House at Knaphill, Woking, Surrey. Architect: F. J. Hodgson, L.R.I.B.A., A.I.Struct.E. Builder: H. Punter, Seale, Nr. Farnham.

A typical domestic job in 'PHORPRES' RUSTICS

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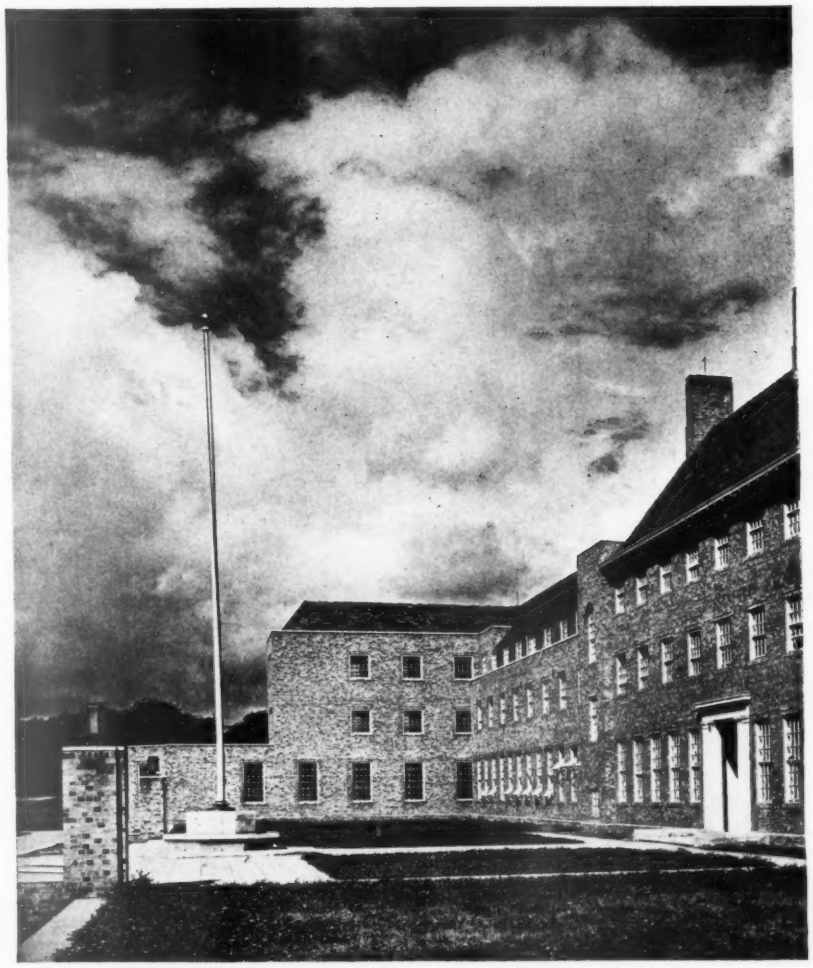
The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

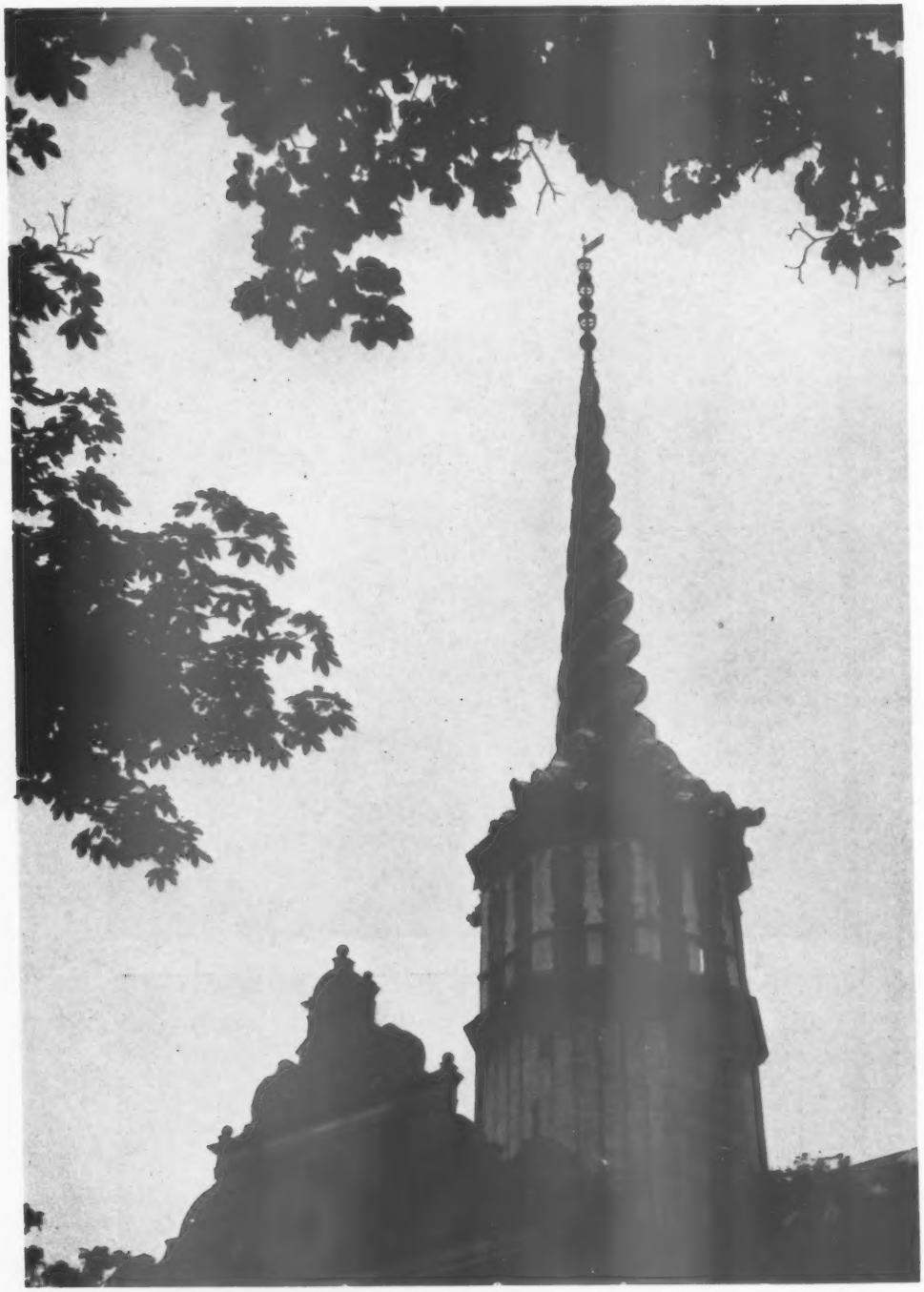
THURSDAY, AUGUST 10, 1939. NUMBER 2325 : VOLUME 90

PRINCIPAL CONTENTS

AWARDED R.I.B.A. MEDAL

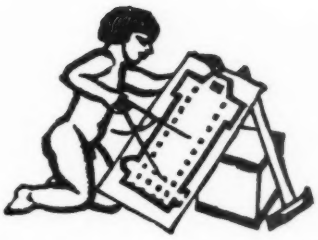


The R.I.B.A. Architecture Bronze Medal for a building of exceptional merit designed in the area of the Liverpool Architectural Society and completed during the five years ending December 31, 1938, has been awarded to Messrs. Barnish, Silcock and Thearle, for their Liverpool Orphanage, Woolton Road, Liverpool. The building was the result of a competition and was built at an estimated cost of £50,000. On this page are two views of the building: looking along the main entrance front to the administrative building; and a general view from the south.



COPENHAGEN

The twisted dragon spire of the Exchange at Copenhagen which was designed by King Christian IV (1588-1648).



THE PUBLIC

ARCHITECTS, as we now know from the R.I.B.A.'s most valuable statistical report, are responsible for very nearly half of the building work carried out each year. Yet a great deal more than half of it is not only unsightly but incompetent. Obviously we can no longer blame non-employment of architects for the disgracefully low general standard of design in nearly all types of building throughout the country.

What, then, is to be done? It is quite clear that this state of affairs is unnecessary. We know, for instance, that there are far more well-trained, competent and high-principled architects in the country than there have ever been. And yet, some of the most important tasks for architects remain untouched, and others have been so badly mishandled that they have only increased the general havoc.

Last week we emphasized the two biggest causes of the present havoc: the absence of planned lay-outs for the great mass of building and the misuse of roads in conjunction with housing developments. Good architects (who abound in their thousands if not in their fifteen thousand), by the nature of their training as planners and co-ordinators of technical knowledge, are better qualified than experts in any other profession to diagnose the environmental diseases of community life and to prescribe the cures. Yet out of every hundred who emerge well trained and ready from the schools each year, there is not likely to be one who, for the rest of his dignified career, will be used to full capacity by and for the community.

The balance is wrong somewhere. What has been done? What *can* be done?

The Registration Act will, by degrees, raise the general standard of design in work carried out by those who call themselves architects. The Public Relations Committee of the R.I.B.A., realizing the need for persuasion, have organized some excellent exhibitions in an effort to coax the public to appreciate better standards. There are architects who have made valuable contributions by raising the standards of individual buildings in plan, construction and finish.

This is something, but it is not nearly enough. No good design of a single building can lessen road accidents, can relieve traffic congestion, can bring about fundamental reforms in housing technique. No single architect can alter these things.

But an organized co-operative effort can. A considerable part of the energies of the R.I.B.A. *and its allied societies* should be directed to *persuasion* (of general public and local authorities) concerning those wider community problems with which architecture, in its most humane and civilizing sense, should be directly concerned.

Otherwise a great opportunity will be lost. Architecture will degenerate into a sordid, menial task of fitting the wrong kinds of buildings on to the wrong kinds of sites.

Comprehensive planning—in every type of development, everywhere. It is vital for the R.I.B.A. to press for this—not merely to press for it as an abstract idea, but to show that in the few instances where it has been tried the results are successful. It can do this by way of the newspapers, by radio, and—not least—by the medium of films. A really good propaganda film for the art of architecture and town planning has yet to be produced.

The campaign would not be concerned entirely with the wider issues of housing and town planning, though these are obviously of first importance. The appreciation of individual buildings would be covered, and the appreciation also of the nature of an architect's job, which is a complete mystery at present to the average man. It is very important to kill off the academic, learned-art bogy, and where possible the very word *architecture*, with its scholarly connotation, should be avoided. Very few people can pronounce it, anyway. Finally, when we have re-earned the title, we might permit ourselves to be called master-builders again.

The campaigners must not forget the schools. Here is the chance to sow the seeds of elementary enlightenment. The present holiday lectures are admirable, but very limited in their scope. There are secondary schools in England which already devote as many as three periods a week to the teaching of architecture. And we know what that means. The teaching (one period would do) could be vetted by means of pamphlets, radio and television talks, and special films. A list of voluntary lectures for secondary schools could be drawn up. (There would be plenty of volunteers.)

It is far from difficult to interest the public in the cause of architecture. A matter of education, that's all. Architecture is on their side and they only need to be made aware of it. The public, for instance, are now realizing the confusion of our road system, and are objecting strongly. If they are made to see, constantly, that architects are putting forward logical solutions to fundamental problems of this kind, they will come to think of the profession as useful planners and not as expensive decorators.

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NOTES & TOPICS

CAMP BUILDING

AN announcement from the National Camps Corporation says that, after looking at 165 sites, 30 have been chosen for camps; each camp is to hold 350 children; 14 are under construction and 10 more contracts are still to be let. Mr. Tait is chief architect and units are to be very largely prefabricated and delivered on the site in standard sections. Western Red Cedar and shingle roofs; so quite a few members of the building industry are going to be disappointed, but what a marvellous opportunity this is going to be for real research into the whole question of prefabrication. And for finding out how different materials behave in different parts of the country.

SERVICE ROADS

Housing estates and factories, if the Ministry of Transport's amending Bill goes through next session, will be allowed no more direct outlets into the 72,000 miles of Class I road now covered by the Ribbon Development Act. More important still, the service roads will only join the main traffic artery where there are lights or police control; and this may get over one of the greatest difficulties of cycle paths. At the moment, cars and lorries, waiting for a traffic lull so that they can swing into the main road, are straddled right across the cycle paths, and then we wonder why all the cyclists (including even the police) more often prefer to risk death in the middle of the fast stuff.

*

But of course there still remains the fundamental problem of keeping the main arteries and the capillaries *quite* separate.

AIR FORCE THINKS IN COUNTIES

The *Bath Chronicle* is getting worried about a new aerodrome which is to be started soon near Calne in the Chippenham district. Worried? Why? Because according to report, there is to be sixteen square miles of it. The large commercial aerodrome may have a landing area about a mile square, but, unless the R.A.F. is having four aerodromes in one, I cannot see quite how, even allowing for living quarters for all the personnel and machines, they are going to take up all this space. Good pasture land too, the report says; but then it always is, even though the Ministry *did* change its mind about White Waltham.

LOOK HERE I MEAN TO SAY

The sinister photograph reproduced below is not the latest composition by Man Ray. It is an illustration from a pamphlet entitled "The Regular Inspection of Churches," and depicts a hand which has been pushed through the middle of an oak beam in a Norfolk church roof.

*

The pamphlet is one of an excellent little series published by the Incorporated Church Building Society, and gives practical and valuable advice on the repair and maintenance of ancient churches. It emphasizes the need for regular inspection of the structure by qualified architects, and the importance of dealing with small repairs when they are due (and cheap to carry out) instead of postponing

them until cripplingly large sums are needed to save the building from ruin. Various methods of providing money for these repairs are suggested, but photographs form the bulk of the booklet. A picture, it is said, is worth a thousand words, and these illustrations, dramatically recording the deplorable results of the neglect of minor repairs, should be seen and heeded by every parochial council in the country.

CANADA PLANS . . . ?

John Bland, Canadian architect, who planned, with Spence-Sales, the *Star's* South Bank Development scheme a year or so ago, has been appointed lecturer in Town Planning and Architectural Design at Canada's McGill University, Montreal.

*

This is the second of the three Canadian Architectural Schools to introduce housing and town-planning as an

integral part of their curriculum. (There is no separate town-planning school anywhere in Canada.) Toronto University's School did the same thing three years ago, and it is perhaps vaguely significant that the art of town-planning is now to be taught in the only two Canadian cities which are badly overgrown and out of hand.

*

With the exception of these two cities, Canada is in the fortunate position of being able to avoid the havoc which has come upon this country between the industrial revolution and the present day. When expansion starts again, will she have the sense to profit by our mistakes, and *plan* her industrial and spiritual development? A Canadian architect I talked to recently seemed to think it very, very unlikely. Planning, he pointed out, could only be tolerated as an emergency measure, as in the U.S. New Deal. But Canada, in the blackest moment of depression, wouldn't even tolerate a New Deal.

*

Obviously a big propaganda job here for the Royal Architectural Institute of Canada—or for a companion to MARS which I hear is on the horizon in Montreal.

SAARINEN AND SON

Washington, city of vistas, podiums and pediments, is to have its first modern building: a Museum of Modern Art, designed to house, amongst other things, gems of the now historic Federal Art Project. I haven't seen drawings of it yet, but as it was won in open competition, with Gropius as one of the assessors, by Eliel Saarinen and his son Eero, it ought to look kind of new world on its site bang opposite the resurrected Pantheon of John Russell Pope.

4,000,000 HOUSES

When the Armistice was signed in 1918, there were 8,000,000 houses in England and Wales. Since the Armistice, half as many again have been built; the four-millionth house was recently completed.

*

It is, of course, a marvellous achievement. It would be a great deal more marvellous if it had been carried out with a real sense of community planning, if the houses had been grouped as social units, forming a natural part of the agricultural and industrial pattern, instead of encroaching on it and choking it. Unfortunately, there are only a few isolated instances of such common-sense planning. Yet I suppose we should be proud.

*

Some of the figures quoted by *The Times* are interesting. More than 1,500,000 of the 4,000,000 new houses have been built with the aid of Government subsidies under the Housing Acts—a million by local authorities, half a million by private enterprise. In 1933, the aim was the clearance and displacement of 450,000 slum houses. More than half this number have already been demolished. In the official view abatement of overcrowding must now be regarded as of equal importance with the attacks on the slums, and the Government subsidy is at present the same for both evils. A survey shows that 344,486, or 3.8 per cent., of working-class houses are overcrowded. The number of houses built to abate overcrowding is rapidly increasing: in 1936 there were 1,249; in 1937, 6,547; in 1938, 20,103.

Advance publicity for Bristol's Great Exhibition; Castle Bromwich will have to do a little tidying.

ASTRAGAL'S FILM CORNER

A note from Mr. Paul Rotha includes the welcome news that Lewis Mumford has done the commentary for a documentary film called "The City," produced by Ralph Steiner and Willard van Dyke. All these names are familiar enough to anyone who knows his American papers, and Mumford has a reputation even among the less civilized Europeans. If "The City" is anything like as good as "The River," it ought to be worth seeing.

*

In contrast to Mr. Rotha's note comes an interesting description from Korda Film Productions at Denham. Mr. Ralph Richardson has had a car accident in France after which "with the grave dignity which distinguished his performance in 'Q Planes' he retrieved his umbrella from the wreckage."

TAIL-PIECE

Last week, viewing the new L.C.C. flats at Kennington where workmen are busy digging A.R.P. shelters in the forecourts, there were two old ladies discussing the work in progress, thus: "Isn't it *wonderful* that the Council should take such trouble to give the tenants flower beds?"

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

CAMPS

We are informed by the National Camps Corporation that since March 25 last 165 sites have been personally examined, from Sussex to Northumberland, and 30 of these have been chosen as suitable. At present 14 camps are under construction and during this month contracts will be let for 10 more and others will follow week by week. The time generally allowed for the construction of a camp, from the date of letting the contract, is 12 weeks. The first camp is due to be completed by the end of this month.

The tenders which are continually being received for erecting the camps unfortunately show a rising tendency, and the Corporation has been informed by the contractors in several cases that this is due to the fact that the militia camps, although many miles distant, are drawing off much of the available labour.

The average cost of a camp, including the site and equipment, is in the neighbourhood of £25,000, and in some areas, where building labour is scarce, this figure will be exceeded.

L.C.C. AND PLACES OF PUBLIC ENTERTAINMENT

Below we print a question which was asked at the last meeting of the L.C.C. of the Chairman of the Entertainments Committee (Mr. A. Reginald Stamp) relating to the desirability of consultations with the Council's technical officers being arranged at an early stage in connection with all proposals for the erection of premises to be used for public entertainment, together with the reply given to the question :—

Question by Lieut.-Colonel Ball

1. Is it a fact that in a recent case before the Entertainments Committee of a proposal for the erection of a new cinema the applicant went to considerable trouble and expense in the preparation of plans without preliminary consultation with the Council's technical officers as to whether the proposals were likely to meet with the Committee's approval ?

