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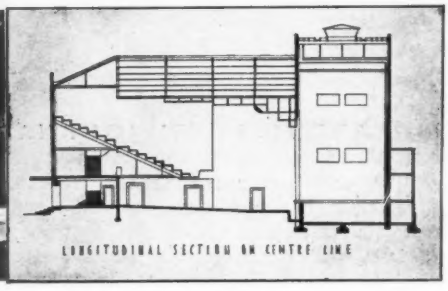
King's Lynn

Architect: Keeble C. Allflatt

Contractors: Messrs. C. D. Allflatt (King's Lynn)



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THE ARCHITECTS' JOURNAL

THURSDAY, MAY 26, 1938 NUMBER 2262 : VOLUME 87

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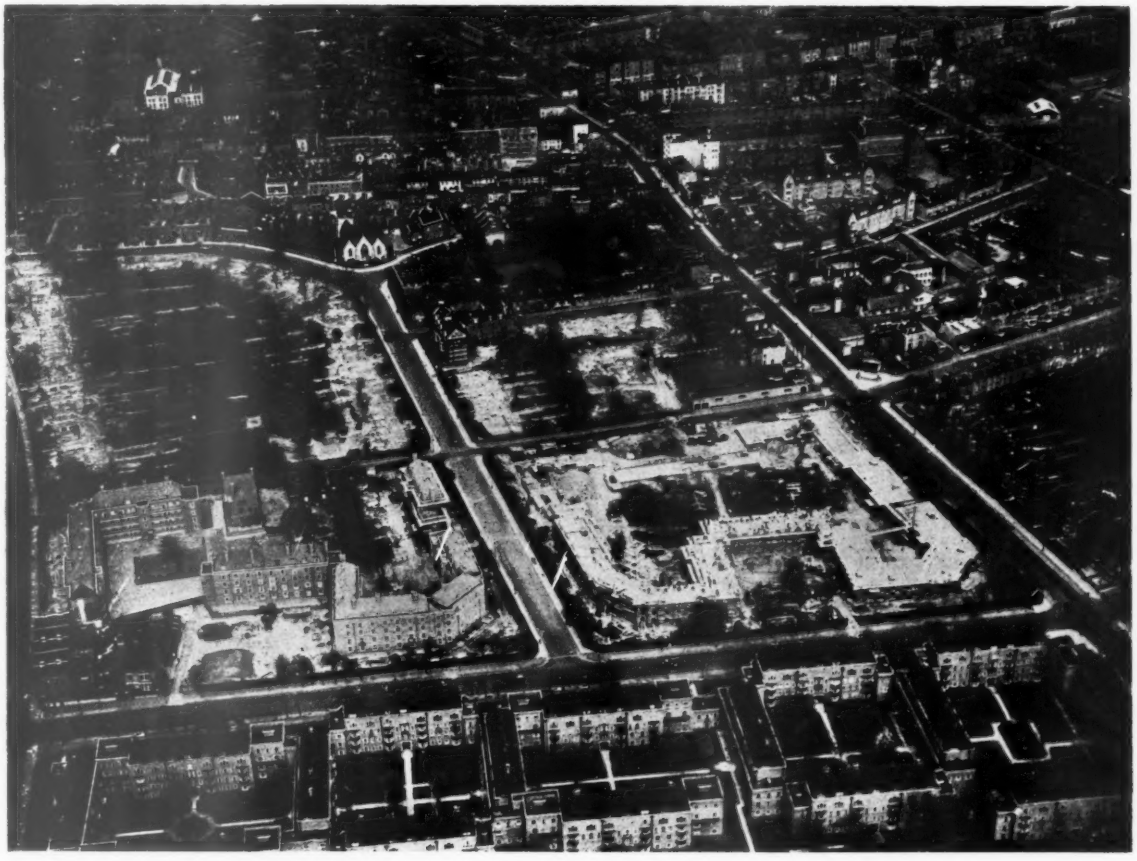
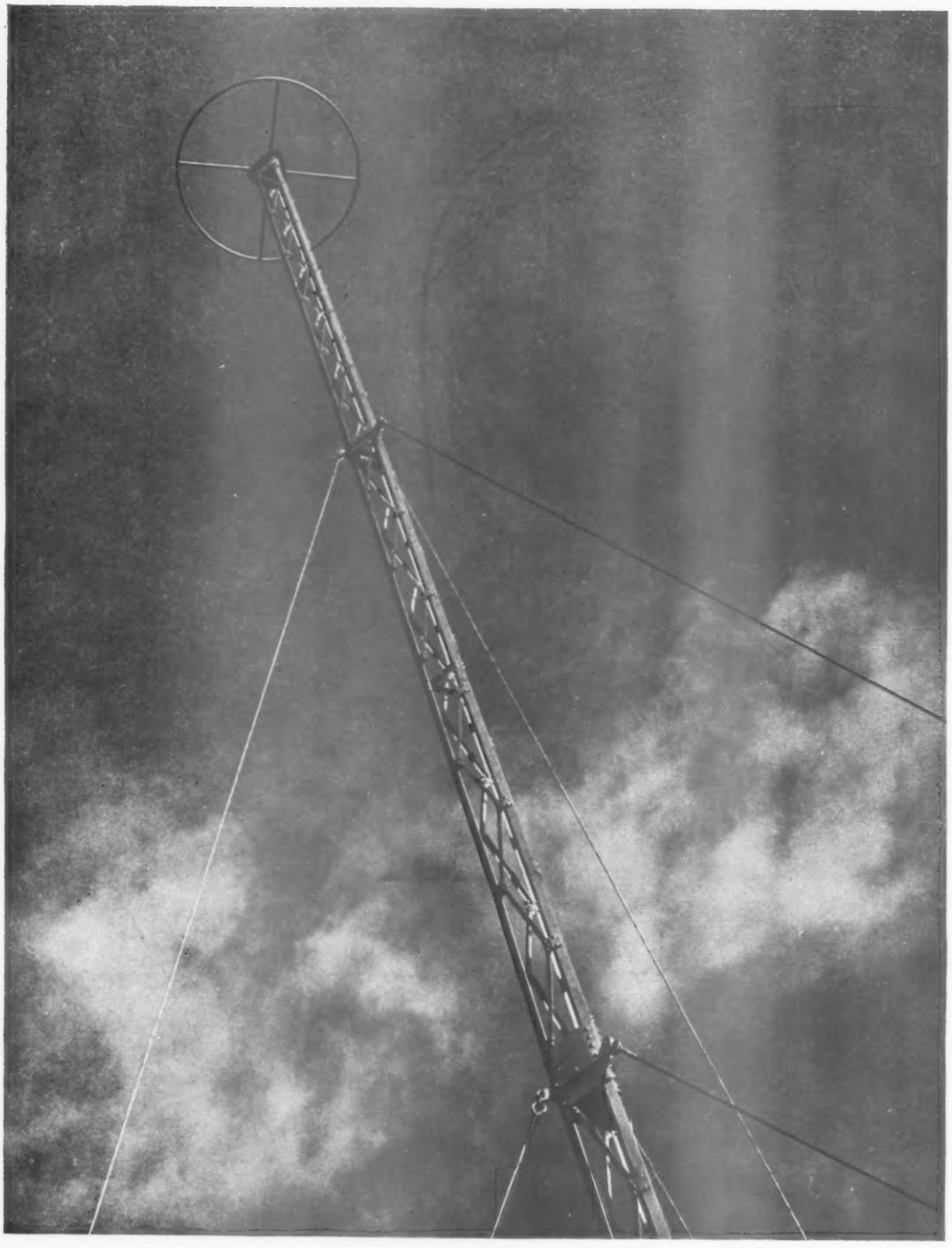
The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

PRINCIPAL CONTENTS

FLATS UNDER CONSTRUCTION



An aerial photograph showing the progress being made on the construction of blocks of flats in Larkhall Lane and Wandsworth Road, London, S.W.

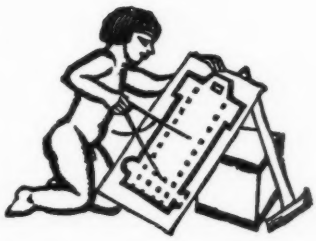


CALLING ALL STATIONS

The mast rising from the B.B.C. Pavilion at the Empire Exhibition, Glasgow. (Photo: Bryan Westwood).

During the last three weeks the Third Reading of the Registration Bill and the Special Issue on "Silence" have interrupted the series of articles on architects and territorial planning.

In resuming the series the JOURNAL *considers the problem important enough to justify a second summary of its arguments before putting forward its conclusions. The stages of these arguments are set out below.*



RESTATEMENT

DURING the last twenty years, after a century in which private competitive production was employed to supply almost every requirement, a conviction that the system has grave deficiencies has been growing steadily stronger.

The average man and woman have slowly discovered that unrestricted private competition is only really efficient where quick turn-overs are possible, where failures can be abandoned and new fields of profitable enterprise are readily available.

It is slowly being realized that in Britain these conditions no longer exist. It is seen that in a heavily populated small country most of the requirements of reasonably satisfactory existence can only be achieved by long-term programmes calling for a high degree of co-operation between a multitude of interested parties.

The average man now believes that the primary possessions of the country should be safeguarded from abuse by some such co-operation. He resents profiteering in land, the dreary twelve-to-the-acre congestion of housing and the casualties on the roads. He may not know the right solutions for these things, but he is tired of small solutions that don't work and is beginning to welcome attempts at large solutions.

Architects must concern themselves with these attempts at large-scale co-operative solutions — with the problems of land utilization—if they are to avoid sliding into a subordinate *rôle* within the next twenty years.

Architects, perhaps influenced by the need for caution in accepting new building techniques, are very slow in accepting changes. Yet it is now obvious that the majority of commissions for isolated buildings—which must remain the architect's chief source of livelihood —will tend increasingly to come from public or semi-public groups and not from individuals or private firms. It is also obvious that a great many of such commissions will arise in consequence of town and territorial planning schemes. This state of affairs will compel a huge change in the profession's relations with the public.

Artistic competence in a profession does not move the average public body very much. What the average public body wants is help in its own troubles ; and what moves it is a profession which has studied those troubles and has a policy for their remedy which it is not afraid to advocate.

In post-war housing, slum clearance, road policy and trading estates, architects collectively have so far merely followed the band. But supposing public opinion decides to tackle all these questions on a bigger scale, have architects any policy, any organization, which would enable them to take part in such work on any scale larger than passing resolutions?

In the JOURNAL's view architects have no such organization. Nearly the whole of their collective energy has been devoted for thirty years to consolidating and raising standards in that main part of their work which is concerned with designing individual buildings on individual plots. These efforts have been successful, but they have caused neglect of the second field of architectural activity—which is dealing with the planning problems arising from the interplay of all the activities of the community. The average man never thinks of architects having any connection with housing, transport and industry.

To him they are still as bound up with wealth as steam yachts ; they are associated with art, archæology and preservation societies. To make it clear that architects collectively have bigger views, that they have thought about gardens, housing, open spaces, children, roads and congestion—and not merely thought about them, but are in a position to influence by their collective opinion the authorities dealing with these things—would be the most effective of all forms of professional propaganda.

At present the profession is sitting still while the public, coming gradually to favour attempts at co-ordinating the various uses of land on a large scale, are moving past it accompanied by a retinue of engineers, town-planners, statisticians and miscellaneous officials.

The individual architect may admit the truth of all this and still deny the necessity for architects to join with economists, political theorists, well-meaning local authorities in the game of evasive legislation which is now town-planning.

The JOURNAL admits that the change to a more constructive view of planning will call for the highest degree of co-operation between a multitude of experts. But the resulting schemes will be none the less planning ; and will need for the achievement of inspired compromises men who, beginning on architecture on a small scale, have enlarged their powers until they are capable of being architects on a grand scale.

It may be asked where the organization, training and finance to provide such men are to be found. The answer is that three schools already exist, established largely by individual architects who realized the eventual necessity of planning the uses of land for the maximum convenience of all the interests involved. But the profession does not use them. If architects decide to organize and subsidize the study of such planning problems they have the means already available.

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NOTES & TOPICS

A.A. : OFFICIAL

A BRIEF statement in the *A.A. Journal* announces the retirement of Mr. E. A. A. Rowse, most famous as the originator of the Planning School, from his post of Principal of the A.A. School of Architecture. Mr. Fernand Billerey, whose name is associated with the Beaux Arts, is to take over until a successor is found. I don't envy him his position as go-between.

*

There should not be any doubt this time, one supposes, as to who the new principal ought to be.

DIVORCE PROCEEDINGS

I am disappointed. I always imagined that the A.A. and the Planning School were a well-mated pair, but it seems there has been a serious domestic hitch, despite the success of their offspring. Think of that bright young town we saw at the MARS Exhibition, and that scheme for the replanning of the South Side, illustrated in the JOURNAL a week or so ago.

*

This is a serious thing. Not only is the A.A.'s valuable link with the Planning School in danger, but the future of the Planning School itself is questioned. It would be a calamity if this imaginative venture should be allowed to collapse before it has had time for a serious try-out. Its title (School of Planning and Research for National Development) was perhaps over-ambitious, but its idea—co-ordination of sociology, economics, science and architecture—has always seemed to me one of the most hopeful movements in our somewhat inert democracy.

*

The A.A., as an independent institution, is surely in a better position than any attached School to support lively, far-reaching experiments of this kind. Is it going to admit failure already?

I am relieved to hear that there are a few great men, besides myself, who want to save the Planning School. Among them are Sir Raymond Unwin and Mr. Frank Pick.

*

Sir Raymond, by the way, has a supporter in *John Bull* this week. "Small house-buyers," *John Bull* says, "have had a nasty shock when they found a factory being erected near by to spoil their amenities and depreciate their property. . . . And you are right in declaring that there will never be proper location of roads, factories and open spaces unless a central planning authority is set up."

PLANNING FOR A DEMOCRACY

And while I am still on this ever urgent topic, I may as well mention that we can soon look forward to a new book by Lewis Mumford called *The Culture of Cities*. Recently published in America, it was given a three-page write-up in that much imitated but inimitable news organ, *Time*. It seems that "sturdy, brown-skinned, brown-eyed author Mumford" has made a survey of the growth of cities, and after unsparing condemnation of the present urban scene, has put forward intelligent and practicable reforms.

*

Lewis Mumford is known over here for his *Technics and Civilization* and for his *New Yorker* articles on "The Skyline," which are the best examples of architectural criticism I know, particularly from the point of view of interesting the man in the street.

CORRESPONDENCE (DAILY TELEGRAPH)

> The Post Office has been taking much trouble recently over artistic designs for posters and pamphlets. Could not this interest be extended with success to pillar-boxes? They could take the forms of the Greek : Doric, Ionic and Corinthian. Greek architecture is simple and becoming, and the Post Office would do well to copy it. Pillar-boxes were called after pillars and resemble them. No doubt the Post Office could find some utilitarian excuse for different styles—such as a different style for a different series of times of collection. Even if it would be impracticable to adopt as many as three different patterns, it is time the design was changed—and the Doric fluting with the simple base is eminently suited to the familiar pillar-box.
>
> M. H. C. MOLLAN, Fleet.

*

At present being also called after boxes, they foolishly tend to resemble *them*.

COMPARATIVE ACCURACY

Ancestor worship dies hard. When Sir Robert Tasker, like a miniature prophet, read in the Commons his list of the departed great who had not been members of the R.I.B.A., I admit I felt a little put out.

*

The profession in those days may have been nothing in size or influence to what it is now, the R.I.B.A. was, no doubt, very different . . . still, I was dismayed.

*

Bentley, Rowand Anderson, Bodley, T. G. Jackson, Gilbert Scott, Norman Shaw—it was an impressive roll-call.

*

But now I have heard from a correspondent who also thought it odd ; one who was intrigued enough to do a little research.

*

Of the famous who were not members of the R.I.B.A.,

5 out of 12 *were* members, and 2 others were R.I.B.A. Gold Medallists. I am the first to allow eloquence a margin of error—but the inclusion among non-members of Sir Gilbert Scott, Fellow, President and Royal Gold Medallist of the R.I.B.A., seems to me to verge upon the stiff.

*

It even seems to justify recalling that under the L.C.C.'s renaming scheme for streets, a road in Hampstead has been called Tasker Road, after, I am told, a former Chairman of Committee. It is a short and depressing *cul de sac*.

A MATTER OF PRINCIPLE

"Famous Architect's 6s. 9d. Revolt" ran a one-inch headline in the *Star* last week—the type of headline which we hope will grow less frequent with the passing years.

*

It all boils down to the fact that Sir Edwin Cooper, Yorkshire-born, 65-year-old designer of £3,000,000 of buildings in one year, says: "I will not spend 6s. 9d. to tell the world something they already know"—in short, he won't become a Registered Architect.

*

The grandeur and the publicity of this gesture gives a touch of colour to a time when architects are slowly realising the need for a little elementary collaboration.

TO H—LL WITH MARS

MARS has not been much in the limelight since its Great Exhibition, but has by no means been resting on its laurels. There is now news of a less spectacular MARS enterprise which seems just the kind of thing it is well organized to do.

*

Apparently the group offered to endow an annual prize at various architectural schools, to be awarded to the student who submitted a design (done as part of his school work) most in keeping with MARS aims. The biggest architectural school in this country coldly refused to have anything to do with such a Bolshie idea, but the Hull School of Architecture welcomed it and improved on the proposal by inviting the MARS Group to set one of the school programmes—the award to be based on work done in solution of this programme.

*

The results I am told were of high standard and the jury, on which Mr. Skinner of Tecton and Mr. John Summerson were the MARS representatives, have awarded the prize to Mr. K. H. Vickers—who should, as they say, go far.

*

To round off the enterprise Mr. Summerson went down to Hull to give a criticism of the work submitted.

APOLOGY TO HUDDERSFIELD—

Published in the correspondence columns of this issue is a letter from the chairman of the Public Library and Art Gallery Committee of Huddersfield. He rebukes me for "a pitiable exhibition of ignorance" in my recent note about the proposed sculpture outside the new Huddersfield Library.

*

I can only say that my remarks, which were based on apparently inaccurate information, were not intended to question the taste of the Art Gallery Committee nor the capabilities of the sculptor, Mr. James Woodford.

*

I am very glad to hear that the statues are not, after all, to be nude, and that the symbolism will be confined to motifs and low-relief panels which are more capable of containing it. I admit that before I had visions of another kind of thing altogether—the sort of statuary occasionally encountered in the squares of provincial towns in France and more frequently in the boulevards of Buenos Aires—Journalism undoing the boots of Truth, who in turn, has a kindly hand on the shoulder of Art—but then I have much too lively an imagination.

AND TO THE REIMANN SCHOOL AND STUDIOS

Last week, in praising the Reimann Studios' work at Glasgow, I suggested a collaboration between staff and brighter students. I am told this might be taken to imply that student labour is used in the ordinary commercial jobs undertaken by the Studios.

*

I hasten to correct so shocking an impression. The Reimann Studios are places where students may watch and learn but must not touch, and are staffed separately from the school.

SIR OWEN'S RAMP

On the south bank of the river, near Waterloo Bridge, a reinforced concrete ramped garage for the *News Chronicle* is going up. Engineer-architect is Sir Owen Williams. Architect-advisor to the Duchy of Cornwall, on whose property the garage stands, is Mr. Louis de Soissons. He has suggested, so I understand, that the garage should be faced with brick. Sir Owen, amicable as ever, has agreed to cover up his concrete—with concrete bricks.

THEME BUILDING

Advance publicity copy tells us that San Francisco's Golden Gate International Exposition is planning a "Pacific Theme Building." It is to be planned—and here's a real problem for you—"as a means of bringing nations of the Pacific into closer relationship."

*

It is to be set "picturesquely on an island in the lagoon. . . . Elliptical steel sash windows 30 feet high and 50 feet across will allow sunlight to flow through the entire structure. . . . In the centre of the building will be the huge Hall of Pacific Relations, according to Dr. Philip Newell Youtz . . one wall of the hall will contain a mammoth illuminated map with neon tubes showing the geographical location of the various Pacific countries and the trade routes." There is also to be an inner sanctum reserved for round-table conferences of leaders of thought in the Pacific nations. Culture, science, medicine, art, etc., etc., will be discussed once a week.

*

One can picture the leaders of thought, seated around the table in the dappled sunlight, pondering the influence of Japanese flower decoration on Sino-American culture.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

THE ARCHITECTS' DIARY

Thursday, May 26

GARDEN CITIES AND TOWN PLANNING ASSOCIATION. *At the Housing Centre, Suffolk Street, S.W.1. Exhibition of books on planning. Until May 31.*

Friday, May 27

ROYAL SANITARY INSTITUTE. *At the Royal Technical College, George Street, Glasgow. Discussion on "Air Raid Precautions," by Lieut. C. Fraser; "The City Engineer's Part in Air-Raid Precautions Schemes," by Thomas Somers, and "Medical Services," by Dr. William C. Gunn. 5.15 p.m. May 28: Various visits.*

COUNCIL FOR THE PRESERVATION OF RURAL ENGLAND. *At Ashridge Park, Hertfordshire. Conference on "The Use of the Countryside." Until May 30.*

Monday, May 30

NATIONAL INSTITUTE OF INDUSTRIAL PSYCHOLOGY. *At the London School of Hygiene and Tropical Medicine, W.C. "Industrial Relations in the United States and Great Britain—II." By C. N. Northcott. 5.30 p.m.*

CHARTERED SURVEYORS' INSTITUTION, *Gt. George Street, S.W.1. Annual General Meeting. 5 p.m.*

Tuesday, May 31

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C.2. "Town Planning in America." By Sir Raymond Unwin. 8.30 p.m. Also, last day of the Exhibition of the Work of the Dublin Painters.*

COLLAPSE OF REINFORCED CONCRETE FLOOR AT BLACKPOOL

The Town Planning and Building Regulation Committee of the L.C.C. at a recent meeting of the Council referred to the happening at Blackpool on March 31, 1938, when a reinforced concrete floor collapsed during the construction of a new building. It was reported that "as regards buildings which are subject to the control of the Council under the London Building Acts such a collapse could not occur if the provisions of the by-laws made under the Acts are complied with. The duty of obtaining compliance with the by-laws is laid upon the district surveyors whose attention has been specially drawn to the matter."

LEEDS STUDENT GAINS W. YORKS AWARD

The West Yorkshire Society of Architects has awarded the Bedford Scholarship for 1938 to Mr. Frank Booth. Mr. Booth, who is twenty-one years of age, is a fifth-year Diploma student in the Leeds School of Architecture, Leeds College of Art, and is the holder of a Senior West Riding Architectural Scholarship.

