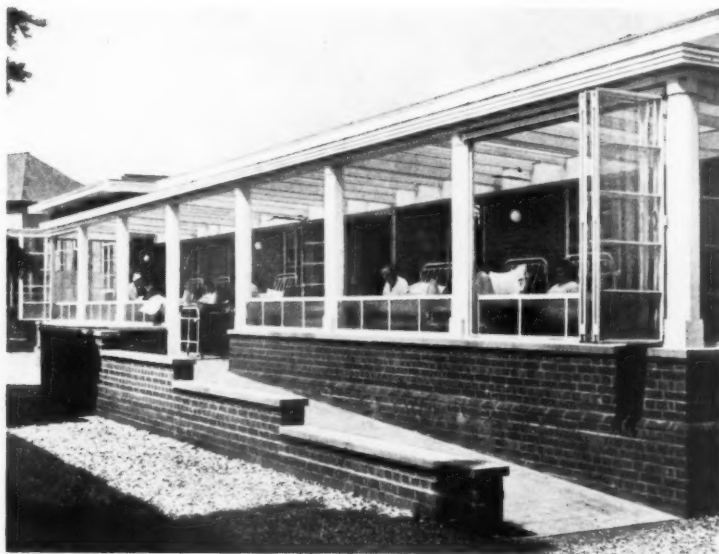


GROUND FLOOR PLAN

DESIGNED BY EDWARD MAUFE

ASSOCIATED ARCHITECTS:

FLOYD AND ROBSON



INTERNAL FINISHES—Floors to wards and corridors are in wood mosaic; and the kitchen, bathrooms, w.c.s and sterilizing rooms in tiles. Walls and ceilings are special plaster painted. Built-in furniture, painted, is provided in the nurses' bedrooms.

SERVICES—Heating and hot-water services are run in a crawling way underneath the main corridor.

CONTRACT PRICE—£20,600.

The photographs show: left, two views in the main corridor; above, the women's ward; below, the interior of the men's ward.

For list of general and sub-contractors, see page 488.



LETTERS FROM READERS

ARTHUR WELFORD

C. E. T. CRIDLAND (Managing Director,
Hawkes & Snow, Ltd.)

DEMOCRAT

"NOT A MEMBER OF THE ROYAL
ACADEMY"

The Next Slump

SIR,—In your leading article of September 16 the statement is made, "For the next slump will certainly come."

Why?

The answer is not contained in your article; there is, instead, a vague suggestion that "the difficulty (of flattening out booms and slumps) is undoubtedly not economic, but political and psychological." But that old-fashioned theory was exploded twenty years ago when it was discovered that a hitherto neglected factor in economics, bank-created credit money, has quite a lot to do with things as they are; that it is indeed the dominant factor in economics, and gives supreme power over industry—especially on the consuming side—to the credit/money creating and destroying monopoly, that is to say the banking system. By lending or not lending, by buying securities or selling them, this system can and does create and control debt to itself which cost it nothing but ink and paper, together with the stamps necessary for that control and the recovery of those supposed debts.

Whenever industry shows signs of slowing down why not try putting in debt-free—because costless—National credit money at the consumer end?

You quote Mr. Keynes on taxation. The question may well be asked, "Why taxation?" Can any taxation be justified when goods and services are being not only systematically destroyed, but even worse when their production is being suppressed?

ARTHUR WELFORD

The above letter was submitted to our Leader Writer; his reply is printed below:

This letter seems to raise four specific points, of which the first three arise through our correspondent not having read with any care the leading article to which he refers:—

1. The answer to our correspondent's first question is given in our leading article; we pointed to the rather rapid rise in the cost of living, to the fall in security prices, and to the fact that the building industry has already passed the turning-point.

2. Our point as to the psychological difficulty of putting into practice Mr. Keynes' suggestions was not at all vague—but was developed in some

detail in the last two paragraphs of the article.

3. The word "psychological" was used in reference to the difficulty we see in putting Mr. Keynes' suggestions into practice and not as our correspondent states, in reference to the general problem of flattening out booms and slumps. Our remarks therefore, had nothing to do with what is generally known as the "psychological theory of the trade cycle."

4. In any event that theory was not "exploded" twenty years ago; modern economists, in general, have developed an eclectic theory in which the "psychological theory" plays a considerable part.

We cannot enter into a discussion on social credit. This subject does not arise from an article which was devoted to one particular set of suggestions for alleviating the effects of the normal cyclical movement, suggestions we regard as minimal, but nevertheless valuable; we ourselves regard the social credit theory as indeed "exploded"; we would regard it as dangerous if it were more widely held; but there are more suitable places in which to discuss this question.

YOUR LEADER WRITER

Sub-Contractors' Fees

SIRS,—Some short time ago, I wrote with regard to the difficulty of getting payment from the main contractor by the sub-contractors, although the main contractor had probably received payment in part or in full.

I quite realise that the architect is a very busy man, and is not really paid for the office work entailed in keeping track of all these things.

I have, however, just come across an idea which I think ought to be brought to the notice of all architects, in the form of a duplicate slip, which consists of a notice on the top sheet, stating:—

"Re....."

"We have to-day requested Messrs. to pay you the sum of in connection with the above. Will you please sign and forward to us the attached form when this payment has been made."

It is obvious that this entails only the extra work of inserting a carbon on the

second form, and the return of this by the sub-contractor keeps the architect informed of all payments made by the main contractor.

I recommend this as a very simple and excellent way of overcoming the difficulty.

C. E. T. CRIDLAND
(Hawkes and Snow, Ltd.)

Salaried Architects

SIR,—Having disposed of my arguments by the frank admission of being unable to understand them (an admission immediately followed by a criticism of the said arguments) Chartered Architect and Surveyor, in his letter in the JOURNAL for September 9, now adds to his knowledge of what constitutes "good architecture" (my question, how he has been able to decide the matter, he leaves unanswered) the knowledge of how to recognize the right men to vote for as members of the R.I.B.A. Council.

It would intrigue me greatly to know how he has been able to decide that those at present holding control of the R.I.B.A. Council Table, are not the right men? Is it because they are not numerically representative of salaried architects? How am I to know the right men?

DEMOCRAT

[The correspondence upon the question of Salaried Architects must now cease.—*Ed., A.J.*]

The National Theatre

SIR,—I read Professor Reilly's comments in last week's issue on the new National Theatre with the interest that always attaches to anything he says.

But, for once, I wondered if he was quite sound in all his proposals.

Six years ago he wrote in your JOURNAL and described Sir Edwin Lutyens as "the youngest and most vital architect of us all."

In six short but crowded years, we find these vital works are things of the past, and so I see a danger in fixing the competitors' age limit at forty years, because if there is any delay before the New Theatre is completed, a further cycle of six years may have passed, and, alas, then the New Theatre will be sitting on the next shelf to Sir Edwin Lutyens' relicts, as soon as it is completed.

I feel the only safe policy to adopt would be to put the age limit at 21 years, and thus ensure a possible architectural life for the New Theatre of 18 or 19 years.

"NOT A MEMBER OF THE
ROYAL ACADEMY"



The Hotel Moscow, intended chiefly for delegations of workers and peasants travelling to Moscow for congresses or meetings. "These people, who very often live only in poor huts, are to see that the greatest luxury is thought fit for their reception; they are to return home with the feeling that they are citizens of a great and wealthy country." The architects are Shchousiev, Sayzelev and Stepan. From "Seven Soviet Arts."

L I T E R A T U R E

SOVIET ART

[By JOHN BERRING]

The Seven Soviet Arts. By Kurt London. London: Faber and Faber. Price 15s.

PRACTISING architects and architectural students nearly always come back from Russia with one or other of two stories which have now been virtually standardized: either Russia is such stuff as esquisses are made of, crying out for courageous young thinkers to come and town plan areas the size of Scotland and fill them with palaces of health in all the newer and more fashionable materials, or there are quite enough architects in Russia already, none of whom has anything to do except prepare Utopian schemes which come to nothing, with perhaps an occasional exercise in de-based classic or sham moderne which will be so badly built that it is certain to fall down in a very few years. How are Russian architects trained—how much do they get paid—what sort of a life do they lead—do they have the usual troubles with clients? Most of these questions are, as a rule, answered with vague generalizations, but one cannot, in fairness, expect anything else; could a monoglot Esquimaux

produce a coherent thesis on the practice of architecture in England after a trip of three weeks or so?

Dr. London sets out to examine not only the æsthetic standards under which artists work in Russia, but the way in which they are trained, how they live and how they are paid; and he does this both for the contemporary arts of the film, radio and gramophone and for the traditional arts of music, literature, theatre, opera, ballet, the beaux arts, applied arts and fashion and for architecture. His publishers claim that he is "a journalist of a kind hard to parallel in England—a man who takes the whole field of art as his province." And while one may wonder how any single mind can effectively compass such a large subject, the result is by no means superficial, for Dr. London, without being profound, has a good working knowledge of contemporary art patter, and his illustrations are remarkably consistent with his text.

Architects, however, have seen enough illustrations in English periodicals to be able to form their own opinions on current Russian work, and they will therefore probably be more interested in the way Russian architects are trained and how they live, and here Dr.

London seems to be a reliable guide.

The training of would-be architects is carried out in the Institute of Architects, of which there are branches in most of the big cities of the Union, and to which students are admitted after they have passed out of the lower schools. The course lasts for four and a half years, at the end of which time the student must have prepared his diploma thesis and must be capable of defending his arguments in public discussion. Given his diploma the student has two alternatives before him: if he is exceptionally brilliant he can take the entrance examination to the Academy of Architecture, and thereafter undergo a further three years of training involving a series of instructional trips both in the Union and abroad. This entrance examination, however, is extremely stiff and there are seldom more than twenty-five candidates out of the several hundred students in the Institute schools, the general run of students going into one of the Government's architectural studios where they work under the guidance of a master-architect and where they remain until they have acquired sufficient status to be allowed to produce their own designs.

The Russian equivalent of the R.I.B.A. is the Association of Architects, admission to which is automatic

after the completion of the usual three years of study. The minimum salary is from 4,000 to 5,000 roubles a year, plus a percentage of the income from successful schemes, and there is also an official fund for architects, established in 1933, into which is paid 3 per cent. of the production costs of every design. Since a great deal of building is going on, this fund rapidly grew to quite a considerable sum, and is now administered by the Association of Architects, who use it "to relieve and improve architects' standard of living."

Whether or not the public is a more discriminating client than the private owner is difficult to determine, but the great mass of the people is most definitely encouraged to take an interest in building, and twice a year all the shop windows in one of Moscow's main thoroughfares are filled with models and plans of new buildings of all kinds and "everybody is made to feel that the outward appearance of his city is his own personal concern; general criticisms are written on sheets of paper, available everywhere, which are thrown after use into large boxes." Dr. London does not tell us whether any use is made of all these criticisms, or indeed whether they are of any value at all, but he gives plenty of details about the innumerable discussions which are arranged between various experts and the supervising architects as soon as any new building is proposed. Considering that, even to comparatively intelligent clients, a plan may mean nothing at all, it seems unlikely that the great mass of criticism from the Russian public will be very helpful, but it is a distinctly encouraging sign when the public is not only asked to criticize but actually does so in fairly large numbers.

On the aesthetic side, Dr. London has a good deal to say, though he does not seem to know which way architects (or the Government) are going, hardly surprising when they do not seem to know themselves. His illustrations, however, show a marked swing away from modernism, on the grounds, apparently, that it is largely a bourgeois manifestation, and the adoption of a bogus classic, too vulgar to find a parallel in any other European country.

One comparatively minor criticism. Dr. London might well have made some attempt to translate his roubles into some sterling equivalent. 4,000 roubles a year, plus a percentage on successful schemes, plus half-price rooms in rest-houses, plus "journeys of study on which the fares and board are gratis and only the price of hotel rooms has to be paid," equals what in English standards of living? £400-£500? One would like to know.

STEEL

Theory of Modern Steel Construction. By Linton E. Grinter. London: Macmillan. Price 18s.

MR. GRINTER dedicates his book to those engineers who believe, with James Watt, that "of all things, but proverbially so in mechanics, the supreme excellence is simplicity." It is possibly unfortunate for British engineers that the compilers of our recent reports on steelwork design seem to have forgotten this maxim.

He also writes a foreword for the "sub professional" reader without, unfortunately, defining what a "sub professional" engineer is, but possibly such a definition is only necessary for those who, like the reviewer, have only a very rough working knowledge of the American language and its commoner idioms. For all that the foreword contains excellent advice on the arrangement of engineering calculations.