2. Is it a fact that such proposals were turned down by the Committee in view of the extreme unsuitability of the site under the Council's regulations, and that the expenditure incurred was consequently abortive ?

3. With the object of obviating such abortive expenditure by prospective licensees in future, is it possible to give publicity to the desirability of consultation with the Council's technical officers when proposals in respect of premises for which the Council's licence may be desired are in an early stage ?

THE ARCHITECTS' DIARY

Tuesday, August 15
LONDON SOCIETY. *Visit to Hyganic House Refuse Disposal Depot, Shepherd's Bush, W.12. 2.30 p.m.*

Saturday, August 19
ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS. *Visit to Russia. Until September 10.*

Friday, September 1
TOWN AND COUNTRY PLANNING SUMMER SCHOOL. *At Bede College, Durham. Until September 8.*

Saturday, September 2
ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS. *Visit to France. Until September 17.*

Thursday, September 21
INSTITUTE OF HOUSING. *Annual Conference, Brighton. Until September 23.*
NATIONAL SMOKE ABATEMENT SOCIETY. *Eleventh Annual Conference, Blackpool. Until September 23.*

Friday, September 29
FACULTY OF ARCHITECTS AND SURVEYORS. *Annual Conference, Brighton. Until October 2.*

Wednesday, October 18
BUILDING TRADES EXHIBITION, *Birmingham. Until October 28.*

Thursday, October 19
COUNCIL FOR THE PRESERVATION OF RURAL ENGLAND. *Twelfth National Conference, Tunbridge Wells.*

Reply by Mr. W. R. Owen, J.P., Vice-Chairman of the Entertainments Committee.

In the absence of the Chairman, I have been asked to reply.

(1) Yes.

(2) Yes.

(3) I am glad to have this opportunity of giving publicity to the fact that the Council's technical officers are always prepared to discuss, at the earliest possible stage, with prospective licensees or their architects questions of compliance with the Council's regulations in connection with proposals for the erection of new cinemas and other places of public entertainment.

In the majority of cases this procedure is followed, but I will endeavour to arrange for the attention of architects, through the appropriate press channels, and the professional associations concerned, to be drawn to the desirability of these preliminary consultations being held in every case.

POURED CONCRETE HOUSES FOR SCOTLAND

The Scottish Special Housing Association intends to encourage as far as possible the use of the poured concrete method of house construction. In the course of a statement issued after the annual general meeting for the year ending March 31, the Association states that this method presents the most valuable contribution it can make to the solution of Scotland's housing problem. By this system (the statement continues) a large proportion of unskilled labour can be employed, and an additional factor in its favour is that the materials used are of native manufacture.

While this is its general view, the Association has encouraged the erection of timber houses of various designs by both the solid wall and framed wall methods. The Association is satisfied that timber houses, without any attempt to hide the fact that they are of timber (e.g., by clothing the timber framing in an outer sheath of roughcast slabs) are perfectly satisfactory from the tenant's point of view, and can be very attractive in design. It has not, therefore, seen the necessity of adopting various suggestions made to clothe timber construction in a dress designed to give the appearance of brick houses. Such combinations of different materials, the Association is advised, are rarely satisfactory owing to the varying degrees of expansion and contraction to which they are subject.

The Association proposes to standardize its type plans as much as possible, bearing in mind that standardization of plans, from the point of view of amenity, can be carried too far.

ANOTHER SCOTTISH HOUSING INCREASE

In the twelve months which ended on June 30, Scottish local authorities completed 20,357 houses, an increase of 3,894 compared with the twelve months which ended on June 30 of last year. The announcement by the Department of Health for Scotland indicates also that an increase was shown in the number of houses contracted for by these authorities, the figure of 18,759 houses being 3,000 more than in 1938. On June 30 last 26,957 local authority houses were under construction.

In the same period 6,689 working-class houses were completed as compared with 7,147 in 1938.

SOANE MEDALLION COMPETITION

In the United Kingdom 65 competitors took part in the Soane Medallion *en loge* Competition. The following competitors have been selected to proceed with the final drawings for the competition :—

Allan, C. F. (School of Architecture, King's College, Newcastle-upon-Tyne) ; Ash, R. J. (Birmingham School of Architecture) ; Atherton, E. S. W. (The School of Architecture, The Polytechnic, Regent Street, London) ; Broughton, E. G. (School of Architecture, The Polytechnic, Regent Street, London, and The Royal College of Art) ; Buckley, A. S. (School of Architecture, University of Manchester) ; Dixon, A. (School of Architecture, University of Manchester) ; Dobson, F. C. (School of Architecture, King's College, Newcastle-upon-Tyne) ; Davidson, J. W. (Department of Architecture, University of Sheffield) ; Hill, F. A. R. (Birmingham School of Architecture) ; Hollely, A. E. (Department of Architecture, University of Sheffield) ; Howrie, R. J. (Department of Architecture, University of Sheffield) ; Logan, W., Junior (School of Architecture, Edinburgh College of Art) ; Ostick, C. D. (School of Architecture, University of Manchester) ; Thomas, A. A. (School of Architecture, The Polytechnic, Regent Street, London) ; Thomson, R. B. (Department of Architecture, University of Sheffield) ; Thornley, D. G. (School of Architecture, University of Manchester) ; Turner, Miss D. M. E. (Liverpool School of Architecture) ; Whitby, G. F. (School of Architecture, The Polytechnic, Regent Street, London) ; White, F. (Leeds School of Architecture) ; Wilkinson, J. T. (Department of Architecture, University of Sheffield) ; Wragg, R. B. (Department of Architecture, University of Sheffield).

IN PARLIAMENT

Mr. J. Hall asked the Minister of Health if he was aware of the widespread dissatisfaction existing among tenants of decontrolled working-class houses and the consequent action to obtain reduction of rents by the formation of tenants' defence leagues ; and whether he was prepared to hold an inquiry into the question of excessive rentals.

Mr. Elliot said he was aware that in one or two areas dissatisfaction had been expressed with the rents of decontrolled houses, but not that such dissatisfaction was widespread. The answer to the last part of the question was in the negative.

Mr. Chapman asked the Secretary of State for Scotland whether he was aware that over 330,000 working-class houses for letting purposes had been built by private enterprise in England and Wales since January 1, 1934, whereas the comparable figure for Scotland was approximately 8,500 ; that on a population basis these figures showed a grave disparity ; and whether, in view of these facts, he would set up immediately a departmental or other committee of

inquiry to investigate the causes that had prevented private enterprise in Scotland building more working-class houses for letting purposes.

Mr. Colville said he was aware of the disparity between the numbers of houses built by private enterprise in England and Scotland respectively, but he was not satisfied that in present circumstances he would be justified in setting up a committee of inquiry such as his hon. friend suggested.

Mr. Duncan asked the Lord Privy Seal how many Anderson shelters had been distributed in London; how many remained to be distributed; for how many persons protection would be provided by this means; and in how many cases had persons refused to receive the shelters offered them.

Sir J. Anderson said that the number of standard unit shelters distributed up to date in the Metropolitan Police District was 394,840. The number remaining to be distributed, according to the estimates furnished by the local authorities, was 541,485. This total number of shelters was capable of affording protection for over 5½ million persons. He had no precise information as to the number of eligible householders who had refused shelters offered to them.

Mr. Duncan asked what was the estimated number of persons in London entitled to free shelter from air-raids in or near their homes.

Sir J. Anderson said he was not in a position to give any close estimate of the numbers of persons in London who came within the Government's scheme for the free provision of domestic shelter. According to estimates made by the local authorities concerned, there were approximately 936,325 householders in the Metropolitan Police District who fell within the categories to which the steel shelters were being distributed and occupy houses in which this type of shelter could suitably be installed. This number of householders might be taken as representing a total of about 4 million persons; but there would remain, in addition, those for whom shelter could more suitably be provided by other means, such as the standard type of surface shelter or the strutted basement. The precise extent of this part of the problem was being ascertained by means of a survey which was now being carried out as rapidly as possible throughout the Metropolitan Boroughs.

Mr. Duncan asked whether the survey of basement and other accommodation for the purpose of protection from air raids by strutting or similar means had been completed in London; for how many persons protection by these means would be provided; and when the work of strutting would be commenced.

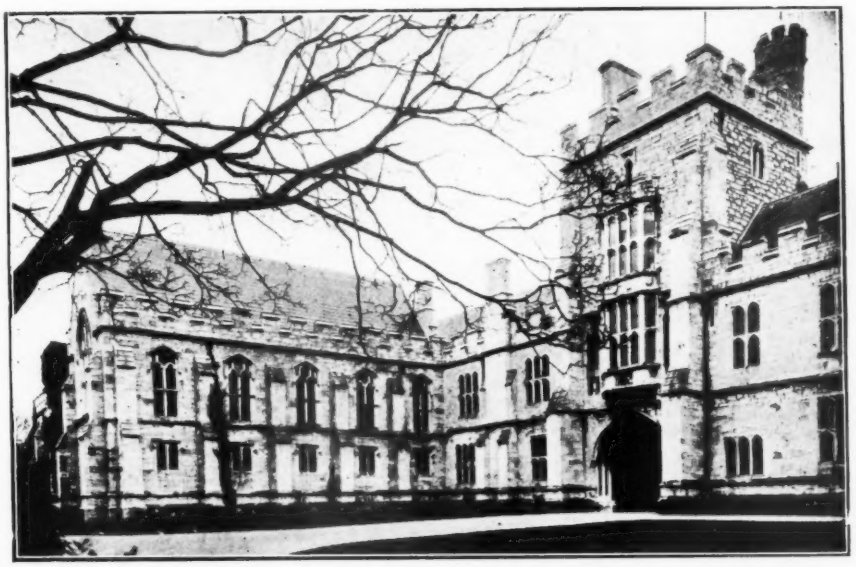
Sir J. Anderson said that the survey had been completed in some of the London Boroughs, but not in all. He was not, therefore, in a position to say how many persons in London would be provided with shelter by the strutting of basements or by other similar means. The work of strutting basements had already commenced in one Borough.

NEWS IN BRIEF

● Mr. W. H. Smith, architect and surveyor, of Sheffield, left £6,819 9s. (net personalty, £3,773 13s.).

● The Earl of Antrim, when he opened the Ulster Academy of Arts Exhibition at Portrush last week, said: Propaganda directed at the improvement of architecture would prove very profitable and would hold the hands of people who were fast destroying the beauty of the Province by unsightly buildings. The ancient architecture of Britain had colour and symmetry and might profitably be followed in these more advanced days.

● The partnership between Wilfred Randolph Brown and John Edward Sanders, carrying on practice as Registered Architects and Surveyors at 31 Dale Street, Liverpool, has been dissolved by mutual consent. Mr. W. R. Brown is now practising at 31 Dale Street and Mr. J. E. Sanders is now practising from 41 and 43 Castle Street, Liverpool.



The Queen's (now University) College, Cork, referred to in the letter printed below.

LETTERS

The Dublin Issue

SIR,—I am afraid I am usually behindhand in the reading of your JOURNAL; otherwise I should have written sooner to correct a mistake in Mr. Betjeman's article on Dublin which appeared in the issue for June 22.

In it he makes the curious statement that the first Sir Thomas Deane was a Venetian Gothicist. In his later days, when in partnership with Woodward, the firm did do work in this manner, as the Oxford Museum and the Kildare Street Club testify. But Sir Thomas began his practice in his native city of Cork in the very early years of the nineteenth century, and until, I think, the early 'fifties he remained there doing a large amount of substantial and straightforward classical work. Until 1847 he was partnered by his brother, Kearns Deane, who, according to my grandfather who knew them, was the better designer of the two. During this period in Cork their only building that I can think of at the moment which was not classic was the Queen's (now University) College, and that was in the Collegiate Gothic manner.

HENRY H. HILL

Cork

New York World Fair

SIR,—If it is not too late, I should like to rush to the aid of Mr. John Gloag. I have been unable to do so before as I have been in New York looking at the World Fair.

After about ten visits I agree entirely —bigger and better.˝ Bigger is obvious to anyone, better seems unlikely on the evidence of photographs only. But better it is—better *as an Exhibition*, which I understand is what it is meant to be. Architecturally, I have no doubt that Zürich is better (though I have not yet seen it), and I am sure that Stockholm was and Glasgow was and Paris 1937 was. But the merits of New York are quite different. Paris will be remembered for the foreign pavilions. Nobody looked at the French commercial exhibits. In New York they are not outstanding. But then, since 1937, much has happened. Austria is no more. Spain is only a name in the catalogue. Czechoslovakia is a memorial. (But what a memorial! Mr. Gloag should have mentioned that, but, perhaps, like me, he felt too uncomfortable and ashamed to stay there very long.) Russia is as bad as ever, but since it has succeeded in impressing all the biggest business men, it presumably does its job and it does contain the best funny sentence in the whole Fair—a quotation from Lenin incised in gold on a marble wall: "Communism is the Socialist State plus the electrification of the whole countryside."

What makes New York is the superlative showmanship of the big corporations, which means the work of the industrial designers (Loewy, Bel Geddes, Teague and Dreyfus) and not that of the architects (Lescaze only excepted).

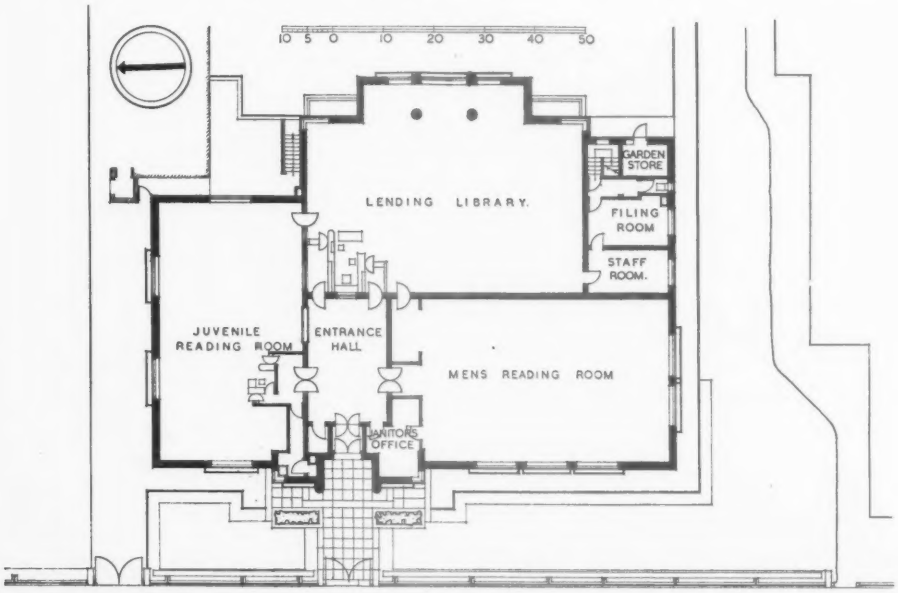
The result is that in spite of its size the Fair is never tiring. Its vulgarity is healthy and it is alive. The uniform good taste of Glasgow was very satisfying, but personally after an hour I was bored stiff by it. It was an Exhibition of restraint in architecture, but the display was lamentable.

At the World Fair there is hardly a dull moment inside the commercial buildings. Such brilliant display has never been seen. Surely that is the function of an exhibition, and I am glad that Mr. Gloag has recognized it.

London J. DUNCAN MILLER

PUBLIC LIBRARY, SEAFORTH

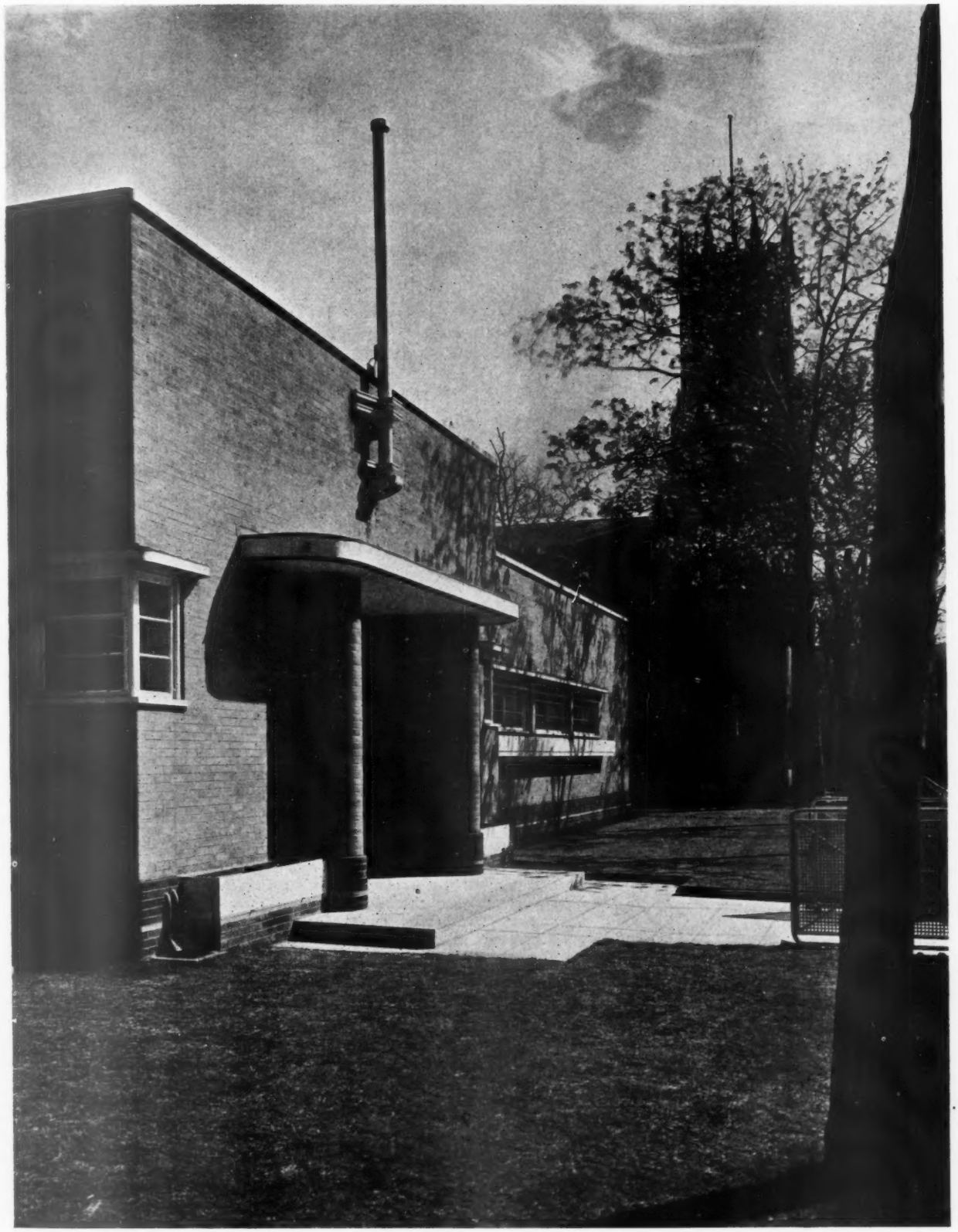
BY J. R. FOTHERGILL, BOROUGH ENGINEER: G. R. MASON, ARCHITECTURAL ASSISTANT



GENERAL — *Public library, in Crescent Road, Seaforth, for the dock areas in the southern portion of the borough of Crosby. The siting and planning of the building was affected by the Bowl House, which had to be retained.*

