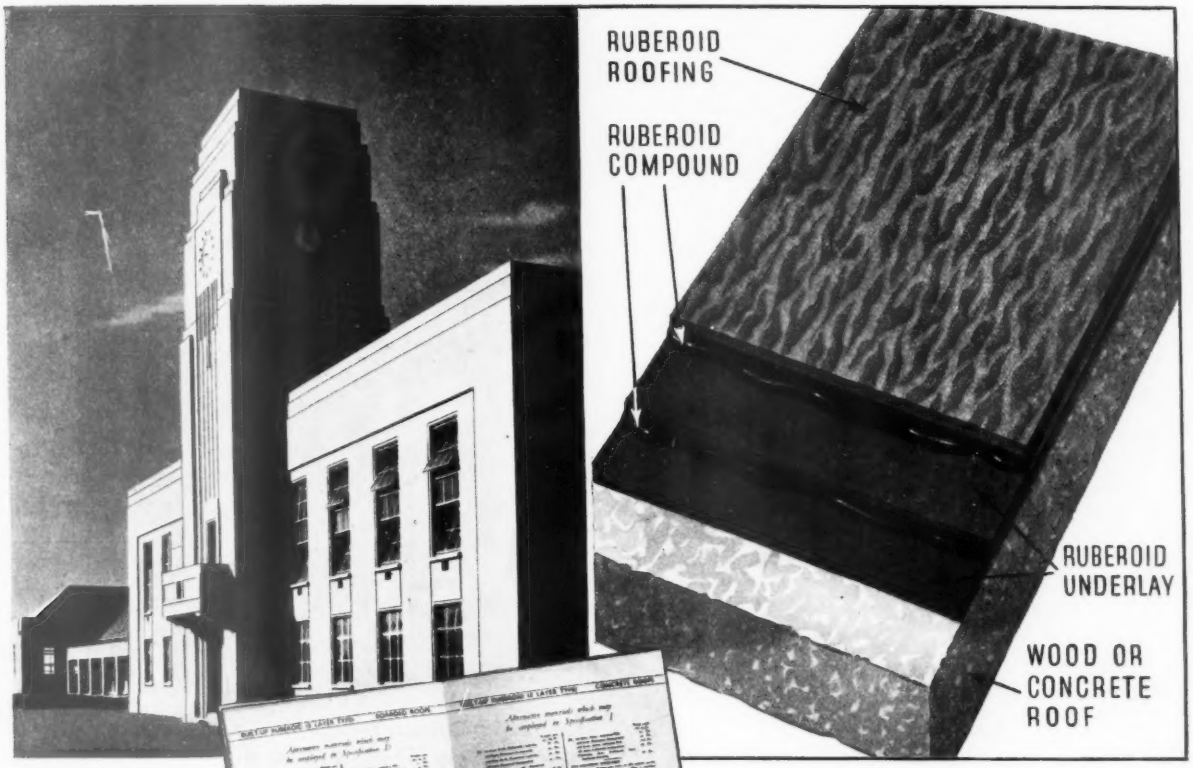
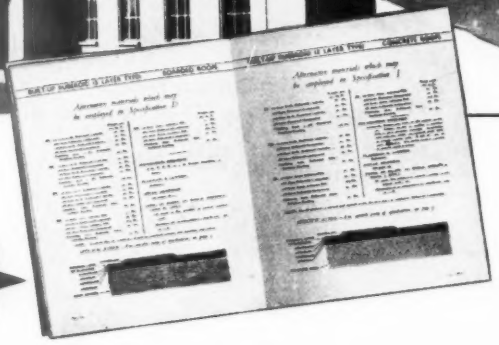


County School,
Weston-super-Mare.
Architect:
A. J. Toomer, Esq.,
F.R.I.B.A., Taunton.



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THE ARCHITECTS' JOURNAL

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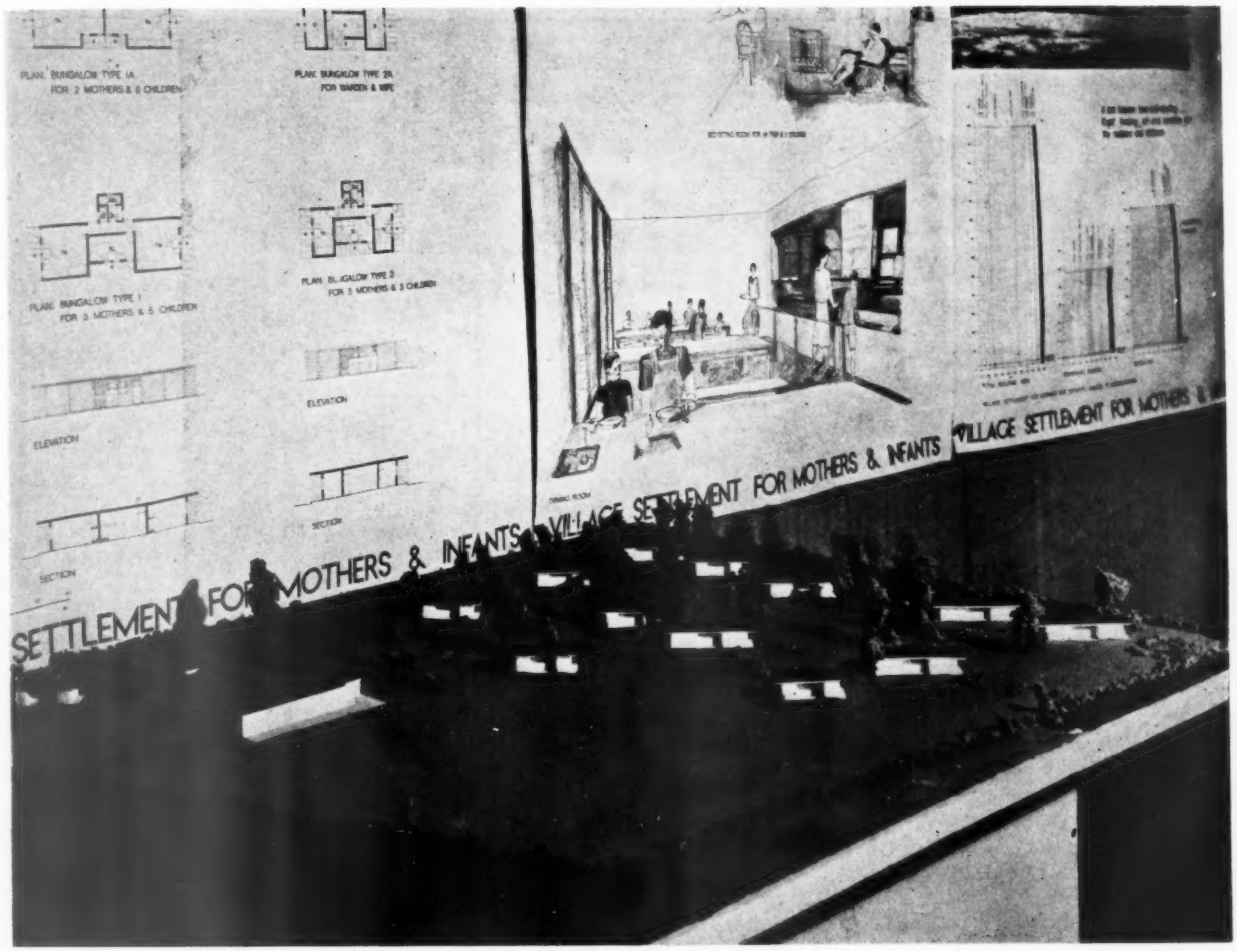
The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

THURSDAY, MARCH 21, 1940. NUMBER 2357 : VOLUME 91

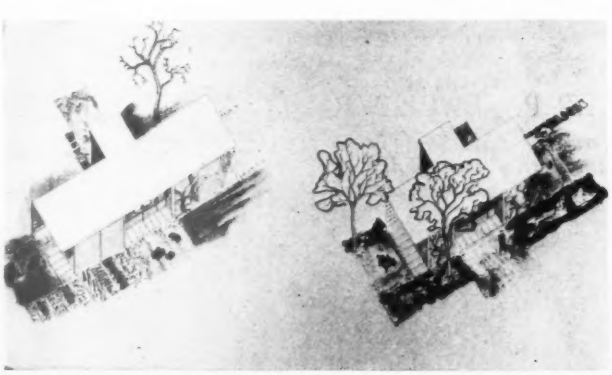
PRINCIPAL CONTENTS

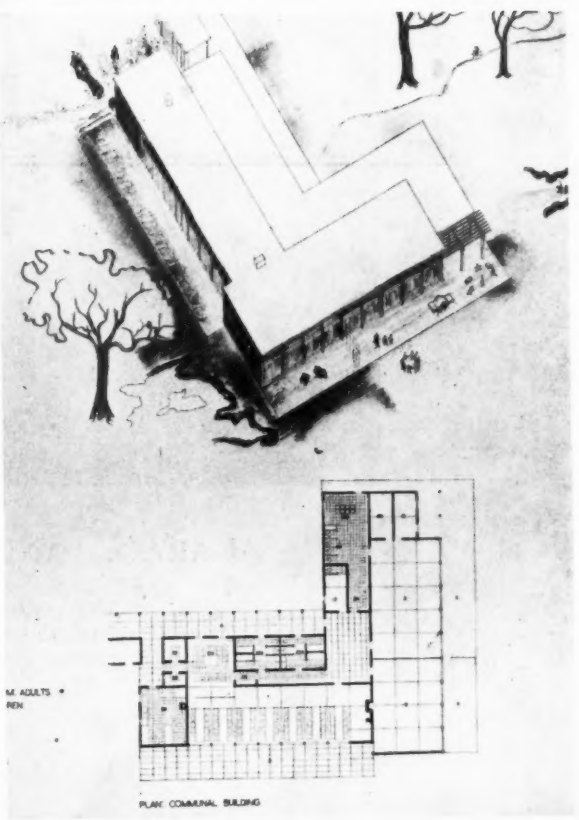


VILLAGE SETTLEMENT

A scheme for a village settlement for mothers, and infants under five years of age, is on view at the Camps Exhibition, now being held at 94 Wimpole Street, W.1. The scheme is planned for about twenty families, and includes a central building with a nursery school for about forty children under five years, supervised by a trained teacher and helpers, a recreation room which could be used as a small village hall, a dining room and canteen, and a small welfare clinic. Mothers and their children would be accommodated in small bungalow units of varying sizes, according to the number of children in the family. The scheme has been designed by Ernö Goldfinger, Mary Crowley and Anne Parker.

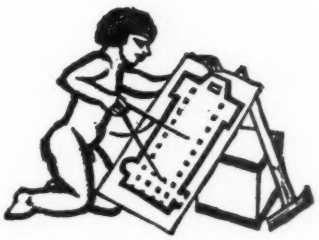
Above, model of the scheme : below, perspective of two types of bungalow units ; right, perspective and plans of communal building.





GARAGE AND A.R.P. SHELTER

The entrance to the garage and air raid shelter in the internal courtyard of Dumbarton Court, Brixton Hill, S.W. This block of flats, designed by Messrs. Couch and Coupland, is illustrated on pages 305-307 of this issue.



THE GREAT TREK

A CORRESPONDENT of Astragal writes this week of living in someone else's house—a war experience which has been treated far below its deserts, even by the Mass Observers.

Astragal's correspondent—let us call him Jones—tells a petty, human story. And were it not for their own experiences in September and October few of his fellow-countrymen could refrain from despising him. This Jones has to wait a few minutes for his bath ; searchlight posts have to wait weeks.

Jones—obviously faddy as you would expect—does not care for the old-fashioned texts and gay prints with which any ship on the Greenland Patrol would love to decorate its mess decks. The finer natures of the public set Jones down at once as impractical and artistic ; as, in fact, an architect. And part of them feels sure that six months of Government service will make more of a man of him. With their more virile, more British, selves thus triumphant, his fellow-countrymen might have brushed Jones from their minds—if it had not been for last September.

They see in their mind's eye the Great Trek as though it were yesterday ; the fine spirit and the flutter of the first few days ; the cheery meals and agreement on how good it is to be shaken out of ruts : their smiling insistence on giving their host precedence at the bathroom door. But try as they will, they see the third week even more clearly : the ear stretched at full cock over the banisters; the gap-toothed malevolence of young Donald ; the ineffectual caperings of their host around an ill-used boiler. Within a minute they realize that Astragal's exile is no snob. The size of their host's house did not matter a scrap. The refugee who enjoyed a private suite still had to watch his wife being ground down by joining in his hostess's vendettas, and his children—who possessed far better or far worse manners than the local product—being scheduled either as unnatural or as hooligans.

They remember, with a perceptible rise in spirits, that it took them the shortest possible time to set up independently or return to risk with resolute cheerfulness all that Hitler could do to their own houses. And even by now, after three or four months of having some place to themselves, the human problems of the Home Front mean to most of them what they could never have meant before September.

In their relief at stretching their legs before a fire whose lighting and stoking depends on no host or hostess, Britons have now sympathy and understanding enough for all victims of the Great Trek. They can feel for the lady who had play-rooms fitted out for her temporary children, but still could not coax them from the front step ; and can realize simultaneously the nervous tension of the child around whose place clean linen has replaced the robust defiance of American cloth.

And among all these happy men and women from whom only sympathy for others is now called for, are numbered many of Jones's fellow architects. In the calm detachment of a living room no longer shared, the thoughts of some of these impractical men may move on from Jones's trouble into wondering whether memories of the Great Trek will remain long enough and lively enough to have any good results after the war. They may hope that verminous living conditions will be rather more quickly abolished and that rural schools will be more quickly rebuilt. They can only *hope* about these things. But of one thing they can be sure.

Architects memories will see to it for many years that one profession gives proper weight to the disadvantages of communal living.

It can be prophesied with certainty that the architectural *avant-garde*, who once resented that communal laundries should be unpopular with tenants and once fondly calculated the economies of communal meals, will be found in post-war years to have neatly changed sides. They will blame the public, of course. "It is perhaps, unwise," they will say diffidently at board-meetings, "to be too much ahead of tenants' ideas."

The Architects' Journal
45 The Avenue, Cheam, Surrey
Telephone: Vigilant 0087-9.

NOTES & TOPICS

BACK TO THE GOOD OLD WAYS

IT became painfully clear after the last war that heavy industry could never again, in peace-time, supply Tyneside with easy money for everybody ; and that if a good many of its inhabitants were not to be unemployed till they died off, new industries—and especially new light industries—must be attracted into the area.

*

In the view of outsiders, the sensible way of attracting these new industries would have been to set up a single Development Board for the North-East Region which could give a prospective manufacturer the choice of *any site in the Region* which suited his particular requirements.

*

How difficult it has been to put this simple idea across on Tyneside would be incredible to anyone who has not experienced the miserable parochialism of that part of the world.

*

" Why should we pay money to give an industry to Wallsend ? " has for years been the indignant chorus of every shopkeeper who did not happen to live in Wallsend.

*

Against this attitude more far-sighted Tynesiders have struggled with slow success. The North-Eastern Development Board has been formed as a co-ordinating body for the dozen smaller Boards which could, in some cases, only offer a manufacturer a site inside two or three square miles of slag heaps and suburbia. The famous Team Valley Estate has been founded ; and considering the enemies on its doorstep and competition outside, has achieved far more than its well-wishers could have hoped.

*

Now war has come, and heavy industry on Tyneside will enjoy an artificial boom which will last exactly as long as the war lasts—and not a week longer. Now, one would think, is just the time for grants to Development Boards to be increased and all plans laid for Tyneside's being one ahead of competitors when peace comes.

Not a bit of it. The Newcastle Chamber of Commerce have recommended to the City Council that the grant to the Tyneside Industrial Development Board should not be continued next year.

DIGGING IN

The following letter is from an architect who has recently joined a Government Department :

Evacuation has several times been discussed in your notes, but I do not remember that the views of an evacuee have ever been given.

*

As my civil service began after the Great Trek, I am not an evacuee according to the narrowest definition, but since I have left my home and forsaken all to render whatever architectural service is still possible these days, the difference is a purely technical one and I feel I am entitled to a say.

*

It is perhaps safe now to mention there was heavy snow here in January. I arrived in the middle of it ; and made my way through the blackout of a strange, taxiless town—as often as not, face downwards. Three-foot snowdrifts were everywhere, and the sharp snap of a Tee-square ran up the cost of one caper to twelve and sixpence.

*

The Governmental horde took possession of this town without a single known atrocity. The local inhabitants had a name for them by the time I arrived, but the shopkeepers were all beaming up manfully under the strain. The price of accommodation has more than kept pace with the rise in the cost of living : adjustments are said to be based on the trains entering the station.

