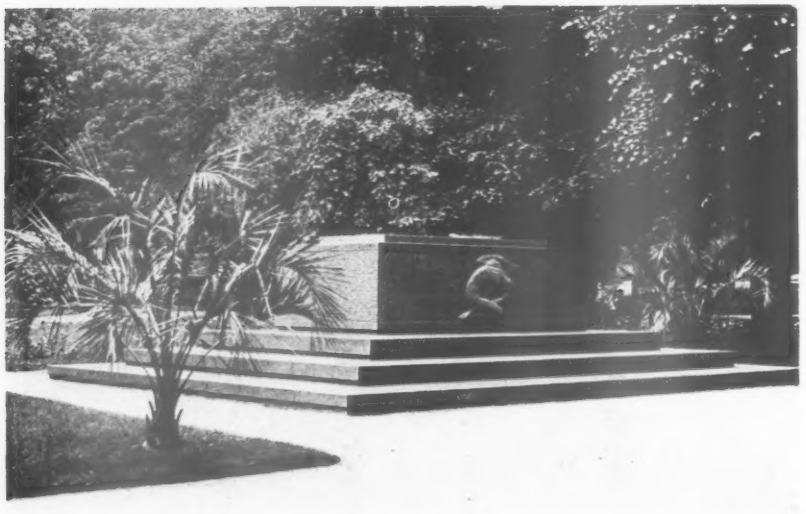
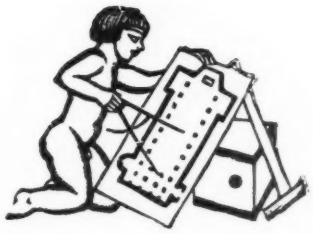
SPECULATIVE HOUSE BUILDING IN CZECHO-SLOVAKIA

ABOVE, a typical architect-designed house at the Baba Housing Colony, a suburb of Prague and (below), other houses nearby, typical of Czech speculative building in 1936.



FINNISH WAR MEMORIALS

Memorials over common graves at Helsingfors to the Finnish and German troops killed in the Finnish War of Independence in 1918. The memorials are executed entirely in grey granite, plain surfaces being tooled. The memorials were designed by A. Lindgren.



THE SHOP

IN this issue there begins the first article of the JOURNAL's second section on the planning of more specialized building types.

It must be admitted that this phrase of " specialized buildings " is not today very satisfactory; it is, indeed, questionable whether every building is not now an extremely specialized building. But the phrase still retains a meaning which helps to explain the JOURNAL's intention in starting its planning sections.

The aim of these sections is to provide a work of reference to the latest methods of design and equipment in those building types which have in recent years developed requirements, and ways of satisfying those requirements, which are specially peculiar to themselves. It is true that the general principles of planning apply to all buildings, and that the newcomer to a particular kind of planning can sometimes, by his freshness of outlook, produce a solution which is an advance on previous plan forms. But today such an achievement can only result from a profound study both of the aims and principles underlying his client's requirements and of the technical methods available for their fulfilment.

It is in these two last spheres of effort that the planning sections of the JOURNAL are intended to help the architect. They are intended to explain the practical and theoretical reasons why building owners stipulate particular requirements (as well as mentioning some which they ought to stipulate); to describe the various special methods of equipment and construction which have been developed to meet those requirements; and, lastly, to illustrate for comparison in planning efficiency a number of examples of completed buildings which the authors consider to be good.

Such were the aims with which the JOURNAL began its planning sections. And although in the extreme specialization of the present they may be held to be applicable to all buildings, it is maintained that there is at least a sharp difference of degree in such an application. And smaller retail shops, which are the subject of the section beginning this week, are believed to be a field of design which has become as specialized as any; and also one which, if not very important from the financial outlay involved in any one building, is enormously important when considered from the point of view of the total numbers built.

Shops, as was mentioned last week, are a very complex problem in design, largely because their success or failure from the client's point are intimately bound up with human psychology.

Until recently a good position and a really startling shop front were considered all that were necessary in getting ready to sell profitably. High-pressure salesmanship and advertising did the rest; and were considered the real determining factors in success or failure.

Nowadays shopkeepers are by no means so certain of their ground. Not only have traffic congestion and particularly traffic regulations made " a good position " a far more difficult thing to decide than ever before, but a blatantly clamorous shop front is beginning to have its desirability seriously questioned for anything save the " catchpenny " trades. In this state of indecision shopowners are paying more attention to the possibilities of carefully designed premises, and it is therefore believed that the articles on shops come at a very opportune moment.

In approaching the subject of this new planning section its authors emphasize that the choice of a site is of the very first importance. They mention the classes into which shops may be divided when considering this question, the positions which have been found good or bad for each particular type and indicate the amount of research which the wealthy firms think it worth while to undertake in deciding whether a particular district is likely to make the establishment of a shop a paying proposition.

The architect who is called upon to design a shop will no doubt often be approached after the site has been chosen. But the articles which follow will make clear the factors which should be put before clients in a case where a choice of sites exists.

Throughout the section the psychology of the customer will be seen to be stressed as a controlling element in all shop design. The customer's disinclination to stop his car, or in his stride, in a steeply sloping street; his dislike of descending to a basement or mounting to a first floor; his dislike of an " open treatment " for a shop in which he buys pants, and acceptance of it when he is buying a car or booking a world tour—all these points must be minutely considered in planning a shop.

The other elements in shop design are important because of their effect on the efficiency of the salesmanship. A shop receives goods in bulk in a short time and sells in small quantities over a long period. Facilities for checking and storing goods so as to reduce possibilities of staff dishonesty to a minimum must therefore be carefully arranged. And structural and finishing materials must essentially be durable and require very little maintenance to keep them at their best.

SHOPS sets out to explain the way these hundred problems have to be met in what is usually the small space of the modern shop, to list the materials and equipment which have been found satisfactory, and to illustrate by diagrammatic layouts and actual examples the recent developments which have been found successful in the surroundings of selling.

The Architects' Journal
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NOTES & TOPICS

GRAINS OF SAND ?

MR. HERBERT MORRISON states that the L.C.C. is about to embark upon the greatest experiment in housing and town planning that Britain has ever known.

*

Another way of putting it is that re-housing is being undertaken in a northern corner of Bethnal Green, comprising about 46 acres, and this area is being treated "comprehensively and completely." On a 4-ft. square map of L.C.C. London this area can be covered by a couple of postage stamps.

*

Such a scheme is probably the largest *re*-housing scheme yet to be undertaken, but for housing it is so small that any estate development company would not call it a scheme at all.

*

And why use the title "town planning" in reference to such a tiny scheme, when, if verbal descriptions are correct, it merely means the widening of a few lengths of existing main road, a slight re-shuffling of some small amount of industry and the rehousing of some of the people living in the area?

*

No, Mr. Morrison, I don't believe that this, commendable as it is as a small piece of town surgery, should be described as town planning—not until it is properly related to a thousand areas of similar size a similar distance from Piccadilly Circus, not until a street in Bethnal Green is re-planned to relate in the near future to a street re-planned in Bermondsey and Battersea, Fulham and North Kensington, Camden Town and Islington—

*

Not until future development is tackled on such a scale can the reshuffling of a few acres in Bethnal Green be even thought of as town planning, let alone as a "comprehensive" scheme.

*

But perhaps this *is* a related part of a town-planned London we don't yet know about ?

PRESIDENT ELECT . . . .

The first exhibition of the R.I.B.A. Camera Club is really first rate. The response was unusually bright and only about half the submitted photos could be hung on the crowded walls.

*

The pictorial recording of buildings is good, but the real merit lies in the non-architectural exhibits, especially in the portraiture section.

*

Have a look at one of the portraits taken in the Zoo—you will see not only a fine composition of simple shapes and subtle lights, but I'm sure you will agree with me that the seal, at any rate, looks distinctly in the running for a distinguished presidency of the R.I.B.A. Camera Club at its first jubilee.

CAMBRIDGE STARTS AGAIN

After months and months of dilly-dallying and uncertainty as to the future of Architecture in Cambridge, it is now announced that Mr. James MacGregor, M.A., is to be the new Director of the School.

*

Edinburgh's loss is Cambridge's gain and Mac, as he is naturally known by students and staff in Bedford Square and in Edinburgh, begins a delicate and difficult job.

*

The School has been for some time disappointing, and some of those interested have taken the attitude that it should be closed down—a view I have emphatically *not* shared.

*

It is for the new Director to stop such defeatist suggestions for good and all. It is a task for which, if it is to succeed on a scale worthy of Cambridge, Mr. MacGregor must have the generous support of the whole profession, the particular support of the greater schools of architecture—and at least the sympathetic toleration of a University which has never been noted for its hearty welcome to new schools of learning.

NATURAL HAZARDS

Elms, it seems, are being attacked by an (at present) undiagnosed disease. Not content with their habit of uprooting themselves without proper warning, they are now more than ever liable to drop a limb or two about the place.

*

An architect who is designing a cricket pavilion beneath some really majestic elms tells me that he has been forbidden top lights to the main space, and has been asked to roof with a timber-constructed flat to give resilience.

*

Which reminds me of another job in the North of England where an architect had to build a fireproof concrete roof terrace beneath a cliff face of uncertain habits.

*

He chose the old type of filler joist and concrete panel construction, so that, should a small rock fall, it would shear clean through one or two of the panels without

To mark his knighthood a complimentary dinner was given recently to Sir E. Guy Dawber by many of his past and present pupils and assistants. Above is the menu card drawn by A. Douglas Robinson

disturbing the rest of the structure. If a large rock fell, I understand the construction wouldn't matter, anyway and I wonder what cunning device Mr. Jellicoe used at Cheddar—and whether the fish tank has anything to do with it?

CORONATION OVERCROWDING

"Floating Hotels for Coronation Week." So ran a mildly splash headline in Monday's *Evening Standard*, and instantly my mind flashed back to the floating theatre which I believe existed at the Chicago World's Fair. And how to moor such things in our tidal Thames, and prevent them breaking loose and rushing down on the little that will remain of Waterloo Bridge?

*

But it's nothing like that; only that a few enterprising shipping lines propose to run Coronation cruises and stop in the Thames with all their passengers until everything's over. Enterprising no doubt, but probably unpractical, for the river is for traffic rather than parking, and anything below bridges is abominably inaccessible.

THE EGGS

When I was writing recently about bees, I felt that there was some other story about an invasion of an upper floor which had once been known to me.

*

And reading that story of Research Station defeatism again, I remembered what it was that had escaped me.

*

It was told by a distant elderly and feminine relation, who during the war continued to run a very large poultry farm in a somewhat short-handed but very energetic way.

*

Eggs and hens and so on being paying things then, the functional maximum of 400 hens or thereabouts was housed in a long shed of which the roof space was matchboarded off. Very soon after hostilities started egg-laying began to fall off in that shed. My relative changed feeds and tried remedies in vain, and finally decided that short laying was a protest against international chaos.

*

But one day in 1918 when she was cleaning roosts, several fowls appeared to flutter down from the ceiling, and inspection revealed a sizable hole in a dark corner of the boarding. My relative was a quick-witted lady ; and about a week later she found herself wondering whether it was not possible that some of her hens had gone so far as to lay eggs up in the roof space.

*

A search party of walking wounded was mobilized. The roof was searched. And amongst the rafters, dust and old gear there were found eleven thousand and two eggs. My distant relative, who was not devoid of a certain tart humour, usually ended the story by adding : "Many of them in poor condition."

FIRE-PROTECTION

The Royal Fine Arts Commission must lead its personnel a very strenuous life. A new Government building or a national memorial must naturally be tested by this expert committee dedicated to discovering what will be generally acceptable to a public which is not at all sure where it stands in this art business.

*

The Commission, however, is big enough to think of quite small details of metropolitan life. Last Monday it passed approving judgment on London's firemen's helmets. Of cork and rubber, glossily black, the new headwear is to have a gilt comb, badge and rosette.

*

I suppose the idea of a fireman's helmet is to save his head from injury; and presumably it ought to be shaped and made to that end. But, unless the glossy blackness is entirely self-cleaning, I must admit that I regret the passing of dashing brassiness. Firemen are always supposed to have plenty of time on their hands, and if the Royal Fine Arts Commission is going to give in to firemen wearing that kind of stiffened Sou'wester one sees in American films, I shall feel very bitter about it all.

CHRISTMAS AT PELVIS BAY

Some of those who read these notes may have read about Pelvis Bay, the magnificent seaside metropolis which Mr. Osbert Lancaster knows so well, in a contemporary called the *Architectural Review*.

*

I now suggest that such hypothetical readers who may be thinking of relaxing at Christmas time (or who, alternatively, are beginning to feel that eventually they may become worried about Christmas presents) should have an outing at Pelvis Bay. It will cost them 3s. 6d.*

*

Mr. Lancaster's drawings of architectural development are first class, and I (for a sense of humour is personal) think him very funny. And Pelvis Bay—to quote Mr. Ruskin (as quoted by Mr. Lancaster) on the Ship Hotel's bath room—"has a Moral Beauty of its own in no way connected with its mere utilitarian value."

ASTRAGAL

* *Progress at Pelvis Bay.* By Osbert Lancaster. London : John Murray. Price 3s. 6d.

NEWS

POINTS FROM THIS ISSUE

"... that last ditch which has by now become the permanent resting place of all those noble souls who stand for progress" .. 732

The first article of the JOURNAL'S *second section on the planning of more specialized building types* .. 741

"*Within five miles of Charing Cross public passenger service vehicles represent only 14 per cent. of the total flow of vehicles enumerated in the police traffic census*" 752

"*When there are 1,500 separate rural and urban authorities with independent ability to carry out town and country planning, how are we to get harmony, to get systematic planning?*" 754

CAMBRIDGE UNIVERSITY APPOINTMENT

Mr. James MacGregor, M.A., F.R.I.B.A., M.T.P.I., has been appointed Director of the Cambridge School of Architecture.

Mr. MacGregor, who is forty-seven years of age, received his professional training at the School of Architecture, Edinburgh, and in the offices of Hippolyte J. Blanc, R.S.A., Sir Edwin Lutyens, R.A., and William Williamson, F.R.I.B.A. In 1912 he gained the Pugin Studentship of the R.I.B.A. and in 1914 visited India with Sir Edwin Lutyens in connection with the New Capitol at Delhi.

In 1915 he was commissioned to the 1st Battalion Cameronians, serving in France.

He has held the following appointments :—

1921–23 : Senior Master of Design and Lecturer on Mediæval History at the School of Architecture, Manchester University.

1926–33 : Studio Master, the Architectural Association School of Architecture, London.

1931–33 : Lecturer on Architectural Design and History, the L.C.C. School of Building, London.

1933–36 : Head of the School of Architecture and of the Department of Town Planning, College of Art, Edinburgh.

Since 1920 Mr. MacGregor has been in private practice in London, Manchester, and in Edinburgh.

FOR THE CORONATION

Elaborate plans for the reorganization and advancement of all cultural activities in Capetown are bound up with the plan to build a Temple of Arts as the city's gesture in commemoration of the Coronation (states *South Africa*). The Capetown Coronation Committee has approved in principle of the plan to build an Arts Theatre at a cost of £50,000, and its decision will come up for discussion by the Finance and General Purposes Committee of the City Council. Architects will be invited to submit designs in competition.

THE ARCHITECTS' DIARY

Thursday, November 26

R.I.B.A., 66 *Portland Place, W.1. First Exhibition of the newly-formed Camera Club. Until November 28. 10 a.m. to 8 p.m. Also, in the Meeting Room, presentation of Francis Molnar's "Liliom," by the Dramatic Society, on November 26, 27 and 28.*

BUILDING CENTRE, 158 *New Bond Street, W.1. Exhibition of Inn Signs. Until November 28. 10 a.m. to 6 p.m.*

HOME ARTS AND INDUSTRIES EXHIBITION. *At Dorland House, Lower Regent Street, S.W.1. Until November 28. 11 a.m. to 6.30 p.m.*

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C.1. Exhibition of photographs taken by members on the A.A. Excursion to Czecho-Slovakia. Until December 12.*

GEFFRYE MUSEUM, *Kingsland Road, Shoreditch, E.2. "Furniture : London in Roman Times." By D. Martin Roberts. 7.30 p.m.*

SOCIETY OF ANTIQUARIES, *Burlington House, Piccadilly, W.1. "The Town and Castle of Conway." By Sidney Toy. 8.30 p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS. *At the Institution of Civil Engineers, Great George Street, S.W.1. "Improvements at Paddington Station." By Raymond Carmael. 6.30 p.m. Midland Counties : Joint Meeting with the Birmingham and District Association of the Institution of Civil Engineers, at the James Watt Memorial Institute, Birmingham. "Investigations for the Steel Structures Research Committee, University of Birmingham." By C. Batho. 6.30 p.m.*

INSTITUTION OF CIVIL ENGINEERS. *At the Hotel Metropole, Leeds. "Mistakes in Engineering Practice." By J. Baker. 7.30 p.m.*

Friday, November 27

NATIONAL HOUSING AND TOWN PLANNING CONFERENCE. *Conference to be held at Harrogate. Until November 30.*

Saturday, November 28

ARTISTS INTERNATIONAL ASSOCIATION. *At 9 Great Newport Street, W.C.2. "The New Approach to the Teaching of Art." By Nan Youngman. 3 p.m.*

Monday, November 30

R.I.B.A., 66 *Portland Place, W.1. "Architectural and Planning Developments at the Seaside." By Wesley Dougill. 8 p.m.*

Wednesday, December 2

ROYAL SOCIETY OF ARTS, *John Street, Adelphi, W.C.2. "Unlearning Architecture." By Charles Marriott. 8 p.m.*

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. *At the Institution of Mechanical Engineers, Storey's Gate, S.W.1. "Humidity in Industry." By M. C. Marsh. 7 p.m.*

SOUTHEND GREEN BELT

A committee of local authorities is to be set up to investigate the question of a green belt around Southend. This is the result of a suggestion by the C.P.R.E. that the time had arrived for serious consideration of the possibility of reserving open spaces in the district.

REDEVELOPMENT IN THE EAST END

In a joint report submitted to the London County Council on Tuesday last, the Housing and Public Health Committee, in association with the Town Planning and Building Regulation Committee and Highways Committee, submitted the first proposal to be considered by the Council for dealing with a large scale redevelopment area under the new procedure laid down in the Housing Act, 1935. The proposal is for the complete redevelopment, including a re-arrangement of roads and open spaces and the redistribution of industrial and residential districts, of an area of about forty-six acres in the northern part of Bethnal Green. The area is intersected from north to south by Cambridge Road and from east to west by Hackney Road and Bishop's Road, and lies between Regent's Canal on the north and Old Bethnal Green Road on the south.

The report states that out of over 1,000 working-class houses in the area more than 580 are overcrowded, unfit for habitation or badly congested, that is, 55 per cent. of the whole as compared with the statutory condition of one-third. The total population of the area is 5,471 and the redevelopment will involve the displacement and rehousing of 4,700 working-class people. The provisional estimate for acquiring and securing the site, including disturbance to trade and alterations to water and gas mains, etc., closing of streets and principal road works, is £1,250,000, while the provision of rehousing accommodation for the displaced population will cost approximately £500,000, a total capital expenditure of £1,750,000.

At the same meeting of the Council the Housing and Public Health Committee reported that it had approved plans of a new type of block dwelling to be introduced, where appropriate, in conjunction with existing types to give added variety to future housing schemes. The new plans are based on the principle of staircase access as opposed to the balcony access type which has been universally adopted by the Council for many years.

The substitution of staircase for balcony access will, states the report, obviate the reduction of internal lighting and obstruction of outlook that results from the occurrence of balconies and the shadows thrown by them over one side of the block, and will also avoid certain drawbacks as regards lack of privacy for individual flats. Except for one and two room flats, a private sun balcony will be provided for each flat.

GENERAL POSITION IN THE BUILDING INDUSTRY

"The position of the building industry continues to be satisfactory, the improvement as compared with last year being fully maintained," states the current issue of *The Building Industries Survey* published by the Building Industries National Council. "Recent movements in unemployment are no more than the seasonal fluctuations normally to be expected at this time of year."

"The building plan figures for dwelling houses still show no definite tendency, the total for the first eight months of 1936 being almost the same as that for the corresponding period a year ago. It is, however, probable that local authorities account for a somewhat greater proportion of the total, since activity under the Housing Acts show further increases.

"Industrial and commercial construction shows further advances, and recent building plan figures are very favourable for this class of work. While the stimulus of the rearmament measures is being felt in this connection, the position gives evidence of the improved industrial position and the increased confidence in the future of home market industries to which increased building activity has contributed so greatly.

"Preliminary returns from 143 authorities for September show a total value of building

plans approved 8.4 per cent. less than the figure for the same authorities a year ago, dwelling-houses show a decline of 7.0 per cent. and factories and workshops an increase of 20.4 per cent. As has been pointed out from time to time in *The Survey*, however, the plan figures are liable to sudden fluctuation, and one month's figures cannot be taken to indicate a change in trend. Moreover, it must be borne in mind that these statistics are based on a sample of authorities, and their validity rests entirely on the extent to which the sample is representative."

MODEL BUILDING BYELAWS

The Minister of Health, Sir KingsleyWood, has appointed a Committee to assist in the revision of the Model Building Byelaws. Under the Public Health Act, 1936, all building byelaws expire three years after the passing of the Act. It will then be necessary for local authorities to make new byelaws under the extended powers conferred by the Act, and the Minister has, therefore, decided to revise the existing model series of byelaws.

The Committee is composed as follows: Mr. E. H. Rhodes, C.B.E. (Chairman), Mrs. M. G. Townsend, and Messrs. E. W. Tame, Ernest C. King, E. P. Everest, M.B.E., R. Coppock, C. Roland Woods, M.B.E., LL.B., Frank Williams, M.I.O.B., Eric W. Scott, F.R.I.B.A., F. W. C. Barker, F.I.A.A., L.R.I.B.A., B. L. Hurst, M.INST.C.E., David Edwards, M.INST.C.E., F.S.I., F. E. Wentworth-Shields, O.B.E., M.INST.C.E. and Captain C. W. Ellen, with Assessors from the Ministry of Health, the Department of Scientific and Industrial Research and other Government Departments.

The Secretary to the Committee is Mr. A. Zaiman, Ministry of Health, Whitehall, S.W.1, to whom all communications should be addressed.

THE ORDER OF AL RAFIDAIN

The King has given authority to Mr. J. B. Cooper, A.R.I.B.A., to wear the Insignia of the Fifth Class (Civil Division) of the order of Al Rafidain, which the King of Iraq has conferred upon him in recognition of his work for the Iraq Government.

Mr. Cooper has also had the Order of Chevalier, First Class, of the Order of Vasa conferred on him by the King of Sweden, for his work in Iraq. Mr. Cooper is a partner in the firm of Beard, Bennett and Cooper, F/A.R.I.B.A. of London and Birmingham.

OBITUARY

W. J. M. MILLARD

We regret to record the death of Mr. Walter John Marsh Millard, F.R.I.B.A., which took place at Fronwylfa, Welshpool, on Saturday last, at the age of 83.

Mr. Millard received his architectural education at the Leeds School of Architecture and the R.A. Schools, and was articled to Mr. J. G. Gibbins, F.R.I.B.A. He won the Pugin Studentship in 1879, and the R.A. Travelling Studentship in Architecture in the following year.

Mr. Millard was responsible for the restoration of many noted and historic churches, including that at Hitchin, where he formerly lived.

THERMISZISMUS *VERSUS* ELMER ELEPHANT

By John Michael

"LET me turn those Frozy corners into Cozy corners," cries our old friend Mr. Therm, as bright and blandishing as ever as he skips, unasked, about our dining-room. "That empty fireplace is my place."

"What *is* a Frozy?" he chirrups as he brightly bids the gas man enter.

"Frozies live—or exist—in 'half-and-half' homes—half warm and half br-r-r! Heavenly, perhaps, in the living-room, but you could keep butter brick-hard in the hall. . . ."

Thus this jolly little fellow has whisked a brand new gas fire into the good old fireplace, almost before we know what he is talking about. Alone once more, we can admire the "beautiful shape" and "delicate pastel shade," bask in its "stimulating radiant heat" which "changes the air in a room completely; in fact, three or four times an hour."