The remainder of the book follows the usual run of American text-books. It is competent, well-produced and well-illustrated. It also contains a section devoted to a brief history of structural engineering.

Roughly one half of the book deals with steel buildings and the other with steel bridges. The standard and the ground covered are sufficient for any English professional examination as far as statically determinate structures are concerned and, in addition, the book gives a good summary of modern American ideas of design. A second volume is promised dealing with indeterminate structures.

W. E. J. B.

CORONATION

The Country Life Picture Book of Britain. London: Country Life, Ltd. Price: cloth, 3s. 6d.; paper, 2s. 6d.

AMONG the spate of Coronation picture books, this one is less aggressively imperial than most. Glamis Castle, Buckingham Palace, Holyrood House and Sandringham are perhaps inevitable, but really all the rest of the photographs might well have been included even if the book had been published in a different year altogether. True, here are Little Moreton Hall and Chequers, Laycock and Chipping Campden, Clovelly and Symond's Yat, Kings' Chapel and Salisbury, but the book is intended for the general public and architects cannot complain if they find that most of the buildings illustrated are only too familiar. The standard of photography is high and the captions do their best to be reasonably informative, though one would like to remind editors, who hardly ever see a photograph of Westminster without automatically putting "Mother of Parliaments" under it, that the thousandth anniversary of the Icelandic Parliament was celebrated in the late nineteen-twenties.

H. P. B. S.

BENDING WOOD

Summary of Methods of Bending Wood by Hand. Forest Products Research Bulletin No. 17. London: H.M. Stationery Office. Price 1s.

THIS bulletin, issued by the Forest Products Research Laboratory of the Department of Scientific and Industrial Research, deals almost entirely with the practice of bending solid wood by hand as distinct from machine bending. Although the requisite skill to make bends by hand can only be obtained by experience, suitable and efficient bending equipment is a great asset in such work. Certain bending principles must in all cases be observed if success is to be obtained, but the actual methods and equipment may vary considerably. It is the object of this publication to outline the methods in general use and to illustrate apparatus and equipment that have proved efficient for many hand-bending operations.

Bending equipment may roughly be divided into two groups, the first being the apparatus used for making the wood plastic, the second the devices used for facilitating the actual bending operation and for controlling the fibre movements while bending is in progress. Equipment necessary for both these operations is described. The usual method of bending by hand is first to locate and secure the mid-section of the wood on the form and then to bend the two halves around the form. Probably the simplest method of attaching the steel strap to the wood is by means of simple clamps. If the bend is at all severe, this type of strapping is not to be recommended, but some form of end stop is required, the simplest type consisting of fixed metal or wooden blocks secured to the ends of the strap; the initial tightening of the strap can be done by wooden wedges, but for the more complicated and severer type of bend it is advisable to provide the straps with adjustable end stops, by means of which the pressures along the length of the timber may be controlled during the actual bending operation.

An adjustable type of end stop that can be readily attached or detached from the strap has obvious advantages, and one of these is shown set up ready for making a ring-seat type of bend, also a bend in more than one plane. The essentials to success in making a two-plane bend are to ensure that the bent parts of the wood are always covered on the convex face irrespective of the plane of bending, and to minimize back bending by making use of intermediate clamps. The finished bend is usually left clamped to the form and dried and set in this state.

Some of the most complicated types of bends are to be observed in the backs of the well-known Austrian bentwood chairs, and the strap used for these is often of a very complex nature. Experience alone teaches the operators just what end pressure to exert, and where to place the intermediate clamps and when to remove them, and indeed success depends here almost as much upon correct clamping as upon other factors. The set up for such a bend is fully illustrated.

The final type of bend considered is the "S" type in which it is necessary to have a supporting strap and adjustable end stop simultaneously on both sides of the pieces to be bent.

WORKING DETAILS : 593

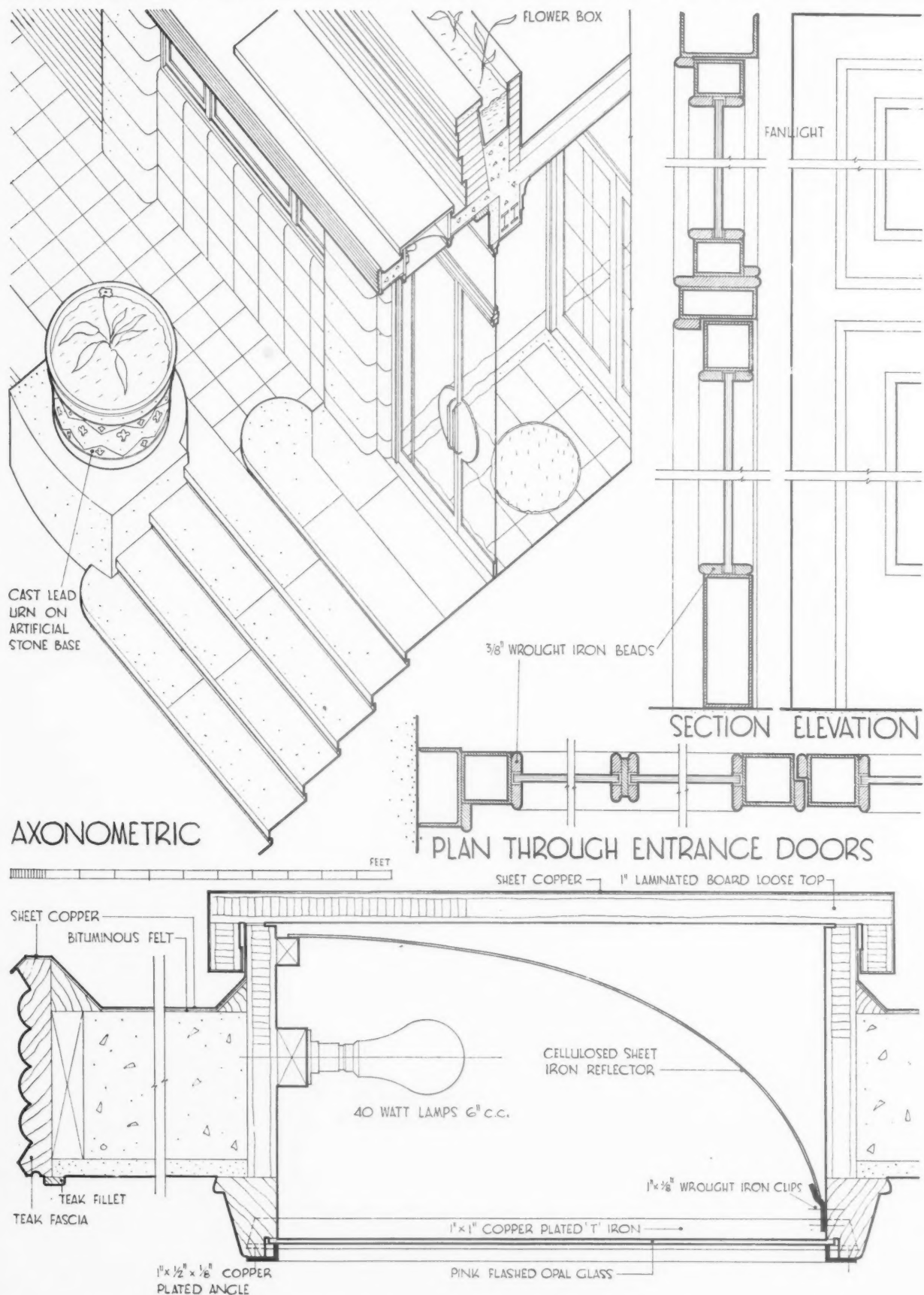
MAIN ENTRANCE • AVENUE CLOSE FLATS, HAMPSTEAD • STANLEY HALL AND EASTON AND ROBERTSON



The main entrance doors are set in an artificial stone-faced surround, with terrace and steps constructed of slabs of the same material. The steps are flanked by two cast lead urns containing flowers, which are set on artificial stone bases. The entrance canopy is in reinforced concrete, with teak fascia and cement rendered soffit. There is a lighting box inset in the canopy which is faced in pink flashed opal glass. Details are shown overleaf.

WORKING DETAILS : 594

MAIN ENTRANCE • AVENUE CLOSE FLATS, HAMPSTEAD • STANLEY HALL AND EASTON AND ROBERTSON



SECTION THROUGH CANOPY

Axonometric and details of the main entrance illustrated overleaf.

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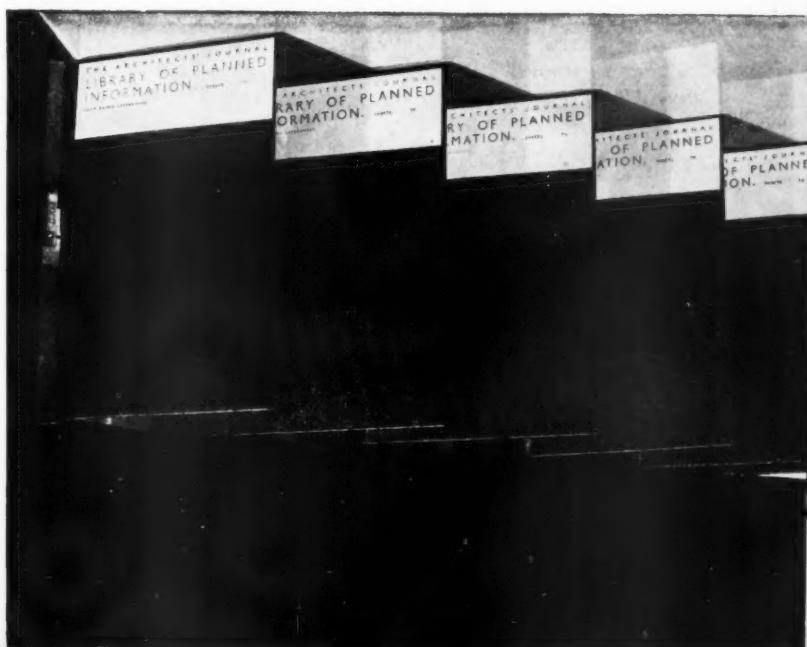
INFORMATION SHEET

S U P P L E M E N T

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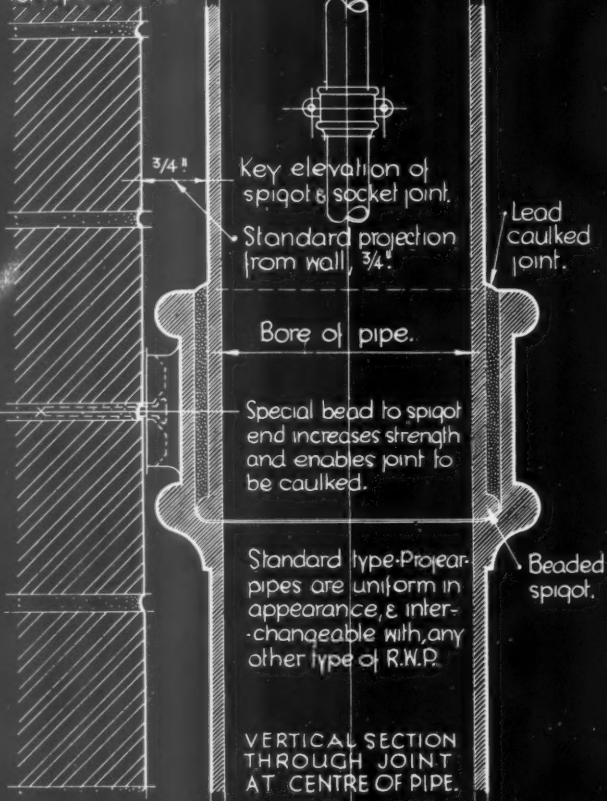
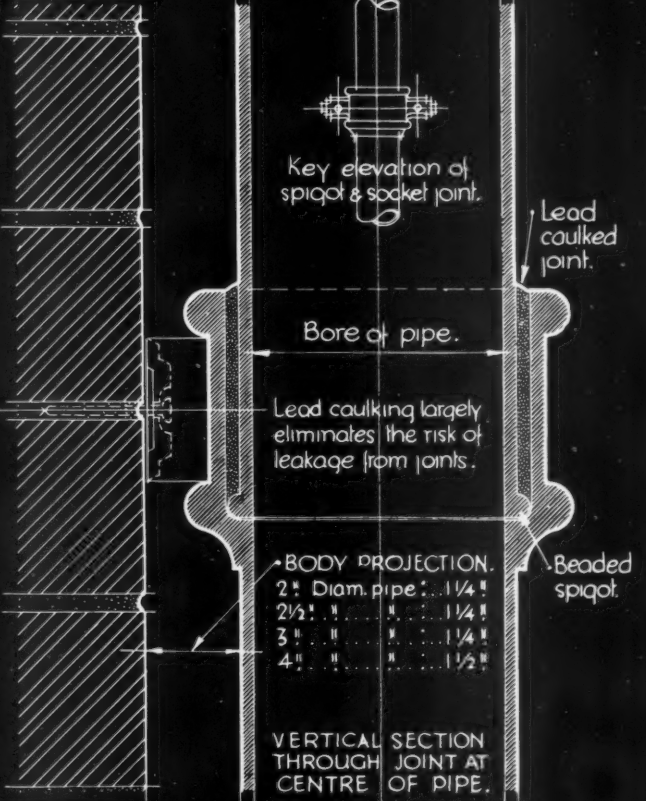
5 5 9 Flashing