PLAN—*The plan isolates the various departments and eliminates noise. It also enabled solid walls to be introduced, at the same time maintaining adequate supervision; and provides easy access to the public departments and privacy for the staff rooms. Owing to the proximity of adjacent buildings and trees it was necessary to amplify the side lighting by extensive top-lighting.*

BELOW: THE MAIN FRONT



THE MAIN ENTRANCE

CONSTRUCTION—*External walls, 14 in. thick, composed of 4½ in. outer thickness of 2¼ in. golden brown semi-rustic facing bricks; four courses to 10½ in. with a header course every fifth course; and a 9-in. common brick backing. The plinth is in dark blue semi-rustic bricks. Internal walls are 14⅜ in., 9 in. and 4½ in. thick. The roof is reinforced concrete, 8 in. thick, carried on R.C. beams, and covered with two layers of ½-in. cork insulation, three layers of felt, bedded in mastic cement, and ¾-in. tar macadam, blended with ½-in. cube white chippings. Floors are 6-in. concrete laid on 9-in. hardcore with ¾-in. cement screed to receive the cork tile and wood block floors. Windows are galvanized steel, surrounds painted cream.*

PUBLIC LIBRARY, SEAFORTH • BY J. R. FOTHERGILL: G. R. MASON, ASSISTANT

MEN'S READING ROOM

TOP : LENDING LIBRARY ; BOTTOM : JUVENILE READING-ROOM

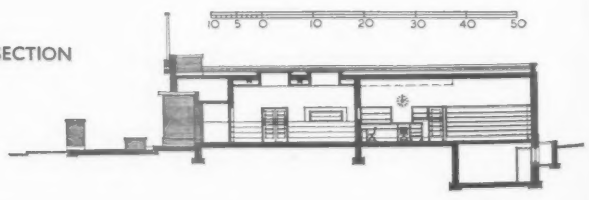
INTERNAL FINISH—*Entrance hall : lighted by two circular dome lights, consisting of small glass lenses, set in concrete, around each dome being a trough housing electric lamps to flood-light the hall ; glass directional signs, illuminated from above, indicate different rooms ; floor, cork pattern ; dado, black vitrolite glass ashlars with tango jointing and wood capping, painted tango. Floors of main rooms, polished compressed cork tiles ; other floors, wood blocks. Walls are finished in lime plaster, three coats ; ceiling special plaster owing to warming panels ; internal joinery and fittings, Austrian oak, limed and polished. Borrowed lights are fitted with polished plate glass ; wood screens, doubled reeded glass.*

SERVICES—*Heating is by invisible ceiling panels, the roof being insulated with two layers of cork to prevent loss of heat.*

Contract price, £10,299. Price per ft. cube, 1s. 4d., including furniture and fittings.

The general contractors were Messrs. James Tomkinson & Co., Ltd. For sub-contractors, see page 219.

SECTION



PUBLIC LIBRARY, SEAFORTH • BY J. R. FOTHERGILL : G. R. MASON, ASSISTANT

LAW REPORTS

LEASEHOLD PROPERTY (REPAIRS) ACT, 1938, HELD NOT TO BE RETROSPECTIVE

National Real Estate and Finance Co. v. *Hassan. Court of Appeal. Before Lords Justices Scott, Mackinnon and Goddard.*

THIS appeal raised an interesting and important point under the Leasehold Property (Repairs) Act, 1938, as to whether, under the circumstances of the case, a leaseholder was entitled, by an amended defence to an action for breach of covenant and forfeiture, to plead that she was entitled to the benefits of the Act, which the learned judge who tried the action held was retrospective.

It appeared that the National Real Estate and Finance Co. were the owners of the reversion of certain property in Falkner Street, Liverpool, of which the defendant, Mrs. J. Hassan, held a lease. The plaintiffs issued and served a notice on her for breach of covenant to repair in January, 1937, and plaintiffs alleged that that notice not having been complied with, they issued a writ against defendant claiming forfeiture under the lease. In due course the defendant put in her defence and set up that she was entitled to the usual relief.

In June, 1938, the Leasehold Property (Repairs) Act became law. The defendant's legal advisers then claimed that their client was entitled to the benefits of the Act and sought leave to amend her defence. This leave they duly obtained and defendant then claimed that she was entitled to plead the Act as a defence to plaintiffs' action.

The action came before Mr. Justice Croom-Johnson at the Assizes at Liverpool on the preliminary point whether she was entitled to plead the Act under the circumstances of the case.

After long legal arguments Mr. Justice Croom-Johnson came to the conclusion that the Act was retrospective and gave judgment in favour of the defendant. It was from this decision that the plaintiffs now appealed.

Mr. Ralph Etherton, on behalf of the appellants, argued that the judge was wrong in law in coming to the decision he had. In counsel's submission the Act of 1938 clearly laid down that where a notice of breach of covenant was served on a lessee under the Act of 1925, the lessee might within 28 days serve a counter-notice that he or she claimed the protection of the later Act. There was another point. The Act of 1938 provided that where such a counter-notice was served a forfeiture action could only be commenced with the leave of the County Court judge. For these and other reasons counsel contended that the respondent could not call in aid the Act of 1938, because several of its provisions as to notices, etc., were obviously impossible of being carried out, seeing that the action was commenced prior to the Act becoming law. Under these circumstances it could not be argued that the Act was intended to be retrospective to actions started prior to its coming into operation. For these reasons he submitted that the appeal should be allowed.

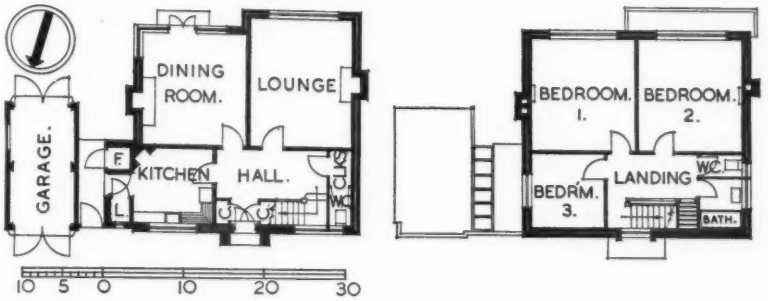
Mr. G. J. Lynskey, K.C., on behalf of the respondent, supported the learned judge's finding. He contended that the Act in such cases as the present one was clearly retrospective and that the notice, which was the foundation of the appellant's action, was invalidated by it.

The Court allowed the appeal and ordered the amended defence of the defendant claiming protection of the Act of 1938, to be struck out.

Lord Justice Scott, in the course of his judgment, said he had no doubt that the appeal must succeed, and on the broad ground that there was nothing in the Act of 1938 that aimed at altering the rights which became vested in the parties prior to that Act coming into operation, by reason of the parties acting and being entitled to act upon the law as it then existed. It had been argued for the respondent that the 1938 Act was a mere procedural Act. He could not accept that view, seeing that *prima facie* it affected vested rights. These rights were not a question of procedure at all. To his mind the Act was explicit and there was nothing in it which gave the respondent the right to avail herself of its provisions to invalidate any rights which

HOUSE, BIRMINGHAM

DESIGNED BY PHILIP B. HERBERT



GROUND AND FIRST FLOOR PLANS

GENERAL—*The clients required a small house, to accommodate three people, and to consist of three bedrooms, a lounge, dining-room, and kitchen.*

SITE—*A corner site facing north. The principal rooms have a southern prospect, and the garage is placed adjacent to the side road.*

CONSTRUCTION AND EXTERNAL FINISH—*External walls 11-in. cavity brickwork; internal partitions 4½-in. brick. The pitched roof, covered with interlocking tiles laid on felt, has a small lead-covered flat on top. Windows are steel in wood surrounds.*

INTERNAL FINISH—*Walls are plastered and finished with water paint. Floors generally are narrow width Columbian pine strips; the kitchen floor is in buff quarries. The bathroom is tiled to a height of 5 ft. 6 in. and enamelled above. The flush doors are enamelled, and have chromium-plated furniture.*

SERVICES—*Hot water is from a back boiler in the kitchen grate, and an immersion heater in copper cylinder. Cooking is by electricity. The lounge and dining-room have coal fires, the bedrooms electric.*

COST—*£850. Price per cub. foot, 1s., including garage.*

The general contractor was Mr. J. E. Strong.

the appellants had acquired prior to its becoming law. The appeal must therefore be allowed and respondent's amended defence struck out.

Lords Justices Mackinnon and Goddard concurred.

An application for leave to appeal to the House of Lords by Mr. Lynskey was refused.

DISPUTE AS TO A BOUNDARY

Gatti v. *Shoosmith.—Chancery Division. Before Mr. Justice Bennett.*

THIS was a dispute between neighbours in regard to a wall, the footings of which, plaintiff asserted, had been built on her land by her neighbour. Miss Ida G. Gatti resides at Brown Sea Cottage, Sandbanks, Dorset, and her complaint was that her neighbour, Mr. Harry H. Shoosmith, a retired solicitor, had erected a wall on her property and she now asked the court for an order for its demolition and she also sought damages for trespass.

Mr. F. E. Pritchard, K.C., her counsel, alleged that during his client's absence from home in June, 1937, the defendant caused to be erected the wall in question, which was 25 ft. high and 28 ft. long. The plaintiff's case was that part of the foundations were under one of her paths, with the result that a passage had been narrowed. She also complained that posts in her garden had been removed.

Mr. C. Harman, K.C., for the defendant, said this case was of great importance to his client as plaintiff had blocked defendant's view of Brown Sea Island by carrying out extensions to her house in 1936 despite his protests. Defendant then came to the conclusion that he must protect his rights and he had plans drawn up for the wall in question, with a balcony at the end, to give him his view of Brown Sea Island. Defendant and his contractors had been most careful in seeing that the wall was erected on his own property and defendant denied that there had been any secret about his intention to erect the wall or as to when the work should be done.

After hearing the evidence, his lordship, in giving judgment, said in order to arrive at a decision he had to consider the physical nature of the fence which existed at the time the defendant's builders began the erection of the wall. It was for the plaintiff to prove her case and that was no easy matter when the question was one of inches in a district far into the country. He had listened carefully to the evidence of the builder employed by the defendant, and his workmen, which showed that they erected the wall as near as possible to the plaintiff's fence and that it was not moved. His lordship accepted that evidence and came to the conclusion that plaintiff had failed to prove her case. He dismissed the action with costs.

Ministry of Health

Notes on some loans sanctioned by the Minister during the week ended July 29, 1939 :

Cannock U.D.C.—£21,560 for the conversion of the Central Council School into a school for senior boys.

Chingford B.C.—£20,000 for the purposes of advances under the Small Dwellings Acquisition Acts, 1899–1923.

Darlington C.B.C.—£100,000 for the purposes of advances under the Small Dwellings Acquisition Acts, 1899–1923.

Neath B.C.—£34,650 for the erection of 98 houses and four flats on the Westernmoor site.

Slough B.C.—£101,750 for the erection of 268 houses and the provision of 40 street lamps.

AUSTIN REED'S SH

DESIGNED BY P.

GENERAL VIEW

GENERAL—*Men's shop in an existing building at the corner of Gervis Place and Westover Road, Bournemouth. The basement, ground and first floors only are at present used, leaving the second and third floors vacant for future extensions.*

PLAN—*The ground floor is fitted for selling shirts, pyjamas and ties, and the first floor for the sale of heavier articles of clothing, part being used for dress clothes and bespoke tailoring, and the remainder for sports jackets, coats and trousers.*

CONSTRUCTION AND EXTERNAL FINISH—*The existing building has only been altered where necessary, new shop fittings, partitions and decorative treatment being provided internally. Externally—dutch blinds and a white neon name sign were added, and the main entrance doors were moved from the corner to the side fronting Westover Road.*

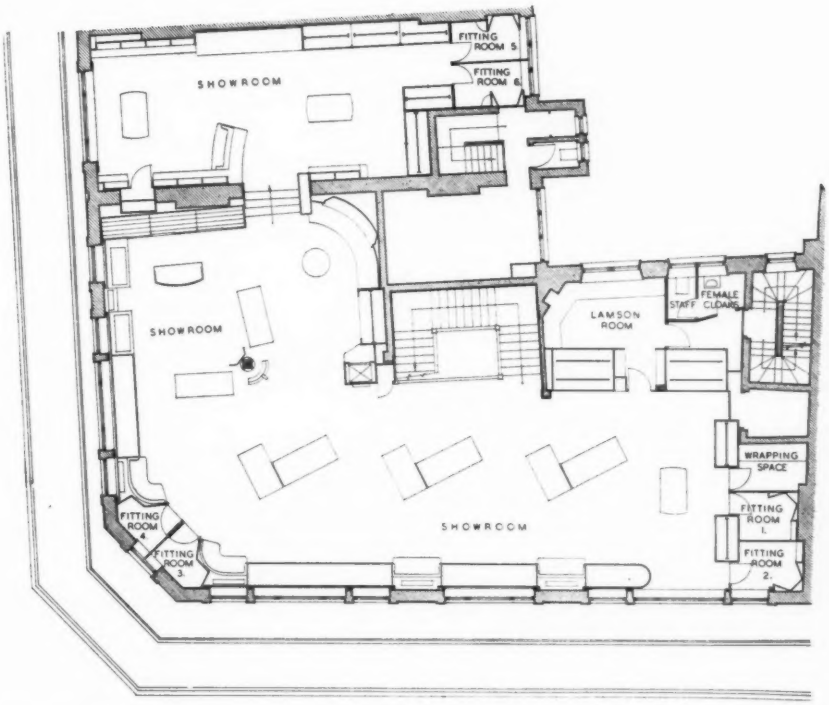
ENTRANCE AND SHOP FRONT

SHOP, WESTOVER ROAD, BOURNEMOUTH

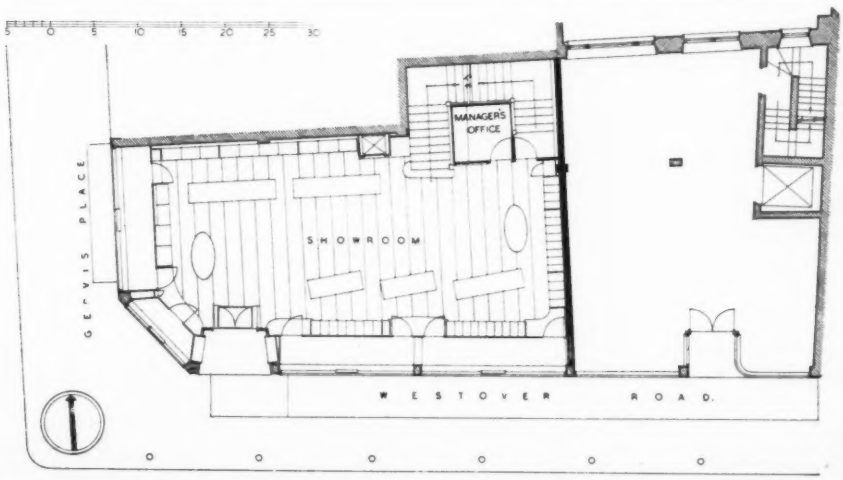
J. P. WESTWOOD AND SONS

SHOWROOM ON FIRST FLOOR

SHOWROOM ON GROUND FLOOR



FIRST FLOOR PLAN



GROUND FLOOR PLAN

TOP: OPEN BIN FITTINGS; BOTTOM, STAIRCASE FROM GROUND FLOOR; RIGHT (TOP) ISLAND DISPLAY CABINET AND TABLE; RIGHT, TAILORING DEPARTMENT

INTERNAL FINISH—*The ground floor is covered with a green marbled cork material in transverse strips. Fittings and panellings are in Australian walnut. Many of the shirt fixtures were re-used from a London branch. The first floor main salon has several thick tufted rugs, coloured with alternate white and brown stripes, laid on the existing red composition floor. Here the fittings are in natural English elm veneer, lightly polished, with metal work generally in bronze. The dress clothes and bespoke tailoring department is finished in walnut and has a fawn-coloured carpet, with white spots.*

AUSTIN REED'S SHOP, WESTOVER ROAD, BO

TIE TABLE

SERVICES—*Heating is by low pressure hot water with pipes running above the fixtures on the ground floor, and by column radiators incorporated in the wall fittings on the first floor. A goods lift serves all floors.*

COST—*About £8,000.*

The general contractors were George and Harding, Bournemouth.

For a list of sub-contractors see page 219.

FITTING ROOM

BOURNEMOUTH • BY P. J. WESTWOOD AND SONS

Diagrams showing some infringements of the new building by-laws. From "Model Building By-laws Illustrated."

BOOKS

BUILDING BY-LAWS

Model Building By-laws Illustrated. By G. Eric Mitchell. B. T. Batsford. Price 10s. 6d.

IT is with the greatest reluctance that most architects open a book of by-laws. When compelled to do so they are bewildered and exasperated by the legal phraseology, and above all by the lack of illustrations. For to an architect one clear diagrammatic drawing is better than a thousand subsections.

Now under the Public Health Act, 1936, a new code of building by-laws has been set up and have been in effect since July 31. The welcome given by architects to the much needed improvements they embody will probably be tempered with resignation at the thought of the wearisome task ahead of those who must attempt to understand them.

But no longer need they worry. Mr. Mitchell has produced in this book an invaluable crib in which the new code is fully and clearly explained with notes, and above all with drawings. He also includes a model specification based upon the Ministry's requirements. As a reference the book is indispensable and the price is moderate. H. C.

CONCRETE

Modern Concrete Construction. 4 volumes. Edited by W. H. Glanville. Caxton Publishing Co. Price £4.

THIS set of four volumes written by nine experts under the editorship of W. H. Glanville, of the Building Research Station, is the first really comprehensive and practical book on the art of designing and making concrete, both reinforced and otherwise. Architects will find certain chapters of interest such as the last three in Vol. 1 on lightweight concrete, tiles and cast stone. Of great value to the architect are the first two chapters in Vol. 2, where the B.R.S. give us the benefit of their research on all kinds of plasters and paints. In Chapter 10, the principles of insulation against sound are very simply set out, and form a very intelligent résumé of what is known about this difficult subject. Chapter 7 in Vol. 3 gives the cube prices of selected buildings of varying types, and these have been subdivided for all the trades. There is an interesting idea described and illustrated on page 165 of the same volume, whereby the rusticated base of a water tower is made up of blocks of concrete which have been split by feathers and wedges to form rough faces similar to those produced in ordinary masonry practice. Vol. 4 deals mainly with construction which, although valuable to the engineer, is of no direct interest to the architect.