How bland and efficient is Mr. Therm!

But do not be deceived. Behind this studied cheerfulness of mien, Eric Fraser's puppet figure conceals a fierce and unrelenting Will to Change. In the span of two years our Mr. Therm has outstared over one million Frozies and shepherded them, gracefully but firmly, into the arms of the British gas industry to join the ever-growing ranks of Cozies.

This is no mean achievement. Mr. Therm is obviously a go-getter. No half measures for him, he does not like Frozies and he is out to turn them all into Cozies.

But, myself, I do not like Mr. Therm. There is altogether too much of the policeman-with-a-machine-gun about him.

In his inane features I can detect the perfervid mysticism and the arrogant cruelty; the blazing eyeball and the insistence on a single point of view which are the hallmarks of the modern dictator. I hope architects will understand, and, understanding, forgive me, when I say that I think it one of the Englishman's peculiar privileges to be allowed, if he wishes, to keep his butter brick-hard in the hall, if he has one. For then, and only then, is it "heavenly in the living-room." And what more can any man desire than that?

There are far too many "Mr. Therms" about nowadays, and it is to be hoped that architects are going to educate themselves, before it is too late, to recognize them and to take adequate measures to resist their onslaughts.

Look at the terrific fate which has swiftly and suddenly overtaken the motor-car industry. It has been shot at, rammed and sunk by a Mr. Therm of gigantic proportions.

His name is Streamline, and his second cousin, Ballyhoo.

Balloonhoo, one might almost say. For it becomes increasingly difficult to buy a new car in this country which looks like a car and not a rococo sort of balloon, stretched tightly backwards and liberally garnished with chromium plating and unnecessary gadgets. Balloonhoo has crossed the Atlantic and gripped the imagination of the British business man. And once anything succeeds in doing that, everybody knows what happens.

Balloonhoo is, clearly, a menace. A minor one, perhaps, compared with some of the major horrors which are daily drawing closer to us down the passage as we run, but one which is nevertheless of very real importance to architects. If our, on the whole, very level-headed motor-car manufacturers can succumb, as they are in process of doing, so easily to this altogether unnecessary grovelling and scraping to the great American god Streamline, does it not behove architects to be more than ever on the alert against this peril? Who knows but that some determined Mr. Therm will not suddenly announce that the streamlined house, by reducing wind resistance, will make for staggering reductions in repair bills? Indeed, this plea would be no more absurd than that adopted by the motor designers, who argue that their fantastic balloonings and billowings decrease petrol consumption and engine wear. In point of fact, they make little or no difference at speeds lower than 60 m.p.h., and even then any savings are probably offset by the topheavy construction of their bodies.

If, I say, such a one were to appear, could architects offer any effective resistance, or would our houses, almost overnight, strive hideously to emulate the noble seagull? These are problems which I feel every architect should ponder deeply. They are bound up closely with many of the larger evils of our time.

In a news theatre the other night I was surprised and pained to see, or rather hear, the audience temporarily divided into two antagonistic groups by the appearance on the screen of one

of our own pet Mr. Therms, a figure dressed up in a species of Ruritanian uniforms. His appearance was greeted with loud, sustained clapping from one-half of the audience, quickly countered with boos and hisses from the remainder. I can only record that I was astounded beyond all measure at these alarming symptoms of acute thermitis, proceeding from a group of nationals who have hitherto remained immune to the dread disease which has so effectively ravaged about nine-tenths of the world's surface.

In passing, I will note that a Mr. Therm may most easily be recognized by his insane and overmastering passion, generally forcibly, more rarely subtly, expressed, to herd his fellow citizens all together and to drive them headlong, whooping and shouting the while (or, occasionally, with a more sinister calm) along one fixed idea-track of his own conceiving.

Some fiendish Yankee therm stampeded almost the whole of the motor-car industry into turning out cars which more resembled bathbuns on wheels; a handful of relentless Spanish thermissimos have between them effectively ruined their country for many years to come, torn down and burnt its works of art and destroyed its priceless architectural heritage with shell fire. Between these two extremes are active therms of every shape and colour. And many of the more determined ones are fastened savagely upon the body of England.

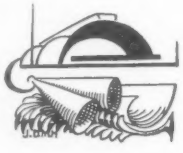
The original Mr. Therm wants to turn all frozies into cozies. In *Elmer Elephant*, latest and greatest Disney Silly Symphony, Elmer, the hero, is portrayed as a frozy—that is to say, "individualist"—who is being persecuted by a brutal gang of cozies, or moronic hooligans, on account of his unusually shaped proboscis. Deeply in love with the charming Tillie Tiger, heroine, he is suddenly subjected at her birthday party to a series of savage attacks from the gang, who take advantage of Tillie's momentary absence to throw him out through the garden fence. Disney goes simply and directly to the root of the matter. In a thrilling series of brilliantly conceived and finely executed sequences he reveals himself to be one of the greatest frozy championers of all time. Amidst terrific excitement, Elmer is enabled to put his despised trunk to such effective use that he saves his Tillie's life, thereby earning her undying affection and at once becoming the hero of the hour and the happiest man, or rather elephant, alive.

Disney's reputation has in the past suffered too much at the hands of those critics, public and private, who proclaim him to be the most *avant avant garde* artist and thinker of our time, and I do not propose here to swell the volume of hysterical adulation which has already been lavished upon him by the more intellectual type of filmgoer. Suffice it to say that for one fan Disney has given us, in *Elmer Elephant*, his greatest and most truly "classic" masterpiece to date.

This being autumn, and a melancholy time of year, I should like to put forward the suggestion, not quite seriously, that there is a direct connection between a period's architectural conscience and its current political ideology; and that the comparative reactions of a cinema audience to a film showing demonstrations in the East End of London and to the story of Elmer—the elephant who made good in spite of and because of Nature's sense of humour—are somehow deeply related to the professional and material well-being of every architect.

For my part, when swaggering Mr. Therm raps: "I'll turn you frozies into cozies," I reply, "Not on your life you won't," arranging myself more comfortably into that last ditch which has by now become the permanent resting place of all those noble souls who stand for progress.

As a footnote, I may add that the new gas fire arrived last week and is working very nicely, thank you.



CAIRO EXHIBITION

We have received the following notice from the Minister of Education for Egypt:

"To all those who are interested in the progress of architecture and town-planning in Egypt, particularly architects, civil engineers and ornamentalists, whether Egyptians or Foreigners, this appeal is addressed, with the object of organizing an exhibition of works already executed by them or plans and projects which they have in mind.

"The works and plans should aim on the one hand at the conservation of the monuments of a glorious past and of the sites on which they stand; and on the other hand at the creation of a style of architecture which conforms with the needs of contemporary Egypt and is, at the same time, based on the traditions of a thousand years. This appeal is issued by H.E. Mohamed Ali Allouba Pasha, Minister of Education. A translation of the article which His Excellency devoted to this subject in the periodical *Partout* for March 15, 1936, and which treats of the reasons and objects of the appeal, is appended. The appeal is addressed not only to architects, but also to all artists, and more generally to all those who love Egypt and are interested in its beauty.

"The character of architecture with all that it includes—site-planning, decoration, furnishing, the laying-out of gardens, etc.—is so comprehensive that it requires the close collaboration of the architect himself, of the princely inspirer and patron of works that extol his magnificence and, finally, of the people whose needs it satisfies and whose relaxations it ensures.

"So true is this, so strong is such a bond, that it is impossible to conceive of one of these three existing without the others; for a particular monument calls to mind not only the architect who planned it, but also the Ruler or the People who caused it to be built—Ibn Touloun, Sultan Hassan and Mohamed Ali, for example, at their mosques, Louis XIV at Versailles, or the peoples of Egypt, of France or of England so perfectly represented and, one might even say, portrayed in their mosques, cathedrals and other monuments.

"The present scheme does not aim at a mere reproduction of the past or at the elaboration of a certain decorative style applied, as so often happens, arbitrarily; but rather at satisfying the needs of the present day, comprising a profound and detailed study of those needs, but remaining all the time in conformity with the unchanging outward features of Egypt and deriving its source from a past of which it must be a development and continuation.

"It is desired that the architects shall derive their inspiration from Islamic Art, more particularly the less elaborate schools, the monuments, for example, of the Toulounid, Fatimid or the Bahrid Princes, which in their restraint, their understanding of surface and masses and the spacing of ornament, to some extent approach modern architectural style.

"It is necessary, in order to achieve success in this direction, to study all that has been done in this field and particularly in countries which have grappled with and solved similar problems. It is equally essential to study the tastes and tendencies of public opinion with regard to this question both abroad and at home.

"H.E. The Minister of Education considers that the best means to achieve these objects is to organize an exhibition open to all competitors, in which will be gathered together plans, photographs and models executed in accordance with the spirit of the programme outlined above and fully detailed in His Excellency's article.

"This exhibition will be held in Cairo in April, 1937, at the small palace of the Agricultural Exhibition, under the patronage of H.E. The Minister of Education, and will continue for three weeks.

"Every exhibitor will be entitled to send not more than three large panels (1·05 by ·85 metres) or six panels half this size.

"These panels will show drawings, plans, or photographs of works, either executed or proposed, of all kinds—palaces, houses and blocks of flats, schools, hospitals, parks, site-plans and designs for furniture. Each exhibit should be accompanied by an explanatory description of the work.

"Transport expenses, such as carriage by rail, freight, insurance, customs dues, etc., etc., shall be borne by the exhibitors from their place of residence as far as Alexandria or Port Said. Transport expenses by rail from Alexandria or Port Said to Cairo will be borne by the Egyptian Government; but insurance for the journey as far as Cairo must be paid by the exhibitor. The latest date for receiving exhibits is February 28, 1937.

"A committee of persons eminent in the world of art will judge the exhibits. All exhibits not conforming to the rules or suggestions detailed above will be rejected.

"The committee will award four prizes of a total value of £E.1,500 (fifteen hundred pounds Egyptian) to the best works (one pound Egyptian is equivalent to £1 os. 6d.). A First Prize of £E. 800

A Second Prize of £E.400. A Third Prize of £E. 200. A Fourth Prize of £E. 100.

"The awarding of these prizes is not obligatory. The Committee may decide to withhold any prize should it find that no exhibit deserves it. In case of several works being adjudged of equal or approximately equal merit, the Committee may divide the prize-money among them in the proportion it deems fit.

"Eminent personalities, art-lovers, members of the press and the general public, both Egyptian and foreign, will be invited to attend this exhibition.

"In this way it is hoped to obtain the ideas both of architects and of the general public, and to lay a solid foundation for all future schemes which may shortly be called for in connection with interesting historic occasions, such as the Millenaries of the foundation of Al-Azhar University and the City of Cairo.

"Any further information that may be desired may be obtained from the Department of Fine Arts, Ministry of Education, Cairo."

FIFTY YEARS ON

As the practice of town-planning has developed in Britain, it is seen by thoughtful people to have become a more and more complex mechanism for putting into effect multitudinous small regulations to remedy small abuses.

The original aim and definition of town planning was the planning and guiding of the use of all the surface of Britain in order that the business of living should be carried on as easily, and in surroundings as suitable, as it was possible to achieve by human forethought.

It was no doubt necessary for this territorial guidance to begin first with the small things which could be achieved within a reasonable period of time; nor can it be denied that town-planning regulations have remedied a considerable volume of small abuses of the public's best interests and prevented many more.

But recently the ends, towards which the increasing complexity of petty regulations is supposed to be the means, have been formulated less and less frequently by those in authority in town planning, while at the same time it appears that an entirely unwarranted faith is being placed in the solving of grave problems by measures of small local restrictions.

In the last few weeks this change in national town-planning policy has been emphasized by two events: the Commissioner for Special Areas has been the first person in a high position to emphasize the need for preventing the further growth of London; and the Minister of Health has ordered the L.C.C. to prevent traffic congestion in London by regulating access to individual buildings.

Granted the variety of the forces at work, the complications set up by their interplay, and the profound difficulty of finding a solution, the fact remains that a solution will have to be found in the course of the next fifty years to the problems raised by the exploitation of modern scientific knowledge by unregulated enterprise. Some of our readers, we submit, have thought long and laboriously upon this problem. We announce, therefore, a competition as a means of inducing those who, in the ordinary way, are not tempted to write, to set down their reflections.

The competitor is asked to imagine that he is writing fifty years hence, in 1987, *with a full knowledge of the town and territorial planning moves that have been made in the interim; the idea being that his description, whatever form it takes, should acquaint the reader with what has and what has not been done to clear up the existing chaos during fifty years, and what the outcome of those moves (if any) is.*

The competitor is at liberty to regard his notes as an essay in constructive planning or in prophecy: he may be serious, satirical or funny.

The prizes will go to the competitors whose contributions, in the opinion of the editor, make the most original and illuminating reflections on the issue under discussion.

CHRISTMAS COMPETITION

for an essay in town and territorial planning prophecy; the time of action being the year 1987. In fuller explanation of the object of the competition the following examples are put forward from the multitude obviously available:

(1) *Part of the diary of an American visitor describing a holiday journey along a Trunk Road from London to Carlisle.*

(2) *A letter from a young woman to her best friend after her first three days' sight-seeing in London.*

(3) *An assessor's report on an architectural competition for a social centre at Manchester.*

(4) *Preliminary notes for an expert's report on the territorial planning of South Durham after a day's general survey from the air.*

[*The time of action of all the above examples to be supposed to be in the year* 1987.]

With a view to stimulating the literary ambitions of competitors, the JOURNAL *offers a FIRST PRIZE of* £20, *a SECOND PRIZE of* £10, *and a THIRD PRIZE of* £5 *for the three essays judged to be the best in order of merit.*

Essays should not exceed 3,000 words in length, should be typed on one side only of quarto paper, and must reach the JOURNAL by the first post on January 1, 1937, endorsed on the envelope "Essay Competition."

Each entry should have a pseudonym and the address of the competitor typed on the last page of the essay, the competitor's name being enclosed in a smaller sealed envelope having the pseudonym chosen clearly typed on the outside.

The Editor's decision will be final concerning the awards made, and no questions will be answered.

R. I. B. A.

CHRISTMAS HOLIDAY LECTURES

The tenth series of informal talks on architecture to boys and girls will be given at the R.I.B.A. during the forthcoming Christmas holidays. At the invitation of the Council of the Institute, Mr. G. A. Jellicoe, F.R.I.B.A., has consented to give the talks this year. They will be illustrated by lantern slides, and Mr. Jellicoe has chosen as his subject: The Planning of Towns: (1) Cities of To-day. (The complex social structure of modern civilization—The need for planning—What is planning?—Co-ordination of all aspects—Creation of order out of chaos and beauty out of ugliness—London, Paris and New York); (2) Cities of the Past. (The different shapes of cities—Cities whose shapes were governed by defence, culture, pleasure, etc.—Greek, Roman, Mediæval and Renaissance planning—Sir Christopher Wren's plan for London); (3) Cities of the Future. (Survey of the various town plans of to-day—The next step—Various experiments—The new cities of Russia—A Frenchman's vision of the city of the future). The lectures will be given in the Henry Jarvis Memorial Room, in the R.I.B.A. Building at 66 Portland Place, W.1, on the following dates: Monday, December 28, 1936, at 3.30 p.m.; Wednesday, December 30, 1936, at 3.30 p.m.; Friday, January 1, 1937, at 3.30 p.m.

Tickets for any or all of the lectures may be obtained from the Secretary of the Royal Institute of British Architects, 66 Portland Place, London, W.1. The tickets are free.

CAMERA CLUB

The first exhibition of the newly-formed Camera Club of the R.I.B.A. is now being held at 66 Portland Place and will remain open until November 28. The exhibition consists of photographs taken by members of the R.I.B.A. and is subdivided into the following sections: historic architecture, modern architecture, pictorial, portraiture, archæological, scientific.

STREET DECORATIONS FOR THE CORONATION

The Designs for Street Decorations for the Coronation of King Edward VIII, prepared by students of Schools of Architecture recognized for exemption from the R.I.B.A. Examinations, will be exhibited at the R.I.B.A., 66 Portland Place, London, W.1, from Wednesday, December 2, until Wednesday December 9, 1936, inclusive, between the hours of 10 a.m. and 8 p.m., Saturday, 10 a.m. and 5 p.m.

COMPETITION NEWS

DESIGNS FOR TOURIST CAMPS

Seventy entries were received for the competition organized by the Timber Development Association for designs for a tourist camp. The winners' names are to be announced at the end of November and their cheques are to be handed to them by Mr. E. B. Monkhouse, President of the Timber Trades Federation, at a luncheon at the May Fair Hotel on December 2.

A brief review of the entries will be made at the luncheon by one of the assessors, Mr. Guy Dawber, R.A., and at 3 p.m. an exhibition of the designs entered will be opened by the Earl of Crawford and Balcarres at the Building Centre, 158 New Bond Street.

The object of the competition was to show how wood can be used both economically and agreeably for groups of buildings in the country.

HOUSES FOR TROON TOWN COUNCIL

The Troon Town Council invites chartered and/or registered architects in private practice in Scotland to submit designs in competition for the lay-out and design of 400 houses on the Muirhead housing site, Troon. The Council has appointed Mr. Charles G. Soutar, F.R.I.B.A., President of the Royal Incorporation of Architects in Scotland, to act as assessor, and the following premiums are offered: £150, £100 and £50.

Conditions of the competition are obtainable from the Joint Town Clerks, Troon (Deposit £1 1s.).

SOCIETIES AND INSTITUTIONS

I.A.A.S.

Sir Robert Tasker presided at the annual dinner of the Incorporated Association of Architects and Surveyors at the Dorchester Hotel on Friday last in the absence of Sir Edwin Lutyens (the President), who was indisposed.

Sir William Llewellyn, in proposing the toast of the Association, discussed town and country planning. Slums, he said, were being removed, but new slums were being created in their place. Hordes of small workmen's houses were built around our towns and at seaside places. Millions of small cottages were so flimsily erected that in a few years they would become the slums of England and fall to pieces. The Association could give much help in remedying that state of affairs. He wished to see our cities cleaned up a bit, and he advocated the painting of terraces of houses all in one colour and at the same time.

Sir Robert Tasker, responding, said he was grateful for Sir William Llewellyn's reference to colour in building. "The sham stucco paint of some coloured buildings is only a little less objectionable to me than many of the concrete structures which pass under the name of 'functional architecture,'" he stated. "I can see no reason why concrete structures should not be made with some sense of proportion and beautiful fitness, and I look forward with confidence to the evolution of design which will prove equally pleasing with all other styles of architecture."

TOWN PLANNING INSTITUTE

The Ministry of Health's suggestion that "local authorities might regard 100 persons per acre as a reasonable maximum under ordinary conditions outside closely-built areas" was criticized by Mr. Ernest G. Allen in his presidential address to the Institute of Town Planning.

He said that the density limitation of 12 houses to the acre gave an average of 48 persons. What reason was there for allowing 100 per cent. increase because the people were housed horizontally in flats, instead of vertically in the ordinary house? There could be no doubt that it would put a premium on the erection of flats in preference to single family dwellings, a condition of affairs most of them would heartily deplore, and which was bound to have an important effect on land values.

LIVERPOOL ARCHITECTURAL SOCIETY

In connection with the above Society, a dance has been arranged to take place at the Bluecoat Chambers Hall, School Lane, Liverpool, 1, on Friday, December 11, 1936, from 8.15 until 2 a.m. Tickets (price 10s. 6d. double, 6s. single) are obtainable from Mr. H. Banister, A.R.I.B.A., Bluecoat Chambers, Liverpool, 1.

CORONATION DECORATIONS, CARDIFF

At a meeting of the Cardiff Chamber of Trade an address on the question of adopting a carefully worked out scheme of decoration for Cardiff business premises on the occasion of the Coronation was given by Mr. W. S. Purchon, M.A., F.R.I.B.A.

The speech dealt with the many advantages of a considered scheme as compared with the conflicting effects of individual efforts, pointing out that it was not a matter of additional expense, but rather of getting a better result with the usual expenditure. He explained that while the Welsh School of Architecture, Technical College, Cardiff, did not wish to press such a scheme on Cardiff, if such a scheme was really desired by the business people of Cardiff the School wished to intimate its willingness to assist. Mr. Percy Thomas, O.B.E., P.R.I.B.A., had also intimated his willingness to act in an honorary capacity, along with the staff of the School, as advisers in this matter.

Brighton Scheme Turned Down

The Brighton Town Council has rejected the scheme for reconstructing the sea front between the two piers, owing to the difficulties and expense involved. A Bill was to have been presented in Parliament this session, providing among other things for a setting back of all buildings between the Hotel Metropole and the Old Ship Hotel. The cost, originally put at £300,000, had recently been estimated at £1,500,000.

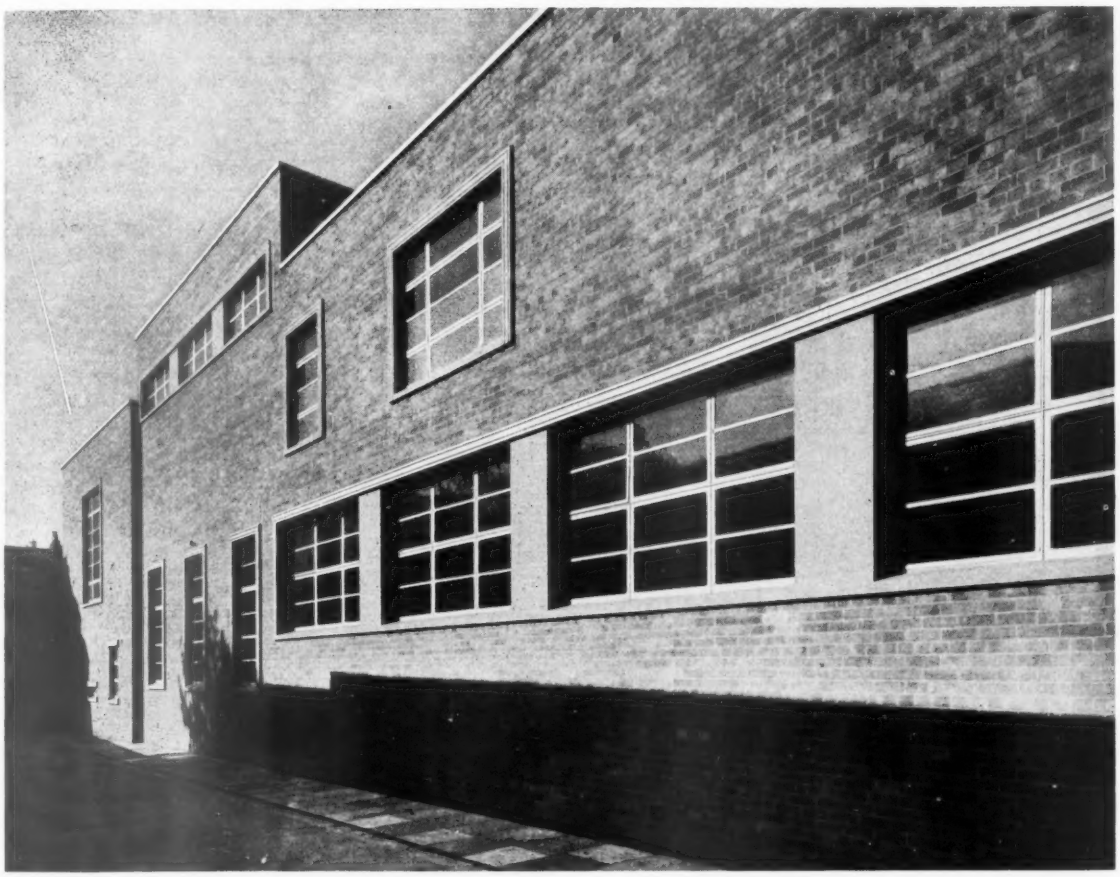
Oxford Green Belt

The Oxfordshire County Council has adopted a recommendation to prevent the northwards spread of the city by a green belt at least a mile in depth. The Council has also refused permission for the development of the Earl of Dudley's land at Kidlington, five miles north of Oxford, as a housing estate.

Appointment

The Rt. Hon the Viscount Falmouth has been appointed a member of the Advisory Council to the Committee of the Privy Council for Scientific and Industrial Research. Professor A. C. G. Egerton, M.A., F.R.S., has retired from the Council on completion of his term of office.