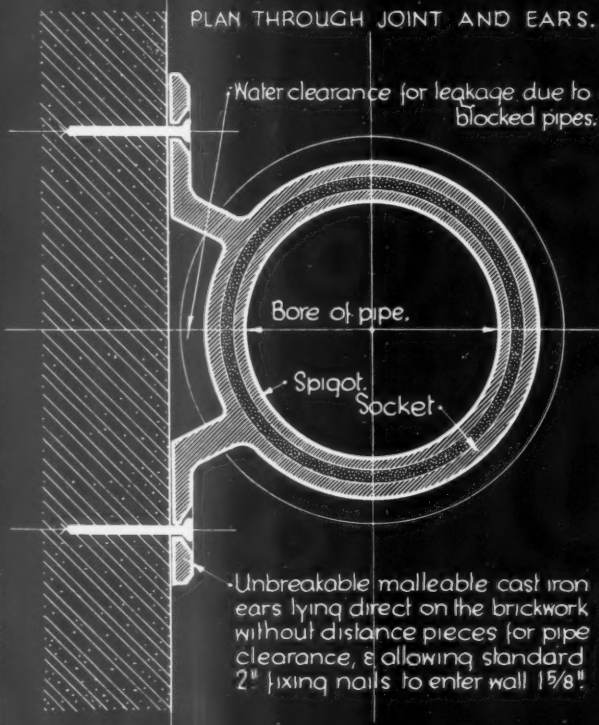
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- 508 : Roofing—Valley Flashings
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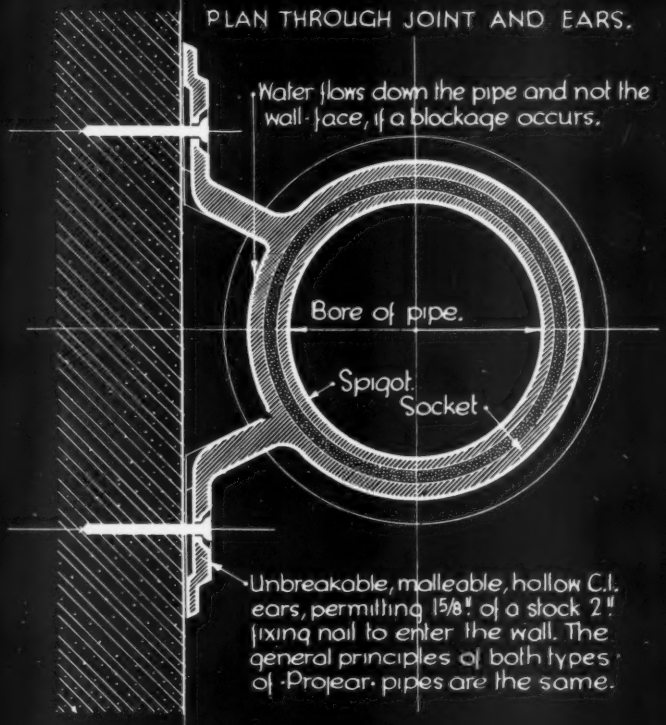
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THE A.B.M. STANDARD PROJEAR PIPE.
For replacements.THE A.B.M. SUPER-PROJEAR PIPE.
For new work.

PLAN THROUGH JOINT AND EARS.



PLAN THROUGH JOINT AND EARS.



Information from Associated Builders Merchants Limited.

INFORMATION SHEET: MALLEABLE EARED, CAST IRON RAIN WATER PIPES:
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C1. *Edw. A. Baynes*

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 558 •

A.B.M. RAIN-WATER PIPES

Product : A.B.M. Projear and Supear
Standard Cast Iron Rain-water Pipes with
Unbreakable Projecting Cast-on Ears.

This Sheet deals with rain-water pipes with cast malleable ears, and a special bead on the spigot end which increases the strength of the pipe and allows the joints to be caulked.

The A.B.M. Projear standard pipe is designed to give a standard clearance between the pipe and the wall of $\frac{3}{4}$ in. This greatly facilitates painting when fixed, and in the event of a stoppage in the pipe and consequent overflow, the water passes behind the ears and runs down the pipe instead of the wall.

The cast-on ears, being malleable, cannot be cracked by carelessness during fixing, and also reduce risk of damage during transit.

The ears lie directly on the brickwork without requiring distance pieces for pipe clearance, and can be fixed with a standard 2-in. pipe nail which enters the wall $1\frac{1}{8}$ -in., giving a secure fixing. No bobbins are required.

The spigot end of the pipe is beaded, giving extra strength to this part of the pipe which is liable to damage during transit. The bead also permits the joints to be caulked, eliminating danger of leakage, and adding to the strength of the run of piping.

The A.B.M. Projear standard is uniform in appearance and interchangeable with the old type of pipe, and thus it may be used for replacement work.

The Projear super pipe is the same in principle as the Projear standard pipe, but

has a greater projection from the wall. The malleable cast iron ears are hollow, and permit $1\frac{1}{8}$ -in. of a standard 2-in. nail to enter the wall. The spigot end is beaded and the joints may be caulked as in the standard type of pipe.

The clearance between the wall and the body of the Supear pipe is given below :—

Diameter of pipe	Clearance
2 in.	$1\frac{1}{4}$ in.
$2\frac{1}{2}$ in.	$1\frac{1}{2}$ in.
3 in.	$1\frac{3}{4}$ in.
4 in.	$1\frac{1}{2}$ in.

This enables the pipe to be painted completely. The Projear super pipe is recommended for use on new work on account of the simplified design of the projecting ears, and the greater clearance between the wall and pipe.

In the event of stoppage, water runs down the pipe instead of the wall, and since the centre back of the ear is hollow, this leaves a clear water-course between the pipe socket and the wall.

All A.B.M. rain-water goods are supplied finished with one coat of paint.

Previous Sheets :

The first two Sheets in this series dealing with A.B.M. products are Nos. 540 and 555.

Standardised Designs :

The Associated Builders' Merchants is a non-trading organisation devoted to the standardisation of the design of building materials and equipment.

Materials and equipment made by a number of manufacturers are stamped with the

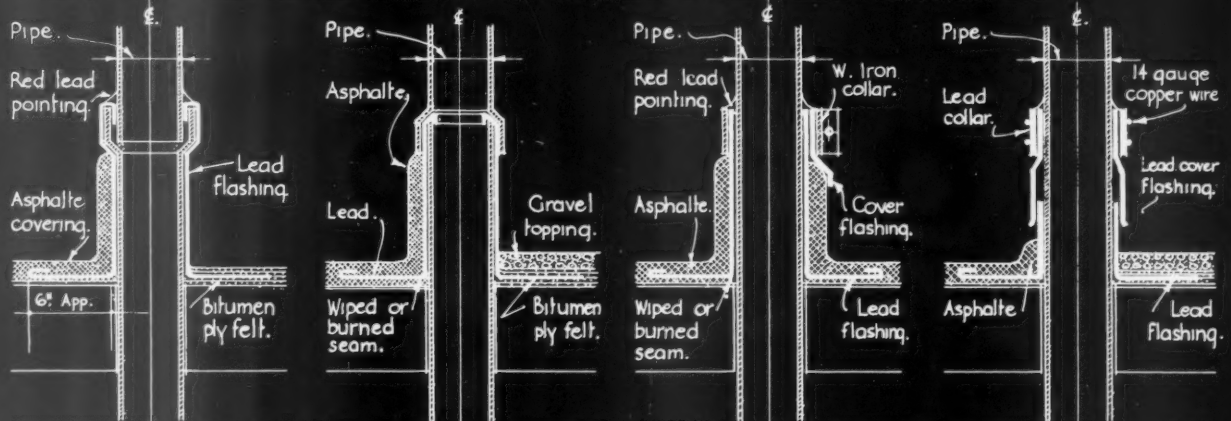
following symbol  indicating that they conform to the standard of design and quality laid down.

Information from : The Associated Builders' Merchants, Ltd.

Address : Peters Hill, Upper Thames Street,
London, E.C.4.

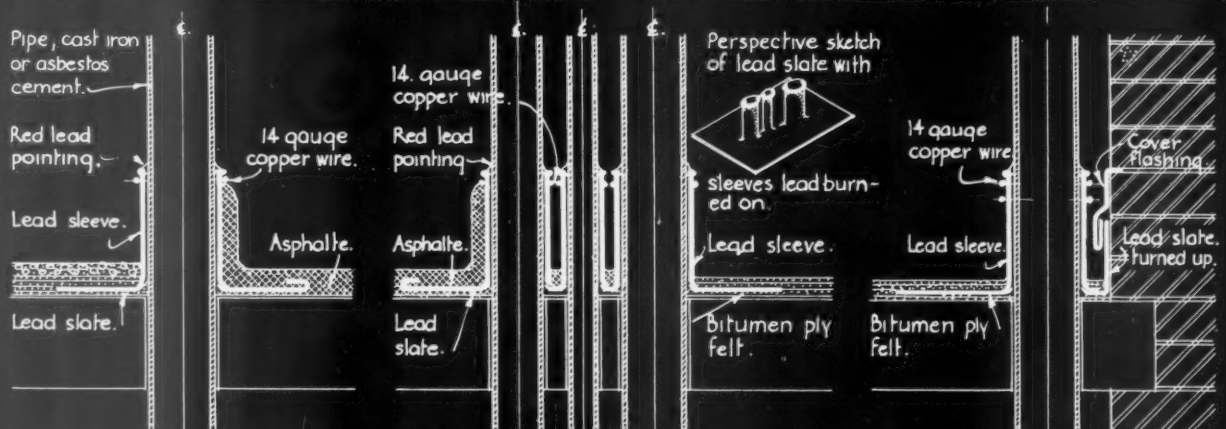
THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

VARIOUS DETAILS OF LEAD FLASHING TO PIPES PROJECTING ABOVE FLAT ROOFS :
Showing lead, cast iron and asbestos cement piping, with Asphalt or Bitumenous felt covered flat roofs.



ALTERNATIVE METHODS: CAST IRON OR ASBESTOS CEMENT PIPING WITH SPIGOT & SOCKET JOINTS:
Different roof finishes shown on either side of the centre lines.

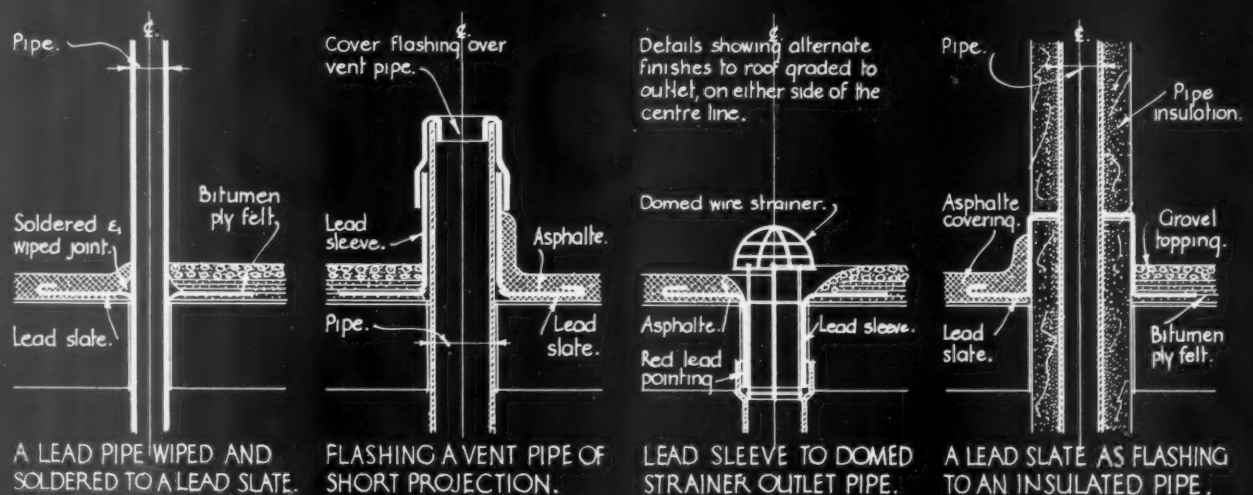
METHODS OF SUPPORTING FLASHING BY A LEAD OR WROUGHT IRON COLLAR:
In the first detail two methods are shown, one using a cover flashing.