R. A. M.

QUANTITIES

Quantities. By Sir Banister Fletcher. Eleventh Edition. Revised by A. E. Baylis. Batsford. Price 16s.

METHODS of measurement have changed quite considerably in the past few years, and it is good to find that such a standard work as Banister Fletcher's "Quantities" has been brought up to date.

Mr. A. E. Baylis, who undertook the latest revision, has succeeded in his task admirably, and there is no doubt that the eleventh edition is even better than the previous ones—quite apart from the fact that all the changes brought about by the revision of the Standard Method of Measurement of Building Work and the publication of the Institution of Civil Engineers' Report on Engineering Quantities have been carefully noted.

So comprehensive is this work that few experienced surveyors and engineers could fail to learn much from its pages and at the same time the most elementary principles are clearly set out for the student. O. A. D.

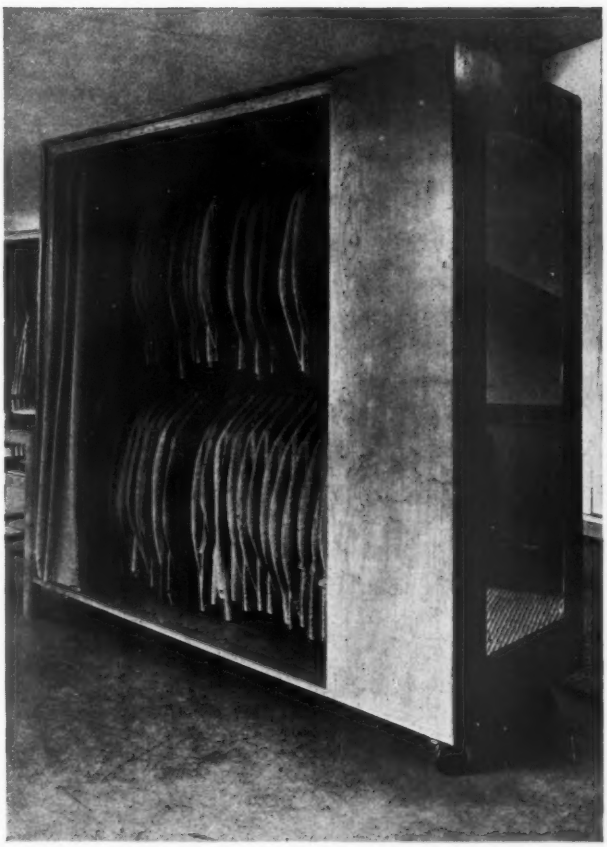
Appointments

The Macclesfield Town Council has made the following appointments on the temporary staff of the Borough Architects' and Planning Department: Mr. Ernest Allen Heppenstall, A.R.I.B.A.—Senior Assistant Architect; Mr. Philip Fairhurst—Junior Planning and Architectural Assistant.

WORKING DETAILS : 769

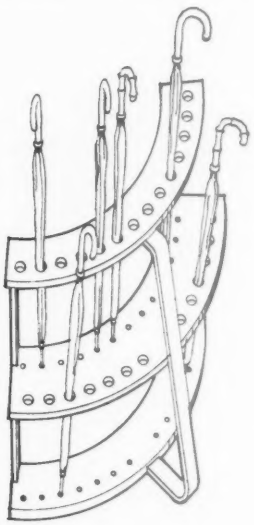
THREE FITTINGS • SHOP IN BOURNEMOUTH • P. J. WESTWOOD AND SONS

All the fittings are finished in English elm veneer, and ash has also been used. The umbrella stand has been designed for use round a circular column in the showrooms. The tie table has a white lino top with recesses for the display of various ties. The island cabinets accommodate jackets and coats, and are all fitted with rubber-tyred wheels for easy moving. Details are shown overleaf.

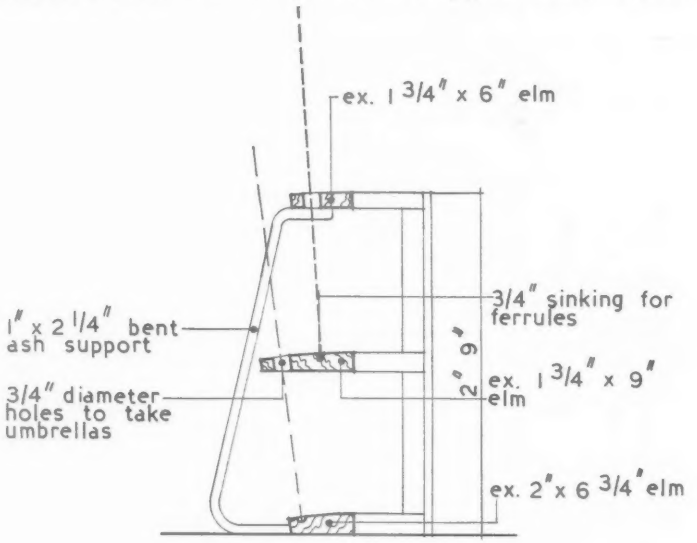


WORKING DETAILS

THREE FITTINGS • SHOP IN BOURNEMOUTH • P. J. WESTWOOD AND SONS

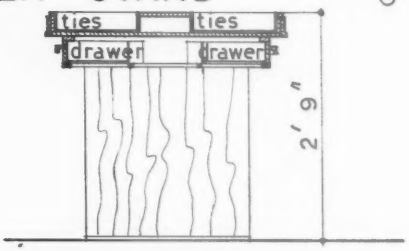


AXONOMETRIC



SECTION

UMBRELLA STAND



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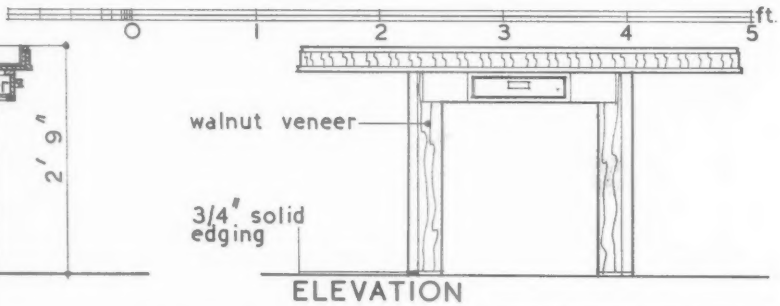
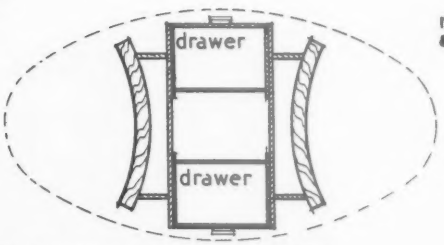
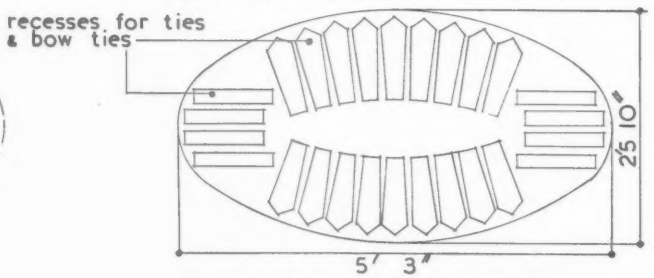


ELEVATION

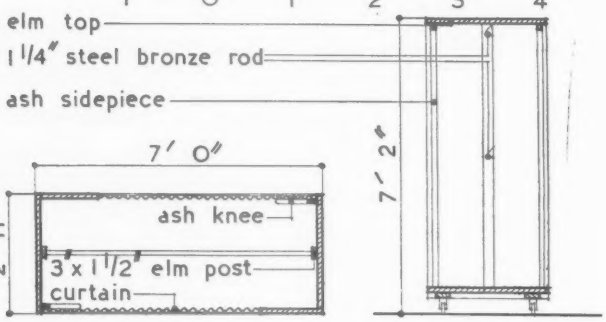


PLAN BELOW TABLE LEVEL

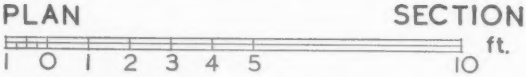


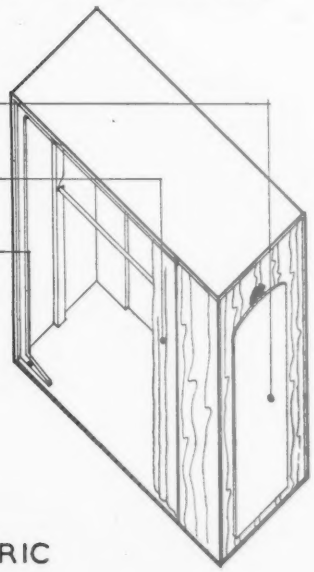
PLAN AT TABLE LEVEL

TIE TABLE



PLAN SECTION





AXONOMETRIC

ISLAND CABINETS

Axonometrics and details of the fittings illustrated overleaf.

The Architects' Journal Library of Planned Information

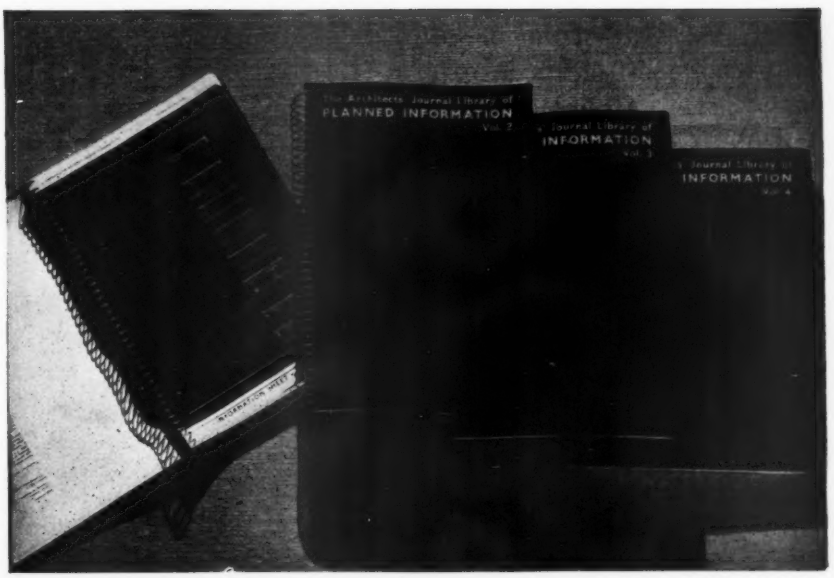
INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

753 Hardware and Ironmongery

754 Carpentry and Joinery



All the Information Sheets published in The Architects' Journal Library of Planned Information since the inception of the series to the end of 1938 have been reprinted and are available in five volumes. Price 21s. each.

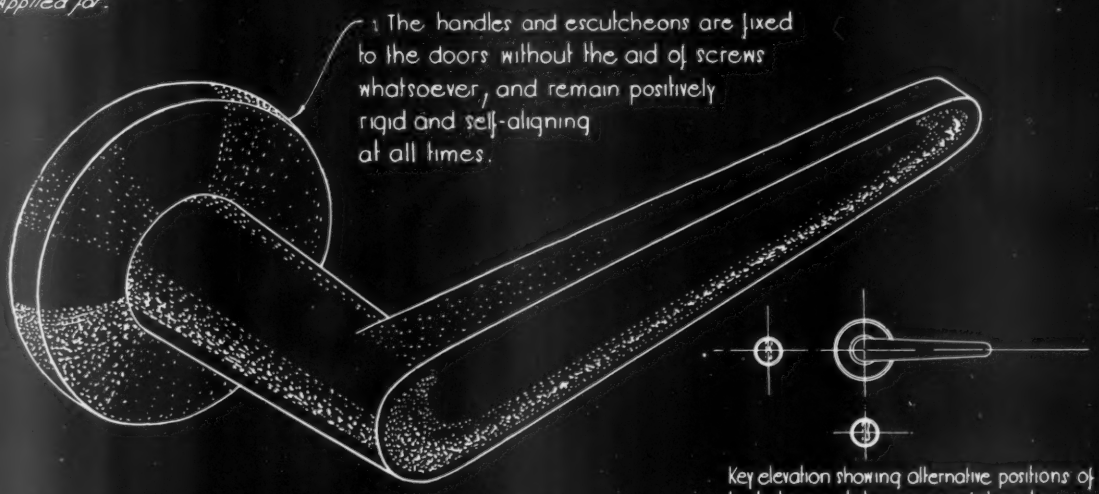
Sheets issued since index :

701 : Tile Hanging
702 (420 revised) : Fixing Insulating Board
703 : Sheet Metals
704 : Plan Elements
705 : Metal Work
706 : Plan Elements
707 : Furniture Layout
708 : Plan Elements
709 : Flue Construction
710 : Natural Lighting
711 : Glass and Glazing
712 (109 revised) : Quarry Tiles
713 : Glass and Glazing
714 : Metalwork
715 (106 revised) : Hot Water Radiators (Pressed Steel)
716 : Furniture Layout
717 : Metalwork
718 : Flooring Materials
719 : Plumbing
720 : Water Heating
721 : Wall Facing Materials and Wallboards
722 : Roofing
723 : Metalwork
724 : Timber Construction
725 : Sanitary Fittings
726 : Metalwork
727 : Waterproof Jointing and Bedding
728 : Timber Construction
729 : Steelwork
730 : Wall Facing Materials and Wallboards
731 : Metalwork
732 : Concrete Construction
733 : Structural Steelwork
734 : Metalwork
735 : Plumbing
736 : Structural Steelwork
737 : Structural Steelwork
738 : Metalwork
739 : Plan Elements
740 : Timber Construction
741 : Structural Steelwork
742 : Metalwork
743 : Wall Finishes
744 : Waterproofing and Damp-proofing
745 : Structural Steelwork
746 : Metalwork
747 : A. R. P.
748 : Waterproofing and Damp-proofing
749 : Metalwork
750 : Wall Facing Materials and Wallboards
751 : Structural Steelwork
752 : A.R.P.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

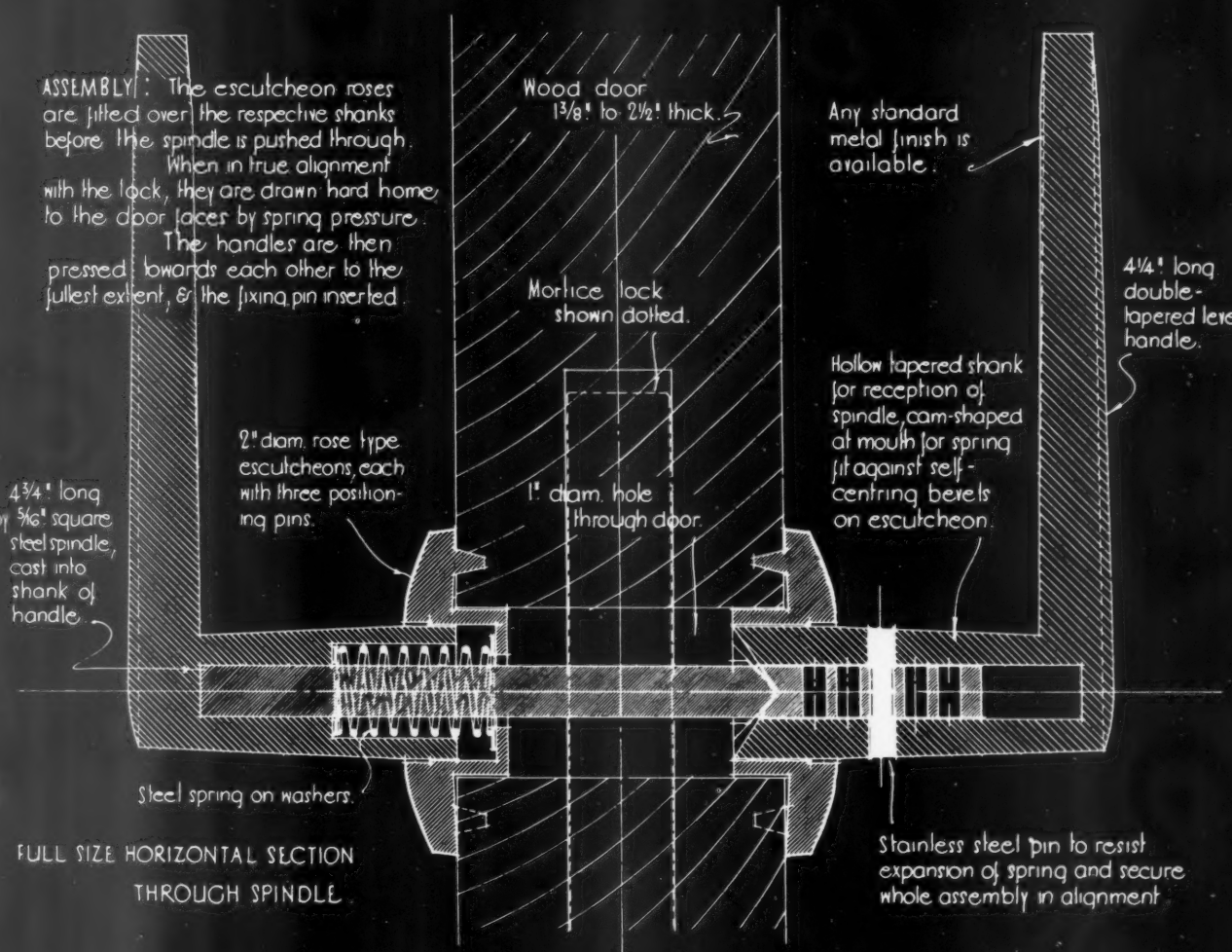
DETAILS OF D.P. SELF-ALIGNING, AUTOMATIC SPRING-FIXED LEVER HANDLES

Patents Applied for.



SKETCH OF REVERSIBLE HANDLE, SHANK & ESCUTCHEON AS APPEARING WHEN IN POSITION ON DOOR. Opposite side is similar.

Key elevation showing alternative positions of keyhole escutcheons in relation to handle, for standard & upright mortice locks.



FULL SIZE HORIZONTAL SECTION THROUGH SPINDLE

Information from Designed Productions Ltd.

INFORMATION SHEET : DOOR FURNITURE : D.P. LEVER HANDLES.
SIR JOHN BURNET. TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 753 •

HARDWARE AND IRONMONGERY

Product : D.P. self-aligning, automatic spring-fixed lever handles.

General :

The handles illustrated on this Sheet are die cast aluminium-bronze, obtainable in standard finish. They are adjustable to fit doors varying in thickness from $1\frac{3}{8}$ in. to $2\frac{1}{2}$ in., and are suitable for the operation of any standard mortice lock or latch.

Design :

The escutcheons are circular in shape, and project $\frac{5}{16}$ in. beyond the face of the door on either side, and $\frac{5}{16}$ in. into the 1 in. diameter hole through the door. They are unfixed except for locating pins on the underside, which bite into the face of the door and prevent the escutcheons revolving when the lever handles are depressed.