As Bedford Scholar, Mr. Booth proposes studying transport problems in relation to town and country planning.

CITY ARCHITECT TO DESIGN ALL CIVIC WORK IN LEICESTER

All new municipal buildings except schools and houses will be designed in future by the Leicester Corporation architectural department, unless the City Council gives special permission for outside help to be obtained.

This is the effect of a resolution approved by the Parliamentary and General Purposes Committee of the City Council, and follows investigations made by a sub-committee.

The resolution states: "All architectural schemes required by committees of the Council, excepting the Housing and Education Committees, be referred to the City Architectural Department now in existence under the control of the City Surveyor. No outside services to be engaged without special permission of the Council."

CITY ARCHITECT FOR BELFAST

The proposal to appoint a city architect and to establish an architectural department was discussed at a recent meeting of the Belfast Corporation General Purposes sub-committee.

A report was presented by the City Surveyor in which he stated that the cost of the present separate architectural sections of his department was £5,159 13s. 8d. Reorganized as a distinct unit the cost would be only £4,709 13s. 8d.

REMOVING 660 VILLAGES FOR VOLGA RECONSTRUCTION SCHEME

When the two dams now being built on the Volga are completed a couple of years hence, huge reservoirs will be formed near Uglich and Rybinsk. The waters of the Volga, the Sheksna and Mologa will submerge an area 1¼ million acres in extent. The zone to be submerged includes eight districts in the province of Yaroslavl and four in the provinces of Kalinin and Vologda. The submerging of this immense area entails the removal of 660 villages and a few towns. The ancient town of Mologa will be entirely submerged, while the towns of Vesygonsk, Kalyazin, Kimry, Poshekhono-Volodarsk, will be partially submerged. At present negotiations are proceeding between representatives of the towns and villages in the affected zone and the Volga Reconstruction Trust (Volgastroi) regarding the choice of new sites, and the transference to them of populations, buildings, etc.

THOMAS v. HAMMERSMITH B.C.: APPEAL BY THE COUNCIL

In the Court of Appeal, High Court of Justice, on Thursday, May 19, Lords Justices Greer, Slesser and Mackinnon commenced the hearing of the appeal by the Hammersmith Borough Council from a judgment of Mr. Justice Porter, sitting in the King's Bench Division, on December 21 last, in favour of Sir Alfred Brumwell Thomas, F.R.I.B.A., who was awarded £7,000 for breach of contract and remuneration for his services in designing a proposed Town Hall at Hammersmith, which was estimated to cost £200,000.

The hearing is expected to last until the end of the week.

BLACKBURN CATHEDRAL EXTENSION

The Blackburn Council of Cathedral Builders has authorised the immediate entering into of a second contract for £35,000 to complete the whole of the transepts of the Cathedral extension.

The first contract was for £55,000, which amount is in hand.

INTERNATIONALIZED ARCHITECTURE

"There are buildings rising in London today on the sites of some of the loveliest Georgian houses in the country, which might well have imbibed some of the spirit of the structures which they had displaced. London, somehow, does not offer the right setting for internationalized or standardized architecture. New structures, however modern they may be in equipment and function, should never completely abandon the architectural traditions which are the very warp and woof of this City."—Mr. Vincent Massey, High Commissioner for Canada, speaking at the dinner of the British Antique Dealers' Association at Grosvenor House, London, W.

R.I.B.A. CONFERENCE IN DUBLIN: COMPETITION FOR POSTER DESIGN

The Council of the Royal Institute of the Architects of Ireland invites the submission of designs in competition for a poster to be issued in connection with the Centenary Conference, to be held in Dublin in June, 1939. It also invites submission of designs for a metal and enamel lapel badge for the use of delegates.

The Council has appointed Mr. George Atkinson and Mr. Vincent Kelly to act as assessors.

Copies of conditions may be obtained from the Hon. Secretary of the Centenary Celebrations Committee, 8 Merrion Square, Dublin, on payment of 5s., which may be refunded.

THE FACULTY OF ARCHITECTS AND SURVEYORS

At a recent meeting of the Executive Council of the Faculty of Architects and Surveyors, the President, Mr. T. A. Shackles, F.F.A.S., of Grimsby, was re-elected President for the year commencing June 1, 1938, and Mr. H. H. Murray, F.F.A.S., M.S.R.A., of Banstead, was elected President-Elect for the same year.

The following were elected vice-presidents of the Faculty: Mr. R. R. Allan, F.F.A.S., M.S.R.A., M.R.S.I., (Knaresborough); Mr. H. H. Clement, F.F.A.S., M.S.R.A., (Birmingham); Mr. J. Murray-Wickham, F.F.A.S., M.S.R.A., (London); Mr. G. Silvester, F.F.A.S., (Southampton); and Councillor H. H. R. Ward, F.F.A.S. (London).

PROFESSIONAL ANNOUNCEMENT

Messrs. Burt and Ballard, FF.S.I., Chartered Quantity Surveyors, of 5 Grey Friars, Leicester, have opened a branch office at Westminster Bank Chambers, Iron Gate, Derby. Telephone 3365.

GLASGOW EXHIBITION

The caption beneath the photograph of the Post Office building at the Glasgow Exhibition on page 774 of our issue for May 12 should have read ". . . the external shell

only was designed by Mr. Jack Coia ; and the internal fittings were designed by Mr. W. H. Ludlow, the Post Office architect."

R.I.B.A.

NEWS BULLETIN

Exhibition of Sydney Cathedral Designs.—From Wednesday next, June 1, the designs submitted in the competition for St. Andrew's Cathedral, Sydney, will be on view at the R.I.B.A. between the hours of 10 a.m. and 8 p.m., Saturdays 10 a.m. to 5 p.m. The Exhibition will close on Wednesday, June 15.

The A.R.P. Conference, June 13 to 15.—The Conference is open to all registered architects and all classes of members of the R.I.B.A. and its allied and associated societies. The inaugural meeting is at 8 p.m. on June 13. Those wishing to attend the instructional course on June 14 and 15 must send in their names beforehand. The lectures and discussions will begin at 10 a.m. and 2 p.m. each day.

Exhibitions.—" Modern Schools " at Bradford College of Arts and Crafts, May 23 to June 11. " Health, Sport and Fitness " opens at Bristol Museum and Art Gallery, June 1.

FINAL EXAMINATIONS

The following are the dates on which the forthcoming examinations will be held :

Final Examination.—July 13, 14, 15, 16, 18, 19 and 21, 1938. (Last day for applications : June 13, 1938.)

Special Final Examination.—July 13, 14, 15, 16, 18 and 19, 1938. (Last day for applications : June 13, 1938.)

It has been decided to publish the questions set for the R.I.B.A. Examination for the Office of Building Surveyor under Local Authorities, after each Examination. In accordance with this decision, the questions set for the Examination held from May 4 to 6, 1938, are on sale at the R.I.B.A., price 1s. per copy.

At the R.I.B.A. Statutory Examination for the Office of District Surveyor in London, held on May 4, 5 and 6, 1938, the following candidates presented themselves and were successful : Messrs. F. L. Felgate, A.M.I.STRUCT.E., L.R.I.B.A., and L. C. Stainton James.

At the R.I.B.A. Examination for the Office of Building Surveyor under Local Authorities, held on May 4, 5 and 6, 1938, five candidates presented themselves and the following were successful : Messrs. Robert Conway and Alfred F. Cox.

ELECTION OF MEMBERS

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

As Hon. Corresponding Members (3) : Messrs. P. M. Cantacuzino (Bucarest) ; G. Ponti (Milano) ; and Professor F. Schuster (Mödling-Wien).

As Fellows (7) : Messrs. L. M. Austin (Poole, Dorset) ; S. Bentley (Southampton) ; C. Leckenby (York) ; E. A. Remnant (London) ; W. Coates (London) ; F. Waddington (Preston) ; and J. W. Tomlinson (Luton).

As Associates (23) : Messrs. A. E. Allan (Aberdeen) ; (Miss) H. B. Blaker (Farnham Royal, Bucks) ; A. H. Brookholding-Jones (London) ; E. G. Chapman (Kew, Surrey) ; G. D. Diack (Aberdeen) ; C. R. Emslie (Aberdeen) ; W. R. Fowler (Meols, Cheshire) ; J. M. Gauldie (Edinburgh) ; I. H. Horsburgh (London) ; P. E. Marshall (London) ; S. P. Murray (Aberdeen) ; L. D. O'Brien (Cranleigh, Surrey) ; D. E. Percival (London) ; (Mrs.) M. A. Richards (London) ; D. M. Roberts (Woking, Surrey) ; (Miss) J. J. Stops (London) ; (Miss) S. Tindal (Dublin) ; C. Watson (Leeds) ; C. C. Webb (London) ; and R. L. White (Beaconsfield). *(Overseas)* : Messrs. E. J. Barker ; R. Broad (Singapore) ; and G. E. Wilson (Neutral Bay, Sydney).

As Licentiates (9) : Messrs. M. H. de L'Orme (London) ; G. C. Dyer (Liverpool) ; J. C. Everitt (Leicester) ; F. J. Gibbins (London) ; A. L. Osborne (London) ; S. D. Mole (Taunton, Somerset) ; R. A. Pye (Norwich) ; J. Wignall (Southport, Lancs) ; and F. G. Yorath (Stoke-on-Trent).

Professor Really Speaking

AT last, after months of silence, I have got a slight response to my garrulity. No one likes to go on talking entirely unnoticed. There is another professor, John Hilton, a real one, too, with a Chair at Cambridge, who writes a weekly article in the *News Chronicle*. He would be quite up a tree but for the letters he receives on all sorts of things. I think the subject of his Chair from what he writes ought to be " Life's little difficulties," instead of, I believe, " Industrial Relations." The general subject of this monthly article of mine might similarly be called " The profession's little difficulties." Here is someone, signing himself " A Hopeful Special Finalist," who has helped me by objecting to my calling the R.I.B.A. examinations the back door into the profession. Better still, Harold Falkner, whose drawings and work I have admired all my life, says I am now telling some 1,000 ex-students of mine that all I have been teaching them during the last thirty years is " tripe." Splendid ! Tripe, of all things.

Perhaps as an old member of the Art Workers' Guild, Falkner disapproves of the texture of tripe when he sees it gracefully laid out on a marble slab. Perhaps other people are like him. I have often wondered why that delicate delectable material is used as a term of the utmost reproach and abhorrence. I rather enjoy eating it occasionally when properly cooked with milk and onions. It has a faint but pleasant flavour and is very digestible. I am sure, however, Falkner means the worst when he uses the word. I need not therefore despair. I have hooked a good fish at last. For thirty years, he implies, I have been a desperate fraud teaching classical architecture. Now I am convicting myself once a month out of my own mouth and telling everyone it was all wrong—all what he so delicately calls tripe. That is first rate. My bait has raised two fishes, the second quite a good-sized one. Let us have a look at them.

The first gentleman says he was born like many others—I will not dispute that—" in 1904 or thereabouts," and that recognized schools of architecture were scarcely heard of when he entered the profession, say seventeen or eighteen years later, that is in 1921 or 1922. Yet Liverpool, the first to be recognized, was recognized by the R.I.B.A. for exemption from the Intermediate in 1902 and for the Final, together with the A.A. School, in 1920. What a very ignorant young man this young man must have been, or how careless in his enquiries !

Now, as to the front and back doors. The R.I.B.A. examinations only became the back door when there was a better way in. I took that back door myself in 1902, but it was the front door then. I mention this because my correspondent seems to wonder how I got in at all.

Finally, he asks : " What about the Licentiate class who get in without any examination ? Which door is their entrance ? " If it were true, which it is not, I would remind the writer of the letter that every house has still another entrance besides the back and front doors. It has the drain up which little animals have been known to crawl. But I understand folk wanting to become Licentiates *are* examined. In theory they pass the best examination of all, for they are examined on the actual buildings they have put up. With them, indeed, the test of the pudding is in the eating, the real practical test of whether a man is an architect or not. The other two tests, which I have called the front and back doors, are theoretical tests of which I maintain the School test is the front door because it is the better and surer test of the two. Whether the Licentiate test of actual buildings is a first-class test or not I cannot swear. It should be and as a loyal member of the Institute, whatever the members of the Competitions Committee may once have thought of me, I am prepared to say it is until it is proved to be otherwise.

Now for Harold Falkner and his tripe. What a dear old simpleton he is ! He, too, must be in his anecdotage, like I am. I enjoyed his pleasant meandering byways of history as everybody must have done. I wish he would contribute more notes about the gods of half a century ago and how we looked while we worshipped them. My hair was red then, he says. It never was, but never mind. That sort of thing makes pleasant Sunday afternoon reading.

Where I part company with him is in his ignorance of the main historical development however much he knows about the byways of history. Looking back I still think it was necessary in 1904, when I went to Liverpool, to clear up the mess of Falkner's Arts and Crafts friends with their imitation Jacobean and Elizabethan work, and their immature classical stuff generally. The only way to do it at that time was by a movement for clean mature classic, the final development that is of stone trabeated architecture. We all learnt refinement by so doing. The best modern men today, like Eric Mendelsohn

and Maxwell Fry, to take one from the outside world and one from those trained at Liverpool, are men who have passed through the gymnastic of a complete past style whether they have ever built in it or not. Far from a sound knowledge of classical architecture, or of any other style equally refined, being useless to the modern designer I would say it is essential. I cannot see how otherwise his taste can be trained or how he can have any surety in what he is doing. The clumsy modern stuff one sees about, especially in cinema buildings, is no doubt due to the fact that a great many of the younger architects today have not had that training. I fear some of the schools of architecture are thoughtlessly giving it up. Has Falkner ever reflected on the fact that the most ardent admirers of the old Georgian architecture he is such an expert in copying are to be found among the moderns like Wells Coates and Chermayeff ?

To me there is another and compelling reason apart from the march of time and our changed way of thinking and living, which today makes the parade life of princes and consequently of princely architecture seem wrong, and that is the general and thorough use of steel in all large buildings. Too long Falkner's old friends have let steel do the work and have then tried to forget it was there. The motto he quotes from his old Art Workers' Guild folk about "using materials aright" is all against such a sham. In 1904 our buildings were mainly put up without steel. The first steel frame was, I believe, used in the Ritz Hotel in 1906, when the L.C.C. made Arthur Davis, as he has often told me, ignore it and retain the old thicknesses of his walls. Steel after that only gradually won its way to the front as it were in the thirty years which have followed. Now everyone uses it, and the really honest people say that in a building where the steel does all the work, whether as a steel frame or in rods imbedded in concrete, it is no longer right or sensible to let the width of the window openings and the whole set of proportions that follow from them be determined by what is the safe bearing length of a stone lintol. In short, having passed from the stone and brick age to the steel one, the moderns—all honour to them—as good honest craftsmen, are willing to admit the fact. The traditionalists, on the other hand, who rely on their steel today and still try to hide it, are the dishonest folk. They are attempting, vainly I think, to apply the craftsmanship of stone and brick to an age of steel and concrete. Wren, if he were alive today, would not be found among them. Goodbye for the present, my dear Falkner. May you live long enough yet to have many more big jobs with lots of steel and to show in them that you, too, have at last made an honest man of yourself.

THE BRESSEY REPORT

The Highway Development Plan prepared during the last three years by Sir Charles Bressey, with Sir Edwin Lutyens, R.A., as consultant, was issued last week. It is reviewed on this and the following five pages.

By H. SPENCE-SALES AND JOHN BLAND

THE press has everywhere welcomed the Bressey Report* with rapture. The most extravagant statements have heralded the coming of a Utopian Metropolis almost overnight.

To those who are aware of the difficulty of effecting great improvements in the Metropolis, and who feel their responsibilities in contributing to the change, the greatest value of the Report is that at last a clear and practical line for co-ordinated action has been suggested.

The Times, the day after publication of the Report, wrote, "it is worthy to rank with the few great essays in Town Planning which have been carried out." The truth of this statement can only be realized by reading the Report from cover to cover—the masterly elucidation of the problem to be dealt with, the application of a theory of deflecting traffic from a centrally congested zone, the criticism of existing statutory limitations, the vigorous appeal for co-ordinated action in the pooling of common interests, and the greater need for still wider statutory powers.

The many *dicta* in the Report might with advantage become a creed for architects and town planners.

The Recommendations

The Report is based upon a survey of London highways and is intended to be a forecast of the demands of future development and recommendations for major street works to deal with that problem. It is confined to routes of conspicuous importance from a greater London standpoint.

The outstanding features of the proposals are the series of ring roads designed to deflect traffic from the central congested area, together with a number of radiating routes to carry traffic from the centre to the periphery.

The innermost of these concentric rings is the Loop-Way around the City, the next, a circumferential route, extending from Finchley in the North to Catford in the South and from Ealing in the West to Ilford in the East, the third, an outermost ring consisting of the North Orbital and South Orbital Routes (a circuit of 125 miles), skirting Hatfield in the North, Purfleet and Dartford in the East, Reigate in the South and Egham in the West.

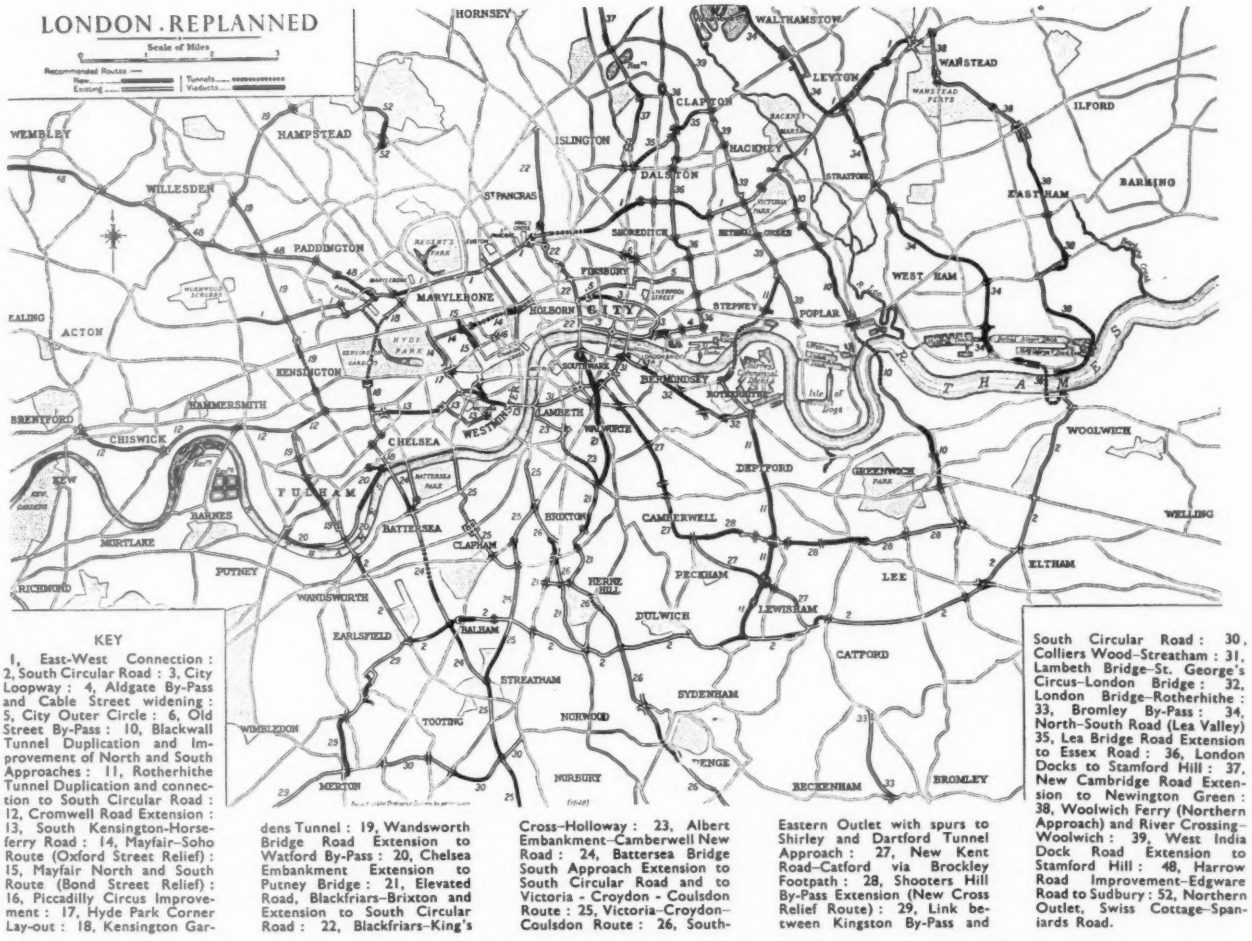
Particular attention has been devoted to the impending changes which will be brought about by the rebuilding of Thames bridges, the creation of new housing estates, the clearance of slum areas and the growth of new industries. The possible extension of riverside embankments has been studied, as well as the need for additional bridges and tunnels with properly designed approaches.

Among the 70 works of major importance the recommendations include various projects for making good one of the conspicuous deficiencies of London's road system—the lack of adequate communications between the centre of the Metropolis and the new arterial roads on the outskirts. Other schemes are designed to link up across London the new arterial roads which enter the Metropolis at opposite points of the compass. A review has been undertaken of some of the yet unfinished arterial road schemes, in order to decide what modification should be introduced so as to secure conformity with more exacting standards than those which prevailed when these arterial roads were planned. Road access to the dock districts has been given close attention, seeing that the existence of the Londoner is primarily dependant upon the Port of London.

The improvement of road communications with aerodromes has been carefully studied, with a view to accelerating traffic between London and its airports. On the open outskirts of London, where space is still available for boldly planned new roads of a parkway type, the exact alignments for a North Orbital Road, a South Orbital Road, and other important routes have been studied in detail. The relation of these schemes to the Green Belt proposals has been taken into account. Certain useful projects for the extension outwards of some of the existing radial arterial roads have been elaborated. In secluded areas which are still typically rural, but which are liable at any time to assume a suburban character, consideration has been given to the difficulties which would surely arise if the present tortuous lanes are retained as the sole or principal means of communication.

In the course of the report, more stress is laid upon the need for the creation of new routes than for the widening of existing roads, as the latter type of improvement constitutes one of the routine operations of Local

* *Highway Development Survey, 1937 (Greater London)*. H.M. Stationery Office. Price, 7s. 6d.



Plan showing Sir Charles Bressey's recommendations for inner London. (Reproduced by courtesy of "The Times.")

Authorities and, therefore, calls for no special advocacy.

It is pointed out that the provision of new routes and the fulfilment of other major recommendations in the Report could not be expected to preclude the improvement of older highways, the traffic on which is likely to increase, even after the creation of alternative routes. Consequently, a review of the most important of these thoroughfares has been made and attention has been drawn to points where improvements would be of special value in easing traffic flow.