FLASHING A FREE STANDING PIPE WITH A LEAD SLEEVE & SLATE.

FLASHING A GROUP OF PIPES CLOSE TOGETHER WITH A LEAD SLEEVE & SLATE.

FLASHING A SINGLE PIPE CLOSE TO A PARAPET WALL.



A LEAD PIPE WIPED AND SOLDERED TO A LEAD SLATE.

FLASHING A VENT PIPE OF SHORT PROJECTION.

LEAD SLEEVE TO DOMED STRAINER OUTLET PIPE.

A LEAD SLATE AS FLASHING TO AN INSULATED PIPE.

Information from the Lead Industries Development Council.

INFORMATION SHEET : LEAD FLASHINGS TO PIPES PROJECTING ABOVE FLAT ROOFS: N°40.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C1. *Chas. A. Baynes*

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 559 •

FLASHING

Subject : Lead Flashing to Pipes Projecting
above Flat Roofs.

This Sheet deals with the various methods of flashing and protecting the joints between pipes of cast iron, lead, or asbestos-cement, where they pierce flat roofs finished with asphalt or bituminous ply felt with or without gravel topping.

In most cases the lead used for this type of work should be 5 or 6 lbs. milled sheet lead.

The four details at the top of the Sheet show various methods of flashing cast iron or asbestos-cement pipes. The first two details show alternative ways of placing the lead in the spigot and socket joint in the pipes. In the first detail the joint between the flashing and the pipe is filled and pointed up with red lead. In the second detail the lower length of piping has the socket cut off so that a proper method of reverse socket and spigot joint is formed.

The next two details show the method of flashing single lengths of pipes by supporting the lead by a collar.

The first of these two details shows an alternative method of flashing on either side of the centre line. On the right an additional cover flashing is turned down over the asphalt roof covering; in both cases the top edges of the lead are supported by a wrought iron flanged collar screwed tightly round the pipe and pointed in red lead as shown.

The next of these two details shows a similar method of supporting lead flashing by means of a lead collar, which in turn is fixed by two strands of 14 gauge copper wire drawn tightly and twisted.

The faces between the lead collar and pipe surface are painted in red lead as previously described.

The horizontal projection of the lead flashing should never be less than 6 ins., and may be turned over to form a welt.

The three details across the centre of the

Sheet show methods of weathering the pipe by using a lead flashing and a lead sleeve. The lead sleeve is lead burned to the lead flashing; and a hole in the lead slate is then pierced, similar in size to the diameter of the sleeve.

This method of flashing can be used very successfully for a single free-standing pipe; a group of pipes very close together (as shown in the second detail), or a pipe projecting above the roof very close to a parapet wall.

In all cases the top of the sleeve should be supported by a strand of tightly drawn copper wire, and the joint should be pointed up in red lead.

In the third case, the lead slate is turned up the face of the parapet, and the ordinary cover flashing is turned down over the slate.

The four details across the bottom of the Sheet show methods of flashing special cases of pipes projecting above the flat roofs.

The first detail shows a lead pipe protected by a lead slate which is pierced to take the pipe, the edges turned down and the junction to the pipe wiped and soldered.

The second detail shows a method of flashing and cover flashing a vent pipe of short projection. In this case the main flashing is carried out by a lead sleeve and lead slate as previously described.

In the third detail, the flashing to an outlet is shown. A lead sleeve and lead slate is turned upside down and fitted into a socket of the ordinary vent pipe. The domed wire strainer is set on the edge of the socket, while the lead slate is either turned over and weltd or left flat according to the type of roof covering being used.

The final detail shows a method of flashing an insulated pipe in such a manner that the efficiency of the insulation is not destroyed.

A lead slate is pierced to take the pipe and slightly turned up the face of the pipe. Care should be taken to see that the slit formed in the insulation to take the lead slate is as narrow as possible.

The roof covering is then laid over the lead slate as shown to give protection.

Note.—In many of the details a different type of roof covering is shown on either side of the centre line.

Information from : The Lead Industries
Development Council

Address : Rex House, 38 King William
Street, E.C.4

Telephone : Mansion House 2855

IN THAT CONTINGENCY

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

Sound Transmission from a Squash Racquets Court

An inquirer asked for suggestions to prevent the disturbance caused by the use of a squash racquets court built in the basement of a new block of flats. An inspection was made and the following details of the type of building and cause of disturbance were obtained:—

The court was in the basement of a five-storey block of flats built partly in load-bearing brickwork, with intermediate steel columns, steel beams, and precast concrete block floors. The noise, of which complaint had been made, was that of the ball in direct play upon the end wall of the court. The impact produced an annoying type of sound which was persistently carried to remote parts of the structure, and to the neighbouring premises. When the ball struck a glancing blow upon the side walls, there was no appreciable noise transmitted, and although these walls were of exceptionally heavy construction, careful observation indicated that it was the type of blow, and not the mass of the construction which qualified the noise.

The foot noise of the players, although loud in the room itself, did not appear to be transmitted to any degree to the other parts of the building.

The guiding principle in the construction of squash racquets courts must be the complete isolation of the playing wall from the remainder of the structure. In the case under consideration the only method which could be suggested was to rebuild the playing wall upon a bed of natural cork at the base, and to insulate the other three edges from the structure by thin strips of coarse-grained insulation cork. It was important that the isolation of the wall should be complete, and to that end any bridging at the edges of the wall was considered undesirable. Plastering across the cork would be sufficient to short-circuit the insulation, and it was suggested therefore that the cork should project to the surface of the plaster, where it could be painted to match the rest of the room. It will be realized that the cork used in such a position as this must be slightly thicker than the plaster on the side walls, or finishing at the corners would be awkward. Mortar droppings should not be allowed to fall into the cavity between the playing-wall and any construction behind it, as this might give a short-circuit.

In the case of the trouble which resulted in the present inquiry, it has been noted that the foot noise of the players was not

creating any serious disturbance; this was presumably due to the fact that the floor is a basement one, and considerably damped by contact with the earth. Had this floor not been in contact with the earth, it is reasonable to expect that the foot noise might have been a serious matter. Or, on the other hand, if the playing floor had been of joists or sleeper walls, built into the structural side and end walls, again there might conceivably have been unfortunate results. The solution in such a case would appear to be the use of a floating floor.

Where a squash racquets court can be dealt with in the design stage there would be obvious advantages if it were built upon a separate foundation, providing that the isolation made possible by such construction were carried out completely. This would render unnecessary special insulation for any particular wall, or for the floor, and such a room ought not to be the source of any objectionable noise.

Thermal Expansion of a Roof

A FIRM of contractors reported cracking of external walls and partitions in a block of flats. The building was attached at one end to another building, and was erected on a steel frame, with the stanchions and beams encased in concrete. The floors and flat roofs were of reinforced concrete and hollow-tile construction. The roof slab was covered with 2-in. hollow clay slabs, stated to be for the purpose of heat insulation, and finished with asphalt. The external walls were of brickwork 13½ ins. thick and the partitions of hollow terra-cotta blocks.

The defect was confined to the walls and partitions in the top storey, and consisted of two series of cracks, (a) a continuous horizontal crack running round near the top of the external walls, marking their junction with the roof beams and (b) ragged curved cracks in partitions, taking the form shown in Fig. 1. An interesting feature of the

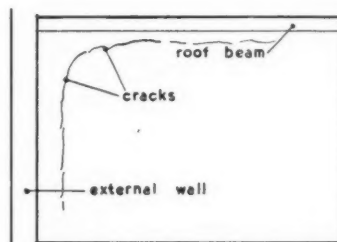


Figure 1. Elevation of partition.

latter type of cracking was that it was comparatively slight at the end of the block where it adjoined the other building and became more pronounced towards the free end of the block. The cracks extended into the partitions themselves, and were at the worst fairly wide.

It was stated that the plasterwork of the building had been completed during last winter and that the internal cracking had first become apparent after a spell of hot sunny weather in early summer.

After an inspection of the building the following reply was sent:—

There is little doubt that the cause of the trouble is thermal expansion, under the influence of solar heat, of the roof slab and those parts of the structure intimately connected with it. The possibility that the cracking is the result of shrinkage or settlement of partitions and external walls is discounted by the fact that the conditions affecting such a movement are similar on all floors, so that a failure due to such a cause would not have been confined to the top storey.

The increase of cracking towards the free end of the block also points to thermal expansion as the cause. The roof at the junction with the adjoining building is surmounted by a tank room, and the stiffness of the construction at that point, together with the protection afforded by the tank room against the sun's rays, have presumably formed a "fixed-point" from which expansion movement takes place.

The methods for preventing damage to structures and decorations such as had occurred in the case under consideration are (a) provision for free movement of the roof slab, and (b) protection of the roof against solar heat.

In the present instance an attempt has been made to employ the first of these methods by the provision of expansion joints in the cornice, but since the steel embedded in the concrete is rigidly connected throughout it is unlikely that these joints would take up any movement.

It appears, however, that inadequate protection has been provided against the sun's heat. With flat roofs of this type it is well to provide a white reflecting surface to avoid the excessive temperature rise that may otherwise result on hot sunny days. This forms a simple and economical method for keeping flat roofs cool in summer and reducing the risk of damage due to thermal expansion, as has occurred in the present instance. Some advantage may be gained in the same respect by means of insulation between the waterproof covering and the structural roof, but the amount of insulation necessary to obtain a result equivalent to the white treatment would be quite uneconomical. It must be realized, however, that some insulation of flat roofs is usually desirable to reduce heat loss outwards in cold weather.

It is suggested, therefore, that some treatment for the whitening of the roof surfaces should be undertaken immediately in order to prevent aggravation of the present trouble. Experimental work at the Building Research Station has shown that tallow-bound whitewash, a layer of light-coloured gravel, or one of the proprietary

slabbing treatments is effective in keeping the temperature of the roof slab down to that of the air, and no doubt the choice between the various methods would be affected by economic and other factors.

If a heat-reflecting surface of this kind were applied, progressive widening and spreading of the cracking throughout the summer should cease, but it is recommended that the building should be allowed to come to a stable condition before an attempt is made to replaster. If immediate repairs are necessary it would possibly be desirable at the points where the worst trouble has occurred (i.e. the ends of the longitudinal partitions) to consider isolating the partition from the frame. This might be done by means of a wooden or anaglypta moulding running round three sides of the partition, fixed to the ceiling and end walls and only touching the partition.

Cracking of Concrete by Aluminium

AN inquirer reported an interesting case of extensive fracture of concrete posts in which were embedded aluminium plates carrying traffic reflectors. Photographs of a number of posts were

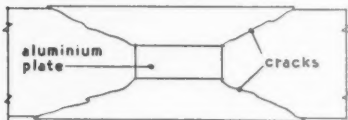


Figure 2.

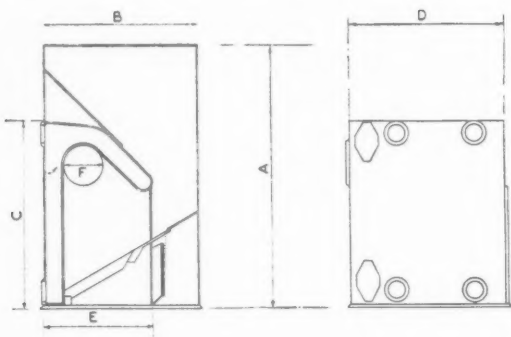
submitted and these showed consistently cracking of the form sketched in Fig. 2. An explanation of the cracking was requested.

Aluminium combines readily with free lime to form calcium aluminates and hydrogen gas, a reaction which results in gross expansion. As free lime is liberated when cement sets, corrosion of aluminium embedded in concrete is inevitable under moist conditions and the consequent expansion will result in the fracture of the set concrete.