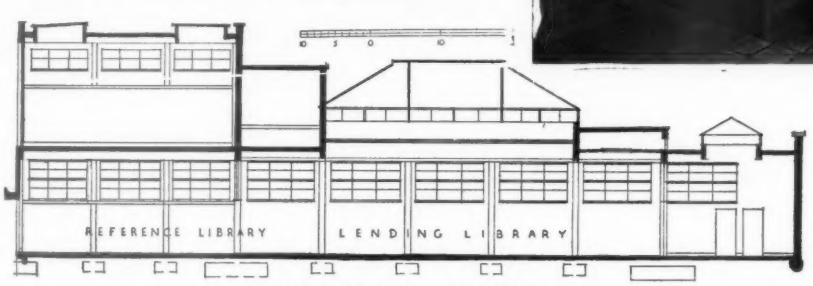
EXTENSION, PUBLIC LIBRARY, SCARBOROUGH



GENERAL PROBLEM — *The accommodation in the extension includes : lending library, with island and wall display cases for 18,000 volumes ; reference library ; junior library, 3,000 volumes ; lecture or exhibition room, with seating for 260 persons ; small lecture room ; and stock room to store 12,000 volumes.*

CONSTRUCTION—*Steel frame, enclosed in concrete and supporting reinforced concrete hollow tile floors. External panel walls are 9-ins. brickwork in cement, rendered internally with water-repellent cement and finished in hard wall plaster. Ceilings and beams are similarly finished in hard wall plaster.*

The photographs are : above, the front to Juvenile Entrance Road; right, the entrance hall showing the doors leading to the reference library and the lending library.



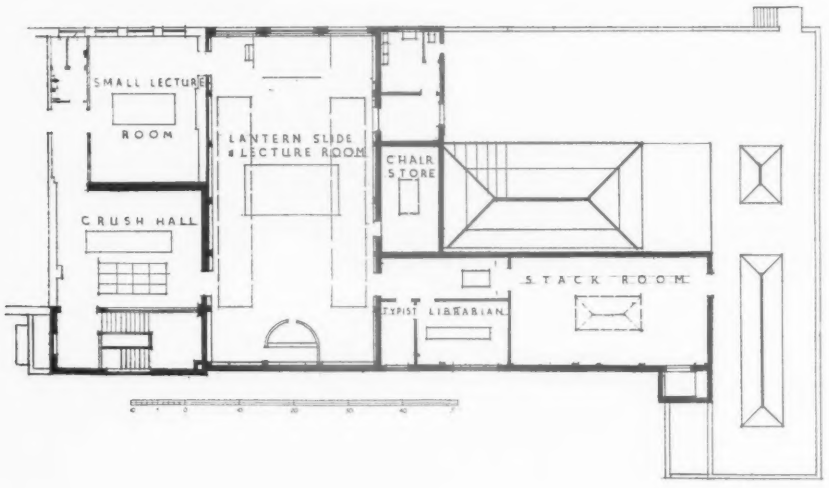
LONGITUDINAL SECTION

DESIGNED BY J. PATON WATSON; G.W. ALDERSON, ASSISTANT

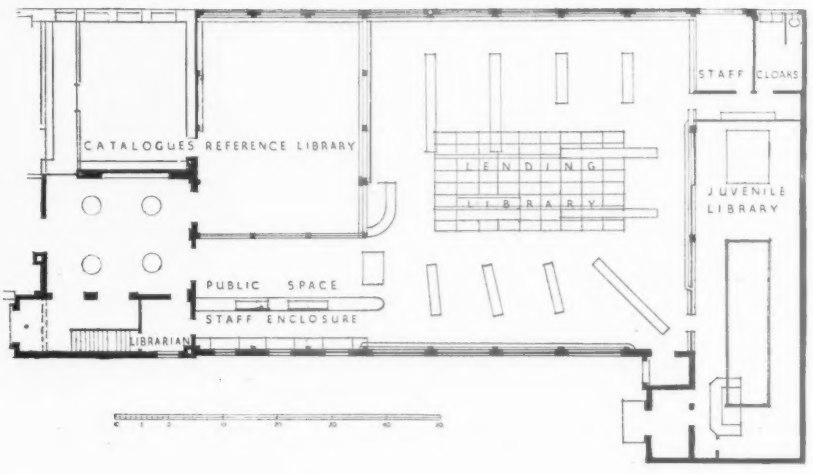
EXTENSION, PUBLIC LIBRARY, SCARBOROUGH: BY J.

SERVICE COUNTER—*The service counter in the lending library is designed to facilitate rapid discharging of books and to reduce staff movements. Three points of service are provided; two for the discharge of returned books, and one for miscellaneous enquiries. Readers' tickets are arranged on trays on a movable platform manipulated by the assistant seated at the service point. Readers return their books to one or other of the two service points according to the colour of the last dating—black or red. Free-swinging turnstiles are provided. Books are recorded at an "exit counter," so placed that the staff has supervision of the reference library. Tables and chairs are provided in the lending library. The tables are circular, with olive green linoleum composition tops, having a raised centre field in birch to form a book rest and display stand.*

The photograph shows the exhibition and lecture hall.



FIRST FLOOR PLAN



GROUND FLOOR PLAN

PATON WATSON; G. W. ALDERSON, ASSISTANT

Top, the service counter in the lending library; right, the dual service counter in the lending and reference libraries; above, the staircase.

EXTENSION, PUBLIC LIBRARY, SCARBOROUGH

THE LIBRARIES — *The lending, junior and reference libraries are sub-divided by glazed screens and bookcase fittings. The wall between the reference and lending libraries has an internal core of soundproofing board between the backs of the bookcases to restrict sound from the lending library. The floors have $\frac{9}{16}$-in. cork tiles in random shades of light fawn to deep vandyke brown. Cork tile is fixed to the brick plinth wall supporting the bookcases in the lending and junior libraries. This wall forms a cavity between the main external wall and allows heating pipes and radiators to be concealed, and the rising hot air to be delivered into the rooms above the heads of the public.*

For list of general and sub-contractors see page 757.

The photographs show : above, the lending library ; left, the reference library ; right, the juvenile library.

DESIGNED BY J. PATON WATSON; G. W. ALDERSON, ASSISTANT.

LETTERS FROM READERS

Building Regulations

SIR,—The increasing multiplicity of restrictions imposed on building is rapidly making the architect's position intolerable. Unless he is to become a mere "Yes-man" to Civil Servants it is high time some action were taken.

Nobody doubts the necessity for rules and regulations governing building activity, but these rules, to be of value, should assist the architect in his purpose of organized planning, and the administration of them should be conducted in the light of day and in accordance with ascertainable principles.

So far is this from being the case in London that the full benefit of an architect's advice is prohibited by law. An architect is no longer able to advise his client on the most efficient development of his site; the only advice he can offer is for his client to go away while the London County Council makes up its mind.

This is likely to take anything up to two months; during which time the purchase or lease of the site is a pure gamble and the preparation of any working drawings likely to be a waste of time.

While his preliminary application is being considered by the London County Council the architect can do nothing but possess himself in patience. Calls at the County Hall, personally or by telephone, evince nothing except that the application is receiving attention. The identity of the "officer" giving the attention and his ability to attend to it are shrouded by the inveterate policy of departmental secrecy. The architect will not be consulted although he is the only person in possession of all the relevant factors, nor will he be given any reasons for the final decision or what process of thought led up to it.

The chances are that the conditions imposed on the site will render it useless for the proposed building and reduce its market value by 25 per cent.

The ultimate ideal pursued with such fervid ardour by these official "Town-planners" will, if realized, result in a London composed of isolated pyramidal structures not more than forty feet high each entirely surrounded by open courtyards forty feet wide.

Should the client decide to withdraw from the London County Council area altogether, a fresh obstacle will obstruct his architect, and provide nourishment for further hoards of officials. I refer to the Restriction of Ribbon Development Act, perhaps the worst drafted Act in the history of the Statute Book.

Here, again, despotic powers are showered on those whose ability to exercise them wisely remains at best an open question. Here, again, building can only proceed subject to whatever conditions the Planning Authority (that is, some obscure departmental official) sees fit to dictate.

These conditions may quite possibly be the result of the reasoned deliberations of a trained constructive mind, but on the other hand they may be the capricious fancies of a bureaucratic tyrant. In either case the architect is entirely powerless in the hands of Civil Servants, and there the danger lies.

It will not finish here. The whole process is another manifestation of the parasitical growth which Lord Hewart illumined in his book "The New Despotism." The aim is the political one of securing all power in the hands of the administrative departments, so that decrees can be issued without reference to Parliament and immune from review by the Courts of Law, and will, if successful in building matters, reduce all architects to impotence and property owners to bankruptcy.

The solution is to free building from politics. Regulations governing planning, design and construction should be drawn up by committees composed of architects, engineers and builders. We should then have laws bearing some relation to contemporary knowledge.

The more urgent reforms to restrictions governing structural steelwork and reinforced concrete could be disposed of by the Institution of Civil Engineers in a fortnight, and we should be spared such humiliating farces as welded steelwork designed as non-rigid frames.

Similarly, the R.I.B.A. could effect a clean-up of all the ludicrous Bye-laws and anachronisms at present cumbering the profession.

My observations only touch upon the subject, no doubt others can supplement them without difficulty. What is needed is a sustained campaign pursued with relentless vigilance until building is in the unfettered hands of those best qualified to control it.

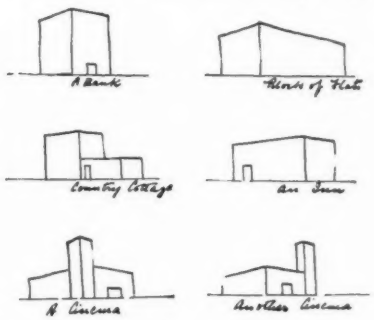
REALIST

Architectural Expression

SIR,—Having had the privilege of perusing several copies of your JOURNAL recently, and noting the tendency of modern design, I find that I have the gift of architectural expression developed in no small degree.

I take the liberty of enclosing a few rough sketches of some of my recent conceptions, and would draw your attention to the old world charm embodied in the design for a country cottage.

Perhaps you could put me in touch with a firm who could use my ideas?



I would be willing, if necessary, to change my name, to, say, Max Dangl or Fried Rottneg.

W. G. PAVIER

[*Our correspondent shows distinct promise. A little more practice—a little more knowledge . . . . Ed.*, A.J.]

Smoke Abatement

SIR,—May I refer very briefly to the letter from Mr. Thornton-White in your issue for November 12, in which he commented on my previous communication on the above subject.

In the first place I should like to point out that I did not "complain" that Dr. Fishenden "had no right" to suggest that something must be done to reduce the smoke emission from coal grates. What I did do was to say that something was already being done.

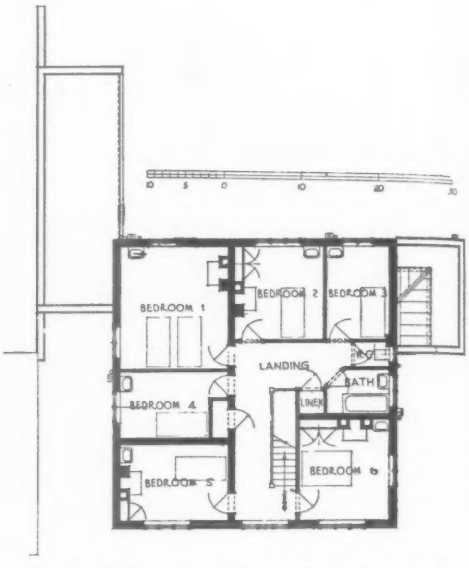
Secondly, as regards the automatic fire lighter which also consumes the excessive smoke given off by a newly-lighted fire, this appliance has been temporarily on exhibition at our showrooms at British Industries House in connection with the National Coal Convention. It is now being incorporated in a complete modern grate and we hope to be able to give a demonstration and to supply full particulars of it about the first week in December. To that demonstration we shall, of course, invite representatives of the architectural press and of the Royal Institute of British Architects.

W. R. GORDON,
Director, The Coal Utilization Council

Epstein's "Day"

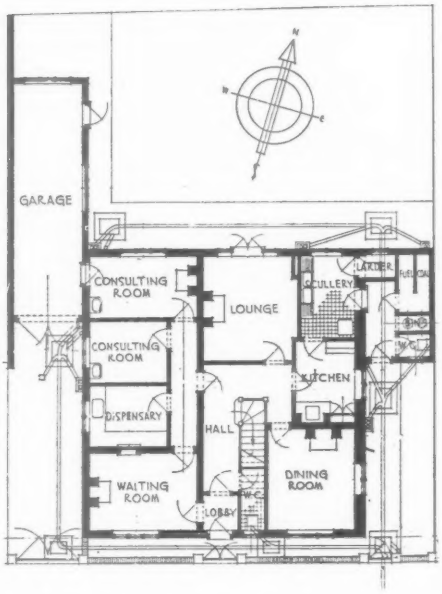
SIR,—The recent attack on Epstein's "Day" and the painting of a swastika nearby, raises the question whether the Fascists in Great Britain are planning a campaign against Art and Culture such as has been carried out in many foreign countries. It is difficult to look on this merely as an act of irresponsible hooliganism, when we remember how Jewish, foreign, and the more experimental artists have been attacked in certain countries on the Continent. Where the Fascists have come to power, this has developed into an attack on all art as such. "When I hear the word 'culture'," says the Nazi poet, Hans

DOCTOR'S HOUSE, WAKEFIELD STREET, E.



FIRST FLOOR PLAN

DESIGNED BY TATCHELL AND WILSON



GROUND FLOOR PLAN

GENERAL PROBLEM—*To provide economically the accommodation for a married doctor and his assistant in a district where a large number of patients would attend the house during surgery hours.*

SITE—*A confined rectangle with buildings on three sides and a road frontage on the south.*

PLAN—*Convenience of access generally and the minimum of noise for bedrooms 1, 2 and 3 and the lounge have been considered of greater importance than aspects. The six bedrooms are for the doctor and his wife, the second doctor, maids and children. One entrance with a common lobby serves both for the private house and for patients, and opens into a waiting room next to which is a dispensary and two consulting rooms. The private part of the house occupies the east side of the ground floor.*

CONSTRUCTION—*Brick cavity walls and tiled roof. The elevations are faced with sand-faced multi-coloured bricks with a wide cream joint. The windows are metal casements in wood frames.*

Johst, "I undo the safety catch of my revolver."

The dependence of the Fascist system on terror and on bluff, compels them to attempt to prevent all freedom of expression even in art. Perhaps we should not be surprised that such of the world's great men as Gropius, Ossietsky, Toscanini, and Bruno Walter, are imprisoned, insulted or expelled by the governments of their own countries.

We, the undersigned art and architectural students, cannot but be alarmed when we see the Fascist elements in this country attacking progressive art. We feel that all those who are concerned in preserving the freedom of artistic expression should take warning by this incident, and should unite to take whatever action they can to prevent the spreading of such an attitude.

32 STUDENTS OF THE SLADE SCHOOL (UNIVERSITY OF LONDON)
11 STUDENTS OF THE CHELSEA ART SCHOOL
6 STUDENTS OF THE WILLESDEN ART SCHOOL
9 STUDENTS OF THE BARTLETT SCHOOL OF ARCHITECTURE
4 STUDENTS OF THE ROYAL COLLEGE OF ART
41 STUDENTS OF THE ARCHITECTURAL ASSOCIATION SCHOOL OF ARCHITECTURE

The series entitled
Working Details
will be omitted during publication of the articles on shops and will afterwards be continued.

SMALLER RETAIL SHOPS

[By Bryan Westwood and Norman Westwood]

FOREWORD

BY THE EDITOR

ON the following pages there begins the second of the series of sections on the planning of particular building types which the JOURNAL *intends to publish from time to time.*

The first section, entitled "Town Halls" and published earlier this year, was chosen because of the wide interest bestowed upon town hall planning by the open competition system.

The reasons for devoting the second section to the smaller retail shop are believed to be at least equally strong.

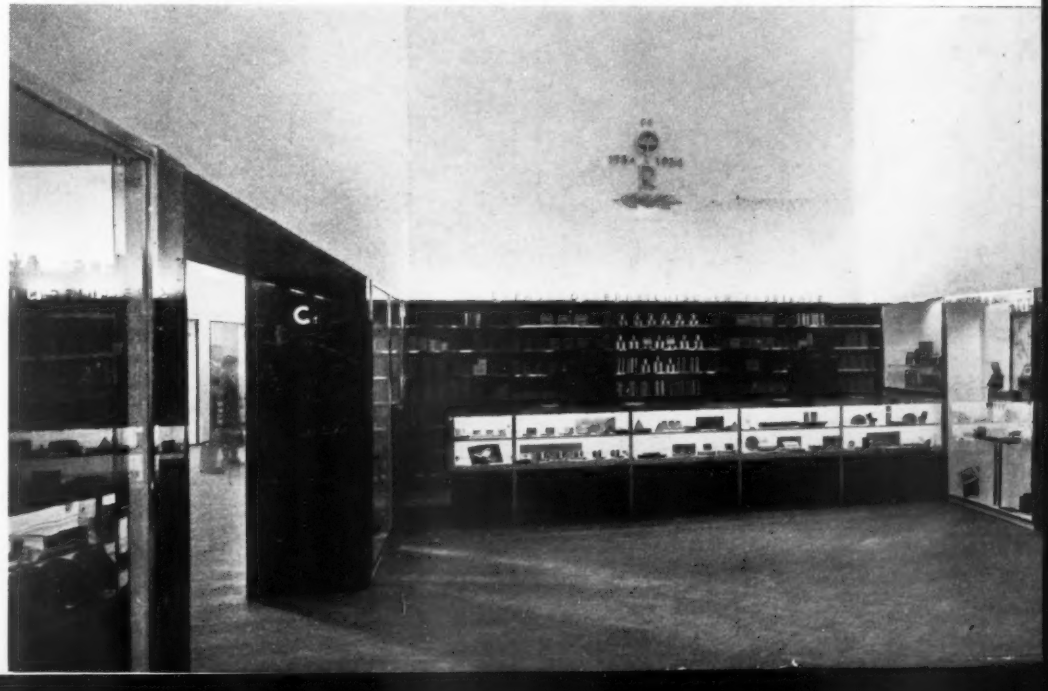
The department shop which is called a store has nearly always in the past been considered by its owners to be a planning problem for which an architect was essential; not so the smaller shop. For many years the average smaller shop-owner thought that a certain amount of space, a properly clamorous front, and some stock fittings were all that were needed to attract the public.

The last few years have seen a considerable change in this attitude. First the isolated and luxurious shop, then some chain shops, and at last the general commodity shop have begun to consider the comprehensive design of their premises, internally and externally, to be a long-term investment well worth paying for. And in consequence there is every likelihood that shop designing will play in the future a much larger part in every architectural practice.

It is for these reasons that the JOURNAL *has decided that its second planning section should deal with shops; a subject of which the complexity, and the materials and equipment available, have immensely increased in recent years.*

The articles which follow will include data on the selection of sites, the planning for selling different kinds of goods, and will consider all the various elements in the design of the smaller shop. In this section materials for construction, finishes and equipment will be designated by their full trade names wherever this procedure is necessary for clearness.

Most of the photographs illustrating the section were taken by the authors.



State Tobacco Shop at Vienna. Architect, Prof. Oswald Haerdtl.

The shop of the past. An example of a shop front built when eighteenth century manners did not permit the individual shopkeeper to destroy the homogeneity of the street.

SHOPS

Introduction

THE VARIOUS PROBLEMS

THE small shop is one of the design problems which occur now and then in the practice of most architects already, but with increasingly acute competition between retailers it represents an equally increasing opportunity.

The luxury shop was the first to be designed by architects, after which competition has gradually made it necessary for the more essential trades to make a show in order to keep their share of trade, until even butchers and fish shops are beginning to try to increase their sales capacity by attractive premises and apt presentation of goods.

Many good shop fronts are designed by those outside the architectural profession, but with the difference that the architect alone has had training in planning. A shop front is not a separate item; it should bear a proper relation to the interior and to other shops in the neighbourhood. It is by the character of the front that the passer-by necessarily judges the interior, and if it is a mere veneer it is not going to have any permanent sales value.

The need for professional advice in the design of large stores has long been realized, and as a result much has been written on the subject; but in this series of articles we shall confine our attention to smaller premises—to the retail shop dealing with one trade, or group of closely related trades.

Some of the large storekeepers have undertaken a close study of psychological factors in planning their stores, but even in much smaller ventures such factors can play a very important part in determining the form of the final design.

The Value of Position

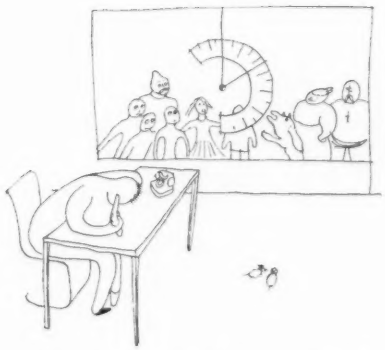
Every aspect of the shop's position can influence the sales value. This sales value is not always in accordance with the cash value of a frontage, in which changes often lag behind changes in habits or circulation of the population. For instance, a firm once bought a site with an important frontage to the main shopping street in a city, with a second frontage to a broad through road of little apparent shopping importance. The first street was narrow and crowded, and the discrepancy in sales value between the two was apparently so great that the window frontage to the through road was only put in after considerable hesitation. No real test of the two frontages occurred until a special complete display of small articles was sent down from headquarters. This was shown in the windows to the narrow shopping street for five days, and then transferred to the other windows for a further two days. More was sold in the two days than in the previous five. The value of clear display shown by this example gave quite a shock to the firm in question.

Emphasis on Goods

While efficient external display is obviously very important, the whole shop must be designed primarily to *sell* the goods or display will only be temporary in effect, unless the shop is located where the population is continually changing, as in seaside resorts or parts of London. In this connection, it is perhaps worth while quoting a passage from the publication produced by the Swedish Co-operative Society, referring to their shops : " Fitting-up is characterized by simplicity and quietness of form and colour. It is the goods which are to lend character to the shop, and to make a pleasing impression."

Restraint is essential in the architectural treatment if the goods are to receive this necessary emphasis, but anything is considered better than dullness, which perhaps explains the bizarre and distracting fronts with which we are all so familiar.

Carried a little further, this type of thing becomes a bar to sales. Special stunts to attract customers, such as working models



" Special stunts . . . . . do not add substantially to sales "

in the window or coloured lighting effects, do not generally add substantially to sales, as people are interested in the feature itself and not the goods it tries to advertise.

In some localities even non-reflecting windows have this effect. In Manchester, such a window had to be taken out because mothers used to stand their children inside the base of the window so that they could feel the glass for themselves and see that it really existed. For this reason crowds collected outside the shop, but very little was sold.

The principle of Corbusier's well-known dictum that " the house is a machine to live in," can be applied with much greater force to the shop as a machine for selling things in. If the retailer

wants to make more than a bare subsistence, it is no longer sufficient to put up some stock design of shop front, fill it with merchandise, and sit back and gather in the shekels. Enlightened shopkeepers have realized for some time the scientific approach necessary to insure success.

"Mothers used to stand their children inside the window . . . . . to feel the glass . . . . ."

General Principles

In answer to a request for advice as to general principles to be observed in opening a new series of shops styling themselves "Men's Haberdashers," a new firm received a report from their advisers on publicity, parts of which are worth while quoting as crystallizing the attitude which is actually being adopted and which expresses the viewpoint from which architects should approach contemporary shop design.

"At this stage little more than tentative proposals can be made regarding the architectural plan of the shops, since this must be determined by the sales policy. It is obvious that the design will have to be, above all, gentlemanly. We prefer not to talk about dignity, as this is too often used to cover up lack of originality and poverty of ideas. The aim should be to create an atmosphere that is both mannish and modern. The frontages must be outstandingly attractive, but not dependent for their attention value upon bizarre or *outré* effects. The interior must set a friendly, restful scene to which customers will like to return. The main point is that identity also applies architecturally. They must be novel, distinctive and arresting, without being freakish or ultra-modern. In other words, when customers come in their interest in the merchandise must not be distracted by architectural fireworks.