Roundabouts of various dimensions, sometimes with built-up centres, and other systems are recommended for such places as "Gardiner's Corner," Aldgate; High Holborn–Kingsway–Theobald's Road; Hammersmith Broadway; Kennington Triangle; Angel, Islington; Archway Tavern; Cambridge Circus; Mornington Crescent; Camden Town; Elephant and Castle.

A continuation of the Victoria Embankment to Putney and the Tower and a consideration of the bridge heads are included in the recommendations.

Controversial Questions

Sir Charles has hesitated to include Charing Cross Bridge among his recommendations as he is of the opinion that the very large expenditure which it would entail could be better applied to other improvements designed to deflect traffic from the most crowded centres, rather than to increase the congestion there. Among schemes of this character to which attention is drawn, are the East-West connection, the South Circular Road (with adequate access to the new Wandsworth Bridge), the City Loop-Way, the improvement of the northern approaches to Wandsworth Bridge, and to Lambeth Bridge. These and other recommendations in the Report are believed would give better value for any money allotted for metropolitan improvements than would the suggested Charing Cross Bridge Scheme. Moreover, so long as this very costly and controversial project remains under debate, it is apt to be pleaded as a bar to the initiation of other less debatable schemes which could be undertaken far more rapidly, with great advantage to the present generation.

Planning Objectives

The Report calls attention to the increasing gravity of the obstruction caused by standing vehicles, particularly in Central London. The main cause of the trouble is the rapid increase in the number of owner-driven cars, an increase of 5·8 per cent. between 1935 and 1937. It is pointed out that authorized parking places can only provide a limited accommodation, and that garages must be provided and preferably a large number of comparatively small garages distributed over a wide area rather than a few garages of great size.

It is also expressed that under the Restriction of Ribbon Development Act, 1935, local authorities have powers to require builders to make adequate provision for the traffic created by or attracted to the premises they desire to erect.

The schemes outlined in the Report are in all cases feasible, though definite alignments and details are not published in order to avoid speculation. In this regard it has been observed that as far as the London County Council area is concerned, town planning operations may exercise little direct influence on highway development, as that august body has so far pursued the policy of excluding from their plan all new roads and road improvements.

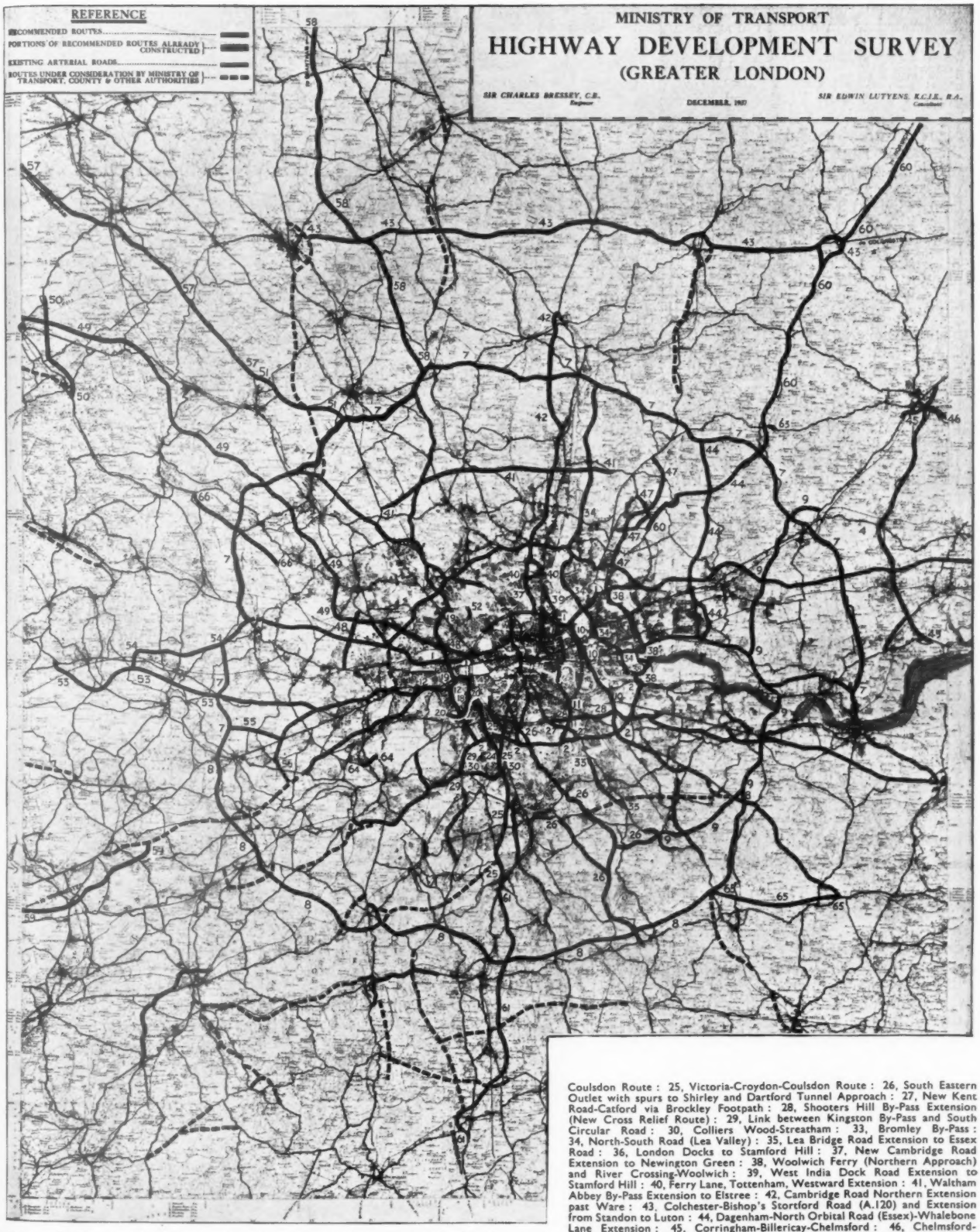
It would seem that it is time that the illegality of speculative obstruction to public works was recognised and punishable. A great deal of the positive value in planning is lost in the continually

A key to the plan reproduced on the facing page, showing the towns within the periphery of the ring roads.

guarded and nearly obscure statement. In the case of the system of Greater London arterial roads proposed in 1913–1916 and commenced in 1919, building development had in the interim been proceeding, and it was found necessary to revise considerably certain sections of the schemes in order to avoid obstructions which, by the exercise of greater foresight, could have been prevented. These revisions have usually impaired the directness of the routes.

It is to be hoped that circumstances in the future will be otherwise. It is observed that the value of both pedestrian subways and of cycle tracks depends, almost entirely, upon a more general recognition by the public of an obligation to use them.

Attention is drawn to the fact that



Plan of Greater London showing the recommendations of the Highway Development Survey. The plan is reproduced by permission of the Controller of H.M. Stationery Office.

1, East-West Connection : 2, South Circular Road : 7, North Orbital Road : 8, South Orbital Road : 9, Dartford-Purfleet Tunnel and Approaches : 10, Blackwall Tunnel Duplication and improvement of North and South Approaches : 11, Rotherhithe Tunnel Duplication and connection to South Circular Road : 12, Cromwell Road Extension : 18, Kensington Gardens Tunnel : 19, Wandsworth Bridge Road Extension to Watford By-Pass : 20, Chelsea Embankment Extension to Putney Bridge : 21, Elevated Road. Blackfriars-Brixton and Extension to South Circular Road : 24, Battersea Bridge South Approach Extension to South Circular Road and to Victoria-Coulsdon Route : 25, Victoria-Croydon-Coulsdon Route : 26, South Eastern Outlet with spurs to Shirley and Dartford Tunnel Approach : 27, New Kent Road-Catford via Brockley Footpath : 28, Shooters Hill By-Pass Extension (New Cross Relief Route) : 29, Link between Kingston By-Pass and South Circular Road : 30, Colliers Wood-Streatham : 33, Bromley By-Pass : 34, North-South Road (Lea Valley) : 35, Lea Bridge Road Extension to Essex Road : 36, London Docks to Stamford Hill : 37, New Cambridge Road Extension to Newington Green : 38, Woolwich Ferry (Northern Approach) and River Crossing-Woolwich : 39, West India Dock Road Extension to Stamford Hill : 40, Ferry Lane, Tottenham, Westward Extension : 41, Waltham Abbey By-Pass Extension to Elstree : 42, Cambridge Road Northern Extension past Ware : 43, Colchester-Bishop's Stortford Road (A.120) and Extension from Standon to Luton : 44, Dagenham-North Orbital Road (Essex)-Whalebone Lane Extension : 45, Corringham-Billericay-Chelmsford : 46, Chelmsford-Canvey Island (Extension of A.130 southwards) : 47, Improvement of Road Communications-Woodford Theydon Area (Essex) : 48, Harrow Road Improvement. Edgware Road to Sudbury : 49, Harrow-Watford Road. Extension past Tring : 50, Aylesbury-Wendover Eastern By-Pass : 51, Hemel Hempstead By-Pass : 52, Northern Outlet. Swiss Cottage-Spaniards Road : 53, Maidenhead By-Pass and Extension (Slough Southern By-Pass) : 54, Slough Northern By-Pass : 55, Staines By-Pass : 56, Great West Road-New Chertsey Road : 57, London-Birmingham Route : 58, Barnet By-Pass Extension Northwards : 59, New Chertsey Road Extension : 60, Improvement of London-Ongar Road (A.113) and Extension to Norwich : 61, Coulsdon-Crawley-Brighton : 62, Abridge By-Pass : 63, High Ongar By-Pass : 64, Teddington Bridge and Approaches : 65, Dunton Green-Wrotham Heath : 66, Ruislip-Heronsgate-Little Chalfont.

new arterial roads have fostered and accelerated to an almost embarrassing extent the development of land for residential, commercial and industrial purposes, and that town planners were often outpaced by ill-directed private enterprise. Ribbon development proceeds unchecked, and in some areas the Local Authorities seem to have regarded the new road frontages as a welcome source of immediate rateable value, derived from continuous rows of houses, each of which is usually flanked with a garage entrance. As a site for industry and manufacture, arterial road frontages offer the great advantage—apart from traffic facilities—of affording a permanent advertisement of the highest value. Could these changes have been foreseen, it is probable that more use would have been made of the powers conferred upon the Road Boards, enabling a belt of land to be acquired along the course of new roads. In many areas the adjoining territory has, unfortunately, been cut up into a serried criss-cross of residential streets which discharge into the main routes at intervals of 300 or 400 ft. impeding the flow of traffic. Building lines of 20 ft. or more were imposed by the Local Authorities along most of the arterial roads, but in some instances when shops have subsequently taken the place of houses, the building has been allowed to come forward half-way across the forecourt—a procedure much to be deprecated.

The purpose of an arterial road being first and foremost to facilitate the flow of through traffic, increasing attention must in future be bestowed upon the control of frontage development which influences so largely the utility and safety of these routes. The aim should be to distinguish clearly between different classes of highway and not to attempt to combine in a single road several incompatible purposes.

It is pointed out that several of the routes recommended in the report entail extensive demolitions across densely built-up areas now served by devious streets, lanes and alleys. If due advantage is to be derived from the expenditure which these projects will involve, it is essential that areas of the kind described should be drastically replanned, so as to bring them into proper relation to the new thoroughfares. If this is not done, the route will be flanked with unprofitable and untidy sites of irregular shape, defying architectural treatment, and entirely unsuitable for modern buildings. As part of the redevelopment plan, it should be the aim to eliminate a large proportion of the small side streets that impede the flow of traffic along the main routes which they intersect. In many parts of London the area occupied collectively by streets, alleys and courts is extravagantly large, and nothing but advantage would accrue from the creation of larger building blocks served by streets spaced at wider intervals. Over large tracts of Inner London the buildings are obsolete or approaching obsolescence, and it would be highly regrettable if the process of rebuilding were allowed to perpetuate an entirely unsatisfactory street plan.

It is also stated that it is outside the province of the Report to put forward detailed plans for the redevelopment of areas adjacent to the new routes, but it is hoped that the responsible Local Authorities will take the task in hand. What machinery they could best apply to this end is primarily a matter for decision by economists and administrators, but it seems doubtful whether satisfactory progress can be attained at a reasonable price and within a reasonable time if each single parcel of property, however small and ill-shaped, is to be regarded as the permanent unit of ownership for the purposes of compensation, when areas adjoining a new route call for radical planning.

A plea is made for pooling of ownership, the co-operation of Local Authorities and the co-ordination of interests without which we shall never have roads or planning, but only a continuation of chaos.

At a conference held at the Ministry of Transport on the morning of the publication of the Report, it was stated by the Minister that though his department was not bound by the recommendation of the Report, he was glad to say that certain proposals which had been recommended in the early stages of the investigation, had already been acted upon.

It is clear that complete commitment to the recommendations of the Report cannot be made. Neither the Ministry nor Sir Charles feel that a final solution in any one alignment has been arrived at.

The whole tenor of the Report, accepting the broad principle of the proposals, is that prevention of the inner congestion is essential; that the alignments indicated must be the basis of further investigations to establish exact alignments within certain wide limits of deviation from the proposals put forward.

It is safe to assume from the contents of various passages in the Report, that a great deal more than the ground mentioned has been covered, and that the question of effectual action both financial and political has been considered.

In view of the very detailed examination that has been made of more than 250 major traffic proposals and schemes prepared by Local Authorities and others, it may be accepted that the various responsible authorities have been drawn into line and the relative importance of schemes decided upon.

A decisive step towards accomplishment of the pattern suggested by the Report is thereby taken. It remains to be seen to what extent the adoption of the essentially "Bressey proposals" will follow and with what vigour this plan for action will be pursued.

It would indeed be a calamity if the recommendations of the Report were to find their way to Ministerial pigeonholes, but there appears to be every hope that this time something will be done.

The responsibility to see a worthy conclusion to this great work resolves itself not only upon responsible Governmental and Local Authorities, but upon all technicians—in particular upon the architects and planners of the extensive redevelopments likely to follow.

COMPETITION

NEWS

COMPETITION FOR COUNCIL OFFICES, BEDWORTH?

A competition for new Council Offices at Bedworth may be arranged in the near future. A sub-committee has been appointed by the Finance Committee of the Bedworth U.D.C. to go into the question and report back in due course for consideration.

COTTAGES IN RURAL AREAS

A competition has been held to obtain designs for houses suitable for occupation by families living in rural areas in Scotland. The purpose is to obtain plans of well-designed cottages which, while incorporating necessary conveniences and meeting modern needs, would not involve expensive features which would increase the cost of the houses beyond the normal.

Seventy-six competitors have submitted 210 designs, which are now on exhibition at the gallery of Messrs. Aitken Dott and Son, 26 South Castle Street, Edinburgh. The exhibition will remain open until Monday next between the hours of 10 a.m. and 5.30 p.m. (1 p.m. on Saturday, May 28). Pending the completion of the assessors' report, the names of the successful competitors are not yet known.

The intention is that full working drawings of the winning designs will be printed and made available for purchase at a reasonable charge through H.M. Stationery Office.

SWIMMING POOL, DUN LAOGHAIRE

The result of the competition for the proposed £100,000 swimming pool at Dun Laoghaire, has been announced as follows:

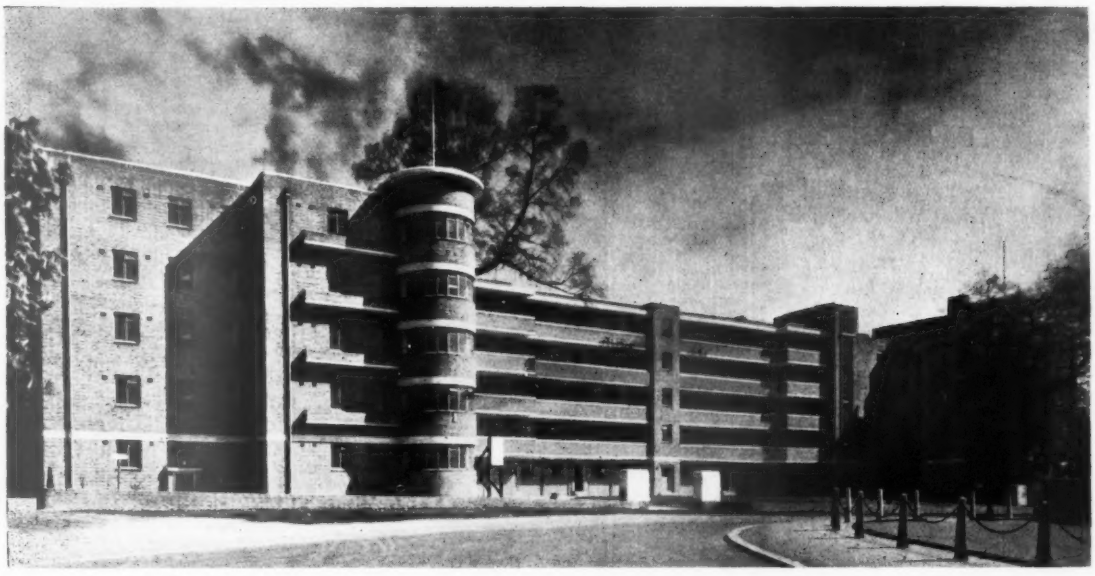
Design placed first (£400): Mr. J. R. Boyd-Barrett, A.R.I.B.A., F.R.I.A.I., 61 South Mall, Cork, and Dublin.

Design placed second (£250): Mr. Dermot O'Toole, M.R.I.A.I., 52 Dartmouth Square, Dublin.

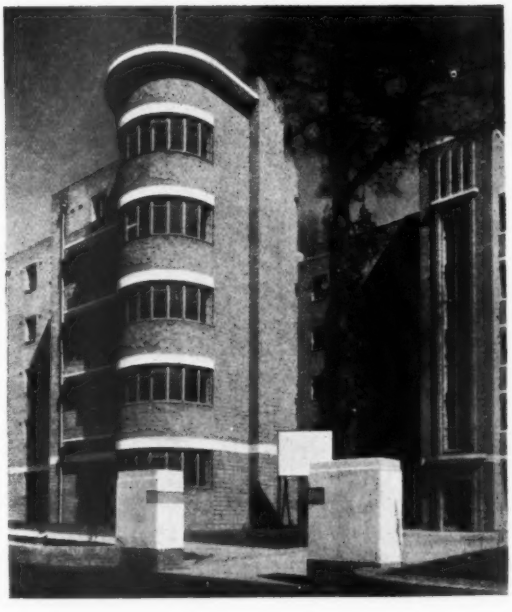
Design placed third (£100): Messrs. T. P. Kennedy and G. McNicholl, 16 Nassau Street, Dublin.

The designs submitted by Messrs. O'Callaghan and Giron, 31 South Frederick Street, and Messrs. Delap and Waller, 16 Molesworth Street, were commended by the assessors, Messrs. H. Allbery, T. J. Cullen and Manning Robertson and F. M. Webb. Twenty-eight designs were submitted.

BLOCK OF FLATS AT SURBITON



DESIGNED BY RONALD WARD

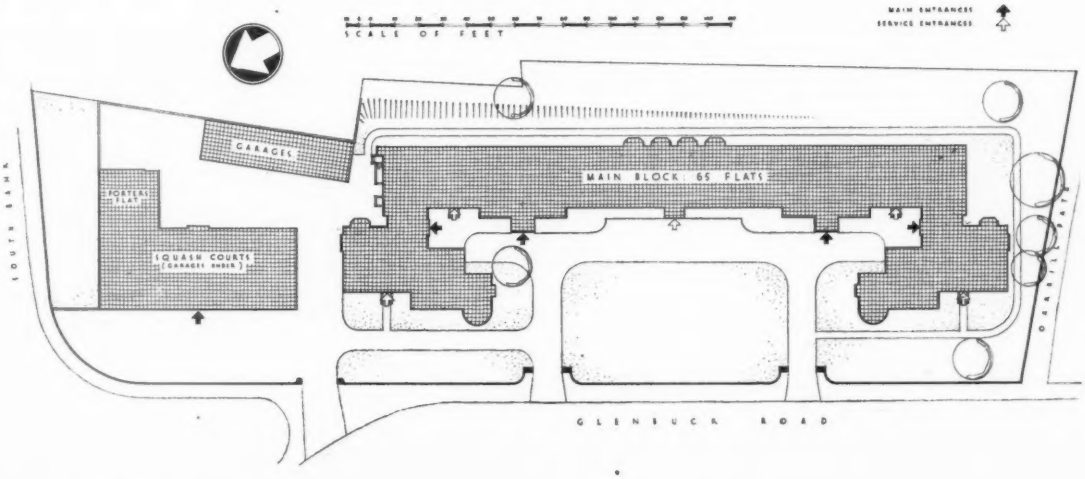


GENERAL — *Block of flats at rentals of £78 to £130 per annum.*

SITE — *Glenbuck Road, Surbiton, Surrey. Site 130 ft. in depth; after making provision for building lines, 100 ft. was left for building purposes.*

CONSTRUCTION AND EXTERNAL FINISHES — *Solid brick walls faced with rustic flettons and rendered waterproof with a protective solution; brickwork reinforced with expanded metal; reinforced concrete beams supported by brick piers; roofs, 5-ply bituminous felt. Internal walls, 2-in. breeze slabs; floors, foam slag block filling between reinforced concrete foam slag ribs.*

The photographs show: above, the main front; right, one of the entrances.