The form of failure shown in the photographs indicates that general expansion has occurred, and there seems little doubt that the formation of calcium aluminate was the cause of the failure.

Aluminium, zinc and galvanized iron cannot safely be embedded in concrete unless completely protected by an application of bituminous paint or other suitable material, and in the present case this precaution must be adopted or some other metal employed.

It is of interest in this connection to note that aluminium powder is used as an active agent in the manufacture of so-called gas-concrete—a lightweight concrete. A proportion of the metal powder is added to the wet mix and the hydrogen evolved causes an increase in volume. In the manufacture of lightweight concrete the proportion of aluminium powder is so adjusted as to yield an expansion of about 100 per cent.



TRADE NOTES
[EDITED BY PHILIP SCHOLBERG]

Gravity Feed Boilers

WHILE there are plenty of gravity feed boilers on the market suitable for large jobs, not very many are available for the small house. On a large job it is generally quite easy to show that automatic boilers of almost any kind will give a considerable saving in both labour and fuel costs, and the boilers go straight in without any further argument; in a small house there will probably be quite a large percentage saving in fuel, but the annual bills are so small that the consequent money saving will not make very much difference. Labour costs will presumably be the same either way, but convenience has it every time, for the advantage of only having to fill the hopper once a day, or even less, and ash removal at the same rate would be enough to convince most people even if the efficiency were lower instead of higher.

Control is by a thermostatically operated damper, so that there is nothing to do except keep the hopper filled and the ash-pit clear. The boiler is finished with an enamel casing over the top, front and sides, and although the result is not quite as neat as some of the latest American designs, it is a great deal better than most. Any non-caking fuel can be used, in sizes from 1/2 in. up to 1 1/2 ins., though for the best performance the manufacturers recommend 3/4 in. to 1 in., the size generally known as "boiler nuts."

The same firm also make larger boilers up to two million B.T.U., all boilers in this range above 1,100,000 B.T.U. being supplied in two halves for ease of handling and erection, a point which might well have been considered on a recent job by an extremely well-known architect where the boilers were so arranged that the whole building will probably have to come down when replacements are necessary. Making the boilers in two halves also has the advantage that one fire can be cleaned without disturbing the other, and, if the demand should fall away during the summer, one-half of the boiler can be shut down completely, leaving the other half to take the load and maintain its normal efficiency—a much better way than running the whole boiler

A new small duty unit by Hall Boilers looks as though it ought to be useful for domestic heating and hot water supply, for it is available in six sizes from 25,000 to 150,000 B.T.U. at prices ranging from £28 to £61. The diagrams at the head of these notes show the key dimensions and the rest of the data appears in the table below.

Rating		Height	Width	Height Boiler only	Length back to front	Width Boiler only	Diam. of flue	Heat- ing surface	Grate area	Hopper Capacity	
Domestic at 10,000 B.T.U. sq. ft.	Central Heating at 5,000 B.T.U. sq. ft.	A	B	C	D	E	F	sq. ft.	sq. ft.	Coke lb.	Anthracite lb.
25,000	12,500	36	21	21	15	15	4	2.5	.5	40	60
35,000	17,500	40	24	27	16	16	4	3.5	.5	60	90
50,000	25,000	43	24	31	18	17	5	5.0	.8	90	140
75,000	37,500	48	30	36	24	21	6	7.5	1.25	140	210
100,000	50,000	48	30	36	30	21	6	10.0	2.25	200	310
150,000	75,000	54	36	42	33	24	7	15.0	3.25	300	450

at half load and wasting fuel in the process.

The standard size hoppers give a fuel capacity enough for about thirty hours running at normal load; the feed doors are at the front of the boiler, but can also be arranged for top feed with overhead storage, and the hoppers can also be enlarged to give extra storage capacity. In the standard boiler mechanical draught is supplied by a thermostatically controlled fan, when a smaller and cheaper grade of non-caking coal or coke can be used than under natural draught conditions, though the conventional automatic damper can be supplied if desired. (*Hall Boilers, Ltd., Aldwych House, Aldwych, London, W.C.2.*)

Extruded Aluminium Sections

The British Aluminium Company have just sent a photograph showing some of the different sections which they now produce for architectural work. Judging from the very complicated stunt one at the top of the photograph it seems that hardly any section would be impossible, though the cost of the necessary dies would be high enough to prevent any needless frills on purpose-made sections unless the job were exceptionally large. But the company now have more than 3,500 dies for different sections, so it may be assumed that most people will be able to find what they want without having to wait for special orders.—(*The British Aluminium Company, Ltd., Adelaide House, King William Street, London, E.C.4.*)

Wiring Systems

A new catalogue from the G.E.C. gives full details of the four wiring systems in which this firm is mainly interested: the lead-alloy sheathed (with or without an earth continuity conductor), the tough rubber sheathed, and a watertight system which makes use of an ingenious gland for either flat or circular cables. The catalogue starts off by admitting the merits of the conduit system, but puts forward these systems of surface wiring as reliable alternatives if economy is the main factor, or as the best methods for alterations or additions to the wiring of existing jobs. The catalogue is clearly set out and gives full details, dimensions and prices of cable, switches, plugs, fuse-boards, junction boxes, fixing clips and saddles, and all the other paraphernalia for a complete wiring job. Several price increases are noted on a correction slip at the beginning, the most important being an increase of 25 per cent. on all rubber- and lead-sheathed cables. (*The General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2.*)

Air and Immersion Thermostats

A recent list of Teddington thermostats deals with the types used to control the temperature of the heating medium, be it air or water, as opposed to those operated by the temperature of the room. These thermostats fall into two main types, those operating on the vapour-pressure system, and those controlled by the distortion of the usual bi-metal strip. Not perhaps the intimate concern of every architect, but this firm makes a good many special types for different jobs, and they also maintain a technical service to make certain that you

Various extruded sections made by the British Aluminium Company. (See note on this page.)



get the type you ought to have. (*The British Thermostat Co., Ltd., Windmill Road, Sunbury-on-Thames, Middlesex.*)

Building and Engineering Works

The history and activities of Messrs. John Laing and Son, Ltd., building and engineering contractors, of London and Carlisle, is the subject of a book just issued by the firm under the title *Building and Engineering Works*.

In the foreword, Mr. J. W. Laing, the governing director, points out that the business was founded by his grandfather at Sebergham in 1848 and that the number of men employed has increased from about twenty at the outset to the present figure of 3,000.

The foreword is followed by some 150 illustrations of the numerous contracts carried out by the firm. These include: *Hospitals*—Shenley (W. T. Curtis, F.R.I.B.A.); *Millbank Military* (H.M. War Department); *City and Metropolitan Police* (H. J. S. Abrams, F.R.I.B.A.); *Napsbury Mental* (W. T. Curtis, F.R.I.B.A.); *Manor House* (F. H. Allen, F.R.I.B.A.); *Cumberland and Westmorland Mental* (H. E. Ayris). *Schools*—Belmont; forming part of the Mill Hill Public School (J. C. S. Soutar, F.R.I.B.A.); *Rossall, Lancashire* (Sir Robert Lorimer, A.R.A.); *Burlington, Hammersmith* (Sir John Burnet, Tait and Lorne); *Metropolitan Police Orphanage, Twickenham* (H. J. S. Abrams, F.R.I.B.A.); and a number for the Middlesex County

Council. *Churches*—Wesleyan, Carlisle (A. Brocklehurst & Co.); *Burnt Oak* (Sir John Burnet, Tait and Lorne). *Offices*—Federation of British Industries, Westminster (Coleridge, Jennings and Soimenow); *Clifton House, Euston Road* (Richardson and Gill). In addition to the above jobs, the firm have been responsible for a large number of factories, farms, shops, flats and housing schemes, and have in hand four aerodromes, the contracts for which amount to about £2,000,000.

Manufacturers' Items

On Tuesday, September 7, an outbreak of fire destroyed an important section of the offices of J. and E. Hall, Ltd., of Dartford, and damaged other parts.

We are informed that no part of the works was affected and production continues without interruption. They state: "As our private telephone switchboard with 150 exchange and extension lines was completely destroyed, some temporary inconvenience was caused, and we apologise to any of our customers who had difficulty in communicating with us. The telephone service was rapidly restored, and alternative accommodation was immediately available for the staff of the sections burnt out. We are thus able to deal with all contracts and enquiries without interruption."

Messrs. G. A. Harvey & Co. (London), Ltd., have issued a new and enlarged catalogue of ornamental metalwork, No. 355, showing a considerable number of perforated metal designs for radiator covers and ventilating grilles.



*The water tower at Shenley Hospital. Architect: W. T. Curtis.
[From "Building and Engineering Works."]*

Messrs. Cox & Co. have removed their works, offices and showrooms to their new building on the Watford By-pass.

Messrs. Holophane, Ltd., of Elverton Street, Westminster, S.W., have just issued a booklet illustrating and describing their lighting contribution to the Coronation ceremony and celebrations of the King and Queen. The brochure states: "The number of people which Westminster Abbey had to accommodate for the Coronation ceremony necessitated special seating arrangements, and along the nave extensive galleries were built, the upper tiers of which covered a large portion of the windows, thus darkening the interior. With the reduced daylight effect and the requirements of the Press for photographic records, it was decided to augment the lighting of the interior. A special scheme of lighting was prepared by Holophane, Ltd., to the requirements of H.M. Office of Works Department, which had the effect of concentrating a high-intensity illumination on the parts of the Abbey used for the ceremony and the procession." Dealing with the floodlighting of the Abbey the firm state: "The floodlighting differed from the scheme used for the Silver Jubilee, due to the altered conditions of the new Annexe and a lofty stand which obscured the North Front from ground to the Clerestory level. The West Front Towers were floodlighted for the first time from close-up positions, which was made possible by using the roof of the new Annexe."

The General Electric Co., of Kingsway, W.C., have sent us a copy of the new catalogue

devoted to surface wiring systems. Copies of the catalogue may be obtained, free of charge, on application to the firm.

THE BUILDINGS ILLUSTRATED

GENERAL ELECTRIC COMPANY'S SHOW-ROOMS, SOUTHAMPTON (pages 467-468). Architects, Sutcliffe, Taylor and Farmer. The general contractors were Brazier and Son, Ltd., and the principal sub-contractors and suppliers included: C. J. Pell & Co., steelwork; Siegwart Fireproof Floor Co., Ltd., floors; Empire Stone Co., stairs; John Thompson (Beacon) Windows, Ltd., metal windows; J. A. King & Co., canopy; Shaws Glazed Brick and Tile Co., faience; Hollis Brothers, block floor; Kennedy's, Ltd., sanitary fittings, lantern light and sliding-door gear; A. J. Main & Co., fencing; Limmer and Trinidad Lake Asphalt Co., asphalt; Caslake & Co., balustrading; Charles R. Dibben, Ltd., masts and aerial; General Electric Co., electrical equipment; I. Groves & Co., lighting.

KENNEDY'S SHOWROOMS, SOUTHAMPTON (pages 469-471). Architects, Sutcliffe, Taylor and Farmer. The general contractors were K. Kimber and Son, and the sub-contractors and suppliers included: Dawnay's, Ltd., steelwork; Siegwart Fireproof Floor Co., Ltd., floors; Marryat and Scott, Ltd., goods lift; Empire Stone Co., circular stairs; Wayne Tank and Pump Co., Ltd., petrol pump; Shaws Glazed Brick and Tile Co., faience; J. A. King & Co.,

canopy and roof lights; Horsley Smith, Ltd., birch floor; Michael Gargano, Ltd., fibrous plaster column; Drakes, Ltd., shop front and lettering; Adams and Adams, heating; Caslake & Co., balustrading; P. C. Henderson, tracks and sliding door; John Thompson (Beacon) Windows, Ltd., metal windows; F. W. Cook & Co., lighting; Universal Asbestos Co., roofing; Limmer and Trinidad Lake Asphalt Co., asphalt; R. W. Brown, plumbing; Mellows & Co., patent glazing; Blokrete Co., Ltd., precast fence; Pilkington Brothers, glass; Claude-General Neon Lights, Ltd., neon sign; Ronco, Ltd., steel partitions; Griffiths Bros., window backs and counters; Kennedy's, Ltd., sanitary fittings, door furniture, wire enclosure and entrance gates.