*

In the end I got myself suited, as the phrase goes. In my better moods I keep my thoughts on what the boys have to suffer in France. At other times one has to confess that twelve years of householding produces a shameful finickiness over details.

*

In undergraduate and assistant days digs did not seem so bad : one even had a queer affection for them.

*

Now it's different. The joke knives and wishbone forks, the shared bathroom-cum-w.c., the peculiar smell from the basement, the rock-hard mustard, the *décor* in Landlady Brown, have increased in malevolence with the passage of time. And then there are the pictures and whatnots. . . . *I See 'Oo, Mr. Postman* and " A Present from Clacton " are scheduled for removal. *The Wicked Shall Be Cast Into Hell* has already gone.

COVENTRY HEARS OF MUMFORD

The housing situation in Coventry will soon be serious if big new housing schemes are not carried out. Coventry is in normal times a rapidly expanding industrial centre which calls for expert town planning, but it has now been computed by the Government that increase in wartime industry will bring at least 36,000 more workers into the city area, and though the Government is also reported to have recognized that a special housing permit will be necessary, no solution to the rapid expansion problem is yet in sight.

*

Coventry, at any rate, has an enlightened City Architect's Department which is fully aware of the need for a city plan. Soon after Easter it is going to organize a public exhibition to demonstrate the great advantages of a city survey, and to show what might happen to Coventry if a plan were prepared and carried out.

*

A member of the Architect's Department (Mr. P. J. Marshall) described what would be seen at the exhibition in

a talk to the Coventry Left Book Club, on the teachings of Lewis Mumford and the significance of architecture in Coventry's present situation.

*

Mumford, by the way, has been criticizing, not entirely unfavourably, New York's latest attempts at "orientated" housing, and has a good simile for the architects of the scheme: "They are like prisoners, who, after their release, keep on shuffling as if the old ball and chain were still dragging at their ankles."

A.F.S. AND FINLAND

My last week's note about Mr. Rodney Tatchell's inclusion in the first British fire-fighting crew to go to Finland, was written after the unit's departure. But the Russo-Finnish armistice had made it out of date by the day the JOURNAL appeared.

*

I am told, however, that although the chief reason for the expedition no longer exists, it is probable that its members will be allowed to use the opportunity to make a more thorough study of aerial bombing and fire-fighting than would have been possible in the hazardous conditions which they expected to meet a week ago.

SHORT TRIUMPH

There were signs not so long ago of the architect becoming a symbol in the world of films. Several times since the great American slump he has appeared before us as a symbol of an awakened social conscience. He was young, rising and strove to replace slums with shining houses. And if he often won the girl rather than the open competition, he was full of the right ideas.

*

Lately he has disappeared. And one might have put this down to international events, if Charles Landery's new book, *Hollywood Is The Place*,* had not shown that the world of films feels about new ideas much what other industries feel.

*

American movie types, as listed by the Central Casting Bureau, are:

Bell Hop	Female Impersonator	Policeman
Cowboy	Gambler	Politician
Detective	Gangster	Officer
Dope Fiend	Hag, Old	Spinster

*

If you don't look just like one of these you're not likely to appear in films. One now understands why there are only Seven Possible Plots for a film: and why the slum-conscious architect found the competition too hot.

CONFERENCE AT HULL

The Hull School of Architecture is organizing an interesting Conference for April 17.

*

Since October, the senior students have been working out a Reception Centre scheme for a particular rural site, and this and the Housing Centres Exhibition, "The Houses They Come From," are to be on show to emphasize the main object of the Conference: that as much as possible of wartime building should be planned to fulfil badly-needed peacetime requirements after the war.

*

It is hoped that A.A. and A.A.S.T.A. schemes will be on view. The Hull City Council and Evacuation officials are being represented, as well as the Housing Centre, A.A.S.T.A., and the Northern Schools.

GRANDFATHER'S BICYCLE

In a recent issue of *Cycling* there was an article about a bicycle designed in 1880 of which a correspondent has sent this summary:

Patent No. 4707, granted November 16, 1880: designed by Edward Burstow, Architect, of Horsham in Sussex.

Called the *Centre Wheel*, the machine had five wheels—four 18 in. diameter wheels arranged in a rectangle, and one 50 in. driving wheel in the centre, above which the rider sat as on a Penny Farthing. Fore and aft were two large carrier baskets.

The architect's rough specification stated that "all or any of the small wheels can be lifted off the ground to clear obstructions."

*

The machine was used by the Horsham Post Office and was so much appreciated by the postmen that they sent a testimony of appreciation to the designer. A replica of the bicycle is now in the Post Office Museum.

OUR PHILOSOPHIC ALLIES

A newspaper recently reported the story of a French officer who, during the black-out, had stepped from his train, which had stopped outside the station. Picking himself up from the permanent way he was overheard to say: "C'est magnifique, mais ce n'est pas la gare."

*

I wonder.

ASTRAGAL

* Dent. Price 10s. 6d.

NEWS

●

EXHIBITION

The 1940 art exhibition in Gloucester will consist of works of Gloucestershire artists, and is to be held at the Guildhall for two weeks from June 8 or 15. Sir Edward Lutyens, P.R.A., is being invited to open it.

D.I.A.

The D.I.A. has moved to The Building Centre, 158 New Bond Street, W.1. (Telephone: Regent 2701).

Programme of immediate activities:—Thursday, March 28, at 6.30 p.m.: "Window Display as a Medium for State Propaganda." By Mr. Richard Harman (Editor of *Display*). Wednesday, April 17, at 6 p.m.: "British Furnishing Fabrics as an Aid to Increased Exports." By Mrs. Grace Lovat Fraser. Annual General Meeting: This has been fixed for the same evening as Mrs. Lovat Fraser's lecture, and will begin at 5 p.m.

BIRMINGHAM AND FIVE COUNTIES A.A.

Mr. E. Stanley Hall, P.R.I.B.A., speaking at a luncheon held by the Birmingham and Five Counties Architectural Association at Birmingham last week, said:

"Behind Mr. Chamberlain's leadership we architects are willing and anxious to play our part in this gigantic struggle. We know that we have our own definite contribution to make, and we are hurt that the powers that be have hitherto brushed us aside. We have been told that there is no 'architecture' in huts or encampments or factories, and that such works are better left in the hands of people who, for all their knowledge of the accommodation required, have no idea of the problems of planning or of the importance of the right correlation of parts into an ordered whole.

"It is as planners that we feel we have our contribution to make. Without the initial thought and the adequate time required for the right plan to be evolved all the work is liable to be misconceived, time wasted and materials and labour used in the wrong manner. That is the special task of the architect; but the architect is only one of the component parts of the great building industry, which employs some millions of men and spends hundreds of millions of pounds each year."

The Lord Mayor said that sometimes those who were not too well informed stated that the Corporation was anxious to retain in its own hands a great deal of work that architects might have expected to be put out. He wished to repudiate the suggestion entirely. There was no department that could strictly be called a direct-labour department, and even the housing estates, though the land might be prepared by the City Surveyor, were put out to tender.

E.D.A.

"The British Electrical Development Association—proposed by Captain the Rt. Hon. Euan Wallace, M.C., M.P., Minister of Transport," was set in bold type on the menu of the E.D.A. luncheon at the Savoy Hotel on Friday. After the loyal toasts had been proposed the President (Earl of Lytton) announced that Captain Wallace was unable to be present owing to an attack of influenza. Then, to the surprise of the guests, he said: "Captain Wallace will now speak." And then through the loud-speaker came the voice of the Absent Guest, proposing the toast of the Association from his bedside telephone.

The use of the telephone by Captain Wallace was, said the President, one of the many examples of the progress that had been made by electricity.

ANNOUNCEMENTS

Edwin D. Griffiths, F.R.I.B.A., states that his practice as carried on at 616 Bank Chambers, 329 High Holborn, and 37 Railway Street, Chatham, Kent, has been closed down for the duration of the war; all correspondence should be addressed to him at 1 Orlando Road, Clapham Road, S.W.4 (for forwarding).

●

Messrs. Farmer and Dark, of 87 Buckingham Palace Road, London, S.W.1, inform us that they are continuing their practice at their London office only, at the above address.

●

Frank W. Knight, F.R.I.B.A. (Sir John Simpson and Partners), is closing his office at 3 Verulam Buildings, Gray's Inn, W.C., and until further notice all communications should be addressed to him, c/o Messrs. Baker and Mallett, 81 High Holborn, London, W.C.1, to which address his practice has been temporarily transferred.

DIARY

Thursday, March 28.—Institution of Structural Engineers, 11 Upper Belgrave Street, S.W. "Examples of Modern Buildings, with particular reference to the Application of Reinforced Concrete." By Leslie Turner. 5.30 p.m.

●

Saturday, March 30.—Royal Sanitary Institute. Sessional Meeting. Colwyn Bay.

●

Friday, April 5.—I.A.A.S., London and Home Counties Branch. Luncheon, Connaught Rooms, Gt. Queen Street, W.C. 12.45 for 1 p.m.

OBITUARY

The death recently took place of Mr. Henry Sulley, L.R.I.B.A., of Nottingham. He was ninety-five years of age.

COMPENSATION PROBLEMS

Extracts from a paper by Mr. D. M. Lawrance, B.SC., F.S.I. (Fellow), Barrister-at-Law, at the Auctioneers' and Estate Agents' Institute, on Friday last, on "Compensation Problems arising from the Exercise of Emergency Powers."

Cost of Making Good Damage.—When the competent authority give up possession, the owner will be entitled to claim the cost of making good any damage which may have occurred during the period of possession and which has not already been made good, except that arising from fair wear and tear of war operations. It is worth while considering the precise effect of these two exceptions.

The most recent interpretation of "fair wear and tear" (Woodfall's *Landlord and Tenant*, 24th Ed., p. 708) seems to limit the words to disrepair brought about by (*a*) the normal operation of natural causes, such as wind and weather, and (*b*) that caused by the tenant, and other persons on the premises with his consent, in the course of fair or reasonable user of the premises for the purpose for which they were let.

As regards (*a*), it seems clear that the competent authority will not be responsible for such things as internal or external painting or re-pointing which might become necessary during the period of possession.

As regards (*b*), the definition of "fair wear and tear" in Section 17 of the Act seems clearly to mean such fair wear and tear as might have been expected to occur in connection with the occupation to which the premises were subject when possession was taken. It is obvious that the fair wear and tear which might arise from the normal use of a private house or business premises might be a very different thing from the wear and tear to which those premises might be subject if the whole or parts of them were occupied by the military authorities or used for A.R.P. purposes. This excessive wear and tear is a thing which, I think, the competent authority are bound to make good.

According to a proviso to Section 2 (1) the sum payable for damage at the end of the term is not to exceed the value of the land at the time when possession was taken. Once again, the fact that "land" includes parts of houses and buildings may raise some awkward valuation problems.

While none of the above questions will arise until the competent authority give up possession, they emphasize the need for a very careful record of the condition of the premises at the time when possession is taken.

Since "damage caused by war operations" is to be excluded from compensation, there seems to be no doubt that, should such damage occur during the occupation of the competent authority, the owner must himself submit the necessary claim to the District Valuer in order to safeguard his right to participate in any compensation the Government may be prepared to pay for such damage at the end of the war.

LETTERS

Informal Meeting

SIR,—Members of the R.I.B.A., I am sure, will welcome the next informal general meeting to be held on April 2, for it will be four months since they have had a chance of taking part in the affairs of their Institute. There may have been activity behind the scenes, but this is hardly good enough when the profession faces the threat of extinction.

It is now more important than ever for the Council to encourage regular contact and discussion between the members and itself, so that a definite policy can be agreed upon. The application to the Privy Seal for the suspension of elections seems a step in the wrong direction, especially as the President at the last informal meeting indicated that the Executive Committee had no such step in mind.

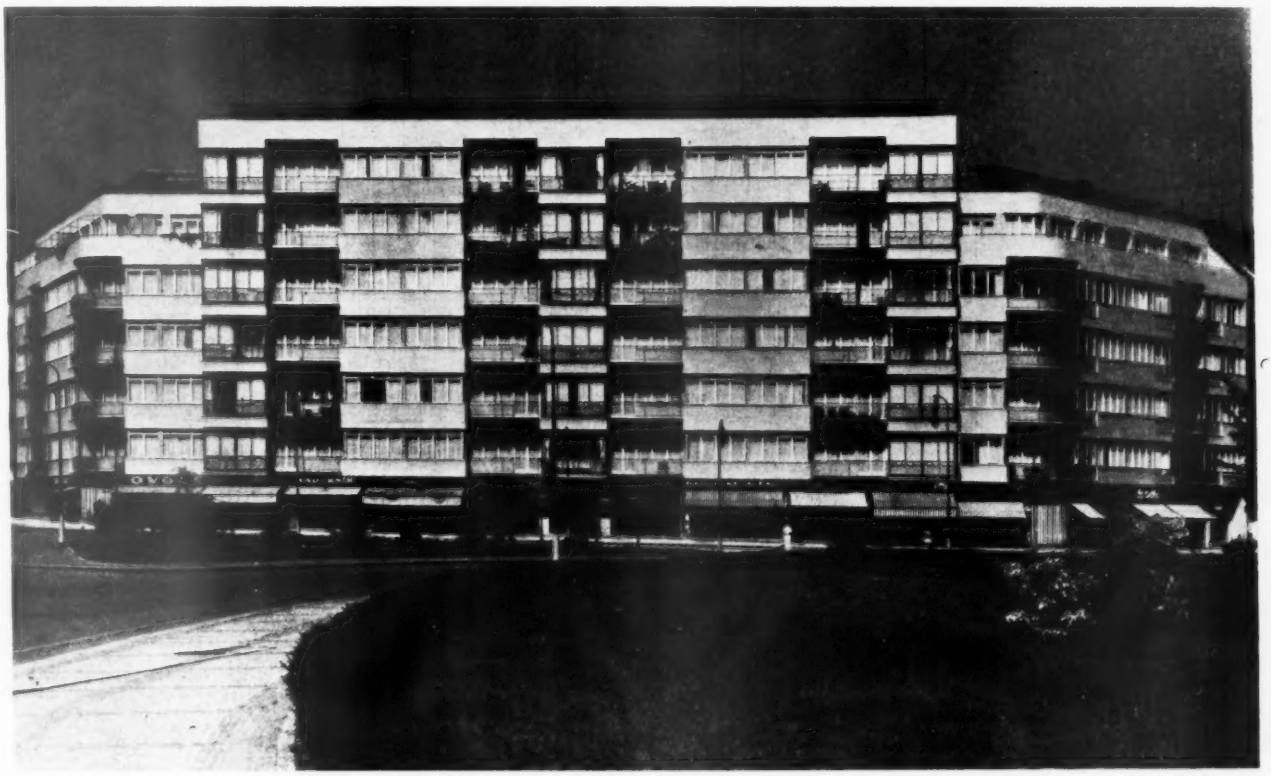
The title of the meeting: "The Building Industry Now," shows that we have advanced since the beginning of the war, by admitting that we are part of the building industry. But the ultimate purpose of civil building should be to supply houses, hospitals, schools, etc., for the community. Work for architects is not an end in itself, and we must go a stage further and admit that we and the building industry are dependent for work on the needs of the community; they are our clients, and we must gain their support. The R.I.B.A. should be able to present a programme of building to complaining tenants' associations, parents of evacuated children, doctors, and teachers. We must work together in demanding the resumption of civil building.

ARTHUR LING

Hammersmith, W.6.

TWO BLOCKS OF FLATS

1: PRAGUE: DESIGNED BY R. F. PODZEMNY



Main front to Dürich Square

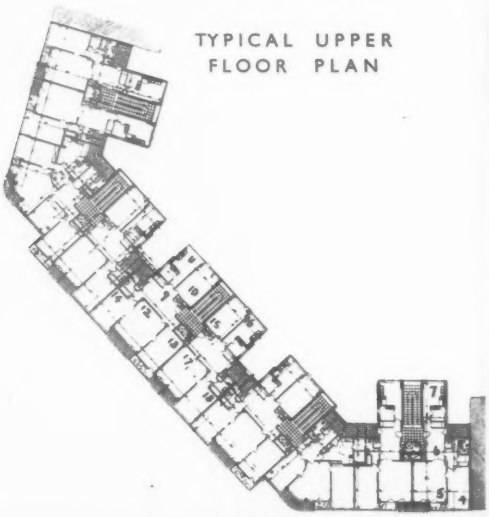
SITE PLAN

GENERAL AND FINISHES—The new flats in Prague are mainly built in accordance with an identical architectural formula—large bay-windows, with the façade consisting entirely of glass ; R.C. frame and hollow brick or R.C. walls ; ceramic tile outer covering or a facing of brick or stone slabs. This block of semi-luxury flats has an R.C. frame and walls ; extérnal walls are faced with ceramic tiles. It overlooks an open (Dürich) square in a residential quarter near the centre of the city.