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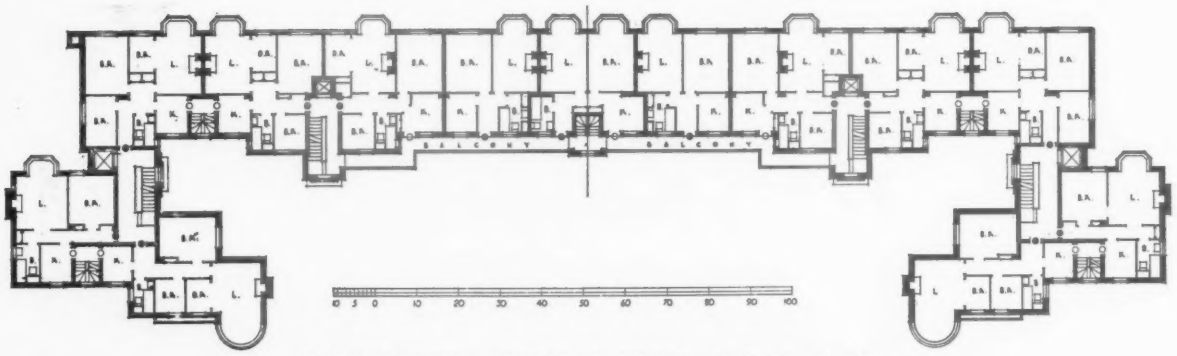
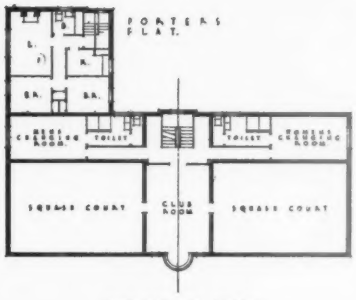
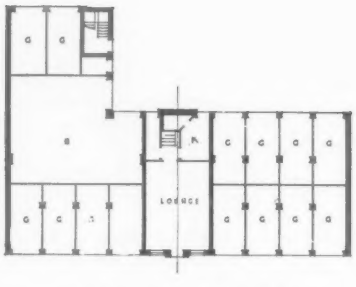


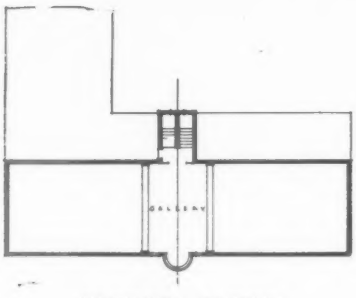
MAIN BLOCK: TYPICAL UPPER FLOOR PLAN



FIRST FLOOR



GROUND FLOOR



SECOND FLOOR

SQUASH COURTS CLUB

PLAN—*The scheme comprises 65 flats, porter's accommodation, squash racket club with two courts and club room, membership of which is free to tenants. The principal rooms in the flats are grouped at the rear of the building to take advantage of the view over the private grounds and gardens.*

INTERNAL FINISHES AND EQUIPMENT—*The walls of the main staircase are finished with rough plaster, distempered. Treads and risers are granolithic, and the landings are covered with cork terrazzo flooring. The living rooms and bedrooms are to be decorated to tenants' requirements. Bath rooms have dadoes in cream tiles, flush baths, pedestal lavatory basins and closets with water waste preventors in ducts. Kitchens have dadoes in white tiles, sinks with cupboards under, kitchen cabinets, built-in larder and coal cupboard*

SERVICES—*Gravity feed boilers are installed in the heating chamber for central heating and hot-water supply. One pipe system of drainage throughout.*

COST—*£38,000.*

The photographs show the squash racket club and a court.

The general contractors were Cussins (Contractors) Ltd. The names of the sub-contractors and suppliers are given on page 921.

SURREY: DESIGNED BY RONALD WARD

A view showing two of the entrances.

LETTERS FROM READERS

Salaried Members

SIR,—The widespread and long-standing dissatisfaction with the attitude of the R.I.B.A. toward its salaried members—whether in private, commercial or public offices—has found increasing expression during recent months. There is bound to be a bias on the Council in favour of the interests of principals, caused by the disproportionate representation of Fellows, very few of whom occupy subordinate positions in the profession. The only assistant at present on the Council of the R.I.B.A. is the official representative of the A.A.S.T.A., Mr. R. C. Fisher, who has been consistently fighting against great odds during the past year.

Among the most important of the activities which the A.A.S.T.A. undertakes in the interests of assistants are its efforts to make the R.I.B.A. a more democratic and representative body. An amendment to permit the increasing of the proportion of Associates and Licentiates on the Council was put forward by the representative of the A.A.S.T.A. at the special general meeting held last July to consider alterations to the R.I.B.A. Constitution. It was defeated by only 11 votes, largely because the meeting was held at a time when few assistants could attend.

An opportunity does arise, however, at the impending annual elections to elect three Associate members and one Licentiate member to the Council. The A.A.S.T.A. feels that this opportunity should be utilized to elect men who can be relied upon to press for the adoption of a more representative constitution and also to work for the interests of the majority of the architectural profession—that is, the salaried men.

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

THOMAS SMAILES, Chairman of the Public Library and Art Gallery Committee, Huddersfield.

ASSOCIATE

One such candidate has been nominated by the R.I.B.A. Council itself—*Professor W. G. Holford*, A.R.I.B.A., of Liverpool University. His occupancy of the Chair of Civic Design has been marked by a public-spirited and enlightened attitude which gives complete confidence in the sincerity of his public utterances, both on behalf of the salaried architect and as a teacher. Members of the A.A.S.T.A. have nominated in addition *Mr. R. T. F. Skinner*, A.R.I.B.A., one of the founders of the firm of Tecton; *Mr. Colin Penn*, A.R.I.B.A., architectural assistant in a large public office and Chairman of the Council of the Association, and *Mr. R. D. Manning*, L.R.I.B.A., also an architectural assistant in a large public office and a member of the Council of the Association. Professor Holford and Mr. Skinner, though not members (being ineligible), have earned the support of the A.A.S.T.A. by their proved sympathy with the interests of assistants and with all progressive tendencies in the profession.

It is essential that the discontents of the salaried members of the R.I.B.A. should not be allowed to lapse into disgruntled apathy. Assistants should therefore give practical expression to their feelings by voting for these four candidates, so as to ensure the election of a nucleus of younger Council members who share the outlook and aspirations of all progressive members of the profession. If elected, these candidates will sit for three years, so that it will be possible at subsequent elections to treble this representation. Whether this can be done depends first of all on the response made this year. This is the chance for which many people have been waiting; if every sympathiser will take the trouble to vote, success is assured. Details of the careers of the four architects mentioned above are given below :—

W. G. Holford, B.ARCH. (Liverpool), A.R.I.B.A., M.T.P.I., Rome Scholar, 1930. Travelling Scholarship, Society of Arts and Sciences of America, 1929. Gained experience as assistant in offices in England, America, S. Africa, Italy (town-planning), and France. 1933, Lecturer, Liverpool School of Architecture. 1934 onwards, architect for a number of private houses in Liverpool and Sussex (also Gidea Park Competition). 1936, Consulting Architect to Team Valley Trading Estate in N.E. Special Area. 1936, Lever Professor of Civic Design, University of Liverpool.

R. T. F. Skinner, A.R.I.B.A. Age 29. Partner in the firm of Tecton, the first example in this country of the "co-operative partnership." Was the original secretary of the Architects' and Technicians' Organization. One of the foremost modern architects in England, and has played an important part in the fight against obstruction of architects' designs by local authorities.

Colin Penn, A.R.I.B.A. Age 31. Has had experience in such offices as Mendelsohn and Chermayeff, and Connell, Ward and Lucas, and in the United States. Writer of numerous articles on materials for the technical press. With two partners, won the *News Chronicle* competition for a rural elementary school. Member of the R.I.B.A. Housing and Town-Planning Committee. At present employed in a large public office.

R. D. Manning, L.R.I.B.A. Age 37. Has had varied experience as assistant in private and public offices, and as a principal in practice. Was the winner of the recent A.A.S.T.A. Essay Competition with a brilliant analysis of the "Future and the Architectural Assistant." Member of the R.I.B.A. Salaried Members Committee. At present, assistant in a large local government office.

P.S. — My Executive Committee appreciate the reference in Mr. Beard's letter, in your issue for May 19, to the work of the A.A.S.T.A. in connection with the ban on the transfer of temporary assistants between certain well-known public offices. As Mr. Beard points out, the A.A.S.T.A. has incontrovertible evidence of this ban, which has been submitted to us by assistants who have had direct contact with it, and which has in turn been submitted by the Association to the Salaried Members Committee of the R.I.B.A.

It was considered, if the Royal Institute could be induced to declare its opposition to this obvious injustice to assistants, the chiefs of the departments concerned, being all members of the Institute, would speedily put a stop to the practice.

The Association is pursuing the matter further by taking up the points raised by Mr. Beard, about which there is every reason for dissatisfaction, with the Executive Committee of the Institute.

A. W. BARR,
Secretary, A.A.S.T.A.

Nudity at Huddersfield

SIR,—It is regrettable that, in his effort to extract a certain element of humour from press announcements on matters of architectural interest, "Astragal" should base his gibes, apparently, on inaccurate statements made by the more irresponsible of the popular daily papers. I refer to his paragraph regarding the sculptured figures which are to be placed on either side of the entrance to the new Huddersfield public library.

I take this opportunity of stating that the figures are not nudes, and that to describe them as "a man representing literature and a woman representing painting, sculpture and architecture" is a travesty of the actual fact.

Moreover, to enquire what in the woman's figure and stance can represent painting and what sculpture and architecture, is really a pitiable exhibition of ignorance such as one would never expect to find displayed in THE ARCHITECTS' JOURNAL—a publication from which some knowledge of the subject and some sympathy with the sculptor's aims and ideas would rather be anticipated.

Has your contributor never heard of the use of motifs to symbolize those ideas? How he would expect to find them in the figure and stance passes my humble comprehension.

The figures, which are seated, will form part only of a scheme of sculptural decoration which will include two low-relief panels, each 12 ft. by 4 ft., placed on either side bay of the main elevation to the library.

After full discussion and very careful consideration, it was agreed by my committee that Mr. James Woodford's designs for the panels should be accepted. This proposal was agreed to by a large majority and the acceptance of Mr. Woodford's designs for the seated figures was carried in committee with only two dissentient votes. These acceptances have now received the approval of the Borough Council.

It seems greatly to be desired that ill-informed criticism, especially in the professional press, should not be indulged in, and your writer's views reserved until the finished works give an opportunity of reasoned judgment.

In the meantime would it not be better to congratulate the committee on having had the foresight to engage a sculptor of eminence and distinction to add the finishing touches to a building which we hope and believe will be a credit to the profession whose interests you presumably have at heart?

THOMAS SMAILES,
Chairman of the Public Library and Art Gallery Committee, Huddersfield.

[*This letter is referred to by Astragal on page 891*].

City Architect for Leicester

SIR,—The following report appeared in the *Leicester Mercury* for May 11 last :—

COUNCIL PROPOSAL BRINGS LETTER OF PROTEST

It was revealed today that the Leicester Society of Architects sent a letter to the Parliamentary and General Purposes Committee of the City Council protesting against the proposal to appoint a city architectural department to handle all Corporation schemes, instead of employing outside architects.

The R.I.B.A. has been charged recently with discriminating in favour of the private practitioner. Although this has been officially denied, it is true apparently of at least one of its allied societies. The Leicester Society of Architects does not seem to be concerned with the fact that if the proposal is adopted, all building work carried out by the Corporation will be under the direct control of an architect. The great flaw apparently is that he will not be a *private* architect.

Such an attitude after the recent declaration by the R.I.B.A. is deplorable and calls for prompt and energetic action by the Official Architects' Committee.

ASSOCIATE

[*Several letters are held over from this issue; they will be printed next week—Ed., A.J.*]

WORKING DETAILS : 655

LIFT & STAIRCASE • "PRACTITIONER" OFFICES, BENTINCK ST., W. • STANLEY HALL & EASTON & ROBERTSON

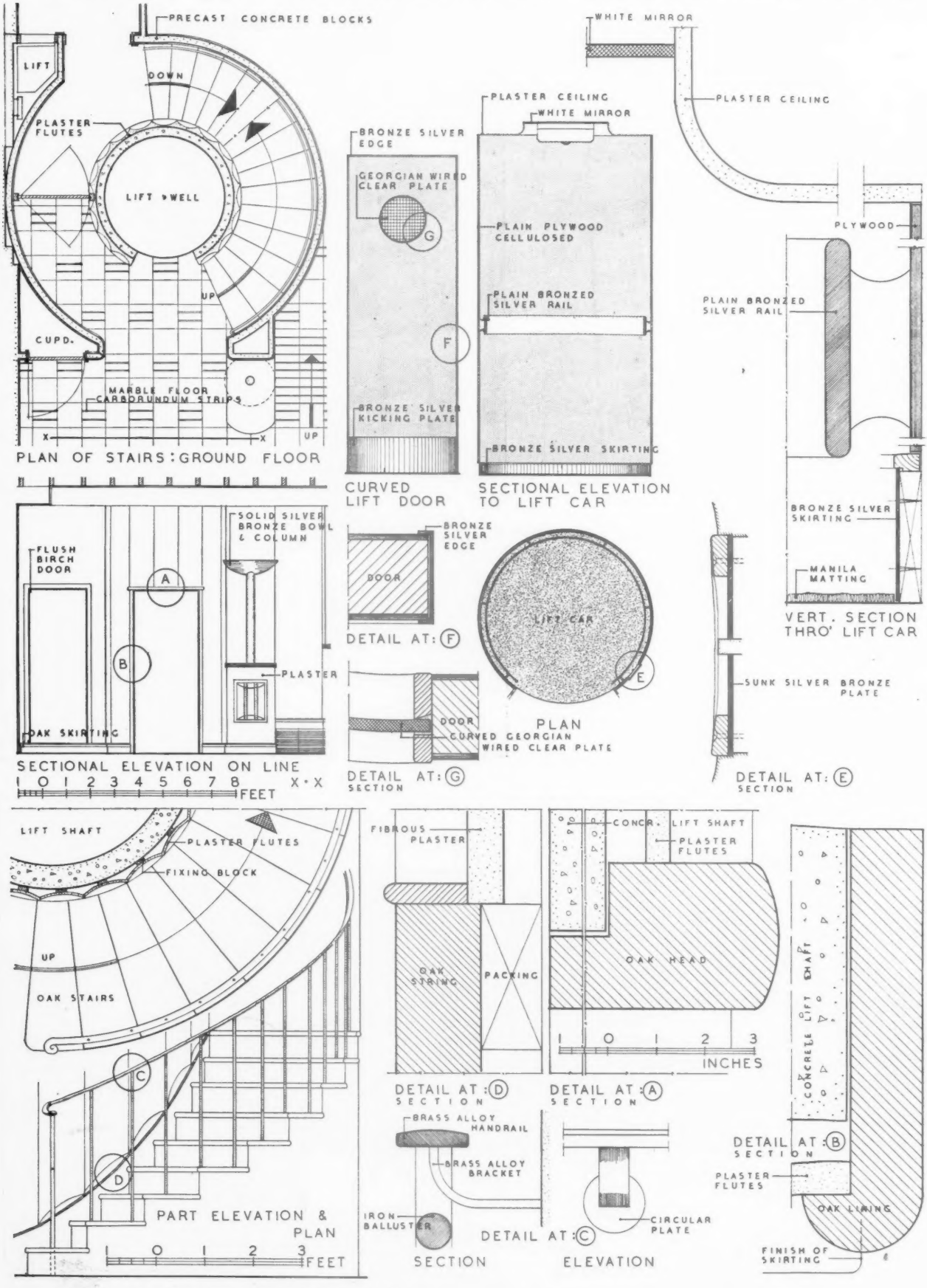
The lift well is self-supporting, and consists of a 6-in. thick circular reinforced-concrete shaft, 5 ft. 2 ins. internal diameter and nearly 80 ft. high. Around this centre shaft is a wall supporting the staircase (3 ft. 3 ins. wide), of which the treads and risers are finished in 1¾-in. thick oak. The architraves and head to the lift door, the skirting and staircase string are also in oak.

The lift car is lined in natural birch plywood, cellulosed, and the curved sliding door to the lift car has a similar finish; a bronzed silver rail runs round the car.

Details of the staircase and lift are shown overleaf. The handrail and balusters shown in the detail occur at first floor level.

WORKING DETAILS : 656

LIFT & STAIRCASE • "PRACTITIONER" OFFICES, BENTINCK ST., W. • STANLEY HALL & EASTON & ROBERTSON



Details of the lift and staircase illustrated overleaf.

The Architects' Journal Library of Planned Information

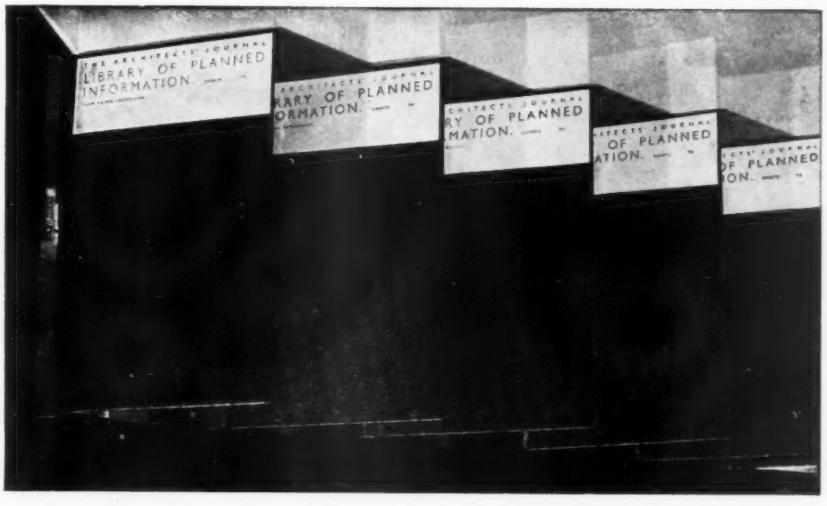
INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

629 Plumbing

630 Central Heating



In order that readers may preserve their Information Sheets, specially designed loose-leaf binders are available similar to those here illustrated. The covers are of stiff board bound in "Rexine" with patent binding clip. Price 2s. 6d. each post free.

Sheets issued since Index :

601 : Sanitary Equipment
602 : Enamel Paints
603 : Hot Water Boilers—III
604 : Gas Cookers
605 : Insulation and Protection of Buildings
606 : Heating Equipment
607 : The Equipment of Buildings
608 : Water Heating
609 : Fireplaces
610 : Weatherings—I
611 : Fire Protection and Insulation
612 : Glass Masonry
613 : Roofing
614 : Central Heating
615 : Heating : Open Fires
616 : External Renderings
617 : Kitchen Equipment
618 : Roof and Pavement Lights
619 : Glass Walls, Windows, Screens, and Partitions
620 : Weatherings—II
621 : Sanitary Equipment
622 : The Insulation of Boiler Bases
623 : Brickwork
624 : Metal Trim
625 : Kitchen Equipment
626 : Weatherings—III
627 : Sound Insulation
628 : Fireclay Sinks

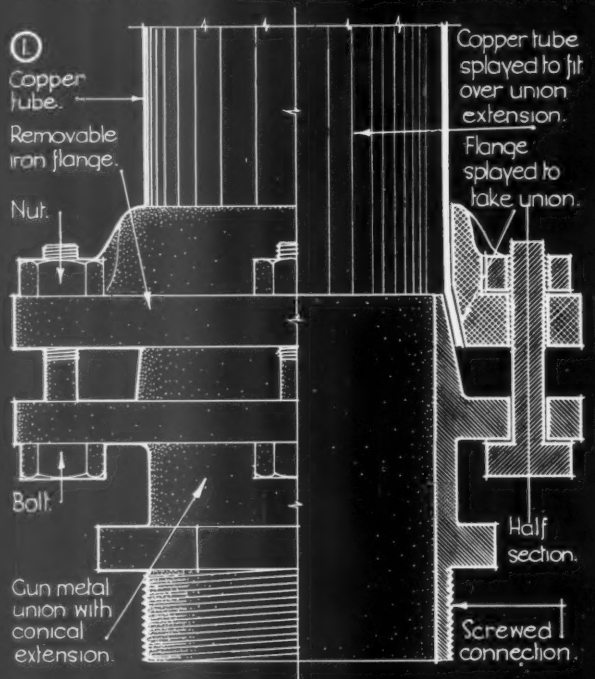
778.

778

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

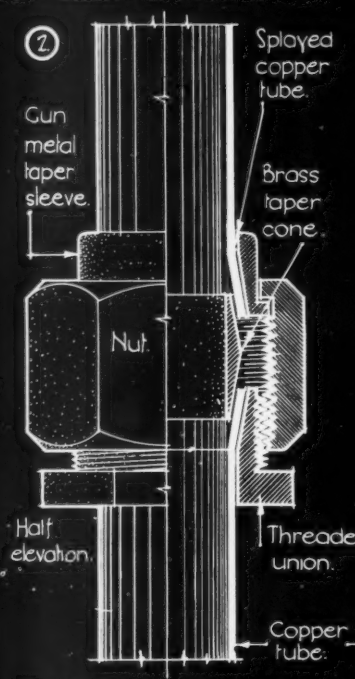
DETAILS OF THE ·BROWNALL· TYPE COMPRESSION JOINT IN WATER SUPPLY PIPING:

This type of joint is designed for connecting light gauge copper and similar pipings.



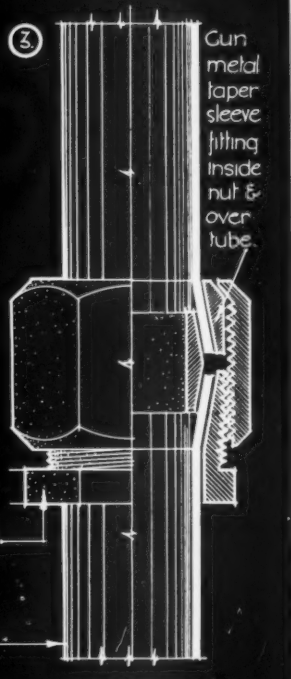
Flange type unions are available for jointing copper to copper and iron to copper (male or female interchangeable), in tees, elbows & adaptors. These may be obtained for pipes of 2½", 3", 3½", 4", 5", 6", internal diameters.

½ F.S. DETAIL OF FLANGED TYPE UNION.



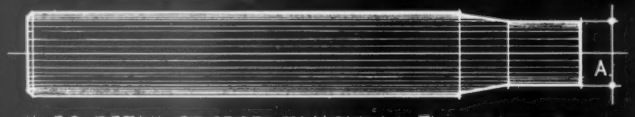
This type of union is available as in Fig. 1 for internal diameters of ½", ¾", 1", 1¼", 1½", 2", 2½", 3".

F.S. DETAIL OF STANDARD UNION (COPPER TO COPPER)

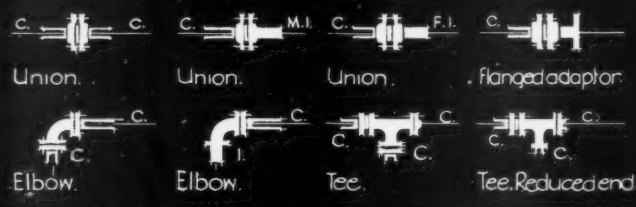


This type of union is for pipes with internal diameters ranging between ½" – 1".