"Basically, all shops should conform to the same plan. Individually, each shop should have its own personality—shops which slavishly conform to a *pro forma* pattern must be avoided. It is important that each shop should appear to be an interpretation of the master-pattern in terms of the needs of its particular locality.

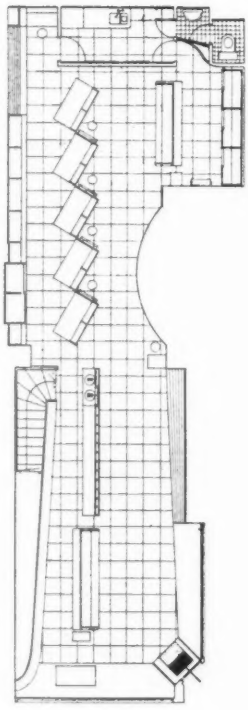
"This, of course, is a job for an architect who knows all about shop designing."

The Two Types of Shop

It is apparent that there are two distinct types of shops performing separate functions, and not

A grocer's shop in Vienna (Note rack for customers' parcels). Designed by Theiss and Jaksch.

SHOPS



One of the Swedish Co-operative Society's provision shops, Stockholm. Society's Architects.

differing only in degree. We refer to the shop dealing solely with necessities, and the shop dealing with luxuries. Approaching shops with these first principles in mind, it is obvious that the two types demand an entirely different design outlook, but between the poles they represent there lie an infinite number of different combinations of the two. The Mayfair ladies' shop with one superbly subtle creation in the window, and the working-class district "Gentleman's Outfitter" serve to illustrate the extremes. In the one a simple but subtle object is sufficient to attract custom by the suggestion of quality and exclusiveness; the customer's imagination has to do the rest: incidentally, she is given the chance to imagine that the goods are even more valuable than they appear. Price is only important inasmuch as it must be high (only not too high). This may sound a gross exaggeration, but it is but another manifestation of the application of psychology. A Parisian shopkeeper was asked how he managed to sell men's dressing gowns, made in London, at many times their London price. He replied that he could not sell them if he reduced the price.

"... one superbly subtle creation"

In the "Gentleman's Outfitters" shop referred to above everything possible must be shown in the window. Prices, often marked by hand on large pieces of rough card, are the predominant sales factor. Nothing is left to the imagination. In this case it is not the etceteras of dress which must be displayed to catch the passer's eye, but prosaic things like pants. In really poor districts the basic shops—the grocer who sells sweets along with bootlaces and the nationally-advertised proprietary foods; the minimum pub (one beer-engine and an off-licence)—are the only ones that make even a bare living. No shops *flourish*. These shops simply *sell*: "Service" is a foreign word to them: "Display" means a pyramid of bottles with "Beer is best" on the top. These little shops are each a repetition of the one before, and eke out a meagre existence from the houses within a few yards of them. The more subtle problems of salesmanship do not concern them.

The Architectural Problem

That shop designing is no longer what might be called "a drawing-board exercise" clearly emerges from even a cursory survey of retail trade, and the purpose of these articles is to mention the factors which are perhaps not sufficiently clearly realized by the bulk of shop designers. We say "shop designers" advisedly, because qualified architects still only design a small proportion of the shops erected—although that share is now increasing.

Lack of consideration has made most of our shopping streets into a riot of unrelated architecture to which is usually added over-congestion of the road and pavements. And such a state of affairs is so normal that it is taken for granted, and in Oxford Street the full blast of vulgarity, confusion and hypocrisy from both sides of the street is little noticed. Confusion of this kind is not only bad in appearance, but is bad advertisement, and such a street as a whole induces an atmosphere of "cheapness" as opposed to "value": in other words, it has bad selling value.

Architects, perhaps, are the only people who can begin to make the general public street-conscious, so that order may be introduced in the present chaos. That such an aim is not pure idealism, but is attainable, is shown by the orderliness and general atmosphere of civic consciousness displayed by the Scandinavian cities.

"prices . . . . are the predominant sales factor."

It has been suggested that minor architecture such as the expression of commerce in the small shop, is a mirror of contemporary thought. If this is so, and observation would seem to indicate that it is partly true, streets like Oxford Street give plenty of food for more thought.

[*The line drawings illustrating this article are by T. G. Cullen.*]

"Struggling in the jungle."

HARRINGAY ARENA, NORTH LONDON

DESIGNED BY

OSCAR FABER

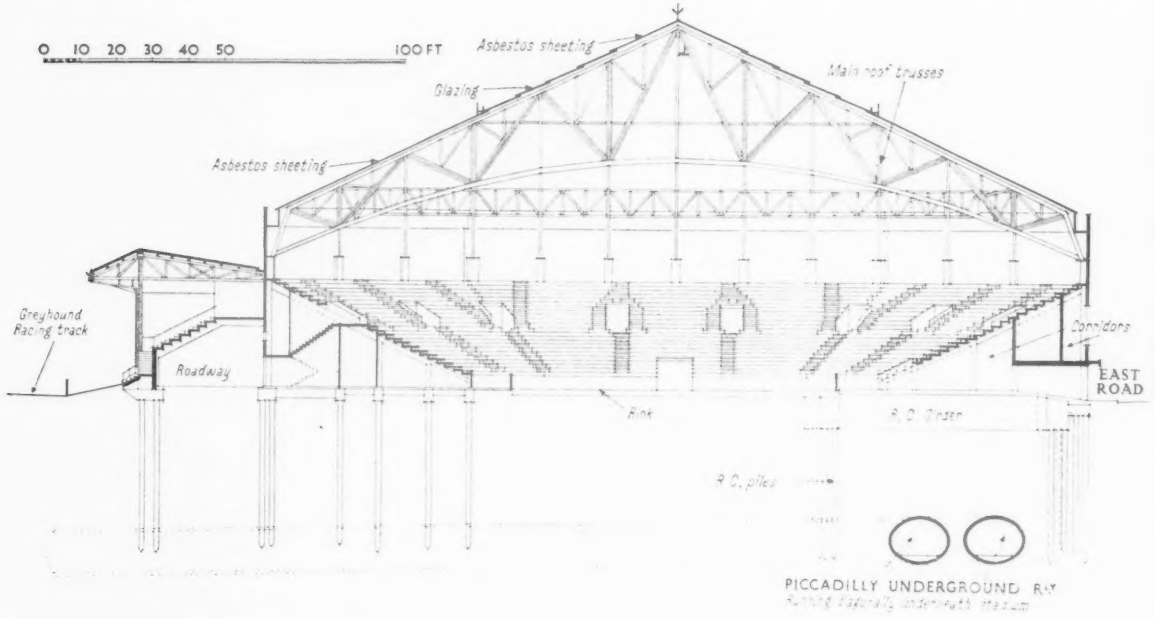
GENERAL PROBLEM—*Arena for ice hockey and similar sports, dancing and exhibitions, with seating for 11,000 spectators. The arena contains 64 exits, and it is claimed on the basis of Home Office methods of calculation that the 11,000 spectators could leave the building in approximately two minutes.*

SITE—*A surface of tipped rubbish, 30 ft. deep, overlying blue clay, in which two tube railways run at a depth of about 35 ft. below ground level. Piles were driven into the site to a depth of 45 ft. and bulbed to enable them to carry a safe load of about 60 tons per pile. Between the groups of piles reinforced concrete girders were constructed below ground to span both tube railways. These girders also carry the stancheons of the arena, and have a span of approximately 60 ft., the largest girder being 10 ft. by 5 ft. in section. The stancheons carry a total load of approximately 350 tons.*

CONSTRUCTION—*The roof trusses have a span of nearly 250 ft. and are carried on the outside walls of the arena. The walls are stiffened with steel stancheons which support the reinforced concrete stepping. The stepping spans horizontally between the steel rakers, and consists of reinforced concrete cast in situ treads and risers 3 ins. thick. Treads are 2 ft. 4 ins. wide and risers of from 13 ins. to 14 ins. high. External walls are brick, 9 ins. thick, laid in cement mortar; the cantilevered canopy is of reinforced concrete; and the roof is finished with asbestos sheeting.*

The top photograph is taken from a top, back row seat, and shows that every spectator obtains an uninterrupted view of the skating rink. Above, the north-west entrance.

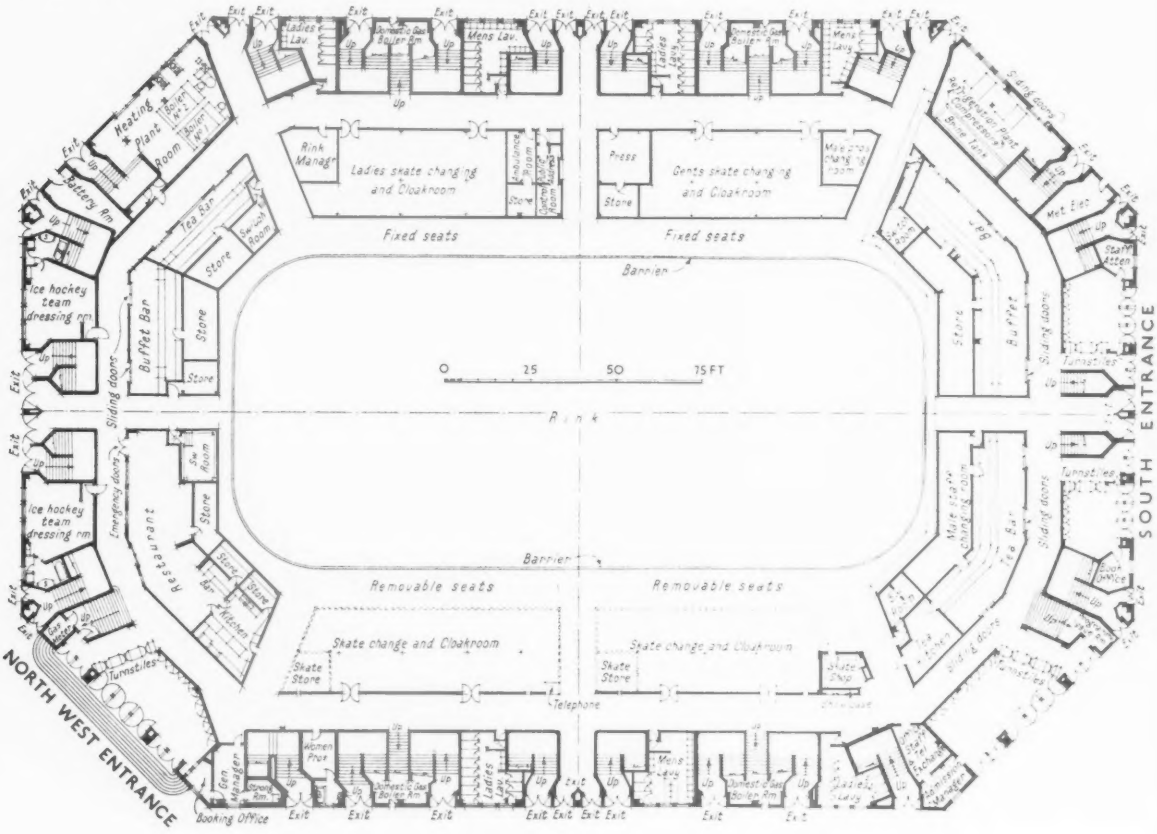
HARRINGAY ARENA, NORTH LONDON:



ICE RINK—*Consists of a layer of concrete covered with cork, a layer of waterproofing material, 2 ins. of sand and finally a layer of concrete 4 ins. thick containing brine pipes, placed 4 ins. apart centre to centre. When used for dancing, the rink is covered with a maple floor.*

For list of general and sub-contractors see page 757.

On the facing page is a photograph of part of the seating accommodation.



GROUND FLOOR PLAN

DESIGNED BY OSCAR FABER

"Sliding screen opening on garden. The sliding screens may be easily removed so as to have the room entirely open to the garden. The bamboo conduit fills the small pond, which has an intimate relation with the house." From "The Lesson of Japanese Architecture."

LITERATURE

JAPANESE ARCHITECTURE

[*BY C. COOPER*]

The Lesson of Japanese Architecture. By Jiro Harada. London: The Studio. Price 30s.

THIS book is truly titled. It is not merely a review of some chronologically or geographically isolated "style" of architecture. It is a lesson. The Japanese, particularly in their traditional domestic architecture, have achieved with disconcerting success the ethical and æsthetic principles that contemporary western architects are striving to realize: subtle formal relationships, expression of structure, unity of composition, standardization, variety, contrast, "fitness for purpose." These values are inherent in a Japanese house, naturally, without any apparent striving for them. The result has a gentle calmness, the "essentiality" for which Muthesius pleaded.

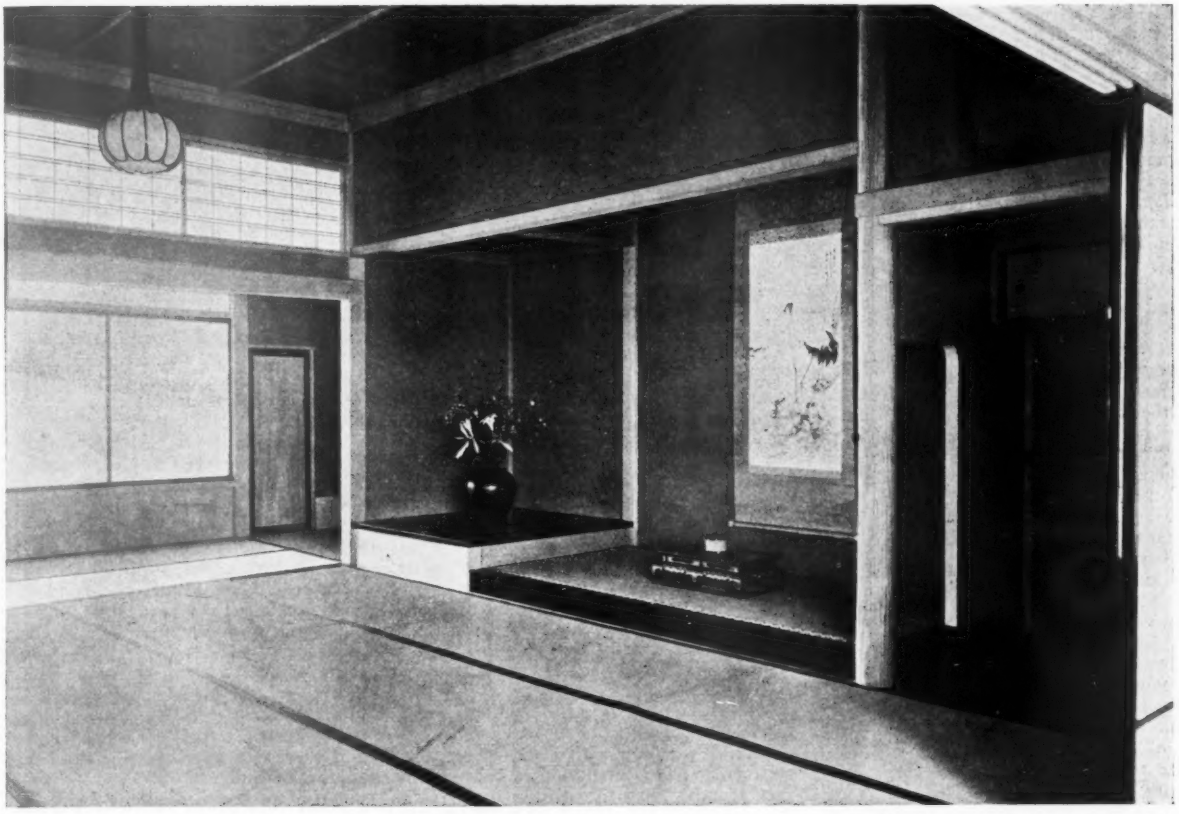
Now obviously the lesson from this is not that we should start a "Japanese revival." (Fortunately that is not likely to happen.) It is the same lesson that is, or should be, impressed in students' history lectures: to study the methods by which they solved their problems and evolved the finished works from the means at their disposal.

The key to their success is to be found outside architecture proper. It lies largely in the Japanese phrase used to describe their tea ceremony and flower arrangement: *fūryū no asobi*—"elegant amusement." The old Japanese culture is notable for having arrived at a true fusion of art with living. To make a fine art of flower arrangement, to study it as such, and devote a lot of time to it may seem a disproportionate outlook to the "practical" westerner. But is it really?

The *tokonoma*, a small recess of characteristic type used for the display of a work of art, is also symptomatic of their approach. Not to scatter paintings, carvings, vases, indiscriminately over a house, but to display only one at a time, coupled perhaps with a flower arrangement, suggests that the art works in question are being enjoyed and not merely possessed. The focal point of the Japanese living-room is the *tokonoma*. The focal point of the British living-room is the fireplace. That, culturally, is the difference between their respective architectures — and Japan can be much colder than England.

The secret then of their architectural success would seem to be that it is the outcome of a settled philosophy of living. And perhaps the greatest lesson to get from the book is that until we have achieved a unified and organized social and cultural system we shall not be able to build with such a natural unself-conscious grace.

On less abstract grounds there are many points in Japanese domestic architecture of direct interest to us, as being solutions of problems that we are actively engaged in solving in our own idiom. There is their lovely conception and realization of space; their rooms have a delightful, free, unforced spaciousness without appearing empty. They are, admittedly, helped in this by their practice of having virtually no furniture. Comparatively they make some of our own rooms appear rather self-conscious and artificial, objective rather than subjective. Their use of light, and unity between house and garden are other typical features.



"A Tokonoma with a Kakemono of a crane. The round toko-bashiro (Tokonoma post) has a natural surface of bark-stripped wood. The different parts of the framework are in correct proportion to the toko-bashiro, a very important point." From "The Lesson of Japanese Architecture."

To rely for decoration on the framing of a landscape by a window is a subtle sensibility. The windows' unity does not end with the building but extends to its setting. And although the Japanese conception of garden art is of necessity strangely different from ours, this question of unity between house and garden is our own problem.

Studying these and similar features should be an enlightening occupation for many architects endeavouring to solve parallel difficulties. Comparison is not quite fair. The Japanese work we are considering is the mature product of continued development. Ours is the tentative beginning of a development. But that itself justifies our picking up any "tips" we can.

The book contains an epitomized history of Japanese architecture which gives us, concisely, a necessary background. The greater part of the book, however, is wisely made up of well-reproduced photographs. These tell us more than any text could. Critics of "Modernismus" might, in the light of these, realize that there is more in the philosophy of contemporary architects than mere negation, and that absolute simplicity can have a forcefully positive value. Guy Eglington has said: "Would you approach a picture, a work in sculpture, any work of art soever? Then remember, with the Oriental, that you are in the presence of a higher life, and let that higher life speak first. No one has ever known a painting who has not felt it *looking at him.* It will look a long time, steadfastly. And then, at last, it will *speak.*" That is how we should meet the architecture in this book.

It would be wrong to stress exclusively the educative value of the book. To browse through the plates is itself delightful.

As with most Studio publications there is an introduction by C. Geoffrey Holme.

LONDON TRANSPORT

Third Annual Report of the London Passenger Transport Board. L.P.T.B. Price 1s.

Implications of recent population movements vital no less to the planner than to the transport authority are examined in the third annual report of the London Passenger Transport Board (Westminster: 55 Broadway, price 1s.).

The traffic problem presented by the increase in population in the Board's area (from 7,970,000 in 1921 to 9,500,000 in 1935, with migration fast outpacing natural increase as a factor of the post-war years) is magnified by the rapid outward migration into new suburbs of population from the County of London. In the last 14 years (to 1935) the county area's population declined by nearly 340,000, although the natural increase was 270,000. Some 610,000 persons moved out. Since 1921 the outer zone of Greater London has had about 990,000 persons added to its population, or, with allowance made for natural increase, roundly 1,280,000 persons, for whose needs additional traffic provision has to be made.

Rearmament and reviving trade may check the further movement of population to the South, and especially London. But London seems to attract the newer industries, and, representing a concentrated market equal to almost a quarter of England and Wales, must continue to do so. And although the area within the county is being redeveloped by flats which may lead to a greater density of population in certain quarters, the outward movement shows no signs of slackening.

Wider distribution of population means more travel and longer journeys. In 1911, about 1,800 millions of passenger journeys were made; in 1935, nearly 4,000 millions.

The travel habit, too, has grown. Since the L.P.T.B. came into existence three years ago the total number of journeys per head of the population in its area has grown from 430 to 436 and again to 440. The growth continues.

The insistent and widespread demand for

additional underground railway facilities arises out of the impact of these facts. London remains in the main a centralized metropolis.

Much has been accomplished already, and the programme of new works will largely adapt the Underground system to the demand now made on it. Until the existing railways are so adapted and have secured the largest traffics they can carry, it would be impracticable, on financial grounds alone, to build any additional railways.

This new programme's proposals call for 600,000 more people in the areas to be served to make the new facilities remunerative.

"It will be seen, therefore," says the Report, "that the Board has an especial interest in the redistribution and expansion of the population of London, and is deeply concerned in the continuance of the present movement which is of great social value in enabling housing to be modernized and the standards of housing raised.

"The Board, however, welcomes the proposals of the London County Council to redevelop the areas on the east side of London County by the removal of the present slum property and by replanning. These areas will be served by the new electrified services, and it would have been unfortunate if the areas had been left to become derelict. As the centre empties it must be healthy and expedient to develop it as quickly as possible for occupation again."

The report adds a valuable collection of figures on the growing use of private cars and pedal cycles, which point the moral of the facts that while within five miles of Charing Cross private cars represent about 37 per cent., pedal cycles 21 per cent., and public passenger service vehicles only 14 per cent. of the total flow of vehicles enumerated in the police traffic census, a public service vehicle provides at least ten times the average traffic service of a private car, and about eighteen times that of a cycle.

PUBLICATIONS RECEIVED

The Law Relating to Housing and the Housing Acts. By Alfred R. Taylour, M.A., Barrister-at-Law. London: Hadden Best & Co. Price 30s.

The Housing Act, 1936: A Comparative Table of the Sections and Schedules. By Alfred Fellows, B.A. London: Hadden Best & Co. Price 2s. 6d.

Drainage and Sanitation. By E. H. Blake. Revised by W. R. Jenkins. London: B. T. Batsford. Price 15s.

Building Construction: Advanced Course. By George A. Mitchell. London: Batsford. Price 10s. 6d.

Analysis and Design of Steel Structures. By A. H. Fuller and Frank Kerekes. London: McMillan. Price 25s.

Heating and Air Conditioning of Buildings. By Dr. Oscar Faber and J. R. Kell. London: The Architectural Press. Price 25s.

LAW REPORTS

CLAIM FOR ANCIENT LIGHTS AND ALLEGED INTERFERENCE WITH PROPERTY

Thomas v. W. T. Davies and Sons, Ltd., and another.—Chancery Division. Before Mr. Justice Clauson

THIS was an action by Mrs. Cordelia Thomas, of Mill House, Windmill Road, Gillingham, against W. T. Davies and Sons, Ltd., and Mr. W. T. Davies, of The Brook, Chatham, for a declaration that the defendants had wrongfully interfered with and caused structural damage to her freehold property, 66 Chatham Hill; and an enquiry as to damages. Plaintiff further alleged that defendants had interfered with her ancient lights and had caused serious damage to two fireplaces, and further had caused her premises to become damp, and finally she alleged that she had suffered damage from the dampness and rust.

Defendants, by their defence, denied the plaintiff's allegations. They admitted that they had erected on a piece of land adjoining plaintiff's premises a house, but they denied that there had been any negligence in the building operations to cause the complaints set up by plaintiff. They denied that they had done any damage to the plaintiff's house.

Mr. G. Bamber appeared for the plaintiff, and Mr. D. Buckley for the defendants.

Plaintiff's case was that she was entitled to damages for diminution in the value of her property, and for damage to fireplaces in two rooms, due to hammering by the defendants. She also said that owing to the construction of defendants' house her house became uninhabitable from damp. In 1934 defendants commenced the erection of the house on the adjoining land, which was above the level of plaintiff's house. Prior to the erection of defendants' house, plaintiff's house, it was alleged, was entirely free from damp. It could then have been occupied in comfort, but eventually it became impossible to live in it.

Mr. Leslie Mason Apps, an architect, gave evidence in support of plaintiff's case.