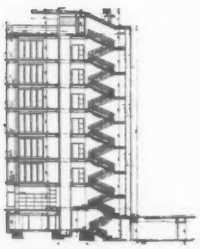
Left, internal courtyard. Below, front to Dürich Square.

PLAN—On the ground floor are one-roomed bachelor flats and shops ; upper floors contain two-, three- and four-room flats plus a small room for the maid, a balcony, double-glazed winter garden window and a second balcony at the rear. The maid's room is of a size that would not be accepted in Western Europe as the minimum required for a living-room ; there is no regulation governing the size of this room. Roof is planned as a communal garden terrace and includes a swimming pool ; there is a large garage in the basement.

Key to plans : 1, shops ; 2, shop lavatories ; 3, 1-room flats; 4-8, 2-roomed flats ; 9-14, 4-roomed flats; 15-18, 3-roomed flats.



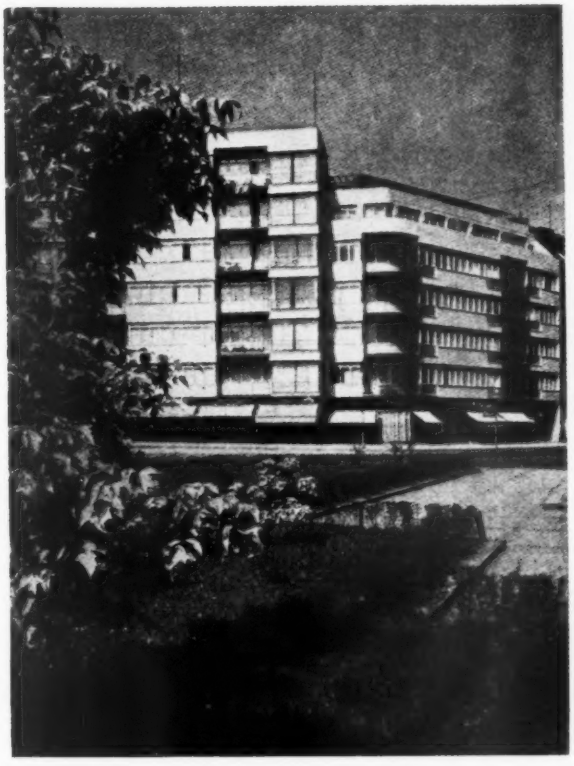
TYPICAL UPPER FLOOR PLAN

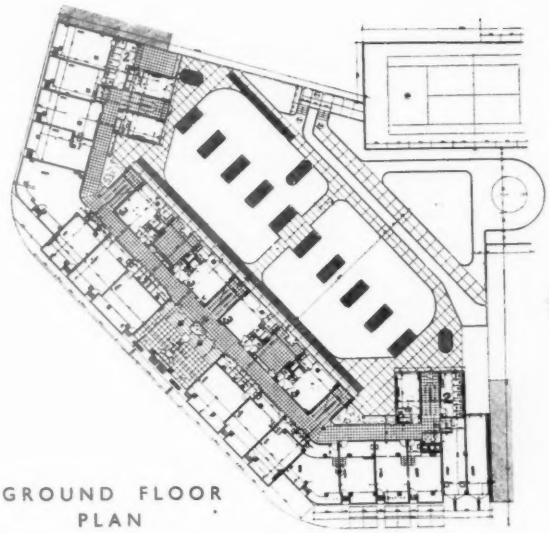


SECTION

BLOCK OF FLATS IN PRAGUE:

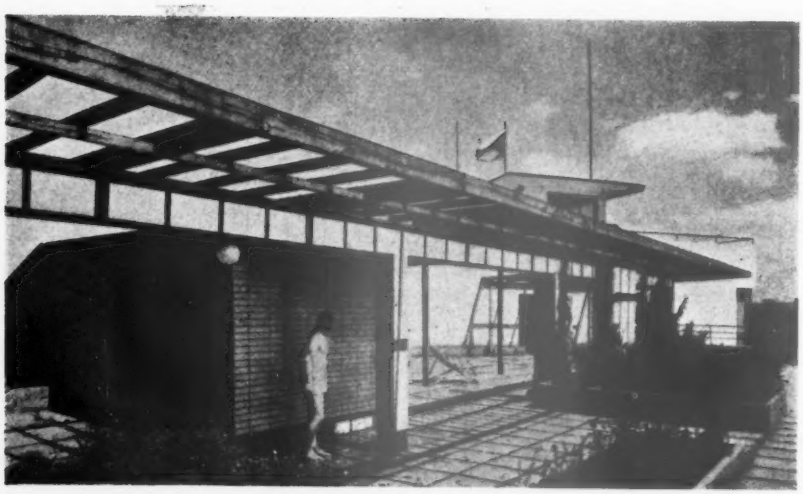
Above, entrance vestibule ; below, view from Dûrich Square.



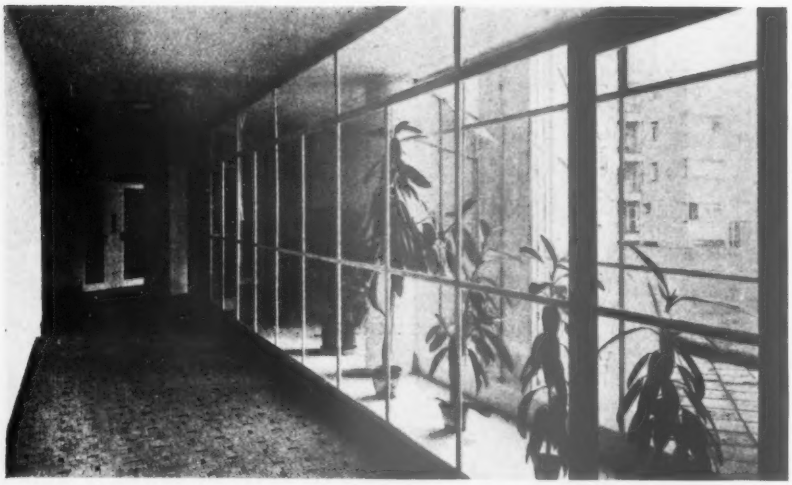


GROUND FLOOR PLAN

DESIGNED BY R. F. PODZEMNY



The roof terrace and swimming-pool.



Corridor on ground floor.

Typical living room

SERVICES—Bathrooms and w.c.s are ventilated by vertical ducts. Kitchen, all-electric. The lift is worked as follows : in order to open the door the user places a coin (usually rather less than one halfpenny in value and varying according to the district) in a slot provided for this purpose. This method avoids extravagant use of the lift for short journeys.

BLOCK OF FLATS IN PRAGUE • DESIGNED BY R. F. PODZEMNY

TWO BLOCKS OF FLATS

2: DUMBARTON COURT, BRIXTON HILL

DESIGNED BY COUCH AND COUPLAND

GENERAL—It was desired to obtain as many flats on the site as possible at a rental below £115, and garage accommodation for approximately 50 cars. The L.C.C. limited the height of building to six storeys on the Brixton Hill front and five storeys on the rear part of the site.
CONSTRUCTION—R.C. frame and floors ; roof, R.C. covered with asphalt ; fibre board was used as permanent shuttering to the underside of floors and roofs ; 11-in. cavity walls. Internal walls, block partitions ; floors, generally, T. and G. boarding on battens secured by floor clips.

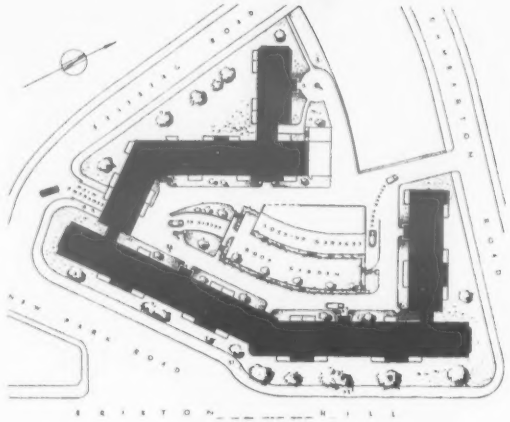
Detail of the main front.

PLAN—230 flats as follows : 70 two-bedroom type ; 138 one-bedroom type ; 22 bed-sittingroom type. Large living-rooms were essential ; this has been obtained by using the full depth of the site. Balconies to living-rooms are raised above floor level to give a good angle of light to living-room windows. Meter cupboards have been arranged so that meters can be read from the corridors without entering the flats themselves.

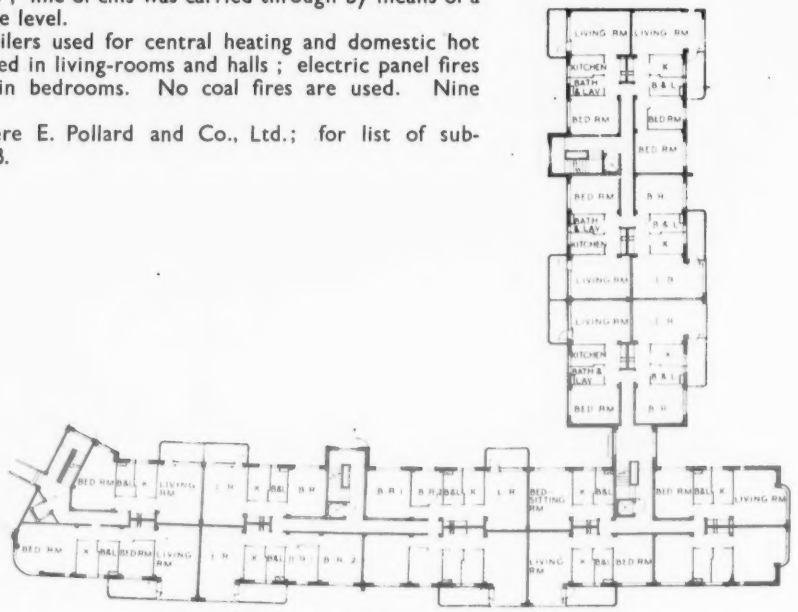
EXTERNAL FINISHES—All exposed concrete faces, fair-face from the shuttering and treated with coloured rendering. Windows, standard metal with slate slab cills ; line of cills was carried through by means of a slate creasing at the same level.

SERVICES—Gas-fired boilers used for central heating and domestic hot water. Radiators provided in living-rooms and halls ; electric panel fires in living-rooms and main bedrooms. No coal fires are used. Nine passenger lifts.

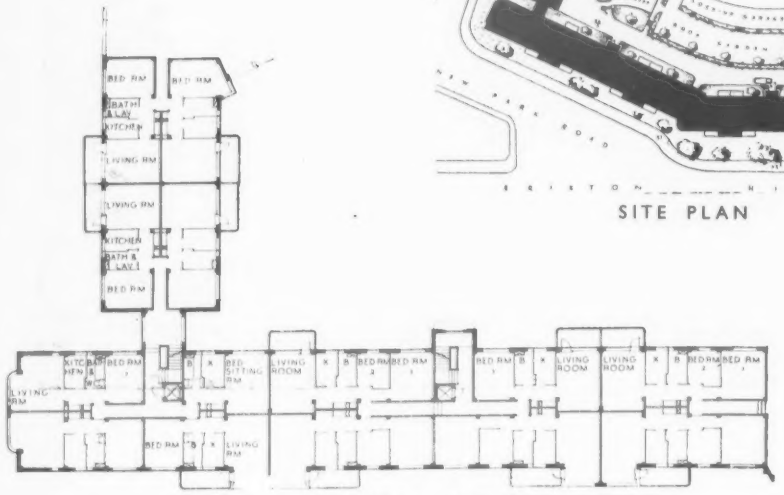
General contractors were E. Pollard and Co., Ltd.; for list of sub-contractors, see page 318.



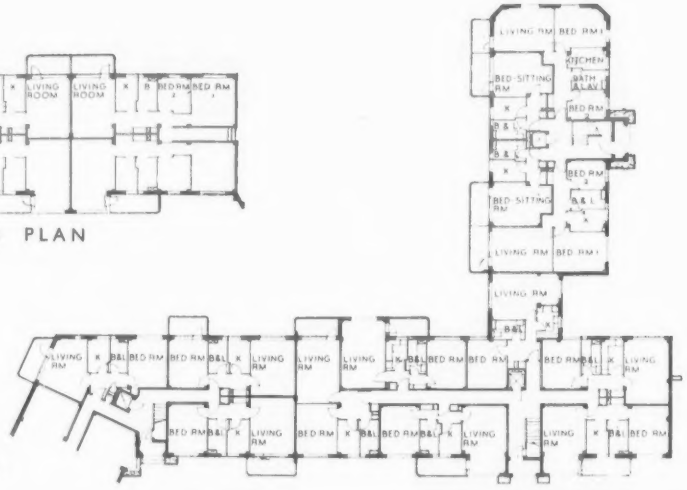
SITE PLAN



BLOCK 2: TYPICAL FLOOR PLAN



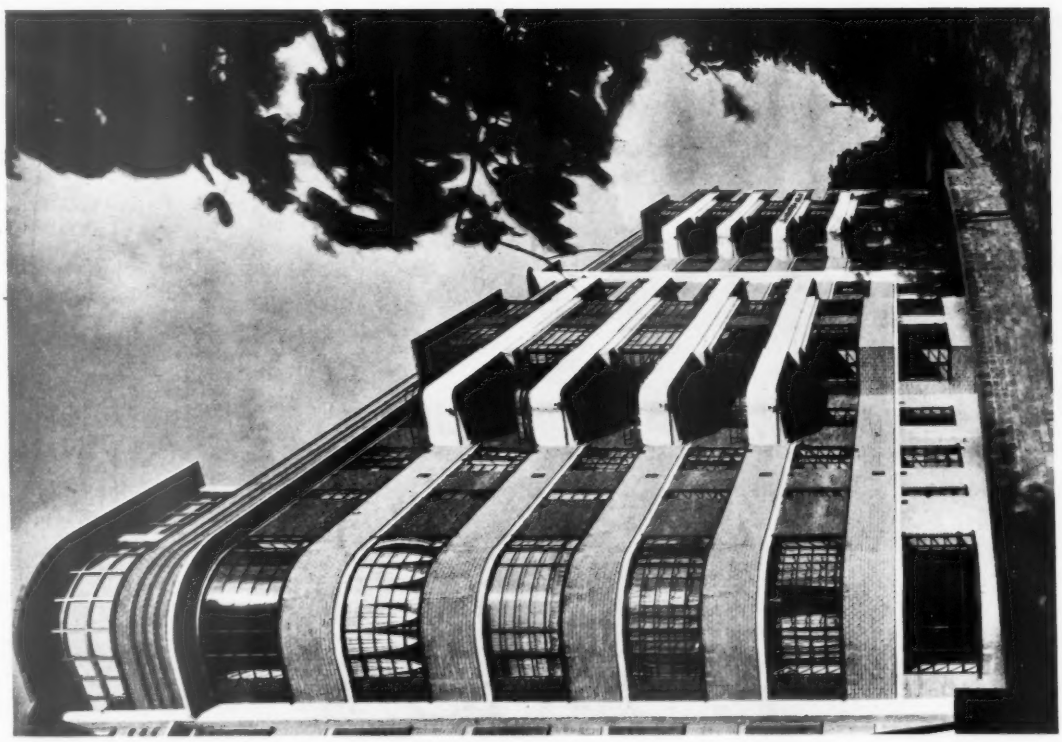
BLOCK 3: TYPICAL FLOOR PLAN



BLOCK 5: GROUND FLOOR PLAN

View from New Park Road

Internal Courtyard.



Front to Dumbarton Road.

View from New Park Road

BLOCK 5: GROUND FLOOR PLAN

SOCIETIES AND INSTITUTIONS

SOUTH WALES INSTITUTE OF ARCHITECTS

FIFTIETH ANNIVERSARY

[By W. S. PURCHON]

ON March 12, 1890, a meeting of local architects was held at the Park Hotel, Cardiff, under the presidency of Mr. E. W. M. Corbett. At this meeting it was decided to form an association of local architects with the title "The Cardiff Architects' Society." Those present on that occasion included the following: Messrs. E. W. M. Corbett, Edwin Seward, E. H. Bruton, J. Coates Carter, E. M. Bruce Vaughan, J. H. Phillips, G. E. Halliday, C. B. Fowler, H. Snell, George Thomas, E. J. Williams, W. H. Dashwood Cable, David Morgan, F. Baldwin and S. Rooney. Of these, the only ones still living are Mr. David Morgan of Cardiff and Major C. B. Fowler of Vancouver.