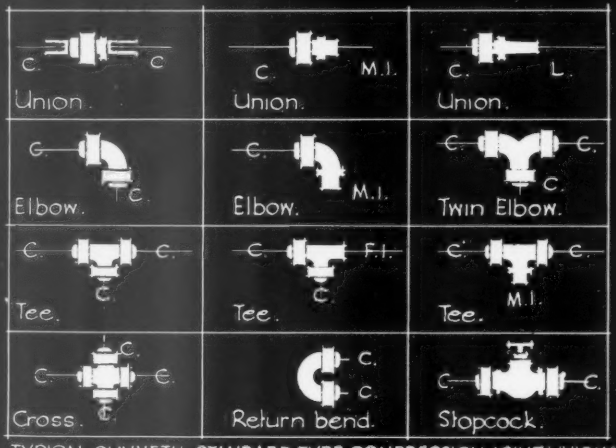
F.S. DETAIL OF JUNIOR TYPE UNION (COPPER TO COPPER)



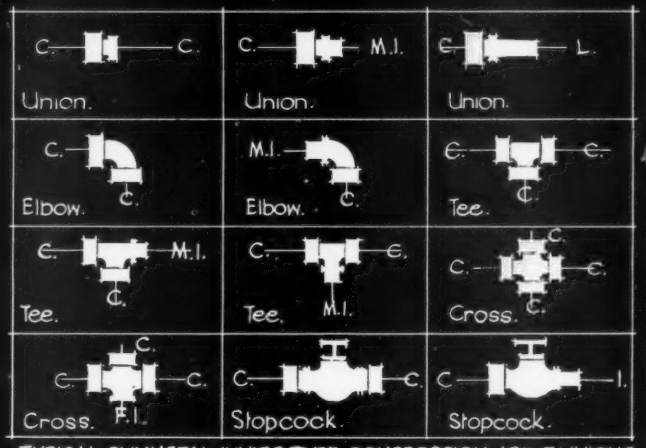
½ F.S. DETAIL OF STEEL TAMPION. This implement is used for splaying the ends of copper piping. The nose of the tampion is inserted into the end of the tube and hammered in until the required splay is obtained. 'A' sizes range from ½" to 6" diameter.



TYPICAL GUNMETAL FLANGED TYPE COMPRESSION JOINT UNIONS.



TYPICAL GUNMETAL STANDARD TYPE COMPRESSION JOINT UNIONS.



TYPICAL GUNMETAL JUNIOR TYPE COMPRESSION JOINT UNIONS.

C = Copper.
I = Iron.
L = Lead.

M.I. = Male Iron.
F.I. = Female iron.

Information from Donald Brown (Brownall) Ltd.

INFORMATION SHEET: COMPRESSION JOINTS IN PIPE FITTINGS.

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

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 629 •

PLUMBING

Subject : Brownall Compression Joints for Copper Pipes

General :

" Brownall " compression joints and fittings are connections for light gauge copper or similar piping used in hot or cold water supply systems. There are three types : Brownall junior joint, Brownall standard joint and Brownall flanged compression joint.

The Compression Joint :

Made on the same principle as a ground-in union joint, the compression joint consists of a gunmetal union in which the end with the male screw is provided with a male conical extension. The inner member of the female end consists of a loose sleeve which is tapered on the inside. This sleeve is placed on the copper tube and the end of the tube is opened out with a taperdrift or steel tampion to fit the taper of the two portions of the union. The union is then screwed up, the taper sleeve being outside and the male cone being inside the copper tube.

No jointing material (such as red lead) is required, the joint being purely metallic and mechanical. The nut can be screwed up hard without danger of crushing the pipe. No leakage is possible, and a blow-out due to pressure after fixing is avoided because fittings are tested hydraulically before despatch. In a test at the National Physical Laboratory a series of cast gunmetal fittings were subjected to a pressure of 200 lbs. per sq. inch for a period of 24 hours, but there was no sign of leakage. At 4,050 lbs. one of the pipes burst, the joints being stronger than the tube. The joint causes no reduction in the internal bore of the tube. Where the ends of fittings are provided with threads, these are of the standard gas type.

Types :

Fittings have connections for joining copper to copper, copper to lead, and copper to iron (male or female). They can be supplied in any size or shape and are available with rough, polished, plated or tinned finish.

(1) Flanged Type Joint :

The flanged type compression joint is made in diameters varying from 2½ ins. to 6 ins. The fitting is supplied with a counter flange in cast iron, the joint being as described above. It is available with connections for copper to copper and copper to iron (male or female). Other flanged types available are:—

(*a*) Elbow—for copper to copper, and iron to copper (male or female).

(*b*) Tees—all ends copper or with reduced branch.

(*c*) Adaptor—B.S.T.I. flange on one end and flanged Brownall on the other end.

(2) Standard Type Union :

The standard type union is made in diameters varying from ⅛ in. to 3 ins. The types available include :—

(*a*) Unions—copper to copper, copper to iron (male or female), copper to lead.

(*b*) Unions—for cistern with backnut.

(*c*) Reduced unions—copper to copper.

(*d*) Double end unions—copper to copper.

(*e*) Elbow—copper to copper, diminishing copper to copper, copper to iron (male or female).

(*f*) Twin elbows—all ends copper.

(*g*) Tees—all ends copper, copper to iron (male or female).

(*h*) Cross—all ends copper, copper to female iron.

(*j*) Stopcocks—copper to copper, lead to copper, male iron to copper.

(*k*) Fullway valves—copper to copper, copper to iron (male or female).

Junior Type Joint :

The Junior type compression joint is made in sizes varying between ½ in. and ¾ in. for 19 G., 18 G., and 17 G. piping and 1 in. for 18 G. and 17 G. piping.

The types available include :—

(*a*) Unions—copper to copper, copper to lead, copper to iron (male or female).

(*b*) Cistern connections—with back nut.

(*c*) Elbows—copper to copper, copper to iron (male or female) with long or short thread.

(*d*) Tees—all ends copper, copper to iron (male or female).

(*e*) Cross—all ends copper, copper to iron (male or female).

(*f*) Plug cocks—male iron to copper.

(*g*) Stopcocks—copper to copper, copper to lead, copper to iron (male or female).

Tubing :

The following gauges of copper tube are recommended for use with Brownall fittings, but other gauges may be used.

Size	Gauge	Weight in lbs. per ft.	Size	Gauge	Weight in lbs. per ft.
Ins.			Ins.		
⅛	19	0.26	2½	16	1.98
¼	19	0.38	3	16	2.37
½	18	0.61	3½	14	3.46
¾	18	0.75	4	14	3.95
1	18	0.90	5	13	5.67
1½	17	1.39	6	12	7.68
2					

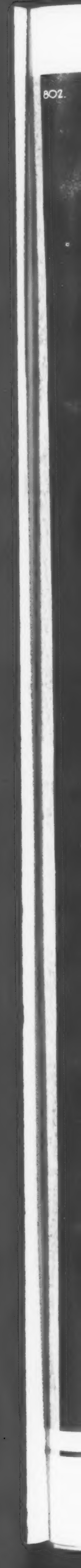
Table of Safe Working Loads of Copper Tubes

Size	W.G.	Lbs. per sq. in.		Size	W.G.	Lbs. per sq. in.	
		Hard	Soft			Hard	Soft
Ins.				Ins.			
½	18	600	200	1½	16	550	160
¾	16	650	200	1½	17	475	140
1	17	575	180	2	16	400	130
1¼							

Copper Tubes, Weight in lbs. per foot

Diameter	20	19	18	17	16	15	14	13	WG
⅛ in. ...	.23	.26	.32	.38	—	—	—	—	—
¼ in. ...	.34	.38	.46	.55	.63	—	—	—	—
½ in. ...	.45	.50	.61	.71	.82	—	—	—	—
¾ ins. ...	—	.62	.75	.88	1.02	1.15	—	—	—
1 ins. ...	—	.74	.90	1.05	1.21	1.37	—	—	—
1¼ ins. ...	—	—	1.19	1.39	1.60	1.80	2.01	—	—
1½ ins. ...	—	—	—	1.73	1.98	2.24	2.50	—	—
2 ins. ...	—	—	—	—	2.37	2.68	2.98	—	—
2½ ins. ...	—	—	—	—	2.76	3.11	3.46	—	—
3 ins. ...	—	—	—	—	3.15	3.55	3.95	—	—
3½ ins. ...	—	—	—	—	3.92	4.42	4.92	5.67	—
4 ins. ...	—	—	—	—	4.69	5.29	5.88	6.78	—
5 ins. ...	—	—	—	—					
6 ins. ...	—	—	—	—					

Issued by : Donald Brown (Brownall), Ltd.
Address : Brownall Works, Birch Street, Moss Side, Manchester, 14
Telephone : MossSide 1056


802.

802.

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PANELS FOR LOW PRESSURE HOT WATER CENTRAL HEATING INSTALLATIONS:

The panels are suitable for either the gravity or the forced circulation systems.

HEAT EMISSION : The heat emission of panel heating elements usually varies between 80 and 180 B.Th.U's. per sq. ft. per hour.

AREA OF HEATING SURFACE: The area of radiant panel required in relation to volume or cubic content of the space to be warmed, depends upon the following factors :-

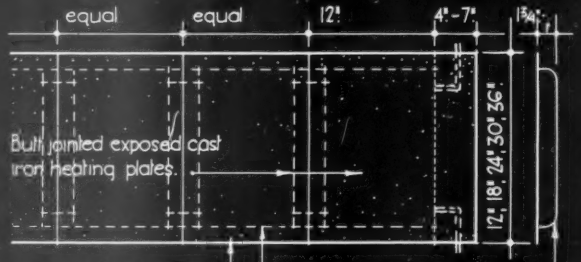
(1.) Heat emission of the panel in B.Th.U's. per sq. ft. per hour.
(2.) Temperature difference between surrounding air and the surface of the panel or covering material.
(3.) Construction, thickness, exposure & orientation of wall, ceiling, etc.
(4.) Horizontal as in ceiling or floor, or vertical fixing.
(5.) Height of panel from floor level.

(A) EXPOSED PATTERN PANELS:

CAST IRON SECTIONAL TYPE:

This type of panel is assembled as one unit in sections the size of panel being governed by the number of sections required.

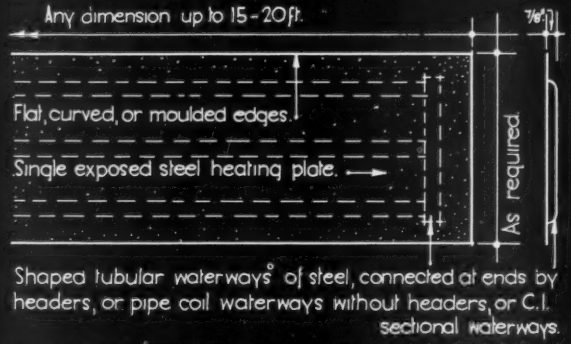
Approximate surface temperature, 150° F.



STEEL TYPE:

This type of panel is constructed as a complete steel unit or with cast iron sectional waterways, in sizes to suit particular requirements.

Approximate surface temperature, 150° F.



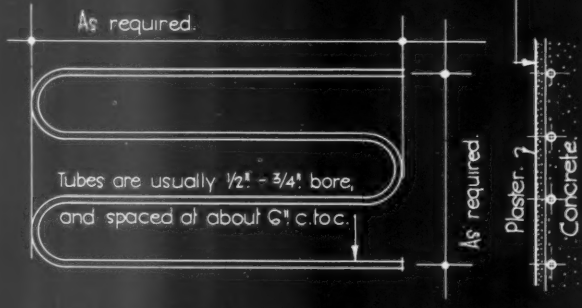
FITTING THE PANELS : The exposed pattern panel may be entirely superimposed upon the structure to which it is fixed, or the body of the panel may be recessed in the building structure with the face plate flush with the surrounding finish. Pipe connections to panel may be concealed behind extension of face plate.

(B) CONCEALED PATTERN PANELS:

EMBEDDED COIL TYPE:

This type of panel is constructed of a continuous length of steel or copper tubing, designed to provide the area of heating surface required.

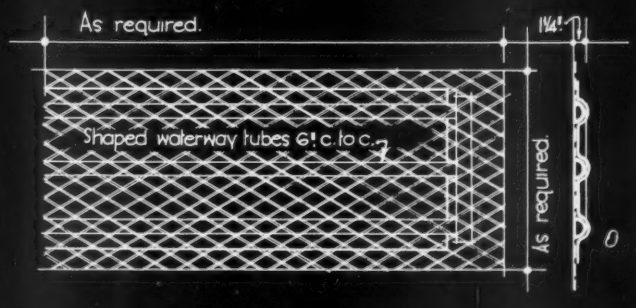
Approximate maximum surface temperature, 100° F.



INTERPOSED TUBULAR TYPE:

This type of panel is constructed of a number of shaped tubes fixed between a carrier plate and expanded metal, and connected at the ends by headers.

Maximum surface temperature varies between 80 & 120° F.



FITTING THE PANELS: The concealed pattern panel is usually embedded or interposed in the structure of the building, in the ceiling, wall, floor, skirting, staircase soffit, etc., and may be covered with a finish of special plaster, or marble, tile, or other suitable material.

Information from The Coal Utilisation Council.

INFORMATION SHEET : CENTRAL HEATING EQUIPMENT. No. 2 : RADIANT PANELS.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Oscar a. Bayne.

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INFORMATION SHEET

• 630 •

CENTRAL HEATING

Subject : Radiant Panels

General :

This Sheet gives general particulars of various types of radiant panel for low temperature hot water central-heating installations. The information is generally representative of each type of heating element, but detailed information and exact sizes of any particular make of equipment must be obtained from the manufacturer concerned.

The cast-iron sectional type of exposed panel is available also as a combined radiating and convecting unit for vertical fixing only. In this form, additional heating surface is provided at the back of the front plate, and the convected air currents are allowed to rise by leaving a clear inch space behind.

Insulation :

To minimize the loss of heat through the structure immediately behind the panels, it is recommended that some form of insulation be interposed wherever possible. Insulation is particularly necessary behind panels fixed to walls and ceilings exposed to the external atmosphere. Radiant panels should be placed so that their heat rays will effectively counteract the cooling effects of windows, ceiling lights, and exposed walls.

Convection :

Exposed type panels should be carefully placed to avoid discoloration or dusting of the surrounding walls and ceiling by the rising warm air currents from the heated surfaces. Panels fixed flush with the surround are less likely to cause dusting than are the raised types, while all panels fixed vertically should finish some distance from the ceiling level. Precaution should also be taken for the effective sealing of the joint between the edge of the plate and the surrounding surface of the wall or ceiling in order to prevent air leakage; streaking or dusting will otherwise occur around the plate at the point of such air leakage. It is important that the temperatures recommended should not be exceeded for any type of panel.

Design :

In addition to the normal heating units fixed to walls and ceilings, all-steel radiant panels may form skirtings and any desired arrangement of decorative panelling. The panels can be supplied in any size to fit into window recesses, with or without a shaped top to form a sill.

It is claimed that with radiant panel heating, comfort conditions can be provided with a lower air temperature, owing to the radiation emitted from the surface of the panel. On this account a reduction in fuel consumption is often possible.

Valves and connections :

Panels fixed vertically may have connections to outlets at bottom opposite ends, but panels fixed horizontally should have the connections arranged diagonally opposite each other. Standard type connections and valves may be used with all panels.

Fixings :

Exposed panels are usually fixed with countersunk screws or bolts with countersunk nuts, held by lead expansion bolts or ragged bolts.

Concealed type panels cast in concrete do not require fixings except to the shuttering.

Invisible embedded type panels are usually laid on the shuttering prior to concreting and require no fixings. In other forms of construction, however, they may be secured to structural members with wire ties, angles, strap hangers, when the panel coils are embedded with special pugging.

Interposed concealed panels are also secured to structural members in the same way as described above, except when in the floor, when it is usually unnecessary to provide any fixing.

Surface Finish :

The surface of exposed panels should not be painted with bronzing liquid or metallic paints as this causes a reduction in heat-transmission varying from approximately 15 to 35 per cent., depending on the position of the panel. For this reason, and also on the score of appearance, suitable enamel or other radiator paint, in conformity with the general colour scheme of the room, should be used.

Technical Service :

The British coal industry, through the engineers of the Coal Utilisation Council, provides technical service to architects and to the public generally on all problems relating to the use of coal and its derivatives for all purposes.

In addition to the staff at the head office, an engineer is attached to each branch office at the addresses given below. Additional general information is also available in various technical bulletins issued free by the Council.

Previous Sheets :

This is the fifth Sheet issued by the Coal Utilisation Council, the previous Sheets being Nos. 571 (fuel storage), 582 (heating stoves), 603 (hot water boilers), and 614 (radiators).

Issued by : The Coal Utilisation Council

Head Office and Southern Branch : Grosvenor Gardens House, Victoria, London, S.W.1
Telephone : Victoria 4366

Midland Branch : Essex House, 27 Temple Street, Birmingham, 2
Telephone : Midland 3736

Eastern Branch : Alliance Chambers, 19 Horsefair Street, Leicester
Telephone : Leicester 65011

North-Eastern Branch : 38-39 Pearl Chambers, East Parade, Leeds, 1
Telephone : Leeds 23616

North-Western Branch : 38 Deansgate, Manchester, 3
Telephone : Blackfriars 4081

Scottish Branch : 81 Mitchell Street, Glasgow, C.1
Telephone : Central 146

Irish Branch : Bank of Ireland Chambers, 1-2 Westmoreland Street, Dublin
Telephone : Dublin 23034

South-Wales and South-Western Branch : United Kingdom Provident Buildings, 14-16 Baldwin Street, Bristol, 1
Telephone : Bristol 24797

NURSES' HOME, ROYAL MASONIC HOSPITAL

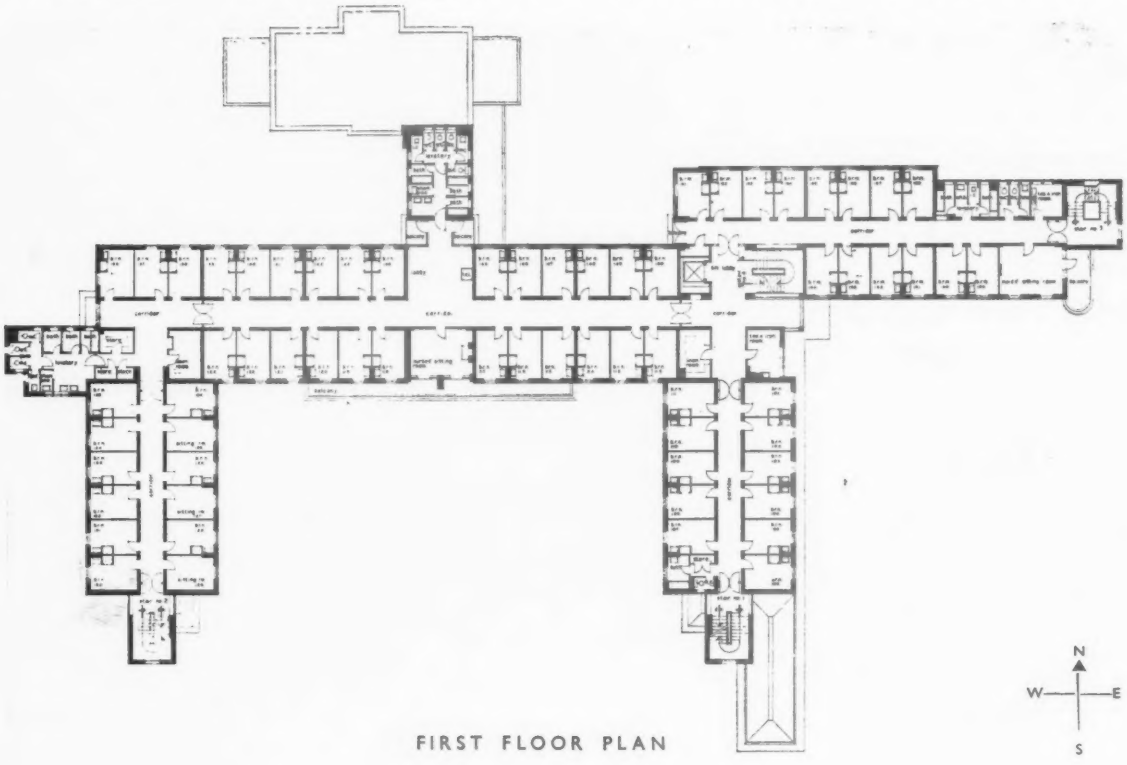
GENERAL—*Home for the sisters, nurses and maids of the Royal Masonic Hospital at Ravenscourt Park. Requirements included : maids' accommodation to be kept separate from sisters and nurses ; night staff to be grouped on top floor ; sisters generally to be provided with large bed sitting-rooms or suites ; entrance direct from the road ; accommodation for 200 persons.*

SITE—*The main front faces south. This access from the south controlled the general block plan. On the east is a right of way separating the nurses' home from the hospital. The home is connected to the hospital by means of a subway.*

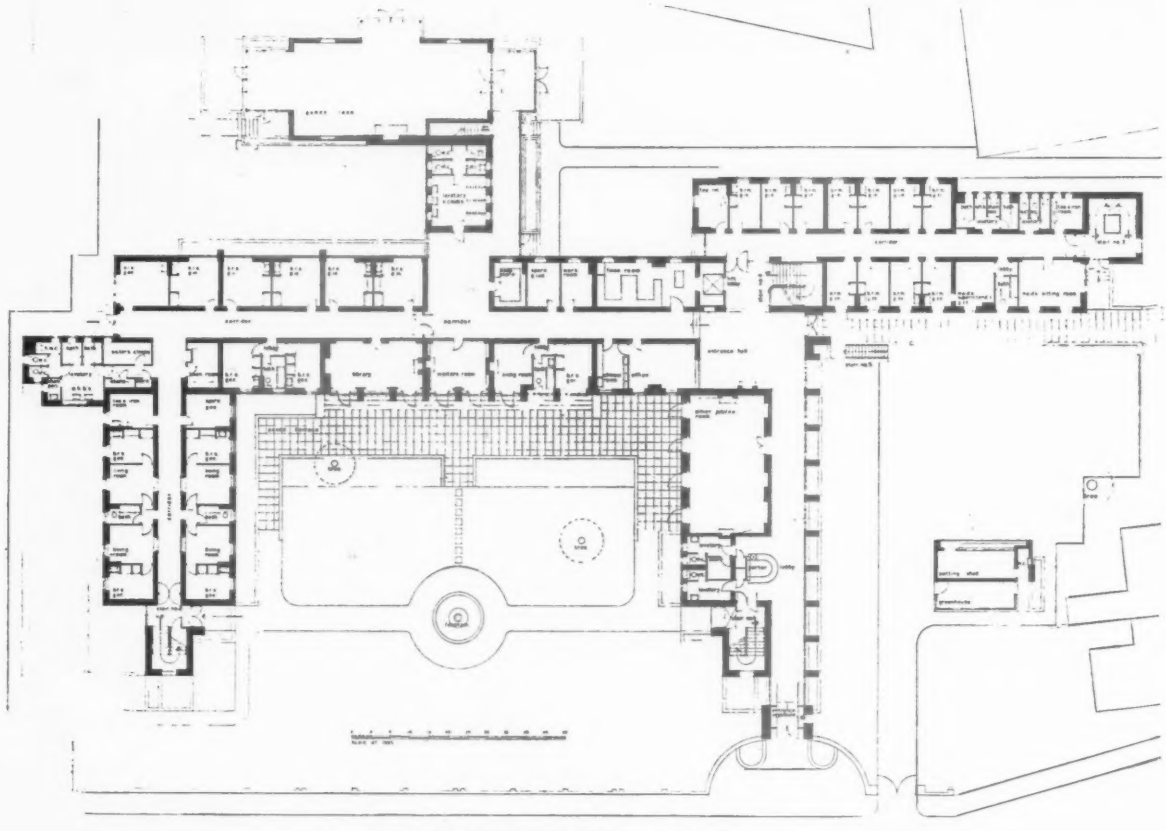
The photographs show : two views of the south front, taken from the garden.