NEWBURY DISTRICT HOSPITAL (pages 472-473). Architect, Edward Maufe. The general contractors were Collier and Catley, Ltd., and the sub-contractors and suppliers included: Trussed Concrete Steel Co., Ltd., reinforced concrete work; Roberts, Adlard & Co., Ltd., slating; G. N. Haden and Sons, Ltd., heating and hot-water supply; Crittall Manufacturing Co., Ltd., metal windows; Haywards, Ltd., dome lights; Samuel Elliott and Sons (Reading), Ltd., doors; Yannedis & Co., Ltd., door furniture; Doulton & Co., Ltd., sanitary fittings; Edwards and Godding, electrical work; Troughton and Young, Ltd., electric light fittings; Bratt, Colbran & Co., Ltd., fireplaces; Art Pavements and Decorations, Ltd., Biancola; Noel Wood-Mosaic Co., floors to wards and corridors; Fairways, Ltd., plastering; A. V. Cook, Marb-L-Cote to external concrete; Medical Supply Association, Ltd., medicine cabinets, bed screens, and Formaline vaporizer; Filtrators, Ltd., water softening plant; Downham & Co., recessed mirrors.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICT (15 MILE RADIUS)

LEWISHAM. School. The L.C.C. is to erect an elementary school for about 700 children in Whitefoot Lane, Lewisham.

LEWISHAM. Flats, etc. Plans passed by the Lewisham B.C.: Flats, Canadian Avenue, Catford, Wright and Renny; flats, Lee Terrace, Blackheath, Messrs. Joseph; houses on site of The Grange, Somertrees Avenue, Grove Park, Mr. J. C. Anderson; houses, Hall Park estate, Catford, A. J. Glock, Ltd.; 126 maisonettes, Sydenham Vale estate, Bellingham, T. Spencer Bright & Co.; two-storey block of flats, Addington Grove, Sydenham, Furnsales, Ltd.; 15 houses, rear of 35-69 Blythe Hill Lane, Catford, Pearsons; 18 houses, on site of Perry Mount, Queenswood Road, Forest Hill, Bretts, Ltd.; flats and houses, Datchet Road, Catford, and houses, Winsford Park estate, New Ideal Homesteads, Ltd.; houses, Westwood Road, Sydenham, Mr. R. C. Handcock; flats, Russell Street, Sydenham, L. A. Culliford and Partners; flats, Bromley Road, Catford, Wates, Ltd.; two-storey flats, Kirkdale Road, Sydenham, and 58 maisonettes, Collingtree Road, Great Britain Property Co., Ltd.; flats, site of Silk Mills Path, Mr. A. J. Caney; factory, Kent House Lane, Sydenham, Hal Williams & Co.; shops and flats, adjoining St. Laurence's Church, Catford, Hastie, Winch & Co.; 14 houses, off Somertrees Avenue, Ball (Builders), Ltd.; blocks of flats rear of Chinbrook Road, Fitt and Prior Hale; shops, etc., site adjoining St. Laurence's Church, Catford, Elgood and Hastie.

WANSTEAD. Houses, etc. Plans passed by the Wanstead U.D.C.: 32 houses, 37-99 West View Drive; five shops with five maisonettes over, 84-86 Snakes Lane.

EASTERN COUNTIES

YARMOUTH. Cinema. Plans passed by the Yarmouth Corporation: Cinema, High Street, Gorleston, Mr. L. F. Richardson.

SOUTHERN COUNTIES

GILLINGHAM. Relief Offices. The Kent C.C. is to provide relief offices in Arden Street, Gillingham, at a cost of £2,200.

HASTINGS. Housing. The Hastings Corporation has purchased land in the Old Town Area for rehousing displaced persons.

HASTINGS. School. The Hastings Education Committee has purchased a site in Priory Road for the erection of an elementary school.

HERNE BAY. Library. The Kent C.C. has purchased the old post office at Herne Bay for conversion into a library.

ORPINGTON. Library. The Kent C.C. has approved plans for the erection of a library at Orpington.

RAINHAM. Library. The Kent C.C. is to provide a new branch library at Rainham.

SOUTH-WESTERN COUNTIES

EXETER. Schools. The Exeter Education Committee is to refit and refurnish schools at a cost of £10,500.

PORTLAND. Housing. The Portland U.D.C. is to proceed with the clearance of the Easton, Weston Street and Grove Fields clearance areas.

TORQUAY. Nurses' Home. Messrs. Arthington, Ltd., are to erect a nurses' home in Barton Road, Torquay.

MIDLAND COUNTIES

BIRMINGHAM. School. The Birmingham Education Committee has obtained sanction to borrow £34,600 for the erection of an elementary school.

SPENBOROUGH. Gasworks. The Spenborough U.D.C. is to extend the gas works at a cost of £34,524.

NORTHERN COUNTIES

CARLISLE. Reconstruction. Carlisle Housing Improvement Society, Ltd., are to reconstruct houses in Green Row, at a cost of £4,000.

CARLISLE. Housing. The Carlisle Corporation has acquired six acres at Upperby for housing purposes.

COLNE. School. The Colne Education Committee is to erect an elementary school at a cost of £37,552.

DONCASTER. School Enlargement. The Doncaster Education Committee is to enlarge the grammar school at a cost of £73,398.

MANCHESTER. Airport Development. The Manchester Corporation has obtained sanction to borrow £68,327 for the development of the Ringway airport.

OSSETT. Slum Clearance. The Ossett Corporation has approved four slum clearance schemes.

SCARBOROUGH. School. The North Riding Education Committee is to erect new premises for the girls' high school, Scarborough, at a cost of £46,679.

STAFFORD. School. The Staffordshire Education Committee is to erect an elementary school at Stafford at a cost of £32,089.

WARRINGTON. Laundry. The Corporation has approved plans by the Borough Engineer for the erection of a laundry at Aiken St. hospital.

SCOTLAND

GLASGOW. Schools. The Glasgow Education Committee has approved estimates totalling £403,000 in respect of new and improved schools for the year.

GLASGOW. Hospital Extensions. The Glasgow Corporation has approved estimates of £4,400 for extensions at the Gartloch institution and £16,350 for extensions at the Woodilee hospital.

GLASGOW. Bungalows, etc. Plans passed by the Glasgow Corporation: Bungalows, Barrhead and Crookston Roads, M'Lean and Robb, Ltd.; shops and offices, 120 Westmuir Street, Messrs. J. and W. Mackay.

GLASGOW. Schools. The Glasgow Education Committee has selected sites for schools in the Pollok area.

GLASGOW. Pavilions, etc. The Glasgow Corporation is to lay out King George's playing fields by the provision of six football pitches, two hockey pitches, one cricket pitch, a children's playground with paddling pool, a pitch and putt course, together with football, hockey and cricket pavilions, caretaker's hut and large shelter, the total estimated cost being £10,000.

GLASGOW. School. The Glasgow Education Committee is to transfer the building of Hillington temporary school to sites adjoining Cardonald School and at Angus Oval, at a cost of £4,500.

WALES

CARDIFF. Houses. The Cardiff Corporation is to construct roads on the Highmead Estate, where 376 houses are to be erected.

CARDIFF. Shops. Messrs. A. H. Bowyer and Son are to erect shop premises at the junction of Cowbridge Road and Grand Avenue, Cardiff.

CARDIFF. Flats. The Corporation is negotiating for land in Tyndall Street for the erection of four blocks of cottage type flats.

GOWERTON. School Enlargements. The Glamorgan C.C. is to enlarge the Gowerton intermediate school for girls at a cost of £38,310.

SWANSEA. Instruction Centre. The Swansea Education Committee has asked the borough architect to prepare plans for the conversion of the old Guildhall premises into a junior instruction centre.

SWANSEA. Training College. The University College of South Wales and Monmouthshire is to erect a training college of domestic art in Swansea, at a cost of £25,000.

LAW REPORT

RIGHT TO ENFORCE COVENANTS

Zetland and Zetland Estates Co. v. Driver and Wilson.—Chancery Division.—Before Mr. Justice Bennett

THIS action concerned the construction of a covenant in a conveyance that no part of the land conveyed should be used for the purpose of a club or that no act or thing should be permitted or done which in the vendor's opinion constituted a public or private nuisance or proved detrimental or prejudicial to the vendor or the adjoining owners and occupiers or the neighbourhood.

The facts were that the father of Lord Zetland conveyed to a Mr. Goodswen, No. 200 Lord Street, Redcar, and the conveyance contained the covenant in question. The property was later conveyed to the defendants, Mr. W. Driver and Mr. E. H. Wilson, who carried on a restaurant on the premises. Plaintiffs' complaint was that in March, 1936, the defendants commenced to fry fish and sell it for consumption off the premises. The plaintiffs alleged that they received complaints as to the business, and they now sought to enforce the covenant, seeking an injunction restraining defendants from using the premises for the frying of fish for consumption off the premises and for committing a nuisance thereby.

Defendants denied that they had committed any breach of covenant, and denied that the business they carried on constituted a nuisance.

Mr. Fergus Morton, K.C., for the plaintiffs, said that the policy of his clients was to develop that part of Redcar as a residential suburb, and he contended that the covenant in question was common in conveyances in certain portions of the estate.

Mr. Evershed, K.C., for the defendants, argued that the covenant was in restraint of trade and was far too wide and uncertain to be enforceable. The covenant, counsel contended, was not a covenant with Lord Zetland, as the owner, and therefore the action must fail.

His lordship, after further legal argument, held that the question was purely one of law, and that Lord Zetland was not able to sue upon the covenant by virtue of subsection 1, of section 56, of the Law of Property Act, and not being the owner of the land with which the benefit of the covenant had been effectively annexed, he had not right to enforce the covenant, or to bring the action.

There was no doubt, said his lordship, that the premises were subject to the covenant, but what were the intentions of the parties? In his opinion their intention was that on the sale the purchaser was not to get the benefit of the covenant merely by a conveyance of the land, but that the benefit should not pass without express assignment being made and agreed to, and Lord Zetland could only enforce the covenant if the benefits enabled them to run with the land at law. Under these circumstances, the action failed, and would be dismissed with costs.

His lordship added that he had had no evidence that the defendants had committed or were causing a nuisance.