The first paper was read to the society on January 30, 1891, by Mr. H. D. Searles Wood, and it is interesting to note that the first prizes offered for competition by the Society were won by Messrs. J. H. Jones and F. W. Chapman, while the work of Messrs. H. Teather and C. Wilson was awarded Honourable Mention.

The title of the society was altered to "The Cardiff, South Wales and Monmouthshire Architectural Society" in 1892, and before the end of 1893 this body, of which Mr. E. Seward was the first President, became allied to the R.I.B.A.

It was, however, in 1912 that, with the approval of the R.I.B.A., the title was changed to "The South Wales Institute of Architects," with an area including the counties of Glamorgan, Brecknock, Radnor, Cardigan, Pembroke, Carmarthen and Monmouth. Owing to the great extent of the area, it was decided during the presidency of Mr. Ivor P. Jones, A.R.I.B.A., to divide the South Wales Institute of Architects into four branches—Central, Eastern, Western and Northern—with centres at Cardiff, Swansea, Newport and Pontypridd, respectively. The northern branch has since been merged into the central branch, and the headquarters of the Institute as a whole are situated in Cardiff. As a result of setting up these branches, there has been considerable development of the activities of the Institute and in the growth of the membership. In 1912 there were 14 honorary members, 48 members, 13 associates, and 2 students, making a total of 63; while at the present time there are 9 honorary members, 183 Fellows, 34 Associates and 84 students, giving a total of 301.

The Presidential Badge was presented to the Institute in 1905 and bears the following inscription: "Presented to the Cardiff, South Wales and Monmouthshire Architects' Society by the Rt. Honourable Lord Tredegar and Sir William Thomas Lewis, Bart."

A very important event in the history o the South Wales Institute of Architects was the R.I.B.A. Conference held in Cardiff in June, 1922. This was the second Provincial Conference held by the R.I.B.A. and was remarkably successful.

In more recent years, the R.I.B.A. Architecture Medal has been awarded on two occasions for buildings of outstanding merit erected in South Wales: in 1930 the medal being awarded to Mr. Percy Thomas for his premises for Messrs. James Howell & Co. in Cardiff, while in 1935 the award was made to the same architect for the Guildhall in Swansea. For the two years 1935 to 1937 Mr. Thomas was the President of the R.I.B.A., and in 1939 he was awarded the most important of all architectural distinctions, the Royal Gold Medal. Mr. Thomas was President of the South Wales Institute of Architects during the years 1922–25.

The South Wales Institute has taken a very active part in the training of the younger members, and the Welsh School of Architecture at the Technical College, Cardiff, owes its existence largely to the South Wales Institute. This school was opened 20 years ago and now has the full recognition of the R.I.B.A. and the Registration Council, while in association with the University of Wales it has established a course leading to the degree of Bachelor of Architecture. Among the distinctions gained by its students are the Rome Prize and the following R.I.B.A. awards: the Soane Medallion, the Alfred Bossom Silver Medal, the Recognized Schools Silver Medal, five Archibald Dawnay Scholarships, and the Banister Fletcher Essay Medal.

The South Wales Institute of Architects is also responsible for the formation of advisory panels which are doing valuable work in the district.

The present officers of the South Wales Institute of Architects are: President, Mr. C. F. Bates, F.R.I.B.A.; Treasurer, Mr. Harry Teather, F.R.I.B.A., who was President for the year 1908–1909 and Treasurer of the Society for the last 31 years; Secretary, Mr. Ivor P. Jones, A.R.I.B.A., who was President during the years 1919–1921, and has held the office of Secretary for the last 18 years.

Owing to the outbreak of war it has been decided not to hold the customary dinner, but the fiftieth anniversary of the formation of the South Wales Institute of Architects will be celebrated at a luncheon to be held at the Park Hotel, Cardiff, on Friday, March 29.

SOUTH-EASTERN SOCIETY OF ARCHITECTS

At the annual general meeting of the Brighton Chapter of the South Eastern Society of Architects, Mr. A. J. Thompson was elected chairman, with Mr. C. H. Wallis deputy-chairman, Mr. F. A. Crouch hon. treasurer, and Mr. W. J. Thresher hon. secretary.

Remaining members of the committee, Messrs. W. F Andrews, J. J. Hill, F. Musto (assistant hon. secretary), C. G. Stillman, S. H. Tiltman, E. A. Verger and A. L. Yerbury, were re-elected, with the addition of Messrs. H. F. Penty, H. M. Pett and R. B. Walker (hon. auditor) to fill vacancies.

DEVON AND CORNWALL ARCHITECTURAL SOCIETY

At the annual meeting of the Exeter branch of the Devon and Cornwall Architectural Society, Mr. John Challice, F.R.I.B.A., was elected chairman for the ensuing year. Mr. A. Cunes, L.R.I.B.A., was elected vice-chairman.

Election of committee members was as follows:—Messrs. E. Kemys-Jenkin, F.R.I.B.A., H. V. C. Hague, F.R.I.B.A., W. J. M. Thomasson, A.R.I.B.A., E. F. Hooper, L.R.I.B.A.; Associate member, Mr. A. Palfrey, P.A.S.I., and student member, Mr. W. P. J. Grose. Other officials elected were: hon. librarian, Mr. H. E. Nicholls, A.R.I.B.A., hon. auditor, Mr. E. F. Hooper, L.R.I.B.A. and hon. branch secretary and treasurer, Mr. L. A. J. Heywood.

ROYAL COLLEGE OF ART

Lord De La Warr, President of the Board of Education, has reappointed the following members of the Council of the Royal College of Art for the three years ending December 31, 1942:—

The Rt. Hon. the Viscount Hambleden (chairman); Sir Thomas D. Barlow, Chairman of Messrs. Barlow and Jones, Ltd., Manchester; Alderman J. P. Blake, J.P., L.C.C.; Mr. T. C. Dugdale, A.R.A., R.P.; Mr. Martin Hardie, C.B.E., R.E., R.S.W.; Mr. G. R. Hughes, Clerk to the Goldsmiths' Company; Sir Allen Mawer, K.B.E., Provost of University College, London; Mr. Keith D. P. Murray, A.R.I.B.A., R.D.I.; Mr. C. B. L. Tennyson, C.M.G., Chairman of the Industrial Art Committee of the Federation of British Industries; Miss M. E. Tabor, Member of the Education Committee, Essex County Council; Mr. Josiah Wedgwood, Managing Director of Messrs. Josiah Wedgwood, Ltd., Stoke-on-Trent; Mr. H. B. Williams-Thomas, Chairman of Messrs. Stevens and Williams, Ltd., Stourbridge; The Rt. Hon. the Lord Woolton, J.P., Chairman of Messrs. Lewis', Ltd., Liverpool. Mr. G. S. Sandilands, Registrar of the College, will act as Secretary to the Council.

CLERKS OF WORKS

Further particulars of the examination necessary for membership of the Clerks of Works and Foremen's Association of Scotland after April 1, 1940, are now available.

Exemption from the examination in whole or in part may be granted on production of certificates from certain schools.

Associate Membership.—Candidates who are not entitled to exemption will require to pass the examination on the following subjects:

First Session: Building Construction; Building Materials. Second Session: Building Mechanics (Structural); Geometry (Applied); Elementary Sanitation; Elementary Quantity Surveying. Third Session: Oral Test. In this examination, it is proposed to have two sessions of three hours each and an oral test.

Full Membership.—Candidates who are not entitled to exemption will require to pass the examination on the following subjects:

First Session: Building Construction (including Structural Steel and Reinforced Concrete Work). Second Session: Quantity Surveying; Land Surveying; Sanitation; Elementary Electrical Technology. Third Session: Duties of a Clerk of Works and Specifications. Fourth Session: Oral Test. In this examination, it is proposed to have three sessions of three hours each and an oral test.

The examinations will probably be held twice yearly, in April and September, on Thursday evening, Friday evening and Saturday afternoon, in Edinburgh and possibly in other places in Scotland according to the entries received.

The Board of Examiners will consist of representatives selected by the Association, by the Royal Incorporation of Architects in Scotland, and from the teaching staff of the technical schools.

A small examination fee will be payable by all candidates to help to meet the expenses of the examinations. It is expected that final arrangements will be available shortly, and intending candidates should make early application to the Hon. Secretary, Clerks of Works and Foremen's Association of Scotland, 11 Castle Street, Edinburgh, who will issue entry forms as soon as final arrangements are completed.

INTERNATIONAL CRAFTSMEN'S CENTRE

The exhibition of the International Craftsmen's Centre at Heal's, Tottenham Court Road, W.C., is the first effort since the war began to bring to the notice of the public the number of able handicraft workers in this country and the value of their work.

The exhibits include pottery, glass, hand-woven fabrics and rugs, metalware, tableware, toys, small sculpture, accessories of fashion, etc. There are more than fifty exhibitors, about 50 per cent. of whom are British, the others being Austrian, Czechoslovakian, German, Hungarian, Italian, Scandinavian and Swiss.

It is hoped to continue the work of the present exhibition and to provide the public, through the International Craftsmen's Centre, with frequent opportunities of seeing the latest productions of craftsmanship.

ANNOUNCEMENTS

G. A. Harvey & Co. (London), Ltd., have re-opened their West End offices at 58 Victoria Street, S.W.1. (Telephone No. Victoria 4963.)

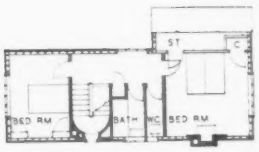
The registered offices of the Limmer and Trinidad Lake Asphalt Co., Ltd., have been transferred from Steel House, Westminster, to 19 Grosvenor Gardens, London, S.W.1.

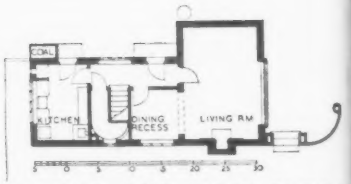
HOUSE AT ORPINGTON, KENT

DESIGNED BY OLIVER E. STEER

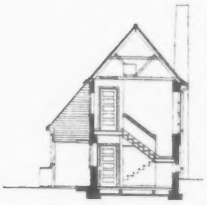
Side elevation

Left, main entrance; below, living room and staircase.





GROUND AND FIRST FLOOR PLANS



SECTION

GENERAL AND SITE.—A small house was required for approximately £700. The clients purchased the site cheaply because of the awkward triangular shape, narrow frontage, and drainage difficulties.

PLAN—A long L shaped plan suited the site, giving the principal rooms an east aspect. The semi-circular arch to the dining recess was particularly desired by the clients. The wide landing was provided to accommodate a fine Persian rug.

CONSTRUCTION AND EXTERNAL FINISHES—Ground floor walls are 11-in. cavity with the inner skin of facing bricks exposed as a dado to the lounge and dining recess; elsewhere they are concrete bricks colour-washed. The upper walls are of 4-in. by 2-in. studs filled with 4-in. breeze slabs and hung with hand-made sand-faced plain tiles on the outside and plastered inside. Partition walls are 4½-in. brick, and breeze slab. Roof is covered with pantiles. Floors are joisted with T & G boarding. A long vertical slate D.P.C. was necessary along the south wall. Elevations have been kept simple with rich red tiles, ivory colour wash, and tarred plinth. Bricks to the door surround are 2-in. red sand-faced.

INTERNAL FINISHES—Above the brick dado to the lounge and dining recess the plaster is finished with a coarse wood float. Handrail to the staircase is of rope, stiffened with glue and varnished. Bedroom fireplace surround is made of corrugated asbestos sheets, enamelled, resting on a stainless steel interior specially constructed. Generally, the walls are distempered.

SERVICES—Electric lighting, cooking and heating has been installed.

COST—£720 16s. Price per foot cube, 1s. 1¼d.

HOUSE AT ORPINGTON, KENT • DESIGNED BY OLIVER E. STEER

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DETAILS OF STANDARD BEAM TO BEAM CONNECTIONS :

GROUP (1), DIRECT COMPRESSION (loads transferred by resting one beam on top of another.)

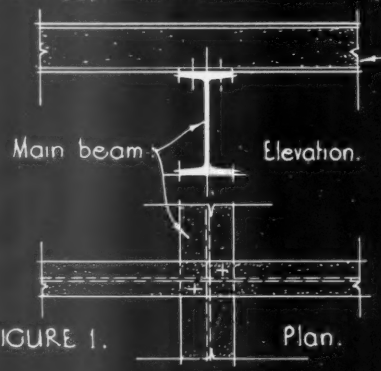

FIGURE 1.

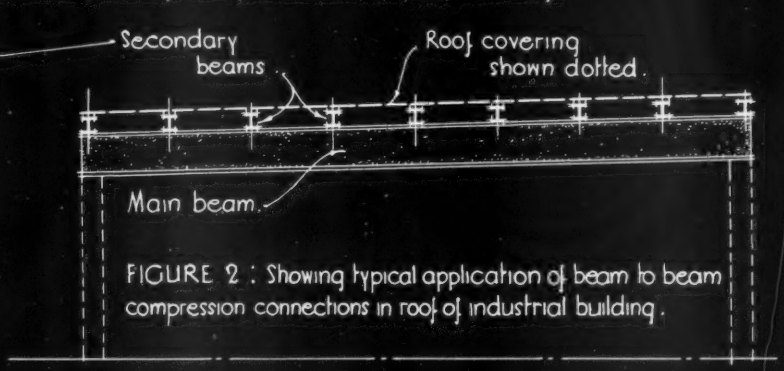

FIGURE 2 : Showing typical application of beam to beam compression connections in roof of industrial building.

GROUP (2), SHEAR (usual type of beam to beam connections for commercial buildings).

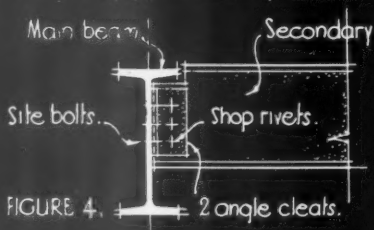

FIGURE 4.

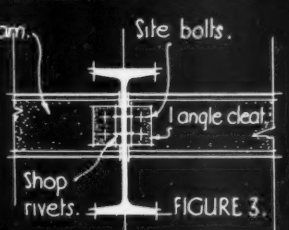

FIGURE 3.

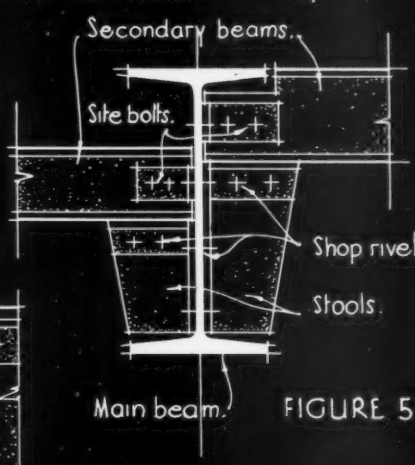

FIGURE 5.

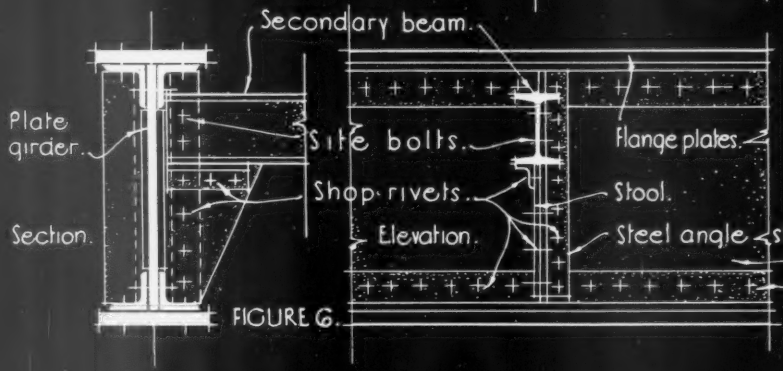

FIGURE 6.

GROUP (3), BOLTS IN TENSION (for secondary beams running under main beams).