DESIGNED BY SIR JOHN BURNET, TAIT AND LORNE

NURSES' HOME, ROYAL MASONIC HOSPITAL:

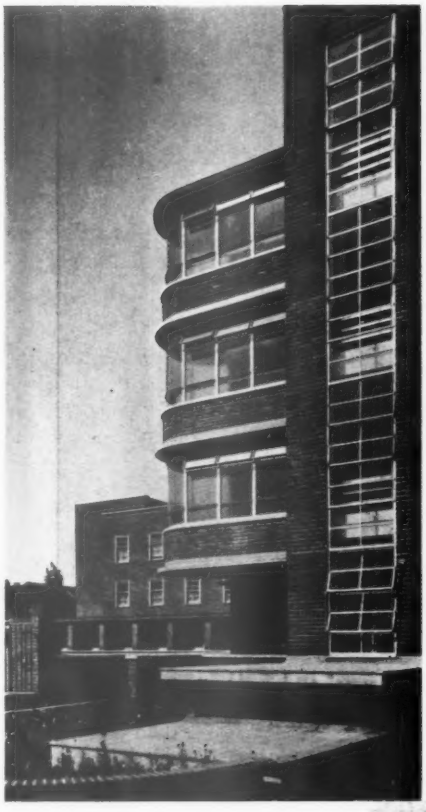


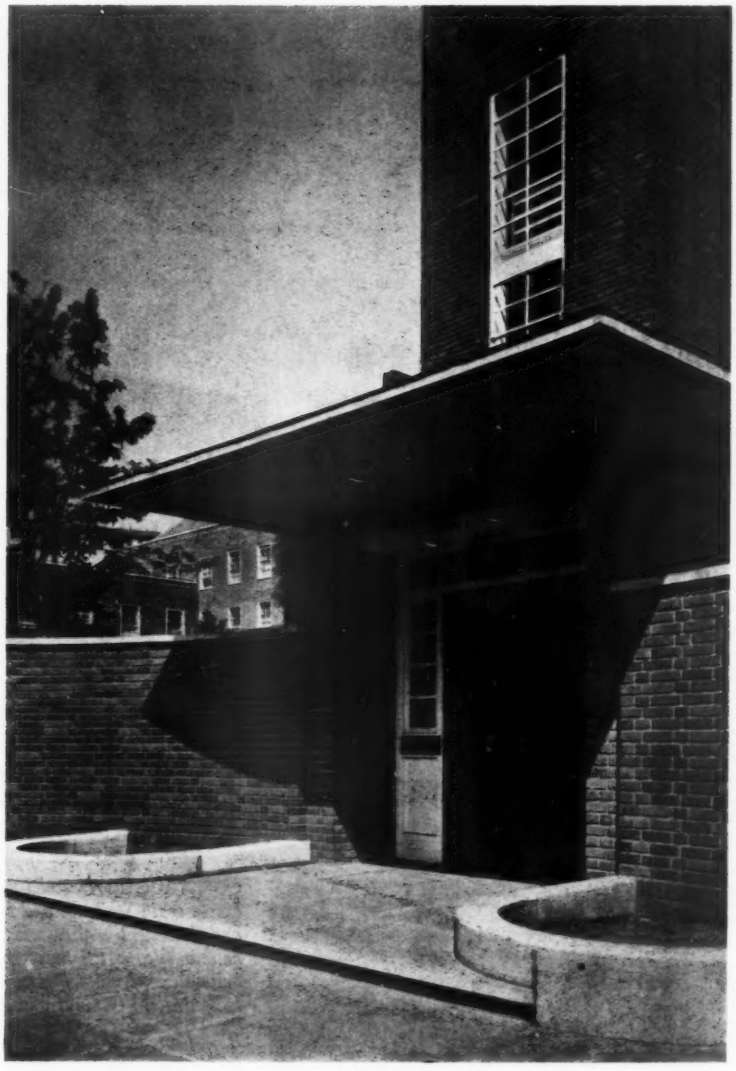
FIRST FLOOR PLAN



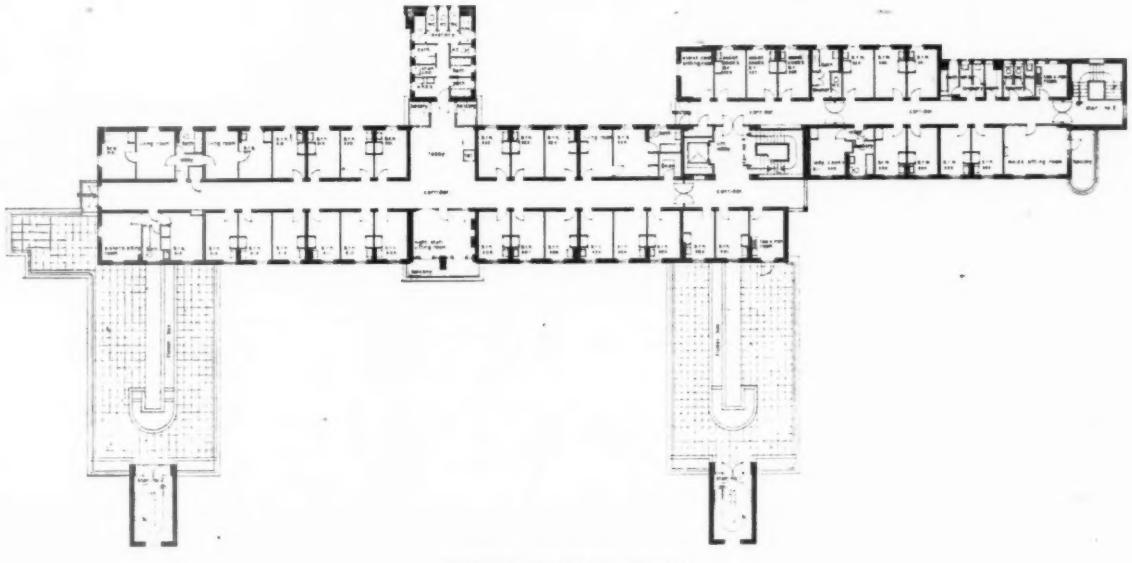
GROUND FLOOR PLAN

BY SIR JOHN BURNET, TAIT AND LORNE





The photographs show: above, the staircase window at the east end; right, the main entrance.

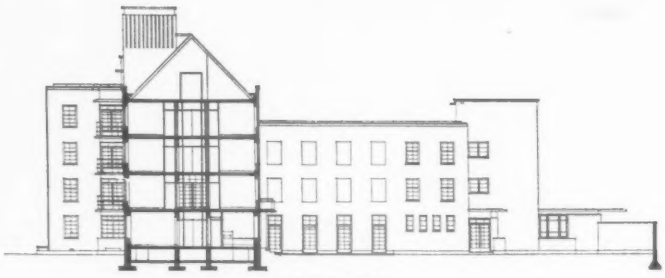


THIRD FLOOR PLAN

NURSES' HOME, ROYAL MASONIC HOSPITAL:

CONSTRUCTION AND EXTERNAL FINISHES — *Brick construction, except main staircase and lift tower. Reinforced concrete raft foundations and basement walls. External walls brick with brick cross walls; hollow tile partitions; pitched roof, timber construction. Flat roofs, hollow tile, insulated with cork and finished with patent roofing. Floors, hollow tile. Copings and dressings, artificial stone.*

The photographs show: above, the west end of the games room; left, looking towards the main entrance corridor on the south front.



SECTION

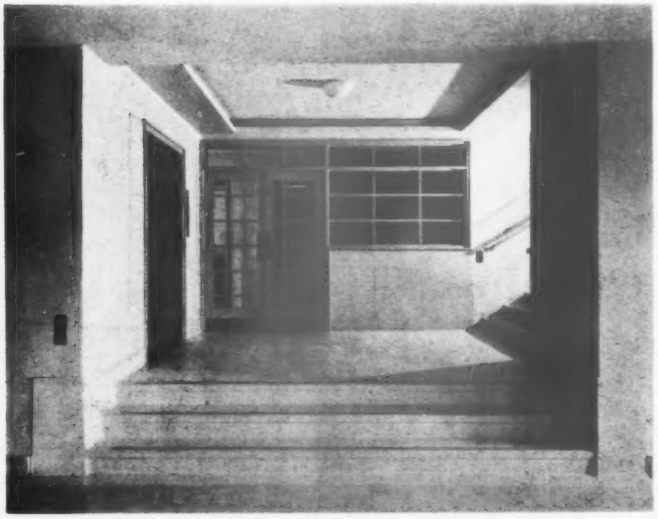
BY SIR JOHN BURNET, TAIT AND LORNE

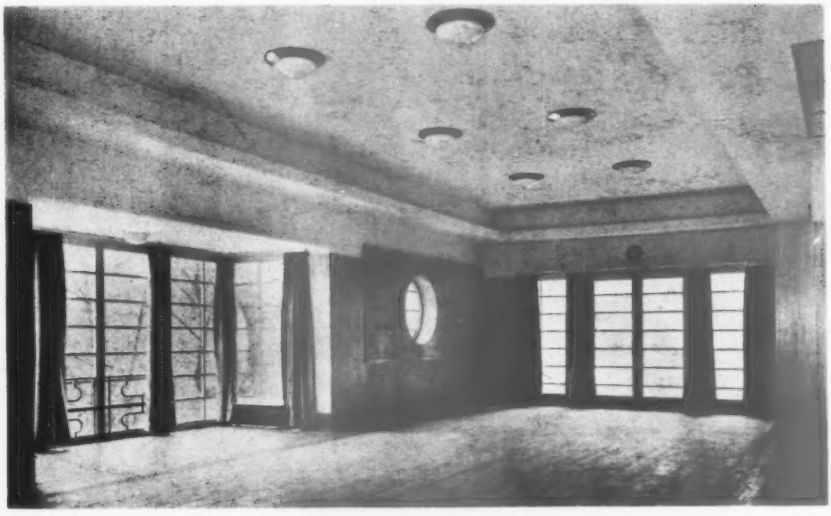
INTERNAL FINISHES—*Walls, plaster; floors, lino; main entrance corridor quarry tiles; main entrance stairs, terrazzo with terrazzo dado; secondary stairs, coloured cement, with glazed cement walls. Nurses' sitting-room, principal recreation room and one of the maids' sitting-rooms, floored with maple; other room floors, cork. Lavatories, terrazzo.*

SERVICES—*A single lift has been provided opposite the main stair. The central heating system is taken from the main hospital boiler-house, supplies being carried along the wall of the connecting subway. This also applies to the hot water system. Inter-phone and G.P.O. telephones, a system of special call signals and radio connection to each room are provided. Electric clocks are installed in corridors and sitting-rooms. Every bedroom is provided with a wash-hand basin. Coalite fires are provided in the central sitting-rooms; others have electric fires.*

The photograph shows the east approach to the games room from the nurses' home.

NURSES' HOME, ROYAL MASONIC HOSPITAL

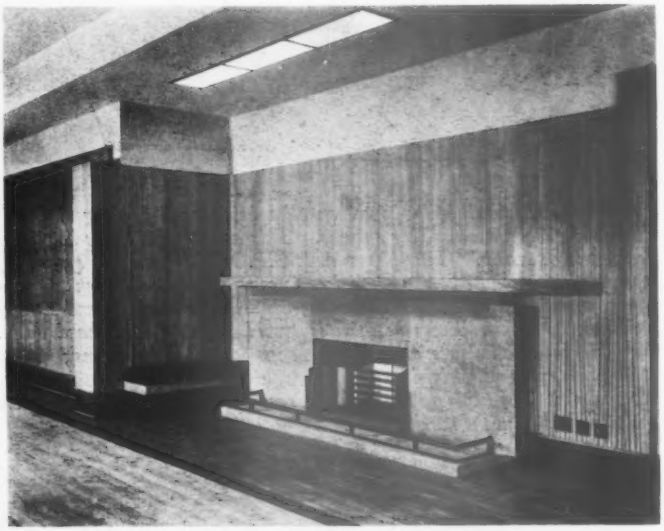




The photographs show : above, left, in the entrance vestibule ; right, a corner of the library ; left, the games room ; below, left, the fireplace in the games room ; right, a corner of a charge nurses' sitting-room.

The general contractors were Thomas and Edge, Ltd. The names of the sub-contractors and suppliers are given on page 921.

DESIGNED BY SIR JOHN BURNET, TAIT AND LORNE



LITERATURE

COTTAGE O' DREAMS

[*By G. BRIAN HERBERT*]

Building a Cottage. By Esther Meynell. London: Chapman and Hall. Price 7s. 6d.

IT is to be feared that members of any profession are apt to approach a layman's book on their own particular subject with a certain amount of misgiving and a tendency to grin. This is a layman's book. It is the story—as the name implies—of the building of a cottage, described stage by stage by the client herself. Readers of monthly magazines devoted to the home will digest it with pleasure, but it is to be hoped that many others will read it as well. It is an enthusiastic book, and as the enthusiasm is directed towards building one's own house and the strong reasons for employing an architect when so doing, it is enthusiasm to be given a big hand and encouraged more than somewhat.

The struggling architect knows that far too many people still regard him as a luxury—someone who puts the expensive pretties on to the matter-of-fact construction of the builder. No so Mrs. Meynell. "The people who think they can buy ready-made plans and do without an architect's most specialized knowledge and skill are making a most serious mistake," she tells us. "What they save on the architect's fees . . . they lose three times over in other ways"—words worthy to be blazoned across the façade of No. 66 Portland Place in neon letters a yard high. This is not the authoress's first visit to an architect, so she presumably knows what she is talking about.

The architect in this book, who contributes some very attractive pencil sketches of the house—the one of the upper part of the staircase being particularly stereoscopic, I think—had built another house in Sussex for Mrs. Meynell before this, so she was already familiar with the process of building. On this second occasion she was determined to miss nothing and followed every step closely in her "daily (usually twice daily) visit to the cottage"—Good Heavens. She relished each evidence of the survival of medieval crafts with a sentimental love. Not for her your big windows—"too much window in a wall destroys both charm and privacy and gives an uncomfortable sense of architectural weakness," and she found it "pleasant to discover that modern tiles could be so good." Mrs. Meynell obviously adored each stone and each stick, each cobble and brick, and enjoys telling us so. She was thrilled by everything from the first playful letters to the architect to the arranging of her furniture in the finished house. Her constant visits became a joke between the builder and herself. "I ran down the bank with my usual farewell, 'See you tomorrow!' 'See you tomorrow, Ma'am,'" said the builder, but it is hard to criticize a client who is herself so obviously determined to find fault with nothing, and if it was a dream cottage when completed, well, let us encourage more dreams.

Publications Received

The Lakeland District. By Geoffrey Clark and W. Harding Thompson. London: A. & C. Black. Price 7s. 6d.

English Landscape. Sir W. Beach-Thomas. London: Country Life. Price 10s. 6d.

Reinforced Concrete Bridge Design. By Cheetoe and Adams. London: Chapman and Hall. Price 42s.

Damp Walls. By E. C. Blake. London: Technical Press Ltd. Price 7s. 6d.

IN THAT CONTINGENCY

The Director of the Building Research Station writes:—

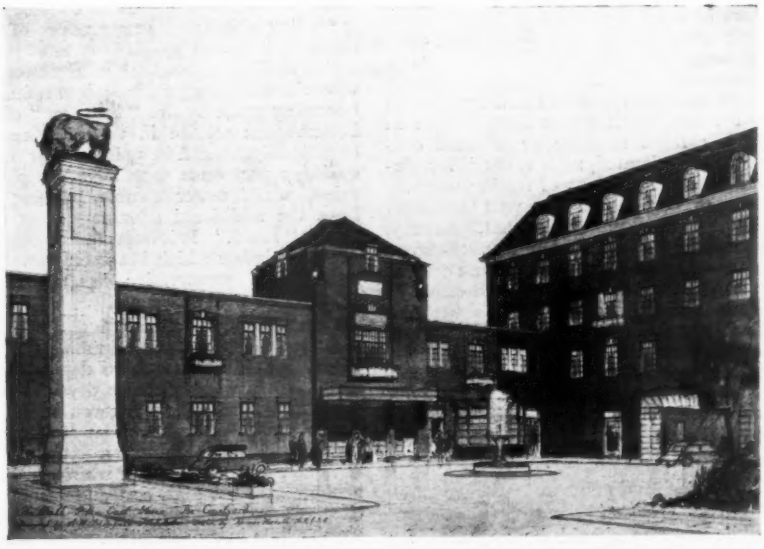
"From time to time there have been included in these notes discussions of selected topics—not necessarily related to specific questions addressed to the Station, but rather a reflection of a body of enquiries submitted. There are a number of such topics which it is thought could usefully be discussed in that way and it has therefore been decided that for a period of twelve months or so these notes shall take the form essentially of such discussions. It is not intended, however, to adhere rigidly to this form for any enquiries of special interest that may be received by the Station during the period will be dealt with as before. The following note is a summary of available knowledge—the treatment is not exhaustive. It is presented in the hope that it may be found useful as a convenient *résumé* of existing information."

THE DESIGN OF TIMBER FLOORS TO PREVENT DRY ROT—PART I.

Introduction

AS is well known, timber, especially softwood, is liable under certain conditions to "dry rot" due to the growth of certain fungi which derive their nourishment from the timber and destroy it in the process. The fungi may be one or more of several species, of which *Merulius lacrymans* is the most virulent. Another species which occurs frequently is *Coniophora cerebella*—the "Cellar fungus."

Timber which is attacked by dry rot becomes useless and constitutes a menace to all other timber in the vicinity. The damage resulting from an outbreak of dry



From the R.A. Exhibition (No. 1298): The Bull Public House, East Sheen—the Courtyard. By A. W. Blomfield. (Perspective: Norman Worrall.)

rot, particularly in the case of *Merulius lacrymans*, may in severe cases cause the collapse of floors and roofs. In some cases, the infection may even become so widespread as to contaminate the whole of the structure, making any remedial treatment impracticable if not impossible. In one case which was investigated, the damage resulting from an outbreak of dry rot was so extensive as to necessitate the complete demolition of the entire wing of a country house. Such losses can be avoided by taking elementary and relatively inexpensive precautions in the construction. The most important point is that the construction should, in every way possible, be such as to ensure that the building will be dry, for the moisture content of timber must be kept below about 20 per cent. (based on its oven-dry weight) for it to be immune from attack. Timber which has been thoroughly air-seasoned in the open contains 15-18 per cent. moisture, and in a *dry* and properly heated and ventilated building this soon falls to 12-14 per cent. Under these conditions no trouble is to be anticipated. The importance, therefore, apart from other considerations, of ensuring that a building is always perfectly dry will be readily appreciated. The design of buildings, in order to prevent the occurrence of dampness, has been dealt with comprehensively in recent notes from the Information Bureau of the Station. If these recommendations are followed, dampness, and therefore dry rot, should be avoided. The object of the present note is to deal in greater detail with the particular problem of dampness as it affects timber in floors and to indicate precautions which should be taken to prevent the moisture content of the timber from exceeding the safe limit. The subject will be discussed under the following headings : selection of timber, preservative treatments, and constructional precautions, each of which has its part to play in ensuring the avoidance of dry rot. In so far, however, as want of attention to sound constructional principles is the commonest cause of dry rot, greatest emphasis will be laid in the discussion on that factor.

The Selection of Timber

It is of great importance that sound timber only is used. All timber should be rejected which shows signs of incipient decay or traces of heart rot which occurred in the living tree, as any such defect may pave the way for subsequent fungal attack. Wherever possible the conditions of storage should be ascertained and nothing allowed on the site which comes from a yard in which careless stacking or unclean conditions are tolerated, such as damp foundations or accumulations of rotting waste.

The timber should be well seasoned. Although it is recommended that, generally, its moisture content should not exceed 20 per cent., timber with a moisture content up to 25 per cent. may be used safely in certain situations where it is known that subsequent drying will definitely occur, and where some shrinkage is not objectionable, as, for instance, in roofing rafters.

The seasoning of timber is dealt with comprehensively in the Seasoning Series of the Forest Products Research Records (London, H.M. Stationery Office, price 6d. each net).

Preservative Treatment

While no step should be neglected for protecting the timber from dry rot by sound construction, yet the risk of attack may be either eliminated or reduced, depending upon the thoroughness of the treatment, by the use of a suitable preservative. The preservative renders the timber unsuitable for the nourishment of the fungi, thereby keeping it immune from attack.

Timber to be treated with preservative should be clean and dry and the treatment applied *after* cutting and drilling, but *before* fixing. The preservative, usually a liquid, may be brushed on. This method, however, does not give very much protection, since the lateral penetration is not usually more than about $\frac{1}{64}$ in., and it can be relied on only in cases where dampness is likely to be slight and of a *temporary* nature, such as in a new building where the dampness will be removed on the drying of the building.

In situations where *permanent* dampness cannot be avoided, the timber should be *impregnated* with the preservative in order to form a protective skin sufficiently deep to extend beyond any cracks which may develop in the timber and thereby allow the entry of fungi spores. A simple method by which this can be accomplished is the so-called "open-tank" process in which the timber is immersed in the preservative which is then heated to about 180 deg. F. and kept at this temperature for about one hour, when it is allowed to cool down, the timber being removed from the preservative when it is cold. The absorption of preservative takes place during cooling. Impregnation under pressure is, however, likely to be more efficient and is to be preferred where the extra expense is justified. Pressure impregnation may be by either the "empty cell" process or the "full cell" process. The full cell process is used only for timber such as railway sleepers, which is exposed to excessive weathering. It takes a greater amount of preservative and is more expensive and more liable to cause "bleeding" of preservative than the empty cell process. Impregnation by the empty cell process is all that is ever required for timber for use in buildings.