When fitted, the whole assembly is under tension produced by the spring-loaded handle shank.

Finishes :

(*a*) Aluminium-bronze satin.

(*b*) Aluminium-bronze satin nickel plated.

Operation :

The escutcheon opposite the spring contains the bevelled bushes which permanently centre the handles. When either handle is depressed, the V-shaped shank is forced against these bushes, further compressing the spring.

When the pressure on the handle is removed, the expansion of the spring re-aligns the bushes, and returns the handles to a horizontal position.

Fixing :

The mortice to take the lock mechanism is cut out in the normal way, and a 1 in. diameter hole is drilled through concentrically with the spindle hole. After the lock is fixed, the escutcheons are fitted over the shanks of the handles, the spindle pushed through and a stainless steel pin is inserted. The escutcheons are then thrust firmly to the faces of the door when accurate alignment of the whole assembly is obtained.

Prices :

12/6 per pair nett., either finish, excluding keyhole escutcheon.

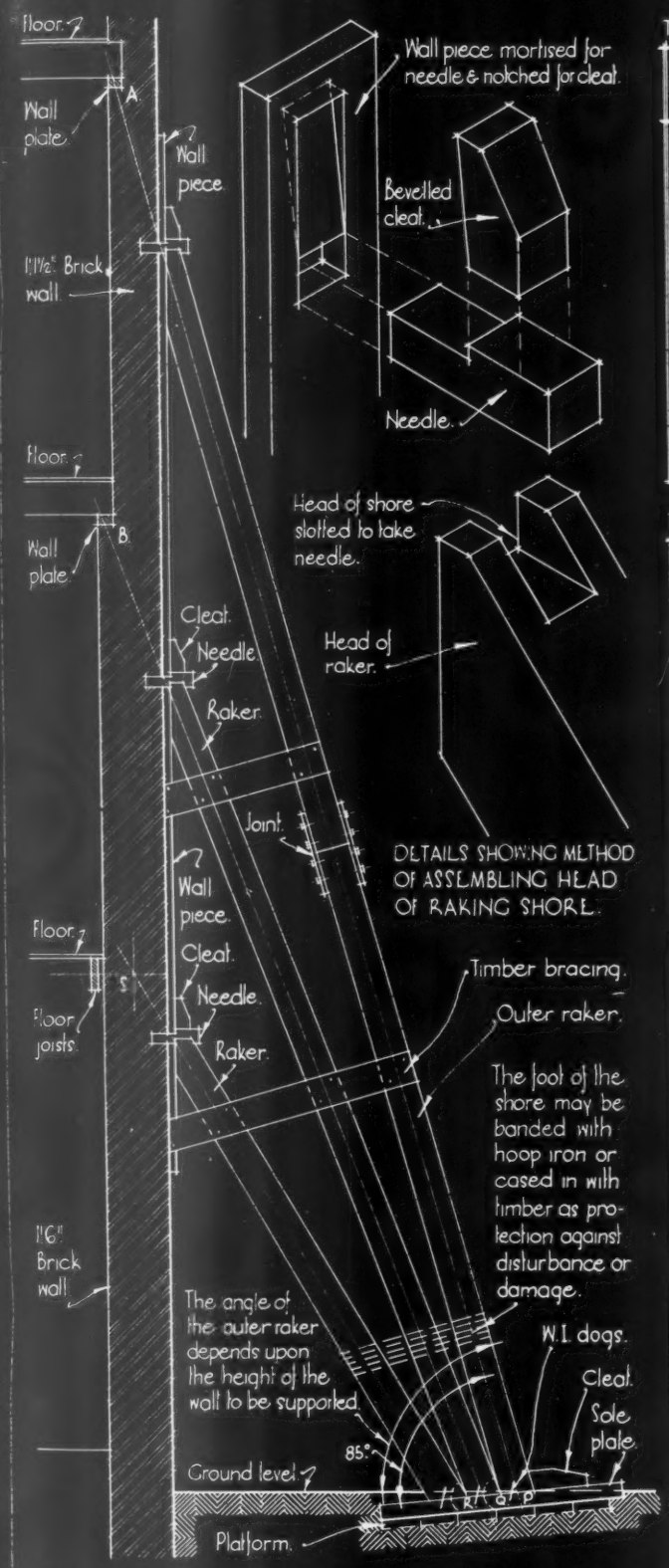
Issued by : Designed Productions, Ltd.

Address : Queen's House, Leicester Square, London, W.C.2

Telephone : Gerrard 5207

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

DETAILS SHOWING TYPICAL CONSTRUCTION OF RAKING SHORES:



SECTION THROUGH TYPICAL STRUCTURE SHORED UP BY TIMBER RAKERS. SCALE: ¼" to 1'0"

TABLE GIVING SIZES OF RAKERS FOR SHORES:

HEIGHT OF WALL	No. OF RAKERS PER SET	SPACING OF RAKERS ALONG WALL		ANGLE OF OUTER RAKER
		10'0"	14'0"	
50'	4	two 11" x 4" bolted.	12" x 6" & 12" x 4" bolted.	70°
45'	4	two 10" x 4"	12" x 6" & 12" x 3"	70°
40'	3	10" x 4" & 10" x 3"	two 12" x 4"	70°
35'	3	11" x 3" & 11" x 2"	12" x 6"	70°
30'	3	11" x 4"	11" x 3" & 11" x 2½"	65°
25'	2	11" x 3"	11" x 4"	65°
20'	1	11" x 2"	11" x 3"	60°
15'	1	9" x 2½"	9" x 3"	60°

TABLE GIVING SAFE LOADS ON TIMBER STRUTS IN CWTS.

SIZE.	HEIGHT OF STRUT IN FEET.								
	8.	10.	12.	14.	16.	18.	20.	22.	24.
4" x 4"	44	29	20	15	11	9	7	6	*
4" x 6"	66	43	30	23	17	13	11	9	8
4" x 9"	99	65	46	34	26	20	17	14	12
6" x 6"	171	129	99	76	57	46	36	31	26
6" x 9"	256	194	148	114	86	69	54	47	39
9" x 9"	567	440	385	315	260	222	182	158	129
9" x 12"	735	605	513	432	345	297	243	274	230
12" x 12"	1195	1040	900	775	683	597	517	457	390
14" x 14"	1690	1568	1370	1225	1100	955	840	755	665

TABLE GIVING SAFE LOADS ON TIMBER NEEDLES IN CWTS.

SIZE.	LENGTH OF NEEDLE IN FEET.			
	6.	8.	10.	12.
3" x 9"	28	21	17	14
6" x 6"	25	19	15	12
6" x 9"	57	43	34	28
9" x 9"	86	57	51	43
10" x 10"	118	89	71	59
6" x 12"	102	77	61	51
12" x 12"	205	154	123	102

CALCULATION OF WEIGHT OF BUILDING IN CWTS. PER SQ. FT.

WALLS.	for 9" wall, allow	¾
	" 14" "	1¼
	" 18" "	1½
FLOOR BORNE BY WALL BEING SHORED.	for extra heavy floors, & in storage buildings, allow	2
	for concrete-and-steel-joist floors,	1½
	for floors of large area with wood joists,	1¼
	for light floors of wood,	¾
	for heavy flat roofs including ceilings,	1¼
	for slate or tiled pitched roofs,	½

INFORMATION SHEET : SHORING, No. 1 : TIMBER RAKING SHORES.

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

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 754 •

CARPENTRY & JOINERY

Subject : Shoring—I

General :

This is the first of a series of Sheets dealing with timber shoring to multi-storey structures.

Where extensive reconstruction or alterations are to be carried out on a building, it may often be necessary to use temporary supports for the walls and floors. These supports, known as shores, are of three kinds : dead shores, flying shores and raking shores. This Sheet deals with raking shores.

Raking Shores :

Where a wall shows a tendency to lean because of settlement in a building, the defect may be checked by placing inclined struts or rakers in suitable positions, from the ground to the face of the walls, and so securing them that no movement can take place. The general principle upon which a system may be built up is the same for any number of rakers, with slight modifications due to the height of the wall to be supported and the area of ground available. This Sheet shows a system of three rakers.

Angle of Shores :

It is not possible to recommend any particular angle of inclination for the shore, since conditions of fixing vary greatly. Generally, the foot of the shore may be spread as far outwards as the footpath allows : if this is insufficient, then it may be taken as far into the roadway as will meet with the approval of the local authority.

Position of Shores :

When the maximum projection of the shores has been determined the rakers may be set out as follows :—

(*a*) Outer raker.—Find the centre point P of the outer raker on the ground line, and project the centre line to pass through the centre of the base of the wall-plate supporting the floor joists as shown at A on this Sheet.

Place the sole plate in position, with its top face making an internal angle less than 90 degrees and sufficiently below ground level to limit the projection of the top corner while giving sufficient room for the cleat.

(*b*) Second raker.—Describe an arc, centre Q and radius equal to half the breadth of the raker, project its centre line to support the wall plate at B and at the same time tangential to the arc.

(*c*) Third raker.—Perform the same operation with centre R, but project the centre line tangential to the curve through a point S at the centre of the depth of the floor and in the middle of the wall. The position of this raker is governed by the fact that the resultant of the thrust and dead weight of the wall passes approximately through the point S.

Wall-piece :

The wall-piece, fixed by means of w.i. wallhooks, is the same width as the rakers, forms a seating for the head of the shore and distributes the thrust of the wall. It receives the needle which binds the wall-piece to the wall and connects the heads of the shores where two or more rakers are used.

Needle :

The needle resists the thrust of the head of the shore, prevents slipping, and transmits the thrust, through the wall-piece, to the wall.

Sole-plate :

The sole-plate, which should be the same width as the shore, receives the group of rakers at the foot. It provides for their support, prevents slipping, and allows for the tightening of the shore.

The sole-plate should form an angle of 85 degrees with the outer raker, and no wedges should be used.

Platform :

Where the ground is soft, a timber platform is placed under the sole-plate to spread the thrust over a wider area.

Joints :

If the outer raker cannot be obtained in one length, two lengths may be butted and held in position by plates fixed with coach screws to the sides of the raker.

Tightening :

Rakers are tightened by levering them forward with a crowbar fitted into a notch cut on the outside at the foot of the shore. Each raker is secured to the sole-plate by a w.i. dog.

Bracing :

The bracing stiffens the longer rakers by shortening the unsupported length, and reduces the effect of any one member becoming loose. The foot of the shore may be banded with hoop iron and cased in for protection against damage or disturbance.

Construction :

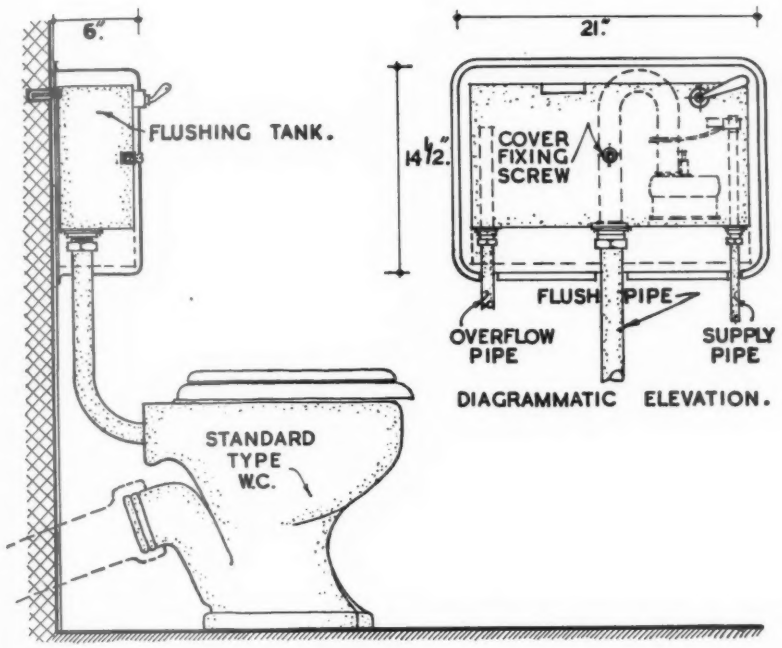
Holes are cut in the wall to take the needles, and wall-pieces are set out, mortised for the needles and notched for cleats. The needles are placed in position through the mortices to a depth of $4\frac{1}{2}$ in. within the wall. A bevelled cleat above the needle is fitted into the housing and spiked to the wall-piece.

The head of the shore is cut to the required angle and notched so that it grips the needle.

The foot of the shore is cut to length and bevelled so that it will tighten up when it is slid forward on the sole-plate.

Flying Shores :

Flying or horizontal shores and dead shores will be described in subsequent Sheets of this series.



TRADE NOTES

[*By PHILIP SCHOLBERG*]

Flushing Cisterns

THE low level flushing cistern, in spite of the fact that it takes up more room than the older high level type, has become very popular during the last few years. The extra floor space taken up by these low models is not very great, but any modification which tends to reduce it is all to the good, and a new (provisionally patented) model recently introduced by Fordham Pressings is therefore well worth considering. The sketch at the head of these notes gives an idea of the dimensions and general appearance, but does not show the method of fixing. This is done quite simply through holes in the back of the cistern, which is welded up from steel sheet in the usual Fordham manner and galvanized. The outer visible shell is merely a covering and is pressed out of steel sheet and vitreous enamelled. It is held by a single easily removable screw so that it is very easy to get at all internal parts if it should be necessary to renew washers. Feed and overflow pipes are arranged at each side, and the general appearance of the whole fitting could not very well be neater. Two, two-and-a-half and three gallon capacities are standardized, and from the point of view of quality and performance it is only necessary to mention that the Metropolitan Water Board themselves use these cisterns in their new offices. Prices are 60s., 61s. 6d. and 63s. I believe that this firm was the first to use welded steel sheet instead of cast iron for cisterns, a very sensible step, which not only makes the fittings much lighter, but also less liable to crack in frosty weather.

The same firm have also standardized a range of high level flushing troughs. The maximum length of any one section is 8 ft., but further sections can be added, the joint being made by a row of bolts and a metal strap welded to the inside of the tank. Outlets can be any specified distance apart. Fuller details of both these models can be found on Information Sheet No. 725.—(*Fordham Pressings, Ltd., Melbourne Works, Dudley Road, Wolverhampton.*)

Solid Fuel for Domestic Purposes

I have been reading with great interest a report of the proceedings at the 1939 conference of the Combustion Appliance Makers' Association, particularly the section which deals with the future of solid fuel for domestic purposes. I cannot help feeling that coal should really have all its by-products such as gas, tar, dyes and such like extracted, and that it should not be *burnt* in the private house until it has become coke. This sounds, I know, like propaganda for the gas companies, but it is not intended to be. Coal has so many valuable constituents that to burn it as it comes from the mine seems almost as bad as burning good structural timber, for both will make a lovely blaze, but both should be used for better things. It is, however, impossible to deny that most people prefer a coal fire to anything else, at any rate in living rooms, and solid fuels are cheaper than any others in actual outgoings even though the labour of lighting fires and cleaning may work out in favour of gas or electricity.

Of the papers read at the conference, Mr. Dufton's was easily the most interesting from the point of view of the architect. Since he ranged over a great variety of subjects he gave his paper the modest title of "Observations," and it is impossible here to do more than quote some of the more interesting details, though a copy of the paper could doubtless be obtained from Victoria Street. Mr. Dufton gave particulars of a coke burning grate which he designed for his own use in 1928, and which, for six years, was lighted in the ordinary way with wood, just like a coal fire; and the process was apparently quite simple. Mr. Dufton then went on to describe the heating system in his present house, where he uses four slow-combustion stoves, a cooking range and a boiler, "all gravity fed with solid fuel and all under thermostatic control"; an open fire was only used in the living room. Mr. Dufton's thermostatically controlled and heat insulated oven has led to some interesting experiments and apparently a new method of cooking. Count Rumford, whom we all know as an authority on the cure of smoky chimneys, appears to have been an authority on cooking as well. He describes an experiment in which he accidentally roasted, in a "machine which he had contrived for drying potatoes," a shoulder of mutton which turned out to be "uncommonly savoury and high-flavoured. It was neither boiled, nor roasted, nor baked. Its taste seemed to indicate the manner in which it had been prepared; that the gentle heat to which it had for a long time been exposed, had by degrees loosened the cohesion of its fibres, and concocted its juices, without driving off their fine and more volatile parts, and without washing away or burning and rendering rancid and empyreumatic its oils." Mr. Dufton repeated Count Rumford's experiment, using a 6-lb. shoulder of mutton, and obtained almost exactly the same result by cooking it for 15 hours in his thermostatically controlled oven at a temperature of 212° F. "In my household," he says, "this new technique . . . has completely ousted the traditional method of roasting. The method is simple; there is no bother about timing, an hour or two either way making little difference. The oven, moreover, remains clean and is unsullied by incinerated spurtled fat."

Dealing with the open fireplace, Mr. Dufton described his problem as "making two pounds of coal provide as good a fire as three pounds," and here he has once more taken the advice given by Count Rumford in 1802. "To make a good fire in a bad grate, the bottom of the grate must first be covered with a single layer of balls, made of good firebricks or artificial firestone, well burned, each ball being perfectly globular, and about 2½ or 2¾ ins. in diameter. On this layer of balls the fire is to be kindled, and, in filling the grate, more balls are to be added with the coals that are laid on; care must, however, be taken in this operation to mix the coals and balls well together, otherwise if a number of balls should get together in a heap, they will cool, not being kept hot by the combustion of the surrounding fuel, and the fire will appear dull in that part; but if no more than a due proportion of the balls are used, and if they are properly mixed with the coals, they will all, except it be perhaps those at the bottom of the grate, become red hot, and the fire will not only be very beautiful, but it will send off a vast quantity of radiant heat into the room, and will continue to give out heat for a great length of time. It is the opinion of several persons

who have for a considerable time practised this method of making their fires, that more than one-third of the fuel usually consumed may be saved by this simple contrivance . . . but still, it should be remembered that a saving quite as great may be made by altering the grate, and making it a good fireplace." Rumford adds that "these balls have one advantage—they cause the cinders to be consumed almost entirely." Mr. Dufton has tried this method as well, and says that "the use of thirty balls increased by no less than 50 per cent. the heating effect of a fire in which two pounds of coal were burned per hour, the heating effect being substantially equal to that afforded by a fire without balls burning three pounds of coal per hour." Mr. Dufton says nothing about Rumford's reduction in ashes, but it seems possible that these balls might also tend to reduce smoke. And are the firebrick balls fragile? — (*The Combustion Appliance Makers' Association* (*Solid Fuel*), *54 Victoria Street, London, S.W.1.*)

Picture Rail Lamp Brackets

The G.E.C. has just introduced a new type of portable lighting bracket arranged to hang from the picture rail and to be plugged into any convenient socket. An arm projects from a 4-ft. vertical rod and is adjustable for height, while it can also be reversed for use either with upright or drop shades. Possibly quite handy in the bedroom or study where a light may be needed near the wall, but where there may be too much furniture to make a floor standard possible. But how many new houses nowadays have a picture rail? I cannot pretend to know the answer, but from the recent interiors I have seen it looks as though the picture rail is tending to disappear.—(*The General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2.*)

Manufacturers' Items

Among the many new and interesting materials brought to light as a result of A.R.P. activities is Indestructo A.R.P. safety glass.