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.	
			s.	d.	s.	d.				s.	d.	s.	d.
A	ABERDARE	S. Wales & M.	1	7	1	2	A	EASTBOURNE	S. Counties	1	6	1	1
A	Aberdeen	Scotland	1	7	1	2	A	Ebbw Vale	S. Wales & M.	1	6	1	2
A	Abergavenny	S. Wales & M.	1	6	1	2	A	Edinburgh	Scotland	1	7	1	2
A	Abingdon	S. Counties	1	5	1	1	A	Exeter	S.W. Counties	1	6	1	1
A	Accrington	N.W. Counties	1	7	1	2	B	Exmouth	S.W. Counties	1	5	1	0
A	Addlestone	S. Counties	1	6	1	1							
A	Adlington	N.W. Counties	1	7	1	2	A	FELIXSTOWE	E. Counties	1	5	1	1
A	Airdrie	Scotland	1	7	1	2	A	Filey	Yorkshire	1	5	1	1
C	Aldeburgh	E. Counties	1	6	0	11	A	Fleetwood	N.W. Counties	1	7	1	2
A	Altrincham	N.W. Counties	1	7	1	2	B	Folkestone	S. Counties	1	4	1	0
B	Appleby	N.W. Counties	1	3	0	11	A	Frodsham	N.W. Counties	1	7	1	2
A	Ashton-under-Lyne	N.W. Counties	1	7	1	2	B	Frome	S.W. Counties	1	4	1	0
B	Aylesbury	S. Counties	1	5	1	0							
B	BANBURY	S. Counties	1	5	1	0	A	GATESHEAD	N.E. Coast	1	7	1	2
B	Bangor	N.W. Counties	1	5	1	0	B	Gillingham	S. Counties	1	5	1	0
A	Barnard Castle	N.E. Coast	1	5	1	1	A	Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1	6	1	2
A	Barnsley	Yorkshire	1	7	1	2	A	Glasgow	Scotland	1	7	1	2
B	Barnstaple	S.W. Counties	1	5	1	0	A	Gloucester	S.W. Counties	1	6	1	1
A	Barrow	N.W. Counties	1	7	1	2	A	Goole	Yorkshire	1	6	1	1
A	Barry	S. Wales & M.	1	7	1	2	A	Gosport	S. Counties	1	6	1	1
B	Basingstoke	S.W. Counties	1	5	1	0	A	Grantham	Mid. Counties	1	5	1	1
A	Bath	S.W. Counties	1	6	1	1	A	Gravesend	S. Counties	1	6	1	2
A	Batley	Yorkshire	1	7	1	2	A	Greenock	Scotland	1	7	1	2
A	Bedford	E. Counties	1	6	1	1	A	Grimby	Mid. Counties	1	7	1	2
A	Berwick-on-Tweed	N.E. Coast	1	6	1	1	B	Guildford	S. Counties	1	5	1	0
A	Bewdley	Mid. Counties	1	6	1	1	A	HALIFAX	Yorkshire	1	7	1	2
B	Bicester	S. Counties	1	5	1	0	A	Hanley	Mid. Counties	1	7	1	2
B	Birkenhead	N.W. Counties	1	8	1	3	A	Harrogate	Yorkshire	1	7	1	2
A	Birmingham	Mid. Counties	1	7	1	2	A	Hartlepool	N.E. Coast	1	7	1	2
A	Bishop Auckland	N.E. Coast	1	6	1	2	B	Harwich	E. Counties	1	5	1	0
A	Blackburn	N.W. Counties	1	7	1	2	A	Hastings	S. Counties	1	6	1	1
A	Blackpool	N.W. Counties	1	7	1	2	B	Hatfield	S. Counties	1	6	1	1
A	Blyth	N.E. Coast	1	7	1	2	B	Hereford	S.W. Counties	1	5	1	0
B	Bognor	S. Counties	1	5	1	0	A	Hertford	E. Counties	1	6	1	1
A	Bolton	N.W. Counties	1	7	1	2	A	Heysham	N.W. Counties	1	7	1	2
A	Boston	Mid. Counties	1	6	1	1	A	Howden	N.E. Coast	1	7	1	2
A	Bournemouth	S. Counties	1	6	1	1	A	Huddersfield	Yorkshire	1	7	1	2
B	Bovey Tracey	S.W. Counties	1	4	1	0	A	Hull	Yorkshire	1	7	1	2
A	Bradford	Yorkshire	1	7	1	2							
A	Brentwood	E. Counties	1	6	1	2	A	ILKLEY	Yorkshire	1	7	1	2
A	Bridgend	S. Wales & M.	1	7	1	2	A	Immingham	Mid. Counties	1	7	1	2
B	Bridgewater	S.W. Counties	1	5	1	0	A	Ipswich	E. Counties	1	6	1	1
A	Brillington	Yorkshire	1	6	1	2	B	Isle of Wight	S. Counties	1	4	1	0
A	Brighouse	Yorkshire	1	7	1	2							
A	Brighton	S. Counties	1	6	1	1	A	JARROW	N.E. Coast	1	7	1	2
A	Bristol	S.W. Counties	1	7	1	2	A	KEIGHLEY	Yorkshire	1	7	1	2
B	Brixham	S.W. Counties	1	5	1	0	A	Kendal	N.W. Counties	1	6	1	1
A	Bromsgrove	Mid. Counties	1	7	1	2	A	Kewick	N.W. Counties	1	5	1	1
B	Bromyard	Mid. Counties	1	5	1	0	A	Kettering	Mid. Counties	1	6	1	2
A	Burnley	N.W. Counties	1	7	1	2	A	Kidderminster	Mid. Counties	1	6	1	1
A	Burslem	Mid. Counties	1	7	1	2	B	King's Lynn	E. Counties	1	4	1	0
A	Burton-on-Trent	Mid. Counties	1	7	1	2							
A	Bury	N.W. Counties	1	7	1	2	A	LANCASTER	N.W. Counties	1	7	1	2
A	Buxton	N.W. Counties	1	6	1	2	A	Leamington	Mid. Counties	1	6	1	2
A	CAMBRIDGE	E. Counties	1	6	1	2	A	Leeds	Yorkshire	1	7	1	2
A	Canterbury	S. Counties	1	4	1	0	A	Leek	Mid. Counties	1	7	1	2
A	Cardiff	S. Wales & M.	1	7	1	2	A	Leicester	Mid. Counties	1	7	1	2
A	Carlisle	N.W. Counties	1	7	1	2	A	Leigh	N.W. Counties	1	7	1	2
B	Cardthorn	S. Wales & M.	1	6	1	0	A	Lewes	S. Counties	1	5	1	0
B	Carnarvon	N.W. Counties	1	7	1	2	B	Lichfield	Mid. Counties	1	6	1	1
A	Carnforth	N.W. Counties	1	7	1	2	A	Lincoln	Mid. Counties	1	7	1	2
A	Castleford	Yorkshire	1	7	1	2	A	Liverpool	N.W. Counties	1	8	1	3
A	Chalfont	S. Counties	1	5	1	1	A	Llandudno	N.W. Counties	1	6	1	1
A	Chelmsford	E. Counties	1	5	1	1	A	Llanelli	S. Wales & M.	1	7	1	2
A	Cheltenham	S.W. Counties	1	5	1	1	A	London (12-miles radius)		1	8	1	3
A	Chester	N.W. Counties	1	7	1	2	A	Long Eaton	Mid. Counties	1	7	1	2
A	Chesterfield	Mid. Counties	1	7	1	2	A	Loughborough	Mid. Counties	1	7	1	2
B	Chichester	S. Counties	1	5	1	0	A	Luton	E. Counties	1	6	1	2
A	Chorley	N.W. Counties	1	7	1	2	A	Lytham	N.W. Counties	1	7	1	2
B	Cirencester	S. Counties	1	4	1	0							
A	Clietheroe	N.W. Counties	1	7	1	2	A	MACCLESFIELD	N.W. Counties	1	6	1	2
A	Clydebank	Scotland	1	7	1	2	A	Maldstone	S. Counties	1	5	1	1
A	Coalville	Mid. Counties	1	7	1	2	A	Malvern	Mid. Counties	1	5	1	1
A	Colchester	E. Counties	1	6	1	1	A	Manchester	N.W. Counties	1	7	1	2
A	Colne	N.W. Counties	1	6	1	2	A	Mansfield	Mid. Counties	1	7	1	2
A	Colwyn Bay	N.W. Counties	1	6	1	1	B	Margate	S. Counties	1	4	1	0
A	Consett	N.E. Coast	1	6	1	2	A	Matlock	Mid. Counties	1	5	1	1
A	Conway	N.W. Counties	1	6	1	1	A	Merthyr	S. Wales & M.	1	6	1	2
A	Coventry	Mid. Counties	1	7	1	2	A	Middlesbrough	N.E. Coast	1	7	1	2
A	Crew	N.W. Counties	1	6	1	1	A	Middlewich	N.W. Counties	1	6	1	1
A	Cumberland	N.W. Counties	1	5	1	1	B	Minehead	S.W. Counties	1	4	1	0
A	DARLINGTON	N.E. Coast	1	7	1	2	B	Monmouth	S. Wales & M.	1	4	1	0
A	Darwen	N.W. Counties	1	7	1	2	A	Morecambe	N.W. Counties	1	7	1	2
B	Deal	S. Counties	1	4	1	0							
A	Denbigh	N.W. Counties	1	5	1	1	A	NANTWICH	N.W. Counties	1	8	1	1
A	Derby	Mid. Counties	1	7	1	2	A	Neath	S. Wales & M.	1	7	1	2
A	Dewsbury	Yorkshire	1	7	1	2	A	Nelson	N.W. Counties	1	7	1	2
B	Didcot	S. Counties	1	5	1	0	A	Newcastle	N.E. Coast	1	7	1	2
A	Doncaster	Yorkshire	1	7	1	2	A	Newport	S. Wales & M.	1	7	1	2
A	Dorchester	S.W. Counties	1	4	1	0							
A	Driffield	Yorkshire	1	5	1	1	A	NORTHAMPTON	Yorkshire	1	7	1	2
A	Droitwich	Mid. Counties	1	6	1	1	A	Northampton	Mid. Counties	1	7	1	2
A	Dudley	Mid. Counties	1	7	1	2	A	North Shields	N.E. Coast	1	7	1	2
A	Dumfries	Scotland	1	6	1	1	A	North Staffs	Mid. Counties	1	7	1	2
A	Dundee	Scotland	1	7	1	2	A	Norwich	E. Counties	1	6	1	2
A	Durham	N.E. Coast	1	7	1	2	A	Nottingham	Mid. Counties	1	7	1	2
A	EALESLEY	Scotland	1	7	1	2	A	Nuneaton	Mid. Counties	1	7	1	2
B	Eambsay	S. Wales & M.	1	3	0	11							
A	Edinburgh	Scotland	1	7	1	2	A	OAKHAM	Mid. Counties	1	5	1	1
A	Edinburgh	Scotland	1	7	1	2	A	Oldham	N.W. Counties	1	7	1	2
A	Edinburgh	Scotland	1	7	1	2	A	Oswestry	N.W. Counties	1	5	1	1
A	Edinburgh	Scotland	1	7	1	2	A	Oxford	S. Counties	1	6	1	2
A	EALESLEY	Scotland	1	7	1	2	A	PAISLEY	Scotland	1	7	1	2
B	Eambsay	S. Wales & M.	1	3	0	11	B	Pembroke	S. Wales & M.	1	3	0	11
A	Edinburgh	Scotland	1	7	1	2	A	Perth	Scotland	1	7	1	2
A	Edinburgh	Scotland	1	7	1	2	A	Peterborough	E. Counties	1	6	1	2
A	Edinburgh	Scotland	1	7	1	2	A	Plymouth	S.W. Counties	1	7	1	2
A	Edinburgh	Scotland	1	7	1	2	A	Pontefract	Yorkshire	1	7	1	2
A	Edinburgh	Scotland	1	7	1	2	A	Pontypridd	S. Wales & M.	1	6	1	2
A	Edinburgh	Scotland	1	7	1	2	A	Portsmouth	S. Counties	1	6	1	1
A	Edinburgh	Scotland	1	7	1	2	A	Preston	N.W. Counties	1	7	1	2
A	EALESLEY	Scotland	1	7	1	2	A	QUEENSFERRY	N.W. Counties	1	7	1	2
B	Eambsay	S. Wales & M.	1	3	0	11							
A	Edinburgh	Scotland	1	7	1	2	A	READING	S. Counties	1	6	1	2
A	Edinburgh	Scotland	1	7	1	2	A	Reigate	S. Counties	1	5	1	1
A	Edinburgh	Scotland	1	7	1	2	A	Retford	Mid. Counties	1	5	1	1
A	Edinburgh	Scotland	1	7	1	2	A	Rhondda Valley	S. Wales & M.	1	6	1	2

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality and include delivery to site in Central London area, unless otherwise stated. For delivery outside this area, 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.

WAGES

	per hour	£ s. d.
Bricklayer	1 8	1 8
Carpenter	1 8	1 8
Joiner	1 8	1 8
Machinist	1 9	1 9
Mason (Banker)	1 8	1 8
" (Fixer)	1 9	1 9
Plumber	1 8	1 8
Painter	1 7	1 7
Paperhanger	1 6	1 6
Glazier	1 8	1 8
Slater	1 8	1 8
Scaffolder	1 4	1 4
Timberman	1 4	1 4
Navvy	1 3	1 3
General Labourer	1 3	1 3
Lorryman	1 7	1 7
Crane Driver	1 7	1 7
Watchman	2 10	0

MATERIALS

EXCAVATOR AND CONCRETOR

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

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

	per F.R.	£ s. d.
Straight Pipes	1 9	1 1
Bends	1 9	2 6
Taper Bends	3 6	5 3
Rest Bends	4 3	6 3
Single Junctions	3 6	5 3
Double	4 9	6 6
Straight channels	1 6	2 6
1" Channel bends	2 9	4 7
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	2 3	3 8
Bends	6 4	13 1
Inspection bends	11 5	14 4
Single junctions	11 2	22 10
Double junctions	17 2	30 9
Lead Wool	6	—
Gaskin	5	—

BRICKLAYER

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

MASON

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

SLATER AND TILER

	per M.	£ s. d.
First quality Bangor or Portmadoc slates		
d/d F.O.R. London station:		
24" x 12" Duchesses	28 17	6
22" x 12" Marchionesses	24 10	0
20" x 10" Countesses	19 5	0
18" x 10" Viscountesses	15 10	0
18" x 9" Ladies	13 17	6
Westmorland green (random sizes)	8 10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:		
20" x 10" medium grey	21 11	6
" green	24 7	4
Best machine roofing tiles	4 5	0
Best hand-made do.	4 17	6
Hips and valleys	9	—
" hand-made	9	—
Nails, compo.	1 4	0
" copper	1 6	0