Care should be taken in the selection of the preservative to be used. Creosote and other preservatives of the tar oil type have a strong, pungent smell, which may prove objectionable. They are also extremely penetrative and will spread readily to other materials in contact with the treated timber. Preservatives of this nature should not be used on any timber which is to be painted, or in any situation where there is danger of adjacent materials becoming spoilt by this "bleeding" effect. Preservatives soluble in water or certain organic solvents can be painted over in the ordinary way once they have completely dried, while water soluble preservatives have the additional advantage that they do not "bleed." It is important to remember that timber which has been wetted by an aqueous preservative has, in effect, to be re-seasoned before use.

But although, as already indicated, preservative treatment will minimize the risk of dry rot, it is not safe to depend on it alone. It is well to ensure dry and well-ventilated conditions wherever timber is fixed. Preservative treatment is rather to be regarded as providing an extra margin of safety, the small cost of which, in comparison with the high cost and inconvenience entailed by an attack of dry rot is worth while in any situation where dampness, however slight, can occur.

Where any form of preservative treatment is undesirable, a timber which is naturally resistant to dry rot may be used, e.g. Canadian western red cedar, Californian redwood, or yellow cedar, all three of which show a high resistance to fungus attack. If a hardwood is required, teak or jarrah is recommended.

The preservation of timber is dealt with comprehensively in the Wood Preservation Series of the Forest Products Research Records (London, H.M. Stationery Office, price 6d. each net).

Constructional Precautions

Turning now to constructional aspects it may be noted that to provide the dry conditions so necessary for the prevention of dry rot means preventing all moisture penetration from outside the building, including the ground below ; making sure that all moisture introduced into the building at the time of its erection is removed ; and guarding against dampness originating inside the building due to condensation. Adequate heating and ventilation which, it should be remembered, is a requisite with all the usual types of construction, will eliminate dampness due to existing moisture or condensation. Moisture penetration from outside the building including the ground below can be prevented by breaking the capillary path between the outer fabric of the building and the inner fabric. In practice, however, the expense of providing these conditions is not, unfortunately, always considered justified, and timber is often used in positions which are slightly damp, reliance being placed solely upon ventilation to prevent dry rot. Ventilation prevents the stagnation of humid air which is usually responsible for a high moisture content in the timber and also facilitates drying out. While efficient ventilation is maintained, this method is usually satisfactory, but it is necessary to emphasize the risk entailed if the ventilation system should break down or otherwise prove inadequate.

For the avoidance of dry rot in timber floors, the most important constructional point is to prevent ground moisture rising into the building, for that is probably the chief cause of dry rot in floors. The ground is in effect an inexhaustible reservoir of water from which moisture can rise causing dampness in any material in capillary contact with it and wherever water vapour resulting from this ground water can gain access. This does not, of course, apply to upper floors which are insulated by (and also ventilated by) the air beneath, and can therefore be considered separately from floors next to the ground.

The rise of ground moisture can be prevented by the interposition of an impervious layer between the building and the ground. If this layer, which should be impervious to moisture both in its liquid form and also in the form of vapour, extends without break over the whole of the site of the building, no dampness due to ground moisture is possible. In view of the importance of the matter the following notes on common methods of preventing rising damp are pertinent.

Insulation of a Building from Ground Moisture

First it is important to note that a layer of concrete, either with or without hardcore under, does not provide the completely impervious barrier referred to above, though it is of advantage in reducing the amount of dampness rising from the ground. Even the best concrete is to some degree permeable and, apart from its initial moisture content, will become moist when

placed on damp ground. Further, to be most effective concretes should be well-graded and dense. A thin layer of well-graded, dense concrete is more valuable than a thicker layer of poor concrete.

A layer of hard, broken brick or stone under the concrete will do much to break the capillary path between the ground and the concrete and unless a "head" of water exists (in which case, failing the provision of an impervious barrier, sub-soil drainage is imperative) this layer will assist in preventing the rise of water, although the rise of vapour is, of couse, still possible. But for it to be effective, all fine material should be eliminated. Hard-core, consisting of broken brick or stone in all states of sub-division, with old mortar and other refuse, is of no use for preventing the rise of moisture, although it may make a good firm bed for the concrete.

As distinct from concrete, layers of materials such as asphalt and bitumen can provide a barrier completely impervious to moisture whether in the liquid or vapour form. Where an unbroken and sufficiently thick damp-proof course of a material of this type is provided, timber can be fixed safely *directly* over. The concrete used in conjunction with such materials acts chiefly as a solid base for the impervious damp-proof course and the floor finish.

Consideration of Separate Types of Floors

Timber floors can be conveniently considered under three headings, depending upon the type of construction adopted, viz. :—

1 : Solid floors, in which all timber is fixed on the solid.

2 : Partially suspended floors, in which boards only are suspended on battens fixed on the solid.

3 : Totally suspended floors, in which boards are fixed to suspended joists.

From the viewpoint of attack by dry rot, the distinction between these three types of floors lies in the amount of air space in contact with the timber. As pointed out above, this air space, if unventilated, may give rise to conditions conducive to dry rot.

1 : *Solid Floors*

The main feature of this type of floor is that there is no air space whatsoever. The boards (in short lengths) or blocks are fixed directly to a sub-floor (usually concrete) by an adhesive, or alternatively nailed either to dovetailed timber fillets held in position by a layer of concrete or screed, or to a layer of nail-holding concrete, e.g. breeze concrete.

Solid Floors fixed by an Adhesive

Where the adhesive method of fixing is used, an efficient damp-proof course is automatically provided if, as is usually the case, the adhesive is of a bituminous nature and is used in sufficient thickness. The thickness should be such as to prevent the timber from coming into contact at any point with the concrete. No trouble should then occur with this type of floor, whether it is an upper floor or a ground floor.

Solid Floors fixed by Nailing

Where the nailing method is adopted it becomes important to distinguish between ground and upper floors. In both cases, however, the underside of the boards, if they have not been impregnated, should be treated by brush application of a suitable preservative and any timber fillets embedded in concrete or screed should be impregnated under pressure.

In addition for (*a*) *Upper Floors*, care should be taken that the concrete sub-floor and screed have thoroughly dried out before any boards are laid. No trouble should then occur.

For (*b*) *Ground Floors*, it is imperative that, in addition to preservative treatment of the timber, a completely impervious layer such as that referred to above should be interposed between the boards and the concrete. In other words, after provision has been made for fastening the boards, i.e. by means of impregnated timber fillets embedded in the concrete or a layer of nail-holding concrete, the whole of the floor area should be covered by an unbroken layer of a completely impervious material. Care should be taken to ensure that this impervious layer makes a water-tight joint (carried vertically if necessary) with the damp-proof course in the walls. As already indicated, bitumen is a convenient material to use for providing this impervious layer. A lightly-brushed coating of tar, as is often used, is quite valueless. The kind of bitumen that should be used for this purpose can be indicated by reference to its hardness, defined by its "penetration-number," which should be between 40 and 50. The bitumen should be poured hot and a continuous layer at least $\frac{1}{8}$ in. thick should be regarded as essential. To obtain this thickness at least 10 lb. of bitumen per sq. yard will be required. The boards are then fixed by nailing through this layer of bitumen to the fillets or nail-holding concrete below. If fillets are used for nailing it is best that the top of the fillets should be flush with the top of the concrete and the bitumen carried continuously over both in order to avoid an objectionable air space. There is no objection, however, to allowing the fillets to project slightly, say $\frac{1}{16}$-$\frac{1}{8}$ in. only, so as to make it easier to locate them when covered by the bitumen, for with this amount of projection there is unlikely to be any danger of breaking the bitumen layer. The position of the fillets will then be apparent after the bitumen is applied.

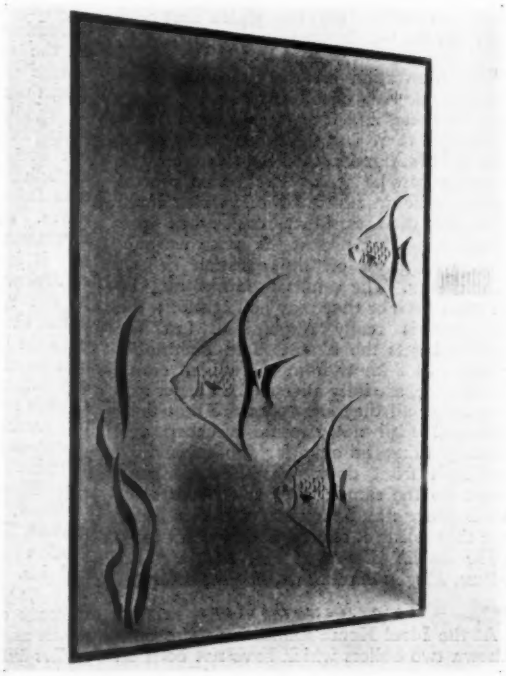
In tests which have been carried out at the Forest Products Research Laboratory, Princes Risborough, it has been found that no dry rot developed in a floor constructed as above recommended, although active fungal infection was introduced. (The discussion of partially suspended floors and totally suspended floors will follow in Part II.

TRADE NOTES

[*BY PHILIP SCHOLBERG*]

A New Decorative Finish

THE British Aluminium Company have recently developed a new technique whereby patterns and designs of all kinds can be permanently impressed on aluminium sheet. The pattern to be reproduced is first of all cut on a paper or metal stencil and the range of design is therefore practically unlimited. The sheet, which is known under the trade name of Imprest sheet, can be made from any kind of stencil, and the process is so sensitive that the actual texture of the paper used will be clearly visible on the finished panel. In addition to the stencils, various metal patterns such as wire gauze, mesh and netting can be used, and particularly interesting results can be obtained from an ordinary ink transfer. Here the design is clearly and sharply impressed on the aluminium, the result being a matt finish where the paper covered the sheet during the process, and a brightly polished impression corresponding to the ink design of the transfer. It should be realized that the patterns and designs are truly impressed in the surface of the sheet, so that they are as



The British Aluminium Co. have recently developed a new technique whereby patterns and designs of all kinds can be permanently impressed on aluminium sheet. A typical example is shown on the right.

Fig. 1

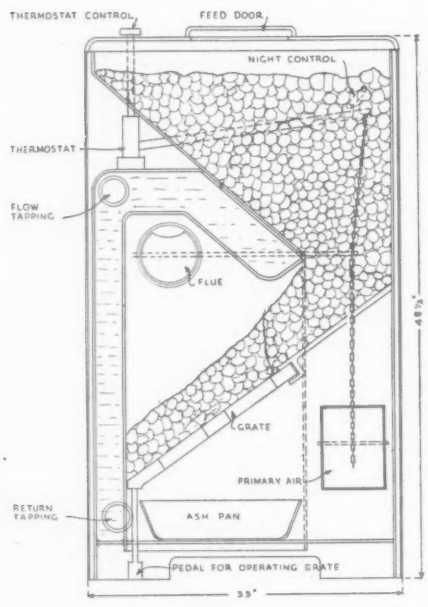


Fig. 2

permanent, or nearly so, as sandblasted glass. The sheet can be finally finished by any of the methods usual with aluminium, such as lacquering or anodising, and the anodised sheet can be dyed in any of the usual colours. So far the maximum size of panel which can be produced by this process is 5 ft. by 2 ft. 6 ins., but anything below this is quite easy. The British Aluminium people hope that further research work will allow them to increase the maximum size.

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One of the most interesting features of this method is the way in which the texture of the stencil or transfer material is reproduced on the aluminium, for there is thus an almost unlimited choice for the all-over background. From the results obtained with parchment and fabric textures it is thought that the process may prove to be an economical method for producing surfaces for diffuse reflection, so that the process broadens into one which may well concern the lighting people.

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The illustration on the preceding page gives a fair idea of the sort of thing which can be done, and if anyone is particularly interested there is a small show now on at the British Aluminium offices, where other samples can be seen. The whole process seems to be an admirable one which could give the most excellent results, but it is worth repeating almost the same warning that was given on the question of Art Thermolux. The results produced may be in good taste or they may be frightful; the designer is really responsible, but the material gets the blame. The Thermolux people, as I know from subsequent correspondence, are fully alive to the danger and are doing all they can to ensure that their material shall not become a cheap and shoddy thing fit only for the speculative builder's front door. British Aluminium must do the same; they have control of their process and they can therefore easily see that it is not abused if they want to.—(*The British Aluminium Co., Ltd., Adelaide House, King William Street, London, E.C.4.*)

Two New Boilers

At the Ideal Home Exhibition there were shown two boilers which have not been on the market for very long. A gas-fired one by Ideal (fig. 1) and a magazine type for solid fuel by Hall & Co. (fig. 2). Both very tidy in appearance and well enough designed to go in a corner of the kitchen without looking out of place or disgracing the latest types of cooker; both of them are shown in the illustrations at the top of this page, gas-fired on the left, magazine on the right.

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The gas-fired type is available in two sizes, rated at 20,000 and 30,000 B.T.U. per hour with gas consumptions of 54 and 80 cubic feet, these amounts giving 20 and 30 gallons of hot water an hour raised from 40 to 140 degrees F. based on a calorific value of 500 B.T.U. per cubic foot of gas. As a means of direct hot water supply the manufacturers do not claim that gas can compete with solid fuel on economy grounds except in districts where the gas companies have introduced two-part tariffs on the same lines as the electricity companies—a standing charge plus a low rate for each unit or therm used. There may, of course, be users to whom the freedom from attention and saving in storage space will more than offset the increased costs of running, but the manufacturers are quite right to give the true facts and let users decide for themselves. The gas supply is controlled by a thermostat and the usual pressure governor, but it is also possible to obtain a clock control which will cut down the gas supply to the minimum required for the pilot flames at any time in the evening and restore it again in the morning. This control can also be arranged to vary the cutting in and out times on different days of the week, though this latter setting has to be made at the works. The clock has an eight- or a fifteen-day run, and the price, with all the selective and advancing devices, is just over £4. The space taken up by these boilers is small, 14¾ ins. wide by 26¼ ins. deep overall, the only variation between the two models being in the height, which is either 22¾ ins. or 26¼ ins. Prices are £12 10s. and £14, and the finish is grey mottled vitreous enamel with the top and bottom plates and the front panel in black.—(*Ideal Boilers and Radiators, Ltd., Hull, Yorkshire.*)

The Halco junior boiler shown in the section (fig. 2) is of the automatic gravity feed type with a magazine capable of holding a fuel supply for a 24 to 36 hours' run, and burning coke, anthracite or semi-anthracite in any size from ½ in. up to 1½ ins., though ¾ to 1 in. is recommended for the best results. The appearance is very clean indeed, with hardly any projections except the fire door, ash door, and the filling opening at the top, and the five standard colours available are pleasantly clean. With a gravity feed it is, of course, comparatively easy to make the boiler tidy, for there are no screw feeds or other devices to make awkward projections and the unit builds up into a simple rectangular shape without very much trouble. Operation is quite easy, for riddling is carried out by a small foot lever at the front; there is a special hole through which a slice can be passed to remove any clinker, and provision is made for the boiler to be lighted with an ordinary gas poker. On top of the boiler is an adjustable thermostat which controls the water temperature via the primary air and the flue damper. Five sizes are standardized varying from 25,000 to 100,000 B.T.U. continuous rating, the dimensions on the section (fig. 2) applying to the 55,000 B.T.U. size. Prices start at £21 10s. and go up to £52, to which figure should be added 7s. 6d. for the necessary stoking tools.—(*Hall Boilers, Ltd., Aldwych House, Aldwych, London, W.C.2.*)

Building Centre Developments

The middle of last week saw the opening of the Building Centre's new hospital and medical section. This is not a temporary show but a permanent section housed on the third and fourth floors of the front Bond Street block. On the fourth floor there are operating theatres with all the essential equipment such as sterilizers, lighting fittings, light-proof blinds and most of the other paraphernalia, while the third floor is devoted to electro-medical, surgical, laboratory and sanitary fittings of the kind which one seldom sees unless one goes round a large and fairly up to date hospital, or spends a good deal of time wandering round showrooms. The show is not intended for architects only, but for anyone interested in hospital management, and it is encouraging to see that special stress is laid on the plans department, in which a number of typical hospital plans are filed for reference, promises having been obtained from several architects both in this country and abroad for the contribution of further plans when new jobs are built. There is also an advisory council of which half the members are architects, with one or two medical men, and it is worth mentioning that the section is in charge of a medical man as well, quite an important point, as a lot of the equipment is getting very complicated nowadays and it is obviously a help to have it explained by a man who knows how it is used.—(*The Building Centre, 158 New Bond Street, London, W.1.*)

Copper Pipe Services

The Copper Development Association has just issued a comprehensive handbook entitled "Copper Pipe Line Services in Buildings." And a very good handbook too, for it gives complete information on all matters relating to design and installation, both from the point of view of the man who actually has to do the job and of the designer who is concerned with the layout of such installations. The handbook is fully illus-

trated with line and half-tone, and all diagrams and photographs have been arranged with a minimum of unnecessary detail. The book is naturally propaganda, but it is propaganda of the most sensible kind. Copies are being distributed free, but to responsible persons only, and bearing in mind the obviously high cost of such a production one cannot blame the C.D.A. for refusing to broadcast it to all and sundry. A good effort which should most certainly be kept for reference.—(*The Copper Development Association, Thames House, Millbank, London, S.W.1.*)

LAW REPORT

ARCHITECT HELD LIABLE

Darvill v. *Chandler and another.—King's Bench Division. Before Mr. Justice Lewis.*

THIS was an action by Mr. Henry Darvill, trading as H. Darvill & Co., plumbing and heating engineers, of First Avenue, Beech Hill Park, Enfield, against Mrs. Gladys Chandler, of London Road, St. John's Wood, N.W., and Mr. D. Jennings Cox, an architect, of Victoria Street, S.W., to recover the sum of £126 10s., balance due for work done and materials supplied in connection with the installation of central heating and hot-water installation at a house in London Road, St. John's Wood. Mr. Darvill claimed the £126 10s. against Mrs. Chandler as the building owner, and in the alternative against the second defendant, Mr. Cox, as the architect of Mrs. Chandler, and as her agent.

By the defence there was a plea that the contract for the installation was not made with either defendant, but with the builders of the house, who had since gone into liquidation. The defendants denied liability under the circumstances.

Mr. Norman Parkes, for the plaintiff, said in June, 1936, Mrs. Chandler was having a house built in London Road and employed Mr. Cox as her architect. The plaintiff saw the house and wrote suggesting that he should instal central heating and hot-water apparatus. There were interviews with Mr. Cox, and estimates were submitted and finally the price of £253 was given. In July, 1936, Mr. Cox wrote saying he had instructed the builders to accept that price subject to 5 per cent. discount. He asked that the work should be put in hand at once.

Counsel said his evidence would be that it was not correct that the builders had been instructed to accept the plaintiff's estimate, and that at no time was there any contractural relationship between the plaintiff and the builders. The plaintiff, not having received any communication from the builders, wrote to Mr. Cox, who said he was dealing with the job himself and asking the plaintiff to get on with the work as fast as he could. Plaintiff then went on with the work, and additional work amounting to £3 10s. was done. Mr. Cox asked the builders to pay. The builders got into difficulties, and it was not till the end of 1936 that plaintiff received the first intimation that Mr. Cox was treating with the builders, and not Mrs. Chandler, as the principal in the matter.

Counsel submitted that there was an oral communication which constituted a contract between plaintiff and Mrs. Chandler. Plaintiff had received a sum on account, and now sued for the balance.

His lordship, after hearing the evidence, decided that it was established that Mr. Cox had made himself personally liable to the plaintiff, and gave judgment for the plaintiff as against Mr. Cox for the amount claimed with costs, and he gave judgment for Mrs. Chandler as against the plaintiff, without any order as to costs.

IN PARLIAMENT

MR. DENMAN asked the Minister of Health whether he could expedite the West Sussex South Downs planning scheme.

Mr. Elliot said that this scheme had involved extensive negotiations with landowners. Most of the agreements had now been made, and he was in communication with the county council with a view to expediting the remainder.

Mr. Pritt asked the Minister of Health whether he had any information as to the proposals to import many thousands of pre-fabricated timber houses from Sweden to Great Britain; and if the proposals had the sanction of his department.

Mr. Elliot said that he had no information with regard to the proposals to which the hon. Member referred. Proposals for importation would not require his approval.

Mr. Fleming asked the Minister of Health whether he was aware that certain assessment committees regard the construction of a reinforced trench in a garden attached to a dwelling-house as an improvement and thereupon the occupier was compelled to pay heavier rates; and whether he would include this point in his consideration of this problem.

Mr. Elliot said that the answer to both parts of the question was in the affirmative.

Mr. Batey asked the Secretary to the Treasury if he could state the total profits of building societies in Great Britain for the years 1936 and 1937.

Capt. E. Wallace said that the estimated profits of building societies in Great Britain (in the sense of the interest paid on shares plus the additions to profit and reserve) amounted to £19,630,000 in 1936 and £20,720,000 in 1937, viz.:—

	1936	1937
	£	£
Interest on shares ..	16,020,000	16,857,000
Additions to profit and reserve	3,610,000	3,863,000
	19,630,000	20,720,000

Mr. Batey asked the Secretary to the Treasury if he could again take steps to have further reduced the 4½ per cent. charged by building societies, so that working men might be able to purchase their houses without having to pay so much in interest.

Capt. E. Wallace said that the rate of interest charged by building societies was a matter for determination by the societies themselves.