This product is a glass of the laminated type, similar to that used in motor vehicles and is made by British Indestructo Glass, Ltd., who are well known in the motor trade. Indestructo A.R.P. safety glass is strong, and has proved by actual test its ability to withstand the blast effects of high explosive bombs, the glass remaining clear and gas proof even after a bomb has exploded only fifty feet away. This glass is suitable for use in hospitals, municipal offices, and any buildings in which work must go on during wartime.

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Maurice G. Parker, Ltd., consultants in technical advertising, have transferred from the premises at 16 Bennett's Hill, occupied for some considerable time, to larger and more convenient offices at 3 New Street, Birmingham. Telephone and telegraphic addresses remain the same as before, viz. MIDland 2014 and Technikad, Birmingham.

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It is now officially announced that, in pursuance of the policy of widening their electrical interests, E. K. Cole, Ltd., of Southend-on-Sea, will shortly enter the electric lamp market with a complete range of lamps, manufactured at the Southend factory.

Originally, E. K. Cole, Ltd., confined their activities to the manufacture of Ekco Radio, but in recent years the scope of the business has been extended to cover such products as the Thermovent heater, Ekco-Coffield electric washing machines, Marconi-Ekco Instruments for industrial, medical and laboratory use, and the manufacture of moulded plastic products for other branches of industry.

It is understood that a pilot plant for the production of lamps has been in existence for research and experimental purposes at Ekco Works for some considerable time. Mass production has now commenced, and is supported by a very wide range of special test equipment, mainly of new types designed by the company's own instrument engineers.

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No. 8 of the series of booklets issued by Turner's Asbestos Cement Co., branch of Turner and Newall, Ltd., dealing with constructional problems which have been solved by the use of Asbestos-cement has now reached us. This issue is of special interest to the designer of modern flats, for it describes how asbestos-cement ducting has been used successfully for rubbish chutes at Worthing. The non-metallic nature of the material, and its consequent immunity from rust and corrosion, would appear to offer certain advantages for this class of work, particularly as such fitments are frequently inaccessible for the purposes of cleaning or painting. Copies of this interesting little publication, which contains drawings and data, are available for those interested.

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The directors of the Midland Bank, Ltd., announce an interim dividend for the half-year ended June 30 last at the rate of 8 per cent. actual, less income tax. The same rate of dividend was declared a year ago.

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Mr. Joseph Ward, J.P., chairman of Thos. W. Ward, Ltd., received the honorary degree of Doctor of Laws of Sheffield University last month. He is the chairman of the Applied Science Committee and Treasurer of the University.

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Honeywell-Brown, Ltd., manufacturers of controlling and recording instruments, have moved to a new office and works at Wadsworth Road, Perivale, Greenford, Middlesex. Their new telephone number and telegraphic address are Perivale 5691 and Minnreg, Greenford, respectively. This development has been made necessary by the continual expansion of business. It will permit a considerable amount of manufacturing and assembly to be carried out in this country.

•

The most recent addition to the series of technical bulletins issued by the British Thermostat Co., Ltd., is publication No. 354A, which deals with thermostats for controlling the temperature of air in the ducts of heating and air-conditioning installations, for controlling the temperature in rooms, cold chambers and drying ovens, and for use as immersion thermostats in vessels containing liquids. These thermostats operate on the vapour-pressure principle and are provided with phial and capillary tube. Two models are described: Type YM1, which has silver contacts and is housed in a bakelite case; and Type K5, which is a heavy-duty instrument with 15-ampere mercury-tube switch and die-cast metal case. In addition to full specifications of each model, with illustrations and fully dimensioned sectional drawings, the bulletin includes much practical information. For example, a section headed "Information Required When Ordering" sets out no fewer than twelve items upon which information is necessary to permit instruments correctly adjusted for a given purpose to be supplied. This section is particularly useful because every control proposition should be treated on its own merits and, if the required information is available, standard instruments can be readily adjusted at the factory to meet practically any reasonable requirements. On the other hand, lack of information inevitably leads to unnecessary correspondence and delay.

•

Messrs. Blackstone & Co., Ltd., of Stamford, Lincs, announce that they have opened a new department in their London office in Kingsway to deal exclusively with the sale of Blackstone-Brush diesel engines. Mr. E. I. Flindt, M.I.MAR.E., M.I.E.I., formerly of the diesel engine department of the Brush Electrical Engineering Co., Ltd., has been given charge of Blackstone-Brush engine sales in the South of England, and Mr. F. E. Blackstone has been appointed to supervise the Metropolitan area. Blackstone & Co. recently acquired the exclusive selling rights throughout the world of Brush horizontal opposed cylinder diesel engines. These are now being marketed under the name "Blackstone-Brush." The engines range in size from 85–2,400 b.h.p.

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Messrs. Bull Motors of Ipswich inform us that they have now opened a Scottish office at 199 Bath Street, Glasgow, C.2. (Telephone: Douglas 3186.) Mr. James A. Donachie has been appointed representative for Scotland, and is available to give information and service in the area. Mr. Donachie, who was for some considerable time with the Brush Company, is well known in Scotland and hopes to get into touch with his many friends in the area during the next few weeks.

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The annual general meeting of Banister, Walton & Co., Ltd., was held last month, at the Chartered Accountants' Hall, Spring Gardens, Manchester. Mr. Arnold Statham, M.I.S.E. (the chairman), said: "At our meeting last year I said that prospects were encouraging and qualified it by adding that 'recessions are liable to begin under the effect of quite unexpected disturbances and crises.' Within four months we had the Munich crisis and later the occupation of Czecho-Slovakia, both of which had repercussions on business in this country and throughout the world, but as far as our own business is concerned the effect was counterbalanced by the increase in Government expenditure. We have benefited not so much by a greater volume of direct Government Department orders, although we have had more than in a normal year, as by a greater demand for new buildings for those who are directly engaged on rearmament, and for the still greater number of those whose businesses have been stimulated by rearmament. The profit for the year is £68,905, after allowing for depreciation and including the dividends received from F. Bradford & Co., Ltd. After provisions for taxation and directors' fees, the net profit is £46,388, an increase of about £3,500 over last year."

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Messrs. Horace W. Cullum & Co. inform us that no acoustical plaster was used in the Casino, Blackpool, illustrated in our issue for July 27. The acoustical material supplied and installed by them was Cullum acoustic felt.

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The British Aluminium Co., Ltd., have transferred their branch office and aluminium warehouse from 25/29 Pancras Road, N.W.1, to more spacious premises at Park Avenue, N.W.10. (Telephone, Willesden 4817 & 4818.) Ample stocks of the company's products—aluminium and its light alloys, in ingot and semi-manufactured forms—will be maintained at this depot,

which will be under the management of Mr. W. J. Allen.

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A new Ediswan publication has just been published. It deals with the Ediswan Escuro (mercury) and Sodium electric discharge lamps. Copies may be obtained from the Edison Swan Electric Co., Ltd., of 155 Charing Cross Road, W.C.2.

THE BUILDINGS ILLUSTRATED

SEAFORTH PUBLIC LIBRARY, SEAFORTH (pages 200–202). J. R. Fothergill, Borough Engineer, and G. R. Mason, Architectural Assistant. General contractors: James Tomkinson & Co., Ltd., who were also responsible for the demolition, excavation, foundations, dampcourses, partitions, plumbing and joinery. Sub-contractors and suppliers included: General Asphalt Co., Ltd., damp-proofing asphalt; Trussed Concrete Steel Co., Ltd., reinforced concrete; Sutton Heath and Lea Green Collieries Co., Ltd., bricks; Ferro-concrete (Lancashire), Ltd., artificial stone; William Thornton and Sons, Ltd., stone; D. Anderson and Son, Ltd., tarmac special roofings, roofing felt and cork insulation; Williams and Watson, Ltd., patent glazing, and casements; R. W. Brooke & Co., Ltd., wood-block flooring; Cork Insulation Co., Ltd., patent flooring; Richard Crittall & Co., Ltd., invisible panel warming; Winstanley and Lambert, Ltd., electric wiring and bells; General Electric Co., Ltd., electric light fixtures and electric heating, clocks and signs; The Plumbers' and Builders' Supply Co., Ltd., sanitary fittings; Walter Macfarlane & Co., Ltd., rainwater goods; Campbell and Mabbs, Ltd., door furniture; Mellowes & Co., Ltd., window furniture; G.P.O., telephones; E. Wilson & Co. (Collingwood), Ltd., iron railings, etc., decorative ironwork, flagstaff holders; John Cothliff, Ltd., plaster, and decorative plaster; J. D. Beardmore & Co., Ltd., tubular railings; G. A. Harvey & Co. (London), Ltd., mesh panels; Diespeker & Co., Ltd., terrazzo in porch; George Swift, tiling to dado in entrance; Tyson's (Contractors), Ltd., furniture and library fittings; Parks Committee, shrubs; Liverpool Corporation Water Department, water supply; Lenscrete, Ltd., decorative glass and concrete, and rooflights.

AUSTIN REED, LTD., BOURNEMOUTH (pages 204–207). Architects: P. J. Westwood and Sons. General contractors, George and Harding, Ltd. (builders' work) and George Parnall & Co., Ltd. (shop-fitting work). Sub-contractors and suppliers: Korkoid Decorative Floors, patent flooring and stairtreads; Aish & Co., Ltd., electric wiring and signs; Osler and Faraday, Ltd., electric light fixtures; Yannedis & Co., Ltd., door furniture; Marquees, Ltd., sun blinds; Maple & Co., Ltd., textiles; E. Pollard & Co., Ltd., shop fittings; Aldous and Campbell, Ltd., lifts.

BUILDING NEWS

LONDON

BETHNAL GREEN. *Flats.* The L.C.C. is to erect blocks of dwellings on the Minerva Street area of Bethnal Green, at a cost of £226,200.

HOMERTON HOSPITAL. *Extensions.* The L.C.C. is to enlarge the Eastern Hospital, Homerton, at a cost of £26,000.

ILFORD. *Fire Station.* The Corporation is to obtain a site for a new central fire station.

ILFORD. *Shops and Flats.* Mr. B. Carter, architect, has prepared plans for the erection of 11 shops and 102 flats in Eastern Avenue, Ilford.

ILFORD. *Houses.* Plans passed by the Ilford Corporation: 30 houses, Havering Gardens, for Mr. J. T. Perrin; 10 houses, Carlisle Gardens, for Mr. A. P. Griggs; additions, Greengate public-house, Horns Road, for Mr. H. G. Needham; church and vicarage, Hamilton Avenue, for Mr. N. F. Cachemaile-Day; 12 houses, Chalgrove Crescent, for Mr. J. A. Robertson; three-storey building, Vicarage Lane, for the Plessey Co., Ltd.

ISLINGTON. *Maternity Block.* The L.C.C. is to erect a new maternity block at the St. Mary Hospital, Islington, at a cost of £77,500.

ROTHERHITHE. *Hospital Extensions.* The L.C.C. is to erect a new out-patients' department and an ante-natal clinic at St. Olave's Hospital, Rotherhithe, at a cost of £31,200.

SHOREDITCH. *Flats.* The L.C.C. is to erect 70 dwellings on the Britannia Gardens area of Shoreditch, at a cost of £47,850.

SHOREDITCH. *Day Nursery.* The B.C. is to erect a day nursery on the Crondall Place area.

STOKE NEWINGTON. *A.R.P. Shelters.* The Stoke Newington B.C. has approved plans by Messrs. Howes and Jackman for the erection of A.R.P. shelters at the housing estate, at a cost of £5,551.

WHITECHAPEL. *Nurses' Home.* The L.C.C. is to erect a nurses' home at St. Peter's Hospital, Whitechapel, at a cost of £52,225.

PROVINCES

CHELMSFORD. *Houses, etc.* Plans passed by the Corporation: 34 houses, Tyrells Close, for Mr. W. M. Rollings; two houses, Oaklea Avenue, for Messrs. Tyler and Dobie; two houses, Broomfield Road, for Mr. W. K. Allen; six houses, Wallace Crescent, for Messrs. R. H. Currie, Ltd.; four houses, Hollow Lane, for Mr. W. Dawes; two bungalows, Sunrise Avenue, for Mr. S. Smith; seven houses, Moulsham Drive, for Mr. W. J. Alfred; alterations, High Street, for Barclays Bank, Ltd.; two houses, Longstomps Avenue, for Mr. F. G. Belcher; two cottages, New Street, for Messrs. J. Crisp and Son; additions, Anchor Public-house, Moulsham Street, for Messrs. Taylor, Walker & Co., Ltd.

CHELMSFORD. *Hospital Extensions.* The Governors of the Chelmsford and Essex Hospital are to enlarge the hospital in London Road, Chelmsford, by 70 beds.

HULL. *A.R.P. Shelters.* The Corporation is to provide A.R.P. shelter accommodation, at a cost of £820,000.

HULL. *Library.* The Corporation is to erect a branch library in Ampleforth Grove, Derringham.

HULL. *Extensions.* The Hull Education Committee recommends the erection by direct labour of the new premises for the grammar school, at an estimated cost of £80,584.

HULL. *Shops.* The Hull Co-operative Society is to obtain shop sites on the Hull Corporation estates.

HULL. *School.* The Education Committee has authorised the city architect to prepare plans for new buildings for the Castle Howard school.

HULL. *School.* The Education Committee has approved a scheme for the erection of the Holy Name R.C. senior school.

HULL. *Police Headquarters.* The Corporation has obtained land in Queen's Dock Avenue for new police headquarters and instructed the city architect to obtain tenders for the scheme.

HULL. *Housing.* The Corporation has approved plans by the city architect for the erection of housing accommodation for firemen in Mason Street.

HULL. *Clinic.* The Corporation has purchased a site in Spring Street for the erection of a central tuberculosis clinic.

HULL. *Aerodrome.* The Corporation is to provide an aerodrome at a cost of £101,500.

ILKESTON. *A.R.P.* The Education Committee is to provide A.R.P. works at the schools, at a cost of £15,400.

LEEDS. *Police Headquarters.* The Corporation is to acquire land for the erection of central police headquarters.

LEEDS. *Appointment.* The Corporation has appointed Mr. Victor Bain as architect for the baths at Beeston and Middleton.

LEEDS. *Community Centre.* The Corporation is to erect a community centre on the Belle Isle housing estate.

LEEDS. *Flats.* The Corporation is to complete the development of the Quarry Hill site, at a cost of £124,000.

LEEDS. *Church.* The Corporation has sold a site at Ironwood View to the Leeds Church Extension Society for the erection of a church.

LEEDS. *Houses, etc.* Plans passed by the Corporation: 10 houses, West Park Road, for Firma Builders, Ltd.; four houses, West Park Road, for Messrs. C. H. and F. Lax; shop and house, Gipton estate, for Mr. R. Smart; public-house, Halton Moor estate, for Leeds City Brewery, Ltd.; additions, Baptist church, York Road estate, for Osmondthorpe Trustees; four shops and houses, Dixon Lane, for Messrs. A. Maude and Sons; four shops and houses, Haigh Wood Lane, for Messrs. Parker Bros., Ltd.; two flats, Easterly Road, for Mr. J. Eugene.

SHEFFIELD. *A.R.P.* The Corporation is to erect A.R.P. depots, at a cost of £24,000.

SHEFFIELD. *Cinema.* The Corporation has leased a site for the erection of a cinema on the Parson Cross Estate to Grand Cinema, Parson Cross, Ltd.

SHEFFIELD. *Houses.* The Corporation has obtained land in Lydgate Lane for the erection of homes for the aged under the Graves Charity Trust.

SHEFFIELD. *Cinema, etc.* Plans passed by the Corporation: Cinema and two shops, Mansfield Road, for Mr. T. W. Ward; six houses, Lathkill Road, for Messrs. Moorhouse and Brind; two houses, Kenwell Drive, for Mr. F. Day; 24 houses, off Gleadless Common, for Mr. C. Redmile; 20 houses, Norton Park Road, for Mr. R. Wallace; three houses, Park View Road, for Mr. T. Ward; six shops and houses, Fox Hill Road, for Mr. D. Hurrill; eight houses, Westwick Road, for Mr. J. Hunt; church and classrooms, Everingham Road, for St. Leonard's Church trustees; eight houses, Heavygate Road, for Mr. G. W. Hird; four houses, Bolehill Road, for Messrs. Smith, Denton & Co.; 14 houses, St. Anthony Road, for Mr. C. E. Spooner; eight houses, Normanton Spring Road, for Mr. W. Laver; six houses, Prospect Road, for Messrs. Darwin and Swallow; works and offices, Rockingham Street, for Styring Trust, Ltd.; 10 houses, City Road, for Mr. C. Kay; warehouse, Herries Road, for Messrs. Gallaher, Ltd.; 11 houses, Springfield Avenue, for Mr. G. Handley; six shops and houses, Handsworth Road, for Messrs. W. and E. Sadler, Ltd.; 10 houses, Norton Park View, for Messrs. J. Marsh and Son, Ltd.; drill hall, Kenwood Road, for West Riding Territorial Association; six bungalows, Racker Way, for Mr. J. Samuel; four houses, Norton Park View, for Mr. J. T. Redmile; 22 houses, off Station Road, Woodhouse, for Mr. J. L. Conway; four houses, Dransfield Road, for Mr. R. Turner; three houses, Dobcroft Road, for Mr. S. L. Clark.

WOLVERHAMPTON. *Houses.* Plans passed by the Corporation: 48 houses, Fordhouse Road, for Mr. H. Williams; four houses, Elm Street, for Mrs. Davies; alterations, Oxbark Club, Church Road, for Mr. A. Banberry; three houses, Coppice Road, for Mr. R. E. G. Lockley; store extensions, Market Street, for Messrs. Marks and Spencer, Ltd.; eight houses, Goldthorn Road, for Messrs. Brookes and Edwards; 10 houses, Coppice Road, for Mr. J. V. Powell; 46 houses, Fordhouse Road, for Mr. L. C. Lymer; two houses, Shaw Road, for Mr. H. Webberley; 20 houses, off Beech Road, for Messrs. Brookes and Son; rebuilding Wheatsheaf Hotel, Market Street, for Wolverhampton and Dudley Breweries, Ltd.; two houses, Wimborne Road, for Mr. W. Weate; 14 houses, Finchfield Lane, for Bushbury Estates Co.

Copies of the loose supplement containing the labour rates for the principal towns and districts throughout the country can be obtained from the JOURNAL, price 2d. to cover postage.