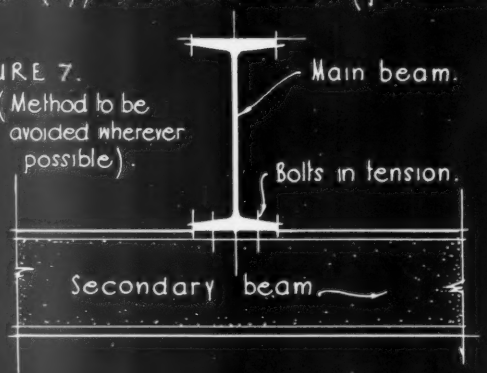

FIGURE 7.
(Method to be avoided wherever possible).

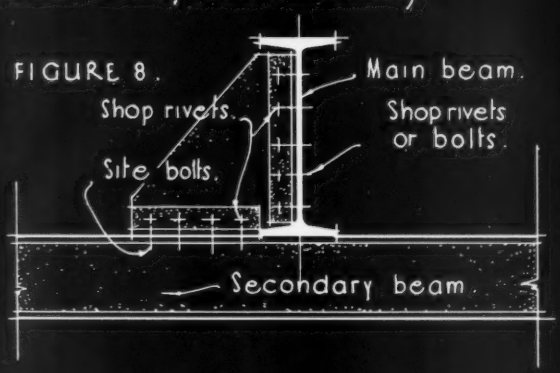

FIGURE 8.

Issued by Braithwaite & Co. Engineers, Ltd. Compiled by C.W. Hamann, Consulting Engineer.

INFORMATION SHEET : STEEL FRAME CONSTRUCTION : No. 20.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1

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INFORMATION SHEET

• 780 •

STRUCTURAL STEELWORK

Subject : Standard Connections, Splices and Bases ; 2, Beam to Beam Connections

General :

This series of Sheets on steel construction is not intended to cover the whole field of engineering design in steel, but to deal with those general principles governing economical design which affect or are affected by the general planning of the building. It also deals with a number of details of steel construction which have an important effect upon the design of the steelwork.

Both principles and details are considered in relation to the adjoining masonry or concrete construction, and are intended to serve in the preliminary design of a building, so that a maximum economy may be obtained in the design of the steel framing.

This Sheet is the twentieth of the series, and illustrates in section and elevation the standard methods of connecting secondary and main steel beams.

Grouping :

A connection between different beams must be strong enough to take any loads, which usually act vertically downwards, but sometimes upwards in the case of cantilevers.

Horizontal forces to be transmitted from one beam to another are an exception, but occur sometimes in industrial buildings.

Vertical loads can be transferred from beam to beam in accordance with the three groups of connections given on Information Sheet No. 19 of this series.

These groupings are as follows :

(1) By direct compression. The cheapest way of transferring loads is by resting one beam on top of another (Fig. 1). This method, however, requires considerable constructional depth, and considerations of headroom and space generally limit it to industrial buildings and roofs (Fig. 2). This construction is the most economical, but has the disadvantage of providing but limited stiffness.

(2) By shear. The usual arrangement for commercial buildings is the adoption of this method, and is shown in Figs. 3, 4, 5, and 6.

Shear forces are transmitted through the webs, and as a rule, therefore, web is connected to web. Such a connection is shown in Fig. 3 by one angle cleat.

In most instances such angles are riveted to the main joist in the workshop and bolted to the secondary joist at the site. Sufficient bolts and rivets must be arranged to transmit the vertical load.

Where one angle is not sufficient, two angles are to be used, but in this event they are best riveted to the secondary joist in the workshop and bolted to the main joist at the site (Fig. 4).

Where secondary floor joists or purlins with equally distributed floor load are concerned, black bolts may be used. In all other instances turned bolts of driving fit are to be used.

It is not sufficient to rest a secondary joist on the lower flange of a main joist, as the load is to be transferred to the web ; but where a main joist is much deeper than the secondary joist—particularly in the case of plate girders—the erection can be facilitated by arranging steel stools in the manner shown in Figs. 5 and 6. In fact, it is an advantage to have stiffeners on plate girder webs where a load occurs, and the stools can be used for this purpose. This is particularly so where the level of the top of the secondary beam is lower than that of the plate girder (Fig. 6).

To have the top of the secondary beam at a level only a few inches higher than that of the main beam would necessitate rather complicated connections. Such an arrangement should be avoided wherever possible.

(3) By tension. Connections by means of bolts in tension will be required where for any reason secondary beams are to run under the main beams. Such an arrangement, which is shown in Fig. 7, should be avoided, as the safety of the construction depends on the nuts of the hanging bolts. Fig. 8 shows a safer construction for the same purpose, which also relies on the tensile strength of rivets or bolts placed in position in the workshop.

Previous Sheets :

Previous Sheets of this series dealing with structural steelwork are Nos. 729, 733, 736, 737, 741, 745, 751, 755, 759, 763, 765, 769, 770, 772, 773, 774, 775, 776 and 777.

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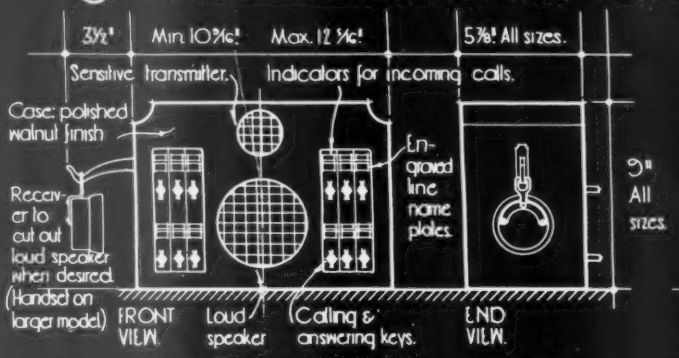
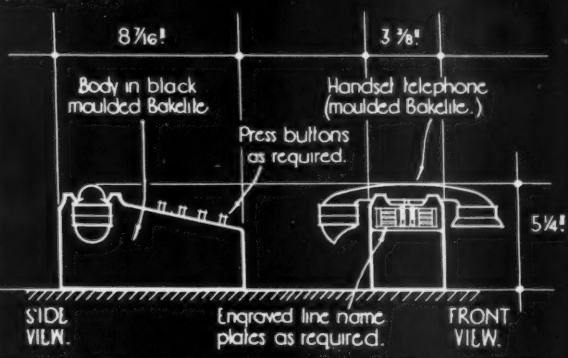
TYPES AND SIZES OF TELEMATIC INSTRUMENTS (INTERCOMMUNICATING & AUTOMATIC TYPES)

(A) INTERCOMMUNICATING TYPE INSTRUMENTS:

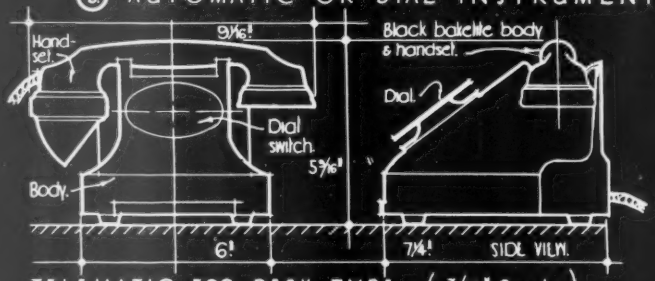


TYPICAL TELEMATIC LOUD SPEAKER MASTER STATION.

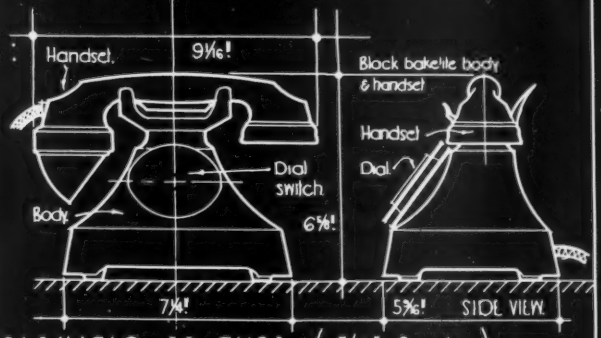


TYPICAL TELEMATIC SUB-STATION or INTERCOMMUNICATING INSTRUMENT

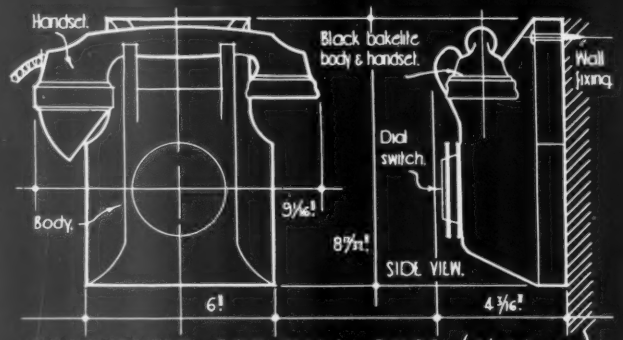
(B) AUTOMATIC OR DIAL INSTRUMENTS:



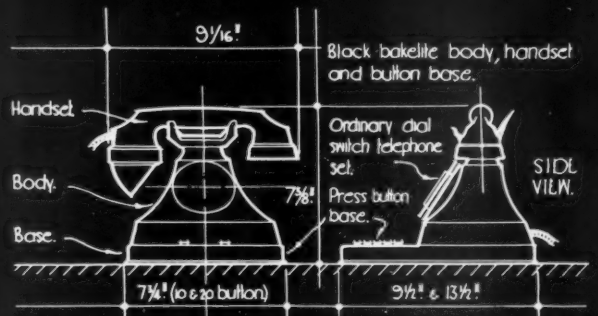
TELEMATIC 500 DESK TYPE (3/16" Scale).



TELEMATIC 50 TYPE (3/16" Scale).



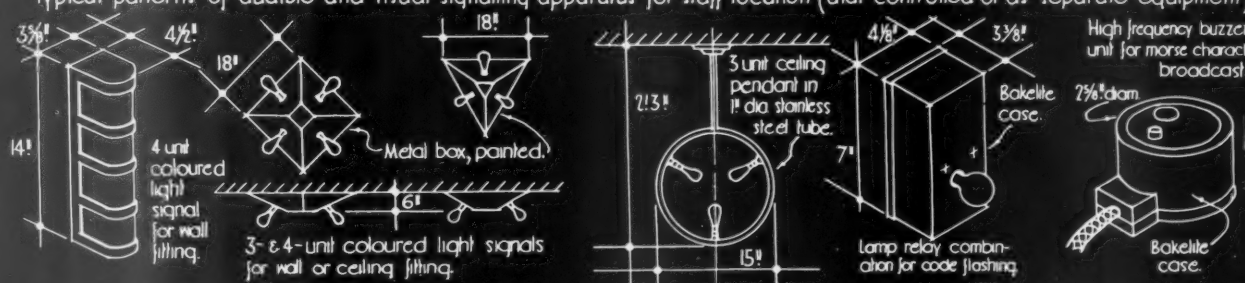
TELEMATIC 500 WALL TYPE (3/16" Scale).



TELEMATIC PRESS BUTTON TYPE (⅛" Scale).

(C) DETAILS OF TELEMATIC ADDITIONAL SPECIAL TELEPHONIC FACILITIES (Sizes as marked.)

Typical patterns of audible and visual signalling apparatus for staff location (dial controlled or as separate equipment).



For particulars of other Telematic additional switchboard facilities, see material on the back of this Information Sheet.

Issued by Telephone Rentals Ltd.

INFORMATION SHEET: AUTOMATIC PRIVATE TELEPHONE EXCHANGE EQUIPMENT: No.

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 781 •

ELECTRICAL EQUIPMENT

Product : Internal Telephone Installations (Intercommunicating and Automatic)—I

General :

This is the first of two Sheets illustrating various forms of internal telephone equipment and deals with—

(a) *Intercommunicating type installations* (with or without loud-speaking master stations) characterized by key or press-button instruments connected by a multi-core cable, and

(b) *Automatic installations* characterized by dial type instruments each connected to an automatic telephone switchboard by two wires.

The following Sheet of the series deals with the switchboards and power supply employed in the latter type of installation.

(*a*) Intercommunicating Type Installations:

USE.—This type of installation is recommended for reasonably compact premises requiring only a limited number of telephones.

MASTER STATIONS.—These are key-operated instruments embodying a sensitive transmitter and moving-coil loud-speaker for received speech with separate receiver at the side of the instrument to cut out the loud speaker when desired. Both hands are free on calls to and from the master station and the conversations are entirely private. The source of a call to a master instrument is indicated on the latter before the call is answered. Provision is also made for staff location and conference service.

MATERIALS.—Polished walnut cabinet, keys and indicators carried on black matt finish plates with blanks to suit capacity of instrument. Internal equipment is carried on a removable chassis to facilitate inspection, and is provided with cable form to suit capacity of instrument.

SUB-STATIONS.—These are press-button instruments for use in connection with one or more master stations, and are provided with hand-set telephones as well as with indicators to show when a call is being received from a master station.

MATERIALS.—Black moulded Bakelite to standard dimensions with chassis equipped with press buttons to suit initial or ultimate size of installation.

INTERCOMMUNICATING INSTRUMENTS.—These instruments are similar to the sub-station instruments referred to above, except that they are not suitable for operating with the master stations already described, and are, therefore, unprovided with incoming call indicators. An installation comprised of these instruments is thus of a non-secret character without loud speech at any of the points.

(*b*) Automatic Installations :

STANDARDS.—The whole of the Telematic equipment described in this and the following Sheet is manufactured to comply with British Post Office Specifications relating to automatic exchanges.

AUTOMATIC SWITCHBOARDS.—The range of standard Telematic switchboards is dealt with in full on the following Sheet (No. 784).

TELEPHONES.—All the desk and wall telephones shown are provided with moulded Bakelite handsets, fitted with transmitters and 3 ft. 6 in. flexible cord connection to the instruments. The bodies of the various models are also of Bakelite, those of the desk type being fitted with 4 ft. 6 in. or 5 ft. 6 in. of flexible cord and Bakelite terminal strip for connection to line wires. Flexible cords of greater length can be fitted.

The wall model is designed to match the Telematic 500 desk telephone, but with the line wires brought to the instrument and connection made direct instead of through a flexible cord. If required, both these instruments as well as the Telematic 50 type can be supplied with an anti-side-tone circuit.

All dial switches deliver standard impulses within the specified limits of 8-14 impulses per second.

It is impossible to overhear a conversation between any two telephones of the automatic type illustrated on this Sheet.

EXTENSION BELLS.—All telephones can be provided with any desired arrangement for extension bell ringing including the fitting of A.C. relays in place of the bell in the base of the instrument for operating special calling signals, such as mains or battery-operated extension bells, lamp signals, etc.

WIRING LAYOUT.—Permanent wiring to the full capacity of the switchboard is usually provided from the switchboard itself to a wall-pattern main distribution case, or alternatively to wall or floor-pattern main distribution frame for large installations.

From the main distribution case or frame, lead-covered multi-core telephone cables are run to the junction boxes on the different floors, from which either smaller multi-core cables are run to further junction boxes or individual lead-covered twin wires are run direct to the telephone instruments.

JUNCTION BOXES.—These may be obtained in various sizes to suit the capacity of the incoming cable and in various types to suit conditions of installation and external and internal use. They may be of wood or of moulded Bakelite compound.

WIRING MATERIALS :

(i) *Multi-Core Cables.*—The multi-cored cabling is lead sheathed, double cotton covered and beeswaxed, and is available in standard sizes of $\frac{3}{8}$ in. (5 or 6 pairs), $\frac{7}{16}$ in. (10 pairs), $\frac{5}{8}$ in. (20 pairs) and $\frac{3}{4}$ in. (35 pairs). For underground use or elsewhere when specified, specially armoured cables are available.

Overhead spans of multi-core cables are normally carried from a $\frac{7}{16}$ in. G.I. suspension wire by means of lead strip suspenders carried in special brass clips. Thus swing is eliminated and cracks avoided in the lead covering.

(ii) *Twin Conductors.*—Individual pairs leading to telephone connection strips normally take the form of a lead-covered twin about $\frac{3}{16}$ in. in external diameter.

(iii) *Conduits.*—It is not essential for the multi-core cables and twins to be carried in conduit, but, if the latter is specified, both the conduit and the conduit fittings may be of any standard make.

ADDITIONAL SERVICES.—All Telematic switchboards provide as a standard for a variety of special telephone services on an optional basis. The principal services are :

(a) *Loud Speech.*—Instruments for the use of executives can be of special type providing loud-speaker facilities so as to leave both hands free when making or receiving calls. Hand-set for optional use to cut out the loud speaker is also provided.

(b) *Priority Calling.*—By means of which certain stations can, if desired, connect to telephones already engaged so as to avoid the possibility of delay.