For the defence the borough engineer and a surveyor gave expert evidence.

Mr. Buckley, for the defendants, contended that there was not sufficient evidence before the Court to establish an actionable nuisance as to the ancient lights. As to the dampness, counsel suggested that it was likely to have arisen from the state into which the plaintiff allowed the premises to degenerate. At one spot there was rubbish piled up the side of the house to the height of some 5 ft.

His lordship, in giving judgment, said in his view the action against Mr. W. T. Davies should never have been brought, as plaintiff had proved nothing against him.

As against the company, he found that they erected next to the plaintiff's house a building in such a position as to interfere with the plaintiff's ancient lights, and in respect of that he awarded plaintiff £20.

With regard to the dampness he came to the conclusion that there had been a certain imperfect joint between the two houses and he must assume there was some little dampness from it. In respect of that he awarded plaintiff £10.

As to the fireplaces, he thought the plaintiff had failed to prove any case. It was not due to anything the defendants did.

Judgment would be for the plaintiff £30, with half costs against the company.

There would be judgment for Mr. Davies, with costs.

COPYRIGHT IN A PLAN

Chabot v. Davies and another.—Chancery Division. Before Mr. Justice Crossman

THIS action raised the question whether there had been an infringement of the copyright of a design for a shopfront. This case was briefly reported in last week's issue.

Mr. Charles James Chabot, metal craftsman, of Portland Road, Holland Park, London, W., sued Mr. M. G. Davies, and Mr. L. A. Eddis, of High Street, Camden Town, N.W., for damages for the alleged infringement of his copyright.

The defendants carried on business as suppliers of cooked fish and vegetables at 68 High Street, Camden Town.

Mr. Chabot, the plaintiff, who had designed a new kind of shopfront, got into communication with the defendants through their seeing a shopfront which he had designed and carried out at Southend-on-Sea.

Mr. Chabot's case was that the defendants asked him to design a similar one for their premises at Camden Town, and in accordance with that request he sent to the defendants the design and estimate. In November last year Mr. Chabot accidentally discovered that a similar shopfront and design to the one he had submitted to the defendants had been erected and put in to the defendants' premises by another firm and Mr. Chabot accordingly brought the present action for infringement of his copyright in his design.

The defence was that being a business design the plaintiff's plans did not come within the provisions of the Copyright Act, 1911, and the defendants further pleaded, as a defence, that their shopfront was not a colourable imitation of Mr. Chabot's design.

Mr. Henn Collins, K.C., and Mr. Lloyd Jacob appeared for the plaintiff, and Mr. E. J. MacGillivray represented the defendants.

His lordship, after hearing the evidence and arguments, found in favour of the plaintiff. He said that the defendants admitted that the plaintiff was the author of the plan in question and the owner of the copyright, if any. Under the Act of 1911, copyright meant the sole right to produce or reproduce a work or any substantial part thereof in any material form, and the Act provided that an unauthorized production or reproduction was an infringement of the copyright. In his opinion there was no question but that Mr. Chabot's plan came within the meaning of the term "literary work" according to the Act and that the defendant, Mr. Davies, by ordering the reproduction of this plan had been guilty of infringement of copyright. In those circumstances there had to be considered the question of what sum should be awarded to Mr. Chabot as fair remuneration for what had happened. Mr. Chabot's own estimate was that he was entitled to receive from the defendants 100 guineas. His lordship thought that sum appeared to be fair and reasonable, and in those circumstances he gave judgment for Mr. Chabot for £105, with costs.

Judgment was entered accordingly.

IN THAT CONTINGENCY

The following abstracts of inquiries represent a number of those 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.]

Effect of Salt on Concrete

¶ *A FIRM of building contractors asked for advice regarding the construction of a salt storage bin to be used in connection with a water softening plant. It was proposed to use a 1 : 2 : 4 concrete mix. It was desired to know if a high-alumina cement would be necessary and whether the tank should be lined.*

It is understood that the bin in question is intended for storage of dry common salt and it is presumed that it will be under cover and protected from rain and frost. Under such conditions serious attack on properly made Portland cement concrete should not occur. A high-alumina cement is not considered necessary. If a well graded aggregate is available, a 1 : 2 : 4 mix should provide a concrete of sufficient density; a 1 : 1⅔ : 3⅓ mix would of course, give better results in this respect. As a precautionary measure it would be advisable to treat the surface of the concrete exposed to the salt with three coats of sodium silicate solution applied after the concrete has hardened and dried out. Suitable brands of sodium silicate are available commercially. If the structure is to be built in reinforced concrete an asphalt lining will be necessary to prevent the severe corrosion of the reinforcement and consequent disintegration and spalling of the concrete which would occur if salt gained access to the metal. It would be inadvisable to rely on the concrete itself to afford protection even if the silicate treatment is applied.

Putties for Metal Windows

¶ *A SURVEYOR asked for information regarding putties suitable for use with metal window frames.*

It is generally recognized that in order to prevent defects occurring in putty used for metal window frames, a hardening agent must be added to ordinary linseed oil putty. The addition of "driers" such as those normally used in oil paints is not sufficient, since these only accelerate the drying of the oil at the surface and may therefore give rise to wrinkling. The object should be to cause the putty to stiffen up throughout its mass, shortly after glazing is completed. This will not only reduce or prevent the tendency of the putty to soften and creep when warmed by the sun, but will also enable the windows to be painted at an early stage after glazing.

It is necessary, however, to see that the hardening agent does not adversely affect the working properties of the putty and that the putty does not tend to become weak and crumbly on drying, or to shrink, crack or lose its adhesion to the glass and metal. Excessive hardening of the putty is not so objectionable, if it is not accompanied by loss of adhesion, but in general it would seem preferable that the putty should retain a certain degree of plasticity.

To achieve the desired effects, various agents have been suggested, for example, red lead, gold size and white lead. Thus British Standard Specification 544-1934, for Linseed Oil Putty Types 1 and 2, includes a specification for Gold Size Putty for Use in Metal Frames. The Building Research Station has had no extensive experience with putty conforming to this Specification, but general experience in the use of gold size suggests that both the proportion and the quality of this ingredient are critical in their effect on the properties of the putty.

Favourable reports have been received regarding putty made by adding 1 oz. red lead to each 1 lb. of ordinary putty composed of linseed oil and whiting. Recent tests suggest, however, that this proportion of red lead should be regarded as the minimum and that in some cases larger amounts may be advantageous. It is important, also, that the red lead used should be of a suitable type, e.g. the "ordinary" or the "jointing" type described in British Standard Specification No. 217-1936, and not the "non-setting" type. Investigations on the behaviour of such mixes are still in progress.

Specification D 317-33 issued by the American Society for Testing Materials describes a putty of white lead and whiting for glazing, in which not less than 10 per cent. of the pigment is required to consist of white lead, and the finished putty is required to contain not less than 12 per cent. of linseed oil. It is not known, however, whether this putty is intended specifically for use in metal frames.

In addition to the above there are various proprietary makes of putty for use in metal frames. Usually the hardening agent is supplied separately in the form of a paste to be mixed with the bulk of the putty immediately before use. In such tests as have been made at the Station, these materials have generally exhibited the properties claimed for them.

Mortar for Garden Walling

¶ *A FIRM of building contractors asked for advice as to the most suitable mortar for use in a garden wall some 50 ft. long. Old, hand-made bricks were being used. The joints were to be left flush and rubbed over with a bag. Mention was made of the tendency of garden walls to lean to the South.*

It is most probable that the old hand-made bricks which it is proposed to re-use were originally set in lime mortar. It often happens that the use of a dense Portland cement mortar for re-bedding old bricks causes rapid disintegration of what might appear to be perfectly sound material.

For this reason, it is recommended that the mortar used be composed of 1 part Portland cement, 3 parts non-hydraulic (chalk or mountain limestone) or a moderately hydraulic (greystone) lime and 12 parts of sand by volume, or alternatively, an eminently hydraulic lias lime mortar composed of 1 part lime to 3 parts sand by volume.

If the latter specification is adopted the lime must be carefully slaked by an experienced man and the mortar used fresh.*

The gradual leaning of a wall to the South is caused by alternate action of frost and sun. Deformation usually occurs when non-hydraulic lime mortars are used which readily absorb moisture and therefore expand under the action of frost to a more pronounced extent than less absorbent mortars. Very wide joints would tend to increase the total amount of expansion and, therefore, the deformation of the wall.

The proposal to leave flush joints has complete approval as dense pointing often leads to failure of old bricks. It should perhaps be mentioned that the bricks should be subjected to careful examination and any decayed or very soft bricks discarded.

The use of a damp-proof course in a garden wall is to be recommended. It is, of course, often omitted, but the decay of such walls can with some confidence often be ascribed to its absence.

Use of Pozzolanas in Portland Cement Concrete

¶ *AN engineer required information regarding the use of pozzolanic additions to concrete with the object of improving the resistance of normal Portland cement concrete to the action of sulphate waters. The inquirer referred particularly to the use of trass.*

There are various materials known as pozzolanas, of which trass is one, which can be mixed with Portland cement to increase its resistance to the action of sulphate-bearing waters.

Formerly such materials, in a finely ground state, were often introduced as a separate ingredient in the concrete mixer, but in modern continental practice it is usually preferred to mix the pozzolana and Portland cement beforehand in a suitable mixing machine, or to obtain a pozzolanic cement already mixed by the manufacturer.

Trass is a pozzolana of natural origin which occurs in Germany and is considerably used on the continent. No ready mixed trass–Portland cements are available in

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* In connection with this paragraph the inquirer wrote subsequently stating that "it is our usual practice to slake this and leave it for 2–3 days, then mix up small quantities and use at once," and wished to know whether this was in accordance with the statement "used fresh." In reply it was agreed that this method of treatment should give a lime suitably sound for bricklaying and retaining the desirable hydraulic properties.

this country though small amounts of trass have been imported from time to time.

Trass was used in making piles for the tests on the deterioration of concrete in sea water, which are being carried out by the Building Research Station in co-operation with the Institution of Civil Engineers, because at the time these tests were commenced no similar British material was available. Since that time, however, artificial pozzolanas have been developed in this country as a result of investigations carried out at the Station in co-operation with cement manufacturers and others, and have been found equal in properties to the best trass. These investigations have only recently reached the final stages which enable the question of commercial production to be considered. In consequence no pozzolanic cement is as yet generally available, but it is possible that some manufacturers may now be ready to supply such a material.

At ages up to a few months, the strength developed by pozzolanic cements in which from 25 to 40 per cent. of the Portland cement is replaced by pozzolana, is considerably lower than that given by the Portland cement alone, but at longer ages the pozzolanic cement ultimately yields concretes of equal or greater strength. This only applies to concretes placed in positions where they do not dry out rapidly (e.g. under ground or in water), and in thin concrete sections in air where drying is relatively rapid the strength remains permanently inferior to that of Portland cement.

The sulphate resistance of pozzolanic cements is much higher than that of Portland cements.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

In the House of Commons last week Mr. Bossom moved :—

> That this House, having regard to the time which has elapsed since the passing of the Town and Country Planning Act, 1932, and the evils which result from the continuance of unplanned development, is of the opinion that it is essential that schemes to secure effective planning should be submitted by all planning authorities at a very early date, and urges the Minister of Health to take all action in his power to ensure that the period of three years, as prescribed by the Act between the passing of the resolution and the submission of the scheme, is not exceeded.

He said that town and country planning was a new science which on a great scale had not been the rule in this country in the past. Planning was a practical activity and it could not be accomplished by talk or even by passing laws. It must be carried out under the guidance of highly-trained men and it could be made very beneficial if handled on the widest scale. Our local authorities stood generally on a higher level than those of almost any other country. He asked the House to pass this Motion and get the local authorities to realize the feeling of the House because they had not yet done their job. The local authorities were not using the Act in the way they could do, and if they did not take more action than they had taken in the past, the Minister would be forced, because the injury to the country was so wide and so extensive, to come to the House and ask for authority either to get an appointed day by which all authorities would be compelled to present their plans, or to have the entire matter turned over to him to be carried out under his own direction.

Town and country planning on a great scale was a new science. It was only recently that they had had any educational body training people in it. There had not been any experience and there had not been men especially trained in it. For that reason it was fitting that at this time, after four years, they should review what had happened and see how far the local authorities which had power to carry out the Act had gone. They all must agree that they were entitled to a reasonable time, but they had had four years and they should now be showing some results.

"We are not looking for excuses," continued Mr. Bossom. "Nero fiddled while Rome burned, and in England, if we do not have some action, it will be too late. Too many people are thinking of their personal profit and not of the condition of our country. We must look at it in that light because, once a thing is destroyed, once a beautiful building is gone or a landscape is ruined by being peppered with ugly little buildings, it is ruined for ever. We have, therefore, to be frank and sincere with ourselves, try to get this matter in a true focus, and see what can be done. Town and country planning must be positive to be successful. It must be a creative force with the intention of doing something. Permissive legislation, however, has of necessity to be negative, because it relies upon local authorities to supply the vitality for their actions. Practical planning must include provisions for the traffic flow, public health, recreation, allocation of business and industry, residence, agriculture and the care of amenities both town and country.

"When there are 1,500 separate rural and urban authorities with independent ability to carry out town and country planning, how are we to get harmony, to get systematic planning? It is an impossibility. There are 37,000,000 acres of land in England and Wales under the control of the town and country planning authorities, but there are only 200,000 acres—less than one-half of 1 per cent.—actually under the definite finished control of the various town and country planning authorities, and they are in sixty-eight different schemes. Most of that under control is land in suburban areas. The planning of suburban areas is essential because they are the areas round our cities and towns; but only one-half of 1 per cent. to be under control after the Act has been in force for four years is not enough. The Act allows three years to elapse between the passing of the resolution by the town-planning authority and putting the Act into operation. The least time in which it can be done is about thirty-two months, for it is a very complicated Act. Twenty million acres of that 37,000,000 are under resolution, which indicates that certain of the authorities have the hope and intention, which is all to the good, of doing something, but should any opposition be offered it may be for years, and it may be for ever, before the real preservation of our countryside or towns may be put in hand.

"I do not think that the Minister is to be charged with any responsibility in this matter because he has seen the light in a clear way and tried to help. He has endeavoured to encourage combinations among the 1,500 smaller areas into larger groups, so that action on a wider scale can be obtained. Of the 20,000,000 acres that are under resolution, 15,000,000 are already gathered together under 125 regional committees, some of which are already of county size. Here again, other difficulties are being encountered. The experience of the Ministry in gathering together these local authorities into larger groups has indicated clearly what we should try and do. We should gather them together into larger and larger units, and, ultimately, the entire country should be under one general direction. It should not be left to these isolated groups to have power to decide, without relation to adjoining areas, what they individually will do. I believe that if the local authorities do not come along with their plans the Ministry will be compelled to take hold of the whole situation.

"The Ministry has made a real effort to help the situation. This is an entirely new science. I speak as an old practising architect. We do not nationally know very much about town and country planning due to experience. There are a few examples of it. Everyone knows the relationship I had to a part of London that was very much destroyed. At the time the Minister of Health was bringing this Act into being, another department of the Government was allowing one of the best pieces of town planning in London to be ruined. The Government has made an endeavour to stop what may very well be called the creeping paralysis of ribbon development by bringing in the Act of 1935 to restrict such development, and also by bringing in the Trunk Roads Bill which will put 4,500 miles of main roads under the control of one authority. All this points in the direction of central control—the control of our roads and of the use of our country. That has received the sympathetic approval of the rural and urban authorities, and the time may come, and it may not be far off, when it will be an advantage to get central direction in all town and country planning.

"Action is taking place, however, and certain bodies are going ahead. I think I am right in saying that appeals are coming into the Ministry of Health at the rate of about three a day. When we consider the 37,000,000 acres of land and the millions of houses affected by town and country planning, three a day is not many. That is not due to the fact that everyone is agreed but to the fact that so little energy is being displayed. Sir Hilton Young, as he then was, said that this Act could go only as far and as fast as public opinion would go with it, but public opinion is waking up as the public see beauty spots disappearing and industry going where it is not wanted, and building development growing on the best farming land where we ought to have market gardens. Control must be assumed if we are to stop this defilement of our countryside.

"There are many agencies, both public and private, which are attempting to educate the public to a sense of the irreparable loss we sustain by the uncontrolled use of land, which is the result of the slowness of action on the part of certain town and country planning authorities in the various areas. The president of the Royal Institute of British Architects devoted his presidential address this year to calling attention to the need for greater speed in the application of town and country planning. The Institute got together an exhibition of civic centres, and there has been a demand for it by the public from all over the country, and already it is booked up until 1938, which shows that the public are beginning to realize what is happening. The work of the Society for the Preservation of Rural England, of the Society for the Preservation of Ancient Buildings, of the National Trust, and the schemes for planting trees to commemorate the Coronation—all are directing attention to the need for stopping as quickly as possible the spoliation of the entire country.

"We have a vast annual building programme, spending not less than £300,000,000 a year, and every time a new building is put up in the wrong place it adds to our difficulties when improvements are desired, yet how many towns have planned exactly where new buildings are to go? It is not merely a case of making adjustments, of nibbling here and nibbling there; we ought to do the thing on a grand scale. If there is to be real town and country planning we should not play with it, which is, unfortunately, what has so often happened up to the present. We have not been covering large enough areas. We have on our island home, which is fully stocked with people, and overstocked, as the Minister of Health said when introducing this Bill, need for planning, and we cannot afford to let the requirements of agriculture or industry, etc., be overlooked, or allow it to be pushed about as though by accident. The whole subject must be considered on a nation-wide plan. We have a great number of

small houses which have come down to us from past generations, houses which are not bad enough to be destroyed, but which yet provide poor lighting and poor ventilation for the occupants. We know they ought to be removed if we are to develop into a healthy community, and we should slowly wipe them out and do it over a large area. We do not want to give our towns town-planning physic; they sorely need drastic surgery, and we must unflinchingly administer this remedy if we are to get the best results. London was referred to a few moments ago. In London the people have been crying for a town plan ever since the time of Christopher Wren. He made a plan for London, but it was not adopted.

"Then, how about our arterial roads, our embankments, our parking places? What has been done about the systematic arrangement of our parking places? If motoring develops in the future as it has in the past we shall be strangled by our own prosperity. We must take hold of the parking problem, which is a vital matter for us. Are we going to spend another thirty years over the widening of the Strand? I hope not. Every authority which has an area under its control should be requested with all the emphasis the Ministry can apply, to prepare a plan of the area under its control.

"I fear some authorities which have been given the responsibility of looking after town and country planning of their own areas have not appreciated the real importance of the subject. For one thing many complain that they cannot get trained officers. Anyone who will look through the advertisement columns of the technical journals will see every week advertisements for town and country planning advisers, offering a salary as small as £350 a year. For this sum it is desired to attract a man who is to be trained either as a fully-fledged engineer or fully-fledged architect, and is also a fully-qualified town and country planner. Certain authorities pay more, but the position generally is as I have said. Only today I was talking to the head of the largest town and country planning training school in England, the Architectural Association, and he emphasized most strongly the point that we cannot expect a man who has been trained as he needs to be trained to fit him for this most important work to be prepared to work for a salary which is not commensurate with the value of the work undertaken. There are panels of trained architects who offer their services, there are enough men available for the work if only the authorities will engage them. These men are able from their experience, not only to make our towns into engineers' traffic channels, but also to turn them into comfortable and practicable places in which to live and care for our people and that is the prime, in fact, the greatest, consideration in town and country planning.

"There are innumerable other considerations in this wide subject. We are now deeply stressed with the matter of national safety. What is being done from any source to look after national planning with the idea of this safety and who is advising the location of industry, aerodromes, reservoirs, oil and food storage, hospitals and canning factories and all the other elements? Has anybody those matters in charge? Might I suggest to the Minister that he should inquire whether such matters can be taken in hand, because of their national importance. We possess as fine a set of local authorities as any country in the world; and I most sincerely hope that they will realize the importance of carrying out the Act so that no other action on the part of the Minister of Health will be required."

Mr. Selley, in seconding the motion, referred particularly to London. He said that he had some great ideas a few years ago, as chairman of the Housing Committee of the London County Council, that something should be done in the East End. He had the idea of linking it with our housing scheme, by which it would have real development on town-planning lines. He had to admit that the colossal cost was the great obstacle. If town-planning, as has been laid down by this House, was a plan for the future, it had never struck him, as a practical man, that there would be any difficulty in laying down a plan, although our resources were not sufficient to carry it out in the immediate future. He was optimistic enough to believe that if a real plan had been laid out for the East End it would probably have been economic, even for the owners of the land, who would have come into the scheme.

Another London problem was the extra-Metropolitan area. Planning was not merely making a plan into zones and saying: "This patch shall be ten houses to the acre, this shall be twelve, and that shall be fifteen; and we will paint that black and it shall be a terrace of shops." That was not planning; that was chaos. If town planning had been a live force in and around London, they would have saved local authorities outside London thousands of pounds in their social services. They first of all got a builder or a land speculator and the land required, because it was demanded in a certain area for houses of a certain class. The plans being passed, the houses were built, and no regard had ever been paid to whether there was a school, a hospital, or even a public-house or a cinema. Those things seemed to be added on to the first thought. He was therefore a whole-hearted town planner, although he was a private enterprise representative.

Mr. R. S. Hudson, Parliamentary Secretary to the Ministry of Health, said that Mr. Bossom had mentioned that the total area of England and Wales covered by the 1932 Act extended to about 37,000,000 acres. Before that Act was passed, only 9,000,000 of those acres were subject to any kind of control, but since the Act the total number of acres brought into control was over 20,000,000. In the short period of four years, therefore, they had planned more than half the total acreage of the country. Of the remainder, the bulk was situated in Wales. The whole of the South, South-West and Midlands and a great portion of the industrial North had already been subjected to planning.

So much for the area; now for the procedure. When he said "planning" he did not mean that schemes for those areas had been finally adopted. As soon as a local authority passed a resolution indicating its intention to plan, it immediately acquired what was known as interim development control. No development could take place within the area without the local authority's consent, or the owner ran the risk of the development being demolished without compensation, when the scheme is finally approved. That was an example of public control over development, in areas where a resolution had been passed.

The development of planning had thrown an enormous burden upon local authorities, but it was not the only burden that Parliament had imposed upon local authorities in the last few years. He only need mention slum clearance and the detailed survey of 9,000,000 houses which had been carried out for the Overcrowding Act.

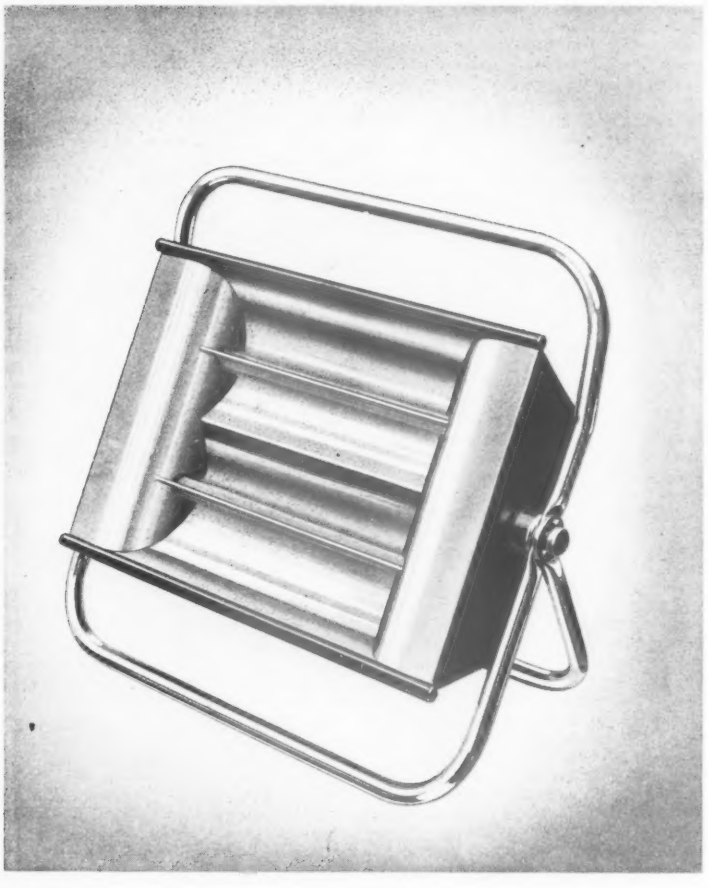
Referring to procedure, Mr. Hudson said that as soon as the Ministry had approved a resolution to set up town planning for a particular locality, the local authority proceeded to serve notices on the owners of the property, to consult with the adjoining authorities and with the county council, and finally to draw up its draft scheme. Two years were allowed for that process, and the period was none too long when they remembered that the basis of the Act was voluntary. It was their considered view that it was much better to persuade people and to bring them along with you, rather than to try to coerce them. In the long run that procedure was much quicker than one of coercion.