THE BUILDINGS ILLUSTRATED

GLENBUCK COURT, SURBITON (pages 899–901). Architect: Ronald Ward. The general contractors were Cussins (Contractors), Ltd., and the sub-contractors and suppliers included: C. Bishop and Sons, demolition; Ruberoid Co., Ltd., dampcourses; The Lawford Asphalte Co., Ltd., asphalt; Lambrick Floors, Ltd., floors and reinforced concrete; London Brick Co., Ltd., Ryarsh Brick and Sand Co., Ltd., Ryarsh sand lime facing bricks; Sussex Brick Co., engineering bricks; Patent Victoria Stone Co., Ltd., artificial stone (pavings); F. McNeill & Co., Ltd., special roofings; J. A. King & Co., Ltd., partitions; W. N. Froy and Sons, Ltd., glass; James Couper & Co., Ltd., patent glazing and casements; Jos. F. Ebner, Ltd., patent flooring; W. B. Simpson & Co., Ltd., patent flooring and compo. flooring; R.I.W. Protective Products Co., Ltd., waterproofing materials; Baxter Geoffrey & Co., Ltd., central heating and plumbing; Teuten & Co., Ltd., stoves, grates and door furniture; Art Marbles Stone and Mosaic Co., Ltd., stoves and grates; Wandsworth and District Gas Co., gasfitting; Hewitt Engineering Co., Ltd., boilers; Smith and Hammond, Ltd., electric wiring and bells; G. H. Turner and S. L. R. Electric, Ltd., electric light fixtures; John Bolding and Sons, Ltd., sanitary fittings; Carter's Sports Courts, Ltd., squash courts; Conrad Parlanti, Ltd., metalwork; Southerns, Ltd., flush doors; Peerless Kitchen Cabinets, Ltd., joinery; Sharp Bros. and Knight, Ltd., joinery; Hall & Co., tiling; Keighley's Lifts, lifts; Metropolitan Water Board, water supply; Franco Signs, Ltd., neon signs.

NURSES' HOME, ROYAL MASONIC HOSPITAL (pages 911–916). Architects: Sir John Burnet, Tait and Lorne. The general contractors were Thomas and Edge, Ltd., and the sub-contractors and suppliers included: Aston Construction Co., Ltd., structural steelwork; Diespeker & Co., Ltd., concrete floors and roofs, Stourbridge frost-proof tiling; Trussed Concrete Steel Co., Ltd., concrete work to basements and tunnel; Haywards, Ltd., roof and pavement lights and stallboard lights; St. Albans Brick Co., red facing bricks; Frazzi, Ltd., patent flat roofing; Crittall Manufacturing Co., Ltd., sash windows, metal windows and doors, screens, angle ventilators to games room; Ashwell and Nesbit, Ltd., mechanical services, heating to games room and greenhouse; Tyler and Freeman, electrical services and lightning conductors; Arthur Scull and Son, Ltd., sanitary services; Hammond Bros. and Champness, lift installation; Leeds Fireclay, Ltd., sanitary fittings; Light Steelwork (1925), Ltd., metal work, grilles to basement lights, and entrance gates in steel; Armstrong Cork Co., Ltd., cork floors; Thompson Bayliss & Co., Ltd., maple wood flooring; Veneercraft, Ltd., flush doors; Roberts Adlard & Co., Ltd., buff quarry tiles and external frost-proof tiling for large window pier; Christie (Decorators), Ltd., cement glaze work; Hy-Rib Sales Trussed Concrete Steel Co., Hy-Rib in sheets of suitable length; James Gibbons, Ltd., hardware; Art Pavements and Decorations, Ltd., Biancola terrazzo work; Korkoid Decorative Floors, linoleum; Blunt and Wray, Ltd., wrought iron grilles to ground floor; J. P. White and Sons, panelling to games room; Rippers, Ltd., wardrobes; Royde and Tucker, axle pulleys and chains for sash windows; Hickman (1928), Ltd., porter's desk; Brown and Tawse, Ltd., chequer plate cover and frame to coal chute; Service Glass Works, Marmorene shelves and splashbacks; Bratt Colbran, electric fires; Wm. Sugg & Co., Ltd., gas-fired incinerators; Oswald Hollmann, electric light fittings; Troughton and Young, Ltd., electric light fittings and laylights; Kay-Zed, Ltd., painter work; Goodlass Wall & Co., Ltd., paint; G. A. Harvey & Co., Ltd., luggage racks; Eric Munday and Wm. Pickford, Ltd., lettering; Berry's Electric, Ltd., grates and fire interiors; Sheridan Knowles & Co., plate windows to wardrobes; Fortifex, rubber door mats; Hunter and Hyland, curtain rods; Pilkington Bros., polished plate glass to enclosed balconies, first, second and third floors; John Lewis & Co., curtains; W. Wood and Sons, new greenhouse; Bayliss Jones and Bayliss, Ltd., iron fence and gate and railings on north boundary and west boundary of tennis courts; Beckley & Co., plastering works; Fredk. Braby & Co., Ltd., copper roofing works; The Excel Asphalte Co., asphalting work; The Gas Light and Coke Co., gas supplies and fixing of incinerators; Malcolm Macleod & Co., Ltd., granolithic paving works; Marryat and Scott, Ltd., bin lift; R.I.W. Protective Products, Ltd., preservative paint on brick walls; Standard Flat Roofing Co., flat roofing works; Thurman and Allard, Ltd., roof tiling; W. Turner Riley & Co., Ltd., fencing.

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.

On the following pages appears Prices of Materials—Part 2, with the prices, last published on April 28, brought up to date.

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

There is now practically no change in the prices of joinery timber. Conditions in the steel market are slightly easier.

O. A. DAVIS, P.A.S.I.

PART 2

Prices vary according to quality and the 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, P.A.S.I.

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	41 10 0	5 0½
✱3″×9″	,, 3rd ,, ...	29 10 0	3 7
2″ × 9″	,, 2nd ,, ...	47 10 0	5 9¼
2″ × 9″	,, 3rd ,, ...	31 0 0	3 9¼
3″ × 8″	,, 2nd ,, ...	33 0 0	4 0
3″ × 8″	,, 3rd ,, ...	25 10 0	3 1½
2″ × 8″	,, 2nd ,, ...	35 0 0	4 3
2″ × 8″	,, 3rd ,, ...	25 10 0	3 1½
3″ × 7″	,, 2nd ,, ...	32 0 0	3 10¾
3″ × 7″	,, 3rd ,, ...	25 0 0	3 0½
2″ × 7″	,, 2nd ,, ...	35 0 0	4 3
2″ × 7″	,, 3rd ,, ...	25 10 0	3 1½
2″ × 6″	,, u/s ,, ...	25 0 0	3 0½
1½″×11″	,, 3rd ,, ...	40 0 0	4 10¼
1½″× 9″	,, u/s ,, ...	36 0 0	4 4½
1″ × 9″	,, 2nd ,, ...	47 0 0	5 8½
1″ × 9″	,, 3rd ,, ...	36 10 0	4 5½
1″ ×11″	,, 2nd ,, ...	49 0 0	5 11½
1″ ×11″	,, 3rd ,, ...	41 0 0	4 11¾
1¼ × 9″	,, 2nd ,, ...	47 0 0	5 8¼
1¼″× 9″	,, 3rd ,, ...	36 10 0	4 5¼
1¼″×11″	,, 2nd ,, ...	49 10 0	6 0
1¼″×11″	,, 3rd ,, ...	41 0 0	4 11¾

JOINER—(*continued*)

Flooring

		⅞″	1″	1¼″
Yellow deal, plain edge in batten widths ..	per square	✱20/–	24/6	31/–
Ditto, T. & G.	per square	✱20/6	25/–	31/6
T. & G. rift sawn B.C. pine in 4″ widths ..	per square		32/6	
✱T. & G. random grain, in 4″ widths	per square		18/9	

Wall Linings

Deal Match Boarding :—

1″×6″ T.G.B.	per square	25/–
1″×4½″ T.G.V.	per square	24/–
✱¾″×6″ T.G.B.	per square	19/–
✱¾″×4½″ T.G.V.	per square	18/–
⅝″×6″ T.G.B.	per square	16/9
⅝″×4½″ T.G.V.	per square	16/–
✱½″×4½″ T.G.V.	per square	13/–

Asbestos-Cement :—

5/32″ Semi-compressed flat building sheets, grey	per yard super	1/3¾
3/16″ Ditto	per yard super	1/4½
¼″ Ditto	per yard super	1/11
¼″ Metal reinforced flat building sheets	per yard super ..	3/4

Prices are for orders of less than 1 ton.

✱ **Items marked thus have fallen since April 28th.**

CURRENT PRICES

BY DAVIS AND BELFIELD, P.A.S.I.

JOINER AND STEEL AND IRONWORKER

JOINER—(*continued*)

Wall Boards :—

Asbestos-cement wall board (in sheets 8′ 0″ × 4′ 0″ only) under 5,000 feet super	per foot super			−/2½
Asbestos-cement stipple glazed sheets (in sheets 8′ 0″ × 4′ 0″ only)	per yard super			7/6
Ditto, plain white glazed sheets (in sheets 8′ 0″ × 4′ 0″ only)	per yard super			8/6
Marble glazed sheets (in sheets 8′ 0″ × 4′ 0″ and 4′ 0″ × 4′ 0″)	per yard super			7/6
	300 yards.	300–1,000 yards.	1,000–2,000 yards.	
¼″ Fibre board	2/–	1/10½	1/9	
		25–75 yards	150–300 yards	Over 600 yards
¼″ 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	12½m/m
Birch (A) per square	22/–	26/6	30/–	42/6	45/–
„ (B) per square	18/–	19/–	—	—	—
Japanese figured oak (A.A.) per square	33/6	37/–	38/6	65/–	—
Austrian oak, figured one side (A.A.) per square	—	71/6	77/6	99/6	117/6
Australian walnut, finely figured one side (boards 72″ × 36″) per square			¼″ 67/6	¾″ 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		67/–	73/6
⅝″	per square		76/–	83/6
¾″	per square		83/3	91/3
⅞″	per square		87/3	96/3
1″	per square		100/6	110/6
1¼″	per square		122/–	134/–
1½″	per square		128/–	140/–
1¾″	per square		160/9	169/9

Birch :—

Thickness			Boards 54″ × 72″	Boards 60″ × 140″
½″	per square		50/3	52/9
⅝″	per square		57/3	60/3
¾″	per square		63/3	67/–
⅞″	per square		68/–	71/3
1″	per square		75/–	77/9

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/–
„ African	per foot cube	12/–

JOINER—(*continued*)

Mahogany, Honduras	per foot cube	14/–
American whitewood	per foot cube	10/–
Birch	per foot cube	8/–
Cedar (aromatic)	per foot cube	16/–
Japanese oak (plain)	per foot cube	11/–
„ „ (quartered)	per foot cube	13/–
Austrian oak (plain)	per foot cube	12/–
„ „ (quartered)	per foot cube	16/–

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. 33/6	4″	per cwt. 23/6
„ „ floor brads, 2″	„ 22/9	3″	per cwt. 21/9
Bright oval wire nails 1″	„ 35/9	4″	per cwt. 23/6
Scotch glue	per cwt. 60/–		

Floor Clips :—

		£	s.	d.
One leg floor clip	per 1,000	8	8	0
2″ short leg floor clip	per 1,000	8	8	0
2″ Regular floor clip	per 1,000	8	15	0
3″ „	per 1,000	9	0	0
2″ Regular ceiling clip	per 1,000	8	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	14	0	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″, 4¼″ × 1¾″ and 24″ × 7½″ sections	per ton	1	0	0
*Channels, angles and tees	per ton	15	0	0
*Mild steel plates	per ton	15	0	0
Screw bolts	per ton	35	0	0

Fabricated Steelwork

		£	s.	d.
Joists cut and fitted	per ton	18	0	0
Stanchions, ordinary sections with riveted caps and bases	per ton	22	0	0
Stanchions, compound	per ton	23	10	0
Plate girders	per ton	28	0	0
Framed roof trusses, 25′ 0″ span	per ton	27	10	0
„ „ „ 60′ 0″ span	per ton	25	0	0

Prices ex stock are higher, and 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	20 0 0	21 0 0
10 fts. 18 or 20 gauge, 8/3″ corrugations	20 10 0	21 10 0
4 to 9 fts. 22 or 24 gauge, 8/3″ corrugations per ton	20 10 0	21 10 0
10 fts. 22 or 24 gauge, 8/3″ corrugations	21 0 0	22 0 0
4 to 8 fts. 26 gauge, 8/3″ corrugations	21 15 0	22 15 0
9 fts. 26 gauge, 8/3″ corrugations	22 5 0	23 5 0
10 fts. 26 gauge, 8/3″ corrugations	22 15 0	23 15 0

*** Items marked thus have fallen since April 28th.**

CURRENT PRICES

BY DAVIS AND BELFIELD, P.A.S.I.

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 –	73 6	
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	

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/–
¾″ laths	per bundle			2/–
1″ laths	per bundle			2/4½
Expanded metal lathing, 9′ 0″ × 2′ 0″ ⅜″ mesh × 26 gauge	per yard super			–/11
Lath nails (galvanised) 1½″ × 14 gauge	per cwt.			44/6
„ (bright wire) „ „	per cwt.			27/–
	Less than 150 yds.	Less than 300 yds.	Over 300 yds.	
⅜″ Plaster board .. per yard super	1/–	–/11	–/10	
1½″ Galvanized nails .. per lb.	–/5			
Scrim cloth in 100-yard rolls .. .. .. per roll	2/3			

Wall Tiles

Commercial quality.		
Ivory, white, etc., glazed 6″ × 6″ × ⅜″ ..	per yard super	9/9
Angle beads (1½″ wide)	per yard run	1/2¾
„ „ (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	1/4¾
„ „ (1″ „)	per yard run	–/11¼
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	1/0¾
Rounded edge tiles	per yard run	2/8½

PLUMBER

Lead

✱3¼ 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	7/4¾
4″ × 3″	per yard	7/4¾
4″ × 4″	per yard	9/0¾
4½″ × 3″	per yard	8/5¼
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	2/4¾	3/7¾
Shorts 2′ 0″, 3′ 0″ and 4′ 0″ extra	per yard	–/2½	–/2½	–/2½	–/2½	–/3¾	–/3¾
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	2/4¾	2/6	2/9¼	3/10½
Straight back and shorts 2′ 0″, 3′ 0″ and 4′ 0″ extra ..	per yard	–/2½	–/2½	–/2½	–/2½	–/3¾	–/3¾
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 should be increased by 5 per cent. and are subject to 7½ 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″	2/7½	3/–	3/4½	3/10½	4/3
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 10 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	2/0¾
3″	per yard run	2/5¾
3½″	per yard run	2/11½
4″	per yard run	3/4¾
4½″	per yard run	4/10½
5″	per yard run	5/9½
6″	per yard run	7/1¾

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	1/6¾	1/7¾	1/11	2/8	3/3½
Ogee gutters per yard run	—	1/11	2/0¾	2/5¾	3/0½	3/11¼

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.	85/–
Tinman's solder	per cwt.	111/–

Drawn lead traps with brass screw eye, 6 lbs.

		1″	1¼″	1½″	2″
✱ S. trap	each	1/7	1/9	2/2	3/2
✱ P. trap	each	1/4	1/6	1/10	2/7
Extra for 3″ deep seal ..	each	6	6	6	6

✱ Items marked thus have fallen since April 28th.

CURRENT PRICES

INTERNAL PLUMBER

BY DAVIS AND BELFIELD, P.A.S.I.

INTERNAL PLUMBER—(*continued*)

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

		½″	¾″	1″	1¼″	1½″	2″
Tubes.							
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	58¾%	50%	52½%
Steam	56½%	46½%	47½%
Galvanized gas	53¾%	46½%	47½%
„ water	48¾%	42½%	42½%
„ steam	43¾%	38¾%	37½%

Brasswork. Best Quality

		½″	¾″	1″
Chromium plated screw-down bibcocks, screwed for iron ..	per dozen	34/6	56/3	99/–
Ditto, with screw ferrule ..	per dozen	43/–	67/3	105/6
Ditto, with capstan head lettered, screwed for iron ..	per dozen	40/6	62/3	108/–
Ditto, with screw ferrule ..	per dozen	49/–	73/3	124/6

	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	37/6	43/–	35/–
¾″ .. .. per dozen	59/–	65/–	54/–
1″ .. .. per dozen	90/–	97/6	84/–
1¼″ .. .. .. each	12/9	13/6	12/–
1½″ .. .. .. each	20/6	21/6	19/–
2″ .. .. .. each	39/9	41/3	37/6

		½″	¾″	1″
Portsmouth pattern ball valve for low pressure, screwed for iron ..	each	3/7	5/5	11/3
Ditto, with flynut and union ..	each	4/3	6/3	12/9
High pressure ditto, screwed for iron	each	3/7	5/5	11/3
Ditto, with flynut and union ..	each	4/3	6/3	12/9

	2″	2½″	3″	4″
Socket thimble sloping shoulder per dozen	10/–	13/–	15/9	22/3

	1½″	2″	2½″	3″
Flanged ferrule thimble per dozen	7/9	9/–	13/6	16/–

	½″	¾″	1″	1¼″	1½″	2″
Union joints for lead and iron .. per dozen	7/6	10/3	14/–	26/–	42/6	92/–
Single nut short boiler screws .. per dozen	6/–	9/–	14/3	21/–	33/–	60/–
Double nut boiler screws per dozen	8/3	9/9	15/–	22/6	43/6	69/–

Belfast sink wastes stamped brass with brass plug diameter of outlet 2″ .. .. per dozen 18/–

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			12-gauge			¼″ plate			⅜″ plate		
		£	s.	d.	£	s.	d.	£	s.	d.	£	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	14-gauge tested to a pressure of 3 lbs. per sq. inch = 4½ ft. head of water	12-gauge tested to a pressure of 7½ lbs. per sq. inch = 10 ft. head of water	⅛″ plate tested to a pressure of 10 lbs. per sq. inch = 15 ft. head of water
		£ s. d.	£ s. d.	£ s. d.	£ 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	14-gauge tested to 15 lbs. pressure = 30 ft. head of water	12-gauge tested to 20 lbs. pressure = 40 ft. head of water	⅛″ plate tested to 25 lbs. pressure = 50 ft. head of water
		£ s. d.	£ s. d.	£ s. d.	£ 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. $\frac{3}{16}$″ 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/–	5/8½	11/8	14/0¾
Double sockets extra each	–/11¼	–/11¼	–/11¼	–/11¼	–/11½	1/0½	1/0½
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	9/8
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. each	3/9	4/8	5/7	6/6	7/6	15/10	21/8
Parallel branch pieces not exceeding 6″ centres. Y pieces. Anti-syphon branches with curved arm. each	4/10	5/11	6/10	7/11	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, P.A.S.I.

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
★Copper tube, seamless solid drawn .. .. per lb.	1/0¼
Copper wire 10 and 12 gauge .. .. .. per lb.	–/9
Copper nails, 1″ and up .. .. per lb.	–/10

Fittings for Copper Tubes

Compression Type :	½″	¾″	1″	1¼″	1½″	2″	2½″
Straight coupling each	1/1½	1/4¾	2/0¾	2/8	3/9¾	5/7¾	14/–
Obtuse elbow each	1/10¼	2/2½	3/3	4/1½	7/1½	10/5¾	—
Tees .. each	2/1½	2/5½	4/–	5/9½	9/3	13/1½	19/3½
Crosses .. each	3/–	3/4¾	5/2½	6/3¾	10/11½	15/3	26/4¾
Reducing coupling each	—	1/4¾	2/0¾	2/8	3/9¾	5/7¾	14/–
Bends .. each	1/7¼	1/11½	2/11	3/8¾	6/7½	9/10¾	14/1
Brass stop cocks each	3/11½	5/10¾	8/7½	15/11¾	22/3¾	37/8¾	—

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

Capillary Type						
Straight coupling each	–/7¼	–/10¼	1/3¾	1/8½	2/3¾	3/4½	5/9
45° elbow .. each	1/3¾	1/8½	2/4½	3/2	4/9	7/1½	11/1
Tees .. each	1/5½	1/7¾	2/8	3/11½	5/7½	8/3¾	12/8
Crosses .. each	1/10¼	2/0½	3/4½	4/9	7/2½	10/6	18/2½
Reducing coupling each	—	–/6½	–/8¾	1/0¾	1/7	2/9½	4/4½
Bends .. each	1/7	1/11	2/9¼	3/9¼	5/11¼	8/3¾	11/10½
Pillar tap connection .. each	1/–	1/5½					

Extras 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.	32/–	31/6	31/–
		5 sheets and under	12 sheets
8 gauge zinc safe hole perforated sheets, size 8′ 0″ × 3′ 0″ .. per sheet		4/10¾	4/1¾
7 gauge ditto .. .. per sheet		4/4	3/8¼
6 gauge ditto .. .. per sheet		3/10½	3/4

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	–/3½	–/4	–/4⅝
32 oz. ditto .. .. per foot super	–/4½	–/6¾	–/7½	–/8½
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, doubled 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.
3/16″ thick .. per foot super	–/9	–/11	1/–	1/2	1/3	1/4
¼″ thick .. per foot super	–/11	1/–	1/3	1/5	1/7	1/9

	In squares not exceeding 12 ft.	20 ft.	45 ft.	65 ft.	90 ft.	100 ft.
3/16″ thick .. per foot super	1/6	1/7	1/9	—	—	—
¼″ thick .. per foot super	1/10	2/2	2/4	2/8	3/–	3/–

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

British or Foreign Polished Plate Glass cut to size

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

GLAZIER—(*continued*)

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

Ordinary ¼″ Substance In Plates not exceeding	Glazing for Glazing Purposes	Selected Glazing Quality	Silvering Quality
90 ft. super .. per foot super	3/11	4/8	5/1
100 ,, .. per foot super	4/–	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 5/32″ .. .. per foot super	–/2	–/4
1/8″ to 3/16″ exact .. per foot super	–/2	–/3
3/16″ .. .. .. per foot super	No extra	–/1½
¼″ bare .. .. per foot super	,,	–/1½
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 } or 110 in. long per ft. super {	1/–	1/5
50 ft. ,, }	1/0½	1/6
55 ft. ,, } or 120 in. long per ft. super {	1/1	1/6½
60 ft. ,, }	1/1½	1/7
65 ft. ,, } or 130 in. long per ft. super {	1/2	1/8
70 ft. ,, }	1/3	1/9½
75 ft. ,, } or 140 in. long per ft. super {	1/4	1/11
80 ft. ,, }	1/5	2/0½
85 ft. ,, } or 150 in. long per ft. super {	1/8	2/5
90 ft. ,, }	1/11	2/9½
95 ft. ,, } or 160 in. long per ft. super {	2/2	3/2
100 ft. ,, }	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.	12/6	
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.	70/–	
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 ton	49/6	
Driers .. .. per cwt.	36/–	
Linseed oil raw (5-gallon drums) .. .. per gallon	3/1	
,, boiled ,, ,, ... per gallon	3/10	
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	3/7	
Creosote, 1-gallon lots .. .. .. per gallon	1/4	
Putty .. .. per cwt.	12/6	
Size .. .. per firkin	3/6	
Best English quality gold leaf, 23 carat .. per book	2/4½	
Extra thick, ditto .. .. per book	3/6	

★ Items marked thus have fallen since April 28.