(c) *Staff Location.*—For locating particular people when temporarily absent from their customary posts. The signals, which may be of an audible or visible character, can be originated and answered from any telephone on the system, or alternatively they may be sent out from some central point at the request from any calling station.

(d) *Press-Button Calling.*—By means of which a selection of stations can be called by means of press buttons instead of by the use of the dial in the ordinary way.

(e) *Filter Service.*—Through a secondary instrument for secretarial control of calls to principals.

(f) *Special Ringing.*—By means of which principals ring the bell of the wanted station in a distinguishing manner to obtain a quick reply.

(g) *Conference Service.*—By which a number of people from different posts may consult simultaneously.

(h) *Tie Line Service.*—By which two separate premises may be united in one telephonic system.

(i) *Fire Alarm Service.*—From the automatic instruments.

Area Served	Installation and Maintenance Company
London and the Counties South-East of a line drawn from the Wash to Poole (Dorset).	Telephone Rentals (Telematic), Ltd., Britannia House, 233 Shaftesbury Avenue, LONDON, W.C.2. Telephone : Temple Bar 9292.
The South-Western Counties of England	Telephone Rentals (Western), Ltd., 9-10 King Street, BRISTOL, 1. Telephone : Bristol 20893.
South Wales and Herefordshire	Telephone Rentals (South Wales), Ltd., Imperial Buildings, Mount Stuart Square, CARDIFF. Telephone : Cardiff 2073.
The Counties of Lancashire, Cheshire, Westmorland, parts of Derbyshire and Yorkshire, with North Wales.	Telephone Rentals (Lancashire), Ltd., Telematic House, Aytoun Street, MANCHESTER, 1. Telephone : Central 1112-3.
The Counties of Worcester, Warwick, Shropshire, Stafford, Northampton and Leicester.	Telephone Rentals (Midlands), Ltd., City Buildings, Martineau Street, BIRMINGHAM, 2. Telephone : Midland 3658-59.
The Counties of Derby, Nottingham, Rutland, Lincoln and the Southern part of the West Riding of Yorkshire.	Telephone Rentals (Notts and Yorks), Ltd., Mappin Buildings, Norfolk Street, SHEFFIELD, 1. Telephone : Sheffield 23782.
Part of the West Riding, and the whole of the East Riding of Yorkshire.	Telephone Rentals (Yorkshire), Ltd., Britannia House, Wellington Street, LEEDS, 1. Telephone : Leeds 23786.
The Counties of Northumberland, Cumberland, Durham and the North Riding of Yorkshire.	Telephone Rentals (Northern), Ltd., Collingwood Buildings, Collingwood Street, NEWCASTLE-ON-TYNE, 1. Telephone : Newcastle 22910.
Scotland	Telephone Rentals (Scotland), Ltd., St. Enoch House, 163-5 Argyle Street, GLASGOW, C.2. Telephone : Central 1434.
Northern Ireland	Telephone Rentals (Northern Ireland), Ltd., 16 Donegall Square South, BELFAST. Telephone : Belfast 26533.
Eire	Irish Telephone (New System), Ltd., American Chambers, 14-15 Lower O'Connell Street, DUBLIN. Telephone : Dublin 44674.

Associated Companies are also established in PARIS, BRUSSELS & AUSTRALIA

Issued by : Telephone Rentals, Ltd., on behalf of the Telematic Service Companies — **Address :** Beckenham, Ken — **Telephone & Telegrams :** Becken ham 5014-

R.I.B.A.

At a Council Meeting of the Institute the following members were elected :—

As Fellows (2).—Messrs. B. B. Lewis (London) and S. L. Thomson (London).

As Associates (43).—Messrs. H. K. Ablett (Oxford) ; G. W. Armstrong (Belfast) ; E. S. W. Atherton (Harrow, Middlesex) ; J. H. Barker (Leeds School of Architecture) (Chichester, Sussex) ; R. Barrows (Mansfield) ; P. R. Bee (Oxford) ; P. Berner (Architectural Association) (London) ; J. G. Berry (Huddersfield) ; J. W. Boddy (Coventry) ; C. K. Brice (Cardiff) ; A. S. Buckley (Victoria University, Manchester) (Marple Bridge, Cheshire) ; A. H. Clarke (Oxford) ; J. Conner (Robert Gordon's Technical College, Aberdeen) (Inverurie, Aberdeenshire) ; L. G. Creed (London) ; J. W. T. Dakin (Hertford) ; R. Davies (Oldham, Lancs) ; M. Egan (Architectural Association) (London) ; N. Foley (Regent Street Polytechnic) (Nottingham) ; A. H. Gall (Liverpool School of Architecture) (Liverpool) ; A. J. P. Glover (King's College, University of Durham, Newcastle-upon-Tyne) (Newcastle-upon-Tyne) ; F. A. R. Hill (Birmingham School of Architecture) (Dudley, Worcestershire) ; (Miss) C. Hindshaw (Eccles, Lancashire) ; C. G. Jacobs (London) ; A. D. P. Jenkinson (Rotherham, Yorks) ; A. B. Lacy (Leeds School of Architecture) (York) ; H. W. Lovell (London) ; (Miss) K. M. McElderry (Bartlett School of Architecture, University of London) (London) ; J. A. R. McKee (Belfast) ; D. D. Moore (Bacup, Lancs) ; E. Narracott (Penzance) ; C. North (Leeds) (Leeds School of Architecture) (York) ; C. D. Ostick (Victoria University, Manchester) (Chorley) ; C. Pickup (Victoria University, Manchester) (Patricroft, nr. Manchester) ; D. W. Plumstead (Bartlett School, University of London) (Purley, Surrey) ; (Miss) B. M. Rider (Bristol) ; S. G. W. Ross (Horsham, Sussex) ; (Miss) G. P. Seaward (Liverpool School of Architecture, University of Liverpool) (Oxford) ; L. R. Smith (Sandown, I.O.W.) ; W. V. Smith (London) ; J. O. Stevens (London) ; P. F. Tilley (Derby) ; (Miss) B. Y. Underwood (Leeds School of Architecture) (Leeds) ; P. E. Walker (Torquay).

As Licentiates (12).—Messrs. H. K. Atkins (London) ; M. S. Beck (Nottingham) ; F. F. J. H. Doyle (London) ; T. Gardner (Nottingham) ; C. V. Harborne (Birmingham) ; W. F. Hurry (Colchester) ; E. W. Moore (London) ; H. W. Pearce (Colchester) ; P. Skelcher (Birmingham) ; J. E. Thompson (Dagenham, Essex) ; B. D. Watt (Manchester) ; L. Williams (Birmingham).

N.R.I.A.D.

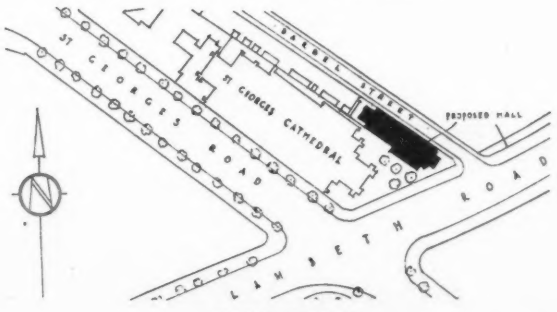
The National Register of Industrial Art Designers have moved to the National Gallery, Trafalgar Square, W.C.2 (by courtesy of the Trustees of the National Gallery). Telephone number will remain the same—Whitehall 2415.

PARISH HALL

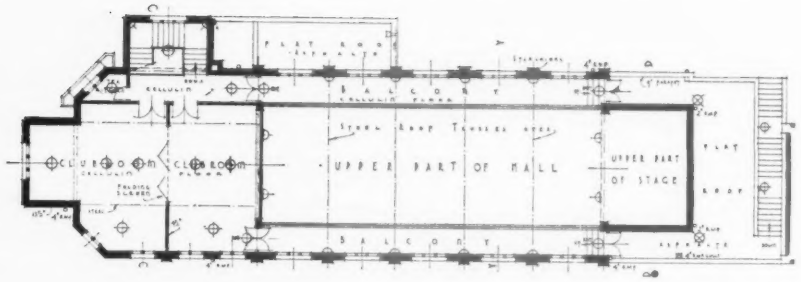
LAMBETH ROAD, SOUTHWARK

DESIGNED BY ROBERT SHARP

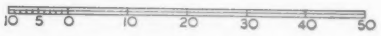
Top, general view from Lambeth Road—on the left is shown part of St. George's Cathedral ; and the main entrance.

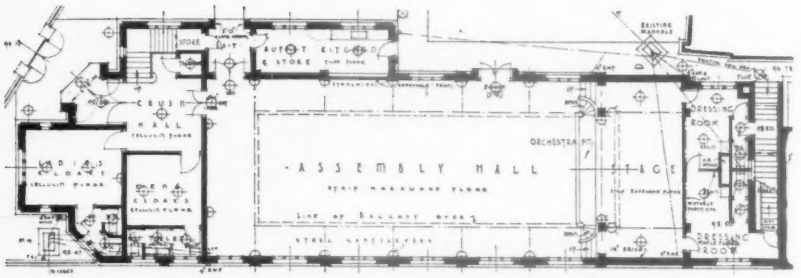


SITE PLAN

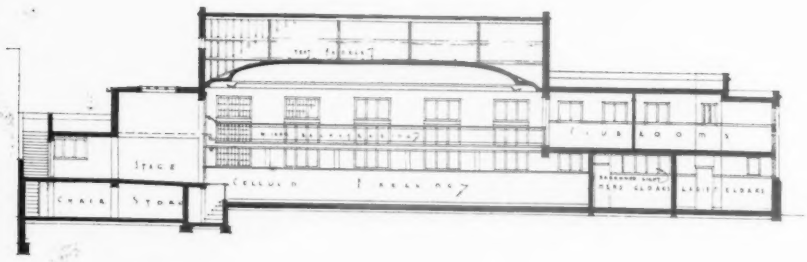


FIRST FLOOR PLAN

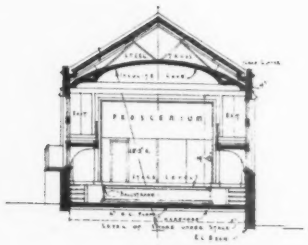




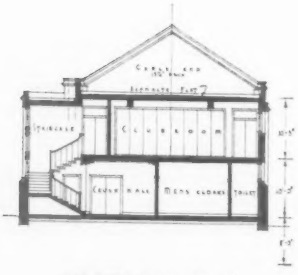
GROUND FLOOR PLAN



LONGITUDINAL SECTION



SECTION A–A



SECTION C–C

GENERAL—Parish hall for St. George's Cathedral, built to commemorate Archbishop Amigo's golden jubilee in the priesthood.

SITE—On land adjacent to the Cathedral in Lambeth Road ; side elevation faces Barbel Street.

Right, looking towards entrance : extreme right, looking towards stage from main entrance.

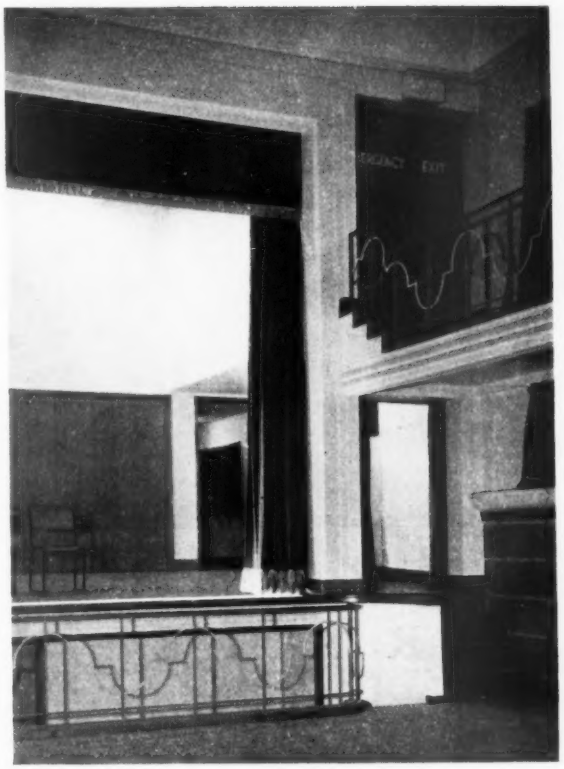
PARISH HALL, LAMBETH ROAD, SOUTHWARK • DESIGNED

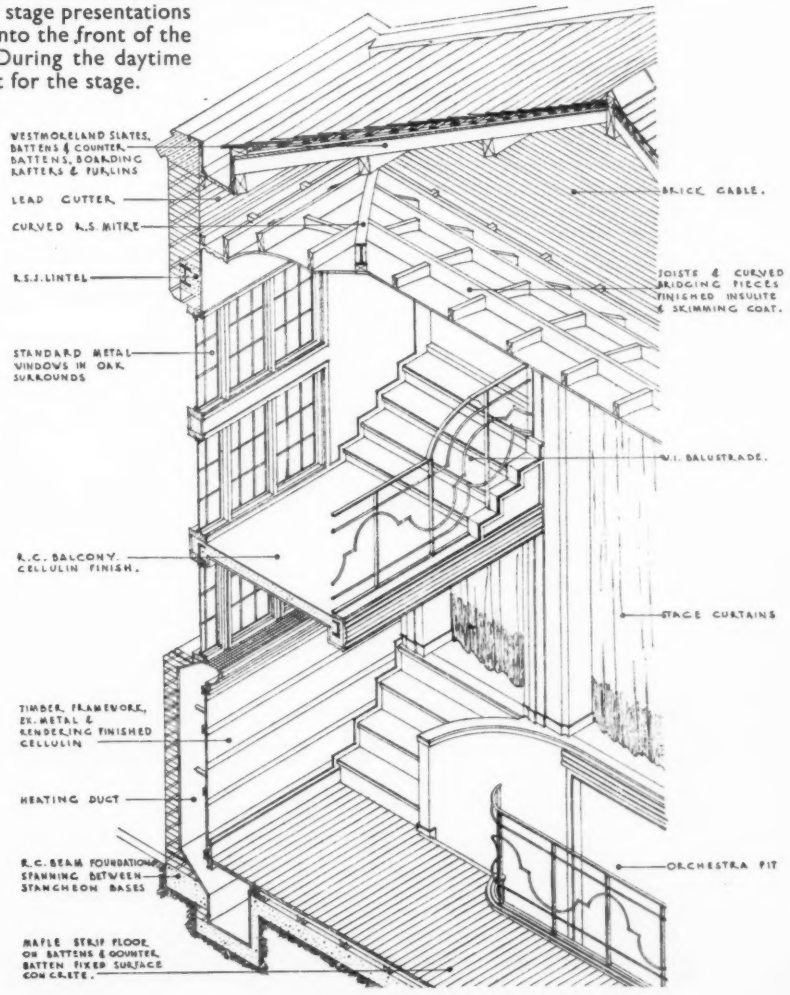
PLAN—Upon the occasion of a large diocesan gathering when it is necessary to accommodate a large number of persons both upon the stage and in the hall proper, it is possible to increase the accommodation by means of removing oak partitions, which screen the dressing-rooms at the rear of the stage, and also the clubrooms upon the first floor become a part of the gallery upon the removal of the partitions and the opening of a sliding screen. In this manner it has been possible to provide the maximum accommodation which the site will permit together with a varied arrangement of rooms to suit numerous requirements. Dressing-rooms are provided for both male and female at the rear of the stage, fitted with lavatory basins and water heaters contained in a specially designed folding casing which completely encloses these fittings from view when the dressing-rooms are incorporated in the stage for special meetings. Buffet kitchen, with direct serving and counter communication with the hall, is provided. Balconies run both sides of the hall to form sitting-out space and viewing space for spectators at dances. These can also be used for increased seating accommodation for large gatherings.

CONSTRUCTIONAL AND EXTERNAL FINISHES—Part steel-framed, faced with 2-in. Leicestershire grey facing bricks with copings and dressings in artificial Portland stone. Window frames are natural oak, oiled, glazed with leaded glazing within standard metal casements. Buttress projection which can be seen upon the exterior of the hall proper provides the necessary cover to the steel stanchions supporting the roof trusses, thus avoiding projecting them into the hall and destroying the unbroken wall surface. Roof is covered with Westmorland green slates laid in diminishing courses towards the ridge.