When the two years had elapsed the final scheme was drafted and was deposited locally in order that objections might be put forward or that the owners might see what the final scheme was. It was modified in accordance with local circumstances, and finally it was submitted to the Minister for his approval. The last stage took but a very short time and most of the delay, if there was delay, arose in the early shaping of the scheme. It so happened that the Act was brought in in 1933, at a time when the county councils were still reviewing the new local government districts under the Act of 1929, and it must be clear that local authorities were not prepared to go ahead with planning until they knew exactly what their boundaries were going to be, or whether they were even going to remain in existence at all. A great part of the early delays were due to that cause. It was not until 1935 that the Advisory Committee which had been set up by the Minister finally approved the model town-planning clauses on which the local authorities really have to depend. That was not, of course, the end of the catalogue of difficulties. The authorities found that, as a result of the suspension of all work during the war, there was a shortage, and in many cases a complete absence, of up-to-date maps. As the result, however, of a committee set up last year, steps had been taken by the Ordnance Survey Department greatly to strengthen its staff, and they were now in sight of the completion of a large number of these maps which were being brought up to date. He believed there were no fewer than 4,000 sheets. About 1,200 were finally selected, and the survey had promised that, by the end of December, 1938, those sheets would finally be in the Ministry's hands. Some 300 authorities had to suffer unavoidable delay through the mere absence of mechanical details in not having proper up-to-date maps.

His hon. friend had suggested that there might be advantages, first of all, in having an appointed day, and, secondly, in having larger schemes. As regarded an appointed day, that would need legislation, and until they were satisfied that in fact local authorities were not making schemes within a reasonable time, it would be too soon to suggest that they should bring in new legislation, with all its accompanying delays. As regarded the point about larger areas, it was fair to say today that the size of the area to be planned had a direct relation to the time taken, and, in fact, the local authorities with small schemes were pretty well up to date; the delay, such as there was, was in the larger regional areas. Therefore, purely from the point of view of delay, that would not solve the difficulty.

Draft schemes were now being submitted at the rate of ten a month, which was a great deal faster than had ever been our experience before; and a very satisfactory feature was the small number of appeals that were coming forward. That was largely due to the fact that local authorities had taken the trouble to secure the general consent of the inhabitants and owners in their areas, and it was a very satisfactory item to be able to report. His department did not think that the fact that an authority had not submitted a final scheme was necessarily doing a great deal of damage, because of the interim control, which was actually being exercised. "I can, however," added Mr. Hudson, "give this assurance, that we are fully conscious in the department of the need for getting on with the job, and we do not grant to local authorities any extensions of the statutory three-year period without a real investigation of the facts and without being convinced that an extension is necessary. We are exercising every way such pressure as we can to see that schemes are expedited. I hope that this debate will show the country that this House did not abandon interest in town planning once the Act was passed, and that it will act as an encouragement to those authorities which are already well advanced in submitting their schemes, and I hope also as a spur and an incentive to those laggard authorities throughout the country who have not yet taken the initial steps."

After this speech the House was "counted out."



TRADE NOTES

[EDITED BY PHILIP SCHOLBERG]

Heat Without Knobs

FERRANTI'S, so far as I know, were the first to resist the temptations of applied art, and their original parabolic reflector fire is still about the pleasantest of its kind, though I have noticed with regret that they have recently done a certain amount of "decorating," presumably in deference to the demands of the public.

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And the public seems to want flickering lights and imitation coal ("indistinguishable from the *real* coal") and flashes of lightning ("just to express the electricity"). None the less, it is still possible, with a certain amount of time and trouble, to find a simple and decently designed fire: the latest one I have seen is made by Heatrae of Norwich, and is illustrated at the head of these notes.

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In actual practice this fire looks quite as good as its photograph, and the workmanship does not seem to me to be skimped anywhere. Prices are 26s. and 42s. for the 1 and 2 kilowatt models. One snag only: it is possible to tilt the bowl of the fire until the heat strikes upwards at the top cross-bar, but it may be assumed that no user will make this mistake more than once.

Concrete Pump Dangers

The Earl's Court collapse of three weeks or so ago has now been investigated by the appropriate L.C.C. Committee, and a report made. The floor which collapsed was in process of being poured, the area involved measuring about 75 by 40 ft. The Committee's explanation is as follows:

"After the concrete was mixed at ground level, it was pumped through piping about 300 ft. long measured to the collapsed area. The piping had three vertical lengths of a total height of 44 ft. and three bends were required. Before the collapse the concrete was poured in at the end of the floor panel nearest to the pump and, as the work proceeded, the piping (resting on trestles) was extended across the partially set concrete and the shuttering.

"It has been ascertained that the action of the pump set up an oscillation or 'kick' of the piping at each stroke of the piston, and this pronounced movement was, it is thought, conveyed through the newly-laid concrete to the shuttering and set up a rocking movement in the tubular scaffolding. So far as we are in a position to judge, therefore, the collapse was attributable to these circumstances, and it is understood that the representatives of the engineering staff of the Home Office, who have visited the site, agree with this view."

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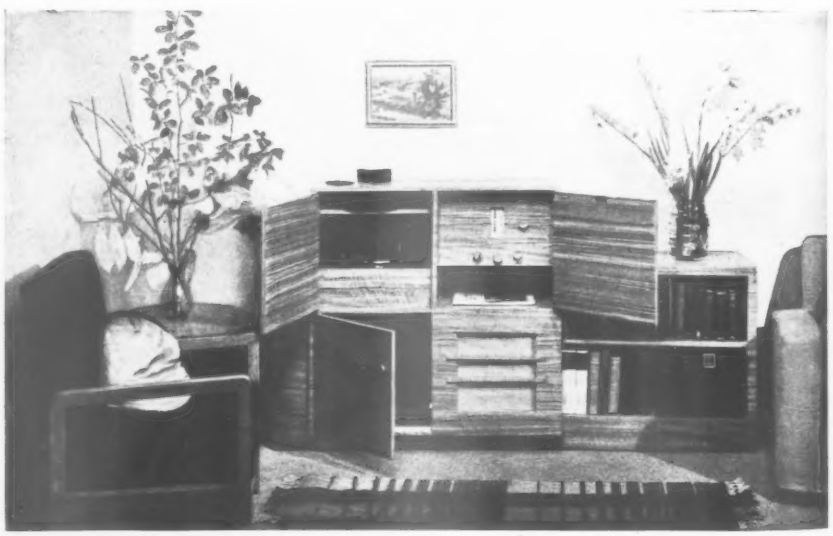
An ingenious and presumably reliable explanation, for everyone knows how a pipe tends to straighten itself out under internal pressure. That the strokes of the pump piston should set up a kick is understandable enough, and the kicks would naturally be regular, thereby setting up the rhythmic sway which did the damage. The remedy, of course, is to start pouring at the point furthest away from the pump, and this is now being done. But who would have suspected a concrete pump of being capable of doing so much damage?

Built-in Radio

The old problem of the paucity in design of fittings, referred to at the beginning of these notes, applies equally to the ordinary radio-gramophone cabinet, which, in order



A purpose made bookcase-radiogram by Practical Furniture Ltd. (*See note above*)

to give a suitable air of sumptuous impressiveness, is given great massive legs and occasionally a certain amount of lead ballast to give the unwary purchaser the impression he is buying something good and solid.

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Radio cabinets are, admittedly, rapidly getting more presentable, but there are still a good many which are a positive eyesore, and even the good ones may not always fit in comfortably with an existing scheme of decoration. The illustration at the top of the opposite page shows a bookcase radiogram designed by Mr. John H. Bulter, of Practical Furniture, whose firm, amongst other things, produces fittings like this to meet all circumstances. The actual works of the set is by Halford Radio, but Mr. Bulter adds: "Of course, we are prepared to design and build cabinets for any make of radio, but we find that most manufacturers withdraw all guarantees, and take no interest in any other than their own stock cabinets."

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A typical take-it-or-leave-it attitude which a good many manufacturers adopt, paying no attention to what Mr. Henry Ford contemptuously refers to as the "useless 5 per cent. who know what they want." Will this attitude ultimately lead to a new "submerged twentieth"? Fortunately, this class contains a certain number of people who can afford to have purpose-made goods, but none the less it is reassuring to find a firm that takes the trouble to satisfy a clear but often unexpressed need, and a radio manufacturer who is prepared to co-operate, realizing that there may be people, otherwise normal, who cannot *bear* his standard cabinet. Not that I know anything of the Halford case, but I can hardly believe that anything is universally acceptable.

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And if any other manufacturer thinks of borrowing the design illustrated, I ought in fairness to point out that it bears the title "Registered Design No. 814212."

Addresses

Heatrae, Ltd., Heatrae Works, Norwich.
Practical Furniture, 149 Sloane Street, S.W.1.

THE BUILDINGS ILLUSTRATED

PUBLIC LIBRARY, SCARBOROUGH (pages 735–738).—Architect: J. Paton Watson; assistant: G. W. Alderson. The general contractors were Jaram and Son, and the principal sub-contractors and suppliers included: Wright Anderson & Co., steelwork; Hull Concrete Stone Co., Ltd., stonework; Richard Thomas & Co., Ltd., facing bricks; Limmer and Trinidad Lake Asphalte Co., Ltd., flat roofs; Kleine Co., Ltd., reinforced concrete floors; Cork Insulation Co., Ltd., cork flooring; Hollis Bros. & Co., Ltd., wood block flooring; Hodkin and Jones, Ltd., terrazzo; Thomas Foster and Sons, Ltd., stair treads; J. Duke and Sons, painting and wax polishing; Henry Hope and Sons, Ltd., metal windows and laylights; A. S. Toland, electrical installation; Troughton and Young, Ltd., electric fittings; Steel & Co., Ltd., heating installation; Etchells, Congdon and Muir, Ltd., lift; F. W. Plaxton, furniture; William Mallinson and Sons, Ltd., oak; Finmar, Ltd., chairs and tables; W. Rowntree and Sons, Ltd., chairs and tables; John Curtis and Son, Ltd., display cabinets; Roneo, Ltd., special issue tray; J. R. Pearson (Birmingham) Ltd., bronze tablets, metal screens and lettering; Tucker Armoured Plywood Co., Ltd., flush doors; Doulton & Co., Ltd., sanitary fittings; J. Tonks and Sons, Ltd., soft furnishings; Kenneth Rowntree, mural decorations.

HOUSE AT WAKEFIELD STREET, E.6 (page 740).—Architects: Tatchell and Wilson. The general contractors were Messrs. J. Jarvis and Sons, and the principal sub-contractors as under: Bratt Colbran & Co., Ltd., fireplaces; Jacob, White & Co., Ltd., electric light and power; Shanks & Co., Ltd., sanitary fittings; C. E. Welstead, Ltd., metal windows.

HARRINGAY STADIUM (pages 747–749).—Designer and consulting engineer: Dr. Oscar Faber, O.B.E., for structural work, and Mr. J. R. Kell, M.I.H.V.E., for mechanical and electrical services. The general contractors were Richard Costain, Ltd., and the principal sub-contractors and suppliers included: Dorman Long & Co., Ltd., steelwork; British Steel Piling Co., Ltd., Vibro piles; Universal Asbestos Co., roof (asbestos super six sheeting); Mellowes & Co., Ltd., patent glazing; Rosser and Russell, Ltd., heating and ventilation; Hartley and Sugden, Ltd., "Economic" boilers; York Shipley, Ltd., refrigerating machinery; Drake and Gorham, Ltd., electrical installation; Merryweather and Sons, Ltd., fire mains and fittings; Pamphonic Reproductions, Ltd., public address system.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICT (15 miles radius)

ESSEX. *Junior School.* The Essex Education Committee has purchased a site on the Baldock Farm Estate, Theydon Bois, for a junior school.

ESSEX. *Cinema.* The Essex County Licensing Committee has granted a licence in respect of the proposed Dominion cinema to be erected at the junction of High Road and William Street, Leyton.

ESSEX. *Sanatorium.* The Essex C.C. has approved plans for the erection of a sanatorium at Bloomfield Court, at a cost of £215,000.

ESSEX. *Secondary School.* The Essex C.C. Education Committee has approved plans for the erection of a secondary school at Buckhurst Hill, at a cost of £42,842.

LAMBETH. *Redevelopment.* The L.C.C. is to clear and redevelop the Murphy Street area of Lambeth, at a cost of £66,000.

LONDON. *Dwellings.* The L.C.C. is to develop 50 acres of the White City exhibition site by the erection of 2,286 dwellings, at a cost of £1,437,000.

POPLAR. *Flats.* The L.C.C. is to erect 50 flats in Vesey Street, Poplar, at a cost of £29,000.

PURLEY. *Flats, etc.* Plans passed at Purley: 42 flats, Whytecliffe Road; 12 shops with flats. Russell Hill Road, Messrs. Marshall and Tweedy.

WANSTEAD. *Flats, etc.* Plans passed by the Wanstead U.D.C.: 68 flats, Ellesmere Close, off Chigwell Road; 25 houses, Nos. 2–50 Durham Avenue; 12 houses, Nos. 38–60 Rivington Avenue.

SOUTH-EASTERN COUNTIES

WORTHING. *Houses.* Plans passed by Worthing Corporation: Five houses, Findon Road, Messrs. J. Rawlinson and Son; 12 houses, Burnham Road, Mr. A. Gutteridge; eight houses, Loxwood Avenue, Mr. H. M. Potter; 109 houses, Sackville Road, Mr. S. C. Phillips; five houses, Western Road, Seaside Estates Building Co.; nine houses, May Tree Avenue, Mr. M. R. Fletcher.

EASTERN COUNTIES

HERTS. *Secondary School.* The Herts Education Committee is to erect a secondary school for boys at St. Albans, at a cost of £33,826.

MIDLAND COUNTIES

DUDLEY. *Houses.* Dudley Corporation is to erect 228 houses on the Saltwells Road site.

KETTERING. *Houses, etc.* Plans passed by Kettering U.D.C.: 20 houses, Summerfield Road, The Waverley Building Co.; 6 houses, Wordsworth Road, Messrs. Phillips and Slow, Ltd.

NORTHERN COUNTIES

BOLTON. *Houses.* Plans passed by Bolton Corporation: 7 houses, Crompton Way, Mr. W. E. Yates; 12 houses, off Kermoor Avenue, Messrs. F. and H. Douglas.

CARLISLE. *Distribution Depot.* The Corporation has obtained sanction to borrow £28,695, in connection with the proposed reconstruction of the James Street distribution depot.

CARLISLE. *Central School.* Carlisle Education Committee has now accepted the tender of Messrs. J. and R. Bell, Ltd., £63,301 9s., for the erection of a central school.

CHESTER. *Houses.* Plans passed by Chester Corporation: 128 houses, Albert Road and Sefton Road, Blacon Point Estate, Messrs. T. B. Gorst and Sons.

CHESTER. *School.* The Chester Education Committee has approved plans by the City Surveyor for the erection of Newton council school at a cost of £20,970.

HYDE. *Houses.* Hyde Corporation has approved a scheme for the erection of 62 houses on the Dukinfield Road site.

MANCHESTER. *Child Welfare Clinic, etc.* Manchester Corporation is to erect a child welfare centre and school medical clinic at Sharston.

MANCHESTER. *Houses.* The Manchester Corporation is to erect houses on the Red Bank Farm estate, Didsbury, at a cost of £146,145.

MANCHESTER. *Police and Fire Station.* The Manchester Corporation is to erect a combined police and fire station at Wythenshawe at a cost of £37,250.

NORTH RIDING. *Library.* The North Riding C.C. is to erect a library in Normandy Road, Eston.

NORTHUMBERLAND. *Senior School.* Northumberland Education Committee is to acquire a site in Mitford Road, Morpeth, for the erection of a senior school.

NORTHUMBERLAND. *Senior School.* The Northumberland Education Committee has purchased a site for a new senior council schoo in Hawthorn Road, Hirst.

TYNEMOUTH. *Houses.* Plans passed by Tynemouth Corporation: 12 houses, Seacrest Avenue, for Mr. J. R. Wallace.

SCOTLAND

GLASGOW. *Bridge.* The Ministry of Transport has agreed upon a grant of 60 per cent. to the Glasgow Corporation for the construction of the proposed Finnieston Bridge, at a cost of £800,000.

GLASGOW. *Clinic.* The Glasgow Corporation has approved plans for the erection of a clinic in Sandy Road, Partick.

WALES

CARDIFF. *Exhibition Hall.* The Ministry of Health has sanctioned a loan of £150,000 by the Cardiff Corporation for the erection of an exhibition hall.