PRICES

The complete series of prices consists of four sections, one section being published each week in the following order :—

1. Current Market Prices of Materials, Part I. (published last week)
2. Current Market Prices of Materials, Part II.
3. Current Prices for Measured Work, Part I.
4. A. — Current Prices for Measured Work, Part II.
   B. — Prices for Approximate Estimates.

IMMEDIATELY below, Messrs. Davis and Belfield mention the principal changes which have occurred in the last month. Similar notes, and the deductions that may be drawn from them, will be published on this page each month.

NOTES ON PRICE CHANGES

Last month's prices for timber have been left unaltered, owing to the difficulty of obtaining firm quotations.

O. A. DAVIS, F.S.I.

PART 2

Prices vary according to quality and quantity ordered.

Those given below are average market prices and include delivery in the London area, except where otherwise stated, but do not include overhead charges and profit.

CURRENT MARKET PRICES OF MATERIALS

BY DAVIS AND BELFIELD

JOINER

Prices are for standards in one delivery; when less than a standard is required, or special lengths, add £1 per standard

Joinery Timber

			Per standard £ s. d.	Per foot cube s. d.
3″×9″ Scantling	2nd	Archangel	43 0 0	5 2½
3″×9″ „	3rd	„	30 0 0	3 7¾
2″×9″ „	2nd	„	50 0 0	6 0¾
2″×9″ „	3rd	„	30 10 0	3 8½
3″×8″ „	2nd	„	36 10 0	4 5½
3″×8″ „	3rd	„	25 10 0	3 1½
2″×8″ „	2nd	„	40 0 0	4 10½
2″×8″ „	3rd	„	25 10 0	3 1¼
3″×7″ „	2nd	„	37 10 0	4 6¾
3″×7″ „	3rd	„	25 0 0	3 0½
2″×7″ „	2nd	„	39 10 0	4 9½
2″×7″ „	3rd	„	24 0 0	2 11
2″×6″ „	u/s	„	23 0 0	2 9½
1¼″×11″ „	3rd	„	38 10 0	4 8¾
1¼″×9″ „	u/s	„	35 0 0	4 3
1″×9″ „	2nd	„	47 10 0	5 9¼
1″×9″ „	3rd	„	35 0 0	4 3
1″×11″ „	2nd	„	53 0 0	6 5½
1″×11″ „	3rd	„	40 0 0	4 10¾
1¼″×9″ „	2nd	„	47 10 0	5 9¼
1¼″×9″ „	3rd	„	36 0 0	4 4½
1¼″×11″ „	2nd	„	51 0 0	6 2¼
1¼″×11″ „	3rd	„	41 0 0	4 11¾

JOINER—(*continued*)

Flooring

		½″	1″	1¼″
Yellow deal, plain edge in batten widths ..	per square	20/6	24/–	30/6
Ditto, T. & G.	per square	21/–	24/6	31/–
Ditto, T. & G. narrow widths	per square		23/6	28/–
T. & G. rift sawn B.C. pine in 4″ widths ..	per square		32/6	42/6
T. & G. random grain, in 4″ widths	per square		19/6	

Wall Linings

Deal Match Boarding :—		
1″ × 6″ T.G.B.	per square	26/6
1″ × 4½″ T.G.V.	per square	25/–
⅝″ × 6″ T.G.B.	per square	19/–
⅝″ × 4½″ T.G.V.	per square	18/6
½″ × 6″ T.G.B.	per square	15/9
½″ × 4½″ T.G.V.	per square	15/6
½″ × 4½″ T.G.V.	per square	12/–
Asbestos-Cement :—		
5/32″ Semi-compressed flat building sheets, grey	per yard super	1/3½
5/32″ Ditto	per yard super	1/4
¼″ Ditto	per yard super	1/11
¼″ Metal reinforced flat building sheets	per yard super	3/2¾

Prices are for orders of two tons and over and are subject to 5% trade discount.

LENNOX CASTLE INSTITUTION *Wylie, Shanks & Wylie, Architects*

HOPE'S WINDOWS

CURRENT PRICES

JOINER AND STEEL AND IRONWORKER

BY DAVIS AND BELFIELD

JOINER—(*continued*)

Wall Boards :—

¼″ Asbestos wallboard (in sheets 8′ 0″ × 4′ 0″, 10′ 0″ × 4′ 0″ and 12′ 0″ × 4′ 0″) under 5,000 feet super	per foot super	–/2¾
3/16″ Ditto	per foot super	–/2¼

The following prices are subject to 10 per cent. trade discount :—

Asbestos-cement stipple glazed sheets (in sheets 8′ 0″ × 4′ 0″ and 4′ 0″ × 4′ 0″) ..	per yard super	6/6
Ditto, plain white glazed sheets (in sheets 8′ 0″ × 4′ 0″ and 4′ 0″ × 4′ 0″)	per yard super	8/6
Marble glazed sheets (in sheets 8′ 0″ × 4′ 0″ and 4′ 0″ × 4′ 0″) ..	per yard super	7/–

	300 yards	300–1,000 yards	1,000–2,000 yards	Over 2,000 yards
½″ Fibre board ..	2/–	1/10	1/8	1/6

		25-75 yards	150–300 yards	600 yards
⅜″ Fireproof plaster board	per yard super	2/2	1/10	1/6
¼″ Ditto	per yard super	2/–	1/8	1/4
Joint tape (approx. 250 feet run)	per roll	..	..	1/6
Joint filler	..per lb.	..	..	–/4

Plywoods :—

	4 m/m	5 m/m	6 m/m	9 m/m	15 m/m
Birch (A) per square	18/9	23/6	—	37/–	—
„ (B) per square	15/6	—	21/–	30/6	43/–
Japanese figured oak (A.A.) per square	33/6	—	39/3	65/–	—
Austrian oak, figured one side, plain oak reverse (A.A.) per square	—	—	86/3	92/6	—
Australian walnut, finely figuredoneside(boards 72″ × 36″) per square			¼″ 67/6	⅜″ 85/–	
Sycamore, figured one side (ditto) per square			75/–	85/–	
Honduras mahogany, figured one side (ditto) per square			75/–	—	
Honduras mahogany, finely figured (boards 84″ × 36″) per square			125/–	—	

Prices are for complete bundles.

Blockboards :—

Alder :—

Thickness		Boards 60″ × 183″	Boards 72″ × 183″
½″	per square	59/3	59/3
5/8″	per square	66/3	66/3
¾″	per square	72/6	72/6
7/8″	per square	79/–	79/–
1″	per square	85/6	85/6
1¼″	per square	99/6	99/6
1⅜″	per square	114/6	114/6
1½″	per square	128/–	128/–

Birch :—

Thickness		Boards 60″ × 84″ & 54″ × 72″	Boards 60″ × 140″
½″	per square	43/9	47/3
5/8″	per square	50/–	54/–
¾″	per square	55/3	59/6
7/8″	per square	60/–	64/–
1″	per square	67/6	72/3

Prices are for complete bundles.

Hardwoods

Joinery Quality.

English oak	per foot cube	15/–
American oak (plain)	per foot cube	10/–
„ „ (quartered)	per foot cube	12/–
Australian Silky Oak (plain) ..	per foot cube	11/–
„ „ „ (quartered) ..	per foot cube	12/6
Walnut, European	per foot cube	18/–
Teak, Rangoon	per foot cube	15/–
Iroko	per foot cube	12/–

JOINER—(*continued*)

Mahogany, Honduras	per foot cube	13/6
„ „ Cuban	per foot cube	18/–
American whitewood	per foot cube	9/–
Birch	per foot cube	8/–
Cedar (aromatic)	per foot cube	16/–
Japanese oak (plain)	per foot cube	10/–
„ „ (quartered)	per foot cube	12/–
Austrian oak (plain)	per foot cube	10/6
„ „ (quartered)	per foot cube	14/–

Sundries

Slaters or sarking felt	per yard run	–/6
Roofing felt	per yard run	–/8
Bituminous hair felt	per roll	33/–
All rolls 25 yards long by 32″ wide.		
Cork slabs, 1″ thick (3′ 0″ × 1′ 0″)	per foot super	–/4½
„ 2″ thick (3′ 0″ × 1′ 0″)	per foot super	–/8
Slagwool	per cwt. (approx.)	12/–
Building paper in rolls of 100 yards, 1-ply, 60″ wide (B.I.80 and L.G.I.80)	per roll	67/6
Ditto, 2-ply, 60″ wide (B.I.80)	per roll	135/–
Ditto, 2-ply, 60″ wide (B.I.20)	per roll	202/6
" Cabots " Quilt :—(Ex Works Twelve roll lots delivered carr. free. Double ply .. per roll 42/–	per half roll	23/6
All rolls 28 yards long by 36″ wide. Special terms for quantities.		
Cut steel clasp nails, 1″ per cwt. 29/9	4″	per cwt. 20/9
„ „ floor brads, 2″ „ 20/–	3″	per cwt. 19/6
Bright oval wire nails 1″ „ 29/3	4″	per cwt. 21/3
Galvanised wire staples with slice cut points	1″ × 12 gauge	per cwt. 31/–
Scotch glue		per cwt. 65/–

Floor Clips :—

		£ s. d.
One leg floor clip	per 1,000	7 10 0
2″ short leg floor clip	per 1,000	7 10 0
2″ Regular floor clip	per 1,000	7 15 0
3″ „ „	per 1,000	8 8 0
2″ Regular ceiling clip	per 1,000	7 15 0
Single leg ceiling clip (7½″)	per 1,000	10 10 0

Special terms for quantities.

STEEL AND IRONWORKER

Steelwork

		£ s. d.
Basis price for rolled steel joists sections 5″ × 3″ to 16″ × 6″, in 10 ft. to 50 ft. lengths	per ton	12 10 0
Extras on above for :—		
9″ × 7″ Section	per ton	0 5 0
4″ × 3″, 5″ × 2½″, 10″ × 8″, 12″ × 8″, 14″ × 8″ and 16″ × 8″ to 20″ × 7½″ sections inclusive	per ton	0 10 0
3″ × 1½″, 3″ × 3″, 4″ × 1¾″, 4½″ × 1¼″ and 24″ × 7½″ sections	per ton	1 0 0
Channels, angles and tees	per ton	13 10 0
Mild steel plates	per ton	13 10 0
Screw bolts	per ton	31 0 0

Fabricated Steelwork

		£ s. d.
Joists cut and fitted	per ton	16 10 0
Stanchions, ordinary sections with riveted caps and bases	per ton	20 0 0
Stanchions, compound	per ton	28 0 0
Plate girders	per ton	24 10 0
Framed roof trusses, 25′ 0″ span	per ton	25 0 0
„ „ „ 60′ 0″ span	per ton	28 0 0

These prices are *ex mills*. For material *ex stock*, definite quotations should be obtained.

Prime Galvanized Corrugated Iron Sheets
(Ex London Stocks)

	10 cwt. lots £ s. d.	Less quantity £ s. d.
4 to 9 fts. 18 or 20 gauge, 8/3″ corrugations .. .. .. per ton	18 15 0	19 15 0
10 fts. 18 or 20 gauge, 8/3″ corrugations	19 5 0	20 5 0
4 to 9 fts. 22 or 24 gauge, 8/3″ corrugations .. .. .. per ton	19 5 0	20 5 0
10 fts. 22 or 24 gauge, 8/3″ corrugations	19 15 0	20 15 0
4 to 8 fts. 26 gauge, 8/3″ corrugations ..	20 10 0	21 10 0
9 fts. 26 gauge, 8/3″ corrugations ..	21 0 0	22 0 0
10 fts. 26 gauge, 8/3″ corrugations ..	21 10 0	22 10 0
Galvanized roofing nails 2½″	per cwt.	37/6
Galvanized roofing washers	„ „	45/–

CURRENT PRICES

BY DAVIS AND BELFIELD

PLASTERER, PLUMBER AND INTERNAL PLUMBER

PLASTERER

Plaster and Cement

		1-ton loads	5-ton loads	
Sirapite (coarse)	per ton	70/–	64/–	
„ (fine)	per ton	78/–	—	
Victorite No. 1	per ton	85/–	78/6	6-ton loads
„ No. 2 or non sweat	per ton	80/–	78/6	6-ton loads
Thistle (browning, haired and pink finish)	per ton	70/–	64/–	
Thistle (fine)	per ton	78/–	—	
Pink plaster	per ton	66/–	—	
White plaster	per ton	78/–	—	
Keene's pink	per ton	112/6	—	
Keene's white	per ton	117/6	—	
Super Carbo	per ton	—	47/6	4-ton loads
Carbo-setting	per ton	—	57/6	4-ton loads

	1 ton upwards £ s. d.
Cullamix No. 2 cream (rendering mixture) per ton	5 10 0
„ No. 3 cream „ „ per ton	5 10 0
Snowcrete mixture „ „ per ton	5 5 0

Sundries

Sharp washed sand per yard cube	8/–
Cow hair per cwt.	40/–
Goat's hair per cwt.	55/–
⅜″ laths per bundle	2/–
½″ laths per bundle	2/4½
Expanded metal lathing, 9′ 0″ × 2′ 0″	
½″ mesh × 26 gauge per yard super	–/11
Lath nails (galvanized) 1½″ × 14 gauge per cwt.	48/6
„ (bright wire) „ „ „ per cwt.	27/–

	Less than 150 yds.	Less than 300 yds.	Over 300 yds.
½″ Plaster board per yard super	1/–	–/11	–/10
1½″ Galvanized nails per lb.		–/5	
Scrim cloth in 100-yard rolls per roll		2/8	

Wall Tiles

Commercial quality.	
Ivory, white, etc., glazed 6″ × 6″ × ⅜″ per yard super	9/9
Angle beads (1½″ wide) per yard run	1/2½
„ „ (1″ „) per yard run	–/10
Rounded edge tiles per yard run	2/6½
Coloured enamelled bright glazed, 6″ × 6″ × ⅜″ per yard super	14/3
Angle beads (1½″ wide) per yard run	1/4½
„ „ (1″ „) per yard run	–/11½
Rounded edge tiles per yard run	2/7
Eggshell gloss enamelled, 6″ × 6″ × ⅜″ per yard super	15/–
Angle beads (1½″ wide) per yard run	1/7½
„ „ (1″ „) per yard run	1/0½
Rounded edge tiles per yard run	2/8½

PLUMBER

Lead

● 3½ lbs. and upwards milled sheet lead in quantities of 5 cwts. and upwards per cwt.	23/–
Add if cut to sizes per cwt.	3/–
Lead ternary alloy, No. 2 quality extra over sheet lead per cwt.	7/–
Allowance for old lead delivered to merchant per cwt.	12/9

Cast Iron Rainwater Goods (Painted or Unpainted)

The following prices for rainwater pipes and gutters are subject to 20 per cent. trade discount, and the prices of the fittings are subject to 5 per cent. and 20 per cent. trade discount.

Rainwater Pipes

	2″	2½″	3″	3½″	4″	4½″	5″	6″
Round pipes per yard	2/8½	2/9¾	3/7¾	4/0¾	4/9½	6/1¾	7/2¼	9/2
Shorts, 2′ 0″, 3′ 0″ and 4′ 0″ extra per yard	–/3¾	–/3¾	–/3¾	–/3¾	–/3¾	–/5	–/5	–/5
Bends each	1/9	2/–	2/6	3/–	3/7	5/–	6/6	8/5
Offsets, 4½″ and 6″ projection each	2/2	2/8	3/–	3/5	4/4	6/3	7/6	9/10
Offsets, 9″ projection each	2/10	3/2	3/9	4/8	5/7	7/6	8/10	11/2
Branches, single each	2/7	3/1	3/9	4/4	5/3	7/6	8/5	13/1
Shoes each	1/6	1/9	2/–	2/8	3/–	4/4	5/5	7/6

PLUMBER—(*continued*)

Square and rectangular pipes.	
3″ × 3″ per yard	6/9½
3½″ × 3½″ per yard	8/4
4″ × 2″ or 2½″ per yard	7/4½
4″ × 3″ per yard	7/4½
4″ × 4″ per yard	9/0½
4½″ × 3″ per yard	8/5½
5″ × 3″ or 3½″ per yard	9/7

Gutters

	3″	3½″	4″	4½″	5″	6″
Half round gutters per yard	1/9½	2/1	2/1	2/2½	2/4½	3/7½
Shorts 2′ 0″, 3′ 0″ and 4′ 0″ extra per yard	–/2½	–/2½	–/2½	–/2½	–/3¼	–/3¼
Angles and nozzle pieces each	1/5	1/7	1/9	2/–	2/2	3/1
Stop ends each	–/5	–/5	–/7½	–/9	–/10½	1/–
Ogee gutters per yard	2/1	2/3½	2/4½	2/6	2/9½	3/10½
Straight back and shorts 2′ 0″, 3′ 0″ and 4′ 0″ extra per yard	–/2½	–/2½	–/2½	–/2½	–/3¼	–/3¼
Angles and nozzle pieces each	1/11	1/11	2/–	2/4	2/8	3/3
Stop ends each	–/6	–/7½	–/9	–/10½	1/–	1/3

Mild Steel Rainwater Goods

The following prices are subject to 12½ per cent. trade discount.

24 Gauge rainwater slip jointed pipes.

	2″	2½″	3″	3½″	4″
Galvanized round pipes with ears per 6′ 0″	2/7½	3/1½	3/9	4/3	4/9
Painted round pipes with ears per 6′ 0″	2/4½	2/9	3/1½	3/7½	4/–
Painted or galvanized short lengths with ears, extra each	–/6	–/6	–/6	–/6	–/6

18 Gauge Gutters.

	3″	3½″	4″	4½″	5″	6″
Galvanized half round gutters per 6′ 0″	2/–	2/3	2/4½	2/9	3/–	3/7½
Painted half round gutters per 6′ 0″	1/6	1/9	2/–	2/3	2/6	3/–
Painted or galvanized short lengths extra each	–/3	–/3	–/3	–/3	–/3	–/3

Asbestos-Cement Rainwater Goods

The following prices are subject to 12½ per cent. trade discount.

Orders over £30 are subject to 17½ per cent. trade discount.

Rainwater pipes.

Prices are for 6′ 0″ lengths, and 10′ 0″ lengths in 2″, 2½″ and 3″ diameters. Short lengths up to 2′ 0″ are charged as one yard. From 2′ 0″ to 4′ 0″ charged as 1½ yards. From 4′ 0″ to 6′ 0″ charged as 2 yards. Over 6′ 0″ charged as 10′ 0″.

Round pipes.	
2″ per yard run	1/10
2½″ per yard run	2/0½
3″ per yard run	2/5½
3½″ per yard run	2/11½
4″ per yard run	3/4½
4½″ per yard run	4/10½
5″ per yard run	5/9½
6″ per yard run	7/1½

Gutters.

Short lengths of gutter up to 2′ 0″ charged as 1 yard; from 2′ 0″ to 4′ 0″ as 1½ yards, and over 4′ 0″ as 2 yards.