INTERNAL FINISHES AND EQUIPMENT—Hall ceiling is cambered and coved, returned at either end. Walls and ceiling are of a parchment shade with light relief by bands of bright yellow ; dado is of plastic in two colours, pale green and bright yellow, surmounted by a fibrous plaster combined lighting and heating trough. Floor is of maple and window and door joinery generally is of oak, natural colour. Inconvenience encountered by the hanging of wet mackintoshes adjacent to dry cloaks has been avoided by the provision in the cloakrooms of separate hanging space for wet cloaks with galvanized iron trays beneath. Stage is equipped for stage presentations and has a full set of footlights contained in a trough set into the front of the stage floor. This can be covered when not required. During the daytime a large concrete and glass laylight provides ample daylight for the stage.

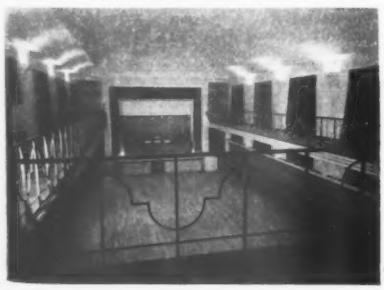
SERVICES—In view of the intermittent use to which this building is to be subjected, with long periods between functions, it was necessary to provide a system whereby the hall could be heated quickly and economically at short notice. For this purpose warm air, heated by means of a gas boiler and distributed through ducts beneath the floor and discharging from specially designed troughs beneath the windows, was decided upon. This system enables the hall to be heated without a great deal of supervision since the heating plant is thermostatically controlled and may be left unattended for a long time. Extract ventilation is designed within the roof space with decorative panels incorporated in the ceiling. Heating to the clubrooms and cloakrooms is by means of gas and electric convector heaters to enable these rooms to be served separately. General contractors were W. J. Mitchell and Son, Ltd. ; for list of sub-contractors and suppliers see page xviii.



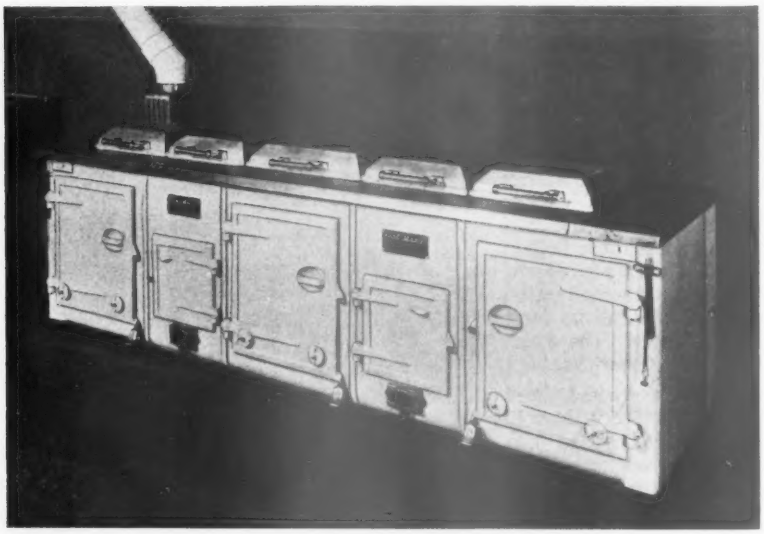


AXONOMETRIC

Top, detail of stage; below, stage seen from balcony.



BY ROBERT SHARP



TRADE NOTES

[*By PHILIP SCHOLBERG*]

Solid Fuel Cookers

Six months ago, when coal, gas and electricity were suddenly rationed, it seemed that people who used solid fuel for cooking were very much better off than their neighbours, for the coal rationing was very much less onerous than the scheme for electricity or gas. Anthracite users must have been exceptionally well off, for with coal rationed on a tonnage basis instead of on the fairer but impossible basis of calorific value they could still have as much heat as they wanted. Now that coal, gas and electricity are available in virtually unlimited quantities, solid fuel is back where it was, but there are still (in spite of the drift back to London) a number of people living in comparatively remote country districts, miles beyond the gas and electricity mains, and for them some form of heat storage cooker burning a small quantity of anthracite is the most obvious fitting. And if next winter is as bad as the last one, a solid fuel cooker will be necessary for everyone on an electricity supply too. I speak with feeling, having spent two 48-hour periods in an all-electric house with the current off. And protests to the supply company only produced a telephonist to say, "Well, I never : it's off here too."

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But apart altogether from the private user, there is quite a lot in the way of hutments, factory building and general work going on round the country, and a lot of people have got to be fed in the depths of the country. Here a heat storage cooker like the Esse comes into its own, for its fuel costs are exceptionally low, and the storage space required by anthracite is considerably less than for other grades of coal, a factor which also makes for simpler delivery when petrol is rationed. Catalogues in front of me show various Esse models, used either singly or in combination, which allow cooking to be done from the small family up to large hotel standards. The photograph shows a medium-sized installation at a large school, but the lines could, of course, be extended indefinitely, and in large hotel kitchens the cookers are often placed back to back with a single central flue. Catalogues give all the essential dimensions.—(*The Esse Cooker Company, Ltd., Bonnybridge, Scotland.*)

Steaming by Electric Cooker

An electric cooker of a type which is new to me has recently been introduced by Gillott-Amberton Thermics, Ltd. It is a compact unit which not only does the cooking but the hot water supply as well. For some time the solid fuel cooker manufacturers have been producing cookers and boilers designed to stand side by side and give a general impression of neatness. (Esse mentioned above for example.) The Gillott cooker is designed with much the same basic idea, but the water heating unit is built into the main body of the cooker, and is arranged to do several extra jobs as well as straightforward water heating. This water section consists of a three-compartment container for cold, hot and boiling water. Steam from the boiling section is available for cooking, the two steamers resting on a tray which has a drain at one end to carry off condensate : up to four pints of boiling water can also be drawn off from this part of the tank. The hot section will supply up to 3½ gallons of hot water for cooking or washing up. The supply from the hot water tank to the house tank can be controlled by an adjustable handle.

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The cooker section proper follows more or less standard practice except that the size of the grilling area can be adjusted.

Complaints Corner

Having just bought an electric fire, I find myself wondering why most manufacturers supply only 6 ft. or so of flex. Partly to keep costs down, but perhaps also on the assumption that the power plug is placed exactly where it is wanted (is it?) and that nobody wants to move the fire about very much. The point is a small one, and it would no doubt be perfectly simple to specify the required length. But many users buy their fires over the counter, the flex is too short, and the architect gets the blame for putting the power plug in the wrong place. Very probably he most richly deserves it, but fire manufacturers could do something to cover mistakes if they were a little more generous.

I.A.A.S.

At a meeting last week of the Incorporated Association of Architects and Surveyors, Mr. D. Williams, A.M.I.M.E., lectured on the "Decontamination of Building Materials."

The decontamination with which the lecturer dealt was that against mustard gas or, more correctly, against the liquid from which the gas was vaporized. This oil, he said, if it entered into a material, made no compound but remained unchanged until it vaporized out. But water destroyed it gradually by hydrolization, and chlorine neutralized it.

The weight of a gas bomb would probably be 50 lb., of which half would be mustard liquid. When the bomb burst the explosion would send the liquid, some six or seven gallons, to an extraordinary height, and it would fall in drops. Where it would fall would depend on the strength and direction of the wind, but a decontamination squad might expect with one bomb to have to rope off 1,600 square yards, of which 300 square yards would have to be decontaminated in a very particular manner.

If the mustard liquid fell on to a material, say timber, and that timber was not decontaminated, with normal weathering the oil might continue to vaporize out from the wood for, perhaps, twenty-one days, and a public hall or dwelling-house could not be left for so long with mustard gas being given off in it more or less according to the temperature.

A very general idea on the subject was that mustard liquid should be got down the sewers as quickly as possible; but pushing it down the sewers did not destroy it, or would do so only very slowly. If many square yards of roadway were covered with mustard liquid it would not do to simply turn the hose on to it. The leader of the squad should first find out which was the nearest gulley. A dam, six or seven inches high, of bleaching powder should be built up around that gulley—new bleaching powder contained one-third of its weight of chlorine—and a line of bleaching powder laid along the channel where the mustard liquid would fall. Then a mixture of 3 lb. or 4 lb. of bleaching powder to the gallon of water should be made and laid over the site where the mustard liquid was, and after twenty minutes the squad should start hosing down.

In the case of metals, e.g. brass railings, a solvent should be used: paraffin, colza oil or methylated spirit were examples. They did not destroy the mustard liquid but absorbed it. With a swab of cotton waste or similar material moistened with the solvent the mustard liquid should be dabbed up, the swab being burned afterwards. The smear of mustard liquid left on the surface of the metal should be rubbed off with a mixture of bleaching powder and vaseline.

Sometimes the best method of dealing with mustard liquid was by mopping up, as, for example, in the case of a tiled floor where the oil might easily be washed down into the joints. Have a mixture of bleaching powder and water in a pail, swab the mustard liquid from the floor into the pail, and scrub the place out afterwards.

Bleaching powder and water would not be suitable in the case of a wooden floor, because the liquid might get through into the room below. A mixture of one part sand and two parts bleaching powder might be used with a deck scrubber. If this was not a success the plane might be used ; but it would not do to plane a ⅞-in. floorboard to half its depth. The wood affected must be cut out and burnt.

Where brickwork was splashed with mustard liquid a very thick cream should be made with bleaching powder—10, 12, or 14 lb. to the gallon—and this should be applied where the mustard liquid could be seen up to a height of seven or eight feet above the pavement. Over the cream should be placed paper, then more cream, more paper, and so on several times. Let this remain for twenty-four hours and repeat. If this was done for two or three days running it would draw the mustard liquid out of the wall and destroy it.

Mustard liquid would penetrate into concrete. In the case of a factory, scullery, etc., bleaching powder, water and scrubbing should be used first, and afterwards a mixture of one part waterglass to four of water painted on the surface. This should be painted on twice, with two hours between each painting, and would seal up the concrete, leaving the mustard liquid to be hydrolized by the dampness within and beneath it.

CHANGE OF ADDRESS

Messrs. Hastie, Winch and Kelly, F/F.R.I.B.A., have removed to new offices at No. 1 Bentinck Street, W.1. Telephone : Welbeck 8863.

SOME QUESTIONS ANSWERED THIS WEEK:

THE ARCHITECTS' JOURNAL

INFORMATION CENTRE

SINCE it was announced that the Information Centre would answer general questions on building and architectural practice, as well as those on A.R.P., the number of such questions has grown very large.

Questions can be sent either by letter or by telephone, and replies are despatched direct to the enquirer. Telephoned questions which cannot be answered at once are replied to by letter with the shortest possible delay.

One more point. Sooner or later everyone forgets the answer to a simple question. The INFORMATION CENTRE is not a bit too proud to answer these. If the enquirer feels any sensitiveness over his momentary ignorance (there is no reason why he should) he can take confidence from the fact that the Centre never discloses the source of an enquiry.

Any questions about building or architecture may be sent to:

THE ARCHITECTS' JOURNAL

45 THE AVENUE, CHEAM, SURREY.

Telephone: *VIGILANT 0087*

or ring the Architects' Journal Information Centre at

R E G E N T 6 8 8 8

Q216 ARCHITECT, LONDON.—*Is there any standard form of light-weight concrete PARTITION BLOCK produced WITH a rendered or smooth face giving A SURFACE ready FOR PAINTING?*

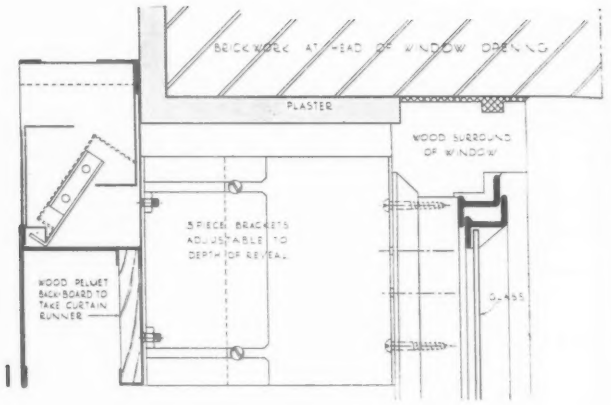
Yes. There is one included in the KING range*. The backing may be either of breeze or of pumice concrete, with a smooth cement rendering on one face.

Q217 BITUMINOUS PRODUCTS DEALERS, LONDON.—*What is the approximate cube foot cost of a simple steel and galvanized corrugated iron store building some 100 feet long, 30 feet wide and 15 feet high to eaves. What is the increase in cost of such a building since the outbreak of war?*

To give cube costs without an intimate knowledge of the building intended and the site conditions is a dangerous practice. For what it is worth, and with every possible

* *J. A. King & Co., Ltd., 181 Queen Victoria Stree London, E.C.4.*

reservation, it is suggested that such a building, erected on a plain concrete slab floor, could be calculated at a basic figure of 4½d. per cube foot—making additional allowances in the form of spot items for runs of patent glazing, large sliding doors and large windows. It is not a practice with specialist firms engaged in the erection of steel buildings to estimate on a cube foot basis. The normal practice is to estimate on the tonnage of plain work and fabricated work; and since the war the increased cost of materials has been 18 per cent. and 10 per cent. respectively on these two items.



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Q218 ARCHITECT, PORTSMOUTH. — *What equipment is required for EYE TREATMENT in A.R.P. Decontamination Centres?*

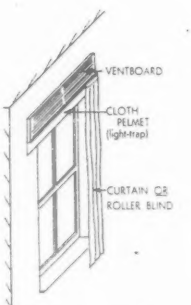
The eye douches which form the equipment required for eye treatment can be obtained from the firms stated below.*

Q219 SHOPFITTERS, LONDON.—*What are the CHEAPEST ENGLISH HARDWOODS?*

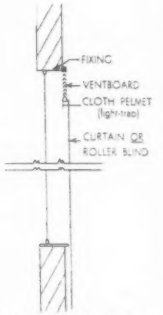
Ash, Beech and Poplar; followed by Elm, Lime, Chestnut and Sycamore. In deciding which is the cheapest for a particular purpose, the special qualities of the various woods must, of course, be carefully considered.

Q220 BUILDER, PLYMOUTH.—*Having heard in conversation with an architect that there exists a patented form of ROOF TRUSS made up OF TUBULAR STEEL, I should like to know the names of firms producing trusses of this type.*

Roof trusses of the type indicated ·ould be made up of tubular scaffold-ıg held at the joints with the patented orms of grips or clamps ordinarily used in this work. Enquiries for these should be directed to any of the leading steel scaffolding firms. Or a more clean line truss of this type could be made by the use of tubular scaffolding and the "Keeklamp" connection obtainable from the firm mentioned below†. But it may be that your informant had in mind a form of steelwork which at one time was introduced into this country but which did not seem then to be in its final stage of development and consequently little use was made of the system. This was known as "Tube and Sphere" construction, in which all members were tubes and all joints and intersections held by welding together in a sphere. The patents or rights of this system are now vested in the firm of Stewarts and Lloyds, Ltd., Winchester House, Old Broad Street, E.C.2, and it is believed that they have further developed the system and have used it in certain of their own building works.



2 VERTICAL VENTBOARD



3 SECTION SHOWING VERTICAL VENTBOARD

Q221 ARCHITECT, LONDON.—*With the advent of summer there will be a need for methods of VENTILATING THROUGH BLACKED-OUT domestic WINDOWS. Are there any fittings being marketed for this purpose?*

This need has been foreseen by various firms. A number of patented baffle fittings for this purpose have been designed, which allow ventilation whilst continuing the black-out screening. There are the:

T.G. VENTBOARD. Formed of chevron cut timber; the standard panel can be used as a pelmet face or top. The panels are available in lengths from 2 ft. to 10 ft. and in widths of 4 in., 7 in. and 9 in. and in ⅝-in. and ⅞-in. thicknesses.* (*See* 2 and 3, above.)

VARDY VENTILATOR. A unit ventilator fixed on a backboard, which can be hung from a pelmet or curtain rail. The backboard is fitted behind the curtain or blackout screening and the ventilator shows on the inside.†

CRITTALL. Light-proof window ventilator. A metal fitting of the box multi-louvre type for affixing in front of opening parts to a casement window.‡

CRITTALL VENTILATING PELMET. A pressed metal unit fitting for use in lieu of the ordinary pelmet and available in five standard lengths.* (*See* 1, above.)