RATES OF WAGES

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

			I s. d.	II s. d.
A_1	ABERDARE ...	S. Wales & M.	1 5½	1 1½
A	Aberdeen ...	Scotland	1 6½	1 2
A_1	Abergavenny ...	S. Wales & M.	1 6	1 1½
A	Abingdon ...	S. Counties	1 5	1 0½
A	Accrington ...	N.W. Counties	1 6½	1 2
A_2	Addlestone ...	S. Counties	1 5	1 0½
A	Adlington ...	N.W. Counties	1 6½	1 2
A	Airdrie ...	Scotland	*1 6½	1 2
C	Aldeburgh ...	E. Counties	1 2½	11
A	Altrincham ...	N.W. Counties	1 6½	1 2
B_3	Appleby ...	N.W. Counties	1 3	11½
A	Ashton-under-Lyne	N.W. Counties	1 6½	1 2
B_1	Aylesbury ...	S. Counties	1 4	1 0
B_1	BANBURY ...	S. Counties	1 4	1 0
B_1	Bangor ...	N.W. Counties	1 4	1 0
A_3	Barnard Castle ...	N.E. Coast	1 5	1 0½
A	Barnsley ...	Yorkshire	1 6½	1 2
B	Barnstaple ...	S.W. Counties	1 4½	1 0½
A	Barrow ...	N.W. Counties	1 6½	1 2
A	Barry	S. Wales & M.	1 6½	1 2
B_1	Basingstoke ...	S.W. Counties	1 4	1 0
A_3	Bath	S.W. Counties	1 5½	1 1½
A	Batley ...	Yorkshire	1 6½	1 2
A_1	Bedford ...	E. Counties	1 5½	1 1½
A_1	Berwick-on-Tweed	N.E. Coast	1 5½	1 1½
A_1	Bewdley ...	Mid. Counties	1 5½	1 1½
B_3	Bicester ...	S. Counties	1 3	11½
	Birkenhead ...	N.W. Counties	*1 7½	1 2½
A	Birmingham ...	Mid. Counties	1 6½	1 2
A_1	Bishop Auckland	N.E. Coast	1 6	1 1½
A	Blackburn ...	N.W. Counties	1 6½	1 2
A	Blackpool ...	N.W. Counties	1 6½	1 2
A	Blyth	N.E. Coast	1 6½	1 2
B_1	Bognor ...	S. Counties	1 4	1 0
A	Bolton ...	N.W. Counties	1 6½	1 2
A_2	Boston ...	Mid. Counties	1 5	1 0½
A_2	Bournemouth ...	S. Counties	1 5½	1 1½
B_3	Bovey Tracey ...	S.W. Counties	1 3½	11½
A	Bradford ...	Yorkshire	1 6½	1 2
A_1	Brentwood ...	E. Counties	1 6	1 1½
A	Bridgend ...	S. Wales & M.	1 6½	1 2
B	Bridgwater ...	S.W. Counties	1 4½	1 0½
A_1	Bridlington ...	Yorkshire	1 6	1 1½
A	Brighouse ...	Yorkshire	1 6½	1 2
A_2	Brighton ...	S. Counties	1 5½	1 1½
A	Bristol ...	S.W. Counties	1 6½	1 2
B	Brixham ...	S.W. Counties	1 3½	11½
A	Bromsgrove ...	Mid. Counties	1 5½	1 1½
B	Bromyard ...	Mid. Counties	1 3	11½
A	Burnley ...	N.W. Counties	1 6½	1 2
A	Burslem ...	Mid. Counties	1 6½	1 2
A	Burton-on-Trent	Mid. Counties	1 6½	1 2
A	Bury	N.W. Counties	1 6½	1 2
A	Buxton ...	N.W. Counties	1 6	1 1½
A_1	CAMBRIDGE ...	E. Counties	1 6	1 1½
B_1	Canterbury ...	S. Counties	1 4	1 0
A	Cardiff ...	S. Wales & M.	1 6½	1 2
A	Carlisle ...	N.W. Counties	1 6½	1 2
B	Carmarthen ...	S. Wales & M.	1 4½	1 0½
B	Carnarvon ...	N.W. Counties	1 4½	1 0½
A	Carnforth ...	N.W. Counties	1 6½	1 2
A	Castleford ...	Yorkshire	1 6½	1 2
A_3	Chatham ...	S. Counties	1 5	1 0½
A	Chelmsford ...	E. Counties	1 5	1 0½
A	Cheltenham ...	S.W. Counties	1 5	1 0½
A	Chester ...	N.W. Counties	1 6½	1 2
A	Chesterfield ...	Mid. Counties	1 6½	1 2
B_1	Chichester ...	S. Counties	1 4	1 0
A	Chorley ...	N.W. Counties	1 6½	1 2
B_1	Cirencester ...	S. Counties	1 4	1 0
A	Clitheroe ...	N.W. Counties	1 6½	1 2
A	Clydebank ...	Scotland	1 6½	1 2
A	Coalville ...	Mid. Counties	1 6½	1 2
A_1	Colchester ...	E. Counties	1 5½	1 1½
A	Colne	N.W. Counties	1 6	1 1½
A_1	Colwyn Bay ...	N.W. Counties	1 5½	1 1½
A_1	Consett ...	N.E. Coast	1 6	1 1½
A_3	Conway ...	N.W. Counties	1 5½	1 1½
A	Coventry ...	Mid. Counties	1 6½	1 2
A_1	Crewe	N.W. Counties	1 5½	1 1½
A	Cumberland ...	N.W. Counties	1 5	1 0½
A	DARLINGTON	N.E. Coast	1 6½	1 2
A	Darwen ...	N.W. Counties	1 6½	1 2
B	Deal	S. Counties	1 4	1 0
A_3	Denbigh ...	N.W. Counties	1 5	1 0½
A	Derby	Mid. Counties	1 6½	1 2
A	Dewsbury ...	Yorkshire	1 6½	1 2
B	Didcot ...	S. Counties	1 4½	1 0½
A	Doncaster ...	Yorkshire	1 6½	1 2
B_2	Dorchester ...	S.W. Counties	1 4	1 0
A	Driffield ...	Yorkshire	1 5	1 0½
A_2	Droitwich ...	Mid. Counties	1 5½	1 1½
A	Dudley ...	Mid. Counties	1 6½	1 2
A_3	Dumfries ...	Scotland	1 6	1 1½
A	Dundee ...	Scotland	1 6½	1 2
A	Durham ...	N.E. Coast	1 6½	1 2
A_2	EASTBOURNE ...	S. Counties	1 5½	1 1½
A_1	Ebbw Vale ...	S. Wales & M.	1 6	1 1½
A	Edinburgh ...	Scotland	1 6½	1 2
A_2	Exeter ...	S.W. Counties	*1 5½	1 1½
B	Exmouth ...	S.W. Counties	1 4½	1 0½
A_2	FELIXSTOWE	E. Counties	1 5	1 0½
A	Filey	Yorkshire	1 5	1 0½
A	Fleetwood ...	N.W. Counties	1 6½	1 2
B_1	Folkestone ...	S. Counties	1 4	1 0
A	Frodsham ...	N.W. Counties	1 6½	1 2
B_2	Frome	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 6½	1 2
B	Gillingham ...	S. Counties	1 4½	1 0½
A_1	Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1 6	1 1½
A	Glasgow ...	Scotland	1 7	1 2½
A_2	Gloucester ...	S.W. Counties	1 5½	1 1½
A_2	Goole	Yorkshire	1 5½	1 1½
A_2	Gosport ...	S. Counties	1 5½	1 1½
A_3	Grantham ...	Mid. Counties	1 5	1 0½
A_1	Gravesend ...	S. Counties	1 6	1 1½
A	Greenock ...	Scotland	*1 6½	1 2
A	Grimsby ...	Mid. Counties	1 6½	1 2
B	Guildford ...	S. Counties	1 4½	1 0½
A	HALIFAX ...	Yorkshire	1 6½	1 2
A	Hanley ...	Mid. Counties	1 6½	1 2
A	Harrogate ...	Yorkshire	1 6½	1 2
A	Hartlepools ...	N.E. Coast	1 6½	1 2
B	Harwich ...	E. Counties	1 4½	1 0½
B_1	Hastings ...	S. Counties	1 4	1 0
A_2	Hatfield ...	S. Counties	1 5½	1 1½
B	Hereford ...	S.W. Counties	1 4½	1 0½
A_2	Hertford ...	E. Counties	1 5½	1 1½
A	Heysham ...	N.W. Counties	1 6½	1 2
A	Howden ...	N.E. Coast	1 6½	1 2
A	Huddersfield ...	Yorkshire	1 6½	1 2
A	Hull	Yorkshire	1 6½	1 2
A	ILKLEY ...	Yorkshire	1 6½	1 2
A	Immingham ...	Mid. Counties	1 6½	1 2
A_2	Ipswich ...	E. Counties	1 5½	1 1½
B_2	Isle of Wight ...	S. Counties	1 4½	1 0½
A	JARROW ...	N.E. Coast	1 6½	1 2
A	KEIGHLEY ...	Yorkshire	1 6½	1 2
A_2	Kendal ...	N.W. Counties	1 5	1 0½
A_3	Keswick ...	N.W. Counties	1 5	1 0½
A_1	Kettering ...	Mid. Counties	1 6	1 1½
A_3	Kidderminster	Mid. Counties	1 5½	1 1½
B_1	King's Lynn ...	E. Counties	1 4	1 0
A	LANCASTER ...	N.W. Counties	1 6½	1 2
A_1	Leamington ...	Mid. Counties	1 6	1 1½
A	Leeds	Yorkshire	1 6½	1 2
A	Leek	Mid. Counties	1 6½	1 2
A	Leicester ...	Mid. Counties	1 6½	1 2
A	Leigh	N.W. Counties	1 6½	1 2
B	Lewes	S. Counties	1 3	11½
A_2	Lichfield ...	Mid. Counties	1 5½	1 1½
A	Lincoln ...	Mid. Counties	1 6½	1 2
	Liverpool ...	N.W. Counties	*1 8	1 3
A_2	Llandudno ...	N.W. Counties	1 5½	1 1½
A	Llanelly ...	S. Wales & M.	1 6½	1 2
	London (12-miles radius)		1 8	1 3
	Do. (12-15 miles radius)		1 7½	1 2½
A	Long Eaton ...	Mid. Counties	1 6½	1 2
A	Loughborough ...	Mid. Counties	1 6½	1 2
A_1	Luton	E. Counties	1 6	1 1½
A	Lytham ...	N.W. Counties	1 6½	1 2
A_1	MACCLESFIELD	N.W. Counties	1 6	1 1½
A_2	Maidstone ...	S. Counties	1 5	1 0½
A_2	Malvern ...	Mid. Counties	1 5	1 0½
A	Manchester ...	N.W. Counties	1 6½	1 2
A	Mansfield ...	Mid. Counties	1 6½	1 2
B_1	Margate ...	S. Counties	1 4	1 0
A	Matlock ...	Mid. Counties	1 5	1 0½
A_1	Merthyr ...	S. Wales & M.	1 6	1 1½
A	Middlesbrough	N.E. Coast	1 6½	1 2
A_2	Middlewich ...	N.W. Counties	1 5½	1 1½
B_2	Minehead ...	S.W. Counties	1 3½	11½
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 3½	11½
A	Morecambe ...	N.W. Counties	1 6½	1 2
A_2	NANTWICH ...	N.W. Counties	1 5½	1 1½
A	Neath	S. Wales & M.	1 6½	1 2
A	Nelson ...	N.W. Counties	1 6½	1 2
A	Newcastle ...	N.E. Coast	1 6½	1 2
A	Newport ...	S. Wales & M.	1 6½	1 2
A	Normanton ...	Yorkshire	1 6½	1 2
A	Northampton ...	Mid. Counties	1 6½	1 2
A	North Shields ...	N.E. Coast	1 6½	1 2
A	North Staffs ...	Mid. Counties	1 6½	1 2
A_1	Norwich ...	E. Counties	1 6	1 1½
A	Nottingham ...	Mid. Counties	1 6½	1 2
A	Nuneaton ...	Mid. Counties	1 6½	1 2
A	OAKHAM ...	Mid. Counties	1 5	1 0½
A	Oldham ...	N.W. Counties	1 6½	1 2
A_3	Oswestry ...	N.W. Counties	1 5	1 0½
A_1	Oxford ...	S. Counties	1 6	1 1½
A	PAISLEY ...	Scotland	*1 6½	1 2
B_3	Pembroke ...	S. Wales & M.	1 3	11½
A	Perth	Scotland	*1 6½	1 2
A_1	Peterborough	E. Counties	1 6	1 1
A	Plymouth ...	S.W. Counties	*1 6½	1 2½
A	Pontefract ...	Yorkshire	1 6½	1 1
A_1	Pontypridd ...	S. Wales & M.	1 6	1 1½
A_2	Portsmouth ...	S. Counties	1 5½	1 2½
A	Preston ...	N.W. Counties	1 6½	1 2
A	QUEENSFERRY	N.W. Counties	1 6½	1 2
A_2	READING ...	S. Counties	1 5½	1 1½
B	Reigate ...	S. Counties	1 4½	1 0½
A	Retford ...	Mid. Counties	1 5	1 0½
A_1	Rhondda Valley	S. Wales & M.	1 6	1 1½
A	Ripon	Yorkshire	1 5	1 0½
A	Rochdale ...	N.W. Counties	1 6½	1 2
B	Rochester ...	S. Counties	1 4½	1 0½
A_1	Ruabon ...	N.W. Counties	1 6	1 1½
A	Rugby ...	Mid. Counties	1 6½	1 2
A_2	Rugeley ...	Mid. Counties	1 5½	1 1½
A	Runcorn ...	N.W. Counties	1 6½	1 2
A_1	ST. ALBANS ...	E. Counties	1 6	1 1½
A	St. Helens ...	N.W. Counties	1 6½	1 2
B_3	Salisbury ...	S.W. Counties	1 3½	11½
A_1	Scarborough ...	Yorkshire	1 6	1 1½
A	Scunthorpe ...	Mid. Counties	1 6½	1 2
A	Sheffield ...	Yorkshire	1 6½	1 2
A	Shipley ...	Yorkshire	1 6½	1 2
A_2	Shrewsbury ...	Mid. Counties	1 5½	1 1½
A_2	Skipton ...	Yorkshire	1 5½	1 1½
A_2	Slough ...	S. Counties	1 5½	1 1½
A_1	Solihull ...	Mid. Counties	1 6	1 1½
A_2	Southampton ...	S. Counties	1 5½	1 1½
A_1	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ...	N.W. Counties	1 6½	1 2
A	S. Shields ...	N.E. Coast	1 6½	1 2
A_1	Stafford ...	Mid. Counties	1 6	1 1½
A	Stirling ...	Scotland	1 7	1 2½
A	Stockport ...	N.W. Counties	1 6½	1 2
A	Stockton-on-Tees	N.E. Coast	1 6½	1 2
A	Stoke-on-Trent	Mid. Counties	1 6½	1 2
B	Stroud ...	S.W. Counties	1 4½	1 0½
A	Sunderland ...	N.E. Coast	1 6½	1 2
A	Swansea ...	S. Wales & M.	1 6½	1 2
A	Swindon ...	S.W. Counties	1 5	1 0½
A_1	TAMWORTH ...	N.W. Counties	1 6	1 1½
B	Taunton ...	S.W. Counties	1 4½	1 0½
A	Teeside Dist. ...	N.E. Counties	1 6½	1 2
A_2	Teignmouth ...	S.W. Coast	1 5½	1 1½
A	Todmorden ...	Yorkshire	1 6½	1 2
A_1	Torquay ...	S.W. Counties	1 6	1 1½
B_2	Truro	S.W. Counties	1 3½	11½
A_3	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ...	Mid. Counties	1 6½	1 2
A	Tyne District	N.E. Coast	1 6½	1 2
A	WAKEFIELD	Yorkshire	1 6½	1 2
A	Walsall ...	Mid. Counties	1 6½	1 2
A	Warrington ...	N.W. Counties	1 6½	1 2
A_1	Warwick ...	Mid. Counties	1 6	1 1½
A_1	Wellingborough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 6½	1 2
A_2	Weston-s.-Mare	W. Counties	1 5½	1 1½
A	Whitby ...	Yorkshire	1 5½	1 1½
A	Widnes ...	N.W. Counties	1 6½	1 2
A	Wigan ...	N.W. Counties	1 6½	1 2
B	Winchester ...	S. Counties	1 4½	1 0½
A_3	Windsor ...	S. Counties	1 5½	1 0½
A	Wolverhampton	Mid. Counties	1 6½	1 2
A_2	Worcester ...	Mid. Counties	1 5½	1 1½
A_3	Worksop ...	Yorkshire	1 5	1 0½
A_1	Wrexham ...	N.W. Counties	1 6	1 1½
A	Wycombe ...	S. Counties	1 5	1 0½
B	YARMOUTH ...	E. Counties	1 4½	1 0½
B	Yeovil ...	S.W. Counties	1 4½	1 0½
A	York	Yorkshire	1 6½	1 2

The rates for every trade in any given area will be sent on request.

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

CURRENT PRICES

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

WAGES

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

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	18	6
Hydrated Lime	,,	3	0	9
Portland Cement, in 4-ton lots (d/d site, including Paper Bags)	,,	1	19	0
Rapid Hardening Cement, in 4-ton lots (d/d site, including Paper Bags)	,,	2	5	0
White Portland Cement, in 1-ton lots	,,	8	15	0
Thames Ballast	per Y.C.		6	6
½" Crushed Ballast	,,		7	0
Building Sand	,,		7	6
Washed Sand	,,		8	6
2" Broken Brick	,,		8	0
½" ,, ,,	,,		10	3
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest Bends	,,	4	3	6	3
Single Junctions	,,	3	6	5	3
Double	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
½" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	1	6	2	6
Bends	each	5	0	10	6
Inspection bends	,,	9	0	15	0
Single junctions	,,	8	9	18	0
Double junctions	,,	13	6	30	0
Lead Wool	lb.		6		—
Gaskin	,,		5		—

BRICKLAYER

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

MASON

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

SLATER AND TILER

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

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

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1

Deal floorings,	Sq.	18	6
,, ½"	,,	1	1	6
,, ¾"	,,	1	2	0
,, 1"	,,	1	5	0
,, 1¼"	,,	1	10	0
,, 1½"	,,	14	0	
Deal matchings, ½"	,,	15	6	
,, ¾"	,,	1	4	0
,, 1"	,,	16	0	
Rough boarding, ½"	,,	18	0	
,, ¾"	,,	1	6	0
,, 1"	,,			
,, 1¼"	,,			

Plywood, per ft. sup.

Thickness	½"			¾"			¾"			1"		
Qualities	A	B	BB	A	B	BB	A	B	BB	A	B	BB
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch 60 × 48	4	2½	2	5	3	2½	7	5	4	8	6	5
Cheap Alder	–	2	1½	–	3½	2	–	–	–	–	–	–
Oregon Pine	–	2½	–	3	2½	–	4	3½	–	5	4½	–
Gaboon Mahogany	4	3½	–	5	4½	–	7	6½	–	8	7	–
Figured Oak	6½	5	–	7½	5½	–	10	8	–	1/-	9	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings

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

	½"	¾"	1"	1¼"	2"
Tubes, 2'–14' long per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"–23" long each	10	1/1	1/11	2/8	4/9
,, 3"–11½" long ,,	7	9	1/3	1/8	3/–
Long screws, 12"–23½" long,,	11	1/3	2/2	2/10	5/3
,, ,, 3" M–½" long ,,	8	10	1/5	1/11	3/6
Bends ,,	8	11	1/7½	2/7½	5/2
Springs not socketed ,,	5	7	1/1½	1/11½	3/11
Socket unions ,,	2/–	3/–	5/6	6/9	10/–
Elbows, square ,,	10	1/1	1/6	2/2	4/3
Tees ,,	1/–	1/3	1/10	2/6	5/1
Crosses ,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples ,,	3	4	6	8	1/3
Diminished sockets ,,	4	6	9	1/–	2/–
Flanges ,,	9	1/–	1/4	1/9	2/9
Caps ,,	3½	5	8	1/–	2/–
Backnuts ,,	2	3	5	6	1/1
Iron main cocks ,,	1/6	2/3	4/2	5/4	11/6
,, with brass plugs ,,	—	4/–	7/6	10/–	21/–

Discounts

TUBES.

	Per cent.		Per cent.
Gas	65	Galvanized gas	52½
Water	61½	,, water	47½
Steam	57½	,, steam	42½

FITTINGS.

Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

		s.	d.
Rolled steel joists cut to length	cwt.	12	9
Mild steel reinforcing rods, ½"	,,	10	6
,, ,, ¾"	,,	10	3
,, ,, 1"	,,	10	0

SMITH AND FOUNDER—*continued*

		s.	d.
Mild steel reinforcing rods, 1¼"	cwt.	9	6
,, ,, 1½"	,,	9	6
,, ,, 1¾"	,,	9	6
,, ,, 2"	,,	9	6
,, ,, 2¼"	,,	9	6

		½" s.	½" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		8		10
Shoes	each	2	0	3	0
Anti-splash shoes	,,	4	6	8	0
Boots	,,	3	0	4	0
Bends	,,	2	7	3	9
,, with access door	,,		—	6	3
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	3	9	6	0
Plinth bends, 4½" to 6"	,,	3	9	5	3
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	26	3	
,, drawn pipes	,,	25	9	
,, soil pipe	,,	28	9	
,, scrap	,,	16	9	
Solder, plumbers'	lb.		9½	
,, fine do.	,,	1	0	
Copper, sheet	,,		8½	
,, tubes	,,		11	

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

PLASTERER

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

GLAZIER

	s.	d.	s.	d.
Sheet glass, 21 oz., squares n/e 2 ft.	s.	F.S.		2½
,, ,, 26 oz. ,, ,,	,,			3
Flemish, Arctic, Figures (white)*	,,			7
Blazoned glasses	,,		2	6
Reeded: Cross Reeded	,,			11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite	,,			6
Crown sheet glass (n/e 12" × 10")	,,			2 0
Flashed opals (white and coloured)	,,	1 0 and	2	0
¼" rough cast; rolled plate	,,			5½
¼" wired cast; wired rolled	,,			9½
¼" Georgian wired cast	,,			11
¼" Polished plate, n/e 1 ft.	,,	†1 0 to	‡1	1
,, ,, 2 ,,	,,	†1 2 ,,	‡1	4
,, ,, 4 ,,	,,	†2 3 ,,	‡2	8
,, ,, 8 ,,	,,	†2 9 ,,	‡3	2
,, ,, 20 ,,	,,	†3 1 ,,	‡3	9
,, ,, 45 ,,	,,	†3 3 ,,	‡4	0
,, ,, 100 ,,	,,	†4 0 ,,	‡4	10
Vita glass, sheet, n/e 1 ft.	,,		1	0
,, ,, ,, 2 ft.	,,		1	3
,, ,, over 2 ft.	,,		1	9
,, ,, plate, n/e 1 ft.	,,		1	6
,, ,, ,, 2 ft.	,,		3	0
,, ,, ,, 5 ft.	,,		4	0
,, ,, ,, 7 ft.	,,		5	0
,, ,, ,, 15 ft.	,,		6	0
,, ,, over 15 ft.	,,		7	6
"Calorex" sheet 21 oz., and 32 oz.	,,	2 6 and	3	6
,, rough cast ¼" and ½"	,,	8½ ,,	1	0
Putty, linseed oil	lb.			3

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

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

PAINTER

		£	s.	d.
White lead in 1 cwt. casks	cwt.	2	8	6
Linseed oil	gall.	2	3	
Boiled oil	,,	2	9	
Turpentine	,,	4	1½	
Patent knotting	,,	14	0	
Distemper washable	cwt.	2	6	0
,, ordinary	,,	2	0	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.	13	0	
Flat varnish	,,	14	0	
Outside varnish	,,	16	0	
White enamel	,,	1	15	0
Ready mixed paint	,,	13	6	
Brunswick black	,,	7	6	

CURRENT PRICES FOR MEASURED WORK

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

EXCAVATOR AND CONCRETOR

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

DRAINLAYER

		4″ s. d.	6″ s. d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1 6	2 3
Extra, only for bends	Each	2 8	3 9
,, junctions	,,	3 9	4 6
Gullies and gratings	,,	16 6	18 0
Cast iron drains, and laying and jointing	F.R.	4 9	6 9
Extra, only for bends	Each	10 6	15 6

BRICKLAYER

		£ s. d.
Brickwork, Flettons in lime mortar	Per Rod	20 10 0
,, ,, in cement	,,	27 12 6
,, Stocks in cement	,,	34 0 0
,, Blues in cement	,,	50 0 0
Extra only for circular on plan	,,	2 0 0
,, backing to masonry	,,	1 10 0
,, raising on old walls	,,	2 0 0
,, underpinning	,,	5 10 0
Fair Face and pointing internally	F.S.	1½
Extra over fletton brickwork for picked stock facings and pointing	,,	8
,, ,, ,, red brick facings and pointing	,,	11
,, ,, ,, blue brick facings and pointing	,,	1 4
,, ,, ,, glazed brick facings and pointing	,,	3 6
Tuck pointing	,,	7½
Weather pointing in cement	,,	3
Slate dampcourse	,,	10
Vertical dampcourse	,,	1 1

ASPHALTER

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

MASON

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

SLATER AND TILER

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

CARPENTER AND JOINER

		£ s. d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2 2 6
Shuttering to sides and soffits of beams	F.S.	7
,, to stanchions	,,	7
,, to staircases	,,	1 6
Fir and fixing in wall plates, lintols, etc.	F.C.	3 9
Fir framed in floors	,,	4 6
,, ,, roofs	,,	6 6
,, ,, trusses	,,	7 6
,, ,, partitions	,,	8 6
¾″ deal sawn boarding and fixing to joists	Sqr.	1 14 6
1″ ,, ,, ,, ,, ,,	,,	1 17 6
1¼″ ,, ,, ,, ,, ,,	,,	2 3 0
4″ × 2″ fir battening for Countess slating	,,	9 6
Do., for 4″ gauge tiling	,,	12 0
Stout feather-edged tilting fillet	F.R.	4½
Patent inodorous felt, 1 ply	Y.S.	2 3
,, ,, ,, 2 ,,	,,	2 9
,, ,, ,, 3 ,,	,,	3 3
Stout herringbone strutting to 9″ joists	F.R.	10½
1″ deal gutter boards and bearers	F.S.	1 2
1¼″ ,, ,, ,,	,,	1 6
2″ deal wrought rounded roll	F.R.	8
1″ deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2 1 0
1¼″ do.	,,	2 10 0
1½″ do.	,,	2 17 0
1″ deal moulded skirting fixed on, and including grounds plugged to wall	F.S.	1 6
1¼″ do.	,,	1 9

CARPENTER AND JOINER—*continued*

		s. d.
1½″ deal moulded sashes of average size	F.S.	1 9½
2″ ,, ,, ,, ,,	,,	1 11½
1½″ deal cased frames double hung, of 6″ × 3″ oak sills, 1¼″ pulley stiles, 1¼″ heads, 1″ inside and outside linings, ⅝″ parting beads, and with brass faced axle pulleys, etc., fixed complete	,,	3 7
2″ ,, ,, ,, ,, ,,	,,	3 10
Extra only for moulded horns	Each	6
1½″ deal four-panel square, both sides, door	F.S.	2 0
2″ ,, ,, ,, ,,	,,	2 8
1½″ ,, but moulded both sides	,,	2 4
2″ ,, ,, ,, ,,	,,	3 0
4″ × 3″ deal, rebated and moulded frames	F.R.	1 0
4½″ × 3½″ ,, ,, ,,	,,	1 4
1½″ deal tongued and moulded window board, on and including deal bearers	F.S.	1 9
1½″ deal treads, 1″ risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	2 6
1½″ deal moulded wall strings	,,	2 1
1½″ ,, outer strings	,,	2 4
Ends of treads and risers housed to string	Each	1 9
3″ × 2″ deal moulded handrail	F.R.	1 3
1″ × 1″ deal balusters and housing each end	Each	2 0
1½″ × 1½″ ,, ,, ,,	,,	2 9
3″ × 3″ deal wrought framed newels	F.R.	1 3
Extra only for newel caps	Each	6 0
Do., pendants	,,	6 0

SMITH AND FOUNDER

		£ s. d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.	16 6
Riveted plate or compound girders, and hoisting and fixing in position	,,	1 0 6
Do., stanchions with riveted caps and bases and do.	,,	19 0
Mild steel bar reinforcement, ½″ and up, bent and fixed complete	,,	17 6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.	11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1 10 0

PLUMBER

		£ s. d.
Milled lead and labour in flats	cwt.	2 0 3
Do. in flashings	,,	2 3 9
Do. in covering to turrets	,,	2 9 3
Do. in soakers	,,	1 14 9
Labour to weted edge	F.R.	3½
Open copper nailing	,,	3
Close ,, ,,	,,	4

		½″ s. d.	¾″ s. d.	1″ s. d.	1¼″ s. d.	2″ s. d.	4″ s. d.
Lead service pipe and fixing with pipe hooks	F.R.	10	1 0	1 3	2 0	2 10	—
Do. soil pipe and fixing with cast lead tacks	,,	—	—	—	—	—	5 6
Extra, only to bends	Each	—	—	—	—	2 0	6 9
Do. to stop ends	,,	6½	8	9	11	1 0	—
Boiler screws and unions	,,	3 3	3 9	5 0	8 0	—	—
Lead traps	,,	—	—	—	6 3	8 9	—
Screw down bib valves	,,	6 9	9 6	11 0	—	—	—
Do. stop cocks	,,	7 0	9 6	12 6	—	—	—
4″ cast-iron ½-rd. gutter and fixing	F.R.						1 0
Extra, only stop ends	Each						1 0
Do. angles	,,						1 6
Do. outlets	,,						2 9
4″ dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.						1 2
Extra, only for shoes	Each						1 3
Do. for plain heads	,,						5 6

PLASTERER AND TILING

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

GLAZIER

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

PAINTER

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

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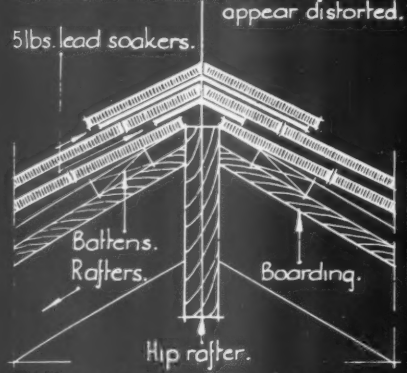
TYPICAL DETAILS OF LEAD SOAKERS TO TILED OR SLATED ROOF HIPS:

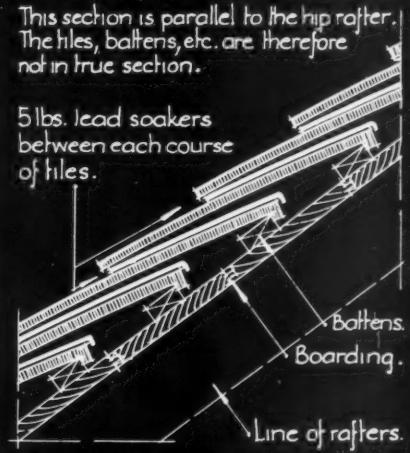
The section being taken normal to the slope of the hip, the rafter is in true cross section, but the battens & straight tiles appear distorted.