	3″	4″	4½″	5″	6″	8″
Half round gutters per yard run	1/3¾	1/6½	1/7½	1/11	2/8	3/3½
Ogee gutters per yard run	—	1/11	2/0½	2/5½	3/0½	3/11½

INTERNAL PLUMBER

● Lead pipe in coils, 5 cwts. and upwards per cwt.	22/6
● Lead soil pipe per cwt.	25/6
Add if ribbon marked per cwt.	–/3
Lead ternary alloy, No. 2 quality extra over lead pipe per cwt.	7/–
● Plumber's solder per cwt.	102/–
● Tinman's solder per cwt.	130/–

Drawn lead traps with brass screw eye, 6 lbs.

	1″	1½″	1½″	2″
S. trap each	1/7	1/10	2/3	3/3
P. trap each	1/5	1/6	1/10	2/8
Extra for 3″ deep seal each	–/6	–/6	–/6	–/6

● **Items marked thus have risen since July 6.**

CURRENT PRICES

INTERNAL PLUMBER

BY DAVIS AND BELFIELD

INTERNAL PLUMBER—(*continued*)

Screwed and Socketed Steel Tubes and Fittings for Gas, Water and Steam, etc.

Tubes.	½″	¾″	1″	1¼″	1½″	2″
Tubes 2 ft. long and over per ft.	-/5½	-/6¾	-/9¼	1/1	1/4½	1/10
Pieces 12″ to 23½″ long each	1/1	1/5	1/11	2/8	3/4	4/9
Bends .. .. each	-/11	1/2	1/7½	2/7½	3/2	5/2
Fittings.						
Elbows, square .. each	1/1	1/3	1/6	2/2	2/7	4/3
Elbows, round .. each	1/2	1/5	1/8	2/4	2/10	4/8
Tees .. .. each	1/3	1/7	1/10	2/6	3/1	5/1
Crosses .. .. each	2/9	3/3	4/1	5/6	6/7	10/6
Sockets, plain .. each	-/4	-/5	-/6	-/8	-/10½	1/3
Sockets, diminished each	-/6	-/7	-/9	1/-	1/4	2/-
Flanges .. .. each	1/-	1/2	1/4	1/9	2/-	2/9
Caps .. .. each	-/5	-/6	-/8	1/-	1/3	2/-
Plugs .. .. each	-/4	-/5	-/6	-/8	-/10	1/3

Fittings and flanges and tubes ordered in long random lengths are subject to the following trade discounts :—

	Tubes	Fittings	Flanges
Gas	62½%	53¾%	57½%
Water	58½%	50%	52½%
Steam	56½%	46¼%	47½%
Galvanized gas	53¾%	46¼%	47½%
,, water	48¾%	42½%	42½%
,, steam ..	43¾%	38¼%	37½%

Brasswork. Best Quality

	½″	¾″	1″
Brass screw-down bibcocks, with crutch top, screwed for iron .. per dozen	33/-	51/-	90/-
Ditto, with screw ferrule .. per dozen	38/-	57/-	99/-
Chromium plated easy clean screw-down bibcocks, with capstan head lettered, screwed for iron .. per dozen	54/-	78/-	153/-
Ditto, with screw ferrule .. per dozen	61/-	88/-	166/-

	Brass Screwdown Stop Cocks with Unions both Ends	Brass Screwdown Stop Cocks with Screwed Ends	Brass Screwdown Stop Cocks with Male Screwed End and Iron Unions
½″ .. .. per dozen	44/-	33/-	41/-
¾″ .. .. per dozen	65/-	51/-	50/-
1″ .. .. per dozen	99/-	83/-	93/-
1¼″ .. .. .. each	13/6	11/9	12/9
1½″ .. .. .. each	21/9	18/6	20/3
2″ .. .. .. each	41/3	38/3	39/-

	½″	¾″	1″
Portsmouth pattern ball valve for low pressure, screwed for iron .. each	4/1	5/11	12/-
Ditto, with flynut and union .. each	4/9	6/9	13/6
High pressure ditto, screwed for iron each	4/1	5/11	12/-
Ditto, with flynut and union .. each	4/9	6/9	13/6

	2″	2½″	3″	4″
Socket thimble sloping shoulder per dozen	10/-	13/-	16/-	22/-

	1½″	2″	2½″	3″
Flanged ferrule thimble .. per dozen	8/-	10/-	14/-	17/5

	½″	¾″	1″	1¼″	1½″	2″
Union joints for lead and iron .. per dozen	8/3	11/3	15/5	28/2	46/9	101/2
Single nut short boiler screws .. per dozen	6/-	9/-	15/-	21/-	33/-	60/-
Double nut boiler screws per dozen	9/-	10/-	16/-	23/-	44/-	69/-
Belfast sink wastes stamped brass with brass plug diameter of outlet 2″ .. .. .. per dozen						19/10

Galvanized Mild Steel Open Top Cisterns riveted with internal angle iron at top and corner plates

The following prices are subject to 15% and 20% trade discount :—

	14-gauge £ s. d.	12-gauge £ s. d.	¼″ plate £ s. d.	⅜″ plate £ s. d.
50 gallon capacity each	2 5 11	2 14 5	3 1 7	7 0 8
100 ,, each	3 8 9	4 2 11	4 16 9	9 10 8
200 ,, each	6 6 9	6 19 5	7 18 3	13 1 0
500 ,, each	12 6 0	13 16 1	15 16 3	22 6 9
1,000 ,, each	—	21 9 4	24 19 5	34 15 4

INTERNAL PLUMBER—(*continued*)

Galvanized Hot Water Tanks, fitted with handhole cover.

The following prices are subject to 15% and 20% trade discount :—

Capacity	16-gauge tested to a pressure of 1 lb. per sq. inch = 1½ ft. head of water £ s. d.	14-gauge tested to a pressure of 3 lbs. per sq. inch = 4½ ft. head of water £ s. d.	12-gauge tested to a pressure of 7½ lbs. per sq. inch = 10 ft. head of water £ s. d.	¼″ plate tested to a pressure of 10 lbs. per sq. inch = 15 ft. head of water £ s. d.
20 gallons each	2 0 3	2 3 11	2 7 8	2 12 9
40 ,, each		3 1 7	3 9 0	3 16 8
		Tested to a pressure of 5 lbs. per sq. inch = 7½ ft. head of water		Tested to a pressure of 7½ lbs. per sq. inch = 10 ft. head of water
60 ,, each		4 19 3		5 5 5
80 ,, each				7 5 7
100 ,, each				8 4 5

Screwed flanges or bosses

½″	¾″	1″	1¼″	1½″	1¾″	2″	2½″	
1/8	2/-	2/4	2/11	3/4	3/9	4/8	6/9	Extra per flange or boss.

2½″	3″	3½″	4″	4½″	5″	6″
8/4	14/3	16/9	19/3	26/11	30/1	45/1

Galvanized Hot Water Cylinders, Mild Steel Riveted throughout, without Manhole, with usual number of flanges

The following prices are subject to 15% and 20% trade discount :—

Capacity	16-gauge tested to 5 lbs. pressure = 10 ft. head of water £ s. d.	14-gauge tested to 15 lbs. pressure = 30 ft. head of water £ s. d.	12-gauge tested to 20 lbs. pressure = 40 ft. head of water £ s. d.	¼″ plate tested to 25 lbs. pressure = 50 ft. head of water £ s. d.
20 gallons each	1 18 7	2 2 8	2 8 4	2 15 4
40 ,, each	2 10 11	2 16 8	3 6 1	3 15 0
65 ,, each		4 8 7	5 1 8	5 16 1
75 ,, each		5 1 7	5 15 0	6 11 4
85 ,, each			6 10 8	7 11 9
100 ,, each				8 2 5

Cast Iron Soil Pipes and Connections, L.C.C. $\frac{1}{16}$″ metal.

The following prices for soil pipes are subject to 20% trade discount, and the prices of the fittings are subject to 20% and 5% trade discount.

	2″	2½″	3″	3½″	4″	5″ ¼″ metal	6″ ¼″ metal
Minimum weights in lbs. per 6′ 0″ length	24	30	35	41	46	78	92
Pipes coated or uncoated per yard run	3/10½	4/0¾	4/5¾	5/-	5/8¼	11/8	14/0¾
Double sockets extra each	-/11¼	-/11¼	-/11¼	-/11¼	-/11¼	1/0¾	1/0¾
Short lengths extra 2′, 3′ and 4′ per yard run	-/3¾	-/3¾	-/3¾	-/3¾	-/3¾	-/5	-/5
Single spigot branch cast on pipe .. .. each	4/3	4/5	4/7	4/9	4/11	7/6	9/3
Single socket branch cast on pipe .. .. each	10/9	11/-	11/3	11/6	11/9	16/-	19/-
Bends, standard angles each	3/1	3/5	3/9	4/8	5/3	9/4	12/9
Large radius bends each	4/-	4/4	5/-	6/-	7/-	13/-	16/9
Inspection bends raised flange door, 4 gunmetal bolts .. .. each	16/1	16/11	17/9	18/8	19/3	31/10	36/6
Swannecks 4½″ and 6″ projection .. .. each	3/9	4/4	5/11	6/10	7/11	14/11	20/1
9″ ditto .. .. each	5/-	5/7	6/10	7/11	9/4	17/1	22/10
12″ ditto .. .. each	5/11	6/10	7/11	9/8	10/7	19/1	27/1
Single branch with two sockets. T pieces. T pieces diminishing two sockets, inverted two sockets.	3/9	4/8	5/7	6/6 each	7/6	15/10	21/8
Parallel branch pieces not exceeding 6″ centres. Y pieces. Anti-syphon branches with curved arm.	4/10	5/11	6/10	7/11 each	8/11	—	—
Double branch pieces, three sockets .. .. each	5/11	7/-	7/11	9/-	10/3	20/3	27/3
Inspection branch pieces double oval access door, 2 gunmetal screws each	12/11	14/-	14/11	16/6	17/9	29/2	36/2
Long branch pieces each	5/-	6/-	7/3	8/6	9/9	19/-	25/-

CURRENT PRICES

BY DAVIS AND BELFIELD

COPPERSMITH AND ZINCWORKER, GLAZIER AND PAINTER

COPPERSMITH AND ZINC WORKER

Copper

Hot rolled copper sheeting in 1 cwt. lots, all gauges to 24 wire gauge	per lb.	-/9½
Light gauge copper tube, solid drawn	per lb.	-/11¾
Copper tube, solid drawn screwing sizes	per lb.	-/11½
Copper wire, 10 and 12 gauge	per lb.	-/10¼
Copper nails, 1″ and up	per lb.	-/11

Fittings for Copper Tubes

Compression Type	½″	¾″	1″	1¼″	1½″	2″	2½″
Straight coupling each	1/1½	1/4½	2/–	2/7	3/8½	5/5½	13/7
Obtuse elbow each	1/9¾	2/1½	3/2	4/–	7/10	10/1½	—
Tees .. each	2/0¾	2/4¾	3/10½	5/7½	8/11	12/8	18/7½
Crosses .. each	2/11	3/3½	5/0½	6/1½	10/6½	14/8	26/6
Reducing coupling each	—	1/4½	2/–	2/7	3/8½	5/5½	13/7
Bends .. each	1/6½	1/10½	2/10	3/7½	6/4½	9/6¾	13/7
Brass stop cocks each	3/8½	5/6	8/–	14/10	20/3	34/10½	—

Extra for Polishing 25%; Chromium plating 50%; Nickel plating and polishing 50%.

Capillary Type							
Straight coupling each	-/8	-/11½	1/5½	1/11	2/7	3/9	6/4¾
45° elbow .. each	1/5½	1/11	2/7½	3/6½	5/3½	7/11	11/5½
Tees .. each	1/7½	1/10	3/–	4/5	6/3	9/3	14/1
Crosses .. each	2/0½	2/3½	3/9	5/3½	8/–	11/8	20/4
Reducing coupling each	—	-/7	-/9½	1/2	1/9	3/1	4/10
Bends .. each	1/9	2/1½	3/1	4/2	6/7½	9/3	13/2
Pillar tap connection .. each	1/1½	1/7½					

Extra for Polishing 15%; Chromium plating 40%; Nickel plating 27½%.

Zinc

	Quantities of less than 3 cwts.	Quantities of more than 3 cwts.	Quantities of more than 5 cwts.
Sheet zinc, 10 gauge and up .. per cwt.	33/6	33/–	32/6
		5 sheets and under	12 sheets
8 gauge zinc safe hole perforated sheets, size 8′ 0″ × 8′ 0″ .. per sheet		4/11½	4/2½
7 gauge ditto .. .. per sheet		4/4½	3/9
6 gauge ditto .. .. per sheet		3/11	3/4¼

GLAZIER

Sheet Glass cut to size (ordinary glazing quality)

	In squares not exceeding 2 ft.	4 ft.	5 ft.	Over 6 ft.
18 oz. clear sheet .. per foot super	-/2¼	-/2¾	-/3	-/3¼
24 oz. ditto .. .. per foot super	-/2¾	-/3¾	-/4	-/4⅜
32 oz. ditto .. .. per foot super	-/4	-/5⅞	-/6⅞	-/7⅞
Obscured sheet glass net extra	-/1½	-/1½	-/1½	-/1½
⅛″ figured rolled glass, white per foot super	-/6½			
⅛″ ditto, normal tints .. per foot super	-/9½			
Hammered, double rolled, Cathedral white per foot super	-/6			
Ditto, normal tints .. per foot super	-/8½			

Thick Drawn Sheet Glass cut to size

	In squares not exceeding 1 ft.	2 ft.	3 ft.	4 ft.	6 ft.	8 ft.
⅛″ thick .. per foot super	-/9	-/11	1/–	1/2	1/3	1/5½
¼″ thick .. per foot super	-/11	1/–	1/3	1/5	1/7	1/9½

	In squares not exceeding 12 ft.	20 ft.	45 ft.	65 ft.	90 ft.	100 ft.
⅛″ thick per foot super	1/5½	1/8	1/8	—	—	—
¼″ thick per foot super	1/9½	2/3	2/3	2/6½	2/10½	2/10½

For selected glazing quality add 10 per cent. to the above prices.

British or Foreign Polished Plate Glass cut to size

Ordinary ¼″ Substance	Glazing for Glazing Purposes	Selected Glazing Quality	Silvering Quality
In Plates not exceeding			
1 ft. super .. per foot super	1/1	1/4	1/7
2 ,, .. per foot super	1/5	1/7	1/10
3 ,, .. per foot super	1/10	2/1	2/6
4 ,, .. per foot super	2/6	2/9	3/2
6 ,, .. per foot super	2/9	2/10	3/3
12 ,, .. per foot super	2/11	3/2	3/8
45 ,, .. per foot super	3/1	3/10	4/2
65 ,, .. per foot super	3/4	4/3	4/11

GLAZIER—(*continued*)

British or Foreign Polished Plate Glass cut to size—(contd.)

Ordinary ¼″ Substance	Glazing for Glazing Purposes	Selected Glazing Quality	Silvering Quality
In Plates not exceeding			
90 ft. super .. per foot super	3/7	4/8	5/1
100 ,, .. per foot super	3/9	4/10	5/4

Plates exceeding 100 ft. super or 160 in. long or 104 in. wide at higher prices.

The usual thickness of polished plate glass is about ¼″, but if required of special thickness for glazing purposes add to the above for :—

	Plates up to and including 4 ft. super	All plates over 4 ft. super
⅛″ to 3/16″ .. per foot super	-/2	-/4
3/16″ to 7/32″ exact per foot super	-/2	-/3
7/32″ .. .. per foot super	No extra	-/1½
¼″ bare .. per foot super	,,	-/1¾
¼″ exact .. per foot super	-/2	-/2
5/16″ to ⅜″ .. per foot super	No extra	-/4½
⅜″ exact .. per foot super	-/2	-/6

Special quotations should be obtained for other qualities and thicker substances.

Silvering

	Ordinary Quality on Polished Plate, Thick Drawn Sheet, Patent Sheet and Plain Sheet	On Embossed or Decorative Work
12 ft. super or 90 in. long per ft. super	9d.	1/4
20 ft. ,, or 100 in. long per ft. super	10d.	1/4
45 ft. super, 50 ft. ,, } or 110 in. long per ft. super	1/–	1/5
	1/0½	1/6
55 ft. ,, 60 ft. ,, } or 120 in. long per ft. super	1/1	1/6½
	1/1½	1/7
65 ft. ,, 70 ft. ,, } or 130 in. long per ft. super	1/2	1/8
	1/3	1/9½
75 ft. ,, 80 ft. ,, } or 140 in. long per ft. super	1/4	1/11
	1/5	2/0½
85 ft. ,, 90 ft. ,, } or 150 in. long per ft. super	1/8	2/5
	1/11	2/9½
95 ft. ,, 100 ft. ,, } or 160 in. long per ft. super	2/2	3/2
	2/5	3/8

For silvering on fluted sheet, figured rolled and cathedral, add 4d. a foot to the prices set out in the first column for polished plate, etc.

Silvering bent glass, double or more, according to bend.

For plates over 100 ft. super add 3d. per ft. super for every 5 ft. or part of same.

Plates over 160 in. long at special rates.

Stripping for re-silvering, add 8d. per ft. super.

Wired Glass Cut to Sizes

¼-in. Georgian rough cast .. .. per ft. super 10d.				
	In squares not exceeding 1 ft.	2 ft.	3 ft.	4 ft.
¼-in. Georgian polished plate per ft. super	2/6	2/8	2/10	3/2
	8 ft.	12 ft.	20 ft.	30 ft.
¼-in. Georgian polished plate per ft. super	3/8	3/10	4/2	4/6

Supplied in sizes up to 110 in. long and up to 36 in. wide.

For cutting to allow for wires in adjacent pieces to be "lined up," add 4d. per foot super.

PAINTER

White ceiling distemper	per cwt.	11/6
Washable distemper	per cwt.	60/–
Petrifying liquid	per gallon	4/6
Ready mixed white lead paint (best) 5-cwt. lots, in 14 lb. tins	per cwt.	66/–
White enamel	per gallon	25/–
Aluminium paint	per gallon	20/–
Stiff white lead, genuine English stack process, 1-ton lots, in 1-cwt. kegs	per cwt.	49/3
Driers	per cwt.	36/–
Linseed oil raw (5-gallon drums)	per gallon	3/–
,, boiled ,, ,,	per gallon	3/3
French polish	per gallon	11/6
Knotting	per gallon	16/–
Oil stain	per gallon	12/–
Varnish, oak	per gallon	10/–
,, copal	per gallon	16/–
,, flat	per gallon	20/–
Turpentine, genuine American, 5-gallon lots	per gallon	3/3
Creosote, 1-gallon lots	per gallon	1/4
Putty	per cwt.	18/–
Size	per firkin	3/6
Best English quality gold leaf, 23 carat	per book	2/4½
Extra thick, ditto	per book	3/6