ANDERSON'S VERTICAL WINDOW OBSCURATION. A framed unit made to the size of the window opening, with wood fibre board on both faces of the frame. Staggered openings are cut in the board to permit of ventilation and yet retain the screening effect.†

Q222 CONTRACTORS, BRISTOL.—*Clients of ours wish to use again as a temporary measure an old store building with a CORRUGATED IRON ROOF. But the roof is not watertight, largely through small perforations of the corrugated iron. Are there any inexpensive means by which we can make this roof watertight?*

Various means are available; in fact there is a specialist firm‡ engaged on work of this type. Probably the most readily available means will be by the use of mop coatings of bitumen emulsion interleaved with hessian or

* *S. Maw, Son and Sons, Ltd., 7 Aldersgate Street, E.C.1. John Bell and Croyden, 50 Wigmore Street, London, N.1. The Medical Supply Association, 167–173 Gray's Inn Road, London, W.C.1.*
† *G. H. Gascoigne, Ltd., 111–117 Chatham Street, Reading.*

* *T.G. Ventboards.—F. Sage & Co., Ltd., 58–62 Gray's Inn Road, London, W.C.1.*
† *Vardy Ventilator.—Green and Vardy, Ltd., 79 Essex Road, London, N.1.*
‡ *Crittall Light-proof Window Ventilator.—Richard Crittall & Co., Ltd., Bush House, Aldwych, W.C.2.*

* *Crittall Ventilating Pelmet.—Crittall Manufacturing Co., Ltd., 210 High Holborn, London, W.C.1.*
† *Anderson Vertical Window Obscuration. — C. F. Anderson and Sons, Ltd., Harris Wharf, Graham Street, London, N.1.*
‡ *The Turnerised Roofing Co. (Gt. Britain), Ltd., 189 Westminster Bridge Road, London, S.E.1.*

scrim cloth. The minimum specification could be: Lightly wire-brush the surface of the corrugated iron to remove only loose scale; then apply a heavy mop coating of the cold-applied bitumen emulsion solution; followed by the embedding of the scrim cloth in this while it is still tacky; and a further heavy coating of the emulsion. Or a hot bitumen could be used and while this is still tacky a layer of thin bitumen impregnated underslating felt could be stuck down over the corrugated iron and a further coating of hot bitumen applied on top. If the finished surface could be gritted with crushed Derbyshire spar or other light-coloured chippings, this would assist, by reflection of solar heat, in prolonging the life of bitumen underneath.

Q223 ARCHITECT, CROYDON.—*Did the G.P.O. issue some time ago regulations regarding the SIZE OF LETTER BOXES?*

The Post Office authorities recommended that the minimum sizes of letter box openings should be 8 ins. by 1¾ ins.

Q224 SHOPFITTERS, LONDON.—*What is, and who supplies, the "SECURITY" WINDOW BRACE?*

The "Security" window brace is a fitting for shop and other windows to prevent shattering through pressure or vacuum set up by a nearby explosion. The firm responsible for marketing the fitting is stated below.*

Q225 DESIGNERS IN REINFORCED CONCRETE, LONDON.—*How easily can COMPRESSED REED PARTITION AND BUILDING SLABS be obtained under present conditions?*

Some years ago there was imported into this country a slab of compressed reed. The slab was of Dutch origin and was imported originally under the name of "Solomit." The name was changed subsequently to "Thatchboard" and the firm then responsible for the marketing of the material in this country transferred their interests to the firm given below†. Some years ago, however, this company ceased importation and in course of time liquidated their stocks. Quite recently, in view of the timber shortage, attempts have been made to reintroduce the material or to manufacture it in this country, but so far as is known, no definite steps have been taken and it can be accepted that the material is not obtainable on any useful scale. Probably the decision of some years ago to cease importation arose through the more general appreciation of the merits of the wood-wool-cement slabs being made in this country and marketed today under the names of Thermacoust, Wellinlith and Gypklith by the firms mentioned in the footnote.* Like the compressed reed slab, these wood-wool-cement slabs are available in large units of varying thicknesses, also the physical properties of these slabs correspond closely to those possessed by the compressed reed slab.

* *Window Brace, Ltd., 11 Buckingham Street, London, W.C.2.*
† *Newalls Insulation Co., Ltd., Broxbornebury, Broxbourne, Herts.*

* *THERMACOUST.—Thermacoust Products, Ltd., 32 Victoria Street, London, S.W.1.*
WELLINLITH.—Gliksten Doors, Ltd., Carpenters Road, London, E.15.
GYPKLITH.—Honeywill and Stein, Ltd., 21 St. James Square, London, S.W.1.

Q226 ARCHITECTS, BIRMINGHAM.—*Can you inform us of the names of manufacturers of hot air HAND DRYING MACHINES for factory work?*

Two firms* market electrically-operated hand driers.

* *Lancashire Dynamo and Crypto, Ltd., Acton Lane, Willesden, London, N.W.10. Dexter Manufacturing Co., 22 Dean Street, London, W.1.*

REFERENCE BACK

[*This section deals with previous questions and answers.*]

Q181. *February 22, 1940*

The firm Messrs. Blundell Spence & Co., Ltd., have informed us that their "Blunquella" referred to as a colourless fireproofing liquid is not colourless, and is of the nature of a paint. This being so, it should be deleted from the class in which it was given, and added to the fireproofing paints such as Porcella and Armour, mentioned in the same reply.

Notes from the Building Research Station on*

BRICKLAYING IN FROSTY WEATHER—II

A PREVIOUS note on bricklaying in frosty weather described and discussed methods used abroad to enable bricklaying to proceed without interruption in frosty weather. It is now possible to report upon the results obtained with some small piers built in order to test the various recommendations.

The trials consisted in building, during the severe weather of January, 1940, fourteen small piers 9 in. by 9 in. by 2 ft. high with fletton bricks, using both lime and cement mortars, with and without preliminary heating of the materials. The materials used and the procedure adopted in building the piers are shown in Table I, which briefly records also the condition of the piers after they had thawed.

The trial was made during a spell of very severe weather. There was a sharp frost the night after the piers were built, and they remained frozen for several days. After a somewhat milder spell there was a further period of severe frosts, and snow followed by a complete thaw about three weeks after the piers had been built.

The following comments on the behaviour of the piers may be of interest:—

(1) The lime mortars crumbled under the action of frost, except in one case where sharp sand was used and warm water for mixing, and the bricks were warmed before use. The lime used throughout the tests was slightly hydraulic.

(2) Only two piers built with cement mortar suffered any injury. These had been built with cold bricks that had been purposely wetted. The mortar was quite sound, the deterioration being limited to a lack of adhesion between bricks and mortar in some of the joints. This performance is significant, considering that on the nights following the laying of the bricks minimum air temperatures of −8 deg. C. (17 deg. F.) and −7 deg. C. (19 deg. F.) were recorded, and that similar unusually low night temperatures prevailed for over a week. The tests do not clearly show whether the use of calcium chloride is advantageous. The two piers mentioned above as showing a lack of adhesion in the joints were built one with and one without the addition of calcium chloride to the mortar and, of the two, the latter was the worse.

When building with the heated materials it was not easy to make the mortar hotter than about 40 deg. C. (102 deg. F.) or to make the bricks hot enough to give a temperature in the finished brickwork higher than about 30 deg. C. (86 deg. F.). The small piers used in these trials were cooled to the freezing point during the first night, and, whilst larger masses of brickwork would cool more slowly, it is clear that the heating of the materials only defers freezing for a short time; hence it

TABLE I

Effects of Frost on Small Brickwork Piers

(Bricks, unless otherwise mentioned, taken from stack in open and containing about two-thirds of the total water absorbable. All mortars 1 : 4 by volume.)

Bricks	Mortar			Condition when thawed
	Condition	Type	Sand used	
Warm	Warm	Lime	Soft	Mortar crumbled
			Sharp	Sound
Thawed*	Cold			Mortar crumbled
Thawed and dipped 1 minute				
Thawed and dipped 5 minutes		Cement		Several defective joints
		Cement with calcium chloride		One defective joint
Thawed		Cement		Sound
		Cement with calcium chloride		
Warm	Warm	Cement	Soft	
		Cement with calcium chloride	Pier covered with sacks	
		Cement	Sharp	
		Cement with calcium chloride		
		Cement	Pier covered with sacks	

* "Thawed" means that the bricks were warmed just enough to melt any ice on the surface.

seems likely that of the recommendations given in the previous note, the most important is that of keeping the bricks dry.

Whilst these experiments were only on a small scale, and might be criticised on this account if taken alone, their general tendency is to confirm the soundness of the methods that are recommended in countries where building in frosty weather is necessarily a regular practice, and the suggestion is that, if reasonable precautions are taken, the risk in laying bricks in frosty weather is not so great as is often supposed.

Manufacturers' Items

A new type of roof has been approved by the War Office for use in the camps they are now building for the Militia. It is made of hollow precast concrete units, and has been evolved by Concrete, Ltd. The cavities in the precast units are formed by the pneumatic-core method.

The advantages claimed for the roof over the type at present specified are its cheapness and the speed with which it can be erected owing to its extreme simplicity.

The Bison roof, as it is called, has been designed for spans of 19 ft., 24 ft. and 28 ft., as well as for composite roofs of these spans with valley gutters.

The roof is formed by two sloping Bison slabs which butt together at the apex, and thrust against the gutter beam at the foot. The beams are tied by rods at 12 ft. centres. Maximum clear space is given below the roof, and the soffit is smooth and ready to take lime-whitening.

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We have received from Callender's Cable and Construction Co., Ltd., the latest edition of "Concerning Callender's, No. 13." This booklet is obtainable, free of charge, on application to the firm at Hamilton House, Victoria Embankment, E.C.4.

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The name of Greenwood's Ventilating Co., Ltd., of Abbeydale Road, North Circular Road, Wembley, Middlesex, has been changed to Greenwood's and Airvac Ventilating Co., Ltd. ; all outstanding and future transactions will be dealt with accordingly.

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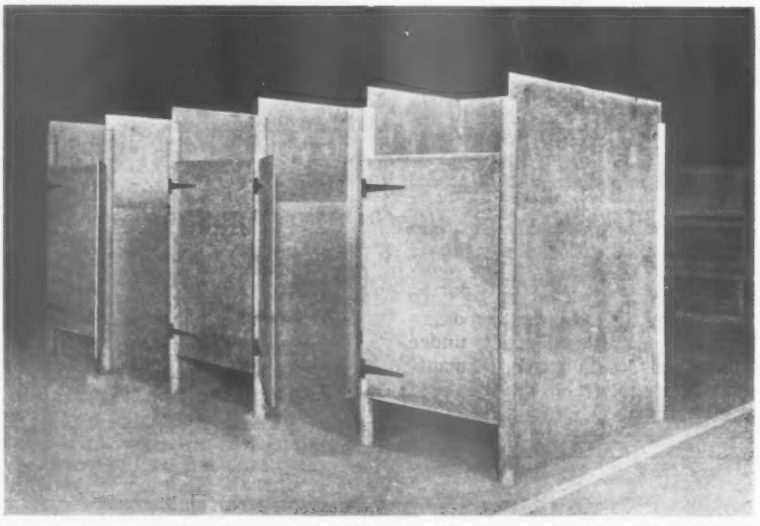
Turners Asbestos Cement Co. (Branch of Turner and Newall, Ltd.) have sent us details of their shower bath and lavatory cubicles, a photograph of which is reproduced on this page. The material for these units is asbestos-cement and is available in three distinct finishes : (1) Turnall granitone sheets, ½ in. thick, for use where a decorative finish is required ; (2) Poilite fully-compressed flat sheets, ½ in. thick, where strength takes precedence over appearance ; and (3) the same material but ⅜ in. thick for use where the most severe conditions will not be encountered.

The component parts of these cubicle units can be sent out by the manufacturers for assembly on site, or they can be despatched ready assembled, but in either case the only preparation for their erection is the provision of the necessary number of 12 in. deep by 3½ in. diameter holes in the floor of the building. Each cubicle can, if desired, be fitted with a door. As such a door consists simply of a piece of the material cut to the correct size, the use of framing is entirely obviated and the only addition to the assembly is that of two stout hinges.

THE BUILDINGS ILLUSTRATED

DUMBARTON COURT, BRIXTON HILL, S.W. (pages 296, 305–307). Architects : Couch and Coupland. General contractors : E. Pollard & Co., Ltd. Consultants for reinforced concrete design : Reinforced Concrete Steel Co., Ltd. Sub-contractors and suppliers included : G. N. Haden and Sons, central heating and domestic hot water ; W. H. Early, cold water and plumbing ; Hammond Bros. and



Shower bath and lavatory cubicles described in Manufacturers' Items.

Champness, lifts; M. Haskins, metalwork; Morris-Singer Co., metal windows; Berkeley Electrical Co., electrical work; Marbolith Flooring Co., Ltd., composition flooring; Rogers and Jackson, Ltd., ironmongery; The Ightham Brick and Tile Co., Ltd., facing bricks; G. Burley and Sons, Ltd., garden work; Radio Furniture and Fittings, Ltd., wireless installation; Robertsons (Croydon), Ltd., plasterwork; Rota Products, Ltd., kitchen equipment; B. Pullen, decorations.

ARCHBISHOP AMIGO JUBILEE HALL (pages 311-313). Architect: Robert Sharp, F.R.I.B.A. General contractors: W. J. Mitchell and Son, Ltd. Sub-contractors and suppliers included: J. P. Walshe and Sons, Ltd., Leicestershire grey bricks; Joseph Cribb, sculptured panel; Blokcrete Co., Ltd., artificial stone; Camden Tile and Mosaic Co., Ltd., terra cotta; Boulton and Paul, Ltd., structural steel; Field and Palmer, Ltd., roofing felt; Lenscrete, Ltd., glass, concrete and glass roof; Hollis Bros. & Co., Ltd., maple flooring; Cellulin Flooring Co., patent flooring; H. W. Dutton & Co., Ltd., central heating, boilers, etc., vent; Gas Light and Coke Co., Ltd., Ascot heaters and gasfitting; Rashleigh Phipps & Co., Ltd., electric wiring, heating and fixtures; W. J. Mitchell and Son, Ltd., plumbing and joinery and cloakroom fittings; John Bolding and Sons, Ltd., sanitary fittings; F. Knight & Co., Ltd., door furniture; C. W. James & Co., Ltd., casements and window furniture; Shinkfields, Ltd., iron staircases and metalwork; B. & B. Plastering, Ltd., plasterwork; Brook Bros. and Dean, Ltd., stage curtain; Pel, Ltd., tubular steel nesting-chairs.

HOUSING CENTRE

House construction can, and in some places must, be continued in war time in spite of timber shortage and the need to save steel for other uses. Mr. R. Fitzmaurice, of the Building Research Station, made this clear in a luncheon address at the Housing Centre. He said that two building materials of which the country had large stocks and facilities for producing more were bricks and concrete. With these the main structures of houses and other buildings could be erected. It was possible that all those units in house construction for which timber had hitherto been the accepted material could be manufactured in concrete, plastics, or light metals. Floors, for example, could be composed of precast concrete units covered with cement, rubber or linoleum. Doors of asbestos-cement sheeting could be hung in frames made from precast concrete.

Window frames, he continued, were superfluous now that glass bricks could take the place of large glazed areas, and the opening parts of windows might be in the form of frameless glass panels made to slide in concrete runners. If a large opening window was required, the sliding principle could be applied to the whole glazed area in this manner.

Mr. Fitzmaurice foresaw the possible shortage of metals which were now used for water and gas services, and suggested that it might be possible that asbestos-cement pipes could be used in place of lead or copper. He also suggested that an early Roman method of heating houses could be adopted wherein heat was circulated through the building via tiled ducts. Modern building materials would lend themselves admirably to this economic method of heating.

In referring to pitched roofs of houses, Mr. Fitzmaurice suggested that precast concrete units could take the place of timber; but, as a last resort, flat roofs covered with bituminous felt or asphalte could be used. As an alternative to either of these methods arch construction with masonry only might be regarded as a suitable measure for house construction. Stairways could be built of concrete without using reinforcement, thereby saving steel as well as timber.

IRON AND STEEL CONTROL

Minister of Supply has made the Iron and Steel (No. 7) (Scrap) Order, 1940, to take effect as from March 5. It fixes new prices for iron and steel scrap and supersedes the Control of Iron and Steel (No. 5) (Scrap) Order, 1939 (S.R. & O., 1939, No. 1626).

Effect of the Order is to increase the main range of maximum prices of iron and steel scrap by from 5s. to 10s. per ton. Adjustments to meet changing conditions have led to larger increases in a few cases.

In substance the scope of the Order remains unchanged, but there have been certain additions to the specifications of the material covered by the maximum price provisions.

The Direction (No. 1) under the Order issued therewith repeats the provisions of the similar Direction under the previous Order exempting the sale and purchase of scrap from the requirement of licence except for certain special types.

Copies of the Order may be purchased from H.M. Stationery Office or through any bookseller.