SECTION THRO' HIP ON LINE A-A.

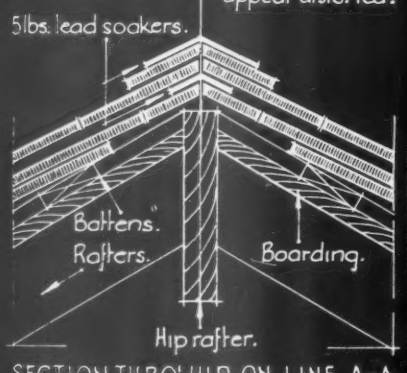
① SINGLE COURSE SOAKERS:

This section is parallel to the hip rafter. The tiles, battens, etc. are therefore not in true section.

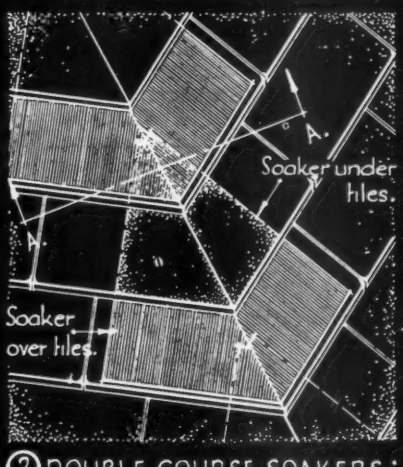


SECTION PARALLEL TO HIP RAFTER:

The section being taken normal to the slope of the hip, the rafter is in true cross section, but the battens & straight tiles appear distorted.

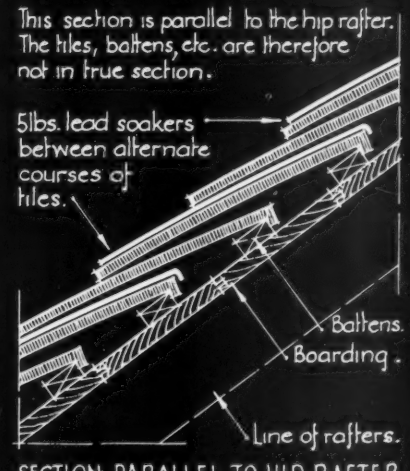


SECTION THRO' HIP ON LINE A-A.



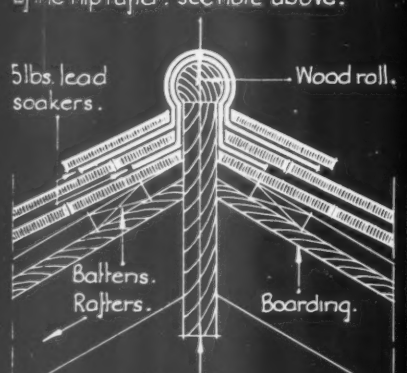
② DOUBLE COURSE SOAKERS:

This section is parallel to the hip rafter. The tiles, battens, etc. are therefore not in true section.

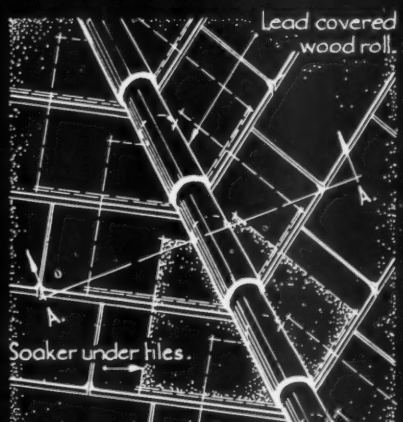


SECTION PARALLEL TO HIP RAFTER.

This section is taken normal to the slope of the hip rafter. See note above.

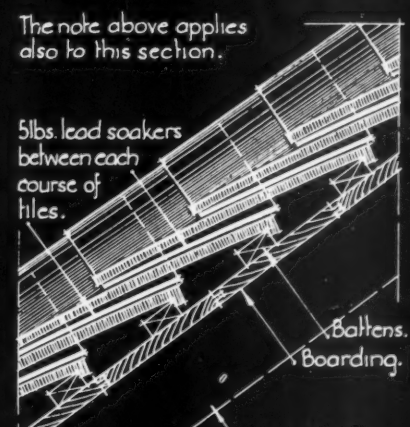


SECTION THRO' HIP ON LINE A-A.



③ SINGLE COURSE SOAKERS & ROLL:

The note above applies also to this section.



SECTION PARALLEL TO HIP RAFTER.

Information from Lead Industries Development Council.

INFORMATION SHEET: LEAD SOAKERS TO TILED OR SLATED HIPS: No 28

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

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LEAD SOAKERS TO HIPS

Method 1. Close Cut and Mitred Tiles with Single Course Lead Soakers :

The hip tiles for this type are all cut from tile-and-a-half and close-mitred. The single-course 4 or 5 lb. lead soakers are cut to a length equal to lap plus gauge of the tiles, and must be laid with an apron at the top edge, well dressed over the top of the tiles. In slating work this apron should be turned down the back of the batten.

Method 2. Close Cut and Mitred Tiles with Double Course Lead Soakers :

The arrangement of this type of hip is similar to that above, except that the soakers are placed under every other course. They are equal in length to the tiles, and are allowed to show on the exterior. No fixing is required, provided the top edge of the lead is dressed well over the top edge of each tile course.

Note :

Another method of finishing a cut and mitred hip is to provide a narrow secret lead gutter beneath the mitre, the hip rafter usually being kept down below the level of the battens and roof boarding. In this case the lead is dressed into the recess so formed, extended 4 ins. along the roof boarding and close copper-nailed. The lead is laid in 7 ft. lengths down the hip with ends lapped 3 ins. The tops and sides only are nailed, the bottom edge being left free for expansion and contraction of each piece.

Method 3. Cut Tile Hip with Wooden Roll :

In this instance, the hip rafter is set up above the battens to receive a small wooden roll, around which the single course 5 lb. lead soakers are dressed and top copper-nailed. The length of the soakers is equal to the lap plus the gauge, and the horizontal width of the wing should be sufficient to cover the joint between the tile immediately underneath.

Although the wood roll is not essential, its use in exposed situations will act as a wind guard to the edges of the hip tiles.

A similar method to the last, often used on slated roofs, is the use of a continuous lead-covered wood roll. The hip rafter is set up above the tops of the battens to receive the wood roll, which is covered with strips of lead 5 ft. to 7 ft. long, and 18 ins. to 20 ins. wide. The strips are well dressed into the angles and over the tops of the slates, and are nailed at the head under the lap, which should be 3 ins.

Lead tacks at 4 ft. intervals, fixed between the wood roll and the top of the hip rafter, are used to secure the strips of lead.

Information from : Lead Industries Development Council.
Address : Rex House, King William Street, E.C.4
Telephone : Mansion House 2855

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THE DESIGN OF SOME DETAILS FOR BUILDINGS TO BE FACED WITH SNOWCRETE MIXTURE or CULLAMIX.

GENERAL DESIGN.

On large wall surfaces it is desirable to split the area into sections so that the plasterer has every opportunity of covering up the junction of one day's work with the next. This difficulty is largely overcome when a scraped finish is specified.

RAINWATER PIPES.

Provison should be made for all external fixtures such as roof guttering, R.W. pipes, heads, etc., before the rendering is placed in order to avoid breaks in the finished work. Down pipes, gutters, etc., should be designed to prevent water overflowing on the rendering.

ORNAMENTAL WORK.

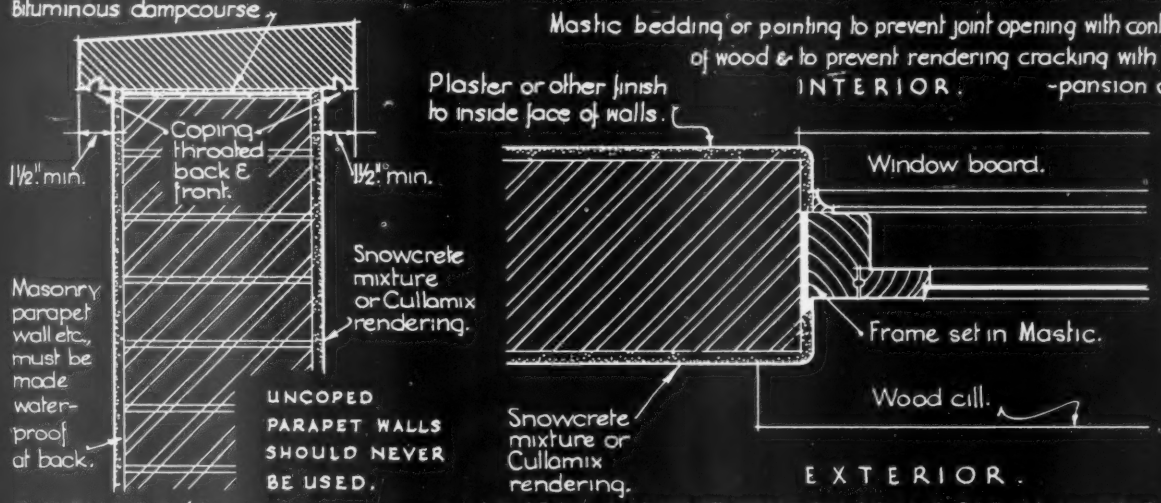
The running of cornices, etc., in situ results in fine material being drawn to the surface with the increased risks of cracks and crazing, and it is difficult to remove the surface skin without spoiling the arrises. Features of this type should be precast whenever possible.

SCAFFOLDING.

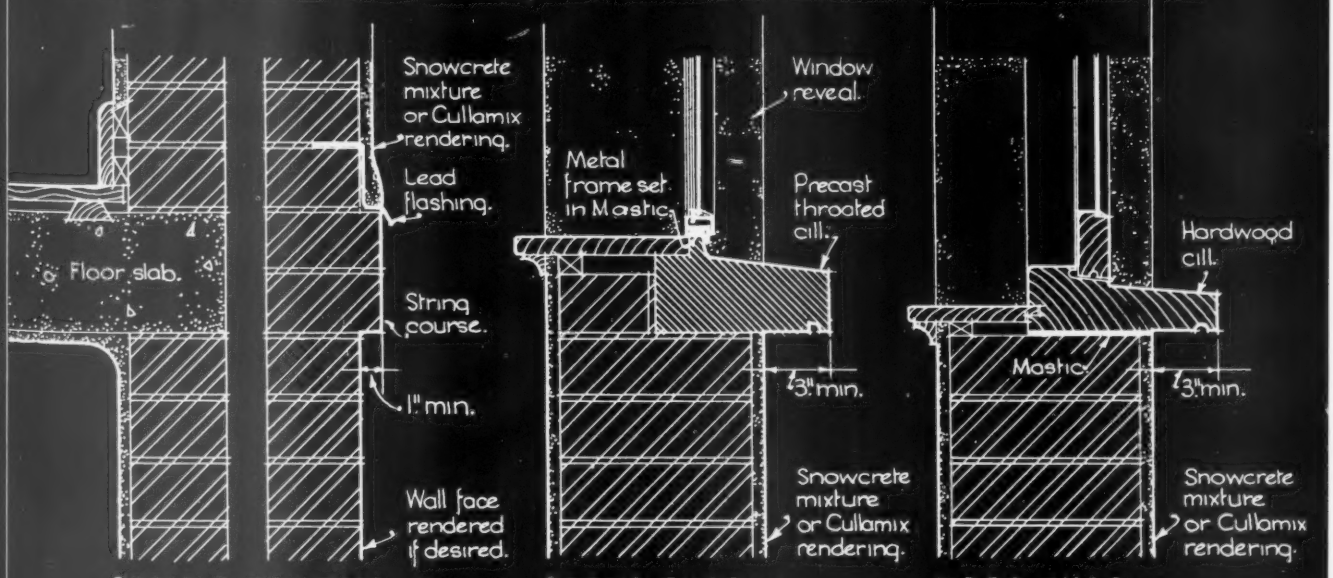
The use of independent scaffolding is strongly recommended, as this avoids the difficulties of obtaining uniformity of colour where putlog holes have to be filled in.

For notes on preparation of surfaces and on materials, mixes & application see back of sheet.

CONSTRUCTION RECOMMENDED FOR VARIOUS DETAILS: Scale: 1'0" to 1½"



COPINGS (Precast when possible). DETAIL SHOWING WINDOW FRAME SET IN MASTIC.



Information from The Cement Marketing Company Ltd.

INFORMATION SHEET: DETAILS OF DESIGN FOR COLOURED CEMENT RENDERINGS.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Oscar A. Bayne.

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COLOURED CEMENT RENDERINGS

Subject : The design of details to prevent staining of external renderings of Cullamix and Snowcrete mixture.

Parapet Walls with Copings :

The detail shows a parapet wall rendered on both sides and capped with a continuous weathered and throated coping stone. It is important that the brickwork behind a coloured cement rendering should be kept dry, and it is with this object in view that the rendering on the back of the parapet is recommended, in conjunction with a coping projecting an adequate distance on each side of the wall.

It is recommended that uncoped walls should never be used.

String Courses :

String courses are a frequent cause of streaking of wall surfaces ; wherever possible they should be eliminated from the design. They are, however, useful in breaking up areas, and thus eliminating day's work joints. They should stand fairly proud of the face and lead flashing should be run between the rendering and the brickwork and bonded into the brickwork as shown.

Window Cills :

Window cills are a frequent cause of streaking and staining of wall surfaces, dust and dirt being deposited on the cill and washed down the face of the building during rain. They should therefore project at least 3 ins. from the wall face with a throat on the underside, so that drips will be thrown clear of the wall.

Backing Coat :

The suction of the base coat must be controlled if a satisfactory coloured rendering is to be obtained.

Water-repellent Blue Circle Portland cement has been specially designed for the base coat of coloured and white renderings, particularly of "Cullamix" and "Snowcrete" mixture.

It ensures even suction between the base coat and facing coat, thus obviating patchiness, and does not contain any salts which can be drawn through the surface, thus causing efflorescence.

The Selection of Renderings for Industrial Areas:

Experience has shown that for external renderings which are to be exposed to dirt-polluted atmospheres, coarse finishes such as the scraped texture, or rough-cast, weather far more pleasantly than the wood float or other smoothly-textured surfaces.

Under the same conditions, renderings of "Snowcrete" mixture, broken white, ivory white or No. 3 light cream "Cullamix" are to be preferred to darker shades of "Cullamix," such as yellows, reds, greens, etc.

Where, in suitable areas, a sand-faced texture is desired, the final operation should be carried out with a sponge or by scraping the surface with a straight-edge instead of the usual method of working the surface with a wood float.

The true wood float finish can only be carried out satisfactorily by highly skilled plasterers. Unskilled workmen leave float marks on the surface which in time catch dirt and are unsightly. This defect is readily obviated if the surface is finished with a sponge or scraped with a straight-edge as the final operation.

"Cullamix" consists of a special aggregate and coloured Portland cement supplied as a mixture ready for use. It is available in a range of colours.

"Snowcrete" mixture is a similar product, with the exception that "Snowcrete" White Portland cement is used in place of coloured cement, and gives a pure white finish.

Specifying use when Ordering :

"Cullamix" and "Snowcrete" mixture are supplied in special gradings for different types of finish, and it is therefore important to state the particular use in view so that the correct mixture is delivered. There are special grades for the following types of rendering :—

Sand-faced Texture.
Roughcast.
Scraped finish.
Pointing.
Smooth finishes for lining swimming baths, renderings for ceilings, etc.
Stippled finish.

Information from : The Cement Marketing Co., Ltd.

Address : Portland House, Tothill Street, S.W.1

Telephone : Whitehall 2323

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·ESSEX· LAMINATED BUILDING BOARD : For internal or sheltered external work.

ENLARGED SECTION OF TYPICAL CONSTRUCTION

Five layers of closely packed wood fibre largely free from resinous elements, & treated throughout with a water-resisting preparation.

Four binding layers of fire-resisting mineral cement.

Boards are obtainable with a matt surface finish.

3/16" & 1/4" overall thickness.

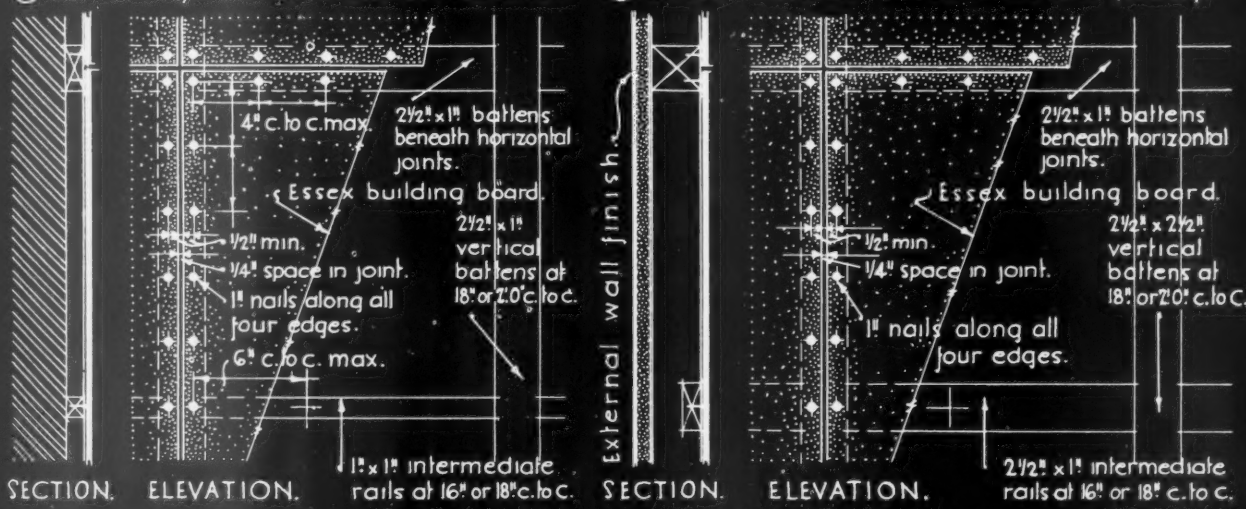
NOTE · for curved work, boards may be bent to a min. radius of 15'

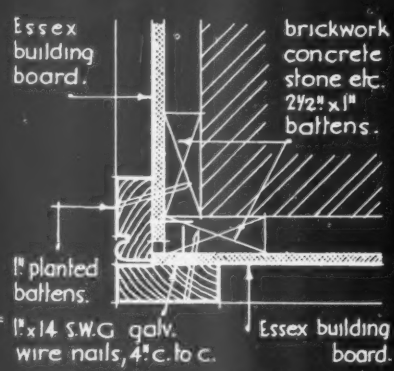
TABLE OF THICKNESSES, SIZES AND WEIGHTS.

3/16" THICK (10 boards per bundle).		1/4" THICK. (8 boards per bundle).	
3'0" & 4'0" widths by lengths of :	WEIGHT. per 100 sq. ft.	3'0" & 4'0" widths by lengths of :	WEIGHT. per 100 sq. ft.
6 feet.	56 lbs approx.	8 & 16 feet.	75 lbs. approx.
7 " .		The 4'0" width is also obtainable in 12'0" lengths.	
8 " .			
9 " .			
10 " .			
12 " .			
14 " .			
16 " .			

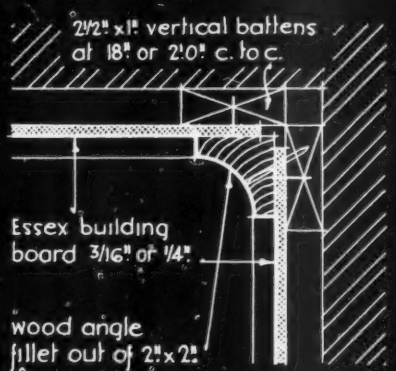
TYPICAL WALL FIXING & NAILING DETAILS. (A space of 1/4" should be left between adjacent edges)

Ⓐ CONCRETE, BRICK OR STONE STRUCTURES. Ⓑ WOOD FRAMED STRUCTURES. (NEW.).

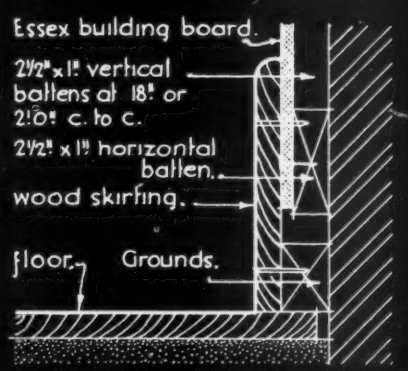




¼ F.S. TYPICAL PLAN OF AN EXTERNAL CORNER.



¼ F.S. TYPICAL PLAN OF AN INTERNAL CORNER.



¼ FULL SIZE TYPICAL SECTION AT SKIRTING LEVEL.

HORIZONTAL FIXING ONLY · The simplest & most economical method of lining walls with Essex board is by means of horizontal fixings only, as this eliminates all vertical cover strips. The walls of the room are divided by using dado & picture rails. As Essex board is supplied in lengths up to 16'0" rooms up to this length may be lined without vertical joints, cover strips being needed only at internal and external angles.

For details of typical applications of Essex board to ceilings and partitions see Information Sheet No. 2. of this series.

Information from Thames Board Mills Limited.

INFORMATION SHEET : LAMINATED WOOD-FIBRE BUILDING BOARD. No. 1.

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

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WALLBOARDS

Product : Essex Board

Essex board is a compressed and treated wood fibre board formed by binding together five layers (or plies) of wood fibre with a fire-resisting mineral cement. The board thus built up consists of five layers of wood fibre and four layers of mineral cement. Since the bond between the layers of wood fibre is stronger than between fibre and fibre, the board cannot de-laminate.

Strength :

The ultimate tensile strength of Essex board is 350–400 lbs. per square inch in the case of the $\frac{3}{16}$-in. thick board, and 450–500 lbs. per square inch in the case of the $\frac{1}{4}$-in. thick board. This strength is attained because of the high degree of compression to which the board is subjected during manufacture.

Bending :

The board has great rigidity, but it can be bent without steaming or other treatment to a radius of 15 ins. or more.

Thermal Conductivity :

National Physical Laboratory Tests

Partition	Weight (lbs./sq. ft.)	Thickness (inches)	Sound reduction in decibels for frequencies (cycles per second)			
			300	500	1,000	1,600
Mahogany board*	4·9	$1\frac{7}{8}$	26	27	36	39
Fibre board*	0·46	$\frac{1}{4}$	11	17	24	31
Essex board†	0·61	$\frac{3}{16}$	14	16	26	29

* See Phil. Mag. VII, p. 1050, 1929.
† See N.P.L. Report, Ref. S.13, July 2, 1928.

Sound Transmission :

National Physical Laboratory Tests

Material	B.Th.U's per sq. ft. per inch thickness per deg. Fahr. per hour	Per cent. insulating value relative to cork
Cork board* ...	0·29	100
"Essex" board**	0·53	55
Wood (pitch pine)*	1·05	28
Plaster†	3·1 to 4·5	9 to 6

* See Special Report No. 35 of the Food Investigation Board.
** See N.P.L. Report, Ref. H.438, March 23, 1925.
† See Technical Paper No. 6 of the Building Research board.

Resistance to Fire and Water :

Closely packed fibres, largely free from the resinous elements in wood, and four layers of fire-resisting cement, impart to the board a considerable degree of resistance to fire. The board is not claimed to be waterproof, but it is treated with a water-resisting preparation throughout its entire substance—not surface-treated only, and offers considerable resistance to penetration by liquids. Tested by total immersion in water for several days, it is found to dry out flat, and is, for all practical purposes, unaffected.

Atmospheric moisture will not have any deteriorating effect on the board under normal conditions. Painted boards in such position as arcades have satisfactorily withstood exposure to the atmosphere for years.

Uses :

Essex board is primarily intended for internal work, panelling, walls, ceilings, etc., but it can be used externally in protected situations such as arcades and loggias. In such situations the board should be painted with at least two coats of white lead oil paint.

Manufacturers : Thames Board Mills Limited
Address (Head Office) : Purfleet, Essex
Telephone : Rainham 123 (13 lines)