CARPENTER AND JOINER

	£ s. d.
Good carcassing timber	F.C. 25, 7d.-2 10
Birch	as 1" F.S.
Deal, Joiner's	5
" 2nds	4
Mahogany, Honduras	1 3
" African	1 1
" Cuban	2 6
Oak, plain American	1 0
" Figured	1 3
" plain Japanese	1 2
" Figured	1 5
" Austrian wainscot	1 6
" English	1 11
Pine, Yellow	1 0
" Oregon	4
" British Columbian	4
Teak, Moulinein	1 3
" Burma	1 2
Walnut, American	2 3
" French	2 3
Whitewood, American	1 1
Deal floorings, Sq.	18 6
" 1"	1 6
" 1 1/2"	1 2
" 2"	1 5
" 2 1/2"	1 10
Deal matchings, 1"	14 0
" 1 1/2"	15 6
" 2"	1 4
Rough boarding, 1"	16 0
" 1 1/2"	18 0
" 2"	1 6
Plywood, per ft. sup.:	
Thickness	
Qualities	A B BB A B BB A B BB A B BB
Birch 60 x 48	4 2 1/2 5 3 2 1/2 7 5 4 8 6 5
Cheap Alder	2 1 1/2 3 2 1/2 4 3 1/2 5 4 1/2
Oregon Pine	2 1/2 3 2 1/2 4 3 1/2 5 4 1/2
Gaboon	4 3 1/2 5 4 1/2 7 5 1/2 8 7 1/2
Mahogany	6 1/2 5 7 1/2 8 1/2 10 8 1/2 11 9 1/2
Figured Oak	6 1/2 5 7 1/2 8 1/2 10 8 1/2 11 9 1/2
Scotch glue	1 8

SMITH AND FOUNDER

	per ft. run	£ s. d.
Tubes and Fittings:		
(The following are the standard list prices from which should be deducted the various percentages as set forth below.)		
Tubes 2'-14" long	10 1/11	1/11 1/10
Pieces, 12'-23" long	7 9 1/11	2/8 4/9
" 3'-11 1/2" long	7 9 1/11	1/8 3/-
Long screws, 12'-23" long	11 1/3	2/2 2/10 5/3
" 3" M-1/2" long	8 10	1/5 1/11 3/6
Bends	8 11 1/7	2/7 1/2 5/2
Springs not socketed	5 7 1/11	1/11 3/11
Socket unions	2/-	3/- 5/6 6/9 10/-
Elbows, square	10 1/11	1/6 2/2 4/3
Tees	1/-	1/3 1/10 2/6 5/11
Crosses	2/2	2/9 4/11 5/6 10/6
Plain sockets and nipples	3	4 6 8 1/3
Diminished sockets	4	6 9 1/- 2/-
Flanges	9 1/-	1/4 1/9 2/9
Caps	3 1/2	5 8 1/- 2/-
Backnuts	2 3	5 6 1/12
Iron main cocks	1/6	2/3 4/2 5/4 11/6
" with brass plugs	—	4/- 7/6 10/- 21/-
Discounts		
Gas	66 1/2	Galvanized gas 56 1/2
Water	61 1/2	" water 51 1/2
Steam	58 1/2	" steam 46 1/2

	Per cent.	£ s. d.
Gas	57 1/2	Galvanized gas 48 1/2
Water	53 1/2	" water 46 1/2
Steam	48 1/2	" steam 41 1/2
Rolled steel joists cut to length		cwt. 15 6
Mild steel reinforcing rods, 1"		" 16 0
" 1 1/2"		" 15 9
" 2"		" 15 3

SMITH AND FOUNDER—continued

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

PLUMBER

	cwt.	£ s. d.
Lead, milled sheets	33 6	
" drawn pipes	33 0	
" soil pipes	30 0	
" scrap	21 0	
Solder, plumbers'	1 1	1 1
" fine do.	1 0	1 0
Copper, sheet	1 0	1 0
" tubes	1 2	1 2
L.C.C. soil and waste pipes:		
Plain cast	F.R. 1 0	1 2 2 6
Coated	1 1	1 3 2 8
Galvanized	2 0	2 6 4 6
Holderbats	3 10	4 0 4 9
Bends	3 9	5 3 10 3
Shoes	2 10	4 4 9 6
Heads	4 8	8 5 12 9

PLASTERER

	per ton	£ s. d.
Lime, chalk	2 15	0
Plaster, coarse	4 7	6
" fine	3 0	9
Hydrated lime	3 0	9
Sirapite	3 0	9
Keene's cement	3 0	9
Gothite plaster	3 0	9
Pioneer plaster	3 0	9
Thistle plaster	3 0	9
Sand, washed	Y.C. 11	6
Hair	1 6	—
Laths, sawn	1 6	—
" rent	3 9	—
Lath nails	1 6	—

GLAZIER

	£ s. d.
Sheet glass, 24 oz., squares n/e 2 ft. s. F.S.	2 1/2
" 26 oz.	3 1/2
Flemish, Arctic, Figures (white)	7 1/2
Blazoned glasses	2 6
Reeded: Cross Reeded	11
Cathedral glass, white, double-rolled	6
plain, hammered, rimpled, waterwhite	2 0
Crown sheet glass (n/e 12" x 10")	2 0
Flashed opals (white and coloured)	1 0 and 2 0
1/2" rough cast; rolled plate	6
2" wired cast; wired rolled	10 1/2
3" Georgian wired cast	11 1/2
4" Polished plate, n/e 1 ft.	11 1/2
" 2	12 1/2
" 4	13 1/2
" 8	14 1/2
" 20	15 1/2
" 45	16 1/2
" 100	17 1/2
Vita glass, sheet, n/e 1 ft.	1 0
" over 2 ft.	1 3
" plate, n/e 1 ft.	1 6
" 2 ft.	3 0
" 3 ft.	4 0
" 4 ft.	5 0
" 5 ft.	6 0
" 6 ft.	7 6
" 8 ft.	9 6
" 10 ft.	11 6
" 12 ft.	13 6
" 14 ft.	15 6
" 16 ft.	17 6
" 18 ft.	19 6
" 20 ft.	21 6
" 22 ft.	23 6
" 24 ft.	25 6
" 26 ft.	27 6
" 28 ft.	29 6
" 30 ft.	31 6
" 32 ft.	33 6
" 34 ft.	35 6
" 36 ft.	37 6
" 38 ft.	39 6
" 40 ft.	41 6
" 42 ft.	43 6
" 44 ft.	45 6
" 46 ft.	47 6
" 48 ft.	49 6
" 50 ft.	51 6
" 52 ft.	53 6
" 54 ft.	55 6
" 56 ft.	57 6
" 58 ft.	59 6
" 60 ft.	61 6
" 62 ft.	63 6
" 64 ft.	65 6
" 66 ft.	67 6
" 68 ft.	69 6
" 70 ft.	71 6
" 72 ft.	73 6
" 74 ft.	75 6
" 76 ft.	77 6
" 78 ft.	79 6
" 80 ft.	81 6
" 82 ft.	83 6
" 84 ft.	85 6
" 86 ft.	87 6
" 88 ft.	89 6
" 90 ft.	91 6
" 92 ft.	93 6
" 94 ft.	95 6
" 96 ft.	97 6
" 98 ft.	99 6
" 100 ft.	101 6

† Ordinary glazing quality. ‡ Selected glazing quality.

PAINTER

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

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and

profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

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

DRAINLAYER

Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	s. d.
Extra, only for bends	Each	1 6 2 3
" junctions	"	3 9 4 6
Gullies and gratings	"	10 6 18 0
Cast iron drains, and laying and jointing	F.R.	5 9 8 3
Extra, only for bends (cast iron)	Each	12 3 18 4

BRICKLAYER

Brickwork, Flettons in lime mortar	Per Rod	£ s. d.
" " in cement	"	26 10 0
" Stocks in cement	"	27 12 6
" Blues in cement	"	34 0 0
Extra only for circular on plan	"	30 0 0
" backing to masonry	"	2 0 0
" rising on old walls	"	1 10 0
" underpinning	"	2 0 0
Fair Face and pointing internally	F.S.	5 10 0
Extra over fletton brickwork for picked stock facings and pointing	"	8 8
" " " red brick facings and pointing	"	11 11
" " " blue brick facings and pointing	"	1 4
" " " glazed brick facings and pointing	"	3 6
Tuck pointing	"	7 1/2
Weather pointing in cement	"	3 3
Slate dampcourse	"	1 10
Vertical dampcourse	"	1 1

ASPHALTER

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

MASON

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

SLATER AND TILER

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

CARPENTER AND JOINER

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

CARPENTER AND JOINER—continued

1 1/2" deal moulded sashes of average size	F.S.	s. d.
" " " " " " " " " " " "	"	1 11 1/2
1 1/2" deal cased frames double hung, of 6" x 3" oak sills, 1 1/2" pulley stiles, 1 1/2" heads, 1" inside and outside linings, 1 1/2" parting beads, and with brass faced axle pulleys, etc., fixed complete	"	3 7
Extra only for moulded horns	Each	3 10
1 1/2" deal four-panel square, both sides, door	F.S.	2 0
" " but moulded both sides	"	2 8
" " " " " " " " " " " "	"	2 4
4" x 3" deal, rebated and moulded frames	F.R.	3 0
4 1/2" x 3 1/2" " " " " " " " " " "	"	1 0
1 1/2" deal tongued and moulded window board, on and including deal bearers	F.S.	1 4
1 1/2" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	"	1 9
1 1/2" deal moulded wall strings	"	2 6
" " " " " " " " " " " "	"	2 1
1 1/2" " " " " " " " " " "	"	2 4
Ends of treads and risers housed to string	Each	1 9
3" x 2" deal moulded handrail	F.R.	1 3
1" x 1" deal balusters and housing each end	Each	2 0
1 1/2" x 1 1/2" " " " " " " " " " "	"	2 9
3" x 3" deal wrought framed newels	F.R.	1 3
Extra only for newel caps	Each	6 0
Do., pendants	"	6 0

SMITH AND FOUNDER

Roller steel joists, cut to length, and hoisting and fixing in position	Per cwt.	s. d.
Riveted plate or compound girders, and hoisting and fixing in position	"	18 6
Do., stanchions with riveted caps and bases and do.	"	1 3 0
Mild steel bar reinforcement, 1/2" and up, bent and fixed complete	"	1 2 0
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts as g.	F.S.	1 2 0
Wrought iron caulked and cambered chimney bars	Per cwt.	1 10 0

PLUMBER

Milled lead and labour in flats	cwt.	£ s. d.
Do. in flashings	"	2 4 0
Do. in coverings to turrets	"	2 7 6
Do. in soakers	"	2 13 0
Labour to welded edge	F.R.	1 18 9
Open copper nailing	"	3 3
Close " " "	"	3 3
Lead service pipe and fixing with pipe hooks	F.R.	s. d.
Do. soil pipe and fixing with cast lead tacks	"	1 2 1 4 1 8 1/2 2 7 3 6
Extra, only to bends	Each	7 3
Do. to stop ends	"	7 6
Boiler screws and unions	"	2 3
Lead traps	"	8
Screw down bib valves	"	8 0
Do. stop cocks	"	11 6
4" cast-iron 1/2-rd. gutter and fixing	F.R.	1 0
Extra, only stop ends	Each	1 0
Do. angles	"	1 6
Do. outlets	"	2 0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1 2
Extra, only for shoes	Each	1 3
Do. for plain heads	"	5 6

PLASTERER AND TILER

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

GLAZIER

21 oz. sheet glass and glazing with putty	F.S.	s. d.
26 oz. do. and do.	"	6 1/2
Flemish, Arctic Figured (white) and glazing with putty	"	1 1
Cathedral glass and do.	"	1 2
Glazing only, British polished plate	"	7
Extra, only if in beds	"	2
Washleather	F.R.	4

PAINTER

Clearcolle and whiten ceilings	Y.S.	s. d.
Do. and distemper walls	"	9
Do. with washable distemper	"	1 1
Knot, stop, prime and paint four coats of oil-colour on plain surfaces	"	3 3
Do. on woodwork	"	3 6
Do. on steelwork	"	3 0
Do. and brush grain and twice varnish	"	3 6
Stain and twice varnish woodwork	"	1 11
Stain and wax polish woodwork	"	4 6
French polishing	F.S.	1 7
Stripping off old paper	Piece	2 0
Hanging ordinary paper	from	2 9